DECEMBER 18, 1975 **No.** Q1011 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SCO67

BRAKE TREADLE VALVE PIPING

(R, RD, RM, U, DM, DMM, F and MB with MVSS121 Dual Brake System)

PURPOSE To advise of possibility that some chassis may have the primary and secondary supply line connections reversed at the brake treadle valve or air junction block. In the event of air loss in either primary or secondary system the service brakes would not function on these chassis.

RECOMMENDATION Inspect all affected chassis as outlined in bulletin and correct treadle valve piping if required. Complete the campaign as quickly as possible to assure safe operation of these vehicles and comply with Federal safety regulations.

INFORMATION Reversed supply piping at the treadle valve will not affect braking if both primary and secondary reservoirs are charged: however it will render both primary and secondary service brake systems inoperative if air pressure is lost in either supply system. Should this occur, the spring brakes must be applied manually to stop the vehicle.

Approximately 1200 vehicles built between September 2, 1974 and March 31, 1975 may have this condition. Branches and distributors will be supplied with a list of affected chassis that will include known owners names.

Procedure:

1. Drain the secondary reservoir. Disconnect control line at steering axle brake controller. Make a treadle valve application and check for air at the disconnected line. If air is discharged, the treadle valve is piped wrong.

NOTE

The secondary reservoir can be identified by following features.

(a) On most combination reservoirs, there is plate showing which is primary and secondary section.
(b) On combination reservoirs without identification plates, locate secondary section as follows. Start at steering axle brake controller and trace the 5/8 inch supply line to the secondary reservoir.
(c) If separate reservoirs are used the secondary is the smaller one; however do not confuse it with supply (wet) tank.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

(Continued Over)

SERVICE BULLETIN

JANUARY 12, 1976 **No.** Q1010 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY. (Supersedes Bulletin dated DECEMBER 17, 1975)

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC066

BRAKE ANTI-WHEEL LOCK WIRING

(R, RD, U and DM with MVSS121 Anti-Lock System)

PURPOSE To advise of the requirement for inspection and possible correction of front axle brake controller wiring connections. If the controller is connected incorrectly, the front brakes could lock during a panic stop.

RECOMMENDATION Check front axle brake controller connections on all affected chassis and correct as required. Complete the campaign as soon as possible to insure safe operation of these vehicles and compliance with Federal safety requlations.

INFORMATION On some vehicles, the wires from cab power/warning harness to front axle controller were connected to one of the controller wheel sensor leads instead of the controller power/warning leads. When connected in this manner, the controller is not powered, resulting in loss of anti-wheel lock capability on the front brakes and failure of the warning light to indicate this malfunction. Under this condition, the front brakes operate in the fail-safe mode, but without anti lock control and therefore could lock during a panic stop.

Approximately 3400 chassis built from September 1974 through July 17, 1975 could have this condition. A list of these vehicles will be supplied to all affected branches and distributors.

Procedure:

Check wiring color coding at the harness connections at front axle controller. If they are as shown in Figure 1, no further inspection or correction is required.

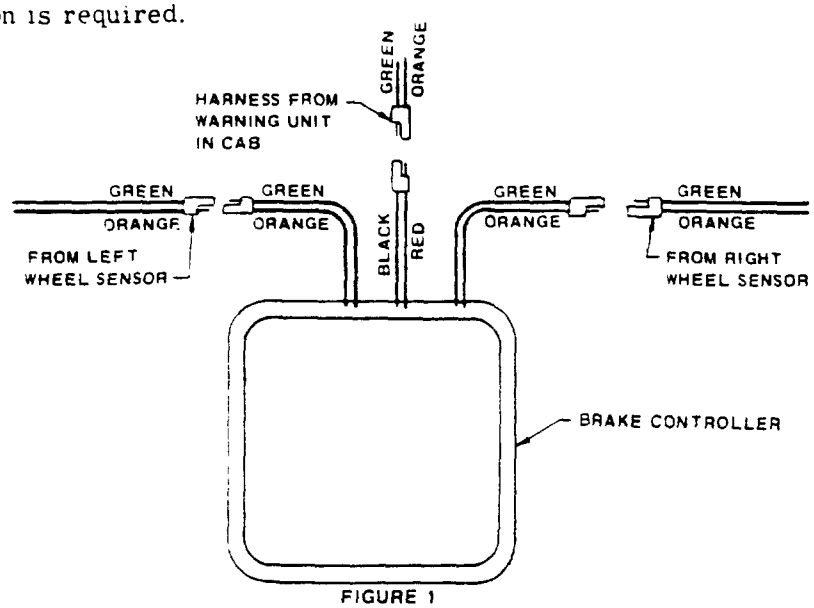


FIGURE 1
HARNESS CONNECTIONS AT BRAKE CONTROLLER
CORRECT

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

(Continued Over)

SERVICE BULLETIN

FEBRUARY 16. 1976 **No.** Q1012 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SC038

TRACTOR TRAILER PARK VALVE PIPING

(F Models with MVSS121 Brake System)

PURPOSE To inform the field of possibility that some park valves were piped incorrectly, causing an automatic spring brake application in the event of air loss in primary system. When this occurs it is necessary to release the spring brakes manually.

RECOMMENDATION Complete the campaign as quickly as possible to insure safe operation of these vehicles and compliance with Federal safety regulations.

INFORMATION On current F model chassis there are two brake system air manifolds located inside the console, above the engine compartment. The forward manifold has a line connected to the double check valve located on right hand frame rail near the air reservoir (see Figure 1) and the rear manifold has a line connected to the treadle valve. On some chassis, these lines were interchanged at the manifolds, resulting in the primary air system becoming the sole source of air to the park valve. When piped this way, loss of primary air will cause automatic application of the spring brakes and, because there is no secondary air available, the brakes must be released manually.

Total of 596 chassis, built between September 2, 1974 and July 30, 1975 may have this condition. A list of these chassis will be supplied to all affected branches and distributors.

Procedure:

To check for subject condition, proceed as follows:

1. Chock wheels so truck will not roll, then release parking brake.
2. With both primary and secondary reservoirs fully charged, drain primary reservoir.
3. While primary tank is draining, observe rear brakes and note whether or not spring brakes apply.
   a. If spring brakes do not apply, after primary reservoir is fully drained, system is piped correctly and no further inspection or correction is necessary.
   b. If spring brakes apply, system is piped incorrectly and must be corrected according to instructions in following steps.

NOTE

The primary reservoir can be recognized by the following features:

a. Identification plate stating "PRINTED IN U.S.A." if combination tank.
b. If plate is missing, determine which end of tank is connected to the rear axle brake controller(s). This will be the primary reservoir.
c. If vehicle has two reservoirs, the primary reservoir is the larger of the two.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

(Continued Over)

SERVICE BULLETIN

APRIL 9, 1976 **No.** Q1013 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY

CHASSIS AFFECTED ALLENTOWN☐ HAYWARD☑ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

SC072

FRONT WHEEL SPEED SENSOR ROTOR

(Mack Western Models RL, RS, WL and WS with Anti-wheel Lock System)

PURPOSE To notify the field that the front wheel rotors must be replaced on certain of these vehicles. Some rotors have been damaged by internal interference, thereby causing malfunction or failure of the front axle anti-wheel lock system.

RECOMMENDATION Replace front wheel rotors on all chassis involved and replace pickups as required. Complete the campaign as quickly as possible to insure safe operation of these vehicles. Parts will be available approximately April 26, 1976.

INFORMATION Vehicles subject to this condition are those equipped with Rockwell International FF-931 and FL-931W front axles having aluminum hubs for 10 hole disc type wheels and Eaton anti-wheel lock system. Wheel speed rotors used on these chassis may be incorrect. The incorrect rotors extend out too far from the brake drum and create a potential interference condition with the sensor pickup. Damage to these parts will occur if the pickup lacks adequate adjustment range to compensate for the oversize rotor.

If interference occurs, malfunctions ranging from a temporary disabling to a complete failure of the front axle anti-lock may result, depending on degree of interference. Failure of both sensors will result in loss of anti-wheel lock capability but the warning light will not be activated.

Approximately 350 vehicles built between March 18, 1975 and December 11, 1975 are involved in this campaign. A list of these vehicles will be supplied to all affected branches and distributors.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Parts

Two front wheel rotors are required for each vehicle campaigned. In addition, if a pickup is damaged it must be replaced also. Order parts on an emergency requisition. Include only parts required for the campaign on this requisition.

Parts required:

Qty.	Part Number	Description
2	12MN39302A-P1	Wheel Speed Sensor Rotor
*	8MNA41-P15	Wheel Speed Sensor and Brkt. Ass'y. (FF-931)
*	8MNA39301-P1	Wheel Speed Sensor and Brkt. Ass'y. (FL-931W)

* Order only if original parts are damaged.

(Continued Over)

3. Loosen screw packs and slide pickup to it's maximum outboard position on mounting bracket. Retighten screw packs 40 to 45 in. lbs. This applies to both new and used assemblies and is necessary to assure that the correct operating clearance will be established with the new rotor.

4. Connect pickup leads (if new pickup was installed) and install wheel and drum assembly.

NOTE

Rotor-to-pickup operating clearance is established automatically when the wheel is installed. Avoid "rocking" the wheel as it approaches the installed position as this can push the pickup too far inboard and adversely affect the sensor signal. Use the bearing adjusting nut to draw the wheel into position.

Reimbursement

All expenses incurred in this campaign are to be recovered through RWR procedures as instructed in Service Bulletin AJ1000 under POLICY. The usual $25.00 minimum for claims is waived and an RWR must be submitted for each chassis campaigned. Include following information on the RWR form.

Under	Enter
Description of failure	Service Bulletin Q1013 under BRAKES
Failed Part Number	SC072
Part Name	Rotor

Maximum labor allowance is 1.5 hours per chassis.

Removed parts - Hold removed parts, pending instructions for return.

