

Heavy Commercial Vehicles

Persons to be contacted for bulletin:	Service Manager	Warranty Manager	Spare Part Manager	Chief Technician	Service Advisor	BMIS
	✓	✓	✓	✓	✓	✓

Subject	Replacement of the spacer parts together with the engine cooling fan replacement on vehicles produced before quality improvement implementation.
Model	12,7 L F-Trucks Produced Before 18.02.2025 9 L F-Trucks Produced Before 27.07.2025
Summary	With the aim of improving quality in the fan system, the parts were upgraded to a new revision level in February 2025 for the 12.7L engine and in July 2025 for the 9L engine. In vehicles equipped with the previous revision parts, if a part replacement is required, the entire system must be replaced together.

Labor Code:

The main labor code for Engine Cooling Fan R/I is F4V45 8C617. You can find the regarding recipe below:

EWNG Code	Description	Time
F4V45 8C617	Engine Cooling Fan R/I (Demount Ring & Clutch / Disassembly the Clutch from Spacer / Put Clutch in to Fan Shroud / Detach Ring & Clutch Sperateley from Vehicle)	1,9
F8V75 E001A06	Under Cover Deflector (One Side) R/I	0,4
F2V86 CABTILT	Cab Tilting	0,1
TOTAL		2,4

Abstract

On the dates provided above, quality improvement actions for the fan and spacer parts were implemented. When the engine cooling fan parts are replaced due to a fan screw loosening problem, fan screw broken problem or fan clutch electrical failure, GC46-8C617-B*, GC46-8C617-C* ; fan spacer parts GC46-8A645-A* and GC46-8A645-B* will also need to be replaced.

Since they are parts that work together, a vehicle in which a new level radiator fan is to be installed must definitely use a new level spacer. Only in this way, quality improvement is possible by changing the two parts together.

Once the new-level fan, spacer, and adaptor set is installed, the set replacement described in this procedure will no longer be required for future repairs.

Service Procedure:

Case I: Fan damaged, spacer Ok – Both the fan and the spacer should be replaced

Fan Drive damage inspection i.e. the screw loosen o screw broken on fan drive. (8A616 - 8C617)

In cases where the complaints listed below are encountered, the relevant steps will be taken.

- There is a noise coming from the vehicle, as a result of an inspection, the fan screws were broken or loosen.
- Damaged to the fan propeller of the vehicle due to screw loosening or broken failure, imbalanced rotational motion.

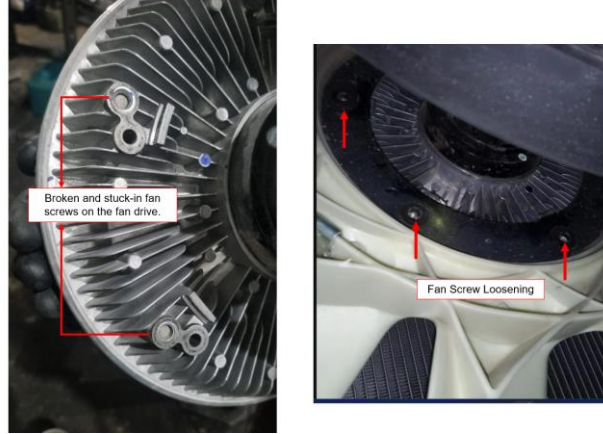


Figure 1 : Engine cooling fan failure modes. The photos were taken from previous claims.

Case II. Fan is Ok, Spacer damaged

In cases where the complaints listed below are encountered, the relevant steps will be taken.

- Fan spacer is broken. Engine cooling fan assembly and broken spacer part fallen.
- Engine cooling fan assembly does not work.

Service Application :

- Only for fan spacer(adaptor) part damage inspection. (Base number 8A645)

