

PREVOST

Instruction Sheet

IS-17908

550057 FAN CLUTCH FIRST INSTALLATION – Long Fan Drive

X Series from 4-8165 up to 8-9326

H Series from 4-4758 up to 7-1038

DESCRIPTION

A mounting bracket modification is required on the first installation of fan clutch 550057 *with locking tabs* on **long fan drive** for side by side radiator and CAC configurations. This fan clutch is a substitute for 550839 and 550966.

For additional information on the locking method of this fan clutch, refer to [MI16-08](#).

MATERIAL

FOR *SIDE BY SIDE* RADIATOR & CAC, LONG FAN DRIVE

Order kit **IS17908**

Part No.	Description	Qty
550057	Fan clutch with locking tabs	1
506064	Multi V-belt /12 Rib 83.5"	1
5001758	Nut, Stover, M10-1.5	4
500897	Washer, flat, 0.437X1.00X0.083	4
IS-17908	INSTRUCTION SHEET	1
FI-17908	FEUILLE D'INSTRUCTIONS	1

NOTE

Material can be obtained through regular channels.

PROCEDURE



DANGER

Park vehicle safely, apply parking brake, stop engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position.

1. First installation on LONG FAN DRIVE for side by side radiator and CAC

- 1.1. When installing fan clutch 550057 with locking tabs on long fan drives for the first time, the opening on the mounting support might be too narrow, preventing the fan clutch from being installed.
- 1.2. The mounting support opening will need to be enlarged on each side. According to dimensions in Figure 1.