SERVICE BULLETIN

JULY 28, 1976 **No.** Q1014 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY

CHASSIS AFFECTED ALLENTOWN☐ HAYWARD☑ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SC076

FRONT BRAKE CHAMBER RELOCATION

(WL and WS with FAW536C, 537C Front Axles and Cam Brakes)

PURPOSE To notify the field that the brake chamber mounting arrangement on subject chassis equipped with FAW536C and 537C must be changed to eliminate possible interference between brake chamber and cab tilt cylinder. This interference could cause chamber damage with potential reduction in braking ability.

RECOMMENDATION Relocate brake chambers on all affected chassis as instructed herein. Complete the campaign as quickly as possible to insure safe operation of these vehicles.

INFORMATION The brake chamber/tilt cylinder interference occurs under extreme front axle articulation. To provide greater clearance at this point, the brake chambers must be repositioned to the rear by use of a new mounting bracket. See Figure 1.

Approximately 400 vehicles built between December 16, 1974 and September 9, 1975 may have this condition. A list of these vehicles is provided in this bulletin and will also be included in the campaign package supplied to all affected Branches and Distributors.

Parts

Order parts on an emergency requisition from the parts distribution center normally serving your location. Include only parts required for the campaign. State on the requisition that the parts are for a mandatory safety campaign per Service Bulletin Q1014 under BRAKES.

Quantity	Part Number	Description
1	8235-F33299-R1552	Brake Chamber Brkt. and Bush. Assy., L.H.
1	8235-F33299-S1553	Brake Chamber Brkt. and Bush. Assy., R.H.
2	8MY130	Brake Chamber Boot
2	73RU22022	Boot Retainer Plate

CIRCULATION	
Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

(Continued Over)

Mack

8. Install brake chamber on bracket.

9. Loosen brake chamber clamp and rotate cover until side port is at twelve o'clock (top) position, then tighten clamp. See Figure 1.

10. Install the elbow in side port of the brake chamber and plug the center port. Position elbow so it points towards front of chassis. See Figure 1.

11. Reinstall brake chamber air hoses. Existing hoses can be reused if at least 18" long after positioning elbow port per Step 10.

12. Adjust slack adjusters.

Reimbursement

All expenses incurred in this campaign are to be recovered through RWR procedures as instructed in Service Bulletin AJ1000 under POLICY. The usual $25.00 minimum for claims is waived and an RWR must be submitted for each vehicle campaigned. Show the following information on the RWR form.

Under	Enter
Description of Failure	Service Bulletin Q1014 under BRAKES
Failed Part Number	SC076
Part Name	Brake Chamber

Maximum labor allowance — 2.5 hours per chassis

Removed parts — Hold until advised of disposition.

(Continued Over)

SERVICE BULLETIN

APRIL 13, 1978 **No.** Q1015 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY. (Supersedes Bulletin dated AUGUST 18, 1977)

CHASSIS AFFECTED ALLENTOWN☐ HAYWARD☑ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SCO84

FRONT BRAKE ASSEMBLY

(Mack Western Models WL and WS With Rockwell International FF931C Front Axle and "P" Series Cam Brakes)

PURPOSE To request the inspection and possible modification or replacement of subject brake assemblies to overcome failure of the brake spider. Failure of a spider results in brake pull to the direction opposite the broken spider or wheel lock-up on the wheel with the broken spider, resulting in impaired vehicle control.

INFORMATION AND RECOMMENDATION It has been determined that Rockwell "P" cam brake assemblies, when assembled with brake cam rotation opposite wheel rotation (rotation being defined when the chassis is going forward),are subject to a "chatter" condition that could lead to failure of the brake spider. On vehicles with manual steering the brake assemblies must be checked and if found to have camshaft in opposite rotation they must be removed and reassembled so cam and wheel rotation is same, after Magnafluxing the spiders for cracks.

On vehicles with power steering, an interference condition exists such that the present "P" cam brake assembly cannot be used with the brake assembled for cam rotation same as wheel. On these chassis it will be necessary to install alternate assemblies, either the Rockwell "T" series cam brake or Rockwell wedge brake. The brake to be used depends on chassis application as described later in this bulletin.

Approximately 570 vehicles built between January 6, 1975 and December 10, 1976 are involved. A list of these vehicles will be sent to the affected branches and distributors.

Procedure

There are three chassis configurations involved and the corrective action varies for each. The differences are in steering type, i.e. manual or power, and rear axle configuration and are as follows:

NOTE

The following instructions must be strictly adhered to to assure complicance with current requirements of Federal Motor Vehicle Safety Standard 121. If not followed, you could be subject to fine.

All with manual steering (Refer to item 1).
Tandem tractors with power steering (Refer to item 2).
Single axle tractors and truck-trailers with power steering (Refer to item 3).

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

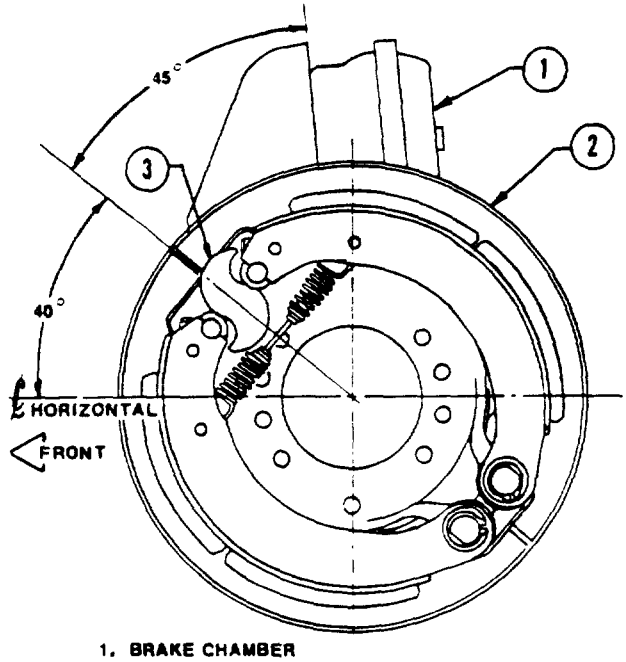
(Continued Over)

c. Transfer spiders, camshafts and brake chambers to the side opposite the one they were originally installed on. Be sure cam and chamber are oriented as shown in Figure 3. Complete the assembly using a new inner wheel seal.

Torque brake assembly mounting bolts 268 to 296 lb. ft.
Torque spoke wheel clamp stud nuts 122 to 135 lb. ft.
Torque disc wheel stud nuts 450 to 500 lb. ft.

NOTE

Do not transfer brake drums and shoes. These parts must remain on same side as originally installed and shoes must also be installed in same position, (i.e. primary & secondary).



1. BRAKE CHAMBER
2. BRAKE ASSEMBLY, 16-1/2 X 5 CAM (L.H. SHOWN)
3. BRAKE CAMSHAFT

FIGURE 3

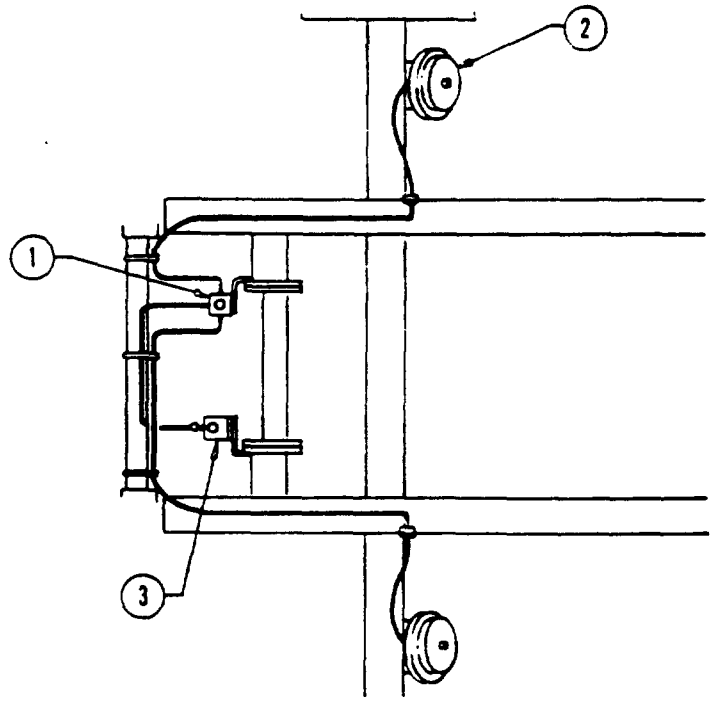
d. After installing the wheel assembly and adjusting the wheel bearing, check for correct operation of anti-wheel lock system as follows. Spin wheel at approximately five mph. (40 rpm) and check voltage at sensor lead; it should be 0.3 to 0.5 volt AC. If less, readjust sensor to rotor clearance.

e. Burnish brake linings using following procedure. Brake vehicle from 40 mph to 20 mph. a minimum of 20 times. Allow one half mile between brake applications to prevent overheating the brakes. Readjust brakes when burnishing operation is completed.

(Continued Over)

c. Install quick release valve 20QE291 on engine front support in same location from which the front wheel controller was removed. Mount on bracket shown in parts list using existing fasteners for the bracket and new fasteners for the valve. This valve is required to perform the quick release function formerly provided by the front axle controller.

