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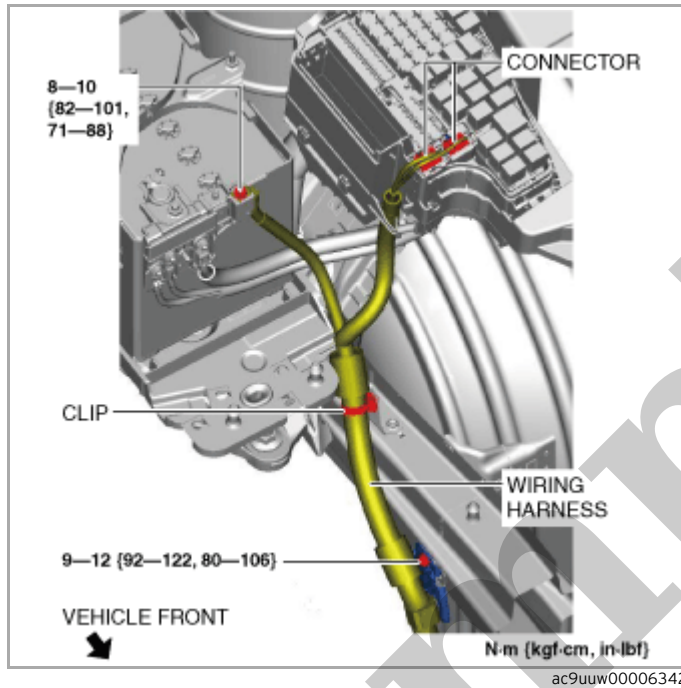
2004 MAZDA B Series / Bravo Dual Cab OEM Service and Repair Workshop Manual

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9.Remove the following parts as a single unit: (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

- Air hose
- Air cleaner cover
- Air cleaner element
- Air cleaner case
- Fresh-air duct

10.Remove the bolt, nut, clip and connector shown in the figure, and set the wiring harness aside.



11.Remove the battery and battery tray. (See [BATTERY REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

12.Remove the air inlet pipe. (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

13.Remove the turbocharger air outlet pipe and charge air cooler inlet hose. (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

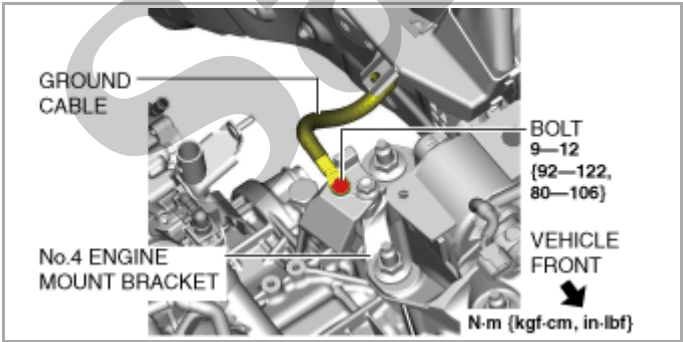
14.Remove the charge air cooler outlet pipe and charge air cooler outlet hose as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

15.Disconnect the selector cable. (See [SELECTOR CABLE REMOVAL/INSTALLATION.](#))

16.Disconnect the brake vacuum hose. (See [VACUUM HOSE REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

17.Disconnect the clip shown in the figure.

- 26.Remove the front crossmember component and the No.1 engine mount rubber as a single unit. (See **FRONT CROSSMEMBER REMOVAL/INSTALLATION.**)
- 27.Remove the A/C compressor with the cooler hose still connected and secure it using wire or rope so that it is out of the way. (See **A/C COMPRESSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].**)
- 28.Remove the TWC installation nuts (WU-TWC side) and secure the TWC using wire or rope so that it is out of the way (2WD). (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].**)
- 29.Remove the TWC. (AWD) (See **EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].**)
- 30.Remove the propeller shaft. (AWD) (See **PROPELLER SHAFT REMOVAL/INSTALLATION.**)
- 31.Disconnect the front drive shaft (LH) from the transaxle side and set the drive shaft (LH) out of the way. (See **FRONT DRIVE SHAFT REMOVAL/INSTALLATION.**)
- 32.Disconnect the front drive shaft (RH) from the transaxle side and set the drive shaft (RH) out of the way. (2WD) (See **FRONT DRIVE SHAFT REMOVAL/INSTALLATION.**)
- 33.Remove the front drive shaft (RH). (AWD) (See **FRONT DRIVE SHAFT REMOVAL/INSTALLATION.**)
- 34.Remove the bolt and set the ground cable aside.



