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IS 9768 (1995): Bulkhead Straight Body for Oil-hydraulic Couplings [PGD 17: Fluid Power Fittings, Hoses and Hose Assemblies]



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तेल-द्रवचालित युग्मन के लिये बड़े
शीर्ष का सीधा ढाँचा — विशिष्ट
(पहला पुनरीक्षण)

Indian Standard

**BULKHEAD STRAIGHT BODY FOR
OIL-HYDRAULIC COUPLINGS —
SPECIFICATION**

(First Revision)

UDC 621.643.41.061 : 621-822

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Fluid Power Fittings, Hoses and Hose Assemblies Sectional Committee had been approved by the Production Engineering Division Council.

This standard was first issued in 1970. The present revision has been taken up to bring the standard in line with present practices. In this revision:

- a) suitable alterations have been made in surface finish requirements,
- b) a new requirement on 'working pressure' has been included.

While preparing this standard considerable assistance has been derived from DIN 3910 : 1984 'Solderless compression couplings with olive', issued by Deutsches Institut für Normung (DIN).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***BULKHEAD STRAIGHT BODY FOR
OIL-HYDRAULIC COUPLINGS —
SPECIFICATION***(First Revision)***1 SCOPE**

This Indian Standard specifies the dimensions, material and other requirements for bulkhead straight body for use in oil-hydraulic systems.

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
1369 (Part 1) : 1993	Fasteners — Thread runout and undercuts : Part 1 Dimensions for screw thread runout for external ISO metric threads (<i>third revision</i>)
1369 (Part 2) : 1993	Fasteners — Thread runout and undercuts : Part 2 Dimensions for screw thread undercuts for external ISO metric threads (<i>third revision</i>)
3618 : 1966	Phosphate treatment of iron and steel for protection against corrosion
4218 (Part 6) : 1978	ISO Metric screw threads : Part 6 Limits of sizes for commercial bolts and nuts (diameter range 1 to 52 mm) (<i>first revision</i>)
4431 : 1978	Carbon and carbon-manganese free-cutting steel (<i>first revision</i>)

8805 (Part 1) : 1978	General requirements for ferrule type couplings used in oil-hydraulic systems : Part 1 General Specification for bulkhead straight coupling assembly for oil-hydraulic systems
9769 : 1981	

NOTE — IS 4218 is available in six parts, however the relevant standard has been referred in the text.

3 DIMENSIONS

The dimensions of bulkhead straight body shall be as given in Table 1.

4 MATERIAL

The bulkhead straight bodies shall be manufactured from steel conforming to designation 14C14S14 of IS 4431 : 1978 or any other steel as agreed to between the user and the manufacturer.

5 SURFACE PROTECTION

The bulkhead straight bodies shall be phosphated to Class A2 of IS 3618 : 1966, unless otherwise agreed to between the user and the manufacturer.