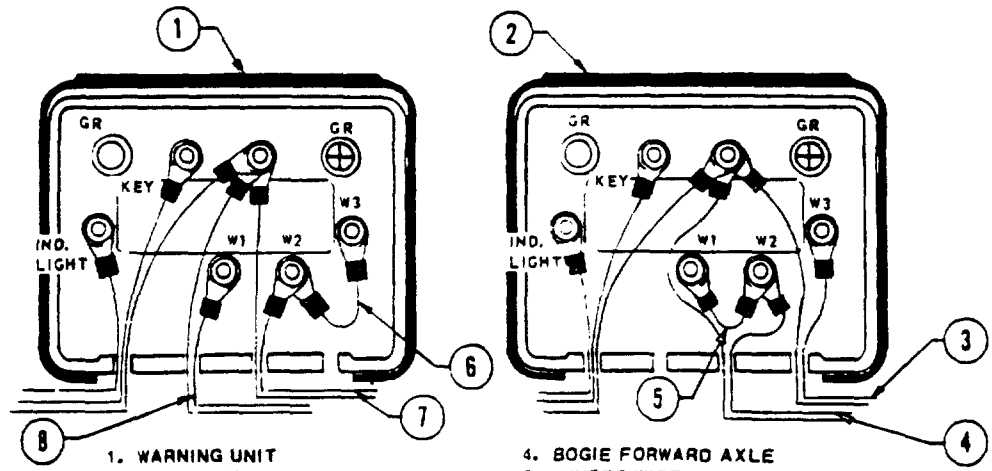
Pipe the valve as shown in Figure 6. Remove line originally used to connect controller supply port to secondary reservoir and plug tank opening. This line is not required.



1. QUICK RELEASE VALVE 20QE 291
2. BRAKE CHAMBERS
3. EXISTING RATIO VALVE

FIGURE 6

d. Install a jumper between the front axle terminal and W2 terminal of the failure warning unit located in cab. This step is necessary with removal of the front axle controller, to prevent a false failure indication. See Figure 7.



1. WARNING UNIT PRIOR TO OCTOBER 19, 1975
2. WARNING UNIT OCTOBER 19, 1975 AND LATER
3. BOGIE REAR AXLE
4. BOGIE FORWARD AXLE
5. JUMPER WIRE
6. JUMPER WIRE
7. BOGIE FORWARD AXLE
8. BOGIE REAR AXLE

FIGURE 7

(Continued Over)

List B - Parts required for tandem tractors equipped with disc wheels and power steering

Quantity	Part Number	Description
1	1QDA49357R	Brake Assembly, R.H. (15 x 4 cam)
1	1QDA49358R	Brake Assembly, L.H. (15 x 4 cam)
2	17QJ39337	Brake Drum
1	5QJA39344	Hub Assembly, R.H.
1	5QJA39345	Hub Assembly, L.H.
10	9872-84527	Wheel Stud, R.H.
10	9872-84528	Wheel Stud, L.H.
1	5QJA39340	Drum & Hub Assembly, R.H.
1	5QJA39341	Drum & Hub Assembly, L.H.
2	7843-3434095	Hub Cap
2	121SR19	Hub Cap Gasket
14	3AX1809	Bolt, Brake Mounting, 5/8-18 x 2
2	341SR52	Seal, Wheel Inner
1	20QE291	Quick Release Valve
1	29QE39304-P2	Quick Release Valve Bracket (except with Cummins)
1	29QE39304-P1	Quick Release Valve Bracket (with Cummins)
2	1AX13	Bolt, Quick Release Valve Mntg.
4	37AX38	Washer, Quick Release Valve Mntg.
2	21AX783	Lock Nut, Quick Release Valve Mntg.
2	8235-A22-3275-G-501	Slack Adjuster

List C - Parts required for tandem tractors equipped with spoke wheels and power steering

Quantity	Part Number	Description
1	1QDA49357R	Brake Assembly, R.H. (15 x 4 cam)
1	1QDA49358R	Brake Assembly, L.H. (15 x 4 cam)
2	17QJ39336	Brake Drum
14	3AX1809	Bolt, Brake Mounting, 5/8-18 x 2
2	341SR52	Seal, Wheel Inner
1	20QE291	Quick Release Valve
1	29QE39304-P2	Quick Release Valve Bracket (excep w/Cummins)
1	29QE39304-P1	Quick Release Valve Bracket (with Cummins)
2	1AX13	Bolt, Quick Release Valve Mntg
4	37AX38	Washer, Quick Release Valve Mntg.
2	21AX783	Lock Nut, Quick Release Valve Mntg.
2	8235-A22-3275-G-501	Slack Adjuster

List D - Parts required for trucks and 4 x 2 tractors with disc wheels and power steering

Quantity	Part Number	Description
1	1QDA49353R-P3	Brake Assembly, R.H. (15 x 5 Wedge)
1	1QDA49354R-P3	Brake Assembly, L.H. (15 x 5 Wedge)
2	17QJ39310	Brake Drum
2	341SR52	Seal, Wheel Inner
2	63AX69	Tee Fitting
*	144SX22FT25	Hose
2	92RU19317-P3	Hose Fitting
2	92RU19313-P4	Hose Fitting

* 50 inches required per vehicle

(Continued Over)

SERVICE BULLETIN

JULY 20, 1978 **No.** Q1017 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☐ HAYWARD☑ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SCO99

AIR DRYER PIPING

(Mack Western Models RL, RS, WLand WS With Anchorlok Air Dryer)

PURPOSE To notify the field of need to revise the air dryer piping on subject models to prevent possibility of moisture freezing in the relief valve or air compressor governor control line. Should this condition occur, air system damage may result that will cause automatic application of the sprin brakes and possible loss of vehicle control.

INFORMATION AND RECOMMENDATION The original piping for Anchorlok air dryers has low points that permit any moisture which passes through the dryer to collect in relief valve and compressor governor control line. If this moisture freezes it will, in some cases, cause excessive brake system pressure. This high pressure can cause failure of brake system hoses and valves which, in turn, causes automatic application of the spring brakes. These events can occur without prior warning to the operator.

Approximately 400 vehicles, built from December 1975 through January 1978, require modification to the air dryer piping. A list of these vehicles will be supplied to the affected branches and distributors.

Procedure

Basically, the piping revision consists of relocating the relief valve and governor control line to eliminate low points. To accomodate this change it is necessary to relocate the primary reservoir line and, if used, the air starter line.

Figure 1 shows piping as originally installed. This arrangement must be revised.

Figure 2 shows piping arrangement that must be followed for this campaign.

CIRCULATION

Service Manager
Shop Foreman
Night Foreman
Night Foreman
Inspector Leadman
Inspector Leadman
Inspector Leadman
Unit Overhaul Room
Shop Office

(Continued Over)

SERVICE BULLETIN

AUGUST 16, 1978 **No.** Q1019 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☑ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC 100

ANTI-WHEEL LOCK CONTROLLER
(Models R, RD, U, DM, DMM, DML, F, MB, HMM, RM
RL, RS, WL and WS With Eaton Anti-Wheel Lock System)

PURPOSE To notify the field of need to recall certain of these vehicles to inspect and where necessary replace the controller. An electrical malfunction in these controllers can cause a "no brake condition" on the axle being controlled by the affected anti-wheel lock controller.

INFORMATION AND RECOMMENDATION The Eaton Corporation has informed Mack Trucks, Inc. that some controllers manufactured prior to March, 1976 may not be to specifications. This coupled with the failure of certain other electronic devices within the controller can cause the valve solenoid to be constantly energized. A constantly energized solenoid will prevent application of brakes on the axle monitored by that controller. No other axle will be affected.

Due to the nature of this malfunction, the warning light is not always activated and, therefore, the driver may not be aware of the condition.

Chassis manufactured between October 1974 and March 1976 (May 1976 for Hayward chassis) will be recalled for the inspection and possible replacement of controllers. A list of the chassis involved will be sent to affected branches and distributors.

Procedure

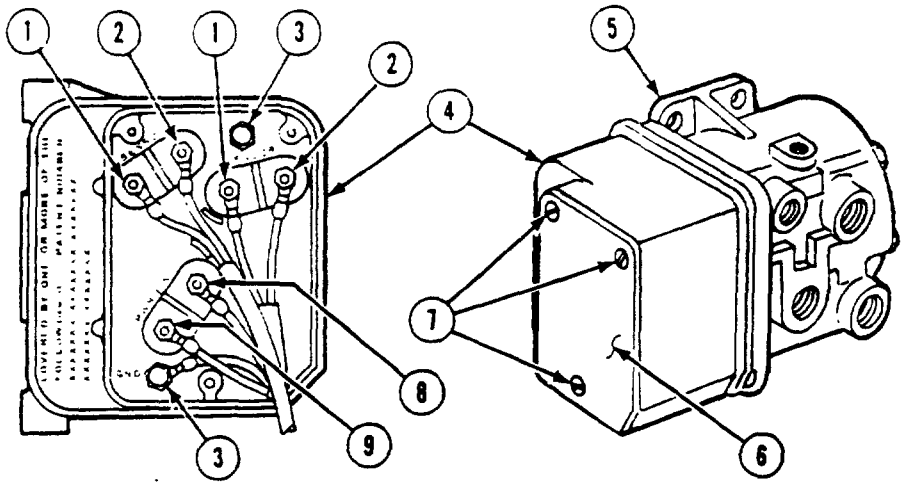
Corrective action consists of replacing certain Model 21 controllers with controllers of current production design (Model EAL1201N). Controllers that must be replaced can be identified by the manufacturing date code. The date code has a series of characters. On suspect controllers the third from last is "M" and the last two digits are 26 or lower. Controllers with a date code in this range must be replaced.

Example:
P2 02775 M14 - Replacement required
P2 360 75 M26 - Replacement required
P2 310 76 M27 - OK - No Replacement required
P2 099 75 S10 - OK - No Replacement required

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

(Continued Over)



1. SENSOR LEAD - ORANGE
2. SENSOR LEAD - GREEN
3. CONTROLLER ATTACHING SCREWS
4. CONTROLLER
5. VALVE
6. CONTROLLER COVER
7. CONTROLLER COVER SCREWS
8. WARNING INDICATOR LEAD - BLACK
9. POWER LEAD - RED

FIGURE 2
MODEL 1200 CONTROLLER/VALVE ASSEMBLY

Parts

Order parts on an emergency requisition from the parts distribution center normally serving your area. State on the requisition that the parts are for a mandatory safety campaign per Service Bulletin Q1019 under BRAKES. Do not include parts not required for the campaign on this requisition.

