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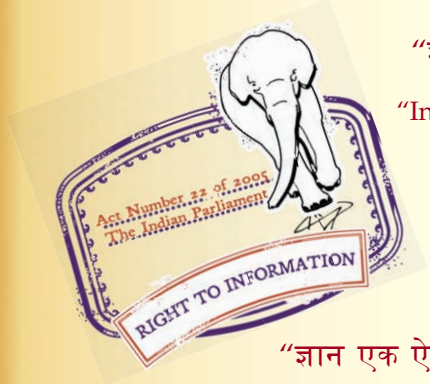

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Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

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IS : 1870 - 1965
(Reaffirmed 1991)
(Reaffirmed 2004)

COMPARISON OF INDIAN AND OVERSEAS STANDARDS FOR WROUGHT STEELS FOR GENERAL ENGINEERING PURPOSES

(Seventh Reprint OCTOBER 1998)

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Price Rs. 375-00

June 1966

COMPARISON OF INDIAN AND OVERSEAS STANDARDS FOR WROUGHT STEELS FOR GENERAL ENGINEERING PURPOSES

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CONTENTS

NOTE — The Index to this publication, earlier issued as a separate volume, has now been combined with this standard and follows Table 17.

Indian Standard

COMPARISON OF INDIAN AND OVERSEAS STANDARDS FOR WROUGHT STEELS FOR GENERAL ENGINEERING PURPOSES

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 15 July 1965, after the draft finalized by the Alloy Steels and Special Steels Sectional Committee had been approved by the Structural and Metals Division Council.

0.2 For considerable time, several requests were received by ISI for making available a document giving equivalent Indian Standard steels for standard steels of other countries. This work, however, could not be undertaken until ISI was able to formulate a rationalized list of standard steels to be used in this country. As a result of intensive study and discussions with the important users and the manufacturers of steel in this country, it was possible to publish IS : 1570-1961 Schedules for wrought steels for general engineering purposes. As an extension of this work, a comparison of Indian and overseas standards for wrought steels for general engineering purposes has now been compiled. This comparison includes Indian, British, American (SAE, AISI, ASM and ASTM), German (DIN and Werkstoff), Japanese and Russian Standards for wrought steels.

0.3 For ease of reference, the steels in various tables (excluding Tables 1 and 2) are arranged in the ascending order of maximum carbon content, thus bringing together, as far as possible, similar compositions. Further, in selecting Indian Standard Steels equivalent to overseas standard steels, the actual composition of steels should be compared. Overseas standard steels covering two or more Indian Standard steels have been so indicated in the tables.

0.4 It will be appreciated that this standard represents the position with regard to the British, American, German, Japanese and Russian specifications existing at the time of publication.

0.5 In the formulation of this standard, considerable assistance was rendered to the Sectional Committee by Shri S. Barraclough, Research and Development Department, United Steel Companies Ltd, Sheffield (UK). This assistance was made available to the Indian Standards Institution through the Colombo Plan Council for Technical Co-operation in South and South East Asia.

1. SCOPE

1.1 This standard compares wrought steels included in Indian Standards with British, American (SAE, AISI, ASM and ASTM), German (DIN and Werkstoff), Japanese and Russian Standards for wrought steels in Tables 1 to 17.

NOTE 1 — For the benefit of users in selecting proper steels, IS : 1871-1965 Commentary on Indian Standard schedules for wrought steels for general engineering purposes (complementary to IS : 1570-1961) has been published. In this commentary steels have been discussed in groups according to their metallurgical behaviour and heat treatment. Some typical applications of the standard steels have also been given in Appendix A of this commentary.

NOTE 2 — Index to IS : 1870-1965 is also included in this publication. It gives reference numbers for various steels given in Indian, British, American (SAE, AISI, ASM and ASTM), German (DIN and werkstoff), Japanese and Russian Standards.

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
1	412								Sheet	28-38	17·8-24·1		
2							G3439 Class 1 STO-G		Seamless tubes	28 *Min*	17·8 *Min*		
3	1570-St30								Structural steel	30-38	19·0-24·1		
4							G3452 SGP		Welded tubes	30 *Min*	19·0 *Min*		
5		24 Part 6 Grades 651 and 652							Rivet bars	31·5-39·4	20-25		
6		1109							Rivet wire	31·5-39·4	20-25		
7		405							Plate, sheet	31·5-44·1	20-28		For size below 3 mm
8		1508-151							Seamless tubes	31·5-44·1	20-28		
9		3059 Grade 1							Seamless tubes	31·5-44·1	20-28		
10		3059 Grade 3							Welded tubes	31·5-44·1	20-28		
11		778							Seamless tubes	31·5 *Min*	20 *Min*		
12		1775-HFS11							Seamless tubes	31·5 *Min*	20 *Min*		
13		1775-OAW11							Welded tubes	31·5 *Min*	20 *Min*		
14			A283 Grade A						Plate	31·6-38·7		45-55	
15			A306 Grade 45						Bars	31·6-38·7		45-55	
16	1978-St18								Welded tubes	31·6 *Min*	20·1 *Min*		
17			A53 Type F						Welded tubes	31·6 *Min*		45 *Min*	
18			A245 Grade A						Sheet	31·6 *Min*		45 *Min*	Open-hearth, basic oxygen and electric steel
19			A303 Grade A						Strip	31·6 *Min*		45 *Min*	
20								380 Grades Ст 1 and Ст 1 кп	Structural steel	32-40	20·3-25·4		
21	1570-St32								Structural steel	32-44	20·3-27·9		
22	1914-HFS and ERW								Seamless and welded tubes	32-44	20·3-27·9		
23	1977-St32-0								Structural steel (ordinary quality)	32-44	20·3-27·9		
24	1977-St30-OC								Structural steel (ordinary quality)	32-44	20·3-27·9		Cu 0·35 *Max*
25	2416-HFS and ERW								Seamless tubes	32-44	20·3-27·9		
26								380 Grade Ст 0	Structural steel	32 *Min*	20·3 *Min*		
27			A235 Class A						Forgings	33·0-42·2		47-60	
28			A243 Class A						Forgings	33·0-42·2		47-60	For size up to 500 mm
29				17100	1.0035	St 35			Structural steel	33-50	21·0-31·7		
30							G3443 Class 2		Welded tubes	33 *Min*	21·0 *Min*		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
31			A113 Grade C						Structural steel (loco and car)	33·7-40·8		48-58	
32	1978-St20								Welded tubes	33·7 *Min*	21·4 *Min*		
33	1978-St21								Seamless and welded tubes	33·7 *Min*	21·4 *Min*		
34			A53 Types E and S Grade A						Seamless and welded tubes	33·7 *Min*		48 *Min*	
35			A135 Grade A						Welded tubes	33·7 *Min*		48 *Min*	
36			A139 Grade A						Welded tubes	33·7 *Min*		48 *Min* *	
37							G3101 Class 1 SS34		Plate, flats, shapes, bars, rods	34-41	21·6-26·0		
38							G3104 Class 1 SV34		Rivet steel	34-41	21·6-26·0		
39							G3111 Class 1 SRB34		Sections, bars	34-41	21·6-26·0		
40	St34-1079								Sheet, strip	34-42	21·6-26·7		
41				1613	1.0200	St 34.13			Screw bars	34-42	21·6-26·7		
42				17100	1.0100 1.0102 1.0106	St 34 St 34-2 St 34-3			Structural steel	34-42	21·6-26·7		For size up to 100 mm
43							G3201 Class 1 SF34		Forgings	34-42	21·6-26·7		
44								380 Grades Ст 2 and Ст 2 кп	Structural steel	34-42	21·6-26·7		
45				1626	1.0100	St 34			Welded tubes	34-45	21·6-28·6		
46	1570-St34								Structural steel	34-46	21·6-29·2		
47				17100	1.0100 1.0102 1.0106	St 34 St 34-2 St 34-3			Structural steel	34 *Min*	21·6 *Min*		
48							G3307 Class 7 SPH7		Rolled hoop	34 *Min*	21·6 *Min*		
49							G3444 Class 1 STK34		Tubes	34 *Min*	21·6 *Min*		
50				17100	1.0033	St 33			Structural steel	33-50	21·0-31·7		
51			A245 Grade B						Sheet	34·4 *Min*		49 *Min*	
52			A303 Grade B						Strip	34·4 *Min*		49 *Min*	
53	1161-YSt22								Seamless and welded tubes	34·5 *Min*	21·9 *Min*		
54		1507-101							Seamless tubes	34·6-44·1	22-28		
55		1507-131 and 181							Welded tubes	34·6-44·1	22-28		
56		806C							Seamless tubes	34·6-47·2	22-30		
57		1507-171							Seamless tubes	34·6-47·2	22-30		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
58		1387							Welded, and seamless tubes	34·6-47·2	22-30		
59		879							Welded tubes	34·6-47·2	22-30		
60		1139							Welded, seamless or close jointed tubes	34·6-47·2	22-30		
61		1775-HFS13							Seamless tubes	34·6 *Min*	22 *Min*		
62		1775-HFW13							Welded tubes	34·6 *Min*	22 *Min*		
63							G3103 Class 1 ASB35A		Plate	35-42	22·2-26·7		
64				1629	1.0308	St 35			Seamless tubes	35-45	22·2-28·6		
65	1239								Tubes and tubulars	35-47	22·2-29·8		
66			A306 Grade 50						Bars	35·1-42·2		50-60	
67			A283 Grade B						Plate	35·1-42·2		50-60	
68			A113 Grade B						Structural steel (loco and car)	35·1-43·6		50-62	
69			A53 Type F						Welded tubes	35·1 *Min*		50 *Min*	Acid Bessemer quality
70			A252 Grade 1						Tube piles	35·1 *Min*		50 *Min*	
71		24 Part 6 Grade 611							Plate	36·2-44·1	23-28		
72		806D							Welded tubes	36·2-44·1	23-28		
73		806A and B							Seamless tubes	36·2-47·2	23-30		
74		806H							Welded tubes	36·2-47·2	23-30		
75		1507-151							Seamless tubes	36·2-47·2	23-30		
76			A141						Rivets	36·5-43·6		52-62	
77			A245 Grade C						Sheet	36·5 *Min*		52 *Min*	
78			A303 Grade C						Strip	36·5 *Min*		52 *Min*	
79	1990								Rivet and stay bars	37-45	23·5-28·6		
80	2002 Grade 1								Plate	37-45	23·5-28·6		
81				1623	1.0110.1 1.0112.3 1.0112.5 1.0112.6	TUSt 37 WUSt 37-2 USt 37-2 RSt 37-2			Sheet	37-45	23·5-28·6		For thickness below 3 mm
82				1626	1.0110	St 37			Welded tubes	37-45	23·5-28·6		
83				17100	1.0110 1.0112 1.0116	St 37 St 37-2 St 37-3			Structural steel	37-45	23·5-28·6		For size up to 100 mm
84	1570-St 37								Structural steel	37-49	23·5-31·1		
85				17100	1.0110 1.0112 1.0116	St 37 St 37-2 St 37-3			Structural steel	37 *Min*	23·5 *Min*		For size above 100 mm
86				17100	1.0033	St 33			Structural steel	33-50	21·0-31·7		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
87		1113A Grade A							Plate	37·8-44·1	24-28		
88		1113A Grade A							Rivet bars	37·8-44·1	24-28		
89		1113D							Forgings	37·8-44·1	24-28		
90		534							Welded tubes	37·8-44·1	24-28		
91		429							Plate	37·8-44·1	24-28		
92		429							Rivet bars	37·8-47·1	24-30		
93		534							Seamless tubes	37·8-47·2	24-30		
94		8							Seamless and welded tubes	37·8 *Min*	24 *Min*		
95		778							Plates, bars, forgings	37·8 *Min*	24 *Min*		
96								380 Grades Cr 3 xn and Cr 3	Structural steel	38-40	24·1-25·4		
97				1613	1.0219	St 38.19			Screw steel bars	38-45	24·1-28·6		
98			A131 Grade A						Rivet steel	38·7-45·7		55-65	
99			A283 Grade C						Plate	38·7-45·7		55-65	
100			A306 Grade 55						Bars	38·7-45·7		55-65	
101			A76						Bolts and nuts	38·7-49·2		55-70	
102			A15 Structural Grade						Bars	38·7-52·7		55-75	
103			A160 Structural Grade						Bars	38·7-52·7		55-75	
104			A408 Structural Grade						Bars	38·7-52·7		55-75	
105			A3						Bars	38·7 *Min*		55 *Min*	
106			A65						Track spikes	38·7 *Min*		55 *Min*	
107			A245 Grade D						Sheet	38·7 *Min*		55 *Min*	
108			A303 Grade C						Strip	38·7 *Min*		55 *Min*	
109			A307 Grades A and B						Bolts	38·7 *Min*		55 *Min*	
110							G3104 Class 3 SV39		Rivet steel	39-46	24·8-29·2		
111	1148								Rivet bars	39-51	24·8-32·4		
112	1570-St39								Structural steel	39-51	24·8-32·4		
113							G3101 Class 4 SS39		Bars, rods	39-53	24·8-33·7		
114							G3110 Grades 1 SSD39 and 1 SRD39		Bars	39-53	24·8-33·7		
115							G3111 Class 2 SRB39		Sections, bars	39-53	24·8-33·7		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
116	432 Grade II								Bars	39 *Min*	24·8 *Min*		
117		15							Rivet bars	39·4-47·2	25-30		
118		24 Part 6 Grades 612 and 622							Plates, sections, bars	39·4-47·2	25-30		
119		24 Part 6 Grades 651 and 652							Rivet bars	39·4-47·2	25-30		
120		418							Plate	39·4 *Min*	25 *Min*		
121	1161-YSt 25								Seamless and welded tubes	39·5 *Min*	25·1 *Min*		
122							G3201 Class 2 SF40		Forgings	40-50	25·4-31·7		
123			A131 Grade A						Structural steel	40·8-49·9		58-71	
124		14							Plate	40·9-47·2	26-30		
125		14							Rivet bars	40·9-47·2	26-30		
126		429							Plate	40·9-47·2	26-30		
127		1113A and 1113B Grade B							Plate	40·9-47·2	26-30		Not exceeding 10 tonnes in weight
128		1113A Grade B							Rivet bars	40·9-47·2	26-30		
129		1113A and 1113B Grade B							Plate	40·9-50·4	26-32		Exceeding 10 tonnes in weight
130		405							Plate, sheet	40·9-50·4	26-32		For size $\geqslant$3 mm
131		751							Plate	40·9-50·4	26-32		
132		500							Sleepers	40·9-52·0	26-33		
133		534							Welded tubes	40·9-52·0	26-33		
134		325							Bolts and nuts	40·9 *Min*	26 *Min*		
135								380 Grades Ст 3 кп and Ст 3	Structural steel	41-43	26·0-27·3		
136							G3104 Class 2 BSV41B		Rivet steel	41-48	26·0-30·5		
137							G3101 Class 2 SS41		Plates, flats, shapes, bars, rods	41-50	26·0-31·7		
138							G3307 Class 8 SPH8		Rolled hoop	41 *Min*	26·0 *Min*		
139							G3444 Class 2 STK41		Seamless and welded tubes	41 *Min*	26·0 *Min*		
140							G3457 STPY41		Welded tubes	41 *Min*	26·0 *Min*		
141								390 Grades Ст 4 and Ст 4 кп	Structural steel	42-44	26·7-27·9		
142	St 42-1079								Sheet, strip	42-50	26·7-31·7		
143	2002 Grade 2A								Plate	42-50	26·7-31·7		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
144				1623	1.0132.5 1.0132.6	USt 42-2 RSt 42-3			Sheet	42-50	26·7-31·7		For thickness below 3 mm
145				1626	1.0130	St 42			Welded tubes	42-50	26·7-31·7		
146				17100	1.0130 1.0132 1.0136	St 42 St 42-2 St 42-3			Structural steel	42-50	26·7-31·7		For size up to 100 mm
147							G3103 Class 2 ASB42A SB42K Class 2 SB42		Plate Shapes Bars, rods	42-50	26·7-31·7		
148	226-St42S								Structural steel (standard quality)	42-54	26·7-34·3		
149	226-St42SC								Structural steel (standard quality)	42-54	26·7-34·3		Cu ⩽ 0·35
150	1570-St42								Structural steel (also for loco carriage and car structures)	42-54	26·7-34·3		
151	2062								Structural steel (fusion welding quality)	42-54	26·7-34·3		
152	432 Grade I								Bars	42 *Min*	26·7 *Min*		
153				17100	1.0130 1.0132 1.0136	St 42 St 42-2 St 42-3			Structural steel	42 *Min*	26·7 *Min*		For size above 100 mm
154							G3439 Class 2ST0-H		Seamless tubes	42 *Min*	26·7 *Min*		
155								632 Grade A	Seamless tubes	42 *Min*	26·7 *Min*		
156			A7						Plate, bars	42·2-50·6		60-72	Up to 38 mm size
157			A113 Grade A						Structural steel	42·2-50·6		60-72	
158			A283 Grade D						Plate	42·2-50·6		60-72	
159			A306 Grade 60						Bars	42·2-50·6		60-72	
160			A7						Sections, plate, bars	42·2-52·8		60-75	Plate and bars above 38 mm only
161	1978-St25								Seamless tubes	42·2 *Min*	26·8 *Min*		
162	1979-St30								Seamless and welded tubes	42·2 *Min*	26·8 *Min*		
163			A53 Types E and S Grade B						Seamless and welded tubes	42·2 *Min*		60 *Min*	
164			A135						Welded tubes	42·2 *Min*		60 *Min*	
165			A235 Class C						Forgings	42·2 *Min*		60 *Min*	
166			A243 Class C						Forgings	42·2 *Min*		60 *Min*	
167			A252 Grade 2						Tube piles	42·2 *Min*		60 *Min*	
168		3059 Grade 5							Seamless tubes	42·5-55·1	27-35		
169		1775HFS 16							Seamless tubes	42·5 *Min*	27 *Min*		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
170		1775HFW 16							Welded tubes	42·5 *Min*	27 *Min*		
171		879							Seamless tubes	42·5-55·1	27-35		
172	1914-HFS								Seamless tubes	43-55	27·3-34·9		
173								380 Grades Ст 3 and Ст 3 кп	Structural steel	44-47	27·9-29·8		
174	1570-St44								Structural steel (also for loco, carriage and car structures)	44-54	27·9-34·3		
175	1977-St44-O								Structural steel (commercial quality)	44-54	27·9-34·3		
176	1977-St44-OC								Structural steel (commercial quality)	44-54	27·9-34·3		Cu $\leqslant$ 0·35
177		14							Plate, sections, bars	44·1-50·4	28-32		
178		429							Plate, bars	44·1-50·4	28-32		
179		1113A and 1113B Grade C							Plate	44·1-50·4	28-32		Not exceeding 10 tonnes in weight
180		1113C and 1113D							Forgings	44·1-50·4	28-32		
181		15							Plate, sections, bars	44·1-52·0	28-33		
182		24 Part 1							Locomotive crank axles	44·1-52·0	28-33		
183		24 Part 6 Grades 613 and 621							Plate, sections, bars	44·1-52·0	28-33		
184		24 Part 6 Grade 631							Frame plate (locos, tenders and bogies)	44·1-52·0	28-33		
185		24 Part 6 Grade 641							Slabs for loco and tender bar frames	44·1-52·0	28-33		
186		418							Bolts	44·1-52·0	28-33		
187		227 Grade A							Sections (colliery arches)	44·1-52·0	28-33		
188		785							Bars	44·1-52·0	28-33		
189		1113A and 1113B Grade C							Plate	44·1-53·5	28-34		Exceeding 10 tonnes in weight
190		14							Plate	44·1-55·1	28-35		
191		341							Bars, forgings	44·1 *Min*	28 *Min*		
192		778							Bolts	44·1 *Min*	28 *Min*		
193		855							Bolts	44·1 *Min*	28 *Min*		
194	1979-St32								Seamless and welded tubes	44·3 *Min*	28·1 *Min*		
195								380 Grade Ст 4 кп	Structural steel	45-48	28·6-30·5		
196				1629	1.0408	St 45			Seamless tubes	45-55	28·6-30·5		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
197							G3201 Class 3 SF45		Forgings	45-55	28·6-34·9		
198			A306 Grade 65						Bars	45·7-54·2		65-77	
199			A489						Eyebolts	45·7 *Min*		65 *Min*	
200							G3103 Class 3 ASB46A Class 3 SB46		Plate } Rods }	45-55	29·2-34·9		
201	1979-St37								Seamless and welded tubes	46·4 *Min*		66 *Min*	For diameter less than 508·0 mm
202			A235 Class C1						Forgings	46·4 *Min*		66 *Min*	
203			A252 Grade 3						Tube piles	46·4 *Min*		66 *Min*	
204	1149								High tensile rivet bars	47 *Min*	29·8 *Min*		
205	1570-St47								Structural steel	47-57	29·8-36·2		
206		1113A and 1113B Grade D							Plate	47·2-53·5	30-34		Not exceeding 10 tonnes in weight
207	1029 (Soft)								Strip (baling)	47·2-55·1	30-35		
208		24 Part 6 Grade 653							Rivet bars	47·2-55·1	30-35		
209		548							Rivet bars	47·2-55·1	30-35		
210		1113A and 1113B Grade D							Plate	47·2-56·7	30-36		Exceeding 10 tonnes in weight
211		64							Bars for nuts	47·2-63·0	30-40		
212			A4						Bars	47·8 *Min*		68 *Min*	
213		14							Plate, bars	48·8-55·1	31-35		
214		429							Plate, bars	48·8-55·1	31-35		
215								380 Grade Ст 4 кп	Structural steel	49-52	31·1-33·0		
216							G3101 Class 5 SS49		Bars, rods	49-63	31·1-40·0		
217							G3110 Grades 2 SSD49 and 2 SRD49		Bars	49-63	31·1-40·0		
218							G3111 Class 3 SRB49		Sections, bars	49-63	31·1-40·0		
219			A306 Grade 70						Bars	49·2-59·8		70-85	
220			A15 Intermediate Grade						Bars	49·2-63·3		70-90	
221			A160 Intermediate Grade						Bars	49·2-63·3		70-90	
222			A408 Intermediate Grade						Bars	49·2-63·3		70-90	
223			A328						Sheet piling	49·2 *Min*		70 *Min*	

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
224								380 Grade Cr 5	Structural steel	50-53	31·7-33·6		
225	St50-1079								Sheet, strip	50-60	31·7-38·1		
226	1570-St50								Structural steel	50-60	31·7-38·1		
227				1623	1.0532.6	St 50-2			Sheet	50-60	31·7-38·1		For thickness below 3 mm
228				17100	1.0530 1.0532	St 50 St 50-2			Structural steel	50-60	31·7-38·1		For size up to 100 mm
229							G3101 Class 3 SS50		Plates, flats, shapes, bars, rods	50-60	31·7-38·1		
230							G3201 Class 4 SF50		Forgings	50-60	31·7-38·1		
231				21540	1.0545	St 54			Structural steel for mines	50-70	31·7-44·4		
232	961-St55-HTW								High tensile structural steel	50·0 *Min*	31·7 *Min*		For size over 63 mm
233	961-St55-HTWC								High tensile structural steel	50·0 *Min*	31·7 *Min*		For size over 63 mm (Cu 0·20-0·35)
234				17100	1.0530 1.0532	St 50 St 50-2			Structural steel	50·0 *Min*	31·7 *Min*		For size above 100 mm
235		1113C and 1113D							Forgings	50·4-56·7	32-36		
236		1113A and 1113B Grade E							Plate	50·4-59·8	32-38		
237	1979 St37								Seamless and welded tubes	50·6 *Min*	32·1 *Min*		For tubes over 508·0 mm
238		785							Bars	52·0-59·8	33-38		
239	St52-1079								Sheet, strip	52-62	33·0-39·4		
240	2002 Grade 2B								Plate	52-62	33·0-39·4		
241				1623	1.0841.6	St 52-3			Sheet	52-62	33·0-39·4		For thickness below 3 mm
242				17100	1.0841 1.0841.6	St 52-3 MSt 52-3			Structural steel	52-62	33·0-39·4		For size up to 100 mm
243		468							Disc wheel centres	52·0-63·0	33-40		
244		484							Disc wheel centres	52·0-63·0	33-40		
245	961-St55-HTW								High tensile structural steel	52·0 *Min*	33·0 *Min*		For size over 32 mm up to 63 mm including
246	961-St55-HTWC								High tensile structural steel	52·0 *Min*	33·0 *Min*		For size over 32 mm up to 63 mm including (Cu 0·20-0·35)
247			A306 Grade 75						Bars	52·7-63·3		75-90	
248			A235 Grade E						Forgings	52·7 *Min*		75 *Min*	
249							G3439 Class 3 STO-J and Class 1 STO-C		Seamless tubes	53 *Min*	33·7 *Min*		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
250		1113C and 1113D							Forgings	53·8-59·8	34-38		
251								380 Grade Cr 5	Structural steel	54-57	34·3-36·2		
252	1570-St55								High tensile structural steel	55-65	34·9-41·3		
253				1629	1.0507	St 55			Seamless tubes	55-65	34·9-41·3		
254				4911		St 55			Seamless tubes	55-65	34·9-41·3		
255							G3201 Class 5 SF55		Forgings	55-65	34·9-41·3		
256	961-St58-HT								High tensile structural steel	55·0 *Min*	34·9 *Min*		For size over 63 mm
257	961-St58-HTC								High tensile structural steel	55·0 *Min*	34·9 *Min*		For size over 63 mm (Cu 0·20-0·35)
258	961-St55-HTW								High tensile structural steel	55·0 *Min*	34·9 *Min*		For size up to 32 mm
259	961-St55-HTWC								High tensile structura steel	55·0 *Min*	34·9 *Min*		For size up to 32 mm (Cu 0·20-0·35)
260	1161-YSt32								Seamless and welded tubes	55 *Min*	34·9 *Min*		
261							G3465 Class 1 STM-C55		Seamless tubes	55 *Min*	34·9 *Min*		
262								632 Grade C	Seamless tubes	55 *Min*	34·9 *Min*		
263	1029 (Medium)								Strip (baling)	55·1-63·0	35-40		
264		24 Part 1							Axles (carriage and wagon)	55·1-63·0	35-40		
265		64							Bars for bolts	55·1-63·0	35-40		
266		102							Tramway axles	55·1-63·0	35-40		
267		534							Seamless tubes	55·1-64·6	35-41		
268		227 Grade B							Sections (colliery arches)	55·1-67·7	35-43		
269		8							Seamless tubes	55·1 *Min*	35 *Min*		
270		778							Tubes	55·1 *Min*	35 *Min*		
271		1775HFS20							Seamless tubes	55·1 *Min*	35 *Min*		
272			A15 Hard Grade						Bars	56·2 *Min*		80 *Min*	
273			A16						Bars	56·2 *Min*		80 *Min*	
274			A160 Hard Grade						Bars	56·2 *Min*		80 *Min*	
275			A237 Class A						Forgings	56·2 *Min*		80 *Min*	
276			A243 Class H						Forgings	56·2 *Min*		80 *Min*	
277			A306 Grade 80						Bars	56·2 *Min*		80 *Min*	
278			A408 Hard Grade						Bars	56·2 *Min*		80 *Min*	

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
279								380 Grade Ст 5	Structural steel	58-62	36·8-39·4		
280	1570-St58								High tensile structural steel	58-68	36·8-43·2		
281	432 (Medium Tensile Grade)								Bars	58 *Min*	36·8 *Min*		
282	961-St58-HT								High tensile structural steel	58·0 *Min*	36·8 *Min*		For size up to 63 mm
283	961-58-HTC								High tensile structural steel	58·0 *Min*	36·0 *Min*		For thickness up to 63 mm (Cu 0·20-0·35)
284		785							Bars	58·3-67·7	37-43		
285		548							Plate, sections, bars	58·3-67·7	37-43	85 *Min*	
286			A5						Bars	59·8 *Min*			
287								380 Grade Ст 6	Structural steel	60-63	38·1-40·0		
288							G3201 Class 6SF60		Forgings	60-70	38·1-40·0		
289				1623	1.0542.6	St 60-2			Sheet	60-72	38·1-45·7		For thickness below 3 mm
290				17100	1.0540 1.0542	St 60 St 60-2			Structural steel	60-72	38·1-45·7		For size up to 100 mm
291				17100	1.0540 1.0542	St 60 St 60-2			Structural steel	60 *Min*	38·1 *Min*		For size over 100 mm
292							G3465 Class 11 STM-R60		Seamless tubes	60 *Min*	38·1 *Min*		
293	1570-St63								High tensile structural steel	63-71	40·0-45·1		
294	1029 (Hard)								Strip (baling)	63·0-70·9	40·0-45·0		
295		102							Tramway axles	63·0-78·7	40·0-45·0	90 *Min*	
296			A61						Bars	63·0 *Min*		90 *Min*	
297			A307 Grade B						Bolts	63·0 *Min*		90 *Min*	
298			A432						Bars	63·0 *Min*			
299								380 Grade Ст 6	Structural steel	64-67	40·6-42·5		
300							G3465 Class 2 STM-C65		Seamless tubes	65 *Min*	41·3 *Min*		
301								631 Grade Д	Seamless tubes	65 *Min*	41·3 *Min*		
302								632 Grade Д	Seamles tubes	65 *Min*	41·3 *Min*		
303	1570-St66								High tensile structural steel	66-78	41·9-49·5		
304		24 Part 2 Class B							Tyres (carriage and wagon)	66·1-77·2	42-49		
305		468 Class B							Wheels (loco, carriage and wagon)	66·1-77·2	42-49		
306		227 Grade C							Sections (colliery arches)	66·1-81·9	42-52		

(*Continued*)

TABLE 1 STEELS IN THE HOT FINISHED OR NORMALIZED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
307							G3439 Class 2STO-D		Seamless tubes	67 *Min*	42·5 *Min*		
308								380 Grade Ст 6	Structural steel	68-72	43·2-45·7		
309								380 Grade Ст 7	Structural steel	70-74	44·4-47·0		
310				1623	1.0632.6	St 70-2			Sheet	70-85	44·4-54·0		For thickness less than 3 mm
311				17100	1.0632.6	St 70-2			Structural steel	70-85	44·4-54·0		For size up to 100 mm
312				17100	1.0632.6	St 70-2			Structrual steel	70 *Min*	44·4 *Min*		For size above 100 mm
313							G3439 Class 4 STO-N and Class 3 STO-E		Seamless tubes	70 *Min*	44·4 *Min*		
314							G3465 Class 12 STM-R70		Seamless tubes	70 *Min*	44·4 *Min*		
315								631 Grade K	Seamless tubes	70 *Min*	44·4 *Min*		
316								632 Grade Ем	Seamless tubes	70 *Min*	44·4 *Min*		
317			A431						Bars	70·3 *Min*		100 *Min*	
318								380 Grade Ст 7	Structural steel	75 *Min*	47·6 *Min*		
319								631 Grade E	Seamless tubes	75 *Min*	47·6 *Min*		
320								632 Grade E	Seamless tubes	75 *Min*	47·6 *Min*		
321		24 Part 2 Class C							Tyres (loco, carriage and wagon)	77·2-88·2	49-56		
322		468 Class C							Wheels (loco, carriage and wagon)	77·2-88·2	49-56		
323			A183						Bolts and nuts	77·3 *Min*		110 *Min*	
324	1570-St78								Wheels and tyres (loco, carriage and wagon)	78-90	49·5-57·1		
325							G3465 Class 13 STM-R80		Seamless tubes	80 *Min*	50·8 *Min*		
326								631 Grade Л	Seamless tubes	80 *Min*	50·8 *Min*		
327	1570-St88								Wheels and tyres (loco, carriage and wagon)	88-100	55·9-63·5		
328		24 Part 2 Class D							Tyres (loco, carriage and wagon)	88·2-99·2	56-63		
329		468 Class D							Wheels (loco, carriage and wagon)	88·2-99·2	56-63		
330								631 Grade M	Seamless tubes	90 *Min*	57·1 *Min*		
331								632 Grade Л	Seamless tubes	95 *Min*	57·1 *Min*		
332								632 Grade M	Seamless tubes	100 *Min*	63·5 *Min*		

TABLE 2 STEELS IN THE COLD WORKED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
333							G3308 Class 1 SPMA		Strip	28-38	17·8-24·1		
334							G3308 Class 2 SPMB		Strip	28-42	17·8-26·7		
335							G3439 Class 1 STO-G		Seamless tubes	28 *Min*	17·8 *Min*		
336		24 Part 6 Grades 651 and 652							Rivet bars	31·5-39·4	20-25		
337		1503-171							Seamless tubes	31·5-44·1	20-28		
338		3059 Grade 2							Seamless tubes	31·5-44·1	20-28		
339		3059 Grade 4							Welded tubes	31·5-44·1	20-28		
340		778							Seamless tubes	31·5 *Min*	20 *Min*		For size up to 13 mm
341	1914-CDS								Seamless tubes	32-44	20·3-27·9		
342	1914-CEW								Welded tubes	32-44	20·3-27·9		
343	2416-CDS								Seamless tubes	32-44	20·3-27·9		
344	1978-St21								Seamless tubes	33·7 *Min*	21·4 *Min*		
345			A53 Type S Grade A						Seamless tubes	33·7 *Min*		48 *Min*	
346							G3444 Class 1 STK34		Seamless tubes	34 *Min*	21·6 *Min*		
347		1139							Seamless tubes	34·6-47·2	22-30		
348		1507-171							Seamless tubes	34·6-47·2	22-30		
349			A252 Grade A						Tube piles	35·1 *Min*		50 *Min*	
350				1629	1.0308	St 35			Seamless tubes	35-45	22·2-28·7		
351				2394 (bright drawn)					Welded tubes	36 *Min*	22·8 *Min*		
352		806 Class A							Seamless tubes	36·2-47·2	23·30		
353				1652	1.0151	St 34-2			Bars	37-62	23·5-39·4		For size 40 mm up to < 80 mm
354		8							Seamless tubes	37·8 *Min*	24 *Min*		
355		1449 Part 2B En 2C/2							Sections	37·8 *Min*	24 *Min*		
356							G3308 Class 3 SPMC		Strip	40-50	25·4-31·7		
357				1652	1.0151	St 34-2			Bars	40-65	25·4-41·3		For size 16 mm up to < 40 mm
358				1652	1.0120 1.0161	St 37 St 37-2			Bars	40-65	25·4-41·3		For size 40 mm up to < 80 mm
359							G3444 Class 1 Class 41		Seamless and welded tubes	41 *Min*	26·0 *Min*		

(*Continued*)

TABLE 2 STEELS IN THE COLD WORKED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
360				1652	1.0151	St 34-2			Bars	42-72	26·7-45·7		For size 10 mm up to < 16 mm
361				2385	1.0308	St 35			Seamless tubes	42 *Min*	26·7 *Min*		
362				2391A	1.0308	St 35			Seamless tubes	42 *Min*	26·7 *Min*		
363				2393A and B		St 35			Welded tubes	42 *Min*	26·7 *Min*		
364							G3123 Class 1 S10C-D		Bars	42 *Min*	26·7 *Min*		
365							G3123 Class 1 SUM1-D		Bars	42 *Min*	26·7 *Min*		
366							G3439 Class 2 STO-H		Seamless tubes	42 *Min*	26·7 *Min*		
367								632 Grade A	Seamless tubes	42 *Min*	26·7 *Min*		
368			A53 Type S Grade B						Seamless tubes	42·2 *Min*		60 *Min*	
369			A252 Grade 2						Tube piles	42·2 *Min*		60 *Min*	
370		3059 Grade 6							Seamless tubes	42·5-55·1	27-35		
371	1914-CDS								Seamless tubes	43-55	27·3-34·9		
372							G3123 Class 1 SS34B-D		Bars	44 *Min*	27·9 *Min*		
373		980CDS2							Seamless tubes	44·1 *Min*	28 *Min*		
374		1717CDS102							Seamless tubes	44·1 *Min*	28 *Min*		
375	1979-St32								Seamless tubes	44·3 *Min*	28·1 *Min*		
376				1629	1.0408	St 45			Seamless tubes	45-55	28·6-34·9		
377							G3308 Class 4S PMD		Strip	45-60	28·6-38·1		
378				1652	1.0120 1.0161	St 37 St 37-2			Bars	45-70	28·6-44·4		For size 16 mm up to < 40 mm
379				1652	1.0140 1.0181	St 42 St 42-2			Bars	45-70	28·6-44·4		For size 40 mm up to < 80 mm
380				2391B (BK)		St 35 St 35-1			Seamless tubes	45 *Min*	28·6 *Min*		
381	1979-St37								Seamless tubes	46·4 *Min*	29·5 *Min*		For size below 308 mm outside diameter
382			A252 Grade 3						Tube piles	46·4 *Min*		66 *Min*	
383							G3123 Class 2 S15C-D and Class 2 SUM2-D		Bars	48 *Min*	30·5 *Min*		
384				1652	1.0140 1.0181	St 42 St 42-2			Bars	50-75	31·7-47·6		For size 25 mm up to < 40 mm
385				1652	1.0151	St 34-2			Bars	50-80	31·7-50·8		For size below 10 mm
386				1652	1.0120 1.0161	St 37 St 37-2			Bars	50-80	31·7-50·8		For size 5 mm up to < 10 mm

(*Continued*)

TABLE 2 STEELS IN THE COLD WORKED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
387							G3123 Class 3 S20C-D, Class 3 SUM3-D and Class 2 SS41B-D		Bars	51 *Min*	32·4 *Min*		
388				1652	1.0531 1.0533	St 50 St 50-2			Bars	53-78	33·7-49·5		For size 40 mm up to < 80 mm
389							G3439 Class 3 ST0-J and Class 1 ST0-C		Seamless tubes	53 *Min*	33·7 *Min*		
390				1629	1.0507	St 55			Seamless tubes	55-65	34·9-41·3		
391				1652	1.0140 1.0180	St 42 St 42-2			Bars	55-80	34·9-50·8		For size 16 mm up to < 25 mm
392				1652	1.0531 1.0533	St 50 St 50-2			Bars	55-80	34·9-50·8		For size 25 mm up to < 40 mm
393				1652	1.0120 1.0161	St 37 St 37-2			Bars	55-85	34·9-54·0		For size below 5 mm
394				1652	1.0140 1.0181	St 42 St 42-2			Bars	55-85	34·9-54·0		For size 5 mm up to < 10 mm
395	432								Wire	55 *Min*	34·9 *Min*		
396				2391B		St 45 St 45-1			Welded tubes	55 *Min*	34·9 *Min*		
397							G3123 Class 4 S25C-D		Bars	55 *Min*	34·9 *Min*		
398							G3465 Class 1 STM-C55		Seamless tubes	55 *Min*	34·9 *Min*		
399								632 Grade C	Seamless tubes	55 *Min*	34·9 *Min*		
400		778							Seamless tubes	55·1 *Min*	35·0 *Min*		
401		8							Seamless tubes	55·1 *Min*	35·0 *Min*		
402							G3308 Class 5 SPME		Strip	56 *Min*	35·5 *Min*		
403							G3123 Class 5 S30C-D and Class 4 SUM4-D		Bars	58 *Min*	36·8 *Min*		
404		785							Wire	58·3 *Min*	37 *Min*		
405				1652	1.0531 1.0533	St 50 St 50-2			Bars	60-85	38·1-54·0		For size 16 mm up to < 25 mm
406				1652	1.0140 1.0181	St 42 St 42-2			Bars	60-90	38·1-57·1		For size below 5 mm
407				1652	1.0531 1.0533	St 50 St 50-2			Bars	60-90	38·1-57·1		For size 10 mm up to < 16 mm
408							G 3123 Class 3 SS50B-D		Bars	60 *Min*	38·1 *Min*		
409							G3465 Class II STM-R60		Seamless tubes	60 *Min*	38·1 *Min*		
410				2385	1.0507	St 55			Seamless tubes	62 *Min*	39·4 *Min*		
411				2391A	1.0507	St 55			Seamless tubes	62 *Min*	39·4 *Min*		

(*Continued*)

TABLE 2 STEELS IN THE COLD WORKED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
412							G3123 Class 6S35C-D		Bars	62 *Min*	39·4 *Min*		
413				1652	1.0543	St 60-2			Bars	63-88	40·0-55·9		For size 40 mm up to < 80 mm
414			A432						Bars	63·3 *Min*		90 *Min*	
415				1652	1.0543	St 60-2			Bars	65-90	41·3-57·1		For size 25 mm up to < 40 mm
416				1652	1.0531 1.0533	St 50 St 50-2			Bars	65-95	41·3-60·3		For size 5 mm up to < 10 mm
417				2391B (BK)		St 55 St 55.1			Seamless tubes	65 *Min*	41·3 *Min*		
418							G3123 Class7S40C-Dand Class 5SUMS-D		Bars	65 *Min*	41·3 *Min*		
419							G3465 Class 2STM-C65		Seamless tubes	65 *Min*	41·3 *Min*		
420								631 Grade Д	Seamless tubes	65 *Min*	41·3 *Min*		
421								632 Grade Д	Seamless tubes	65 *Min*	41·3 *Min*		
422							G3439 Class 2ST0-D		Seamless tubes	67 *Min*	42·5 *Min*		
423							G3123 Class 8S45C-D		Bars	68 *Min*	43·2 *Min*		
424				1652	1.0543	St 60-2			Bars	70-95	44·4-60·3		For size 16 mm up to < 25 mm
425				1652	1.0531 1.0533	St 50 St 50-2			Bars	70-100	44·4-63·5		For size below 5 mm
426				1652	1.0543	St 60-2			Bars	70-100	44·4-60·3		For size 10 mm up to < 25 mm
427							G3465 Class 12 STM-R70		Seamless tubes	70 *Min*	44·4 *Min*		
428							G3439 Class 4ST0-N and Class 3ST0-E		Seamless tubes	70 *Min*	44·4 *Min*		
429								631 Grade К	Seamless tubes	70 *Min*	44·4 *Min*		
430								632 Grade Ем	Seamless tubes	70 *Min*	44·4 *Min*		
431			A431						Bars	70·3 *Min*		100 *Min*	
432							G 3123 Class 9S50C-D		Bars	72 *Min*	45·7 *Min*		
433				1652	1.0633	St 70 2			Bars	73-98	46·3-62·2		For size 40 mm up to < 80 mm
434				1652	1.0633	St 70-2			Bars	75-100	47·6-63·5		For size 25 mm up to < 40 mm
435				1652	1.0543	St 60-2			Bars	75-105	47·6-66·7		
436								631 Grade E	Seamless tubes	75 *Min*	47·6 *Min*		

(*Continued*)

TABLE 2 STEELS IN THE COLD WORKED CONDITION AND SPECIFIED BY TENSILE PROPERTIES BUT WITHOUT DETAILED CHEMICAL COMPOSITION — *Contd*

Ref No.	IS	BS	American ASTM	German			JIS	GOST	Product	Tensile Strength			Remarks
				DIN	Werkstoff Nummer	Code Designation				kgf/mm²	tonf/in²	1 000 lbf/in²	
437								632 Grade E	Seamless tubes	75 *Min*	47·6 *Min*		
438							G3123 Class 10S55C-D		Bars	76 *Min*	48·2 *Min*		
439				1652	1.0633	St 70-2			Bars	80-105	50·8-66·7		For size 16 mm up to < 25 mm
440				1652	1.0543	St 60-2			Bars	80-110	50·8-69·8		For size under 5 mm
441				1652	1.0633	St 70-2			Bars	80-110	50·8-69·8		For size 10 mm up to < 16 mm
442							G3465 Class13 STM-R80		Seamless tubes	80 *Min*	50·8 *Min*		
443								631 Grade J1	Seamless tubes	80 *Min*	50·8 *Min*		
444				1652	1.0633	St 70-2			Bars	85-115	54·0-73·0		For size 5 mm up to < 10 mm
445				1652	1.0633	St 70-2			Bars	90-120	57·1-76·2		For size under 5 mm
446								631 Grade M	Seamless tubes	90 *Min*	57·1 *Min*		
447								632 Grade J1	Seamless tubes	95 *Min*	60·3 *Min*		
448								632 Grade M	Seamless tubes	100 *Min*	63·5 *Min*		

TABLE 3 CARBON STEELS

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
449					A424						Sheet	0·04 *Max*	—	0·20 *Max*	
450										3836 Grades 3, 3A, 3AA	Steel for electrical industry	0·04 *Max*	0·20 *Max*	0·20 *Max*	Cu 0·15 *Max*
451										1050 Grade 05 kn	Structural steel	0·06 *Max*	0·03 *Max*	0·04 *Max*	Cr 0·10 *Max*, Ni 0·25 *Max*
452		1449 Pt 3A En2A/1 (HS1) Pt 3B En2A/1 (CS1)									Strip	0·07 *Max*	—	0·45 *Max*	
453		1449 Pt 1B En2A/1 (CR1)									Sheet	0·075 *Max*	—	0·45 *Max*	
454		1449 Pt 1B En2A/1 (CR2) Pt 3A En2A/1 (HS2) Pt 3B En2A/1 (CS2)									Sheet Strip Strip	0·08 *Max*	—	0·45 *Max*	
455					A67						Tie plate	0·08 *Max*	—	—	Acid Bessemer steel Cu 0·20 *Min* (optional)
456	1570-C04					17110	1.0209	TUSt 34			Rivet steel	0·08 *Max*	Traces	0·18-0·35	
457											Sheet, strip	0·08 *Max*	—	0·40 *Max*	
458			1006	C1006							Billets, bars, forgings, rods, seamless tubes	0·08 *Max*	—	0·25-0·40	
											Sections, welded tubes, plate, sheet, strip	0·08 *Max*	—	0·25-0·45	
459									G3310 Class 3 SPC3		Plate, sheet	0·08 *Max*	—	0·25-0·45	
460	2879										Electrode core wire	0·08 *Max*	0·03 *Max*	0·40-0·60	Cu 0·20 *Max*
461		1449 Pt 1A En2A/1 (HR 11 and HR 12)									Sheet	0·09 *Max*	—	0·45 *Max*	
462									G3505 Class 2 SWRM2		Wire rod	0·09 *Max*	0·30 *Max*	0·50 *Max*	
463									G3505 Class 1 SWRM1		Wire rod	0·06-0·09	0·30 *Max*	0·50 *Max*	
464					A303	17110	1.0209.5	MUSt 34			Rivet steel	0·10 *Max*	Traces	0·18-0·35	
465	597 (DD)										Plate	0·10 *Max*	—	0·40 *Max*	
466						17110	1.0204	QSt 34			Rivet steel	0·10 *Max*	Traces	0·25-0·40	
467						1624	1.0330	St 2			Strip	0·10 *Max*	0·02-0·20	0·20-0·45	
468						1624	1.0333	St 3			Strip	0·10 *Max*	0·03-0·15	0·20-0·45	
469						1624	1.0336	St 4			Strip	0·10 *Max*	0·03-0·10	0·20-0·45	
470									G3307 Class 1 SPH1		Rolled hoop	0·10 *Max*	0·04 *Max*	0·25-0·45	
471									G3310 Class 2 SPC 2		Plate, sheet	0·10 *Max*	—	0·25-0·45	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
472	513 Types DD and EDD										Sheet	0·10 *Max*	—	0·50 *Max*	
473	1570-C05										Sheet, strip	0·10 *Max*	—	0·50 *Max*	
474		1449 Pt 1A En2A (HR13) Pt 1B En2A (CR3) Pt 2A En2A/1 (NHR12) Pt 2B En2A/1 Pt 3A En2A (HS3) Pt 3B En2A (CS3)									Plate Sheet Plate Sheet Strip Strip	0·10 *Max*	—	0·50 *Max*	
475					A365						Sheet	0·10 *Max*	—	0·50 *Max*	
476			1008	C1008							Billets, bars, forgings, rods, sections, tubes, plate, sheet, strip	0·10 *Max*	—	0·25-0·50	
477					A107 Grade 1008						Bars	0·10 *Max*	—	0·25-0·50	
478					A108 Grade 1008						Bars	0·10 *Max*	—	0·25-0·50	
479									G3301 Class 1 SPN 1		Sheet	0·10 *Max*	0·08 *Max*	0·25-0·50	
480									G3301 Class 5 SPN 5		Sheet	0·10 *Max*	0·08-0·15	0·25-0·50	P 0·05-0·110
481		640 Class 3									Electrode wire	0·10 *Max*	—	0·30-0·50	
482		1453-A1									Filler rod and wire for gas welding	0·10 *Max*	0·04 *Max*	0·60 *Max*	Ni 0·25 *Max*
483					A415						Sheet	0·10 *Max*	—	0·25-0·60	i) Cu 0·20 *Min* (optional) ii) Acid bessemer steel
484					A425						Strip	0·10 *Max*	—	0·25-0·60	i) Cu 0·20 *Min* (optional) ii) Acid bessemer steel
485										2246 Grade Ст — 08	Welding electrodes	0·10 *Max*	0·03 *Max*	0·35-0·60	Cr 0·15 *Max*, Ni 0·30 *Max*
486										2246 Grade Ст — 08A	Welding electrodes	0·10 *Max*	0·03 *Max*	0·35-0·60	Cr 0·10 *Max*, Ni 0·25 *Max*
487									G3503 Class 1 No. 1 SWRY 11		Rod for core wire	0·10 *Max*	0·03 *Max*	0·35-0·65	Cu 0·20 *Max*
488									G3523 Class 1 No. 1 SWY 11		Core wire	0·10 *Max*	0·03 *Max*	0·35-0·65	Cu 0·20 *Max*
489									G3503 Class 1 No. 2 SWRY 12		Rod for core wire	0·10 *Max*	0·03 *Max*	0·35-0·65	Cu 0·30 *Max*
490									G3523 Class 1 No. 2 SWY 12		Core wire	0·10 *Max*	0·03 *Max*	0·35-0·65	Cu 0·30 *Max*
491										1050 Grade 08 кп	Structural steel	0·05-0·11	0·03 *Max*	0·25-0·50	Cr 0·25 *Max*, Ni 0·10 *Max*

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
492						1624	1.0022	St 0			Strip	0·12 *Max*	—	0·20-0·45	
493						1624	1.0226	St 1			Strip	0·12 *Max*	0·03-0·20	0·20-0·45	
494	513 Type D										Strip	0·12 *Max*	—	0·50 *Max*	
495	1570-C07										Billets, bars, forgings, sections, plate, sheet, strip	0·12 *Max*	—	0·50 *Max*	
496		970 En2A									Billets, bars, forgings	0·12 *Max*	—	0·50 *Max*	
497		1449 Pt 1B En2 (CR4) Pt 2A En2 (NHR13) Pt 2B En2A Pt 3A En2 (HS4A) Pt 3B En2 (CS4)									Sheet Plate Sheet Strip Strip	0·12 *Max*	—	0·50 *Max*	
498		S511									Sheet, strip	0·12 *Max*	0·20 *Max*	0·5 *Max*	Ni 0·30 *Max* (residual)
499									G3301 Class 2 SPN2		Sheet	0·12 *Max*	0·05-0·10	0·25-0·50	P 0·050-0·100
500									G3301 Class 3 SPN3		Sheet	0·12 *Max*	0·08-0·15	0·25-0·50	P 0·060 *Max*
501									G3301 Class 4 SPN4		Sheet	0·12 *Max*	0·05 *Max*	0·25-0·50	P 0·110 *Max*
502									G3307 Class 2 SPH2		Rolled hoop	0·12 *Max*	0·04 *Max*	0·25-0·50	
503									G3310 Class 1 SPC1		Plate, sheet	0·12 *Max*	—	0·25-0·50	
504										380 Grade БСт 3 кп	Structural steel	0·12 *Max*	0·07 *Max*	0·25-0·55	Bessemer steel
505										380 Grade БСт 3	Structural steel	0·12 *Max*	0·12-0·35	0·25-0·55	Bessemer steel
506									G3445 Grades Class 1 A STK M30 and Class 1B STKM 40		Tubes	0·12 *Max*	0·35 *Max*	0·25-0·60	
507										1050 Grade 08	Structural steel	0·05-0·12	0·17-0·37	0·35-0·65	Cr 0·10 *Max*, Ni 0·25 *Max*
508						17210	1.0301	C10			Billets, bars, sections, forgings, plate, sheet, strip and seamless tubes	0·06-0·12	0·15-0·35	0·25-0·50	
509						17210	1.1121	CK10			Billets, bars, sections, forgings, plate, sheet, strip and seamless tubes	0·06-0·12	0·15-0·35	0·25-0·50	
510										380 Grade МСт 1 кп	Structural steel	0·06-0·12	0·05 *Max*	0·25-0·50	Openhearth steel
511						17110	1.0209.6	MRSt 34			Rivet steel	0·06-0·12	0·15-0·35	0·25-0·50	
512									G3102 Class 21 S9CK		Steel for machine structure	0·07-0·12	0·10-0·35	0·30-0·60	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
513										5521 Grade Ст 1 кп	Steel for ship-building	0·07-0·12	Traces	0·35-0·50	Open-hearth steel
514		1449 Pt 3A En2 (HS4B)									Strip	0·13 *Max*	—	0·60 *Max*	
515									G3105 SBC		Rod	0·08-0·13	0·04 *Max*	0·50 *Max*	
516			1010	C1010							Billets, bars, forgings, rods, sections, tubes, plate, sheet, strip	0·08-0·13	—	0·30-0·60	
517					A107 Grade 1010						Bars	0·08-0·13	—	0·30-0·60	
518					A108 Grade 1010						Bars	0·08-0·13	—	0·30-0·60	
519					A273 Grade C 1010						Blooms, billets, slabs	0·08-0·13	—	0·30-0·60	
520	597 (DS)										Plate	0·14 *Max*	—	0·50 *Max*	
521										380 Grade БСт 0	Structural steel	0·14 *Max*	—	—	Bessemer steel
522										1050 Grade 10 кп	Structural steel	0·07-0·14	0·07 *Max*	0·25-0·50	Cr 0·15 *Max*, Ni 0·25 *Max*
523										1050 Grade 10	Structural steel	0·07-0·14	0·17-0·37	0·35-0·65	Cr 0·15 *Max*, Ni 0·25 *Max*
524	513(0)										Sheet	0·15 *Max*	—	—	
525	St34-1079										Sheet, strip	0·15 *Max*	—	—	
526					A67						Tie plate	0·15	—	—	Cu 0·20 *Min* (optional)
527		970 En2B									Billets, bars, forgings	0·15 *Max*	—	0·50 *Max*	
528									A5503		Sash, bars	0·15 *Max*	0·20 *Max*	0·50 *Max*	
529		970 En2E									Billets, bars, forgings	0·15 *Max*	0·10-0·35	0·50 *Max*	
530		1449 Pt 2A En2B (NHR14)									Plate	0·15 *Max*	—	0·50 *Max*	
531		1449 Pt 2A En2A (HR14) Pt 3B En2B, and En2B/B									Plate } Strip }	0·15 *Max*	—	0·60 *Max*	
532					A109 Tempers 4 and 5						Strip	0·15 *Max*	—	0·60 *Max*	Cu 0·20 *Min* (optional)
533			1009	C1009							Billets, bars, forgings, rods, sections, tubes, plate, sheet, strip	0·15 *Max*	—	0·60 *Max*	
534									G3505 Class 3 SWRM3		Wire rod	0·15 *Max*	0·30 *Max*	0·60 *Max*	
535					A366						Sheet	0·15 *Max*	—	0·25-0·60	Cu 0·20 *Min* (optional)
536					A415						Sheet	0·15 *Max*	—	0·25-0·60	i) Cu 0·20 *Min* (optional)
537					A425						Strip	0·15 *Max*	—	0·25-0·60	ii) Open-hearth basic oxygen or electric steel

