#### AMENDMENT NO. 4 TO AIS-037 : 2004 Procedure for Type approval and Establishing Conformity of Production for Safety Critical Components

1.0 Page IV, Introduction

Insert following new paragraph after the paragraph below sub-para (e)

"There were few issues related to the interpretation of clauses as experienced during implementation of Phase 1, Phase 2 and Phase 3 items. Based on the decisions of  $33^{rd}$  AISC meeting the panel has taken up the work related to the revision of AIS-037.

However, the panel felt that there are few clauses in the draft revision of AIS-037 (Rev.1) which can be put up as Amendment 4 to AIS-037 in order to expedite faster and quicker implementation as they merely provide further clarifications and do not affect the existing type approvals."

2.0 Page 1/15, clause 1.1

Add following sub clause 1.1.1 after clause 1.1:

- "1.1.1 This procedure is also applicable for the components used on agricultural Tractors covered as per CMV Rule 124 (4)."
- 3.0 Page 1/15, clause 1.2

Substitute following text for existing text:

- "1.2 This procedure is not applicable to:
- 1.2.1 Components, where the notified standard is one published by Bureau of Indian Standards, which have a valid license to mark "ISI" by the Bureau of Indian Standards and are marked accordingly. Such components, which are licensed to mark 'ISI', are deemed to meet the requirements of Type Approval and CoP prescribed in CMVR, if the said Indian Standard is mandated in CMVR
- 1.2.2 Requirements of components or functions which are to be verified only in installed condition on the vehicle. (e.g. Speed Limiting Function)"
- 4.0 Page no.1/15 and 2/15, clause 2.0

Add following definitions after clause 2.8:

- "2.9 **Applicant** means an organization which applies for approval as per this standard.
- 2.10 **Conformity of production** means the establishment of compliance of component from the production series which has already been type approved, to the provisions of the notified standard.
- 2.11 **"E/e" approved component** means a component which has been certified for compliance to the ECE regulation or EEC directive,
- 2.12 **Imported component** means component which is manufactured outside India but used in vehicle for which this procedure is applicable (1.1), Irrespective of the conditions under which it is imported (CKD/SKD/CBU).

- 2.13 **ISO certified** means an organization (applicant /component manufacturer) whose overall quality management system has been certified for compliance to ISO 9001 or ISO/TS 16949 or equivalent or any other National or international standard.
- 2.14 **Non "E/e" markable component** means a component for which the notified standard has no base ECE regulation or EEC directive.
- 2.15 **Small volume component** means a component (2.1) whose vehicle sets used in a CoP period is less than 500 multiplied by number of years of the applicable CoP period.
- 2.16 **CoP period** means the specified period during which the applicable activities of **11.0** are to be carried out.
- 2.17 **Vehicle Set:** A set for a particular component assembly is defined as the total no. of that component's assemblies required in a complete vehicle as per manufacturer's standards."
- 5.0 Page No. 2/15, clause 3.1

Substitute following text for existing text:

- 3.1 The applicant may be:
- 3.1.1 The component manufacturer, located either in India or outside India or
- 3.1.2 Vehicle manufacturer, located either in India or outside India. "Vehicle importers" shall also be governed by the same provisions as applicable to "vehicle manufacturers".
- 3.1.3 A representative in India, authorized by the component manufacturer to coordinate the activities related to this standard.
- 3.1.4 In case of 3.1.3, authorization from component manufacturer is not required if:
- a) The Indian representative has additional relationship with the component manufacturer in the form of being a licensee or Indian subsidiary/joint venture etc. of the component manufacturer."
- 6.0 Page No. 2/15, clause 3.2

Substitute following text for existing text:

"3.2 The applicant shall be responsible for complying with requirements of TA and CoP of the component as given in Table 1,

The Test Agency shall process the application as per the details specified out in this document After satisfactory completion of all the procedures, shall issue the type approval certificate and the test reports. The procedure for verification of continued compliance is given in 11. The procedure to be followed in the case of imported components for type approval and verification of continued compliance is given in 12.

#### Table 1

	Description of applicant	Responsibility of TA & CoP	
		lies with	
(i)	Component manufacturer	Component manufacturer (1)	
(ii)	Vehicle manufacturer	Vehicle manufacturer(2)	
(iii)	Representative in India	Applicant Representative in	
	(see clause 3.1.3)	India/component manufacturer.	
(1)	At the option of the com- manufacturer may be author responsibility of CoP applicable at vehicle manufacturer.	ponent manufacturer, the vehicle rized by him for undertaking ctivities specified in 11 shall be with	
(2)	At the option of the vehic manufacturer may be author responsibility of CoP.	cle manufacturer, the component rized by him for undertaking	
(3)	If component is an assembly of than one manufacturer, and will notified standard can be done on shall be:	different parts procured from more here verification of compliance to aly on such assembly, the applicant	
	(a) Vehicle manufacturer or		
	(b) The component manufacturer of the whole assembly or		
	(c) Manufacturer of any one of the	components:	
	In case of (c) it is applicant's responsibility to ensure that type approval tests are carried out with applicable permutation/combination of different makes of components.		
	Further in case of (c), carry responsibility. This activity manufacturer as agreed be manufacturer. In such case provide him the necessary vehicle manufacturer and corre	ing out CoP tests is also applicant's may be carried out by the vehicle etween the applicant and vehicle es, the vehicle manufacturer shall records of testing carried out by ctive action taken, if any.	
	(d) Or applicant as described in 3.1	.3 above.	
Note1	otel - In such cases, the sources of manufacturer of the components of assembly other than applicant, has no relevance for TA and CoP.		
Note2	e2- The requirement of (3) is not applicable in case a part of the assembly is covered by a different notified standard (e.g. filament lamp)		

7.0 Page No. 2/15, clause 4.0

,,

Substitute following text for existing text:

"4.0 The applicant shall make an application in the format given in Annex A to the Test Agency, furnishing the following details pertinent to the requirements of the notified standard."

8.0 Page 5/15, clause 6.1

Substitute following text for existing text:

"6.1 In case the component is already in production, representative of the testing agency shall visit the manufacturer's premises to verify compliance to the quality system as per the details furnished by the manufacturer (See Para 4.0).

The scope of the verification of the Quality Management System during the visit shall be limited to documentation verification, provided the manufacturer's facility is ISO certified or having E/e/ISI/TA marking for similar components."

9.0 Page 5/15, new clause 6.4

Add following new clause 6.4 after 6.3:

- 6.4 In the case applicant is a component manufacturer or vehicle manufacturer, if the component is manufactured in more than one plant:
- 6.4.1 The applicant has the following options of the TA for compliance to this standard
  - (a) One approval covering all the manufacturing plants or
  - (b) Different approvals each covering one or more manufacturing plants.
- 6.4.2 Subject to provisions of 6.4.3, in case the TA certificate for compliance to this standard covers more than one plant, the activities specified in 6.1 shall be carried out for all such plants which follow a different QMS for the requirements.
- 6.4.3 The initial system audit shall be carried out for at least one plant, among various plants which follow same QMS for requirements of 4.4, based on the discretion of test agency, mutually agreed by Test Agency and the applicant.

For group of plants covered under one TA certificate, CoP checks shall be carried out for at least one plant, among various plants which follow same QMS for requirements of 4.4, based on the discretion of test agency, mutually agreed by Test Agency and the applicant.

If the results of surveillance check are not satisfactory then consequences mentioned in clause 11.4 shall apply for that particular plant, However actions as per clause 11.5 to 11.8 are applicable for all the plants covered under that Type Approval Certificate.

