

Minutes of 56th Meeting of Central Motor Vehicle Rules-Technical Standing Committee (CMVR-TSC) held at ICAT Manesar, on 22nd August 2019 under the Chairmanship of Shri Priyank Bharti, Joint Secretary (MVL)

List of participants is attached as **Annexure-I**.

1.0 Chairman, Shri Priyank Bharti, JS (MVL), welcomed the members and requested Secretariat to take up the agenda for discussion.

2.0 Confirmation of Minutes of the previous meeting :

Shri. A. A. Badusha, ARAI, informed that Minutes of 55th meeting of CMVR-TSC were circulated vide letter HMR/55-CMVR-TSC/A-318 dated 12th March 2019 and that comments are received from ICAT, SIAM and TMA (**Annexure-IIA**). Committee deliberated on the comments submitted and the decisions taken on the same are given below:

(i) Comments from ICAT with respect to notification for mandating COP for Traction Batteries:

It was agreed to incorporate the proposed paragraph in the minutes of the 55th meeting of CMVR-TSC.

(ii) Comments from ICAT with respect to notifying IS 16833 in place of AIS 140 in CMVR:

The Committee deliberated on the process of replacing a notified AIS by a IS in CMVR. Secretariat highlighted that though as per the statement in CMVR, “till such time the corresponding BIS specifications are notified under the Bureau of India Standards Act” it may imply that the IS standard becomes applicable as and when it is published, still, it may be noted that Ministry has notified AIS 000 to deal with administrative issues which include the process of notifying AIS or IS in CMVR. It was informed that whenever an “AIS” is to be replaced by “IS” the subject has to be reviewed by corresponding panel under AISC to study the equivalence of the two standards, propose transition plan, etc. and as per the provisions of AIS 000 further necessary actions have to be taken.

Further, with respect to comments submitted by ICAT, Secretariat informed that already the subject was taken up for discussion in 62nd meeting of AISC and that it was agreed to form a small working group consisting of Convener of IS 16833 (Dr. Madhusudan Joshi, ICAT), Convener of AIS 140 (Shri Rakesh Jain, DIMTS) and Shri Anand Deshpande, ARAI to review the two standards and propose an action plan

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in the next meeting of AISC. Committee noted that considering the action has already been initiated as per the prescribed guidelines given in AIS 000 there is no need to amend the minutes of the 55th meeting. Chairman requested Secretariat to prepare a document giving details of all AIS / IS standard notified under CMVR. Also, the status of AIS converted to IS and yet to be notified and the status of AIS currently under conversion may be clearly highlighted.

(iii) Comments from SIAM with respect to inclusion of Feracrylum in first aid kit :

Chairman informed that Ministry of Health has closely examined the suggestion regarding use of Feracrylum and based on its recommendation it was decided to mandate it as part of first aid kit. Shri Deepak Sawkar, opined that Feracrylum has a limited shelf life and there are restrictions regarding storage temperature. It was also informed that the said medicine can be used only under the medical supervision. Based on the deliberations and that the medicine has been recommended by Ministry of Health and Family Welfare for being kept in the firstaid kit, it was decided not to change the minutes of the meeting.

(iv) SIAM comments with respect to requisite data entry of HSRP details by dealers:

Chairman highlighted that with the provisions of Motor Vehicles (Amendment) 2019, State registers maintaining the vehicle registration data will be subsumed in the National register and therefore the comment has no significance. It was agreed not to amend the minutes.

(v) TMA comments with respect to G.S.R 1192 (E) :

Committee noted that TMA had highlighted the editorial correction required in G.S.R. 1192 (E) in the last meeting. Shri A. A. Badusha, informed that in G.S.R 1192 (E) IS 12362 (Part 2) was replaced by AIS 091 (Part 2) for requirements for tow hook. While publishing the final notification the words “wherever used” were missed and that the standard is applicable only if tow hook is fitted and therefore it is required to amend the rule accordingly. It was agreed to include the discussions as part of the minutes of the 55th meeting of CMVR-TSC and further, to amend sub-rule 5A of CMV Rule 124A.

After due deliberations on the comments on the minutes Committee adopted the minutes of the 55th meeting of CMVR-TSC. The changes to the minutes, based on the discussions highlighted above, are given in **Annexure-IIB**.

3.0 Progress on follow-up points of the last / earlier meetings of CMVR-TSC :

(i) Amendment to CMV Rule 93 :

Shri A. A. Badusha, ARAI, informed that a finalized proposal was circulated to the members for comments. Shri K. C. Sharma, MoRTH, highlighted that based on the recommendations received it is proposed to delete dimensions specified for road trains. Shri Saurabh Dalela, ICEMA, requested to address the requirement for permissible height while transporting CEVs on trailers. He informed that currently the limit is 3.8 m which is requested to be increased to 4.75 m. Shri Sharma clarified that a height of 4.75 m is allowed when an indivisible load is transported on a trailer. Considering that a CEV is transported as a complete unit (indivisible load) the issue will be addressed with the given clause. Committee noted the details and adopted the proposed notification. Ministry was requested to issue the draft notification.

Additionally, SIAM proposed to allow width of 2.8 m for N3G category vehicles. It was submitted that that these vehicles are utilized in specific applications like mining and do not ply on roads and are transported on trailers. Considering that these vehicles are required to be insured the vehicles have to be registered and therefore have to meet the dimensions specified in CMVR i.e., 2.6 m. Shri A. A. Badusha and Shri K. C. Sharma opined that the vehicles may be declared as a CEV wherein provision for higher width is available as it will not be feasible to increase the width of N3G vehicle category.

(ii) Revisions of Indian Standards :

Refer Sr. No. 7 (c).

(iii) Radio Frequency Allocation for various Automotive Applications :

SIAM presented a priority list of radio frequencies proposed to be de listed for automotive applications given at **Annexure-III**. It was informed that the request has been pending for a long time. SIAM requested Chairman to hold an IMG meeting under his chairmanship to address the issue. With reference to frequency range 312 - 315.25 MHz, Mrs. Rashmi Urdhwareshe, Director ARAI, informed that 433 MHz band is already allocated for the said applications and that the proposed band is not permitted in India region for automotive applications. SIAM clarified that these frequencies are used on the devices that are manufactured in India but intended to be exported to the countries where the said frequency band is

permitted and therefore need to be tested. Therefore, limited use of this frequency band may be permitted. Committee noted the information. Ministry was requested to convene an IMG meeting to take the subject forward.

(iv) Crash Guards / Bull Bars :

Ms. Vijayanta Ahuja, ICAT, presented the progress on the subject. Her presentation is attached as **Annexure-IV**. She presented the recommendations for 2 and 4 wheelers and highlighted that the panel unanimously agreed to not allow any such fitment on 3 wheelers. Committee noted the information and it was suggested that if such fitments are OE fitted then these can be type approved on “if fitted” basis for the technical provisions to be finalized by the panel in the form of a technical standard. It was informed that 2 wheeler related changes could be done in AIS 148 (External Projections). Further, Chairman opined that the subject is sub judice and the panel should conclude the matter within the deadline of September 2019.

(v) Provision of Hazard Warning Lamps in two-wheelers :

Shri. A. A. Badusha informed that in the last meeting the matter related to visibility of two wheelers from the rear in case of foggy environmental conditions was discussed and the 2 wheeler group was directed to examine if suitable provision of hazard warning lamp in two wheelers could be provided to address the issue.

Shri Suraj Aggarwal, SIAM, presented the current regulatory requirements with respect to Hazard Warning Lamps in India and internationally, given at **Annexure-V**. It was noted that the provision of fitment of hazard warning lamp is optional. Further, with the introduction of Automatic Headlamp On (AHO) function or Daytime Running Lamp (DRL) in the front and provision of reflex reflector at the rear adequate conspicuity in all type of weather conditions is ensured. In view of the same, no change is recommended in regulatory requirements. Committee agreed with the recommendation.

(vi) Approval of Two-wheelers retro-fitted with Fire Fighting Equipment :

Ms. Vijayanta Ahuja, presented an update on the subject. Her presentation is attached as **Annexure-VI**. She highlighted that two type of fitment are available viz., one in which vehicle is solely used as extinguishing agent carrier and second,

vehicle from which power from engine is drawn to spray extinguishing agent. It was informed that two panel meetings were held to discuss the subject and vehicle parameters which could be verified for approval were identified viz., GVW limit, External projection, Stand etc. Further, she highlighted that additional aspect to be considered would be validity of warranty and approval for pillion rider. Shri A. A. Badusha suggested that the GVW will increase after retro fitment of fire extinguishing kit. Therefore, taking reference from brake standard wherein an increase of 10 percent in GVW is permitted the same may be permitted for such vehicles. Chairman opined that these vehicles are necessary for specific applications and a simplified approval process can be worked out. This will enable such vehicles to be registered accordingly. Shri S. Ravishankar, SIAM, proposed that such vehicles may be dealt outside the scope of CMVR by issuing a special advisory. After due deliberations, Committee concluded that the working group may formulate a technical guideline for the retro fitment of fire extinguishing kit on two wheelers. Implementation of the same will be decided subsequently.

4.0 New Proposals :

(i) Tyre Repair Kit - Alternative proposal to Mandatory Spare Wheel :

Shri S. Sakthivelan, SIAM, presented the proposal for allowing provision of providing tyre repair kit in lieu of spare wheel. His presentation is attached as **Annexure-VII**. He highlighted the current provisions under CMVR and internationally. He explained that considering the packaging constraints in case of BS-VI vehicles and also taking into account the global regulations it is proposed to exempt M1 category vehicles from requirement of providing a spare wheel. Further, he highlighted the advantages of using the tyre puncture repair kit including its ease of use. Shri A. A. Badusha highlighted on the following aspects, for consideration of the committee.

- (a) Puncture Kit can be used only for Tubeless Tyres.
- (b) TPMS should be available as a standard feature on such vehicles and should indicate pressure loss of each wheel. TPMS could be either a direct or an indirect system.
- (c) Since there is a need to use new Sealant bottle every time, the availability of the Sealant bottle at least at all dealer points shall be ensured by the manufacturer.

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- (d) Standard Operating Guidelines should be prescribed in the Owner's manual for the user to understand the process and procedure.
- (e) The minimum kilometers which the vehicle can run after repairing the puncture by sealant (nail not removed) to be addressed.
- (f) The maximum number of punctures that could be sustained by the same tyre with repeated application of sealant, need to be addressed.
- (g) To inform on any vehicle running Speed restrictions, till the puncture is mended at the next service station.

Mr. Deepak Sawkar, SIAM, proposed that TPMS prescribed should be technology agnostic. The TPMS could be either direct type (using pressure sensors) or it may be indirect type (using sophisticated algorithm based software). The indirect type usually uses the output signals from the wheel speed sensors commonly used in ABS to indirectly correlate with the tyre rolling radius which has a direct relation to tyre pressure.

With respect to availability of the sealant in open market it was informed that the same would be readily available with the dealers and availability in the open market will need to be explored. However, issues if any with respect to the use or unavailability of the sealant in the market will be addressed by the OEM exclusively.

Mrs. Rashmi Urdhwareshe, Director ARAI, recalled that the proposal was earlier rejected in year 2016 by the committee when the exemption was specifically sought for xEV vehicles. However, with advancement in technology and considering the global practices the proposal may be considered afresh. Also although the request is specifically in the context of BS VI development, the decision would have a bearing on all types of passenger cars and implementation need not be therefore linked with BS VI emission norms. Committee noted the details and the proposal was agreed in principle. Secretariat was requested to submit requisite modifications in CMVR rule to the Ministry for consideration.

(ii) Discussion on the latest status and the way forward in respect of following special purpose vehicles

(a) Cash Van :

Ms. Vijayanta Ahuja, presented the status update on the subject. Her presentation is given at **Annexure-VIII**. She informed that a meeting was held in June 2019 to discuss the Ministry of Home Affairs Notification G.S.R 755 (E)

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dated 8th August 2018 wherein specific requirements for Cash Vans have been specified. To address the subject in totality it was agreed to formulate a guideline Automotive Industry Standard to cover specific requirements for Cash Vans which can then be referred by different agencies. Shri D. P. Saste, Consultant MoRTH, informed that the guideline standard will be divided in two parts viz., Part 1 which will contain general requirements for any special purpose vehicle and Part 2 which will contain specific requirement considering the vehicle application. Committee noted the information. It was agreed that subjects such as Cash vans, Reefer Vans (food trucks), vehicles for transportation of radioactive material, Fire fighters, Garbage trucks etc., can be addressed through this approach. Shri D. P. Saste was nominated as the panel convener for the proposed AIS, which could be an omnibus standard to address all such special purpose vehicle constructions.

(b) Use of Super Single Tyre :

(Refer Para 6 (a)).

(c) Food Service Truck :

(Refer Para 4 (ii) (a)).

(d) Transport of radioactive material :

Shri K. C. Sharma, MoRTH, informed that based on the discussions with Atomic Energy Regulatory Board (AERB), a need was felt to address the issue of transport of radioactive materials. He informed that a standard will be formulated to address the same which will primarily define the roles and responsibilities of the Consigner, Consignee and the Carrier. Guidelines will be formulated by taking reference from ADR 2019 published by UNECE. Committee noted the information and agreed to review the subject in the next meeting.

(iii) Discussion on the proposal from Ministry of Agriculture for amendment in Form 23 by including PTO power instead of Horse Power :

Shri C. V. Chimote, CFMTTI, presented the proposal. His presentation is attached as **Annexure-IX**. He informed that presently in the certificate of registration for agricultural tractors, Horse Power of the engine has been prescribed. However, it

would be more apt to mention the Maximum PTO power. He stated that the same is also mentioned on the manufacturer's plate given on the tractor. Further, during testing of agricultural tractors as per IS 5994, IS 12036, IS 10273 and AIS 017, Maximum PTO power is required to be mentioned and it is therefore, necessary to state the same in certificate of registration as well. This will benefit the consumer and avoid ambiguity.

Shri R. P. Vasudevan, TMA, submitted contrary view. He stressed that presently tractors are sold based on HP ratings and it would be detrimental to the industry to make such change, which might adversely affect the sale of tractors. However, to address MoA's concern, both HP and PTO power may be mentioned in the certificate of registration.

Mrs. Rashmi Urdhwareshe, Director ARAI, informed that whereas PTO power is used for granting subsidy, engine power i.e., BHP is used for emission. Considering the importance of both specification, both values may be mentioned in the Form 23. Committee noted the details and it was agreed to incorporate to include both viz., BHP and PTO power in Form 23 after consultation with NIC considering the limited space available on the certificate of registration card.

Additionally, CFMTTI and TMA submitted to the Committee the proposal to use the correct value of factor for converting HP to kW in Vahan database. Shri A. A. Badusha, ARAI, informed that a proposal in this regard has also been submitted by ARAI to NIC for consideration. Committee noted the information and it was agreed to request NIC to do the appropriate changes as proposed.

5.0 Issues for Discussion :

(i) Definition of Hybrids - mild & strong hybrids vehicles :

Shri A. A. Badusha, ARAI, informed that as per directions from MoRTH the subject was examined in the 62nd meeting of AISC. It was noted that FAME II notification S.O. 1472 (E) dated 28th March 2019 has been published which covers definition of Hybrid Electric Vehicles, Strong Hybrid Electric Vehicle (SHEV), Plug-in HEV (PHEV)/Range Extended Electric Vehicle (REEV) and Battery Electric Vehicle (BEV). However, for the purpose of CMVR approvals the type of charging (viz., off vehicle charging or otherwise) is considered. After due deliberation it was expressed that provisions under CMVR were adequate.

Committee noted the information. It was agreed that definitions of Hybrid vehicles in AIS 102 (CMVR Type Approval for Hybrid Electric Vehicles), CAFÉ norms and those notified under FAME shall be once again reviewed and if necessary required definitions can be covered under CMVR for consistency. Committee requested Shri K. C. Sharma to review the same in consultation with AISC Secretary and propose the way forward in the next meeting.