Parts required:

Qty.	Part Number	Description
AR	2719-640048	Anti-Wheel Lock Controller, Pos. Grd.
AR	2719-640049	Anti-Wheel Lock Controller, Neg. Grd.

Reimbursement

All expenses incurred in this campaign are to be recovered through RWR procedures as instructed in Service Bulletin AJ1000 under POLICY. Submit an RWR for each vehicle campaigned. Show following information on RWR form.

Description of Failure ---------- Service Bulletin Q1019 under BRAKES
Failed Part Number ---------- SC 100
Part Name ---------- Controller
Maximum Labor Allowance: Inspection ---------- .3 hr.
Replacement (per controller) ---------- .3 hr.
RWR must include - Completed Campaign Questionnaire
Return parts carrier name and shipper's Bill of Laden number

(Continued Over)

CAMPAIGN QUESTIONNAIRE

Complete one for each controller replaced w/duplicate (cut in half and use carbon).
Attach original to RWR and duplicate to be used as packing slip for removed controller.

If no controller replacement is required, complete only ONE copy and attach to RWR.

Branch/Distributor Name_____ Location_____

Repair Order Number_____ Date_____

Chassis Model & Serial Number (VIN)_____ Mileage_____

Controller Identification No. (removed controller)_____

Removed from: (Circle one) Steering Axle
Bogie Front Axle
Bogie Rear Axle
Other_____

Was Anti-Wheel Lock Warning Light Operative -

(1) As Received _____Yes _____No
(2) After Controller Replacement (if required) _____Yes _____No
(3) As Released to Customer _____Yes _____No

If Anti-Wheel lock system inoperative after controller campaign inspection and/or replacement (as required), show name of individual (customer or customer representative) whom you notified that system was inoperative and that additional repairs were required _____.

THIS COPY MUST ACCOMPANY RWR

(cut here)

Branch/Distributor Name_____ Location_____

Repair Order Number_____ Date_____

Chassis Model & Serial Number (VIN)_____ Mileage_____

Controller Identification No. (removed controller)_____

Removed from: (Circle one) Steering Axle
Bogie Front Axle
Bogie Rear Axle
Other_____

Was Anti-Wheel Lock Warning Light Operative -

(1) As Received _____Yes _____No
(2) After Controller Replacement (if required) _____Yes _____No
(3) As Released to Customer _____Yes _____No

If Anti-Wheel lock system inoperative after controller campaign inspection and/or replacement (as required), show name of individual (customer or customer representative) whom you notified that system was inoperative and that additional repairs were required _____.

THIS COPY TO BE USED AS PACKING SLIP

SERVICE BULLETIN

OCTOBER 30, 1978 **No.** Q1020 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☑ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC106

BOGIE ANTI-WHEEL LOCK SYSTEM
(F, R, U, DM, DMM, RM, MB, MR, MC, RD, WL, WS, RL, RS, RWL and RWS Having a Single Bogie Controller)

PURPOSE To notify the field that the electrical portion of this system must be disconnected to prevent a possible "no brake" condition.

INFORMATION AND RECOMMENDATION The vehicles involved in this recall may experience a delay of up to two seconds from the time the brake treadle is actuated until the bogie brakes apply. This condition is caused by defects in the wheel speed sensor wiring. The increased braking time occurs without prior warning to the driver and could result in an accident.

This "no brake" condition can occur in vehicles built between October, 1977, and September, 1978, and is restricted to vehicles which have one anti-wheel lock controller to monitor both bogie axles. Branches and distributors will be notified of the vehicles affected.

Procedure

As a temporary measure, the electrical portion of the bogie anti-wheel lock system must be disconnected. This procedure will remove all anti-lock capabilities of the bogie brakes and they will function as normal pre-FMVSS-121 brakes. Drivers must be advised that the bogie wheels can now be locked up and greater care must be exercised when operating on slippery roads to avoid skidding.

1. Disconnect the anti-wheel lock system power lead at the circuit breaker. Tape wire back. Location of the circuit breaker strip and means of identifying the affected wire is shown in the following chart.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Service Operations, Allentown, Pa., U.S.A.

MACK

PRINTED IN U.S.A.

OCTOBER 30, 1978

NOTICE

The Wheel Anti-Lock System on this Vehicle has been made Inoperative by Disconnecting the Power Supply. The Brakes are Fully Driver Controlled.

4MR 1452

Reimbursement

Submit an RWR to recover expenses incurred in disconnecting the bogie anti-wheel lock system. Follow procedures given in Service Bulletin AJ1000 under POLICY. The standard $25.00 minimum for claims is waived and an RWR is to be submitted for each vehicle campaigned. Show the following information on RWR form.

Under	Enter
Description of Failure	Service Bulletin Q1020
Failed Part Number	SC106
Part Name	Controller

Maximum Labor Time -- 0.3 hour per vehicle

END

SERVICE BULLETIN

DECEMBER 21, 1978 **No.** Q1021 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC108

BENDIX ANTI-WHEEL LOCK CONTROLLER
(F, R, U, DM, DMM, RM, MB, MR, MC, RD, Having Axle-By-Axle Controller)

PURPOSE To notify the field that the electrical portion of this system must be disconnected to prevent a possible "no brake" condition.

INFORMATION AND RECOMMENDATION The Heavy Vehicle Systems Group of the Bendix Corporation has notified Mack Trucks, Inc. that defects exist in certain anti-wheel lock controllers that could cause brakes on the rear axle(s) to be inoperative. This defect involves a zener diode which may fail and allow current to continue flowing to the controller solenoid when no brake modulation is required. When the solenoid is energized, brake system air cannot pass through the controller to actuate the brakes.

This "no brake" condition can occur when the solenoid is activated, either by the system self-check when the key switch is turned on or during an actual anti-wheel lock cycle. This condition will occur without a visual warning to the vehicle operator.

Approximately 1065 vehicles built from August 1977 through September 1978 are affected. A list of these vehicles will be sent to those branches and distributors that received vehicles requiring correction.

NOTE

This campaign (SC108) does not duplicate campaign SC106 which was announced in Service Bulletin Q1020 under BRAKES. Campaign SC106 covers six-wheel chassis using one controller for both axles of the bogie. Campaign SC108 covers either four or six-wheel chassis using a separate controller for each rear axle.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Service Operations, Allentown, Pa., U.S.A.

PRINTED IN U.S.A.

NOTE

The anti-wheel lock warning light will remain on after the disconnection.

IMPORTANT WARNING

BE SURE THE NOTICE LABEL SUPPLIED TO YOU IS AFFIXED TO THE INSTRUMENT PANEL IN FULL VIEW OF THE VEHICLE DRIVER.

NOTICE

The Wheel Anti-Lock System on this Vehicle has been made Inoperative by Disconnecting the Power Supply. The Brakes are Fully Driver Controlled.

4 MR 1452

Reimbursement

Submit an RWR to recover expenses incurred in disconnecting the anti-wheel lock system. Follow procedures given in Service Bulletin AJ1000 under POLICY. The standard $25.00 minimum for claims is waived and an RWR is to be submitted for each vehicle campaigned. Show the following information on RWR form.

Under	Enter
Description of Failure	Service Bulletin Q1021
Failed Part Number	SC108
Part Name	Controller

Maximum Labor Time -- 0.3 hour per controller

END

SERVICE BULLETIN

MARCH 23, 1979 **No.** Q1016 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY. (Supersedes Bulletin dated JULY 7, 1978)

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SCO95

BRAKE FITTING TEE BRACKET
(F, R and U Models With SW56 and SW57 Series Bogies In On-Highway Service)

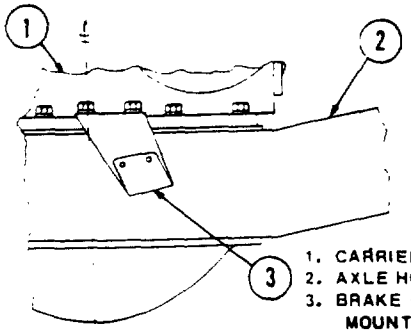
PURPOSE To request the recall of subject vehicles for the purpose of replacing the brake fitting tee bracket. Bracket failure and subsequent air line damage can cause an automatic application of the spring brakes, thereby creating a potential traffic hazard.

INFORMATION AND RECOMMENDATION The brake fitting tee bracket mounted on the front carrier is subject to failure caused by vibration. A bracket failure leaves the tee fitting unsupported and can result in a broken hose or connector fitting. Should this occur, loss of air pressure will cause the spring brakes to apply automatically. This condition occurs without prior warning to the operator.

Approximately 33,000 vehicles, manufactured between March 1, 1975 and February 1, 1978 are involved in this recall. A list of these vehicles will be sent to all affected branches and distributors.

Procedure

Remove existing tee bracket and install new bracket. The bracket is located on the forward axle carrier and uses the carrier mounting bolts for attachement. See Figure 1. Tighten the attaching bolts 134 to 148 lb. ft. torque at installation of new bracket.



1. CARRIER (REF.)
2. AXLE HOUSING (REF.)
3. BRAKE FITTING TEE BRACKET MOUNT ON FRONT, CENTER OF FORWARD CARRIER.

FIGURE 1
BRACKET INSTALLATION

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Service Operations, Allentown, Pa., U.S.A.

MACK

SERVICE BULLETIN

APRIL 11, 1979 **No.** Q1018 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY. (Supersedes Bulletin dated SEPTEMBER 13, 1978)

CHASSIS AFFECTED ALLENTOWN☐ HAYWARD☑ OAKVILLE☐

MANDATORY SAFETY CAMPAIGN

REF: SCO98

AIR START RESERVOIR
(Mack Western Models FL, FS, RL, RS, WL and WS
With Aluminum Reservoir)

PURPOSE To notify the field that the aluminum air start reservoir used on certain of these vehicles must be replaced, The reservoirs presently installed are subject to failure which can cause personal injury.

