AMENDMENT No. 2 4 May 2016

To

AIS-007 (Rev.5): 2014 - Information on Technical Specifications

to be submitted by the Vehicle Manufacturer

1. **Page 8/227, Table 1,**

Add new Sr. No. 1.6 After Sr. No. 1.5:

|  |  |  |
| --- | --- | --- |
| 1.6 | Type of Fuel |  |

1. **Page 13/227, Table 1, Sr. No.** 3.2.6.10.3

Substitute following text for existing text

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3.2.6.10.3 | Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 13/227, Table 1, Sr. No.** 3.2.6.11.3

Substitute following text for existing text

|  |  |  |  |  |
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| 3.2.6.11.3 | Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 13/227, Table 1, Sr. No.** 3.2.6.12.1

Substitute following text for existing text

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| 3.2.6.12.1 | Type/Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 14/227, Table 1, Sr. No.** 3.2.8.3.2.3

Substitute following text for existing text

|  |  |  |  |  |
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| 3.2.8.3.2.3 | Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 14/227, Table 1, Sr. No.** 3.2.9.2.4

Substitute following text for existing text

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| 3.2.9.2.4 | Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 14/227, Table 1, Sr. No. 3.5.2 and 3.5.3**

Substitute following text for existing text

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| 3.5.2 | Type/Part no./Identification number(ID)/Drawing No. | **:** |  |  |
| 3.5.3 | Calibration Identification number(ID) | **:** |  |  |

1. **Page 14/227, Table 1, Sr. No. 3.6.3.3**

Substitute following text for existing text

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3.6.3.3 | Part no./Identification number(ID)/Drawing No. | **:** |  |  |

1. **Page 24/227, Table 1,**

Add following new Sr.Nos. after Sr.No. 13.2.3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 13.2.4 | Vehicle running in covered (km) |  |  |  |
| 13.2.5 | Delivery mm / per stroke at pump rpm (specify tolerance) Or characteristic diagram(specify tolerance) |  |  |  |
| 13.2.6 | Maximum permitted depression of air intake at characteristic place (Specify location of measurement) |  | When engine is tested |  |
| 13.2.7 | Exhaust back pressure at maximum net power and location of measurement (kPa) |  | When engine is tested |  |
| 13.2.8 | Effective volume of exhaust (specify the tolerance & range) |  | When engine is tested |  |
| 13.2.9 | Moment of inertia of combined flywheel & transmission at condition when no gear is engaged |  | When engine is tested |  |
| 13.2.10 | Power absorbed by fan kW (specify the tolerance) |  | When engine is tested |  |
| 13.2.11 | Max. Net torque on bench Nm at rpm |  | When engine is tested |  |
| 13.2.12 | Power table for Declared speed and powers of the engine/ vehicle (strike out what does not apply) submitted for type approval)(Speeds to be agreed with the testing agency) |  | When engine is tested |  |
| 13.2.13 | \*See Chapter 3 of Part IV of Doc.MOST/CMVR/TAP115/116.  \*\*Net power according to Chapter 6 of Part IV of Doc.MOST/CMVR/TAP115/116 |  |  |  |
| 13.2.14 | Number of operative modes in vehicle ( detail information of each mode to be given) |  |  |  |
| 13.2.15 | Number of maps in the vehicle ( significance of each map to be given) |  |  |  |
| 14.0 | Any other feature manufacturer desires to declare. |  |  |  |

1. **Page 8/227,**

Add new Table 1 A and 1 B After Table 1:

Table 1 A AIS-007 (Revision 5)

DETAILED TECHNICAL SPECIFICATIONS

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **INFORMATION RELATING JOINTLY TO L1, L2 AND L5 CATEGORY BATTERY OPERATED VEHICLES**  **( 2 and 3 Wheelers)** | | | | | | | | | | | | | |
| **0.0** | | **General** | | | | | | | | | | | |
| 0.1 | | Make | | | **:** | |  | | | | | | |
| 0.2 | | Type (state any possible variants and versions: each variant and each version must be identified by a code consisting of numbers or a combination of letters and numbers) | | | **:** | |  | | | | | | |
| 0.2.1 | | Commercial name (s) | | | **:** | |  | | | |  | |  |
| **3.0** | | **Transmission(8)** | | | | | | | | | | | |
| 3.1. | | Diagram of transmission system | | | **:** | |  | | | | | |  |
| 3.2. | | Type (mechanical, hydraulic, electrical, etc.) (1): | | | **:** | |  | | | | | |  |
| 3.3. | | Clutch (type) | | | **:** | |  | | | | | |  |
| 3.4. | | **Gearbox** | | |  | |  | | | | | |  |
| 3.4.1. | | Type: automatic/manual(1) | | | **:** | |  | | | | | |  |
| 3.4.2. | | Method of selection: by hand/foot(1) | | | **:** | |  | | | | | |  |
| 3.4.2.1 | | Gear shifting pattern | | | **:** | |  | | | | | |  |
| 3.4.3. | | **Gear ratios** | | |  | |  | | | | | |  |
| 3.4.3.1 | | Primary ratio | | | **:** | |  | | | | | |  |
| 3.4.3.2 | | Secondary ratio | | | **:** | |  | | | | | |  |
| 3.4.3.3 | | Individual and Overall ratios | | |  | |  | | | | | |  |
| 3.4.3.3.1 | | First gear | | | **:** | |  | | | | | |  |
| 3.4.3.3.2 | | Second gear | | | **:** | |  | | | | | |  |
| 3.4.3.3.3 | | Third gear | | | **:** | |  | | | | | |  |
| 3.4.3.3.4 | | Fourth gear | | | **:** | |  | | | | | |  |
| 3.4.3.3.5 | | Fifth gear | | | **:** | |  | | | | | |  |
| 3.4.3.3.6 | | Sixth gear | | | **:** | |  | | | | | |  |
| 3.4.3.4 | | Minimum continuously  Variable transmission | | | **:** | |  | | | | | |  |
| 3.4.3.5 | | Maximum continuously  Variable transmission | | | **:** | |  | | | | | |  |
| 3.4.3.6 | | Reverse Gear | | | **:** | |  | | | | | |  |
| 3.5. | | Brief description of the ECUs used in the transmission | | | **:** | |  | | | | | |  |
| 3.6. | | Maximum speed of vehicle and gear in which it is reached (in km/h)(9) | | | **:** | |  | | | | | |  |
| 3.7. | | **Speedometer** | | |  | |  | | | | | |  |
| 3.7.1 | | Make(s) | | | **:** | |  | | | | | |  |
| 3.7.2. | | Type(s) | | | **:** | |  | | | | | |  |
| 3.7.3. | | Photographs and/or drawings of the complete system | | | **:** | |  | | | | | |  |
| 3.7.4. | | Speed range displayed | | | **:** | |  | | | | | |  |
| 3.7.5. | | Tolerance of the measuring mechanism of the speedometer | | | **:** | |  | | | | | |  |
| 3.7.6. | | Technical constant of the speedometer | | | **:** | |  | | | | | |  |
| 3.7.7. | | Method of operation and description of the drive mechanism | | | **:** | |  | | | | | |  |
| 3.7.8. | | Overall transmission ratio of the drive mechanism or pulse / wheel revolution (in case of digital speedometer) | | | **:** | |  | | | | | |  |
| **4.0** | | **Suspension** | | | | | | | | | | | |
| 4.1 | | **Drawing of suspension arrangement** | | | **:** | |  | | | | | |  |
| 4.1.1. | | Brief description of the ECUs used in the suspension | | | **:** | |  | | | | | |  |
| 4.1.2 | | Springs front and rear | | | **:** | |  | | | | | |  |
| 4.1.3 | | Anti-roll bar | | | **:** | |  | | | | | |  |
| 4.1.4 | | Shock Absorbers front and rear | | | **:** | |  | | | | | |  |
| 4.2. | | **Tyres (standard type): (Enclose annexure, if required)** | | |  | |  | | | | | |  |
|  | | | | | | | | | | | | | |
| Tyre | Variant / version | | Type | Size designation with speed category symbol and load capacity index | | | | | Make (s) | Type Approval Number or BIS license number or identification | | Dynamic  Rolling  Radius | |
| Front |  | |  |  | | | | |  |  | |  | |
| Rear |  | |  |  | | | | |  |  | |  | |
| Any other |  | |  |  | | | | |  |  | |  | |
|  | | | | | | | | | | | | | |
| 4.2.1 | | Tyre pressures recommended by the manufacturer: | | | | **:** | |  | | | | |  |
| 4.2.1.1 | | Laden ( kg/cm2 / kPa) | | | | **:** | |  | | | | |  |
| 4.2.1.2 | | Unladen (with driver)  ( kg/cm2 / kPa) | | | | **:** | |  | | | | |  |
| 4.2.2 | | Tyre/wheel (rim) combinations | | | | **:** | |  | | | | |  |
| 4.2. 3 | | Minimum-speed category symbol compatible with the theoretical maximum design speed of the  vehicle | | | | **:** | |  | | | | |  |
| 4.2.4 | | Minimum load-capacity index with the maximum load on each tyre: | | | | **:** | |  | | | | |  |
| 4.2.5 | | Categories of use compatible for the vehicle | | | | **:** | |  | | | | |  |

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| --- | --- | --- | --- | --- |
| 4.3 | **Wheel rims** |  |  |  |
| 4.3.1 | Designation (front and rear) | **:** |  |  |
| 4.3.2 | Type (Alloy / Sheet metal / spoke) | **:** |  |  |
| 4.3.3 | Maximum design loading capacity | **:** |  |  |
| **5.0** | **Steering** | | | |
| 5.1 | **Steering gear and control** | **:** |  |  |
| 5.1.1 | Type of steering control(handle bar/wheel) |  |  |  |
| 5.1.2 | Location of Steering Wheel ( centre / offset ) |  |  |  |
| 5.1.3 | Type of gear | **:** |  |  |
| 5.1.4 | Brief description of the ECUs used in the steering system | **:** |  |  |
| **6.0** | **Braking** | | | |
| 6.1 | Diagram of braking devices | **:** |  |  |
| 6.2 | Front and rear brakes, disc and/or drum (1) and their numbers | **:** |  |  |
| 6.2.1. | Make(s) | **:** |  |  |
| 6.2.2. | Type(s) ( Hydraulic / Mechanical / Other) | **:** |  |  |
| 6.3 | **Drawing of parts of the brake system** | **:** |  |  |
| 6.3.1 | Shoes and/or pads (1) | **:** |  |  |
| 6.3.2 | Linings and/or pads (Indicate make, grade of material or identification mark) (1) | **:** |  |  |
| 6.3.3 | Brake levers and/or pedals(1) | **:** |  |  |
| 6.3.4 | Hydraulic reservoirs (where applicable) | **:** |  |  |
| 6.3.5 | Front and rear pad/liner dimensions | **:** |  |  |
| 6.3.6 | Front and rear braking area | **:** |  |  |
| 6.3.7 | Diameter of front and rear disc or drum | **:** |  |  |
| 6.3.8 | **ABS (Yes/No)** | **:** |  |  |
| 6.3.8.1 | Directly controlled wheels (Front or rear) | **:** |  |  |
| 6.3.8.2 | Sensors (Make )(front /Rear) | **:** |  |  |
| 6.3.8.2.1 | Identification number(ID) / Part No./Drawing No. | **:** |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6.3.8.3 | | | Make of modulator(front /rear) | | | | **:** | | |  | | | |  | |
| 6.3.8.3.1 | | | Identification number(ID) / Part No./Drawing No. | | | | **:** | | |  | | | |  | |
| 6.3.8.4 | | | Make of ABS ECU | | | | **:** | | |  | | | |  | |
| 6.3.8.4.1 | | | Make of controller | | | | **:** | | |  | | | |  | |
| 6.3.8.5 | | | Identification number(ID) / Part No./Drawing No. | | | | **:** | | |  | | | |  | |
| 6.4 | | | Other devices (parking brake, etc.) (where applicable): drawing and description | | | | **:** | | |  | | | |  | |
| 6.5 | | | Brief description of the ECUs used in the braking system | | | | **:** | | |  | | | |  | |
| 6.6 | | | Brake hose – make(s) and Type Approval Number or BIS license number or identification: | | | | **:** | | |  | | | | | |
| 6.7 | | | Brake fluid – make(s) | | | | **:** | | |  | | | |  | |
| 6.8 | | | Control cables (in case of 2 wheelers below 50cc) | | | |  | | |  | | | |  | |
| 6.8.1 | | | Make | | | |  | | |  | | | |  | |
| 6.8.2 | | | Cable Diameter | | | |  | | |  | | | |  | |
| **7.0** | | | **Lighting and light-signaling devices** | | | | | | | | | | | | |
| 7.1 | | | List of all devices (Enclose annexure, if required) | | | | **:** | | |  | | | |  | |
| Device | | Variant / Version | | Number | | Make | | | | Type Approval Number | | Lens  Colour | | Tell-tale  Colour | |
| Head Lamp High beam | |  | |  | |  | | | |  | |  | |  | |
| Head Lamp dipped beam | |  | |  | |  | | | |  | |  | |  | |
| Front position light | |  | |  | |  | | | |  | |  | |  | |
| Tail / stop light | |  | |  | |  | | | |  | |  | |  | |
| Number plate illumination light | |  | |  | |  | | | |  | |  | |  | |
| Direction indicator lights, front and rear | |  | |  | |  | | | |  | |  | |  | |
| Parking lights | |  | |  | |  | | | |  | |  | |  | |
| Reversing light(s) | |  | |  | |  | | | |  | |  | |  | |
| Reflex reflector rear | |  | |  | |  | | | |  | |  | |  | |
| Reflex reflector side(if provided) | |  | |  | |  | | | |  | |  | |  | |
| Hazard warning lamp (wherever applicable) | |  | |  | |  | | | |  | |  | |  | |
| 7.1.1 | | Maximum intensity of Head lamp | | | | | | | | **:** | |  | |  | |
| 7.2 | | Diagram showing the location of the lighting and light-signaling devices on vehicle with relevant dimensions (see AIS-009) | | | | | | | | **:** | |  | |  | |
| 7.3 | | Additional requirements relating to special vehicles | | | | | | | | **:** | |  | |  | |
| 7.4 | | Brief description of the ECUs used in the lighting system and in the light-signaling system | | | | | | | | **:** | |  | | | |
| 7.5 | | List of all bulbs (Enclose annexure, if required.) | | | | | | | |  | |  | |  | |
|  | | | | | | | | | | | | | | | |
| Bulb used for | | Variant / Version | | Number | Make | | | Type Approval Number | | | Colour | | Type as per  AIS-034 | | |
| Head lamp high beam / low beam | |  | |  |  | | |  | | |  | |  | | |
| Front position light | |  | |  |  | | |  | | |  | |  | | |
| Tail / stop light | |  | |  |  | | |  | | |  | |  | | |
| Number plate illumination light | |  | |  |  | | |  | | |  | |  | | |
| Direction indicator lights | |  | |  |  | | |  | | |  | |  | | |
| Parking light | |  | |  |  | | |  | | |  | |  | | |
| Reversing light (s) | |  | |  |  | | |  | | |  | |  | | |
| Hazard warning lamp | |  | |  |  | | |  | | |  | |  | | |
|  | | | | | | | | | | | | | | | |
| **8.0** | **Equipment** | | | | | | | | | | | | | | |
| 8.1 | Coupling devices  (where applicable) | | | | | | **:** | |  | | | | | |  |
| 8.1.1 | Type: hook/ring/other(1) | | | | | | **:** | |  | | | | | |  |
| 8.1.2 | Photograph and/or drawings showing the position and the construction of the coupling devices | | | | | | **:** | |  | | | | | |  |
| 8.2 | Arrangement and identification of controls, tell-tales and indicators  (as per AIS-071as applicable) | | | | | |  | |  | | | | | |  |
| 8.2.1 | Photographs and/or drawings of the arrangement of the symbols, controls, tell-tales and indicators | | | | | | **:** | |  | | | | | |  |
| 8.3 | Statutory inscriptions | | | | | |  | |  | | | | | |  |
| 8.3.1 | Photographs and/or drawings showing the location of VIN. | | | | | | **:** | |  | | | | | |  |
| 8.3.2 | Height of VIN characters. | | | | | | **:** | |  | | | | | |  |
| 8.4 | Device(s) to protect against unauthorized use | | | | | |  | |  | | | | | |  |
| 8.4.1 | Type of device(s) as per AIS-074 | | | | | | **:** | |  | | | | | |  |
| 8.4.1.1 | Make(s) | | | | | |  | |  | | | | | |  |
| 8.4.2 | Summary description of device(s) used | | | | | | **:** | |  | | | | | |  |
| 8.5 | **Audible warning device(s)** | | | | | | | | | | | | | | |
| 8.5.1 | Summary description of device(s) used such as horn and their purpose | | | | | | **:** | |  | | | | | |  |
| 8.5.2 | Make(s) | | | | | | **:** | |  | | | | | |  |
| 8.5.3 | Type(s) | | | | | | **:** | |  | | | | | |  |
| 8.5.3.1 | Operating voltage | | | | | | **:** | |  | | | | | |  |
| 8.5.3.2 | Nos of audible warning devices installed | | | | | | **:** | |  | | | | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 8.5.4 | TAC No. / BIS license number/ "E" marking | **:** |  | |  |
| 8.5.5 | Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle | **:** |  | |  |
| 8.5.6 | Dimensional & material Details of the part in front of the Horn(s) which may obstruct audibility | **:** |  | |  |
| **9.0** | **Rear-view mirrors (please provide the following information for each rear-view mirror)** |  |  | |  |
| 9.1 | Make (s) | **:** |  |  |  |
| 9.1.1 | Type Approval Number / E- marking / BIS License No. |  |  |  |  |
| 9.2 | Class of the Mirror as per AIS-002 | **:** |  | |  |
| 9.3 | Drawing(s) showing the location & Installation Dimension Details of the rear-view mirror(s) in relation to the structure of the vehicle | **:** |  | |  |
| 9.4 | Precise information concerning the type of attachment, including that part of the vehicle structure to which the rear-view mirror is attached | **:** |  | |  |
| **10.0** | **Provision for Devices for pillion rider and/or passenger(s)** |  |  | |  |
| 10.1 | Nos of Handholds for pillion Rider in case of 2 Wheeler | **:** |  | |  |
| 10.1.1 | Type: strap and/or handle(1) | **:** |  | |  |
| 10.1.2 | Drawings showing dimensional and material details of strap / handhold(s) and its fixing / bolting details | **:** |  | |  |
| 10.1.3 | Nos. of Handholds for passenger(s) in case of 3 Wheeler |  |  | |  |
| 10.2 | Foot rest for rider and pillion | **:** |  | |  |
| 10.3 | Protective device covering half of the rear wheel.(as applicable) along with Schematic drawing. | **:** |  | |  |