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
538	1812 Type 2										Wire	0·15 *Max*	—	0·30-0·60	
539	1570-C10										Billets, bars, forgings, sections, tubes, plate, sheet, strip	0·15 *Max*	—	0·30-0·60	
540	225S										Wire rod	0·15 *Max*	—	0·30-0·60	
541					A236 Class A						Forgings	0·15 *Max*	—	0·30-0·60	
542		970 En32A									Billets, bars, forgings	0·15 *Max*	0·05-0·35	0·40-0·70	
543					A285 Fire-box quality Class A						Plate	0·15 *Max*	—	0·80 *Max*	i) For thickness 19 mm and under ii) Cu 0·20-0·35 (optional)
544									G3102 Class 1 S10C		Steel for machine structure	0·05-0·15	0·15-0·40	0·30-0·60	
545									G3437 STL		Tubes	0·08-0·15	0·35 *Max*	0·25-0·60	Cu 0·20 *Max*
546										380 Grade MCт 2 кп	Structural steel	0·09-0·15	0·07 *Max*	0·25-0·50	Open-hearth steel
547										5521 Grade Ст 2 сКп	Steel for shipbuilding	0·09-0·15	Traces	0·35-0·50	Open-hearth steel
548		640 Class 2									Electrode wire	0·10-0·15	0·04 *Max*	0·40-0·60	
549		1449 Part 3A En2B (HS12) and Part 3B En 2B (CS12)									Strip	0·10-0·15	—	0·40-0·60	
550			1012	C1012							Billets, bars, forgings, sections, tubes, plate, sheet, strip	0·10-0·15	—	0·30-0·60	
551									G3503 Class 2 No. 1SWRY21		Rod for core wire	0·10-0·15	0·03 *Max*	0·35-0·65	Cu 0·20 *Max*
552									G3523 Class 2 No. 1SWY21		Core wire	0·10-0·15	0·03 *Max*	0·35-0·65	Cu 0·20 *Max*
553									G3503 Class 2 No. 2SWRY 22		Rod for core wire	0·10-0·15	0·03 *Max*	0·35-0·65	Cu 0·30 *Max*
554									G3523 Class 2 No. 2SWY22		Core wire	0·10-0·15	0·03 *Max*	0·35-0·65	Cu 0·30 *Max*
555						17155	1.0345	H1			Plate	0·16 *Max*	0·35 *Max*	0·40 *Min*	
556	2830-St42SB 1										Billets	0·10-0·16	—	0·50-0·90	Only for sections below 20 mm, Cu 0·20-0·35 (optional)
557						17175	1.0305	St 35.8			Seamless tubes	0·17 *Max*	0·35 *Max*	0·40 *Min*	
558										1127 Grade 14 кп	Plate	0·17 *Max*	0·03 *Max*	0·50 *Max*	Open-hearth steel
559					A285 Fire-box quality Grade A						Plate	0·17 *Max*	—	0·80 *Max*	For thickness over 19mm upto 50 mm
560	2831-St32-0B										Billets	0·10-0·17	—	0·40-1·20	Cu 0·35 *Max* (optional)
561	2002 Grade 1										Plate	0·18 *Max*	0·10-0·35	—	For size up to 25 mm

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
562		980-CDS3 and CDS3A									Seamless tubes	0·18 *Max*	0·05-0·35	0·4-0·7	
563		1449 Pt 2A En2Ci2 (NHR21)									Plate	0·18 *Max*	—	0·60 *Max*	
564		1501-151 Grades 23A and 23B									Plate	0·18 *Max*	0·10 *Max*	0·40-1·20	For size up to 63 mm
565		1501-161 Grades 23A and 23B									Plate	0·18 *Max*	0·10-0·35	0·40-1·20	For size up to 63 mm
566					A214						Welded tubes	0·18 *Max*	—	0·27-0·63	
567					A414 Flange and firebox quality Grade A						Sheet	0·18 *Max*	—	0·80 *Max*	Cu 0·20 *Min* (optional)
568					A83						Seamless tubes	0·06-0·18	—	0·27-0·63	Cu 0·18-0·35 (optional)
569					A178 Grade A						Welded tubes	0·06-0·18	—	0·27-0·63	
570					A179						Seamless tubes	0·06-0·18	—	0·27-0·63	
571					A192						Seamless tubes	0·06-0·18	0·25 *Max*	0·27-0·63	
572					A226						Welded tubes	0·06-0·18	0·25 *Max*	0·27-0·63	
573									G3461 Class 2 STB33		Tubes	0·08-0·18	0·35 *Max*	0·25-0·60	Cu 0·20 *Max*
574									G3307 Class 6 SPH6		Rolled hoop	0·08-0·18	0·35 *Max*	0·30-0·60	Cu 0·20 *Max*
575									G3455 Class 1 STS35		Tubes	0·08-0·18	0·10-0·35	0·30-0·60	Cu 0·20 *Max*
576									G3456 Class 1 STPT35		Tubes	0·08-0·18	0·10-0·35	0·30-0·60	Cu 0·20 *Max*
577									G3461 Class 3 STB 35		Tubes	0·08-0·18	0·10-0·35	0·30-0·60	Cu 0·20 *Max*
578		1627									Seamless tubes	0·08-0·18	0·30 *Max*	0·30-0·80	
579	1570-C14										Billets, bars, forgings, sections, tubes, plate	0·10-0·18	—	0·40-0·70	
580	1875 Class 1										Billets, blooms, bars, slabs	0·10-0·18	0·10-0·30	0·40-0·70	
581	2004 Class 1										Forgings	0·10-0·18	0·10-0·30	0·40-0·70	
582		970 En32B and 32C									Billets, bars, forgings	0·10-0·18	0·05-0·35	0·60-1·00	
583		980 CDS4									Seamless tubes	0·10-0·18	0·05-0·35	0·6-1·0	
584		4S14									Billets, bars, forgings	0·10-0·18	0·10-0·35	0·5-1·1	For size over 13 mm, Ni 0·30 *Max*
585						1654	1.1132	Cq 15			Screw steel	0·12-0·18	0·15-0·35	0·25-0·50	
586						17210	1.0401	C 15			Billets, bars, forgings, sections, plate, sheet, strip, seamless tubes	0·12-0·18	0·15-0·35	0·25-0·50	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
587						17210	1.1141	CK 15			Billets, bars, forgings, sections, plate, sheet, strip, seamless tubes	0·12-0·18	0·15-0·35	0·25-0·50	
588		24 Part 4 Class A									Blooms, billets, bars, forgings	0·12-0·18	—	0·50-0·70	
589						17110	1.0209.6	MRSt 44			Rivet steel	0·12-0·18	0·15-0·30	0·50-0·70	
590									G3102 Class 22 S15CK		Steel for machine structure	0·12-0·18	0·15-0·35	0·30-0·60	
591			1015	C1015							Billets, bars, forgings, rods, seamless tubes	0·13-0·18	—	0·30-0·60	
592					A107 Grade 1015						Bars	0·13-0·18	—	0·30-0·60	
593					A108 Grade 1015						Bars	0·13-0·18	—	0·30-0·60	
594					A273 Grade C1015						Blooms, billets, slabs	0·13-0·18	—	0·30-0·60	
595			1016	C1016							Billets, bars, forgings, rods, seamless tubes	0·13-0·18	—	0·60-0·90	
596					A107 Grade 1016						Bars	0·13-0·18	—	0·60-0·90	
597					A108 Grade 1016						Bars	0·13-0·18	—	0·60-0·90	
598					A273 Grade C1016						Blooms, billets, slabs	0·13-0·18	—	0·60-0·90	
599					A284 Grade A						Plate	0·19 *Max*	0·10-0·30	0·90 *Max*	For thickness up to 25 mm
600			1015	C1015							Sections, plate, sheet, strip and welded tubes	0·12-0·19	—	0·30-0·60	
601										1050 Grade 15 кп	Structural steel	0·12-0·19	0·07 *Max*	0·25-0·50	Cr 0·25 *Max*, Ni 0·25 *Max*
602										1050 Grade 15	Structural steel	0·12-0·19	0·17-0·37	0·35-0·65	Cr 0·25 *Max*, Ni 0·25 *Max*
603			1016	C1016							Sections, plate, sheet, strip and welded tubes	0·12-0·19	—	0·60-0·90	
604										1050 Grade 15Г	Structural steel	0·12-0·19	0·17-0·37	0·70-1·00	Ni 0·25 *Max*, Cr 0·25 *Max*
605	961-St-55HTW										High tensile structural steel	0·20 *Max*	—	—	
606	961-St-55HTWC										High tensile structural steel	0·20 *Max*	—	—	
607	St42-1079										Sheet, strip	0·20 *Max*	—	—	
608	2002 Grade 2A										Plate	0·20 *Max*	0·10-0·35	—	
609		980CDS1 and CDS2									Seamless tubes	0·20 *Max*	—	—	
610		1717CDS101 and CDS102									Seamless tubes	0·20 *Max*	—	—	
611		1449 Part 2B En2									Sheet	0·20 *Max*	—	—	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
612		4T26									Tubes for welding	0·20 *Max*	—	—	
613		980ERW1, CEW1 and CEW2									Welded tubes	0·20 *Max*	—	0·6 *Max*	
614		1717CEW101 and CEW102									Welded tubes	0·20 *Max*	—	0·6 *Max*	
615									G3307 Class 3 SPH3		Tubes	0·20 *Max*	0·35 *Max*	0·25-0·60	
616									G3454 Class 1STPG35		Tubes	0·20 *Max*	0·35 *Max*	0·25-0·60	
617									G3461 Class 1STB30		Tubes	0·20 *Max*	0·35 *Max*	0·25-0·60	
618	1570-C15										Billets, bars, forgings, sections, tubes, plate, sheet, strip	0·20 *Max*	—	0·30-0·60	
619	1812 Type 1										Wire	0·20 *Max*	—	0·30-0·60	
620	2039 Grades CDS-C1, ERW-C1 and CEW-C1										Tubes	0·20 *Max*	—	0·30-0·60	
621		970 En 2									Billets, bars, forgings	0·20 *Max*	—	0·80 *Max*	
622					A201 Grade A						Plate	0·20 *Max*	0·15-0·30	0·80 *Max*	For size 25 mm and under
623					A285 Fire-box quality Grade B						Plate	0·20 *Max*	—	0·80 *Max*	i) For size 19 mm and under ii) Cu 0·20-0·35 (optional)
624									G3103 Class 1B SB35B		Plate	0·20 *Max*	—	0·80 *Max*	For size 19 mm and under
625		1730									Seamless tubes	0·20 *Max*	0·30 *Max*	0·30-0·80	
626									G3445 Class 2A STKM44 and Class 2B STKM45		Tubes	0·20 *Max*	0·35 *Max*	0·30-0·80	
627		1449 Pt 1A En2 (HR15) Pt 2A En2 (NHR15)									Plate	0·20 *Max*	—	0·90 *Max*	
628	2100 Grade 1										Billets, bars, sections	0·20 *Max*	0·10-0·35	0·60-0·90	
629		970 En3B									Bars	0·20 *Max*	0·35 *Max*	1·00 *Max*	For size 64 mm and under
630						17155	1.0425	H11			Plate	0·20 *Max*	0·35 *Max*	0·50 *Min*	
631		1501-151 Grades 23A and 23B									Plate	0·20 *Max*	0·10 *Max*	0·40-1·20	For size over 64 mm
632		1501-161 Grades 23A and 23B									Plate	0·20 *Max*	0·10-0·35	0·40-1·20	For size over 64 mm
633									G3106 Class 1B SM41B		Rolled steel	0·20 *Max*	0·35 *Max*	0·60-1·20	
634		968									Structural steel	0·20 *Max*	0·35 *Max*	1·50 *Max*	For size up to 16 mm

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
635					A201 Grade A						Plate	0·20 *Max*	0·15-0·30	0·85-1·20	i) For impact property requirements ii) For size up to 25 mm
636					A161						Seamless tubes	0·10-0·20	0·25 *Max*	0·30-0·80	
637									G3102 Class 2 S15C		Steel for machine structure	0·10-0·20	0·15-0·40	0·30-0·60	
638	1570-C15 Mn75										Billets, bars, sections, tubes, plate	0·10-0·20	—	0·60-0·90	
639										380 Grade БСт 4 кп	Structural steel	0·12-0·20	0·07 *Max*	0·35-0·55	Bessemer steel
640										380 Grade БСт 4	Structural steel	0·12-0·20	0·12-0·35	0·35-0·55	Bessemer steel
641										4034 Grade Ст 3 ТС	Structural steel for marine boilers	0·12-0·20	—	—	
642										6713 Grade М 16 с	Steel for bridges	0·12-0·20	0·12-0·25	0·40-0·70	
643										5520 Grade 15 K	Steel for boilers	0·12-0·20	0·15-0·30	0·65 *Max*	Open-hearth steel
644			1017	C1017							Billets, bars, forgings, rods, seamless tubes	0·15-0·20	—	0·30-0·60	
645		1449 Pt 3A En2C (HS17) and Pt 3B En2C (CS17)									Strip	0·15-0·20	—	0·40-0·60	
646			1018	C1018							Billets, bars, forgings, rods, seamless tubes	0·15-0·20	—	0·60-0·90	
647					A108 Grade 1018						Bars	0·15-0·20	—	0·60-0·90	
648			1019	C1019							Billets, bars, forgings, rods, seamless tubes	0·15-0·20	—	0·70-1·00	
649					A284 Grade A						Plate	0·21 *Max*	0·10-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
650					A284 Grade B						Plate	0·21 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
651					A131 Grade B						Structural steel	0·21 *Max*	—	0·80-1·10	
652			1017	C1017							Sections, plate, sheet, strip, welded tubes	0·14-0·21	—	0·30-0·60	
653			1018	C1018							Sections, plate, sheet, strip, welded tubes	0·14-0·21	—	0·60-0·90	
654			1019	C1019							Sections, plate, sheet, strip, welded tubes	0·14-0·21	—	0·70-1·00	
655	St 52-1079										Sheet, strip	0·22 *Max*	—	—	
656	1149-HTR										Rivet bars	0·22 *Max*	—	—	
657	2002 Grade 2B										Plate	0·22 *Max*	0·10-0·35	—	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
658	2062-St 42-W										Structural steel (fusion welding quality)	0·22 *Max*	0·10 *Min*	—	
659	2062-St 42-WC										Structural steel (fusion welding quality)	0·22 *Max*	0·10 *Min*	—	Cu 0·20-0·35
660					A285 Fire-box quality Grade B						Plate	0·22 *Max*	—	0·80 *Max*	Cu 0·20-0·35 (optional) For size over 19 mm up to 50 mm including
661									G3103 Class 1B SB35B		Plate	0·22 *Max*	—	0·80 *Max*	For size over 19 mm up to 50 mm including
662						17175	1.0405	St 45.8			Seamless tubes	0·22 *Max*	0·10-0·35	0·45 *Min*	
663		1501-151 Grade 26A									Plate	0·22 *Max*	0·10 *Max*	0·50-1·20	For size up to 64 mm
664		1501-161 Grade 26A									Plate	0·22 *Max*	0·10-0·35	0·50-1·20	For size up to 64 mm
665						17155	1.0435	H III			Plate	0·22 *Max*	0·35 *Max*	0·55 *Min*	
666		1501-151 Grade 26B									Plate	0·22 *Max*	0·10 *Max*	0·65-1·20	
667		1501-161 Grade 26B									Plate	0·22 *Max*	0·10-0·35	0·65-1·20	
668					A442 Grade 55						Plate	0·22 *Max*	0·15-0·30	0·80-1·10	For size 25 mm and under
669					A242						Sheet	0·22 *Max*	—	1·25 *Max*	
670		968									Structural steel	0·22 *Max*	0·35 *Max*	1·50 *Max*	For size over 16 mm
671		1449 Pt 2A En2C (NHR22)									Plate	0·11-0·22	—	0·40-0·70	
672										399 Grades Ст 3 Т and Ст 3 К	Loco boiler and firebox steel	0·12-0·22	—	—	
673										380 Grade МСт 3 кп	Structural steel	0·14-0·22	0·07 *Max*	0·30-0·60	
674										5521 Grade Ст 3 с	Steel for shipbuilding	0·14-0·22	0·12-0·35	0·35-0·60	Open-hearth steel
675										5521 Grade Ст 3 сп	Steel for shipbuilding	0·14-0·22	Traces	0·35-0·60	Open-hearth steel
676										380 Grade МСт 3	Structural steel	0·14-0·22	0·12-0·30	0·40-0·65	Open-hearth steel
677										6713 Grad Ст 3 мост	Steel for bridges	0·14-0·22	0·15-0·30	0·40-0·65	Open-hearth steel
678		24 Part 6 Grades 621 and 622									Bars, sections, plates	0·23 *Max*	—	—	
679					A131 Grade C						Structural steel	0·23 *Max*	0·15-0·30	0·60-0·90	
680					A414 Fire-box quality Grade B						Sheet	0·23 *Max*	—	0·80 *Max*	Cu 0·20 *Min* (optional)
681					A284 Grade A						Plate	0·23 *Max*	0·10-0·30	0·90 *Max*	For size over 50 mm up to 100 mm
682									G3106 Class 1A SM41A		Rolled steel	0·23 *Max*	—	2·5 × C *Min*	For size up to 50 mm
683	2830-St42SB2										Billets	0·17-0·23	—	0·50-0·90	For sections below 20 mm

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
684		970 En3C									Billets, bars, forgings	0·17-0·23	0·05-0·35	0·60-1·00	
685			1020	C1020							Billets, bars, forgings, rods, seamless tubes	0·18-0·23	—	0·30-0·60	
686					A107 Grade 1020						Bars	0·18-0·23	—	0·30-0·60	
687					A108 Grade 1020						Bars	0·18-0·23	—	0·30-0·60	
688					A273 GradeC1020						Blooms, billets, slabs	0·18-0·23	—	0·30-0·60	
689			1021	C1021							Billets, bars, forgings, rods, seamless tubes	0·18-0·23	—	0·60-0·90	
690			1022	C1022							Billets, bars, forgings, rods, seamless tubes	0·18-0·23	—	0·70-1·00	
691					A107 Grade 1022						Bars	0·18-0·23	—	0·70-1·00	
692					A108 Grade 1022						Bars	0·18-0·23	—	0·70-1·00	
693					A273 GradeC1022						Blooms, billets, slabs	0·18-0·23	—	0·70-1·00	
694					A201 Grade A						Plate	0·24 *Max*	0·15-0·30	0·80 *Max*	For size over 25 mm up to 50 mm
695					A201 Grade B						Plate	0·24 *Max*	0·15-0·30	0·80 *Max*	For size 25 mm and under
696									G3103 Class 2B SB42B		Plate	0·24 *Max*	0·15-0·30	0·80 *Max*	For size 25 mm and under
697									G3103 Class 2C SB42C		Plate	0·24 *Max*	0·15-0·30	0·80 *Max*	For size 25 mm and under
698					A284 Grade B						Plate	0·24 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm including
699					A284 Grade C						Plate	0·24 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
700					A442 Grade 55						Plate	0·24 *Max*	0·15-0·30	0·60-0·90	For size over 25 mm up to 38 mm including
701					A442 Grade 60						Plate	0·24 *Max*	0·15-0·30	0·80-1·10	For size 25 mm and under
702		1501-151 Grade 26A									Plate	0·24 *Max*	0·10 *Max*	0·55-1·20	For size over 64 mm
703		1501-161 Grade 26A									Plate	0·24 *Max*	0·10-0·35	0·55-1·20	For size over 64 mm
704		1501-151 Grade 26B									Plate	0·24 *Max*	0·10 *Max*	0·65-1·20	For size over 64 mm
705		1501-161 Grade 26B									Plate	0·24 *Max*	0·10-0·35	0·65-1·20	For size over 64 mm
706					A201 Grade A						Plate	0·24 *Max*	0·15-0·30	0·85-1·20	i) For impact requirements ii) For size over 25 mm up to 50 mm
707			1020	C1020							Sections, plate, sheet, strip and welded tubes	0·17-0·24	—	0·30-0·60	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
708			1021	C1021							Section, plate, sheet, strip and welded tubes	0·17-0·24	—	0·60-0·90	
709			1022	C1022							Section, plate, sheet, strip and welded tubes	0·17-0·24	—	0·70-1·00	
710					A201 Grade B						Plate	0·24 *Max*	0·15-0·30	0·85-1·20	i) For impact requirements ii) For size 25 mm and under
711	226 St 42-S										Structural steel	0·25 *Max*	—	—	—
712	226 St 42-SC										Structural steel	0·25 *Max*	—	—	Cu 0·20-0·35
713		15 Grade 1									Structural steel	0·25 *Max*	—	—	
714		15 Grade 2									Structural steel	0·25 *Max*	—	—	Cu 0·20-0·35
715		15 Grade 3									Structural steel	0·25 *Max*	—	—	Cu 0·35-0·50
716		24 Part 6 Grade 631									Plate (loco tenders and bogies)	0·25 *Max*	—	—	
717		24 Part 6 Grade 653									Rivet bars	0·25 *Max*	—	—	
718		548									Rivet bars	0·25 *Max*	—	—	
719					A36						Plate	0·25 *Max*	—	—	i) Cu 0·20 *Min* (optional) ii) For size 19 mm and under
720					A245 Grade A, B and C						Sheet	0·25 *Max*	—	—	Cu 0·20 *Min*
721					A303 Grade A, B and C						Strip	0·25 *Max*	—	—	Cu 0·20 *Min*
722									G3444 Class 2 STK 41		Tubes	0·25 *Max*	—	—	—
723					A109 Tempers 1,2 and 3						Strip	0·25 *Max*	—	0·60 *Max*	Cu 0·20 *Min*
724									G3307 Class 4 SPH4		Rolled strip	0·25 *Max*	0·35 *Max*	0·30-0·60	
725									G3106 Class 1 ASM41A		Rolled steel	0·25 *Max*	—	2·5×C *Min*	For size over 50 mm up to 100 mm
726					A285 Fire-box quality Grade C						Plate	0·25 *Max*	0·20-0·35	0·80 *Max*	For size 19 mm and under
727		1449 Part 1A En2C/A (HR16A), En2C/B (HR16B) and En2C (HR16C)									Plate	0·25 *Max*	—	0·80 *Max*	
728		1503-161 Grades A and B									Forgings	0·25 *Max*	0·10-0·35	0·90 *Max*	
729					A284 Grade A						Plate	0·25 *Max*	0·10-0·30	0·90 *Max*	For size over 100 and up to 200 mm including
730									G3454 Class 2STPG38		Tubes	0·25 *Max*	0·35 *Max*	0·30-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
731									G3455 Class 2STS38		Tubes	0·25 *Max*	0·10-0·35	0·30-0·90	Cu 0·20 *Max*
732									G3456 Class 2STPT38		Tubes	0·25 *Max*	0·10-0·35	0·30-0·90	Cu 0·20 *Max*
733					A373						Structural	0·25 *Max*	—	0·50-0·90	For size over 13 mm up to 25 mm
734					A106 Grade A						Seamless tubes	0·25 *Max*	0·10 *Min*	0·27-0·93	
735		970 En3									Billets, bars, forgings	0·25 *Max*	0·05-0·35	1·00 *Max*	
736		970 En3B									Bars	0·25 *Max*	0·35 *Max*	1·00 *Max*	
737					A334 Grade 0						Seamless and welded tubes	0·25 *Max*	—	0·64-1·06	
738					A36						Plates	0·25 *Max*	—	0·80-1·20	i) Cu 0·20 *Min* (optional) ii) For size over 19 mm up to 38 mm
739									G3460 Class 1 STPL 39		Seamless and welded tubes	0·25 *Max*	0·35 *Max*	1·35 *Max*	Cu 0·20 *Max*
740									G3464 Class 1 STBL 39		Seamless and welded tubes	0·25 *Max*	0·35 *Max*	1·35 *Max*	Cu 0·20 *Max*
741		1449 Pt 2A En2D (NHR23)									Plate	0·14-0·25	—	0·40-0·70	
742									G3505 Class 4SWRM4		Wire rod	0·15-0·25	0·35 *Max*	0·60 *Max*	
743		1449 Pt 2B En2C, En2C/A and En2C/B									Sheet	0·15-0·25	—	0·30-0·60	
744					A236 Grade B						Forgings	0·15-0·25	—	0·30-0·60	
745									G3502 Class 3 S20C		Structural steel	0·15-0·25	0·15-0·40	0·30-0·60	
746		970 En 2C									Billets, bars, forgings	0·15-0·25	—	0·40-0·60	
747		970 En 3A									Billets, bars, forgings	0·15-0·25	0·05-0·35	0·40-0·90	
748		1506-111									Bars	0·15-0·25	0·05-0·35	0·40-0·90	
749		400									Gas cylinders	0·15-0·25	0·30 *Max*	0·45-0·75	
750		401									Gas cylinders	0·15-0·25	0·30 *Max*	0·45-0·75	
751	1570-C20										Billets, bars, forgings, sections, tubes, plate, sheet, strip	0·15-0·25	—	0·60-0·90	
752	1875 Class 2										Blooms, billets, bars, slabs	0·15-0·25	0·10-0·30	0·60-0·90	
753	2004 Class 2										Forgings	0·15-0·25	0·10-0·30	0·60-0·90	
754	2073-C20										Bars	0·15-0·25	0·05-0·35	0·60-0·90	
755		7S1 (Group A)									Bars	0·15-0·25	0·10-0·35	0·6-0·9	Pb 0·15-0·35 (optional)
756		970 En 3D									Bars	0·15-0·25	0·05-0·35	0·60-1·00	
757		S510									Sheet, strip	0·17-0·25	0·10-0·35	0·5-0·8	Ni 0·30 *Max* (residual)
758						1654	1.1152	Cq 22			Screw steel	0·18-0·25	0·15-0·35	0·30-0·60	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
759						17200	1.0611	C22			Sections, forgings, sheet, strip	0·18-0·25	0·15-0·35	0·30-0·60	
760						17200	1.1151	CK22			Sections, forgings, sheet, strip	0·18-0·25	0·15-0·35	0·30-0·80	
761		24 Part 4 Classes B and F									Blooms, billets, bars, slabs	0·18-0·25	—	0·50-0·70	
762	2830-St 42SB3										Billets	0·19-0·25	—	0·50-0·90	
763			1023	C1023							Billets, bars, forgings, rods, seamless tubes	0·20-0·25	—	0·30-0·60	
764		1449 Pt 3A En2C (HS22) Pt 3B En2C (CS22)									Strip	0·20-0·25	—	0·40-0·60	
765		1449 Pt 3A En2D (HS23)									Strip	0·20-0·25	—	0·40-0·80	
766		24 Part 6 Grade 641									Slabs (loco and tender bar frames)	0·26 *Max*	—	—	
767					A36						Structural steel shapes	0·26 *Max*	—	—	Cu 0·20 *Min* (optional)
768					A36						Bars	0·26 *Max*	—	—	For size 19 mm and under
769					A373						Plate	0·26 *Max*	—	—	For size 13 mm and under
770										4034 Grade Cr 4 T	Steel for marine boilers	0·26 *Max*	—	0·60 *Max*	Open-hearth steel
771					A414 Flange quality Grade B						Sheet	0·26 *Max*	—	0·80 *Max*	Cu 0·20 *Min* (optional)
772		T54									Tubes	0·26 *Max*	0·05-0·30	0·4-0·8	Ni 0·30 *Max* (residual)
773					A373						Plate	0·26 *Max*	0·15-0·30	0·50-0·90	For size above 25 mm up to 50 mm
774						17155	1.0445	HIV			Plate	0·26 *Max*	0·35 *Max*	0·60 *Min*	
775					A36						Plate	0·26 *Max*	0·15-0·30	0·80-1·20	i) For size over 38 mm up to 63 mm ii) Cu 0·20 *Min* (optional)
776	961-St 58-HT										High tensile structural steel	0·27 *Max*	—	—	
777	961-St 58-HTC										High tensile structural steel	0·27	—	—	Cu 0·20-0·35
778			1023	C1023							Sections, plate, sheet, strip, welded tubes	0·19-0·26	—	0·30-0·60	
779		1449 Pt 1A En2D/A (HR17A), En2D/B (HR17B) and En2D (HR17C)									Plate	0·27 *Max*	—	0·80 *Max*	
780					A201 Grade A						Plate	0·27 *Max*	0·15-0·30	0·80 *Max*	For size over 50 mm up to 100 mm including
781					A201 Grade B						Plate	0·27 *Max*	0·15-0·30	0·80 *Max*	For size over 25 mm up to 50 mm including

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
782									G3103 Class 2B SB42B		Plate	0·27 *Max*	0·15-0·30	0·80 *Max*	For size over 25 mm up to 50 mm
783									G3103 Class 2C SB42C		Plate	0·27 *Max*	0·15-0·30	0·80 *Max*	For size over 25 mm up to 50 mm
784					A284 Grade A						Plate	0·27 *Max*	0·10-0·30	0·90 *Max*	For size over 200 mm up to 300 mm
785					A284 Grade B						Plate	0·27 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm up to 100 mm
786					284 Grade C						Plate	0·27 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
787					284 Grade D						Plate	0·27 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
788					A373						Plate	0·27 *Max*	0·15-0·30	0·50-0·90	For size over 50 mm up to 100 mm
789					A36						Bars	0·27 *Max*	—	0·60-0·90	i) For size over 19 mm up to 38 mm ii) Cu 0·20 *Min* (optional)
790					A442 Grade 60						Plate	0·27 *Max*	0·15-0·30	0·60-0·90	For size over 25 mm up to 38 mm
791					A210						Seamless tubes	0·27 *Max*	0·10 *Min*	0·93 *Max*	
792					A36						Plate	0·27 *Max*	0·15-0·30	0·85-1·20	i) For size over 63 mm up to 100 mm ii) Cu 0·20 *Min* (optional)
793					A201 Grade A						Plate	0·27 *Max*	0·15-0·30	0·85-1·20	i) For impact property requirements ii) For size over 50 mm up to 100 mm
794					A201 Grade B						Plate	0·27 *Max*	0·15-0·30	0·85-1·20	i) For impact property requirements ii) For size over 25 mm up to 100 mm
795										5521 Grade Ст 4 *л*	Steel for shipbuilding	0·18-0·27	0·12-0·35	0·70 *Max*	Open-hearth steel
796										380 Grade МСт 4 кп	Structural steel	0·18-0·27	0·07 *Max*	0·40-0·70	Open-hearth steel
797										380 Grade МСт 4	Structural steel	0·18-0·27	0·12-0·30	0·40-0·70	Open-hearth steel
798										5521 Grade Ст 4 с	Steel for shipbuilding	0·18-0·27	0·12-0·35	0·40-0·70	Open-hearth steel
799										5521 Grade Ст 4 скп	Steel for shipbuilding	0·18-0·27	Traces	0·40-0·70	Open-hearth steel
800										5521 Grade Ст 4 Ф	Steel for shipbuilding	0·18-0·27	0·12-0·35	0·40-0·70	Open-hearth steel
801										5521 Grade Ст 4 Фкп	Steel for shipbuilding	0·18-0·27	Traces	0·40-0·70	Open-hearth steel
802					A373						Shapes	0·28 *Max*	—	—	Other than wide flange beams

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
803									G3429 Class 1 STH38		Tubes	0·28 *Max*	—	0·65 *Max*	
804					A414 Fire-box quality Grade C						Sheet	0·28 *Max*	—	0·80 *Max*	Cu 0·20 *Min* (optional)
805					A31 Grade B						Rivet steel	0·28 *Max*	—	0·30-0·80	
806					A212 Grade A						Plate	0·28 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
807									G3103 Class 3 BSB46B		Plate	0·28 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
808									G3103 Class 3 CSB46C		Plate	0·28 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
809					A373						Shapes, bars	0·28 *Max*	—	0·50-0·90	
810					A36						Bars, bar shapes	0·28 *Max*	—	0·60-0·90	i) Cu 0·20 *Min* (optional) ii) For size over 38 mm up to 100 mm
811					A212 Grade A						Plate	0·28 *Max*	0·15-0·30	0·85-1·20	i) For impact property requirements ii) For size 25 mm and under
812					A299						Plate	0·28 *Max*	0·15-0·30	0·90-1·40	For size 25 mm
813			1025	C1025							Sections, plate, sheet, strip, welded tubes	0·21-0·28	—	0·30-0·60	
814										5520 Grade 25 K	Steel for boilers	0·21-0·28	0·15-0·30	0·80 *Max*	Open-hearth steel
815			1026	C1026							Sections, plate, sheet, strip, welded tubes	0·21-0·28	—	0·60-0·90	
816			1025	C1025							Billets, bars, forgings, rods, seamless tubes	0·22-0·28	—	0·30-0·60	
817					A107 Grade 1025						Bars	0·22-0·28	—	0·30-0·60	
818					A108 Grade 1025						Bars	0·22-0·28	—	0·30-0·60	
819					A273 Grade C1025						Blooms, billets, slabs	0·22-0·28	—	0·30-0·60	
820			1026	C1026							Billets, bars, forgings, rods, seamless tubes	0·22-0·28	—	0·60-0·90	
821					A273 Grade C1026						Blooms, billets, slabs	0·22-0·28	—	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
822					A284 Grade C						Plate	0·29 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm up to 100 mm
823					A284 Grade D						Plate	0·29 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
824	432										Bars	0·30 *Max*	—	—	
825	St 50-1079										Sheet, strip	0·30 *Max*	—	—	
826		548									Structural steel	0·30 *Max*	—	—	
827		785									Bars, wire	0·30 *Max*	—	—	
828					A454 Class 3						Conveyor chain	0·30 *Max*	—	—	
829										4034 Grade Cr 5 K	Steel for marine boilers	0·30 *Max*	—	—	Open-hearth steel
830		980 ERW2									Welded tubes	0·30 *Max*	—	0·6 *Max*	
831	2039 Grade ERW-C2										Welded tubes	0·30 *Max*	—	0·30-0·60	
832					A201 Grade B						Plate	0·30 *Max*	0·15-0·30	0·80 *Max*	For size over 50 mm up to 100 mm including
833					A285 Fire-box quality Grade C						Plate	0·30 *Max*	—	0·80 *Max*	i) Cu 0·20-0·35 (optional) ii) For size over 19 mm up to 50 mm
834									G3103 Class 2 BSB42B		Plate	0·30 *Max*	0·15-0·30	0·80 *Max*	For size over 50 mm up to 100 mm including
835		970 En4									Billets, bars, forgings	0·30 *Max*	0·05-0·35	1·00 *Max*	
836		970 En4A									Bars	0·30 *Max*	0·05-0·35	1·00 *Max*	
837		1503-161 Grade C									Forgings	0·30 *Max*	0·10-0·35	1·00 *Max*	
838					A372 Class I						Forgings	0·30 *Max*	0·15-0·30	1·00 *Max*	
839					A139 Grade B						Welded tubes	0·30 *Max*	—	0·30-1·00	
840									G3444 Class 3 STK51		Structural tubes	0·30 *Max*	0·35 *Max*	0·30-1·00	
841									G3445 Class 3A STKM44 and Class 3B STKM51		Tubes	0·30 *Max*	0·35 *Max*	0·30-1·00	
842									G3454 Class 3 STPG42		Tubes	0·30 *Max*	0·35 *Max*	0·30-1·00	
843									G3455 Class 3 STS42		Tubes	0·30 *Max*	0·10-0·35	0·30-1·00	Cu 0·20 *Max*
844									G3456 Class 3 STPT42		Tubes	0·30 *Max*	0·10-0·35	0·30-1·00	Cu 0·20 *Max*

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
845					A350 Grade LF1						Flanges, forged fittings, valves and other parts	0·30 *Max*	—	1·06 *Max*	—
846					A106 Grade B						Seamless tubes	0·30 *Max*	0·10 *Min*	0·29-1·06	
847					A333 Grade O						Seamless and welded tubes	0·30 *Max*	—	0·40-1·06	
848					A139 Grade B						Welded tubes	0·30 *Max*	—	0·30-1·20	
849					A201 Grade B						Plate	0·30 *Max*	0·15-0·30	0·85-1·20	i) For size over 50 mm up to 100 mm including ii) For impact property requirements
850					A350 Grade LF2						Flanges, forged fittings, valves and other parts	0·30 *Max*	0·15-0·30	1·35 *Max*	
851					A195						Rivet steel	0·30 *Max*	0·25 *Max*	1·65 *Max*	Cu 0·20 *Min* (optional)
852		970 En2D									Billets, bars, forgings	0·15-0·30	—	0·40-0·70	
853		1449 Pt 2B En2D, En2D/A, En2D/B									Sheet	0·15-0·30	—	0·40-0·70	
854										380 Grade БСт 5	Structural steel	0·17-0·30	0·12-0·35	0·50-0·80	
855	2831 St44-0B										Billets	0·18-0·30	—	0·40-1·20	
856		1717 CEW103 and CEW104									Welded tubes	0·20-0·30	—	0·6 *Max*	
857	1570-C25										Billets, bars, forgings, sections, tubes, plate	0·20-0·30	—	0·30-0·60	
858									G3102 Class 4 S25C		Structural steel	0·20-0·30	0·15-0·40	0·30-0·60	
859	2039 CEW-C2										Welded tubes	0·20-0·30	—	0·30-0·60	
860		47 Class A									Fish plate	0·20-0·30	0·15 *Max*	0·80 *Max*	
861		1717 CDS103 and CDS104									Seamless tubes	0·20-0·30	0·35 *Max*	0·3-0·9	
862	1570-C25Mn 75										Billets, bars, forgings, sections, tubes, plate	0·20-0·30	—	0·60-0·90	
863	2039 CDS-C2										Seamless tubes	0·20-0·30	—	0·60-0·90	
864										1050 Grade 25	Structural steel	0·22-0·30	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
865										1050 Grade 25 Г	Structural steel	0·22-0·30	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
866		2772 Part 2									Billets, bars, forgings	0·25-0·30	0·10-0·35	0·60-0·90	
867		970 En5A									Billets, bars, forgings	0·25-0·30	0·05-0·35	0·70-0·90	
868					A201 Grade A						Plate	0·31 *Max*	0·15-0·30	0·80 *Max*	For size over 100 mm up to 200 mm including

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
869					A414 Flange quality Grade C						Sheet	0·31 *Max*	—	0·80 *Max*	Cu 0·20 *Min* (optional)
870					A212 Grade A						Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
871					A212 Grade B						Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size 25 mm and under
872					A284 Grade B						Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size over 100 mm up to 200 mm
873					A284 Grade D						Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm and up to 100 mm
874									G3103 Class 3B SB46B		Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
875									G3103 Class 3C SB46C		Plate	0·31 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
876					A201 Grade A						Plate	0·31 *Max*	0·15-0·30	0·85-1·20	i) For size over 100 mm up to 200 mm ii) For impact property requirements
877					A212 Grade A						Plate	0·31 *Max*	0·15-0·30	0·85-1·20	i) For size over 25 mm up to 50 mm ii) For impact property requirements
878					A212 Grade B						Plate	0·31 *Max*	0·15-0·30	0·85-1·20	i) For size over 25 mm up to 50 mm ii) For impact property requirements
879					A299						Plate	0·31 *Max*	0·15-0·30	0·90-1·40	i) For size over 25 mm up to 50 mm
880									G3461 Class 4 STB42		Tubes	0·32 *Max*	0·10-0·35	0·30-0·80	Cu 0·20 *Max*
881					A381						Welded tubes	0·32 *Max*	—	1·32 *Max*	
882										5521 Grade Ст 5 спов	Structural steel	0·28-0·32	0·17-0·35	0·8 *Max*	
883					A212 Grade A						Plate	0·33 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm up to 200 mm
884					A212 Grade B						Plate	0·33 *Max*	0·15-0·30	0·90 *Max*	For size over 25 mm up to 50 mm
885									G3103 Class 3B SB46B		Plate	0·33 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm up to 100 mm including
886									G3455 Class 4 STS49		Tubes	0·33 *Max*	0·10-0·35	0·30-1·00	Cu 0·20 *Max*
887									G3456 Class 4 STPT49		Tubes	0·33 *Max*	0·10-0·35	0·30-1·00	Cu 0·20 *Max*
888					A413						Chains	0·33 *Max*	—	1·06 *Max*	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	S, Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
889					A454 Classes 1 and 2						Conveyor chains	0·33 *Max*	—	1·06 *Max*	
890					A212 Grade A						Plate	0·33 *Max*	0·15-0·30	0·85-1·20	i) For size over 50 mm up to 200 mm ii) For impact property requirements
891					A212 Grade B						Plate	0·33 *Max*	0·15-0·30	0·85-1·20	i) For size over 25 mm up to 50 mm ii) For impact property requirements
892					A455						Plate	0·33 *Max*	0·10 *Max*	0·85-1·20	
893					A94						Structural shapes	0·33 *Max*	—	1·10-1·60	Cu 0·20 *Min* (optional)
894		970 En5B									Billets, bars, forgings	0·28-0·33	0·05-0·35	0·70-0·90	
895					A284 Grade B						Plate	0·34 *Max*	0·15-0·30	0·90 *Max*	For size over 200 mm up to 300 mm
896			1030	C1030							Billets, bars, forgings, rods, seamless tubes	0·28-0·34	—	0·60-0·90	
897					A107 Grade 1030						Bars	0·28-0·34	—	0·60-0·90	
898					A108 Grade 1030						Bars	0·28-0·34	—	0·60-0·90	
899					A273 Grade C1030						Blooms, billets, slabs	0·28-0·34	—	0·60-0·90	
900									G3307 Class 5 SPH5		Rolled hoop	0·35 *Max*	0·35 *Max*	0·30-0·60	
901					A285 Flange quality Grades A, B and C						Plate	0·35 *Max*	—	0·80 *Max*	Cu 0·20-0·35 (optional)
902					A178 Grade C						Welded tubes	0·35 *Max*	—	0·80 *Max*	
903					A201 Grade A						Plate	0·35 *Max*	0·15-0·30	0·80 *Max*	For size over 200 mm up to 300 mm including
904					A201 Grade B						Plate	0·35 *Max*	0·15-0·30	0·80 *Max*	For size over 100 mm up to 200 mm including
905					A105 Grades I and II						Flanges, forged fittings, valves and other parts for high temperature service	0·35 *Max*	*0·35 *Max*	0·90 *Max*	*In case of Grade II and for heavier sections of Grade I
906					A181 Grades I and II						Flanges, forged fittings, valves and other parts	0·35 *Max*	*0·35 *Max*	0·90 *Max*	*In case of Grade II and for heavier sections of Grade I
907					A284 Grade D						Plate	0·35 *Max*	0·15-0·30	0·90 *Max*	For size over 100 mm up to 200 mm

