Reliability Driven™

Service Bulletin No. 3080

MODEL	TYPE	SECTION/GROUP	DATE
E4500 / J4500 Series Coaches w/ Disc Brakes – EX225	Service Information	4 – Brakes and Air System	May 22, 2013

SUBJECT: CORRECT FUNCTION OF AIR BRAKE SYSTEM WITH DISC BRAKES – EX225

CONDITIONS: Service Information Only

Description:

The following procedure outlines the operational checks for the primary and secondary brake system and the park brake automatic actuation operation on the MCI E4500/ J 4500 series coaches equipped with ARVIN/Meritor EX 225 disc brakes.

NOTICE

MCI E4500/J4500 coaches have an emergency park brake air tank that is isolated from the service brake air tanks. The primary and secondary air gauges monitor only the service brake tanks.

Service Procedure:

⚠WARNING

Read this entire procedure before beginning work.

Use Safe Shop Practices At All Times.

NOTICE

This vehicle configuration can be identified as having spring brake chambers with two air lines on the drive axle and two park brake valves located in the driver's area as shown in Figure 1. The park brake valve (Item 1 in Figure 1) is used to apply and release the park brake under normal operating conditions. The emergency park brake release valve (Item 2 in Figure 1) is used in the event there is a sudden loss of air in the service brake air system below 45 psi, which would actuate the park brake system. If the emergency park brake release valve is pressed and held by the driver, the system then applies air to the park brake system, allowing the operator to move the coach to the side of the road, if required.

1. Apply park brake.
2. Chock both sides of the tires.
3. Press the MASTER POWER SWITCH to the ON position, but do not engage the ENGINE START SWITCH.
4. Using the service brake foot valve, make several applications until the air pressure gauge on the dash reads below 80 psi on both needles.
5. Start the coach. Allow the air system pressure to reach governor cut – out. Turn the engine OFF.

Figure 1. Lower, LH console.

ITEM	DESCRIPTION
1	**Park brake valve**
2	**Emergency park brake release valve**

6. Press the MASTER POWER SWITCH to the ON position, but do not engage the ENGINE START SWITCH.
7. Monitor the pressure gauges on the dash for any air system leakage. Repair any leaks.
8. Release the park brakes. The brakes on the drive axle will release.
9. Apply service brake valve. The brakes on all axles will engage.
10. Exhaust the primary service air tank located just behind the drive axle. The air pressure of the primary gauge in the driver's area will indicate the loss of air pressure.
11. Apply the service brake valve. The front and drive axle brakes will engage.
12. With the primary service air tank still without air pressure, exhaust the secondary air tank mounted behind the front axle. When the air pressure in the brake system drops below a nominal 45 psi, the park brake valve (Item 1 in Figure 1) will automatically actuate and the brakes on the drive axle will engage.
13. With still no air pressure in the primary and secondary air tanks from Step 12, apply and hold down the emergency park brake release valve (Item 2 in Figure 1). The brakes on the drive axle will release. When the force holding down the emergency park break release valve is removed, the air in the system will exhaust and the drive axle brakes will engage.

NOTICE

There should be enough air to allow three park brake overrides before the system is exhausted.

14. To check the secondary brake system, start the coach and build up the air pressure to air governor cutout. Turn the engine OFF.
15. Press the MASTER POWER SWITCH to the ON position, but do not engage the ENGINE START SWITCH.
16. Release the park brakes.
17. Drain the secondary service reservoir.
18. Apply the service brake valve. The drive and tag axle brakes will engage.
19. Start the engine and bring the air pressure to air governor.

Procedure complete.