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| --- | --- | --- | --- | --- |
| **11.0** | **Spray suppression device (as applicable)** | **:** |  |  |
| 11.1 | Diagram showing general arrangement of spray suppression system, Angle θ and relevant dimensions as specified in AIS-103 :2009 |  |  |  |
| 11.2 | Tyre Overall Width (Maximum of variants and tyre makes) |  |  |  |
| **12.0** | **List of Electrical/Electronic Systems which are not previously listed** |  |  |  |
| 12.1 | List of all subassemblies, which includes an electronic oscillator or switching frequency greater than 9kHz (like ECU, instrument Cluster, Body Control Module etc.) |  |  |  |
| 12.1.1 | Device Name |  |  |  |
| 12.1.2 | Make |  |  |  |
| 12.1.3 | Identification number(ID) / Part No./Drawing No. |  |  |  |
| 12.2 | **List of all Electrical components, which include Broadband EMI sources (like HAVC Motor, Wiper Motor and Horn etc.)** |  |  |  |
| 12.2.1 | Device Name |  |  |  |
| 12.2.2 | Make |  |  |  |
| 12.2.3 | Identification number(ID) / Part No./Drawing No. |  |  |  |
| **13.0** | **Any other features manufacturer desires to declare** |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **INFORMATION RELATING SOLELY TO L5 CATEGORY BATTERY OPERATED VEHICLES** | | | |
| **1.0** | **Dimensions and weights** (in mm and kg) (where necessary, refer to drawings) | | | |
| 1.1. | **Dimensions to be complied with when building un-bodied chassis** | **:** |  |  |
| 1.1.1. | Length | **:** |  |  |
| 1.1.2. | Width | **:** |  |  |
| 1.1.3. | Unladen height | **:** |  |  |
| 1.1.4. | Front overhang | **:** |  |  |
| 1.1.5. | Rear overhang | **:** |  |  |
| 1.2. | **Weights** |  |  |  |
| 1.2.1. | Maximum payload declared by manufacturer | **:** |  |  |
| **2.0** | **Equipment** | | | |
| 2.1 | **Windscreen and other glazing** | **:** |  |  |
| 2.1.1. | Windscreen | **:** |  |  |
| 2.1.1.1 | Make and Materials used | **:** |  |  |
| 2.1.1.2 | Type Approval Number/E-marking / BIS license number: | **:** |  |  |
| 2.1.2 | Other glazing | **:** |  |  |
| 2.1.2.1 | Make and Materials used | **:** |  |  |
| 2.1.2.2 | Type Approval Number/E-marking / BIS license number: | **:** |  |  |
| 2.2 | **Windscreen wiper(s)** | **:** |  |  |
| 2.2.1 | Detailed technical description : Layout including location of "R" Point, "H' Point and related dimensions of wiping area and related dimensions of wiper arm(s) and co-ordinates of mounting (see AIS-045) | **:** |  |  |
| 2.3 | **Seats** | **:** |  |  |
| 2.3.1 | Number | **:** |  |  |
| 2.3.2 | Location | **:** |  |  |
| 2.3.3 | Coordinates or drawing of the R point declared by manufacturer | **:** |  |  |
| 2.3.3.1 | Driving seat | **:** |  |  |
| 2.3.4 | Intended seat-back inclination | **:** |  |  |
| 2.3.4.1 | Driving seat | **:** |  |  |

Footnotes: -

1. State as appropriate
2. Where a device has been component type-approved, the description may be replaced by a reference to that component type-approval. Likewise, no description is needed where a component's structure is clear from the diagrams or drawings attached to the certificate. State the numbers of the corresponding Annexes for each heading where photographs and drawings must be attached.

Where used, means of identification may appear only on vehicles, separate technical units or components falling within the scope of the AIS / IS governing components type-approval.

1. Classification in accordance with AIS-053.
2. Maximum payload declared by the manufacturer: - load obtained by subtracting the weight defined in 2.2, from the mass defined in 2.3.
3. The mass of the rider is taken to be a round figure of 75 kg.
4. This figure should be to the nearest tenth of a millimeter.
5. This value should be calculated with pi = 3,1416 to the nearest cm3
6. The information requested should be supplied for a possible variant.
7. A tolerance of 5 % is permitted provided that the limit values pursuant to AIS-017 are not exceeded.
8. Where unconventional engines and systems are fitted, information equivalent to that referred under this heading must be supplied by their manufacturer.
9. In case of CNG / LPG vehicles the additional details in Table 21 format shall be applicable. In case BOV, additional details as per table 13 shall be applicable

Table 1B AIS-007 (Revision 5)

DETAILED TECHNICAL SPECIFICATIONS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **INFORMATION RELATING JOINTLY TO E-RICKSHAW / E-CART** | | | | | | | |
| **0.0** | **General** | | | | | | |
| 0.1 | Make | **:** |  | | | | |
| 0.2 | Type (state any possible variants and versions: each variant and each version must be identified by a code consisting of numbers or a combination of letters and numbers) | **:** |  | | | | |
| 0.2.1 | Commercial name (s) | **:** |  |  | | |  |
| 0.3 | Vehicle category (AIS-053) | **:** |  | | | | |
| 0.4 | Name and address of manufacturer with contact persons’ name, designation, e-mail, phone nos. etc.  Provide details of importer, if applicable. | **:** |  | | | | |
| 0.4.1 | Name(s) and address (es) of assembly plants | **:** |  |  | | |  |
| 0.4.2 | Name and address of the vehicle importer |  |  |  | | |  |
| 0.5 | Name and address of manufacturer's authorized representative. if any | **:** |  | | | | |
| 0.6 | Method of inscription of VIN on the chassis | **:** |  | | | | |
| 0.6.1 | The serial numbering (of production vehicles) of the type begins with No | **:** |  | | | | |
| 0.7 | Position and method of affixing the component type-approval mark for components and separate technical units | **:** |  | | | | |
| 1.0 | General arrangement of the vehicle | | | | | | |
| 1.1 | Photos and/or drawings of a typical vehicle | **:** |  | |  | |  |
| 1.2 | Drawing of the complete vehicle indicating overall length, width, track and height. | **:** |  | |  |  | |
| 1.2.1 | Wheelbase | **:** |  | |  |  | |
| 1.3 | Number of axles and wheels (where appropriate. number of crawler tracks or belts): | **:** |  | | | | |
| 1.4 | Number of seating positions | **:** |  | | | | |
| 2.0 | Weights (in kg) | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2.1 | | | Vehicle kerb weight(9) | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.1.1 | | | Distribution of that weight between the axles | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.2 | | | Vehicle kerb weight together with rider (reference weight) | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.3 | | | Gross Vehicle Weight | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.3.1 | | | Division of that weight between the axles | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.3.2 | | | Maximum technically permissible weight (maximum permissible axle weight) on each of the axles | | | | | |  | | |  | | | | |  | | | |  | | | |
| 2.3.2.1 | | | Front Axle | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| 2.3.2.2 | | | Rear Axle | | | | | | **:** | | |  | | | | |  | | | |  | | | |
| **3.0** | | | **Transmission(8)** | | | | | | | | | | | | | | | | | | | | | |
| 3.1. | | | Diagram of transmission system | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.2. | | | Type (mechanical, hydraulic, electrical, etc.) (1): | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.3. | | | Clutch (type) | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4. | | | **Gearbox** | | | | | |  | | |  | | | | | | | | |  | | | |
| 3.4.1. | | | Type: automatic/manual(1) | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.2. | | | Method of selection: by hand/foot(1) | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.2.1 | | | Gear shifting pattern | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3. | | | **Gear ratios** | | | | | |  | | |  | | | | | | | | |  | | | |
| 3.4.3.1 | | | Primary ratio | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.2 | | | Secondary ratio | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.3 | | | Individual and Overall ratios | | | | | |  | | |  | | | | | | | | |  | | | |
| 3.4.3.3.1 | | | First gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 4.4.3.3.2 | | | Second gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.3.3 | | | Third gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.3.4 | | | Fourth gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.3.5 | | | Fifth gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.3.6 | | | Sixth gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.4 | | | Minimum continuously  Variable transmission | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.5 | | | Maximum continuously  Variable transmission | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.4.3.6 | | | Reverse Gear | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.5. | | | Brief description of the ECUs used in the transmission | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 3.6. | | | Maximum speed of vehicle and gear in which it is reached (in km/h)(9) | | | | | | **:** | | |  | | | | | | | | |  | | | |
| **4.0** | | | **Suspension** | | | | | | | | | | | | | | | | | | | | | |
| 4.1 | | | **Drawing of suspension arrangement** | | | | | | **:** | | |  | | | | | | | | |  | | | |
| 4.1.2 | | | Springs front and rear | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.1.3 | | | Anti-roll bar | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.1.4 | | | Shock Absorbers front and rear | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2. | | | **Tyres (standard type): (Enclose annexure, if required)** | | | | | |  | | |  | | | | | | |  | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Tyre | Variant / version | | | | Type | | Size designation with speed category symbol and load capacity index | | | | Make (s) | | | | Type Approval Number or BIS license number or identification | | | | | Dynamic  Rolling  Radius | | | | |
|  |  | | | |  | |  | | | |  | | | |  | | | | |  | | | | |
|  |  | | | |  | |  | | | |  | | | |  | | | | |  | | | | |
|  |  | | | |  | |  | | | |  | | | |  | | | | |  | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2.1 | | | Tyre pressures recommended by the manufacturer: | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2.1.1 | | | Laden ( kg/cm2 / kPa) | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2.1.2 | | | Unladen (with driver)  ( kg/cm2 / kPa) | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2.2 | | | Tyre/wheel (rim) combinations | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2. 3 | | | Minimum-speed category symbol compatible with the theoretical maximum design speed of the  vehicle | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2.4 | | | Minimum load-capacity index with the maximum load on each tyre: | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.2.5 | | | Categories of use compatible for the vehicle | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.3 | | | Wheel rims | | | | | |  | | |  | | | | | | |  | | | | | |
| 4.3.1 | | | Designation (front and rear) | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.3.2 | | | Type (Alloy / Sheet metal / spoke) | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 4.3.3 | | | Maximum design loading capacity | | | | | | **:** | | |  | | | | | | |  | | | | | |
| **5.0** | | | **Steering** | | | | | | | | | | | | | | | | | | | | | |
| 5.1 | | | Steering gear and control | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 5.1.1 | | | Type of steering control(handle bar/wheel) | | | | | |  | | |  | | | | | | |  | | | | | |
| 5.1.2 | | | Location of Steering Wheel ( centre / offset ) | | | | | |  | | |  | | | | | | |  | | | | | |
| 5.1.3 | | | Type of gear | | | | | | **:** | | |  | | | | | | |  | | | | | |
| 5.1.4 | | | Brief description of the ECUs used in the steering system | | | | | | **:** | | |  | | | | | | |  | | | | | |
| **6.0** | | | **Braking** | | | | | | | | | | | | | | | | | | | | | |
| 6.1 | | | Diagram of braking devices | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.2 | | | Front and rear brakes, disc and/or drum (1) and their numbers | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.2.1. | | | Make(s) Front and rear | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.2.2. | | | Type(s) ( Hydraulic / Mechanical / Other) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3 | | | Drawing of parts of the brake system | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.1 | | | Shoes and/or pads (1) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.2 | | | Linings and/or pads (Indicate make, grade of material or identification mark) (1) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.3 | | | Brake levers and/or pedals(1) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.4 | | | Hydraulic reservoirs (where applicable) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.5 | | | Front and rear pad/liner dimensions | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.6 | | | Front and rear braking area | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.7 | | | Diameter of front and rear disc or drum | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8 | | | **ABS (Yes/No)** | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.1 | | | Directly controlled wheels (Front or rear) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.2 | | | Sensors (Make )(front /Rear) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.2.1 | | | Identification number(ID) / Part No./Drawing No. | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.3 | | | Make of modulator(front /rear) | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.3.1 | | | Identification number(ID) / Part No./Drawing No. | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.4 | | | Make of ABS ECU | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.4.1 | | | Make of controller | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.3.8.5 | | | Identification number(ID) / Part No./Drawing No. | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.4 | | | Other devices (parking brake, etc.) (where applicable): drawing and description | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.5 | | | Brief description of the ECUs used in the braking system | | | | | | | **:** | | |  | | | | | | | | |  | | |
| 6.6 | | | Brake hose – make(s) and Type Approval Number or BIS license number or identification: | | | | | | | **:** | | |  | | | | | | | | | | | |
| 6.7 | | | Brake fluid – make(s) | | | | | | | **:** | | |  | | | | | | | | | | |  |
| 6.8 | | | Control cables (in case of E-rickshaw/E-cart) | | | | | | |  | | |  | | | | | | | | | | |  |
| 6.8.1 | | | Make | | | | | | |  | | |  | | | | | | | | | | |  |
| 6.8.2 | | | Cable Diameter | | | | | | |  | | |  | | | | | | | | | | |  |
| **7.0** | | | **Lighting and light-signaling devices** | | | | | | | | | | | | | | | | | | | | | |
| 7.1 | | | List of all devices (Enclose annexure, if required) | | | | | | | **:** | | |  | | | | | | | | | | |  |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Device | | | | Variant / Version | | Number | | make | | Type Approval Number | | | | | | Lens  Colour | | Tell-tale  Colour | | | | | | |
| Head Lamp High beam | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Head Lamp dipped beam | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Front position light | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Tail / stop light | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Number plate illumination light | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Direction indicator lights, front and rear | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Parking lights | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Reversing light(s) | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Reflex reflector rear | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Reflex reflector side(if provided) | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
| Hazard warning lamp (wherever applicable) | | | |  | |  | |  | |  | | | | | |  | |  | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.1.1 | | Maximum intensity of Head lamp | | | | | | | | **:** | | | |  | | | | | | | | |  | |
| 7.2 | | Diagram showing the location of the lighting and light-signaling devices on vehicle with relevant dimensions (see AIS-009) | | | | | | | | **:** | | | |  | | | | | | | | |  | |