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
908					A212 Grade B						Plate	0·35 *Max*	0·15-0·30	0·90 *Max*	For size over 50 mm up to 200 mm
909					A266 Classes 1 and 2						Forgings	0·35 *Max*	0·15-0·30	0·40-0·90	
910					A106 Grade C						Tubes	0·35 *Max*	0·10 *Min*	0·29-1·06	
911					A201 Grade A						Plate	0·35 *Max*	0·15-0·30	0·85-1·20	i) For size over 200 mm up to 300 mm ii) For impact property requirements
912					A201 Grade B						Plate	0·35 *Max*	0·15-0·30	0·85-1·20	i) For size over 100 mm up to 200 mm ii) For impact property requirements
913					A212 Grade B						Plate	0·35 *Max*	0·15-0·30	0·85-1·20	i) For size over 50 mm up to 200 mm ii) For impact property requirements
914									G3506 Class 1 SWRH1		Wire rod	0·25-0·35	0·15-0·35	0·60 *Max*	
915									G3102 Class 5 S30C		Structural steel	0·25-0·35	0·15-0·40	0·40-0·85	
916					A290 Class A						Forgings	0·25-0·35	0·15 *Min*	0·55-0·90	
917	1570-C30										Billets, bars, forgings, sections, plate	0·25-0·35	—	0·60-0·90	
918	1875 Class 3										Bars, billets, blooms, slabs	0·25-0·35	0·10-0·30	0·60-0·90	
919	2004 Class 3										Forgings	0·25-0·35	0·10-0·30	0·60-0·90	
920		7S1 (Group B)									Bars	0·25-0·35	0·10-0·35	0·6-0·9	Pb 0·15-0·35 (optional)
921		1449 Pt 2A En5 (NHR24)									Plate	0·25-0·35	0·35 *Max*	1·0 *Max*	
922									G3445 Class 4 STKM48		Tubes	0·25-0·35	0·35 *Max*	0·30-1·00	
923		970 En5 and En5K									Billets, bars, forgings	0·25-0·35	0·05-0·35	0·60-1·00	
924		970 En5D									Bars	0·25-0·35	0·05-0·35	0·60-1·00	
925		1449 Pt 2B En5 Pt 3A En5 (HS30) Pt 3A En5 (CS30)									Sheet Strip Strip	0·25-0·35	0·05-0·35	0·60-1·00	
926										1050 Grade 30	Structural steel	0·27-0·35	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
927			1030	C1030							Sections, plate, sheet, strip, welded tubes	0·27-0·35	—	0·60-0·90	
928										1050 Grade 30 Γ	Structural steel	0·27-0·35	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
929										5521 Grade Cr 5 c	Steel for shipbuilding	0·28-0·35	0·17-0·35	0·8 *Max*	
930		24 Pt 4 Class C									Blooms, billets, slabs, bars	0·30-0·35	0·10 *Min*	0·60-0·80	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
931		970 En5C									Billets, bars, forgings	0·30-0·35	0·05-0·35	0·70-0·90	
932					A284 Grade C						Plate	0·36 *Max*	0·15-0·30	0·90 *Max*	For size over 200 mm up to 300 mm
933			1033	C1033							Billets, bars, forgings, rods, seamless tubes	0·30-0·36	—	0·70-1·00	
934										380 Grade МСт 5	Structural steel	0·28-0·37	0·15-0·35	0·50-0·80	
935			1033	C1033							Sections, plate, sheet, strip, welded tubes	0·29-0·37	—	0·70-1·00	
936			1035	C1035							Billets, bars, forgings, rods, seamless tubes	0·32-0·38	—	0·60-0·90	
937					A107 Grade 1035						Bars	0·32-0·38	—	0·60-0·90	
938					A108 Grade 1035						Bars	0·32-0·38	—	0·60-0·90	
939					A273 Grade C1035						Blooms, billets, slabs	0·32-0·38	—	0·60-0·90	
940			1037	C1037							Billets, bars, forgings, rods, seamless tubes	0·32-0·38	—	0·70-1·00	
941		970 En8A									Billets, bars, forgings	0·33-0·38	0·05-0·35	0·70-0·90	
942			1035	C1035							Sections, plate, sheet, strip, welded tubes	0·31-0·39	—	0·60-0·90	
943			1037	C1037							Sections, plate, sheet, strip, welded tubes	0·31-0·39	—	0·70-1·00	
944		980 ERW3									Welded tubes	0·40 *Max*	—	0·60 *Max*	
945	2039 ERW-C3										Welded tubes	0·40 *Max*	—	0·30-0·60	
946		970 En6 and En6A									Bars	0·40 *Max*	0·05-0·35	0·50-0·90	
947		970 En6K									Bars	0·40 *Max*	0·05-0·35	0·50-0·90	
948					A372 Class II						Forgings	0·40 *Max*	0·15-0·30	1·29 *Max*	
949		980 CDS5 and CDS6									Seamless tubes	0·20-0·40	0·35 *Max*	0·3-0·9	
950										380 Grade БСт 6	Structural steel	0·26-0·40	0·12-0·35	0·60-0·90	
951	1570-C35										Billets, bars, forgings, sections, tubes, plate	0·30-0·40	—	0·30-0·60	
952		1717 CDS105 and CDS106									Seamless tubes	0·30-0·40	0·35 *Max*	0·3-0·9	
953									G3102 Class 6S35C		Structural steel	0·30-0·40	0·15-0·40	0·40-0·85	
954					A290 Class B						Forgings	0·30-0·40	0·15 *Min*	0·55-0·90	
955	1570-C35Mn 75										Billets, bars, forgings, sections, tubes, plate	0·30-0·40	—	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
956	2039 CDS-C3										Seamless tubes	0·30-0·40	0·05-0·35	0·60-0·90	
957		7S1 (Group C)									Bars	0·30-0·40	0·10-0·35	0·6-0·9	Pb 0·15-0·35 (optional)
958						1654	1.1172	Cq35			Steel for bolts	0·32-0·40	0·15-0·35	0·40-0·70	
959						17200	1.0651	C35			Sections, forgings, sheet, strip	0·32-0·40	0·15-0·35	0·40-0·70	
960						17200	1.1181	CK35			Sections, forgings, sheet, strip	0·32-0·40	0·15-0·35	0·40-0·70	
961							1.1189	Cf			Heat treatable steel	0·32-0·40	0·15-0·35	0·40-0·70	
962										1050 Grade 35	Structural steel	0·32-0·40	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
963										1050 Grade 35 F	Structural steel	0·32-0·40	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
964		970 En8B									Billets, bars, forgings	0·35-0·40	0·05-0·35	0·70-0·90	
965		970 En8									Billets, bars, forgings	0·35-0·40	0·05-0·35	0·60-1·00	
966		970 En8E									Billets, bars, forgings	0·35-0·40	0·05-0·35	0·90-1·10	
967		47 Class B									Fish plate	0·30-0·42	0·15 *Max*	0·80 *Max*	
968			1038	C1038							Billets, bars, forgings, rods, seamless tubes	0·35-0·42	—	0·60-0·90	
969			1038	C1038							Sections, plate, sheet, strip, welded tubes	0·34-0·43	—	0·60-0·90	
970		970 En8C									Billets, bars, forgings	0·38-0·43	0·05-0·35	0·70-0·90	
971						17200	1.5038	40Mn4			Sections, forgings, sheet, strip	0·36-0·44	0·25-0·50	0·8-1·1	
972			1040	C1040							Billets, bars, forgings, rods, seamless tubes	0·37-0·44	—	0·60-0·90	
973					A107 Grade 1040						Bars	0·37-0·44	—	0·60-0·90	
974					A108 Grade 1040						Bars	0·37-0·44	—	0·60-0·90	
975					A273 Grade C1040						Blooms, billets, slabs	0·37-0·44	—	0·60-0·90	
976			1039	C1039							Billets, bars, forgings, rods, seamless tubes	0·37-0·44	—	0·70-1·00	
977									G3429 Class 2 STH55		Tubes	0·45 *Max*	—	0·80 *Max*	
978					A292 Class 1						Forgings	0·45 *Max*	0·15-0·35	0·90 *Max*	V 0·03-0·12 (optional)
979					A293 Class 1						Forgings	0·45 *Max*	0·15-0·35	0·90 *Max*	V 0·03-0·12 (optional)
980					A470 Class A						Forgings	0·45 *Max*	0·35 *Max*	0·90 *Max*	V 0·03 *Min* (optional)
981		3111 Type 1									Wire for bolts	0·30-0·45	0·05-0·35	0·70-1·00	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
982		640 Class 1									Electrode wire	0·3-0·45	0·05-0·15	0·60-1·20	
983									G3506 Class 2 SWRH2		Wire rod	0·35-0·45	0·15-0·35	0·60 *Max*	
984									G3102 Class 7 S40C		Structural steel	0·35-0·45	0·15-0·40	0·40-0·85	
985	1570-C40										Billets, bars, forgings, sections, plate	0·35-0·45	—	0·60-0·90	
986	2073-C40										Bars	0·35-0·45	—	0·60-0·90	
987		2S113									Bars	0·35-0·45	0·10-0·35	0·6-0·9	For size 25 mm and under
988									G3445 Class 5 STKM55		Tubes	0·35-0·45	0·40 *Max*	0·40-1·00	
989		970 En8K									Billets, bars, forgings	0·35-0·45	0·05-0·35	0·60-1·00	
990		1449 Pt 3A En8 (HS40) Pt 3B En8 (CS40)									Strip	0·35-0·45	0·05-0·35	0·60-1·00	
991		2453									Wire for spokes	0·35-0·45	0·05-0·35	0·60-1·00	
992		2S116									Bars	0·35-0·45	0·10-0·35	0·8-1·0	
993					A49						Joint bars	0·35-0·60	—	1·00 *Max*	
994					A241						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
995			1040	C1040							Sections, plate, sheet, strip, welded tubes	0·36-0·45	—	0·60-0·90	
996			1039	C1039							Sections, plate, sheet, strip, welded tubes	0·36-0·45	—	0·70-1·00	
997										1050 Grade 40	Structural steel	0·37-0·45	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
998										1050 Grade 40 Γ	Structural steel	0·37-0·45	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
999		24 Part 4 Class D									Blooms, billets, slabs, bars	0·40-0·45	0·10 *Min*	0·60-0·80	
1000		970 En8D									Billets, bars, forgings	0·40-0·45	0·05-0·35	0·70-0·90	
1001			1042	C1042							Billets, bars, forgings, rods, seamless tubes	0·40-0·47	—	0·60-0·90	
1002					A273 Grade C1042						Blooms, billets, slabs	0·40-0·47	—	0·60-0·90	
1003			1043	C1043							Billets, bars, forgings, rods, seamless tubes	0·40-0·47	—	0·70-1·00	
1004			1042	C1042							Sections, plate, sheet, strip, welded tubes	0·39-0·48	—	0·60-0·90	
1005			1043	C1043							Sections, plate, sheet, strip, welded tubes	0·39-0·48	—	0·70-1·00	
1006		399									Gas cylinders	0·40-0·48	0·30 *Max*	0·50-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1007		1287									Gas cylinders	0·40-0·48	0·3 *Max*	0·50-0·90	
1008										380 Grade MCт 6	Structural steel	0·38-0·49	0·15-0·35	0·50-0·80	Open-hearth steel
1009					A266 Class 3						Forgings	0·50 *Max*	0·35 *Max*	0·50-0·90	
1010					A288 Class 1						Forgings	0·50 *Max*	0·15-0·30	0·60-1·00	
1011									G3102 Class 8 S45C		Structural steel	0·40-0·50	0·15-0·40	0·40-0·85	
1012					A290 Class C1						Forgings	0·40-0·50	0·15 *Max*	0·55-0·90	
1013	727-C45										Spring wire	0·40-0·50	0·10-0·30	0·60-0·90	
1014	1570-C45										Billets, bars, forgings, sections, tubes, plate	0·40-0·50	—	0·60-0·90	
1015	1875 Class 4										Blooms, billets, slabs, bars	0·40-0·50	0·10-0·30	0·60-0·90	
1016	2004 Class 4										Forgings	0·40-0·50	0·10-0·30	0·60-0·90	
1017						1654	1.1192	Cq45			Steel for bolts	0·42-0·50	0·15-0·35	0·50-0·80	
1018						17200	1.0721	C45			Sections, forgings, sheet, strip	0·42-0·50	0·15-0·35	0·50-0·80	
1019						17200	1.1191	CK45			Sections, forgings, sheet, strip	0·42-0·50	0·15-0·35	0·50-0·80	
1020							1.1193	Cf45			Heat treatable steel	0·42-0·50	0·15-0·35	0·50-0·80	
1021										1050 Grade 45	Structural steel	0·42-0·50	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1022										1050 Grade 45 Г	Structural steel	0·42-0·50	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1023			1044								Billets, bars, forgings, rods, seamless tubes	0·43-0·53	—	0·30-0·60	
1024			1045	C1045							Billets, bars, forgings, rods, seamless tubes	0·43-0·50	—	0·60-0·90	
1025					A107 Grade 1045						Bars	0·43-0·50	—	0·60-0·90	
1026					A108 Grade 1045						Bars	0·43-0·50	—	0·60-0·90	
1027					A273 Grade C1045						Blooms, billets, slabs	0·43-0·50	—	0·60-0·90	
1028			1046	C1046							Billets, bars, forgings, rods, seamless tubes	0·43-0·50	—	0·70-1·00	
1029		970 En43B									Billets, bars, forgings	0·45-0·50	0·05-0·35	0·70-1·00	
1030			1045	C1045							Sections, plate, sheet, strip, welded tubes	0·42-0·51	—	0·60-0·90	
1031			1046	C1046							Sections, plate, sheet, strip, welded tubes	0·42-0·51	—	0·70-1·00	
1032			1049	C1049							Billets, bars, forgings, rods, seamless tubes	0·46-0·53	—	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1033															
1034									G1103		Light rails	0·40-0·60	0·40 *Max*	0·50-0·90	
1035											Joint bars	0·35-0·60	—	1·00 *Max*	
1036					A49						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
1037					A241						Bars	0·55 *Max*	0·15-0·30	0·60-0·90	
1038		980 CDS7 and CDS8			A321				G3429 Class 3 STH67		Tubes	0·55 *Max*	—	1·10 *Max*	
1039		1717 CDS107 and CDS108									Seamless tubes	0·40-0·55	0·35 *Max*	0·3-0·9	
1040					A21						Seamless tubes	0·40-0·55	0·35 *Max*	0·3-0·9	
1041					A236 Classes C, D and E						Axles	0·40-0·55	0·15 *Min*	0·60-0·90	
1042					A383						Forgings	0·40-0·55	0·15 *Min*	0·60-0·90	
1043			1049	C1049							Axles	0·40-0·55	0·15 *Min*	0·60-0·90	
1044											Sections, plate, sheet, strip, welded tubes	0·45-0·54	—	0·60-0·90	
1045									G3506 Class 3 SWRH3		Wire rod	0·45-0·55	0·15-0·35	0·60 *Max*	
1046		1449 Pt 3A HS50 Pt 3B CS50							G3102 Class 9 S50C		Structural steel	0·45-0·55	0·15-0·40	0·40-0·85	
1047	727-C50										Strip	0·45-0·55	0·05-0·35	0·50-0·90	
1048	1570-C50										Wire for springs	0·45-0·55	0·10-0·30	0·60-0·90	
1049	2039 CDS-C4										Billets, bars, forgings, sections, tubes, plate	0·45-0·55	—	0·60-0·90	
1050											Seamless tubes	0·45-0·55	—	0·60-0·90	
1051		970 En43A							G3445 Class 6 STKM62		Tubes for machine structure	0·45-0·55	0·40 *Max*	0·40-1·00	
1052					A236 Class F						Billets, bars, forgings	0·45-0·55	0·05-0·35	0·70-1·00	
1053	2569										Forgings	0·45-0·59	0·15 *Min*	0·60-0·90	
1054					A407						Spring wire	0·45-0·70	0·10-0·30	0·60-1·00	
1055					A227 Class I						Spring wire	0·45-0·70	—	0·60-1·20	
1056		1408-B									Wire	0·45-0·75	0·10-0·35	0·60-1·20	
1057											Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1058			1050	C1050						1050 Grade 50	Structural steel	0·47-0·55	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
											Billets, bars, forgings, rods, welded tubes	0·48-0·55	—	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1059					A107 Grade 1050						Bars	0·48-0·55	—	0·60-0·90	
1060					A108 Grade 1050						Bars	0·48-0·55	—	0·60-0·90	
1061					A273 Grade C1050						Blooms, billets, slabs	0·48-0·55	—	0·60-0·90	
1062										1050 Grade 50 Г	Structural steel	0·48-0·56	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
1063			1050	C1050							Sections, plate, sheet, strip, welded tubes	0·47-0·56	—	0·60-0·90	
1064					A57 Class A						Wheel	0·57 *Max*	0·15 *Min*	0·60-0·85	
1065		970 En43C									Billets, bars, forgings	0·50-0·55	0·05-0·35	0·70-1·00	
1066					A372 Class III						Forgings	0·48 *Max*	0·15-0·30	1·65 *Max*	
1067		9 and 11									Rails	0·40-0·50	0·08-0·20	0·95-1·25	Acid Bessemer steel
1068	1570-C50Mn1										Billets, bars, forgings, sections, plate	0·45-0·55	—	1·10-1·40	
1069		9 and 11									Rails	0·45-0·55	0·08-0·20	0·95-1·25	Electric steel
1070		9 and 11									Rails	0·50-0·60	0·08-0·20	0·95-1·25	Open-hearth steel
1071						17222	1.0505	C53			Spring steel	0·50-0·57	0·25-0·50	0·40-0·70	
1072						17222	1.1210	CK53			Spring steel	0·50-0·57	0·20-0·50	0·40-0·70	
1073							1.1210	Cf53			Heat treatable steel	0·50-0·57	0·15-0·35	0·40-0·70	
1074		1506-162									Bars	0·60 *Max*	0·05-0·35	0·60-1·00	
1075		970 En43									Spring steel	0·45-0·60	0·10-0·40	0·60-0·80	
1076		24 Part 3A Grades 7 and 8									Spring steel	0·45-0·60	0·10-0·40	0·60-0·80	
1077	1570-C55										Spring steel	0·50-0·60	—	0·50-0·65	
1078		970 En9 and En9K									Billets, bars, forgings	0·50-0·60	0·05-0·35	0·50-0·80	
1079		3S70									Billets, bars, forgings	0·50-0·60	0·05-0·35	0·50-0·80	
1080		3S79									Billets, bars, forgings	0·50-0·60	0·10-0·35	0·6-0·9	
1081									G3102 Class 10 S55C		Steel for machine structure	0·50-0·60	0·15-0·40	0·40-0·85	
1082	1570-C55Mn $\frac{75}{}$										Billets, bars, forgings, sections, plate	0·50-0·60	—	0·60-0·90	
1083	2073-C55Mn $\frac{75}{}$										Bars	0·50-0·60	0·05-0·35	0·60-0·90	
1084			1055	C1055							Billets, bars, forgings, rods, sections, tubes, plate, sheet, strip	0·50-0·60	—	0·60-0·90	
1085					A107 Grade 1055						Bars	0·50-0·60	—	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1086					A273 Grade C1055						Blooms, billets, slabs	0·50-0·60	—	0·60-0·90	
1087					A290 Class C2						Forgings	0·50-0·60	0·15 *Min*	0·55-0·90	
1088									G3506 Class 7 SWRH7		Wire rods	0·50-0·60	0·15-0·35	0·70-0·90	
1089										1050 Grade 55	Structural steel	0·52-0·60	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1090					A49						Joint bars	0·35-0·60	—	1·00 *Max*	
1091										380 Grade MCT 7	Structural steel	0·50-0·62	0·15-0·35	0·50-0·80	Open-hearth steel
1092					A329 Class A						Tyres	0·52-0·62	0·15-0·35	0·60-0·90	
1093					A26 Class A						Tyres	0·50-0·65	0·15-0·35	0·60-0·90	
1094										5633 Grade HB 57	Rails	0·48-0·67	0·15-0·30	0·6-1·0	Bessemer steel
1095	2589										Spring wire	0·45-0·70	0·10-0·30	0·60-1·00	
1096					A407						Spring wire	0·45-0·70	—	0·60-1·20	
1097										4121 Grade HB-62	Steel for crane rails	0·50-0·73	0·15-0·30	0·6-1·0	Bessemer steel
1098										5633 Grade HB 61	Rails	0·53-0·70	0·15-0·30	0·5-1·0	Bessemer steel
1099					A227 Class I						Spring wire	0·45-0·75	0·10-0·30	0·60-1·20	
1100					A417						Spring wire	0·50-0·75	—	0·60-1·20	
1101					A227 Class II						Spring wire	0·50-0·80	0·10-0·30	0·60-1·30	
1102					A241						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
1103		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1104									G3506 Class 4A SWRH4A		Wire rod	0·55-0·65	0·15-0·35	0·30-0·60	
1105	727-C60										Spring wire	0·55-0·65	0·10-0·30	0·50-0·80	
1106	1570-C60										Billets, bars, forgings, sections, plate	0·55-0·65	—	0·50-0·80	
1107		1449 Part 3AHS60 Part 3BCS60									Strip	0·55-0·65	0·05-0·35	0·50-0·90	
1108			1060	C1060							Billets, bars, forgings, rods, seamless tubes	0·55-0·65	—	0·60-0·90	
1109					A107 Grade 1060						Bars	0·55-0·65	—	0·60-0·90	
1110									G3506 Class 4B SWRH4B		Wire rod	0·55-0·65	0·15-0·35	0·60-0·90	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1111					A26 Class A						Tyres	0·50-0·65	0·15-0·30	0·60-0·90	
1112						17200	1.0751	C60			Sections, forgings, sheet, strip	0·57-0·65	0·15-0·35	0·50-0·80	
1113						17200	1.1221	CK60			Sections, forgings, sheet, strip	0·57-0·65	0·15-0·75	0·50-0·80	
1114						17222	1.0601	C60			Strip for springs	0·57-0·65	0·25-0·50	0·50-0·80	
1115						17222	1.1221	CK60			Strip for springs	0·57-0·65	0·25-0·50	0·50-0·80	
1116										1050 Grade 60	Structural steel	0·57-0·65	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1117										1050 Grade 60 Γ	Structural steel	0·57-0·65	0·17-0·37	0·70-1·00	Cr 0·25 *Max*, Ni 0·25 *Max*
1118		970 En43D									Billets, bars, forgings	0·60-0·65	0·05-0·35	0·40-0·60	
1119			1060	C1060							Sections, plate, sheet, strip, welded tubes	0·54-0·66	—	0·60-0·90	
1120					A57 Class B						Wheels	0·57-0·67	0·15 *Min*	0·60-0·85	
1121										5633 Grade HB 57	Rails	0·48-0·67	0·15-0·30	0·6-1·0	Bessemer steel
1122					A1						Rails	0·55-0·68	0·10-0·23	0·60-0·90	
1123					A407						Spring wire	0·45-0·70	–	0·60-1·20	
1124										5633 Grade HB 61	Rails	0·53-0·70	0·15-0·30	0·5-1·0	Bessemer steel
1125										4121 Grade HB-62	Steel for crane rails	0·50-0·73	0·15-0·30	0·6-1·0	Bessemer steel
1126					A227 Class I						Wire	0·45-0·75	0·10-0·30	0·60-1·20	
1127					A417						Spring wire	0·50-0·75	—	0·60-1.20	
1128					A227 Class II						Spring wire	0·50-0·80	0·10-0·30	0·60-1·30	
1129					A241						Tie plate	0·35-0·82		—	Cu 0·20 *Min* (optional)
1130					A229 Class B						Spring wire	0·55-0·85	0·10-0·35	0·66-0·90	
1131					A229 Class A						Spring wire	0·55-0·85	0·10-0·35	0·80-1·20	
1132		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1133		1408-C									Spring wire	0·55-0·85	0·35 *Max*	0·30-1·00	
1134	1570-C65										Billets, bars, forgings, sections, plate	0·60-0·70	—	0·50-0·80	
1135			1064	C1064							Billets, bars, forgings, rods, seamless tubes	0·60-0·70	—	0·50-0·80	
1136									G3502 Class 4 SWRS4		Wire rod	0·60-0·70	0·12-0·32	0·50-0·80	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1137		970 En42B									Spring steel	0·60-0·70	0·35 *Max*	0·55-0·80	
1138		1429 En42B									Spring wire	0·60-0·70	0·35 *Max*	0·55-0·80	
1139			1065	C1065							Billets, bars, forgings, rods, seamless tubes	0·60-0·70	—	0·60-0·90	
1140										1050 Grade 65	Structural steel	0·62-0·70	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1141										1050 Grade 65 Г	Structural steel	0·62-0·70	0·17-0·37	0·90-1·20	Cr 0·25 *Max*, Ni 0·25 *Max*
1142	2589										Spring wire	0·45-0·70	0·10-0·30	0·60-1·00	
1143					A407						Wire	0·45-0·70	—	0·60-1·20	
1144										5633 Grade НБ 61	Rails	0·53-0·70	0·15-0·30	0·5-1·0	Bessemer steel
1145			1064	C1064							Sections, plate, sheet, strip, seamless tubes	0·59-0·71	—	0·50-0·80	
1146			1065	C1065							Sections, plate, sheet, strip, seamless tubes	0·59-0·71	—	0·60-0·90	
1147					A329 Class B						Tyres	0·62-0·72	0·15-0·35	0·60-0·90	
1148										4121 Grade НБ-62	Steel for crane rails	0·50-0·73	0·15-0·30	0·6-1·0	Bessemer steel
1149					A227 Class I						Spring wire	0·45-0·75	0·10-0·30	0·60-1·20	
1150					A417						Spring wire	0·50-0·75	—	0·60-1·20	
1151					A227 Class II						Spring wire	0·50-0·80	0·10-0·30	0·60-1·30	
1152					A2 Class A						Rails	0·60-0·75	0·10-0·40	0·60-0·90	
1153					A26 Class B						Tyres	0·60-0·75	0·15-0·35	0·60-0·90	
1154					A241						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
1155		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1156		1408-C									Spring wire	0·55-0·85	0·35 *Max*	0·30-1·00	
1157		970 En43E									Billets, bars, forgings	0·65-0·70	0·05-0·35	0·70-0·90	
1158					A229 Class B						Spring wire	0·55-0·85	0·10-0·35	0·60-0·90	
1159					A229 Class A						Spring wire	0·55-0·85	0·10-0·35	0·80-1·20	
1160						17222	1.0603	C67			Strip for springs	0·65-0·72	0·25-0·50	0·60-0·80	
1161						17222	1.1231	CK67			Strip for springs	0·65-0·72	0·25-0·50	0·60-0·80	
1162									G3502 Class 1A SWRS1A		Wire rod	0·65-0·75	0·12-0·32	0·30-0·60	
1163									G3506 Class 5A SWRH5A		Wire rod	0·65-0·75	0·15-0·35	0·30-0·60	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1164	727-C70										Spring wire	0·65-0·75	0·10-0·30	0·50-0·80	
1165	1570-C70										Spring steel	0·65-0·75	—	0·50-0·80	
1166		1449 Part 3A HS70 Part 3B CS70									Strip	0·65-0·75	0·05-0·35	0·50-0·90	
1167			1070	C1070							Billets, bars, forgings, rods, seamless tubes	0·65-0·75	—	0·60-0·90	
1168					A107 Grade 1070						Bars	0·65-0·75	—	0·60-0·90	
1169									G3502 Class 1B SWRS1B		Wire rod	0·65-0·75	0·12-0·32	0·60-0·90	
1170									G3506 Class 5B SWRH5B		Wire rod	0·65-0·75	0·15-0·35	0·60-0·90	
1171					A227 Class I						Spring wire	0·45-0·75	0·10-0·30	0·60-1·20	
1172					A417						Spring wire	0·50-0·75	—	0·60-1·20	
1173					A2 Class A						Rails	0·60-0·75	0·10-0·40	0·60-0·90	
1174					A26 Class B						Tyres	0·60-0·75	0·15-0·35	0·60-0·90	
1175					A230						Spring wire	0·60-0·75	0·15-0·35	0·60-0·90	
1176										1050 Grade 70	Structural steel	0·67-0·75	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1177										1050 Grade 70 I	Structural steel	0·67-0·75	0·17-0·37	0·90-1·20	Cr 0·25 *Max*, Ni 0·25 *Max*
1178			1070	C1070							Sections, plate, sheet, strip, welded tubes	0·64-0·76	—	0·60-0·90	
1179					A1						Rails	0·64-0·77	0·10-0·23	0·60-0·90	
1180					A57 Class U						Wheels	0·65-0·77	0·15 *Min*	0·60-0·85	
1181					A57 Class C						Wheels	0·67-0·77	0·15 *Min*	0·60-0·85	
1182					A25						Wheels	0·65-0·80	0·15 *Min*	0·60-0·85	
1183					A227 Class II						Spring wire	0·50-0·80	0·10-0·30	0·60-1·30	
1184					A241						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
1185					A229 Class B						Spring wire	0·55-0·85	0·10-0·35	0·60-0·90	
1186					A229 Class A						Spring wire	0·55-0·85	0·10-0·35	0·80-1·20	
1187		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1188		1408-C and D									Spring wire	0·55-0·85	0·35 *Max*	0·30-1·00	
1189					A 186						Wheels	0·65-0·85	0·15 *Min*	0·60-0·85	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1190							1.1249	Cf70			Heat treatable steels	0·68-0·75	0·15-0·35	0·20-0·35	
1191						17222	1.0614	M75			Strip for springs	0·70-0·79	0·10-0·25	0·30-0·60	
1192					A1						Rails	0·67-0·80	0·10-0·23	0·70-1·00	
1193										6544 Grade M75	Rails	0·67-0·80	0·13-0·28	0·7-1·0	
1194			1074	C1074							Sections, plate, sheet, strip, welded tubes	0·68-0·80	—	0·50-0·80	
1195						17222	1.1248	MK75			Strip for springs	0·70-0·80	0·15-0·25	0·40-0·60	
1196	1570-C75										Spring steel	0·70-0·80	—	0·50-0·80	
1197			1074	C1074							Billets, bars, forgings, rods, seamless tubes	0·70-0·80	—	0·50-0·80	
1198		1429 En42C									Spring wire	0·70-0·80	0·35 *Max*	0·55-0·80	
1199						17222	1.0605	C75			Strip for springs	0·70-0·80	0·25-0·50	0·60-0·80	
1200		DTD 239B*									Spring wire	0·70-0·80	0·10-0·35	0·65-0·80	
1201										1050 Grade 75	Structural steel	0·72-0·80	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1202					A25						Wheels	0·65-0·80	0·15 *Min*	0·60-0·85	
1203					A27 Class II						Spring wire	0·50-0·80	0·10-0·30	0·60-1·30	
1204					A1						Rails	0·69-0·82	0·10-0·23	0·70-1·00	
1205										8160 Grade M 76	Rails	0·69-0·82	0·13-0·28	0·7-1·0	Open-hearth steel
1206					A241						Tie plate	0·35-0·82	—	—	Cu 0·20 *Min* (optional)
1207					A329 Classes C and D						Tyres	0·72-0·82	0·15-0·35	0·60-0·90	
1208					A186						Wheels	0·65-0·85	0·15 *Min*	0·60-0·85	
1209		970 En42									Bars for springs	0·70-0·85	0·10-0·40	0·55-0·75	
1210		24 Part 3A Grades 5 and 6									Spring steel	0·70-0·85	0·10-0·40	0·55-0·75	
1211					A2 Class B						Rails	0·70-0·85	0·10-0·40	0·60-0·90	
1212					A26 Class C						Tyres	0·70-0·85	0·15-0·35	0·60-0·90	
1213			1078	C1078							Billets, bars, forgings, rods, seamless tubes	0·72-0·85	—	0·30-0·60	
1214		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1215		1408-C and D									Spring wire	0·55-0·85	0·35 *Max*	0·30-1·00	
1216			1078	C1078							Sections, plate, sheet, strip, welded tubes	0·71-0·86	—	0·30-0·60	
1217		S513									Strip for springs	0·70-0·90	0·35 *Max*	0·35-0·9	
1218					A421						Wire	0·72-0·93	0·10-0·35	0·40-1·10	
1219		1408-M									Spring wire	0·70-1·00	0·35 *Max*	0·25-0·75	

*British aircraft specification.

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1220									G3502 Class 2A SWRS2A		Wire rod	0·75-0·85	0·12-0·32	0·30-0·60	
1221									G3506 Class 6A SWRH6A		Wire rod	0·75-0·85	0·15-0·35	0·30-0·60	
1222	727-C80										Spring wire	0·75-0·85	0·10-0·30	0·50-0·80	
1223	1570-C80										Spring steel	0·75-0·85	—	0·50-0·80	
1224		1449 Pt 3A HS80 Pt 3B CS80									Strip	0·75-0·85	0·05-0·35	0·50-0·90	
1225									G3506 Class 6B SWRH6B		Wire rod	0·75-0·85	0·15-0·35	0·60-0·90	
1226									G3502 Class 2B SWRS2B		Wire rod	0·75-0·85	0·12-0·32	0·60-0·90	
1227		1408-B									Spring wire	0·45-0·85	0·35 *Max*	0·40-1·00	
1228		1408-C and D									Spring wire	0·55-0·85	0·35 *Max*	0·30-1·00	
1229					A186						Wheels	0·65-0·85	0·15 *Min*	0·60-0·85	
1230		970 En42									Bars for springs	0·70-0·85	0·10-0·40	0·55-0·75	
1231		24 Part 3A Grades 5 and 6									Spring steel	0·70-0·85	0·10-0·40	0·55-0·75	
1232					A2 Class B						Rails	0·70-0·85	0·10-0·40	0·60-0·90	
1233					A26 Class C						Tyres	0·70-0·85	0·15-0·35	0·60-0·90	
1234										1050 Grade 80	Structural steel	0·77-0·85	0·17-0·37	0·50-0·80	Cr 0·25 *Max*, Ni 0·25 *Max*
1235			1080	C1080							Billets, bars, forgings, rods, seamless tubes	0·75-0·88	—	0·60-0·90	
1236					A107 Grade 1080						Bars	0·75-0·88	—	0·60-0·90	
1237			1080	C1080							Sections, plate, sheet, strip, welded tubes	0·74-0·89	—	0·60-0·90	
1238		S513									Spring steel	0·70-0·90	0·35 *Max*	0·35-0·90	
1239									G4801 Class 3 SUP 3		Spring steel	0·75-0·90	0·15-0·35	0·30-0·60	
1240					A2 Class C						Rails	0·75-0·90	0·10-0·40	0·60-0·90	
1241					A421						Wire	0·72-0·93	0·10-0·35	0·40-1·10	
1242		1408-M									Spring wire	0·70-1·00	0·35 *Max*	0·25-0·75	
1243					A228						Wire	0·70-1·00	0·12-0·30	0·20-0·60	
1244	1570-C85										Spring steel	0·80-0·90	—	0·50-0·80	
1245		1429 En42D									Spring wire	0·80-0·90	0·35 *Max*	0·55-0·80	
1246		S513									Spring steel	0·70-0·90	0·35 *Max*	0·35-0·90	
1247					A2 Class C						Rails	0·75-0·90	0·10-0·40	0·60-0·90	
1248					A421						Wire	0·72-0·93	0·10-0·35	0·40-1·10	
1249			1086	C1086							Billets, bars, forgings, rods, seamless tubes	0·80-0·93	—	0·30-0·50	

(*Continued*)

TABLE 3 CARBON STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation							
1250			1084	C1084							Billets, bars, forgings, rods, seamless tubes	0·80-0·93	—	0·60-0·90	
1251			1085	C1085							Billets, bars, forgings, rods, seamless tubes	0·80-0·93	—	0·70-1·00	
1252			1086	C1086							Sections, plate, sheet, strip, welded tubes	0·79-0·94	—	0·30-0·50	
1253			1084	C1084							Sections, plate, sheet, strip, welded tubes	0·79-0·94	—	0·60-0·90	
1254			1085	C1085							Sections, plate, sheet, strip, welded tubes	0·79-0·94	—	0·70-1·00	
1255										1050 Grade 85	Structural steel	0·82-0·90	0·17-0·37	0·50-0·80	
1256									G3502 Class 3A SWRS3A		Wire rod	0·85-0·95	0·12-0·32	0·30-0·60	
1257		1449 Part 3A HS90 Part 3B CS90									Strip	0·85-0·95	0·05-0·35	0·40-0·70	
1258									G3502 Class 3B SWRS3B		Wire rod	0·85-0·95	0·12-0·32	0·60-0·90	
1259			1090	C1090							Billets, bars, forgings, rods, seamless tubes	0·85-0·98	—	0·60-0·90	
1260			1090	C1090							Sections, plate, sheet, strip, welded tubes	0·84-0·99	—	0·60-0·90	
1261		1408-M									Spring wire	0·70-1·00	0·35 *Max*	0·25-0·75	
1262					A228						Wire	0·70-1·00	0·12-0·30	0·20-0·60	
1263		1429 En44B									Spring wire	0·90-1·00	0·35 *Max*	0·40-0·70	
1264			1095	C1095							Billets, bars, forgings, rods, seamless tubes	0·90-1·03	—	0·30-0·50	
1265					A107 Grade 1095						Bars	0·90-1·03	—	0·30-0·50	
1266					A108 Grade 1095						Bars	0·90-1·03	—	0·30-0·50	
1267			1095	C1095							Sections, plate, sheet, strip, welded tubes	0·89-1·04	—	0·30-0·50	
1268					A68						Bars	0·90-1·05	0·15-0·30	0·30-0·50	
1269		1449 Part 3A HS100 Part 3B CS100									Strip	0·90-1·05	0·05-0·35	0·30-0·60	
1270	1570-C98										Spring steel	0·90-1·05	—	0·50-0·80	
1271						17222	1.1274	MK101			Strip for springs	0·98-1·05	0·15-0·25	0·35-0·45	
1272									G4801 Class 4 SUP 4		Spring steel	0·90-1·10	0·15-0·35	0·30-0·60	
1273		970 En44									Spring steel bars	0·90-1·20	0·30 *Max*	0·45-0·70	
1274		24 Part 3B									Spring steel	0·90-1·20	0·30 *Max*	0·45-0·70	
1275		1429 En44C									Spring wire	1·00-1·20	0·35 *Max*	0·40-0·70	
1276	1570-C113										Spring steel	1·05-1·20	—	0·50-0·80	

TABLE 4 MILD STEEL WIRE

Ref No.	IS	BS	American ASTM	JIS	GOST	Product	Condition	Tensile Strength			Remarks
								kgf/mm²	tonf/in²	1 000 lbf/in²	
1277				G3530		Armoured cable wire	Galvanized	30-50	19·0-31·7		
1278				G3531		Telegraph wire	Galvanized	30-50	19·0-31·7		
1279				G3532 Grade SWM-A		Iron wire	Annealed	30-50	19·0-31·7		
1280				G3532 Grades SWM-G1 SWM-G2 SWM-G3 SWM-G4		Iron wire	Galvanized	30-55	19·0-34·9		
1281		1052				Wire	Annealed and mild drawn	31·5-50·4	20-32		
1282	1570 Table X					Mild steel wire	Soft	32-44	22·3-27·9		
1283	280					Mild steel wire	Soft	32-44	22·3-27·9		For size 1·60 mm and over
1284					1798 Grade 08 кп	Low carbon structural steel wire		35 *Min*	22·2 *Min*		For size 5·50 to 10·00 mm
1285			A411			Low carbon armour wire	Galvanized	35·1-49·2	22·3-31·2	50-70	
1286	280					Mild steel wire	Soft	50 *Max*	31·7 *Max*		For size 1·40 mm and under
1287		1442				Galvanized wire for armouring cables		37·8-50·4	24-32		
1288					5437	Reed wire	Bright finish	40-55	25·4-34·9		For size 3·10 to 8·50 mm
1289				G3532 Grade SWM-B		Ordinary iron wire	Cold drawn	40-85	25·4-54·0		For size 4·00 mm and greater
1290					1798 Grade 08 кп	Low carbon structural steel wire		40 *Min*	25·4 *Min*		For size 2·60 to 5·00 mm
1291					1798 Grades 10 and 10 кп	Low carbon structural steel wire		40 *Min*	25·4 *Min*		For size 5·50 to 10·00 mm
1292	1570 Table X					Mild steel wire	Quarter hard	44-55	27·9-34·9		
1293	280					Mild steel wire	Quarter hard	44-55	27·9-34·9		
1294					5437	Reed wire	Bright finish	45-60	28·6-38·1		For size 2·30 to 3·00 mm
1295				G3532 Grade SWM-B		Ordinary iron wire	Cold drawn	45-95	28·6-60·3		For size over 3·20 to 4·50 mm
1296					1798 Grade 08 кп	Low carbon structural steel wire		45 *Min*	28·6 *Min*		For size 0·80 to 2·50 mm
1297					1798 Grades 10 and 10 кп	Low carbon structural steel wire		45 *Min*	28·6 *Min*		For size 2·60 to 5·00 mm
1298					1798 Grades 15, 15 кп and 20	Low carbon structural steel wire		45 *Min*	28·6 *Min*		For size 5·50 to 10·00 mm
1299					5437	Reed wire	Bright finish	50-65	31·7-41·3		For size 0·80 to 2·20 mm
1300					1798 Grade 08 кп	Low carbon structural steel wire		50 *Min*	31·7 *Min*		For size 0·40 to 0·75 mm
1301					1798 Grades 10 and 10 кп	Low carbon structural steel wire		50 *Min*	31·7 *Min*		For size 0·80 to 2·50 mm

(*Continued*)

TABLE 4 MILD STEEL WIRE —*Contd*

Ref No.	IS	BS	American ASTM	JIS	GOST	Product	Condition	Tensile Strength			Remarks
								kgf/mm²	tonf/in²	1 000 lbf/in²	
1302					1798 Grades 15, 15 кп and 20	Low carbon structural steel wire		50 *Min*	31·7 *Min*		For size 2·60 to 5·00 mm
1303		1052				Mild steel wire	Hard drawn	50·4-94·5	32-60		
1304	1570 Table X					Mild steel wire	Half hard	55-70	34·9-44·4		
1305	280					Mild steel wire	Half hard	55-70	34·9-44·4		
1306				G3532 Grade SWM-N		Nail wire	Cold drawn	55-95	34·9-60·3		For size 4·50 mm and over
1307				G3532 Grade SWM-B		Ordinary iron wire	Cold drawn	55-110	34·9-69·8		For size over 2·60 to 3·20 mm
1308					1798 Grades 10 and 10 кп	Low carbon structural steel wire		55 *Min*	34·9 *Min*		For size 0·40 to 0·75 mm
1309					1798 Grades 15, 15 кп and 20	Low carbon structural steel wire		55 *Min*	34·9 *Min*		For size 0·80 to 2·50 mm
1310				G3532 Grade SWM-N		Nail wire	Cold drawn	60-105	38·1-66·7		For size over 3·20 to 4·00 mm
1311				G3532 Grade SWM-B		Ordinary iron wire	Cold drawn	60-120	38·1-76·2		For size over 1·60 to 2·30 mm
1312					1798 Grades 15, 15 кп and 20	Low carbon structural steel wire		60 *Min*	38·1 *Min*		For size 0·40 to 0·75 mm
1313	1570 Table X					Mild steel wire	Hard	70-95	44·4-60·3		
1314	280					Mild steel wire	Hard	70-95	44·4-60·3		
1315				G3532 Grade SWM-N		Nail wire	Cold drawn	70-115	44·4-73·0		For size over 2·30 to 3·20 mm
1316				G3532 Grade SWM-N		Nail wire	Cold drawn	75-130	47·6-82·5		For size over 1·60 to 2·30 mm

TABLE 5 DRAWN STEEL WIRE FOR CONCRETE REINFORCEMENT

Ref No.	IS	BS	American ASTM	GOST	Product	Tensile Strength			Remarks
						kgf/mm²	tonf/in²	1 000 lbf/in²	
1317				6727	Low carbon cold drawn wire	45-70	28·6-44·4		For size 6 to 10 mm
1318			A82		Drawn wire for welded fabrics	49·2 *Min* 52·7 *Min*	31·2 *Min* 33·5 *Min*	70 *Min* 75 *Min*	For size $\leqslant$ 3·09 mm For size $\geqslant$ 3·43 mm
1319	432				Drawn wire	55 *Min*	34·9 *Min*		
1320				6727	Low carbon cold drawn wire	55-85	34·9-54·0		For size 3 to 5·5 mm
1321			A82		Drawn wire	56·2 *Min*	35·6 *Min*	80 *Min*	
1322	1570 Table XI				Drawn wire	58-68	36·8-43·2		
1323		785			Drawn wire	58·3-66·1	37-42		

TABLE 6 SPOKE WIRE

Ref No.	IS	BS	DIN	GOST	Product	Tensile Strength		Remarks
						kgf/mm²	tonf/in²	
1324		2453			Heavy gauge wire for swaging	99·2-107·2	63-68	
1325	1570 Range 1 (Table XII)				Wire for spokes	100-115	63·4-73·0	
1326				3110	Wire for cycle spokes	100-120	63·4-76·2	For size 2·65 mm up to 4·5 mm including
1327	1570 Range 2 (Table XII)				Wire for spokes	105-120	67·7-76·2	
1328		2453			Wire for spokes	107·1-115	68-73	
1329				3110	Wire for cycle spokes	110-125	69·8-79·4	For size 1·8 mm up to 2·3 mm including
1330			79526		Wire for spokes	110-130	69·8-82·5	

TABLE 7 HARD DRAWN STEEL WIRE FOR ROPES, ARMOURING CABLES, ETC

Ref No.	IS	BS	DIN	JIS	GOST	Product	Tensile Strength		Remarks
							kgf/mm²	tonf/in²	
1331	1570 Range 1						80-90	50·8-57·1	
1332	1570 Range 2						85-100	54·0-63·5	
1333		1441 Class D Range 1				Armouring submarine cable wire	94·5-110·2	60-70	
1334	1570 Range 3						95-110	60·3-69·8	
1335					7372	Rope wire	100 *Min*	63·5 *Min*	
1336	1570 Range 4						110-125	69·8-79·4	
1337	1835					Rope wire	110-125	69·8-79·4	For size over 0·45 mm
1338					7372	Rope wire	110 *Min*	69·8 *Min*	
1339		1441 Class D Range 2				Armouring submarine cable wire	110·2-126·0	70-80	
1340		2763				Rope wire	110·2-126·0	70-80	For size over 0·457 mm diameter
1341					7372	Rope wire	120 *Min*	76·1 *Min*	
1342	1570 Range 5						125-140	79·4-88·9	
1343	1835					Rope wire	125-140	79·4-88·9	For size over 0·45 mm
1344		1441 Class D Range 3				Armouring submarine cable wire	126·0-141·7	80-90	
1345		2763				Rope wire	126·0-141·7	80-90	For size over 0·457 mm diameter
1346			46406 (130)			Tie wire	130 *Min*	82·5 *Min*	
1347					7372	Rope wire	130 *Min*	82·5 *Min*	
1348		2763				Rope wire	133·9-149·6	85-95	For size over 0·45 mm
1349	1570 Range 6						135-150	85·7-95·2	
1350	1835					Rope wire	135-150	85·7-95·2	For size over 0·45 mm
1351				G3525-Elevator		Rope wire	135 *Min*	85·7 *Min*	
1352	1570 Range 7						140-155	88·9-98·4	
1353	1835					Rope wire	140-160	88·9-101·6	For size over 0·45 mm
1354			2078 (140)			Rope wire	140-165	88·9-104·8	For size over 0·4 mm
1355			2078 (140)			Rope wire	140-180	88·9-114·3	For size up to 0·4 mm
1356					7372	Rope wire	140 *Min*	88·9 *Min*	
1357		2763				Rope wire	141·7-157·5	90-100	For size over 0·457 mm
1358		2763				Rope wire	149·6-165·4	95-105	For size over 0·457 mm
1359		1441 Class D Range 4				Armouring submarine cable wire	149·6-173·2	95-110	
1360			46406 (150)			Tie wire	150 *Min*	95·2 *Min*	
1361				G3525-Single		Rope wire	150 *Min*	95·2 *Min*	
1362					7372	Rope wire	150 *Min*	95·2 *Min*	
1363	1570 Range 8						155-170	98·4-107·9	
1364				G3525 Grade 1		Rope wire	155 *Min*	98·4 *Min*	

(*Continued*)

TABLE 7 HARD DRAWN STEEL WIRE FOR ROPES, ARMOURING CABLES, ETC — *Contd*

Ref No.	IS	BS	DIN	JIS	GOST	Product	Tensile Strength		Remarks
							kgf/mm²	tonf/in²	
1365		2763				Rope wire	157·4-173·2	100-110	For size 0·376 mm and over
1366	1835					Rope wire	160-175	101·6-111·2	For size 0·38 mm and over
1367			2078 (160)			Rope wire	160-185	101·6-117·5	For size over 0·4 mm
1368			2078 (160)			Rope wire	160-200	101·6-127·0	For size up to 0·4 mm
1369					7372	Rope wire	160 *Min*	101·6 *Min*	
1370				G3525-Grade 2		Rope wire	165 *Min*	104·8 *Min*	
1371	1570 Range 9						170-185	107·9-117·5	
1372					7372	Rope wire	170 *Min*	107·9 *Min*	
1373		2763				Rope wire	173·2-189·0	110-120	For size 0·315 mm and over
1374	1835					Rope wire	175-190	111·2-120·6	For size 0·32 mm and over
1375				G3525-Grade 3		Rope wire	175 *Min*	111·2	
1376			46406 (180)			Tie wire	180 *Min*	114·2 *Min*	
1377					7372	Rope wire	180 *Min*	114·2 *Min*	
1378			2708 (180)			Rope wire	180-205	114·3-130·1	For size over 0·4 mm
1379			2708 (180)			Rope wire	180-220	114·3-139·7	For size up to 0·4 mm
1380		2763				Rope wire	188·9-204·7	120-130	All sizes
1381	1570 Range 10						190-205	120·6-130·2	
1382	1835					Rope wire	190-205	120·6-130·2	All sizes
1383			2708 (200)			Rope wire	190-230	120·06-146	
1384					7372	Rope wire	190 *Min*	120·6 *Min*	
1385			2708 (200)			Rope wire	200-225	127·0-142·9	For size over 0·4 mm
1386			2708 (200)			Rope wire	200-240	127·0-153·4	For size up to 0·4 mm
1387			46406 (200)			Tie wire	200 *Min*	127·0 *Min*	
1388					7372	Rope wire	200 *Min*	127·0 *Min*	
1389		2763				Rope wire	204·7-220·5	130-140	For size thinner than 0·315 mm
1390	1570 Range 11					Rope wire	205-220	130·1-139·7	
1391	1835					Rope wire	205-220	130·1-139·7	For size thinner than 0·32 mm
1392					7372	Rope wire	210 *Min*	133·3 *Min*	
1393	1570 Range 12						220 *Min*	139·7 *Min*	
1394					7372	Rope wire	220 *Min*	139·7 *Min*	
1395					7372	Rope wire	230 *Min*	146·0 *Min*	
1396	1570 Range 13						235-250	149·2-158·7	
1397					7372	Rope wire	240 *Min*	152·4 *Min*	
1398	1570 Range 14						250 *Min*	158·7 *Min*	
1399					7372	Rope wire	250 *Min*	158·7 *Min*	
1400					7372	Rope wire	260 *Min*	158·7 *Min*	

TABLE 8 HARD DRAWN STEEL WIRE FOR SPRINGS

Ref No.	IS	BS	Condition	Size		Tensile Strength					
						Range 1		Range 2		Range 3	
				mm	in	kgf/mm²	tonf/in²	kgf/mm²	tonf/in²	kgf/mm²	tonf/in²
1401	727 Grade 1 and 1570 (Table XIV)		Non-patented	Over 7·10	Over 0·279	95-110	60·3-69·8	—	—	—	—
				Over 5·00 up to 7·10	Over 0·197 up to 0·279	100-125	63·5-74·4	—	—	—	—
1402	727 Grade 1, 1570 (Table XIV) and 2589		Non-patented	Over 3·55 up to 5·00	Over 0·140 up to 0·197	115-140	73·0-88·9	—	—	—	—
				Over 2·80 up to 3·55	Over 0·110 up to 0·140	130-155	82·5-98·4	—	—	—	—
1403	727 Grades 2, 3 and 4; and 1570 (Table XIV)		Patented	Over 7·10 up to 10·00	Over 0·279 up to 0·394	110 *Min*	69·8 *Min*	110-125	69·8-79·4	125-140	79·4-88·4
1404		1408 Grades B, C and D	Patented	Over 6·68 up to 10·5	Over 0·263 up to 0·413	—	—	110-125	70-80	125-142	80-90
				Over 5·10 up to 6·68	Over 0·201 up to 0·263	110-125	70-80	125-142	80-90	142-157	90-100
1405	727 Grades 2, 3 and 4; and 1570 (Table XIV)		Patented	Over 5·00 up to 7·10	Over 0·197 up to 0·279	115-130	73·0-82·5	130-145	82·5-92·1	145-160	92·1-101·6
1406		1408 Grades B, C and D	Patented	Over 3·43 up to 5·10	Over 0·135 up to 0·201	125-142	80-90	142-157	90-100	157-173	100-110
1407	727 Grades 2, 3 and 4; 1570 (Table XIV); and 2589		Patented	Over 3·55 up to 5·00	Over 0·140 up to 0·197	130-145	82·5-92·1	145-160	92·1-101·6	160-175	101·6-111·1
1408		1408 Grades B, C and D	Patented	Over 2·16 up to 3·43	Over 0·085 up to 0·135	142-157	90-100	157-173	100-110	173-190	110-120
1409	727 Grades 2, 3 and 4; 1570 (Table XIV); and 2589		Patented	Over 2·80 up to 3·55	Over 0·110 up to 0·139	145-160	92·1-101·6	160-175	101·6-111·1	175-190	111·1-120·6
1410		1408 Grades B, C and D	Patented	Over 1·30 up to 2·16	Over 0·051 up to 0·085	157-173	100-110	173-190	110-120	190-205	120-130
1411	727 Grades 2, 3 and 4; 1570 (Table XIV); and 2589		Patented	Over 2·24 up to 2·80	Over 0·088 up to 0·110	160-175	101·6-111·1	175-190	111·1-120·6	190-205	120·6-130·2
1412		1408 Grades B, C and D	Patented	Over 0·84 up to 1·30	Over 0·033 up to 0·058	173-190	110-120	190-205	120-130	205-220	130-140
1413	727 Grades 2, 3 and 4; 1570 (Table XIV); and 2589		Patented	Over 1·60 up to 2·24	Over 0·063 up to 0·088	175-190	111·1-120·6	190-205	120-130·2	205-220	130·2-139·7
1414	727 Grades 2, 3 and 4; and 1570 (Table XIV)		Patented	Over 0·80 up to 1·60	Over 0·031 up to 0·063	190-205	120·6-130·2	205-220	130·2-139·7	220-235	139·7-149·2
1415	2589		Patented	0·90 up to 1·60	0·035 up to 0·069	190-205	120·6-130·2	205-220	130·0-139·7	220-235	139·7-149·2
1416		1408 Grades B, C and D	Patented	Over 0·56 up to 0·84	Over 0·022 up to 0·033	190-205	120-130	205-220	130-140	220-236	140-150
1417	727 Grades 2, 3 and 4; and 1570 (Table XIV)		Patented	Over 0·56 up to 0·80	Over 0·082 up to 0·051	205 *Min*	130·2 *Min*	220 *Min*	139·7 *Min*	235 *Min*	158·7 *Min*
1418		1408 Grades B, C and D	Patented	Over 0·39 up to 0·56	Over 0·015 5 up to 0·022	205 *Min*	130 *Min*	220 *Min*	140 *Min*	236 *Min*	150 *Min*
1419	727 Grades 2, 3 and 4; and 1570 (Table XIV)		Patented	Over 0·25 up to 0·56	Over 0·010 up to 0·022	220 *Min*	139·7 *Min*	235 *Min*	149·2 *Min*	250 *Min*	158·7 *Min*
1420		1408 Grades B, C and D	Patented	0·23 up to 0·39	0·009 0 up to 0·015 5	220 *Min*	140 *Min*	236 *Min*	150 *Min*	252 *Min*	160 *Min*

TABLE 9 SPECIFIED TENSILE LIMITS FOR HARD DRAWN MECHANICAL SPRING WIRE (ASTM Designation : A227-64T)

Ref No. 1421

Size		Tensile Strength							
		Class I				Class II			
		1 000 lbf/in²		kgf/mm²		1 000 lbf/in²		kgf/mm²	
in	mm	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*	*Min*	*Max*
0·020 4	0·518 2	283	323	198·97	227·09	324	364	227·8	255·91
0·023 0	0·584 2	279	319	196·16	224·28	320	360	224·98	253·11
0·025 8	0·655 3	275	315	193·34	221·47	316	356	222·17	250·29
0·028 6	0·726 4	271	311	190·53	218·65	312	352	219·36	247·48
0·031 7	0·805 2	266	306	187·02	215·14	307	347	215·84	243·96
0·034 8	0·883 9	261	301	183·50	211·62	302	342	212·32	240·45
0·041 0	1·041 1	255	293	179·28	206·00	294	332	206·70	233·42
0·047 5	1·206 5	248	286	174·36	201·08	287	325	201·78	228·50
0·054 0	1·371 6	243	279	170·85	196·16	280	316	196·86	222·17
0·062 5	1·587 5	237	272	166·63	191·23	273	308	191·94	216·54
0·072 0	1·828 8	232	266	163·11	187·02	267	301	187·72	211·62
0·080 0	2·032 0	227	261	159·60	183·50	262	296	184·20	208·11
0·091 5	2·324 1	220	253	154·67	177·88	254	287	178·58	201·78
0·105 5	2·679 7	216	248	151·86	174·36	249	281	175·06	197·56
0·120 5	3·060 7	210	241	147·64	169·44	242	273	170·14	191·94
0·135 0	3·429 0	206	237	144·83	166·63	238	269	167·33	189·13
0·148 3	3·766 8	203	234	142·72	164·52	235	266	165·22	187·02
0·162 0	4·114 8	200	230	140·61	161·71	231	261	162·41	183·50
0·177 0	4·495 8	195	225	137·10	158·20	226	256	158·89	179·99
0·192 0	4·876 8	192	221	134·99	155·38	222	251	156·08	176·47
0·207 0	5·257 8	190	218	133·58	153·27	219	247	153·97	173·66
0·225 3	5·722 6	186	214	130·77	150·46	215	243	151·16	170·85
0·250 0	6·350 0	182	210	127·96	147·64	211	239	148·35	168·03
0·312 5	7·937 5	174	200	122.33	140·61	201	227	141·32	159·60
0·375 0	9·525 0	167	193	117·41	135·69	194	220	136·40	154·67
0·437 5	11·112 5	165	190	116·01	133·58	191	216	134·29	151·86
0·500 0	12·700 0	156	180	109·68	126·55	181	205	127·26	144·13
0·562 5	14·287 3	152	176	106·87	123·74	177	201	124·44	141·32
0·625 0	15·875 0	147	170	103·35	119·52	171	194	120·22	136·40

TABLE 10 SPECIFIED TENSILE LIMITS FOR HARD DRAWN (PATENTED) STEEL WIRES (DIN 2076-1944)

Ref No. 1422

Diameter		Tensile Strength				Diameter		Tensile Strength			
		Class II		Class III				Class IV		Class V	
mm	in	kgf/mm²	Equivalent tonf/in²	kgf/mm²	Equivalent tonf/in²	mm	in	kgf/mm²	Equivalent tonf/in²	kgf/mm²	Equivalent tonf/in²
0·07 to 0·28	0·003 to 0·011	275-315	174·6-200·0	—	—	—	—	—	—	—	—
0·30 to 0·40	0·012 to 0·016	270-310	171·4-196·8	245-275	155·6-174·6	0·30 to 0·45	0·012 to 0·177	—	—	180-225	117·5-142·9
0·43 to 0·50	0·017 to 0·020	270-300	171·4-190·5	245-275	155·6-174·6	0·50	0·020	210-240	133·3-152·4	180-210	114·3-133·3
0·53 to 0·70	0·021 to 0·028	260-290	165·1-184·1	235-265	149·2-168·3	0·53 to 0·70	0·021 to 0·0275	210-240	133·3-152·4	180-210	114·3-133·3
0·75 to 0·80	0·030 to 0·033	255-285	161·9-181·0	230-260	146·0-165·1	0·75 to 0·80	0·0295 to 0·031	205-235	130·2-149·2	175-205	111·1-130·2
0·85	0·033	255-285	161·9-181·0	230-260	146·0-165·1	0·85 to 1·00	0·033 to 0·039	205-235	130·2-149·2	175-205	111·1-130·2
0·90 to 1·10	0·035 to 0·043	250-280	158·7-177·8	225-255	142·9-161·9	1·10 to 1·25	0·043 to 0·049	195-225	123·8-142·9	170-200	107·9-127·0
1·15 to 1·40	0·045 to 0·055	240-270	152·4-171·4	220-245	139·7-155·6	1·40	0·055	185-210	117·5-133·3	160-185	101·6-117·5
1·50 to 1·60	0·059 to 0·063	230-255	146·0-161·9	210-235	133·3-149·2	1·50 to 1·60	0·059 to 0·063	185-210	117·5-133·3	160-185	101·6-117·5
1·70 to 1·80	0·067 to 0·071	225-250	142·9-158·7	205-230	130·2-146·0	1·70 to 1·80	0·067 to 0·071	180-205	114·3-130·2	155-180	98·4-114·3
1·90 to 2·00	0·075 to 0·079	215-240	136·5-152·4	195-220	123·8-139·7	1·90 to 2·00	0·075 to 0·079	175-200	111·1-127·0	150-175	95·2-111·1
2·10	0·083	205-230	130·2-146·0	190-210	120·6-133·3	2·10	0·083	170-195	107·9-123·8	150-175	95·2-111·1
2·25	0·085	205-230	130·2-146·0	190-210	120·6-133·3	2·25	0·0885	170-195	107·9-123·8	150-175	95·2-111·1
2·40 to 2·50	0·094 to 0·098	200-225	127·0-142·9	185-205	117·5-130·2	2·40 to 2·50	0·094 to 0·098	165-190	104·8-120·6	145-170	92·1-107·9
2·60 to 2·80	0·102 to 0·110	195-220	123·8-139·7	180-200	114·3-127·0	2·60 to 2·80	0·102 to 0·110	160-185	101·6-117·5	140-165	86·9-104·8
3·00 to 3·20	0·118 to 0·126	190-215	120·6-136·5	175-195	111·1-123·8	3·00 to 3·20	0·118 to 0·126	155-180	98·4-114·3	135-160	86·3-101·6
3·40	0·134	185-210	117·5-133·3	170-190	107·9-120·6	3·40	0·134	150-175	95·2-111·1	130-155	82·5-98·4
3·60	0·142	185-210	117·5-133·3	170-190	107·9-120·6	3·60	0·142	150-175	95·2-111·1	130-155	82·5-98·4
3·80 to 4·00	0·150 to 0·157	180-205	114·3-130·2	165-185	104·8-117·5	3·80 to 4·00	0·150 to 0·157	145-170	92·1-107·9	125-150	79·4-95·2
4·25 to 4·50	0·167 to 0·177	170-195	107·9-123·8	155-175	98·4-111·1	4·25 to 4·50	0·167 to 0·177	140-165	88·9-104·8	125-150	79·4-95·2
4·75 to 5·00	0·187 to 0·197	165-190	104·8-120·6	150-170	95·2-107·9	4·75 to 5·00	0·187 to 0·197	135-160	86·3-101·6	120-145	76·2-92·1
5·30 to 5·60	0·209 to 0·220	160-180	101·6-114·3	145-165	92·1-104·8	5·30 to 6·50	0·209 to 0·256	130-150	82·5-95·2	115-135	73·0-86·3
6·00 to 6·30	0·236 to 0·248	155-175	98·4-111·1	145-160	92·1-101·6	—	—	—	—	—	—
6·50 to 7·00	0·256 to 0·276	150-170	95·2-107·9	140-155	88·9-98·4	7·00	0·276	125-145	79·4-92·1	110-130	69·8-82·5
7·50 to 8·00	0·295 to 0·315	145-165	92·1-104·8	135-150	86·3-95·2	7·50 to 8·00	0·295 to 0·315	125-145	79·4-92·1	110-130	69·8-82·5
8·50 to 9·00	0·335 to 0·354	135-155	86·3-98·4	125-140	79·4-88·9	8·50 to 9·00	0·335 to 0·354	115-135	73·0-86·3	100-120	63·5-76·1
9·50 to 10·00	0·374 to 0·394	—	—	120-135	76·2-86·3	9·50 to 10·00	0·374 to 0·394	110-125	69·8-79·4	100-115	63·5-73·0
10·50 to 11·50	0·413 to 0·453	—	—	115-130	73·0-82·5	10·50 to 12·50	0·413 to 0·492	105-120	66·7-76·2	95-110	60·3-69·8
12·00 to 12·50	0·472 to 0·492	—	—	110-125	69·8-79·4	—	—	—	—	—	—
13·00 to 14·00	0·512 to 0·551	—	—	105-120	66·7-76·2	13·00 to 14·00	0·512 to 0·551	100-115	63·5-73·0	90-105	57·1-66·7
—	—	—	—	—	—	15·00 to 17·00	0·591 to 0·669	90-105	57·1-66·7	80-95	50·8-60·3

TABLE 11 SPECIFIED TENSILE LIMITS FOR HARD DRAWN STEEL WIRE (JIS G 3521)