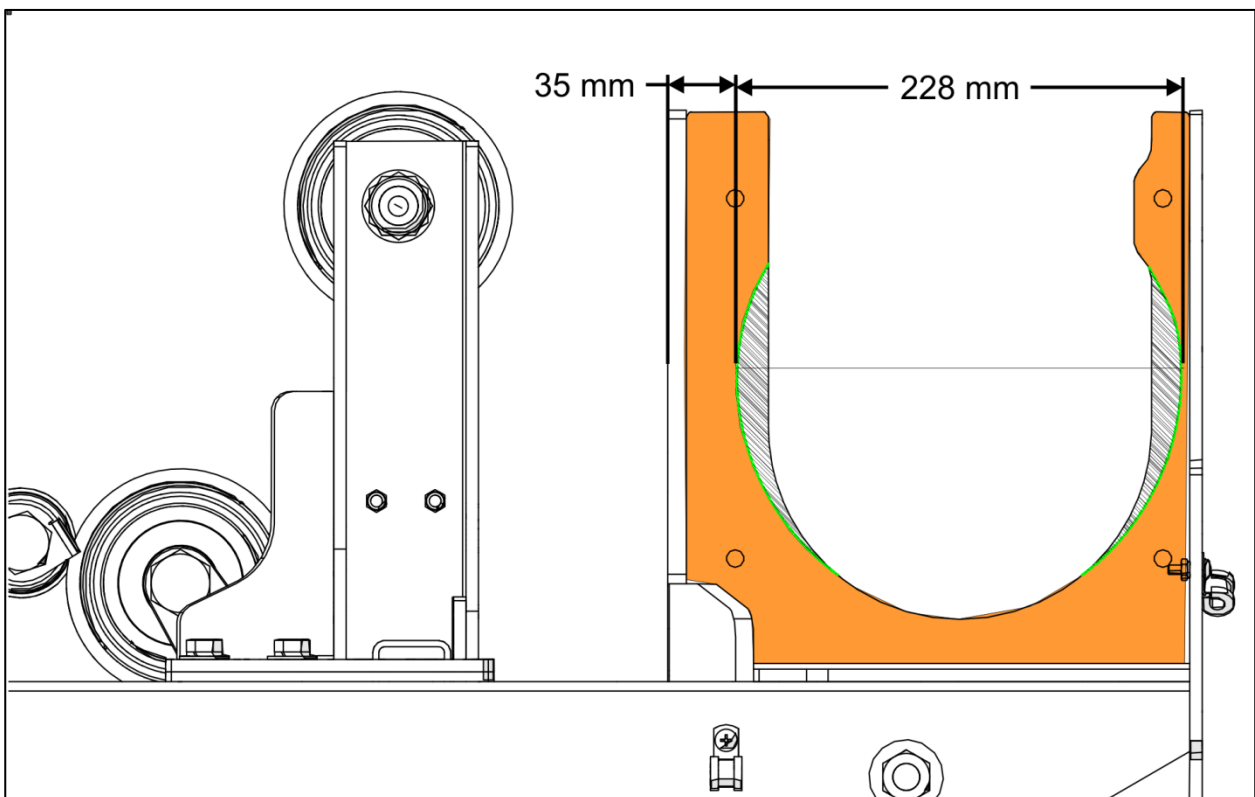


FIGURE 1: LONG FAN DRIVE SUPPORT. DIMENSIONS APPROXIMATE-

- 1.3. To access the radiator fan you must drain the coolant and remove the cooling unit (radiator and CAC).
- 1.4. Remove air pressure on the fan drive tensioner.
- 1.5. Remove the radiator fan and existing fan clutch and belt.
- 1.6. Keep fan, mounting plates and hardware.

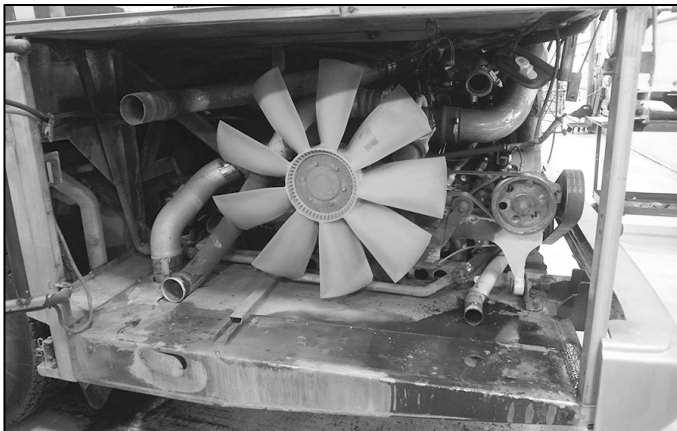


FIGURE 2

- 1.7. Enlarge the opening according to Figure 1.
- 1.8. Ensure finished edge is smooth both in surface finish and contour.
- 1.9. Thoroughly clean mounting surfaces on radiator fan, bracket and mounting plates to remove rust.



FIGURE 3

- 1.10. Install the new fan clutch on mounting bracket.
- 1.11. Install washers and nuts.

5001758 M10-1.5 Stover nut

500897 Washer 7/16

Tighten to 35 lb-ft



- 1.12. Place the clutch assembly on the mounting bracket on the vehicle.
- 1.13. Reuse supplied hardware unless damaged. If damaged use 502891 as replacement screws
- 1.14. Connect clutch to the vehicle harness
- 1.15. .If vehicle is MUX, perform step 2.

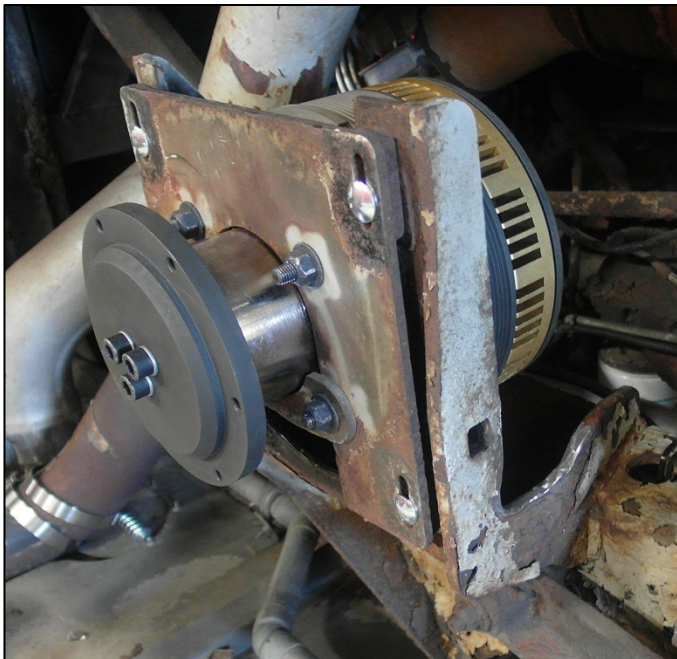


FIGURE 4

- 1.16. Install the radiator fan.
Hardware is supplied along with the fan clutch.
- 1.17. Tighten to **16-20 lb-ft**