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| 7.3 | Additional requirements relating to special vehicles | | | | | **:** | |  | | | |  |
| 7.4 | Brief description of the ECUs used in the lighting system and in the light-signaling system | | | | | **:** | |  | | | | |
| 7.5 | List of all bulbs (Enclose annexure, if required.) | | | | |  | |  | | | |  |
|  | | | | | | | | | | | | |
| Bulb used for | | | Variant / Version | number | make | | Type Approval Number | | colour | Designation  as per AIS-034 | | |
| Head lamp high beam / low beam | | |  |  |  | |  | |  |  | | |
| Front position light | | |  |  |  | |  | |  |  | | |
| Tail / stop light | | |  |  |  | |  | |  |  | | |
| Number plate illumination light | | |  |  |  | |  | |  |  | | |
| Direction indicator lights | | |  |  |  | |  | |  |  | | |
| Parking light | | |  |  |  | |  | |  |  | | |
| Reversing light (s) | | |  |  |  | |  | |  |  | | |
| Hazard warning lamp | | |  |  |  | |  | |  |  | | |
|  | | | | | | | | | | | | |
| **8.0** | | **Equipment** | | | | | | | | | | |
| 8.1 | | Arrangement and identification of controls, tell-tales and indicators  (as per AIS-071as applicable) | | | |  | |  | | |  | |
| 8.1.1 | | Photographs and/or drawings of the arrangement of the symbols, controls, tell-tales and indicators | | | | **:** | |  | | |  | |
| 8.2 | | Statutory inscriptions | | | |  | |  | | |  | |
| 8.2.1 | | Photographs and/or drawings showing the location of VIN. | | | | **:** | |  | | |  | |
| 8.2.2 | | Height of VIN characters. | | | | **:** | |  | | |  | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 8.3 | **Audible warning device(s)** | **:** |  | |  |
| 8.3.1 | Summary description of device(s) used such as horn and their purpose | **:** |  | |  |
| 8.3.2 | Make(s) | **:** |  | |  |
| 8.3.3 | Type(s) | **:** |  | |  |
| 8.3.3.1 | Operating voltage | **:** |  | |  |
| 8.3.3.2 | Nos of audible warning devices installed | **:** |  | |  |
| 8.3.4 | TAC No. / BIS license number/ "E" marking | **:** |  | |  |
| 8.3.5 | Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle | **:** |  | |  |
| 8.3.6 | Dimensional & material Details of the part in front of the Horn(s) which may obstruct audibility | **:** |  | |  |
| **9.0** | **Rear-view mirrors (please provide the following information for each rear-view mirror)** |  |  | |  |
| 9.1 | Make (s) | **:** |  |  |  |
| 9.1.1 | Type Approval Number / E- marking / BIS License No. |  |  |  |  |
| 9.2 | Class of the Mirror as per AIS-002 | **:** |  | |  |
| 9.3 | Drawing(s) showing the location & Installation Dimension Details of the rear-view mirror(s) in relation to the structure of the vehicle | **:** |  | |  |
| 9.4 | Precise information concerning the type of attachment, including that part of the vehicle structure to which the rear-view mirror is attached | **:** |  | |  |
| **10.0** | **Provision for Devices for pillion rider and/or passenger(s)** |  |  | |  |
| 10.1 | Nos of Handholds | **:** |  | |  |
| 10.1.1 | Type: strap and/or handle(1) | **:** |  | |  |
| 10.1.2 | Drawings showing dimensional and material details of strap / handhold(s) and its fixing / bolting details | **:** |  | |  |
| 10.1.3 | Nos. of Handholds for passenger(s) in case of 3 Wheeler |  |  | |  |
| 10.2 | Foot rest for rider and pillion | **:** |  | |  |
| 10.3 | Protective device covering half of the rear wheel.(as applicable) along with Schematic drawing | **:** |  | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **11.0** | **Spray suppression device (as applicable)** | **:** |  |  |
| 11.1 | Diagram showing general arrangement of spray suppression system, Angle θ and relevant dimensions as specified in AIS-103 :2009 | **:** |  |  |
| 11.2 | Tyre Overall Width (Maximum of variants and tyre makes) | **:** |  |  |
| **12.0** | **List of Electrical/Electronic Systems which are not previously listed** |  |  |  |
| 12.1 | **List of all subassemblies, which includes an electronic oscillator or switching frequency greater than 9kHz (like ECU, instrument Cluster, Body Control Module etc.)** | **:** |  |  |
| 12.1.1 | Device Name | **:** |  |  |
| 12.1.2 | Make | **:** |  |  |
| 12.1.3 | Identification number(ID) / Part No./Drawing No. | **:** |  |  |
| 12.2 | **List of all Electrical components, which include Broadband EMI sources (like HAVC Motor, Wiper Motor and Horn etc.)** | **:** |  |  |
| 12.2.1 | Device Name |  |  |  |
| 12.2.2 | Make | **:** |  |  |
| 12.2.3 | Identification number(ID) / Part No./Drawing No. | **:** |  |  |
| **13.0** | **Any other features manufacturer desires to declare** | **:** |  |  |
|  | **INFORMATION RELATING SOLELY TO E-RICKSHAW/ E-CART OF L5 CATEGORY VEHICLES** | | | |
| **1.0** | **Dimensions and weights** (in mm and kg) (where necessary, refer to drawings) | | | |
| 1.1. | **Dimensions to be complied with when building un-bodied chassis** |  |  |  |
| 1.1.1. | Length | **:** |  |  |
| 1.1.2. | Width | **:** |  |  |
| 1.1.3. | Unladen height | **:** |  |  |
| 1.1.4. | Front overhang | **:** |  |  |
| 1.1.5. | Rear overhang | **:** |  |  |
| 1.2. | **Weights** |  |  |  |
| 1.2.1. | Maximum payload declared by manufacturer | **:** |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2.0** | **Equipment** | | | |
| 2.1 | **Windscreen and other glazing** | **:** |  |  |
| 2.1.1. | Windscreen | **:** |  |  |
| 2.1.1.1 | Make and Materials used | **:** |  |  |
| 2.1.1.2 | Type Approval Number/E-marking / BIS license number: |  |  |  |
| 2.1.2 | Other glazing | **:** |  |  |
| 2.1.2.1 | Make and Materials used | **:** |  |  |
| 2.1.2.2 | Type Approval Number/E-marking / BIS license number: | **:** |  |  |
| 2.2 | **Windscreen wiper(s)** | **:** |  |  |
| 2.2.1 | Detailed technical description : Layout including location of "R" Point, "H' Point and related dimensions of wiping area and related dimensions of wiper arm(s) and co-ordinates of mounting (see AIS-045) | **:** |  |  |
| 2.3 | **Seats** | **:** |  |  |
| 2.3.1 | Number | **:** |  |  |
| 2.3.2 | Location | **:** |  |  |
| 2.3.3 | Coordinates or drawing of the R point declared by manufacturer | **:** |  |  |
| 2.3.3.1 | Driving seat | **:** |  |  |
| 2.3.4 | Intended seat-back inclination | **:** |  |  |
| 2.3.4.1 | Driving seat | **:** |  |  |

Footnotes: -

1. State as appropriate
2. Where a device has been component type-approved, the description may be replaced by a reference to that component type-approval. Likewise, no description is needed where a component's structure is clear from the diagrams or drawings attached to the certificate. State the numbers of the corresponding Annexes for each heading where photographs and drawings must be attached.

Where used, means of identification may appear only on vehicles, separate technical units or components falling within the scope of the AIS / IS governing components type-approval.

1. Classification in accordance with AIS-053.
2. Maximum payload declared by the manufacturer: - load obtained by subtracting the weight defined in 2.2, from the mass defined in 2.3.
3. The mass of the rider is taken to be a round figure of 75 kg.
4. This figure should be to the nearest tenth of a millimeter.
5. This value should be calculated with pi = 3,1416 to the nearest cm3
6. The information requested should be supplied for a possible variant.
7. A tolerance of 5 % is permitted provided that the limit values pursuant to AIS-017 are not exceeded.
8. Where unconventional engines and systems are fitted, information equivalent to that referred under this heading must be supplied by their manufacturer.
9. In case of CNG / LPG vehicles the additional details in Table 21 format shall be applicable. In case BOV, additional details as per table 13 shall be applicable
10. **Page 27/227, Table 2,**

Add new Sr. No. A 1.6.1 After Sr. No. A 1.6:

|  |  |  |
| --- | --- | --- |
| 1.6.1 | Type of Fuel |  |

1. **Page 30/227, Table 3, Sr. No.** B 3.8.5

Substitute following text for existing text

|  |  |
| --- | --- |
| B3.8.5 | Recommended max speed in Unladen condition |
| B3.8.6 | Recommended max speed Laden condition |

1. **Page 31/227, Table 3,**

Add new Sr. No. B 8.2.4.1 and B 8.2.4.2 after B 8.2.4

|  |  |
| --- | --- |
| B 8.2.4.1 | Air Bag – Part No/ID No/Drawing No, Make |
| B 8.2.4.2 | Air bag deployment time as per IS 11939 for steering impact |

1. **Page 35/227, Table 3, Sr.No. B 22.1.2.1**

Substitute following text for existing text

|  |  |
| --- | --- |
| B22.1.2.1 | Longitudinal / Vertical (If applicable) position of the seats during the tests. |

1. **Page 36/227, Table 3, Sr.No. B 22.1.2.2**

Substitute following text for existing text

|  |  |
| --- | --- |
| B22.1.2.2 | Drawings, diagrams and plans of the seats, their anchorages on the vehicle, the floor layout, the adjustment and displacement system of the seats and their parts, and their locking devices and of additional occupant protection system against displacement of luggage. |

1. **Page 36/227, Table 3, Sr.No. B 22.1.5**

Substitute following text for existing text

|  |  |
| --- | --- |
| B22.1.5 | Seat anchorage co-ordinates with respect to reference point on body shell to be shown on floor drawing. |
| B22.1.6 | Seat Identification No. / Part No/Drawing Number.:   |  |  |  |  | | --- | --- | --- | --- | | Description | Make | ID Number/ Part Number/Drawing number  (Seat Manufacturer/ Vehicle Manufacturer) | Weight (kg) | |  |  |  |  | |

1. **Page 36/227, Table 3, Sr.No. B 22.2.2**

Substitute following text for existing text

|  |  |
| --- | --- |
| B22.2.2 | Brief description and drawings of the seat type, its attachment fittings and its adjustment, displacement and locking systems including the minimum distance between fitting points. |

1. **Page 36/227, Table 3, Sr.No. B 22.2.5**

Substitute following text for existing text

|  |  |
| --- | --- |
| B22.2.5 | Driver Seat and Front Passenger Seat drawings, their anchorages on the vehicle, the floor layout, the adjustment and displacement system of the seats and their parts, and their locking devices, drawings showing ‘H point co-ordinates and seat anchorage co-ordinates with respect to reference point on vehicle |
| B22.2.6 | Seat Identification No. / Part No/Drawing Number.:   |  |  |  |  | | --- | --- | --- | --- | | Description | Make | ID Number/ Part Number/Drawing number  (Seat Manufacturer/ Vehicle Manufacturer) | Weight (kg) | |  |  |  |  | |

1. **Page 36/227, Table 3, Sr.No. B 23.0, B24.0**

Substitute following text for existing text

|  |  |
| --- | --- |
| **B23.0** | **Rear Under run Protective device** |
| B23.1 | Height of lower edge of the device from the ground (mm). |
| B23.2 | Width of the device (mm). |
| B23.3 | Drawing of the rear under-run protective device with dimensions , RUPD cross section, material details etc. |
| B23.4 | Installation drawing showing rear extremity of vehicle, chassis rear overhang, chassis cross section details, tyre details (size, make, unladen pressure)etc., distance between tyre & RUPD RH & LH, frame rear width, P1, P2 points. |
| B23.5 | RUPD Material with specific grade |
| **B24.0** | **Lateral Protection (Side Guards)** |
| B24.1 | Height of the lower edge of the Side Guard from the ground (mm). |
| B24.2 | Drawing of the lateral protection device with dimensions. LPD cross section, material details with grade etc. |
| B24.3 | Distance between tyre & LPD front, rear, RH & LH, distance between supports of LPD, distance between device & load body. |

1. **Page 36/227, Table 3, Sr.No. B31.1.3**

Substitute following text for existing text

Detailed drawing of the door including location of the door strengthening bars, Dimensions of door reinforcements from door lower edge, cross section of the bars, material specification of the bar and door sheet metal, number of reinforcements and details of welding / bolting etc.,( for side door impact test )