Ref No. 1423

Diameter		Tensile Strength					
		Class A		Class B		Class C	
mm	in	kg/mm²	tons/in²	kg/mm²	tons/in²	kg/mm²	tons/in²
0·08	0·003 15	215-250	136·5-158·7	250-285	158·7-181·0	285-320	181·0-203·2
0·09	0·003 54	210-245	133·3-155·6	245-280	155·6-177·8	280-315	177·8-200·0
0·10	0·003 94	205-240	130·2-152·4	240-275	152·4-174·6	275-310	174·6-196·8
0·12	0·004 72	200-235	127·0-149·2	235-270	149·2-171·4	270-305	171·4-193·6
0·14	0·005 5	200-230	127·0-146·0	230-265	146·0-168·3	265-300	168·3-190·5
0·16	0·006 3	195-225	123·8-142·9	225-260	142·9-165·1	260-295	165·1-187·3
0·18	0·007 1	195-225	123·8-142·9	225-255	142·9-161·9	255-290	161·9-184·1
0·20	0·007 9	195-225	123·8-142·9	225-255	142·9-161·9	255-285	161·9-181·0
0·23	0·009 0	190-220	120·6-139·7	220-250	139·7-158·7	250-280	158·7-177·8
0·26	0·010 2	185-215	117·5-136·5	215-245	136·5-155·6	245-275	155·6-174·6
0·29	0·011 4	180-210	114·3-133·3	210-240	133·3-152·4	240-270	152·4-171·4
0·32	0·012 6	175-205	111·2-130·2	205-235	130·2-149·2	235-265	149·2-168·3
0·35	0·013 8	175-205	111·2-130·2	205-235	130·2-149·2	235-265	149·2-168·3
0·40	0·015 7	170-200	107·9-127·0	200-230	127·0-146·0	230-260	146·0-165·1
0·45 to 0·50	0·019 7	165-195	104·8-123·8	195-225	123·8-142·9	225-255	142·9-161·9
0·55	0·021 6	160-190	101·6-120·6	190-220	120·6-139·7	220-250	139·7-158·7
0·60 to 0·65	0·023 6 to 0·025 6	160-185	101·6-117·5	185-215	117·5-136·5	215-245	136·9-155·6
0·70	0·027 5	155-180	98·4-114·3	180-210	114·3-133·3	210-240	133·3-152·4
0·80	0·031 5	155-180	98·4-114·3	180-205	114·3-130·2	205-235	130·2-149·2
0·90	0·035 4	155-180	98·4-114·3	180-205	114·3-130·2	205-230	130·2-140·6
1·00	0·039 4	150-175	95·2-111·2	175-200	111·2-127·0	200-225	127·0-142·9
1·20	0·047 2	145-170	92·1-107·9	170-195	107·9-123·8	195-220	123·8-139·7
1·40	0·055 1	140-165	88·9-104·8	165-190	104·8-120·6	190-215	120·6-136·5
1·60	0·063 0	135-160	85·7-101·6	160-185	101·6-117·5	185-210	117·5-133·3
1·80	0·070 9	130-155	82·5-98·4	155-180	98·4-114·3	180-205	114·3-130·2
2·00	0·078 7	130-150	82·5-95·2	155-175	98·4-111·2	175-200	111·2-127·0
2·30 to 2·60	0·090 5 to 0·102 3	125-145	79·4-92·1	145-170	92·1-107·9	170-195	107·9-123·8
2·90	0·114 1	120-140	76·2-88·9	140-165	88·9-104·8	165-190	104·8-120·6
3·20	0·126 0	120-140	76·2-88·9	140-160	88·9-101·6	160-185	101·6-117·5
3·50	0·137 8	120-140	76·2-88·9	140-160	88·9-101·6	160-180	101·6-114·3
4·00	0·157 5	115-135	73·0-85·7	135-155	85·7-98·4	155-175	98·4-111·2
4·50	0·177 2	110-130	69·8-82·5	130-150	82·5-95·2	150-170	95·2-107·9
5·00	0·196 8	105-125	66·7-79·4	125-145	79·4-92·1	145-165	92·1-104·8
5·50	0·216 5	100-120	63·5-76·2	120-140	76·2-88·9	140-160	88·9-101·6
6·00 to 6·50	0·236 2 to 0·256 0	95-115	60·3-73·0	115-135	73·0-85·7	135-155	85·7-98·4
7·00 to 8·00	0·275 6 to 0·315 0	90-110	57·1-69·8	110-130	69·8-82·5	130-150	82·5-95·2
9·00 to 10·00	0·254 3 to 0·393 7	85-105	54·0-66·7	105-125	66·7-79·4	125-145	79·4-92·1

TABLE 12 SPECIFIED TENSILE LIMITS FOR SPRING STEEL WIRE (PATENTED) (GOST 9389)

Ref No. 1424

Diameter		Tensile Strength					
		Class I		Class II		Class III	
mm	in	kg/mm²	tons/in²	kg/mm²	tons/in²	kg/mm²	tons/in²
0·14 to 0·30	0·005 5 to 0·011 8	270-310	171·4-196·8	225-270	142·9-171·4	175-225	111·1-142·9
0·32 to 0·60	0·012 5 to 0·023 6	265-305	168·3-193·7	220-265	139·7-168·3	170-220	107·9-139·7
0·63 to 0·80	0·024 8 to 0·031 5	260-300	165·1-190·4	215-260	136·5-165·1	170-215	107·9-136·5
0·85 to 0·90	0·033 5 to 0·035 4	255-290	161·9-184·1	210-255	133·3-161·9	165-210	104·7-133·3
1·00	0·039 4	250-285	158·7-181·0	205-250	130·2-158·7	165-210	104·7-133·3
1·10	0·043 3	240-275	152·4-174·6	195-240	123·8-152·4	155-200	98·4-127·0
1·20	0·047 2	240-270	152·4-171·4	195-240	123·8-152·4	155-200	98·4-127·0
1·30 to 1·40	0·051 2 to 0·055 1	230-260	146·0-165·1	190-230	123·8-152·4	150-190	95·2-120·6
1·50 to 1·60	0·059 0 to 0·063 0	220-250	139·7-158·7	185-220	117·5-139·7	145-185	92·1-117·5
1·70 to 1·80	0·066 9 to 0·070 9	210-240	133·3-152·4	180-210	114·3-133·3	140-180	88·9-114·3
2·00	0·078 7	200-230	127·0-146·0	180-210	114·3-133·3	140-180	88·9-114·3
2·20 to 2·30	0·086 6 to 0·090 5	190-220	120·6-139·7	170-200	107·9-127·0	140-175	88·9-111·1
2·50	0·098 4	180-205	114·3-130·2	165-195	104·8-123·8	130-165	82·5-104·8
2·80	0·110 2	175-200	111·1-127·0	165-195	104·8-123·8	130-165	82·5-104·8
3·00	0·118 1	170-195	107·9-123·8	165-195	104·8-123·8	130-165	82·5-104·8
3·20	0·130	170-195	107·9-123·8	155-185	98·4-117·5	120-155	76·2-98·4
3·40 to 3·60	0·133 8 to 0·141 7	165-190	104·8-123·8	155-180	98·4-114·3	120-155	76·2-98·4
4·00	0·157 4	160-185	101·6-117·5	150-175	95·2-111·1	115-150	73·0-95·2
4·50	0·177 1	150-175	95·2-111·1	140-165	88·9-104·8	115-145	73·0-92·1
5·00	0·196 8	150-175	95·2-111·1	140-165	88·9-104·8	110-140	69·8-88·9
5·60 to 6·00	0·220 5 to 0·236 2	145-170	92·1-107·9	135-160	85·7-101·6	105-135	66·7-85·7
6·30 to 8·00	0·248 0 to 0·315 0	—	—	125-145	79·4-92·1	100-125	63·579·4

TABLE 13 STANDARDS ON HARD DRAWN STEEL WIRE FOR PRESTRESSED CONCRETE

Ref No.	IS	BS	American ASTM	JIS	Size		Tensile Strength		
					mm	in	kgf/mm²	tonf/in²	1 000 lbf/in²
1425	1570 (Table XV)				8·00 7·10	0·315 0·280	150-165 150-165	95·2-104·8 95·2-104·8	
1426		2691 (CDSR)			7 7	0·276 0·276	150-165 160-175	95-105 100-110	
1427			A421 Grade BA		7·01	0·276	165·22 *Min*		235 *Min*
1428			A421 Grades BA and WA		6·35	0·250	168·73 *Min*		240 *Min*
1429		2691 (CD) and (CDSR)			5	0·200	160-175	100-110	
1430	1570 (Table XV)				5·00	0·197	160-175	101·6-111·1	
1431		2691 (CD) and (CDSR)			5	0·200	175-190	110-120	
1432			A421 Grade BA		4·98	0·196	168·73 *Min*		240 *Min*
1433			A421 Grade WA		4·98	0·196	175·76 *Min*		250 *Min*
1434			A421 Grade BA		4·88	0·192	175·76 *Min*		250 *Min*
1435		2691 (CD) and (CDSR)			4	0·160	175-190	110-120	
1436	1570 (Table XV)				4·00	0·157	175-190	111·1-120·6	
1437		2691 (CD) and (CDSR)			3·25	0·128	175-190	110-120	
1438		2691 (CD) and (CDSR)			3·25	0·128	190-205	120-130	
1439	1570 (Table XV)				3·15	0·124	190-205	120·6-130·2	
1440				G3536	2·9	0·114	189 *Min*	120 *Min*	
1441		2691 (CD)			3	0·104	175-190	120-130	
1442		2691 (CDSR)			2·5		190-205		
1443	1570 (Table XV)				2·50	0·098	205-220	130·2-139·7	
1444		2691 (CD)			2	0·080	205-220	130-140	
1445				G3536	2·0	0·079	207 *Min*	131·4 *Min*	
1446	1570 (Table XV)				2·00	0·079	220-225	139·7-149·2	
1447	1570 (Table XV)				1·60	0·063	235-250	149·2-158·7	

NOTE — In case of B.S. 2691 (i) the symbols (CD) and (CDSR) indicate cold drawn wire, and cold drawn and stress relieved wire respectively, and (ii) the metric values given under size and tensile strength columns are nearest preferred metric values.

TABLE 14 CARBON AND CARBON-MANGANESE FREE CUTTING STEELS

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	S Percent	P Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation									
1448			1111	B1111							Bars	0·13 *Max*	—	0·60-0·90	0·08-0·15	0·07-0·12	
1449					A107 Grades B1111						Bars	0·13 *Max*	—	0·60-0·90	0·08-0·15	0·07-0·12	
1450					A108 Grades B1111						Bars	0·13 *Max*	—	0·60-0·90	0·08-0·15	0·07-0·12	
1451			1108	C1108							Bars	0·08-0·13	—	0·50-0·80	0·08-0·13	0·040 *Max*	
1452			1109	C1109							Bars	0·08-0·13	—	0·60-0·90	0·08-0·13	0·040 *Max*	
1453					A107 Grade 1109						Bars	0·08-0·13	—	0·60-0·90	0·08-0·13	0·04 *Max*	
1454	1570-10S11										Billets, bars, forgings	0·15 *Max*	0·05-0·30	0·60-0·90	0·08-0·13	0·06 *Max*	
1455									G4804 Grade SUM1B		Billets, bars, forgings	0·15 *Max*	0·10-0·30	0·40-0·80	0·200 *Max*	0·050 *Max*	
1456										1414 Grade A 12	Billets, bars, forgings	0·08-0·16	0·15-0·35	0·60-0·90	0·08-0·20	0·08-0·15	
1457		970 En202									Billets, bars, forgings	0·18 *Max*	0·05-0·35	1·20-1·50	0·10-0·18	0·050 *Max*	
1458	1570-14Mn1 S14										Billets, bars, forgings	0·10-0·18	0·05-0·30	1·20-1·50	0·10-0·18	0·060 *Max*	
1459	2073-14Mn1 S14										Bars	0·10-0·18	0·05-0·30	1·20-1·50	0·10-0·18	0·060 *Max*	
1460		970 En32M									Billets, bars, forgings	0·10-0·18	0·05-0·35	0·90-1·20	0·10-0·15	0·050 *Max*	
1461									G4804 Grade SUM2		Billets, bars, forgings	0·10-0·18	0·10-0·30	0·60-1·10	0·20 *Max*	0·040 *Max*	
1462		970 En7									Bars	0·10-0·30	0·25 *Max*	0·70-1·30	0·10-0·18	0·060 *Max*	
1463		970 En7A									Bars	0·12-0·18	0·25 *Max*	1·00-1·50	0·10-0·18	0·060 *Max*	
1464			1117	C1117							Bars	0·14-0·20	—	1·00-1·30	0·08-0·13	0·040 *Max*	
1465					A107 Grade 1117						Bars	0·14-0·20	—	1·00-1·30	0·08-0·13	0·040 *Max*	
1466					A108 Grade 1117						Bars	0·14-0·20	—	1·00-1·30	0·08-0·13	0·040 *Max*	
1467			1118	C1113							Bars	0·14-0·20	—	1·30-1·60	0·08-0·13	0·040 *Max*	
1468					A107 Grade 1118						Bars	0·14-0·20	—	1·30-1·60	0·08-0·13	0·040 *Max*	
1469					A108 Grade 1118						Bars	0·14-0·20	—	1·30-1·60	0·08-0·13	0·040 *Max*	
1470									G4804 Grade SUM3		Billets, bars, forgings	0·15-0·25	0·10-0·30	0·70-1·20	0·200 *Max*	0·050 *Max*	
1471										1414 Grade A 20	Bars	0·15-0·25	0·15-0·35	0·60-0·90	0·08-0·15	0·06 *Max*	
1472			1120	C1120							Bars	0·18-0·23	—	0·70-1·00	0·08-0·13	0·040 *Max*	
1473					A107 Grade 1120						Bars	0·18-0·23	—	0·70-1·00	0·08-0·13	0·040 *Max*	

(*Continued*)

TABLE 14 CARBON AND CARBON-MANGANESE FREE CUTTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	S Percent	P Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation									
1474	1570-25Mn1 S14										Billets, bars, forgings	0·20-0·30	0·25 *Max*	1·00-1·50	0·10-0·18	0·060 *Max*	
1475			1126	C1126													
1476											Bars	0·23-0·29	—	0·70-1·00	0·08-0·13	0·040 *Max*	
1477									G4804 Grade SUM4		Billets, bars, forgings	0·25-0·35	0·10-0·30	0·70-1·20	0·200 *Max*	0·045 *Max*	
1478			1132	C1132						1414 Grade A 30	Bars	0·25-0·35	0·15-0·35	0·70-1·0	0·08-0·15	0·06 *Max*	
1479											Bars	0·27-0·34	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1480		970 En8AM				1651	1.0726	35S20			Bars	0·32-0·40	0·10-0·40	0·50-0·90	0·15-0·25	0·07 *Max*	
1481		970 En8BM									Billets, bars, forgings	0·33-0·38	0·25 *Max*	0·90-1·30	0·12-0·20	0·060 *Max*	
1482	1570-40S18										Billets, bars, forgings	0·35-0·40	0·25 *Max*	0·90-1·30	0·12-0·20	0·060 *Max*	
1483		970 En8M									Billets, bars, forgings	0·35-0·45	0·25 *Max*	0·80-1·20	0·14-0·22	0·060 *Max*	
1484											Billets, bars, forgings	0·35-0·45	0·25 *Max*	0·90-1·30	0·12-0·20	0·060 *Max*	
1485			1140	C1140					G4804 Grade SUM5		Billets, bars, forgings	0·35-0·45	0·10-0·30	0·70-1·20	0·200 *Max*	0·045 *Max*	
1486		970 En8CM									Bars	0·37-0·44	—	0·70-1·00	0·08-0·13	0·040 *Max*	
1487		970 En8DM									Billets, bars, forgings	0·38-0·43	0·25 *Max*	0·90-1·30	0·12-0·20	0·060 *Max*	
1488			1146	C1146							Billets, bars, forgings	0·40-0·45	0·25 *Max*	0·90-1·30	0·12-0·20	0·060 *Max*	
1489						1651	1.0727	45S20			Bars	0·42-0·49	—	0·70-1·00	0·08-0·13	0·040 *Max*	
1490						1651	1.0711	9S20			Bars	0·42-0·50	0·10-0·40	0·50-0·90	0·15-0·25	0·07 *Max*	
1491						1651	1.0721	10S20			Bars	0·12 *Max*	—	0·50-0·90	0·20-0·27	0·035-0·10	
1492			1112	B1112							Bars	0·06-0·12	0·10-0·40	0·50-0·90	0·18-0·26	0·07 *Max*	
1493					A107 Grade B1112						Bars	0·13 *Max*	—	0·70-1·00	0·16-0·23	0·07-0·12	
1494					A108 Grade B1112						Bars	0·13 *Max*	—	0·70-1·00	0·16-0·23	0·07-0·12	
1495						1651	1.0713	9SMn23			Bars	0·13 *Max*	—	0·90-1·30	0·20-0·27	0·035-0·10	
1496									G4804 Grade SUM1A		Billets, bars, forgings	<0·15	<0·04	0·40-0·80	0·250 *Max*	0·150 *Max*	
1497		970 En1A									Billets, bars, forgings	0·07-0·15	0·10 *Max*	0·80-1·20	0·20-0·30	0·070 *Max*	
1498	1570-13S25										Billets, bars, forgings	0·08-0·18	0·10 *Max*	0·80-1·20	0·20-0·30	0·060 *Max*	
1499	2073-13S25										Billets, bars, forgings	0·08-0·18	0·10 *Max*	0·80-1·20	0·20-0·30	0·060 *Max*	
1500						1651	1.0723	15S20			Bars	0·12-0·18	—	0·50-0·90	0·18-0·26	0·07 *Max*	
1501			1119	C1119							Bars	0·14-0·20	—	1·00-1·30	0·24-0·33	0·040 *Max*	
1502						1651	1.0724	22S20			Bars	0·18-0·25	0·10-0·40	0·50-0·90	0·15-0·25	0·07 *Max*	
1503		970 En15AM									Billets, bars, forgings	0·30-0·40	0·25 *Max*	1·30-1·70	0·12-0·20	0·060 *Max*	
1504			1137	C1137							Bars	0·32-0·39	—	1·35-1·65	0·08-0·13	0·040 *Max*	

(*Continued*)

TABLE 14 CARBON AND CARBON—MANGANESE FREE CUTTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	S Percent	P Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation									
1505					A107 Grade 1137						Bars	0·32-0·39	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1506					A108 Grade 1137						Bars	0·32-0·39	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1507					A311 Grade 1137						Bars	0·32-0·39	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1508			1139	C1139							Bars	0·35-0·43	—	1·35-1·65	0·12-0·20	0·040 *Max*	
1509	1570-40Mn2S12										Billets, bars, forgings	0·35-0·45	0·25 *Max*	1·30-1·70	0·08-0·15	0·060 *Max*	
1510			1141	C1141							Bars	0·37-0·45	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1511					A107 Grade 1141						Bars	0·37-0·45	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1512					A108 Grade 1141						Bars	0·37-0·45	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1513					A311 Grade 1141						Bars	0·37-0·45	—	1·35-1·65	0·08-0·13	0·040 *Max*	
1514			1144	C1144							Bars	0·40-0·48	—	1·35-1·65	0·24-0·33	0·040 *Max*	
1515					A108 Grade 1144						Bars	0·40-0·48	—	1·35-1·65	0·24-0·33	0·040 *Max*	
1516					A311 Grade 1144						Bars	0·40-0·48	—	1·35-1·65	0·24-0·33	0·040 *Max*	

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS)

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Product	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werk-stoff Nummer	Code Designation										
1517	1570–37Si2 Mn90										Spring steel	0·33-0·40	1·50-2·00	0·80-1·00	—	—	—	
1518						17200	1.5122	37MnSi5			Heat treatable rolled and forged products	0·33-0·41	1·1-1·4	1·1-1·4	—	—	—	
1519						17221	.0967	38Si6			Spring steel	0·35-0·42	1·4-1·6	0·70-1·00	—	—	—	
1520		970 En46									Spring steel	0·35-0·45	1·50-2·00	0·70-1·00	—	—	—	
1521		24 Part 3A Grades 3 and 4									Spring steel	0·35-0·45	1·50-2·00	0·70-1·00	—	—	—	
1522						17221	.0968	46Si7			Spring steel	0·42-0·50	1·5-1·8	0·50-0·80	—	—	—	
1523										2052 Grade 50 C 2	Spring steel	0·47-0·55	1·50-2·00	0·60-0·90	0·40 *Max*	0·30 *Max*	—	
1524						17221	.0969	51Si7			Spring steel	0·48-0·55	1·5-1·8	0·50-0·80	—	—	—	
1525	1570–55Si2 Mn90										Spring steel	0·50-0·60	1·50-2·00	0·80-1·00	—	—	—	
1526		970 En45									Spring steel	0·50-0·60	1·50-2·00	0·70-1·00	—	—	—	
1527		24 Part 3A Grades 1 and 2									Spring steel	0·50-0·60	1·50-2·00	0·70-1·00	—	—	—	
1528		24 Part 3B									Spring steel	0·50-0·60	1·50-2·00	0·70-1·00	—	—	—	
1529		1429 En45									Spring steel wire	0·50-0·60	1·50-2·00	0·70-1·00	—	—	—	
1530			9255	9255							Spring steel	0·50-0·60	1·80-2·20	0·70-0·95	—	—	—	
1531										2052 Grade 55 CГ	Spring steel	0·50-0·60	1·30-1·80	0·80-1·00	—	—	—	
1532						17221	.0970	55Si7			Spring steel	0·52-0·60	1·5-1·8	0·7-1·0	—	—	—	
1533						17222	.0970	55Si7			Spring steel	0·52-0·60	1·5-1·8	0·7-1·0	—	—	—	
1534										2052 Grade 55 C 2	Spring steel	0·52-0·60	1·50-2·00	0·60-0·90	0·40 *Max*	0·30 *Max*	—	
1535										2052 Grade 60 CГA	Spring steel	0·56-0·64	1·30-1·80	0·80-1·00	0·40 *Max*	0·30 *Max*	—	
1536										2052 Grade 60 C 2 A	Spring steel	0·56-0·64	1·60-2·00	0·60-0·90	0·40 *Max*	0·30 *Max*	—	
1537										2052 Grade 60 CГ	Spring steel	0·55-0·65	1·30-1·80	0·80-1·00	0·40 *Max*	0·30 *Max*	—	
1538		970 En45A									Spring steel	0·55-0·65	1·70-2·00	0·70-1·00	—	—	—	
1539		24 Part 3B									Spring steel	0·55-0·65	1·70-2·20	0·70-1·00	—	—	—	
1540		1429 En45A									Spring steel wire	0·55-0·65	1·70-2·00	0·70-1·00	—	—	—	
1541			9260	9260							Spring steel	0·55-0·65	1·80-2·20	0·70-1·00	—	—	—	
1542					A59						Bars for springs	0·55-0·65	1·80-2·20	0·70-1·00	—	—	—	
1543									G4801 Class 6 SUP6		Spring steel	0·55-0·65	1·50-1·80	0·70-1·00	—	—	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1544									G4801 Class 7 SUP7		Spring steel	0·55-0·65	1·80-2·20	0·70-1·00	—	—	—	
1545										2052 Grade 60 C 2	Spring steel	0·57-0·65	1·50-2·00	0·60-0·90	0·40 *Max*	0·30 *Max*	—	
1546										5058 Grade 09 Г 2	Rolled and forged product	0·12 *Max*	0·20-0·40	1·40-1·80	0·30 *Max*	0·30 *Max*	—	Cu 0·30 *Max*
1547		2772 Part 2									Billets, bars, forgings	0·10-0·15	0·10-0·35	1·30-1·70	0·30 *Max*	0·20 *Max*	—	For ruling section 100 mm and under
1548		1501-224 Grade 26									Plate	0·15 *Max*	0·10-0·35	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1549	1570-11Mn2										Billets, bars, forgings, sections, plate	0·16 *Max*	0·10-0·35	1·30-1·70	—	—	—	
1550							1.5063	12Mn6			Filler rods	0·09-0·16	0·12 *Max*	1·35-1·65	—	—	—	Cu 0·22 *Max*
1551							1.5064	12Mn6A1			Filler rods	0·09-0·16	0·12-0·25	1·4-1·8	—	—	—	Aluminium killed (Al 0·030 *Max*)
1552		2762 Grades NDIII and IV									Notch ductile steel	0·17 *Max*	0·10-0·35	1·50 *Max*	—	—	—	
1553		1501-211 Grade 26									Plate	0·17 *Max*	0·10 *Max*	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1554		1501-213 Grade 28									Plate	0·17 *Max*	0·10 *Max*	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1555		1501-221 Grade 26									Plate	0·17 *Max*	0·10-0·55	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1556		1501-224 Grade 28									Plate	0·17 *Max*	0·10-0·55	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1557		2T6									Tubes	0·18 *Max*	0·05-0·30	1·5 *Max*	—	0·3 *Max*	—	
1558									G3444 Class 4 STK50		Tubes	0·18 *Max*	0·55 *Max*	1·50 *Max*	—	—	—	
1559									G3445 Class 7 STKM50		Tubes	0·18 *Max*	0·55 *Max*	1·50 *Max*	—	—	—	
1560									G3106 Class 1C SM41C		Plate	0·18 *Max*	0·35 *Max*	1·40 *Max*	—	—	—	
1561									G3106 Class 2B SM50B		Plates, sections	0·18 *Max*	0·55 *Max*	1·50 *Max*	—	—	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1562									G3106 Class 2C SM50C		Plate	0·18 *Max*	0·55 *Max*	1·50 *Max*	—	—	—	
1563										5058 Grade 141 2	Rolled and forged products	0·12-0·18	0·20-0·40	1·20-1·60	0·30 *Max*	0·30 *Max*	—	Cu 0·30 *Max*
1564		1501-211 Grade 28									Plate	0·19 *Max*	0·10 *Max*	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1565		1501-221 Grade 28									Plate	0·19 *Max*	0·10-0·55	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1566		1510-213 Grade 30									Plate	0·20 *Max*	0·10 *Max*	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0.20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1567		1501-224 Grade 30									Plate	0·20 *Max*	0·10-0·55	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1568		2762 Grades NDI and NDII									Notch ductile steel	0·20 *Max*	—	1·50 *Max*	—	—	—	
1569		968									Plate, sections, bars	0·20 *Max*	0·35 *Max*	1·5 *Max*	—	0·50 *Max*	—	Mn + Cr 1·60 *Max*, Cu 0·50 *Max*, Grain refining elements optional 0·10 *Max*
1570		1453A2									Filler rods	0·10-0·20	0·10-0·35	1·00-1·60	—	—	—	
1571		1501-211 Grade 30									Plate	0·21 *Max*	0·10 *Max*	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1572		1501-221 Grade 30									Plate	0·21 *Max*	0·10-0·55	0·90-1·50	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1573		968									Plate, sections, bars	0·22 *Max*	0·35 *Max*	1·50 *Max*	—	0·50 *Max*		Mn + Cr 1·6 *Max*, Cu 0·50 *Max* and Grain refining elements optional 0·10 *Max*
1574		1501-213 Grade 32									Plate	0·22 *Max*	0·10 *Max*	0·90-1·60	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1575		1501-224 Grade 32									Plate	0·22 *Max*	0·10-0·55	0·90-1·60	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werk-stoff Nummer	Code Designation										
1576		1501-211 Grade 32									Plate	0·23 *Max*	0·10 *Max*	0·90-1·60	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mn + Cu 0·70 *Max*
1577		1501-221 Grade 32									Plate	0·23 *Max*	0·10-0·55	0·90-1·60	0·30 *Max*	0·25 *Max*	0·10 *Max*	Cu 0·20 *Max* and Ni + Cr + Mo + Cu 0·70 *Max*
1578		1503-221									Forgings	0·23 *Max*	0·10-0·35	1·20-1·70	0·40 *Max*	0·25 *Max*	0·15 *Max*	Cu 0·40 *Max* and Ni + Cr + Mo + Cu 0·80 *Max*
1579		970 En14A/1									Billets, bars, forgings	0·23 *Max*	0·05-0·35	1·20 *Min*	—	—		Mn + Ni + Cr + Mo 2·0 *Max* and Cu 0·60 *Max* (optional)
1580		24 Part 6 Grade 614									Plate, sections, bars	0·23 *Max*	0·10-0·35	1·30-1·70	0·40 *Max*	0·25 *Max*	—	
1581		24 Part 6 Grade 632B									Frame plate (loco tenders and bogies)	0·23 *Max*	0·35 *Max*	1·80 *Max*	0·50 *Max*	0·35 *Max*	—	
1582		1449 Pt 2A En14A NHR25									Plate	0·13-0·23	0·35 *Max*	1·70 *Max*	—	—	—	
1583		1449 Pt 2B En14A									Sheet	0·15-0·23	0·10-0·35	1·30-1·70	—	—	—	
1584	1570-20Mn2										Billets, bars, forgings, sections, tubes, plate, sheet, strip	0·16-0·24	0·10-0·35	1·30-1·70	—	—	—	
1585	2041-20Mn2										Plate	0·16-0·24	0·10-0·35	1·30-1·70	—	—	—	
1586	2100 Grade 2										Billets, bars, sections	0·16-0·24	0·10-0·35	1·30-1·70	—	—	—	
1587		970 En14A									Billets, bars, forgings	0·15-0·25	0·10-0·35	1·30-1·70	0·40 *Max*	0·25 *Max*	—	
1588		S514									Sheet, strip	0·17-0·25	0·10-0·35	1·3-1·7	0·40 *Max*	0·25 *Max*	—	
1589		S515									Sheet, strip	0·17-0·25	0·10-0·35	1·3-1·7	0·40 *Max*	0·25 *Max*	—	
1590							1.5083	21Mn6			Filler rods	0·18-0·25	0·15-0·25	1·5-1·8	—	—	—	
1591			1024	C1024							Billets, bars, rods, and seamless tubes	0·19-0·25	—	1·30-1·65	—	—	—	
1592		2S92									Billets, bars, forgings	0·18-0·26	0·10-0·35	1·3-1·7	0·40 *Max*	0·25 *Max*	0·10 *Max*	For ruling section up to 63 mm
1593			1024								Sections, plate, sheet, strip, welded tubes	0·18-0·26	—	1·30-1·65	—	—	—	
1594		980 CDS9 and CDS10									Seamless tubes	0·26 *Max*	0·35 *Max*	1·2-1·7	—	—	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1595		3T35									Tubes	0·26 *Max*	0·05-0·35	1·2-1·7	0·30 *Max*	—	—	
1596		3T45									Tubes	0·26 *Max*	0·05-0·35	1·2-1·7	0·30 *Max*	—	—	
1597					A440						Structural steel	0·28 *Max*	0·30 *Max*	1·10-1·60	—	—	—	Cu 0·20 *Min*
1598			1027								Sections, plate, sheet, strip, welded tubes	0·21-0·29	—	1·20-1·55	—	—	—	
1599			1027	C1027							Billets, bars, rods, seamless tubes	0·22-0·29	—	1·20-1·50	—	—	—	
1600					A195						Rivet steel	0·30 *Max*	0·25 *Max*	1·65 *Max*	—	—	—	Cu 0·20 *Min*
1601		2S92									Billets, bars, forgings	0·18-0·30	0·10-0·35	1·3-1·7	0·40 *Max*	0·25 *Max*	0·10 *Max*	For ruling section greater than 63 mm
1602		970 En14B									Billets, bars, forgings	0·20-0·30	0·10-0·35	1·30-1·70	0·40 *Max*	—	—	
1603		1453A3									Filler rods	0·25-0·30	0·30-0·50	1·30-1·60	0·25 *Max*	0·25 *Max*	—	
1604	1570-27Mn2										Billets, bars, forgings, sections, plate, tubes	0·22-0·32	0·10-0·35	1·30-1·70	—	—	—	
1605					A94						Structural shapes, plates, bars	0·33 *Max*	0·30 *Max*	1·10-1·60	—	—	—	i) For plates and bars up to 38 mm only ii) Cu 0·20 *Min*
1606					A94						Plates, bars	0·33 *Max*	0·15-0·30	1·10-1·60	—	—	—	i) For size over 38 mm ii) Cu 0·20 *Min*
1607					A304 Grade 1330H						Bars	0·27-0·33	0·20-0·35	1·45-2·05	—	—	—	
1608			1330	1330							Billets, bars	0·28-0·33	0·20-0·35	1·60-1·90	—	—	—	
1609					A274 Grade 1330						Blooms, billets, slabs	0·28-0·33	0·20-0·35	1·60-1·90	—	—	—	
1610					A322 Grade 1330						Bars	0·28-0·33	0·20-0·35	1·60-1·90	—	—	—	
1611						17200	1.5066	30Mn5			Heat treatable rolled and forged products	0·27-0·34	0·15-0·35	1·2-1·5	—	0·30 *Max*	—	
1612			1036	C1036							Billets, bars, rods, seamless tubes	0·30-0·37	—	1·20-1·50	—	—	—	
1613			1036								Sections, plate, sheet, strip, welded tubes	0·29-0·38	—	1·20-1·55	—	—	—	
1614					A304 Grade 1335H						Bars	0·32-0·38	0·20-0·35	1·45-2·05	—	—	—	
1615			1335	C1335							Billets, bars	0·33-0·38	0·20-0·35	1·60-1·90	—	—	—	
1616					A322 Grade 1335						Bars	0·33-0·38	0·20-0·35	1·60-1·90	—	—	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1617		1045									Gas cylinders	0·40 *Max*	0·30 *Max*	1·3-1·7	—	—	—	
1618		1288									Gas cylinders	0·40 *Max*	0·30 *Max*	1·3-1·7	—	—	—	
1619		3T1									Tubes	0·40 *Max*	0·35 *Max*	1·75 *Max*	—	—	—	
1620		970 En15									Billets, bars, forgings	0·30-0·40	0·10-0·35	1·30-1·70	—	—	—	
1621		970 En 15A									Billets, bars, forgings	0·30-0·40	0·05-0·35	1·30-0·70	—	—	—	
1622							1.5067	36Mn5			Forgings	0·32-0·40	0·15-0·35	1·2-1·5	—	—	—	
1623		970 En15B									Billets, bars, forgings	0·35-0·40	0·05-0·35	1·10-1·30	—	—	—	
1624	1570–37Mn2										Bars, forgings	0·32-0·42	0·10-0·35	1·30-1·70	—	—	—	
1625			1340	1340							Billets, bars	0·38-0·43	0·20-0·35	1·60-1·90	—	—	—	
1626					A274 Grade 1340						Blooms, billets, slabs	0·38-0·43	0·20-0·35	1·60-1·90	—	—	—	
1627					A322 Grade 1340						Bars	0·38-0·43	0·20-0·35	1·60-1·90	—	—	—	
1628			1041	C1041							Billets, bars, rods, seamless tubes	0·36-0·44	—	1·30-1·65	—	—	—	
1629					A304 Grade 1340H						Bars	0·37-0·44	0·20-0·35	1·45-2·05	—	—	—	
1630			1041								Sections, plate, sheet, strip, welded tubes	0·35-0·45	—	1·30-1·65	—	—	—	
1631					A372 Class III						Forgings	0·48 *Max*	0·15-0·30	1·65 *Max*	—	—	—	
1632			1345	1345							Billets, bars	0·43-0·48	0·20-0·35	1·60-1·90	—	—	—	
1633		S516									Sheet, strip	0·42-0·50	0·10-0·35	1·3-1·7	—	—	—	
1634		S517									Sheet, strip	0·42-0·50	0·10-0·35	1·3-1·7	—	—	—	
1635			1047								Billets, bars	0·43-0·51	—	1·35-1·65	—	—	—	
1636	1570–47Mn2										Sheet, strip	0·42-0·52	0·10-0·35	1·30-1·70	—	—	—	
1637			1048								Billets, bars, rods, seamless tubes	0·44-0·52	—	1·10-1·40	—	—	—	
1638			1048								Sections, plate, sheet, strip, welded tubes	0·43-0·53	—	1·05-1·40	—	—	—	
1639										6544	Tram rails	0·40-0·55	0·15-0·35	1·2-1·6	—	—	—	
1640			1052	C1052							Billets, bars, rods, seamless tubes	0·47-0·55	—	1·20-1·50	—	—	—	
1641			1052								Sections, plate, sheet, strip, welded tubes	0·46-0·56	—	1·20-1·35	—	—	—	
1642							1.5417	20MnMo4			Seamless drums	0·17-0·23	0·15-0·35	1·0-1·2	—	—	0·20-0·30	
1643		980 CDS11									Seamless tubes	0·26 *Max*	0·35 *Max*	1·2-1·7	—	—	0·15-0·25	
1644		1717 CDS109									Seamless tubes	0·26 *Max*	0·35 *Max*	1·2-1·75	—	—	0·15-0·25	
1645		970 En16A									Billets, bars, forgings	0·25-0·30	0·10-0·35	1·30-1·80	—	—	0·20-0·35	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1646		970 En16D									Billets, bars, forgings	0·25-0·35	0·10-0·35	1·30-1·80	—	—	0·20-0·35	
1647		970 En16B									Billets, bars, forgings	0·30-0·35	0·10-0·35	1·30-1·80		—	0·20-0·35	
1648	1570-35Mn2 Mo28										Bars, forgings	0·30-0·40	0·10-0·35	1·30-1·80		—	0·20-0·35	
1649		970 En16									Billets, bars, forgings	0·30-0·40	0·10-0·35	1·30-1·80		—	0·20-0·35	
1650		2S114									Billets, bars, forgings	0·32-0·40	0·10-0·35	1·3-1·7	—	—	0·22-0·32	
1651		970 En16C									Billets, bars, forgings	0·35-0·40	0·10-0·35	1·30-1·80	—	—	0·20-0·35	
1652	1570-35Mn2 Mo45										Bars, forgings	0·30-0·40	0·10-0·35	1·30-1·80	—	—	0·35-0·55	
1653		970 En17									Billets, bars, forgings	0·30-0·40	0·10-0·35	1·30-1·80	—	—	0·35-0·55	
1654					A316 Grade E7010A1						Welding electrodes	0·12 *Max*	0·40 *Max*	0·60 *Max*	—	—	0·40-0·65	
1655					A316 Grade E7011A1						Welding electrodes	0·12 *Max*	0·40 *Max*	0·60 *Max*	—	—	0·40-0·65	
1656					A316 Grade E7015A1						Welding electrodes	0·12 *Max*	0·60 *Max*	0·90 *Max*	—	—	0·40-0·65	
1657					A316 Grade E7016A1						Welding electrodes	0·12 *Max*	0·60 *Max*	0·90 *Max*	—	—	0·40-0·65	
1658					A316 Grade E7018A1						Welding electrodes	0·12 *Max*	0·80 *Max*	0·90 *Max*	—	—	0·40-0·65	
1659					A316 Grade E7020A1						Welding electrodes	0·12 *Max*	0·40 *Max*	0·60 *Max*	—	—	0·40-0·65	
1660					A209 Grade T1b						Seamless tubes	0·14 *Max*	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1661					A250 Grade T1b						Welded tubes	0·14 *Max*	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1662	1570-10Mo55										Bars, forgings, plate, sections, tubes	0·15 *Max*	0·10-0·35	0·40-0·70	0·30 *Max*	0·25 *Max*	0·45-0·65	
1663		3059/7									Tubes	0·15 *Max*	0·10-0·35	0·40-0·70	0·30 *Max*	—	0·45-0·65	Cu 0·30 *Max* and Sn 0·040 *Max*
1664		3059/8									Tubes	0·15 *Max*	0·10-0·35	0·40-0·70	0·30 *Max*	—	0·45-0·65	Cu 0·30 *Max* and Sn 0·040 *Max*
1665							1.5424	13MnMo35			Filler rods	0·09-0·16	0·20-0·30	0·65-0·90	—	—	0·40-0·60	Cu 0·22 *Max*
1666										4543 Grade 12 MA	Structural steel	0·10-0·16	0·17-0·37	0·40-0·70	0·30 *Max*	0·30 *Max*	0·40-0·55	
1667		1508-240									Tubes	0·17 *Max*	0·10-0·35	0·40-0·80	0·30 *Max*	—	0·40-0·70	
1668					A204 Grade A						Plate	0·18 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section 25 mm and under

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1669										4543 Grade 15 M	Structural steel	0·10-0·18	0·17-0·37	0·40-0·70	0·30 *Max*	0·30 *Max*	0·40-0·55	
1670		1507-240A									Seamless tubes	0·20 *Max*	0·10-0·35	0·40-0·80	0·30 *Max*	—	0·40-0·70	
1671					A204 Grade B						Plate	0·20 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section 25 mm and under
1672		1730									Seamless tubes	0·20 *Max*	0·10-0·50	0·30-0·80	—	—	0·45-0·65	
1673		1503-240A									Forgings	0·20 *Max*	0·10-0·35	0·45-0·80	0·40 *Max*	0·25 *Max*	0·40-0·70	Cu 0·40 *Max* and Ni+Cr+Cu 0·80 *Max*
1674					A161 Grade T1						Seamless tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1675					A209 Grade T1						Seamless tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1676					A250 Grade T1						Welded tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·45-0·65	
1677					A335 Grade P1						Seamless tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1678					A369 Grade FP1						Tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1679									G3458 Class 12 STPA12		Tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·45-0·65	
1680									G3462 Class 12 STBA12		Tubes	0·10-0·20	0·10-0·50	0·30-0·80	—	—	0·45-0·65	
1681		806 Class M									Seamless tubes	0·15-0·20	0·10-0·35	0·40-0·70	0·3 *Max*	—	0·45-0·65	Cu 0·2 *Max* and Sn 0·05 *Max*
1682					A204 Grade A						Plate	0·21 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 25 mm up to 50 mm
1683					A204 Grade A						Plate	0·23 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 50 mm up to 100 mm
1684			4520	4520							Billets, bars	0·18-0·23	0·20-0·35	0·45-0·65	—	—	0·45-0·60	
1685					A204 Grade B						Plate	0·23 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 25 mm up to 50 mm
1686					A204 Grade C						Plate	0·23 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section 25 mm and under
1687										4543 Grade 20 MA	Structural steel	0·17-0·24	0·17-0·37	0·40-0·70	0·30 *Max*	0·30 *Max*	0·40-0·55	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1688					A204 Grade A						Plate	0·25 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 100 mm and up to 150 mm
1689					A204 Grade B						Plate	0·25 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 50 mm up to 100 mm
1690	1570–20Mo55										Bars, forgings, plate, sections, tubes	0·15-0·25	0·10-0·35	0·40-0·70	0·30 *Max*	0·25 *Max*	0·45-0·65	
1691	2041–20Mo55										Plate	0·15-0·25	0·10-0·35	0·40-0·70	0·30 *Max*	0·25 *Max*	0·45-0·65	
1692		1113									Forgings	0·15-0·25	0·10-0·35	0·40-0·70	0·30 *Max*	—	0·45-0·65	Cu 0·30 *Max* and Sn 0·040 *Max*
1693					A209 Grade T1a						Seamless tubes	0·15-0·25	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1694					A250 Grade T1a						Welded tubes	0·15-0·25	0·10-0·50	0·30-0·80	—	—	0·44-0·65	
1695										4543 Grade 20 M	Structural steel	0·15-0·25	0·17-0·37	0·40-0·70	0·30 *Max*	0·30 *Max*	0·40-0·55	
1696					A204 Grade C						Plate	0·26 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 25 mm up to 50 mm
1697					A204 Grade B						Plate	0·27 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 100 mm up to 150 mm
1698		1507–240B									Tubes	0·20-0·27	0·10-0·35	0·40-0·80	0·30 *Max*	—	0·40-0·70	
1699					A204 Grade C						Plate	0·28 *Max*	0·15-0·30	0·90 *Max*	—	—	0·45-0·60	For ruling section over 50 mm up to 100 mm
1700		1503–240B									Forgings	0·30 *Max*	0·10-0·35	0·45-0·80	0·40 *Max*	0·25 *Max*	0·40-0·70	Cu 0·40 *Max* and Ni+Cr+Cu 0·80 *Max*
1701					A182 Grade F1						Flange, forged fittings, valves, other parts for high temperature service	0·30 *Max*	0·15-0·35	0·50-0·85	—	—	0·44-0·65	
1702					A336 Grade F1						Seamless drums	0·20-0·30	0·20-0·35	0·60-0·80	—	—	0·40-0·60	
1703										4543 Grade 30 MA	Structural steel	0·26-0·34	0·17-0·37	0·50-0·80	0·40 *Max*	0·30 *Max*	0·40-0·55	
1704										4543 Grade 30 M	Structural steel	0·25-0·35	0·17-0·37	0·50-0·80	0·40 *Max*	0·30 *Max*	0·40-0·55	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1705	1570–33Mo55										Bars, forgings	0·25-0·40	0·10-0·35	0·40-0·70	0·30 *Max*	0·25 *Max*	0·40-0·65	
1706		1506–240									Bars	0·25-0·40	0·10-0·35	0·40-0·90	—	—	0·40 *Min*	
1707										5058 Grade 12 ХГ	Structural steel	0·14 *Max*	0·25-0·50	0·40-0·80	0·30 *Max*	0·40-0·70	—	
1708		970 En206									Billets, bars, forgings	0·12-0·17	0·10-0·35	0·30-0·50	—	0·30-0·50	—	
1709			5015	5015							Billets, bars	0·12-0·17	0·20-0·35	0·30-0·50	—	0·30-0·50	—	
1710	1570–15Cr65										Billets, bars, forgings	0·12-0·18	0·10-0·35	0·40-0·60	—	0·50-0·80	—	
1711						17210	1.7015	15Cr3			Billets, bars, sections, plate, sheet, strip, forgings, seamless tubes	0·12-0·18	0·15-0·35	0·40-0·60	—	0·50-0·80	—	
1712			5115	5115							Billets, bars	0·13-0·18	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1713		970 En207									Billets, bars, forgings	0·16-0·21	0·10-0·35	0·60-0·80	—	0·60-0·80	—	
1714			5120	5120							Billets, bars	0·17-0·22	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1715					A331 Grade 5120						Bars	0·17-0·22	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1716					A304 Grade 5120H						Bars	0·17-0·23	0·20-0·35	0·60-1·00	—	0·60-1·00	—	
1717	1570–17Mn1 Cr95										Billets, bars, forgings	0·14-0·19	0·10-0·35	1·00-1·30	—	0·80-1·10	—	
1718						17210	1.7131	16MnCr5			Billets, bars, sections, plate, sheet, strip, forgings, seamless tubes	0·14-0·19	0·15-0·35	1·0-1·3	—	0·80-1·1	—	
1719										4543 Grade 20 ХГ	Structural steel	0·15-0·25	0·17-0·37	0·90-1·20	0·40 *Max*	0·90-1·20	—	
1720	1570–20Mn Cr1										Billets, bars, forgings	0·17-0·22	0·10-0·35	1·00-1·40	—	1·00-1·30	—	
1721						17210	1.7147	20MnCr5			Billets, bars, sections, plate, sheet, strip, forgings, seamless tubes	0·17-0·22	0·15-0·35	1·1-1·4	—	1·0-1·3	—	
1722										4543 Grade 20 ХГА	Structural steel	0·18-0·25	0·17-0·37	0·90-1·20	0·40 *Max*	0·90-1·20	—	
1723			5150	5150							Billets, bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1724					A274 Grade 5150						Blooms, billets, slabs	0·48-0·53	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1725					A322 Grade 5150						Bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·70-0·90	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1726					A331 Grade 5150						Bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1727					A304 Grade 5150H						Bars	0·47-0·54	0·20-0·35	0·60-1·00	—	0·60-1·00	—	
1728	1570–55Cr70										Billets, bars, forgings	0·50-0·60	0·10-0·35	0·60-0·80	—	0·60-0·80	—	
1729									G4801 Class 9 SUP 9		Spring steel	0·50-0·60	0·15-0·35	0·65-0·95	—	0·65-0·95	—	
1730			5155	5155							Billets, bars	0·50-0·60	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1731					A304 Grade 5160H						Bars	0·58-0·65	0·20-0·35	0·65-1·10	—	0·60-1·00	—	
1732					A322 Grade 5160						Bars	0·55-0·65	0·20-0·35	0·75-1·00	—	0·70-0·90	—	
1733		970 En11									Billets, bars, forgings	0·50-0·70	0·10-0·35	0·50-0·80	—	0·50-0·80	—	
1734										4543 Grade 30 XA	Structural steel	0·25-0·33	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1735										4543 Grade 30 X	Structural steel	0·25-0·35	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1736		970 En18A									Billets, bars, forgings	0·27-0·32	0·10-0·35	0·65-0·80	—	0·85-1·15	—	
1737			5130	5130							Billets, bars	0·28-0·33	0·20-0·35	0·70-0·90	—	0·80-1·10	—	
1738					A304 Grade 5130H						Bars	0·27-0·33	0·20-0·35	0·60-1·00	—	0·75-1·20	—	
1739									G4104 Class 2 SCr2		Billets, bars	0·28-0·33	0·15-0·35	0·60-0·85	—	0·90-1·20	—	
1740		970 En18B									Billets, bars, forgings	0·30-0·35	0·10-0·35	0·65-0·80	—	0·85-1·15	—	
1741			5132	5132							Billets, bars	0·30-0·35	0·20-0·35	0·60-0·80	—	0·75-1·00	—	
1742					A274 Grade 5132						Blooms, billets, slabs	0·30-0·35	0·20-0·35	0·60-0·80	—	0·75-1·00	—	
1743					A322 Grade 5132						Bars	0·30-0·35	0·20-0·35	0·60-0·80	—	0·75-1·00	—	
1744						1654	1.7033	34Cr4			Cold drawn steel for cold forged bolts	0·30-0·37	0·15-0·35	0·50-0·80	—	0·90-1·2	—	
1745						17200	1.7033	34Cr4			Heat treatable rolled and forged products	0·30-0·37	0·15-0·35	0·50-0·80	—	0·90-1·2	—	
1746									G4104 Class 1 SCr1		Billets, bars	0·30-0·40	0·20-0·50	0·70-1·00	—	0·80-1·10	—	
1747										4543 Grade 35 X	Structural steel	0·30-0·40	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1748					A304 Grade 5135H						Bars	0·32-0·38	0·20-0·35	0·50-0·90	—	0·70-1·15	—	
1749			5135	5135							Billets, bars	0·33-0·38	0·20-0·35	0·60-0·80	—	0·80-1·05	—	
1750					A322 Grade 5135						Bars	0·33-0·38	0·20-0·35	0·60-0·80	—	0·80-1·05	—	
1751									G4104 Class 3 Cr3		Billets, bars	0·33-0·38	0·15-0·35	0·60-0·85	—	0·90-1·20	—	
1752							1.7034	37Cr4			Steel for flame induction and immersion hardening	0·34-0·41	0·15-0·35	0·50-0·80	—	0·90-1·20	—	
1753										4543 Grade 38 XA	Structural steel	0·34-0·42	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1754		970 En18C									Billets, bars forgings	0·35-0·38	0·10-0·35	0·65-0·80	—	0·85-1·15	—	
1755		S115									Wire for bolts	0·35-0·40	0·10-0·35	0·60-0·95	—	0·80-1·10	—	
1756		3111 Type 3									Wire for bolts	0·35-0·40	0·10-0·35	0·60-0·95	—	0·85-1·15	—	
1757					A304 Grade 514CH						Bars	0·37-0·44	0·20-0·35	0·60-1·00	—	0·60-1·00	—	
1758		970 En18D									Billets, bars, forgings	0·38-0·43	0·10-0·35	0·65-0·80	—	0·85-1·15	—	
1759			5140	5140							Billets, bars	0·38-0·43	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1760					A274 Grade 5140						Blooms, billets, slabs	0·38-0·43	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1761					A322 Grade 5140						Bars	0·38-0·43	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1762					A331 Grade 5140						Bars	0·38-0·43	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1763									G4104 Class 4 SCr4		Billets, bars	0·38-0·43	0·15-0·35	0·60-0·85	—	0·90-1·20	—	
1764						1654	1.7035	41Cr4			Cold drawn steel for cold forged bolts	0·38-0·44	0·15-0·35	0·50-0·80	—	0·90-1·20	—	
1765						17200	1.7035	41Cr4			Heat treatable rolled and forged products	0·38-0·44	0·15-0·35	0·50-0·80	—	0·90-1·20	—	
1766		S115									Wire for bolts	0·35-0·45	0·10-0·35	0·60-0·95	—	0·80-1·10	—	
1767		S117									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·60-0·95	—	0·80-1·10	—	
1768										4543 Grade 40 X	Structural steel	0·35-0·45	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1769		3111 Type 3									Wire for bolts	0·35-0·45	0·10-0·35	0·60-0·95	—	0·85-1·15	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1770	1570–40Cr1										Billets, bars, forgings	0·35-0·45	0·10-0·35	0·60-0·90	—	0·90-1·20	—	
1771					A288 Classes 2 and 3						Forgings	0·35-0·45	0·15-0·35	0·60-1·00	—	0·70-1·25	—	
1772		S115									Wire for bolts	0·40-0·45	0·10-0·35	0·60-0·95	—	0·80-1·10	—	
1773		311 Type 3									Wire for bolts	0·40-0·45	0·10-0·35	0·60-0·95	—	0·85-1·15	—	
1774										4543 Grade 45 X	Structural steel	0·40-0·50	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1775										4543 Grade 45 XA	Structural steel	0·42-0·50	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1776			5145	5145							Billets, bars	0·43-0·48	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1777					A322 Grade 5145						Bars	0·43-0·48	0·20-0·35	0·70-0·90	—	0·70-0·90	—	
1778									G4104 Class 5 SCr5		Billets, bars	0·43-0·48	0·15-0·35	0·60-0·85	—	0·90-1·20	—	
1779			5147	5147							Billets, bars	0·46-0·51	0·20-0·35	0·70-0·95	—	0·85-1·15	—	
1780					A304 Grade 5147H						Bars	0·45-0·52	0·20-0·35	0·60-1·05	—	0·80-1·25	—	
1781					A322 Grade 5147						Bars	0·45-0·52	0·20-0·35	0·70-0·95	—	0·85-1·15	—	
1782	1570–50Cr1										Tubes	0·45-0·55	0·10-0·35	0·60-0·90	—	0·90-1·20	—	
1783		970 En48									Spring steel	0·45-0·55	0·10-0·50	0·50-0·80	—	1·00-1·40	—	
1784										4543 Grade 50 X	Structural steel	0·45-0·55	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1785										4543 Grade 50 XA	Structural steel	0·47-0·55	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	
1786							1.3505	100 Cr 6 (W3)			Roller bearing steel	0·90-1·05	0·15-0·35	0·25-0·40	—	1·40-1·65	—	
1787	1570–105Cr1										Billets, bars, forgings	0·90-1·20	0·10-0·35	0·20-0·40	—	1·00-1·60	—	
1788					A274 Grade E51100						Blooms, billets	0·95-1·10	0·20-0·35	0·25-0·45	—	0·90-1·15	—	
1789					A295 Type B 51100						Ball bearing steel	0·95-1·10	0·20-0·35	0·25-0·45	0·35 *Max*	0·90-1·05	0·08 *Max*	Cu 0·25 *Max*
1790			51100	E 51100							Roller bearing steel	0·98-1·10	0·20-0·35	0·25-0·45	—	0·90-1·15	—	
1791					A274 Grade E52100						Blooms, billets, slabs	0·95-1·10	0·20-0·35	0·25-0·45	—	1·30-1·60	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1792					A295 Type A 52100						Ball bearing steel	0·95-1·10	0·20-0·35	0·25-0·45	0·35 *Max*	1·30-1·60	0·08 *Max*	Cu 0·25 *Max*
1793									G4805 Class 1 SUJ1		Bearing steel	0·95-1·10	0·15-0·35	0·50 *Max*	—	0·90-1·20	—	
1794									G4805 Class 2 SUJ2		Bearing steel	0·95-1·10	0·15-0·35	0·50 *Max*	—	1·30-1·60	—	
1795										801 Grade IIIX 15	Steel for ball and roller bearings	0·95-1·1	0·15-0·35	0·2-0·4	0·3 *Max*	1·3-1·65	—	Cu 0·25 *Max* and Cu+Ni 0·5 *Max*
1796					52100	E 52100					Roller bearing steel	0·98-1·10	0·20-0·35	0·20-0·45	—	1·30-1·60	—	
1797							1.3503	105 Cr4 (W2)			Roller bearing steel	1·0-1·1	0·15-0·35	0·25-0·40	—	0·90-1·15	—	
1798		970 En31									Roller bearing steel	0·90-1·20	0·10-0·35	0·30-0·75	—	1·00-1·60	—	
1799	1570-105Cr1 Mn60										Billets, bars, forgings	0·90-1·20	0·10-0·35	0·40-0·80	—	1·00-1·60	—	
1800										4543 Grade 40 XΦA	Structural steel	0·37-0·45	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	V 0·10-0·20
1801						1654	.7561 1.7561	42CrV6			Bolt steel	0·38-0·46	0·15-0·35	0·50-0·80	—	1·4-1·7	—	V 0·07-0·12
1802		*DTD 4C									Spring wire	0·40-0·48	0·10-0·35	0·50-0·70	—	1·00-1·50	—	V 0·15-0·25 and Cu 0·15 *Max*
1803		907 En50									Spring wire	0·40-0·50	0·10-0·35	0·50-0·70	—	1·00-1·50	—	V 0·15 *Min*
1804		1429 En50									Spring wire	0·40-0·50	0·10-0·35	0·50-0·70	—	1·00-1·50	—	V 0·15 *Min*
1805	1570-50Cr1 V23										Spring steel	0·45-0·55	0·10-0·35	0·50-0·80	—	0·90-1·20	—	V 0·15-0·30
1806		970 En47									Spring steel bars	0·45-0·55	0·50 *Max*	0·50-0·80	—	0·80-1·20	—	V 0·15 *Min*
1807		1429 En47									Spring wire	0·45-0·55	0·50 *Max*	0·50-0·80	—	0·80-1·20	—	V 0·15 *Min*
1808									G4801 Class 10 SUP 10		Spring steel	0·45-0·55	0·15-0·35	0·65-0·95	—	0·80-1·10	—	V 0·15-0·25
1809										4543 Grade 50 XΦA	Structural steel	0·46-0·54	0·17-0·37	0·50-0·80	0·40 *Max*	0·80-1·10	—	V 0·10-0·20
1810						17221	.8159 1.8159	50Cr4			Spring steel	0·47-0·55	0·15-0·35	0·80-1·1	—	0·90-1·2	—	V 0·07-0·12
1811						17222	.8159 1.8159	50Cr4			Spring steel	0·47-0·55	0·15-0·35	0·80-1·1	—	0·90-1·2	—	V 0·07-0·12
1812						17225	.8159 1.8159	50Cr4			Spring steel	0·47-0·55	0·15-0·35	0·80-1·1	—	0·90-1·2	—	V 0·07-0·12
1813							1.8154				Spring steel	0·47-0·55	0·15-0·35	0·80-1·1	—	0·90-1·2	—	V 0·07-0·12
1814			6150	6150							Spring steel	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15 *Min*

*British aircraft specification.

