



INSTRUCTION TO SERVICE

ITS: 58950

SECTION:	246 AIR, BRAKE & LEVELLING SYSTEM.
WRITTEN BY:	Michael Rooney
SUBJECT:	Remove and replace front air springs.

ITS58950

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PROCEDURE:

1. Turn the main battery disconnect switch to the "OFF" position.
2. Drain the air from the air system.
3. Raise coach in accordance with the New Flyer Service Manual using wheel lifts and support chassis with jack stands.
4. Using the wheel lifts, lower the front suspension so that there is 3" (76 mm) of clearance between the top of the axle and the front axle bump stops.
5. Disconnect the air-line at the top of the air spring.
6. Remove the lower nut attaching the air spring to the lower mounting plate. Set the hardware aside for reuse.
7. Remove the nuts and washers securing the top of the air spring to the chassis. Set the hardware aside for reuse.
8. Slide the air spring out of the chassis.
9. On the work bench, remove the 90 deg elbow fitting and air line connector from the air spring. Note the installation direction of the fitting.
10. Check the label on the new air spring NF P/N 303734 to ensure it is the latest revision.
 - a. The label on the top of the air spring should have a #4 at the top. The date code at the bottom right of the label should read 20-080 or higher. Figure 1.



Figure 1: Air Spring Label.

11. Install the 90 deg elbow fitting and air line connector previously removed from the old air spring on the new replacement air spring. Install the fitting finger tight using Loctite 567 NF P/N 8110442 on the threads then apply 1 – 1.5 turns past finger tight and align the fitting with the installation orientation previously noted.
12. Align the stud in the bottom of the air spring with the hole in the lower mounting plate. Install the mounting hardware removed earlier.
13. Align the studs on the top of the air spring with their respective mounting holes and install the mounting hardware removed previously.



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14. Torque the upper and lower mounting hardware to spec:
 - a. Torque the lower spring to mounting plate hardware to 20 FT-LBS using Never Seize NF P/N 5928660 on the threads.
 - b. Torque the upper $\frac{3}{4}$ " UNC hardware to 45 FT-LBS using Never Seize NF P/N 5928660 on the threads.
 - c. Torque the upper $\frac{1}{2}$ " UNC hardware to 20 FT-LBS using Never Seize NF P/N 5928660 on the threads.
15. Reconnect the $\frac{1}{2}$ " air line to the air spring.
 - a. Install the air line connector nut finger tight then apply 4 turns past finger tight.

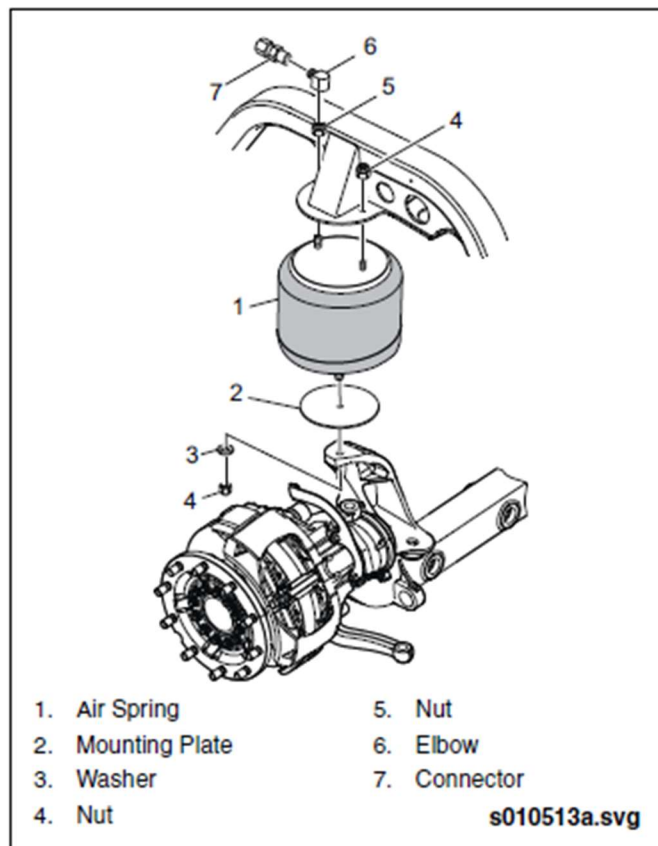


Figure 2: Air Spring Installation (street side)

16. Repeat steps 5 – 15 to replace the air spring on the other side of the bus.
17. Lower bus in accordance with the New Flyer Service Manual.
18. Turn the main battery disconnect switch to the "ON" position.
19. Start the bus and allow the air system to build up air pressure.
20. Check for leaks at the air spring air line connections and repair as necessary.
21. Remove all tools and debris and return the bus to service condition.



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LABOUR ESTIMATE

	Operation	People	Hours	Labor Time
1	Remove and replace front air springs.	1	1.5	1.5

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	303734	BELLOWS AIR SPRING 1T15L-4	2	EA	
2	5928660	NEVER SEIZE	0.010	EA	
3	8110442	LOCTITE 567 THREAD SEALANT	0.010	EA	

SPECIAL TOOLS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1		NO SPECIAL TOOLS REQUIRED			