6 GENERAL REQUIREMENTS

6.1 The bulkhead straight bodies are intended for use in bulkhead straight coupling assembly as per IS 9769 : 1981.

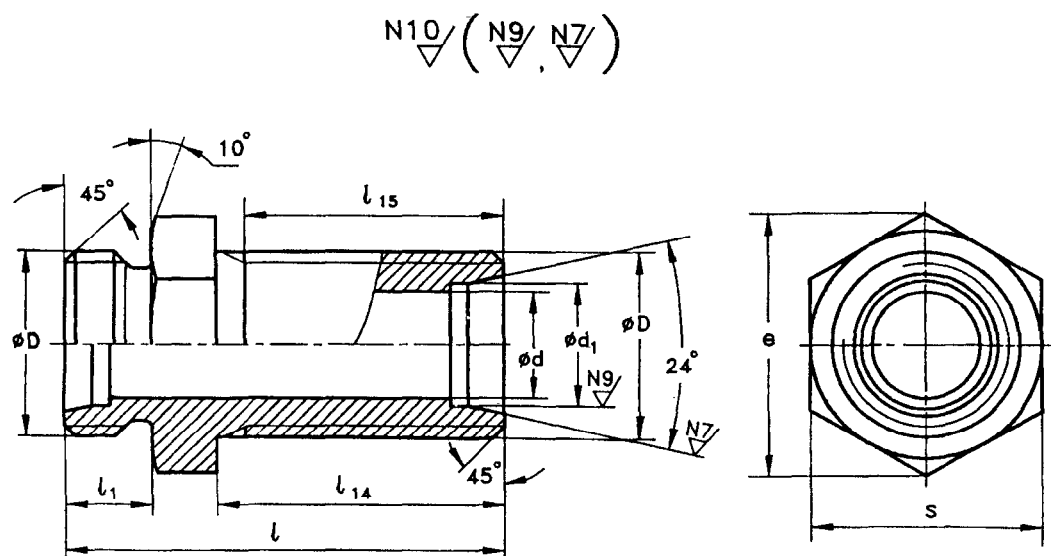
6.2 For details not covered in this standard, reference shall be made to IS 8805 (Part 1) : 1978

7 DESIGNATION

A bulkhead straight body of light series L for outside diameter of tube 6 mm and conforming to this standard shall be designated as:

Bulkhead Straight Body IS 9768 : 1995 L6

Table 1 Dimensions for Bulkhead Straight Coupling Body
(Clause 3)



All dimensions in millimetres.

Series	Outside Dia of Tube	$D^{1)}$	d	d_1 B11	l_1 ± 0.2	$l_{14}^{2)}$ ± 0.2	l_{15} Min	t ± 0.3	$s^{3)}$	e	Working Pressure MN/m ² (bar)
Light L	6	M12 \times 1.5	4	6	10	34	30	48	17	19.60	24.5 (250)
	8	M14 \times 1.5	6	8	10	34	30	49	19	21.90	
	10	M16 \times 1.5	8	10	11	35	31	52	22	25.40	
	12	M18 \times 1.5	10	12	11	36	32	53	24	27.70	
	15	M22 \times 1.5	12	15	12	38	34	57	27	31.20	
	18	M26 \times 1.5	15	18	12	40	36	61	32	36.90	15.7 (160)
	22	M30 \times 2.0	19	22	14	42	37	66	36	41.60	
	28	M36 \times 2.0	24	28	14	43	38	69	41	47.30	9.8 (100)
	35	M45 \times 2.0	30	35	16	47	42	76	50	57.70	
	42	M52 \times 2.0	36	42	16	47	42	77	60	69.30	
Heavy H	6	M14 \times 1.5	4	6	12	36	32	55	19	21.90	39.2 (400)
	8	M16 \times 1.5	5	8	12	36	32	56	22	25.40	
	10	M18 \times 1.5	7	10	12	37	33	59	24	27.70	
	12	M20 \times 1.5	8	12	12	38	34	60	27	31.20	
	14	M22 \times 1.5	10	14	14	40	36	65	30	34.60	
	16	M24 \times 1.5	12	16	14	40	36	65	32	36.90	
	20	M30 \times 2.0	16	20	16	44	39	72	41	47.30	
	25	M36 \times 2.0	20	25	18	47	42	79	46	53.10	25.4 (250)
	30	M42 \times 2.0	25	30	20	51	46	86	50	57.70	
	38	M52 \times 2.0	32	38	22	53	48	91	65	75.00	

¹⁾Threads conforming to IS 4218 (Part 6) : 1978, class 6 g.

²⁾Values given are for 16 mm maximum wall thickness.

³⁾Tolerance on s :

h 13 for s up to 32 mm

h 14 for s above 32 mm

NOTE — Thread runout and undercut shall be as per IS 1369 (Part 1) : 1993/ISO 3508 : 1976 and IS 1369 (Part 2) : 1993. ISO 4755 : 1983.

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Amendments Issued Since Publication

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