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1815					A322 Grade 6150						Bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15 *Min*
1816					A331 Grade 6150						Bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15 *Min*
1817					A304 Grade 6150H						Bars	0·47-0·54	0·20-0·35	0·60-1·10	—	0·75-1·20	—	V 0·15 *Min*
1818					A60													
1819					A231						Spring steel bars	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15 *Min*
1820					A232						Spring wire	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15 *Min*
1821											Valve spring wire	0·48-0·53	0·20-0·35	0·70-0·90	—	0·80-1·10	—	V 0·15-0·30
1822									G3458 Class 21 STPA 21		Tubes	0·10-0·20	0·50 *Max*	0·30-0·60	—	0·80-1·25	0·20-0·45	
1823									G3462 Class 21 STBA 21		Tubes	0·10-0·20	0·50 *Max*	0·30-0·60	—	0·80-1·25	0·20-0·45	
1824									G4105 Class 21 SCM 21		Billets, bars	0·13-0·18	0·15-0·35	0·60-0·85	—	0·90-1·20	0·15-0·35	
1825							1.7242	16CrMo4			Forgings	0·13-0·20	0·15-0·35	0·50-0·80	0·40 *Max*	0·90-1·20	0·20-0·30	
1826										2246 Grade Cs-18 XMA	Welding electrodes	0·15-0·22	0·12-0·35	0·40-0·70	0·30 *Max*	0·80-1·10	0·15-0·30	
1827									G4105 Class 23 SCM23		Billets, bars	0·17-0·23	0·15-0·35	0·70-1·00	—	0·90-1·10	0·15-0·35	
1828									G4105 Class 22 SCM22		Billets, bars	0·18-0·23	0·15-0·35	0·60-0·85	—	0·90-1·20	0·15-0·35	
1829										4543 Grade 20 XMA	Structural steel	0·17-0·24	0·17-0·37	0·40-0·70	0·40 *Max*	0·80-1·10	0·15-0·25	
1830										4543 Grade 20 XM	Structural steel	0·15-0·25	0·17-0·37	0·40-0·70	0·40 *Max*	0·80-1·10	0·15-0·25	
1831	1570-21Cr1 Mo28						1.7251	21CrMo3			Seamless drums	0·19-0·25	0·15-0·35	0·50-0·80	—	0·70-1·0	0·20-0·30	
1832	2039-CDS-C5										Sheet, strip, tubes	0·26 *Max*	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1833		980 CDS12									Seamless tubes	0·26 *Max*	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1834		1717 CDS110									Seamless tubes	0·26 *Max*	0·35 *Max*	0·4-0·8	—	0·8-1·2	0·15-0·30	
1835		S518									Seamless tubes	0·26 *Max*	0·35 *Max*	0·4-0·8	—	0·8-1·2	0·15-0·30	
1836		S519									Sheet, strip	0·26 *Max*	0·10-0·35	0·4-0·8	0·50 *Max*	0·8-1·2	0·15-0·25	
1837		T53									Sheet, strip	0·26 *Max*	0·10-0·35	0·4-0·8	0·50 *Max*	0·8-1·2	0·15-0·25	
1838		T56									Tubes	0·26 *Max*	0·10-0·35	0·4-0·8	0·5 *Max*	0·8-1·2	0·15-0·25	
1839		T59									Tubes	0·26 *Max*	0·10-0·35	0·4-0·8	0·5 *Max*	0·8-1·2	0·15-0·25	
1840		T60									Tubes	0·26 *Max*	0·10-0·35	0·4-0·8	0·5 *Max*	0·8-1·2	0·15-0·25	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1841						17240	1.7258	24CrMo5			Steel for high temperature nuts and bolts	0·20-0·28	0·15-0·35	0·50-0·80	0·60 *Max*	0·90-1·2	0·20-0·30	
1842						17200	1.7218	25CrMo4			Heat treatable rolled and forged products	0·22-0·29	0·15-0·35	0·50-0·80	—	0·90-1·2	0·15-0·25	
1843							1.7214				Heat treatable rolled and forged products	0·22-0·29	0·15-0·35	0·50-0·80	—	0·90-1·2	0·15-0·25	
1844										4543 Grade 30 XMA	Structural steel	0·25-0·33	0·17-0·37	0·40-0·70	0·40 *Max*	0·80-1·10	0·15-0·25	
1845									G3441 Class 1 STKS 1		Tubes	0·26-0·33	0·15-0·35	0·40-0·85	—	0·80-1·20	0·15-0·25	
1846					A304 Grade 4130H						Bars	0·27-0·33	0·20-0·35	0·30-0·70	—	0·75-1·20	0·15-0·25	
1847										4543 Grade 30 XM	Structural steel	0·25-0·35	0·17-0·37	0·40-0·70	0·040 *Max*	0·80-1·10	0·15-0·25	
1848			4130	4130							Billets, bars	0·28-0·33	0·20-0·35	0·40-0·60	—	0·80-1·10	0·15-0·25	
1849					A274 Grade 4130						Blooms, billets, slabs	0·28-0·33	0·20-0·35	0·40-0·60	—	0·80-1·10	0·15-0·25	
1850					A322 Grade 4130						Bars	0·28-0·33	0·20-0·35	0·40-0·60	—	0·80-1·10	0·15-0·25	
1851					A331 Grade 4130						Bars	0·28-0·33	0·20-0·35	0·40-0·60	—	0·80-1·10	0·15-0·25	
1852									G4105 Class 2 SCM 2		Billets, bars	0·28-0·33	0·15-0·33	0·60-0·85	—	0·90-1·20	0·15-0·35	
1853	963										Bars, rods	0·26-0·35	0·20-0·35	0·40-0·60	0·25 *Max*	0·80-1·10	0·15-0·25	
1854									G4105 Class 1 SCM 1		Billets, bars	0·27-0·37	0·15-0·35	0·30-0·60	—	1·00-1·50	0·15-0·35	
1855						17200	1.7220	34CrMo4			Heat treatable rolled and forged products	0·30-0·37	0·15-0·35	0·50-0·80	0·60 *Max*	0·90-1·2	0·15-0·25	
1856			4135	4135							Billets, bars	0·33-0·38	0·20-0·35	0·70-0·90	—	0·80-1·10	0·15-0·25	
1857					A274 Grade 4135						Blooms, billets, slabs	0·33-0·38	0·20-0·35	0·70-0·90	—	0·80-1·10	0·15-0·25	
1858									G4105 Class 3 SCM3		Billets, bars	0·33-0·38	0·15-0·35	0·60-0·85	—	0·90-1·20	0·15-0·35	
1859									G3441 Class 3 STKS 3		Tubes	0·32-0·39	0·15-0·35	0·40-0·85	—	0·90-1·20	0·15-0·25	
1860					A290 Class D and D2						Forgings	0·30-0·40	0·15 *Min*	0·70-1·00	—	0·80-1·15	0·15-0·30	
1861										4543 Grade 35 XM	Structural steel	0·30-0·40	0·17-0·37	0·40-0·70	0·040 *Max*	0·80-1·10	0·15-0·25	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1862										4543 Grade 35 XMA	Structural steel	0·32-0·40	0·17-0·37	0·40-0·70	0·40 *Max*	0·80-1·10	0·15-0·25	
1863										4543 Grade 35 X 2 MA	Structural steel	0·32-0·40	0·17-0·37	0·40-0·70	0·40 *Max*	1·60-1·90	0·15-0·25	
1864		970 En19B									Billets, bars, forgings	0·35-0·40	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1865			4137	4137							Billets, bars	0·35-0·40	0·20-0·35	0·70-0·90	—	0·80-1·10	0·15-0·25	
1866		3111 Type 5									Wire for bolts	0·35-0·40	0·10-0·35	0·50-0·80	—	0·90-1·50	0·20-0·40	
1867			4140	4140							Billets, bars	0·38-0·43	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1868				TS 4140							Billets, bars	0·38-0·43	0·20-0·35	0·80-1·05	—	0·90-1·20	0·08-0·15	
1869									G4105 Class 4 SCM 4		Billets, bars	0·38-0·43	0·15-0·35	0·60-0·85	—	0·90-1·20	0·15-0·35	
1870					A304 Grade 4140H						Bars	0·37-0·44	0·20-0·35	0·65-1·10	—	0·75-1·20	0·15-0·25	
1871		980 CDS13									Seamless tubes	0·25-0·45	0·35 *Max*	0·5-1·0	—	0·8-1·2	0·15-0·30	
1872		•DTD 167A									Tubes	0·25-0·45	0·10-0·35	0·4-0·8	0·5 *Max*	0·8-1·2	0·15-0·25	
1873	1570-40Cr1 Mo28										Bars, forgings, tubes	0·35-0·45	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1874		970 En19A									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1875		1506-621A									Bars	0·35-0·45	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1876		970 En19									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·50-0·80	—	0·90-1·50	0·20-0·40	
1877		3111 Type 5									Wire for bolts	0·35-0·45	0·10-0·35	0·50-0·80	—	0·90-1·50	0·20-0·40	
1878						1654	.7225 1.7225	42CrMo4			Heat treatable rolled and forged products	0·38-0·45	0·15-0·35	0·50-0·80	0·60 *Max*	0·90-1·20	0·15-0·25	
1879						17200	.7225 1.7225	42CrMo4			Heat treatable rolled and forged products	0·38-0·45	0·15-0·35	0·50-0·80	0·60 *Max*	0·90-1·20	0·15-0·25	
1880		970 En 19C									Billets, bars, forgings	0·40-0·45	0·10-0·35	0·50-0·80	—	0·90-1·20	0·20-0·35	
1881		3111 Type 5									Wire for bolts	0·40-0·45	0·10-0·35	0·50-0·80	—	0·90-1·50	0·20-0·40	
1882			4142	4142							Billets, bars	0·40-0·45	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1883					A274 Grade 4142						Blooms, billets, slabs	0·40-0·45	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1884					A322 Grade 4142						Bars	0·40-0·45	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1885					A331 Grade 4142						Bars	0·40-0·45	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1886					A304 Grade 4142H						Bars	0·39-0·46	0·20-0·35	0·65-1·10	—	0·75-1·20	0·15-0·25	
1887			4145	4145							Billets, bars	0·43-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	

•British aircraft specification.

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werk-stoff Nummer	Code Designation										
1888					A274 Grade 4145						Blooms, billets, slabs	0·43-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1889					A322 Grade 4145						Bars	0·43-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1890					A331 Grade 4145						Bars	0·43-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1891					A193 Grade B7						Steel for bolts	0·38-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1892					A320 Grade L7						Steel for bolts	0·38-0·48	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1893									G4105 Class 5 SCM 5		Billets, bars	0·43-0·48	0·15-0·35	0·60-0·85	—	0·90-1·20	0·15-0·35	
1894					A304 Grade 4145H						Bars	0·42-0·49	0·20-0·35	0·65-1·10	—	0·75-1·20	0·15-0·25	
1895					A372 Class V Type E						Forgings	0·35-0·50	0·15-0·35	0·75-1·05	—	0·80-1·15	0·15-0·25	
1896			4147	4147							Billets, bars	0·45-0·50	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1897					A322 Grade 4147						Bars	0·45-0·50	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1898			4150	4150							Billets, bars	0·48-0·53	0·20-0·35	0·75-1·00	—	0·80-1·10	0·15-0·25	
1899						17200	1.7228	50CrMo4			Heat treatable rolled and forged products	0·46-0·54	0·15-0·35	0·50-0·80	—	0·90-1·2	0·15-0·25	
1900		980 CDS15									Seamless tubes	0·55 *Max*	0·35 *Max*	1·0 *Max*	—	1·2 *Max*	0·30 *Max*	
1901							1.7356	7CrMo75			Filler rods	0·10 *Max*	0·15-0·25	0·8-1·0	—	1·5-1·8	0·40-0·60	
1902	1570 :07Cr90 Mo55										Tubes	0·12 *Max*	0·10-0·60	0·40-0·70	0·30 *Max*	0·70-1·10	0·45-0·65	
1903		3059-9 and 10									Tubes	0·12 *Max*	0·10-0·60	0·40-0·70	0·30 *Max*	0·70-1·10	0·45-0·65	Cu 0·30 *Max* and Sn 0·040 *Max*
1904										2246 Grade Cs-10 XM	Welding electrodes	0·12 *Max*	0·12-0·35	0·40-0·70	0·30 *Max*	0·80-1·10	0·40-0·60	
1905							1.7345	9CrMo45			Filler rods	0·07-0·12	0·15-0·30	0·60-0·80	—	1·0-1·3	0·40-0·60	
1906		806 Classes P and Q									Tubes	0·15 *Max*	0·35 *Max*	0·30-0·70	0·3 *Max*	0·70-1·0	0·40-0·60	Cu 0·2 *Max* and Sn 0·05 *Max*
1907		1113									Forgings	0·15 *Max*	0·10-0·35	0·40-0·70	0·30 *Max*	0·75-1·10	0·45-0·65	Cu 0·30 *Max* and Sn 0·040 *Max*
1908		1507-621									Tubes	0·15 *Max*	0·10-0·35	0·30-0·70	0·30 *Max*	0·75-1·25	0·40-0·70	
1909		1508-621									Tubes	0·15 *Max*	0·10-0·35	0·30-0·70	0·30 *Max*	0·75-1·25	0·40-0·70	
1910					A213 Grade T12						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·61	—	0·80-1·25	0·44-0·65	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1911					A335 Grade P12						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·61	—	0·80-1·25	0·44-0·65	
1912					A369 Grade FP12						Tubes	0·15 *Max*	0·50 *Max*	0·30-0·61	—	0·80-1·25	0·44-0·65	
1913									G3458 Class 22 STPA 22		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	0·80-1·25	0·45-0·65	
1914									G3462 Class 22 STBA 22		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	0·80-1·25	0·45-0·65	
1915										4543 Grade 12 XM	Structural steel	0·16 *Max*	0·17-0·37	0·40-0·70	0·030 *Max*	0·80-1·10	0·40-0·55	
1916					A387 Gp I Grade B						Plate	0·17 *Max*	0·15-0·30	0·40-0·65	—	0·80-1·15	0·45-0·65	
1917						17155	1.7335	13CrMo44			Plate	0·10-0·18	0·15-0·35	0·40-0·70	—	0·70-1·0	0·40-0·50	
1918						17175	1.7335	13CrMo44			Seamless tubes	0·10-0·18	0·15-0·35	0·40-0·70	—	0·70-1·0	0·40-0·50	
1919										4543 Grade 15 XMA	Structural steel	0·10-0·18	0·17-0·37	0·40-0·70	0·30 *Max*	0·80-1·10	0·40-0·55	
1920		1503–620									Forgings	0·20 *Max*	0·10-0·35	0·30-0·80	0·40 *Max*	0·80-1·10	0·45-0·65	Cu 0·40 *Max*
1921	1570–15Cr90 Mo55										Tubes	0·10-0·20	0·10-0·35	0·40-0·70	0·30 *Max*	0·70-1·10	0·45-0·65	
1922					A182 Grade F 12						Pipe flanges, fittings, valves, other parts	0·10-0·20	0·10-0·60	0·30-0·80	—	0·80-1·25	0·44-0·65	
1923					A213 Grade T2						Seamless tubes	0·10-0·20	0·10-0·30	0·30-0·61	—	0·50-0·81	0·44-0·65	
1924					A335 Grade P2						Seamless tubes	0·10-0·20	0·10-0·30	0·30-0·61	—	0·50-0·81	0·44-0·65	
1925					A336 Grade F2						Seamless drum forgings	0·10-0·20	0·10-0·60	0·30-0·80	—	0·80-1·10	0·45-0·65	
1926					A369 Grade FP 2						Tubes	0·10-0·20	0·10-0·30	0·30-0·61	—	0·50-0·81	0·44-0·65	
1927							1.7337	16CrMo44			Forgings	0·13-0·20	0·15-0·35	0·50-0·80	0·40 *Max*	0·90-1·2	0·40-0·50	
1928					A387 Gp I Grade A						Plate	0·21 *Max*	0·15-0·30	0·40-0·80	—	0·50-0·80	0·45-0·65	
1929	1570–40Cr1 Mo60										Bars, forgings	0·35-0·45	0·10-0·35	0·40-0·70	0·40 *Max*	1·00-1·50	0·50-0·70	
1930		970 En20B									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·40-0·70	—	1·00-1·50	0·50-0·90	
1931		1506–621B									Bars	0·35-0·45	0·10-0·35	0·40-0·70	0·40 *Max*	1·00-1·50	0·50-0·90	
1932					A316 Grade E9015–B3L						Welding electrodes	0·05 *Max*	1·00 *Max*	0·90 *Max*		2·00-2·50	0·90-1·20	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1933					A316 E9015–B3						Welding electrodes	0·12 *Max*	0·60 *Max*	0·90 *Max*	—	2·00-2·50	0·90-1·20	
1934					A316 E9016–B3						Welding electrodes	0·12 *Max*	0·60 *Max*	0·90 *Max*	—	2·00-2·50	0·90-1·20	
1935					A316 E9018–B3						Welding electrodes	0·12 *Max*	0·80 *Max*	0·90 *Max*	—	2·00-2·50	0·90-1·20	
1936	1570-10Cr2-Mo1										Bars, forgings, tubes	0·15 *Max*	0·50 *Max*	0·40-0·70	0·30 *Max*	2·00-2·50	0·90-1·10	
1937		1503–622									Forgings	0·15 *Max*	0·10-0·35	0·30-0·80	0·40 *Max*	2·00-2·50	0·90-1·10	Cu 0·40 *Max*
1938		1508–622									Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	0·30 *Max*	2·00-2·50	0·90-1·10	
1939		1628 Grade A									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	—	2·00-2·50	0·90-1·10	
1940		1731 Grade A									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	—	2·00-2·50	0·90-1·10	
1941					A182 Grade F22						Pipe flanges, fittings, valves, other parts	0·15 *Max*	0·50 *Max*	0·30-0·60	—	2·00-2·50	0·87-1·13	
1942					A199 Grade T22						Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1943					A200 Grade T22						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1944					A213 Grade T22						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1945					A335 Grade P22						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1946					A336 Grade F22						Seamless drum forgings	0·15 *Max*	0·50 *Max*	0·30-0·60	—	2·00-2·50	0·90-1·10	
1947					A369 Grade FP22						Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1948					A387 Gp II Grade D						Plate	0·15 *Max*	0·50 *Max*	0·30-0·60	—	2·00-2·50	0·90-1·10	
1949						17175	1.7380	10CrMo9 10			Seamless tubes	0·15 *Max*	0·15-0·50	0·40-0·60	—	2·0-2·5	0·9-1·1	
1950									G3458 Class 24 STPA 24		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1951									G3462 Class 24 STBA 24		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	1·90-2·60	0·87-1·13	
1952		1113									Forgings	0·08-0·15	0·50 *Max*	0·40-0·70	0·30 *Max*	2·00-2·50	0·90-1·20	
1953		9059–11 and 12									Tubes	0·08-0·15	0·50 *Max*	0·40-0·70	0·30 *Max*	2·00-2·50	0·90-1·20	
1954		1507–623									Seamless tubes	0·15 *Max*	0·10-0·35	0·30-0·70	0·30 *Max*	2·50-3·50	0·45-0·65	
1955		1508–623									Seamless tubes	0·15 *Max*	0·10-0·35	0·30-0·70	0·30 *Max*	2·50-3·50	0·45-0·65	
1956	1570–15Cr3 Mo55										Bars, forgings, tubes	0·10-0·20	0·10-0·35	0·40-0·70	0·30 *Max*	2·90-3·40	0·45-0·65	
1957		970 En40A									Billets, bars, forgings	0·10-0·20	0·10-0·35	0·40-0·65	0·40 *Max*	2·90-3·50	0·40-0·70	
1958		1503–623									Forgings	0·22 *Max*	0·10-0·35	0·30-0·70	—	2·50-3·50	0·35-0·60	V 0·25 *Max*

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1959		970 En29A									Billets, bars, forgings	0·15-0·25	0·10-0·35	0·65 *Max*	0·40 *Max*	2·50-3·50	0·30-0·70	
1960		S106									Billets, bars, forgings	0·20-0·28	0·10-0·35	0·4-0·65	0·30 *Max*	2·9-3·5	0·4-0·7	
1961	1570–25Cr3 Mo55										Billets, bars, forgings	0·20-0·30	0·10-0·35	0·40-0·70	0·30 *Max*	2·90-3·40	0·45-0·65	
1962		970 En40B									Billets, bars, forgings	0·20-0·30	0·10-0·35	0·40-0·65	0·40 *Max*	2·90-3·50	0·40-0·70	
1963		S123									Billets, bars, forgings	0·20-0·35	0·10-0·35	0·65 *Max*	0·4 *Max*	2·5-3·5	0·30-0·7	
1964		970 En29B									Billets, bars, forgings	0·25-0·35	0·10-0·35	0·65 *Max*	0·40 *Max*	2·50-3·50	0·30-0·70	
1965			51502	502							Billets, bars	0·10 *Max*	1·00 *Max*	1·00 *Max*	—	4·00-6·00	0·40-0·65	
1966					A193 Grade B5						Steel for bolts	0·10 *Min*	1·00 *Max*	1·00 *Max*	—	4·00-6·00	0·40-0·65	
1967					A194 Grade 3						Steel for nuts	0·10 *Max*	1·00 *Max*	1·00 *Max*	—	4·00-6·00	0·40-0·65	
1968					A213 Grade T5C						Seamless tubes	0·12 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	Ti 5C-0·70
1969					A335 Grade P5c						Seamless tubes	0·12 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	Ti 4C-0·70 or Cb 8-10C
1970										2246 Grade Cs-10 X 5 M	Welding electrodes	0·12 *Max*	0·12-0·35	0·40-0·70	0·30 *Max*	4·00-6·00	0·40-0·60	
1971	1570–10Cr5 Mo55										Bars, sections, plate, tubes	0·15 *Max*	0·50 *Max*	0·40-0·70	0·30 *Max*	4·0-6·0	0·45-0·65	
1972		1507–625									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	0·30 *Max*	4·0-6·0	0·45-0·65	
1973		1508–625									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	0·30 *Max*	4·0-6·0	0·45-0·65	
1974		1628 Grade B									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	—	4·00-6·00	0·45-0·65	
1975		1731 Grade B									Tubes	0·15 *Max*	0·50 *Max*	0·30-0·70	—	4·00-6·00	0·45-0·65	
1976					A182 Grade F5						Pipe flanges, fittings, valves, other parts	0·15 *Max*	0·50 *Max*	0·30-0·60	0·50 *Max*	4·0-6·0	0·44-0·65	
1977					A199 Grade T5						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
1978					A200 Grade T5						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
1979					A213 Grade T5						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
1980					A335 Grade P5						Seamless tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
1981					A336 Grade F5						Seamless drum forgings	0·15 *Max*	0·50 *Max*	0·30-0·60	0·50 *Max*	4·00-6·00	0·45-0·65	
1982					A357						Plate	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·0-6·0	0·45-0·65	
1983					A369 Grade FP5						Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
1984							1.7362	12CrMo195			High pressure hydrogenation resistant steel	0·15 *Max*	0·30-0·50	0·30-0·60	—	4·00-6·0	0·45-0·65	
1985									G3458 Class 25 STPA 25		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
1986									G3462 Class 25 STBA 25		Tubes	0·15 *Max*	0·50 *Max*	0·30-0·60	—	4·00-6·00	0·45-0·65	
										5632 Grade X 5 M (ЭХ 5 М)	Rolled and forged products	0·15 *Max*	0·5 *Max*	0·6 *Max*	—	4·0-6·0	0·50-0·60	
1987											Forgings	0·25 *Max*	0·50 *Max*	0·30-0·70	0·40 *Max*	4·00-6·00	0·45-0·65	Cu 0·40 *Max*
1988		1503-625									Pipe flanges, fittings, valves, other parts	0·25 *Max*	0·50 *Max*	0·60 *Max*	0·50 *Max*	4·0-6·0	0·44-0·65	
1989					A182 Grade F5a						Drum forgings	0·25 *Max*	0·50 *Max*	0·60 *Max*	0·50 *Max*	4·0-6·0	0·45-0·65	
1990					A336 Grade F5a						Bars, forgings	0·15-0·25	0·50 *Max*	0·40-0·70	0·30 *Max*	4·0-6·0	0·45-0·65	
1991	1570-20Cr5 Mo55										Bars	0·30 *Max*	0·50 *Max*	0·30-0·70	—	4·00-6·00	0·45-0·65	
1992		1506-625									Steel for high temperature bolts and nuts	0·20-0·28	0·15-0·35	0·30-0·60	0·60 *Max*	1·2-1·5	0·50-0·60	V 0·15-0·25
1993						17240	1.7733	24CrMoV55			Structural steel	0·30-0·38	0·17-0·37	0·40-0·70	0·40 *Max*	1·00-1·30	0·20-0·30	V 0·10-0·20
1994										4543 Grade 35 ХМФА	Steel for bolts	0·36-0·44	0·20-0·35	0·45-0·70	—	0·80-1·15	0·50-0·65	V 0·25-0·35
1995					A193 Grade B16						Bars	0·20-0·45	0·20-0·50	0·40-0·70	—	0·80-1·30	0·40-0·80	V 0·20-0·30
1996		1506-661									Bars, forgings	0·25-0·45	0·20-0·50	0·40-0·70	0·30 *Max*	1·00-1·50	0·50-0·80	V 0·20-0·30
1997	1570-35Cr1 Mo65V25										Steel for bolts	0·41-0·49	0·20-0·35	0·45-0·70	—	0·80-1·15	0·30-0·40	V 0·20-0·30
1998					A193 Grade B14						High temperature spring steel	0·40-0·50	0·15-0·35	0·60-0·80	—	1·3-1·5	0·65-0·75	V 0·25-0·35
1999						17225	.7737	45CrMoV67			Billets, bars, forgings	0·30-0·40	0·10-0·35	0·4-0·8	0·4 *Max*	2·5-3·5	0·7-1·2	V 0·10-0·30
2000		*DTD 730									Bars, forgings	0·35-0·45	0·10-0·35	0·40-0·70	0·30 *Max*	3·00-3·50	0·90-1·10	V 0·15-0·25
2001	1570-40Cr3 Mo1V20										Billets, bars, forgings	0·35-0·45	0·10-0·35	0·4-0·8	0·4 *Max*	3·0-3·5	0·8-1·2	V 0·1-0·3
2002		*DTD 5012									Billets, bars, forgings	0·30-0·50	0·10-0·35	0·40-0·80	0·40 *Max*	2·50-3·50	0·70-1·20	V 0·10-0·30
2003		970 En40C									Billets, bars, forgings	0·25-0·35	0·10-0·45	0·65 *Max*	0·40 *Max*	1·40-1·80	0·10-0·25	Al 0·90-1·30
2004		970 En41A									Nitriding steel	0·30-0·35	0·15-0·25	0·50-0·70	—	1·0-1·2	0·15-0·25	Al 1·00-1·20
2005							1.8544				Nitriding steel	0·30-0·37	0·15-0·35	0·60-0·90	—	1·0-1·3	0·15-0·25	Al 0·80-1·1
2006							1.8507	34CrAlMo5			Structural steel	0·35-0·43	0·17-0·37	0·30-0·60	0·40 *Max*	1·35-1·65	0·15-0·25	Al 0·70-1·10
2007										4543 Grade 38 ХМЮА								

*British aircraft specification.

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2008				Standard Nitriding							Nitriding steel	0·38-0·43	0·20-0·40	0·50-0·70	—	1·40-1·80	0·30-0·40	Al 0·95-1·30
2009	1570–40Cr2 Al1Mo18										Bars, forgings	0·35-0·45	0·10-0·45	0·40-0·70	0·30 *Max*	1·50-1·80	0·10-0·25	Al 0·90-1·30
2010		970 En41B									Billets, bars, forgings	0·35-0·45	0·10-0·45	0·65 *Max*	0·40 *Max*	1·40-1·80	0·10-0·25	Al 0·90-1·30
2011					A355 Class A						Bars	0·38-0·43	0·20-0·40	0·50-0·70	—	1·40-1·80	0·30-0·40	Al 0·95-1·30
2012									G4202 Class 1 SACM 1		Billets, bars	0·40-0·50	0·15-0·50	0·60 *Max*	0·30 *Max*	1·30-1·70	0·15-0·35	Al 0·70-1·20 and Cu 0·35 *Max*
2013					A320 Grade L9						Bolting steel	0·36-0·44	0·20-0·35	0·65-0·95	3·25-3·75	—	—	
2014		980 CDS14									Seamless tubes	0·30-0·45	0·35 *Max*	0·3-0·7	2·75-3·5	—	—	
2015	1570–40Ni3										Bars, forgings	0·35-0·45	0·10-0·35	0·50-0·80	3·20-3·60	0·30 *Max*	—	
2016		970 En22									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·50-0·80	3·25-3·75	0·30 *Max*	—	
2017		970 En361									Billets, bars, forgings	0·13-0·17	0·35 *Max*	0·70-1·00	0·40-0·70	0·55-0·80	0·08-0·15	
2018			8615	8615							Billets, bars	0·13-0·18	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2019					A322 Grade 8615						Bars	0·13-0·18	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2020		*DTD 5002									Billets, bars, forgings	0·13-0·18	0·10-0·35	0·6-1·0	0·6-1·0	0·4-0·8	0·10 *Max*	
2021		970 En351									Billets, bars, forgings	0·20 *Max*	0·35 *Max*	0·60-1·00	0·60-1·00	0·40-0·80	0·10 *Max*	
2022	1570 16Ni80 Cr60										Billets, bars, forgings	0·12-0·20	0·10-0·35	0·60-1·00	0·60-1·00	0·40-0·80	—	
2023			8617	8617							Billets, bars	0·15-0·20	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2024					A304 Grade 8620H						Bars	0·17-0·23	0·20-0·35	0·60-0·95	0·35-0·75	0·35-0·65	0·15-0·25	
2025		970 En362									Billets, bars, forgings	0·18-0·23	0·35 *Max*	0·70-1·00	0·40-0·70	0·55-0·80	0·08-0·15	
2026			8620	8620							Billets, bars	0·18-0·23	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2027					A274 Grade 8620						Blooms, billets, slabs	0·18-0·23	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2028					A322 Grade 8620						Bars	0·18-0·23	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2029					A331 Grade 8620						Bars	0·18-0·23	0·20-0·35	0·70-0·90	0·40-0·70	0·40-0·60	0·15-0·25	
2030		970 En352									Billets, bars, forgings	0·20 *Max*	0·35 *Max*	0·50-1·00	0·85-1·25	0·60-1·00	0·10 *Max*	
2031	1570–16Ni1 Cr80										Billets, bars, forgings	0·12-0·20	0·10-0·35	0·60-1·00	0·80-1·20	0·60-1·00	—	

*British aircraft specification.

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2032										4543 Grade 20 XHA	Structural steel	0·15-0·23	0·17-0·37	0·40-0·70	1·00-1·50	0·45-0·75	—	
2033										4543 Grade 20 XH	Structural steel	0·15-0·25	0·17-0·37	0·40-0·70	1·00-1·50	0·45-0·75	—	
2034		970 En36A									Billets, bars, forgings	0·15 *Max*	0·10-0·35	0·30-0·60	3·00-3·75	0·60-1·10	—	
2035	1570–13Ni3 Cr80										Billets, bars, forgings	0·10-0·15	0·10-0·35	0·40-0·70	3·00-3·50	0·60-1·00	—	
2036										4543 Grade 12 XH 3	Structural steel	0·17 *Max*	0·17-0·37	0·30-0·60	2·75-3·25	0·60-0·90	—	
2037										4543 Grade 12 XH 3 A	Structural steel	0·11-0·17	0·17-0·37	0·30-0·60	2·75-3·25	0·60-0·90	—	
2038		S107									Billets, bars, forgings	0·18 *Max*	0·10-0·35	0·3-0·6	3·0-3·75	0·6-1·1	0·10-0·25	
2039		970 En36B									Billets, bars, forgings	0·12-0·18	0·10-0·35	0·30-0·60	3·00-3·75	0·60-1·10	—	
2040		970 En36C									Billets, bars, forgings	0·12-0·18	0·10-0·35	0·30-0·60	3·00-3·75	0·60-1·10	0·10-0·25	
2041									G4102 Class 22 SNC 22		Billets, bars	0·12-0·18	0·15-0·35	0·35-0·65	3·00-3·50	0·70-1·00	—	
2042					A304 Grade 9310H						Bars	0·07-0·13	0·20-0·35	0·40-0·70	2·95-3·55	1·00-1·45	0·08-0·15	
2043			3310	E 3310							Billets, bars	0·08-0·13	0·20-0·35	0·45-0·60	3·25-3·75	1·40-1·75	—	
2044			9310	E 9310							Billets, bars	0·08-0·13	0·20-0·35	0·45-0·65	3·00-3·50	1·00-1·40	0·08-0·15	
2045					A274 Grade E9310						Blooms, billets, slabs	0·08-0·13	0·20-0·35	0·45-0·65	3·00-3·50	1·00-1·40	0·08-0·15	
2046					A322 Grade E9310						Bars	0·08-0·13	0·20-0·35	0·45-0·65	3·00-3·50	1·00-1·40	0·08-0·15	
2047					A331 Grade E9310						Bars	0·08-0·13	0·20-0·35	0·45-0·65	3·00-3·50	1·00-1·40	0·08-0·15	
2048										4543 Grade 12 X 2 H 4	Structural steel	0·17 *Max*	0·17-0·37	0·30-0·60	3·25-3·75	1·25-1·75	—	
2049										4543 Grade 12 X 2 H 4 A	Structural steel	0·11-0·17	0·17-0·37	0·30-0·60	3·25-3·75	1·25-1·75	—	
2050	1570–15Ni4 Cr1										Billets, bars, forgings	0·12-0·18	0·10-0·35	0·40-0·70	3·80-4·30	1·00-1·40	—	
2051		970 En39A									Billets, bars, forgings	0·12-0·18	0·10-0·35	0·50 *Max*	3·80-4·50	1·00-1·40	—	
2052		970 En39B									Billets, bars, forgings	0·12-0·18	0·10-0·35	0·50 *Max*	3·80-4·50	1·00-1·40	0·15-0·35	
2053		2S82									Billets, bars, forgings	0·12-0·18	0·10-0·35	0·50 *Max*	4·0-4·5	1·0-1·4	0·15-0·35	
2054										4543 Grade 20 X 2 H 4	Structural steel	0·15-0·22	0·17-0·37	0·30-0·60	3·25-3·75	1·25-1·75	—	
2055										4543 Grade 20 X 2 H 4 A	Structural steel	0·15-0·22	0·17-0·37	0·30-0·60	3·25-3·75	1·25-1·75	—	
2056		S103									Wire for bolts	0·30-0·35	0·10-0·35	0·60-0·90	1·0-1·5	0·45-0·75	—	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2057		3111 Type 4									Wire for bolts	0·30-0·35	0·10-0·35	0·60-0·90	1·0-1·50	0·45-0·75	—	
2058		970 En111A									Billets, bars, forgings	0·33-0·38	0·10-0·35	0·60-0·90	1·00-1·50	0·45-0·75	—	
2059	1570–35Ni1 Cr60										Bars, forgings	0·30-0·40	0·10-0·35	0·60-0·90	1·00-1·50	0·45-0·75	—	
2060		970 En111									Billets, bars, forgings	0·30-0·40	0·10-0·35	0·60-0·90	1·00-1·50	0·45-0·75	—	
2061		S103									Wire for bolts	0·30-0·40	0·10-0·35	0·60-0·90	1·0-1·5	0·45-0·75	—	
2062		3111 Type 4									Wire for bolts	0·30-0·40	0·10-0·35	0·60-0·90	1·0-1·50	0·45-0·75	—	
2063		S122									Billets, bars, forgings	0·30-0·40	0·10-0·35	0·60-0·90	1·0-1·5	0·45-0·75	—	
2064									G4102 Class 1 SNC1		Billets, bars	0·32-0·40	0·15-0·35	0·50-0·80	1·00-1·50	0·50-0·90	—	
2065		S103									Wire for bolts	0·35-0·40	0·10-0·35	0·60-0·90	1·0-1·5	0·45-0·75	—	
2066		3111 Type 4									Wire for bolts	0·35-0·40	0·10-0·35	0·60-0·90	1·0-1·50	0·45-0·75	—	
2067			3140	3140							Billets, bars	0·38-0·43	0·20-0·35	0·70-0·90	1·10-1·40	0·55-0·75	—	
2068					A274 Grade 3140						Blooms, billets, slabs	0·38-0·43	0·20-0·35	0·70-0·90	1·10-1·40	0·55-0·75	—	
2069					A322 Grade 3140						Bars	0·38-0·43	0·20-0·35	0·70-0·90	1·10-1·40	0·55-0·75	—	
2070					A331 Grade 3140						Bars	0·38-0·43	0·20-0·35	0·70-0·90	1·10-1·40	0·55-0·75	—	
2071					A304 Grade 3140H						Bars	0·37-0·44	0·20-0·35	0·60-1·00	1·00-1·45	0·45-0·85	—	
2072										4543 Grade 40 XH	Structural steel	0·35-0·45	0·17-0·37	0·50-0·80	1·00-1·50	0·45-0·75	—	
2073										4543 Grade 40 XHA	Structural steel	0·37-0·45	0·17-0·37	0·50-0·80	1·00-1·50	0·45-0·75	—	
2074		980 CDS16									Seamless tubes	0·20-0·30	0·35 *Max*	0·3-0·7	3·5-4·5	1·0-1·5	0·20 *Max* (optional)	
2075		T57									Tubes	0·20-0·30	0·10-0·35	0·4-0·8	3·0-5·0	0·50-1·50	0·25 *Max*	
2076		4T2									Tubes	0·20-0·30	0·10-0·35	0·4-0·8	3·0-5·0	0·50-1·50	0·25 *Max*	
2077		980 CDS17									Seamless tubes	0·20-0·35	0·35 *Max*	0·3-0·7	3·5-4·5	1·0-1·5	0·20 *Max* (optional)	
2078	1570–30Ni4 Cr1										Bars, forgings, tubes	0·26-0·34	0·10-0·35	0·40-0·70	3·90-4·30	1·10-1·40	—	
2079		970 En30A									Billets, bars, forgings	0·26-0·34	0·10-0·35	0·40-0·60	3·90-4·30	1·10-1·40	—	
2080	1570–15NiCr 1Mo12										Billets, bars, forgings	0·12-0·18	0·10-0·35	0·60-1·00	1·00-1·50	0·75-1·25	0·08-0·15	
2081		970 En353									Billets, bars, forgings	0·20 *Max*	0·35 *Max*	0·50-1·00	1·00-1·50	0·75-1·25	0·08-0·15	
2082	1570–15Ni2 Cr1Mo15										Billets, bars, forgings	0·12-0·18	0·10-0·35	0·60-1·00	1·50-2·00	0·75-1·25	0·10-0·20	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2083									G4103 Class 22 SNCM 22		Billets, bars	0·12-0·18	0·15-0·35	0·40-0·70	1·60-2·00	0·40-0·65	0·15-0·30	
2084		970 En354									Billets, bars, forgings	0·20 *Max*	0·35 *Max*	0·50-1·00	1·50-2·00	0·75-1·25	0·10-0·20	
2085			4320	4320							Billets, bars	0·17-0·22	0·20-0·35	0·45-0·65	1·65-2·00	0·40-0·60	0·20-0·30	
2086					A274 Grade 4320						Blooms, billets, slabs	0·17-0·22	0·20-0·35	0·45-0·65	1·65-2·00	0·40-0·60	0·20-0·30	
2087					A322 Grade 4320						Bars	0·17-0·22	0·20-0·35	0·45-0·65	1·65-2·00	0·40-0·60	0·20-0·30	
2088					A331 Grade 4320						Bars	0·17-0·22	0·20-0·35	0·45-0·65	1·65-2·00	0·40-0·60	0·20-0·30	
2089					A304 Grade 4320H						Bars	0·17-0·23	0·20-0·35	0·40-0·70	1·55-2·00	0·35-0·65	0·20-0·30	
2090						17200	1.6582	34CrNiMo6			Heat treatable rolled and forged products	0·30-0·38	0·15-0·35	0·40-0·70	1·4-1·7	1·4-1·7	0·15-0·25	
2091						17200	1.6511	36CrNiMo4			Heat treatable rolled and forged products	0·32-0·40	0·15-0·35	0·50-0·80	0·90-1·20	0·90-1·20	0·15-0·25	
2092		3111 Type 6									Wire for bolts	0·35-0·40	0·10-0·35	0·40-0·80	1·20-1·60	0·90-1·40	0·10-0·20	
2093										4543 Grade 40 XHMA	Structural steel	0·36-0·44	0·17-0·37	0·50-0·80	1·25-1·75	0·60-0·90	0·15-0·25	
2094	1570-40Ni Cr1Mo15										Bars, forgings	0·35-0·45	0·10-0·35	0·40-0·70	1·20-1·60	0·90-1·30	0·10-0·20	
2095		970 En110									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·40-0·80	1·20-1·60	0·90-1·40	0·10-0·20	
2096		S118									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·4-0·8	1·2-1·6	0·9-1·4	0·10-0·20	
2097		3111 Type 6									Wire for bolts	0·35-0·45	0·10-0·35	0·40-0·80	1·20-1·60	0·90-1·40	0·10-0·20	
2098		3111 Type 6									Wire for bolts	0·40-0·45	0·10-0·35	0·40-0·80	1·20-1·60	0·90-1·40	0·10-0·20	
2099			4337	4337							Billets, bars	0·35-0·40	0·20-0·35	0·60-0·80	1·65-2·00	0·70-0·90	0·20-0·30	
2100				E4337							Billets, bars	0·35-0·40	0·20-0·35	0·65-0·85	1·65-2·00	0·70-0·90	0·20-0·30	
2101									G4103 Class 8 SNCM 8		Billets, bars	0·36-0·43	0·15-0·35	0·60-0·90	1·60-2·00	0·60-1·00	0·15-0·30	
2102			4340	4340							Billets, bars	0·38-0·43	0·20-0·35	0·60-0·80	1·65-2·00	0·70-0·90	0·20-0·30	
2103			E4340	E4340							Billets, bars	0·38-0·43	0·20-0·35	0·65-0·85	1·65-2·00	0·70-0·90	0·20-0·30	
2104					A274 Grade 4340						Blooms, billets, slabs	0·38-0·43	0·20-0·35	0·60-0·80	1·65-2·00	0·70-0·90	0·20-0·30	
2105					A320 L43 Grade 4340						Bolting material	0·38-0·43	0·20-0·35	0·60-0·85	1·65-2·00	0·70-0·90	0·20-0·30	
2106					A322 Grade 4340						Bars	0·38-0·43	0·20-0·35	0·60-0·80	1·65-2·00	0·70-0·90	0·20-0·30	
2107					A331 Grade 4340						Bars	0·38-0·43	0·20-0·35	0·60-0·80	1·65-2·00	0·70-0·90	0·20-0·30	

(*Continued*)

TABLE 15 ALLOY STEELS (OTHER THAN HEAT RESISTING AND STAINLESS STEELS) — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2108					A304 Grade 4340H						Bars	0·37-0·44	0·20-0·35	0·55-0·90	1·55-2·00	0·65-0·95	0·20-0·30	
2109					A304 Grade E4340H						Bars	0·37-0·44	0·20-0·35	0·60-0·95	1·55-2·00	0·65-0·95	0·20-0·30	
2110	1570–40Ni2 Cr1Mo28										Bars, forgings	0·35-0·45	0·10-0·35	0·40-0·70	1·25-1·75	0·90-1·30	0·20-0·35	
2111		970 En24									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·45-0·70	1·30-1·80	0·90-1·40	0·20-0·35	
2112		S95									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·45-0·7	1·3-1·8	0·9-1·4	0·20-0·35	
2113		S119									Billets, bars, forgings	0·35-0·45	0·10-0·35	0·45-0·7	1·3-1·8	0·9-1·4	0·20-0·35	
2114	1570–31Ni3 Cr65Mo55										Billets, forgings, tubes	0·27-0·35	0·10-0·35	0·40-0·70	2·25-2·75	0·50-0·80	0·40-0·70	
2115		970 En25									Billets, bars, forgings	0·27-0·35	0·10-0·35	0·50-0·70	2·30-2·80	0·50-0·80	0·40-0·70	
2116		S96									Billets, bars, forgings	0·27-0·35	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2117		S97									Billets, bars, forgings	0·27-0·35	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2118		S120									Billets, bars, forgings	0·27-0·35	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2119		*DTD713									Tubes	0·27-0·35	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2120		*DTD723									Tubes	0·27-0·35	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2121										4543 Grade 33 XH 3 MA	Structural steel	0·29-0·37	0·17-0·37	0·50-0·80	2·50-3·00	0·80-1·10	0·20-0·30	
2122	1570–40Ni3 Cr65Mo55										Bars, forgings	0·36-0·44	0·10-0·35	0·40-0·70	2·25-2·75	0·50-0·80	0·40-0·70	
2123		970 En26									Billets, bars, forgings	0·36-0·44	0·10-0·35	0·50-0·70	2·30-2·80	0·50-0·80	0·40-0·70	
2124		S98									Billets, bars, forgings	0·36-0·44	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2125		2S99									Billets, bars, forgings	0·36-0·44	0·10-0·35	0·5-0·7	2·3-2·8	0·5-0·8	0·4-0·7	
2126		970 En355									Billets, bars, forgings	0·20 *Max*	0·35 *Max*	0·40-0·70	1·80-2·20	1·40-1·70	0·15-0·25	
2127	1570–16Ni Cr2Mo20										Billets, bars, forgings	0·12-0·20	0·10-0·35	0·40-0·70	1·80-2·20	1·40-1·70	0·15-0·25	

*British aircraf specification.

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2128		1501-713									Plate, sections, bars	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·5-13·5	—	A1 0·10-0·30
2129			51405	405							Billets, bars	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2130					A176 Type 405						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·50-14·50	—	A1 0·10-0·30
2131					A176 Type 410S						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·50-13·50	—	
2132					A240 Type 405						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·50-14·50	—	A1 0·10-0·30
2133					A240 Type 410S						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·50-13·50	—	
2134					A268 Grade TP405						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	1·00 *Max*	0·50 *Max*	11·5-13·5	—	A1 0·10-0·30
2135					A276 Type 405						Bars	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2136					A314 Type 405						Billets, bars	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2137					A473 Type 405						Forgings	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·60 *Max*	11·50-14·50	—	A1 0·10-0·30
2138					A473 Type 410S						Forgings	0·08 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	11·50-13·50	—	
2139							1.4000	X7Cr13			Rolled and forged product	0·08 *Max*	1·0 *Max*	1·0 *Max*	—	12·0-14·0	—	
2140							1.4002	X7CrA113			Rolled and forged product	0·08 *Max*	1·0 *Max*	1·0 *Max*	—	12·0-14·0	—	A1 0·10-0·30
2141							1.4001	X7Cr14			Rolled and forged product	0·08 *Max*	1·0 *Max*	1·0 *Max*	—	13·0-15·0	—	
2142									G4303 Class 38 SUS 38B		Bars	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2143									G4304 Class 38 SUS 38HP		Hot rolled plate and sheet	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2144									G4305 Class 38 SUS 38CP		Cold rolled plate and sheet	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2145									G4306 Class 38 SUS 38HS		Hot rolled strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2146									G4307 Class 38 SUS 38CS		Cold rolled strip	0·08 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-14·50	—	A1 0·10-0·30
2147										2246 Grade Св-06 X 14	Welding electrodes	0·08 *Max*	0·3-0·7	0·30-0·70	0·6 *Max*	13·0-15·0	—	
2148							1.4009	X8Cr14			Filler rods	0·10 *Max*	0·75 *Max*	1·5 *Max*	1·0 *Max*	13·5-15·5	—	
2149		1503-713									Forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	11·5-13·5	—	
2150		1506-713									Bars	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	11·5-13·5	—	
2151		3S61									Billets, bars, forgings	0·12 *Max*	0·8 *Max*	1·00 *Max*	1·0 *Max*	11·5-13·5	—	
2152					A182 Grade F6						Flanges, forged fittings, valves	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·50 *Max*	11·5-13·5	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2153					A336 Grade F6						Forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·50 *Max*	11·5-13·5	—	
2154	1570-07Cr13										Bars, forgings, sheet, strip, wire	0·12 *Max*	0·10-0·70	0·90-0·70	0·60 *Max*	12·0-14·0	—	
2155		970 En56A									Billets, bars, forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2156		*1449 En56A									Plate, sheet, strip	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2157		1554 En56A									Wire	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2158		2056 En56A									Spring wire	0·12 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2159		†DTD161A									Rod and wire	0·12 *Max*	1·0 *Max*	1·0 *Max*	1·0 *Max*	12·0-14·0	—	
2160									G4303 Class 21 SUS 21B		Bars	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2161									G4304 Class 21 SUS 21HP		Hot rolled plate and sheet	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2162									G4305 Class 21 SUS 21CP		Cold rolled plate and sheet	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2163									G4306 Class 21 SUS 21HS		Hot rolled strip	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2164									G4307 Class 21 SUS 21CS		Cold rolled strip	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2165									G4308 Class 21 SUS 21WR		Wire rod	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2166									G4309 Class 21 SUS 21WSI		Wire	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2167							1.4006	X10Cr13			Rolled and forged products	0·08-0·12	1·0 *Max*	1·0 *Max*	—	12·0-14·0	—	
2168		1503-713									Forgings	0·15 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	11·5-13·5	—	For high hardness
2169		1506-713									Bars	0·15 *Max*	1·00 *Max*	1·00 *Max*	1·00 *Max*	11·5-13·5	—	For high hardness
2170			51403	403							Billets, bars	0·15 *Max*	0·50 *Max*	1·00 *Max*	—	11·50-13·00	—	
2171					A176 Type 403						Plate, sheet, strip	0·15 *Max*	0·50 *Max*	1·00 *Max*	0·60 *Max*	11·50-13·00	—	
2172					A276 Type 403						Bars	0·15 *Max*	0·50 *Max*	1·00 *Max*	—	11·50-13·00	—	
2173					A314 Type 403						Billets, bars	0·15 *Max*	0·50 *Max*	1·00 *Max*	—	11·50-13·00		
2174			51410	410							Billets, bars	0·15 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-13·50	—	
2175					A176 Type 410						Plate, sheet, strip	0·15 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	11·50-13·50	—	
2176					A193 B6 Type 410						Bolting material	0·15 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-13·50	—	
2177					A240 Type 410						Plate, sheet, strip	0·15 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	11·50-13·50	—	

*B.S. 1449 : 1956.
†British aircraft specification.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2178					A268 Grade TP 410						Seamless and welded tubes	0·15 *Max*	0·75 *Max*	1·00 *Max*	0·50 *Max*	11·5-13·5	—	
2179					A276 Type 410						Bars	0·15 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-13·50	—	
2180					A314 Type 410						Billets, bars	0·15 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-13·50	—	
2181					A473 Type 410						Forgings	0·15 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	11·50-13·50	—	
2182					A493 Type 410						Wire	0·15 *Max*	1·00 *Max*	1·00 *Max*	—	11·50-13·50	—	
2183									G3441 Class 5 STKS 5		Tubes	0·15 *Max*	0·75 *Max*	1·00 *Max*	—	11·50-14·00	—	
2184									G3463 Class 21 SUS 21TB		Tubes	0·15 *Max*	0·75 *Max*	1·00 *Max*	0·60 *Max*	12·00-14·00	—	
2185										5632 Grade 1 X 13 (ЭЖ1)	Rolled and forged products	0·15 *Max*	0·6 *Max*	0·6 *Max*	0·6 *Max*	12·0-14·0	—	
2186										2246 Grade Св-10 X 13	Welding electrodes	0·08-0·15	0·30-0·70	0·30-0·70	0·60 *Max*	12·0-14·0	—	
2187									G4303 Class 37 SUS 37B		Bars	0·08-0·18	0·60 *Max*	1·00 *Max*	—	11·50-14·00	0·30-0·60	
2188							1.4024	X15Cr13			Rolled and forged products	0·12-0·17	1·0 *Max*	1·0 *Max*	—	12·0-14·0	—	
2189									G4303 Class 22 SUS 22B		Bars	0·12-0·18	0·60 *Max*	1·00 *Max*	—	11·50-13·50	—	
2190									G4304 Class 22 SUS 22HP		Hot rolled plate	0·12-0·18	0·60 *Max*	1·00 *Max*	—	11·50-13·50	—	
2191									G4305 Class 22 SUS 22CP		Cold rolled plate	0·12-0·18	0·60 *Max*	1·00 *Max*	—	11·50-13·50	—	
2192	1570-15Cr13										Bars, forgings, tubes, sheet, strip, wire	0·12-0·18	0·10-0·70	0·30-0·70	1·00 *Max*	12·0-14·0	—	
2193		970 En56B									Billets, bars, forgings	0·12-0·18	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2194		*1449 En56B									Plate, sheet, strip	0·12-0·18	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2195		1554 En56B									Wire	0·12-0·18	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2196		2056 En56B									Spring wire	0·12-0·18	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2197		980 CDS18									Seamless tubes	0·20 *Max*	1·0 *Max*	1·0 *Max*	1·0 *Max*	12·0-14·0	—	
2198			51420	420							Billets, bars	0·15 *Min*	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·00-14·00	—	
2199					A276 Type 420						Bars	0·15 *Min*	1·00 *Max*	1·00 *Max*	—	12·00-14·00	—	
2200					A473 Type 420						Forgings	Over 0·15	1·00 *Max*	1·00 *Max*	—	12·00-14·00	—	
2201										5632 Grade 2 X 13 (ЭЖ2)	Rolled and forged products	0·16-0·24	0·6 *Max*	0·6 *Max*	0·6 *Max*	12·0-14·0	—	
2202						17224	1.4021	X20Cr13			Spring steel	0·17-0·22	1·0 *Max*	1·0 *Max*	—	12·0-14·0	—	

*B.S. 1449 : 1956.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2203	1570-22Cr13										Bars, forgings, sheet, strip, wire	0·18-0·25	0·10-0·70	0·30-0·70	1·00 *Max*	12·0-14·0	—	
2204		970 En56C									Billets, bars, forgings	0·18-0·25	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2205		*1449 En56C									Plate, sheet, strip	0·18-0·25	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2206		1554 En56C									Wire	0·18-0·25	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2207		2056 En56C									Spring wire	0·18-0·25	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2208		3562									Billets, bars, forgings	0·18-0·25	0·8 *Max*	1·0 *Max*	1·0 *Max*	12·0-14·0	—	
2209										5632 Grade 3 X 13 (ЭЖ 3)	Rolled and forged products	0·25-0·34	0·6 *Max*	0·6 *Max*	0·6 *Max*	12·0-14·0	—	
2210	1570-30Cr13										Bars, forgings, sheet, strip, wire	0·25-0·35	0·10-0·70	0·30-0·70	1·00 *Max*	12·0-14·0	—	
2211		970 En56D									Billets, bars, forgings	0·25-0·35	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2212		*1449 En56D									Plate, sheet, strip	0·25-0·35	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2213		1554 En56D									Wire	0·25-0·35	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·00-14·00	—	
2214		2056 En56D									Spring wire	0·25-0·35	1·00 *Max*	1·00 *Max*	1·00 *Max*	12·0-14·0	—	
2215									G4303 Class 23 SUS 23B		Bars	0·25-0·40	0·75 *Max*	1·00 *Max*	—	12·00-14·00	—	
2216		†DTD 326A									Spring wire	0·27-0·35	1·0 *Max*	1·0 *Max*	1·0 *Max*	12·0-14·0	—	
2217							1.4007	X35Cr14			Filler rods	0·30-0·40	0·30-0·50	0·50-0·70	—	13·0-15·0	—	
2218		970 En56AM									Billets, bars, forgings	0·12 *Max*	1·00 *Max*	1·50 *Max*	1·00 *Max*	12·0-14·0	0·60 *Max*	S 0·75 *Max*, Se 0·60 *Max*, Zr 0·60 *Max*, Pb 0·35 *Max*, and Mo+Se+Zr+Pb 1·00 *Max*
2219			51416	416							Billets, bars	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max*	S 0·15 *Min*, Zr 0·60 *Max* (Zr or Mo)
2220					A193 B6 Type 416						Bolting material	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max*	S 0·15 *Min*
2221					A194 B6 Type 416						Nuts	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max* (optional)	S 0·15 *Min* and Zr 0·60 *Max* (optional)
2222					A276 Type 416						Bars	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max* (optional)	S 0·15 *Min*
2223					A314 Type 416						Billets, bars	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max* (optional)	S 0·15 *Min*
2224					A473 Type 416						Forgings	0·15 *Max*	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·60 *Max* (optional)	S 0·15 *Min*
2225		970 En56BM									Billets, bars, forgings	0·12-0·18	1·00 *Max*	1·50 *Max*	—	12·0-14·0	0·60 *Max*	S 0·75 *Max*, Se 0·60 *Max*, Zr 0·60 *Max*, Pb 0·35 *Max*, and Mo+Se+Zr+Pb 1·00 *Max*

*B.S. 1449 : 1956.