1. **Page 41/227, Table 3,Sr.No. 36.0**

Substitute following text for existing text

|  |  |
| --- | --- |
| **B36.0** | **Interior Fittings as per IS 15223 or AIS-047, as applicable** |
| B36.1 | Instrument Panel (Dash Board) |
| B36.2 | Make |
| B36.3 | Identification No. / Part No/Drawing No. |
| B36.4 | Drawing showing the mounting details, overall size and all control switches with dimensions |
| B36.5 | Additional details for interior fitting tests to be given (if test is already conducted, this information need not be submitted). |
| B36.5.1 | Drawing of Instrument Panel Variants (With / without Airbag, Music system, AC) |
| B36.5.2 | Material used for instrument Panel |
| B36.5.3 | Drawings |
| B36.5.3.1 | Instrument Panel mounting (With hardware details) |
| B36.5.3.2 | ‘H’ point co-ordinates for each seating position |
| B36.5.3.3 | Cross sectional drawings for each projection more than 3.2 |
| B36.5.3.4 | Cross sectional Drawing of Gear shift lever |
| B36.5.3.5 | Drawing of Grab handle with cross section |
| B36.5.3.6 | Drawing of Sun visor with details of metal wire used |
| B36.5.3.7 | Drawing of lamp assembly mounted at roof |
| B36.5.3.8 | Drawing of Cigarrete lighter/ charging point |
| B36.5.3.8 | Any other fitment |

1. **Page 44/227, Table 3, Sr.No. B43.0**

Substitute following text for existing text

|  |  |
| --- | --- |
| **B 43.0** | **Front Under run Protective devices as per AIS-069** |
| B 43.1 | Drawing of the vehicle parts relevant to the front under run protection, i.e, drawing of the vehicle and/or chassis with position and mounting and/or fitting of the front under run protective device. Mentioning material details of FUPD & mounting hardware.  If the under run protection is by no special device, the drawing should clearly show as how the required dimensions are met. |
| B 43.2 | In the case of special device, full description and/or drawing of the front under run protection (including mountings and fittings) & material details, distance of P1 & P2 points from center & tyres. |
| B43.3 | Installation drawing of the FUPD with dimensions like cross section,distance between tyre & FUPD RH side & LH side, distance between front extremity & FUPD, width of FUPD, ID marking of FUPD, Width measured from the outermost points of access steps to driver cabin etc. |

1. **Page 47/227, Table 3, Sr.No. B 51.0**

Substitute following text for existing text

|  |  |
| --- | --- |
| **B 51.0** | Pedestrian protection as per AIS-100 : |
|  | The distance, measured longitudinally on a horizontal plane, between the transverse centerline of the front axle & the R point of the driver’s seat is less than 1100 mm (Yes / No). |
| B51.1 | Drawing of Bonnet & wings/ fender including material details |
| B51.2 | Drawing / Images of position & arrangement of Engine |
| B51.3 | Drawing/ Images of Under bonnet (Engine house) Components. |
| B51.4 | Drawing mentioning ground levels for correct ride attitude of the vehicle. |
| B51.5 | If lower bumper height is greater than, or equal to 425 mm and less than 500 mm, then test to be conducted with lower leg form or upper leg form |
| B51.6 | Identified zones of the bonnet top where the HIC must not exceed 1,000 (HIC1000 Zone) & 1,700 (HIC1700 Zone) respectively with drawing of the complete test impact area with 1000 and 1700 HIC zones mark on it. |

1. **Page 47/227, Table 3,**

Add following new Sr.No B 54.0 after Sr.No. B 53.0

|  |  |
| --- | --- |
| B 54.0 | **AIS-029 Survival Space for the Protection of the Occupants of the Cab of a Commercial Vehicle** |
| B 54.1 | Drawing showing R-Point height for vehicle w.r.t ground & fiducial point on the vehicle for driver |
| B 54.2 | **Cabin & Mounts Construction Details :** |
| B 54.3 | Construction: Integrated / Attached with Mounts |
| B 54.4 | If attached with mounts:  Number of cabin mounts:  Cabin type: Tiltable / Fixed |
| B 54.5 | Cabin Size: Day / Sleeper / High-Roof / Low Roof / Extended Day Cab / Any combination |
| B 54.6 | Detailed drawings showing construction details of the cabin in sufficient details alongwith list of materials used in construction of the cabin |
| B 54.7 | Drawings of vehicle, showing the position of the cab on the vehicle and the manner of its attachment, and by sufficiently detailed drawings relating to the structure of the cab, |
| B 54.8 | Layout drawings for different types of cabin mounts available alongwith their position on chassis/frame, material properties of the mounts, attachment details, fastener details etc. |
| B 54.9 | **Interior Space & Standard Fitments** |
| B 54.10 | Layout drawings of the seating layout inside the cabin showing designated position of driver, co-driver, additional passengers, sleeper berths, second row seating positons etc. |
| B 54.11 | Individual drawings of the driver & other seats showing normal position of use along with adjustment positions clearly identified |
| B 54.12 | Layout drawings of the steering mechanism in mounted position along with normal position of use & adjustment positions clearly identified |

1. **Page 48/227, Table 4,**

Add following new Sr.No C 1.13.1 after Sr.No. C1.13

|  |  |
| --- | --- |
| C1.13.1 | Engine Oil grade |

1. **Page 57/227, Table 4,**

Add following new Sr.No C 25.3.1.4 after Sr.No. C 25.3.1.3

|  |  |
| --- | --- |
| C 25.3.1.4 | OBD family declaration following list of basic parameters which are common, |
| C 25.3.1.4.1 | The methods of OBD monitoring. |
| C 25.3.1.4.2 | The methods of malfunction detection. |

1. **Page 59/227, Table 4,**

Add following new Sr.No C 26.4.5 after Sr.No. C 26.4.4

|  |  |
| --- | --- |
| C 26.4.5 | Any other declaration from manufacturer |

1. **Page 75/227, Table 4D,**

Substitute following text for existing text.

|  |  |
| --- | --- |
| 3.13 | Vehicle Max Speed |
| 3.13.1 | In unladen condition |
| 3.13.2 | In laden condition |

1. **Page 104/227, Table 7,**

Add following two rows above title “seating”

|  |  |
| --- | --- |
| Vehicle Max Speed in unladen condition |  |
| Vehicle Max Speed in laden condition |  |

1. **Page 111/227, Table 7,**

Add new row number 22 with title “Type of Fuel”

1. **Page 111/227, Table 7,**

Add new row number 23 with title “Ground clearance for vehicle of category M1 in accordance with IS-9435”

1. **Page 112/227, Table 6, Sr. No. E 22.4**

Substitute following text for existing text.

List of all subassemblies, which includes an electronic oscillator or switching frequency greater than 9 kHz (like ECU, steering, suspension, Body Control Module, etc.). The list shall include Device name, Make/s and Part No. /Type ID/Drawing No

Please fill information about Vehicle Alarm System (VAS)/ Immobilizer as per Annexure A to Table 6, if fitted.

1. **Page 112/227, Table 6**

Add following new Annexure A after Sr. No. E 23.0

**Annexure A to Table 6**

**Information to be submitted for Type approval**

**of VAS and/or Immobilizer**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Information sheet for AIS-076 |  | |
| 1.0 | **Description of the VAS** |  | |
| a. | Make |  | |
| b. | Type |  | |
| c. | Serial Number |  | |
| d. | Name and Address of manufacture |  | |
| 1.1 | A detailed description of the alarm system and of the vehicle parts related to alarm system installed with Block Diagram | | |
|  |  | | |
| 1.2 | A list of main components comprising the alarm system | |  |
| 1.2.1 | Components placed in Engine compartment | |  |
| 1.2.2 | Components placed in Passenger compartment | |  |
| 1.3 | Availability of radio/wireless transmission Yes/No | |  |
| 1.3.1 | Details of radio/wireless transmission if any | |  |
| 1.3.2 | frequency | |  |
| 1.3.3 | Availability of WPC approval for wireless technology Yes/No | |  |
| 1.4 | The measures taken against false alarm | |  |
| 1.5 | Range of protection offered by the device. Details about the detection mechanism (opening of Door, Bonnet, luggage compartment, intrusion etc.) | |  |
| 1.6 | Details & specification of audible alarm | |  |
| 1.7 | Details & specification of optical alarm | |  |
| 1.8 | Details & specification of radio alarm if fitted | |  |
| 1.9 | Method of setting/ unsetting the device | |  |
| 1.10 | Type of key used for unsetting (Mechanical Key / electronic device) | |  |
| 1.11 | Number of interchangeable codes, if applicable(Supplier to provide undertaking regarding incorporation of rolling code) | |  |
| 1.12 | Exit delay in Sec | |  |
| 1.13 | Entry Delay in sec | |  |
| 1.14 | Details of status display (0.5cd) | | c  c |
| 1.15 | Details of self check , automatic failure indication | |  |
| 1.16 | Details about the panic alarm , if provided | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **2.0** | **Description of the Immobilizer** |  | |
| **a.** | Make |  | |
| **b.** | Type |  | |
| **c.** | Serial Number |  | |
| **d.** | Name and Address of manufacture |  | |
| 2.1 | A detailed description of the vehicle immobilizer and of the vehicle and the measures taken against inadvertent activation with block diagram. | | |
|  |  | | |
| 2.2 | The vehicle system(s) on which the immobilizer acts. | |  |
| 2.3 | Details of radio/wireless transmission if any | |  |
| 2.4 | Method of setting/ unsetting the device. | |  |
| 2.5 | Number of interchangeable codes, if applicable(Supplier to provide undertaking regarding incorporation of rolling code) | |  |
| 2.6 | A list of main components comprising the device | |  |
| **3.0** | **Instructions (Applicable for both VAS & Immobilizer)** | |  |
| 3.1 | Instructions for use | |  |
| 3.2 | Instructions for maintenance (if any) | |  |

1. **Page 112/227, Table 6, Sr. No. E 22.4.1**

Substitute following text for existing text.

List of all Electrical components, which include Broadband EMI sources (like HAVC Motor, Wiper Motor, Window motor and Horn etc.)The list shall include Device name, Make/s and Part No. /Type ID/Drawing No

1. **Page 188/227, Table 17,**

Add following new Sr.No. 26.27 after Sr. No. 26.26

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 26.27 | | Horn | |  | |
| 26.27.1 | | Make and country of origin(if imported) | |  | |
| 26.27.2 | | Type(As per IS 1884:1993) | |  | |
| 26.27.3 | | Operating Voltage | |  | |
| 26.27.4 | | Identification No./ Part No. | |  | |
| 26.27.5 | | Number | |  | |
| 26.27.6 | | Drawing showing installation of horn | |  | |
| 26.27.7 | | The shape and material of the body work at the front of the horn, which might be affect the level of the sound, emitted by the horn and have a masking effect. | |  | |
| 26.28 | | Rear View mirror | |  | |
| 26.28.1 | | Make and country of origin(if imported) | |  | |
| 26.28.2 | | Type | |  | |
| 26.28.3 | | Identification No./ Part No. | |  | |
|  | |  | |  | |
| Component | | | Manufacturer name | Identification No. | TAC No |
| Head Lamp | Main | |  |  |  |
| Passing | |
| Position Lamp/ Parking Lamp | Front | |  |  |  |
| Rear | |
| Direction Indicator | Front | |  |  |  |
| Rear | |
| Rear Combination Lamp assembly(RCL) | | |  |  |  |
| Stop Lamp | | |  |  |  |
| Reflex Reflector | | |  |  |  |
| Rear Registration Plate Illumination Lamp | | |  |  |  |
| Rear Warning Triangle | | |  |  |  |

1. **Page 203/227, Table 22**

Substitute following Table 22 for Existing Table 22.

Table 22 of AIS-007 (Revision 5)

**TECHNICAL SPECIFICATION OF BUS CODE RELATED PARAMETERS   
TO BE SUBMITTED BY BUS MANUFACTURER OR BUS BODY BUILDER**(To be used for approval of BUS BODY in lieu of Annex I of AIS-052 (Rev. 1))

|  |  |  |
| --- | --- | --- |
| **1.0** | Details of Bus manufacturer / Bus Body Builder |  |
| 1.1 | Name & Address : |  |
| 1.2 | Telephone No : |  |
| 1.3 | Fax. No. : |  |
| 1.4 | E mail address : |  |
| 1.5 | Contact person : |  |
| 1.6 | Name of model : |  |
| 1.7 | Name of variants, if any: |  |
| 1.8 | Type and General commercial description (s) : |  |
| 1.9 | Plant/(s)of manufacture : |  |
| 1.10 | **Details of Bus Manufacturing facility Accreditation** |  |
| 1.10.1 | Category of Bus Body Builder |  |
| ~~1.10.2~~ | ~~Details of provisional certificate issued by the Zonal Accreditation Board(ZAB), ( Certificate Number and date )~~ |  |
| 1.10.3 | Details of valid Accreditation certificate / Accreditation Extension Certificate issued by the Test Agency, ( Certificate Number and date ) |  |
| 1.11 | Details of the base CMVR Compliance Certificate issued to the Chassis ( Certificate Number and date ) |  |

|  |  |  |
| --- | --- | --- |
| 2 .0 | Vehicle Chassis Characteristics |  |
| 2.1 | Chassis types approved for Body installation : |  |
| 2.2 | Type of Control (normal control/Full forward control etc.) : |  |
| 2.3 | Number of Axles and wheels : |  |
| 2.4 | Chassis (overall drawing) : |  |
| 2.5 | Frame Type : |  |
| 2.6 | Cross sectional view : |  |
| 2.7 | Position and arrangement of engine: |  |
| 2.8 | **Dimension (in mm) (Specify drawing reference) :** |  |
| 2.8.1 | Length mm : |  |
| 2.8.2 | Width mm : |  |
| 2.8.3 | Height (Unladen) mm : |  |
| 2.8.4 | Wheel base mm : |  |
| 2.8.5 | Wheel track mm :  Front :  Rear : |  |
| 2.8.6 | Body overhang mm :  Front end :  Rear end : |  |
| 2.9 | **Category of vehicle :** |  |
| 2.9.1 | As per IS 14272 Part 1/AIS-053 : |  |
| ~~2.9.2~~ | ~~As per IS 11852 Part 2/ :~~ |  |
| 3.0 | Body: |  |
| 3.1 | Type of Body : (Type I, Type II, Type III & Type IV) |  |
| 3.2 | Comfort Category :  (NDX, SDX, DLX & ACX) |  |
| 3.3 | Dimension drawing and photograph of the vehicle with representative body : |  |
| 3.4 | Range of vehicle dimension (overall) : |  |
| 3.5 | Dimension drawing of the body depicting chassis connecting members : |  |
| 3.6 | Material used for construction : |  |
| 3.6.1 | Structural Material : |  |
| 3.6.2 | Size of sections : |  |
| 3.7 | Method of construction :  (Brief construction method) |  |
| 3.8 | Area for Passenger (m2) :  For seated passengers:  For standing passengers: |  |