- 6.4.4 In the case of E/e approved components (2.11), following shall apply:
- 6.4.4.1 Conditions of 4.1, usage of the ECE certificates are applicable only to the plants of manufacture covered in the certificate if the corresponding ECE regulation prescribes inclusion of plant of manufacture in the specified format for Communication Concerning the Approval.
- 6.4.4.2 In case the corresponding ECE regulation does not prescribe inclusion of plant of manufacture in the specified format for Communication Concerning the Approval, the approval is deemed to be valid for all the plants of the holder of ECE type approval (owner of the trade mark or component manufacturer as prescribed in the regulation)."

#### 10.0 Page 7/15, clause 9.2.3

Substitute following text for existing text:

- "9.2.3 The third, fourth, fifth and sixth characters shall be serial number of the type approval certificate allotted by the test agency. These may consist of numbers or may be a combination of alphabets and numbers, as decided by the test agency.
  - **Note** For convenience of operation, on the specific request by the applicant, the test agencies may allot these numbers on receipt of application provided that the applicant provides an undertaking that the same will be used by him only after type approval is established."
- 11.0 Page 7/15, clause 9.4

Substitute following text for existing text:

- "9.4 If the component comprises of more than one part, the marking shall be provided on at least one part. In the case of components, where the marking is made on running length basis (such as on the hoses etc.) the marking shall appear at least once on the finished component."
- 12.0 Page 7/15, clause 9.7

Add following note after existing text:

- "Note On a specific request from the vehicle manufacturer, Test Agency may permit the vehicle manufacturer to use component without TAC marking for a period not exceeding six months."
- 13.0 Page 10/15 ,clause 11.4(b)

Add following text at the end of existing text:

- "11.4(b) If the applicant is not a vehicle manufacturer, the test agency shall forward this information to the vehicle manufacturers listed in the application for TAC and CoP (Annex A and D)."
- 14.0 Page 11/15, new clause 11.10

Add following new clause 11.10 after 11.9:

- "
- 11.10 Document verification

The applicant shall submit Application for CoP as per format given in Annex D to the Test Agency along with the copies of the following documents, as applicable:

- 11.10.1 Documents to be submitted
- 11.10.1.1. Test reports of the CoP tests conducted by the applicant as per the QMS.
- 11.10.2. Above documents shall cover the period starting from the submission of the last application to date of submission of this application.
- 11.10.3 The above shall be submitted at least half the period prescribed [6months] for CoP prior to the end of the applicable CoP period.
- 11.10.4 After satisfactory vetting the above documents, the CoP shall deem to be established.
- 11.10.5 If the results of vetting of the above documents is not satisfactory, for establishing the CoP, procedures prescribed in 11.1 (periodic audit) or Annex B (Tests to be carried out for CoP) shall be followed at applicant's option.

15.0 Page 12/15, new clause 12.4.1.1

Add following new clause 12.4.1.1after 12.4.1:

"12.4.1.1 In the case of multiple plants following the same QMS, for the components type approved as per same notified standard and having same test requirements, the applicant may establish CoP for any one of such component from any one plant. Such a CoP shall be deemed valid for all components & all plants type approved as per the said notified standard and having same test requirements. The component and plant for establishment of CoP shall be based on the discretion of test agency, mutually agreed by Test Agency and the applicant.

e.g.

When the CoP for alloy wheel rim 1 of plant A is established, the same shall be deemed to be valid for all the alloy wheel rims in the matrix as shown below.

Part	Plant A	Plant B	Plant C
Alloy Wheel rim 1 (TAC XX)	$\checkmark$	*	*
Alloy Wheel rim 3 (TAC ZZ)	*	*	*

 $\sqrt{\cdot}$ : CoP established as per provisions of AIS-037.

- \* : CoP deemed to be established based on CoP established for any one Component manufactured in any one of the plants."
- 16.0 Page 13/15, clause 13.1

Substitute following text for existing text:

"13.1 In the case of "E"/ "e" approved components, if the manufacturer submits CoP certificate from the agency who had issued the "E"/ "e" approval and contains at least the information given in 13.2, the test agency, if satisfied after scrutiny of the report, shall not carry out any of the activities prescribed for surveillance checks in clauses 11.0, 12.4 or 12.6.

In such cases, compliance to CoP requirements mentioned in 12.4 shall deemed to be complied with."

17.0 Page 13/15, clause 13.2

Substitute following text for existing text:

- "13.2 Following are the minimum information to be contained in the ECE/EEC CoP report.
  - a) Validity period
  - b) Reference to applicable plant of manufacture
  - c) Reference to ECE regulation/EEC directive

In case the corresponding ECE regulation /EEC directive does not prescribe the validity period or plant of manufacture, the approval is deemed to be valid for the period applicable and all the plants of the holder of ECE type approval (owner of the trade mark or component manufacturer as prescribed in the regulation)." 18.0 Page 13/15, clause 13.3

Substitute following text for existing text:

- "13.3 The test agency may carry out the surveillance check, if test agency finds it is necessary to do so for any other specific reason."
- 19.0 Page 13/15, new clause 15.0

Add following new clause no.15.0 after clause no. 14.0

#### 15.0 EXEMPTIONS FOR SMALL VOLUME COMPONENTS

#### 15.1 **Type Approval**

"

15.1.1 Small volume components are exempted from the procedure prescribed in 5.0, 6.0.

#### 15.2 **Conformity of Production**

15.2.1 Components whose vehicle sets used is less than 500 multiplied by number of years of the applicable CoP period are exempted from requirements of CoP specified in clause 11/12.4 as applicable.

However, applicant shall get CoP exemption certificate for that period.

#### 15.3 Certificate of Exemption

In case of exemption awarded to an applicant in TA or CoP, respective test agency shall issue a certificate (part of TA/CoP certificate) mentioning the provisions followed for awarding a particular exemption."

#### 20.0 Page 15/15, new Annex D

"

Insert following new Annex D after Annex C and renumber existing Annex D as Annex E

Annex D (See 11.4(b)) Format for application of CoP

D-1	DETAILS OF APPLICANT
D-1.1	Name & address
D-1.2	Telephone No
D-1.3	FAX. No.
D-1.4	E mail address
D-1.5	Contact person
D-1.6	Type of applicant: (Component manufacturer/Vehicle manufacturer/ representative
D-1.7	Name and address of component manufacturer, if applicable
D-1.8	Plant/(s)of manufacture and address, if applicable

D-2	DETAILS OF THE COMPONENT (s)
D-2.1	Description
D-2.2	Applicable Notified Standard
D-2.3	Vehicle Manufacturer (s) for whom the component is intended
D-2.4	Applicable TAC numbers
D-3	CoP Period (in the case of first CoP, Detail as per 11.1.1).
D-4	Copies of document as per 11.10.1 as applicable

#### 21.0 Annex B

,,

21.1 Sr. No. 3 of Table

In column 2 substitute words "Horn L, M, N and Agricultural Tractor" for "Horn".

21.2 Sr. No. 7 of Table

In column 2 substitute words "Bulb L, M, N and Agricultural Tractor" for "Bulb".

21.3 Sr. No. 13 of Table

In column 2 substitute words "Retro-Reflector L, M, N and Agricultural Tractor" for "retro reflector"

#### 21.4 Sr.No. 18 of Table

In column 3 "Applicable standard" add AIS-104 (For agricultural Tractors only)

In Column 4 "CoP tests" substitute following text for existing text

For Metallic Tank

- i. Leakage Test as per clause 4.1.1.
- ii. Pressure Test as per clause 4.1.3.