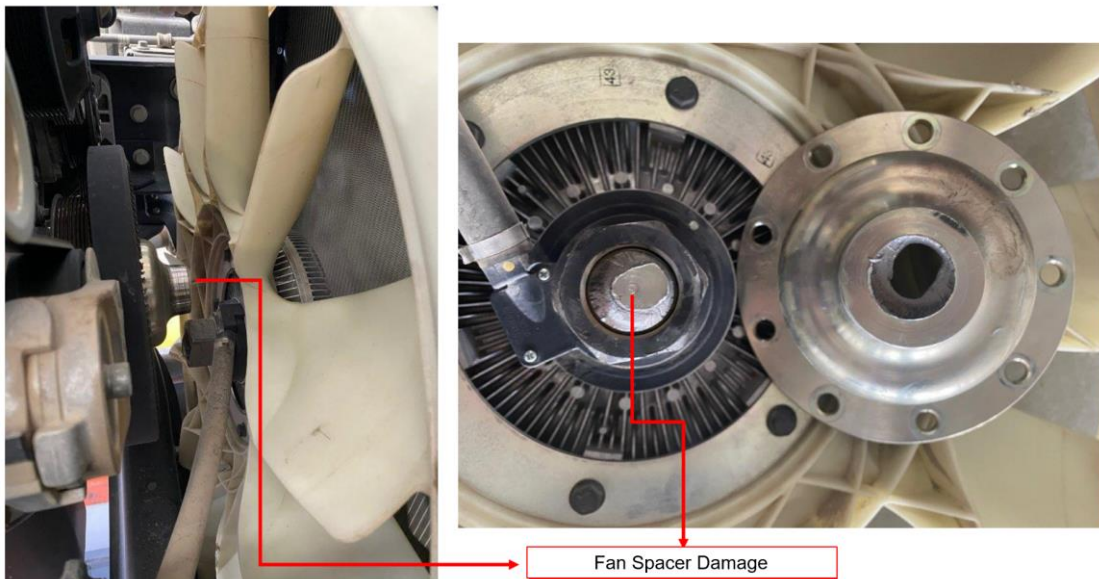


Figure 2: Only the spacer part is damaged.

8C617 → Radiator Fan Assembly - Indicates final parts. It includes the fan hub, fan propeller, bolts connecting the fan hub to the propeller and the electrical wiring that provides of the fan. (Picture 3 and Picture 4)

8A616 → Fan Drive - Indicates component parts only released as spare part in case of the fan drive (fan clutch) is needed to be changed. (Picture 3 and Picture 4)

8A645 → Fan Spacer – Indicates the spacer part that connects the fan to the pulley. (Picture 3 and Picture 4)

Vehicle	Part	Old Part No	New Part No	Quantity
12,7 L	Cooling Fan Assembly	GC46-8C617-BE	GC46-8C617-BF	1
	Fan Drive (Fan Clutch)	GC46-8A616-BB	GC46-8A616-BE	1
	Spacer (Adaptor)	GC46-8A645-BE	GC46-8A645-BF	1
9 L	Cooling Fan Assembly	GC46-8C617-CE	GC46-8C617-CF	1
	Fan Drive (Fan Clutch)	GC46-8A616-CA	GC46-8A616-CD	1
	Spacer (Adaptor)	GC46-8A645-AC	GC46-8A645-AD	1

Table 1: Old and New Part Numbers of Engine Cooling Fan and Fan Drive

Figure 3 ve Figure 4, describe the radiator fan and assembly parts of the cooling system on vehicles with 12.7L and 9L engines. Additionally, the parts marked as red in the figures are new level fan spacer parts.