†British aircraft specification.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2226	1570-22Cr 13S28										Bars, forgings	0·18-0·25	0·10-1·00	1·50 *Max*	1·00 *Max*	12·0-14·0	0·60 *Max*	S 0·15-0·40 and Zr 0·30 *Max*
2227		970 En56CM									Billets, bars, forgings	0·18-0·25	1·00 *Max*	1·50 *Max*	1·00 *Max*	12·0-14·0	0·60 *Max*	S 0·75 *Max*, Se 0·60 *Max*, Zr 0·60 *Max*, Pb 0·35 *Max*, and Mo+Se+ Zr+Pb 1·0 *Max*
2228		2S124									Billets, bars, forgings	0·18-0·25	1·0 *Max*	1·5 *Max*	1·0 *Max*	12·0-14·0	0·6 *Max*	S 0·15-0·40, Zr 0·6 *Max*, and Mo + Zr 1·0 *Max*
2229			51420F								Billets, bars	0·30-0·40	1·00 *Max*	1·25 *Max*	—	12·00-14·00	0·6 *Max*	S 0·15 *Min* and Zr 0·60 *Max* (Zr or Mo)
2230							1.4016	X8Cr17			Rolled and forged products	0·10 *Max*	1·0 *Max*	1·0 *Max*	—	15·5-17·5	—	
2231							1.4015	X8Cr18			Rolled and forged products	0·10 *Max*	1·5 *Max*	1·5 *Max*	1·0 *Max*	16·5-18·5	—	
2232			51430	430							Billets, bars	0·12 *Max*	1·00 *Max*	1·00 *Max*	—	14·00-18·00	—	
2233					A176 Type 430						Plate, sheet, strip	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	14·00-18·00	—	
2234					A268 Grade TP 430						Seamless and welded tubes	0·12 *Max*	0·75 *Max*	1·00 *Max*	0·50 *Max*	14·0-18·0	—	
2235					A276 Type 430						Bars	0·12 *Max*	1·00 *Max*	1·00 *Max*	—	14·00-18·00	—	Unless specified, Cr will be 16·00-18·00 percent
2236					A473 Type 430A						Forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	14·00-18·00	—	
2237					A473 Type 430B						Forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·75 *Max*	16·00-18·00	—	
2238					A493 Type 430						Wire	0·12 *Max*	1·00 *Max*	1·00 *Max*	—	16·00-18·00	—	
2239	1570-07Cr17										Billets, bars, forgings	0·12 *Max*	0·10-0·50	0·30-0·70	0·50 *Max*	16·0-18·0	—	
2240		970 En60									Billets, bars, forgings	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·50 *Max*	16·0-18·0	—	
2241		*1449 En60									Plate, sheet, strip	0·12 *Max*	1·00 *Max*	1·00 *Max*	0·50 *Max*	16·0-18·0	—	
2242									G3441 Class 6 STK S6		Tubes	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2243									G3463 Class 24 SUS 24TB		Tubes	0·12 *Max*	0·75 *Max*	1·00 *Max*	0·60 *Max*	16·00-18·00	—	
2244									G4303 Class 24 SUS 24B		Bars	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2245									G4304 Class 24 SUS 24HP		Hot rolled plate and sheet	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2246									G4305 Class 24 SUS 24 CP		Cold rolled plate and sheet	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	

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(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2247									G4306 Class 24 SUS 24HS		Hot rolled strip	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2248									G4307 Class 24 SUS 24CS		Cold rolled strip	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2249									G4308 Class 24 SUS 24WR		Wire rod	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2250									G4309 Class 24 SUS 24WSI		Wire	0·12 *Max*	0·75 *Max*	1·00 *Max*	—	16·00-18·00	—	
2251										5632 Grade X 17 (ЭЖ 17)	Rolled and forged products	0·12 *Max*	0·8 *Max*	0·7 *Max*	0·6 *Max*	16·0-18·0	—	
2252										5632 Grade X 17 H 2 (ЭЖ 26Б)	Rolled and forged products	0·11-0·17	0·8 *Max*	0·8 *Max*	1·5-2·5	16·0-18·0	—	
2253			51431	431							Billets, bars	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2254					A276 Type 431						Bars	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2255					A314 Type 431						Billets, bars	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2256					A473 Type 431						Forgings	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2257					A493 Type 431						Wire	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2258									G4303 Class 44 SUS 44B		Bars	0·20 *Max*	1·00 *Max*	1·00 *Max*	1·25-2·50	15·00-17·00	—	
2259		970 En57									Billets, bars, forgings	0·25 *Max*	0·10-1·00	1·00 *Max*	1·00-3·00	15·5-20·0	—	
2260		*1449 En57									Plate, sheet, strip	0·25 *Max*	0·10-1·00	1·00 *Max*	1·00-3·00	15·5-20·0	—	
2261		1554 En57									Wire	0·25 *Max*	0·10-1·00	1·00 *Max*	1·00-3·00	15·5-20·0	—	
2262		2056 En57									Spring wire	0·25 *Max*	0·10-1·00	1·00 *Max*	1·00-3·00	15·5-20·0	—	
2263		3S80									Billets, bars, forgings	0·10-0·25	0·8 *Max*	1·0 *Max*	1·0-3·0	15·0-18·0	—	
2264							1.4057	X22CrNi17			Rolled and forged products	0·10-0·25	1·0 *Max*	1·0 *Max*	1·0-2·5	15·5-18·0	—	
2265	1570-20Cr18 Ni2										Bars, forgings, sheet, strip, wire	0·15-0·25	0·10-0·50	0·30-0·70	1·50-2·50	16·0-20·0	—	
2266							1.4044				Rolled and forged product	0·15-0·25	<1·0	<1·0	1·0-2·5	15·5-17·5	—	
2267		1501-801C									Plate, sections, bars	0·03 *Max*	0·20-1·00	0·50-2·00	10·0 *Min*	17·5-20·0	—	
2268		1506-801C									Bars	0·03 *Max*	0·20-1·00	0·50-2·00	10·0 *Min*	17·5-20·0	—	
2269			30304L	304L							Billets, bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2270					A167 Type 304L						Plate, sheet, strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2271					A240 Type 304L						Plate, sheet, strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	

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(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2272					A276 Type 304L						Bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2273					A314 Type 304L						Billets, bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2274					A473 Type 304L						Forgings	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2275					A478 Type 304L						Wire	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2276					A479 Type 304L						Bars and shapes	0·03 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2277									G3459 Class 28 SUS 28TP		Tubes	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2278									G3463 Class 28 SUS 28TB		Tubes	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2279									G4303 Class 28 SUS 28B		Bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2280									G4304 Class 28 SUS 28HP		Hot rolled plate and sheet	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2281									G4305 Class 28 SUS 28CP		Cold rolled plate and sheet	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2282									G4306 Class 28 SUS 28HS		Hot rolled strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2283									G4307 Class 28 SUS 28CS		Cold rolled strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	18·00-20·00	—	
2284					A182 Grade F 304L						Flanges, forged fittings, valves	0·035 *Max*	1·00 *Max*	2·00 *Max*	8·00-13·00	18·00-20·00	—	
2285					A213 Grade TP 304L						Seamless tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	8·00-13·00	18·0-20·0	—	
2286					A249 Grade TP 304L						Welded tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	8·00-13·00	18·0-20·0	—	
2287					A269 Grade 304L						Seamless and welded tubes	0·035 *Max*	0·35 *Max*	2·00 *Max*	8·0-13·0	18·0-20·0	—	
2288					A312 Grade TP 304L						Seamless and welded tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	8·00-13·00	18·0-20·0	—	For smaller diameter, carbon 0·04 *Max*
2289										2246 Grade Cs-02 X 19 H 9	Welding electrodes	0·04 *Max*	0·50-1·00	1·00-2·00	8·0-10·0	18·0-20·0	—	
2290							1.4302	X5CrNi199			Rolled and forged products	0·06 *Max*	1·5 *Max*	1·5 *Max*	8·5-10·5	18·0-20·0	—	
2291										2246 Grade Cs-04 X 19 H 9	Welding electrodes	0·06 *Max*	0·50-1·00	1·00-2·00	8·0-10·0	18·0-20·0	—	
2292										2246 Grade Cs-04 X 19 H 9 C 2	Welding electrodes	0·06 *Max*	2·00-2·75	1·00-2·00	8·0-10·0	18·0-20·0	—	
2293							1.4301	X5CrNi189			Rolled and forged products	0·07 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	
2294							1.4314				Tubes	0·07 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2295										5632 Grade 0 X 18 H 9 (3980)	Rolled and forged products	0·07 *Max*	0·8 *Max*	2·0 *Max*	8·0-11·0	17·0-20·0	—	
2296	1570-04Cr19 Ni9										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·08 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	—	
2297		3014 Grade 1									Welded tubes	0·08 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	—	
2298		970 En58E									Billets, bars, forgings	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2299		*1449 En58E									Plate, sheet, strip	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2300		1554 En58E									Wire	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·00-11·0	17·5-20·0	—	
2301		2056 En58E									Spring wire	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2302		1501-801B									Plate, sections, bars	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2303		1503-801									Forgings	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2304		1506-801B									Bars	0·08 *Max*	0·20 *Min*	2·00 *Max*	8·0-11·0	17·5-20·0	—	
2305		†DTD 734									Wire	0·08 *Max*	0·20-1·0	2·0 *Max*	8·0-11·0	17·5-20·0	—	
2306			30304	304							Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2307					A167 Type 304						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2308					A182 Grade F304						Flanges, forged fittings, valves	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2309					A193 B8 Type 304						Bolting steel	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2310					A194 8 Type 304						Nuts	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2311					A213 Grade TP 304						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·00-11·0	18·0-20·0	—	
2312					A240 Type 304						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2313					A249 Grade TP 304						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·00-11·0	18·0-20·0	—	
2314					A269 Grade TP 304						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2315					A270 Type 304						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2316					A271 Grade TP 304						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2317					A276 Type 304						Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2318					A314 Type 304						Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	

*B.S. 1449 : 1956.

†British aircraft specification.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2319					A320 B8 Type 304						Bolting material	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2320					A336 Grade F8						Forgings	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2321					A376 Gr TP 304						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2322					A409 TP 304						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2323					A473 Type 304						Forgings	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2324					A478 Type 304						Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2325					A479 Type 304						Bars, shapes	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2326					A492 Type 304						Rope wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-12·00	18·00-20·00	—	
2327					A493 Type 304						Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2328									G3441 Class 7 STK S7		Tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2329									G3459 Class 27 SUS 27TP		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2330									G3463 Class 27 SUS 27TB		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2331									G4303 Class 27 SUS 27B		Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2332									G4304 Class 27 SUS 27HP		Hot rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2333									G4305 Class 27 SUS 27CP		Cold rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2334									G4306 Class 27 SUS 27HS		Hot rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2335									G4307 Class 27 SUS 27CS		Cold rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2336									G4308 Class 27 SUS 27WR		Wire rods	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2337									G4309 Class 27 SUS 27WS2		Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2338					A182 Grade F304H						Flanges, forged fittings, valves	0·04-0·10	1·00 *Max*	2·00 *Max*	8·00-11·00	18·00-20·00	—	
2339					A213 Grade TP304H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	8·00-11·00	18·0-20·0	—	
2340					A249 Grade TP304H						Welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	8·00-11·0	18·0-20·0	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2341					A312 Grade TP 304H						Seamless and welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	8·00-11·00	18·0-20·0	—	
2342					A376 Grade TP 304H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2343					A430 Grade FP 304 & FP 304H						Forged and bored tubes	0·04-0·10	1·00 *Max*	2·00 *Max*	8·0-11·0	18·0-20·0	—	
2344			30308	308							Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-12·00	19·00-21·00	—	
2345					A167 Type 308						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-12·00	19·00-21·00	—	
2346					A276 Type 308						Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-12·00	19·00-21·00	—	
2347					A 314 Type 308						Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-12·00	19·00-21·00	—	
2348					A473 Type 308						Forgings	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-12·00	19·00-21·00	—	
2349	1570-07Cr19Ni9										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·12 *Max*	0·20-1·00	0·50-2·00	7·5-9·5	17·5-19·5	—	
2350			30305	305							Billets, bars	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2351					A167 Type 305						Plate, sheet, strip	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2352					A177						Plate, sheet, strip	0·12 *Max*	1·00 *Max*	1·50 *Max*	7·0 *Min*	17·0 *Min*	—	For 3/4 h and h tempers, C 0·15 *Max* permissible
2353					A240 Type 305						Plate, sheet, strip	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2354					A249 Grade TP 305						Welded tubes	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·0-13·0	17·0-19·0	—	
2355					A314 Type 305						Billets, bars	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2356					A473 Type 305						Forgings	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2357					A478 Type 305						Wire	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2358					A493 Type 305						Wire	0·12 *Max*	1·00 *Max*	2·00 *Max*	10·00-13·00	17·00-19·00	—	
2359							1·4300	X12CrNi188			Rolled and forged products	0·12 *Max*	1·0 *Max*	2·0 *Max*	8·0-10·0	17·0-19·0	—	
2360							1·6900	X12CrNi189			Low temperature steel	0·12 *Max*	1·0 *Max*	2·0 *Max*	8·0-11·0	17·0-20·0	—	
2361										5632 Grade 1 X 18 H 9 (ЭЯ1)	Rolled and forged products	0·14 *Max*	0·8 *Max*	2·0 *Max*	8·0-11·0	17·0-19·0	—	
2362			30301	301							Billets, bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	6·00-8·00	16·00-18·00	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn, Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2363					A167 Type 301						Plate, sheet, strip	0·15 *Max*	1·00 *Max*	2·00 *Max*	6·00-8·00	16·00-18·00	—	
2364									G4303 Class 39 SUS 39B		Bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	6·00-8·00	16·00-18·00	—	
2365									G4308 Class 39 SUS 39WR		Wire rods	0·15 *Max*	1·00 *Max*	2·00 *Max*	6·00-8·00	16·00-18·00	—	
2366									G4309 Class 39 SUS 39WH2		Wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	6·00-8·00	16·00-18·00	—	
2367						17224 17225	1.4310	X12CrNi177			Spring steel	0·15 *Max*	1·0 *Max*	2·0 *Max*	7·0-8·0	16·0-18·0	—	
2368							1.4324	X12CrNi177			Spring steel	0·15 *Max*	1·0 *Max*	2·0 *Max*	7·0-8·0	16·0-18·0	—	
2369		3014 Grade 2									Welded tubes	0·15 *Max*	0·2-1·0	0·50-2·0	7·5-9·5	17·5-19·5	—	
2370			30302	302							Billets, bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2371					A167 Type 302						Plate, sheet, strip	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2372					A240 Type 302						Plate, sheet, strip	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2373					A276 Type 302						Bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2374					A313						Spring wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-9·50	18·00-20·00	—	
2375					A314 Type 302						Billets, bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2376					A473 Type 302						Forgings	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2377					A478 Type 302						Wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2378					A479 Type 302						Bars, shapes	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2379					A492 Type 302						Rope wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2380					A493 Type 302						Wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-10·00	17·00-19·00	—	
2381									G4303 Class 40 SUS 40B		Bars	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2382									G4304 Class 40 SUS 40HP		Hot rolled plate and sheet	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2383									G4305 Class 40 SUS 40CP		Cold rolled plate and sheet	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2384									G4306 Class 40 SUS 40HS		Hot rolled strip	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2385									G4307 Class 40 SUS 40CS		Cold rolled strip	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2386									G4308 Class 40 SUS 40WR		Wire rods	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werk-stoff Nummer	Code Designation										
2387									G4309 Class 40 SUS 40WH2		Wire	0·15 *Max*	1·00 *Max*	2·00 *Max*	8·00-11·00	17·00-19·00	—	
2388		970 En58A									Billets, bars, forgings	0·16 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni + Cr 25·0 *Min*
2389		*1449 En58A									Plate, sheet, strip	0·16 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni + Cr 25·0 *Min*
2390		1554 En58A									Wire	0·16 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni + Cr 25·0 *Min*
2391		2056 En58A									Spring wire	0·16 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni + Cr 25·0 *Min*
2392		1506-801A									Bars	0·16 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni + Cr 25·0 *Min*
2393		980-CDS19									Seamless tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·5 *Min*	17·5 *Min*	—	
2394		1508-801									Seamless tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	—	
2395		†DTD 712A									Sheet, strip	0·06 *Max*	0·20 *Min*	1·00 *Max*	9·00-12·00	17·50-20·0	—	Ti 5C *Min*
2396	1570-01Cr19 Ni9Ti20										Billets, bars, forgings, tubes, plate, sheet, strip, wire	0·08 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	—	Ti 5C *Min*
2397		301 Grade 3									Welded tubes	0·08 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	—	Ti 5C-0·60
2398			30321	321							Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2399					A167 Type 321						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2400					A182 Grade F321						Flanges, forged fittings, valves	0·08 *Max*	0·85 *Max*	2·50 *Max*	9·00 *Min*	17·00 *Min*	—	Ti 5C-0·60
2401					A193 B8T Type 321						Bolting material	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2402					A194 8T Type 321						Nuts	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2403					A213 TP 321						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·00-13·00	17·0-20·0	—	Ti 5C-0·60
2404					A240 Type 321						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C-0·70
2405					A249 Type 321						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 5C-0·60
2406					A269 Grade TP 321						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 5C-0·60
2407					A271 Grade TP 321						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 5C-0·60
2408					A276 Grade Type 321						Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2409					A312 Grade TP 321						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·00-13·00	17·0-20·0	—	Ti 5C-0·60
2410					A336 Grade F8t						Forgings	0·08 *Max*	0·85 *Max*	2·50 *Max*	9·00 *Min*	17·00 *Min*	—	Ti 5C-0·60

*B.S. 1449 : 1956.
†British aircraft specification.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2411					A376 Grade TP 321						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 5C-0·60
2412					A409 Grade TP 321						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 5C-0·60
2413					A473 Type 321						Forgings	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2414					A479 Type 321						Bars, shapes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2415					A493 Type 321						Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Ti 5C *Min*
2416							1.4544	X10CrNiTi 189			Tubes	0·08 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Ti 6C-0·70
2417									G3441 Class 9 STKS 9		Tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C-0·60
2418									G3459 Class 29 SUS 29 TP		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C-0·60
2419									G3463 Class 29 SUS 29TB		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C-0·60
2420									G4303 Class 29 SUS 29B		Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C *Min*
2421									G4304 Class 29 SUS 29HP		Hot rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C *Min*
2422									G4305 Class 29 SUS 29CP		Cold rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C *Min*
2423									G4306 Class 29 SUS 29HS		Hot rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C *Min*
2424									G4307 Class 29 SUS 29CS		Cold rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Ti 5C *Min*
2425										2246 Grade Cв-06 X 19 H9T	Welding electrodes	0·08 *Max*	0·40-1·00	1·00-2·00	8·0-10·0	18·0-20·0	—	Ti 0·50-1·00
2426					A182 Grade F321H						Flanges, forged fittings, valves	0·04-0·10	0·85 *Max*	2·50 *Max*	9·00 *Min*	17·00 *Min*	—	Ti 4C-0·60
2427					A213 Grade TP321H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	9·00-13·0	17·0-20·0	—	Ti 4C-0·60
2428					A249 Grade TP321H						Welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 4C-0·60
2429					A271 Grade TP 321H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 4C-0·60
2430					A312 Grade TP 321H						Seamless and welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	9·00-13·0	17·0-20·0	—	Ti 4C-0·60
2431					A376 Grade TP 321H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Ti 4C-0·60
2432					A430 Grades FP 321 & FP 321H						Forged and bored tubes	0·04-0·10	0·85 *Max*	2·50 *Max*	9·0 *Min*	17·0 *Min*	—	Ti 4C-0·60
2433		*DTD 712A									Sheet, strip	0·06 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·50-20·00	—	Ti 5C *Min* or Nb 10C *Min*

*British aircraft specification.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2434	1570-04Cr19 Ni9Nb40										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·08 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	—	Nb 10C *Min*
2435		1501-821Nb									Plate, sections, bars	0·08 *Max*	0·20-1·00	0·50-2·00	9·0 *Min*	17·0-20·0	—	Nb 10C-1·00
2436		1503-821Nb									Forgings	0·08 *Max*	0·20-1·00	0·50-2·00	9·0 *Min*	17·0-20·0	—	Nb 10C-1·00
2437		1506-821Nb									Bars	0·08 *Max*	0·20-1·00	0·50-2·00	9·0 *Min*	17·0-20·0	—	Nb 10C-1·00
2438		3014 Grade 5									Welded tubes	0·08 *Max*	0·20-1·0	0·50-2·00	9·0-13·0	17·0-20·0	—	Nb 10C-1·00
2439			30347	347							Billets, bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Nb+Ta 10C *Min*
2440					A167 Type 347						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb+Ta 10C-1·10
2441					A182 Grade F 347						Flanges, forged fittings, valves	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb+Ta 10C-1·00
2442					A193 B8C Type 347						Bolting material	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb 10C *Min*
2443					A194 B8C Type 347						Nuts	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb 10C *Min*
2444					A213 Grade TP 347						Seamless tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·0-20·0	—	Cb+Ta 10C-1·00
2445					A240 Type 347						Plate, sheet, strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb+Ta 10C-1·10
2446					A249 Grade TP 347						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 10C-1·0
2447					A269 Grade TP 347						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 10C-1·0
2448					A271 Grade TP 347						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 10C-1·0
2449					A312 Grade TP 347						Seamless and welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·00-13·0	17·0-20·0	—	Cb+Ta 10C-1·0
2450					A320 B8C Type 347						Bolting material	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-19·00	—	Cb+Ta 10C *Min*
2451					A336 Grade F8C						Forgings	0·08 *Max*	0·85 *Max*	2·00 *Max*	9·00-12·00	17·00-19·00	—	Cb 10C-1·0
2452					A376 Grade TP 347						Seamless tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb 10C-1·00
2453					A409 Grade TP 347						Welded tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 10C-1·0
2454							1.4544	X10CrNi Nb189			Tubes	0·08 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Nb 8C-1·10
2455									G3441 Class 10 STKS 10		Tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Cb 10C-1·00
2456									G3459 Class 43 SUS 43TP		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C-1·00

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2457									G3463 Class 43 SUS 43TB		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C-1·00
2458									G4303 Class 43 SUS 43B		Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C *Min*
2459									G4304 Class 43 SUS 43HP		Hot rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C *Min*
2460									G4305 Class 43 SUS 43CP		Cold rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C *Min*
2461									G4306 Class 43 SUS HS		Hot rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C *Min*
2462									G4307 Class 43 SUS 43CS		Cold rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Nb+Ta 10C *Min*
2463					A182 Grade F347H						Flanges, forged fittings, valves	0·040-0·10	1·00 *Max*	2·00 *Max*	9·00-13·00	17·00-20·00	—	Cb+Ta 8C-1·00
2464					A213 Grade TP347H						Seamless tubes	0·040-0·10	1·00 *Max*	2·00 *Max*	9·00-13·0	17·0-20·0	—	Cb+Ta 8C-1·00
2465					A249 Grade TP347H						Welded tubes	0·040-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 8C-1·0
2466					A271 Grade TP347H						Seamless tubes	0·040-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 8C-1·0
2467					A312 Grade TP347H						Seamless and welded tubes	0·040-0·10	0·75 *Max*	2·00 *Max*	9·00-13·0	17·0-20·0	—	Cb+Ta 8C-1·0
2468					A376 Grade TP347H						Seamless tubes	0·040-0·10	0·75 *Max*	2·00 *Max*	9·0-13·0	17·0-20·0	—	Cb+Ta 8C-1·00
2469					A430 Grade FP347 & FP 347H						Forged and bored tubes	0·040-0·10	1·00 *Max*	2·00 *Max*	9·0-12·0	17·0-19·0	—	Cb+Ta 8C-1·00
2470										2246 Grade Ch-08 X 19 H 10 B	Welding electrodes	0·05-0·10	0·70 *Max*	1·20-1·70	9·0-10·5	18·5-20·0	—	Nb 1·2-1·5
2471		2901-A8Ti									Filler rods	0·10 *Max*	0·20-1·2	2·0 *Max*	8·0-10·0	17·5-20·0	—	Ti 6C-0·8
2472							1.4541	X10CrNi Ti1810			Rolled and forged products	0·10 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Ti 5C *Min*
2473							1.6903	X10CrNi Ti1810			Low temperature steel	0·10 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Ti 5C *Min*
2474	1570-07Cr19 Ni9Ti35										Tubes, sheet, strip, wire	0·12 *Max*	0·20-1·00	0·50-2·00	7·5-9·5	17·5-19·5	—	Ti 5C *Min*
2475		1501-821Ti									Plate, sections, bars	0·12 *Max*	0·20-1·00	0·50-2·00	7·5 *Min*	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C-0·70
2476		1503-821Ti									Forgings	0·12 *Max*	0·20-1·00	0·50-2·00	7·5 *Min*	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C-0·70
2477		1506-821Ti									Bars	0·12 *Max*	0·20-1·00	0·50-2·00	7·5 *Min*	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C-0·70

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2478										5632 Grade Х 18 Н 9 Т (ЭЯ 1 Т)	Rolled and forged products	0·12 *Max*	0·8 *Max*	2·0 *Max*	8·0-11·0	17·0-20·0	—	Ti 0·5-0·8
2479		970 En58B									Billets, bars, forgings	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C *Min*
2480		*1449 En58B									Plate, sheet, strip	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C *Min*
2481		1554 En58B									Wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C *Min*
2482		2056 En58B									Spring wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* Ti 4C *Min*
2483		3014 Grade 4									Welded tubes	0·15 *Max*	0·20-1·0	0·50-2·00	7·5-9·5	17·5-19·5	—	Ti 5C *Min*
2484		1507-821									Seamless tubes	0·15 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	—	Ti 5C *Min*
2485		1508-821									Seamless tubes	0·15 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	—	Ti 5C *Min*
2486							1.4878	X12CrNi Ti189			Rolled and forged products	0·15 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Ti 0·7 *Max*
2487		970 En58C									Billets, bars, forgings	0·15 *Max*	0·20 *Min*	2·0 *Max*	9·0-12·0	17·0-20·0	—	Ti 4C *Min*
2488		*1449 En58C									Plate, sheet, strip	0·15 *Max*	0·20 *Min*	2·0 *Max*	9·0-12·0	17·0-20·0	—	Ti 4C *Min*
2489		1554 En58C									Wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Ti 4C *Min*
2490		2056 En58C									Spring wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Ti 4C *Min*
2491		S110									Billets, bars, forgings	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Ti 4C *Min*
2492		S520									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Ti 5C *Min*
2493		S521									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Ti 5C *Min*
2494		T55									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	16·0-20·0	—	Ti 5C *Min*
2495		T58									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	16·0-20·0	—	Ti 5C *Min*
2496		980-CDS20									Seamless tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·5 *Min*	17·5 *Min*	—	Ti 5C *Min*; Mo, W, V (optional)
2497		1453-A8Nb									Filler rods	0·10 *Max*	0·20-1·20	2·0 *Max*	8·0-10·0	17·5-20·0	—	Nb 10C-1·20
2498		2901 A8Nb									Filler rods	0·10 *Max*	0·20-1·20	2·0 *Max*	8·0-10·0	17·5-20·0	—	Nb 10C-1·20
2499							1.4551	X8CrNi Nb199			Rolled and forged products	0·10 *Max*	2·00 *Max*	1·5 *Max*	8·0-10·0	18·0-20·0	—	Nb 12C *Min*
2500							1.4544				Filler rods	0·10 *Max*	2·0 *Max*	1·5 *Max*	8·0-10·0	18·0-20·0	—	Nb 12C *Min*
2501							1.4550	X10CrNi Nb189			Rolled and forged products	0·10 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Nb 8C *Min*
2502							1.6905	X10CrNi Nb1810			Low temperature steel	0·10 *Max*	1·0 *Max*	2·0 *Max*	9·0-11·0	17·0-19·0	—	Nb 8C *Min*
2503										5632 Grade Х 18 Н 11 Б (ЭИ 398 and ЭИ 402)	Rolled and forged products	0·10 *Max*	1·0 *Max*	2·0 *Max*	9·0-13·0	17·0-20·0	—	Nb 8C-1·5

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(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2504	1570-07 Cr19 Ni9Nb70										Tubes, sheet, strip wire	0·12 *Max*	0·20-1·00	0·50-2·00	7·5-9·5	17·5-19·5	—	Nb 10C *Min.*
2505		970 En58F									Billets, bars, forgings	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* and Nb 8C *Min*
2506		*1449 En58F									Plate, sheet, strip	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* and Nb 8C *Min*
2507		1554 En58F									Wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* and Nb 8C *Min*
2508		2056 En58F									Spring wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	7·0-10·0	17·0-20·0	—	Ni+Cr 25·0 *Min* and Nb 8C *Min*
2509		1507 Grade 821									Tubes	0·15 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	—	Nb 10C *Min*
2510		1508 Grade 821									Tubes	0·15 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	—	Nb 10C *Min*
2511		970 En58G									Billets, bars, forgings	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Nb 8C *Min*
2512		*1449 En58G									Plate, sheet, strip	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Nb 8C *Min*
2513		1554 En58G									Wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Nb 8C *Min*
2514		2056 En58G									Spring wire	0·15 *Max*	0·20 *Min*	2·00 *Max*	9·0-12·0	17·0-20·0	—	Nb 8C *Min*
2515		S110									Billets, bars, forgings	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Nb 8C *Min*
2516		S520									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Nb 10C *Min*
2517		S521									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·0-12·0	16·0-20·0	—	Nb 10C *Min*
2518		T55									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	16·0-20·0	—	Nb 10C *Min*
2519		T58									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	16·0-20·0	—	Nb 10C *Min*
2520		980-CD620									Seamless tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	7·5 *Min*	17·5 *Min*	—	Nb 10C *Min* and Mo, W, V (optional)
2521	1570-07 Cr19 Ni9Mo2										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·12 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	1·50-2·00	
2522							1.4570	X10CrNiMo Ti18101			Sheet	0·10 *Max*	1·0 *Max*	2·0 *Max*	10·5-12·5	16·5-18·5	1·2-1·6	Ti 5C *Min*
2523	1570-07 Cr19 Ni9Mo2Ti28										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·12 *Max*	0·20-1·00	0·50-2·00	8·0-10·0	17·5-19·5	1·50-2·00	Ti 4C *Min*
2524		970 En58H									Billets, bars, forgings	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	1·50-2·50	Ti + Nb (optional)
2525		*1449 En58H									Plate, sheet, strip	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	1·50-2·50	Ti + Nb (optional)
2526		1554 En58H									Wire	0·12 *Max*	0·20 *Min*	2·0 *Max*	8·0-12·0	17·0-20·0	1·50-2·50	Ti + Nb (optional)

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(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2527		2056 En58H									Spring wire	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	1·50-2·50	Ti+Nb (optional)
2528			30316L	316L							Billets, bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	Ni 11·00-15·00 in case of tubular products
2529					A 167 Type 316L						Plate, sheet, strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2530					A240 Type 316L						Plate, sheet, strip	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2531					A276 Type 316L						Bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2532					A314 Type 316L						Billets, bars	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2533					A473 Type 316L						Forgings	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2534					A478 Type 316L						Wire	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2535					A479 Type 316L						Bars, shapes	0·03 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2536									G3459 Class 33 SUS 33TP		Tubes	0·03 *Max*	1·00 *Max*	2·00 *Max*	12·00-16·00	16·00-18·00	2·00-3·00	
2537					A182 Grade F 316L						Flanges, forged fittings, valves	0·035 *Max*	1·00 *Max*	2·00 *Max*	10·00-15·00	16·00-18·00	2·00-3·00	
2538					A213 Grade TP 316L						Seamless tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	10·0-15·0	16·0-18·0	2·00-3·00	
2539					A249 Grade TP 3162L						Welded tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	10·0-15·0	16·0-18·0	2·00-3·00	
2540					A269 Grade TP 316L						Seamless and welded tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	10·0-15·0	16·0-18·0	2·00-3·00	
2541					A312 Grade TP 316L						Seamless and welded tubes	0·035 *Max*	0·75 *Max*	2·00 *Max*	10·0-15·0	16·0-18·0	2·00-3·00	
2542							1.4402	X5CrNiMo-1910			Rolled and forged products	0·06 *Max*	1·5 *Max*	1·5 *Max*	9·0-11·0	18·0-20·0	2·0-2·5	
2543										2246 Grade Cr-04 X 19 H 11 M 3	Welding electrodes	0·06 *Max*	0·60 *Max*	1·00-2·00	10·0-12·0	18·0-20·0	2·0-3·0	
2544				D319							Billets, bars	0·07 *Max*	1·00 *Max*	2·00 *Max*	11·0-15·0	17·5-19·5	2·25-3·00	
2545						17224	1.4401	X5CrNiMo 1810			Spring steel	0·07 *Max*	1·0 *Max*	2·0 *Max*	10·5-12·5	16·5-18·5	2·0-2·5	
2546							1.4436	X5CrNiMo 1812			Rolled and forged products	0·07 *Max*	1·0 *Max*	2·0 *Max*	12·0-14·0	16·5-18·5	2·5-3·0	

(*Continued*)


2569
A479
Type 316
Bars, shapes
0·08 Max
1·00 Max
2·00 Max
10·00-14·00
16·00-18·00
2·00-3·00

(Continued)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2570					A492 Type 316						Rope wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2571					A493 Type 316						Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2572									G3441 Class 8 STK S8		Tubes	0·08 *Max*	0·75 *Max*	2·00 *Max*	11·00-14·00	16·00-18·00	2·00-3·00	
2573									G3459 Class 32 SUS 32TP		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2574									G3463 Class 32 SUS 32TB		Tubes	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2575									G4303 Class 32 SUS 32B		Bars	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2576									G4304 Class 32 SUS 32HP		Hot rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2577									G4305 Class 32 SUS 32CP		Cold rolled plate and sheet	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2578									G4306 Class 32 SUS 32HS		Hot rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2579									G4307 Class 32 SUS CS		Cold rolled strip	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2580									G4308 Class 32 SUS 32WR		Wire rods	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2581									G4309 Class 32 SUS 32WS2		Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2582									G4309 Class 32 SUS 32 WH1		Wire	0·08 *Max*	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2583					A182 Grade F 316H						Flanges, forged fittings, valves	0·04-0·10	1·00 *Max*	2·00 *Max*	10·00-14·00	16·00-18·00	2·00-3·00	
2584					A213 Grade TP 316H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	11·0-14·0	16·0-18·0	2·00-3·00	
2585					A249 Grade TP 316H						Welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	11·0-14·0	16·0-18·0	2·00-3·00	
2586					A312 Grade TP 316H						Seamless and welded tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	11·0-14·0	16·0-18·0	2·0-3·0	
2587					A376 Grade TP 316H						Seamless tubes	0·04-0·10	0·75 *Max*	2·00 *Max*	11·0-14·0	16·0-18·0	2·0-3·0	
2588					A430 Grades FP 316 & FP 316H						Forged and bored tubes	0·04-0·10	1·00 *Max*	2·00 *Max*	10·0-14·0	16·0-18·0	2·0-3·0	
2589										2246 Grade Cs-08 X 19 H 12 M 3	Welding electrodes	0·06-0·10	0·3-0·7	1·0-1·7	11·5-13·0	18·5-20·5	2·3-2·8	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2590	1570-05Cr18 Ni11Mo3										Billets, bars, forgings, tubes, sections, sheet, strip, wire	0·10 *Max*	0·20-1·00	1·00-2·00	10·00-12·0	16·5-18·5	2·20-3·00	
2591		1507-845									Seamless tubes	0·08 *Max*	0·20-1·0	2·0 *Max*	10·0 *Min*	16·0-18·0	2·5-3·0	Ti + Nb (optional)
2592		1508-845									Seamless tubes	0·08 *Max*	0·20-1·0	2·0 *Max*	10·0 *Min*	16·0-18·0	2·5-3·0	Ti + Mo (optional)
2593		1501-845Ti									Plate, sections, bars	0·08 *Max*	0·20-0·60	2·00 *Max*	10·0 *Min*	16·5-18·5	2·25-3·00	Ti 4C-0·50
2594		1503-845Ti									Forgings	0·08 *Max*	0·20-0·60	2·00 *Max*	10·0 *Min*	16·5-18·5	2·25-3·00	Ti 4C-0·50
2595		2901-A12Ti									Filler rods	0·08 *Max*	0·75 *Max*	2·0 *Max*	10·0-12·0	16·0-18·0	2·5-3·5	Ti 6C-0·60
2596										2246 Grade Св-06 Х 19 Н 10 М 3 Т	Welding electrodes	0·08 *Max*	0·30-0·80	1·00-2·00	9·00-11·00	18·0-20·0	2·0-3·0	Ti 0·50-0·80
2597	1570-05Cr18-Ni11Mo3Ti20										Billets, bars, forgings, tubes, sections, plate, sheet, strip, wire	0·10 *Max*	0·20-1·00	1·00-2·00	10·0-12·0	16·5-18·5	2·20-3·00	Ti 4C *Min*
2598							1.4571	X10CrNi-MoTi1810			Rolled and forged products	0·10 *Max*	1·0 *Max*	2·0 *Max*	10·5-12·5	16·5-18·5	2·0-2·5	Ti 5C *Min*
2599							1.4573	X10CrNi-MoTi1812			Rolled and forged products	0·10 *Max*	1·0 *Max*	2·0 *Max*	12·0-14·0	16·5-18·5	2·5-3·0	Ti 5C *Min*
2600		970 En58J									Billets, bars, forgings	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	2·50-3·50	Ti and Nb (optional)
2601		*1449 En58J									Plate, sheet, strip	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	2·50-3·50	Ti and Nb (optional)
2602		1554 En58J									Wire	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	2·50-3·50	Ti and Nb (optional)
2603		2056 En58J									Spring wire	0·12 *Max*	0·20 *Min*	2·00 *Max*	8·0-12·0	17·0-20·0	2·50-3·50	Ti and Nb (optional)
2604										5632 Grade Х 18 Н 12 М 2Т (ЭИ 171 and ЭИ 448)	Rolled and forged products	0·12 *Max*	0·8 *Max*	2·0 *Max*	11·0-14·0	16·0-19·0	2·0-3·0	Ti 0·3-0·6
2605			30310S	310S							Billets, bars	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2606					A167 Type 310S						Plate, sheet, strip	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2607					A240 Type 310S						Plate, sheet, strip	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2608					A276 Type 310S						Bars	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2609					A314 Type 310S						Billets, bars	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2610					A473 Type 310S						Forgings	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2611									G4303 Class 42 SUS 42B		Bars	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	

*B.S. 1449 : 1956.

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2612									G4304 Class 42 SUS 42HP		Hot rolled plate and sheet	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2613									G4305 Class 42 SUS 42CP		Cold rolled plate and sheet	0·08 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2614										2246 Grade Св-08 X 25 Н 5 ТМФ	Welding electrodes	0·10 *Max*	1·00 *Max*	0·80 *Max*	15·0-17·0	24·0-27·0	—	
2615	1570–10Cr25 Ni18										Billets, bars, forgings, sections, plate, sheet, strip, wire	0·15 *Max*	0·20-1·00	0·50-2·00	16·0-20·0	23·0-26·0	—	
2616					A182 Grade F 310						Flanges, forged fittings, valves	0·15 *Max*	1·00 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2617					A213 Grade TP 310						Seamless tubes	0·15 *Max*	0·75 *Max*	2·00 *Max*	19·0-22·0	24·0-26·0	—	
2618					A249 Grade TP 310						Welded tubes	0·15 *Max*	0·75 *Max*	2·00 *Max*	19·0-22·0	24·0-26·0	—	
2619					A312 Grade TP 310						Seamless and welded tubes	0·15 *Max*	0·75 *Max*	2·00 *Max*	19·0-22·0	24·0-26·0	—	
2620					A336 Grade F 25						Forgings	0·15 *Max*	1·00 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2621					A409 Grade TP 310						Welded tubes	0·15 *Max*	0·75 *Max*	2·00 *Max*	19·0-22·0	24·0-26·0	—	
2622										2246 Grade Св-13 X 25 Н 18	Welding electrodes	0·15 *Max*	0·50 *Max*	1·00-2·00	17·0-20·0	24·0-27·0	—	
2623						1.4842	X12Cr-Ni2520				Rolled and forged products	0·15 *Max*	1·5 *Max*	1·0-2·5	19·0-21·0	24·0-26·0	—	
2624						1.4845	X12Cr-Ni2521				Rolled and forged products	0·15 *Max*	0·75 *Max*	2·0 *Max*	19·0-22·0	24·0-26·0	—	
2625						1.4854	X12Cr-Ni 2520				Filler rods	0·15 *Max*	1·5 *Max*	2·5 *Max*	19·0-21·0	24·0-26·0	—	
2626									G3459 Class 42 SUS 42TP		Tubes	0·15 *Max*	1·50 *Max*	2·00 *Max*	19·00-21·00	24·00-26·00	—	
2627		2901-A11									Filler rods	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	24·0-26·0	—	
2628		1453-A11									Filler rods	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	24·0-26·0	—	
2629										5632 Grade X 23 Н 18 (ЭИ 417)	Rolled and forged products	0·20 *Max*	1·0 *Max*	2·0 *Max*	17·0-20·0	22·0-25·0	—	
2630						17470	1.4843	CrNi2520			Heat conductivity steel	0·20 *Max*	—	—	18·5-19·5	23·0-26·0	—	
2631							1.4841	X15CrNi Si2520			Rolled and forged products	0·20 *Max*	1·8-2·3	2·0 *Max*	19·0-21·0	24·0-26·0	—	
2632							1.4844	X15CrNi Si2520			Plate	0·2 *Max*	1·8-2·3	2·0 *Max*	19·0-21·0	24·0-26·0	—	

(*Continued*

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2633			30310	310							Billets, bars	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2634					167 Type 310						Plate, sheet, strip	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2635					A276 Type 310						Bars	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2636					A314 Type 310						Billets, bars	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2637					A473 Type 310						Forgings	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2638									G4302 Class 5 SEH5		Rolled and forged products	0·25 *Max*	1·50 *Max*	2·00 *Max*	19·00-22·00	24·00-26·00	—	
2639	1570-10Cr25 Ni18Ti40										Billets, bars, forgings, tubes, sections, plate, sheet, strip	0·15 *Max*	0·20-1·00	0·50-2·00	16·0-20·0	23·0-26·0	—	Ti 4C *Min*
2640		1507-825									Seamless tubes	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	22·0-26·0	—	Ti 1·0 *Max*
2641		1508-825									Seamless tubes	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	22·0-26·0	—	Ti 1·0 *Max*
2642		2901-A11Ti									Filler rods	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	24·0-26·0	—	Ti 6C-0·02 0·80
2643		T61									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	16·0-18·0	20·0-26·0	—	Ti 5C *Min*
2644		S523									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	16·0-20·0	20·0-26·0	—	Ti 5C *Min*
2645		S109									Billets, bars, forgings	0·20 *Max*	0·20 *Min*	2·0 *Max*	16·0-20·0	20·0-26·0	—	Ti 4C
2646	1570-10Cr25 Ni18Nb80										Billets, bars, forgings, tubes, sections, plate, sheet, strip	0·15 *Max*	0·20-1·00	0·50-2·00	16·0-20·0	23·0-26·0	—	Nb 8C *Min*
2647		1453 Grade A11Nb									Filler rods	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	24·0-26·0	—	Nb 10 (C-0·02)-1·3
2648		2901 Grade A11Nb									Filler rods	0·15 *Max*	1·0-2·0	2·0 *Max*	20·0-22·0	24·0-26·0	—	Nb 10 (C-0·02)-1·3
2649		T61									Tubes	0·16 *Max*	0·20 *Min*	2·0 *Max*	16·0-18·0	20·0-26·0	—	Nb 10C *Min*
2650		S523									Sheet, strip	0·16 *Max*	0·20 *Min*	2·0 *Max*	16·0-20·0	20·0-26·0	—	Nb 10C *Min*
2651		S109									Billets, bars, forgings	0·20 *Max*	0·20 *Min*	2·0 *Max*	16·0-20·0	20·0-26·0	—	Nb 8C *Min*
2652	1570-45Cr9 Si4										Valve steel	0·40-0·50	3·25-3·75	0·30-0·60	0·50 *Max*	7·50-9·50	—	
2653		970 En52									Valve steel	0·40-0·50	3·00-3·75	0·30-0·60	0·50 *Max*	7·50-9·50	—	
2654							1.4718	X45CrSi9·3			Valve steel	0·40-0·50	2·8-3·3	0·30-0·50	—	8·0-10·0	—	
2655									G4302 Class 1 SEH1		Valve steel	0·40-0·50	3·00-3·50	0·60 *Max*	—	7·50-9·50	—	
2656										5632 Grade X9C2 (3CX8)	Rolled and forged products	0·35-0·50	2·0-3·0	0·7 *Max*	0·6 *Max*	8·0-10·0	—	
2657	1570-80Cr 20Si2Ni1										Valve steel	0·75-0·85	1·75-2·25	0·20-0·60	1·20-1·70	19·0-21·0	—	
2658		970 En59									Valve steel	0·74-0·84	1·75-2·25	0·20-0·60	1·15-1·65	19·0-20·5	—	

(*Continued*)

TABLE 16 HIGH ALLOY STEELS — STAINLESS AND HEAT RESISTING STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	Product	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	Remarks
			SAE	AISI	ASTM	DIN	Werkstoff Nummer	Code Designation										
2659							1.4747	X80CrNiSi20			Valve steel	0·75-0·85	1·75-2·75	0·2-0·6	1·0-1·75	19·0-21·0	—	
2660	1570–40Cr Ni14W3Si2										Valve steel	0·35-0·45	1·00-2·00	0·40-0·80	13·0-15·0	13·0-15·0	—	W 2·2/3·00
2661									G4302 Class 4SEH4		Valve steel	0·35-0·45	1·50-2·50	0·60 *Max*	13·00-15·00	14·00-16·00	—	W 2·00/3·00
2662		970 En54									Valve steel	0·35-0·50	1·00-2·50	1·50 *Max*	10·0 *Min*	12·0-16·0	—	W 2·00/4·00
2663		970 En54A									Valve steel	0·37-0·47	1·00-2·00	0·50-0·80	13·0-15·00	13·0-15·0	0·40-0·60 (optional)	W 2·2/3·0 Nb 0·16/0·22 (optional)
2664		S11									Valve steel	0·37-0·47	1·0-2·0	0·5-0·8	13·0-15·0	13·0-15·0	0·4-0·6 (optional)	W 2·2/3·0 and Nb 0·16/0·22 (optional)
2665										5632 Grade 4 X 14 H 14 B 2 M (ЭИ 69)	Rolled and forged products	0·40-0·50	0·8 *Max*	0·7 *Max*	13·0-15·0	13·0-15·0	0·25-0·40	W 2·0/2·75

TABLE 17 TOOL STEELS

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2666							1.1720	C35W3			0·35	0·15-0·40	0·40-0·60	—	—	—	—	—	—	
2667							1.1730	C45W3			0·45	0·15-0·40	0·60-0·80	—	—	—	—	—	—	
2668	1570-T50										0·45-0·55	0·10-0·35	0·60-0·90	—	—	—	—	—	—	
2669	1570-T55										0·50-0·60	0·10-0·35	0·60-0·90	—	—	—	—	—	—	
2670							1.1820	C55WS			0·55	< 0·15	0·30-0·50	—	—	—	—	—	—	
2671	1570-T60										0·55-0·65	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2672		224 No.1									0·55-0·65	0·30 *Max*	0·50-0·90	—	—	—	—	—	—	
2673							1.1740	C60W3			0·60	0·25-0·50	0·60-0·80	—	—	—	—	—	—	
2674									G4401 Grade SK 7		0·60-0·70	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2675	1570-T65										0·60-0·70	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2676	1570-T70Mn65										0·65-0·75	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2677									G4401 Grade SK 6		0·70-0·80	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2678	1570-T75										0·70-0·80	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2679							1.1750	C75W3			0·75	0·15-0·40	0·60-0·80	—	—	—	—	—	—	
2680	1570-T80Mn65										0·75-0·85	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2681	1570-T85										0·80-0·90	0·10-0·35	0·50-0·80	—	—	—	—	—	—	
2682									G4401 Grade SK 5		0·80-0·90	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2683										1435 Grade У 8 Г	0·80-0·90	0·15-0·35	0·35-0·60	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2684										1435 Grade У 8 ГА	0·80-0·90	0·35-0·60	0·35-0·60	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2685										1435 Grade У 7	0·65-0·74	0·15-0·35	0·20-0·40	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2686										1435 Grade У 7 А	0·65-0·74	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2687	1570-T70										0·65-0·75	0·10-0·30	0·20-0·35	—	—	—	—	—	—	
2688				W1							0·60-1·40[a]	—	—	—	—	—	—	—	—	
2689					1A						0·60-1·40[a]	0·25	0·25	—	—	—	—	—	—	
2690							1.1520	C70W1			0·70	0·10-0·25	0·10-0·35	—	—	—	—	—	—	
2691							1.1620	C70W2			0·70	0·10-0·30	0·10-0·35	—	—	—	—	—	—	
2692			W108 (Standard)								0·70-0·85	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2693			W118 (Commercial)								0·70-0·85	0·35 *Max*	0·35 *Max*	—	0·20 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2694			W108 (Special)								0·70-0·85	—	—	—	—	—	—	—	—	

[a] Appropriate range for the type of tools within these limits are supplied.

