#### FT5239 CATA Spheros Maintenance Access (MQR 7621-2232) Manual/manuel, section: Technical writer name / nom rédacteur technique: André Pelletier 14 Labour level 1 / Part # / # de QTY / Parts/ pièces, description main d'oeuvre 1h MQR 7621-2232 pièce Qté niveau 1 HOSE ASSEMBLY 801 PUSH-LOK N95835-10 1 BRACKET N13876 1 MOUNT FIR TREE CABLE TIE N57807 1 N38593 2 Disposal of parts / disposition des pièces NUT LOCKNYL FL M6 ZP Removed parts are / les pièces When the retained check box is check, the parts must be retained and 2 SCREW M6X25 H YZ TRIV 96H 8.8 N44881-02 retirées sont: returned in accordance with the usual warranty procedure to be reimbursed Discarded / jetées Retained/conserve / Pour être remboursées, les pièces doivent être conservées et retournées selon le processus de garantie habituel. х

Client	Order	Road numbers		VIN		QTY	NR	R1
Capital Area Transportation Authority Michigan - CATA	LD34	719	730	L82J8L9777730	L82J2L9777741	12	х	
Capital Area Transportation Authority Michigan - CATA	LD35	6016	6018	S92J3L9777742	S92J7L9777744	3	х	

Jean-Nicolas Fournier DN: cn=Jean-Nicolas Fournier, o=Nova Bus, email=jean-nicolas.fournier@volvo.com, c=CA Date: 2022.04.04 10:49:30 -04'00'



#### **A) VEHICLE PREPARATION**

#### STEPS:

- 1. Park the vehicle on an even surface with transmission on neutral (N) and apply the parking brake.
- 2. Set the Master Control Switch in STOP position (see figure 1).
- 3. Before starting any work on the vehicle, make sure that the vehicle is completely and securely stationary.
- 4. Place the battery disconnect switch in **OFF** position in the batter y compartment.

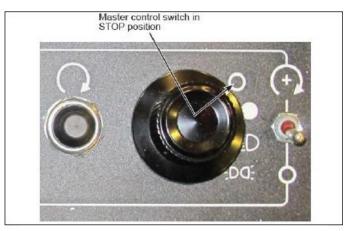


Figure 1 – Master Control Switch in STOP Position





**Bill Of Materials** 

Item	Part #	QTY	Units	Description
1	N95835-10	1	PC	HOSE ASSEMBLY 801 PUSH-LOK
2	N103876	1	PC	BRACKET
3	N57807	1	PC	MOUNT FIR TREE CABLE TIE
4	N38593	2	PC	NUT LOCKNYL FL M6 ZP
5	N44881-02	2	PC	SCREW M6X25 H YZ TRIV 96H 8.8



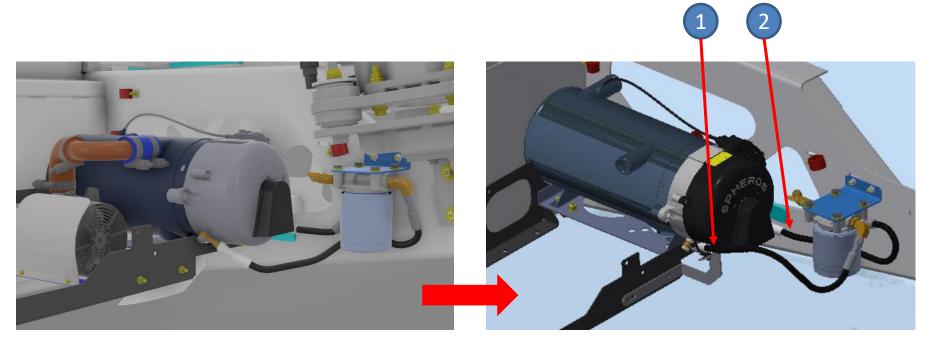


Work Instructions

### **Description of Work:**

- 1) The existing hose will have its routing modified with an additional bracket to secure its position to avoid contact with the dust pan.
- 2) A new hose (longer) will be installed to allow the auxiliary heater to swivel properly during maintenance.

Note: See slides 8-9 for NPT fittings installation guidelines.

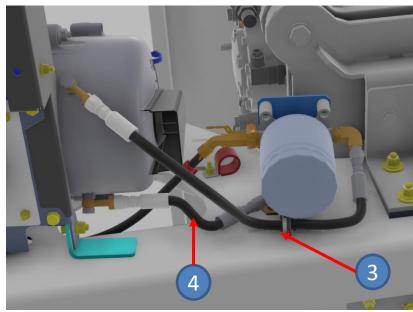


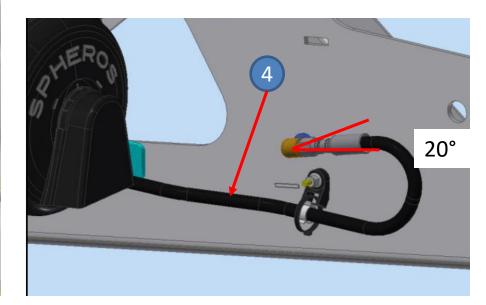




Work Instructions

- 1) Lift the bus and open (or remove) the dust pan to gain access to the auxiliary heater.
- 2) Shut off the valve on the fuel filter.
- 3) Cut the tie-wrap on the long hose and move it out of the way.
- 4) Remove the short hose and replace with the new hose N95835-10, following the routing shown below. Make sure to leave an appropriate distance relative to the compressor plates.
- 5) Route the beginning of the hose at a 20 degree angle upwards. See slide 8.
- 6) Secure with a tie-wrap in the existing mount on the structure. Torque auxiliary heater side fittings to 15Nm.