(ii) HSRP - AIS for HSRP, sticker colour for 3rd registration plate for BS VI vehicles, dimensions of plates

Secretariat presented an update on the subject. It was informed that the Committee may deliberate on the following three issues with respect to HSRP:

(a) AIS 159 :

Based on directions received from MoRTH a draft standard was formulated to cover type approval and CoP requirements for HSRP. The standard was discussed in the panel meetings and a finalized proposal was submitted for consideration in 54th meeting of CMVR-TSC held on 8th September 2018. In the meeting it was agreed to park the standard till further directions.

Further, based on the notifications issued by the Government with respect to specifications for green number plate, third registration sticker and COP frequency the finalized draft, earlier prepared, was modified suitably. The finalized draft standard was hosted on MoRTH website to seek comments.

It was informed that editorial comments were received from SIAM which are acceptable. Also with the implementation of this standard, no re-certification is required, only extension of certificates is required for updating the AIS number. Secretariat requested the Committee to adopt the proposed standard and sought approval for publishing the same.

Shri B. Bhanot submitted that two additional comments have been submitted with respect to reference of DIN standard and Hologram drawing. He requested the panel to consider the same while publishing the finalized standard. Committee noted the details and adopted the proposed standard and requested Secretariat to publish the same after reviewing the comments from SIAM and Shri Bhanot.

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(b) Conformity of Production Procedure and Frequency :

Shri Rajendra Khile, Convener AIS 037, presented an update on the discussions with respect to HSRP. He informed that frequency is decided based on both, number of HSRP manufactured, and time period. The details have been covered in AIS 159, as given below:

Sr. No.	Quantity	Frequency
1.	30 Lacs or more (within 90 days (including 90 th day))	3 months
2.	30 lacs or more (in more than 90 days)	The date on which the quantity cross 30 lacs or 1 year whichever is earlier
3.	Less than 30 Lacs (within 1 year)	Once in every year

Shri. B. Bhanot submitted his reservation with respect to frequency of 3 months in case quantity produced is more than 30 Lacs. Shri. Khile informed that the subject was discussed at length in the panel meeting and the proposal as stated above was agreed unanimously.

Further, Shri. Khile highlighted that difference between the earlier COP procedure for HSRP wherein State Authorities were involved in the audit process and the AIS 037 wherein the audit is done only by the test agencies. He sought Committee's guidance on the process to be followed. Mrs. Rashmi Urdhwareshe, Director ARAI, highlighted that earlier procedure was followed as per the directions from the Honorable Supreme Court and whether it would be appropriate to change that now. Chairman clarified that publication of new notification has also been in the notice of Hon'ble Supreme Court and that the new system of providing the HSRP through the OEM is infact implementing the decision of the Supreme Court in letter and spirit as earlier with so much of effort the penetration of HSRP as what Supreme Court wished was not taking place with many states not providing HSRP due to various reasons and with the new notification all new vehicles have HSRP. It is the OEM is to ensure that the security features are as per the mandate of the Supreme Court. The revised COP procedure can be as

defined by this committee. Since AIS 037 procedure is well established procedure it shall be followed for HSRP as well.

After due deliberation Committee agreed to adopt the proposed frequency table as given above and the COP procedure as per AIS 037 guidelines.

(c) Third Registration Sticker for BS VI vehicles :

Committee noted the request from SIAM regarding unique third registration sticker for BS VI vehicles. It was submitted that there is a need to distinguish the vehicles meeting BS IV norms and earlier from vehicles meeting BS VI norms considering that BS VI vehicles are much cleaner vehicles and it will not be justified to club them together. Committee endorsed the need for unique identification for BS VI vehicles. It was proposed to provide a unique strip of say green colour of 1 cm, preferably on top of the existing third registration sticker for this purpose for the BS VI vehicles of any fuel type. i.e. for petrol or CNG which will have a light blue color sticker a green strip and with a diesel vehicles will have a orange sticker with a green strip on top.

(iii) Car carriers - turning circle radius and load body projection over driver cabin:

Shri Amit Kumar, SIAM, informed that in a meeting held on 4th January 2019 at MoRTH, Automobile Manufacturers and Logistics Service Providers were directed that a canopy above driver's Cabin was not permissible and it was also pointed out that the report of IIT Delhi (year 2016) specifically mentions further investigations are required to allow any canopy. He highlighted that SIAM initiated a study, which was conducted by Prof Anoop Chawla of IIT Delhi wherein requirements related to turning circle radius of car carrier trailers having a canopy was evaluated. The study revealed that a front canopy of upto 450 mm by 1000 mm and a taper of 30 degrees do not adversely affect the turning circle radius of an articulated trailer, as required by IS 12222. He informed that the study report has been submitted to MoRTH. He requested Committee to consider the evaluated design and modify the CMVR accordingly. Shri A. A. Badusha suggested that the Study on car carriers along with the proposed canopy design can be examined in the technical panel for the trailer code i.e. AIS 113. Committee noted the details.

(iv) Two wheeler - triple deck carrier :

Shri Amit Kumar, SIAM, informed that in a meeting held on 18th February 2019 at MoRTH the subject was discussed in detail and based on the provisions in CMVR and safety issues it was directed that triple deck carriers which are used for transport of two wheelers from factory to dealers, is not permitted. Subsequently, MoRTH had issued an Advisory on 27th February 2019 stating that a Canopy above the Driver's Cabin and loading in Triple or more Deck format in Trucks and Trailers results in instability of the carrier and affects road safety and is therefore not permissible. Further, to confirm the dynamic safety aspect, SIAM has already commissioned a study by Prof Anoop Chawla of IIT Delhi and the results will be presented to the Committee for further discussion. Committee noted the information.

(v) Analysis of vehicle fire- causes and preventive measures :

Shri A. A. Badusha, ARAI, informed that in the last meeting ICAT presented a summary on the recent instances of fire in motor vehicles. ICAT had proposed formation of a committee to study such cases and recommend suitable actions to avoid such instances. Further, it was recommended that I&C test report should capture maintenance aspects of retro fitment parts and Type Approval and CoP of critical components such as wiring harness. Committee had requested SIAM to share experiences of various OEMs while evaluating fire cases in their vehicles. Ms Vijayanta Ahuja, ICAT, presented the background and recommendations on the subject. Her presentation is attached as **Annexure-X**. She informed that SIAM's report is received recently which will be reviewed in due course. SIAM informed that the study conducted in year 2014 and it was revealed that major source of fire was use aftermarket accessories which are not approved by OEM. Committee noted the information.

Chairman suggested that the subject should be studied in depth considering the sensitivity of the issue. It was agreed to involve fire safety experts and then take the subject forward. It was also agreed that OEMs should collate the experience and develop user instructions (typically in the form of Dos and Don'ts) and use social media to propagate fire safety requirements.

(vi) Accommodation of wheel chair in M1 category vehicles :

With respect to providing mobility to people with disability the Committee discussed on the following issues:

(a) Approval for Invalid Carriage :

Shri A. A. Badusha, ARAI, informed that currently approvals are granted based on a resolution published by MoRTH. He stated that Draft approval procedure was submitted to MoRTH for 4 wheeled invalid carriages which can be notified by MoRTH to facilitate formal approval process. Chairman informed that based on the Motor Vehicle (Amendment) Act, 2019, a new term “adapted vehicle” has been coined for such vehicles and with new provisions under Section 52 appropriate CMVR will be framed to address the issue. Committee agreed that till such time the test agencies may grant approval as per the existing practice considering social needs. ARAI was requested to circulate the Draft Procedure to all concerned.

(b) Provision for wheel chair in M1 category vehicles :

Considering the need for enabling mobility for elderly, patients in specific cases, physically disabled it was agreed to form a panel under Shri K. C. Sharma to recommend guidelines on the subject. The panel was requested to review aftermarket fitments currently available and propose means to regulate them considering the new provisions under Motor Vehicle (Amendment) Act 2019. Director ARAI informed that ARAI has already published a review paper on the subject in earlier SIAT conference. The paper was an outcome of joint work between Rehabilitation Center of Deenanath Hospital, Pune and ARAI. It was agreed to draw reference from the said study.

(vii) Feasibility to include wheel chair in Bus Body Code AIS 052 (Rev. 1) in line with provision of AIS 153 :

Shri A. A. Badusha, ARAI, expressed that provisions for differentially abled people were already covered under AIS 153. The same requirements should also be applicable to buses built by bus body builders. Considering that AIS 153 is notified for only OEMs an amendment in Bus Body Code (AIS 052 (Rev. 1)) will be required which will cross refer to the requirements given in AIS 153. Chairman informed that Ministry has issued a draft G.S.R 523 dated 24th July

2019 wherein it is proposed to amend CMV Rule 62. The proposed amendment requires to check for provision of wheel chair entry and its anchorage in the buses at the time of fitness check. This will ensure compliance by buses on road. Committee noted the information. It was agreed to work out a lead time for the proposed amendment to AIS 052 (Rev. 1).

(viii) Retro fitment of CNG/LPG to be discussed in respect of (i) BS IV, BS VI (ii) performance of CNG vehicles with respect to gasoline/diesel vehicles :

Committee deliberated on the need and justification for permitting retro fitment of CNG/LPG kits on BS VI vehicles. Ms Vijayanta Ahuja, ICAT, informed that a Committee has been formed under the chairmanship of Director ICAT to discuss the issue and that a meeting has been called on 26th August 2019 for the same. Mrs. Rashmi Urdhwarshre, Director ARAI, expressed that earlier retro fitment of such kits were permitted in view to improve exhaust emissions. However, with the introduction of the clean BS VI emission norms, the retro fitment may not provide any benefit. Besides, regulatory complexity like OBD, in-service conformance, RDE performance, etc. will have to be addressed.

Shri Shishir Agarwal, IAC, submitted that retro fitment may be permitted for the benefit of the industry and that they will submit their recommendations in the meeting called on 26th August 2019. Committee noted the information and agreed to review the subject in the next meeting.

(ix) Finalisation of Notification on fuel Economy norms for light and medium Commercial Vehicles (M2, M3 & N2) with GVW upto 12 Tonnes, in the light of S.O. 2450 (E) dated 16th July 2019 of Ministry of Power :

Committee noted the publication of the notification on the subject by Ministry of Power. Chairman informed that necessary steps will be initiated by MoRTH in due course. SIAM expressed that they would like to propose amendments to the notification with respect to requirements for COP and some editorial corrections. Shri S. Ravishankar, SIAM, highlighted that the notification calls for a COP before 1st April 2020. Considering that the new emission norms will get implemented from 1st April 2020 and the BS IV models therefore will now be in production for a limited time, the proposed COP will pose unnecessary burden on the industry and not much would be achieved in this exercise. SIAM had further requested for consideration of CAFÉ based approach. Committee noted

the concerns. Chairman informed that since the notification would have been considered and discussed and has been issued by Ministry of Power the submission from SIAM, if any, has to be made to the respective Ministry. Additionally, Committee noted that as decided earlier, the notification for Heavy Duty Vehicles will be finalized in a inter-ministerial meeting. Mr. KC Sharma, SE Transport was requested to process the case in the Ministry.

(x) Discussion on Cold Milling Machine, Soil Stabilizer and similar type of machinery in respect of (i) use as off-road / on road (ii) registration related issues (iii) way forward to handle such cases :

Shri Sanjay Bajaj, M/s Wirtgen, made a presentation on the subject. His presentation is attached as **Annexure-XI**. He informed that the said machines have very specific applications. It was highlighted that these machines do not ply on road and are always transported on trailers. It was expressed that RTO's insist for registration of these vehicles however, considering their nature of use and construction these vehicles are not designed to comply CMVR requirements and therefore cannot be registered. He requested the Committee to deliberate on the issue and suggest a way forward. Committee noted the information. It was opined that in case such vehicles come on road and are within prescribed CMVR provisions of dimensions and axle load limits, the vehicles need to be comply with CMVR to facilitate registration. However, for vehicles which are not covered under CMVR, Ministry will issue a suitable advisory, to transport authorities, clarifying that registration shall not be sought for such vehicles.

(xi) Proposal for amendment to AIS 063 - Requirement for School Buses with respect to provision for FDAS / FDSS :

Shri S. Ravishankar, SIAM, presented the proposal on the subject. His presentation is attached as **Annexure-XII**. He highlighted the packaging constraints for fitting fire suppression systems in school buses with less than 3.5 ton GVW. Further, with the fitment of fire suppression systems the cost of these school buses will go high and will render it commercially unviable. He submitted that adequate safety measures will be built in such school buses including a fire detection and alarm systems. This will ensure regulated school buses to be introduced, by the OEMS. He expressed that apart from buses, vehicles such as school van and auto rickshaws, which do not have such safety

features, are already in use for ferrying school children and would continue to do so in future. Further, for school buses, with more than 3.5 T, both alarm and suppression system will be provided. He informed that the subject was discussed in the AISC meeting held at CIRT and it was agreed to seek guidance on the proposed amendment from CMVR-TSC.

Shri S. N. Dhole, Convener AIS 063 (School Buses), submitted that it is a sensitive issue and it would not be appropriate to give such an exemption considering that a notification is already issued to this effect. Chairman expressed that considering the practical aspects wherein even in small school buses, with less than 3.5 ton, it is envisaged that more children will be ferried than prescribed it will pose a safety threat in case of fires. After due deliberation the proposed amendment was not accepted.

6.0 Technology Presentations :

(a) Presentation by Alstom on Electric bus with steerable axles (front and rear) with super single tyre :

Shri Parag Gohel, M/s Alstom, made presentation on the subject. His presentation is attached as **Annexure-XIII**. He informed that M/s Alstom wishes to introduce an electric bus in Indian Market which has some unique design features viz., axles at extremities, equal distribution of loads on both the axles, all the major equipment's are roof mounted, use of super single tires (385/65 R 22.5) and all 4 wheels are steerable. He expressed that with the unique design features the bus offers better maneuverability with lower turning circle diameter and maximum space for passengers. The design has been complied with EU (European Union) requirements and is already in use in various cities across Europe. He highlighted that with the present maximum safe axle allowable limits introduction of this product in India is not possible. He presented the allowable limits in Europe, as given below:

- (i) There is no specific axle load difference between single axles with 2 tyres and 4 tyres.
- (ii) As per the EU council Directive 96/53/EC
 1. Maximum authorized axle weight for non-single non-driving axles is 10 tonnes.
 2. Maximum authorized axle weight for driving axles (applicable for motor vehicles) is 11.5 tonnes.

3. Maximum authorized vehicle weight for two axle buses is 19.5 tonnes.

He requested the Committee to consider an increased maximum safe axle limit of at 9 tonnes for each axle, for 2 axles passenger vehicles having two Super Single Tyres (385/65R22.5) per axle, for urban intra-city bus operations.

He informed that to in order to substantiate the request a study was carried out along with CRRI to evaluate the damage on pavement by 4-wheeled bus fitted with super single tires and 6 wheeled bus fitted with conventional tires. It was revealed that the effect was same in both cases. Shri Satish Pandey, CRRI, explained the work done by them and submitted that proposed electric bus with 2 super-single tyres (385/65R22.5) on front axle as well as rear axle with 9-ton load on each axle has similar contact pressure as a 6 wheeled bus with conventional tyres for urban intra-city bus operations specifically.

Committee noted the information and agreed in principle to permit super single tyre in Indian context.

Members expressed that super single tyre may be considered for all different categories of vehicles and that CMVR will require appropriate amendments to this effect. Committee requested Shri D. P. Saste, MoRTH, to review the CMVR requirements specially for the axle load provisions and the changes required for introducing super single tyre across all relevant vehicle categories. Further, Ministry was requested to review the increase in maximum safe axle load requirements, in case of use of super single tyres for urban intra city applications. It was agreed to review the subject in the next meeting.