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- 35.Remove in the order indicated in the table.

2WD

37. Refill the transfer oil. (AWD) (See [TRANSFER OIL REPLACEMENT \[FW6AX-EL, GW6AX-EL\]](#).)

38. Refill the ATF. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[GW6A-EL, GW6AX-EL\]](#).)

39. Refill the engine coolant. (See [ENGINE COOLANT REPLACEMENT \[SKYACTIV-G 2.5T\]](#).)

40. Start the engine, and inspect and adjust the following:

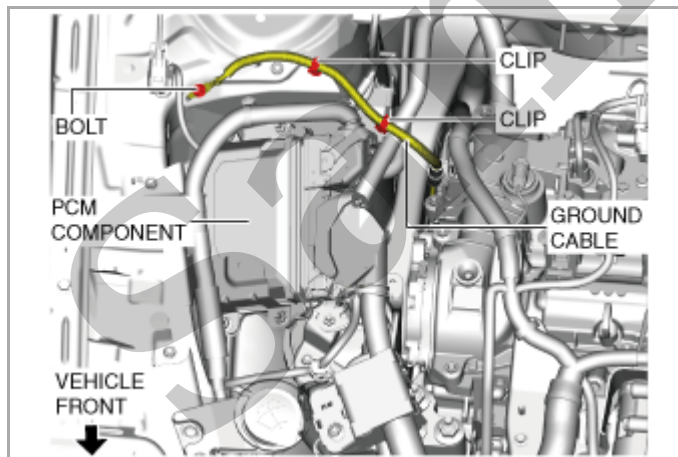
- Front wheel alignment (See [FRONT WHEEL ALIGNMENT](#).)
- Leakage of engine oil, engine coolant, ATF, and fuel.
- Runout and contact of pulley and belt.
- Ignition timing, idle speed and idle mixture. (See [ENGINE TUNE-UP \[SKYACTIV-G 2.5T\]](#).)
- Engine-driven accessories operation.

Note

- If the engine is overhauled and assembled to the vehicle, perform a road test to verify that there is no abnormal vibration and noise.

No.3 Engine Mount, No.4 Engine Mount Bracket Removal Note

1. Remove the clip and bolt shown in the figure and set the ground cable aside.



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2. Set the PCM wiring harness and PCM component aside using the following procedure:

- (1) Disconnect the PCM connector (140 pin side) from the PCM. (See [PCM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\]](#).)
- (2) Remove the bolt, clip and connector shown in the figure and set aside the PCM wiring harness to the engine upper side.

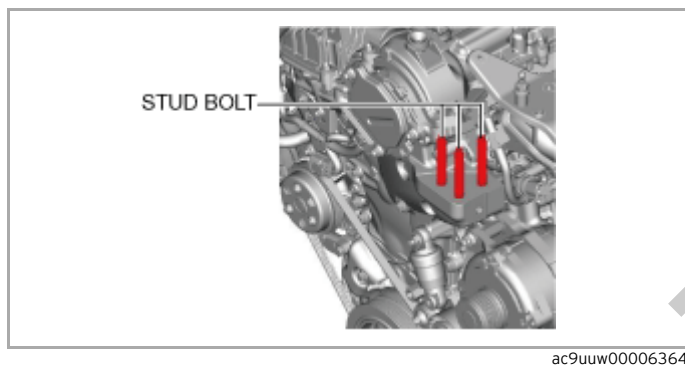
Caution

- Slots have been adopted for the No.3 engine mount and No.4 engine mount bracket installation holes. Tighten the installation bolts and nuts so that they are centered on the slots. Otherwise, engine noise or vibration could increase.

Note

- When loosening the nuts of the No.3 engine mount and the No.4 engine mount bracket, the engine front cover and the transaxle stud bolt may loosen.

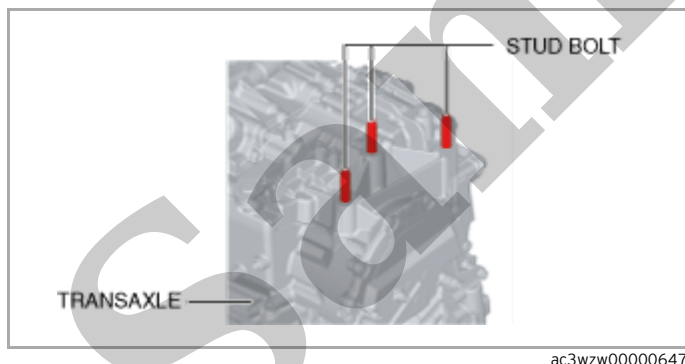
1.Tighten the engine front cover stud bolts.



