



INSTRUCTION TO SERVICE

ITS: 6413	
SECTION:	549 – HVAC
WRITTEN BY:	Scott Geier
SUBJECT:	Replace vertical booster pump to a horizontal booster pump.

ITS- 6413

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Issue: Vertical mounted coolant booster pump install in a horizontal mounting position affecting the life of the pump.

Solution: Install the correct horizontal mounting coolant booster pump.

PROCEDURE:

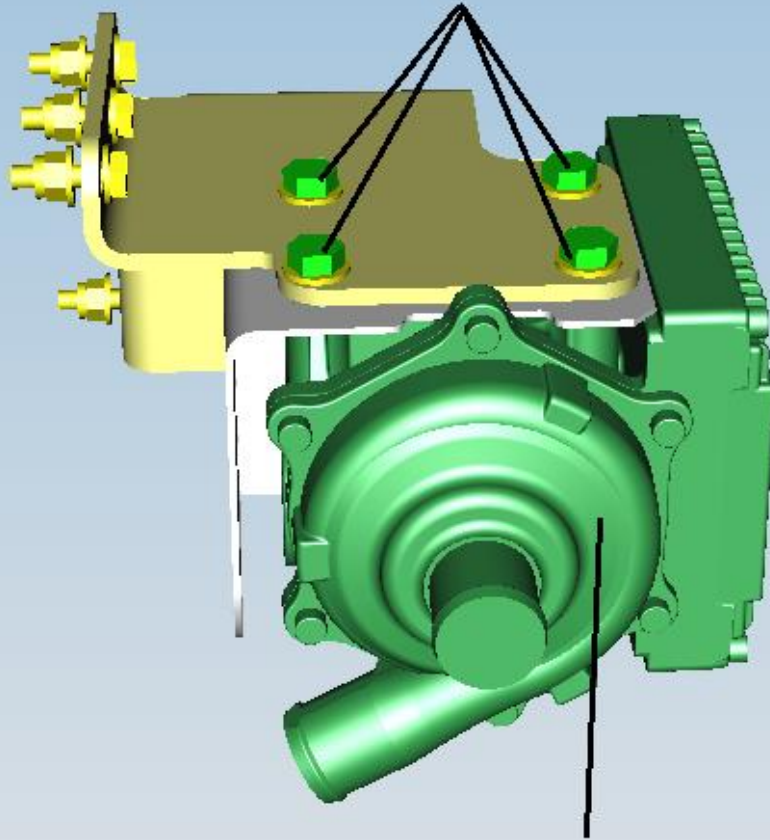
Removal:

1. Set the Battery Disconnect switch to the “OFF” position.
2. Locate the booster pump. Refer to the New Flyer Parts or Service Manuals, as required.
3. Close coolant shut off valves on the supply and discharge lines of the pump assembly.
4. Disconnect electrical connections.
5. Disconnect coolant lines from the pump.
6. Remove bolts from mounting bracket and remove pump assembly from vehicle.
7. Record the serial number and discard pump assembly.

Installation:

8. Install new pump assembly (NF PN: 651007) using hardware bolts M8 – 1.25 X 25 (NF PN: 005689) and 5/16 Flat Washers (NF PN: 10W05000). Torque hardware to 12 ft.-lbs. Record the serial number. See figure 1.
 9. Reinstall coolant lines to the pump assembly. Torques clamps to 80 in-lbs.
 10. Reconnect electrical connections.
 11. Open all coolant shut off valves.
 12. Set the Battery Disconnect switch to the “ON” position.
 13. Top off coolant level and perform a “Heating System Filling & Deaeration” procedure.
- NOTE: Refer to “Heating System Filling & Deaeration” in the maintenance manual.
14. Check for leaks and repair as necessary.

**005689 Bolt M8 X 1.25 X 25 CL 10.9
10W05000 Washer-Flat 5/16**



**651007 Pump-Booster
EMP WP 32 3000 RPM**

Figure 1: EMP Booster Pump Installation.



LABOUR ESTIMATE				
	Operation	Men	Hours	Labour Time M X HR
1	Remove & Install booster pump & Deaeration Cooling System	1	2	2

Total Man hrs. 2 hrs.

PARTS REQUIRED FOR BOOSTER PUMP LINE RETROFIT					
Item	Part Number	Description	Qty. per Coach	Units	Notes
1	651007	Pump-Booster EMP WP 32 3000 RPM	1	EA	
2	10W05000	Washer-Flat 5/16	4	EA	
3	005689	Bolt-M8 - 1.25 X 25 CL 10.9	4	EA	
4	553150	Clamp Ideal Wave Seal .5625-1.19	2	EA	