

Material

Item	Specification	Fill Capacity
Motorcraft® Metal Surface Prep ZC-31-A	—	—
Motorcraft® Premium Gold Engine Coolant with Bittering Agent (bittered in US only) VC-7-B (US); CVC-7-A (Canada); or equivalent (yellow color)	WSS-M97B51-A1	15.2L (4.0 gal)
Premium Cooling System Flush VC-1	ESR-M14P7-A	—

General Specifications

Item	Specification
Pressure Tests	
Complete Cooling System Maximum Pressure	110 kPa (16 psi)
Pressure Relief Cap	110 kPa (16 psi)
Radiator (out of vehicle)	138 kPa (20 psi)
Thermostat Opening Temperatures	
Starts to open (4.0L)	90-94°C (194-201°F)
Fully open (4.0L)	106°C (223°F)
Starts to open (4.6L)	86.7-90.63°C (188- 195°F)
Fully open (4.6L)	98.7-101.7°C (208- 215°F)
Starts to open (5.4L)	80-84°C (176-184°F)
Fully open (5.4L)	95°C (203°F)

Torque Specifications

Description	Nm	lb-ft	lb-in
A/C condenser bolts	10	—	89
Block heater retaining screw	4	—	35
Coolant crossover assembly bolts — 4.6L (3V)	10	—	89
Coolant pump bolts — 4.0L (SOHC)	10	—	89
Coolant pump bolts — 4.6L (3V), 5.4L (4V)	25	18	—
Coolant pump pulley bolts — 4.0L (SOHC)	25	18	—
Coolant pump pulley bolts — 4.6L (3V), 5.4L (4V)	25	18	—
Cooling fan motor and shroud bolts	9	—	80
Degas bottle bolts	8	—	71
Generator nuts — 4.6L (3V)	25	18	—
Generator support bracket bolts — 4.6L (3V)	10	—	89
Lower splash shield bolts	5	—	44

Lower thermostat housing bolts — 4.0L (SOHC)	12	—	106
Power steering reservoir bolt — 4.0L (SOHC), 4.6L (3V)	8	—	71
Power steering tubes and A/C condenser nut	8	—	71
Radiator support brackets	10	—	89
Supercharger (SC) degas bottle bolt — 5.4L (4V)	8	—	71
Thermostat cover bolts — 4.6L (3V)	10	—	89
Thermostat housing cover bolts — 5.4L (4V)	10	—	89
Thermostat housing nuts — 5.4L (4V)	25	18	—
Transmission cooler bolts (if equipped)	10	—	89
Upper thermostat housing bolts — 4.0L (SOHC)	10	—	89