|  |  |  |
| --- | --- | --- |
| 3.9 | Number of passengers :  Seated :  Standing : |  |
| 3.10 | Number of Passenger seats :  (As per Seat Layout) |  |
| 3.11 | Passenger capacity :  Maximum (Including driver) :  Crew (Including driver) : |  |
| 3.12 | Number of Service doors : |  |
| 3.13 | Number of emergency exits : |  |
| 3.14 | Number of escape hatches : |  |
| 3.15 | Volume of luggage compartments (m3): |  |
| 4.0 | Clearance |  |
| 4.1 | Minimum road clearance : |  |
| 4.2 | Road clearance from floor (for buses) : |  |
| 4.3 | Approach angle : |  |
| 4.4 | Departure Angle : |  |
| 4.5 | Ramp-over Angle : |  |
| 5.0 | Weights |  |
| 5.1 | Vehicle kerb weight kg :  Front axle :  Rear axle :  Total : |  |
| 5.2 | Gross vehicle weight kg : |  |
| 5.3 | Maximum permissible axle weights kg  Front axle:  Rear axle: |  |
| 5.4 | Reference mass kg : |  |
| 6.0 | Vehicle Stability & Roll Over |  |
| 6.1 | Max. Stable inclination (Laden Condition)  Left ° deg :  Right ° deg : |  |
| **6.2** | **Superstructure Strength / Roll Over Strength compliance established (Yes / No )** |  |
| 6.2.1 | Center of Gravity of the bus in vehicle unladen condition (X-Y-Z, mm) |  |
| 6.2.2 | Overall drawings of the vehicle showing length, width, height, wheelbase, track-widths, deck height etc. |  |

|  |  |  |
| --- | --- | --- |
| 6.2.3 | Layout drawing showing all seating layouts to be approved |  |
| 6.2.4 | Layout drawing showing positions of major mass aggregates such as engine, fuel tanks, AC, Luggage Areas, Axles & Frame etc. |  |
| 6.2.5 | Drawings of superstructure (LH, RH, Front, Rear, Roof alongwith material & strength property details) |  |
| 6.2.6 | detailed description of the superstructure of the vehicle type including its dimensions, configuration and constituent materials and its attachment to any chassis frame; |  |
| 6.2.7 | Joining Technology used along with joint properties for critical load bearing joints identified by the |  |
| 6.2.8 | drawings of the vehicle and those parts of its interior arrangement which have an influence on the strength of the superstructure or on the residual space; - such as but not limited to cant-rail joints, waist-rail joints, handle-bars, luggage racks, partitions, pillars etc. |  |
| 6.2.9 | Drawing indicating details of residual space alongwith the maximum distance between the centre lines of the outboard passenger  Seats, A/C fitment on roof etc. |  |
| 6.2.10 | Drawings showing superstructure design in the areas of door apertures for passenger doors, driver doors & emergency exit doors, roof hatch etc. |  |
| **7.0** | **Tyres** |  |
|  | No. and arrangement of wheels :  Front : Rear :Other : |  |
|  | Inflation pressure – Unladen :  Front :  Rear :  Other |  |
|  | Inflation pressure – Laden : Front :  Rear :  Other : |  |
| **8.0** | **Body Panels** |  |
| 8.1 | Outer Panels : |  |
| 8.1.1 | Material : |  |
| 8.1.2 | Thickness : |  |
| 8.2 | **Inner Panels :** |  |
| 8.2.1 | Material : |  |
| 8.2.2 | Thickness : |  |
| 8.3 | **Roof Panels :** |  |
| 8.3.1 | Material : |  |
| 8.3.2 | Thickness : |  |
| 8.4 | **Floor Panels :** |  |
| 8.4.1 | Material : |  |
| 8.4.2 | Thickness : |  |
| 8.4.3 | Type of anti-slip coating : |  |
| 9.0 | Service Doors |  |
| 9.1 | No. of Service Doors : |  |
| 9.2 | Position of Service Doors : |  |
|  | Dimension of Service Door:- Front Height: Width :  - Rear Height :  Width :  - Middle Height :  Width : |  |
| **10.0** | **Emergency Exit** |  |
| 10.1 | No. of Emergency Doors : |  |
| 10.2 | Position of Emergency Doors : |  |

|  |  |  |
| --- | --- | --- |
| 10 3 | Dimension of Emergency Door:- Ist Height:Width:- IInd  Height: Width |  |
| **11.0** | **Window** |  |
| 11.1 | **Window (other than Emergency exit)** |  |
| 11.1.1 | Dimension of Window aperture along with the detailed drawing showing the dimensions |  |
| 11.1.2 | Height of upper edge of window aperture from gangway floor (mm) |  |
| 11.1.3 | Type of window (with sliding glass/ sealed glass) |  |
| 11.1.4 | Compliance to AIS-068 (Yes/No): |  |
| 11.1.5 | Manufacturer of the windows(Other than emergency exit) |  |

|  |  |  |
| --- | --- | --- |
| 11.1.6 | Manufacturers part number/Drawing numbers for windows(other than emergency exit) |  |
| 11.2 | **Emergency Windows** |  |
| 11.2.1 | No. of Emergency Windows : |  |
| 11.2.2 | Position of Emergency Windows : |  |
| 11.2.3 | Area (HxW in sq. m) : |  |
| **12.0** | **Escape Hatch** |  |
| 12.1 | No. of Emergency Hatches : |  |
| 12.2 | Position of Emergency Hatches : |  |
| 12 3 | Area (HxW in sq. m) |  |
| **13.0** | **Steps** |  |
| 13.1 | Height of Ist Step : |  |
| 13.2 | Height of Other Steps : |  |
| 13.3 | Depth of steps : |  |
| **14.0** | **Floor :** |  |
| 14.1 | Floor Height from the ground (unladen): |  |
| 14.2 | Slope of floor : |  |
| **15.0** | **Gangway** |  |
| 15.1 | Height : |  |
| 15.2 | Width (diameter of gauging device – lower cylinder) : |  |
| 15.3 | Width (diameter of gauging device – upper cylinder) : |  |
| **16.0** | **Handrails & Handholds :** |  |
| 16.1 | Position (attach dimension layout) : |  |
| 16.2 | No. of Handholds : |  |
| 16.3 | Diameter of Handholds : |  |
| 16.4 | Type of anti-slip coating / covering : |  |
| **17.0** | **Stepwell Guard :** |  |
| 17.1 | Height from the floor : |  |
| 17.2 | Projection from the side wall : |  |
| **18.0** | **Seats** |  |
| 18.1 | **Driver/Co-driver or Front Passenger Seat** |  |
| 18.1.1 | Make |  |
| 18.1.2 | Type |  |
| 18.1.3 | Identification Number |  |
| 18.1.4 | Seat Drawing no. |  |
| 18.2 | **Passenger Seats :** |  |
| 18.2.1 | Make |  |
| 18.2.2 | Type |  |
| 18.2.3 | Identification Number (S) |  |
| 18.2.4 | Seat Drawing no. |  |
| 18.2.5 | Seat Layout(S) : Enclose the Layout Drawings |  |
| 18.2.6 | Seat width : |  |
| 18.2.7 | Width of available space for one seating position : |  |
| 18.2.8 | Height of backrest : |  |
| 18.2.9 | Width of Armrest : |  |
| 18.2.10 | Depth of Seat cushion (base) : |  |
| 18.2.11 | Seat Pitch : |  |
| 18.2.12 | Seat base height : |  |
| 18.2.13 | Torso angle : |  |
| 18.2.14 | Seat base thickness : |  |
| 18.2.15 | Seat back thickness : |  |
| 18.2.16 | Clearance space for seated passengers facing partition : |  |
| 18.2.17 | Free Height over seating position : |  |

|  |  |  |
| --- | --- | --- |
| 18.2.18 | Seat anchorage layout drawing ( with anchorage cross section and hardware used details) |  |
| **19.0** | **Cabin Luggage Rack :** |  |
| 19.1 | Width from side wall : |  |
| 19.2 | Height from Roof : |  |
| **20 .0** | **Driver Partition :** |  |
| 20.1 | Dimension of partition with respect to rear edge of driver seat: (rear most position of driver seat) |  |
| **21.0** | **Driver’s Work Area:** |  |
| 21.1 | Width from the right side wall: |  |
|  | Distance of driver partition from the driver seat back: |  |
|  | Distance from H-point to Roof Top : |  |
|  | Distance between Heel Point and H-Point : |  |
|  | Distance of H-Point from Floor : |  |
|  | Distance of lower end of steering wheel from driver seat back : |  |
|  | Thigh clearance of Steering Wheel |  |
| **22.0** | **External Projections** |  |
| 22.1 | Ornaments : |  |
| 22.2 | Projection for head light : |  |
| 22.3 | Radiator grills (Applicable of on external surface) : |  |
| 22.4 | Gap between individual elements : |  |
| 22.5 | Radius of curvature of individual element : |  |
| 22.6 | Body Panel ( In case of radius of curvature of folds in body panels are less than 2.5mm the scaled drawing of folds contour and H value as per Annex A of SS29/IS 13942 is required (to be submitted) : |  |
| 22.7 | Radius of curvature of lateral Rain/Air deflector:  Hinges :  Handles : |  |
| 23.0 | Power Operated Service door |  |
| 23.1 | Name of the Manufacturer : |  |
| 23.2 | Identification : |  |
| 23.3 | Position of control : |  |
| 24 0 | Automatic Service door |  |
| 24.1 | Name of the Manufacturer : |  |
| 24.2 | Identification : |  |
| 24.3 | Position of controls : |  |
| 24.4 | Control Circuit (schematic diagram) : |  |
| **25.0** | **Emergency Door – Warning Device** |  |
| 25.1 | Name of the Manufacturer : |  |
| 25.2 | Identification : |  |
| 25.3 | Position of device : |  |
| **26.0** | **Door locks and hinges** |  |
| 26.1 | **Door lock :** |  |
| 26.1.1 | Name of Manufacturer : |  |
| 26.1.2 | TAC No. : |  |
| 26.2 | **Door hinge :** |  |
| 26.2.1 | Name of Manufacturer : |  |
| 26.2.2 | TAC No. : |  |
| **27.0** | **Safety glass** |  |
| 27.1 | Front wind shield (laminated) : |  |
| 27.1.1 | Make |  |
| 27.1.2 | Identification : |  |
| 27.1.3 | Type (flat/curved, clear/tinted) : |  |
| 27.1.4 | Thickness mm : |  |
| 27.1.5 | No. of pieces : |  |
| 27.1.6 | Length and Height |  |
| 27.2 | **Side Windows:** |  |
| 27.2.1 | Make |  |
| 27.2.2 | Identification |  |
| 27.2.3 | Type (flat/curved, clear/tinted, toughened) : |  |
| 27.2.4 | Thickness mm : |  |
| 27.2.5 | Length and Height |  |
| 27.3 | **Rear Window:** |  |
| 27.3.1 | Make |  |
| 27.3.2 | Identification |  |
| 27.3.3 | Type (flat/curved, clear/tinted, toughened) : |  |
| 27.3.4 | Thickness mm : |  |
| 27.3.5 | Length and Height |  |
| **28.0** | **Rear view mirror** |  |
| 28.1 | Left : |  |
| 28.1.1 | Name of Manufacturer : |  |
| 28.1.2 | Identification Mark (TAC No./ E-Marking/ BIS Licence No.) |  |
| 28.2 | Right : |  |
| 28.2.1 | Name of Manufacturer : |  |
| 28.2.2 | Identification Mark: (TAC No./ E-Marking/ BIS Licence No.) |  |
| 28.3 | Sketch showing mirrors installation dimensions and ocular point angle (with RH mirror) on the bus |  |
| **29.0** | **Wind Screen Wiper** |  |
| 29.1 | Wiper movement pattern (Tandem / Opposed) |  |
| 29.2 | No. of wipers : |  |
| 29.3 | Wiper motor : |  |
| 29.3.1 | Name of Manufacturer : |  |
| 29.3.2 | Identification (Part No.) |  |
| 29.3.3 | Rated voltage : |  |
| 29.3.4 | Frequency of wiping : |  |
| 29.4 | **Wiper arm :** |  |
| 29.4.1 | Length : |  |
| 29.4.2 | Name of Manufacturer : |  |
| 29.4.3 | Identification (Part No.) |  |
| 29.5 | **Wiper blade :** |  |
|  | Length : |  |
| 29.5.2 | Name of Manufacturer : |  |
| 29.5.3 | Identification (Part No.) |  |
| 29.6.2 | Drawing indicating the seat back angle, seat travel, drivers ‘R’ point, Rake angle ,F dimension And steering wheel position as per IS:15802 |  |
| **30.0** | **Equipment for occupant's safety** | |
| 30.1 | Driver Seat belt : |  |
| 30.1.1 | Name of Manufacture: : |  |
| 30.1.2 | Type : |  |
| 30.1.3 | Number : |  |
| 30.1.4 | Identification Number: |  |
| 30.2 | **Driver Seat belt anchorage :** |  |
| 30.2.1 | Name of Manufacturer : |  |
| 30.2.2 | Type : |  |
| 30.2.3 | Number : |  |
| 30.3 | **Head restraint :** |  |
| 30.3.1 | Name of Manufacturer : |  |
| 30.3.2 | Type : |  |
| 31.1 | **Passenger Seat :** |  |
| 31.1.1 | Name of Manufacturer : |  |
| 31.1.2 | Type : |  |
| 31.1.3 | Frame structure Material : |  |
| 31.1.4 | Section size: |  |
| 31.1.5 | Pad material: |  |
| 31.1.6 | Upholstery : |  |
| 31.1.7 | Identification Number: |  |
| **32.0** | **Bumper** |  |
| 32.1 | Front Size: |  |
| 32.2 | Rear Size: |  |
| 32.3 | Clearance between bumper & body : |  |
| **33.0** | **Fuel filler** | |
| 33.1 | Aperture : |  |
| 33.2 | Position : |  |
| **34.0** | **Fire Extinguisher** | |
| 34.1 | Number : |  |
| 34.2 | Type : |  |
| 34.3 | Capacity : |  |
| 34.4 | Name of Manufacture: : |  |
| **35.0** | **First Aid Equipment** |  |
| 35.1 | Number : |  |
| 35.2 | Contents : |  |
| **36**.**0** | **Towing devices** |  |
| 36.1 | Type : |  |
| 36.2 | Name of manufacturer : |  |
| 36.3 | Capacity : |  |
| 36.4 | Identification Number |  |
| **37.0** | **Automotive bulbs :** |  |
| 37.1 | **Head lamp bulb (main and dip)** |  |
| 37.1.1 | Make |  |
| 37.1.2 | Designation as per AIS-034 |  |
| 37.2 | **Parking Lamp bulb – Front** |  |
| 37.2.1 | Make |  |
| 37.2.2 | Designation as per AIS-034 |  |
| 37.3 | **Parking Lamp bulb - Rear** |  |
| 37.3.1 | Make |  |
| 37.3.2 | Designation as per AIS-034 |  |
| 37.4 | **Direction indicator lamp bulb - front** |  |
| 37.4.1 | Make |  |
| 37.4.2 | Designation as per AIS-034 |  |
| 37.5 | **Direction indicator lamp bulb – rear** |  |
| 37.5.1 | Make |  |
| 37.5.2 | Designation as per AIS-034 |  |
| 37.6 | **Direction indicator lamp bulb – side** |  |
| 37.6.1 | Make |  |
| 37.6.2 | Designation as per AIS-034 |  |
| 37.7 | **Front Position Lamp bulb** |  |
| 37.7.1 | Make |  |
| 37.7.2 | Designation as per AIS-034 |  |
| 37.8 | Rear Position Lamp ( tail lamp )Bulb |  |
| 37.8.1 | Make |  |
| 37.8.2 | Designation as per AIS-034 |  |
| 37.9 | **Stop lamp bulb** |  |
| 37.9.1 | Make |  |
| 37.9.2 | Designation as per AIS-034 |  |
| 37.10 | **Number plate lamp bulb** |  |
| 37.10.1 | Make |  |
| 37.10.2 | Designation as per AIS-034 |  |
| 37.11 | End out Marker bulb |  |
| 37.11.1 | Make |  |
| 37.11.2 | Designation as per AIS-034 |  |
| 37.12 | **Reversing lamp bulb** |  |
| 37.12.1 | Make |  |
| 37.12.2 | Designation as per AIS-034 |  |
| 37.13 | Stop Lamp Bulb (S3) |  |
| 37.13.1 | Make |  |
| 37.13.2 | Designation as per AIS-034 |  |
| 37.14 | Front Fog Lamp Bulb , if provided |  |
| 37.14.1 | Make |  |
| 37.14.2 | Designation as per AIS-034 |  |
| 37.15 | **Rear Fog Lamp Bulb** , if provided |  |
| 37.15.1 | Make |  |
| 37.16 | **Side Marker Lamp Bulb** |  |
| 37.16.1 | Make |  |
| 37.16.2 | Designation as per AIS-034 |  |
| **38.0** | **Head Lamp** (Main beam) |  |
| 38.1 | Name of Manufacturer : |  |
| 38.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 38.3 | Number and colour : |  |
| **39.0** | **Tail lamp** |  |
| 39.1 | Name of Manufacturer : |  |
| 39.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 39.3 | Number and colour : |  |
| **40.0** | **Parking lamp** |  |
| 40.1 | **Front :** |  |
| 40.1.1 | Name of Manufacturer : |  |
| 40.1.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 40.1.3 | Number and colour : |  |
| 40.2 | **Rear :** |  |
| 40.2.1 | Name of Manufacturer : |  |
| 40.2.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 40.2.3 | Number and colour |  |
| **41.0** | **Stop lamp** |  |
| 41.1 | Name of Manufacturer : |  |