(b) Presentation - Use of centrifugal filtering of PM from engine exhaust :

Shri Adess Singh, M/s RNA innovations, made a presentation on use of centrifugal filtering mechanism for removing particulates from engine exhaust while reducing back-pressure and improving fuel economy. His presentation is attached as **Annexure-XIV**. He highlighted the working principle of the technology and presented real time on-road testing samples indicating the dramatic reduction of particles. He informed that the technology has received various accolades/recognitions and that the product was also evaluated by ICAT. He expressed that the technology is now ready to be taken further for full commercial application and requested the members to take it forward considering its benefits. Shri Dinesh Tyagi, Director ICAT, informed that a reduction of 30 percent in particulate matter was observed during limited trial run at ICAT. He expressed

that the technology should go under full validation process to realize its benefits. Committee noted the information and acknowledges the work done by RNA innovations. Chairman expressed that with the information shared by M/s RNA innovations the industry members may like to review for putting it to end use.

(c) Solar Tractors :

Presentation on the subject was made by M/s Saur IN Autosol Energy Pvt. Ltd. The presentation is attached as **Annexure-XV**. The concept of using solar panels to recharge the onboard lead acid battery was explained. The technical details with respect to tractor capacity, motor capacity, solar panel capacity, gear box technology, brakes and steering, inverter and controller were highlighted. Committee noted the information and acknowledged the work done by M/s Saur IN Autosol Energy Pvt. Ltd. It was expressed that the tractor can cater to light duty applications and with further fine tuning of the overall packaging of the product, especially with respect to solar panel will add value. Mrs. Rashmi Urdhwarshie, Director ARAI, expressed that existing CMVR provisions can be reviewed to allow regulation support to the proposed product. Further, ICAT was requested to work and get the tractor validated against the CMVR requirements and provide details for further action and should be completed before next meeting.

7.0 Report from AISC :

(a) Standards and amendments for deliberations / adoption :

Secretariat presented a list of the amendments approved and published by AISC for consideration of the Committee. The list of the proposed amendments is attached as **Annexure-XVI**. It was informed that the amendments were discussed in panels / AISC and are hereby proposed for adoption. Committee noted the details and adopted the proposed amendments.

(b) Report on Running Subjects :

Secretariat presented the status report of the subjects under discussion in AISC. The same is attached as **Annexure-XVII**. The Committee deliberated in detail the following subjects:

(i) Motor Vehicle Part Compliance :

Shri Uday Harite, Convener, and MS. Seema Babal, ACMA, presented the progress on the subject. Their presentation is attached as **Annexure-XVIII**. It was informed that after due deliberation in the panel and subsequent discussion with Chairman, CMVR-TSC, it is proposed to include aftermarket sale components under the ambit of AIS 037. The proposed notification to this effect will be submitted to Ministry for consideration. With this provision, type approval and subsequent COP related requirements will be mandatory also for aftermarket sale component manufacturers. Further, to facilitate this, it is proposed to build an online portal wherein details of approved components and suppliers would be available and consumers will be able to seek information regarding the authenticity of the product. It was informed that the portal will be hosted on ARAI website or any other common website.

Shri. A. A. Badusha, ARAI, expressed that this website will have details of safety critical component approvals and their validity details offered by all the testing agencies and a link or a provision would be given for updation of details by the respective agency. As a first step, this would be run on a trial basis with few identified safety critical components and its effectiveness can be reviewed in future. Additionally, ACMA along with testing agencies and BIS can spread awareness of the new initiative. Committee noted the details. It was agreed that implementation of the proposed scheme will be challenging. However, it is important to control counterfeit products in aftermarket and that proposed scheme can be a step forward in that direction. Committee requested ACMA to finalize the details along with ARAI and present an update in the next meeting.

(ii) Whole vehicle safety COP (AIS 017 - Part 6) :

Secretariat informed that after detailed deliberation in the panel the standard is now finalized and is put up for adoption. Further, a proposed advisory and notification for implementing the preparatory and mandatory phase respectively was approved in the last meeting of CMVR-TSC. Considering the work in hand due to new norms due for implementation SIAM submitted a revised implementation plan, as given below, for the consideration of the Committee.

1. Preparatory Phase: 1st October 2020 to 31st March 2022 (Earlier agreed date 1st April 2020 to 31st March 2021).
2. Mandatory Phase: 1st April 2022 onwards (earlier agreed date 1st April 2021).

Committee noted the information and adopted the proposed standard and the revised timelines. It was agreed to host the finalized draft standard on MoRTH website. Secretariat was requested to submit the revised advisory and notification to the Ministry for consideration.

(iii) Type Approval of Modular Hydraulic Trailer :

Shri A. A. Badusha, Convener, presented the progress on the subject. His presentation is attached as **Annexure-XIX**. He informed that based on the directions given in earlier meetings of CMVR-TSC, an AIS standard has been formulated for addressing type approval of Modular Hydraulic Trailers. The standard includes requirements notified through various notifications issued by the Ministry in the past and additional performance parameters viz., manoeuvrability, EMI/EMC etc. He informed that a panel meeting was recently held on 20th August 2019 to discuss the comments received on the draft standard and now the subject has been concluded in the panel. The proposed standard will be put up for approval in the forthcoming meeting of AISC. Committee noted the information.

(iv) Amendment to AIS 000 - Administrative Procedure to deal with Corrigendum, Amendments or Revisions to AIS, TAP 115/116, CMVR Notifications, IS and ISO standards, which are notified under CMVR :

Secretariat informed that an amendment to AIS 000 is under discussion based on the directions received from Ministry, wherein it was proposed to align requirements for publishing of an amendment with those for revised standard. As per the current practise amendment could be published after approval in AISC and with permission of Chairperson AISC, which are subsequently ratified in CMVR-TSC. With the proposed amendment the amendments to various AIS will first have to be adopted in CMVR-TSC and only then can they be published. The subject was discussed in detail in 62nd meeting of AISC and it was highlighted that different approaches are followed for AIS and BIS standards under CMVR. It was noted that amendment to IS is published after following the due process of BIS but these are not subjected to approval or adoption by AISC or CMVR-TSC respectively. However, amendment to AIS can be published with the approval in AISC and are formally adopted in CMVR-TSC. This provides an additional check for the proposed amendment to AIS. The current procedure facilitates approval procedures considering there may be some urgent issues, which are understood only after implementation of the standard on field, that are required to be addressed quickly. AISC felt that though on one hand the approval of amendment by CMVR-TSC would be legally appropriate yet on the other approval of amendment by AISC is practical to deal with urgent issues. Committee noted the information. It was agreed that many new norms are under implementation some of which are India unique. Considering the need to address urgent on field issues to facilitate implementation of the norms. Committee agreed to follow the current provisions prescribed in AIS 000.

(c) Notifications for Consideration :

Secretariat presented the proposed notification for implementation of the following standards under CMVR. It was informed that the proposals were deliberated and approved in the 62nd meeting of AISC.

- (i) IS 14225: 2017 Automotive Vehicles - Locking Systems and Door Retention Components - General Requirements (**Annexure XX**)
- (ii) IS: 2553 (Part 2): Safety Glazing (**Annexure XXI**)
- (iii) IS 3028 (Part 1) - Pass by noise test requirements for L2 category Vehicles (**Annexure XXII**)
- (iv) AIS-146: Requirements applying to Stands fitted in two wheeled motor vehicles (**Annexure XXIII**)
- (v) AIS-147: External Projection requirements for Two Wheeled Motor Vehicles (**Annexure XXIII**)
- (vi) AIS-148: Automotive Vehicles - Requirements of Footrests for Two-wheeled Motor Vehicles (**Annexure XXIII**)

Committee reviewed the details and adopted the proposed notifications. Secretariat was requested to submit the same to the Ministry for consideration.

8.0 Review of notifications :

Secretariat informed that in the earlier meetings, Committee had approved draft notifications for implementation of various AIS and IS under CMVR. Accordingly, the following key notifications have been issued by the Ministry recently:

- (a) Revised standards for Brakes.
- (b) Brake Assist and Electronic Stability Systems.
- (c) Retro fitment of Hybrid Electric kit and pure electric conversion (AIS 123 (Part 1 to 3)).
- (d) Implementation of provisions under AIS 153 (Revised brake standards for OE manufactured buses, Fitment of FDAS and FDSS)
- (e) NATRAX authorized under CMVR 126

Further, following notifications are pending for release:

- (a) Safety Roadmap for CEV.
- (b) End of Life Vehicles.
- (c) Addition of components for COP viz., Traction Batteries etc.

Shri A. A. Badusha, informed that as per the directions from the Ministry the earlier proposed SO notification for CEV safety roadmap has now been converted into an AIS standard. The same will be taken up for discussion in forthcoming panel meeting on 29th August 2019 and will be subsequently put up in the 63rd meeting of AISC. Further,

with approval of AIS standard the proposed G.S.R notification for implementation of the same can be considered by the Ministry.

Shri Amit Kumar, SIAM, updated the Committee that during the 55th CMVR TSC Meeting, it was highlighted that the subject of ELV is also being addressed by Ministry of Environment & Forests. Further, it was emphasized that the requirements with respect to Type Approval of Vehicles for meeting RRR requirements as per ELV standard AIS 129 need to be addressed in CMVR. The Committee had adopted an implementation plan for the same and Secretariat was requested to submit a fresh notification for consideration of the Ministry. Subsequently, SIAM had a meeting on 31st May 2019 with Shri S. P. Singh Parihar, Chairman CPCB, to explain that AIS 129 could be considered as a purely technical standard which can be applied in conjunction with different guidelines and rules promulgated by CPCB, from time to time. Copy of AIS 129 was also submitted to CPCB for taking their views and suggestions on deleting any administrative clauses which may clash with CPCB guidelines. Further, the issue of setting up a working group of SIAM, ARAI and DG, CPCB was proposed, to arrive at a common understanding for smooth implementation. Committee noted the details. Chairman informed that the status will be reviewed by the Ministry.

9.0 Any other points with permission of the Chair :

(a) Proposal for alternative option for affixing statutory plates :

Ms. Vijayanta Ahuja, ICAT, presented a proposal for using destructive adhesive plate as an alternative option for affixing statutory plates. Her presentation is attached as **Annexure-XXIV**. She informed that this is an emerging technology and ICAT has done a series of tests to validate the performance of these adhesive plates. She proposed that a new AIS to cater to performance requirements of such plates can be formulated. Committee noted the information. Members expressed that the proposed plate cannot be a substitute and can be used as an add on, if required. Committee requested ICAT to submit the proposal for discussion under AISC.

(b) Height of 2 wheeled vehicle pillion seat :

Shri A. A. Badusha, ARAI, informed that a concern has been raised by Transport Commissioner Chennai, with respect to pillion rider seat height on 2 wheeled vehicles. It has been highlighted that high power bikes along with the construction features having pillion rider seated at a considerably increased height pose a

safety threat. It is proposed that such high powered bikes may be allowed only with rider seat to prevent fatalities. Committee noted the concern and requested SIAM to review the subject and present an update in the next meeting for discussion.

(c) Exemption till April 2020 of Drive-Away Chassis from Truck Code :

Shri S. Ravishankar, SIAM, stated that Truck body code is notified for implementation with effect from 1 October 2019. He presented a proposal seeking an exemption for drive away chassis from approval as per Truck Body Code till 1st April 2020. His presentation is attached as **Annexure-XXV**. He submitted that since BS IV Drive-Away Chassis have only limited life of 3-6 months after 1st October 2019, it is requested that this exemption be extended up to 1st April 2020. This would enable the Industry to create BS VI Drive-Away Chassis vehicles which will comply with the Truck code in their natural course. Committee noted the information. Considering the fact that there is a gap of only six months between Phase 2 implementation of Truck Body Code and new emission norms BS VI, it was agreed that the exemption may be extended till 31st March 2020. Secretariat was requested to process the required amendment in the respective standard.

(d) Changes in VAHAN :

Shri Saurabh Dalela, ICEMA, presented certain issues with respect to Vahan portal connected to CEVS. His presentation is attached as **Annexure-XXVI**. He highlighted that e-vahan design is suited to conventional Motor Vehicles. There are various mandatory field which are not relevant to CEV. Further, the options of emission norms are not visible for CEVs after changes in the motor vehicle emission norms. In absence of which, one has to essentially fill in BS IV (on and after 1st April 2017), knowing fully that the said CEV complies to BS III (CEV), if it is to be registered. He requested suitable changes in the portal to address the issues viz., GVW field to be disabled for CEVs, Emission Nomenclature to be aligned with GSR 201(E) dated 5th March 2019, Construction Equipment Vehicle to be added in vehicle category and provision for dual fuel (Diesel +CNG) in fuel category. Committee noted the details and agreed to the proposed changes.

Shri A. A. Badusha, ARAI, and Ms Vijayanta Ahuja, ICAT, informed that ARAI and ICAT too have submitted comments with respect to changes required in Vahan.

Chairman requested Shri K. C. Sharma, MoRTH, to review the comments and get the required changes done in Vahan with the help of NIC.

(e) Emission norms - Title rechristening for CEV :

Shri Saurabh Dalela, ICEMA, highlighted the issues faced by the CEV industry because of alignment of terminology of emission norms with that used for other motor vehicles (**Annexure XXVII**). He expressed that currently emission norms for CEVs are mandated as “BS xx (CEV)” and for motor vehicle as “BS xx”. However, despite clarifications from Supreme court and MoRTH, RTOs have not changed their opinion / understanding. In view of the same, it is envisaged that registration issues will happen from 1st April 2020 when new norms are implemented for other motor vehicles. He proposed that the nomenclature of CEV emission norms may be changed from “BS” to “CEMM” for all CEVs. Further, the nomenclature of emission norms for 37 kW and below CEVs, for which the BS III (CEV) norms will be applicable till April 2024, may be changed from BS (CEV) III to BS (CEV) IV. Committee noted the concerns. It was agreed to consider renaming the emission norms for CEVs as well as agricultural tractors and it was proposed that the words “BS” may be removed from the emission norms for CEVs and Agricultural Tractors. Committee requested Shri K. C. Sharma, to examine the same and propose a notification. It was also agreed that pending issuance of notification, as one gets closer to the BS VI deadline, Ministry would issue an advisory to all concerned, clarifying the above understanding.

10.0 Chairman thanked the members for actively participating in the discussions and especially Mr. Dinesh Tyagi, the Director - ICAT for hosting the meeting and for his warm hospitality.

11.0 The meeting ended with vote of thanks to the Chair.

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CMVR-TSC – Agenda 1

➤ **Comments were received from ICAT on the following items:**

1. Release of notification for applicability TA/CoP procedure for traction batteries.
2. Notification of IS 16833 to supersede AIS:140.

Clause (c) : Sr. no. c (vii) & c (viii).

- c (vii) ICAT proposed that it is important to notify the mandatory implementation Type Approval (TA) & Conformity of Production (CoP) for automotive traction batteries which are currently tested as per AIS:048. It is proposed to notify the same under AIS:037. The same is already discussed and agreed with panel convenor of AIS:037. The chairman agreed to notify the same at the earliest.
- c (viii) ICAT informed that the BIS standard for approval of Vehicle Tracking Devices (VTD) is already published and notified by BIS as IS 16833. The same was also confirmed by Mr R R Singh, Head TED present during the meeting. The MoRTH notification for fitment of VTS clearly indicates that the existing standard AIS:140 shall be superseded by the corresponding IS standard as and when the same is published and notified by BIS. Secretariat explained that the same can be done by releasing a notification by MoRTH. In view of this, Chairman agreed to do the needful.

