



**ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION**  
**Mechanical Engineering Department**  
**Office of the VC & MD, RTC House, Vijayawada-13.**

**CIRCULAR No. 10/2020-MED Dt. 26.10.2020**

**Sub: Preventive Maintenance** : Preventive maintenance of Weveller  
Suspension system-changing Brackets and rubber pads in time-  
instructions re-iterated-Reg.

\*\*\*

APSRTC is implementing preventive maintenance system for the bus maintenance. Various circulars have been issued from time to time on preventive maintenance of buses to provide passenger friendly, reliable and failure free bus at all times. Further in tune with the technological up-gradations taking place in the automobile sector, APSRTC is also up-grading its fleet with new technology and accordingly revising the maintenance schedules from time to time.

One such development in suspension system is introduction of Weveller suspension system in place of shackle suspension, which has reduced the quantum of maintenance activity involved and also reduced the breakage of spring blades and also failure of vehicles on account of suspension system. Even then suspension system maintenance remained as one of the most neglected area, though clear guidelines are available on maintenance of the same. Field managers and maintenance in-charges are not ensuring implementation of the instructions, given from time to time, in true spirit resulting in failure of buses en-route, damaging the reputation of the corporation.

PVG bus AP37Z0017 of KVR depot failed on 20.10.2020 near Ravulapalem due to rear axle detached from the bus in the middle of the road. We are fortunate that no injuries occurred to either the travelling passengers or other road users. Had this breakdown taken place amidst of heavy traffic, it would have resulted in a ghastly incident. The vehicle has Weveller spring suspension fitted on it. The failure occurred due to breakage of left side spring bracket and centre bolt cut resulting in left side spring assembly came out of the weveller bracket. Subsequently the right side spring assembly also came out of the bracket and there by rear axle detached totally from the bus and the bus was dragged on its body for a considerable distance before coming to a halt.

**Contd. in 2<sup>nd</sup> Page....**

On analyzing the reasons, it is noticed that the engine mechanic during schedule-3, done on 13.10.2020, did not replace/attend repairs to the worn out RNS spring bracket and the Maintenance/Schedule-3 in-charge also failed to cross check bus after completion maintenance

Instructions on attention of weveller suspension are clearly given in the Revised preventive maintenance circular no. 01/2019-MED, dated 09.01.2019. Even then the mechanic and the supervisor failed to attend the damaged spring bracket which resulted in failure of the bus.

In this connection, instructions on suspension system maintenance are once again reiterated as follows:

- During Schedule-1 & 2, mechanic shall cross check all the springs , spring brackets, U clamps and I bolts for any cracks and inform supervisor to replace them. Also check the worn out condition of the weveller rubber element by observing the gap between the bracket and the spring blade.
- During schedule-2, check spring holding down bolts, brackets, shackles, shackle pins for proper tightness and attend if necessary.
- During Schedule-3, mechanic -1 shall check the condition of all spring assemblies as mentioned above and especially weveller rubber elements and replace if necessary.
- During schedule-4, mechanic-1 shall replace the front 2 springs. While doing so, he shall ensure that spring brackets and rubber elements are in good condition and replace if required. Similarly Mechanic-3 shall ensure the above activities for the rear 2 springs.
- Maintenance and Sch-3 in-charges shall ensure attention of the suspension system as above and also cross check after completion of Sch.3/4 maintenance to the vehicle.
- Maintenance and the Stores in-charges shall ensure to stock adequate quantities of Weveller spring brackets along with lower caps and also the rubber elements.
- Replacement of rubber elements is neglected badly due to which Iron bracket, which is 10 times costlier than rubber elements, is wearing out quickly which is not actually supposed to. The brackets worn out due to maintenance abuse are shown at **Annexure.I**

All DyCMEs are advised to organize to conduct census at depots on the worn out spring iron brackets and rubber elements and place consolidated depot wise indent of the region to Zonal Stores concerned for supply on priority.

All RMs shall ensure that the worn out brackets and rubber elements are replaced on all the identified vehicles on top priority by 30.11.2020 and compliance shall be submitted to that extent.

During LFC meetings COS, WM and DyCMEs shall review the consumption of the Iron brackets and rubber elements and revise the limits accordingly. As these items are critical and related to safety of the vehicle, action shall be taken immediately to stock the iron brackets and rubber elements, if not stocked so far.

Further, the list of part numbers for spring iron brackets suitable for different models are enclosed at **Annexure.II** for reference.