#### For Non Metallic Tank

- i. Overturn Test as per clause 4.2.1
- ii. Mechanical Strength as per clause 4.2.2
- iii. Resistance to High Temperature Test as per clause 4.2.3

#### 22.0 Annex B

Add following Sr. No. 20 after Sr. No. 19

Sl. No	Component	Applicable standard	CoP Tests	CoP Frequency
20	Rear Warning Triangles	AIS-088/2005	<ul><li>i. Photometry</li><li>ii. Colorometric</li><li>iii. Resistance to penetration of water</li></ul>	2 years

#### PRINTED BY THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 412 004 ON BEHALF OF

#### AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

UNDER CENTRAL MOTOR VEHICLE RULES - TECHNICAL STANDING COMMITTEE

> SET-UP BY MINISTRY OF ROAD TRANSPORT & HIGHWAYS (DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS) GOVERNMENT OF INDIA

> > December 2011

# AMENDMENT NO. 3 : 2010 TO AIS-037 : 2004 Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components

1. Page No. IV, Introduction:

Insert following new para after sub-para (e):

There were some issues of interpretation and lack of clarity, experienced during implementation of Phase 1 and Phase 2 items of AIS-037. As all the issues that have cropped up, cannot be addressed through an amendment, AISC in its 33<sup>rd</sup> meeting, has decided to take up a revision of AIS-037 to update it to the current situation.

However, it was decided in the 33<sup>rd</sup> meeting of AISC that, it is necessary to provide clarification for continuing TA and COP of urgent nature, which do not change the basic procedure prescribed in the current version. This amendment is to take care of such issues.

The amendment was approved in the  $34^{th}$  meeting of AISC and adopted in  $31^{st}$  CMVR-TSC.

2. Page 1/15, cl. 1.1:

Substitute following text for existing text:

This procedure is applicable to approval of all safety critical components notified for mandatory implementation as per Rule 124(4) of the Central Motor Vehicles Rules 1989 (CMVR). This also covers the procedure for such components, which are imported, (including those used in Completely Built Units (CBU), which are not exempted from requirements of Rule 126 of CMVR by Department of Foreign Trade).

3. Page 3/ 15, cl. 4.7.1:

Substitute following text for existing text:

4.7.1 Whether yearly planned production is less than 500 numbers or more.

4. Page 4/ 15, cl. 4.9:

Substitute following text for existing text:

4.9 The proposed location of affixing the marks as detailed in 9 or 12.6 as applicable.

- 5. Page 4/15, Add new cl. 4.13 after 4.12:
  - 4.13 Type approval for hinge assembly and locks will be granted only to the vehicle manufacturers or component manufacturers who manufacture the whole assembly (hinge or lock as the case may be).
- 6. Page 5/15, Insert new cl. 6.3 after 6.2:
  - 6.3 In the case of "E"/ "e" approved components, the test agency need not carry out pre-test inspection, if along with the documents referred in **7.4**, system audit report (commonly known as  $1^{st}$  COP report) by the agency who awarded the "E"/"e" approval, is submitted and found to be in order after scrutiny.

The test agency may carry out the pre-test inspection, if test agency feels it is necessary to do so for any other specific reason.

7. Page 7/15, cl. 9.5:

Substitute "---- 'E'/'e' approved -----' for "---- 'E'/'e' marked -----".

- 8. Page 7/15, Add new clauses 9.6 and 9.7 after cl. 9.5:
  - 9.6 Marking on Fuel Tanks.
  - 9.6.1 Metallic fuel tanks are exempted from marking requirements of this standard.
  - 9.6.2 Non-metallic fuel tanks of categories L vehicles shall have approval marking as per this standard. However, in case of M and N category vehicles, only the trade name or trade mark of the tank manufacturer shall be deemed to meet the requirements of this standard.

Note :

Requirement of **9.6.** are applicable for category A vehicles when they come under the scope of AIS-037.

9.7 Marking on Door Locks and Hinges Door lock and hinges are exempted from marking requirements of this standard. 9. Page 9/15, cl.11.1:

Substitute the following text for the existing text:

11.1 The manufacturer shall take all appropriate steps to ensure that the components continue to comply with the requirements of the notified standard.

At an interval specified in the notified standard, or earlier if felt necessary, the testing agency, which has carried out the checks to verify compliance to the specified quality systems, shall carry out a surveillance check to verify compliance to the specified quality system and test randomly selected samples/ documentation/ reports, if necessary. In such cases the tests to be carried out shall be as specified in notified standards. In case the notified standard does not specify the tests to be carried out, details given in Annex B shall be followed. TAC will be continued in case of satisfactory results emerging out of surveillance.

In case the notified standard does not specify the interval, the surveillance check shall be carried out once during the COP period specified in Annex B.

Note : The details in Annex B cover only those standards notified in Rule No. 124(4) till the date of this amendment.

10. Page 9/15, insert new clause 11.1.1 after cl.11.1:

11.1.1 COP periods

- 11.1.1.1 For the purpose of carrying out the surveillance checks, the first COP period shall start from:
  - (a) For components already in production/being imported before notified date of implementation of AIS-037 for that component:

All: Date of implementation of AIS-037 for that component.

(b) For components whose production/import starts after the notified date of implementation of AIS-037 for that component:

i) Domestic components:	Date of commercial production of the component
ii) Imported components for which TA is granted to an Indian Agent or a foreign component manufacturer:	Date of import of components to India
iii) Imported components for which TA is granted to a vehicle manufacturer:	Date of commercial production of the vehicle model using that component

The applicant shall inform the test agency, the above dates within six months of beginning of production or import as applicable.

- 11.1.1.2 The first COP period shall end on the respective 31<sup>st</sup> March/ 30th September after the specified COP frequency.
- 11.1.1.3 Subsequent COP periods will be as per the COP frequency specified.
- 11.1.1.4 Pictorial illustration is given in **Annex C**
- 11.1.1.5 In case, COP activities have been completed prior to the issue of this amendment, the validity period of the COP shall be extended automatically.

In case the Type Approval certificates have been issued containing such validity period, these shall automatically get extended as above.

11. Page 11/15, clause 11.9:

Substitute following text for the existing text:

# **11.9 Exemptions from Surveillance Checks**

In the case of number of components manufactured/imported including CBU/CKD, are less than that corresponding to 500 vehicle sets in any consecutive period of one year, then that component is exempted from the surveillance checks subject to at least one other component of similar type manufactured by the manufacturer is subjected to such checks as applicable. COP period shall be as specified in Annex B.

In case the number of each of components manufactured/imported including CBU/CKD is less than that corresponding to 500 vehicle sets in any consecutive one year, then any one component of similar type shall be subjected to surveillance checks. The component on which surveillance checks are to be carried out shall be as decided mutually between the test agency and the manufacturer. COP period shall be as specified in Annex B.

- 12. Page 11/15, insert new clause 12.1.1 after cl. 12.1:
  - 12.1.1 In case a foreign component manufacturer applies for type approval for a component, the procedure followed shall be same as those prescribed in clauses **4**, **5**, **6**, **7** and **8**.

In such cases the responsibility for type approval and COP shall be those of the foreign component manufacturer.

Marking requirements shall be as per clause 12.6.

- 13. Page 12/15, insert new clause 12.2.2 after cl. 12.2.1:
  - 12.2.2 For verification of compliance of requirements of **12.2.1**, clauses **4.4** to **4.8**, **5.0** and **6.0** are not applicable.
- 14. Page 12/15, cl. 12.4.2: Substitute following text for the existing text:
  - 12.4.2 The random selection shall be done from a lot of components which comprises at least ten times needed for tests. For components used in CBU / CKD models which are not having 'E/e' approval, samples for COP may be random selected from the plant where the component for CBU/CKD model is manufactured or from the premises of component manufacturer, by the foreign CBU / CKD manufacturer.
- 15. Page 13/15, cl. 12.6:

Add following Note at the end of the existing text:

Note : In the case of components which do not have "E"/ "e" marking, for compliance to clause 12.6, no marking to identify the type of component is required, unless it is prescribed in the notified standard for that component.

16. Page 13/15, Insert new clause 13.0 as follows and renumber existing cl 13.0 as cl 14.0

# **13.0** COP Procedure for "E"/"e" approved components:

13.1 In the case of "E"/ "e" approved components, if the manufacturer submits a COP certificate from the agency who had issued the "E"/ "e" approval and contains at least the information given in **13.2**, the test agency, if satisfied after scrutiny of the report, need not carry out any of the activities prescribed for surveillance checks in clauses **11.0**, **12.4** or **12.6**.