1



CMVR-TSC – Agenda 1

55 th CMVR TSC meeting minutes	SIAM comments	Justifications
<p>6.0 New Proposals :</p> <p>i) Proposal for the induction of FERACRYLUM (A topical Haemostatic Antibacterial Preparation) in First Aid Kit of every vehicle through amendment in the Rule No, 138 – d (Chapter VI-Signals and additional safety measure of motor vehicles) of Central Motor Vehicle Rules 1989 :</p> <p>Secretariat informed that ...</p> <p>... Therefore, it is proposed that new generation advanced haemostat FERACRYLUM 1% Gel which stops bleeding, provides anti-microbial protection and also aids in wound healing process as a result of polymer matrix shall also be included in the kit. The Committee noted the advantages of the proposed item and agreed to include the same in the first aid kit. Secretariat was requested to propose the required notification.</p>	<p>6.0 New Proposals :</p> <p>i) Proposal for the induction of FERACRYLUM (A topical Haemostatic Antibacterial Preparation) in First Aid Kit of every vehicle through amendment in the Rule No, 138 – d (Chapter VI-Signals and additional safety measure of motor vehicles) of Central Motor Vehicle Rules 1989 :</p> <p>Secretariat informed that ...</p> <p>... Therefore, it is proposed that new generation advanced haemostat FERACRYLUM 1% Gel which stops bleeding, provides anti-microbial protection and also aids in wound healing process as a result of polymer matrix shall also be included in the kit. The Committee noted the advantages of the proposed item and agreed to include the same in the first aid kit. Secretariat was requested to propose the required notification. Chairman advised to have independent study on this proposal.</p>	<p>To reflect the actual discussion happened in the meeting.</p>

2



7.0 Review of Notifications :

... It was clarified by the Chairman that, the overall responsibility of affixing the HSRP on the motor vehicles sold shall lie with the OEMs. OEMs shall be responsible for ensuring that the quality of the blank Plates as well as quality of the embossing/printing is as per the specified standard. As per the notification, there is no requirement of every Dealer having an embossing machine in its premise. The OEM can devise suitable mechanism to ensure that every vehicle sold by the dealers is fitted with the duly embossed HSRP. The Dealers shall ensure that the requisite entries regarding HSRP are made in the Vahan data base to link the vehicle registration number with the unique HSRP number. The cost of new plate and embossing shall be included in the price of the vehicle. The cost of new plate and embossing shall be included in the price of the vehicle.

7.0 Review of Notifications :

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To reflect the actual discussion happened in the meeting.

3



CMVR-TSC – Agenda 1

➤ Comments were received from TMA on the following items:

Clause 9 of GSR 1192 (E) (iii), (5A)

With reference to the above, the CMVR, currently has in the principal rules, in rule 124A, sub rule (5)

“The tow hook **wherever used** in agricultural tractor shall be in accordance with IS:12362 (Part 2), as amended from time to time.”

As per the Final GSR 1192 (E) dated 10th December 2018, IS 12362 Part (2) standard is proposed to be replaced by AIS 091 (Part 2). The new rule is as given below:

“(5A) On and after the 1st day of October 2019, the mechanical couplings for agricultural tractor shall be in accordance with AIS-091(Part 2): 2012 standard as amended from time to time, till such time the corresponding BIS specifications are notified under the Bureau of Indian Standards Act, 2016 (11 of 2016).”

In the above proposed rule the word, “Wherever used” is missing due to typographical error.

This has been discussed in the 55th CMVR – TSC in Feb 2019. However, in the Minutes of the meeting, this point is missing. Hence, we request you to revise the MoM accordingly and to amend the Sub Rule accordingly:

“(5A) On and after the 1st day of October 2019, the mechanical couplings for agricultural tractor “Wherever used” shall be in accordance with AIS-091(Part 2): 2012 standard as amended from time to time, till such time the corresponding BIS specifications are notified under the Bureau of Indian Standards Act, 2016 (11 of 2016).”

4

Amendment 1 to Minutes of 55th Meeting of CMVR-TSC

1. Page 9/21

In Agenda item 3 (Report from AISC) in sub item (c) (Notifications for Consideration), Insert item No. (vii) as given below:

“ (vii) ICAT proposed that it is important to notify the mandatory implementation Type Approval (TA) & Conformity of Production (CoP) for automotive traction batteries which are currently tested as per AIS:048. It is proposed to notify the same under AIS:037. The same is already discussed and agreed with panel convenor of AIS:037. The chairman agreed to notify the same at the earliest.”

2. Page 17/21

In Sr. No. 7 (Review of notifications) add the following Para at the end.

“Committee noted TMA’s comments with respect to the editorial correction required in G.S.R. 1192 (E) dated 10th December 2018. It was highlighted that in G.S.R 1192 (E) IS 12362 (Part 2) was replaced by AIS 091 (Part 2) for requirements for tow hook. However, the words “wherever used” were missed and that the standard is applicable only if tow hook is fitted and therefore it is required to amend the rule accordingly. It was agreed to amend sub-rule 5A of CMV Rule 124A accordingly.”

SIAM priority list 1 for Radio Frequency delicensing



SN	Frequency Range	Max. Power	Applications
1	24.05 - 24.25 GHz	<u>Peak Power:</u> 20 dBm	Advance Driver Assistance Technologies (Automotive radar) <ul style="list-style-type: none"> • Blind Spot Detection • Lane departure prevention system • Collision avoidance system
	24.25 - 26.65 GHz (UWB)	<u>RMS power density (e.i.r.p)</u> 23.60 - 24.00 GHz: -74 dBm/MHz 24.25 - 25.65 GHz: -41.3 dBm/MHz 25.65 - 26.65 GHz: -41.3-61.3 dBm/MHz (linear interpolation) <u>Peak Power density (e.i.r.p)</u> 24.25 - 25.65 GHz: -24.44 dBm/3 MHz 25.65 - 26.65 GHz: -24.44 ...- 44.44 dBm/3 MHz (linear interpolation)	
2	77 - 81 GHz	<u>Peak Power (e.i.r.p):</u> 55 dBm <u>Mean Power (e.i.r.p):</u> -3 dBm	
3	312 – 315.25 MHz	0.25mW (EIRP) (89.2 dBμV/m@3m)	
4	5.8 - 5.925 GHz	23 dBm / MHz, 10 mW	
5	868.10 - 868.60 MHz	+14 dBm	Short range communication devices (20- 50m)- Keyless On/Off

1

SIAM priority list 2 for Radio Frequency delicensing



SN	Frequency Range	Max. Power	Applications
6	1.602 GHz	N.A. (only receiver)	GLONASS
7	1.575 GHz	N.A. (only receiver)	GPS and Galileo
8	UHF 470-710 MHz	N.A. (only receiver)	Digital TV receiver
9	90-108MHz	< 100dBμV	Digital TV Antenna
10	174-240MHz		
11	462-870MHz		
12	2499.7MHz	2μW/ cm ² or higher	IR Transceiver

2

Agenda 2.0 (iv)



Crash Guards/ Bull Bars

- Following the directions of the 52nd CMVR-TSC, first panel meeting for discussion on the testing/fitment requirements for Crash Guard/Bull Bar fitment on Motor vehicles was held.
- Key outcomes of the Meeting-
 - ❖ Recommendations by Committee on Crash Guard/Bull bar was circulated to all panel members for comments.
 - ❖ Comments on Committee's recommendations were received from MSIL, ARAI, Bull Bar association.
 - ❖ The Committee unanimously decided to not allow any kind of front or rear guard fitment on 3W
 - ❖ Siam provided recommendations regarding fitment of Guards on 2W
- ICAT circulated the draft recommendations to all the relevant stake holders for their comments on the same
- Bull bar association submitted a report on " Review of test procedures with regard to bull bar fitment" prepared in association with JP research INDIA PVT.LTD
- Report submitted didn't provide any substantial input as all highlighted points are already covered in recommendations already circulated by ICAT.

Agenda 2.0 (iv)



Recommendations for 2W , 3W & 4W (except M1 category)

Category	Parameters	Recommendation
2W	Currently Leg guard or engine guard is fitted	<p>Test proposed for Guard (Engine guard / Leg Guard) :</p> <p>(a) Such Guards shall be fitted symmetrical to longitudinal median plane.</p> <p>(b) The width of the such guards shall be less than the width of the handle bar in straight ahead condition.</p> <p>(c) such Guard shall be mounted rigidly to the frame of the two wheeler.</p> <p>The vehicle with such fitments shall comply with the requirements of AIS 147 i.e external projection 2W. (adopted in CMVR TSC. Such guards, if fitted shall comply with AIS 147 immediate effect)</p>
3W	Front/Rear guard fitment on 3W shall be allowed or not	1.The Committee unanimously decided to not allow any kind of front or rear guard fitment on 3W
4W	Crash Guard/Bull bar fitment	1.The vehicle after such fitments shall comply to the requirements of IS: 13942: 1994 i.e external projection

Agenda 2.0 (iv)



Recommendations for 4W (M1 category vehicles)

Sl.no	Standard	TEST
1.	AIS-008(Rev1) : 2010	1. Physical verification in order to verify any Obstruction of Lights 2. Headlamp levelling device test, if applicable
2.	CMV Rule 50	Obstruction to visibility of registration plate
3.	AIS-120: 2014	External Projection
4.	CMV Rule 93	Vehicle dimensions and weight
5.	IS: 9435: 2004	Test procedure for measurement of minimum ground clearance for M1 category of vehicles
6.	IS 15901 : 2010	Bumper Fitment on M1 Category
7.	IS 15796:2008	Horn installation
8.	AIS-098: 2008	Offset Frontal Collision
9.	AIS-100: 2010	Pedestrian safety
10.	AIS-145: 2017	Air bag deployment

Bull bar association – communication



▪ Mail from Association received dated 18.06.2019, stating -

1. We manufacture bull bars/diffusers/extenders for M1 and N1 category of vehicles only .
2. the bull bars/diffusers/extenders we manufacture follows the shape of the vehicle and do not extend beyond the side of the vehicle .
3. No bull bar/diffuser/extender or its fittings or attachments have sharp edges, corners or protrusions.
4. The bull bar/diffuser/extender does not obscure the headlights or any other light on the vehicle .
5. The bull bar/diffuser/extender does not obscure the registration plate.
6. The extender/diffuser we manufacture are made up of ABS / PP plastic which is very light in weight and fitted on the vehicle with a two way tape and/or small self tapping screws.
7. The new metal bull bars are also light in weight , low rise (bumper height or below) and are fitted with collapsible brackets which collapse in the event of collision.

Hazard Warning Lamp in 2 Wheeler

Background:

A concern has been raised through an RTI application

- The visibility of 2W from the rear in case of foggy environment.
- A suitable provision of hazard warning lamp in 2W may address this issue.
- Committee requested 2W Safety group of SIAM to study the requirement and propose a way forward.

Global Scenario:

1. No country could be located where fitment of Hazard warning lamp has been mandated for 2 W.
2. Following are the list of countries where optional fitment is permitted.


Sr. No	Country	Mandatory	Optional	Remarks/ Reference
1	India	X	√	AIS009 Para 6.9
2	US	X	√	FMVSS 108 Para S6.6.2
3	Australia	X	√	ADR 19/01 Para No 5.15 & 5.15.1
4	Japan	X	√	Japan Blue book Para 5.20 & 5.20.1
5	China	X	√	GB1800-1-2010
6	UN R*	X	√	UN R53 Para 6.9
*	In addition to members of European Union, UN R53 is applicable for 15 more countries. (Albania, Belarus, Bosnia and Herzegovina, Egypt, Georgia, Malaysia, Montenegro, Norway, Republic of Moldova, Russian Federation, San Marino, Serbia, The Former Yugoslav Republic of Macedonia, Turkey and Ukraine.)			

SIAM Recommendations-As usage in India is very low- Hence OPTIONAL like in Europe

Agenda 2.0 – Follow-up of last meeting

(vi) Approval for Two-wheelers retro-fitted with Fire Fighting Equipment

- Subject reference : 55th CMVR -TSC held on 6th Feb,2019.

Two meetings Conducted	Date	Location	Remarks	Two types of fittings available	
	20.03.2019	ICAT, Manesar	Draft Recommendations were circulated for inputs		1. Used are extinguisher agent carrier
03.06.2019	Transport Bhavan, New Delhi	Major Points discussed	2. Drawing power from engine (PTO) for running pump to spray extinguisher agent		

- Major Points :**

- In absence of accelerator lock mechanism, two members are required (D + Pillion).
- Warranty, servicing and maintenance onus to be defined.

- Proposal :**

- Considering the requirement of such vehicles in reducing response time in high traffic congestion areas and also small towns. Code covering Construction and functional requirements to be drafted in one months time period.

Agenda 2.0 – Follow-up of last meeting

(vi) Approval for Two-wheelers retro-fitted with Fire Fighting Equipment

Sr. No.	Parameters	Requirement
1.	Vehicle category	L2 vehicle category : first responder- fire
2.	Permissible Gross Vehicle Weight	The fittings shall be within the GVW Limits for retrofitter.
3.	Performance Requirements	Maximum speed of at least 50 km/h in laden condition To be tested in accordance to IS: 10278:2018
4.	External Projection requirements	No pointed, sharp or protruding parts, pointing outwards
6.	Warning lights/Emergency lights / Sirens	Norms from Fire depart may be sought.
7.	Manufacturer's plate	Details as appropriate
8.	Fire extinguisher	At least one fire extinguisher of 2kg in addition to the fire fighting kit shall be provided
9.	Stand	Side and centre stand both shall be provided, for stability.
10.	Seating capacity	Based on the type, ergonomics of the pillion.

Agenda 2.0 – Follow-up of last meeting

(vi) Approval for Two-wheelers retro-fitted with Fire Fighting Equipment



Pump PTO



Tyre Repair Kit

Alternate proposal to mandatory Spare Wheel

56th CMVR-TSC meeting

22nd August 2019

SIAM
Society of Indian Automobile Manufacturers

Tyre Repair Kit

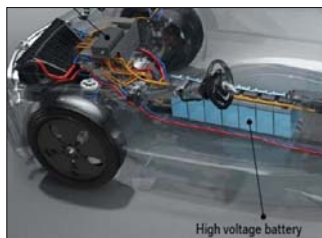
SIAM
Society of Indian Automobile Manufacturers

Background:

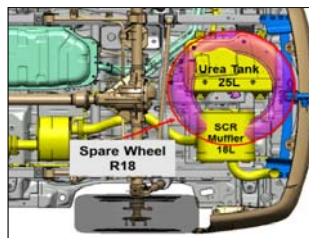
- Rule 138 (4)(a) of CMVR 1989 : Mandatory requirement of spare wheel to be carried in all categories of vehicle except 2W.
- **Not mandatory**
 - For M1, N1 & L7 category , if fitted with **Run Flat Tyre**.
 - **xEV's type approved as per AIS 131** for Pilot / Demonstration Projects intended for Government Scheme **if Puncture repair kit is provided** (limited volume)



Concern:



Battery packaging constraints for xEV/ Fuel cell vehicles



Urea tank & emission after treatment system packaging constraint in BSVI Diesel vehicles



packaging constraint in CNG/ B-fuel vehicles

Tyre Repair Kit



Global Regulation Scenario: Most of the countries in the world, doesn't mandates spare wheel & allows usage of Repair kit .

	EU	USA	China	Japan	India	GCC	Indonesia	Chile	Brazil	Colombia	S.Korea
SPARE WHEEL	NOT Mandatory				Mandatory	Optional					
TYRE REPAIR KIT allowed or used as an alternate to spare wheel	YES				Not allowed		YES				

Details of Puncture Repair Kit:

- The repair kit consists of
 - **12V Air Compressor** (integrated with an air pressure gauge)
 - **Latex liquid sealant**
- Power supply for compressor from vehicle cigar lighter
- During incident of tyre puncture, with the use of repair kit, the sealant poured into the tyre along with the compressed air.
- The sealant seals the punctured spot in the tyre tread.
- The kit can also be used as a standalone compressor** without the sealant activated & Capable of reaching near by Tyre repair shop



Tyre Repair Kit



Advantages of Puncture Repair Kit

- Easy to use particularly for females ,elderly people & those who have backaches as vehicle jack up & tyre assembly removal is eliminated.
- Space, weight saving & improves fuel economy.

