

## Andhra Pradesh State Road Transport Corporation Office of the Managing Director, Bus Bhavan, Hyderabad - 500 0624.

No: OP2/462(5)/2009-MED

## CIRCULAR No. 21/2009-MED, Dt 11.09.2009

Sub : <u>MAINTENANCE</u> - Improper connections to the DB Valve at the time of replacement - Certain instructions issued - Reg.

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During the recent inspection of the Depots by the Service Engineers of **M/S WABCO-TVS**, it was observed in latest BS-II vehicles (with Relay Valves) that the air pressure drop is observed only in one gauge instead of two. This indicates that for both service brakes (front & rear), the air is drawn from single tank. On further investigation, it is observed that the connections at the DB valve inlet Port No.11 and 12 are interchanged due to ignorance at the time of replacing the DB valve leading to heavy consumption of air from only one reservoir. The correct layout of Service Brake system with Relay valve is shown hereunder.



## Schematic Layout for Service Brake System with Relay Valve

- The Front Service Brakes are actuated by the compressed air drawn from Front Service reservoir through Port No. 12 and 22 of DB Valve.
- While there is no change in the Front Brake system, the Rear Brake Actuation is different in this model compared to the earlier models which are not fitted with Relay valve.
- Unlike Front Service Brakes, the Rear Service Brakes are actuated through a Relay Valve by drawing the compressed air directly from the Rear Service Reservoir through a pipe line of 12 mm dia. The relay valve is actuated by a control line of size 9 mm dia connected from Port No.21 of DB valve to the Relay Valve.
- On pressing the Brake pedal, the compressed air at Port No.11 of DB valve goes to the Relay valve through Port No.21 via control line to actuate the relay valve. The Relay valve in turn allows the Compressed air from the Rear Service Reservoir to enter into the Rear Brake chambers.
- In case the pipe line connections at DB valve are interchanged (among Port No. 11 and 12) by mistake, The Service lines for both Front & Rear Brake chambers will be connected to a single Service Reservoir i.e Rear tank only and the Front Service Reservoir supplies air to the Relay control line instead of supplying air to the front Brake circuit. Thus the consumption of air will be more in only one tank. This is highly dangerous and may result in Brake failure in the event of any pressure loss in the Rear Service Reservoir which is supplying air to both Front & Rear Brake Chambers.

Therefore you are advised to instruct the Depot Managers and Maintenance Incharges under your jurisdiction to inspect all the vehicles at their Depots and ensure proper connections at DB valve.

You are also advised to submit a compliance report on the above instructions.

X. Solatsom

**EXECUTIVE DIRECTOR (E&IT)** 

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All Dy. Chief Mechanical Engineers of Regions.

- Copy to: Dir (V&S), ED (O &MIS), ED (A&P), ED (T&C) & Secretary to Corporation, FA and CAO for information
- Copy to: All EDs (ZONE) for information & necessary action
- Copy to: CME(O), CCOS, CME(C&B) and CE(IT) for information
- Copy to: All RMs for information and necessary action
- Copy to: Dy CME(O), Dy CME(P) and Dy CME(C&B) for information
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