In such cases, compliance to COP requirements mentioned in **12.4** are deemed to be complied with.

- 13.2 Following are the minimum information to be contained in the ECE/EEC COP report.
  - Linkage to ECE type approval No.
  - Validity period.
  - Reference to applicable plant of manufacture.
  - Reference to ECE regulation.
- 13.3 The test agency may carry out the surveillance check, if test agency feels it is necessary to do so for any other specific reason.

- 13.4 In case such reports (see **13.1**) are not available or not submitted. the COP procedure prescribed in **11.0** or **12.4**, as applicable, shall be followed.
- 17. Page 14/15, Annex A, clause A3.4:Substitute following text for the existing text:

A3.4 Production Plan in Numbers less than or more than 500.

18. Page 15/15, Insert Annex B and Annex C after Annex A as follows and renumber existing Annex B as Annex D

# Annex B

# (See 11.1) LIST OF COP TESTS AND COP FREQUENCY FOR SAFETY COMPONENTS SPECIFIED IN CMV RULE 124(4)

Sl. No	Component	Applicable	COP Tests	СОР
		standard		Frequency
1	Safety Glass	IS : 2553 (Part 2) -	Toughened glass:	2 years
		1992	i. Fragmentation test	
			ii. Light transmission test	
			Laminated glass:	
			<ul> <li>i. Light transmission test</li> <li>ii. Penetration resistance test 2260 gm</li> <li>iii. Head form test without deceleration measurement</li> <li>iv. Boil test. (Resistance to high temp)</li> <li>v. Secondary image separation test</li> <li>vi. Optical distortion test</li> </ul>	
2	Brake hose	IS : 7079 - 1995	<ul> <li>i. Visual examination test</li> <li>ii. Lining and Cover thickness</li> <li>iii. Constriction test</li> <li>iv. Expansion</li> <li>v. Pressure</li> <li>vi. Bursting strength</li> <li>vii. Whip test</li> <li>viii. Tensile</li> <li>ix. Water Absorption test</li> <li>A) Whip</li> <li>B) Tensile</li> <li>C) Expansion</li> <li>D) Burst</li> <li>x. Brake fluid compatibility test.</li> </ul>	2 years
3	Horn	IS : 1884 - 1993	<ul> <li>i. Visual examination and dimensional check.</li> <li>ii. Current draw test.</li> <li>iii. High voltage test.</li> <li>iv. Operating voltage range test.</li> <li>v. Sound pressure level test.</li> <li>vi. Insulation resistance (humid) test.</li> </ul>	2 years
4	Tyres	IS : 15627 -2005	As per Clause 7 and Table 21 of IS : 15627 -2005	2 Years
		IS : 15633 - 2005	As per clause 7 and Table 20 of IS : 15633 – 2005	
		IS : 15636 - 2005	As per clause 7 and Table 20 of IS : 15636 – 2005	

Sl. No	Component	Applicable	COP Tests	СОР
		standard	· · · · · · · · · · · · · · · · · · ·	Frequency
5	CNG regulator	1SO 15500-9: 2001(E)	<ol> <li>Hydrostatic strength test.</li> <li>Leakage test</li> <li>Corrosion resistance</li> <li>Over voltage test</li> <li>Oxygen aging</li> <li>Non-metallic synthetic immersion</li> <li>Brass material compatibility</li> </ol>	2 years
6	LPG Vaporiser /Regulator	ECE R 67 (Rev.1)	<ul> <li>i. Over pressure test</li> <li>ii. Temperature cyclic test</li> <li>iii. Creep test</li> <li>iv. Corrosion resistance</li> <li>v. Ozone aging</li> <li>vi. Resistance to dry heat (Dry heat resistance test )</li> <li>vii. n-pentane immersion</li> </ul>	1 year
7	Bulb	AIS-034 / 2004	For Filament Lamps :	2 years
			<ul> <li>i. Marking</li> <li>ii. Bulb quality (See clause 5.1.3 of AIS-034)</li> <li>iii. Colour of the bulb</li> <li>iv. External lamp dimensions (excluding cap/base)</li> <li>v. Dimensions of caps and bases (See clause 4 of AIS 034)</li> <li>vi. Dimensions related to internal elements (See clause G 3.3 of AIS-034)</li> <li>vii. Initial readings, watts and lumens (See clause G 3.3 of AIS-034)</li> <li>For Gas Discharge Light Sources:</li> <li>i. Dimensional test (External Lamp dimensions) Position and Dimensions of arc and stripes</li> <li>ii. Staring, run-up and hot-restrike characteristics for gas discharge lamps</li> <li>iii. <u>Bulb quality</u>(See clause 5.1.3 of AIS 034)</li> <li>iv. <u>Marking,</u> (See clause 4 of AIS 034)</li> <li>v. Initial electrical and luminous</li> </ul>	
			requirements (Lamp voltage and wattage, Luminous flux, colour and UV-radiation)	

Sl. No	Component	Applicable	COP Tests	СОР
8	Rear view mirror	AIS- 001 / 2001	As per clause 13 of AIS-001 / 2001.	2 years
9	Speed limiting devices	AIS-018 / 2001	<ul> <li>Performance tests on the device as fitted on the vehicle (Cl. No. 5.7 of AIS:018):</li> <li>i. Acceleration test</li> <li>ii. Steady speed test.</li> <li>The test may be carried out on the SLD by simulating the necessary condition.</li> </ul>	2 years
10	Safety belt	IS : 15140 - 2003	As per Table 1 of IS : 15140 - 2003.	1 year
11	Wheel rims for M & N category	IS : 9436 - 1980 IS : 9438 - 1980	i. Dynamic Cornering Fatigue Test	2 years
12	Lighting and light signalling devices for M & N category	AIS -012 / 2004	<ul> <li>i. Photometry</li> <li>ii. Colorimetry</li> <li>iii. Tests for Stability of Photometric Performance of Headlamps in operation.</li> </ul>	2 years
13	Retro-reflectors	AIS-057 / 2005	<ul><li>i. Photometry</li><li>ii. Colorimetry</li><li>iii. Resistance to penetration of water</li></ul>	2 years
14	Warning triangle	AIS- 022 / 2001	<ul><li>i. Photometry</li><li>ii. Colorimetry</li><li>iii. Resistance to penetration of water</li></ul>	2 years
15	Lighting and light signalling devices for L category	AIS-010 / 2004	<ul> <li>i. Photometry</li> <li>ii. Colorimetry</li> <li>iii. Tests for Stability of Photometric Performance of Headlamps in operation</li> </ul>	2 years
16	Lighting and Signalling devices for Agricultural Tractors and Constructional Equipment Vehicles	AIS-62 / 2004	<ul> <li>i. Photometry</li> <li>ii. Colorimetry</li> <li>iii. Tests for Stability of Photometric Performance of Headlamps in operation.</li> </ul>	2 years
17	Door locks and Door retention components	IS : 14225 - 1995	<ul><li>i. Longitudinal load</li><li>ii. Transverse load test.</li></ul>	2 years

Sl. No	Component	Applicable standard	COP Tests	COP Frequency
18	Fuel tanks	IS :14681- 1999 IS : 12056 -1987 AIS-033/ 2001	<ul> <li>For Metallic Fuel Tank <ol> <li>Leakage test</li> <li>Pressure test</li> </ol> </li> <li>For Plastic Fuel Tank <ol> <li>Leakage test</li> <li>Pressure test</li> <li>Shock test</li> <li>Mechanical strength test</li> <li>High temperature test</li> </ol> </li> </ul>	2 years
19	Reflective tapes	AIS-090 / 2005	As per clauses 10.2 and 10.3 of AIS-090 / 2005	2 years

# Annex C (See 11.1.1.4) ILLUSTRATIVE EXAMPLE FOR COP PERIOD





Notes:	1.	Type (a) means components described in 11.1.1.1(a).
	2.	Type (b) means components described in 11.1.1.1(b).
	3.	Illustrative example is for a component for which COP frequency is for "One" year. Same logic apply for
		different COP frequencies.

