



Andhra Pradesh State Road Transport Corporation

No: TL10/690(1)/2015-MED

Office of the VC&MD
Bus Bhavan, Hyderabad

CIRCULAR No.19/2015 - MED, Dated.27-11-2015

Sub: BUS BODY UPKEEP- Revised Guidelines for Buses body repairs & upkeep - Reg.

- Ref:
1. Lr No. TL10/690(1)/2015-MED, dt.03.11.2015 on bus body repairs.
 2. Lr No. TL10/286(1)/2015-MED, Dt,25-11-2015 on PU painting under " Supply & Apply" Scheme
 3. Circular No. 07/2013, dt.18.04.2013.
 4. Circular No.26/2012, dt.30.12.2012
 5. Circular No. 17/2012-MED, dt.17.07.2012.

- 1.0 The Corporation had to prune deployment of new buses towards replacement in the last three years due to paucity of funds. The year wise new buses deployed against replacement are as follows.

Year	Due for replacement	Actual deployment
2012-13	2353	865
2013-14	1716	537
2014-15	2125	327
2015-16 (Up to 20.11.15)	2457	209

Due to less number of new buses deployed towards replacement, the fleet became over aged, bodies are rattling and deteriorating month by month which in turn leading to unreliable operations, criticism from the commuters and deflection of traffic towards private buses and other modes of transport.

In view of above, there is urgent need to improve the condition of bus bodies and upholstery by carrying out midterm repairs, Selective body repairs and full painting. Guidelines were issued through the circulars cited at reference 3&4, for attention of MS & Aluminium bus bodies at ZWS, Regional and Depot level. But, due to various reasons the instructions were not implemented in true spirit and as a result no significant improvement could be made in upkeep of buses. Bus body related works were given scant attention during Sch III & IV maintenance and ultimately resulted in deterioration of body condition.

(20)

The VC&MD during the EDs, HODs & RMs meeting emphasized the need for face lifting of old buses by attending necessary repairs. There is a greater need to ensure the quality of service with reliable operations and good condition bus subsequent to revision of bus fares. After series of discussions, the VC&MD has accorded sanction for Rs.20 crores for the balance period of 2015-16 towards bus body repairs and painting. Accordingly, the Region-wise budget for body repair & full painting was communicated vide ref.1.

2.0 Common defects observed on high end buses -

- Damaged Magazine pouches
- Damaged water bottle holders
- TV not working / Loose wiring
- Passenger door pneumatic mechanism not working
- Damaged Engine bonnet and locking clips
- Partition door (Indra & SLUX) loose
- Broken / loose AC louvers
- Damaged Foot rests
- Cell charging points not working
- Damaged/ loose Side luggage doors
- Faded paint
- Broken/Missing window shutter glasses /fixed glasses
- Damaged flap doors
- Dented /damaged body sheet
- Roof leakages

3.0 Common problems in implementation of guidelines -

- Non availability of out sourcing agencies at places like Kadapa, Kurnool, NEC and VSP.
- Improper and inadequate supply of material by Zonal stores resulting in idling of out sourced labor.
- Delay in inspection and clearance during attention of body repairs at ZWS/ Depot level.
- Abnormal delay in processing cases for sanction and arranging the payment to outsourced contractor

4.0 REVISED GUIDELINES FOR BUS BODY REPAIRS & UPKEEP:

In the light of the above difficulties in implementation of guidelines, the following revised instructions are issued on carrying out bus body repairs through outsourcing agencies.

6.5 - MS (3)
10.00 - GE

7.5 -
7.5 -

4.1 Selection of Aluminum body buses for repairs:

Mileages prescribed for Midterm selective body repairs.

- Deluxe, Express, TVG (NEW) at ~~7~~ to ~~8~~ 10.00 lakh kms.
- Converted TVG/ City Ord. (at 7 to 8 lakh kms) at 10.00 lakh kms.
- Metro Express, Metro Deluxe and City Ord (New) buses at 4.5 to 5.5 lakh kms.
- Buses shall be taken for body repairs as a preventive measure at prescribed mileage and based on the condition of the bus body.

