



# TRUCK TROUBLESHOOTING GUIDE

## CONDITION / REMEDY

### 1 COMPRESSOR

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.
- ▶ NOTE: If the compressor is manufactured by WABCO, refer to Maintenance Manual 31 (318 Compressor for Mack E Tech Engines) or contact the WABCO Customer Care at 855-228-3203 (Mexico 001-800-953-0248).

### 2 SUPPLY, PRIMARY AND SECONDARY AIR TANKS

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.

### 3 LOW PRESSURE INDICATOR SWITCH

- BUZZER OR LIGHT INOPERABLE
  - ▶ Check ground and wiring on switch and buzzer/light.
  - ▶ Replace switch or buzzer/light.
- WON'T OPERATE AT PRESSURES BELOW 60 P.S.I.
  - ▶ Check dash gauge for accuracy.
  - ▶ Replace switch or buzzer/light.

### 4 SAFETY VALVE

- "POPS" OFF EXCESSIVELY
  - ▶ Check system pressure.
  - ▶ Valve operating properly when venting at 140/150 P.S.I. (as required).
  - ▶ Check unloader/governor.
- "POPS" OFF AT LESS THAN 140 P.S.I.
  - ▶ Replace.
- LEAKS
  - ▶ Replace.
- WON'T FUNCTION
  - ▶ Periodic Test: remove and test above 150 P.S.I. with shop air.
  - ▶ Replace if non-functional.

### 5 DRAIN VALVES - MANUAL

- LEAKS
  - ▶ Replace.

### 5 DRAIN VALVES - AUTOMATIC

- WON'T DRAIN
  - ▶ Repair or replace.
- WON'T DRAIN IN COLD WEATHER
  - ▶ Replace with heated unit.
- LEAKS - MALFUNCTIONS
  - ▶ Repair or replace.
  - ▶ Periodic Test: with system pressure stabilized (compressor unloaded) no leak evident at discharge port - make several foot brake applications to reduce wet tank pressure. Moisture should drain from discharge port.

## CONDITION / REMEDY

### 6 GOVERNOR

- FLUTTERS
  - ▶ Check gauge.
  - ▶ Check unloader line size (5/16" x 5' maximum).
  - ▶ Check air actuated accessory. Is the air volume requirement greater than governor capacity?
  - ▶ Check for plugged governor reservoir line.
  - ▶ Repair, adjust or replace governor.
- WON'T PASS AIR TO UNLOADER TO "CUT-OUT" COMPRESSOR
  - ▶ Check governor reservoir line.
  - ▶ Repair or replace.

### 7 SINGLE CHECK VALVE

- ALLOW BLEED BACK TO SUPPLY RESERVOIR
  - ▶ Periodic Test: bleed supply reservoir and observe gauges. Check valves should maintain primary and secondary reservoir pressure.
  - ▶ Replace if test results are negative.

### 8 PRESSURE CONTROL CHECK VALVE

- WILL NOT PERMIT AIR TO PURGE AIR DRYER. CHECK THAT ONE-WAY CHECK HAS BEEN REMOVED.

### 9 AIR GAUGE

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.

### 10 DUAL SYSTEM FOOT BRAKE VALVE

- LEAKS AT EXHAUST WITH ALL BRAKES RELEASED
  - ▶ Check anti-compound double check valve #16.
  - ▶ Check #18A & 18B for back flow into service control line.
  - ▶ Check seal in spring brake for back-flow of spring "hold-off" pressure through service port to open exhaust on valve. Replace #15 Spring Parking Brake.
- CAUTION: CHOCK WHEELS - REPAIR AND REPLACE ITEMS AS NECESSARY.
- LEAKS AT EXHAUST WITH FOOT BRAKE APPLIED
  - ▶ Foot valve defective. Repair or replace.
- LEAKS AT EXHAUST WITH ALL PARK BRAKES SET IN PARK POSITION AND FOOT BRAKE RELEASED
  - ▶ Foot valve defective. Repair or replace.

