

ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

OP4/760(1)2019-MED

O/o The VC&MD,
RTC House, VJA,
Dt: 04.11.2019.

To
All Dy.CMEs

Sub: HP Power kool- Excess consumption of coolant – reg
Ref: this office letter no. even dated 09.05.2016

Vide reference cited, instructions were given to utilise “HP Power Kool” coolant supplied by M/s HPCL with 5% concentration by volume with clean de-mineralised water supplied through zonal workshops to get best results and the coolant change periodicity being 2.0 lakh kms. It was also advised to use de-mineralised water only for top up towards evaporation losses and addition of HP power kool is required only in case of external coolant leakages.

But, on reviewing the consumption of HP power kool obtained from zonal workshops, it is observed that the depots are consuming more quantities than the norm. The zone wise consumption pattern is listed below:

| S.No | Zone | Actual Monthly requirement | Actual requirement for 6 months | Actual draws in the last 6 months | Excess draws | % Excess drawn |
|-------------|------|----------------------------|---------------------------------|-----------------------------------|--------------|----------------|
| 1 | VZM | 139 | 832 | 2611 | 1779 | 214 |
| 2 | VJA | 150 | 897 | 2810 | 1913 | 213 |
| 3 | NLR | 183 | 1100 | 1500 | 400 | 37 |
| 4 | KDP | 143 | 855 | 1526 | 671 | 78 |
| CORPORATION | | 614 | 3685 | 8447 | 4762 | 129 |

It clearly shows that the instructions were not followed properly in usage of the HP power kool and the following observations are made:

1. Coolant change is done at every Schedule IV instead of at 2 lakh kms
2. Coolant mixture is being topped up instead of only de-mineralised water to make up coolant loss due to evaporation
3. Ratio of coolant / Demineralised water mixture (1:19) is not followed


Hence, you are advised to educate Depot staff and supervisors on excess consumption of “HP Power kool “ than the required causing huge financial loss to the corporation and ensure that the guidelines issued (copy enclosed) are strictly adhered to.

Chief Mechanical Engineer(M)

Copy to all WMs & COSs for information and n/a.

DIRECTIONS ON USAGE OF 'HP POWERKOOL' COOLANT ADDITIVE

- 1) Ensure that existing coolant is drained completely from both engine & Radiator.
- 2) **FLUSHING**: Flush the system with flushing compound as per recommended procedure to remove corrosion byproducts, as well as all residues before filling fresh coolant.
- 3) **MIXTURE PREPARATION**: Prepare the coolant mixture using HP Powerkool (*5% in volume*) and De-mineralized. For one liter of clean Demineralized/ Distilled water, use 50 ml of HP Powerkool. **Example**: For a total coolant system capacity of 24 liters, take 1.2 liters of HP Powerkool and 22.8 liters of clean demineralized water.
- 4) **FILLING**: Fill the system with fresh coolant mixture duly ensuring proper condition of hoses and hose clamps.
- 5) **REPLENISHMENT**: For the purpose compensating low coolant level owing to evaporation losses, *add only clean De-mineralized water*. There is no need to fill the coolant mixture added with HP Powerkool unless there is loss of coolant due to external leakages.
- 6) **IMPORTANT PRECAUTION**: *Fitment of rated Pressure cap* for the Radiator is *very essential* to get the best performance and avoid coolant loss.
- 7) **WATER QUALITY COMPLIANCE**: Procure "*Portable Water-hardness tester*" for checking the water hardness. The water hardness testers can be purchased locally at an approximate cost of Rs 600 to 700/- *Always use pure De-mineralized water only*. Otherwise, it is difficult to get rid of the formation of scales in the water passages of engine block & radiator in spite using HP Powerkool.
- 8) **COOLANT CHANGE INTERVAL**: Change the coolant completely *at every 2.0 lakh kms* using HP Powerkool.
- 9) **RECORD MAINTENANCE**: Maintain a separate register for coolant changes. Enter the particulars of vehicle-wise coolant changes and record the observations on performance.


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