|  |  |  |
| --- | --- | --- |
| 41.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 41.3 | Number and colour : |  |
| **42.0** | **Reversing lamp** | |
| 42.1 | Name of Manufacturer : |  |
| 42.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 42.3 | Number and colour : |  |
| **43.0** | **Direction indicator lamp** |  |
| 43.1 | **Front :** |  |
| 43.1.1 | Name of Manufacturer : |  |
| 43.1.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 43.1.3 | Number and colour : |  |
| 43.2 | **Rear :** |  |
| 43.2.1 | Name of Manufacturer : |  |
| 43.2.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 43.2.3 | Number and colour : |  |
| 43.3 | **Side :** |  |
| 43.3.1 | Name of Manufacturer : |  |
| 43.3.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 43.3.3 | Number and colour : |  |
| 43.4 | **Type of flasher :** |  |
| **44.0** | **Number Plate Lamp** |  |
| 44.1 | Name of Manufacturer : |  |
| 44.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 44.3 | Number and colour : |  |
| **45.0** | **Hazard warning signal lamp** |  |
| 45.1 | **Front :** |  |
| 45.1.1 | Name of Manufacturer : |  |
| 45.1.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 45.1.3 | Number and colour : |  |
| 45.2 | **Rear :** |  |
| 45.2.1 | Name of Manufacturer : |  |
| 45.2.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 45.2.3 | Number and colour : |  |
| 45.3 | **Side :** |  |
| 45.3.1 | Name of Manufacturer : |  |
| 45.3.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 45.3.3 | Number and colour |  |
| **46.0** | **Reflector** |  |
| 46.1 | **Rear :** |  |
| 46.1.1 | Name of Manufacturer : |  |
| 46.1.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 46.1.3 | Number and colour : |  |
| 46.1.4 | Reflecting Surface Area(cm2) : |  |
| 46.2 | **Side :** |  |
| 46.2.1 | Name of Manufacturer : |  |
| 46.2.2 | Type and Identification (TAC No./ E-Marking/ BIS Licence No.) |  |
| 46.2.3 | Number and colour : |  |
| 46.2.4 | Reflecting Surface Area(cm2) : |  |
| **47.0** | **Top light** |  |
| 47.1 | Name of Manufacturer: : |  |
| 47.2 | Type and Identification : |  |
| 47.3 | Number and colour : |  |
| **48.0** | **Internal Lighting & Illumination** |  |
| 48.1 | **Driver Cab lighting :** |  |
| 48.1.1 | Type : |  |
| 48.1.2 | Name of Manufacturer : |  |
| 48.1.3 | Number : |  |
| 48.1.4 | illumination intensity : |  |
| 48 .2 | **Passenger Compartment Lighting** |  |
| 48.2.1 | Type : |  |
| 48.2.2 | Name of Manufacturer : |  |
| 48.2.3 | Number : |  |
| 48.2.4 | Illumination intensity : |  |
| 48.3 | **Other Area Lighting** |  |
| 48.3.1 | Type : |  |
| 48.3.2 | Name of Manufacturer : |  |
| 48.3.3 | Number : |  |
| 48.3.4 | Illumination intensity : |  |
| **49.0** | **Electrical Circuit** |  |
| 49.1 | Circuit Diagram (attach details): |  |
| **50.0** | **Electrical Cables** |  |
| 50.1 | Name of Manufacturer : |  |
| 50.2 | Conductor Cross section : |  |
| 50.3 | Insulation Class : |  |
| 50.4 | Load current of the lighting circuit, starter motor, battery charging, etc. |  |
| **51.0** | **Fuse** |  |
| 51.1 | Type (Blade type/Glass type, etc.) |  |
| 51.2 | Name of Manufacturer : |  |
| 51.3 | Various fuse ampere ratings provided in the bus. |  |
| **52.0** | **Master switch for electrical:** |  |
| 52.1 | Type & Make : |  |
| 52.2 | Name of Manufacturer : |  |
| **53.0** | **Flammability Test as per IS 15061:2002 (as applicable )** |  |
| 53.1 | **Seat and its accessories** |  |
| 53.1.1 | Name of Manufacturer : |  |
| 53.1.2 | Material Grade |  |
| 53.1.3 | Material Type |  |
| 53.1.4 | Component Part No. and Batch No. |  |
| 53.1.5 | Identification Code |  |
| 53.1.6 | Drawing No. |  |
| 53**.**2 | **Interior lining of the roof** |  |
| 53.2.1 | Name of Manufacturer : |  |
| 53.2.2 | Material Grade |  |
| 53.2.3 | Material Type |  |
| 53.2.4 | Component Part No. and Batch No. |  |
| 53.2.5 | Identification Code |  |
| 53.2.6 | Drawing No. |  |
| 53.3 | **Interior lining of side walls** |  |
| 53.3.1 | Name of Manufacturer : |  |
| 53.3.2 | Material Grade |  |
| 53.3.3 | Material Type |  |
| 53.3.4 | Component Part No. and Batch No. |  |
| 53.3.5 | Identification Code |  |
| 53.3.6 | Drawing No |  |
| 53.4 | **Interior lining of rear walls** |  |
| 53.4.1 | Name of Manufacturer : |  |
| 53.4.2 | Material Grade |  |
| 53.4.3 | Material Type |  |
| 53.4.4 | Component Part No. and Batch No. |  |
| 53.4.5 | Identification Code |  |
| 53.4.6 | Drawing No |  |
| 53.5 | **Separation walls** |  |
| 53.5.1 | Name of Manufacturer : |  |
| 53.5.2 | Material Grade |  |
| 53.5.3 | Material Type |  |
| 53.5.4 | Component Part No. and Batch No. |  |
| 53.5.5 | Identification Code |  |
| 53.5.6 | Drawing No |  |
| 53.6 | **Floor** |  |
| 53.6.1 | Name of Manufacturer : |  |
| 53.6.2 | Material Grade |  |
| 53.6.3 | Material Type |  |
| 53.6.4 | Component Part No. and Batch No. |  |
| 53.6.5 | Identification Code |  |
| 53.6.6 | Drawing No |  |
| 53.7 | **Internal Luggage space** |  |
| 53.7.1 | Make |  |
| 53.8 | **Heating and ventilation pipe** |  |
| 53.8.1 | Name of Manufacturer : |  |
| 53.8.2 | Material Grade |  |
| 53.8.3 | Material Type |  |
| 53.8.4 | Component Part No. and Batch No. |  |
| 53.8.5 | Identification Code |  |
| 53.8.6 | Compliance report no. for flammability test as per IS:15061 |  |
| 53.9 | **Thermal and or acoustic function** |  |
| 53.9.1 | Name of Manufacturer : |  |
| 53.9.2 | Material Grade |  |
| 53.9.3 | Material Type |  |
| 53.9.4 | Component Part No. and Batch No. |  |
| 53.9.5 | Identification Code |  |
| 53.9.6 | Compliance report no. for flammability test as per IS:15061 |  |
| 53.10 | **Luminaries.** |  |
| 53.10.1 | Name of Manufacturer : |  |
| 53.10.2 | Material Grade |  |
| 53.10.3 | Material Type |  |
| 53.10.4 | Component Part No. and Batch No. |  |
| 53.10.5 | Identification Code |  |
| 53.10.6 | Drawing No. |  |
| **54.0** | **Rear Under run protective Device (RUPD) fitment as per IS 14812:2005** |  |
|  |  |  |
| 54.1. | Height of lower edge of RUPD from ground (mm) |  |
| **55.0** | **Lateral Protective Device (LPD) fitment as per IS 14682:2004** |  |
| 55.1 | LPD drawing as per Annexure- A of 14682:2004 for RH & LH side  Drawing also should indicate LPD structural details, structure material details, panel material details, tyre details like make, size & unladen pressure. |  |
| 55.2 | Height of lower edge of side guard from ground (mm) |  |
| 55.3 | No. of vertical supports for LPD panel in RH & LH side |  |
| 55.4 | Structural drawing for LPD showing distance between LPD supports. |  |
| **56.0** | Interior Fittings as per IS 15223 or AIS-047, as applicable |  |
| 56.1 | Instrument Panel (Dash Board) |  |
| 56.1.1 | Make |  |
| 56.1.2 | Identification No. / Part No/Drawing No. |  |
| 56.1.3 | Drawing showing the mounting details, overall size and all control switches with dimensions |  |
| 56.1.4 | Additional details for interior fitting tests to be given (if test is already conducted, this information need not be submitted). |  |
| 56.1.5 | Drawing of Instrument Panel Variants (With / without Airbag, Music system, AC) |  |
| 56.1.6 | Material used for instrument Panel |  |
| 56.1.7 | Drawings |  |
| 56.1.8 | Instrument Panel mounting (With hardware details) |  |
| 56.1.9 | ‘H’ point co-ordinates for each seating position |  |
| 56.1.10 | Cross sectional drawings for each projection more than 3.2 |  |
| 56.1.11 | Cross sectional Drawing of Gear shift lever |  |
| 56.2 | Drawing of Grab handle with cross section |  |
| 56.3 | Drawing of Sun visor with details of metal wire used |  |
| 56.4 | Drawing of lamp assembly mounted at roof |  |
| 56.5 | Drawing of Cigarrete lighter/ charging point |  |
| **57.0** | **Any other additional information the Bus manufacturer /Bus body builder would like to declare** |  |
| **Foot Note:-** The technical specification details for Sr. Nos.7.0 ( tyres ) , 28.0 ( RVM), 29.0 ( Wiper), 31.0 ( seat belt and seat belt anchorages), 37.0 (automotive bulbs),38.0 (head lamp), 39.0 (tail lamp), 40.0 (parking lamp), 41.0 (stop lamp) , 42.0 (reversing lamp), 43.0 (indicator lamp), 44.0 (number plate lamp), 45.0 (emergency signaling equipment), 46.0 (reflector), 47.0 (top light), 53.0 (Flammability), 54.0 (RUPD), 55.0 (LPD), and 56.0 (Interior fittings ) need not be filled by the Bus Builder, if there is no change in basically approved specification issued during the certification of chassis (Drive away chassis/Cowl & chassis/Cab & Chassis/Chassis with FES). The Bus Builder may mention as “ No Change. Same as OE fitted ” | | |

1. **Page 226/227,**

Add following Table 24, Table 25 and Table 26 after Table 23.