SIAM Proposal:

- For M1-Category, **Tyre Repair Kit to be allowed as an alternate to Spare Wheel.**



Proposed Modification in CMVR & Standards:

In the Central Motor Vehicles Rules, 1989 (hereafter referred as the said rules, in rule 138, in sub-rule (4a), at the end, the following proviso shall be inserted, namely: -

"Provided that in case of M1 category vehicles, use of Tyre repair kit shall be permitted and the provision of ready to use spare wheel shall not be mandatory, if the vehicle is fitted with Tubeless Tyres

Explanation: For the purposes of this rule, Tyre Repair kit means an easy to repair kit stored in the vehicle, which in the incident of tyre puncture used to seal the punctured spot in the tyre tread using specific sealant poured into the tyre along with compressed air.

Also Kerbweight definition in various standard / AIS 007 Spec to be checked & modified suitably

Thank you for your kind attention

SIAM
Society of Indian Accountants & Management

Agenda 3.0 (ii) – Cash Vans



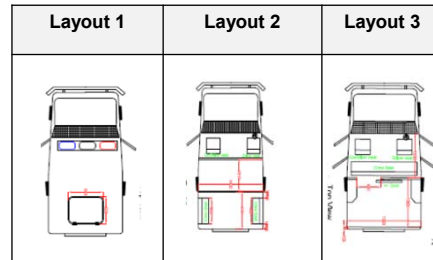
- Subject reference : 55th CMVR -TSC held on 6th Feb,2019. Meeting was held on 03.06.2019
- Notification from : MoHA Notification G.S.R 755(E) dated 8th Aug, 2019

Brief guidelines

- a) be a light commercial Vehicle, with an engine capacity of not less than 2200 cc, preferably turbocharged;
- b) be not more than seven years old;
- c) have tubeless tyres;
- d) have a ground clearance of not less than 190 mm; and
- e) accommodate minimum of five passengers;

○ **Additional Parameters to be considered:**

- Power to weight ratio
- Within permissible GVW
- As per CMVR,1989
 - Dimensions
 - Axle load
 - Door lock/hinges
 - VLT
 - Lighting and signalling device, etc



○ **Proposal:**

- Guideline Code covering Construction and functional requirements covering additional requirements to be drafted in one months time period.

Proposal for Modifications in Form 23 of the Central Motor Vehicles Rules, 1989



सत्यमेव जयते

Government of India
Ministry of Agriculture and Farmers Welfare
(Deptt. of Agriculture, Cooperation and Farmers Welfare)
(Mechanization & Technology Division)
CENTRAL FARM MACHINERY TRAINING & TESTING INSTITUTE
TRACTOR NAGAR, BUDNI (M.P.) 466 445

J. J. R. NARWARE
DIRECTOR

Present Procedure for Registration of Agricultural Tractors

- **Every agricultural tractor is required to be registered in India as per Rule 48 of the Central Motor Vehicles Rules, 1989**
- **A "Certificate of Registration" is issued as per Form 23 by the Registering authority to the Owner of the agricultural tractors.**
- **In Form 23, the details of vehicles are provided along with Horse Power (B.H.P.) which is relevant in the case of vehicles other than agricultural tractors.**
- **In case of agricultural tractors, a maximum PTO power (kW) is appropriate power readily available on the labeling plate / documents of agricultural tractor for verification by the registering authority.**
- **PTO power is required to be mentioned in the Form 23 for better understanding and ease of the customers / farmers of the Country.**

NEED FOR AMENDMENT OF FORM 23

1. The manufacturers are quoting engine horse power (BHP) as per the requirement of Form 23 while registration of tractors.
2. Accordingly, the registering authority is issuing the Registration Certificate (RC) to the owner of the agricultural tractor by mentioning the engine horse power (BHP) along with other details of the vehicle.
3. The testing of agricultural tractors is carried out as per the Indian Standards IS: 5994, IS: 12036, IS: 10273 & AIS -117 (CMVR Requirement) which explicitly provides to mention the Maximum PTO Power observed during the testing.
4. Due to this the Power mentioned in the Form 23 does not match with the labelling plates & test reports and becomes ambiguity which is a major source for applications under RTI and Court Cases.
5. This Institute is receiving many applications under RTI and Court Cases on this subject as the Power mentioned in the RC, labelling plate & Test Report of the tractor are not in order.
6. To avoid this irregularity and to sort out, this Institute has put a proposal for amendment in Form 23.

Guidelines for Declaration of Power and Specific Fuel Consumption and Labelling of Agricultural Tractors [IS:10273-1987 (Reaffirmed in 2014)]

Declaration of Power and Specific Fuel Consumption

- The power [kW (hp)] declared by the manufacturer shall be the value (nearest to first decimal place with the fineness of 0.5) obtained at the power take off of the tractor after conducting the 2 hr maximum PTO power test as per IS : 12036-1995 (Reaffirmed in 2014).
- The declared specific fuel consumption [g/kWh (g/hph)] corresponding to the 2 hr maximum PTO power test as per IS : 12036-1995 (Reaffirmed in 2014) shall be the value rounded off to the nearest first decimal place with the fineness of 0.5.

Format of Labelling Plate

[IS:10273-1987 (Reaffirmed in 2014)]

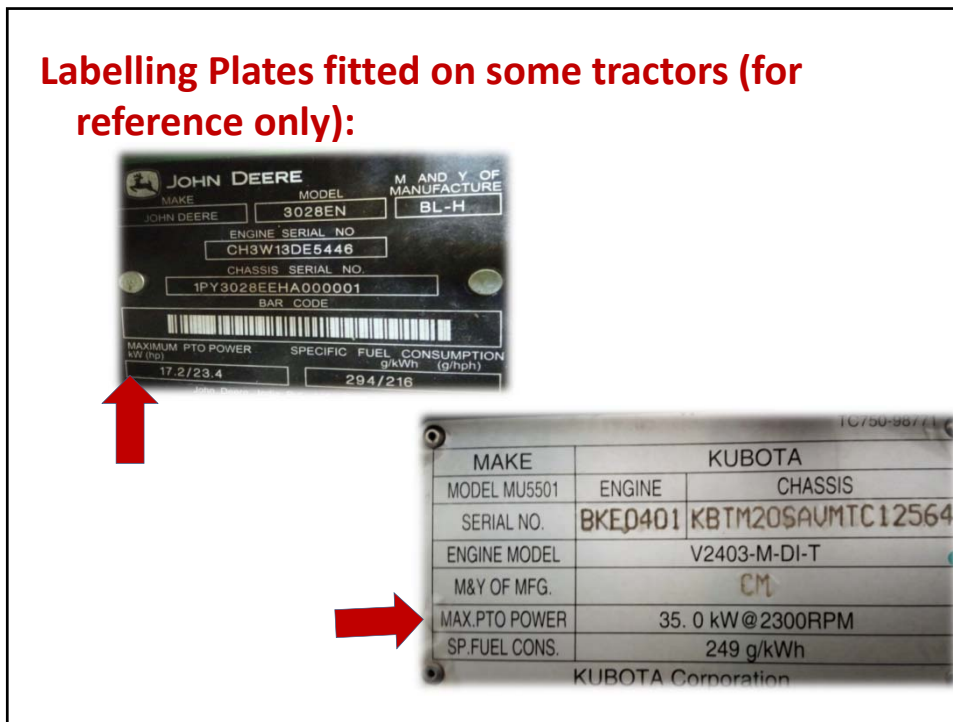
Name of manufacturer and trade-mark, if any		
Make	Model	Year of manufacture
Engine serial number		Chassis serial number
Maximum PTO power kW (hp)		Specific fuel consumption g/kWh (g/hph)

Format of Labelling Plate

[AIS:117-2011]

MANUFACTURER'S NAME	
Make	
Model	
TYPE (2/4 WD Agricultural Tractor)	:
Type Approval / CMVR Certificate Number	:
CMVR Type Approval Number	:
Agricultural Tractor Identification Number	: (As declared by the manufacturer)
Maximum PTO Power (kW)	:
Total permissible mass (kg)	:
Permissible front axle load (kg)	:
Permissible rear axle load (kg)	:
Permissible towable mass	
- Un braked towable mass (kg)	:
- Independently braked towable mass (kg)	:
- Inertia braked towable mass (kg)	:
- Towable mass (kg)	:

Labelling Plates fitted on some tractors (for reference only):



Required necessary amendments in form 23 of the Central Motor Vehicles Rules.

The text of the amendment is as under.

Sr. No.	Parameter	Present Text	To be revised as
1.	Sr. No. 9 of the Form 23	Horse Power (B.H.P.)	Horse Power (B.H.P.) / Maximum PTO Power (kW) in case of agricultural tractors

Silent Observations:

- In agricultural tractor, the engine is the source of power but power cannot be accessed directly from engine. The power is available in tractors through its various outlets, such as power take-off (PTO), drawbar, hydraulic.
- With a view to ensure uniform practice at National and International level, power of an agricultural tractor should be the maximum power available at power take-off (PTO) shaft.
- World wide Maximum PTO Power is mentioned on labelling plate.
- For conversion of PTO Power from kW to hp for CMVR purpose, the following formula may be used: $1\text{kW} = 1.35962$ metric horse power (hp)
- With this, we request the committee to consider the proposal for amendment in the Form 23 in case of agricultural tractors.



Agenda 4.0 – Issues for discussion



(v) Fire in vehicles

Background:

Analysis of vehicle fire – causes and preventive measures.

Possible Causes:

- Fuel leakages,
- overheating,
- short circuits,
- Retrofitment,
- Aftermarket fitment,
- Poor Maintenance and
- accidents, and other factors.

Agenda 4.0 – Issues for discussion



(v) Fire in vehicles

Recommendations:

- Working Committee to be formulated.
- Education / Advertisement (OEM/ Dealer/ MoRTH) –
 - Checks on after market fitments,
 - Accessories fitment,
 - Harness Tapping,
 - proper sleeving and routing in order to avoid accidental sparking,
 - Simple/Short maintenance tips.
 - An instruction clearly visible inside the cabin must be placed indicating the intended use of detachable head rest's (if any present) pins for breaking the window glass from inside of the vehicle by the passenger, so as to facilitate evacuation in case of a fire.

Agenda 4.0 – Issues for discussion



(v) Fire in vehicles

Recommendations:

- Introduction of -
 - FDAS,
 - FDSS, or sensor which can serve such purpose.
 - To notify AIS 101: Rear End collision
- Additional tests/checks at I&M center / Service Center –
 - Checking of Battery shorting,
 - Fitments other than OE – speaker, lights etc
- OEMs to review the possibility to tap –
 - Short circuit detection,
 - Battery shorting,
 - Excess current drawing sub-systems etc.

3

Agenda 4.0 – Issues for discussion



(v) Fire in vehicles

Recommendations:

- Flammability requirements (wiring Harness) for all the motor vehicles.

<u>Part/component</u>	<u>Standard Applicable</u>	<u>Remarks</u>	<u>Proposal</u>
Flammability requirements (wiring Harness) for the 1.automotive vehicles, 2. Speed Governor, 3. Vehicle tracking devices	IS : 2465 - 1984	The standards are not amended from last 10-15 years. Standards are only reaffirmed ,hence old test reports are still valid.	▪Type approval certificate of the components shall be valid for a period of 5 years from the date of issue of such approval
Fuse	BIS IS 13703 :1993		
Fire retardant material for seat/upholstery/roof & side lining	IS 15061:2002		
Guidelines for Analysis of Automotive Rubbers by Fourier Transform Infra-red Spectrometry (FTIR) and Thermogravimetry (TGA) Techniques	AIS-066:2004		

4

WIRTGEN IMPORTED MACHINES- USE AS OFF HIGHWAY/ON HIGHWAY-REGISTRATION ISSUES.



02.09.2019

CMVR-TSC Meeting

1

Cold Milling and Stabilizer/Recycler Equipment.

Cold Milling Machine



02.09.2019

Cold Recycler and Soil Stabilizer



CMVR-TSC Meeting

2

Milling Machine at Job Site-Confined Area.



02.09.2019

CMVR-TSC Meeting

3

WR Insitu –Working at Delhi Meerut Expressway.



02.09.2019

CMVR-TSC Meeting

4

Transportation- Milling and Stabilizer Equipment on Tractor.



02.09.2019

CMVR-TSC Meeting

5

Cold Milling Machine –W120R/130CF



Application

- ✓ Cold milling Equipments are used for the quick removal of asphalt and concrete pavements to create an even profile base for the construction of new surface courses of uniform layer thickness..
- ✓ W120R is machine in the one-meter class for milling operations at a working width of 1.20 m. with rear loading system.

Technical Specifications

- ✓ Max Vehicle Speed = < 7Km/h
- ✓ Engine power = Deutz TCD2012 ,155 kW Tier 3
- ✓ Operating weight = 15,350 kg
- ✓ L x W x H Size = 10.99 x 2.4 x 3.6m

Compliance (International Certification)

- ✓ Compliant with : CE Certification
- ✓ Comply with EC Directives :For Safety 2006/42/EC Machinery Directive. For Noise 2000/14/EC Directive
- ✓ Applied harmonized standards : EN500-1 and EN500-2
- ✓ Engine Emission : 97/68/EC Directive (Type Approval)

Challenges for Homologation as per CMVR Rules

- ✓ CMVR Definition, Rules and Registration
- ✓ Rear Overhang > 7.5m
- ✓ Comply with current CMVR like Lighting ,Brake, Steering ,Tell –Tales, etc TAC/COP of Imported Engine

02.09.2019

CMVR-TSC Meeting

6

Cold Recycler and Soil Stabilizer-WR240



Application

- ✓ As a Soil Stabilizer in road earth work/Gravel WR with rotor Mix pre spread binders (Lime ,cement) to convert poor quality soil into homogeneous soil-binder mixture of high strength and stability construction material (Soil Base layer). In Recycler mode WR mills and granulates the existing asphalt pavement, injects binders and water and mixes all three in single operation in the road construction process.

Technical Specifications

- ✓ Max Vehicle Speed = < 12.4 Km/h
- ✓ Engine power = Cummins QSX15, 447KW / Tier 3
- ✓ Operating weight = 29,000kg
- ✓ L x W x H Size = 9.23 x 3.0 x 3.0m

Compliance (International Certification)

- ✓ Compliant with : CE Certification
- ✓ Comply with EC Directives :For Safety 2006/42/EC Machinery Directive.
- ✓ Applied harmonized standards : EN500-1 and EN500-3
- ✓ Engine Emission : 97/68/EC Directive (Type Approval)

Challenges for Homologation as per CMVR Rules

- ✓ CMVR Definition, Rules and Registration
- ✓ Axle Load > 10.2 Ton (WR240 = 17.2 Tons)
- ✓ Comply with current CMVR like Lighting ,Brake, Steering ,Tell –Tales, etc
- ✓ TAC/COP of Imported Engine

CMVR-TSC Meeting



02.09.2019

Current Challenges



Not To consider these Equipment's in Ambit of CMVR & registration from CMVR,1989.

- I. RTO insist on registration ,because of steering and tyres and mechanically propelled.
- II. Machine Ply on Roads-For it functioning in enclosed Area.
- III. Its transported inter and intra site-on Trailor
- IV. Imported as equipment under Section DGFT 84.
- V. These Equipment's are not designed to ply on the roads(7KM/HR)
- VI. Not homologated in other countries (EU, USA, China, Japan, etc).
- VII. These are CE-Certified with Euro 3 Norms and Under Machine Directive .
- VIII. Current Market size -25 Units /Annum-Milling and 10 Units For stabilizer/Recycler.
- IX. PI Guide us on –TO PROCEED FORWARD.