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Work Instructions

5) Loosen the fittings on the longer hose and install new bracket N103876 on the auxiliary

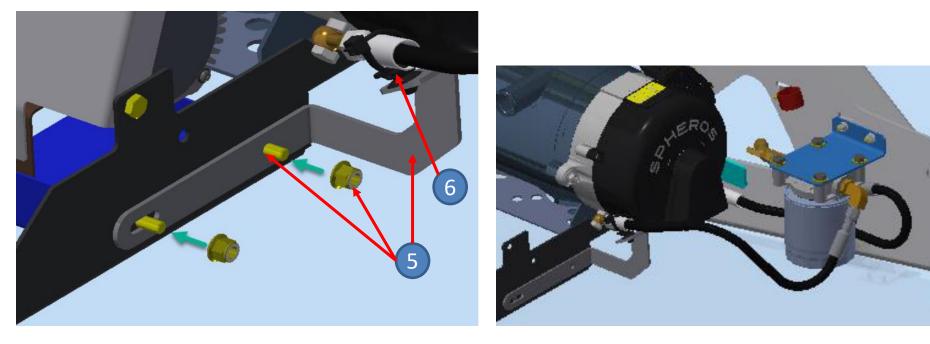
heater cradle. Use new hardware N44881-02 and N38593 to secure the bracket.

6) Install tie mount N57807 on the bracket to orient and route the longer hose.

7) Torque auxiliary heater side fittings to 15Nm.

8) Test to ensure the pivoting of the auxiliary heater cradle works well.

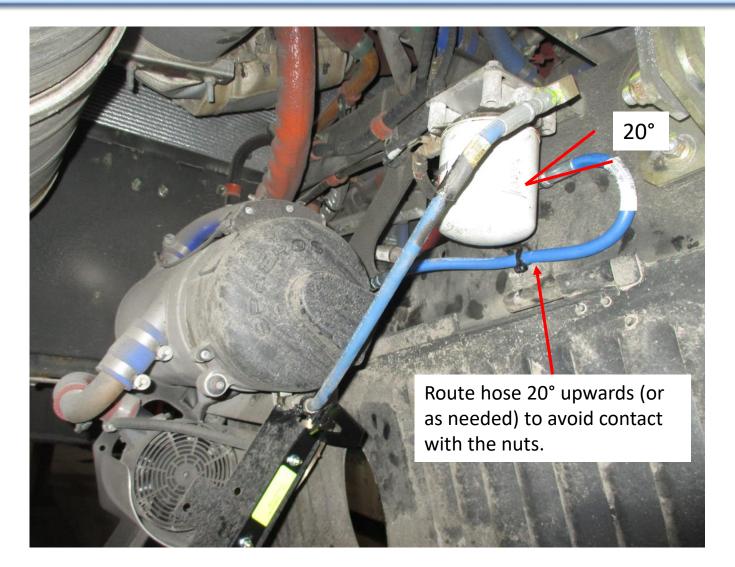
9) Close the pivot. Open the valve on the fuel filter and close all compartments.







Work Instructions





Work Instructions

10) To purge the air from the fuel lines, connect the service tool through the datalink at the rear run box.

11) Start the marine pump, start the heater and monitor.

\*It may require 2-3 cycles to purge the air from the fuel filter and lines before ignition. Monitor through 1 complete heat cycle (180F).

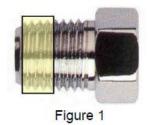




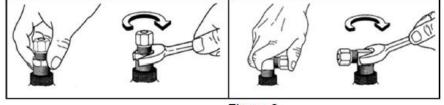
Work Instructions

#### PROCEDURE

- 2.1 Assembly of brass fittings NTP or NPTF
  - 2.1.1 Degrease threads (as needed).
  - 2.1.2 Inspect the treads for any damage or material flaw.
  - 2.1.3 Apply an even coat of liquid sealant over the entire circumference of the first four threads of the male coupling (see figure 1).



- 2.1.4 First, screw in the adaptor or fitting by hand to ensure threads are correctly engaged and tighten as much as possible by hand.
- 2.1.5 Tighten the fitting by hand (see figure 2).
- 2.1.6 Using a wrench, tighten an additional 1-1/2 to 2-1/2 turns (see figure 2).









Work Instructions

For elbows and tees, if the fitting must be reoriented to simplify connection, **ALWAYS** turn clockwise to prevent leaks. **NEVER LOOSEN**.

Tightening with such fittings should always be done with a manual wrench – **DO NOT** use an impact wrench. Brass is a fragile material and it has a poor resistance to impact and vibration.

This section holds true for all types of connectors. (reducers, tees, elbows, extensions, etc.)

When applying sealant, there must be no liquid sealant inside the coupling.