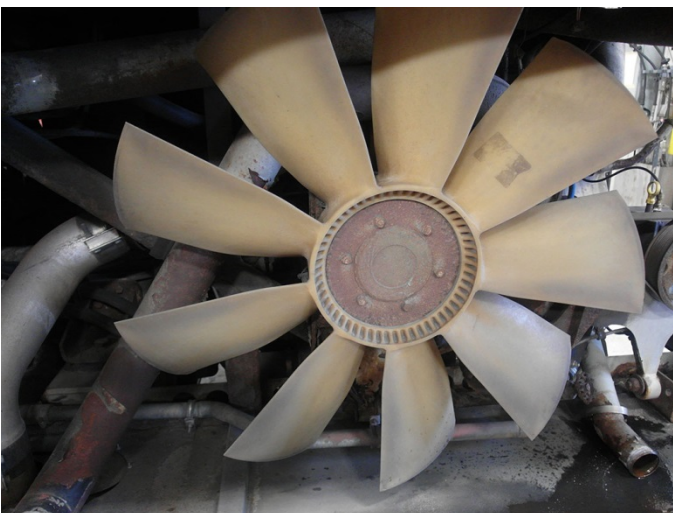


FIGURE 5

- 1.18. Install the cooling unit back (radiator, CAC and any additional cooler attached)
- 1.19. Perform **Step 3** below to check the gap between radiator and fan and the adjustment of the fan drive.
- 1.20. Re-fill with coolant.



FIGURE 6

- 1.21. Lower the belt tensioner with a suitable bar and install new drive belt 506064.

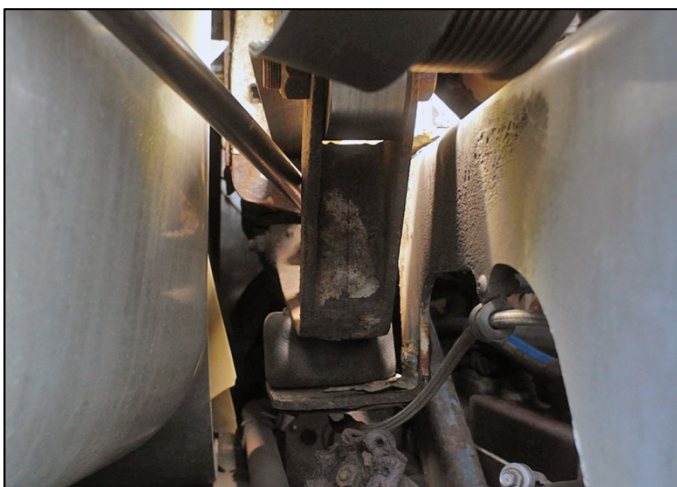


FIGURE 7

- 1.22. Make sure belt ribs are properly seated in the grooves and rotate by hand to confirm engagement.



