## **AUTOMOTIVE INDUSTRY STANDARD**

Information on Technical Specifications

to be submitted by

the Vehicle Manufacturer

(Revision 5)

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ON BEHALF OF

AUTOMOTIVE INDUSTRY STANDARDS COMMITTEE

UNDER

CENTRAL MOTOR VEHICLE RULES – TECHNICAL STANDING COMMITTEE

SET-UP BY

MINISTRY OF ROAD TRANSPORT and HIGHWAYS

(DEPARTMENT OF ROAD TRANSPORT and HIGHWAYS)

GOVERNMENT OF INDIA

June 2014

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| **INTRODUCTION** |
| This document consolidates the information to be provided by the motor vehicle manufacturer, construction equipment vehicle manufacturer and agricultural tractor manufacturer while applying for a certificate of Compliance to CMVR. Subsequent to the decisions of the CMVR – Technical Standing Committee, this standard was revised to take care of the new regulations and requirements in CMVR and to simplify the existing procedure. The panel constituting the testing agencies and the manufacturers discussed and decided upon the technical details that are required to be provided by the vehicle manufacturers at the time of applying for the type approval. The AIS-007 (Revision 5) documents were finalized in the month of March 2014, taking into consideration the new standards that were decided to be implemented under CMVR, by Automotive Industry Standards Committee and CMVR-Technical Standing Committee. The revision of 2, 3 and 4 wheeler automotive vehicle specifications have been carried out considering the introduction of the following new standards which are under the process of getting notified under CMVR, namely, |
| 1. AIS-004(Part 3) – EMC
 |
| 1. AIS-091 – Mechanical Coupling Devices
 |
| 1. AIS-092 – Close Coupling Devices
 |
| 1. AIS-047 – Interior fittings for other than M1 vehicles.
 |
| 1. AIS-071(Part 1 & 2) – Controls , Tell tales & Symbols
 |
| 1. AIS-075 – Vehicle Alarm Systems
 |
| 1. AIS-076 – Anti-theft devices
 |
| 1. AIS-072 – Child Restraint Systems
 |
| 1. AIS-096 – Head –On Collision
 |
| 1. AIS-098 – Offset frontal Collision
 |
| 1. AIS-099 – Lateral Collision
 |
| 1. AIS-100 – Pedestrian Protection
 |
| 1. AIS-102 (Part 1 & 2) – Hybrid vehicles
 |
| 1. AIS-110 –Temporary Use Spare Wheel
 |
| 1. AIS-084 (Part 1 & 2) – Defrost / Demist Systems
 |
| 1. AIS-083 – Headlamp Cleaning Devices
 |
| 1. AIS-052 (Rev. 1) – Bus Body Code
 |
| 1. AIS-093 – Truck Body Code
 |
| 1. AIS-063 – School Bus Code
 |
| 1. AIS-068 – Window Frames for buses
 |
| 1. OBD- II requirements for BS-IV Emission norms
 |
| 1. IS 14664- Brake 2 & 3 Wheeler with ABS
 |
| The technical specifications for the 2 & 3 wheelers (L1, L2 and L5 category) have been aligned to 2002/24/EC of 18th march 2002 repealing Council Directive 92/61/EEC, to the fullest extent possible. The Automotive Industry Standards Committee responsible for preparation of this standard is given in Annex I |
| Subsequently this standard has been amended for covering Technical Specifications of Quadricycle (Category L7) under Table 1 |

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Information on Technical Specifications