DyCMEs , during their visit to depots, shall focus on the effectiveness in implementation of preventive maintenance schedules, interact with mechanics and see that the material supplies are met duly coordinating with zonal COS.

RMs shall review supply position and consumption of these items during periodical review with DMs and also during their depot visits.

EDs(Zone) shall review the stocking and consumption of these items during PRC meetings and also during their visit to depots.

All the Depot Managers are advised to ensure to implement the instructions given regarding preventive maintenance of buses vide circular no. 1/2019-MED, dt. 09.01.2019, without any deviation. Any slackness in this regard will be viewed seriously.

Handwritten signature in black ink, followed by the date '26/10/2020' written in a similar style.

EXECUTIVE DIRECTOR(E)

Copy to ED(A), ED(O), FA&CAO for information.

Copy to ED(zones) for information.

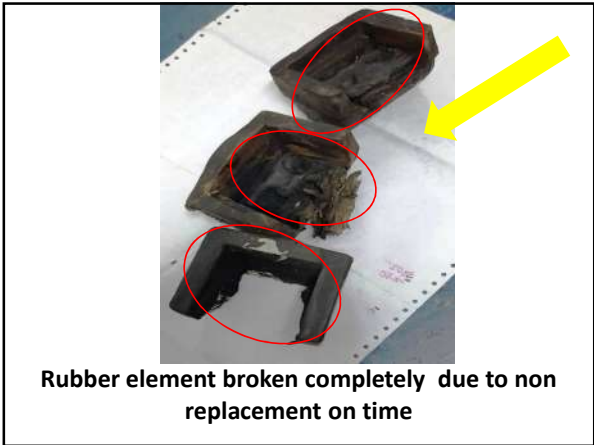
Copy to All RMs for information and necessary action.

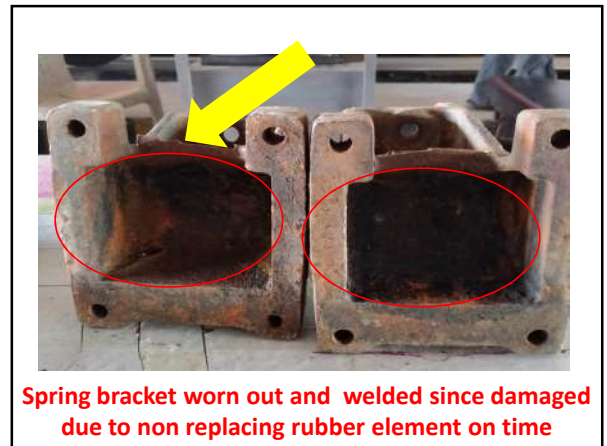
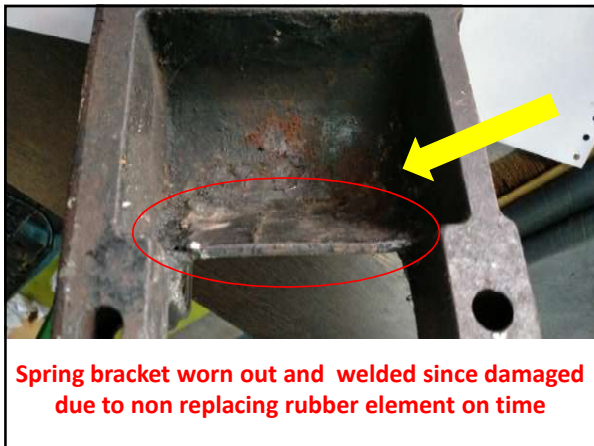
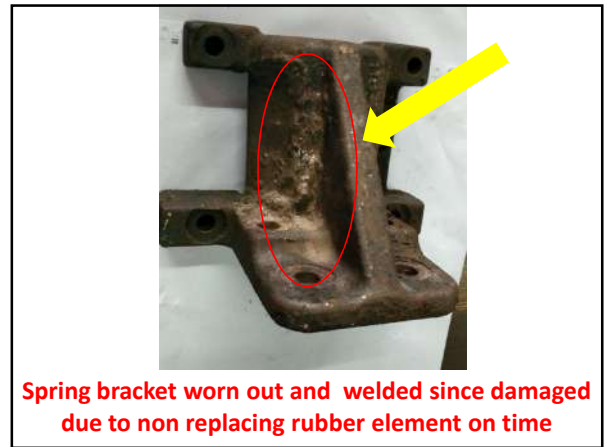
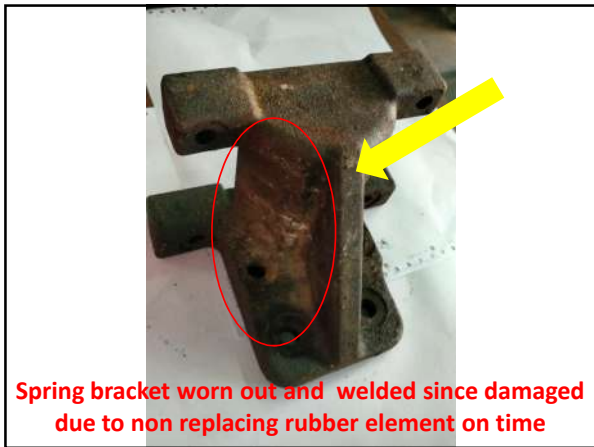
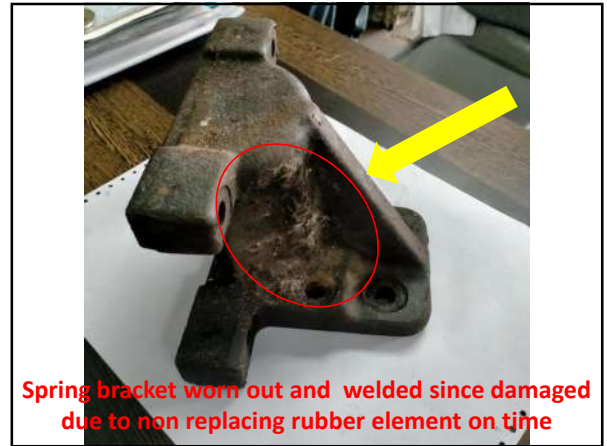
Copy to CME(M), CME(C&B), CCOS for information.