PRINTED BY THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 411 004 ON BEHALF OF AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE UNDER CENTRAL MOTOR VEHICLE RULES – TECHNICAL STANDING COMMITTEE SET-UP BY

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)

GOVERNMENT OF INDIA

March 2010

# AMENDMENT NO. 2 TO AIS-037

# Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components

1. Page 6/15, cl. 9.2.1, Table, Alphabet assigned to test agencies: Add following row at end of table.

International Centre for Automotive Technology (ICAT)	С

2. Page 7/ 15, cl. 9.2.2,

Substitute following table for existing table:

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Character	1	2	3	4	5	6	7	8	9	Α	В	С
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Character	D	Е	F	G	Н	J	Κ	L	М	Ν	Р	R
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	A	nd so o	on.
Character	S	Т	V	W	Х	Y	1	2	3			

# PRINTED BY

# THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 411 004

#### ON BEHALF OF

#### AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

#### UNDER

#### CENTRAL MOTOR VEHICLE RULES – TECHNICAL STANDING COMMITTEE

#### SET-UP BY

# MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS

#### (DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)

# GOVERNMENT OF INDIA

# April 2009

# AMENDMENT NO. 1 TO AIS - 037 Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components

1.0 Page No. IV, Introduction:

Insert following new sub-para (e) after sub-para (d)

"In the special meeting held under the chairmanship of the Chairman, CMVR-TSC, on 21<sup>st</sup> May 2005, for discussing the implementation of this standard, it was felt that the manufacturers should have the option of following either the TA/COP as per this standard or opting for ISI marking in case the notified standard is a Indian Standard. This amendment is issued to give effect to this decision."

- 2.0 Page No. 2/15, clause 3.3, Application for ISI Marking: Delete entire clause 3.3.
- 3.0 Page No. 9/15, clause11.3: Delete sub-clause a) Renumber sub-clauses "11.3 b) and c)" as "11.3 a) and b)"
- 4.0 Page No.10/15, clause 11.4 c) and d): Delete entire sub-clauses 11.4c ) and d)
- 5.0 Page No.10/15, clause 11.5, second line:

Substitute "in para. 11.4 b)" for "in para. 11.4 b) to d)"

# PRINTED BY THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P.B. NO. 832, PUNE 412 004

# ON BEHALF OF AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

#### UNDER

CENTRAL MOTOR VEHICLE RULES - TECHNICAL STANDING COMMITTEE

#### SET-UP BY

# MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS (DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS) GOVERNMENT OF INDIA

July 2005

# **AIS-037**

# AUTOMOTIVE INDUSTRY STANDARD

# Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components

PRINTED BY:

THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA P. B. NO. 832. PUNE 411 004

ON BEHALF OF: AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

UNDER CENTRAL MOTOR VEHICLE RULES - TECHNICAL STANDING COMMITTEE

> SET-UP BY MINISTRY OF ROAD TRANSPORT & HIGHWAYS GOVERNMENT OF INDIA

> > July 2004

# AIS-037

Status	chart	of	the Standard	to	be	used	by	the	purchaser
			for updating	g th	e r	ecord			

Sr. No.	Corr- igenda.	Amend- ment	Revision	Date	Remark	Misc.

**General Remarks:** 

#### Introduction

The Government of India felt the need for a permanent agency to expedite the publication of standards and development of test facilities in parallel when the work on the preparation of the standards is going on, as the development of improved safety critical parts can be undertaken only after the publication of the standard and commissioning of test facilities. To this end, the Ministry of Surface Transport (MOST) has constituted a permanent Automotive Industry Standard Committee (AISC) vide order No.RT-11028/11/97-MVL dated September 15, 1997. The standards prepared by AISC will be approved by the permanent CMVR Technical Standing Committee (CTSC). After approval, the Automotive Research Association of India, (ARAI), Pune, being the secretariat of the AIS Committee, has published this standard. For better dissemination of this information ARAI may publish this document on their Web site.

The CMVR stipulates requirements that various safety critical components shall comply with notified standards to ensure the safe functioning of automotive vehicles. As per the present provisions in CMVR, this is ensured at the time of certification of a model by the Test Agencies followed by a self-certification by the vehicle manufacturers on an on-going basis. However, a need is felt to bring in a better control on this important issue. There is also a need to bring about a control on the use of such safety critical components made available in the aftermarket also, which the CMVR does not address at present. It is necessary, therefore, to have a marking scheme for safety critical components specified in CMVR.

Accordingly, in the Part 1 of the report of the CMVR Technical Sub-Committee constituted by MoRT&H, a proposal was made that all Safety related components covered in CMVR would be required to have a mandatory ISI marking and it was further recommended that the manufacturers of such components should obtain the marking within two years of the Type Approval of the component.

Further, standards for additional components would be notified by MoRT&H from time to time, based on the recommendations of the CMVR Technical Standing Committee.

The Sub-Committee found that several issues need to be addressed before the system can become effective. The important issues are elaborated below:

The marking scheme currently in practice by the BIS is applicable only to the Indian Standards published by BIS, and hence cannot be used for verification of compliance to safety standards which are not issued by Bureau of Indian Standards already notified by CMVR. As per present scheme, the ISI marking to component is awarded only after it is in regular production. In case of the automotive industry, there are likely to be many cases where new components under development require approval for compliance with CMVR

It was realized that, it may take more than two years for the BIS to award the marking to all such manufacturers of safety critical components.

Hence the committee felt that an independent system of for Type approval (TA) and establishing the Conformity of Production (COP) marking of safety critical components through the powers given by Rule 124 of CMVR.

While preparing this procedure due consideration has been given to take care of various type of manufacturers seeking type approval, who generally belong to following categories.

- (a) Established manufacturers with a quality system certified to ISO 9000 series in part or in full. This may include collaborations.
- (b) Established manufacturers with no ISO 9000 series system some products may be approved for ISI mark.
- (c) Established manufacturers not yet having a quality system certified to ISO 9000 series or may not have any products approved for ISI mark.
- (d) New manufacturers with only prototype making facility.

The Automotive Industry Standards Committee (AISC) responsible for preparation of this standard is given in Annex :B.

Note: Following abbreviations are used in this standard :

BIS	: Bureau of Indian Standards
CMVR-TSC	: Central Motor Vehicles Rules – Technical Standing Committee
COP	: Conformity of Production
'E' or 'e' Mark	: Mark to indicate approval for compliance to ECE regulation or EEC Directive by the appropriate agency
'ISI' Mark	: Mark to indicate license issued by BIS for compliance to a BI Standard
MoRT&H	: Ministry of Road Transport and Highways
TA	:Type Approval
TAC	: Type Approval Certificate

# Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components

# 1.0 SCOPE

- **1.1** This procedure is applicable to approval of all Safety critical components notified for mandatory implementation as per Rule 124(3) of the Central Motor Vehicles Rules 1989. (CMVR). This also covers the procedure for such components, which are imported.
- **1.2** This procedure is not applicable to those safety critical components, which have a valid license to mark "ISI" by the Bureau of Indian Standards and are marked accordingly. Such components, which are licensed to mark 'ISI', are deemed to meet the requirements of Type Approval and COP prescribed in CMVR, if the said Indian Standard mandated in CMVR

#### 2.0 **DEFINITIONS**

For the purpose of this document, the following definitions shall apply.

