

ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

No.OP3/462(10)/2005-MED.



Office of the VC & MD, Mushirabad,
Hyderabad. Date:24.12.2005.

CIRCULAR No.17/2005 - MED

DT. 24.12.2005

SUB :- **MAINTENANCE** - Instruction^ maintenance of Volvo buses issued - Reg.

REF :- 1. Circular no. 11/2003-MED Dt.08.04.03.
2. This office lr.no. OP3/462(12)/05-MED Dt. 11.04.05.

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Vide the circular cited detailed instructions were issued explaining the salient features and preventive maintenance schedules to be carried out on Volvo vehicles.

Through the letter 2nd cited, the preventive maintenance check list for Volvo B 7R buses indicating the parts to be checked and replaced together with frequency of check was communicated.

Of late, certain failures were observed on Volvo vehicles, which could have been avoided, if the preventive maintenance was carried out as stipulated. Recently AP11Z 4095 Volvo bus of VJA Depot, failed on account of breakage of radiator fan shaft. The preventive maintenance check list indicates that the fan hub bearing in which the shaft rotates, has to be checked for noise and free rotation at every 25,000 kms and to be repalced, if found defective.

On detailed examination on the bus, the following are observed

1. The radiator fan is driven through a shaft mounted on prepacked bearing and the whole assembly is enclosed in a hub. The fan hub is securely tightened through 4 bolts in the cowl to radiator bracket. A separate bracket with rubber bush mounted bolt is given to the fan hub.
2. The fan shaft is driven by a pulley connected through a belt to the engine pulley through an idler pulley.
3. The whole arrangement is secured on nuts & bolts to avoid any mis-alignment between the pulleys.

The following are identified as possible causes for failure of fan shaft.

1. ...Failure of pre-packed bearing in which the shaft rotates. This could be on account of lack of ' lubrication.
2. Loose foundation of fan hub, which could lead to undue stress on the shaft because of varying loads.
3. Misalignment of the fan pulley with respect to the engine pulley, due to which the shaft rotates with an eccentricity leading to failure of bearing and the breakage of fan shaft.

It is observed from the data obtained from Depots that the fan hub bearing was changed at mileages ranging from 2.20 lakh KMs to 5.62 lakh KMs indicating that the life of bearing deteriorates above 2.00 lakh KMs and there is a need for through examination of the fan hub and bearing at 2 00 lakh KMs.

Hence following instructions are issued for strict implementation on all Volvo buses to prevent enroute breakdowns.

1. All nuts and bolts should be checked for tightness every week.
2. The fan hub should be checked thoroughly for any noise in bearing or eccentric rotation of shaft at every 25000 KMs, and change the bearing if necessary.
3. To check the fan hub foundation bolts during weekly maintenance for tightness.
4. To check for correct alignment of the fan pulley to avoid load on fan shaft.
5. To ensure correct tension in the fan belt by examining proper functioning of the belt tensioners and appropriate belt tension.
6. To change the fan hub bearing at every 2 .5 lakh KMs.

All the Depot Managers of Depots with Volvo fleet shall ensure implementation of the circular instructions scrupulously.

All the Dy.CMEs(Zones), DVMs and RMs are advised to ensure the implementation of above instructions at Volvo fleet Depots in their jurisdictions.

Q&uMUd
**VICE CHAIRMAN &
MANAGING DIRECTOR**

To
The Depot Managers (By name)
HYD-I,PKT,VJA,GNT-I,GNT-II,KKD,VSP, OGL.NLR-II.TPT & WL-I

Copy to : ED(E), Director(V&S), ED(MIS), ED(A),ED(O), FA, CAO and All ED(Zones) for information and necessary action.

Copy to : CME(O), CE(IE&COM), CPM, CPM(HRD), CM(Trg), CCOS & Secry. to Corporation for information

Copy to : RMs/RR,KRI,GNT,EG,VSP,NLR,OGL,CHT&WL for necessary action.

Copy to : DVMs/RR, KRI,GNT,KKD,VSP,OGL,NLR,TPT& WL for necessary action.

Copy to : Dy.CME(C&B), Dy.CME(IEU), Dy.CME(P), COS(C)!, COS(C)II & CSTO for information.

Copy to : Dy.CME-I/HZ, DY.CMEsA/JA,GNT,VSP,NLR,TPT &WLfor necessary action.

Copy to : All Principals of ZSTCs & TA7HPT for information

Copy to : Maintenance incharges/ HYD-I,PKT,VJA,GNT-I,GNT-II,KKD,VSP OGL,NLR-II,TPT & WL-I for necessary action.

Copy to : Manual Section/Head Office for filing.