INFORMATION AND RECOMMENDATION We have determined the aluminum air start reservoir does not have adequate strength because of an inherent design deficiency. Should a reservoir fail, the resultant explosive force could propel metal fragments in all directions with sufficient velocity to injure people in the area.

We will recall approximately 268 vehicles, built between January 3, 1974 and December 31, 1977 for replacement of affected reservoir. A list of these vehicles will be furnished at a later date to affected branches and distributors.

Procedure

Check part number of existing reservoir located on the identification and test plate before starting installation of a new one. Some chassis appearing on campaign chassis listing may have been built with air start reservoir 22QE39319P1. These are satisfactory and DO NOT require change.

If the vehicle is equipped with suspect reservoir 22QE39309, install new, redesigned reservoir 22QE39320. No piping changes are required, however, the new reservoir has a larger outside diameter which affects the mounting. To permit use of the standard mounting straps, an extension adapter is required. The adapter attaches to end of strap and is secured with a jam nut.

NOTE

Some 22QE39309 reservoirs may have been misstamped 22QE39303; these are also to be changed on a campaign basis.

Drain pressure from air system and air start reservoir. Disconnect air lines and remove reservoir from chassis. Install new reservoir and reconnect air lines. Charge system and check for leaks.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Page 1 (Continued Page 2)

MACK

SERVICE BULLETIN

JULY 9, 1979 **No.** Q1021a **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☐ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC108

BENDIX ANTI-WHEEL LOCK CONTROLLER

(CF, F, R, U, DM, DMM, RM, MB, MR, MC and RD Having Axle-By-Axle Anti-Wheel Lock System)

PURPOSE To advise that improved controllers are available.

INFORMATION AND RECOMMENDATION An improved controller is now available to replace the ones subject to failure. These controllers are to be installed on vehicles originally equipped with controllers having a serial number from 001000 through and including 012958 and on which the anti-wheel lock electrical system was disconnected per Service Bulletin Q1021 under BRAKES.

NOTE

Due to the Federal Court decision affecting brake performance standards, an anti-wheel lock system is not required to meet current requirements. If the customer so desires, the system can be left disconnected.

Procedure

1. Disconnect wheel speed sensor leads and ground wire and unfasten existing controller(s) from valve(s). Do not remove valve(s) from chassis.

2. Transfer controller leads from old controller to new one. Be sure the connections are correct for the vehicle ground. The same controller is used for positive and negative ground systems, the only difference being in the ground and continuity wire connections. See Figure 1 for negative ground systems and Figure 2 for positive ground systems.

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

Page 1 (Continued Page 2)

If these events occur, the system is functioning normally and the vehicle can be returned to service. If not, check the anti-wheel lock system using normal trouble shooting procedures.

New Parts

Order parts on an emergency requisition from the parts distribution center normally serving your area. State on the requisition that the parts are for a mandatory safety campaign per Service Bulletin Q1021a under BRAKES. Do not include any parts on this requisition that are not required for the campaign.

Parts required:

Qty.	Part Number	Description
AR	745-289359	Anti-Wheel Lock Controller (Bendix-Pos. & Neg. Grd)

Removed Parts

Prepare a FO-42 Form as described in Paragraph G Section IV of the Warranty Administration Manual. Under cause of failure list SC-108. Attach hard copy of this tag and the removed controller and ship it prepaid to the Bendix branch serving your location. Be sure a copy of your FO-42 and shipping document is attached to the RWR.

Reimbursement

All expenses incurred in this campaign are to be recovered through RWR procedures as instructed in Service Bulletin AJ1000 under POLICY. Submit an RWR for each vehicle campaigned. Show following information on RWR form.

Under	Enter
Description of Failure	Service Bulletin Q1021a under BRAKES
Failed Part Number	SC108
Part Name	Controller

Maximum labor time: .3 hour Inspection per Controller
.7 hour Replacement per Controller

END

SERVICE BULLETIN

JULY 17, 1979 **No.** Q1020a **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☑ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC106

BOGIE ANTI-WHEEL LOCK SYSTEM

Converting Single Bogie Controller System to Axle-by-Axle System

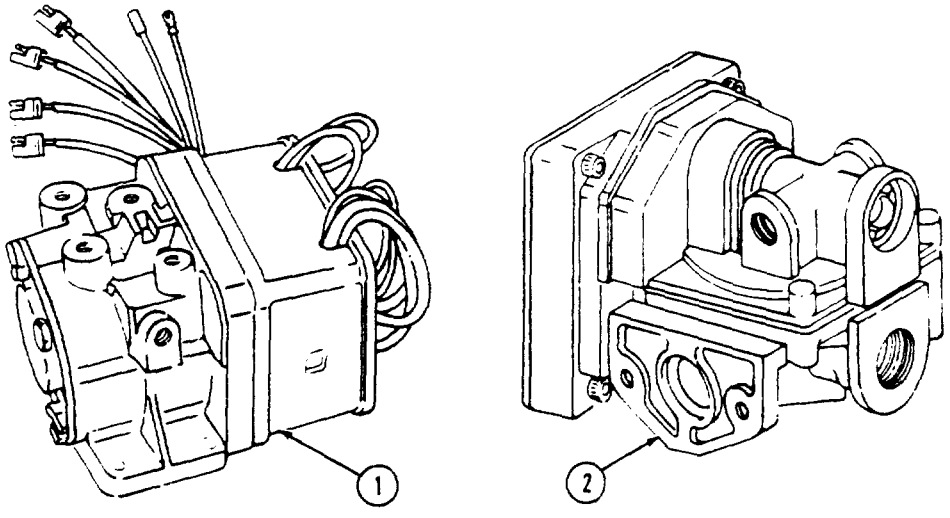
(F, R, U, DM, DMM, RM, MB, MR, MC, RD, WL, WS, RL, RS, RWL and RWS)

PURPOSE To provide instructions for converting vehicles originally equipped with a single bogie controller system to an axle-by-axle system and installing wheel speed sensors with larger gauge wires. This modification is the correction for controller malfunctions covered by Mandatory Safety Campaign SC106 and described in Service Bulletin Q1020 under BRAKES.

INFORMATION AND RECOMMENDATION Owners of vehicles affected by this campaign, who so desire, may have this modification performed at no charge. Because of a recent court ruling which negates the requirement for anti-wheel lock systems, it is the owner's option whether or not to have the anti-wheel lock system installed.

Procedure

Two systems, Eaton and Bendix are involved. With Eaton systems, two complete new valve/controller assemblies are used. With Bendix systems, only one new valve/controller assembly is required and a new controller is to be installed on present valve. Figure 1 illustrates the two types of valve/controller assemblies.



1. EATON VALVE/CONTROLLER ASSEMBLY
2. BENDIX VALVE/CONTROLLER ASSEMBLY

FIGURE 1
INDENTIFYING VALVE VALVE/CONTROLLER ASSEMBLIES

Page 1 (Continued Page 2)

CIRCULATION

Service Manager	
Shop Foreman	
Night Foreman	
Night Foreman	
Inspector Leadman	
Inspector Leadman	
Inspector Leadman	
Unit Overhaul Room	
Shop Office	

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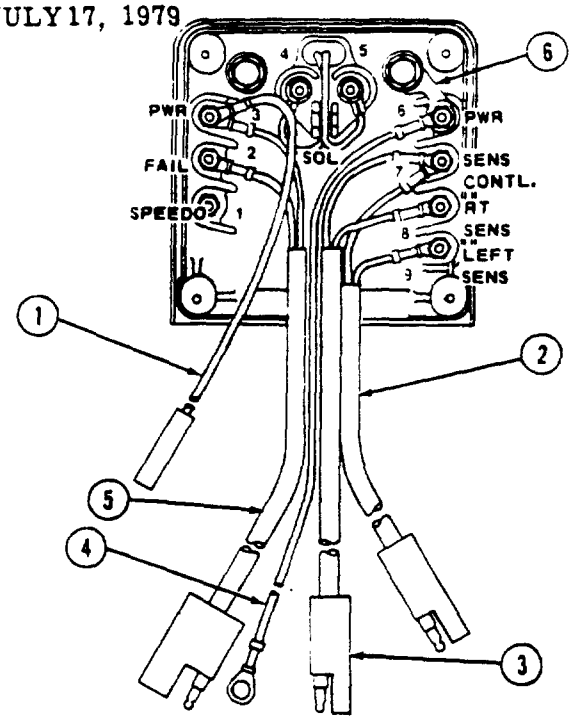
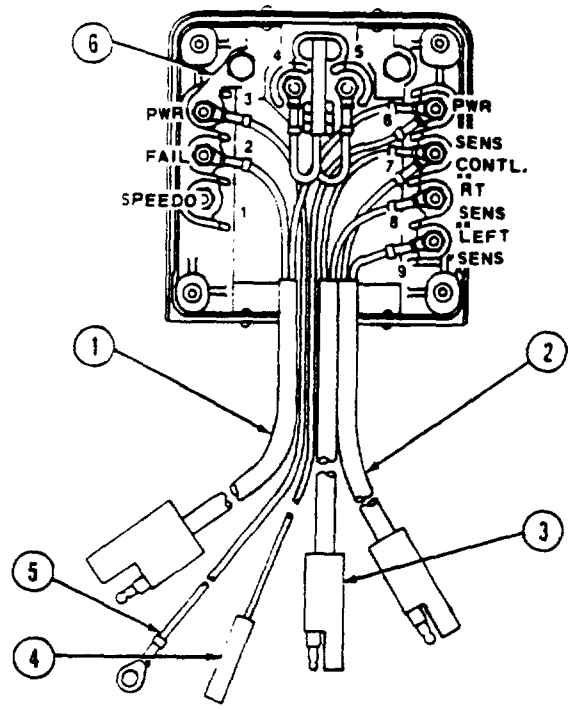


1. CONTINUITY WIRE (RED)
2. WHEEL SPEED SENSOR LEAD, L.H.
3. WHEEL SPEED SENSOR LEAD, R.H.
4. GROUND WIRE (WHITE)
5. POWER/WARNING LEAD (LARGE CONNECTOR)
6. GROUND LINK

