



ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

No : PRD1/462(01)/2012-MED

O/o VC&MD
Hyderabad - 624

CIRCULAR NO: 09/2012 - MED, Dt : 21.03.2012

SUB: **UNITS** - Costing of C.O Engines and Gear Boxes from the year 2012 - 2013 - Revised Guidelines Issued - Implementation - Reg.,

Corporation has spent Rs 98.19 Cr up to Jan'12 on workshops towards production of various aggregates and overhauling of Bus bodies. Major share goes to Engines and Gear boxes production at all the workshops. Among all the workshops, 3349 Engines and 3720 Gear Boxes were produced up to Jan'12 against 3099 Engines and 4079 Gear Boxes up to corresponding month of previous year. A study on the Engines & Gear Boxes produced in the above period reveals that the demand of Engines increased alarmingly resulting in increase of CPK on workshops parameter.

S.no	Unit	Up to Jan'12			Up to Jan'11		
		Qty produced	Kms Operated	Consumption per Lakh kms	Qty produced	Kms Operated	Consumption per Lakh kms
1	Engines	3349	19530	0.171	3099	19816	0.156

There was a demand of 0.171 Engines per Lakh kms up to Jan'12 against 0.156 of the corresponding period of previous year. The trend indicates that much seriousness among the field officers, Supervisors and Maintenance staff is lagging in maintaining healthy vehicle condition and optimum drawl of C.O Engines from workshops.

The stripping analysis of some of the Engines received from depots revealed that **some Engines were not having any physical damages** to their components and straight away taken into production line for overhauling with minimum machining activities. On the other hand, **some of the Engines were found with extensive damages to their major components** like cylinder bore crack, connecting rod bend, crank shaft breakage etc., leading to inflated production cost of the unit. But in view of the existing costing procedures, both the Engines are being charged with the same cost at workshop. As a result, the erring depot where the Engine got damaged is being charged with the same cost as that of the Depot which maintained the Engine in good condition. As such it is decided to differentiate the cost of defective Engine and the good Engine and charging off to Depots accordingly depending on the gravity of the situation.

In general overhauling cost Engines includes machining cost of its components, cost of the spares replaced to the Engine, cost of the sub - assemblies and cost of the parts replaced due to defective / damaged. The machining cost and cost of the spares replaced will be almost same for the all the Engines overhauled. Similarly cost of sub - assemblies fitted to the Engine like water pump, Air compressor, FIP, Injectors etc., are also constant. *The difference comes when damage of the components is noticed which warranted for the replacing the same unnecessarily.* The following five components decide the cost of the Engine:

1. Cylinder Block
2. Cylinder Head
3. Crank shaft
4. Connecting rods
5. Cam shaft

Considering this, it is decided to adapt a new method of costing C.O Engine and charge off the same to depots. In case, during the course of joint inspection it is observed that the failure is on account of poor quality of production, responsibility shall be fixed up on the concerned and suitable disciplinary action has to be initiated. This procedure will be a boon for the Depots maintaining its fleet healthy and blight of the erring depots.

Procedure:

ENGINE:

1. **Basic Price of the Engine:** A basic price of the Engine will be fixed without considering the above five major components and the same will be charged to the depot in case an Engine does not warrant for replacement of any of the above five components. The unit price of the above components will be given separately.
2. **Engine received with any of the above damaged components:** Suppose an Engine is received with damaged crank shaft and cylinder head, the cost of these components will be added to the basic price of the Engine and the same is charged to the Depot from where the Engine is received. Similarly, if Engine block is broken for the Engine, the cost of the engine block will be charged off to the depot along with the basic price of Engine.

The work shop wise basic price of Engine and the above 5 components will be informed separately in due course.

GEAR BOX:

1. **Basic Price of the Gear box:**

A basic price of the Gear box will be fixed without considering the cost of Main shaft, counter shaft & Gear box body and the same will be charged to the depot in case a Gear box does not warrant for replacement of any of the above

three components. The unit price of the above components will be given separately.

2. Gear box received with any of the above damaged components:

Suppose a Gear box is received with damaged main shaft and counter shaft, the cost of these components will be added to the basic price of the Gear box and the same is charged to the Depot from where the Gear box is received. Similarly, if the Gear box body is broken, the cost of the body will be charged off to the depot along with the basic price of Gear box.

The above system of costing shall be implemented from the next financial year i.e., 2012 - 13 at all the workshops. Besides, costing excessively to the concerned depot for the damages caused as stated above, action will be initiated on the concerned where more quantity of Engines and Gear boxes are found damaged.

Hence all the works Managers are advised to issue suitable instructions to the concerned on the revised costing procedure and implement the above instructions from 01.04.2012 without fail.

All the Dy. CMEs / Depot Managers are advised to make a note of the instructions, educate the maintenance staff on the new system of costing of Engines & Gear boxes and strive hard to reduce the cost on workshop.



Vice Chairman & Managing Director

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