### 11 QUICK RELEASE VALVE

- LEAKS AT EXHAUST PORT WITH ALL BRAKES RELEASED
  - ▶ Check and replace #18A or 18B if back flow occurs into secondary control line.
- LEAKS WHEN SERVICE BRAKES ARE APPLIED
  - ▶ Repair or replace.

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### 12 SERVICE BRAKE CHAMBER

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.

### 13 SLACK ADJUSTER

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.
- ▶ NOTE: If the slack adjusters are manufactured by WABCO refer to Maintenance Manual 4B (Automatic Slack Adjusters) or contact the WABCO Customer Support Center at 855-228-3203.

### 14 RELAY VALVE

- LEAKS AT EXHAUST PORT WITH ALL BRAKES RELEASED
  - ▶ Check seal in spring brake for back-flow of spring "hold-off" pressure through service port to open exhaust on valve.
  - ▶ Replace #15 Spring Parking Brake.
  - ▶ Check reservoir port for evidence of contamination, check supply lines for rusty fittings or carbon deposits. Repair or replace.
- LEAKS AT EXHAUST PORT WITH SERVICE BRAKES APPLIED
  - ▶ Exhaust valve not seating properly. Repair or replace.

### 15 SPRING PARKING BRAKE (SERVICE ONLY SERVICE CHAMBER SIDE OF SPRING BRAKE)

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.

### 16 QUICK RELEASE AND DOUBLE CHECK VALVE COMBINATION

- FOOT VALVE EXHAUST LEAK PARK BRAKES RELEASED YELLOW DASH CONTROL V VALVE EXHAUST LEAK IN PARK POSITION AND SERVICE BRAKES APPLIED
  - ▶ Check anti-compound double check valve portion for feedback to foot or dash control valve. Repair or replace.

### 17 STOP LIGHT SWITCH

- LEAKS
  - ▶ Replace.
- FAILS TO SIGNAL A GOOD BULB THROUGH SOUND WIRING AT 3-6 P.S.I.
  - ▶ Replace.

## CONDITION / REMEDY

### 18a INVERSION RELAY VALVE WITH THE LOSS OF REAR SERVICE BRAKES,

### 18b APPLICATION OF SPRING BRAKE BY USING THE EMERGENCY SECTION SHOULD BE AVAILABLE ALONG WITH FRONT SERVICE BRAKE BY APPLYING FOOT VALVE

- PERIODICALLY TEST BY BLEEDING PRIMARY SERVICE TANK AND OBSERVING FRONT BRAKE AND REAR SPRING BRAKE APPLICATION UPON DEPRESSING FOOT PEDAL. REPAIR OR REPLACE, IF AFTER CHECKING INVERSION VALVE IS NOT FUNCTIONING PROPERLY.

- LEAKS
  - ▶ Repair or replace.

### 19 AIR DRYER

- AIR LEAKING CONSTANTLY FROM PURGE VALVE
  - ▶ Purge valve seal damaged. Replace. Purge valve frozen. Inspect heater (see heater problems).
- HEATER INOPERATIVE
  - ▶ Blown Fuse. Check fuse and replace with 8-10 amp fuse Broken wires or poor connections. Repair or replace wiring to heater.
- SLOW WET TANK BUILD-UP
  - ▶ Filter and/or desiccant plugged. Service air dryer.
  - ▶ If a System Saver Series air dryer is installed, refer to WABCO Maintenance Manual 34 (Single Canister) or 35 (TWIN).

### 20 ABS ELECTRONIC CONTROL UNIT, MODULAR VALVES, SENSORS, AND TOOTH RINGS

- FOR TROUBLESHOOTING INFORMATION REFER TO THE OEM OPERATING INSTRUCTIONS.

#### 20a FRONT AXLE VALVE PACKAGE (OPTIONAL)

- COMBINES TWO MODULATOR VALVES AND QUICK RELEASE VALVE.

#### 20b REAR AXLE VALVE PACKAGE (OPTIONAL)

- COMBINES TWO MODULATOR VALVES AND RELAY VALVE.

NOTE: If the vehicle has WABCO ABS, refer to WABCO Maintenance Manual 28 (C version ABS) or 30 (D version ABS).

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