FIGURE 3
BENDIX CONTROLLER CONNECTIONS -
TWO-SENSOR UNIT WITH NEGATIVE GROUND



1. POWER/WARNING LEAD (LARGE CONNECTOR)
2. WHEEL SPEED SENSOR LEAD, L.H.
3. WHEEL SPEED SENSOR LEAD, R.H.
4. CONTINUITY WIRE (RED)
5. GROUND WIRE (WHITE)
6. GROUND LINK

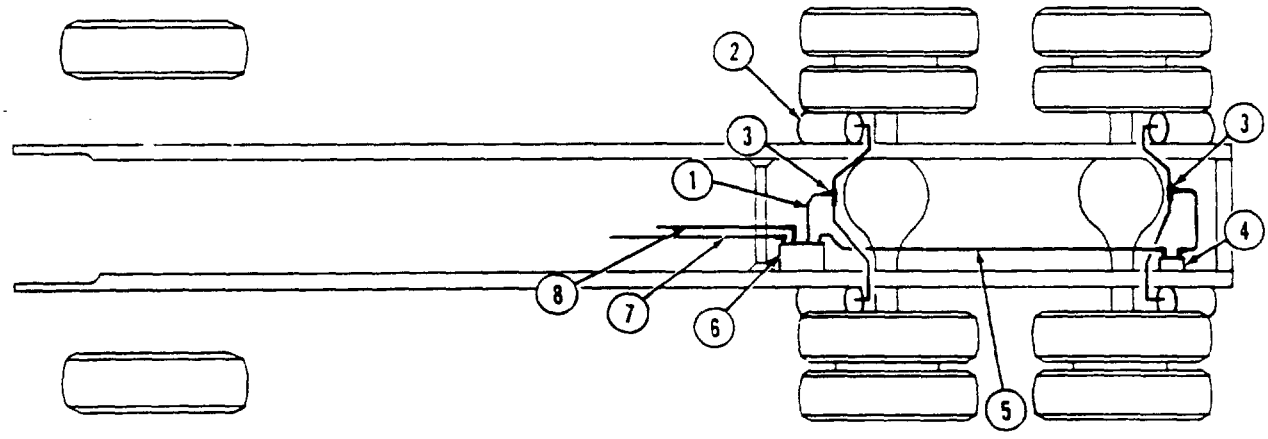
FIGURE 4
BENDIX CONTROLLER CONNECTION -
TWO-SENSOR UNIT WITH POSITIVE GROUND

EATON SYSTEM

If equipped with Eaton system, remove existing valve/controller assembly completely and install a new one. Reuse existing air supply line and power/warning lead.

BENDIX AND EATON SYSTEMS

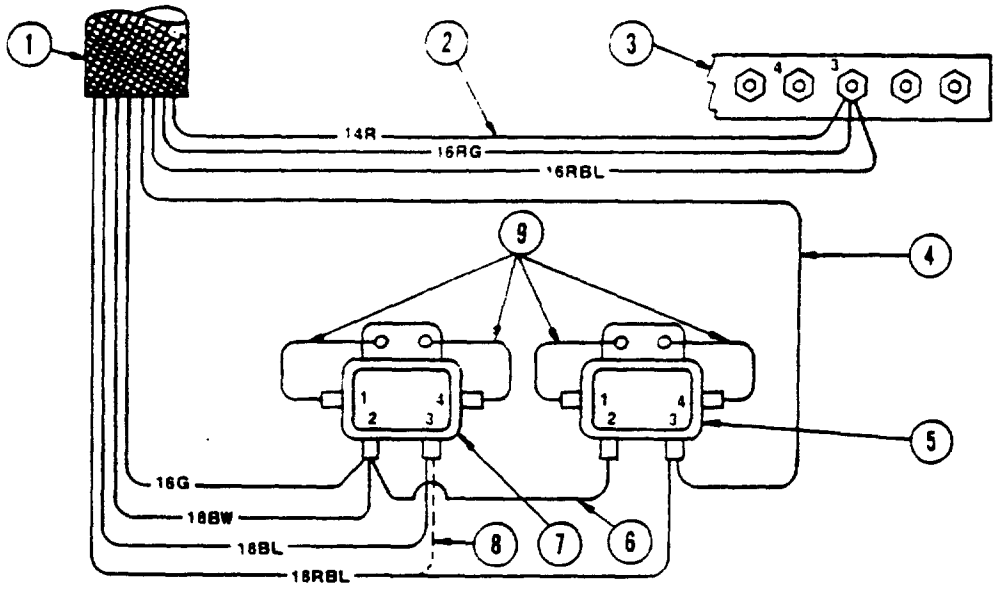
1. Controller Installation
   a. On both systems, remove and discard delivery line manifold fitting. It is mounted on left hand frame rail, adjacent to bogie rear axle. See Figure 5, Item 4.



1. DELIVERY LINE FOR BOGIE FORWARD AXLE BRAKES
2. BRAKE CHAMBER (4)
3. TEE FITTING
4. MANIFOLD
5. DELIVERY LINE FOR BOGIE REAR AXLE BRAKES
6. CONTROLLER
7. SUPPLY LINE FROM RESERVOIR
8. APPLICATION LINE FROM BRAKE VALVE

FIGURE 5
PIPING SCHEMATIC - BOGIE CONTROLLER SYSTEM
(TO BE REMOVED)

(Continued Page 4)



WIRE COLOR CODE:
B = BLACK R = RED RG = RED WITH GREEN TRACER BW = BLACK WITH WHITE TRACER
BL = BLUE G = GREEN RBL = RED WITH BLUE TRACER

1. CAB WIRING HARNESS
2. THIS WIRE REMOVED PER SERVICE BULLETIN Q1020 UNDER BRAKES. IT MUST BE RECONNECTED TO NO. 3 CIRCUIT BREAKER TERMINAL.
3. CIRCUIT BREAKER STRIP
4. #18 BLACK WIRE - PART OF CAB WIRING HARNESS. THIS WIRE IS NOT USED WITH SINGLE BOGIE CONTROLLER.
5. ADDED WARNING LIGHT RELAY
6. NO. 14 JUMPER WIRE (ADDED)
7. ORIGINAL WARNING LIGHT RELAY
8. REMOVE FROM ORIGINAL RELAY AND CONNECT TO ADDED RELAY
9. GROUND TO MOUNTING SCREWS.

FIGURE 7
RELAY WIRING DIAGRAM

Relay location is as follows:

R, RD, RM, DM, DMM and U models - On right hand side of dash panel inside cab, behind give compartment.

F models - In front of riders seat, underneath the defroster duct.

MB models - Behind electrical component access panel, in front of driver.

MC and MR models - In electrical equipment compartment on passenger side of engine cover, behind access panel.

WL and WS models - Behind access panel on passenger side of instrument panel, adjacent to the circuit breakers.

RL, RS, RWL and RWS models with Evans heater/air conditioner - Cab side of dash panel, below glove compartment.

RL, RS, RWL and RWS models with Red Dot heater/air conditioners - In center of cab above transmission tunnel.

c. Connect continuity cables as follows: See Figure 10.

Use existing cable for forward controller. Disconnect it from the cab harness (at dash panel), rotate 180 degrees and reconnect it, using male side of cab harness connector. Female side of cab connector is left open.

d. Run a new continuity cable, 41MR3527-P11 from rear controller forward to the cab harness at dash panel. Note from the illustration that the female side of the new continuity cable is to be connected to the female side of cab harness. To make this connection, it is necessary to fabricate an adapter cable having bullet type connectors at both ends. Make the cable from 14 gage wire (approximately 18 in. long) and two 0.180 diameter, SAE J928 connectors.

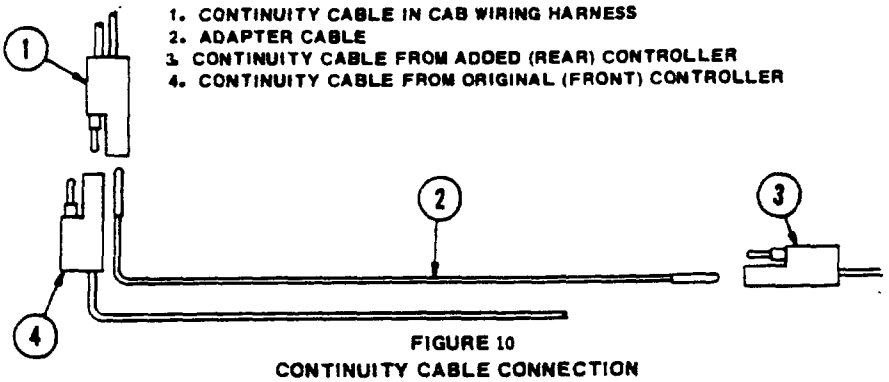
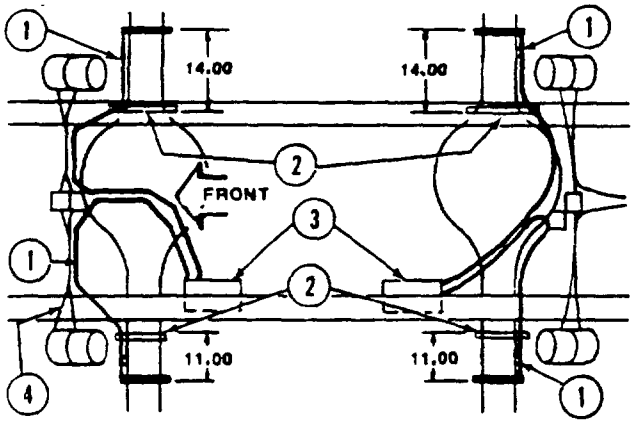


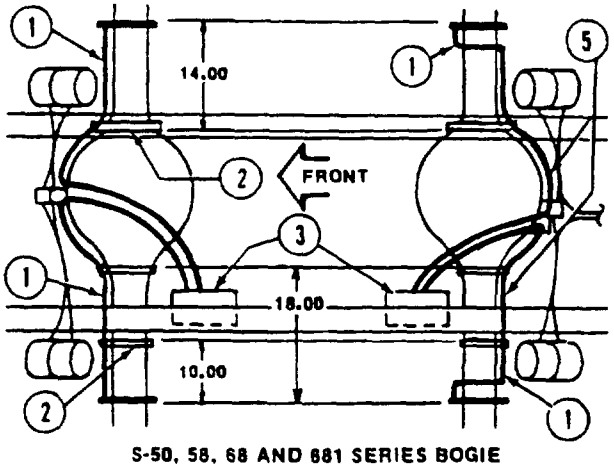
FIGURE 10
CONTINUITY CABLE CONNECTION

e. Connect the new relay into the circuit as shown in Figure 7. This includes reconnecting the wire removed per Service Bulletin Q1020 under BRAKES. In addition a jumper wire (14 gage) must be added to connect the No. 2 terminal of original relay to No. 2 terminal of the added relay.

f. Remove existing wheel speed sensors and replace with the new ones shown in parts list. These sensors have longer leads than original ones, eliminating need for the intermediate sensor harness. The harness should be discarded. Exercise caution when routing and clamping sensor wires to avoid damage caused by relative motion of axle and frame. See Figure 11.