- **2.1 Component** means a part, component or assembly to be used in manufacture of a motor vehicle, for which compliance to a standard has been notified in CMVR.
- **2.2 Definition of 'Type'**: Components, separate technical units or assemblies of different 'Type' means components, or assemblies which differ in such essential respects as trade name or mark and other technical details (requirements) as given in individual standard.
- **2.3 Notified Standard** means a standard, referred to in CMVR or notified separately under the provisions of CMVR, which specifies details of requirements to be complied with. This may be in the form of
  - a) An Indian Standard issued by BIS
  - b) A Safety Standard prepared by the erstwhile Safety committee and issued by ARAI
  - c) A standard prepared by the AISC.
  - d) Any other standard notified by MoRT&H.
- **2.4** Alternate Standard means an international/foreign national standard has been approved for use in lieu of a notified standard, by the Government of India as per Rule 92(3) of CMVR.
- **2.5 Test Agency** is an organization specified in CMVR for certification of compliance to the standards.
- **2.6** Accredited Foreign Test Agency means a test agency accredited by the country of origin of the Alternate Standard, for certification of compliance to the alternate standard, as detailed in Rule 92(3) of CMVR.

- 2.7 Manufacturer, unless otherwise specified, means the component manufacturer.
- **2.8** Indian agent means, the one who imports the component(s) and takes the responsibility of TA and COP

#### **3.0 SYSTEM FOR TYPE APPROVAL AND COP**

**3.1** The component manufacturer shall make the application for type approval to a Test Agency (**2.5**) of his choice. The Test Agency shall process the application as per the details specified out in this document After satisfactory completion of all the procedures, shall issue the type approval certificate and the test reports.

The procedure for verification of continued compliance is given in **11**. The procedure to be followed in the case of imported components for type approval and verification of continued compliance is given in **12**.

#### 3.2 **Co-Ordination between Test Agencies**

Coordination between the test agencies shall be carried out through committee comprising of representatives of all test agencies. ARAI shall be the coordinator for this committee.

The committee shall be having periodic co-ordination and review meetings at mutually agreed schedule to discuss and exchange information on application, initial appraisal, registration, test results, final evaluation, covering type approval procedure as well as periodic verification done at manufacturer's end.

During all these stages the testing agency shall be in communication with co-ordination committee.

## 3.3 Application for ISI Marking

In the case the notified standard is an Indian Standard issued by BIS, the manufacturer shall apply to BIS for awarding the ISI mark to them, within six months of the type approval certificate being issued to them.

#### 4.0 APPLICATION FOR TYPE APPROVAL

The manufacturer shall make an application in the format given in Annex A to the Test Agency, furnishing the following details pertinent to the requirements of the notified standard.

#### 4.1 Description of Product

Technical description with exact nomenclature of the component with relevant standard Number (revision in force at the time) against which the component shall be evaluated.

#### 4.2 Applicability to Vehicle Models

(a) List of vehicle manufacturers, if any, to whom these components are proposed to be supplied or type of vehicles/ models for whom these components are proposed to be suitable for replacement.

- (b) In case, the standard prescribes safety-related features for the component, which can be verified only with respect to the features of the vehicle model, (such as mounting, orientation of the component etc.) these components shall be described in relation to matching vehicle parts along-with illustrative sketches/ photographs.
- (c) Details of vehicle model, if applicable.

#### 4.3 Specification:

Details of specifications of components with relevant drawings, in triplicate. Drawings shall be sufficiently detailed to permit identification of the type and relevant details as specified in the notified standard.

Note :

In case the specified standard does not cover such details, the specifications submitted shall cover all relevant details required for the test requirements.

The drawings shall show the position provided for approval mark and trade name of the manufacturer. Specific sections/views of the product shall be included as given in relevant standard. Details of mounting/orientation of the component required for verifying its compliance as per the standard shall also be submitted.

#### 4.4 Process

Details of manufacturing process and facilities. (A flow chart showing raw material, subpart entry, inspection, assembly and final checkpoints. A typical flow chart is given in Flow Chart:1).

#### 4.5 Details of Certification Process and Facilities

Details of certification for compliance to ISO 9000 series, if plant is so certified. Otherwise, manufacturer's Quality Management System including any certification by other nationally or internationally recognised certifying agencies.

#### 4.6 Testing Facilities

Details of planned and existing inspection and testing facilities for incoming material; in process and final product with Calibration certificates/proof, if any. Particular attention to facilities required for Safety related properties specified in relevant standard.

#### 4.7 Production Plan in Numbers

- **4.7.1** Details of the daily / monthly production rate.
- **4.7.2** Expected time of commencement of production, in case not in production already.



- **4.8** Details of similar components certified by ISI/E/e/ marks, or have undergone type approval/COP as per this procedure, if any.
- **4.9** The proposed location of affixing the marks as detailed in **9**.
- **4.10** Details of application made by him, if any, to any other Test Agency for approval of similar components.
- **4.11** In case, TAC has been refused by another test agency for the same component, the details for the same.
- **4.12** The manufacturer shall not make application to any other Test Agency for the same component, when an application for the same is being processed with a Test Agency.

#### 5.0 INITIAL DOCUMENTARY APPRAISAL

Based on the documents submitted the testing agency shall appraise the adequacy of the system and procedures for ensuring compliance of the components manufactured to the requirements of the standard.

The testing agency shall verify existence of satisfactory arrangements for ensuring effective checks on Conformity of Production.

# 6.0 **PRE-TEST INSPECTION**

6.1 In case the component is already in production, representative of the testing agency shall visit the manufacturer's premises to verify compliance to the quality system as per the details furnished by the manufacturer (See Para 4.0).

The scope of the verification of the Quality Management System during the visit shall be limited to documentation verification, provided the manufacturer's facility is having a valid Quality Management System (QMS) certified for compliance to ISO 9000 or equivalent/better standard as decided by co-ordination committee or having E/e/ISI/TA marking for similar components.

- **6.2** In case the component is not in regular production, the representative of the test agency may visit the manufacturer's premises for carrying out pretest inspection.
- **Note:** The inspection as per Para **6.1** shall, in any case, be conducted after the manufacturer has successfully made the prototypes, which have complied with testing requirements, and has established the production facilities.

# 7.0 TEST FOR TYPE APPROVAL

- 7.1 The tests shall be carried out on samples submitted by the manufacturer.
- **7.2** The number of samples needed shall be as per the requirements of the standard for which the compliance is being verified.
- **7.3** Testing agency shall carry out all the tests prescribed in the notified standard using test facilities at the test agency.

If the notified standard prescribes different performance levels for Type Approval and COP, the test samples submitted by the manufacture shall comply with requirements prescribed for type approval.

7.4 In case the component has been certified for compliance to EEC directive or an ECE Regulation ('e' or 'E' mark), the manufacturer shall submit copies of certificates and test reports for 'E'/'e' marking to the testing agency. The test agency, after vetting these reports, if found satisfactory, shall not carry out the

tests for parameters where the testing procedure and the norms are common between EEC directive/ECE regulation and the notified standard.

This condition is applicable only if the production of components for domestic use, is done using the production facilities based on which certificate of compliance to EEC directive or an ECE Regulation ('e' or 'E' mark) have been awarded, and which are used for export.

#### 8.0 AWARD OF TYPE APPROVAL CERTIFICATE (TAC)

- **8.1** After satisfactory completion of both the pretest inspection (Para **6.0**) and tests (Para **7.0**) the Type Approval Certificate and the test reports shall be issued by the Test Agency.
- **8.2** In case, the standard prescribes safety related features for the component, which can be verified only with respect to the features of the vehicle model, the TAC shall be applicable only for components to be used on those vehicle models, for which, tests carried out are applicable.

The details of the models applicable and the technical constraints thereof (such as the orientation of component used for evaluating the performance of the component etc, shall be indicated in the type approval certificate. In such cases, use on any other vehicle model, the details of which are outside such technical constraints would need an extension of approval.

**8.3** In case the type approval is refused by the Test Agency, the Test Agency shall communicate the same to the manufacturer and coordination committee giving the reasons thereof.