Thank You

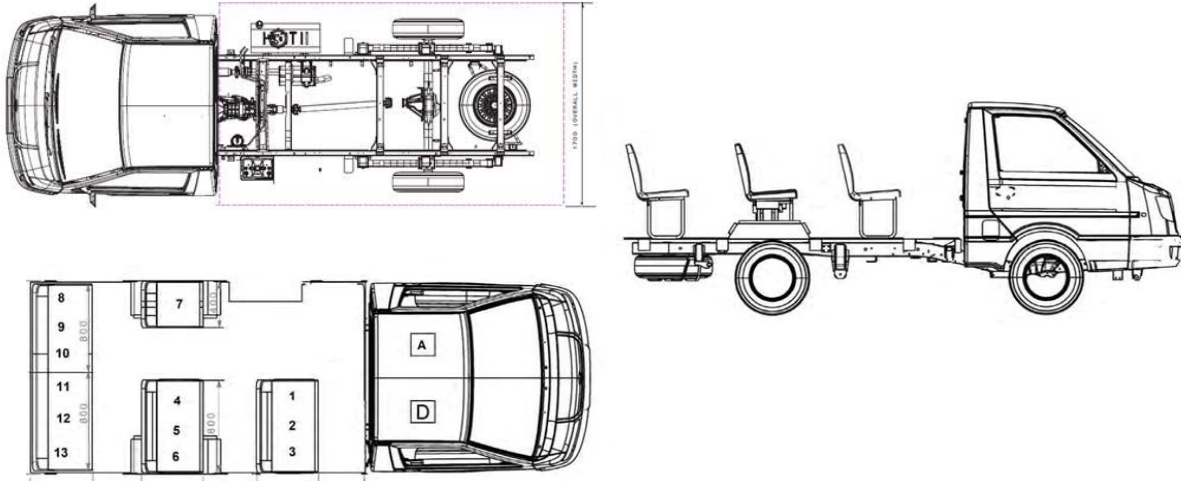
FDAS / FDSS applicability for School buses

SIAM proposal

Problem statement

- ✓ There is a problem that small school buses cannot be equipped with FDSS as required by AIS 063 because of space constraints.
- ✓ Small school buses (3.5 Tonnes GVW) are already crowded for space with BS VI after treatment devices.
- ✓ FDSS manufacturers were of the view that suppression cylinders has to be placed near engine compartment.
- ✓ These buses are already equipped with fire extinguishers and emergency exits.
- ✓ Currently 4 exits are provided – driver door, co driver door, emergency window, service door and these buses are equipped with only 12 seats excluding driver. Hence evacuation time will be extremely low.
- ✓ Therefore SIAM would like to recommend exempting 13 seater school van < 3.5 Tonnes from FDAS / FDSS in AIS 063 as per one of the following 3 optional proposals.

Sketch of 13 seater School van < 3.5 Tonnes



Proposal 1

AIS 063 School bus code – Alignment with GSR 246(E) dated 29th Mar'19

School bus requirement	GSR 246(E) dated 29th Mar'19 (referring AIS 153)	AIS 063 School bus code	Our proposal in AIS 063
FDAS / FDSS applicability	Buses > 22 seats excluding driver	Buses ≥ 13 seats excluding driver	Only for Buses > 22 seats excluding driver

Proposal 2

School buses – FDAS / FDSS exemption for vehicles with GVW < 3.5 Tonnes

School bus applicability	Our proposal on AIS 063
FDAS & FDSS applicability	Only for School buses with GVW \geq 3.5 Tonnes

Proposal 3

School buses – FDSS for vehicles with GVW \geq 3.5 Tonnes & FDAS for all school buses

School bus requirement	Our proposal in AIS 063
FDAS applicability	For School buses with GVW < 3.5 Tonnes
FDSS applicability	For School buses with GVW \geq 3.5 Tonnes

Way Forward

This was discussed in 5th AISC meeting for vehicles with GVW > 3.5 tonnes and decided by the Chairman that Proposal 3 will be put up in CMVR TSC for adoption.

Request CMVR TSC approval please.

Thanks



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Alstom's Electric Bus – APTIS India

Parag GOHEL & Shyamal BHATTACHARYA
21st June 2019

ALSTOM
Designing fluidity

APTIS – Alstom's Electric Bus – presently plying in Europe



- **Designed and manufactured by Alstom**
- **Homologated as per EU standard**
- **300+ buses orders from European cities of Paris, Strasbourg and Grenoble**



ALSTOM - 19/

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ALSTOM

Unique Features of APTIS (1/3)



Disruptive but well proven architecture

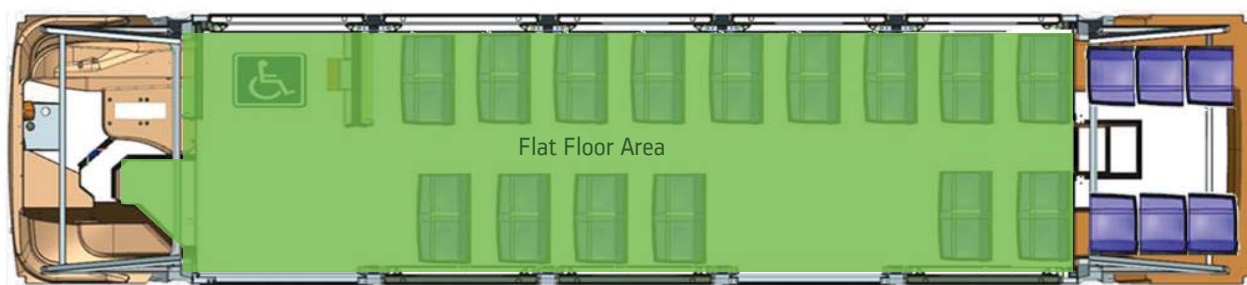
Sl.No	Parameter	Innovation in Aptis	Benefits
1	Wheel base	<ul style="list-style-type: none"> Axles at the extremities 	<ul style="list-style-type: none"> No sweeping on the footpath & adjacent lanes while turning
2	Equipment placement	<ul style="list-style-type: none"> All equipment on roof Equal weight distribution 	<ul style="list-style-type: none"> Interior space ONLY dedicated to passengers Enhanced maintainability (accessible equipment)

ALSTOM - 19/06/2019 – P 3

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Unique Features of APTIS (2/3)



Sl.No	Parameter	Innovation in Aptis	Benefits over current situation
3	Flat floor area	<ul style="list-style-type: none"> Axles at the extremities 	<ul style="list-style-type: none"> ~90% of low floor in saloon area

Very high comfort level: accessibility, dynamic interior flow, luminosity, wide interiors

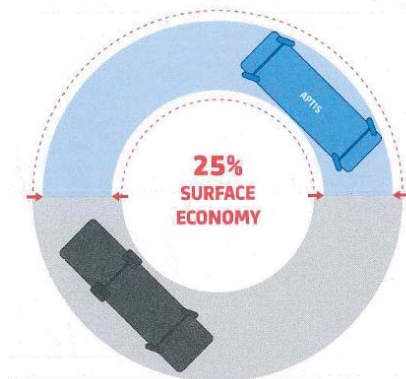
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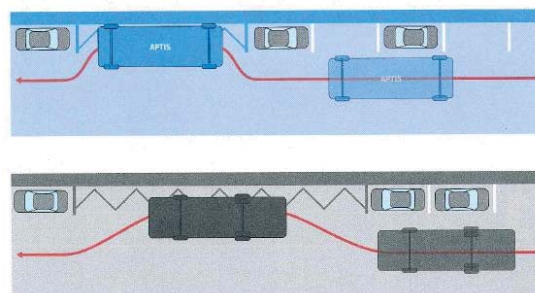


Unique Features of APTIS (3/3)

A leap forward in urban mobility



PARKING ASSISTANCE: ACCURATE AND SPACE-EFFICIENT PARKING



Sl.No	Parameter	Innovation in Aptis	Benefits over current situation
4	Maneuverability	<ul style="list-style-type: none"> All wheels steerable Both Front & Rear axles with 2 Super Single Tyres 	<ul style="list-style-type: none"> Saving of up to 25% of urban surface during turning circle Low turning radius: better urban insertion Perfect alignment with stop

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Our Plans for APTIS India and Challenging Area



- Full Engineering, Sourcing, Manufacturing of APTIS planned in India
- Retain all unique features of APTIS
- Adaptation to Indian climate & road conditions
- Homologation as per Indian regulations

Challenging Area :
Maximum Safe Axle weight limit in India is 7.0 tonnes for Single Axles with 2 tyres

APTIS India will be under “Make In India” initiative

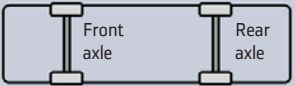
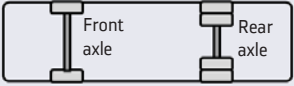
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Comparison of Indian Regulation and European Aptis

Maximum Safe Axle Weight as per Indian Regulation

Vehicle types	GVW	Maximum safe axle weight	Bottom view of the vehicle
Two Axle Rigid vehicle 2 tyres on front axle, and 2 tyres on rear axle	14.0 t	7.0 t on front axle 7.0 t on rear axle	
Two Axle Rigid vehicle 2 tyres on front axle, and 4 tyres on rear axle	18.5 t 19.5 t *	7.0 t on front axle 11.5 t on rear axle * * + 1t extra load in case of pneumatic suspension	

Aptis (Alstom's Electric Bus) weight distribution – presently available in Europe

Vehicle type	GVW	Maximum safe axle weight	Bottom view of the vehicle
Aptis (Alstom's Electric Bus) 2 tyres on front axle, and 2 tyres on rear axle	19.5 t	9.75 t on front axle 9.75 t on rear axle	

European Regulation

- There is no specific axle load difference between single axles with 2 tyres and single axle with 4 tyres. As per the EU council Directive 96/53/EC
- Maximum authorized axle weight for **single non-driving axles** is **10 tonnes**
 - Maximum authorized axle weight for **driving axles** (applicable for motor vehicles) is **11.5 tonnes**.
 - Maximum authorized vehicle weight for **two-axle buses** is **19.5 tonnes**.

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CRRI – Central Road Research Institute - Recommendation

Alstom's APTIS electric bus with 2 super-single tyres (385/65R22.5) on front axle as well as rear axle shall be adopted with axle load between **8.522 tonnes to 8.807 tonnes**.

Alstom's Outlook

CRRI's analysis has been performed considering the worst case possible for pavement damage;

- Standstill condition (0 kmph) and
- Maximum load through-out its life time.

Practically we know that a passenger vehicle be in running condition and shall not be with maximum load through-out the life time.

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Alstom's Request

For 2 axles passenger vehicles having two Super Single Tyres (385/65R22.5) per axle, the maximum safe axle weight for each axle at 9 tonnes.

Rationale for the request

4 tyre configuration (already existing in many parts of the world)

- Enables energy efficient transportation → 15-20% lower rolling resistance
- Weight of rolling assembly → low (compared to dual tyre axles)
- Less waste/rubbish to manage → 30% less compound
- Feasibility of rear axle steering (urban insertion, better manoeuvrability, improved safety with low overhang)
- Avoids risk of explosion of tyres with twin mounting
- The 385/65 tyre has a higher rated load carrying capacity. Hence in overload condition (which happens in certain conditions/cases in India), it would be safer to use 385/65 tyres when compared to that of 295/85 tyres.

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ALSTOM



www.alstom.com

Thank You

ALSTOM
Designing fluidity

Removing Particulates from Engine Exhaust

While

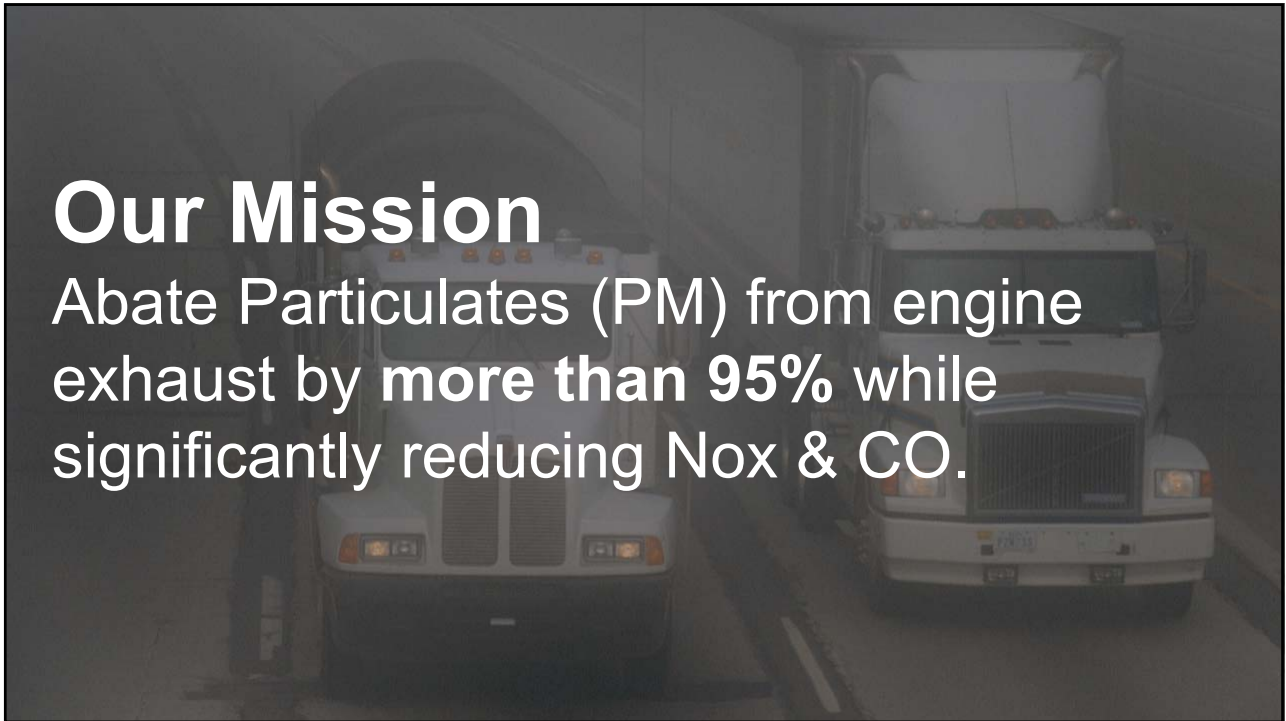
Reducing Back-pressure

&

Improving Fuel Economy

Our Mission

Abate Particulates (PM) from engine exhaust by **more than 95%** while significantly reducing Nox & CO.



