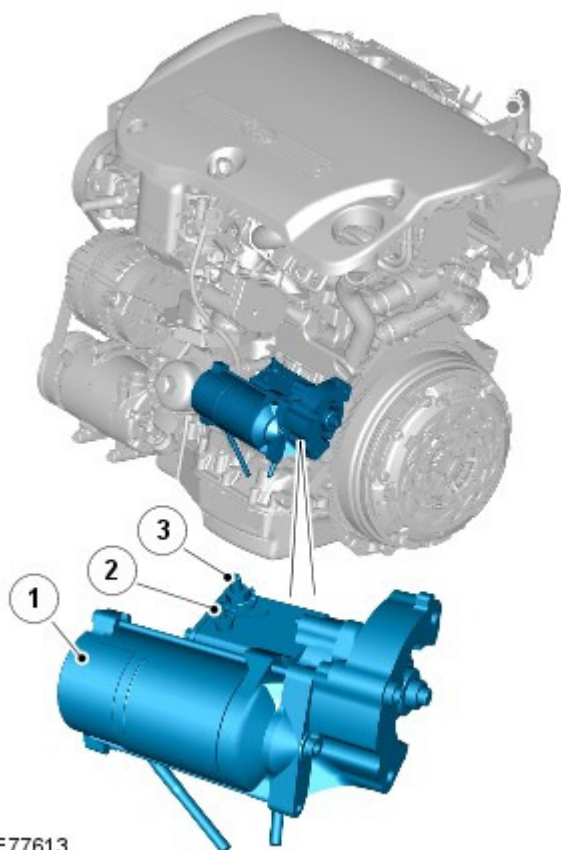


Starting System - TD4 2.2L Diesel - Starting System

Description and Operation

COMPONENT LOCATION



E77613

Item	Part Number	Description
1	-	Starter motor
2	-	Battery to solenoid connection
3	-	Battery positive connection

OVERVIEW

The starter motor is rated at 2.0 kW and is manufactured by Denso as a sealed pinion only unit. The starter motor is an RA type that is offset in design; the solenoid is located directly behind the pinion to provide a more positive engagement with the flywheel ring gear. The motor is geared directly to the pinion and is a pre-engaged type comprising a series wound motor and an over-running clutch.

The motor is mounted on the Left-Hand (LH) side of the clutch housing and secured with 3 fixings. The pinion protrudes through an aperture to drive the flywheel via a ring gear.

A small diameter cable is connected between the Engine Control Module (ECM) and the solenoid. The solenoid is energized by a signal voltage from the ECM when the starter switch is pressed. When engine cranking is requested, the ECM checks for a received valid mobilization code before granting the crank request.

For additional information, refer to: [Anti-Theft - Passive \(419-01 Anti-Theft - Passive, Description and Operation\)](#).

Power for starter motor operation is supplied through a large diameter single cable, connected directly to the battery positive terminal. The cable is protected with a sealed 'CAL3' type fuse, located at the battery end of the cable.

For additional information, refer to: [Battery and Cables \(414-01 Battery, Mounting and Cables, Description and Operation\)](#).

The cable is secured to the solenoid with an anti-rotational device and nut.