**Table 24 AIS-007 (Revision 5)**

**DETAILED TECHNICAL INFORMATION ON TRAILERS TO BE SUBMITTED BY TRAILER MANUFACTURER TO TESTING AGENCY**

|  |  |  |
| --- | --- | --- |
| **1.0** | **Details of Trailer manufacturer** |  |
| 1.1 | Name & address of the trailer manufacturer |  |
| 1.2 | Telephone No. |  |
| 1.3 | Fax. No. |  |
| 1.4 | E-mail address |  |
| 1.5 | Contact person |  |
| 1.6 | Plant(s)of manufacture |  |
| 1.7 | Type and Brief Description of Trailer |  |
| **2.0** | **Trailer Dimensions, mm** |  |
| 2.1 | Length |  |
| 2.1.1 | With draw bar (for independent trailer) |  |
| 2.1.2 | Without draw bar (for independent trailer) |  |
| 2.1.3 | Length (in case of semi-trailer) |  |
| 2.2 | Distance between kingpin and rear end (Max. length) |  |
| 2.3 | Height at front end (unladen condition), mm |  |
| 2.3.1 | Height of floor from ground at rear |  |
| 2.3.2 | Overall Height at rear |  |
| 2.3.3. | Height of draw bar (hinge point on trailer) |  |
| 2.4 | Width, mm |  |
| 2.5 | Wheel Track, mm |  |
| 2.5.1 | Front( in case of draw bar trailer) |  |
| 2.5.2 | Rear |  |
| 2.6 | Body overhang, mm |  |
| 2.6.1 | Front (from fifth wheel in case of semi-trailer) |  |
| 2.6.2 | Rear (from the rearmost axle) |  |
| 2.7 | Wheel base (from fifth wheel king pin in case of semi-trailer) |  |
| 2.8 | Center of gravity (height of CG from ground & distance from one end) Laden/Unladen, If applicable |  |
| 2.9 | Dimensional drawing No. |  |
| **3.0** | **Height of fifth wheel coupling (king pin) from ground (laden/unladen tractor), mm** |  |
| **4.0** | **T-sign (as per IS 9942)** |  |
| 4.1 | Make |  |
| 4.2 | Identification mark |  |
| **5.0** | **Axles** |  |
| 5.1 | No. of Axles |  |
| 5.2 | First axle |  |
| 5.2.1 | Type |  |
| 5.3 | Second axle |  |
| 5.3.1 | Type |  |
| 5.4 | Third axle |  |
| 5.4.1 | Type |  |
| 5.5 | Axle spacing (provide drawing) |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **6.0** | **Trailer Weights** | |  | | |
| 6.1 | Unladen weight of the trailer | |  | | |
| 6.2 | Total unladen vehicle weight (TUVW) | TUVW | Front axle/Kingpin weight | Rear axle(s) weight | FAW / RAW |
| 6.3 | Gross Vehicle Laden Weight (GLW) | GLW | Max. Permissible FAW/Kingpin weight | Max. Permissible RAW | |
| 6.4 | Gross Combination Vehicle Weight (GCVW) (Applicable for articulated vehicle) | |  | | |
| 6.5 | Payload details | |  | | |
| 6.5.2 | Weight (kg) | |  | | |
| 6.5.3 | Location details( to be shown in drawing) | |  | | |
| **7.0** | **Tyres** | |  | | |
| 7.1 | No. and arrangement of wheels | |  | | |
| 7.1.1 | 1st axle | |  | | |
| 7.1.2 | 2nd axle | |  | | |
| 7.1.3 | 3rd axle | |  | | |
| 7.1.4 | Others (for articulated/combination trailer) | |  | | |
| 7.2 | Tyre type (Radial/cross ply), size & ply rating | |  | | |
| 7.3 | Rolling radius, mm | |  | | |
| 7.3.1 | Static | |  | | |
| 7.3.2 | Dynamic (if data is available) | |  | | |
| 7.4 | Inflation pressure – Unladen in kg/cm2/ kPa | |  | | |
| 7.4.1 | 1st axle | |  | | |
| 7.4.2 | 2nd axle | |  | | |
| 7.4.3 | 3rd axle | |  | | |
| 7.4.4 | Other axle(s) Inflation pressure-Laden in kg/cm2/kPa | |  | | |
| 7.5 | Axle | |  | | |
| 7.5.1 | 1st axle | |  | | |
| 7.5.2 | 2nd axle | |  | | |
| 7.5.3 | Other axle(s) | |  | | |
| 7.6 | Make | |  | | |
| 7.7 | Tread Wear Indicator, Provided (Yes/No) | |  | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 7.8 | | Month & Year code of manufacture, Provided (Yes/No) |  | | | |
| 7.9 | | Maximum loading capacity, Provided (Yes/No) |  | | | |
| **8.0** | | **Suspension** |  | | | |
| 8.1 | | Type and description (Leaf / Air / Semi-pneumatic / |  | | | |
|  | | Hydraulic) |  | | | |
| 8.1.1 | | Front |  | | | |
| 8.1.2 | | Rear |  | | | |
| 8.2 | | Make |  | | | |
| 8.2.1 | | Front |  | | | |
| 8.2.2 | | Rear |  | | | |
| 8.3 | | Type of spring |  | | | |
| 8.4 | | If leaf spring |  | | | |
| 8.4.1 | | Main spring |  | | | |
| 8.4.1.1 | | Stack height |  | | | |
| 8.4.1.2 | | Width at the center point /  stack point |  | | | |
| 8.4.1.3 | | Thickness at the center point/stack point |  | | | |
| 8.4.1.4 | | Flat length |  | | | |
| 8.4.1.5 | | Free camber |  | | | |
|  | |  | Left | Right | | |
| 8.4.1.6 | | No. of leaves |  |  | | |
| 8.4.1.7 | | No. of spacers |  |  | | |
| 8.4.2 | | Auxiliary Spring |  | | | |
| 8.4.2.1 | | Stack height |  | | | |
| 8.4.2.2 | | Width at the center point/stack point |  | | | |
| 8.4.2.3 | | Thickness at the center point/stack point |  | | | |
| 8.4.2.4 | | Flat length |  | | | |
| 8.4.2.5 | | Free camber |  | | | |
|  | |  | Left | Right | | |
| 8.4.2.6 | | No. of leaves |  |  | | |
| 8.4.2.7 | | No. of spacers |  | | | |
| 8.5 | | If air suspension or semi pneumatic |  | | | |
| 8.5.1 | | Ride height |  | | | |
| 8.5.2 | | Suspension stroke |  | | | |
| 8.5.3 | | Size of the air bellows |  | | | |
| 8.5.4 | | Make of air bellows |  | | | |
| 8.5.5 | | Type of Height control valve |  | | | |
| 8.5.6 | | Make of height control valve |  | | | |
| 8.6 | | If Hydraulic suspension |  | | | |
| 8.6.1 | | Size of cylinder |  | | | |
| 8.6.2 | | Ride height of suspension |  | | | |
| 8.6.3 | | Suspension stroke |  | | | |
| 8.7 | | Suspension-Shock absorber |  | | | |
| 8.7.1 | | Type and Number |  | | | |
| 8.7.1.1 | | Front |  | | | |
| 8.7.1.2 | | Rear |  | | | |
| 8.8 | | Suspension configuration-Single/Tandem/Tridem |  | | | |
| 8.9 | | Any load equalizing device provided |  | | | |
| **9.0** | | **Rear Under run Protective device** |  | | | |
| 9.1 | | Height of lower edge of the device from the ground, (mm) |  | | | |
| 9.2 | | Width of the device (mm) |  | | | |
| 9.3 | | Drawing of the rear under-run protective device with dimensions. (Including part drawing) |  | | | |
| 9.4 | | Material (Metal/Fiber/etc.) |  | | | |
| **10.0** | | **Lateral Protection(Side Guards)** |  | | | |
| 10.1 | | Height of the lower edge of the Side Guard. |  | | | |
| 10.2 | | Drawing of the lateral protection device fitted  on the vehicle with dimensions |  | | | |
| 10.3 | | Material (Metal/Fiber/etc.) |  | | | |
| **11.0** | | **Chassis Frame** |  | | | |
| 11.1 | | Type |  | | | |
| 11.2 | | Drawing with dimensions |  | | | |
| 11.3 | | Type of platform |  | | | |
| **12.0** | | **Brakes** |  | | | |
| 12.1 | | Type and Brief Description |  | | | |
| 12.2 | | Service brakes |  | | | |
| 12.2.1 | Name of producer |  | | | |
| 12.2.2 | Type (Mechanical/hydraulic/air assisted/ vacuum assisted/others) |  | | | |
| 12.2.3 | Control system & braking wheel |  | | | |
| 12.2.4 | Schematic layout indicating method of split of brake system, location of valves, reservoirs etc. |  | | | |
| 12.3 | Anti-Lock braking system |  | | | |
| 12.3.1 | ABS make |  | | | |
| 12.4 | Electronic Control Unit (ECU) |  | | | |
| 12.4.1 | Make |  | | | |
| 12.4.2 | Identification mark |  | | | |
| 12.5 | Wheel Speed Sensor |  | | | |
| 12.5.1 | Make |  | | | |
| 12.5.2 | Identification mark |  | | | |
| 12.5.3 | No. of sensors used |  | | | |
| 12.6 | Hydraulic Modulator |  | | | |
| 12.6.1 | Make |  | | | |
| 12.6.2 | Identification mark |  | | | |
| 12.7 | Solenoid Valve |  | | | |
| 12.7.1 | Make |  | | | |
| 12.7.2 | Identification mark |  | | | |
| 12.7.3 | Max. designed pressure, kg/cm2 |  | | | |
| 12.7.4 | Max. working pressure, kg/cm2 |  | | | |
| 12.8 | Safety lamp provided (Yes/No) |  | | | |
| 12.9 | Schematic layout of the ABS system |  | | | |
| 12.10 | If ASR is used, give details |  | | | |
| 12.11 | Brake lining (or) Pad |  | | | |
| 12.11.1 | Nominal Dimensions, (mm) (Length x Width x thickness) |  | | | |
| 12.11.1.1 | Front wheel |  | | | |
| 12.11.1.2 | Rear wheel |  | | | |
| 12.11.1.3 | Others (in case of Tandem axle, give axle wise data) |  | | | |
| 12.11.2 | Effective area per axle (cm2) |  | | | |
| 12.11.2.1 | Front axle |  | | | |
| 12.11.2.2 | Rear axle |  | | | |
| 12.11.2.3 | Others (in case of Tandem axle, give axle wise data) |  | | | |
| 12.11.3 | Material |  | | | |
| 12.11.4 | Make and Designation |  | | | |
| 12.11.4.1 | Front wheel / axle |  | | | |
| 12.11.4.2 | Rear wheel / axle |  | | | |
| 12.11.4.3 | Others (In case of Tandem axle provide data for each axle) |  | | | |
| 12.11.5 | Whether asbestos or asbestos-free? |  | | | |
| 12.12 | Brake drum or disc |  | | | |
| 12.12.1 | Effective diameter, mm |  | | | |
| 12.12.1.1 | Front wheel |  | | | |
| 12.12.1.2 | Rear wheel |  | | | |
| 12.12.1.3 | Others (in case of tandem axle or articulated trailers) |  | | | |
| 12.12.2 | Material (if the braking surface is non ferrous) |  | | | |
| 12.12.2.1 | Front |  | | | |
| 12.12.2.2 | Rear |  | | | |
| 12.12.2.3 | Others |  | | | |
| 12.13 | Master cylinder or brake valve |  | | | |
| 12.13.1 | Make |  | | | |
| 12.13.2 | Type |  | | | |
| 12.13.3 | Inner diameter of the master cylinder, mm |  | | | |
| 12.13.4 | Operating stroke mm |  | | | |
| 12.14 | Type of supply tank |  | | | |
| 12.15 | Wheel cylinder diameter, mm |  | | | |
| 12.15.1 | Front |  | | | |
| 12.15.2 | Rear |  | | | |
| 12.15.3 | Others |  | | | |
| 12.16 | Wheel cylinder type  (single acting/double acting) |  | | | |
| 12.16.1 | Front |  | | | |
| 12.16.2 | Rear |  | | | |
| 12.16.3 | Others |  | | | |
| 12.17 | Booster |  | | | |
| 12.17.1 | Name of producer |  | | | |
| 12.17.2 | Type |  | | | |
| 12.17.3 | Boost ratio |  | | | |
| 12.17.4 | Size of the booster, mm (diameter) |  | | | |
| 12.17.5 | Vacuum or air assistance |  | | | |
| 12.17.6 | Pressure kg/cm2 |  | | | |
| 12.17.6.1 | Nominal (P2 as per IS 11852-2001) |  | | | |
| 12.17.6.2 | Cut in |  | | | |
| 12.17.6.3 | Cut out |  | | | |
| 12.18 | Type of vacuum pump or air compressor |  | | | |
| 12.19 | Type of pressure regulator |  | | | |
| 12.20 | No. of tanks |  | | | |
| 12.20.1 | Tank Capacity, lit. | Description | | Capacity | |
| 12.20.1.1 | Tank 1 |  | |  | |
| 12.20.1.2 | Tank 2 |  | |  | |
| 12.20.1.3 | Tank 3 |  | |  | |
| 12.20.1.4 | Tank 4 |  | |  | |
| 12.21 | Brake Chamber | Front | | Rear | Parking |
| 12.21.1 | Make and type |  | |  |  |
| 12.21.2 | Size, mm |  | |  |  |
| 12.21.3 | Internal diameter, mm |  | |  |  |
| 12.21.4 | Stroke, mm |  | |  |  |
| 12.22 | Slack adjuster – Manual/Automatic |  | | | |
| 12.22.1 | Make |  | | | |
| 12.22.2 | Lever length in mm |  | | | |
| 12.22.3 | Load sensing valve |  | | | |
| 12.22.3.1 | Make |  | | | |
| 12.22.3.2 | Model No. |  | | | |
| 12.22.4 | Set pressure, unladen in kg/cm2 |  | | | |
| **13.0** | **Safety Critical Components** |  | | | |
| 13.1 | Wheel rim |  | | | |
| 13.1.1 | Size |  | | | |
| 13.1.1.1 | 1st axle |  | | | |
| 13.1.1.2 | 2nd axle |  | | | |
|  | 3rd axle |  | | | |
| 13.1.1.3 | Other axle(s) |  | | | |
| 13.1.2 | Name of manufacturer |  | | | |
| 13.1.3 | Identification mark |  | | | |
| 13.1.4 | Pitch circle diameter of mounting bolts, mm |  | | | |
| 13.1.5 | Number of mounting bolts |  | | | |
| 13.1.6 | Material (Steel/Aluminum alloy etc.) |  | | | |
| 13.2 | Wheel nut, Wheel cap and Hub cap |  | | | |
| 3.2.1 | Wheel Nut |  | | | |
| 13.2.1.1 | Name of manufacturer |  | | | |
| 13.2.1.2 | Size |  | | | |
| 13.2.1.3 | No. of nuts Per wheel |  | | | |
| 13.2.1.4 | Tightening torque |  | | | |
| 13.2.2 | Wheel cap / wheel disc |  | | | |
| 13.2.2.1 | Name of manufacturer |  | | | |
| 13.2.2.2 | Size |  | | | |
| 13.2.2.3 | Material (Plastic / Metal) |  | | | |
| 13.2.2.4 | Method of fitment (Press/bolted/others) |  | | | |
| 13.2.3 | Hub cap |  | | | |
| 13.2.3.1 | Name of manufacturer |  | | | |
| 13.2.3.2 | Size |  | | | |
| 13.2.3.3 | Method of fitment (Press/bolted/others) |  | | | |
| 13. 3 | Fifth wheel coupling |  | | | |
| 13. 3.1 | Size |  | | | |
| 13. 3.2 | Drawings with dimensions |  | | | |
| 13. 3.3 | Compliance to IS 15101 (Yes/ No) |  | | | |
| 13. 4 | Fifth wheel king pin |  | | | |
| 13. 4.1 | Size |  | | | |
| 13. 4.2 | Drawings with dimensions |  | | | |
| 13. 4.3 | Compliance to IS : 6763 (Yes/ No) |  | | | |
| 13. 5 | Draw bar and Draw bar coupling |  | | | |
| 13. 5.1 | Size |  | | | |
| 13. 5.2 | Drawings with dimensions |  | | | |
| 13. 5.3 | Compliance to IS : 13284 (Yes/ No) |  | | | |
| 13. 6 | Landing gear |  | | | |
| 13. 6.1 | Size |  | | | |
| 13. 6.2 | Drawings with dimensions |  | | | |
| 13. 6.3 | Compliance to IS 10752  (Yes/ No) |  | | | |
| 13. 7 | Tow hook |  | | | |
| 13. 7.1 | Size |  | | | |
| 13. 7.2 | Drawings with dimensions |  | | | |
| 13. 7.3 | Compliance to IS : AIS-091, Part 1  (Yes/ No) |  | | | |
| 13. 8 | Towing jaw |  | | | |
| 13. 8.1 | Size |  | | | |
| 13. 8.2 | Drawings with dimensions |  | | | |
| 13. 8.3 | Compliance to IS : AIS-091, Part 1  (Yes/ No) |  | | | |
| 13. 9 | Draw bar eye |  | | | |
| 13. 9.1 | Size |  | | | |
| 13. 9.2 | Drawings with dimensions |  | | | |
| 13. 9.3 | Compliance to IS :12807 (Yes/ No) |  | | | |
| 13. 10 | Turn table |  | | | |
| 13. 10.1 | Size |  | | | |
| 13. 10.2 | Drawings with dimensions |  | | | |
| 13. 10.3 | Compliance to IS :13544 (Yes/ No) |  | | | |
| 13. 11 | Towing devices, if any |  | | | |
| 13. 11.1 | Type |  | | | |
| 13. 11.2 | Name of manufacturer |  | | | |
| 13. 11.3 | Capacity |  | | | |
| 13. 12 | Coupling devices, if any |  | | | |
| 13. 12.1 | Name of the manufacturer |  | | | |
| 13. 12.2 | Identification mark |  | | | |
| 13. 12.3 | Type of coupling device for mechanical |  | | | |
| 13. 12.4 | Type of coupling device for electrical |  | | | |
| 13. 12.5 | Type of coupling device for brake |  | | | |
| 13.13 | Any other Accessories provided |  | | | |
| 13.13.1 | Compliance to any Standard |  | | | |
| **14.0** | **Electrical items** |  | | | |
| 14.1 | Rear Fog Lamp : |  | | | |
| 14.1.1 | Make and Country of origin  (if imported) |  | | | |
| 14.1.2 | Type of lens (Glass / Plastic) |  | | | |
| 14.1.3 | Identification No. / Part No. |  | | | |
| 14.1.4 | Number and Colour of Lens |  | | | |
| 14.2 | Registration Plate lamp : |  | | | |

