



INSTALLATION INSTRUCTIONS TORQUE LIMITED FAN CLUTCH INSTALLATION INSTRUCTIONS

How does it work?

A torque limited/ non-thermal fan clutch is always engaged and its maximum speed is limited. A fan clutch increases speed in proportion to the engine speed. At a certain RPM, depending on application, the fan clutch reaches its maximum speed. It will maintain speed regardless of how much the engine speed increases.

Installation comments:

The fan clutch will tend to free wheel when first removed from the box. Face down storage has allowed all of the fluid to settle in the front cover reservoir. First start-up may produce very slow fan speed until the fluid is re-distributed.

The viscous fan clutch has been manufactured by an OE supplier to OE quality. The fan clutch is designed for a specific application and cooling requirement. It is important to use the correct fan clutch for the specific vehicle application and operation. Use of the wrong fan clutch can result in failure of the fan clutch and damage to the vehicle.

Removal of the flange shaft:

Remove the bolts or nuts attaching the fan clutch to the water pump. Remove the bolts or nuts attaching the fan blade to the fan clutch. Inspect blade for:

- Missing or broken blades
- Loose or missing rivets
- Bent or cracked spider
- Bent blades

Removal of screw fix shaft:

Clockwise and counter-clockwise rotation is viewed from the front of the vehicle.

- A clockwise rotating fan clutch is attached to the water pump by a left hand thread. A counter-clockwise fan clutch has a right hand thread. Hold pulley stationary by placing a box end wrench so that the shank of the wrench is against the next bolt in the pulley. Turn the fan clutch shaft clockwise to remove a clockwise rotating fan clutch. Remove the fan and clutch from the water pump.
- Remove the bolts (or nuts) that attach the fan to the fan clutch. Remove the fan.
- Fan blade and water pump should be inspected and replaced if found to be defective (see below)

Caution: Always replace a damaged fan. Do not attempt to repair a damaged fan. Do not attempt to straighten a bent blade. Stress cracks can develop and cause the blade to break resulting in serious personal and vehicle damage. The water pump should be replaced as well as damages could not be obvious but could reduce the durability of the new fan/ fan drive.

Installation:

For flange shaft:

1. Install fan blade attaching bolts to 20-24Nm (15-18 ft/lbs) torque. Bolts should be minimum grade five.
Caution: Over tightening can strip the threads from the fan clutch holes.
2. Gradually tighten the fan clutch to the water pump bolts. Ensure that the fan clutch flange remains flush with the water pump flange at all times during installation. Torque to 20-24Nm (15-18 ft/lbs).

For screw fix shaft:

1. Position fan and the clutch, install and tighten bolts.
2. There should be no interference between the fan spider and blade and the body of the clutch. **Caution:** Over tightening can strip the threads from the fan clutch holes.
3. Hold pulley stationary as described above. Screw on a clockwise rotating fan clutch by firming it counter-clockwise. Screw on a counter-clockwise rotating fan clutch by turning it clockwise. Re-tighten bolts in water pump pulley.