Current efforts

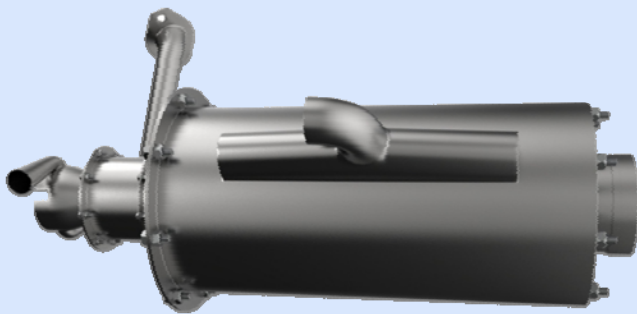


Resistive Methods
Particulate Filters (DPF, GPF)

- Increases load (backpressure) & decreases engine power
- Collected soot is burnt resulting in smaller and even more harmful particles
- High maintenance and replacement costs

CentriAirFlow: What it is & what it does

A patented technology that breaks the limiting barriers of currently used devices



Patented | Disruptive | Ready to deploy

- ✓ Separates and entraps particulates < 1 micron
- ✓ Improves fuel efficiency by **12-15%**
- ✓ Reduces Oxides of Nitrogen (NOx) and CO
- ✓ Reduces the Carbon Footprint
- ✓ Reduces exhaust noise
- ✓ Fits on ALL engines regardless of fuel type or vintage

CentriAirFlow: Where it fits

Fits in Place of Muffler Resonator
which it Replaces



Patented | Disruptive | Ready to deploy

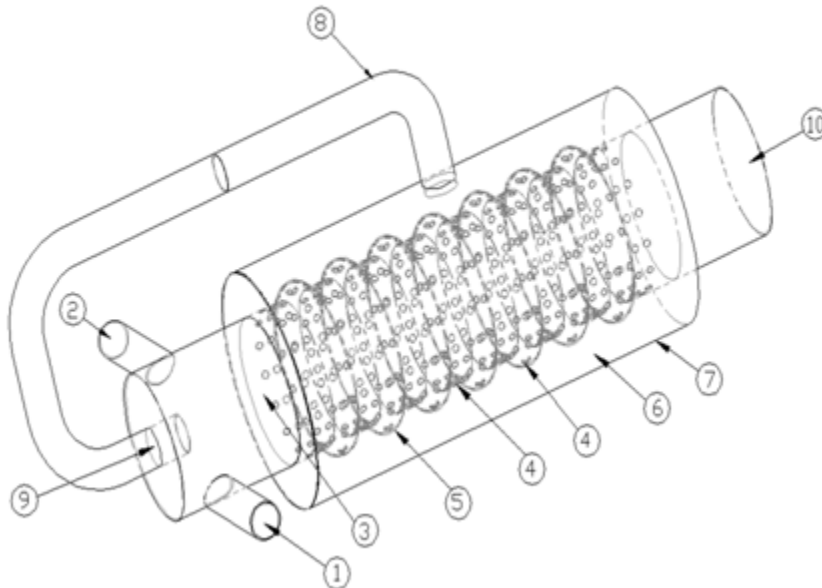


Muffler



Resonator

CentriAirFlow: The inside



CentriAirFlow: How It Works

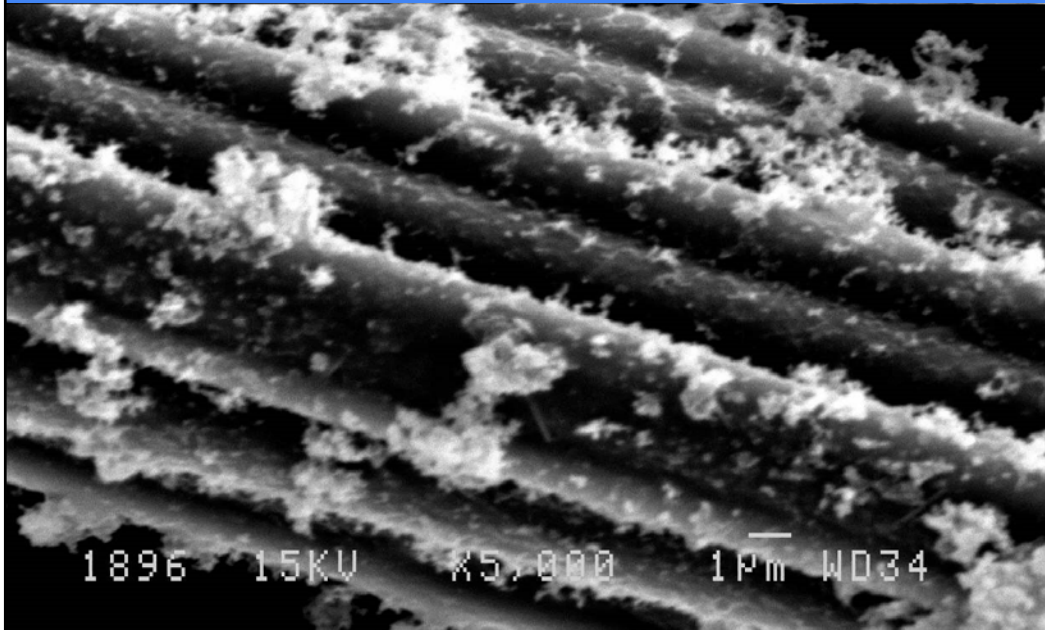
1. Exhaust gases enter at an angle and begin to spin

2. The high rate of spin causes particulates to separate (acc. of over 10,000g), which are then entrapped

3. Clean Gases Exit



CentriAirFlow: Visual of Captured particulates



White Reference Bar

Represents

1 Micron size

CentriAirFlow: The difference

Real time on-road testing provides evidence of dramatic reduction of particles

Standard OEM Exhaust



(50 Km of driving)

VS

With CentriAirFlow



(150 Km of driving)

Quantity of particulates exiting CentriAirFlow is **nearly ZERO!** (even after 3x distance)

Technology Readiness Level



Technology Readiness Levels

- TRL 0: Idea.** Unproven concept, no testing has been performed.
- TRL 1: Basic research.** Principles postulated and observed but no experimental proof available.
- TRL 2: Technology formulation.** Concept and application have been formulated.
- TRL 3: Applied research.** First laboratory tests completed; proof of concept.
- TRL 4: Small scale prototype** built in a laboratory environment ("ugly" prototype).
- TRL 5: Large scale prototype** tested in intended environment.
- TRL 6: Prototype system** tested in intended environment close to expected performance.
- TRL 7: Demonstration system** operating in operational environment at pre-commercial scale.
- TRL 8: First of a kind commercial system.** Manufacturing issues solved.
- TRL 9: Full commercial application,** technology available for consumers.

Present Status
7+
System mated to vehicle & used in real road conditions.

Validation: Patented | Awarded | Validated | Road Tested |



National Award-2014

Department of Sciences
& Technology
Government of India



2016, conclusive
test results
Validating claims



Nominated for Global Event at Los Angeles-2019



India Patent 2012
US Patent 2017
EU Patent 2018



2016-2018, Road
tests logging over
45,000 Km.

Impact for Fleet Operators

\$270 million/year
In Fuel Savings

Walmart

Miles driven: 700 million
Fuel consumed: 96.5 m gallons
Average fuel cost: \$2.24 billion

Advantage CentriAirFlow

11.6 million gallons reduction
in fuel consumption

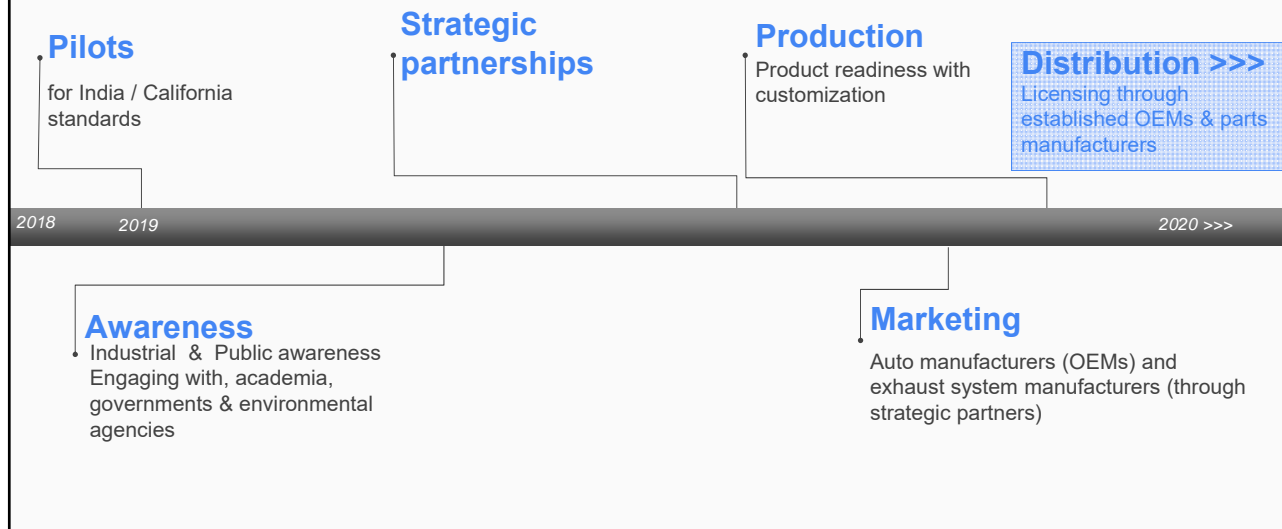
For the environment

Approximately 260 million lbs in
CO₂ reduction



Next Steps: Beyond Technology Readiness Level 7

Initiatives and Roadmap



Leadership Team

Made up of the inventors of the device that won the National Award for **Most Commercializable Innovation in 2014**



Adess Singh
Co-Founder

Physicist + Proven Inventor

With multiple patents and two National awards to his credit, Adess has an interest in the areas of energy, security, automotive, environment and health.



Rajandeeep Tiwana
Co-Founder

Technocrat + Entrepreneur

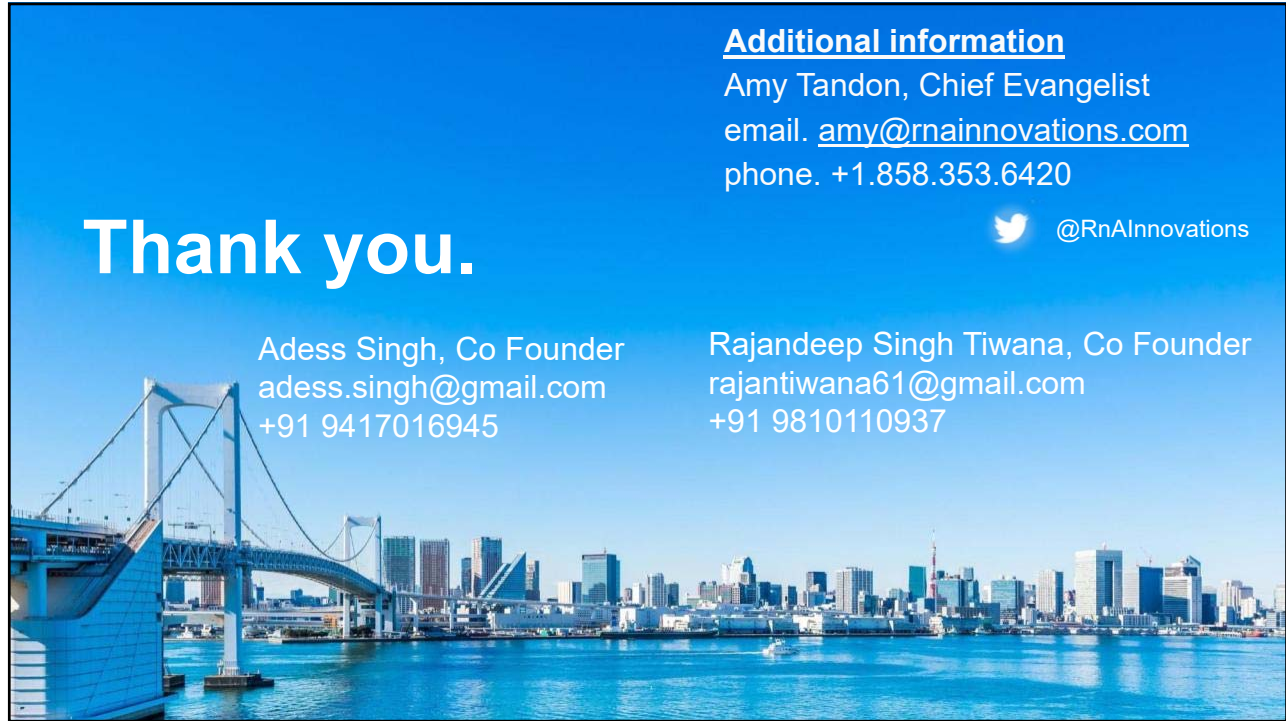
Awarded the National Award in 2014, co-inventor in the areas of security, automotive, and environment, Rajan has founded and managed large enterprises.



Amy Tandon
Chief Evangelist

Serial Entrepreneur

Thrives on building ventures from early concept stage to mass market adoption. Her expertise include sustainability, impact, engagement, revenue opportunities and user acquisition.



Thank you.

Additional information

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+91 9417016945

Rajandeep Singh Tiwana, Co Founder
rajantiwana61@gmail.com
+91 9810110937



Tractor Capacity

Tractor size:
12 hp

Tractor:
1.5 ton load pulling capacity

Wight:
750/- kg

Speed:
5 to 22 kmph

Battery capacity:
12 volt 150 ah x 4 Battery, all in series

Hydraulic capacity:
1.2 ton (Lifting capacity)



Motor capacity

7.5hp | DC

- 36 Volt to 48 Volt
- 1500 RPM
- 120 amp



Solar panel capacity



- 150 watt x 8 Penal
- 1200 watts, Mono Crystalline
- Single Penal Size: 1480mm x 665mm

Gear Box Technology



No clutch

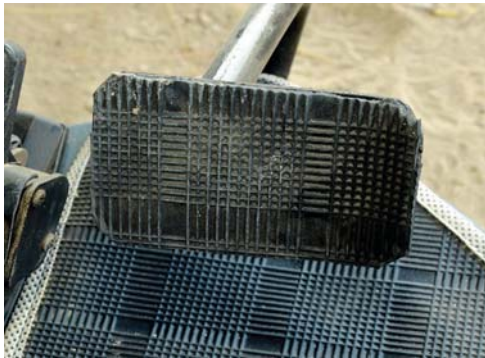
- 2 forward 1 reverse
- Speed 1 st forward 5 kmph max.
- 2nd /Top forward 5 to 22 kmph

Due to specifically design gear box:
It controls the speed of tractor and It works on top 200 RPM instead of 1500 RPM

It designed in such a way that it takes only 1 hp torque from motor and gives 7.5 hp torque as output to wheels so it will reduce power consumption

Tractor Break

Oil Break



Steering

Manually



Invertor

- 2200 watts (2.2kw)
- 2 way green invertor



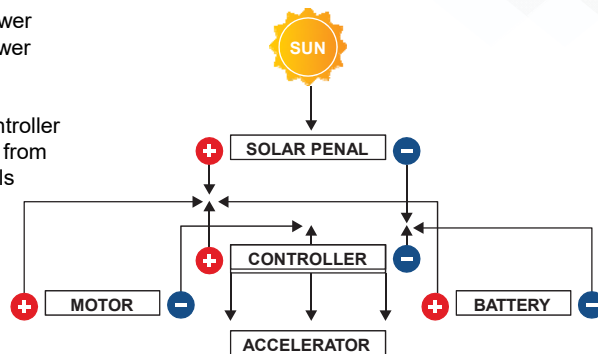
Water Pump

Tractor have inbuilt pulley, which can run up to 5hp motor



Controller

- Controller takes power from solar panels
- Controller transfers power to motor and if motor does not require power or in case of excess power then it transfers excess power to rechargeable batteries.
- In case of short fall of power from sunlight, it takes power from batteries.
- In any circumstances controller takes only 40% of power from batteries and also controls over charging. This will increase battery life.





CMVR-TSC – Agenda 6 (a)

6. Report from AISC:

a) Standards and amendments for deliberations / adoption:

Sr. No.	Amendment	Title
(i)	Amd 2 to AIS-012 (Part 8) (Rev. 1)	Performance Requirements for Parking Lamps for Motor Vehicles <ul style="list-style-type: none"> Amendment is proposed for alignment with further series of UN R 77 and editorial modifications (Word "Filament lamp" is replaced by word "light source").
(ii)	Amd 1 to AIS-012 (Part 9) (Rev. 1)	Performance Requirements for Side-Marker Lamps for Motor Vehicles <ul style="list-style-type: none"> Amendment is proposed for alignment with further series of UN R 91 and editorial modifications (Word "Filament lamp" is replaced by word "light source").
(iii)	Amd 7 to AIS-007 (Rev. 5)	Technical Information to be submitted by vehicle manufacturer <ul style="list-style-type: none"> To incorporate additional technical information to be submitted by vehicle manufacturer while seeking compliance for BS VI emission norms for 2, 3 and 4 wheeled vehicles

1



CMVR-TSC – Agenda 6 (a)

6. Report from AISC:

a) Standards and amendments for deliberations / adoption:

Sr. No.	Amendment	Title
(iv)	Amd 9 to AIS-037	Procedure for Type Approval and Establishing Conformity of Production for Safety Critical Components <ul style="list-style-type: none"> To add HSRP in preview of CoP in AIS-037. Amendment was circulated to panels vide mail dated 31st May 2019 for comments .No comments have been received on same.
(v)	Amd 4 to AIS-065	Vehicle Identification Number (VIN) plate <ul style="list-style-type: none"> To add code for new fuels viz. bi-fuel and dual fuel and type of certificate viz., variant addition certificate, family certificate, regulatory compliance certificate, rechristening, engineering change certificate etc.
(vi)	Amd 3 to AIS-119 (Rev. 1)	Specific Constructional Requirements for Sleeper Coaches <ul style="list-style-type: none"> To bring clarity in clear distance available for fixed glass in case of upper berth
(vii)	Amd 3 to AIS-153	Additional technical requirements for buses. <ul style="list-style-type: none"> Proposed to delete clause 2.17 which is in conflict with requirements for seats as laid down in AIS-023 and to add clarity in dimensions of pyramid used to validate location of escape hatch
(viii)	Amd 4 to AIS-153	Additional technical requirements for buses. <ul style="list-style-type: none"> To bring clarity with respect to location of escape hatches

2



CMVR-TSC – Agenda 6 (a)

6. Report from AISC:

a) Standards and amendments for deliberations / adoption:

Sr. No.	Amendment	Title
(ix)	Amd 10 to AIS-052 (Rev. 1)	Code of Practice for Bus Body Design and Approval <ul style="list-style-type: none"> To provide supplementary clause with respect to driver door requirements in case of Midi / Mini buses having constructional constraints.
(v)	Amd 3 to AIS-145	Additional Safety Features for Category M and N Vehicles <ul style="list-style-type: none"> To address RPAS requirements for other than M1 category vehicles.