to be submitted by the Vehicle Manufacturer

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| **1.0** | **APPLICATION FOR TYPE APPROVAL:** |
| **2.1** | **Application for Type Approval of Automotive Vehicles:** |
|  | While applying for the Type Approval, the application shall be accompanied by the following documents, as applicable to the provisions for which such compliance is sought: |
|  | 1. List of provisions for which compliance is sought to be established.
 |
|  | 1. The Technical Specifications as per formats given in Table 1 to 13 as applicable.
 |
|  | 1. Details of location of Chassis number and code for month and year of manufacture as per Rule 122 of CMVR, in Table –11.
 |
|  | 1. Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies. This may be attached along with Table–8
 |
|  | 1. Information indicated in Table-10, regarding the Criteria for Extension of Approval (CEA) for selecting the model/(s) to be tested, in case variant/(s) are to be approved.
 |
|  | 1. Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details. (Refer Table-9)
 |
|  | 1. The details of CNG components for CNG OE vehicles as per Table-20.
 |
|  | 1. The details of LPG components for LPG OE vehicles as per Table-21.
 |
|  | 1. Publications available (Owner's Manual and service manual)
 |
| **2.2** | **Application for Type Approval of Construction Equipment Vehicles:** |
|  | While applying for the Type Approval, the application shall be accompanied by the following documents, as applicable to the provisions for which such compliance is sought: |
|  | 1. List of provisions for which compliance is sought to be established.
 |
|  | 1. The Technical Specifications as per formats given in Table 14 & 15.
 |
|  | 1. Details of location of Chassis number and code for month and year of manufacture as per Rule 122 of CMVR, in Table –11
 |
|  | 1. Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies. This may be attached along with the Table-18. (Refer Table – 18).
 |
|  | 1. Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.(Refer Table - 19).
 |
|  | 1. Publications available (Owner’s Manual and service manual)
 |
|  | **Note:** In case these publications are not available at the time of submitting the prototype vehicle, they shall be submitted by the manufacturer as and when they are ready but not later than beginning of commercial production. In case these publications are not available at the time of prototype testing, the relevant information required by the test agency, shall be provided by the manufacturer**.** |
| **2.3** | **Application for Type Approval of Agricultural Tractors:** |
|  | While applying for the Type Approval, the application shall be accompanied by the following documents, as applicable to the provisions for which such compliance is sought: |
|  | 1. List of provisions for which compliance is sought to be established.
 |
|  | 1. The Technical Specifications of the agricultural tractor are as per formats given in Table-16 & 17
 |
|  | 1. The technical details of the engine fitted to agricultural tractors shall be as per Table -4D.
 |
|  | 1. Details of location of Chassis number and code for month and year of manufacture as per Rule 122 of CMVR, in Table-11.
 |
|  | 1. Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies. This may be attached along with the Table-18. (Refer Table -18 )
 |
|  | 1. Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details. (Refer Table- 9).
 |
|  | 1. Publications available (Owner’s Manual and service manual)
 |
|  | **Note:** In case these publications are not available at the time of submitting the prototype vehicle, they shall be submitted by the manufacturer as and when they are ready but not later than beginning of commercial production. In case these publications are not available at the time of prototype testing, the relevant information required by the test agency, shall be provided by the manufacturer**.** |
| **2.4** | **Application for Type approval of Automotive Trailer** |
|  | a) List of provisions for which compliance is sought to be established |
|  | b) The Technical Specifications of the Automotive Trailer are as per formats given in Table- 24 and 24 A. |
|  | c) The technical details of the engine fitted to Automotive Trailer shall be as per Table -4B, Table-4C as applicable  |
|  | d) Copies of certificates of test reports of compliance to various provisions which may have already been obtained from authorized Testing Agencies.  |
|  | e) Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.  |
|  | f) Publications available (Owner’s Manual and service manual) |
| **2.5** | **Applications for Type approval of Truck Body**  |
|  | a) List of provisions for which compliance is sought to be established |
|  | b) The Technical Specifications of the Truck Body are as per formats given in Table-27 |
|  | c) The technical details of the engine fitted to Automotive Trailer shall be as per Table-4B, Table 4C as applicable.  |
|  | d) Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies.  |
|  | e) Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.  |
|  | f) Publications available (Owner’s Manual and service manual) |
| **2.6** | **Application for Type approval of Modular Hydraulic Trailer.**  |
|  | a) List of provisions for which compliance is sought to be established. |
|  | b) The Technical Specifications of the Modular Hydraulic Trailer are as per formats given in Table 28 and 28 A. |
|  | c) The technical details of the engine fitted to Automotive Trailer shall be as per Table-4D |
|  | d) Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies.  |
|  | e) Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.  |
|  | f) Publications available (Owner’s Manual and service manual). |