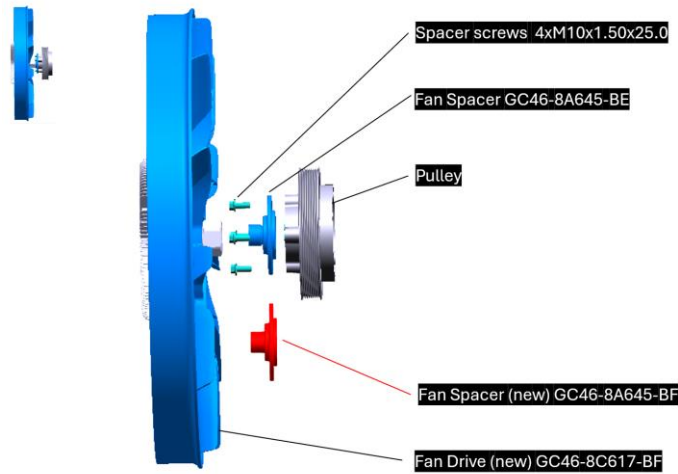


Figure 3: 12.7L Ecotorq Engine; Engine Cooling Fan, Fan Spacer and Pulley Parts

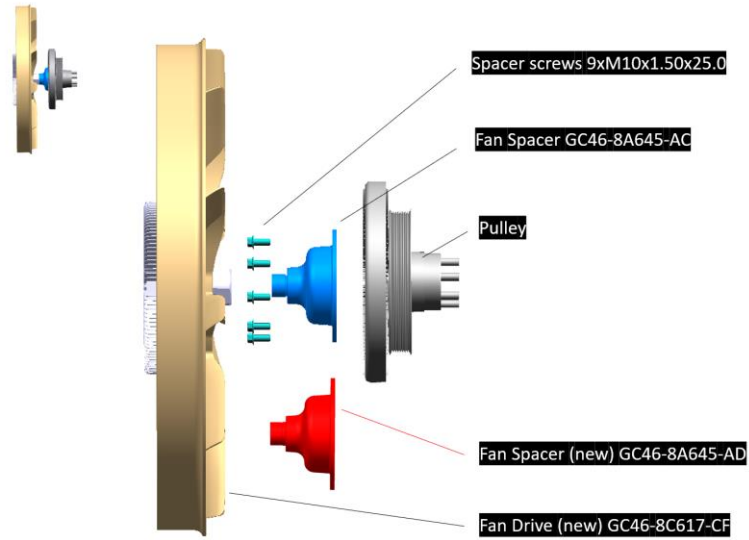


Figure 4: 9L Ecotorq Engine; Engine Cooling Fan, Fan Spacer and Pulley Parts

The steps of part replacement must be proceed in this order;

- 1) When the cabin lifted on the vehicle, engine cooling fan assembly must be inspected. Damages on the fan propeller or six fan screws must be checked on the assembly. (Figure4)



Figure 5 : Engine cooling fan and spacer parts after the cabin lift.

- 2) Depending on failure mode fan screws could be loose or broken. Fan screw locations are pictured in Figure 6.



Figure 6 : Engine cooling fans have 6xM8x1.25 screws.

- 3) If the vehicle has the problem and it is inspected as described in first and second steps. Both the fan drive (8C617/8A616) and the spacer (8A645) must be changed on vehicle.(Table 1)
- 4) For parts replacement, the fan assembly would be changed between the engine pulley and the radiator shroud. For fan removal and installation process please refer to “USM-ENHCV-1026 Instructions for Cooling Fan R&I”.
- 5) **Since they are parts that work together, a vehicle in which a new level radiator fan (Table1) is to be installed must definitely use a new level spacer (Table1). Only in this way can we assure the system operates properly in coordination.**
- 6) Fan spacer must be mounted on the engine pulley part. The fan spacer position is indicated on the engine (Figure 7).



Figure 7: Spacer Part FEAD Assembly

- 7) Part replacements must be completed by using a new level fan and the new level spacer parts. The mounting process of the fan with inner threads of fan shaft and threads on fan spacer. Tightening operation will be proceed.

The cooling fan must be turned by hand until the thread zone, after the fan hexagonal shaft are fully screwed, the fan must be tightened with the torque value between 90N.m -112 N.m

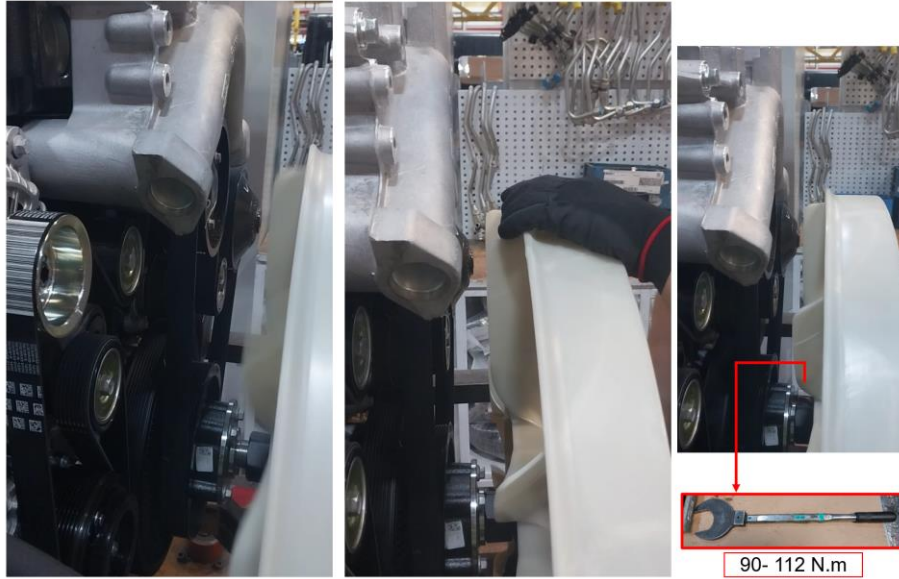


Figure 8: Engine cooling fan assembly process.

- 8) Please complete the part replacement process.
- 9) After the engine cooling fan system is assembled, and the part replacement process is completed in the service. Finish the repair with a test drive.

Best Regards,
Ford Trucks Service Engineering