Agenda 6.0 Report from AISC

1

6. Report from AISC:

b) Report by AISC on Running Subjects:

Sr. No.	Topic
(i)	AIS-017 (Part 1) - Procedure for Type Approval and Certification of Vehicles for Compliance to Central Motor Vehicles Rules <ul style="list-style-type: none"> Revision of AIS 017 (Part 1) (Rev. 1) is under discussion in AISC. In Parallel a new part AIS-0017 (Part 0) is being formulated to address common features of all AIS-017 parts.
(ii)	Motor Vehicle Part Compliance Requirements <ul style="list-style-type: none"> Panel presentation Additional agenda (ARAI)

2

6. Report from AISC:
b) Report by AISC on Running Subjects:

Sr. No.	Topic
(v)	Advanced Emergency Braking Systems (AEBS) <ul style="list-style-type: none"> Draft standard D0 has been prepared and is under discussion in the panel. Presently the scope of the standard covers M2, M3 , N2 and N3 categories of vehicles. The proposed standard is in line with UN R 131. Proposal for amendment to UN R 131 is under discussion in GRVA. Panel has proposed to wait for the finalization of the amendment and consideration of the same while finalizing this standard in India.
(vi)	New AIS on protective devices for two wheelers

3

6. Report from AISC:
b) Report by AISC on Running Subjects:

Sr. No.	Topic
(viii)	Review of Scope of AIS 145 – Additional Safety Features for Vehicles <ul style="list-style-type: none"> As directed in the earlier meeting of CMVR TSC, the scope of AIS-145 is under review in AIS-145 and crash panel. The finalized proposal is expected to come up for discussion in next meeting of AISC. Subsequently the proposal would be put up for consideration in CMVR-TSC.
(ix)	CNG / LPG Panel Update <ul style="list-style-type: none"> Draft standard D0 has been prepared and is under discussion in the panel. Presently the scope of the standard covers M2, M3 , N2 and N3 categories of vehicles. The proposed standard is in line with UN R 131. Proposal for amendment to UN R 131 is under discussion in GRVA. Panel has proposed to wait for the finalization of the amendment and consideration of the same while finalizing this standard in India.
(x)	Amendment to AIS 000 - Administrative Procedure to deal with Corrigendum, Amendments or Revisions to AIS, TAP 115/116, CMVR Notifications, IS and ISO standards, which are notified under CMVR


4



Motor Vehicle Part Compliance Requirements

Enforcement of Standards to parts sold in Aftermarket

1



Background

- Import of Auto Components consistently increasing
- Industry plagued by menace of counterfeit/ sub-standard parts being sold in aftermarket.
- Need to have Auto Components in the aftermarket that conform to prescribed standards

2018-19 Size of Domestic Aftermarket : USD 10.1 Billion

By 2026: USD 32 Billion (AMP Estimate)

ACMA

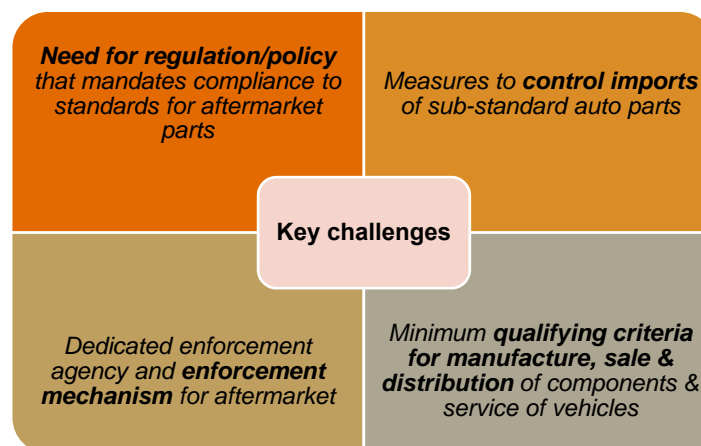
2

Current Regime

- CMVR-124 on Safety Standards of Components defines standards applicable to components that are used in manufacturing of vehicle
- CMVR refers to applicable AIS or IS which are to be complied during manufacturing vehicles and its parts
- AIS-037 details the procedure for Type approval and establishing CoP for 'Safety Critical Components' that are used in manufacturing of vehicles

Regulations are mandatory but only for Vehicle Manufacturers and parts fitted on them, during its manufacturing movement of components in aftermarket is totally unregulated

For Effective control in Aftermarket, following key issues must be addressed



Suggested approach

- As Pilot project, Standard on Parts listed under **CMVR-124 sub-clause(4)** and Procedure for Type Approval and establishing conformity of production (CoP) detailed in AIS-037 **be extended to Aftermarket and Imports.**
- Testing Bodies listed under CMVR - 126 be mandated to test automotive components for aftermarket.
Action Point: ACMA to propose a draft notification
- In absence of enforcement mechanism at MoRTH, a **centralised database** with select data on Type Approval and CoP of Component Manufacturers (as decided by testing bodies), be hosted at one centralised place i.e. ARAI website. The database should be updated frequently.
- ACMA, Testing Agencies and BIS to spread awareness about the new regime i.e. applicability of AIS-037 to Aftermarket and Imports, and support in creating centralised TA / CoP data.
- The database collated could be a ready reckoner for stakeholders, to check the status of certification of domestic component manufacturers.
- ACMA would bear the expenses of hosting the data at ARAI website. OEMs will not have to spend any resource on such a solution.
- Taking database as base, ACMA would develop an Application (or SMS based solution), with the help of which customer could check whether a particular component is genuine and safe to use.

Suggested approach for enforcement

- MoRTH will have the power to appoint/ give power to any agency to do market surveillance to check implementation of AIS-037 in aftermarket.
- Going forward, other technological solutions such as Bar codes, QR Code, Microdot or other solutions could be delved upon to bring in enforcement to domestic aftermarket.
- A system shall be made to record the queries generated to check genuineness of component and shall be acted upon.
- To keep a check on growing imports:
 - Notification GSR 870(E) dated 13 Sept'18 allows imports of components adhering to EEC/ECE/Japanese standards only.
 - In absence of valid certification, components arriving through imports need to undergo homologation.
 - To broaden the list, a consolidated list of all automotive components with HS Codes and applicable standards will be submitted.

Suggested actions:

As Pilot:

- The Testing and Type approval process in AIS:037 be open to aftermarket
- ARAI to host the data of all type approved companies
- Bar codes / QR Codes be made compulsory for selling Safety Critical components in aftermarket.
- Making use of collated TA data and Barcodes issued, an App could be developed, which would help in depicting genuineness of products.

After successful run of pilot, following could be looked by MoRTH:

- Set-up a Component Certification Portal at NIC: Registration in portal be made mandatory for all aftermarket players i.e. Suppliers/ Dealers/ Retailers/ Wholesalers/ Importers/ Service Workshops
- Set-up an Enforcement Cell
- Set-up a Safety helpline: To enable consumers to register complaints of non-compliance



Thank You

AIS-037 Safety critical components ...(1/2)



#	Component description	HS Code	Standard No.*	#	Component description	HS Code	Standard No.*
1	Safety Glass	70071100 70072110 70072900	IS 7079 : 2008	8	Speed limiting devices	90292010 90292020 90328990 87089900 87081090 87081010	AIS-018 / 2001
2	Horns	85123010	IS 1884 : 1993 IS 15796 : 2008 ISO 6969 AIS 014	9	Safety belt	87082100	IS : 15139 – 2002 IS : 15140 -2003 AIS 005
3	Tyres	40111090 40112090 40114010 40114020	IS : 15627 -2005 IS : 15633 – 2005 IS : 15636 - 2005	10	Wheel rims for M & N category	87149290 87087000 84314990	IS : 9436 – 1980 IS : 9438 - 1980
4	CNG regulator	84818090	ISO 15500-9: 2001 - As per AIS 037	11	Lighting and light signalling devices for M & N category	85122010 85122020	AIS -012 / 2004 AIS -127/2016
5	LPG Vaporizer/Regulator	84819090 84811000	ECE R 67 (Rev.1) - As per AIS 037	12	Retro-reflectors	87089900 87082900	AIS-057 / 2005
6	Bulb	85122020 85122010 85391000 85392120 85392940	AIS 034 Pt1 AIS 034 Pt2 IS 1606 : 1979	13	Warning triangle	87082900 87089900	AIS- 022 / 2001
7	Rear view mirror	70091010 70091090	AIS 001 AIS 002	14	Lighting and light signalling devices for L category	85122010 85122020	AIS-010 / 2004
				15	Lighting and Signalling devices for Agricultural Tractors and Constructional Equipment Vehicles	85122010 85122020 85391000 85392120 85392940	AIS-62 / 2004

ACMA

AIS-037 Safety critical components ...(2/2)



#	Component description	HS Code	Standard No.*	#	Component description	HS Code	Standard No.*
16	Fuel tanks	73079990 73090010 73090090 84818090 84839000 87089100 87089900	IS :14681- 1999 IS : 12056 -1987 AIS 033 AIS-104	23	Replaceable L.E.D. Lighting Devices	85122020	AIS 130
17	Door locks and Door retention components	83012000	IS : 14225 - 1995	24	Rear Warning Triangles	87089900	AIS-088/2005
18	Reflective tapes	87089900	AIS-090 / 2005	25	Brake Hoses	40091200	IS 7079 : 2008
19	Wheel Rims for L Category vehicles	87149290	AIS 073/ 2005				
20	Rear Marking Plate	87089900	AIS 089/2005				
21	Wiper Blades	85011013 85013113 85124000 85129000	IS 7827 : Part 3 : Sec 1 & 2 : 1993 IS 7827 : Part 3 : Sec 1 & 2 : 1993 AIS 011 AIS 045				
22	Traction Battery (Lead Acid Type) for Battery Operated Vehicles	85072000	AIS 048/2009				

ACMA

Agenda Item 6.0 (b) (vii)

Type Approval of Modular Hydraulic Trailer (MHT)

Shri A. A. Badusha
Senior Deputy Director, ARAI
 (21st June 2019)

1

Present Regulatory Provisions for MHT

CMVR Definitions



- **Puller Tractor** under CMV Rule 2 as multi-axle tractor of N3 category fitted with appropriate Ballast weight for the purpose of traction, etc. - **Defined**



- Defined **Modular Hydraulic Trailer** under CMV Rule 2 - **Defined**.

- Proposed uniform national level system, so that each such trailer need not be notified vide Extraordinary Gazette.
- Other definitions of following arrangements
 Spacer Beam, Bolster, girder bridge, loading deck

CMVR Dimension Provisions



- **Length** - Maximum length limit for single module with maximum 8 axle rows as 19 m
- Puller Tractor : 10 m



- **Height** - Overall height of combination of modular hydraulic trailer and puller tractor is proposed as 4.75 meters maximum

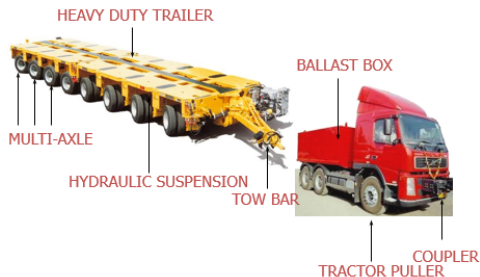


- **Width** - Maximum overall width for MHT is proposed as 3 m maximum

Notified Regulatory Provisions for MHT

➤ Notifications already issued under CMVR

- ❖ GSR 212 (E) dated 20th March 2013.
- ❖ SO 1434 (E) dated 18th April, 2016. (Superseded)
- ❖ SO 3467 (E) dated 16th July, 2018.
- ❖ SO 3881 (E) dated 6th August, 2018.



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- Registration related requirement
- Max. allowable age for plying as per CMV Rule 88
- Condition of Tyres as per CMV Rule 94
- Tyres as per CMV Rule 95 C (1) and (2) (IS 15636)
- Tyres as per CMV Rule 95 C (3) (IS 9438)

➤ Test Speed for Braking related requirements

- ❖ Puller test speed of 20km/h specified - CMV Rule 96
- ❖ Stopping distance 13 m - CMV Rule 96
- ❖ Combination Brakes - CMV Rule 97

➤ Lighting and Light-signaling devices related requirements

- ❖ Provision of Stop lamps to indicate intention to stop
- ❖ Direction indicators to indicate intention to turn
- ❖ Retro reflective tapes for indicating heavy and long vehicle and increasing conspicuity of combination
- ❖ Provision of Reflex - reflectors
- ❖ Requirement of two blinker or beacon lamps on top of cabin

Panel Activity for MHT

- As discussed and decided in the 52nd and 55th meetings of CMVR-TSC, an initial draft AIS standard for Type Approval of Hydraulic trailers has been prepared considering the following **ADDITIONAL** requirements:

- ❖ Maneuverability requirements
- ❖ Draw bar Coupling
- ❖ Draw Bar Eye
- ❖ EMC/EMI – For Electronic components wherever fitted
- ❖ Technical specifications to be submitted while type approval
- ❖ Clarity on Trailer Registration procedure

➤ D1 Version was circulated to HTOA members and Test Agencies

- ❖ Panel meetings were held on 26th March 2019 and 22nd May 2019 to discuss received comments and special meeting was held on 2nd May 2019 at MORTH.
- ❖ Comments from HTOA, TII, ARAI and ICAT were deliberated.
- ❖ D2 Version will be circulated incorporating agreed points.
- ❖ Next panel meeting is scheduled in second week of August 2019 to close open issues like air tank capacity and examine the suitability of fifth wheel couplings for these combinations.

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Thank You !

**MINISTRY OF ROAD TRANSPORT AND HIGHWAYS
NOTIFICATION**

New Delhi, the ...th, 2019

S.O.(E).—In exercise of the powers conferred by sub-section (3) of section 109 and clause (k) of subsection (1) of section 110 of the Motor Vehicles Act, 1988 (59 of 1988), read with sub-rule (1) of rule 124 of the Central Motor Vehicles Rules, 1989, the Central Government hereby makes the following further amendments in the notification of Government of India in the erstwhile Ministry of Shipping, Road Transport and Highways (Department of Road Transport and Highways) number S.O. 1365(E) dated 13th December, 2004, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-Section (ii), namely:-

(2) In the said notification, in the Table,-

(i) for serial number 16 the following shall be inserted, namely:-

(1)	(2)	(3)	(4)
16	Locking Systems and Door Retention Components	IS 14225: 2017 as amended from time to time.	1 st October 2021*

**Subject to issuance of final notification on or before 1st October 2019*

(3) In the said notification, in the Table A Safety standards for Quadricycles,-

(i) for serial number 12 the following shall be inserted, namely:-

(1)	(2)	(3)	(4)
12	Locking Systems and Door Retention Components	IS 14225: 2017 as amended from time to time.	1 st October 2021*

** Subject to issuance of final notification on or before 1st October 2019*