Transport Commissionerate, Keralam Trans Towers, Thiruvananthapuram Dated: 22-09-2011

From

The Transport Commissioner

To

All Deputy Transport Commissioners All Regional Transport Officers All Joint Regional Transport Officers

Sir,

Sub: Motor Vehicles Department-Approval of Speed Limiter Devices-reg

Ref: 1. Request from M/S Mahindra Navistar Automotive Ltd dated 14-09-11

2. Test Report No.SHL/9/2010-11/3460/2055dated 25-09-10 of the Automotive Research Association of India

Your attention is invited to the above references. Vide reference 1st cited M/S Mahindra Navistar Automotive Ltd has submitted request for the approval of Speed Limitation System Integrated with Engine Management System of vehicles manufactured by them.

Vide reference 2<sup>nd</sup> cited the Automotive Research Association of India has approved that the Speed Limitation System Integrated with Engine Management System installed on vehicle model MAHINDRA TOURISTER 32 BS III and on its variants mentioned below met the specified requirements of AIS-018/2001 along with Amendment No.1 and 2.

| SI<br>No | DESCRIPTION                      | Rear<br>axle<br>ratio | Max<br>Engine<br>Power KW | ULW<br>(ton) | Power<br>to ULW<br>ratio |
|----------|----------------------------------|-----------------------|---------------------------|--------------|--------------------------|
| 1        | MN TOURISTER BSIII 4200 Bus-32+D | 5.13                  | 85                        | 4.615        | 18.42                    |
| 2        | MN TOURISTER BSIII 4200 Bus-RTD  |                       |                           | *            |                          |
| 3        | MN TOURISTER BSIII 4200 Bus-19   |                       |                           | 4.58         | 18.56                    |
| 4        | MN TOURISTER BSIII 4200 Bus-24+D |                       |                           | 4.58         | 18.56                    |
| 5        | MN TOURISTER BSIII 4200 Bus-27+D |                       |                           | 4.6          | 18.48                    |
| 6        | MN TOURISTER BSIII 4200 Bus-28+D |                       |                           | 4.6          | 18.48                    |

All the Registering Authorities and Additional Registering Authorities are directed to verify the above while registering the vehicles subject to the compliance of Central Motor Vehicles Rules, 1989 as amended up-to-dated. They are also directed to verify the compliance of provisions of Act and Rules other than those mentioned in the ARAI Certificate.

The applicant is directed to produce the copy of ARAI test report for each vehicle at the time of inspection of vehicle fitted with these speed governors. The details of ARAI Certificates are being communicated to your office by E-mail. You are also requested to make sure the speed limiter which is in built in the vehicle is working properly.

Yours faithfully
Sd/Senior DTC (Taxation)
For Transport Commissioner

Copy to: The Applicant

Approved for issue

Senior Superintendent



## The Automotive Research Association of India

(Research Institution of the Automotive Industry with the Ministry of Heavy Industries & Public Enterprises, Govt. of India)

DEEPAK
DNYANOBA OVAHAI
PUNE DIST.
REGD. NO. SHL/9/2010-11/3460/2055

DEDODT

Non-transferable

TEST REPORT

DATE: 25.09.2010

1.0

NAME AND ADDRESS OF

:

Mahindra Navistar Automotives Ltd.

Bidar T Junction, Medak District. AP

Zaheerabad - 502 220.

2.0 CUSTOMER LETTER REF.

Email dated: 10.09.2010

3.0 DESCRIPTION OF TEST COMPONENT:

Speed Limitation System (SLS) Integrated with Engine Management System of the vehicle.

| Sr.<br>no | Parts *                             | Make and Supplier  | Supplier Part<br>Number | MNAL<br>Part Number |  |
|-----------|-------------------------------------|--|-------------------------|---------------------|--|
| 1         | ECU MODEL: BOCSH<br>EDC16 C39       | BOCSH  | 0281013778              | 0315CM0031N         |  |
| 2         | Fuel Injectors Pump                 | Robert Bosch-Bangalore,<br>India   | 0445010131              | 0305BC0371N         |  |
| 3         | Accelerator pedal module            | BOCSH  | 0280A00302              | 0315CC0041N         |  |
| 4         | Vehicle speed sensor                | Pricol.  | C40 1891                | 1302AA0710N         |  |
| 8         | ECU Manufacturing<br>Plant Address: | Bosch Automotive Products (Suzhou) Co. Ltd No. 126 Su Hong Xi Lu Suzhou Industrial Park City:Suzhou,State:Jiangsu,Zip Code: 215021,Country: China. |                         |                     |  |

This test report consists of the following parts:

| Part         | Description  | Page No. |
|--------------|--|----------|
| Test Report  | Test for Speed Limitation System of the vehicle                        | 1 to 5   |
| Annexure-I   | Allowed Tolerance Graph as given in Standard                           | 6        |
| Annexure-II  | Vehicle specifications as given by the customer                        | 7        |
| Annexure-III | List of variants submitted by the customer for extension               | 8        |
| Annexure-IV  | Installation Schematic of the Speed Limitation System on the vehicle   | 9-10     |
| Annexure-V   | Installation Photographs of the Speed Limitation System on the vehicle | 11       |
| Annexure-VI  | Possible tampering modes / Observations in those tampering modes.      | 12       |
| Annexure-VII | General Requirements (Cl. No. 4)                                       | 13       |

The performance test of Speed Limitation System was carried out on vehicle model Mahindra Tourister 32 BSIII (For its variant refer Annexure-III), at the set speed OPY range of 40 and 80 km/h as specified by the manufacturer.