#### 9.0 MARKING ON THE TYPE APPROVED COMPONENTS

- 9.1 Each of the component manufactured shall be marked with the following:
  - a) The trade mark/manufacturer's emblem.
  - **b**) The identification code for the component, assigned by the manufacturer
  - c) The reference of the type approval as detailed in Para 9.2
  - **d**) In addition, all the markings as mandated in the component standard shall also be marked.
- **9.2** The reference number of the type approval shall be indicated by a mark having six characters as follows:
- **9.2.1** The first character indicating the test agency who had issued the type approval.

Test Agency	Allotted Alphabet
Vehicle Research and Development Establishment (VRDE)	V
The Automotive Research Association of India (ARAI)	А
Central Machinery Testing and Training Institute (CMTTI)	Т
Indian Institute of Petroleum (IIP)	Р
Central Institute of Road Transport (CIRT)	R

The following are the letters assigned to the test agencies.

As and when a new test agency is approved by the Ministry of Road Transport and Highways, ARAI will allot the alphabet code for that new agency.

**9.2.2** The second character indicating the calendar year of the issue of the type approval. The calendar year and the character to be used are given below:

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Character	1	2	3	4	5	6	7	8	9	А	В	С
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Character	D	Е	F	G	Н	J	K	L	Μ	Ν	Р	R
Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	A	nd so o	on.
Character	S	Т	W	Х	Y	1	2	3	4			

**Note:** The above is taken from ISO 3779-1977 'Road vehicles- Vehicle identification number (VIN)-Content and structure'.

- **9.2.3** The third, fourth, fifth and sixth characters shall be serial number of the type approval certificate allotted by the test agency. These may consist of numbers or may be a combination of alphabets and numbers, as decided by the test agency.
- **9.2.4** As an illustration, the marking 'A10864' stands for the type approval certificate No. 0864 issued in the year 2001 by ARAI.
- **9.3** The location of the above markings shall be at the discretion of the manufacturer. (See also 4.9)
- **9.4** If the component comprises of more than one part, the marking shall be provided on at least one part. In the case of components, where the marking is made on running length basis (such as on the hoses etc.) the marking shall appear at least once on the finished component. On externally visible component in the installed condition, the marking shall be preferably at the location which is visible.
- 9.5 Components which are 'E'/ 'e' marked, as per the details given in para7.4, need to carry only the appropriate markings as are mandated by the corresponding ECE regulation/EEC directive.

#### 10.0 EXTENSION OF APPROVAL

# 10.1 Changes in the Technical Specifications of the Component Already Type Approved

**10.1.1** Every modification pertaining to the information, even if the changes are not technical in nature declared in accordance with Para 4 shall be intimated by the manufacturer to the test agency.

If the changes are in parameters not related to the technical provisions, no further action need be taken. If the changes are in parameters related to the technical provisions, the Testing Agency, which has issued the certificate of compliance, may then consider, whether,

- a) the component with the changed specifications still complies with provisions; or,
- **b**) any further verification is required to establish compliance.
- **10.1.2** For considering whether testing is required or not, guidelines given in the individual standard shall be used.
- **10.1.3** In case of **10.1.1 b**), tests for only those parameters, which are affected by the modifications, need be carried out.
- 10.1.4 In case of fulfillment of criterion of para 10.1.1a) or after results of further verification as per para of 10.1.1 b) are successful, the approval of compliance shall be extended for the changes carried out.

#### **10.2.** Changes in the Provisions

For every subsequent amendment/revision of the notified standard, the manufacturer shall get the Certificate of Compliance extended from the Testing Agencies. The procedure of establishing compliance shall be as per Para **7.0** 

- **10.2.1** In case testing is required for establishing compliance,
  - a) tests need be carried out only for those parameters, which are required to establish compliance to the new/changed provisions and those which are interrelated. If, for the purpose of complying with the new provisions, changes are made in the Technical Specifications of the component, the additional verifications shall be as per Para 10.1.2 and 10.1.3.
  - **b**) If requirements of new/changed provisions were already satisfied in the previous Type Approval it is not necessary to carry out further verification/tests.
- **10.2.2** In case of notified provisions, which are to come into effect at a later date, the manufacturer, may get the Type Approval in advance, which could be along with an original Type Approval or an extension
- **Note:** In such cases, once the manufacturer implements the modified specification in production, the COP would be as per the new provision to the extent of implementation. Till then COP would be conducted based on the procedure for COP applicable at the time of manufacture of the component.

# 11.0 VERIFICATION OF CONTINUED COMPLIANCE (Surveillance Check)

**11.1** The manufacturer shall take all appropriate steps to ensure that the components continue to comply with the requirements of the notified standard.

At an interval specified in the notified standard, or earlier if felt necessary, the testing agency, which has carried out the checks to verify compliance to the specified quality systems, will carry out a surveillance check to verify compliance to the specified quality system and test randomly

selected samples/ documentation/ reports, if necessary. TAC will be continued in case of satisfactory results emerging out of surveillance.

In case the notified standard does not specify the interval, the surveillance check shall be carried out at least once a year.

For the purpose of carrying out the surveillance checks, the period will start from the beginning of the commercial production.

**Note:** Currently, the standards do not prescribe such frequency. Till such time, these standards are amended to incorporate this, the frequency to be followed for reflex reflector (IS 8339) and bulbs (IS 1606) shall be once in six months and for other components shall be once a year.

**11.2** The number of samples needed shall be as per the requirements of the standard for which the compliance is being verified.

Samples of product shall be selected at random from production of uniform batch. This depends upon the number of samples needed as per **7.2** and also on the production rate. If 'X' is the number of samples needed as per **7.2** then the minimum lot for selection should be 10 times 'X' or one day's production whichever is higher, subject to a maximum of 50 times X.

If the test agency verifies and is satisfied that such equipment is appropriate to the requirements, the tests may be conducted using the facilities of the manufacturer at the discretion of testing agency

- **11.3** In addition to the above, the testing agency shall also review:
  - a) The progress of the manufacturer to obtain certification for **'ISI'** mark.
  - **b**) The implementation of corrective actions on the deficiencies noticed in the previous checks, if any.
  - c) The list of vehicle manufacturers to whom the components is supplied.

- **11.4** If the results of surveillance checks are not satisfactory;
  - a) In case of any deficiencies are noticed in the facilities /documentation/ reports/ component during the surveillance checks, the component manufacturer shall prepare a time bound action plan for rectifying the defects.

If the test agency is satisfied that the deficiency is not likely to affect the safety critical parameters of the components specified in the standards, the type approval may be continued.

**b**) If the deficiencies are likely to affect the safety critical parameters, the corrective action shall be completed by the component manufacturer on priority basis and in any case within one month's period from receipt of communication from the test agency.

The report of corrective action and compliance shall be intimated by the manufacturer to the test agency who shall verify the compliance, if necessary.

Effectiveness of implementation of the corrective actions shall be verified during the next surveillance checks, and if the progress of implementation of the corrective action is not satisfactory, the test agency shall report the matter to the CMVR Technical Standing Committee (CMVR TSC).

- c) In case the component manufacturer has not applied for 'ISI' marking during the stipulated time, the test agency may grant an extension if the delay is due to reasonable and justifiable ground. If not, the test agency shall report the matter to the CMVR Technical Standing Committee .
- d) If the testing agency observes that the progress of awarding of the **'ISI'** mark is not satisfactory, or that BIS has refused the grant of **'ISI'** mark, the test agency shall report the matter to the CMVR TSC.
- 11.5 Based on the feed back from the test agency regarding the actions detailed in para 11.4 b) to d) the CMVR TSC shall consider the necessary corrective actions to be taken, including recommendation to the Ministry of Road Transport and Highways for withdrawal of the type approval. The component manufacturer shall be given an opportunity to present his case to the committee before making the final recommendations.