NOTE — In case of American and German standard steels, where *Max* and *Min* have not been specified in Table 17, the values relate to approximate composition.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2695			W108 (Extra)								0·70-0·85	—	—	—	—	—	—	—	—	
2696									G4410 Grade SKC3		0·70-0·85	0·15-0·35	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·25 *Max*
2697										1435 Grade У 8	0·75-0·84	0·15-0·35	0·20-0·40	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2698										1435 Grade У 8 А	0·75-0·84	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2699	1570-T80										0·75-0·85	0·10-0·30	0·20-0·35	—	—	—	—	—	—	
2700				W1							0·60-1·40*	—	—	—	—	—	—	—	—	
2701					1A						0·60-1·40*	0·25	0·25	—	—	—	—	—	—	
2702							1.1822	C80WS			0·80	0·08-0·15	0·20-0·32	—	—	—	—	—	—	
2703									G4401 Grade SK5		0·80-0·90	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2704										1435 Grade У 9	0·85-0·94	0·15-0·35	0·15-0·35	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2705										1435 Grade У 9 А	0·85-0·94	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2706	1570-T90										0·85-0·95	0·10-0·30	0·20-0·35	—	—	—	—	—	—	
2707			W109 (Standard)								0·85-0·95.	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2708			W109 (Commercial)								0·85-0·95	0·35 *Max*	0·35 *Max*	—	0·20 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2709			W109 (Special)								0·85-0·95	—	—	—	—	—	—	—	—	
2710			W109 (Extra)								0·85-0·95	—	—	—	—	—	—	—	—	
2711							1.1530	C85W1			0·85	0·10-0·25	0·10-0·35	—	—	—	—	—	—	
2712							1.1630	C85W2			0·85	0·10-0·30	0·10-0·35	—	—	—	—	—	—	
2713									G4410 Grade SKC11		0·85-1·10	0·15-0·35	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·25 *Max*
2714				W1							0·60-1·40*	—	—	—	—	—	—	—	—	
2715					1A						0·60-1·40*	0·25	0·25	—	—	—	—	—	—	
2716									G4401 Grade SK4		0·90-1·00	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2717										1435 Grade У 10	0·95-1·04	0·15-0·35	0·15-0·35	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2718										1435 Grade У 10 А	0·95-1·04	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2719	1570-T103										0·95-1·10	0·10-0·30	0·20-0·35	—	—	—	—	—	—	

*Appropriate range for the type of tools within these limits are supplied.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2720			W110 (Standard)								0·95-1·10	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2721			W110 (Commercial)								0·95-1·10	0·35 *Max*	0·35 *Max*	—	0·20 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2722			W110 (Special)								0·95-1·10	—	—	—	—	—	—	—	—	
2723			W110 (Extra)								0·95-1·10	—	—	—	—	—	—	—	—	
2724				W1							0·60-1·40*	—	—	—	—	—	—	—	—	
2725					1A						0·60-1·40*	0·25	0·25	—	—	—	—	—	—	
2726							1.1540	C100W1			1·00	0·10-0·25	0·10-0·25	—	—	—	—	—	—	
2727							1.1640	C100W2			1·00	0·10-0·30	0·10-0·35	—	—	—	—	—	—	
2728									G4410 Grade SKC11		0·85-1·10	0·15-0·35	0·50 *Max*	—	—	—	—	—	—	Cu 0·25 *Max*
2729		1407									0·95-1·25	0·3 *Max*	0·25-0·45	—	0·5 *Max* (Optional)	—	—	—	—	
2730									G4401 Grade SK3		1·00-1·10	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2731										1435 Grade У 11	1·05-1·14	0·15-0·35	0·15-0·35	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20
2732										1435 Grade У 11 A	1·05-1·14	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20
2733							1.1550	C110W1			1·10	< 0·25	< 0·25	—	—	—	—	—	—	
2734	1570-T118										1·10-1·25	0·10-0·30	0·20-0·35	—	—	—	—	—	—	
2735		1407									0·95-1·25	0·30 *Max*	0·25-0·45	—	0·5 *Max* (Optional)	—	—	—	—	
2736							1.1650	C110W2			1·10	0·20-0·30	0·10-0·35	—	—	—	—	—	—	
2737			W112 (Standard)								1·10-1·30	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2738			W112 (Commercial)								1·10-1·30	0·35 *Max*	0·35 *Max*	—	—	—	—	—	—	Si+Mn+Cr 0·75 *Max*
2739			W112 (Special)								1·10-1·30	—	—	—	—	—	—	—	—	
2740			W112 (Extra)								1·10-1·30	—	—	—	—	—	—	—	—	
2741									G4401 Grade SK2		1·10-1·30	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2742				W1							0·60-1·40*	—	—	—	—	—	—	—	—	
2743					1A						0·60-1·40*	0·25	0·25	—	—	—	—	—	—	
2744										1435 Grade У 12	1·15-1·24	0·15-0·35	0·15-0·35	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*

*Appropriate range for the type of tools within these limits are supplied.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	BS	DS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2745										1435 Grade У 12 A	1·15-1·24	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2746									G4401 Grade SK2		1·10-1·30	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2747										1435 Grade У 13	1·25-1·35	0·15-0·35	0·15-0·35	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·20 *Max*
2748										1435 Grade У 13 A	1·25-1·35	0·15-0·30	0·15-0·30	0·20 *Max*	0·15 *Max*	—	—	—	—	Cu 0·20 *Max*
2749	1570-T133										1·25-1·40	0·10-0·30	0·20-0·35	—	—	—	—	—	—	
2750				W1							0·60-1·40*	—	—	—	—	—	—	—	—	
2751					1A						0·60-1·40*	0·25	0·25	—	—	—	—	—	—	
2752							1.1660	C125W2			1·30	0·10-0·30	0·10-0·35	—	—	—	—	—	—	
2753									G4401 Grade SK1		1·30-1·50	0·35 *Max*	0·50 *Max*	0·25 *Max*	0·20 *Max*	—	—	—	—	Cu 0·30 *Max*
2754	1570-T80V23										0·75-0·85	0·10-0·30	0·20-0·35	—	—	—	0·15-0·30	—	—	
2755				W2							0·60-1·40*	—	—	—	—	—	0·25	—	—	
2756					1C						0·60-1·40*	0·25	0·25	—	—	—	0·20-0·50	—	—	
2757									G4404 Grade SKS44		0·80-0·90	0·25 *Max*	0·30 *Max*	—	—	—	0·10-0·25	—	—	
2758	1570-T90V23										0·85-0·95	0·10-0·30	0·20-0·35	—	—	—	0·15-0·30	—	—	
2759			W209 (Standard)								0·85-0·95	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	0·15-0·35	—	—	Si+Mn+Cr 0·75 *Max*
2760			W209 (Commercial)								0·85-0·95	0·35 *Max*	0·35 *Max*	—	0·20 *Max*	—	0·15-0·35	—	—	Si+Mn+Cr 0·75 *Max*
2761			W209 (Special)								0·85-0·95	—	—	—	—	—	0·15-0·35	—	—	
2762			W209 (Extra)								0·85-0·95	—	—	—	—	—	0·15-0·35	—	—	
2763				W2							0·60-1·40*	—	—	—	—	—	0·25	—	—	
2764					1C						0·60-1·40*	0·25	0·25	—	—	—	0·20-0·50	—	—	
2765										5950 Grade Ф	0·95-1·05	0·35 *Max*	0·20-0·40	—	—	—	0·20-0·40	—	—	
2766	1570-T103V23										0·95-1·10	0·10-0·30	0·20-0·35	—	—	—	0·15-0·30	—	—	
2767			W210 (Standard)								0·95-1·10	0·35 *Max*	0·35 *Max*	—	0·15 *Max*	—	0·15-0·35	—	—	Si+Mn+Cr 0·75 *Max*
2768			W210 (Commercial)								0·95-1·10	0·35 *Max*	0·35 *Max*	—	0·20 *Max*	—	0·15-0·35	—	—	Si+Mn+Cr 0·75 *Max*
2769			W210 (Special)								0·95-1·10	—	—	—	—	—	0·15-0·35	—	—	

*Appropriate range for the type of tools within these limits are supplied.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2770			V 10 (Extra)								0·95-1·10	—	—	—	—	—	0·15-0·35	—	—	
2771				W2							0·60-1·40*	—	—	—	—	—	0·25	—	—	
2772					1C						0·60-1·40*	0·25	0·25	—	—	—	0·20-0·50	—	—	
2773							1.2833	100V1			1·00	0·2	0·2	—	—	—	0·1	—	—	
2774									G4404 Grade SKS43		1·00-1·10	0·25 *Max*	0·30 *Max*	—	—	—	0·10-0·25	—	—	
2775	1570-T118Cr45										1·10-1·25	0·10-0·30	0·20-0·35	—	0·30-0·60	—	0·30 *Max*	* —	—	
2776		1407									0·95-1·25	0·30 *Max*	0·25-0·45	—	0·5 *Max* (Optional)	—	—	—	—	
2777				W5							1·10	—	—	—	0·50	—	—	—	—	
2778				W4							0·60-1·40*	—	—	—	0·25	—	—	—	—	
2779					1B						0·60-1·40*	0·25	0·25	—	0·20-0·75	—	—	—	—	
2780							1.2210	115CrV3			1·15	0·2	0·3	—	0·7	—	0·1	—	—	
2781	1570-T133Cr45										1·25-1·40	0·10-0·30	0·20-0·35	—	0·30-0·60	—	0·30 *Max*	—	—	
2782										5950 Grade X 05	1·25-1·40	0·35 *Max*	0·20-0·40	—	0·40-0·60	—	—	—	—	
2783					1B						0·60-1·40*	0·25	0·25	—	0·20-0·75	—	—	—	—	
2784									G4404 Grade SKS8		1·30-1·50	0·35 *Max*	0·50 *Max*	—	0·20-0·50	—	—	—	—	
2785							1.2206	140CrV1			1·40	0·3	0·3	—	0·3	—	0·1	—	—	
2786	1570-T55Cr70										0·50-0·60	0·10-0·35	0·60-0·80	—	0·60-0·80	—	—	—	—	
2787										5950 Grade 4 XC	0·35-0·45	1·20-1·60	0·40 *Max*	—	1·30-1·60	—	—	—	—	
2788	1570-T45Cr1Si 95										0·40-0·50	0·80-1·10	0·55-0·75	—	1·20-1·60	—	—	—	—	
2789	1570-T55Cr70 V15										0·50-0·60	0·10-0·35	0·60-0·80	—	0·60-0·80	—	0·10-0·20	—	—	
2790	1570-T50Cr1V 23										0·45-0·55	0·10-0·35	0·50-0·80	—	0·90-1·20	—	0·15-0·30	—	—	
2791					IIIA						0·50	0·25	0·60	—	1·00	—	0·20	—	—	
2792										5950 Grade 9 X	0·80-0·95	0·25-0·45	0·25-0·35	—	1·40-1·70	—	—	—	—	
2793							1.3505	100Cr6 (W3)			0·90-1·05	0·15-0·35	0·25-0·40	—	1·40-1·65	—	—	—	—	
2794	1570-T105Cr1										0·90-1·20	0·10-0·35	0·20-0·40	—	1·00-1·60	—	—	—	—	
2795									G4805 Class 1 SUJ1		0·95-1·10	0·15-0·35	0·50 *Max*	—	0·90-1·20	—	—	—	—	
2796									G4805 Class 2 SUJ2		0·95-1·10	0·15-0·35	0·50 *Max*	—	1·30-1·60	—	—	—	—	

*Appropriate range for the type of tools within these limits are supplied.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2797										5950 Grade X	0·95-1·10	0·35 *Max*	0·40 *Max*	—	1·30-1·60	—	—	—	—	
2798				L1							1·00	—	—	—	1·25	—	—	—	—	
2799							1.2060	105Cr5			1·05	0·3	0·2	—	1·4	—	—	—	—	
2800	1570-T105Cr1 Mn60										0·90-1·20	0·10-0·35	0·40-0·80	—	1·00-1·60	—	—	—	—	
2801	1570-T90Mn2 W50Cr45										0·85-0·95	0·10-0·35	1·25-1·75	—	0·30-0·60	—	0·25 *Max* (Optional)	0·40-0·60	—	
2802			01								0·85-0·95	0·20-0·40	1·00-1·30	—	0·40-0·60	—	0·20 (Optional)	0·40-0·60	—	
2803			02								0·85-0·95	0·20-0·40	1·40-1·80	—	0·35 (Optional)	0·30 (Optional)	0·20 (Optional)	—	—	
2804										5950 Grade 9 XBГ	0·85-0·95	0·15-0·35	0·90-1·20	—	0·50-0·80	—	—	0·50-0·80	—	
2805				O1							0·90	—	1·00	—	0·50	—	—	0·50	—	
2806				O2							0·90	—	1·60	—	—	—	—	—	—	
2807					II A1						0·90	0·25	1·20	—	0·50		0·20 (Optional)	0·50	—	
2808					II A2						0·90	0·25	1·60	—	0·35 (Optional)	0·30 (Optional)	0·20 (Optional)	—	—	
2809	1570-T55Si2 Mn90										0·50-0·60	1·50-2·00	0·80-1·00	—	—	—	—	—	—	
2810				S4							0·55	2·00	0·80	—	—	—	—	—	—	
2811	1570-T55Si2 Mn90Mo33										0·50-0·60	1·50-2·00	0·80-1·00	—	—	0·25-0·40	0·12-0·20 (Optional)	—	—	
2812				S5							0·55	2·00	0·80	—	—	0·40	—	—	—	
2813					III C						0·55	2·00	0·80	—	0·30 (Optional)	0·40 (Optional)	0·25 (Optional)	—	—	
2814	1570-T60Ni1										0·55-0·65	0·10-0·35	0·50-0·80	1·00-1·50	0·30 *Max*	—	—	—	—	
2815		224No. 2									0·55-0·65	0·30 *Max*	0·50-0·80	1·0-1·5	0·30 *Max*	—	—	—	—	
2816	1570-T40Ni3										0·35-0·45	0·10-0·35	0·50-0·80	3·20-3·60	0·30 *Max*	—	—	—	—	
2817	1570-T30Ni4 Cr1										0·26-0·34	0·10-0·35	0·40-0·70	3·90-4·30	1·10-1·40	—	—	—	—	
2818	1570-T55Ni2 Cr65Mo30										0·50-0·60	0·10-0·35	0·50-0·80	1·25-1·75	0·50-0·80	0·25-0·35	—	—	—	
2819		224No. 5									0·50-0·60	0·30 *Max*	0·50-0·80	1·25-1·75	0·50-0·80	0·20-0·40	—	—	—	
2820										5950 Grade 5 XHM	0·50-0·60	0·35 *Max*	0·50-0·80	1·40-1·80	0·50-0·80	0·15-0·30	—	—	—	

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2821									4404 Grade SKT4		0·50-0·60	0·35 *Max*	0·60-1·00	1·30-2·00	0·70-1·00	0·20-0·50	—	—	—	
2822	1570-T40Ni2 Cr1Mo28										0·35-0·45	0·10-0·35	0·40-0·70	1·25-1·75	0·90-1·30	0·20-0·35	—	—	—	
2823	1570-T31Ni3 Cr65Mo55										0·27-0·35	0·10-0·35	0·40-0·70	2·25-2·75	0·50-0·80	0·40-0·70	—	—	—	
2824							1.2740	28NiCrMoV10			0·28	0·4	0·3	2·5	0·7	0·6	0·3	—	—	
2825									G4410 Grade SKC22		0·30-0·38	0·15-0·35	0·30-1·00	2·50-3·50	0·30-0·70	0·15-0·40	—	—	—	
2826									G4410 Grade SKC23		0·35-0·43	0·15-0·35	0·30-1·00	2·50-3·50	0·30-0·70	0·15-0·40	—	—	—	
2827	1570-T40Ni3 Cr65Mo55										0·36-0·44	0·10-0·35	0·40-0·70	2·25-2·75	0·50-0·80	0·40-0·70	—	—	—	
2828	1570-T35Cr5 Mo1V30										0·30-0·40	0·80-1·20	0·25-0·50	—	4·75-5·25	1·20-1·60	0·20-0·40	—	—	
2829			H11								0·30-0·40	0·80-1·20	0·20-0·40	—	4·75-5·50	1·25-1·75	0·30-0·50	—	—	
2830									G4404 Grade SKD6		0·32-0·42	0·80-1·20	0·50 *Max*	—	4·50-5·50	1·00-1·50	0·30-0·50	—	—	
2831				H11							0·35	—	—	—	5·00	1·50	0·40	—	—	
2832							1.2343	X38CrMoV51			0·38	1·0	0·4	—	5·0	1·3	0·3	—	—	
2833	1570-T35Cr5 MoV1										0·30-0·40	0·80-1·20	0·25-0·50	—	4·75-5·25	1·20-1·60	1·00-1·20	—	—	
2834			H13								0·30-0·40	0·80-1·20	0·20-0·40	—	4·75-5·50	1·25-1·75	0·80-1·20	—	—	
2835									G4404 Grade SKD61		0·32-0·42	0·80-1·20	0·50 *Max*	—	4·50-5·50	1·00-1·50	0·80-1·20	—	—	
2836				H13							0·35	—	—	—	5·00	1·50	1·00	—	—	
2837	1570-T35Cr5 MoW1V30										0·30-0·40	0·80-1·20	0·25-0·50	—	4·75-5·25	1·20-1·60	0·20-0·40	1·20-1·60	—	
2838			H12								0·30-0·40	0·80-1·20	0·20-0·40	—	4·75-5·50	1·25-1·75	0·10-0·50	1·00-1·70	—	
2839				H12							0·35	—	—	—	5·00	1·50	0·40	1·50	—	
2840					IVB						0·35	1·00	0·30	—	5·00	1·50	0·40 (Optional)	1·25 (Optional)	—	
2841							1.2606	X37CrMoW51			0·37	0·9	0·6	—	4·8	1·5	0·2	1·4	—	
2842	1570-T40W2 Cr1V18										0·35-0·45	0·50-1·00	0·20-0·40	—	1·00-1·50	—	0·10-0·25	1·75-2·25	—	
2843										5950 Grade 4 XB 2 C	0·35-0·44	0·60-0·90	0·20-0·40	—	1·00-1·30	—	—	2·00-2·50	—	
2844							1.2541	35WCrV7			0·35	1·0	0·3	—	1·1	—	0·2	2·0	—	

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2845							1.2542	45WCrV7			0·45	1·0	0·3	—	1·1		0·2	2·0	—	
2846							1.2547	45WCrV77			0·45	1·0	0·3	—	1·7	—	0·2	2·0	—	
2847										5950 Grade 5 XB 2 C	0·45-0·54	0·50-0·80	0·20-0·40	—	1·00-1·30	—	—	2·00-2·50	—	
2848	1570-T50W2 Cr1V18										0·45-0·55	0·50-1·00	0·20-0·40	—	1·00-1·50	—	0·10-0·25	1·75-2·25	—	
2849			S1								0·45-0·55	0·25-0·45	0·20-0·40*	—	1·25-1·75	0·40 (Optional)	0·15-0·30	1·00-3·00	—	
2850				S1							0·50	—	—	—	1·50	—	—	2·50	—	
2851					III D						0·55	0·25	0·25	—	1·25	0·50 (Optional)	0·25 (Optional)	2·50	—	
2852	1570-T105W2 Cr60V25										0·90-1·20	0·10-0·35	0·25-0·50	—	0·40-0·80	0·25 *Max* (Optional)	0·20-0·30	1·25-1·75	—	
2853				F1							1·00	—	—	—	—	—	—	1·25	—	
2854				07							1·20	—	—	—	0·75	—	—	1·75	—	
2855					II A3						1·20	0·25	0·25	—	0·50	0·25 (Optional)	0·25	1·75	—	
2856										5950 Grade XB1	0·90-1·05	0·15-0·35	0·80-1·10	—	0·90-1·20	—	—	1·20-1·60	—	
2857									G4404 Grade SKS2		1·00-1·10	0·35 *Max*	0·80 *Max*		0·50-1·00	—	—	1·00-1·50	—	
2858	1570-T110W2 Cr1										1·00-1·20	0·10-0·35	0·90-1·30	—	0·90-1·30	—	—	1·25-1·75	—	
2859										G4404 Grade SKS11	1·20-1·30	0·35 *Max*	0·50 *Max*	—	0·20-0·50	—	0·10-0·30	3·00-4·00	—	
2860											0·25	—	—	—	0·75	—	—	3·50	—	
2861										5950 Grade XB 5	1·25-1·50	0·30 *Max*	0·30 *Max*	—	0·40-0·70	—	0·15-0·30	4·50-5·50	—	
2862	1570-T140W4 Cr50										1·30-1·50	0·10-0·35	0·25-0·50	—	0·30-0·70	—	—	3·50-4·20	—	
2863									G4404 Grade SKS1		1·30-1·40	0·35 *Max*	0·50 *Max*	—	0·50-1·00	—	—	4·00-5·00	—	
2864					V1K						1·35	0·20	0·25	—	0·75 (Optional)	—	—	3·50	—	
2865			D2								1·40-1·60	0·30-0·50	0·30-0·50	—	11·00-13·00	0·70-1·20	0·80 (Optional)	—	0·60 (Optional)	
2866									G4404 Grade SKD11		1·40-1·60	0·40 *Max*	0·50 *Max*	—	11·00-13·00	0·80-1·20	0·20-0·50	—	—	

*Other ranges may also be employed.

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2867				D2							1·50	—	—	—	12·00	1·00	—	—	—	
2868	1570-T160Cr12										1·50-1·70	0·10-0·35	0·25-0·50	—	11·0-13·0	0·80 *Max* (Optional)	0·80 *Max* (Optional)	—	—	
2869							1.2201	X165CrV12			1·65	0·3	0·3	—	12·0	—	0·1	—	—	
2870									G4404 Grade SKD1		1·30-2·40	0·40 *Max*	0·60 *Max*	—	12·00-15·00	—	—	—	—	
2871	1570-T215Cr12										2·00-2·30	0·10-0·35	0·25-0·50	—	11·0-13·0	0·80 *Max* (Optional)	0·80 *Max* (Optional)	—	—	
2872										4950 Grade X 12	2·00-2·30	0·40 *Max*	0·35 *Max*	—	11·50-13·00	—	—	—	—	
2873			D3								2·00-2·35	0·25-0·45	0·24-0·45	—	11·00-13·00	0·80 (Optional)	0·80 (Optional)	0·75 (Optional)	—	
2874							1.2080	X210Cr12			2·10	0·3	0·3	—	12·0	—	—	—	—	
2875							1.2884	X210CrCOW12			2·10	0·3	0·3	—	12·0	0·35	—	0·7	1·0	
2876					II D3						2·15	0·35	0·35	—	12·00	0·80	0·50 (Optional)	—	—	
2877					II C1						2·15	0·35	0·35	0·50 (Optional)	12·00	—	1·00 (Optional)	1·00 (Optional)	—	
2878				D3							2·25	—	—	—	12·00	—	—	—	—	
2879				D4							2·25	—	—	—	12·00	1·00	—	—	—	
2880									G4404 Grade SKD5		0·25-0·35	0·40 *Max*	0·60 *Max*	—	2·00-3·00	—	0·30-0·50	9·00-10·00	—	
2881	1570-T33W9Cr3V38										0·25-0·40	0·10-0·35	0·20-0·40	—	2·80-3·30	—	0·25-0·50	8·00-10·00	—	
2882							1.2581	X30WCrV93			0·30	0·2	0·3	—	2·5	—	0·4	9·0	—	
2883							1.2662	X30WCrCoV93			0·30	0·2	0·3	—	2·5	—	0·3	9·0	2·0	
2884					IVFI						0·30	0·25	0·25	—	3·50	—	0·50 (Optional)	9·00	—	
2885			H21								0·30-0·40	0·15-0·30	0·20-0·40	—	3·00-3·75	—	0·30-0·50	8·75-10·00	—	
2886				H21							0·35	—	—	—	3·50	—	—	9·00	—	
2887	1570-T55W14Cr3V45										0·50-0·60	0·10-0·35	0·20-0·40	—	2·80-3·30	—	0·30-0·60	13·0-15·0	—	
2888	1570-T70W14Cr4V75										0·65-0·75	0·10-0·35	0·20-0·40	—	4·00-4·50	0·60 *Max* (Optional)	0·50-1·00	13·5-15·0	—	
2889	1570-T123W14Co5CrV4										1·15-1·30	0·10-0·35	0·20-0·40	—	4·00-4·50	0·60 *Max* (Optional)	3·70-4·20	13·0-14·5	4·75-5·25	
2890										9373 Grade P 14 Φ 4	1·2-1·3	0·4 *Max*	0·4 *Max*	—	4·0-4·6	0·4 *Max*	3·4-4·1	13-14·5	—	

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TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2891							1.3202	EV4Co			1·25-1·40	—	—	—	3·8-4·5	0·7-1·0	3·5-4·0	11·5-12·5	4·5-5·0	
2892	1570-T70W18 Cr4V1										0·65-0·75	0·10-0·35	0·20-0·40	—	4·00-4·50	0·60 *Max* (Optional)	1·00-1·50	17·5-19·0	—	
2893			T1								0·65-0·75	0·20-0·40	0·20-0·40	—	3·75-4·50	—	0·90-1·30	17·25-18·75	—	
2894				T1							0·70	—	—	—	4·00	—	1·00	18·00	—	
2895					VC1						0·70	0·25	0·30	—	4·00	—	1·00	18·00	—	
2896										9373 Grade P 18	0·7-0·8	0·4 *Max*	0·4 *Max*	0·4 *Max*	3·8-4·4	0·3 *Max*	1·0-1·4	17·5-19·0	—	
2897									G4403 Grade SKH2		0·70-0·85	0·35 *Max*	0·60 *Max*	—	3·50-4·50	—	0·80-1·20	17·00-19·00	—	
2898							1.3355	B18			0·70-0·78	—	—	—	3·8-4·5	—	1·0-1·2	17·5-18·5	—	
2899	1570-T75W18 Co6Cr4V1 Mo75										0·70-0·80	0·10-0·35	0·20-0·40	—	4·00-4·50	0·50-1·00	1·00-1·50	17·5-19·0	5·00-6·00	
2900			T4								0·70-0·80	0·20-0·40	0·20-0·40	—	3·75-4·50	0·70-1·00	0·80-1·20	17·25-18·75	4·25-5·75	
2901									G4403 Grade SKH3		0·70-0·85	0·35 *Max*	0·60 *Max*	—	3·50-4·50	—	0·80-1·20	17·00-19·00	4·50-5·50	
2902				T4							0·75	—	—	—	4·0	—	1·00	18·00	5·00	
2903					VD2						0·75	0·25	0·30	—	4·00	0·75	1·00	18·00	5·00	
2904							1.3255	E18Co5			0·75-0·83	—	—	—	3·8-4·5	0·5-0·8	1·4-1·7	17·5-18·5	4·5-5·0	
2905										9373 Grade P 18 K 5 Φ 2	0·85-0·95	0·4 *Max*	0·4 *Max*	0·4 *Max*	3·8-4·4	0·5 *Max*	1·8-2·4	17·5-19	5·0-6·0	
2906	1570-T75W18 Co10Cr4V2 Mo75										0·70-0·80	0·10-0·35	0·20-0·40	—	4·00-4·50	0·50-1·00	1·50-2·00	17·5-19·00	9·00-10·00	
2907									G4403 Grade SKH4A		0·70-0·85	0·35 *Max*	0·60 *Max*	—	3·50-4·50	—	1·00-1·50	17·00-19·00	9·00-11·00	
2908			T5								0·75-0·85	0·20-0·40	0·20-0·40	—	3·75-4·50	0·70-1·00	1·80-2·40	17·50-19·00	7·00-9·00	
2909				T5							0·80	—	—	—	4·00	—	2·00	18·00	8·00	
2910							1.3265	E18Co10			0·72-0·80	—	—	—	3·8-4·5	0·5-0·8	1·4-1·7	17·5-18·5	9·0-10·0	
2911	1570-T83Mo W6Cr4V2										0·75-0·90	0·10-0·35	0·20-0·40	—	3·75-4·50	5·50-6·50	1·75-2·00	5·50-6·50	—	
2912									G4403 Grade SKH9		0·75-0·90	0·35 *Max*	0·60 *Max*	—	3·50-4·50	4·00-6·00	1·80-2·30	6·00-7·00	—	
2913			M2								0·78-0·88	0·20-0·40	0·20-0·40	—	3·75-4·50	4·50-5·50	1·60-2·20	5·50-6·75	—	
2914				M2							0·80	—	—	—	4·00	5·00	2·00	6·00	—	
2915					VA3						0·85	0·25	0·30	—	4·00	5·00	2·00	6·25	—	
2916							1.3343	DMo5			0·78-0·86	—	—	—	3·8-4·5	4·8-5·3	1·7-2·0	6·0-6·7	—	

(*Continued*)

TABLE 17 TOOL STEELS — *Contd*

Ref No.	IS	BS	American			German			JIS	GOST	C Percent	Si Percent	Mn Percent	Ni Percent	Cr Percent	Mo Percent	V Percent	W Percent	Co Percent	Remarks
			SAE	AISI	ASM	DIN	Werkstoff Nummer	Code Designation												
2917	1570-T10										0·15 *Max*	0·10-0·35	0·30-0·60	—	—	—	—	—	—	
2918					VIA						0·05	0·03	0·10	—	—	—	—	—	—	
2919				P1							0·10	—	—	—	—	—	—	—	—	
2920							1.1705	C15WS			0·15 (Approx)	0·15-0·35	0·25-0·50	—	—	—	—	—	—	
2921	1570-T15Cr65										0·12-0·18	0·10-0·35	0·40-0·60	—	0·50-0·80	—	—	—	—	
2922	1570-T10Cr5 Mo75V25										0·15 *Max*	0·10-0·35	0·25-0·50	—	4·75-5·25	0·50-1·00	0·15-0·30	—	—	
2923							1.2341	X8CrMo5			0·06	0·2	0·2	—	4·5	0·5	—	—	—	
2924				P4							0·07	—	—	—	5·00	—	—	—	—	
2925	1570-T16Ni80 Cr60										0·12-0·20	0·10-0·35	0·60-1·00	0·60-1·00	0·40-0·80	—	—	—	—	
2926	1570-T15NiCr1 Mo12										0·12-0·18	0·10-0·35	0·60-1·00	1·00-1·50	0·75-1·25	0·08-0·15	—	—	—	
2927				P3							0·10	—	—	—	1·25	0·60	—	—	—	
2928					VIB						0·10	0·25	0·45	1·25	0·60	—	—	—	—	
2929	1570-T16NiCr2 Mo20										0·12-0·20	0·10-0·35	0·40-0·70	1·80-2·20	1·40-1·70	0·15-0·25	—	—	—	

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COMPARISON OF INDIAN AND OVERSEAS STANDARDS FOR WROUGHT STEELS FOR GENERAL ENGINEERING PURPOSES

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	Class D	999
	Grade 611	71
	Grade 612	118
	Grade 613	183
	Grade 614	1580
	Grade 621	183, 678
	Grade 622	118, 678
	Grade 631	184, 716
24 Part 6	Grade 632B	1581
	Grade 641	185, 766
	Grade 651	5, 119, 336
	Grade 652	5, 119, 336
	Grade 653	208, 717
47	Class A	860
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64	—	211, 265
102	—	266, 295
224	No. 1	2672
	No. 2	2815
	No. 5	2819
227	Grade A	187
	Grade B	268
	Grade C	306
325	—	134
341	—	191
399	—	1006
400	—	749
401	—	750
405	—	7, 130
418	—	91, 92, 126
429	—	178, 214
468	—	243
	Class B	305
	Class C	322
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484	—	244
500	—	132
534	—	90, 93, 133, 267
548	—	209, 285, 718, 826
640	Class 1	982
	Class 2	548
	Class 3	481
751	—	131
778	—	11, 95, 192, 270, 340, 400
785	—	188, 236, 284, 404, 827, 1323
806	Class A	73, 352
	Class B	73
	Class C	56
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879	—	59, 171
968	—	634, 670, 1569, 1573
970	En1A	1497
	En2	621
	En2A	496
	En2B	527
	En2C	746
	En2D	852
	En2E	529
	En3	735
	En3A	747
	En3B	629, 736
	En3C	684
	En3D	756
	En4	835
	En4A	836
	En5	923
	En5A	867
	En5B	894
	En5C	931
	En5D	924
	En5K	923
	En6	946
	En6A	946
	En6K	947
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	En8A	941
	En8B	964
	En8C	970
	En8D	1000
	En8E	966
	En8K	989
	En8M	1483
	En8BM	1481

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970 (*Contd*)	En8CM	1486
	En8DM	1487
	En9	1078
	En9K	1078
	En11	1733
	En14A	1587
	En14A/1	1579
	En14B	1602
	En15	1620
	En15A	1621
	En15AM	1503
	En15B	1623
	En16	1649
	En16A	1645
	En16B	1647
	En16C	1651
	En16D	1646
	En17	1653
	En18A	1736
	En18B	1740
	En18C	1754
	En18D	1758
	En19	1876
	En19A	1874
	En19B	1864
	En19C	1880
	En20B	1930
	En22	2016
	En24	2111
	En25	2115
	En26	2123
	En29A	1959
	En29B	1964
	En30A	2079
	En31	1798
	En32A	542
	En32B	582
	En32C	582
	En32M	1460
	En36A	2034
	En36B	2039
	En36C	2040
	En39A	2051
	En39B	2052
	En40A	1957
	En40B	1962
	En40C	2003
	En41A	2004
	En41B	2010
	En42	1209, 1230
	En42B	1137
	En43	1075
	En43A	1051
	En43B	1029
	En43C	1065
	En43D	1118
	En43E	1157
	En44	1273
	En45	1526
	En45A	1538
	En46	1520
	En47	1806
	En48	1783
	En50	1803
	En52	2653
	En54	2662
	En54A	2663
	En56A	2155
	En56AM	2218
	En56B	2193
	En56BM	2225
	En56C	2204
	En56CM	2227
	En56D	2211
	En57	2259
	En58A	2388
	En58B	2479
	En58C	2487
	En58E	2298
	En58F	2505
	En58G	2511
	En58H	2524
	En58J	2600
	En59	2658
	En60	2240
	En110	2095
	En111	2060
	En111A	2058
	En202	1457
	En206	1708
	En207	1713
	En351	2021
	En352	2030
	En353	2081
	En354	2084
	En355	2126
	En361	2017
	En362	2025
980	CDS1	609
	CDS2	373, 609
	CDS3 and 3A	562
	CDS4	583
	CDS5 and 6	949
	CDS7 and 8	1038
	CDS9 and 10	1594
	CDS11	1643
	CDS12	1833
	CDS13	1871
	CDS14	2014
	CDS15	1900
	CDS16	2074
	CDS17	2077
	CDS18	2197
	CDS19	2393
	CDS20	2496
	CEW1 and 2	613
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1045	—	1617
1052	—	1281, 1303
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1113	—	1692, 1907, 1952
	Class A Grade A	87, 88
	Class A Grade B	127, 129
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	Class A Grade D	206, 210
	Class A Grade E	236
	Class B Grade B	127, 128, 129
	Class B Grade C	179, 189
	Class B Grade D	206, 210
	Class B Grade E	236
	Class C	180, 235, 250
	Class D	89, 180, 235, 250
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1287	—	1007
1288	—	1618
1387	—	58
1407	—	2729, 2735
1408	Grade B	1103, 1132, 1155, 1187, 1214, 1227, 1404, 1406, 1408, 1410, 1412, 1416, 1418, 1420

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1408 (*Contd*)	Grades C and D	1133, 1156, 1188, 1215, 1228, 1404, 1406, 1408, 1410, 1412, 1416, 1418, 1420
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1429	En42B	1138
	En42C	1198
	En42D	1245
	En44B	1263
	En44C	1275
	En45	1529
	En45A	1540
	En47	1807
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1441	Class D Range 1	1333
	Class D Range 2	1339
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1442	—	1287
1449 Part 1A	En2 (HR 15)	627
	En2A (HR 13)	474
	En2A (HR 14)	531
	En2A/1 (HR 11 and HR 12)	461
	En2C (HR 16C)	727
	En2C/A (HR16A)	727
	En2C/B (HR 16B)	727
	En2D (HR 17C)	779
	En2D/A (HR 17A)	779
	En2D/B (HR 17B)	779
1449 Part 1B	En2 (CR 4)	497
	En2 (HR 4)	531
	En2A (HR 3 and CR 3)	474
	En2A/1 (CR 1)	453
	En2A/1 (CR 2)	454
	En2A/1 (HR 1 and HR 2)	461
	En2C (HR 5C)	727
	En2C/A (HR 5A)	727
	En2C/B (HR 5B)	727
	En2D (HR 6C)	779
	En2D/A (HR 6A)	779
	En2D/B (HR 6B)	779
1449 Part 2A	En2 (NHR 13)	497
	En2 (NHR 15)	627
	En2A/1 (NHR 12)	474
	En2B (NHR 14)	530
	En2C (NHR 22)	671
	En2C/2 (NHR 21)	563
	En 2D (NHR 23)	741
	En5 (NHR 24)	921
	En14A (NHR 25)	1582
1449 Part 2B	En2	611
	En2A	497
	En2A/1	474
	En2B and En2B/B	531
	En2C/2	355
	En2C, En2C/A and En2C/B	743
	En2D, En2D/A and En2D/B	853
	En5	925
	En14A	1583
1449 Part 3A	En2 (HS 4A)	497
	En2A (HS 3)	474
	En2A/1 (HS 1)	452
	En2A/1 (HS 2)	454
1449 Part 3B	En2 (HS 4B)	514
	En2B (HS 12)	549
	En2C (HS 17)	645
	En2C (HS 22)	764
	En2D (HS 23)	765
	En5 (HS 30)	925
	En8 (HS 40)	990
	HS50	1046
	HS60	1107
	HS70	1166
	HS80	1224
	HS90	1257
	HS 100	1269
	En2 (CS 4)	497
	En2A (CS 3)	474
	En2A/1 (CS 1)	452
	En2A/1 (CS 2)	454
	En2B (CS 12)	549
	En2C (CS 17)	645
	En2C (CS 22)	764
	En5 (CS 30)	925
	En8 (CS 40)	990
	CS50	1046
	CS60	1107
	CS70	1166
	CS80	1224
	CS90	1257
	CS100	1269
1449 (1956)	En56A	2156
	En56B	2194
	En56C	2205
	En56D	2212
	En57	2260
	En58A	2389
	En58B	2480
	En58C	2458
	En58E	2299
	En58F	2506
	En58G	2512
	En58H	2525
	En58J	2601
	En60	2241
1453	A1	482
	A2	1570
	A3	1603
	A8Nb	2497
	A11	2628
	A11Nb	2647
	A12	2551
1501	Class 151 Grades 23A and 23B	564, 631
	Class 151 Grade 26A	663, 702
	Class 151 Grade 26B	666, 704
	Class 161 Grades 23A and 23B	565, 632
	Class 161 Grade 26A	664, 703
	Class 161 Grade 26B	667, 705
	Class 211 Grade 26	1553
	Class 211 Grade 28	1564
	Class 211 Grade 30	1571
	Class 211 Grade 32	1576
	Class 213 Grade 28	1554
	Class 213 Grade 30	1566
	Class 213 Grade 32	1574
	Class 221 Grade 26	1555
	Class 221 Grade 28	1565
	Class 221 Grade 30	1572
	Class 221 Grade 32	1577
	Class 224 Grade 26	1548
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1501 (*Contd*)	Class 713	2128
	Class 801	2303
	Class 801B	2302, 2304
	Class 801C	2267
	Class 821Nb	2435
	Class 821Ti	2475
	Class 845B	2547
	Class 845Ti	2593
1503	Class 161 Grades A and B	728
	Class 161 Grade C	837
	Class 221	1578
	Class 240A	1673
	Class 240B	1700
	Class 620	1920
	Class 622	1937
	Class 623	1958
	Class 625	1988
	Class 713	2149, 2168
	Class 801	2303
	Class 821Nb	2436
	Class 821Ti	2476
	Class 845B	2548
	Class 845Ti	2594
1506	Class 111	748
	Class 162	1074
	Class 240	1706
	Class 621A	1875
	Class 621B	1931
	Class 625	1992
	Class 661	1996
	Class 713	2150, 2769
	Class 801A	2392
	Class 801B	2304
	Class 801C	2268
	Class 821Nb	2437
	Class 821Ti	2477
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1507	Class 101	54
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	Class 621	1908
	Class 623	1954
	Class 625	1972
	Class 821	2484, 2509
	Class 825	2641
	Class 845	2591
1508	Class 151	8
	Class 171	337
	Class 240	1667
	Class 621	1909
	Class 622	1938
	Class 623	1955
	Class 625	1973
	Class 801	2397
	Class 821	2485, 2510
	Class 825	2640
	Class 845	2592
1554	En56A	2157
	En56B	2195
	En56C	2206
	En56D	2213
	En57	2261
	En58A	2390
	En58B	2481
	En58C	2489
	En58E	2300
	En58F	2507
	En58G	2513
	En58H	2526
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1627	—	578
1628	Grade A	1939
	Grade B	1974
1717	CDS101	610
	CDS102	374, 610
	CDS103 and 104	861
	CDS105 and 106	952
	CDS107 and 108	1039
	CDS109	1644
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1730	—	625, 1672
1731	Grade A	1940
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1775	Class HFS11	12
	Class HFS13	61
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	Class HFS20	271
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2056	En56A	2158
	En56B	2196
	En56C	2207
	En56D	2214
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	En58A	2391
	En58B	2482
	En58C	2490
	En58E	2301
	En58F	2508
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2453	—	991, 1324, 1328
2691	Class CD	1429, 1431, 1435, 1437, 1438, 1441, 1444
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2762	Grades ND I and II	1568
	Grades ND III and IV	1552
2763	—	1340, 1348, 1357, 1358, 1365, 1373, 1380, 1389
2772 Part 2	—	866, 1547
2901	Class A8Nb	2498
	Class A8Ti	2471
	Class A11	2627
	Class A11Nb	2648
	Class A11Ti	2642
	Class A12	2552
	Class A12Ti	2595
3014	Grade 1	2297
	Grade 2	2369
	Grade 3	2397
	Grade 4	2483
	Grade 5	2438
	Grade 6	2550
3059	Grade 1	9
	Grade 2	338
	Grade 3	10
	Grade 4	339
	Grade 5	169
	Grade 6	370
	Grade 7	1663
	Grade 8	1664

BS	Designation	Ref No. in IS : 1870-1965
3059 (*Contd*)	Grades 9 and 10	1903
	Grades 11 and 12	1953
3111	Type 1	981
	Type 3	1756, 1769, 1773
	Type 4	2057, 2062, 2066
	Type 5	1877, 1881
	Type 6	2092, 2097, 2098
7S1	Group A	755
	Group B	920
	Group C	957
4S14	—	584
3S61	—	2151
3S62	—	2208
3S80	—	2263
2S82	—	2053
2S92	—	1592, 1601
S95	—	2112
S96	—	2116
S97	—	2117
S98	—	2124
2S99	—	2125
S103	—	2056, 2061, 2065
S106	—	1960
S107	—	2038
S109	—	2645, 2651
S110	—	2491, 2515

BS	Designation	Ref No. in IS : 1870-1965
2S113	—	987
2S114	—	1650
S115	—	1755, 1766, 1772
2S116	—	992
S117	—	1767
S118	—	2096
S119	—	2113
S120	—	2118
S122	—	2063
S123	—	1963
2S124	—	2228
S510	—	757
S511	—	498
S513	—	1217, 1238, 1246
S514	—	1588
S515	—	1589
S516	—	1633
S517	—	1634
S518	—	1835
S519	—	1836
S520	—	2492, 2516
S521	—	2493, 2517
S523	—	2600, 2644

SECTION 3 SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) AND AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARDS

SAE	AISI	Ref No. in IS : 1870-1965
1006	C1006	458
1008	C1008	476
1009	C1009	533
1010	C1010	516
1012	C1012	550
1015	C1015	591, 600
1016	C1016	595, 603
1017	C1017	644, 652
1018	C1018	646, 653
1019	C1019	648, 654
1020	C1020	685, 707
1021	C1021	689, 708
1022	C1022	690, 709
1023	C1023	763, 778
1024	—	1591, 1593
—	C1024	1591
1025	C1025	813, 816
1026	C1026	815, 820
1027	—	1598, 1599
—	C1027	1599
1030	C1030	896, 927
1033	C1033	933, 935
1035	C1035	936, 942
1036	—	1612, 1613
—	C1036	1612
1037	C1037	940, 943
1038	C1038	968, 969
1039	C1039	976, 996
1040	C1040	972, 995
1041	C1041	1628, 1630
—	C1041	1628
1042	C1042	1001, 1004
1043	C1043	1003, 1005
1044	—	1023
1045	C1045	1024, 1030
1046	C1046	1028, 1031
1047	—	1635
1048	—	1637, 1638
1049	C1049	1032, 1043
1050	C1050	1058, 1063
1052	—	1640,1641
—	C1052	1640
1055	C1055	1084
1060	C1060	1108, 1119
1064	C1064	1135, 1145
1065	C1065	1139, 1146
1070	C1070	1167, 1178
1074	C1074	1194, 1197
1078	C1078	1213, 1216
1080	C1080	1235, 1237
1084	C1084	1250, 1253
1085	C1085	1251, 1254
1086	C1086	1249, 1252
1090	C1090	1259, 1260
1095	C1095	1264, 1267
1108	C1108	1451
1109	C1109	1452
1111	B1111	1448
1112	B1112	1492
1117	C1117	1464
1118	C1118	1467
1119	C1119	1501
1120	C1120	1472
1126	C1126	1475
1132	C1132	1478
1137	C1137	1504
1139	C1139	1508
1140	C1140	1485
1141	C1141	1510
1144	C1144	1514
1146	C1146	1488
1330	1330	1608
1335	1335	1615
1340	1340	1625

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1345	1345	1632
3140	3140	2067
3310	E3310	2043
4130	4130	1848
4135	4135	1856
4137	4137	1865
4140	4140	1867
—	TS 4140	1868
4142	4142	1882
4145	4145	1887
4147	4147	1896
4150	4150	1898
4320	4320	2085
4337	4337	2099
—	E4337	2100
4340	4340	2102
E4340	E4340	2103
4520	4520	1684
5015	5015	1709
5115	5115	1712
5120	5120	1714
5130	5130	1737
5132	5132	1741
5135	5135	1749
5140	5140	1759
5145	5145	1776
5147	5147	1779
5150	5150	1723
5155	5155	1730
6150	6150	1814
8615	8615	2018
8617	8617	2023
8620	8620	2026
9255	9255	1530
9260	9260	1541
9310	E9310	2044
30301	301	2362
30302	302	2370
30304	304	2306
30304L	304L	2269
30305	305	2350
30308	308	2344
30310	310	2633
30310S	310S	2605
30316	316	2553
30316L	316L	2528
30321	321	2398
30347	347	2439
51100	E 51100	1790
51403	403	2170
51405	405	2129
51410	410	2174
51416	416	2219
51420	420	2198
51420F	—	2229
51430	430	2232
51431	431	2253
51502	502	1965
52100	E 52100	1796
D2	—	2865
—	D2	2867
D3	—	2873
—	D3	2878
—	D4	2879
—	D319	2544
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H11	—	2829
—	H11	2831
H12	—	2838
H13	—	2834
—	H12	2839
—	H13	2836
H21	—	2885
—	H21	2886
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M2	—	2913
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—	O1	2805
—	O2	2806
—	O7	2854
—	P1	2919
—	P3	2927
—	P4	2924
S1	—	2849
—	S1	2850
—	S4	2810
—	S5	2812
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—	T1	2894
T4	—	2900
—	T4	2902
T5	—	2908
—	T5	2909
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—	W4	2778
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W108 Standard	—	2692
W109 Commercial	—	2708
W109 Extra	—	2710
W109 Special	—	2709
W109 Standard	—	2707
W110 Commercial	—	2721
W110 Extra	—	2723
W110 Special	—	2722
W110 Standard	—	2720
W112 Commercial	—	2738
W112 Extra	—	2740
W112 Special	—	2739
W112 Standard	—	2737
W209 Commercial	—	2760
W209 Extra	—	2762
W209 Special	—	2761
W209 Standard	—	2759
W210 Commercial	—	2768
W210 Extra	—	2770
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I A	2689, 2701, 2715, 2725, 2743 and 2751
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II A1	2807
II A2	2808
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II C1	2877
II D3	2876
III A	2791
III C	2813
III D	2851
IV B	2840
IV F1	2884
V A3	2915
V C1	2895
V D2	2903
VI A	2918
VI B	2928
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SECTION 5 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS

ASTM	Designation	Ref No. in IS : 1870-1965
A1	—	1122, 1179, 1192, 1204
A2	Class A	1152, 1173
	Class B	1211, 1232
	Class C	1240, 1247
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A4	—	212
A5	—	286
A7	—	156, 160
A15	Structural Grade	102
	Intermediate Grade	220
	Hard Grade	272
A16	—	273
A21	—	1040
A25	—	1182, 1202
A26	Class A	1093, 1111
	Class B	1153, 1174
	Class C	1212, 1233
A27	Class II	1203
A31	Grade B	805
A36	—	719, 738, 767, 768, 775, 789, 792, 810
A49	—	993, 1035, 1090
A53	Type E Grade A	34
	Type E Grade B	163
	Type F	17, 69
	Type S Grade A	34, 345
	Type S Grade B	163, 368
A57	Class A	1064
	Class B	1120
	Class C	1161
	Class U	1187
A59	—	1542
A60	—	1818
A61	—	296
A65	—	106
A67	—	455, 526
A68	—	1268
A76	—	101
A82	—	1318, 1321
A88	—	568
A94	—	893, 1605, 1606
A105	Grades I and II	905
A106	Grade A	734
	Grade B	846
	Grade C	910
A107	Grade 1008	477
	Grade 1010	517
	Grade 1015	592
	Grade 1016	596
	Grade 1020	686
	Grade 1022	691
	Grade 1025	817
	Grade 1030	897
	Grade 1035	937
	Grade 1040	973
	Grade 1045	1025
	Grade 1050	1059
	Grade 1055	1085
	Grade 1060	1109
	Grade 1070	1168
	Grade 1080	1236
	Grade 1095	1265
	Grade 1109	1453
	Grade 1117	1465
	Grade 1118	1468
	Grade 1120	1473
	Grade 1137	1505
	Grade 1141	1511
	Grade B1111	1449
	Grade B1112	1493
A108	Grade 1008	478
	Grade 1010	518
	Grade 1015	593
	Grade 1016	597
	Grade 1018	647
	Grade 1020	687
	Grade 1022	692
	Grade 1025	818
	Grade 1030	898
	Grade 1035	938
	Grade 1040	974
	Grade 1045	1026
	Grade 1050	1060
	Grade 1095	1266
	Grade 1117	1466
	Grade 1118	1469
	Grade 1137	1506
	Grade 1141	1512
	Grade 1144	1515
	Grade B1111	1450
	Grade B1112	1494
A109	Tempers 1, 2 and 3	723
	Tempers 4 and 5	532
A113	Grade A	157
	Grade B	68
	Grade C	31
A131	Grade A	98, 123
	Grade B	651
	Grade C	679
A135	Grade A	35
	Grade B	164
A139	Grade A	36
	Grade B	839, 848
A141	—	76
A160	Structural Grade	103
	Intermediate Grade	221
	Hard Grade	274

ASTM	Designation	Ref No. in IS : 1870-1965
A161	Low carbon Grade	636
	Grade T1	1674
A167	Type 301	2363
	Type 302	2371
	Type 304	2307
	Type 304L	2270
	Type 305	2351
	Type 308	2345
	Type 310	2634
	Type 310S	2606
	Type 316	2554
	Type 316L	2529
	Type 321	2399
	Type 347	2440
A176	Type 403	2171
	Type 405	2130
	Type 410	2175
	Type 410S	2131
	Type 430	2233
A177	—	2352
A178	Grade A	569
	Grade C	902
A179	—	570
A181	Grades I and II	906
A182	Grade F1	1701
	Grade F5	1976
	Grade F5a	1989
	Grade F6	2152
	Grade F12	1922
	Grade F22	1941
	Grade F304	2308
	Grade F304H	2338
	Grade F304L	2284
	Grade F310	2616
	Grade F316	2555
	Grade F316H	2583
	Grade F316L	2537
	Grade F321	2400
	Grade F321H	2426
	Grade F347	2441
	Grade F347H	2463
A183	—	323
A186	—	1189, 1208, 1229
A192	—	571
A193	Grade B5	1966
	Grade B6 Type 410	2176
	Grade B6 Type 416	2220
	Grade B7	1891
	Grade B8 Type 304	2309
	Grade B8C Type 347	2442
	Grade B8M Type 316	2556
	Grade 8T Type 321	2401
	Grade B14	1998
	Grade B16	1995
A194	Grade 3 Type 501	1967
	Grade 8 Type 304	2310
	Grade 8T Type 321	2402
	Grade B8C Type 347	2443
	Grade B6 Type 416	2221
A195	—	851, 1600
A199	Grade T5	1977
	Grade T22	1942
A200	Grade T5	1978
	Grade T22	1943

ASTM	Designation	Ref No. in IS : 1870-1965
A201	Grade A	622, 635, 694, 706, 780, 793, 868, 876, 903, 911
	Grade B	695, 710, 781, 79 , 832, 849, 90 , 912
A204	Grade A	1668, 1682, 1683, 1688
	Grade B	1671, 1685, 1689 1697
	Grade C	1686, 1696, 1
A209	Grade T1	1675
	Grade T1a	1693
	Grade T1b	1660
A210	—	791
A212	Grade A	806, 811, 870, 883, 890
	Grade B	871, 878, 884, 908, 913
A213	Grade T2	1923
	Grade T5	1979
	Grade T5C	1968
	Grade T12	1910
	Grade T22	1944
	Grade TP304	2311
	Grade TP304H	2339
	Grade TP304L	2285
	Grade TP310	2617
	Grade TP316	2557
	Grade TP316H	2584
	Grade TP316L	2538
	Grade TP 321	2403
	Grade TP321H	2427
	Grade TP347	2444
	Grade TP347H	2464
A214	—	566
A226	—	572
A227	Class I	1055, 1099, 1126, 1149, 1171
	Class II	1101, 1128, 1151, 1183, 1203
	Classes I & II	1421
A228	—	1243, 1262
A229	Class A	1131, 1159, 1186
	Class B	1130, 1158, 1185
A230	—	1175
A231	—	1819
A232	—	1820
A235	Class A	27
	Class C	165
	Class C1	202
	Class E	248
A236	Class A	541
	Class B	744
	Classes C, D and E	1041
	Class F	1052
A237	Class A	275
A240	Type 302	2372
	Type 304	2312
	Type 304L	2271
	Type 305	2353
	Type 310S	2607
	Type 316	2558