S-34, 56, 38, 44, 57, 592 AND 65 SERIES BOGIE



S-50, 58, 68 AND 681 SERIES BOGIE

1. WHEEL SPEED SENSOR LEAD
2. SECURE SENSOR LEADS TO AXLE HOUSING WITH TIE BANDS
3. VALVE/CONTROLLER ASSEMBLY
4. SECURE SENSOR LEADS TO BRAKE HOSES WITH TIE BANDS (MAX. 6 IN. SPACING)
5. ROUTE SENSOR LEADS UNDER AXLE HOUSING (S-50,58,68 & 681 ONLY)

FIGURE 11
WHEEL SPEED SENSOR LEAD ROUTING

JULY 17, 1979

New Parts

Order campaign parts on Emergency/Breakdown Parts Requisition form XG10 and process throught the Service Parts Distribution Center normally serving your area. Prefix the requisition number you assign with "Z". This will insure parts so ordered will not be cancelled. Also, show "DO NOT CANCEL" on face of the requisition used to order parts for safety campaign corrections. Do not include parts on this requisition that are not required for the campaign.

NOTE
Order either Eaton or Bendix valve/controller assemblies, depending on type originally installed.

Qty.	Part Number	Description
2	5MN401R	Valve and Controller Assembly (Eaton-Neg. Grd.)
1	+ 5MN400R	Valve and Controller Assembly (Bendix-Neg. Grd.)
1	+ 5MN402R	Valve and Controller Assembly (Bendix-Pos. Grd.)
1	745-289359	Controller (Bendix-Pos. or Neg. Grd.)
1	41MR3516-P9	Power/Warning Lead (Tractor)
or 1	41MR3516-P13	Power/Warning Lead (Truck under 220 in. W.B.)
or 1	41MR3516-P15	Power/Warning Lead (Truck - over 220 in. W.B.)
1	41MR3527-P11	Continuity Cable
4	9MN32-P2	Wheel Speed Sensor
1	2MR240-P2	Relay
1	* 63AX53267R	Tee, 1/2 O.D. Tube x 3/8 O.D. x 3/8 NPT(App. Port)
1	* 63AX51599R	Tee, 5/8 O.D. Tube x 1/2 NPTF (Supp. Port)
or 1	** 63AX353	Tee, Flared Type, 3/8 NPTF X 1/2 O.D. Tube(App. Port)
or 1	** 63AX1799	Tee, Flared Type, 1/2 NPTF x 5/8 Tube (Supp. Port)
1	63AX1251	Bushing, 1/2 NPT x 3/4 NPT (Bendix only)
2	43MR21-P4	Connector, Bullet
-	550AX	Wire, 14 Gage Black

* Use with Synflex tubing
** Use with Wire Braid hose
\+ See Note Page 2

Removed Parts

Hold all removed parts for possible return.

Removed material disposition instructions will be provided with the credit memo copy of the RWR when returned.

Reimbursement

Submit an RWR to recover expenses incurred in making this installation, following procedure given in Service Bulletin AJ1000 under POLICY. Show following information on RWR form.

RWR MUST SHOW SERIAL NUMBER FOR BENDIX CONTROLLER REMOVED.

Under	Enter
Description of Failure	Service Bulletin Q1020a under BRAKES
Failed Part Number	SC106
Part Name	Anti-Wheel Lock
Maximum Labor Time	10.6 hours

END

SERVICE BULLETIN

AUGUST 16, 1979 **No.** Q1022 **under** BRAKES

FOR BRANCHES AND DISTRIBUTORS ONLY.

CHASSIS AFFECTED ALLENTOWN☑ HAYWARD☑ OAKVILLE☑

MANDATORY SAFETY CAMPAIGN

REF: SC113

ANTI-WHEEL LOCK VALVE
(R, RD, RM, DM, DMM, F, MB, HMM, U, RL, RS, WL and WS Models With Eaton System)

PURPOSE To provide a procedure for either repairing or permanently disabling the anti-wheel lock section of the anti-wheel lock valve. Some valves may malfunction and prevent application of the brakes on affected axle.

INFORMATION AND RECOMMENDATION Accumulation of fluid contaminants in the valve, generally caused by poor maintenance practices, can cause the anti-wheel lock lock valve piston t swell and possibly bind. During an anti-wheel lock cycle. it is possible for the anti-wheel loc piston to bind in a position where no air will be delivered to the brake chambers served by that valve on subsequent service brake applications. If this condition should occur, the reduced br: king power would result in increased stopping distances without prior warning to the driver.

Approximately 37,607 vehicles manufactured between October 1, 1974 and September 1, 1977 were equipped with the suspect valves. Valves affected are those bearing date codes 274-74 through 244-77 (See Figure 1). A list of these vehicles will be sent to affected branches and distributors.

NOTE

A small quantity of valves were shipped with a slightly modified body that should not be rebuilt. These valves carry date codes (Julian) 231-75 through 241-75, which are stamped on the outer edge of the top end cover. If one of the above mentioned valves is found to require repair, please call the nearest Eaton Truck Components branch, which will provide an exchange valve.

Northcentral (Kalamazoo, MI)	- 616/385-5400
Northeast (Allentown, PA)	- 215/797-7583
Southeast (Charlotte, NC)	- 704/372-5840
Southwest (Tulsa, OK)	- 918/622-0880
Western (San Leandro, CA)	- 415/562-7555
Canadian (Toronto, Ontario)	- 416/678-2497

Procedure

Two courses of action are available to correct this possible condition. The method used is at the vehicle owner's choice. They are as follows:

1. Repair valve using an approved rebuilt kit with piston of improved material. Refer to Section A.
2. Disable the anti-wheel lock capability of the valve. Refer to Section B.

NOTE

Method 2 cannot be used on vehicles equipped with high-torque front (steering) axle brakes unless the brakes are modified to be compatible with a non-anti-lock system. Brake modifications are to be made at customers expense and prior to any Mack Branch or Distributor disabling the anti-lock system.

CIRCULATION

Service Manager
Shop Foreman
Night Foreman
Night Foreman
Inspector Leadman
Inspector Leadman
Inspector Leadman
Unit Overhaul Room
Shop Office

Page 1 (Continued Page 2)

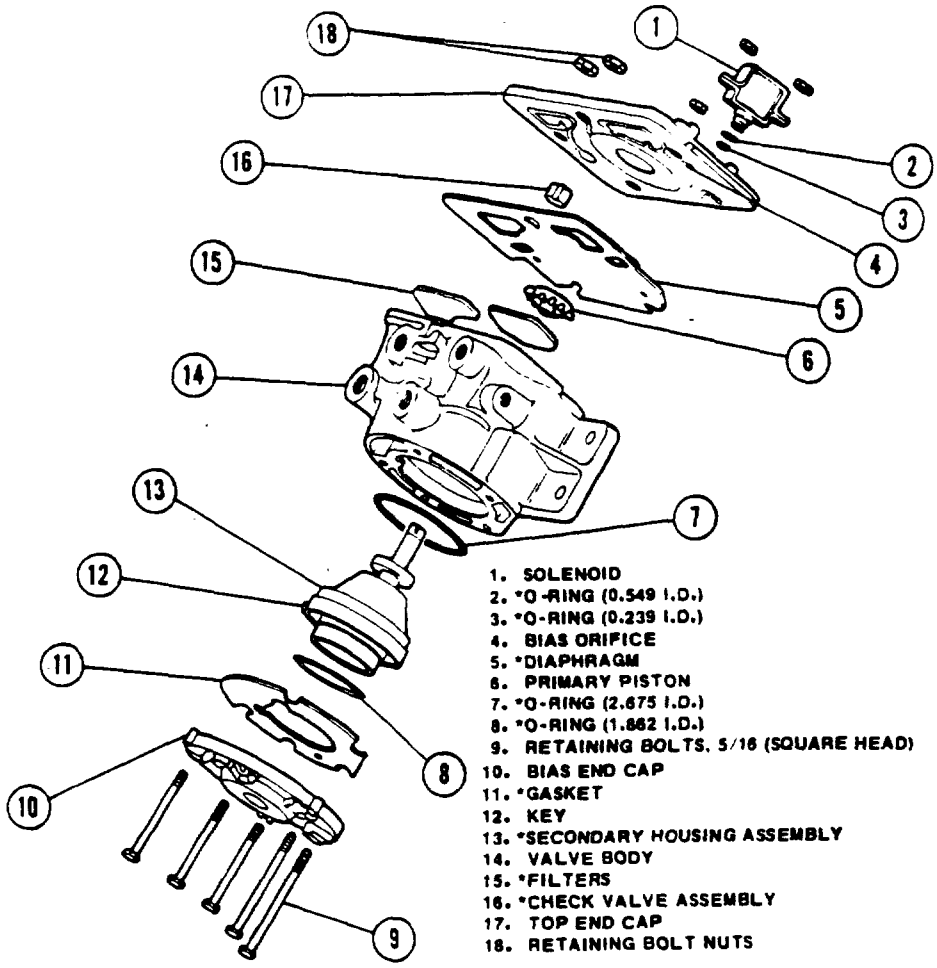


FIGURE 2
INSTALLING REBUILD KIT

Cleaning and Inspection

1. Wash all metal parts in good grade commercial cleaning solvent and dry thoroughly. Care will be necessary to see that sealing ridges on both end caps are not damaged through handling or reassembling.