DEEPAK DNYANOBA OVAHAL DNYANOBA DIST. PUNE DIST. PUNE DIST. REGD. NO. 4552

Affire ARA

Progress through Research

D. D. OVAHAL HONS,M.S. W.L.

Regd. Office: S. No. 102, Vetal Hill, Off Faud Road, Kothrud, Pune 411 036 (India) Postal Address: P. B. No. 832, Pune 411 004 (India) A SSOCI Atel 3 19 C20-3023 [111] Fax: 91-20-2543 4190, Email: director@araiindia.com

Website: www.araiindia.com



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CONCLUSION:

- The Speed Limitation System Integrated with Engine Management System of the vehicle, specified in Sr. No 3 of this test report with set speed range of 40 and 80 km/h. met the specified requirements of Cl No 5.7 AlS-018 / 2001 along with Amendment No.1 RNM and 2, when installed on vehicle model Mahindra Tourister 32 BSIII
- 6.2 The SLD already certified for laboratory tests (Cl. No. 5.3, 5.4, and 5.5 of AlS-018 / 2001) in the Test Report No. SHL/9/2007-08/1268/559 dated 07.08.2007
- 6.3 Based on the laboratory test results specified in Sr. No. 6.2 of this test report and vehicle performance test carried out on the SLD as installed on vehicle model: Mahindra Tourister 32 BSIII (For its variant refer Annexure-III). The Speed Limitation System Integrated with Engine Management System of the vehicle met the requirements of AIS-018 / 2001 along with Amendment No.1 and 2.
  - Note Though the Speed Limitation System (Ref. Sr. No. 3.0) has been tested and approved for the specified set speed range (Ref Sr. no 3.0), as per the declaration given by M/s Mahindra Navistar Automobile Pvt. Ltd this system would be sealed for one set speed at a time and set speed would be indicated on windscreen of the vehicle.

Prepared by

A. G. Paratane Sr. Design Draftsman V S Khairatkar

Project Engineer

Department Head:

A. V. Mannikar **Deputy Director** 

Authorised for Release

SHRÎKANT R. MARATHE DIRECTOR

Progress through Research THE AUTOMOTIVE RESEARCH ASSOCIATION OF INDIA

Date of Issue: 04.10.2010

Place of Issue: Pune DISCLAIMER:

This test report pertains only to the components / parts / assemblies / vehicles etc. actually tested at ARAI in the presented condition based on the documents / information produced / submitted by the customer. The issuance of this test report alone does not indicate any measure of approval, certification, supervision, control of quality surveillance by ARAI of the product. No extract, abridgement or abstraction from this test report shall be published or used to advertise the product without the written consent of the Director, ARAI, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought. ARAI is in no way responsible for any misuse of copying of any design / type / system in connection with entire vehicle / components / parts and assemblies. Breach of any statutory provision of Indian laws or laws of other countries, will be the sole responsibility of the customer and the respons party, whatsoever, the customer shall alone be liable for the same, and undertakes to indemnify ARAI in this regard. Souther, the ARAI has the right to initiate cancellation / withdrawal of the certificate issued, in case of any fraud, misrepresentation, when it surfaces and comes in the knowledge of ARAI. The appropriate local courts at Pune shall have the initiation in the court of any dispute claim or lightlifty arising out of this report.

jurisdiction in respect of any dispute, claim or liability arising out of this report.



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Annexure - V

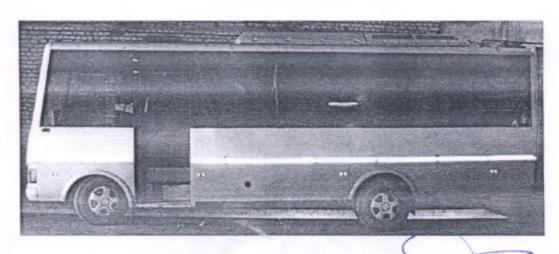
PUNE NO. A Installation Photographs of the Speed Limitation System:

1) Vehicle fitted with SLD: "Mahindra Tourister 32 BSIII "

FRNME

ARY





OTARI REGD. NO. 4552

THE AUTOMOTIVE RESEARCH ASSOCIATION OF N

TRUE COPY

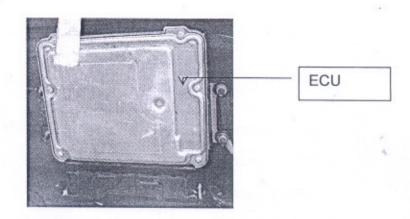


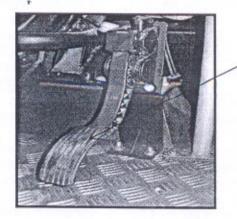
## TEST REPORT No. SHL/9/2010-11/3460/2055

## 2) ECU fitted on the Vehicle



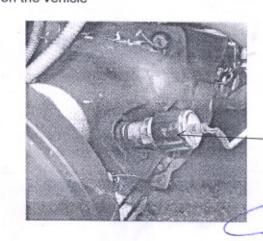
3) Accelerator Pedal





Accelerator Pedal

## 4) Speed Sensor as fitted on the vehicle



Sensor & its connector with Wire Seal



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B L HONSIM'S W.L.