ASTM	Designation	Ref No. in IS : 1870-1965
A240 (*Contd*)	Type 316L	2530
	Type 321	2404
	Type 347	2445
	Type 405	2132
	Type 410	2177
	Type 410S	2133
A241	—	994, 1036, 1102, 1129, 1154, 1184, 1206
A242	—	669
A243	Class A	28
	Class C	166
	Class H	276
A245	Grade A	18, 720
	Grade B	51, 720
	Grade C	77, 720
	Grade D	107
A249	Grade TP304	2313
	Grade TP304H	2340
	Grade TP304L	2286
	Grade TP305	2354
	Grade TP310	2618
	Grade TP316	2559
	Grade TP316H	2585
	Grade TP316L	2539
	Grade TP321	2405
	Grade TP321H	2428
	Grade TP347	2446
	Grade TP347H	2465
A250	Grade T1	1676
	Grade T1b	1661
A252	Grade 1	70, 349
	Grade 2	167, 369
	Grade 3	203, 382
A266	Classes 1 and 2	909
	Class 3	1009
A268	Grade TP405	2134
	Grade TP410	2178
	Grade TP430	2234
A269	Grade TP304	2314
	Grade TP304L	2287
	Grade TP 316	2560
	Grade TP316L	2540
	Grade TP321	2406
	Grade TP347	2447
A270	Grade 304	2315
A271	Grade TP304	2316
	Grade TP321	2407
	Grade TP321H	2429
	Grade TP347	2448
	Grade TP347H	2466
A273	Grade C1010	519
	Grade C1015	594
	Grade C1016	598
	Grade C1020	688
	Grade C1022	693
	Grade C1025	819
	Grade C1026	821
	Grade C1030	899
	Grade C1035	939
	Grade C1040	975
	Grade C1042	1002
	Grade C1045	1027
	Grade C1050	1061
	Grade C1055	1086

ASTM	Designation	Ref No. in IS : 1870-1965
A274	Grade 1330	1609
	Grade 1340	1626
	Grade 3140	2068
	Grade 4130	1849
	Grade 4135	1857
	Grade 4142	1883
	Grade 4145	1888
	Grade 4320	2086
	Grade 4340	2104
	Grade 5132	1742
	Grade 5140	1760
	Grade 5150	1724
	Grade 8620	2027
	Grade E9310	2045
	Grade E51100	1788
	Grade E52100	1791
A276	Type 302	2373
	Type 304	2317
	Type 304L	2272
	Type 308	2346
	Type 310	2635
	Type 310S	2608
	Type 316	2561
	Type 316L	2531
	Type 321	2408
	Type 403	2172
	Type 405	2135
	Type 410	2179
	Type 416	2222
	Type 420	2199
	Type 430	2235
	Type 431	2254
A283	Grade A	14
	Grade B	67
	Grade C	99
	Grade D	158
A284	Grade A	599, 649, 681, 729, 784
	Grade B	650, 698, 785, 872, 895
	Grade C	699, 786, 822, 932
	Grade D	787, 823, 873, 907
A285	Firebox quality, Grade A	543, 559
	Firebox quality, Grade B	623, 660
	Firebox quality, Grade C	726, 833
	Flange quality, Grades A, B and C	901
A286	Class 1	1010
	Classes 2 and 3	1771
A290	Class A	916
	Class B	954
	Class C1	1012
	Class C2	1087
	Classes D and D2	1860
A292	Class 1	978
A293	Class 1	979
A295	Type A52100	1792
	Type B51100	1789
A299	—	812, 879
A303	Grade A	19, 721
	Grade B	52, 721
	Grade C	78, 721
	Grade D	108

ASTM	Designation	Ref No. in IS : 1870-1965
A304	Grade 1330H	1607
	Grade 1335H	1614
	Grade 1340H	1629
	Grade 3140H	2071
	Grade 4130H	1846
	Grade 4140H	1870
	Grade 4142H	1886
	Grade 4145H	1894
	Grade 4320H	2089
	Grade 4340H	2108
	Grade E4340H	2109
	Grade 5120H	1716
	Grade 5130H	1738
	Grade 5135H	1748
	Grade 5140H	1757
	Grade 5147H	1780
	Grade 5150H	1727
	Grade 5160H	1731
	Grade 6150H	1817
	Grade 8620H	2024
	Grade 9310H	2042
A306	Grade 45	15
	Grade 50	66
	Grade 55	100
	Grade 60	159
	Grade 65	198
	Grade 70	219
	Grade 75	247
	Grade 80	277
A307	Grade A	109
	Grade B	109, 297
A311	Grade 1137	1507
	Grade 1141	1513
	Grade 1144	1516
A312	Grade TP304H	2341
	Grade TP304L	2288
	Grade TP310	2619
	Grade TP316	2562
	Grade TP316H	2586
	Grade TP316L	2541
	Grade TP321	2409
	Grade TP321H	2430
	Grade TP347	2449
	Grade TP347H	2467
A313	—	2374
A314	Type 302	2375
	Type 304	2318
	Type 304L	2273
	Type 305	2355
	Type 308	2347
	Type 310	2636
	Type 310S	2609
	Type 316	2563
	Type 316L	2532
	Type 403	2173
	Type 405	2136
	Type 410	2180
	Type 416	2223
	Type 431	2255
A316	Grade E7010 A1	1654
	Grade E7011 A1	1655
	Grade E7015 A1	1656
	Grade E7016 A1	1657
	Grade E7018 A1	1658
	Grade E7020 A1	1659
	Grade E9015-B3	1933
	Grade E9015-B3L	1932
	Grade E9016-B3	1934
	Grade E9018-B3	1935
A320	Grade L7	1892
	Grade L9	2013
	Grade B8 Type 304	2319
A320 (*Contd*)	Grade B8C Type 347	2450
	Grade L43 Type 4340	2105
A321	—	1037
A322	Grade 1330	1610
	Grade 1335	1616
	Grade 1340	1627
	Grade 3140	2069
	Grade 4130	1850
	Grade 4142	1884
	Grade 4145	1889
	Grade 4147	1897
	Grade 4320	2087
	Grade 4340	2106
	Grade 5132	1743
	Grade 5135	1750
	Grade 5140	1761
	Grade 5145	1777
	Grade 5147	1781
	Grade 5150	1725
	Grade 5160	1732
	Grade 6150	1815
	Grade 8615	2019
	Grade 8620	2028
	Grade E9310	2046
A328	—	223
A329	Class A	1092
	Classes C and D	1207
A331	Grade 3140	2070
	Grade 4130	1851
	Grade 4142	1885
	Grade 4145	1890
	Grade 4320	2088
	Grade 4340	2107
	Grade 5140	1762
	Grade 5150	1726
	Grade 6150	1816
	Grade 8620	2029
	Grade E9310	2047
A333	Grade C	847
A334	Grade C	737
A335	Grade P1	1677
	Grade P2	1924
	Grade P5	1980
	Grade P5C	1969
	Grade P12	1911
	Grade P22	1945
A336	Grade F1	1702
	Grade F2	1925
	Grade F5	1981
	Grade F5a	1990
	Grade F6	2153
	Grade F8	2320
	Grade F8C	2451
	Grade F8m	2564
	Grade F8t	2410
	Grade F22	1946
	Grade F25	2620
A350	Grade LF1	845
	Grade LF2	850
A355	Class A	2011
A357	—	1982
A365	—	475
A366	—	535

ASTM	Designation	Ref No. in IS : 1870-1965
A369	Grade FP2	1926
	Grade FP3	1983
	Grade FP12	1912
	Grade FP22	1947
A372	Class I	838
	Class II	948
	Class III	1066, 1631
	Class V Type E	1895
A373	—	733, 769, 773, 788, 802, 809
A376	Grade TP304	2321
	Grade TP304H	2342
	Grade TP316	2565
	Grade TP316H	2587
	Grade TP321	2411
	Grade TP321H	2431
	Grade TP347	2452
	Grade TP347H	2468
A381	—	881
A383	—	1042
A387	Group I Grade A	1928
	Group I Grade B	1916
	Group II Grade D	1948
A396	Grade FP1	1678
A407	—	1054, 1096, 1123, 1143
A408	Structural Grade	104
	Intermediate Grade	222
	Hard Grade	278
A409	Grade TP304	2322
	Grade TP310	2621
	Grade TP316	2566
	Grade TP321	2412
	Grade TP347	2453
A411	—	1285
A413	—	888
A414	Firebox quality, Grade A	567
	Firebox quality, Grade B	680
	Firebox quality, Grade C	804
	Flange quality, Grade A	567
	Flange quality, Grade B	771
	Flange quality, Grade C	869
A415	—	483, 536
A417	—	1100, 1127, 1150, 1172
A421	—	1218, 1241, 1248
	Grade BA	1427, 1428, 1432, 1434
	Grade WA	1428, 1433
A424	—	449
A425	—	484, 537
A430	Grade FP304	2343
	Grade FP304H	2343
	Grade FP316	2588
	Grade FP316H	2588
	Grade FP321	2432
	Grade FP321H	2432
	Grade FP347	2469
	Grade FP347H	2469
A431	—	317, 431
A432	—	298, 414
A440	—	1597
A442	Grade 55	668, 700
	Grade 60	701, 790
A454	Classes 1 and 2	889
	Class 3	828
A455	—	892
A470	Class A	980
A473	Type 302	2376
	Type 304	2323
	Type 304L	2274
	Type 305	2358
	Type 308	2348
	Type 310	2637
	Type 310S	2610
	Type 316	2567
	Type 316L	2533
	Type 321	2413
	Type 405	2137
	Type 410	2181
	Type 410S	2138
	Type 416	2224
	Type 420	2200
	Type 430A	2236
	Type 430B	2237
	Type 431	2256
A478	Type 302	2377
	Type 304	2324
	Type 304L	2275
	Type 305	2357
	Type 316	2568
	Type 316L	2534
A479	Type 302	2378
	Type 304	2325
	Type 304L	2276
	Type 316	2569
	Type 316L	2535
	Type 321	2414
A489	—	199
A492	Type 302	2379
	Type 304	2326
	Type 316	2570
A493	Type 302	2380
	Type 304	2327
	Type 305	2358
	Type 316	2571
	Type 321	2415
	Type 430	2238
	Type 431	2257

SECTION 6 WEST GERMAN STANDARDS

a) DIN Standards

DIN	Designation	Werkstoff Nummer	Ref No. in IS : 1870-1965
1613	St 34-13	1.0200	41
	St 38-19	1.0219	97
1623	St 50-2	1.0532.6	227
	St 52-3	1.0841.6	241
	St 60-2	1.0542.6	289
	St 70-2	1.0632.6	310
	TUSt 37	1.0110.1	81
	WUSt 37-2	1.0112.3	81
	USt 37-2	1.0112.5	81
	RSt 37-2	1.0112.6	81
	USt 42-2	1.0132.5	144
	RSt 42-3	1.0132.6	144
1624	St 0	1.0022	492
	St 1	1.0226	493
	St 2	1.0330	467
	St 3	1.0333	468
	St 4	1.0336	469
1626	St 34	1.0100	45
	St 37	1.0110	82
	St 42	1.0130	145
1629	St 35	1.0308	64, 350
	St 45	1.0408	196, 376
	St 55	1.0507	253, 390
1651	9S20	1·0711	1490
	9SMn2[f]	1.0713	1495
	10S20	1.0721	1491
	15S20	1.0723	1500
	22S20	1.0724	1502
	35S20	1.0726	1479
1651	45S20	1.0727	1489
1652	St 37	1.0210	386
	St 37-2	1.0161	386
	St 34-2	1.0151	353, 357, 360, 385
	St 37	1.0120	358, 378, 393
	St 37-2	1.0161	358, 378, 393
	St 42	1.0140	391
	St 42-2	1.0180	391
	St 42	1.0140	379, 384, 394, 406
	St 42-2	1.0181	379, 384, 394, 406
	St 50	1.0531	388, 392, 405, 407, 416, 425
	St 50-2	1.0533	388, 392, 405, 407, 416, 425
	St 60-2	1.0543	413, 415, 424, 426, 435, 440
	St 70-2	1.0633	433, 434, 439, 441, 444, 445
1654	Cq 15	1.1132	585
	Cq 22	1.1152	758
	Cq 35	1.1172	958
	Cq 45	1.1192	1017
	34Cr4	1.7033	1744
	41Cr4	1.7035	1764
	42CrMo4	.7225	1878
		1.7225	1878
	42CrV6	.7561	1801
		1.7561	1801
2078 (140)	—	—	1354, 1355
2078 (160)	—	—	1367, 1368
2385	St 35	1.0308	361
	St 55	1.0507	410
2391A	St 35	1.0308	362
	St 55	1.0507	411
2391B	St 45	—	396
	St 45-1	—	396
2391B (BK)	St 35	—	380
	St 35-1	—	380
	St 55	—	417
	St 55-1	—	417
2393A and B	St 35	—	363
2394 (bright drawn)	—	—	351
2708 (180)	—	—	1378, 1379
2708 (200)	—	—	1383, 1385, 1386
4911	St 55	—	254
17100	St 33	1.0033	50, 86
	St 34	1.0100	42, 47
	St 34-2	1.0102	42, 47
	St 34-3	1.0106	42, 47
	St 35	1.0033	29
	St 37	1.0110	83, 85
	St 37-2	1.0112	83, 85
	St 37-3	1.0116	83, 85
	St 42	1.0130	146, 153
	St 42-2	1.0132	146, 153
	St 42-3	1.0136	146, 153
	St 50	1.0530	228, 234
	St 50-2	1.0532	228, 234
	St 52-3	1.0841	242
	MSt 52-3	1.0841.6	242
	St 60	1.0540	290, 291
	St 60-2	1.0542	290, 291
	St 70-2	1.0632.6	311, 312
	MRSt 34	1.0209.6	511
17110	MRSt 44	1.0209.6	589
	MUSt 34	1.0209.5	464
	QSt 34	1.0204	466
	TUSt 34	1.0209	456
17155	HI	1.0345	555
	HII	1.0425	630
	HIII	1.0435	665
	HIV	1.0445	774
	13CrMo44	1.7335	1917
17175	10CrMo9 10	1.7380	1949
	13CrMo44	1.7335	1918
	St 35.8	1.0305	557
	St 45.8	1.0405	662
17200	C22	1.0611	759
	C35	1.0651	959
	C45	1.0721	1018
	C60	1.0751	1112
	CK22	1.1151	760
	CK35	1.1181	960
	CK45	1.1191	1019
	CK60	1.1221	1113
	34Cr4	1.7033	1745
	41Cr4	1.7035	1765
	30Mn5	1.5066	1611

DIN	Designation	Werkstoff Nummer	Ref No. in IS : 1870-1965
17200 (*Contd*)	40Mn4	1.5038	971
	25CrMo4	1.7218	1842
	34CrMo4	1.7220	1855
	42CrMo4	.7225	1879
	42CrMo4	1.7225	1879
	50CrMo4	1.7228	1899
	34CrNiMo6	1.6582	2090
	36CrNiMo4	1.6511	2091
	37MnSi5	1.5122	1518
17210	C10	1.0301	508
	C15	1.0401	586
	CK10	1.1121	509
	CK15	1.1141	587
	15Cr3	1.7015	1711
	16MnCr5	1.7131	1718
	20MnCr5	1.7147	1721
17221	50Cr4	.8159	1810
		1.8159	
	38Si6	.0967	1519
	46Si7	.0968	1522
	51Si7	.0969	1524
	55Si7	.0970	1532
17222	C53	1.0505	1071
	C60	1.0601	1114
	C67	1.0603	1160
	C75	1.0605	1199
	M75	1.0614	1191
	CK53	1.1210	1072
	CK60	1.1221	1115
17222 (*Contd*)	CK67	1.1231	1161
	MK75	1.1243	1195
	MK101	1.1274	1271
	50Cr4	.8159	1811
	50Cr4	1.8159	1811
	55Si7	.0970	1533
17224	X5CrNiMo 1810X20Cr13	1.4401 1.4021	2545 2202
17224	X12CrNi177	1.4310	2367
17225	50Cr4	.8159	1812
	50Cr4	1.8159	1812
	45CrMoV67	.7737	1999
17240	24CrMo5	1.7258	1841
17470	24CrMoV55	1.7733	1993
	CrNi2520	1.4843	2630
21540	St 54	1.0545	231
46406 (180)	—	—	1376
46406 (130)	—	—	1346
46406 (150)	—	—	1360
46406 (200)	—	—	1387
79526	—	—	1329

b) Werkstoff Nummer

Werkstoff Nummer	Designation	DIN	Ref No. in IS : 1870-1965
.0967	38Si6	17221	1519
.0968	46Si7	17221	1522
.0969	51Si7	17221	1524
.0970	55Si7	17221	1532, 1533
.7225, 1.7225	42CrMo4	1654	1878
.7225, 1.7225	42CrMo4	17200	1879
.7561, 1.7561	42CrV6	1654	1801
.8159, 1.8159	50Cr4	17221	1810
	50Cr4	17222	1811
	50Cr4	17225	1812
.7737	45CrMoV67	17225	1999
1.0022	St 0	1624	492
1.0033	St 33	17100	86, 50
	St 35	17100	29
1.0100	St 34	1626	45
1.0100, 1.0102, 1.0106	St 34	17100	42, 47
	St 34-2	17100	42, 47
	St 34-3	17100	42, 47
1.0110	St 37	1626	82
1.0110	St 37	17100	83, 85
1.0112	St 37-2	17100	83, 85
1.0116	St 37-3	17100	83, 85
1.0110.1	TUSt 37	1623	81
1.0112.3	WUSt 37-2	1623	81
1.0112.5	USt 37-2	1623	81
1.0112.6	KUSt 37-2	1623	81
1.0120	St 37	1652	358, 378, 386, 393
1.0161	St 37-2	1652	358, 378, 386, 393
1.0130	St 42	1626	145
1.0132	St 42-2	17100	146, 153
1.0136	St 42-3	17100	146, 153
1.0132.5	USt 42-2	1623	144
1.0132.6	RSt 42-3	1623	144
1.0140	St 42	1652	379, 384, 391, 394, 406
1.0181	St 42-2	1652	379, 384, 391, 394, 406
1.0151	St 34-2	1652	353, 357, 360, 385
1.0200	St 34.13	1613	41
1.0204	QSt 34	17110	466
1.0209	TUSt 34	17110	456
1.0209.5	MUSt 34	17110	464

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1.0209.6	MRSt 44	17110	589
1.0219	St 38.19	1613	97
1.0226	St 1	1624	493
1.0301	C10	17210	508
1.0305	St 35.8	17175	557
1.0308	St 35	1629	64
1.0308	St 35	2385	361
1.0308	St 35	2391A	362
1.0330	St 2	1624	467
1.0333	St 3	1624	468
1.0336	St 4	1624	469
1.0345	H1	17155	555
1.0308	St 35	1629	350
1.0401	C15	17210	586
1.0405	St 45.8	17175	662
1.0408	St 45	1629	196
1.0408	St 45	1629	376
1.0425	HII	17155	630
1.0435	HIII	17155	665
1.0445	HIV	17155	774
1.0505	C53	17222	1071
1.0507	St 55	1629	253, 390
1.0507	St 55	2385	410
1.0507	St 55	2391A	411
1.0530	St 50	17100	228, 234
1.0532	St 50-2	17100	228, 234
1.0531	St 50	1652	388, 392, 405, 407, 416, 425
1.0533	St 50-2	1652	388, 392, 405, 407, 416, 425
1.0532.6	St 50-2	1623	227
1.0540	St 60	17100	290, 291
1.0542	St 60-2	17100	290, 291
1.0542.6	St 60-2	1623	289
1.0543	St 60-2	1652	413, 415, 424, 426, 435, 440
1.0545	St 54	21540	231
1.0601	C60	17222	1114
1.0603	C67	17222	1160
1.0605	C75	17222	1199
1.0611	C22	17200	759
1.0614	M75	17222	1191
1.0632.6	St 70-2	1623	310
1.0632.6	St 70-2	17100	311, 312
1.0633	St 70-2	1652	433, 434, 439, 441, 444, 445
1.0651	C35	17200	959
1.0711	9S20	1651	1490
1.0713	9SMn23	1651	1495
1.0721	C45	17200	1018
1.0721	10S20	1651	1491
1.0723	15S20	1651	1500
1.0724	22S20	1651	1502
1.0726	35S20	1651	1479
1.0727	45S20	1651	1489
1.0751	C60	17200	1112
1.0841	St 52-3	17100	242
1.0841.6	MSt 52-3	17100	242
1.0841.6	St 52-3	1623	241
1.1121	CK10	17210	509
1.1132	Cq15	1654	585
1.1141	CK15	17210	587
1.1151	CK22	17200	760
1.1152	Cq22	1654	758
1.1172	Cq35	1654	958
1.1181	CK35	17200	960
1.1183	Cf	—	961
1.1191	CK 45	17200	1019
1.1192	Cq 45	1654	1017
1.1193	Cf45	—	1020
1.1210	Cf53	—	1073
1.1210	CK53	17222	1072
1.1221	CK60	17200 17222	1113 1115
1.1231	CK67	17222	1161
1.1248	MK75	17222	1195
1.1249	Cf70		1190
1.1274	MK101	17222	1271
1.1520	C70W1	—	2690
1.1530	C85W1	—	2711
1.1540	C100W1	—	2726

Werkstoff Nummer	Designation	DIN	Ref No in IS : 1870-1965
1.1550	C110W1	—	2733
1.1620	C70W2	—	2691
1.1630	C85W2	—	2712
1.1640	C100W2	—	2727
1.1650	C110W2	—	2736
1.1660	C125W2	—	2752
1.1705	C15WS	—	2920
1.1720	C35W3	—	2666
1.1730	C45W3	—	2667
1.1740	C60W3	—	2673
1.1750	C75W3	—	2679
1.1820	C55WS	—	2670
1.1822	C80WS	—	7202
1.2060	105Cr5	—	2799
1.2080	X210Cr12	—	2874
1.2201	X165CrV12	—	2869
1.2206	140CrV1	—	2785
1.2210	115CrV3	—	2780
1.2341	X6CrMo5	—	2923
1.2343	X38CrMoV51	—	2832
1.2541	35WCrV7	—	2844
1.2542	45WCrV7	—	2845
1.2547	45WCrV77	—	2846
1.2581	X30WCrV93	—	2882
1.2606	X37CrMoW51	—	2841
1.2662	X30WCrV93	—	2883
1.2740	28NiCrMoV10	—	2824
1.2833	100V1	—	2773
1.2884	X210CrCoW12	—	2875
1.3202	EV4Co	—	2891
1.3255	E18Co5	—	2904
1.3265	E18Co10	—	2910
1.3343	DMo5	—	2916
1.3355	B18	—	2898
1.3503	105Cr4(W2)	—	1797
1.3505	100Cr6(W3)	—	2793
1.3505	100Cr6(W3)	—	1786
1.4000	X7Cr13	—	2139
1.4001	X7Cr14	—	2141
1.4002	X7CrA113	—	2140
1.4006	X10Cr13	—	2167
1.4007	X35Cr14	—	2217
1.4009	X8Cr14	—	2148
1.4015	X8Cr18	—	2231
1.4016	X8Cr17	—	2230
1.4021	X20Cr13	17224	2202
1.4024	X15Cr13	—	2188
1.4044	—	—	2266
1.4057	X22CrNi17	—	2264
1.4300	X12CrNi188	—	2359
1.4301	K5CrNi189	—	2293
1.4302	X5CrNi199	—	2290
1.4310	X12CrNi177	17224, 17225	2367
1.4314	—	—	2294
1.4324	X12CrNi177	—	2368
1.4401	X5CrNiMo1810	17224	2545
1.4402	X5CrNiMo1910	—	2542
1.4436	X5CrNiMo1812	—	2546
1.4541	X10CrNiTi1810	—	2472
1.4544	X10CrNiTi189	—	2416
1.4544	X10CrNiNb189	—	2454
1.4544	—	—	2500
1.4550	X10CrNiNb189	—	2501
1.4551	X8CrNiNb199	—	2499
1.4570	X10CrNiMoTi1810	—	2522
1.4571	X10CrNiMoTi1810	—	2598
1.4573	X10CrNiMoTi1812	—	2599
1.4718	X45CrSi9.3	—	2654
1.4747	X80CrNiSi20	—	2659
1.4841	X15CrNiSi2520	—	2631
1.4842	X12CrNi2520	—	2623
1.4843	CrNi2520	17470	2630
1.4844	X15CrNiSi2520	—	2632
1.4845	X12CrNi2521	—	2624
1.4854	X12CrNi2520	—	2625
1.4878	X12CrNiTi189	—	2486
1.5038	40Mn4	17200	971
1.5063	12Mn6	—	1550
1.5064	12Mn6A1	—	1551
1.5066	30Mn5	17200	1611

Werkstoff Nummer	Designation	DIN	Ref No. in IS : 1870-1965
1.5067	36Mn5	—	1622
1.5083	21Mn6	—	1590
1.5122	37MnSi5	17200	1518
1.5417	20MnMo4	—	1642
1.5424	13MnMo35	—	1665
1.6511	36CrNiMo4	17200	2091
1.6582	34CrNiMo6	17200	2090
1.6900	X12CrNi189	—	2360
1.6903	X10CrNiTi 1810	—	2473
1.6905	X10CrNiNb 1810	—	2502
1.7015	15Cr3	17015	1711
1.7033	34Cr4	1654	1744
1.7033	34Cr4	17200	1745
1.7034	37Cr4	—	1752
1.7035	41Cr4	1654	1764
1.7035	41Cr4	17200	1765
1.7131	16MnCr5	17210	1718
1.7147	20MnCr5	17210	1721
1.7214	—	—	1843
1.7218	25CrMo4	17200	1842
1.7220	34CrMo4	17200	1855
1.7228	50CrMo4	17200	1899
1.7242	16CrMo4	—	1824
1.7251	21CrMo3	—	1830
1.7225	42CrMo4	1654	1878
1.7258	24CrMo5	17240	1841
1.7335	13CrMo44	17155	1917
1.7335	13CrMo44	17175	1918
1.7337	16CrMo44	—	1927
1.7345	9CrMo45	—	1905
1.7356	7CrMo75	—	1901
1.7362	12CrMo195	—	1984
1.7380	10CrMo910	17175	1949
1.7733	24CrMoV55	17240	1993
1.8154	—	—	1813
1.8507	34CrAlMo5	—	2006
1.8544	—	—	2005

c) Steel Designations (DIN)

Designation	DIN	Werkstoff Nummer	Ref No. in IS : 1870-1965
B18	—	1.3355	2898
C10	17210	1.0301	508
C15	17210	1.0401	586
C15WS	—	1.1705	2920
C22	17200	1.0611	759
C35	17200	1.0651	959
C35W3	—	1.1720	2666
C45	17200	1.0721	1018
C45W3	—	1.1730	2667
C53	17222	1.0505	1071
C55WS	—	1.1820	2670
C60	17200	1.0751	1112
C60	17222	1.0601	1114
C60W3	—	1.1740	2673
C67	17222	1.0603	1160
C70W1	—	1.1520	2690
C70W2	—	1.1620	2691
C75	17222	1.0605	1199
C75W3	—	1.1750	2679
C80WS	—	1.1822	2702
C85W1	—	1.1530	2711
C85W2	—	1.1630	2712
C100W1	—	1.1540	2726
C100W2	—	1.1640*	2727
C110W1	—	1.1550	2733
C110W2	—	1.1650	2736
C125W2	—	1.1660	2752
Cf	—	1.1183	961
Cf45	—	1.1193	1020
Cf53	—	1.1210	1073
Cf70	—	1.1249	1190
CK10	17210	1.1121	509
CK15	17210	1.1141	587
CK22	17200	1.1151	760
CK35	17200	1.1181	960
CK45	17200	1.1191	1019

Designation	DIN	Werkstoff Nummer	Ref No. in IS : 1870-1965
CK53	17222	1.1210	1072
CK60	17200	1.1221	1113
CK60	17222	1.1221	1115
CK67	17222	1.1231	1161
Cq15	1654	1.1132	585
Cq22	1654	1.1152	758
Cq35	1654	1.1172	958
Cq45	1654	1.1192	1017
15Cr3	17210	1.7015	1711
34Cr4	1654	1.7033	1744
34Cr4	17200	1.7033	1745
37Cr4	—	1.7034	1752
41Cr4	1654	1.7035	1764
41Cr4	17200	1.7035	1765
50Cr4	17225	.8159, 1.8159	1812
50Cr4	17222	.8159, 1.8159	1811
50Cr4	17221	.8159, 1.8159	1810
42CrV6	1654	.7561, 1.7561	1801
105Cr4(W2)	—	1.3503	1797
100Cr6(W3)	—	1.3505	1786
105Cr5	—	1.2060	2799
34CrA1Mo5	—	1.8507	2006
7CrMo75	—	1.7356	1901
9CrMo45	—	1.7345	1905
10CrMo9 10	17175	1.7380	1949
12CrMo195	—	1.7362	1984
13CrMo44	17155	1.7335	1917
13CrMo44	17175	1.7335	1918
16CrMo4	—	1.7242	1824
16CrMo44	—	1.7337	1927
21CrMo3	—	1.7251	1830
24CrMo5	17240	1.7258	1841
25CrMo4	17200	1.7218	1842
34CrMo4	17200	1.7220	1855
42CrMo4	1654	.7225, 1.7225	1878
42CrMo4	17200	.7225, 1.7225	1879
50CrMo4	17200	1.7228	1899
24CrMoV55	17240	1.7733	1993
45CrMoV67	17225	.7737	1999
CrNi2520	17470	1.4843	2630
34CrNiMo6	17200	1.6582	2090
36CrNiMo4	17200	1.6511	2091
140CrV1	—	1.2206	2785
115CrV3	—	1.2210	2780
100Cr6(W3)	—	1.3505	2793
DMo5	—	1.3343	2916
E18Co5	—	1.3255	2904
E18Co10	—	1.3265	2910
EV4Co	—	1.3202	2891
HI	17155	1.0345	555
HII	17155	1.0425	630
HIII	17155	1.0435	665
HIV	17155	1.0445	774
M75	17222	1.0614	1191
MK75	17222	1.1248	1195
MK101	17222	1.1274	1271
12Mn6	—	1.5063	1550
12Mn6A1	—	1.5064	1551
21Mn6	—	1.5083	1590
30Mn5	17200	1.5066	1611
36Mn5	—	1.5067	1622
40Mn4	17200	1.5038	971
16MnCr5	17210	1.7131	1718
20MnCr5	17210	1.7147	1721
13MnMo35	—	1.5424	1665
20MnMo4	—	1.5417	1642
37MnSi5	17200	1.5122	1518
MRSt 44	17110	1.0209.6	589
MUSt 34	17110	1.0209.5	464
28NiCrMoV10	—	1.2740	2824
QSt 34	17110	1.0204	466
9S20	1651	1.0711	1490
10S20	1651	1.0721	1491
15S20	1651	1.0723	1500
22S20	1651	1.0724	1502
35S20	1651	1.0726	1479
45S20	1651	1.0727	1489
9SMn23	1651	1.0713	1495
38Si6	17221	.0967	1519
46Si7	17221	.0968	1522

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51Si7	17221	.0969	1524
55Si7	17222	.0970	1533
55Si7	17221	.0970	1532
St 0	1624	1.0022	492
St 1	1624	1.0226	493
St 2	1624	1.0330	467
St 3	1624	1.0333	468
St 4	1624	1.0336	469
St 33	17100	1.0033	86
St 33	17100	1.0033	50
St 34	1626	1.0100	45
St 34.13	1613	1.0200	41
St 34-2	1652	1.0151	360
St 34-2	1652	1.0151	385
St 34-2	1652	1.0151	353
St 34-2	1652	1.0151	357
St 34	17100	1.0100	42, 47
St 34-2	17100	1.0102	42, 47
St 34-3	17100	1.0106	42, 47
St 35	17100	1.0033	29
St 35	1629	1.0308	64
St 35	2385	1.0308	361
St 35	2391A	1.0308	362
St 35	2393A and B	—	363
St 35.8	17175	1.0305	557
St 35	2391B	—	380
St 35-1	2391BK	—	380
St 37	1626	1.0110	82
St 37	1652	1.0120	358, 378, 393
St 37-2	1652	1.0161	358, 378, 393
St 37	17100	1.0110	83, 85
St 37-2	17100	1.0112	83, 85
St 37-3	17100	1.0116	83, 85
St 38.19	1613	1.0219	97
St 42	1626	1.0130	145
St 42	1652	1.0140	379
St 42-2	1652	1.0181	379
St 42	1652	1.0140	391
St 42-2	1652	1.0180	391
St 42	1652	1.0140	384, 394, 406
St 42-2	1652	1.0181	384, 394, 406
St 42	17100	1.0130	146
St 42-2	17100	1.0132	146
St 42-3	17100	1.036	146
St 42	17100	1.0130	153
St 42-2	17100	1.0132	153
St 42-6	17100	1.0136	153
St 45	1629	1.0408	196, 376
St 45	2391B	—	396
St 45-1	2391B	—	396
St 45.8	17175	1.0405	662
St 50.2	1623	1.0532.6	227
St 50	1652	1.0531	392, 388, 405, 407, 416, 425
St 50-2	1652	1.0533	392, 388, 405, 407, 416, 425
St 50	17100	1.0530	228, 234
St 50-2	17100	1.0532	228, 234
St 52-3	1623	1.0841.6	241
St 52-3	17100	1.0841	242
MSt 52-3	17100	1.0841.6	242
St 54	21540	1.0545	231
St 55	1629	1.0507	390, 253
St 55	2385	1.0507	410
St 55	2391A	1.0507	411
St 55	4911	—	254
St 55	2391B	—	417
St 55.1	2391B(BK)	—	417
St 60-2	1623	1.0542.6	289
St 60-2	1652	1.0543	435, 415, 426, 413
St 60	17100	1.0540	290
St 60-2	17100	1.0542	290
St 60-2	1652	1.0543	424, 440
St 60	17100	1.0540	291
St 60-2	17100	1.0542	291
St 70-2	1623	1.0632.6	310
St 70-2	1652	1.0633	433, 434, 439 441, 444, 44
St 70-2	17100	1.0632.6	311, 312
TUSt 34	17110	1.0209	456
TUSt37	1623	1.0110.1	81

Designation	DIN	Werkstoff Nummer	Ref No. in IS : 1870-1965
WUSt 37-2	1623	1.0112.3	81
USt 37-2	1623	1.0112.5	81
RSt 37-2	1623	1.0112.6	81
USt 42-2	1623	1.0132.5	144
RSt 42-3	1623	1.0132.6	144
100V1	—	1.2833	2773
35WCrV7	—	1.2541	2844
45WCrV7	—	1.2542	2845
45WCrV7	—	1.2547	2846
X5CrNiMo 1810	17224	1.4401	2545
X5CrNi189	—	1.4301	2293
X5CrNi199	—	1.4302	2290
X5CrNiMo 1812	—	1.4436	2546
X5CrNiMo 1910	—	1.4402	2542
X6CrMo5	—	1.2341	2923
X7Cr13	—	1.4000	2139
X7Cr14	—	1.4001	2141
X7CrA113	—	1.4002	2140
X8Cr14	—	1.4009	2148
X8Cr17	—	1.4016	2230
X8Cr18	—	1.4015	2231
X10Cr13	—	1.4006	2167
X8CrNiNb199	—	1.4551	2499
X10CrNiMoTi 1810	—	1.4571	2598
X10CrNiMoTi 1812	—	1.4573	2599
X10CrNiMoTi 18101	—	1.4570	2522
X10CrNiNb189	—	1.4544	2454
X10CrNiNb189	—	1.4550	2501
X10CrNiNb 1810	—	1.6905	2502
X10CrNiTi 189	—	1.4544	2416
X10CrNiTi 1810	—	1.4541	2472
X10CrNiTi 1810	—	1.6903	2473
X12CrNi188	—	1.4300	2359
X12CrNi2520	—	1.4854	2625
X12CrNi2520	—	1.4842	2623
X12CrNi2521	—	1.4845	2624
X12CrNi177	—	1.4324	2368
X12CrNi177	17224	1.4310	2367
X12CrNi177	17225	1.4310	2367
X12CrNi189	—	1.6900	2360
X12CrNiTi 189	—	1.4878	2486
X15Cr13	—	1.4024	2188
X15CrNiSi 2520	—	1.4841	2631
X15CrNiSi 2520	—	1.4844	2632
X20Cr13	17224	1.4021	2202
X22CrNi17	—	1.4057	2264
X30WCrV93	—	1.2581	2882
X30WCrCo V93	—	1.2662	2883
X35Cr14	—	1.4007	2217
X37CrMoW51	—	1.2606	2841
X38CrMoV51	—	1.2343	2832
X45CrSi9.3	—	1.4718	2654
X80CrNiSi20	—	1.4747	2659
X165CrV12	—	1.2201	2869
X210Cr12	—	1.2080	2874
X210CrCoW12	—	1.2884	2875

SECTION 7 JAPANESE STANDARDS (JIS)

JIS	Designation	Ref No. in IS : 1870-1965
G 1103	—	1033
G 3101	Class 1 SS34	37
	Class 3 SS50	229
	Class 2 SS41	137
	Class 4 SS39	113
	Class 5 SS49	216
G 3102	Class 1 S10C	544
	Class 2 S15C	637
	Class 4 S25C	858
	Class 5 S30C	915
	Class 6 S35C	953
	Class 7 S40C	984
	Class 8 S45C	1011
	Class 9 S50C	1045
	Class 10 S55C	1081
	Class 21 S9CK	512
	Class 22 S15CK	590
G 3103	Class 1A SB35A	63
	Class 1B SB35B	624
	Class 1B SB35B	661
	Class 2 ASB42A	147
	Class 2 SB42	147
	Class 2B SB42B	834
	Class 2B SB42B	696
	Class 2B SB42B	782
	Class 2C SB42C	697, 783
	Class 3 BSB46B	807, 885
	Class 3 ASB46A	200
	Class 3 SB46	200
	Class 3B SB46B	874
	Class 3CSB46C	808, 875
	Class SB 42K	147
G 3104	Class 1 SV34	38
	Class 2 BSV41B	136
	Class 3 SV39	110
G 3105	SBC	515
G 3106	Class 1A SM41A	725, 682
	Class 1B SM41B	633
	Class 2B SM50B	1561
	Class 1C SM41C	1560
	Class 2C SM50C	1562
G 3110	Grade 1 SSD39	114
	Grade 1 SRD39	114
	Grade 2 SSD49	217
	Grade 2 SRD49	217
G 3111	Class 1 SRB34	39
	Class 2 SRB39	115
	Class 3 SRB49	218
G 3123	Class 1 S10C-D	364
	Class 1 1SUMI-D	365
	Class 1 SS34B-D	372
	Class 2 S15C-D	383
	Class 2 SUM2-D	383
	Class 3 S20C-D	387
	Class 3 SUM3-D	387
	Class 2 SS41B-D	387
	Class 3 SS50B-D	408
	Class 4 S25C-D	397
	Class 5 S30C-D	403
	Class 4 SUM4-D	403
	Class 6 S35C-D	412
	Class 7 S40C-D	418
	Class 5 SUMS-D	418
	Class 8 S45C-D	423
	Class 9 S50C-D	432
	Class 10 S55C-D	438

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G 3201	Class 1 SF34	43
	Class 2 SF40	122
	Class 3 SF45	197
	Class 4 SF50	230
	Class 5 SF55	255
	Class 6 SF60	288
G 3301	Class 1 SPN1	479
	Class 2 SPN2	499
	Class 3 SPN3	500
	Class 4 SPN4	501
	Class 5 SPN5	480
G 3307	Class 1 SPH1	470
	Class 2 SPH2	502
	Class 3 SPH3	615
	Class 4 SPH4	724
	Class 5 SPH5	900
G 3505	Class 4 SWRM4	742
G 3506	Class 1 SWRH1	914
	Class 2 SWRH2	983
	Class 3 SWRH3	1044
	Class 4A SWRH4A	1104
	Class 4B SWRH4B	1110
	Class 5A SWRH5A	1163
	Class 5B SWRH5B	1170
	Class 6A SWRH6A	1221
	Class 6B SWRH6B	1225
	Class 7 SWRH7	1088
G 3523	Class 1 No. 1 SWY 11	488
	Class 1 No. 2 SWY 12	490
	Class 2 No. 1 SWY 21	552
G 3307	Class 6 SPH6	574
	Class 7 SPH7	48
	Class 8 SPH8	138
G 3308	Class 1 SPMA	333
	Class 2 SPMB	334
	Class 3 SPMC	356
	Class 4 SPMD	377
	Class 5 SPME	402
G 3310	Class 1 SPC1	503
	Class 2 SPC2	471
	Class 3 SPC3	459
G 3429	Class 1 STH38	803
	Class 2 STH55	977
	Class 3 STH67	1037
G 3437	STL	545
G 3439	Class 1 STO-C	249, 389
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	Class 1 STO-G	335
	Class 2 STO-D	307
	Class 2 STO-D	422
	Class 2 STO-H	154
	Class 2 STO-H	366
	Class 3 STO-E	313, 428
	Class 3 STO-J	249, 389
	Class 4 STO-N	313, 428
G 3441	Class 1 STKS1	1845
	Class 3 STKS3	1859
	Class 5 STKS5	2183
	Class 6 STKS6	2242
	Class 7 STKS7	2328
	Class 8 STKS8	2572
	Class 9 STKS9	2417
	Class 10 STKS10	2455

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G3443	Class 2	30
G3444	Class 1 STK34	49, 346
	Class 1 Class 41	359
	Class 2 STK41	139, 722
	Class 3 STK51	840
	Class 4 STK50	1558
G3445	Class 1A STKM30	506
	Class 1B STKM40	506
	Class 2A STKM44	626
	Class 2B STKM45	626
G3445	Class 3A STKM 44	841
	Class 3B STKM51	841
	Class 4 STKM 48	922
	Class 5 STKM 55	988
	Class 6 STKM 62	1050
	Class 7 STKM 50	1559
G3452	SGP	4
G3454	Class 1 STPG35	616
	Class 2 STPG38	730
	Class 3 STPG42	842
G3455	Class 2 STS38	731
	Class 1 STS35	575
	Class 3 STS42	843
	Class 4 STS49	886
G3456	Class 1 STPT35	576
	Class 2 STPT38	732
	Class 3 STPT42	844
	Class 4 STPT49	887
G3457	STP Y41	140
G3458	Class 12 STPA12	1679
	Class 21 STPA21	1821
	Class 22 STPA22	1913
	Class 24 STPA24	1950
	Class 25 STPA25	1985
G3459	Class 27 SUS27TP	2329
	Class 28 SUS28TP	2277
	Class 29 SUS29TP	2418
	Class 32 SUS32TP	2573
	Class 33 SUS33TP	2536
	Class 42 SUS42TP	2626
	Class 43 SUS43TP	2456
G3460	Class 1 STPL39	739
G3461	Class 1 STB30	617
	Class 2 STB33	573
	Class 3 STB35	577
	Class 4 STB42	880
G3462	Class 12 STBA12	1680
	Class 21 STBA21	1822
	Class 22 STBA22	1914
	Class 24 STBA24	1951
	Class 25 STBA25	1986
G3463	Class 21 SUS21TB	2184
	Class 24 SUS24TB	2243
	Class 27 SUS27TB	2330
	Class 28 SUS28TB	2278
	Class 29 SUS29TB	2419
	Class 32 SUS32TB	2574
	Class 43 SUS43TB	2457
G3464	Class 1 STBL39	740
G3465	Class 1 STM-C55	261, 398
	Class 2 STM-C65	300, 419
	Class 2 STM-R60	292, 409
	Class 12 STM-R70	314, 427
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G3502	Class 1A SWRA1A	1162
	Class 1B SWRS1B	1169
	Class 2A SWRS2A	1220
	Class 3 S20C	745
	Class 3A SWRS3A	1256
	Class 2B SWRS2B	1226
	Class 3B SWRS3B	1258
	Class 4 SWRS4	1136
G3503	Class 1 No. 1 SWRY11	487
	Class 1 No. 2 SWRY12	489
	Class 2 No. 1 SWRY21	551
	Class 2 No. 2 SWRY22	553
	Class 3 SWRM3	534
G3505	Class 1 SWRM1	463
	Class 2 SWRM2	462
G3523	Class 2 No. 2 SWY22	554
G3525	Grade 1	1364
	Grade 2	1370
	Grade 3	1375
	Elevator	1351
	Single	1361
G3530	—	1277
G3531	—	1278
G3532	Grade SWM-A	1279
	Grade SWM-B	1289, 1295, 1307, 1311
	Grade SWM-G1	1280
	Grade SWM-G2	1280
	Grade SWM-G3	1280
	Grade SWM-G4	1280
	Grade SWM-N	1306, 1310, 1315, 1316
G3536	—	1440, 1445
G4102	Class 1 SNC1	2064
	Class 22 SNC22	2041
G4103	Class 8 SNCM8	2101
	Class 22 SNCM22	2083
G4104	Class 1 SCr1	1946
	Class 2 SCr2	1739
	Class 3 Cr3	1751
	Class 4 SCr4	1763
	Class 5 SCr5	1778
G4105	Class 1 SCM1	1854
	Class 2 SCM2	1852
	Class 3 SCM3	1858
	Class 4 SCM4	1869
	Class 5 SCM5	1893
	Class 21 SCM21	1823
	Class 22 SCM22	1827
	Class 23 SCM23	1826
G4202	Class 1 SACM1	2012
G4302	Class 1 SEH1	2655
	Class 4 SEH4	2661
	Class 5 SEH5	2638
G4303	Class 21 SUS21B	2160
	Class 22 SUS22B	2189
	Class 23 SUS23B	2215
	Class 24 SUS24B	2244
	Class 27 SUS27B	2331
	Class 28 SUS28B	2279
	Class 29 SUS29B	2420
	Class 32 SUS32B	2575
	Class 37 SUS37B	2187

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G4303 (*Contd*)	Class 38 SUS38B	2142
	Class 39 SUS39B	2364
	Class 40 SUS40B	2381
	Class 42 SUS42B	2611
	Class 43 SUS43B	2458
	Class 44 SUS44B	2258
G4304	Class 21 SUS21HP	2161
	Class 22 SUS22HP	2190
	Class 24 SUS24HP	2245
	Class 27 SUS27HP	2332
	Class 28 SUS28HP	2280
	Class 29 SUS29HP	2421
	Class 32 SUS32HP	2576
	Class 38 SUS38HP	2143
	Class 40 SUS40HP	2382
	Class 42 SUS42HP	2612
	Class 43 SUS43HP	2459
G4305	Class 21 SUS21CP	2162
	Class 22 SUS22CP	2191
	Class 24 SUS24CP	2246
	Class 27 SUS27CP	2333
	Class 28 SUS28CP	2281
	Class 29 SUS29CP	2422
	Class 32 SUS32CP	2577
	Class 38 SUS38CP	2144
	Class 40 SUS40CP	2383
	Class 42 SUS42CP	2613
	Class 43 SUS43CP	2460
G4306	Class 21 SUS21HS	2163
	Class 24 SUS24HS	2247
	Class 27 SUS27HS	2334
	Class 28 SUS28HS	2282
	Class 29 SUS29HS	2423
	Class 32 SUS32HS	2578
	Class 38 SUS38HS	2145
	Class 40 SUS40HS	2384
	Class 43 SUS HS	2461
G4307	Class 21 SUS21CS	2164
	Class 24 SUS24CS	2248
	Class 27 SUS27CS	2335
	Class 28 SUS28CS	2283
	Class 29 SUS29CS	2424
	Class 32 SUS CS	2579
	Class 38 SUS38CS	2146
	Class 40 SUS40CS	2385
	Class 43 SUS43CS	2462
G4308	Class 21 SUS21WR	2165
	Class 24 SUS24WR	2249
	Class 27 SUS27WR	2336
	Class 32 SUS32WR	2580
	Class 39 SUS39WR	2365
	Class 40 SUS40WR	2386

JIS	Designation	Ref No. in IS : 1870-1965
G4309	Class 21 SUS21WS1	2166
	Class 24 SUS24WS1	2250
	Class 27 SUS27WS2	2337
	Class 32 SUS32WH1	2582
	Class 32 SUS32WS2	2581
	Class 39 SUS39WH2	2366
	Class 40 SUS40WH2	2387
G4401	Grade SK1	2753
	Grade SK2	2741, 2746
	Grade SK3	2730
	Grade SK4	2716
	Grade SK5	2682, 2703
	Grade SK6	2677
	Grade SK7	2674
G4403	Grade SKH2	2897
	Grade SKH3	2901
	Grade SKH4A	2907
	Grade SKH9	2912
G4404	Grade SKD1	2870
	Grade SKD5	2880
	Grade SKD6	2830
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	Grade SKD61	2835
	Grade SKS1	2863
	Grade SKS2	2857
	Grade SKS8	2784
	Grade SKS43	2774
	Grade SKS44	2757
	Grade SKT4	2821
G4410	Grade SKC3	2696
	Grade SKC11	2713, 2728
	Grade SKC22	2825
	Grade SKC23	2826
G4801	Class 3 SUP3	1239
	Class 4 SUP4	1272
	Class 6 SUP6	1543
	Class 7 SUP7	1544
	Class 9 SUP9	1729
	Class 10 SUP10	1808
G4804	Grade SUM1A	1496
	Grade SUM1B	1455
	Grade SUM2	1461
	Grade SUM3	1470
	Grade SUM4	1476
	Grade SUM5	1484
G4805	Class 1 SUJ1	1793
	Class 1 SUJ1	2795
	Class 2 SUJ2	1794
	Class 2 SUJ2	2796
G5503	—	528

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	Ст 2 кп	44
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	Ст 3 кп	96, 135, 173
	Ст 4	141
	Ст 4 кп	141, 195, 215
	Ст 5	224, 251, 279
	Ст 6	287, 299, 308
	Ст 7	309, 318
	МСт 1 кп	510
	МСт 2 кп	546
	МСт 3	676
	МСт 3 кп	673
	МСт 4 кп	796
	МСт 4	797
	МСт 5	934
	МСт 6	1008
	МСт 7	1091
	БСт 0	521
	БСт 3	505
	БСт 3 кп	504
	БСт 4	640
	БСт 4 кп	639
	БСт 5	854
	БСт 6	950
399	Ст 3 Т, Ст 3 к	672
631	Е	319, 436
	К	315, 429
	М	330, 446
	Д	301, 420
	Л	326, 443
632	А	155, 367
	С	262, 399
	Е	320, 437
632 (*Contd*)	Ем	316, 430
	М	332, 448
	Д	302, 421
	Л	331, 447
801	ШХ 15	1795
1050	05 кп	451
	08 кп	491
	08	507
	10	523
	10 кп	522
	15	602
	15 кп	601
	15 Г	604
	25	864
	25 Г	865
	30	926
	30 Г	928
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	40	997
	40 Г	998
	45	1021
	45 Г	1022
	50	1057
	50 Г	1062
	55	1089
	60	1116
	60 Г	1117
	65	1140
	65 Г	1141
	70	1176
	70 Г	1177
	75	1201
	80	1234
	85	1255
1127	14 кп	558
1414	А 12	1456

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1414 (*Contd*)	А 20	1471
	А 30	1477
1435	У 7	2685
	У 7 А	2686
	У 8	2697
	У 8 А	2698
	У 8 Г	2683
	У 8 ГА	2684
	У 9	2704
	У 9 А	2705
	У 10	2717
	У 10 А	2718
	У 11	2731
	У 11 А	2732
	У 12	2744
	У 12 А	2745
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	У 13 А	2748
1798	08 кп	1284, 1290, 1296, 1300
	10, 10 кп	1291, 1297, 1301, 1308
	15, 15 кп, 20	1298, 1302, 1309, 1312
2052	50 С 2	1523
	55 СГ	1531
	55 С 2	1534
	60 СГА	1535
	60 С 2 А	1536
	60 СГ	1537
	60 С 2	1545
2246	Св-08	485
	Св-08 А	486
	Св-18 ХМА	1825
	Св-10 ХМ	1904
	Св-10 Х 5 М	1970
	Св-06 Х 14	2147
	Св-10 Х 13	2186
	Св-02 Х 19 Н 9	2289
	Св-04 Х 19 Н 9	2291
	Св-04 Х 19 Н 9 С 2	2292
	Св-06 Х 19 Н 9 т	2425

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2446 (*Contd*)	Св-08 Х 19 Н 10 Б	2470
	Св-04 Х 19 Н 11 М 3	2540
	Св-08 Х 19 Н 12 М 3	2589
	Св-06 Х 19 Н 10 М 3 Т	2596
	Св-08 Х 25 Н 5 Т МФ	2614
	Св-13 Х 25 Н 18	2622
3110	—	1326, 1329
3836	Э, ЭА, ЭАА	450
4034	Ст 3 ТС	641
	Ст 4 Т	770
	Ст 5 К	829
4121	НБ-62	1097, 1125, 1148
4543	12 МА	1666
	15 М	1669
	20 МА	1687
	20 М	1695
	30 МА	1703
	30 М	1704
	20 ХГ	1719
	20 ХГА	1722
	30 ХА	1734
	30 Х	1735
	35 Х	1747
	38 ХА	1753
	40 Х	1768
	45 Х	1774
	45 ХА	1775
	50 Х	1784
	50 ХА	1785
	40 ХФА	1800
	50 ХФА	1809
	20 ХМА	1828
	20 ХМ	1829
	30 ХМА	1844
	30 ХМ	1847
	35 ХМ	1861
	35 ХМА	1862
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4543 (*Contd*)	12 ХМ	1915
	15 ХМА	1919
	35 ХМФА	1994
	38 Х МЮА	2007
	20 ХНА	2032
	20 ХН	2033
	12 ХН 3	2036
	12 ХН 3А	2037
	12 Х 2 Н 4	2048
	12 Х 2 Н 4 А	2049
	20 Х 2 Н 4	2054
	20 Х 2 Н 4 А	2055
	40 ХН	2072
	40 ХНА	2073
	40 ХНМА	2093
	33 ХН 3 МА	2121
5058	09 Г 2	1546
	14 Г 2	1563
	12 ХГ	1707
5437	—	1288, 1294, 1299
5520	15 К	643
	25 К	814
5521	Ст 1 скп	513
	Ст 2 скп	547
	Ст 3с	674
	Ст 3 скп	675
	Ст 4 Л	795
	Ст 4 с	798
	Ст 4 скп	799
	Ст 4 Ф	800
	Ст 4 Фкп	801
	Ст 5 псов	882
	Ст 5 с	929
5632	Х 5 М(ЭХ 5 М)	1987
	1 Х 13 (ЭЖ 1)	2185
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5632 (*Contd*)	Х 17 Н 2 (ЭИ 268)	2252
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	Х 23 Н 18 (ЭИ 417)	2629
	Х9 С 2 (ЭСХ 8)	2656
	4 Х 14 Н 14 В 2 М (ЭИ 69)	2665
5633	НБ 57	1094, 1121
	НБ 61	1098, 1124, 1144
5950	Ф	2765
	Х 05	2782
	4 ХС	2787
	9 Х	2792
	Х	2797
	9 ХВГ	2804
	5 ХНМ	2820
	4 ХВ 2 С	2843
	5 ХВ 2 С	2847
	ХВГ	2856
	ХВ 5	2861
	Х 12	2872
6544	М 75	1193
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6713	М 16 с	642
	Ст 3 мост	677
6727	—	1317, 1320
7372	—	1335, 1338, 1341, 1347, 1356, 1362, 1369, 1372, 1377, 1384, 1388, 1392, 1394, 1395, 1397, 1399, 1400
8160	М 76	1205
9373	Р 14 Ф 4	2890
	Р 18	2896
	Р 18 К 5 Ф 2	2905
9389	—	1424