FIGURE 8

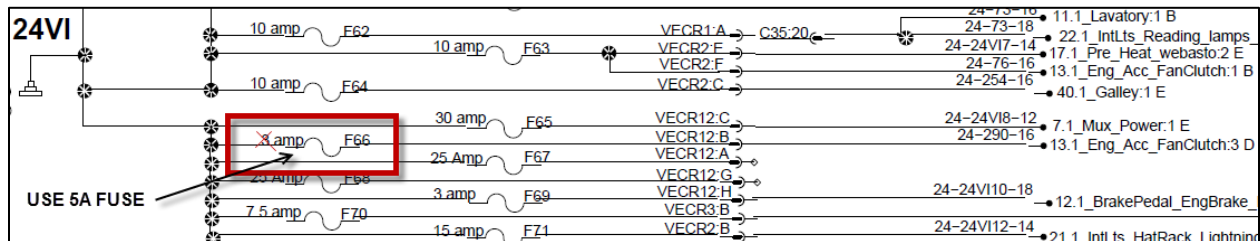
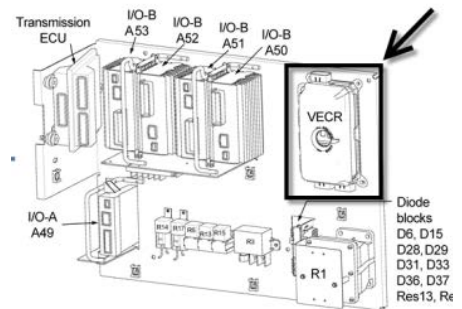
- 1.23. Apply air to the tensioner.
- 1.24. Start the engine and confirm proper operation of the fan clutch.
- 1.25. Confirm there are no coolant or charge air leaks.



FIGURE 9

2. 5 AMP FUSE (MUX VEHICLES only)

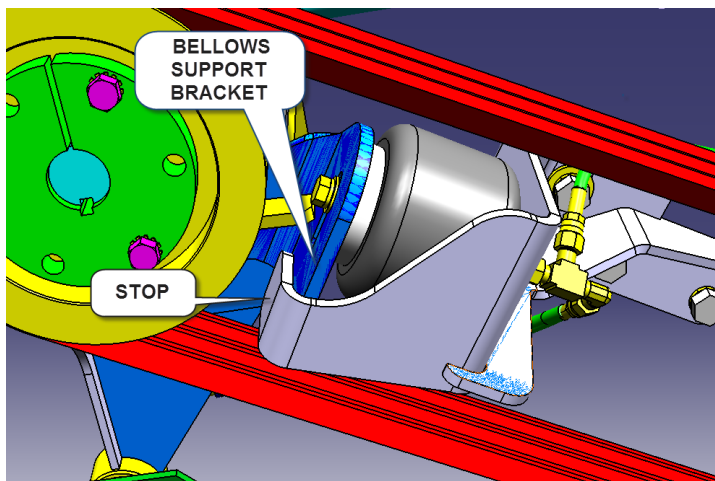
Inside main power compartment (rear of coach, right side), locate fuse box VECR. Inside VECR, replace F66 RADIATOR FAN CLUTCH (3 Amp) fuse with an automotive *mini fuse ATM 5 A*. (Prevost p/n 563280).



3. CHECKING THE GAP BETWEEN THE FAN CLUTCH AND THE RADIATOR

3.1. Tilt the fan driving mechanism support toward the radiator until the bellows support bracket leans against the stop.

3.2. Make sure that a gap remains between the fan/clutch and the radiator core (or reinforcement rods if present). This gap will prevent damages to the radiator and fan clutch in case of breaking of the drive belts. Moreover, the fan produces a rapid increase of thrust when 2nd speed engages. This force tends to bring the fan clutch closer to the radiator.

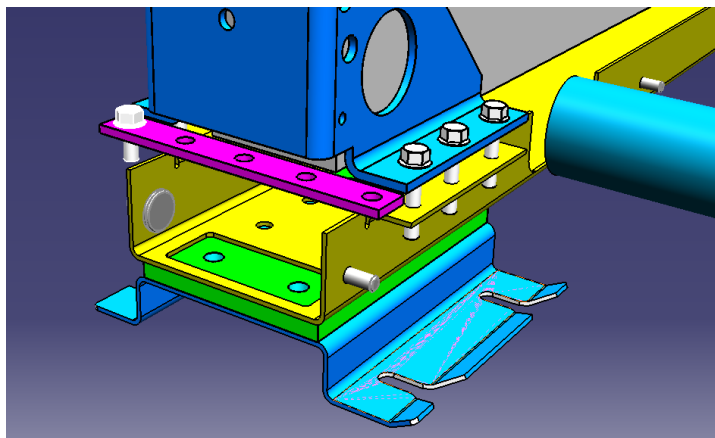


3.3. If no gap remains or if the gap is too short, you must perform the following corrective measures:

3.4. MOVING THE COOLING PACK

- a) To increase the gap, make sure that the cooling pack is as far as possible from the fan driving mechanism. If the cooling pack has already been removed in the past, there is a chance that it hasn't been reinstalled at the most distant position. Use the slots at the base of the cooling pack to gain space.