2. Inspect all metal castings for cracks or breakage which may have occurred during operation. Threaded ports and valve seats should also be examined for damage. Do not use valves with damaged castings for rebuilding. If damage is evident, replace the valve.

3. Small amounts of adhesive were used to attach diaphragm and gasket to end caps during assembly. Any dried adhesive scale should be scraped from end caps. Care must be taken not to gouge surface area, to eliminate the possibility of leakage after reassembly.

4. Those used parts for which replacements are provided in the repair kit should be discarded.

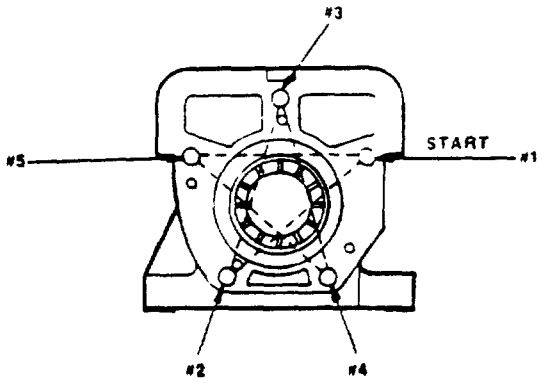


FIGURE 3
NUT TIGHTENING SEQUENCE

Test Procedure

Upon completion of the anti-wheel lock control valve rebuild procedure, the skid control valve should be given a full operational and leakage test. This can be done by reinstalling the valve on the vehicle or using a fabricated test fixture. An accurate pressure gauge with a minimum 2" face is recommended for checking delivery pressures. Additional gauges for reservoir pressure and application pressure are required for fixture testing.

1. After mounting the air valve, minus the controller, connect only the supply port to the line from the air supply reservoir for the first test.

2. Apply a soap solution at the exhaust port, completely covering the exhaust port round rubber baffle with the soap solution. Also place the soap solution around the edges of both the diaphragm and bias gasket.

3. Charge system reservoir pressure which feeds the valve supply port to approximately 100 p. s. i. Then check the soap solutioned areas to be sure there is no excessive leakage (1" bubble permitted in 3 seconds). If leakage exceeds this rate, check for damaged or displaced "O" rings and/or foreign material under supply valve seat. Reassemble and retest.

4. Connect application port to the application line coming from treadle valve. Connect delivery port so that the 2" air gauge is inserted into (a) an extra port in the service chamber, (b) a tee placed in the delivery line, or (c) an unused valve delivery port. This gauge is used for test procedure only, and is to be removed prior to operation of vehicle.

5. Again apply soap solution as in Step 2, plus at fitting ports and at the exhaust port. Proceed to next step.

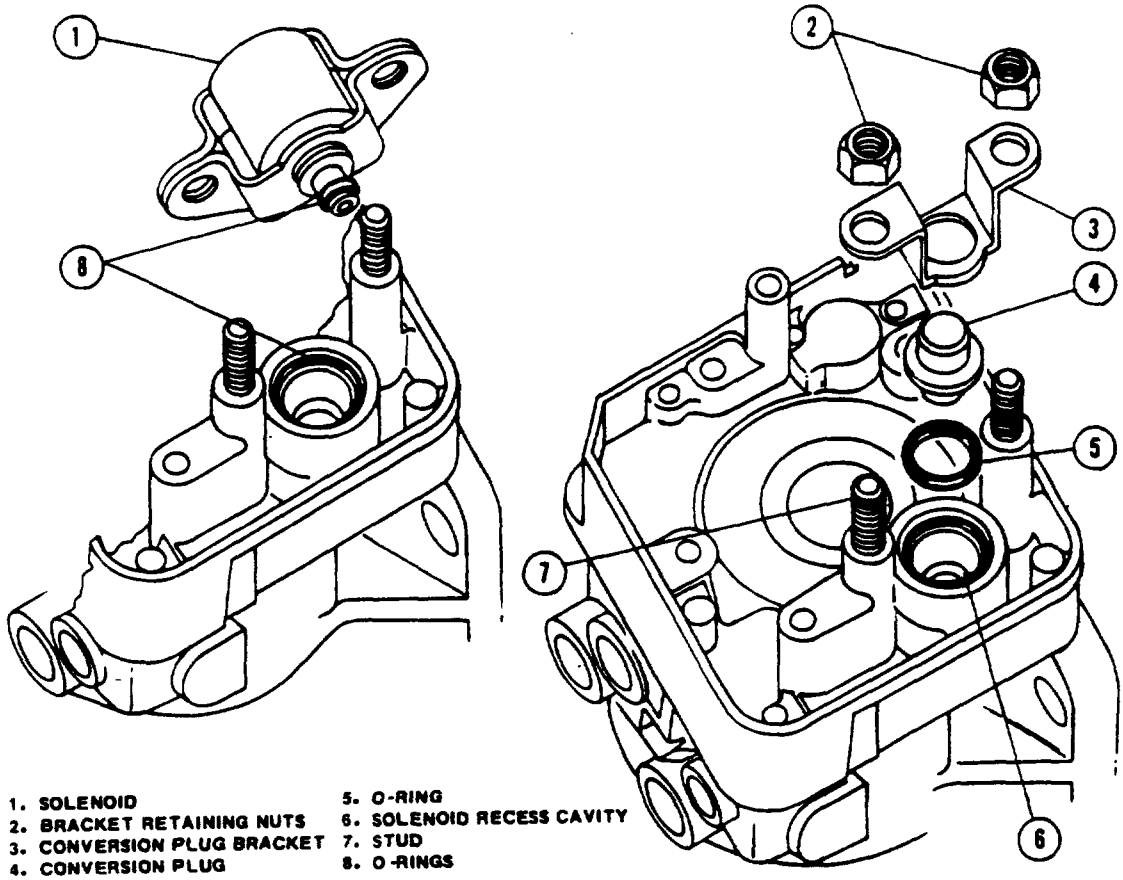
6. Make a full application to the service brake system. Check soap solutioned areas to again be sure there is no excessive leakage (1" soap bubble in 3 seconds is the acceptable industry leakage rate allowance).

7. Release application pressure after completing leakage test. Reapply full service brake rapidly and observe air gauge in the delivery line. The delivery pressure is to rise to within 10 p. s. i. of reservoir in less than 1 second.

8. When making a quick release of the application pressure (treadle valve), the delivery pressure should drop to zero p. s. i. in less than 1 second.

9. To check the skid control function of the relay valve, fully apply and hold brakes, and then apply 12 volts D. C. to the air valve solenoid terminal blades. This should fully exhaust the brakes within 1-2 seconds.

 (Continued Page 6)



1. SOLENOID
2. BRACKET RETAINING NUTS
3. CONVERSION PLUG BRACKET
4. CONVERSION PLUG
5. O-RING
6. SOLENOID RECESS CAVITY
7. STUD
8. O-RINGS

FIGURE 4
INSTALLING ANTI-WHEEL LOCK DISABLING KIT

1. After detaching the controller from the air valve assembly, remove the two 5/16 in. nuts (2) using a 1/2" socket or wrench, holding the solenoid on the mounting studs (7). (Save the two 5/16 in. nuts for reuse).

2. Carefully remove the solenoid (1) from its stud mounted position by lifting it straight up. If both "O" rings (8) do not come out with the solenoid, inspect the solenoid recess cavity to find them. Remove and discard them along with the solenoid.

3. Prior to installing the new "O" ring (5), clean the solenoid recess cavity of any dirt, grease or foreign material.

4. Lubricate the conversion plug"O" ring (5), with silicone grease and place it on the conversion plug (4).

5. Install the conversion plug (4) in the solenoid recess cavity with the "O" ring down.

6. Place the conversion bracket (3) onto the solenoid mounting studs (7).

7. Install the two 5/16 in. nuts (2) on the studs (7) and tighten to 125-150 lbs. in. torque.

8. Check the conversion kit for leakage by applying and holding a full brake pedal application while covering the area around the conversion plug with soap and water. No leakage is permitted.

Reimbursement

All expenses incurred in this campaign are to be recovered through RWR procedures as instructed in Service Bulletin AJ1000 under POLICY. Submit an RWR for each vehicle campaigned. Include following information on RWR form.

Under	Enter
Description of Failure	Service Bulletin Q1022 under BRAKES
Failed Part Number	SC113
Part Name	Anti-Wheel Lock Valve

Maximum labor allowance:

Installing rebuild kit	1.6 hours
Installing disable kit	0.4 hours

END

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CHRIS N. KOLOS

July 17, 1997

David M. Lipman, Esq.
599 SW 74th Street
Suite 304
Miami, FL 33143

Re: ***Anne M. Tinker, Executrix of the Estate of Timothy W. Tinker, Deceased vs. A.E. Clevite, et al.*** **Ontario County Index No. 83778.**

Dear Mr. Lipman:

My letter of July 2, 1997 was not quite right. Enclosed please find what truly is the final production to be made by Mack Trucks, Inc. in response to paragraphs 7 and 11 of Plaintiff's Request for Production.

If you have any questions regarding the above, please do not hesitate to contact me.

Sincerely,

Chris N. Kolos

CNK:jo
Enclosures