



ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

Office of the VC&MD,
Mushirabad, Hyderabad.
Dt.02.01.2013.

No : TL5/286(2-DS)/2012-MED

CIRCULAR NO: 02/2013 – MED, Dt : 02.01.2013.

SUB: BUSES – Standardisation of Knitted Driver Seats - Maintenance
and repairs to Driver seats - Reg

REF: Circular No.21/1997-MED Dt.29.09.97.

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Vide Circular at reference cited, Haritagrammer make ergonomically designed static seat is made as standard fitment to all types of Mini buses from 1997 & 1998 and subsequently it was developed as "High density Poly ethanol knitted seat". The main concept of introduction of HDPE knitted Driver seat was to suit to Driver and to avoid discomfort to the Driver while he was in driving.

Basing on the suggestions given by Drivers to VC&MD during the year 2010 in the interaction programme, with the approval of the VC&MD, instructions were issued to all field Managers for the provision of "HDPE" Knitted Driver seat of M/s Harita Seating Systems Ltd., Hosur in all buses duly replacing the web type seats. Accordingly a drive was taken to replace the web type seats bottoms & backs supplied along with new vehicles duly supplying the knitted seat bottoms & backs frames as a set from BBW Miyapur.

Since, Driver plays very important role in reduction of operation cost such as cost on fuel, tyres, springs etc., besides ensuring the safety of passengers and vehicle, for developing confidence among the commuters and thereby for Improving the Image of the Corporation, it is a paramount duty of Corporation to provide ergonomically designed Driver seat, not only for the comfort of Drivers, but also for improved driving habits, which in turn result in achieving good KMPL, accident free operation and additional revenue.

During the visits of Depots, it is observed that the adjustments given in Driver Seat to suit the individual Driver seating position with respect to steering and brake, clutch and accelerator pedals are not working in most of the vehicles.

Further it is also found that no attention is paid in maintenance of Driver seat such as lubricating /greasing of moving parts and instead the Driver seat adjustments are altered and hence defeating the purpose for which such a costly ergonomically designed seats are standardized.

Hence assembling and maintenance practices required for Driver Seats is included in the training program on Bus Body Maintenance, being organized at all the Regions from Nov'12 to Jan'2013, by involving the manufacturers.

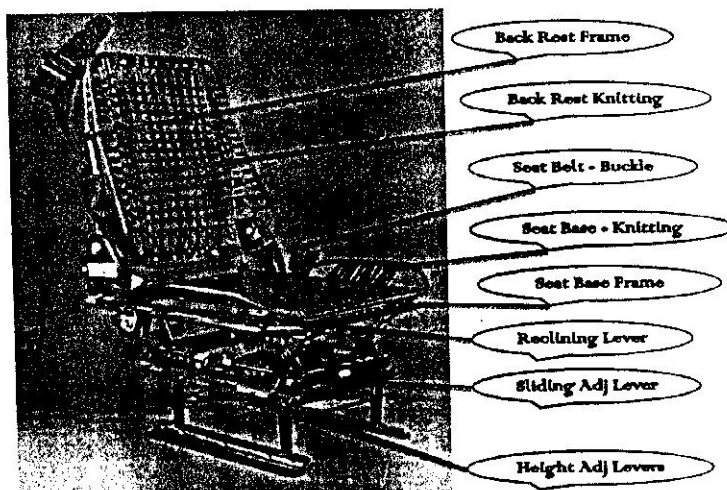
Accordingly training programs / practical demonstrations were organized at 17 Regions as on 20th Dec'12 duly involving the coach builders, schedule -III incharges.

Once again the detailed information on functioning and maintenance of Driver seats are given hereunder

I. The main parts of Driver seat -

1. Seat base frame
2. Seat base knitting
3. Sliding rail assembly (adjustment lever) – Assy. Slider active & passive.
4. Height adjustment lever – Front & Rear
5. Seat backrest frame
6. Seat back rest knitting
7. Reclining lever for back rest.
8. Seat belt buckle.

