

SECTION 303-06: Starting System
SPECIFICATIONS

2014 F-150 Workshop Manual
Procedure revision date: 10/25/2013

General Specifications

Item	Specification
Normal engine cranking speed	140-220 rpm
Starter motor maximum load	800 amps ^a
Starter motor maximum voltage drop (engine at normal operating temperature)	0.5 volt
Starter motor minimum stall torque (at 5 volts)	14.7 Nm (10.8 lb-ft)
Starter motor no load current draw	60-84 amps
Starter motor normal load current draw	130-220 amps ^b

^a Initial "in-rush" current draw.

^b Continuously running current draw.

Torque Specifications

Description	Nm	lb-ft	lb-in
Starter motor mounting bolts — 3.5L Gasoline Turbocharged Direct Injection (GTDI) and 3.7L	48	35	—
Starter motor mounting bolts — 5.0L (4V) and 6.2L (2V)	25	18	—
Starter motor mounting stud bolts — 5.0L (4V) and 6.2L (2V)	25	18	—
Starter motor ground cable nut — 5.0L (4V) and 6.2L (2V)	25	18	—
Starter solenoid B+ terminal nut	12	—	106
Starter solenoid S-terminal nut	5	—	44

mcx30.com