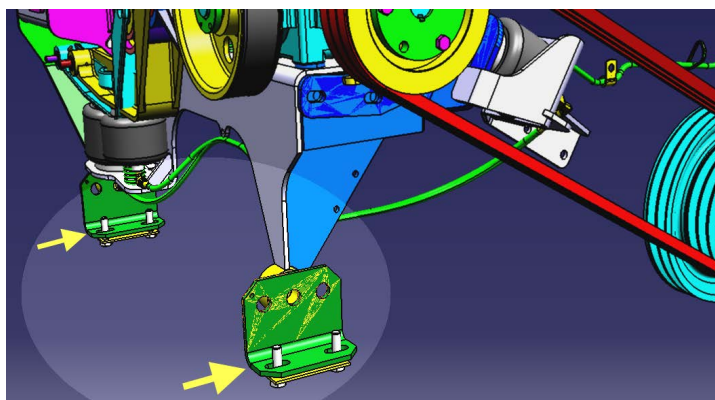
MOVING THE COOLING PACK SHOULD BE ENOUGH TO GET AN APPROPRIATE GAP. IF THIS IS NOT THE CASE, MOVE THE FAN DRIVING MECHANISM SUPPORT AS PER THE FOLLOWING PROCEDURE.



3.5. MOVING THE FAN DRIVING MECHANISM SUPPORT

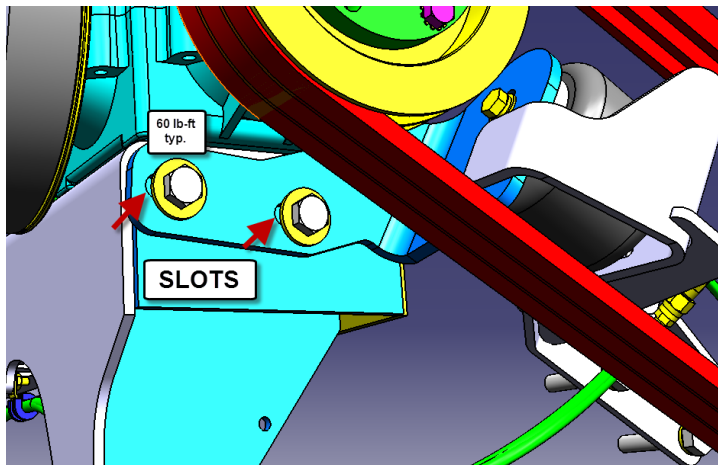
- a) Move the fan driving mechanism support toward the engine, using the slots in the anchoring angle support. Now that the distance between the gearbox pulley and the engine crankshaft pulley is shorter, you must install shorter drive belts (for example, use BX73 instead of BX74).

MAKE SURE THAT THE FAN DRIVING MECHANISM DOESN'T COME INTO INTERFERENCE WITH PIPING OR ORDER COMPONENTS.



- b) Using the slots, move the bellows support bracket to the left in order to reduce the gap between the support bracket and the stop. Leave a gap of $\frac{1}{4}$ " for normal belt lengthening with use. When properly adjusted, the bellows support bracket will lean against the stop, preventing the fan clutch from striking the radiator in case of belts breaking.

TORQUE: 60 lb-ft



- c) If no adjustment is possible with the bellows support bracket slots, lengthen slots or install a bolt with two nuts or any other device that will act as a stop.

WITH THE ENGINE RUNNING, MAKE SURE THAT THE BELTS DO NOT RUB AGAINST THE BELLOWS OR THE BELLOWS ATTACHMENT BRACKETS.



PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)