SEAT ASSEMBLY



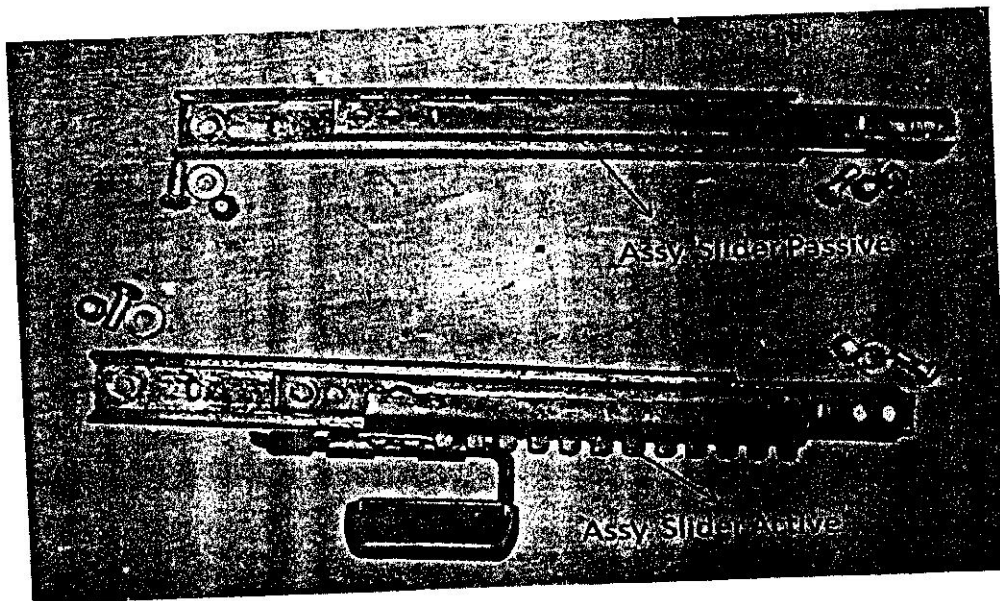
The driver seat is designed in such a manner that it has the following adjustments to suit individual Drivers seating position with respect to steering and brake, clutch and accelerator pedals.

- Up & down movement in front and rear separately
- Forward and back ward movement
- Reclining adjustment of backrest as per the Driver need.

II. Problems /failures noticed on Driver seats

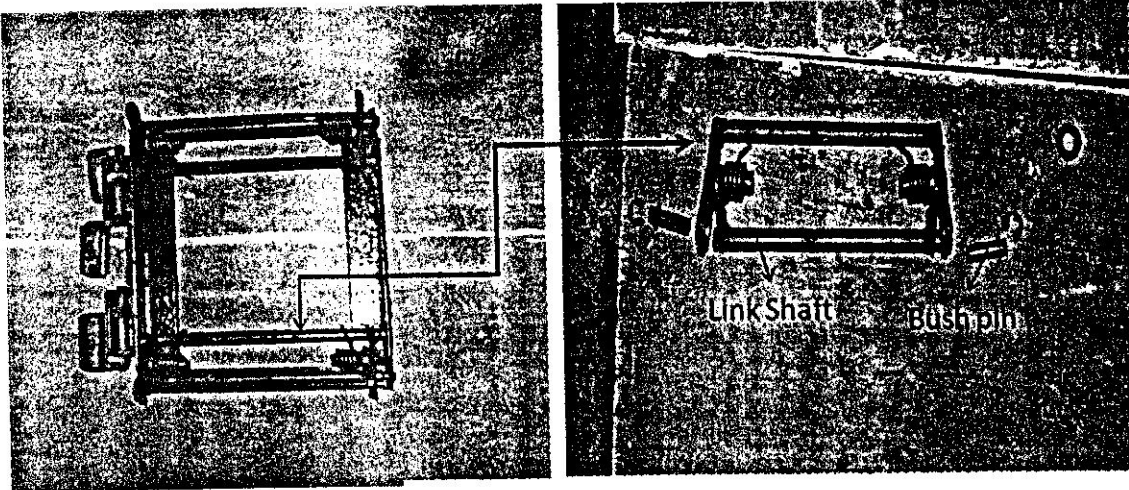
1. Non functioning of sliding mechanism
2. Non functioning of height adjustment mechanism
3. Non functioning of back rest reclining mechanism
4. Torn-out/sagging of seat bottom / back rest knitting.
5. Missing of ELR seat belt.

1. **Non functioning of sliding mechanism** - The sliding mechanism consists of Assy. Slider active & passive. These sliders fitted on Driver seat support frame fail due to stuck up of roller / buckling of the guide. As these assemblies cannot be repaired in case of failure/stuck-up the assembly sliders have to be replaced.



The simple maintenance required for these sliders is to lubricate with oil during every Sch-III maintenance. For replacement, these assembly sliders are available with M/s HSSL as individual spare part.

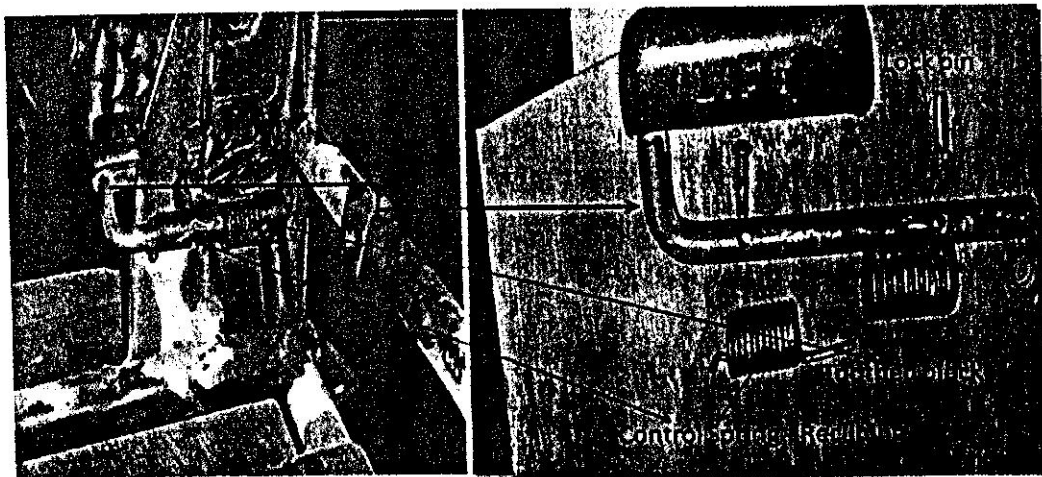
2. **Non functioning of height adjustment mechanism** – Two height adjustment levers i.e one at front portion and another at rear portion of seat base are provided.