4.2 Sources for Mid term selective body repairs.

Deluxe, Express, Metro Deluxe, Metro Exp, T.Velugu, City Ord buses are to be attended at ZWS premises through outsourcing agencies and Regional/ Division HQ Depots through outside agencies. These works can also be done at approved private workshops.

4.3 Selective Minor body repairs at Depots.

Depot Coach builders (CBs) shall attend the following minor body repairs during Sch-III/IV & FC attention.

- Replacement of Damaged/ Dented panels
- Replacement of Broken glasses, terene felt, flock channel
- Repairs to Doors
- Body U'bolts & Cabin mounting bolts
- Replacement of Ballata packing of body mounting
- Front & Rear Bumpers
- Anti-sag bar & Outriggers
- Seat mounting & broken seats
- Seat Upholstery replacement
- Flooring repairs

4.4 Selective Major body repairs.

The major repair works shall be identified through physical inspection of bus bodies and shall be done at ZWSs or at Regional/Divisional Head Quarters on selective buses engaging Outsourced agencies.

- Broken Pillars
- Broken Cross bearers
- Luggage Carrier
- Front & Rear end structure
- Bonnet, Cabin/Saloon under-frame
- Roof sticks, Roof longitudes
- Window frames
- Seat conversion
- Parcel racks
- Foot board
- Body Inter change etc.,

4.5 Selection of MS/GI body buses for repairs:

Mileages prescribed for Mid-term selective body repairs.

- For Vennela, Garuda, Garuda plus buses at 5 to 7 lakh kms.
- For Sup Lux, Indra buses at ~~3.5 to 4.5~~ 5 to 7 lakh kms.
- For Metro Express, Metro Deluxe buses at ~~3.5 to 5.5~~ 5 to 7 lakh kms.

4.6 Sources for Mid term selective body repairs.

- i. Mid-term body repairs on Vennela, Garuda, Garuda plus and Indra shall be done at approved Private Workshops.
- ii. Super Luxury buses at ZWS premises through outsourcing or Regional/Division HQs through outside agencies or at approved private workshops.

After completion of repairs, full painting shall be done through the approved sources and approved brands communicated by MED vide reference 2 cited as explained at 7.0 of this circular.

5.0 Labor charges for body repairs:

The C&B section will communicate the reference labor rates for Bus body repairs activity-wise for both MS/GI and Aluminum type bodies shortly. However the rates are to be finalized at regional level as per guidelines given below.

- i. The Regional tender committee consisting of Dy.CME(Chairman), DY.CAO/AO and one technical Depot Manager shall call for limited tenders from the identified agencies, for the list of works as per the pro-forma communicated from Head Office.
- ii. The item wise rates quoted by the Agencies separately for both material and labor shall be evaluated considering H.O rates as benchmark and negotiate with the Agencies.
- iii. Since labor cost vary from Region to Region, the Tender committee may allow 10 to 20 % variance(+/-) over the bench mark rates of H.O to encourage outsourcing agency and to ensure proper attention of the bus body repairs at rural Depots also.

6.0 Water leakages from Roof & Windows:

Roof leakages if neglected to attend in time, it will attract severe criticism from the travelling public. Hence prompt attention shall be done whenever roof leakages are reported. In case of MS/GI bodies, leakages of water through roof, window top fixed glasses and windows will accelerate rusting of structural members, and badly affects the life of structure of body.

6.1 Root causes of water leakages:

- Leakages are observed from
- Roof top at panel joints
- Front / Rear FRP joints (with structure)
- Luggage carrier mounting brackets
- Water channel joints
- Roof hatch mounting and sealing
- Window frames (Sweep rubber, flock channel, Window Z-section)
- Top fixed glasses

6.2 Attention of water leakages at Depot level:

The Depot coach builders were already trained to attend the roof leakages at Depot level. They shall attend

- Roof top panel joints by applying weather shield (sealant)
- Water channel joints by applying PU sealant
- Roof hatch mounting and sealing
- Window frames (Sweep rubber, flock channel)
- Top fixed glasses by applying PU sealant

6.3 Major repair works in respect of water leakages beyond the scope of Depot Coach Builders shall be taken up at ZWSs/Regional level involving outside agencies

7.0 Painting :

Periodical painting of buses is very much essential to improve the appearance of the buses and also life. MS/GI bus bodies are to be painted once in 2 years externally with PU paints, while Aluminum bus bodies are to be painted once in year with "Permeable paints" internally and externally synchronizing with FC.

