



SERVICE MANUAL BULLETIN

This Service Manual Bulletin is prepared by the Publications Department of New Flyer Industries Canada ULC. Refer to details below.

SMB-170

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APPLICABILITY				
VEHICLELENGTH	<input type="checkbox"/> 30ft.	<input type="checkbox"/> 35ft.	<input type="checkbox"/> 40ft.	<input type="checkbox"/> 60ft. <input checked="" type="checkbox"/> ALL
VEHICLE TYPE	<input checked="" type="checkbox"/> Xcelsior®	<input type="checkbox"/> MiDi®	<input type="checkbox"/> Invero®	<input type="checkbox"/> ALL
	<input type="checkbox"/> Low Floor	<input type="checkbox"/> High Floor		
FUEL TYPE	<input checked="" type="checkbox"/> Diesel	<input checked="" type="checkbox"/> Diesel/Electric	<input type="checkbox"/> CNG	<input type="checkbox"/> LNG <input type="checkbox"/> ALL
	<input type="checkbox"/> Fuel Cell	<input type="checkbox"/> Trolley/Electric	<input type="checkbox"/> Battery/Electric	
SUBJECT	DEF Tank Suction Filter			
SECTION TITLE	PM - PREVENTIVE MAINTENANCE			
DETAILS	<p>This Bulletin provides corrected information on the replacement of the DEF tank suction filter on your New Flyer Vehicle.</p> <p>This information supersedes any prior information on this subject already provided in your New Flyer Service Manuals. Make this Service Bulletin available to service personnel to inform them of changed information.</p>			

1. DEF Tank Suction Filter

 **NOTE:**

The DEF tank filter replacement interval will be dependent on operating and environmental conditions. Manually filling the tank through the filler cap offers potential for entry of contaminants. Adjust to a more frequent replacement interval if suction filter appears dirty or has an accumulation of DEF crystals.

Replace the DEF tank inlet filter every 200,000 miles (321,000 km) or 6,500 operating hours, whichever occurs first, as follows:

 **NOTE:**

The multi-function head unit assembly (MFHU) must be removed from the DEF tank in order to replace the inlet filter.

1.1. MFHU Removal

1. Set the Battery Disconnect switch to the OFF position.
2. Disconnect the electrical connectors, coolant lines, and DEF fluid lines from the multi-function head unit assembly of the DEF tank. See [“Fig. PM-1: DEF Tank MFHU” on page 3.](#)
3. Mark the position of the MFHU relative to the DEF tank.
4. Remove the two T25 Torx screws securing the retaining ring to the tank and remove the retaining ring.



DO NOT pull on wiring harnesses or fittings when trying to remove filter head from tank.

5. Use a flat head screwdriver to gently pry under the head unit while simultaneously pulling on the top of the unit. Continue prying and pulling until the mounting base is free from the tank.



DO NOT pull directly upward on MFHU when removing it from the tank as this might damage the head unit and seal bore. ALWAYS angle the unit out of the tank to prevent damage.

6. Pull the MFHU upward until the foot of the sensor unit approaches the opening in the tank. Rotate the MFHU and angle the heel of the sensor foot upwards into the tank bore. Carefully lift the MFHU until completely free of the tank bore.