Based on the recommendations of the committee, the Ministry of Road Transport and Highways may issue the order for withdrawal of type approval certificate and stop dispatch of the components by the manufactures from his works.

**11.6** If the type approval has been withdrawn, reinstating of the type approval, shall be done only after going through the various steps prescribed in this document.

- **11.7** The component manufacturer shall inform all the relevant vehicle manufacturers about the status of the surveillance checks, especially in the cases where deficiencies have been noticed, immediately after the surveillance checks are over.
- **11.8** The test agency shall inform Society of Indian Automobile Manufacturers (SIAM) and Automotive Component Manufacturers Association of India (ACMA) about the status of the surveillance checks, especially in the cases where deficiencies have been noticed, after the surveillance checks are over.

#### **11.9** Exemptions from Surveillance Checks

In the case of number of components manufactured/imported, are less than that corresponding to 250 vehicle sets in any consecutive period of six months in a year, then that component is exempted from the surveillance checks subject to at least one other component of similar type manufactured by the manufacturer is subjected to such checks.

In case the number of each of components manufactured/imported is less than that corresponding to 250 vehicle sets in any consecutive six months in a year, then any one component of similar type shall be subjected to surveillance checks. The component on which surveillance checks are to be carried out shall be as decided mutually between the test agency and the manufacturer

#### 12.0 PROCEDURE OF IMPORTED COMPONENTS

**12.1** The responsibility for type approval and COP of imported components shall be the responsibility of the vehicle manufacturer who is using such imported components in the manufacture of his vehicle.

In case the components are procured through an Indian Agent, if the Indian agent carries out the TA and COP, the vehicle manufacturer shall be responsible to ensure that only such components, which have duly gone through such procedure, are used in the production of vehicles.

# **12.2** Type Approval of imported Components complying with the Notified standard

**12.2.1** The vehicle manufacturer / Indian agent shall submit samples of the imported components to the Test Agency for carrying out all the tests as per the notified standard.

In case the component has been certified for compliance to EEC directive or an ECE Regulation (**'e' or 'E'** mark), the vehicle manufacturer / Indian agent shall submit copies of certificates and test reports for 'E/e' marking to the testing agency.

The test agency, after vetting these reports, if found satisfactory, shall not carry out the tests for parameters where the testing procedure and the norms are common between EEC directive/ECE regulation and the notified standard.

After satisfactory completion of the tests for establishing compliance, the test agency shall issue the Type Approval Certificate and test reports.

- 12.3 Type Approval for imported Components complying with the alternate standard (Ref Rule 92(3) of CMVR):
- 12.3.1 Conditions prescribed in this paragraph are applicable only in the case of components, for which an alternate standard has been approved as per Rule 92(3) of the CMVR.
- **12.3.2** The vehicle manufacturer / Indian agent shall submit the copies of test reports and certificates awarded to the foreign component manufacturer by the Accredited Foreign Test Agency (**2.6**) and demonstrate to the Testing Agency that the components are bearing the markings as prescribed in the alternate standard.

In case, certain additional tests have been prescribed at the time approving the alternate standard, such tests shall be carried out.

The Test Agency shall issue the type approval based on the above.

#### 12.4 COP for Imported Components Complying with the Notified standard

- **12.4.1** The vehicle manufacturer / Indian agent shall carry out the periodic verification/tests prescribed in the notified standard on randomly selected samples.
- **12.4.2** The random selection shall be done from a lot of components which comprises at least ten times needed for tests.
- **12.4.3** Frequency of testing shall be as per the relevant procedure for the indigenous manufacturer a per para **11.1**

If the quantity imported in one lot is more than that required for the vehicle production for a period more than the above period, the test need be carried out once per such lot.

**12.4.4** The vehicle manufacturer may use his own facilities or facilities of any other organization/ Institute, as are approved by the Testing Agencies

# 12.5 COP for Imported Components Complying with the Alternate Standard

**12.5.1** The vehicle manufacturer shall obtain the reports of COP carried out as per the procedure laid down in the country/countries of origin of the alternate standard.

**12.5.2** In case such reports are not available, the vehicle manufacturer shall carry out tests as per the details given in **12.4**.

## 12.6 Marking on the Components

In case the components are components which are approved for 'E'/ 'e', marking, the marking shall be as per the applicable ECE regulation or EEC directive. In other cases, the component shall have the marking of trade mark/manufacturer's emblem/identification code of the manufacturer.

# 13.0 SUPERVISION BY CMVR TECHNICAL STANDING COMMITTEE

In case of difficulties arising out of an interpretation of the provision and other operational difficulties, the Testing Agency and the manufacturer shall endeavour to resolve these by mutual discussions, within the framework of CMVR and related procedures.

However, if these cannot be resolved mutually, the matter shall be referred by the manufacturer under intimation to the Testing Agency, to the CMVR Technical Standing Committee for a final decision.

# Annex A (See para 4.1)

### Typical format for Application of Type Approval for Components

### A1 DETAILS OF COMPONENT MANUFACTURER

- A1.1 Manufacturer's name & address
- A1.2 Telephone No
- A1.3 FAX. No.
- A1.4 E mail address
- A1.5 Contact person
- A1.6 Plant/(s)of manufacture

# A2 DETAILS OF THE COMPONENT

- A2.1 Description
- A2.2 Applicable Notified Standard
- A2.3 Vehicle Manufacturers and models for which the component is intended
- A2.4 Does the standard prescribe safety-related features for the component, which can be verified only with respect to the features of the vehicle model: (YES/NO)

A2.4.1 IF yes the details {see 4.2(b) and 8.2}

- A2.5 Specification of the component (See 4.3)
- A2.6 The proposed location of affixing the marks as detailed in 9.

# A3. FACILITIES

- A3.1 Details of process (see 4.4)
- A3.2 Details of Quality Management System (See 4.5):
- A3.2 Details of Testing Facilities: (See 4.6)
- A3.4 Production Plan in Numbers (daily or monthly)
- A3.5 Expected time of commencement of production, in case not in production already.

#### A4 **PREVIOUS CERTIFICATIONS**

- A4.1 Details of similar components certified by ISI/E/e/ marks, or have undergone type approval/COP as per this procedure, if any.
- A4.2 Details of application made by him, if any, to any other Test Agency for approval of similar components.( Component and test agency details )
- A4.3 In case, TAC has been refused by another test agency for the same component, the details for the same.

Signature	
Name	
Designation	
Date	

# ANNEXURE - B (See Introduction) COMMITTEE COMPOSITION Automotive Industry Standards Committee

Chairman	
Shri B. Bhanot	Director
	The Automotive Research Association of India, Pune
Members	Representing
Shri Alok Rawat	Ministry of Road Transport & Highways, New Delhi
Shri Sushil Kumar	Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, New Delhi
Shri. Chandan Saha	Office of the Development Commissioner
	Small Scale Industries,
	Ministry of Small Scale Industries, New Delhi
Shri. Balwant Rai	Bureau of Indian Standards, New Delhi
Shri K.K. Vashistha	
(Alternate)	
Shri A. S. Lakra	Central Institute of Road Transport, Pune
Shri D. P. Saste	
(Alternate)	
Director	Indian Institute of Petroleum, Dehra 'Dun
Shri R.C. Sethi	Vehicles Research & Development Establishment,
Shri N. Karuppaiah	Ahmednagar
(Alternate)	
Shri Rajat Nandi	Society of Indian Automobile Manufacturers
Shri T.C. Gopalan Shri Ramakant Garg (Alternate)	Tractor Manufacturers Association, New Delhi
Shri K.N.D. Nambudiripad	Automotive Components Manufacturers Association
Shri G. P. Banerji	Automotive Components Manufacturers Association

Member Secretary Mrs. Rashmi Urdhwareshe Sr. Assistant Director

# The Automotive Research Association of India, Pune