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| **2.7** | **Applications for Type approval of Road Ambulances.** |
|  | a) List of provisions for which compliance is sought to be established.  |
|  | b) The Technical Specifications of the Road Ambulance are as per formats given in Table 29 and Table 29A as applicable.  |
|  | c) Technical details of the engine fitted to Road Ambulance shall be as per Table- 4, 4A, 4B, 4C as the case may be  |
|  | d) Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies.  |
|  | e) Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.  |
|  | f) Publications available (Owner’s Manual and service manual) |
| **2.8** | **Application for Type approval of Motor Caravan.**  |
|  | a) List of provisions for which compliance is sought to be established. |
|  | b) The Technical Specifications of the Motor Caravan are as per formats given in Table 30 and 30A. |
|  | c) The technical details of the engine fitted to Automotive Trailer shall be as per Table-4B, Table 4-C as applicable.  |
|  | d) Copies of certificates or test reports of compliance to various provisions, which may have already been obtained from authorized Testing Agencies.  |
|  | e) Copies of previous certificates or test reports for other models, if any, which can be used for establishing compliance of the model to be type approved, with a note explaining the details.  |
| **3.0** | **BRIEF TECHNICAL SPECIFICATION :** |
| 3.1 | **Motor Vehicles:** The format for brief technical specifications to be submitted by the manufacturer is given in Table - 7, which is essentially an enclosure to the certificate of CMVR compliance. The details of all the variant to be covered in one certificate shall be included in one document. In case more information is to be provided separate Tables and Annexures could be included. |
| 3.2 | **Construction Equipment Vehicles:** The format for brief technical specifications to be submitted by the construction equipment vehicle manufacturer is given in Table -14, which is essentially an enclosure to the certificate of CMVR compliance. The details of all the variant to be covered in one certificate shall be included in one document. In case more information is to be provided separate Tables and Annexures could be included. |

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| 3.3 | **Agricultural Tractors:** The format for brief technical specifications to be submitted by the manufacturer is given in Table-16, which is essentially an enclosure to the certificate of CMVR compliance. The details of all the variant to be covered in one certificate shall be included in one document. In case more information is to be provided separate Tables and Annexures could be included. |
| **4.0** | **DETAILED TECHNICAL SPECIFICATIONS :** |
| 4.1 | **Motor vehicles:** The format for detailed technical specifications for two and three wheelers and quadricycles is given in Table-1. The formats for detailed specifications for four wheelers and above are given in Table-2 to 6. In case the application is being made for establishing conformity against specific provisions, the details specified in the standard / document for that provision shall be submitted. This may be in the format specified in the applicable standard or a combination of Table-2 and Table -3 to 6, as appropriate by which the information needed is complete.  |
| 4.2 | **Construction Equipment Vehicles:** The format for detailed technical specifications for construction equipment vehicles are given in Table- 15. In case the application is being made for establishing conformity against specific provision, like engine testing / type approval, the details specified as per this format shall be submitted to the testing agencies. Tables 4G and 4H are added for technical information to be submitted by engine manufacturer for seeking TREM IV and TREM V compliance respectively. Tables 17A and 17B are added for technical information to be submitted by vehicle manufacturer for seeking TREM IV and TREM V compliance respectively.  |
| 4.3 | **Agricultural Tractors:** The format for detailed technical specifications for agricultural tractors is given in Table -17. In case the application is being made for establishing conformity against specific provision, like engine testing / type approval, the details specified as per this format shall be submitted to the testing agencies. The details of the test reports of the safety critical components shall be submitted in Table- 18 format to the testing agencies. Tables 4G and 4H are added for technical information to be submitted by engine manufacturer for seeking TREM IV and TREM V compliance respectively. Tables 17A and 17B are added for technical information to be submitted by vehicle manufacturer for seeking TREM IV and TREM V compliance respectively.  |
| 4.4 | **Application for approval of Bus bodies as per AIS-052 (Rev. 1) :** The format of technical specifications to be submitted by the Bus Body Builder or the Bus Manufacturer for approval of the bus body are as given in Table- 22 and Table- 22A. the original Equipment Manufacturers who have already submitted the component or system approval details during the certification of their Chassis variants (Drive Away Chassis / Cowl and Chassis/ Cabin and Chassis/ Chassis with Front End Structure etc. ) in Table-8 need not submit the information in Table -22A format. Further formats for technical information to be submitted for AIS-153 (Additional bus requirements) is given in Table-22B, for school bus given in Table-22C, for double deck buses in Table-22 D and for sleeper coaches in Table 22E.  |
| 4.5 | **Additional specifications for approval for Electric / Hybrid vehicles :** The format of technical specifications to be submitted by the vehicle manufacturer for specific details of electric / hybrid vehicles are as given in Table - 23. |