During the recent past it is noticed that due to application of paint with brush, the painting is getting faded even within 6 months against the expected life of 1 year and buses are looking shabby. Hence the following guidelines are issued for immediate implementation.

7.1 MS/GI bodies painting through "Supply & Apply" scheme:

- Full painting exterior (PU) on MS body buses shall be done once in 2 years at identified Depots/ Workshop through 'Supply & Apply' agencies.
- Dy.CMEs shall chalk out programme in advance and monitor repainting of all MS body Buses.
- Rates payable to the agencies per Bus (Paint & labor) has been finalized by C&B section of MED @ Rs.18,400/- per S.Lux bus @ Rs 39.23 per Sq ft.
- Here after PU painting should be done through "Supply & Apply "scheme only and Depot painters/Outsourced painters should not be used for PU painting. Procurement of PU paints at Zonal stores shall be stopped immediately and shall be made NTR.

7.2 Aluminum bus bodies painting at depot level with depot painters with spray gun only:

- Full painting interior and exterior of Aluminum Body buses (DLX, EXP, TVG & CITY) with "Permeable paints" shall be done twice in year at depot level only with spray gun.
- When dented/damaged panels are replaced repainting of patch area shall be done immediately
- During Sch-III/IV attention painting touch-up shall be given to the exterior as per necessity
- Care shall be taken not to spoil seat rexine, window shutter glasses and top fixed glasses while painting duly providing proper masking.

7.3 PU or SE Painting should be done as per the prescribed procedure through spray painting process. Under any circumstances brush painting should not be done.

8.0 Essential spares to be stocked at Depots for proper upkeep of buses.

S.No	Nomenclature	S.No	Nomenclature
1	P.U. Sealant	9	Shutter Glasses
2	Window Knobs	10	Flocked channel
3	Gas Springs	11	Seat arm rest padding
4	Head rest covers	12	Driver seat bottom
5	Rear view Mirror	13	Tail lamps / Indicators
6	Weather shield tape	14	Belting fabric
7	Reading lamps	15	A/C Louvers
8	Window Top fixed Glass	16	Door locks

9.0 Delegation of Powers(DOP) on bus body repairs:

9.1 Existing DOP for bus body repairs with Material & Labor:

As per Section-12, Sl no 29(i), Chassis & Bodies, of DOP-2014

- VC&MD - Full powers with the concurrence of FA
- ED(E) - up to Rs 3.0 lakhs per bus with the concurrence of FA
- CME(C&B) - up to Rs 1 lakh per bus with the concurrence of CFM
- ED(Z) - up to Rs 1.50 lakhs per bus with the concurrence of DyCAO
- RM - up to Rs 50,000 per bus with the concurrence of DyCAO/AO
- The above amount includes the cost of materials & labor.
- Bus body major repair works can be undertaken by any source authorized by C&B at firms' workshop on single quotation.
- Stage-wise inspection is done by supervisor of DyCME/ by supervisor of C&B
- Mostly MS body buses & accident Aluminum body buses are repaired at private workshops

Now, no revision of DOP for repairs with labour and material is proposed.

9.2 Revised DOP for Labor cost for selective body repairs - Midterm attention etc:
As per Section-12, Sl no 29(ii), Chassis & Bodies, of DOP-2014

Authority	Existing	Revised
VC&MD	Full powers	Full powers
ED(E)	up to Rs 60,000/-	up to Rs 1,00,000/-
ED(Z)	up to Rs 40,000/-	up to Rs 75,000/-
RM	up to Rs 20,000 /-	up to Rs 50,000/-

- The above amount is for the cost of labor only. Materials are to be supplied by Corporation and repair Works to be undertaken at Depot & ZWSs engaging outside labour.

