

Amendment No.3
To
AIS-014
Automotive Vehicles - Horn Installation Requirement

1. Page 2/5, clause 6.1.1, Para. 4

Substitute following text for existing text in Para. 4

6.1.1 Condition of the test

“

For device supplied with the direct current, the sound signaling device shall be operated at test voltages of 6.5V, 13V or 26V with tolerance of ± 0.5 V, measured at the terminals of the source and corresponding respectively to rated voltage of 6V, 12V / 24 Volts. A calibrated power supply may be used for operating the sound signaling device.

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THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA
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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)
GOVERNMENT OF INDIA

February 2012

**AMENDMENT NO.2
TO
AIS-014: 2001
Automotive Vehicles - Horn Installation Requirement**

1. Page 4, Annexure-A, Clause 12:

Substitute following text for existing text.

“12. Max. engine speed for continuous operation (in case of AC horns).”

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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)
GOVERNMENT OF INDIA

October 2011

**AMENDMENT NO. 1
TO
AIS – 014
Automotive Vehicles - Horn Installation Requirement**

1. Title of the standard:
Substitute following title for existing title:
“Automotive Vehicles and Agricultural Tractors – Horn Installation Requirement”
2. Page No. 1, cl. No. 1.0, Scope:
Substitute following text for existing text:
“This standard specifies installation requirements of automotive horns on all motor vehicles including agricultural tractors.”
3. Page No. 2, cl. No. 5.0, General requirements:
Add following sentence at the end :
“ In case of agricultural tractors, it shall comply with type 2B or type 3.”
4. Page No. 3, cl. No. 6.1.2, b):
Substitute following text for existing text:
“b) Between 93 dB (A) to 112 dB (A) for the horn fitted on all other motor vehicles including agricultural tractor, 2 wheelers and 3 wheelers of a power greater than 7 kW”

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UNDER
CENTRAL MOTOR VEHICLE RULES – TECHNICAL STANDING COMMITTEE
SET-UP BY
MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS
(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)
GOVERNMENT OF INDIA

August 2008

AUTOMOTIVE INDUSTRY STANDARD

**Automotive Vehicles –
Horn Installation Requirement**

PRINTED BY:

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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
GOVERNMENT OF INDIA

May 2001

Status chart of the Standard to be used by the purchaser
for updating the record

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

General remarks :

Introduction

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

Horn is an essential safety feature fitment on all the vehicles. The Indian Standard - 1884 "Automotive Vehicles – Electric Horn – Specification" specified the requirements considering the horns as a component. This standard is intended to cover the installation requirements of horn, when fitted on the vehicle.

In the preparation of the standard, the assistance has been derived from;

ECE R-28	Uniform provisions concerning the approval of audible warning devices and of the motor vehicles with regard to their audible signals.
ISO : 6969	Road vehicles sound signaling devices – Tests after mounting on vehicle.
EC Directive	93130/EEC of 14 th June 1993 on audible warning devices for two or three wheel motor vehicles.

The Committee responsible for preparation of this standard is given in Annexure-B.

Automotive Vehicles - Horn Installation Requirement

1.0 SCOPE

This standard specifies installation requirements of automotive horns on all motor vehicles.

2.0 REFERENCES

References have been drawn from the following National / International Standards.

IS No.	Title
IS:9779 - 1981	Sound Level meters
IS:1884 - 1993	Automotive vehicles - Electric Horns - Specifications.
ECE R-28	Uniform provisions concerning the approval of audible warning devices and of the motor vehicles with regard to their audible signals.
ISO : 6969	Road vehicles sound signaling devices – Tests after mounting on vehicle.
EC Directive	93130/EEC of 14 th June 1993 on audible warning devices for two or three wheel motor vehicles.

3.0 TERMINOLOGY

3.1 Definitions given in IS: 1884 - 1993 shall apply as applicable.

3.2 Vehicle type with respect to this standard means vehicles not essentially different from one another with respect to such matters as;

The number and type of horns fitted on the vehicle.

The mountings used to fit the horns to the vehicle.

The position of the horns on the vehicle.

The rigidity of the parts of the structure on which the horns are mounted.

The shape and materials of the body block at the front of the vehicle which might effect the level of the sound emitted by the horn and have a masking effect.

4.0 TYPE APPROVAL

The vehicle manufacturer shall submit,

4.1 The technical specification of vehicle and horn which shall include at least the details given in Annexure-A.

4.2 Modifications/ changes in technical specifications

4.2.1 Every functional modification in technical specifications pertaining to installation of Horns in accordance with 4.1 will be intimated to testing agency. Testing agency may then consider whether:

- i) Vehicle with modifications complies with the specified requirements
- or
- ii) Any testing is necessary to establish the compliance.

5.0 GENERAL REQUIREMENT

The Horns shall be complying with the requirements of IS:1884 – 1993.

6.0 FUNCTIONAL REQUIREMENT

6.1 Sound pressure level test for horns mounted on vehicles

6.1.1 Condition of the test

The value of the sound pressure level of the horn on the vehicle should be determined in the following conditions;

The measurement of the sound pressure levels shall be made using a sound level meter in accordance with IS : 9779 – 1981.

The measurement of the overall sound pressure level shall be made using the weighting curve - A.

The sound signaling device shall be operated at test voltages of 6.5V, 13V or 26V with tolerance of ± 0.5 V, measured at the terminals of the source and corresponding respectively to rated voltage of 6V, 12V / 24 Volts.

For device supplied with the alternating current the measurements shall be made with the engine running at three generator speeds corresponding to 50%, 75% and 100% of the maximum generator speed specified by the manufacturer for continuous operation. When measurements are being made there shall be no other electrical load on generator.

The A – weighted sound pressure level emitted by the device(s) fitted on the vehicle shall be measured at a distance of 7 m in front of the vehicle, the latter being placed on an open site on ground as smooth as possible and in the case of devices supplied with direct current with its engine stopped.

The microphone of the measuring instrument shall be placed approximately in the mean longitudinal plane of the vehicle.

The sound pressure level of the background noise and wind noise must be at least 10 dB(A) below the sound level to be measured.

The maximum sound pressure level shall be sought within the range of 0.5 and 1.5 m above the ground.

6.1.2 Measured under the above conditions the maximum sound pressure level shall be as follows:

- a) Between 83 dB(A) to 112 dB (A) for horns fitted on 2 wheelers or 3 wheelers of a power less than or equal to 7 kW.
- b) Between 93 dB (A) to 112 dB (A) for the horn fitted on all other motor vehicles including tractor, 2 wheelers and 3 wheelers of a power greater than 7 kW.

7.0 Conformity of Production requirements:

Whole Vehicle COP procedure laid down by the Ministry of Road Transport and Highways shall be applicable for the purpose of COP, verification of all parameters shall be carried out.

ANNEXURE-A

Technical specification to be submitted by vehicle manufacturer

1. Type of vehicle
2. Name of the vehicle manufacturer
3. Address of the vehicle manufacturer
4. Vehicle model / variants
5. Category of vehicle
6. Type of Horn fitted on the vehicle
7. Manufacturer of horn
8. Sketch showing mounting of horn.
9. Operating voltage of horn
10. Horn to be used as dual or single
11. The shape and material of the bodywork at the front of the vehicle, which might affect the level of the sound, emitted by the horn and have a masking effect.
12. Max. engine speed for continuous operation
13. Engine Power
14. Test report of the horn complying requirements of IS : 1884 - 1993

ANNEXURE :B
(see Introduction)

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