|  |  |  |
| --- | --- | --- |
| 14.2.1 | Make and Country of origin  (if imported) |  |
| 14.2.2 | Type of lens (Glass / Plastic) |  |
| 14.2.3 | Identification No. / Part No. |  |
| 14.2.4 | Number and colour of Lens |  |
| 14.3 | Rear Position Lamp |  |
| 14.3.1 | Make and Country of origin  (if imported) |  |
| 14.3.2 | Type of lens (Glass / Plastic) |  |
| 14.3.3 | Identification No. / Part No. |  |
| 14.3.4 | Number and colour of Lens |  |
| 14.4 | Rear Parking Lamp |  |
| 14.4.1 | Make and Country of origin  (if imported) |  |
| 14.4.2 | Type of lens (Glass / Plastic) |  |
| 14.4.3 | Identification No. / Part No. |  |
| 14.4.4 | Number and colour of Lens |  |
| 14.5 | Stop lamp (S1 / S2) |  |
| 14.5.1 | Make and Country of origin  (if imported) |  |
| 14.5.2 | Type of lens (Glass / Plastic) |  |
| 14.5.3 | Identification No. / Part No. |  |
| 14.5.4 | Number and colour of Lens |  |
| 14.7 | Reversing lamp : |  |
| 14.7.1 | Make and Country of origin  (if imported) |  |
| 14.7.2 | Type of lens (Glass / Plastic) |  |
| 14.7.3 | Identification No. / Part No. |  |
| 14.7.4 | Number and colour of Lens |  |
| 14.8 | Direction indicator Lamp : |  |
| 14.8.1 | Rear |  |
| 14.8.1.1 | Make and Country of origin  (if imported) |  |
| 14.8.1.2 | Type of lens (Glass / Plastic) |  |
| 14.8.1.3 | Identification No. / Part No. |  |
| 14.8.1.4 | Number and colour of Lens |  |
| 14.8.2 | Side |  |
| 14.8.2.1 | Make and Country of origin  (if imported) |  |
| 14.8.2.2 | Type of lens (Glass / Plastic) |  |
| 14.8.2.3 | Identification No. / Part No. |  |
| 14.8.2.4 | Number and colour of Lens |  |
| 14.8.3 | Type of flasher |  |
| 14.9 | Hazard warning signal : |  |
| 14.9.1 | Rear |  |
| 14.9.1.1 | Make and Country of origin (if imported) |  |
| 14.9.1.2 | Type of lens (Glass / Plastic) |  |
| 14.9.1.3 | Identification No. / Part No. |  |
| 14.9.1.4 | Number and colour of Lens |  |
| 14.9.2 | Side |  |
| 14.9.2.1 | Make and Country of origin (if imported) |  |
| 14.9.2.2 | Type of lens (Glass / Plastic) |  |
| 14.9.2.3 | Identification No. / Part No. |  |
| 14.9.2.4 | Number and colour of Lens |  |
| 14.10 | Reflector : |  |
| 14.10.1 | Rear |  |
| 14.10.1.1 | Make and Country of origin  (if imported) |  |
| 14.10.1.2 | Type |  |
| 14.10.1.3 | Identification No. / Part No. |  |
| 14.10.1.4 | Number and colour of Lens |  |
| 14.10.1.5 | Area |  |
| 14.10.1.6 | Shape |  |
| 14.10.2 | Side |  |
| 14.10.2.1 | Make and Country of origin  (if imported) |  |
| 14.10.2.2 | Type |  |
| 14.10.2.3 | Identification No. / Part No. |  |
| 14.10.2.4 | Number and colour of Lens |  |
| 14.10.2.5 | Area |  |
| 14.10.2.6 | Shape |  |
| 14.11 | End – outline marker lamp (Top light) |  |
| 14.11.1 | Rear |  |
| 14.11.1.1 | Make and Country of origin (if imported) |  |
| 14.11.1.2 | Type of lens (Glass / Plastic) |  |
| 14.11.1.3 | Identification No. / Part No. |  |
| 14.11.1.4 | Number and colour of Lens |  |
| 14.12 | Diagram of vehicle indicating location, reference axis, mark of apparent surface, contour of vehicle parts limiting geometric  visibility of all lights and light signaling devices, location of extreme outer edges and longitudinal median plane of vehicle  including following dimensions in mm. |  |
| 14.13 | Along width of vehicle-horizontal distance between inner illuminating surfaces, distance between inner illuminating surfaces and outer most part of vehicle and distance between nearest point of illuminating surfaces of indicators and dipped- beam head lamp |  |
| 14.14 | Along length of vehicle (where applicable)-distance between the transverse plane corresponding to the longitudinal rearmost extremity to center of reference of rear indicators |  |
| 14.15 | Heights of highest and lowest point of illuminating surfaces |  |
| 14.16 | Automotive bulbs : |  |
| 14.16.1 | Parking Lamp bulb – Rear |  |
| 14.16.1.1 | Make and Country of origin (if imported) |  |
| 14.16.1.2 | Designation as per AIS-034 |  |
| 14.16.2 | Direction indicator lamp bulb -rear |  |
| 14.16.2.1 | Make and Country of origin (if imported) |  |
| 14.16.2.2 | Designation as per AIS-034 |  |
| 14.16.3 | Direction indicator lamp bulb -side |  |
| 14.16.3.1 | Make and Country of origin (if imported) |  |
| 14.16.3.2 | Designation as per AIS-034 |  |
| 14.16.4 | Rear Position Lamp ( tail lamp )Bulb |  |
| 14.16.4.1 | Make and Country of origin (if imported) |  |
| 14.16.4.2 | Designation as per AIS-034 |  |
| 14.16.5 | Stop lamp bulb |  |
| 14.16.5.1 | Make and Country of origin (if imported) |  |
| 14.16.5.2 | Designation as per AIS-034 |  |
| 14.16.6 | Number plate lamp bulb |  |
| 14.16.6.1 | Make and Country of origin  (if imported) |  |
| 14.16.6.2 | Designation as per AIS-034 |  |
| 14.16.7 | End out Marker bulb |  |
| 14.16.7.1 | Make and Country of origin  (if imported) |  |
| 14.16.7.2 | Designation as per AIS-034 |  |
| 14.16.8 | Reversing lamp bulb |  |
| 14.16.8.1 | Make and Country of origin  (if imported) |  |
| 14.16.8.2 | Designation as per AIS-034 |  |
| 14.16.9 | Stop Lamp Bulb (S3) |  |
| 14.16.9.1 | Make and Country of origin  (if imported) |  |
| 14.16.9.2 | Designation as per AIS-034 |  |
| 14.16.10 | Rear Fog Lamp Bulb |  |
| 14.16.10.1 | Make and Country of origin (if imported) |  |
| 14.16.10.2 | Designation as per AIS-034 |  |
| 14.16.11 | Side Marker Lamp Bulb |  |
| 14.16.11.1 | Make and Country of origin  (if imported) |  |
| 14.16.11.2 | Designation as per AIS-034 |  |

**Table 25 AIS-007 (Revision 5)**

**TECHNICAL SPECIFICATION OF HYBRID ELECTRIC SYSTEM**

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **Details of Hybrid System Manufacturer / Supplier / Installer** | | |
| a. | Name of the HES Manufacturer / HES Supplier: | | |
| b. | Address: | | |
| c. | Telephone No. and Fax No.: | | |
| d. | Contact person: | | |
| **2.** | **System Identification** | | |
| a. | Identification No.: | | |
| b. | Variants, if any: | | |
| **3.** | **Electric Motor** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type: (e.g. Asynchronous AC Induction, Synchronous Permanent Magnet AC, BLDC, SRM etc.) | | |
| d. | No. of Phases: | | |
| e. | Maximum Power (kw @ xxxx rpm): | | |
| f. | Maximum torque (Nm @ xxxx rpm): | | |
| g. | Maximum Thirty Minutes Power, kW: | | |
| h. | Maximum Thirty Minutes speed km/h: | | |
| i. | Cooling System (Liquid /Air / Naturally air cooled): | | |
| j. | International Protection (IP)-Code: | | |
| **4** | **Motor Controller Unit** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No: | | |
| c. | Type: | | |
| d. | Control Principle: (e.g vectorial / open loop / closed / other) | | |
| e. | Cooling System (Liquid /Air / Naturally air cooled): | | |
| f. | International Protection (IP)-Code: | | |
| **5.** | **REESS** | | |
| a. | Name of manufacturer: | | |
| b. | Identification No.: | | |
| c. | Type: (e.g Lead Acid/ Li-Ion etc.) | | |
| d. | Voltage: | | |
| e. | Capacity (kWh): | | |
| f. | End of discharge voltage value: | | |
| g. | No. of batteries used: | | |
| h. | Weight of REESS: | | |
| **6.** | **Charger (Applicable only for Externally Chargeable HEV’s)** | | |
| a. | Name of the manufacturer | | |
| b. | Model name/Identification No. | | |
| c. | Type | | |
| d. | Rating | | |
| e. | Charger (on board / external): | | |
| f. | Specifications of mains | | |
|  | i | | mains (single phase/ three phase): |
|  | ii | | Nominal Voltage (V) and frequency (Hz) with tolerances: |
| g. | Recommended duration of a complete charge: | | |
| h. | In case of on-board charger | | |
|  | i | | Continuous rating of charger socket (A): |
|  | ii | | Maximum initial in-rush current (A): |
| **7** | **Charging / interlocking Socket** | | |
| a. | Name of the manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type: | | |
| d. | Rating: | | |
| **8** | **Power Harness** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type : FLRY | | |
| d. | Operating Temperature: | | |
| e. | Insulation material used: | | |
| f. | IEC protection class | | |
| g. | Conduits provided Yes / No: | | |
| h. | Cable size ( DC side ) sqmm: | | |
| i. | Cable size ( AC side ) sqmm: | | |
| j. | Electrical circuit diagram and Layout: | | |
| **9.** | **Control Harness** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type: FLRY | | |
| d. | Operating Temperature | | |
| e. | Insulation material used: | | |
| f. | IEC protection class: | | |
| g. | Conduits provided Yes / No: | | |
| h. | Cable size in sqmm: | | |
| i. | Electrical circuit diagram and Layout: | | |
| **10** | **REESS State of Charge (SOC) and Fault indicator / HMI** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No: | | |
| c. | Type: | | |
| d. | Details of indication when state of charge of the REESS reaches a level  when the manufacturer recommends re-charging | | |
|  | i | Indication format: | |
|  | ii | Relationship of state of charge indicator and the indication: | |
| **11** | **Hybrid Controller Unit** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type: | | |
| **12** | **REESS Management System (Popularly known as Battery Management System, BMS)** | | |
| a. | Name of manufacturer: | | |
| b. | Model name/Identification No.: | | |
| c. | Type: | | |
| **13** | **Brief Description of System Including Dimensional Layout for Hybrid Electric System components Installation in the vehicle.**  Typical layout shall indicate details of circuit brakers, MCBs used, location of charger, etc., and key Hybrid Electric System (HES) components | | |

|  |  |
| --- | --- |
| **14** | **Catalytic Converter (OE fitted)** |
| a. | Name of manufacturer: |
| b. | Model name/Identification No.: |
| c. | Type: |
| **15** | **Current Limiting Device (Fuse)** |
| a. | Name of manufacturer: |
| b. | Identification No.: |
| c. | Voltage/current rating: |
| d. | Type: |
| **16** | **Main Contactor / REESS Cut-off Switch** |
| a. | Name of manufacturer: |
| b. | Identification No.: |
| c. | Voltage/current rating: |
| d. | Type: |

**Table 26 AIS-007 (Revision 5)**

**TECHNICAL SPECIFICATION OF VEHICLE RETROFITTED WITH HYBRID ELECTRIC SYSTEM**

|  |  |
| --- | --- |
| **1.0** | **General Description of Vehicle** |
| 1.1 | Vehicle Make / Model: |
| 1.2 | Vehicle Type: |
| 1.3 | Year and Month of Manufacture: |
| 1.4 | Engine No.: |
| 1.5 | Chassis No.: |
| 1.6 | Type of hybrid vehicle (Externally chargeable/Not externally chargeable): |
| 1.7 | Mode selection switch provided: Yes/No |
| 1.8 | If yes, the modes available: |
| **2.0** | **Engine** |
| 2.1 | Type: |
| 2.2 | Bore x Stroke, mm: |
| 2.3 | No. of Cylinders: |
| 2.4 | Displacement: |
| 2.5 | Compression Ratio: |
| 2.6 | Max Engine Output: |
| 2.7 | Max Torque: |
| 2.8 | Weight of Engine (Complete): |
| **3.0** | **Clutch** |
| 3.1 | Type: |
| 3.2 | Outside Diameter: |
| **4.0** | **Gear Box** |
| 4.1 | Model: |
| 4.2 | Type: |
| 4.3 | No. of Gears: |
| 4.4 | Gear ratio: |
|  | 1st |
|  | 2nd |
|  | 3rd |
|  | 4th |
|  | 5th |
|  | 6th |
|  | Reverse |
| 4.5 | Front Axle: |
| 4.6 | Rear Axle: |
| 4.7 | Ratio: |
| **5.0** | **Steering** |
| 5.1 | Steering Wheel Diameter: |
| 5.2 | Ratio: |
| **6.0** | **Frame** |
| 6.1 | Long member size, mm: |
| 6.2 | No. of cross members: |
| **7.0** | **Suspension** |
| 7.1 | Front: |
| 7.2 | Rear: |
| **8.0** | **Brake** |
| 8.1 | Service Brake: |
| 8.2 | Front: |
| 8.3 | Rear: |
| 8.4 | Parking Brake: |
| 8.5 | Wheels and Tyres: |
| **9.0** | **Electrical System** |
| 9.1 | System voltage: |
| 9.2 | REESS: |
| 9.3 | Alternator (Max. Output): |
| **10.0** | **Dimensions** |
| 10.1 | Wheel Base, mm: |
| 10.2 | Overall Width, mm: |
| 10.3 | Overall Length, mm: |
| 10.4 | Front Track, mm: |
| 10.5 | Rear Track, mm: |
| 10.6 | Min. Ground Clearance, mm: |
| 10.7 | Cargo Box Dimensions: |
| 10.8 | Load Body Platform Area: |

|  |  |
| --- | --- |
| **11.0** | **Weights** |
| 11.1 | Gross Vehicle Weight (GVW): |
| 11.2 | Unladen Weight (ULW with 90% fuel, Spare wheel and tools etc): |
| 11.3 | Front Axle weight (FAW): |
| 11.4 | Rear Axle weight (RAW): |
| 11.5 | Maximum Gradeability in 1st Gear: |
| **12.0** | **Other details** |
| 12.1 | Fuel capacity: |
| 12.2 | Seating capacity: |

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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 & HIGHWAYS

(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)

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