10.0 Execution of Body repairs:

Detailed guidelines on identification of buses for repairs, tendering process, execution of work, stage wise inspections and also payment procedure are reiterated hereunder.

10.1 Infrastructure for Bus body Repairs:

- i. The Dy.CME of Region concerned shall identify Depots having sufficient infrastructure suitable to carry out bus body repairs and full painting (one or two Depots in the Region).
- ii. The Dy.CME of Region shall arrange to provide sufficient tools and equipment such as Air compressors, Drilling Machines and painting spray guns etc., at these Depots by taking sanction of competent authority.

10.2 Tendering Process

- i. The Regional tender committee consisting of Dy.CME(Chairman), DY.CAO/AO of the Region and one technical Depot Manager shall call for limited tenders from the identified agencies, for the list of works as per the pro-forma communicated from Head Office.
- ii. The item wise rates quoted by the Agencies separately for both material and labor shall be evaluated considering H.O rates as benchmark and negotiate with the Agencies.
- iii. Since labor cost vary from Region to Region, the Tender committee may allow 10 to 20 % variance (+/-) over the bench mark and finalize the rates to encourage outsourcing agency and to ensure proper attention of the bus body repairs at rural Depots also.

10.3 Identification of Buses for Body repairs:

- i. The Depot Managers and Garage In-charge supervisors shall identify the vehicles for mid-term attention, conversion repairs and selective body repairs and process note files for each vehicle for approval of Dy.CME and RM.
- ii. The Dy.CME shall consolidate the proposals of the Depots and draw monthly plan and ensure the availability of the Buses as per the plan for Body repairs/ painting at identified Depots.

- iii. The Buses shall be drawn from the Depots as per the plan, and taken up the repairs under the supervision of the trained Supervisors.

10.4 Inspection of Body Repair Works:

- i. Two supervisors from each Region (one supervisor of Dy.CME office and another supervisor with knowledge on bus body repairs preferably promoted from coach builder category) who were already trained shall be exclusively used for supervising quality of bus body repairs/ painting.
- ii. Job Card shall be opened by Mech. Supervisors of Dy.CME Office and record all the body works to be attended in the presence of contractor conducting physical inspection of bus and issue work order. Photographs before and after completion of work have to be taken for each bus and filed in the case for record.
- iii. After completion of works, the mechanical supervisor of the Dy.CME office shall prepare the estimation based on the rates finalized by Regional tender committee for each vehicle and process for sanction of competent authority as per revised DOP.
- iv. The estimation prepared by Mech. Supervisor/DyCME office shall be scrutinized and certified by the DyCME and submit Note file proposals within a day to Accounts Dept for release of payment duly obtaining sanction of RM/ED(zone).
- v. After receipt of the sanctioned Note file proposals on body repairs/painting works, payment shall be made to the agency by Dy.CAO/AO of the Region after pre-audit within 3 days from the daily revenue generated in the Region.
- vi. Dy.CMEs shall inspect buses undergoing repairs frequently and ensure proper quality of work. Mechanical Supervisor of Dy.CME's office shall inspect all buses at all stages.

10.5 Role of Works Managers:

- i. In case of Bus bodies taken up for Mid-term body repairs and selective major body repairs through outsourcing agencies at Zonal Work Shops, the AWM (body shop) shall inspect the bus thoroughly, list out the works to be carried out and issue the work order accordingly.
- ii. AWM(Body shop) shall certify the work done after completion of work as per the work order. Photographs of each bus before and after completion of work have to be taken and filed in the case for record.
- iii. Payment shall be made by Dy.CAO-Zone as per the certification of AWM. Works Manager shall inspect buses at random to ensure better quality. AE(M)/Supdt(M) of ZWS:Body shop shall inspect bus bodies at all stages.
- iv. With regard to PU painting of MS/GI bus bodies through "Apply & supply" scheme, as per ref(2) and AWM(Body) shall inspect for quality and certify for payment by DyCAO/Zone as in the case of buses taken for body repairs.