Copy to OSD to VC&MD for information.

Copy to All DyCMEs and DVMs, WMs and COSs for necessary action.

Copy to all DMs & Maintenance In-charges for necessary action.





**part numbers of weveller spring brackets and Rubber element**

<b>ASHOK LEYLAND BS -III/ BS IV</b>		
<b>Description</b>	<b>FRONT</b>	<b>REAR</b>
Front Spring Bracket (LH Front/RH Rear)	F7116022	--
Front Spring Bracket (RH Front/ LH Rear)	F7116122	--
Spring Bracket Bottom	F7116222	X0403922
Rear Spring Bracket Top- RH	--	X0403522
Rear Spring Bracket Top- LH	--	X0403622
Rubber Element	F0130150	F0130350

<b>TATA BS -III 1512 C</b>		
<b>Description</b>	<b>FRONT</b>	<b>REAR</b>
Front Spring bracket LH- Front	2778 3210 3701	--
Front Spring bracket RH- Front	2778 3210 3702	--
Front Spring bracket LH- Rear	2778 3210 3703	--
Front Spring bracket RH- Rear	2778 3210 3704	--
Front Spring bracket - Lower cap	2778 3210 3705	--
Rear Spring bracket LH- Front & RH - Rear	--	277832403701
Rear Spring bracket LH- Rear & RH - Front	--	277832403702
Rear Spring bracket Lower cap LH- Front & RH - Rear	--	2778 3240 3703
Rear Spring bracket Lower cap LH- Rear & RH - Front	--	2778 3240 3704
Weveller rubber	2778 3210 7701	2778 3240 7702

<b>TATA BS -IV 1613</b>		
<b>Description</b>	<b>FRONT</b>	<b>REAR</b>
Front Spring bracket LH- Front	2778 3210 3701	--
Front Spring bracket RH- Front	2778 3210 3702	--
Front Spring bracket LH- Rear	2778 3210 3703	--
Front Spring bracket RH- Rear	2778 3210 3704	--
Front Spring bracket - Lower cap	2778 3210 3705	--
Rear Spring bracket LH- Front & RH - Rear	--	2778 3240 3707
Rear Spring bracket LH- Rear & RH - Front	--	2778 3240 3708
Rear Spring bracket Lower cap LH- Front & RH - Rear	--	2778 3240 3703
Rear Spring bracket Lower cap LH- Rear & RH - Front	--	2778 3240 3704
Weveller rubber	2778 3210 7701	2778 3240 7702

<b>EICHER BS-III 20.15</b>		
<b>Description</b>	<b>FRONT</b>	<b>REAR</b>
Weveller rubber	IC303435	IC303435
Spring bracket LH- Front & RH- Rear	IC321866	IC321861
Spring bracket RH- Front & LH- Rear	IC321867	IC321868