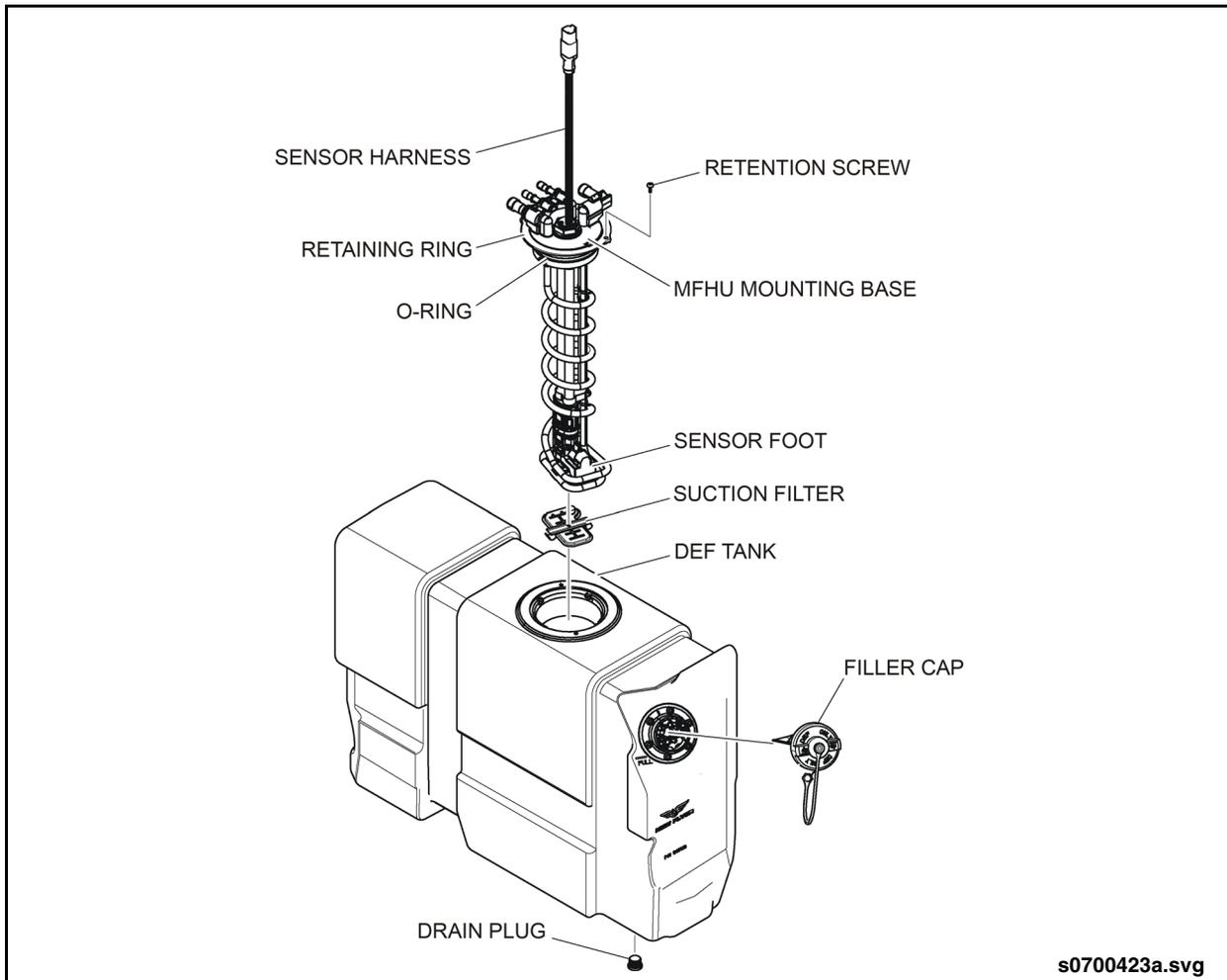


Fig. PM-1: DEF Tank MFHU

1.2. Suction Filter Replacement

1. Remove the filter retention screw located on the bottom of the filter. Discard the screw. See "Fig. PM-2: Suction Filter" on page 4.
2. Remove and discard the upper and lower filter mounting brackets.
3. Pull the filter off the suction tube and discard the filter.

NOTE:

Examine the filter and if extremely dirty or contaminated, it is recommended that the tank be cleaned internally.

4. Insert the new upper filter bracket through the gap between the heater tubes and the bottom of the sensor.
5. Position the new lower filter bracket at the bottom of the heater tube and hold parallel with the upper filter bracket.
6. Position the suction tube housing of the new filter onto the bottom of the suction tube and press the filter upward toward the bottom of the sensor foot. Ensure the suction tube is fully engaged within the tube housing of the filter.
7. Align the upper and lower filter brackets so that the filter retention screw can thread into the upper bracket.
8. Install a new retention screw and torque to 14 to 18 in-lbs.

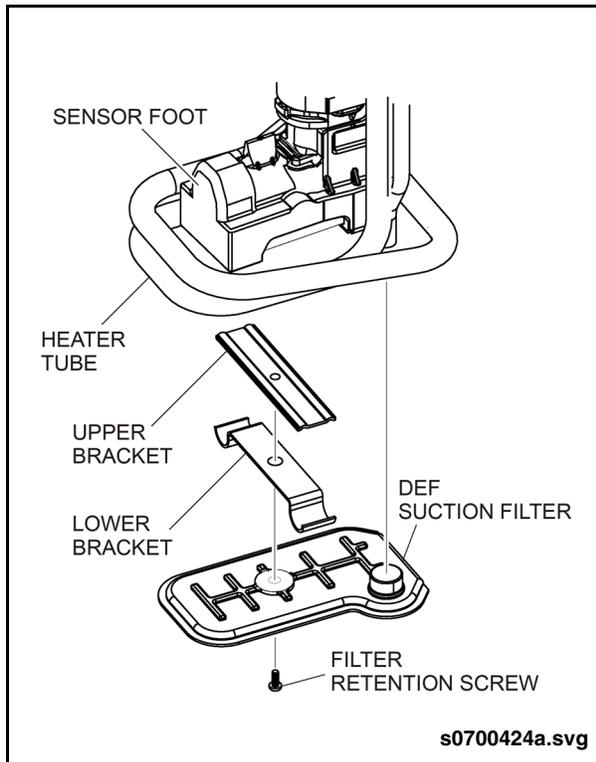


Fig. PM-2: Suction Filter

1.3. MFHU Installation

1. Apply a thin layer of O-ring lubricant to the bore seal O-ring and install on the MFHU mounting base. Use only DOW UCON LB-625 lubricant or Shaw approved equivalent.



DO NOT push the MFHU directly into the tank as this could damage the unit or the tank bore.

2. Tilt the MFHU to approximately 45° with respect to the tank bore. Place the toe of the sensor foot into the bore. Carefully work the unit through the bore until the bottom of the unit and filter are inside the tank.



DO NOT press directly on the fittings when installing the MFHU into the tank.

3. Position the MFHU as marked during removal and press the on the top of the blue mounting base until completely seated in the tank bore.

NOTE:

The lugs on the MFHU mounting base should align with the cut out/recess on the tank bore.

4. Replace the retaining ring on the head unit and install the two T25 Torx screws. Torque the screws 20 to 30 in-lbs.
5. Reconnect the electrical connectors, coolant lines, and DEF fluid lines to the MFHU.
6. Reset Battery Disconnect switch to ON position.
7. Start engine and check for coolant or DEF line leaks.