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| **5.0** | **GENERAL INFORMATION :** |
| 5.1 | The above said technical information is to be submitted in sheets of A4 size or should be foldable in A4 size. The letter and figures shall be legible and in a minimum font size not less than 10. |
| 5.2 | Each of these documents should have a unique identification number, indicated on each sheet. Appropriate numbering scheme shall be used by the manufacturer to indicate the revision status also. |
| 5.3 | Information, for which the space provided in the format is not sufficient, may be submitted in a separate document. Such a document should have a unique identification number, indicating the modification status, and this number should be referred in the Technical Specifications appropriately |
| 5.4 | The technical specification shall be submitted in the number of copies as desired by the testing agency. One set of the technical specifications shall be the original with the original signatures of the authorized person of the company and the other sets may be the Photostat copies of the original. |
| 5.5 | If the item in any clause is not applicable, for any particular model, the manufacturer should indicate “Not Applicable” or “NA” against the main heading and sub-clauses need not be answered in such cases. The serial numbers indicated against each entry shall not be changed. |
| 5.6 | The technical specifications of CNG and LPG kits shall be provided to the testing agencies as per the format specified in the relevant AIS-024 and AIS-025 standards respectively. |
| **6.0** | **OTHER INFORMATION :** |
| 6.1 | The details of information to be submitted by the automotive vehicle manufacturer regarding test reports/certificates, already obtained, for establishing compliance of the model, sought to be type approved, are given in Table - 8 and Table - 8A. For construction equipment vehicles and agricultural tractors, the same information is given in Table -18. |
| 6.2 | The details of information to be submitted by the automotive vehicle manufacturer regarding test reports / certificates for other models which can be used as proof of compliance of the model which is sought to be type approved, are listed in Table - 9. For construction equipment vehicles and agricultural tractors, the same information is given in Table - 19. |
| 6.3 | Information regarding the Worst Case Criteria for selecting the model/(s) to be tested, in case variant/(s) are to be approved, is given in Table -10. This would apply to the category of vehicles for which the worst case criteria is available as per the respective standards |
| 6.4 | The format for declaring the location of chassis number and code for the year and month of manufacture is given in Table-11. This would apply to motor vehicles, construction equipment vehicles and agricultural tractors. |
| 6.5 | The changes in the technical specifications for the already certified models or new variants with slight engineering changes shall be intimated in the format given in Table -12 and Table -12 A.  |
| 6.6 | The additional technical information to be submitted for the Battery Operated Vehicles is given in Table-13. This shall be given in addition to the other specifications wherever applicable. |
| 6.7 | The agricultural tractor manufacturer or the engine manufacturer shall submit their application to the test agency for testing or approval of the agricultural tractor engine, as per Table-4D format. |
| **7.0** | **TRANSITORY PROVISIONS :** |
| 7.1 | For all items, for which the compliance is to be established to the notified standard, the requirement of “Identification Number” has been called for. This may be filled up to the extent possible.  |
| 7.2 | This revised format takes into account all the requisite technical parameters for the respective standards that were finalized by AISC and decided to be implemented by CMVR-Technical Standing Committee after April 2011. The vehicle manufacturer may not fill the data for those technical requirements which are not notified, as applicable at the time of submitting their application to the testing agencies. |

**ANNEX I**

(See introduction)

**COMMITTEE COMPOSITION** \*

**Automotive Industry Standards Committee**

|  |  |
| --- | --- |
| **Chairman** |  |
| Shri Shrikant R. Marathe | Director,The Automotive Research Association of India, Pune |
| **Members** | **Representing** |
| Representative from | Ministry of Road Transport & Highways (Dept. of Road Transport & Highways), New Delhi |
| Representative from | Ministry of Heavy Industries & Public Enterprises (Department of Heavy Industry), New Delhi  |
| Shri S. M. Ahuja  | Office of the Development Commissioner, MSMEMinistry of Micro, Small & Medium Enterprises, New Delhi  |
| Shri P. C. Joshi | Bureau of Indian Standards, New Delhi |
| Director/Shri D. P. Saste (Alternate) | Director , Central Institute of Road Transport, Pune |
| Director | Indian Institute of Petroleum, Dehra Dun |
| Director | International Centre for Automotive Technology  |
| Director | Vehicles Research & Development Establishment, Ahmednagar |
| Representatives from | Society of Indian Automobile Manufacturers (SIAM) |
| Shri T. C. Gopalan  | Tractor Manufacturers Association, New Delhi |
| Shri U. S. Harite | Automotive Components Manufacturers Association of India, New Delhi |

Member Secretary

Mrs. Rashmi Urdhwareshe

Sr. Deputy Director

The Automotive Research Association of India, Pune

\* At the time of approval of this Automotive Industry Standard (AIS)