ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

No.OP3/462(9)/2003-MED. Office of the VC & MD,
Mushirabad, Hyderabad.
Date:20.11.2003.

CIRCULAR NO.33/2003 - MED DT.20.11.03

SUBJECT:- MAINTENANCE - Use of Coolant additives for effective cooling system - Reiteration of instructions issued - Reg.

REF :- 1. Circular no. 17/1995-MED DT.14.08.95.
2. Circular no. 33/1999-MED DT. .

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Detailed instructions vide circular at reference were issued in regard to the use of coolant additives, for effective maintenance of cooling system. The recommended coolant additives ratio with water is as follows
FOR AL HINO 6D,E0,E1 VEHICLES -

1:4 with drain period of 75,000 kms.

FOR TATA 1510 VEHICLES FITTED WITH EXPANSION VOLUME RADIATORS, 1512 TATA CUMINS & 1510 CMVR 2000 VEHICLES -

50:50 with drain period of 3,20,000 kms or 2 years which ever is earlier.

Vehicle manufacturer recommended brands of anti-freeze & anti-corrosive coolant additives are being procured by the corporation.

But during the recent Technical Audit of Depots by MED of Corporate Office, it was observed at most of the Depots of both AL and Tata area that lean coolant mixture is used in radiators.

The cause for the above deficiency is on account of, loss of coolant due to following reasons and filling of radiator with raw water to cover the above loss of coolant by Driver on line or Shramik at Depot.

- Non fitment of radiator caps resulting in loss of coolant due to spillage and evaporation.
- Leakage of coolant from loose damaged radiator hoses, radia-

tor core, top/bottom tanks.

- In some Depots the coolant mixture kept for topping up itself is not in prescribed ratio and instead lean mixture is being used. In some cases, de-aeration hoses are missing allowing leakage of coolant.

This is resulting in dilution of coolant mixture and premature failure of engines due to ineffective cooling and formation of scales in the engine block leading to overheating.

Some of the Depots are not using the coolant in the right proportion in order to save cost on coolant which renders the coolant mixture ineffective.

Further the present cooling system is of "no loss cooling system" which doesn't allow any loss of coolant in the system subject to proper maintenance of cooling system. OEMs are rejecting premature failure of engine claims with the plea that the engines damaged due to improper maintenance of cooling system and not using the correct coolant mixture. Thus it indicates that Depots are neglecting the maintenance of cooling system.

Hence the following instructions are reiterated for strict implementation.

- Use correct coolant mixture as recommended for changing of coolant mixture and for topping up, i.e 1:4 for AL vehicles Hino 6D, 6E (Euro-0, Euro-I, Euro-II) and 50:50 for Tata vehicles fitted with expansion volume radiators, 1512 Tata cummins and 1510 CMVR 2000 vehicles.
- Change coolant mixture at the prescribed mileage, i.e at 75,000 KMs for Leyland Hino vehicles and at 3,20,000 KMs or 2 years (which ever is earlier) for Tata vehicles.
- All vehicles shall be fitted with effective pressurised radiator caps.
- Do not allow any vehicle to operate with coolant leakages from radiators and hose pipes.
- Check for condition of hoses & clips in every SchIII and replace if found hard or damaged.
- Check for proper mounting of radiator on radiator buffers and provision of stay rods on radiators to avoid vibrations and resultant cracks and leakages of coolant.
- It shall be ensured that Radiator cowl/Shroud for Hino & Cummins/CMVR2000 vehicles are available in good condition, which otherwise will effect cooling efficiency.
- Ensure De-aeration hoses are properly connected and replace if found damaged or cracked.

- Do not topup raw water under any circumstances.
- Ensure availability of coolant mixed in correct ratio for topping up.
- To educate the Drivers and maintenance staff not to top up raw water in the radiators and ensure implementation of above system items for effective cooling system.

All DMs are advised to ensure implementation of the above instructions scrupulously at the Depots.

All the RMs & DVMs are advised to cover the above aspects in detail at the time of inspection of Depots.

All the Dy.CMES are advised to check for correct coolant concentration & timely coolant changes during the inspection of the Depots and report for rectification.

All the Executive Directors(Zones) are advised to review implementation of the above circular instructions at the Depots.

VICE CHAIRMAN & MANAGING DIRECTOR