In majority of cases, it is observed that the bush pin is found stuck-up in the hallow link shaft, due to lack of lubrication. Hence the bush pin & coil springs need lubrication in Sch-III maintenance with oil. However, for replacement, the hallow link shaft with springs as a kit is available with M/s Harita Seating Systems Ltd., with part No. F12104101D04.

3. **Non functioning of back rest reclining mechanism** –

The reclining mechanism consists of toothed block, Control Spring & locking pins



In most of the cases, it is observed that the back rest reclining mechanism is locked by welding the mounting bracket of the seat base to back rest frame and as a result it becomes as fixed seat. The reclining mechanism is found stuck-up, as the following parts are failing due to lack of lubrication.

- Breakage of lock pin
- Breakage of tension spring
- Toothed block

Simple maintenance required for this toothed block (reclining rack) is to lubricate with chassis grease and tension spring with oil during Sch-III maintenance.

For replacement, the above parts are available as kit with M/s HSSL.

4. Torn-out/sagging of seat base / back rest knitting.

It is also observed that whenever the cane knitting of seat base and back rest is torn out, Depots are attempting to fit the conventional seats like individual rexine seat bottoms on the seat base, which is depriving the aim of standardizing / providing the knitted seats.

Some of the Drivers are also found carrying additional bottom and keeping it on the knitted seat base resulting further damage to the knitted seat base. Hence there is a need to educate the Drivers in this regard besides ensuring the perfect seat condition.

The damaged/sagged knitting of seat base and back rest shall be taken up for necessary repairs, locally at the Depot level through outside agencies duly following local repair procedure and to keep stock of same for ready use whenever it requires. The frames are available as individual spare part with M/s HSSL.

5. ELR Seat Belt –

All the Driver seats are provided with ELR (Emergency locking retractor) safety belts for the safety of Drivers. The functioning of ELR safety belts has to be checked during Sch-III maintenance and to be replaced if found damaged or missing.

III. Stocking of critical items of Driver seat -

All COSs of Zones are advised to make the following functionally critical items as stock item at the Zonal stores. So that the Depots can draw as and when required.

S.No.	Spare Part Description	Part No,	Qty stocked per 20 vehicles at Depot
1	Seat base knitting assembly	H19304174A01	2
2	Seat back rest knitting assembly	H19304173A01	1
3	Assy. Slider Active	H15502027Q01	2 per Depot
4	Assy. Slider Passive	H15502028Q01	2 per Depot
4	Link Shaft with springs	F12104101D04	2 per Depot
5	Service kit for reclining Mechanism		1 per Depot

The details of local representatives for M/s Harita Seating Systems are as follows:

1. Sri K. Venkata Rajeswara Rao - Cell : 9885035518
2. M/s Teja Industrial suppliers (local stockist for M/s HSSL)
Jeedimetla, Hyderabad.
Sri Jayananda Rao - Cell : 9849486889

All the Depot Managers and Maintenance incharges are advised to implement the above instructions for proper functioning of Driver seats.

All the Dy.CMEs of Regions are advised to include the functioning of Driver seat as one of the check list item during their inspection of Depots. All the Regional Managers are advised to cross check the implementation of above instructions.

All the Executive Directors of the Zones shall review fitment of HDPE Knitted Driver seats in all the buses apart from adhering to the maintenance and repair schedules and also stocks availability of functionally critical items, during the PRC meeting.

Please acknowledge,


VICE CHAIRMAN & MANAGING DIRECTOR

To
All Depot Managers

Copy to: Director (V&S), ED(E&IT), ED(O,MS&AM), ED(A&P), FA&CAO ED(T&C), ED(HRD&Medi) for infmn.

Copy to: All Executive Directors (Zones) for necessary action.

Copy to: All Regional Managers for necessary action.

Copy to: All HODs for information.

Copy to: All Dy.CMEs & Dy.CTMs for necessary action.

Copy to: All WMs, COS's, Dy.CAOs for information.

Copy to: All AOs for information

Copy to: All Principals, ZSTCs & TA/Hakimpet for information

Copy to: All Maintenance incharges of the Depots for necessary action.

Copy to: Manual Section/Head Office for filing