Tightening torque

7–13 N·m {72–132 kgf·cm, 62–115 in·lbf}

2.Tighten the transaxle stud bolts.



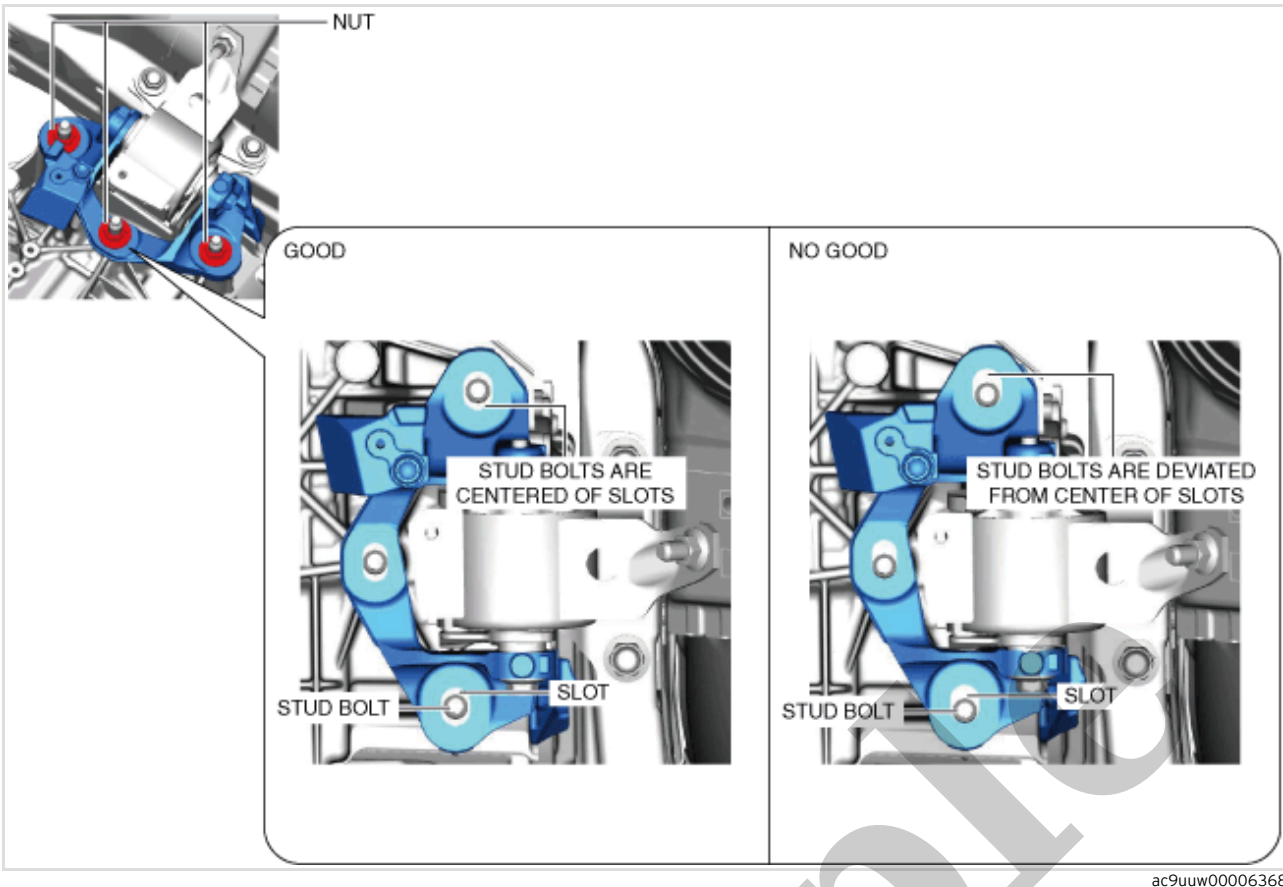
Tightening torque

15–25 N·m {1.6–2.5 kgf·m, 12–18 ft·lbf}

Caution

- When supporting the engine and transaxle, insert rubber of appropriate size (approx. 20 mm {0.79 in} thickness) between the engine lifter and the oil pan, transaxle to prevent the deformation of the oil pan and damage of the transaxle.

3.Secure the engine and transaxle using a commercially available engine lifter.

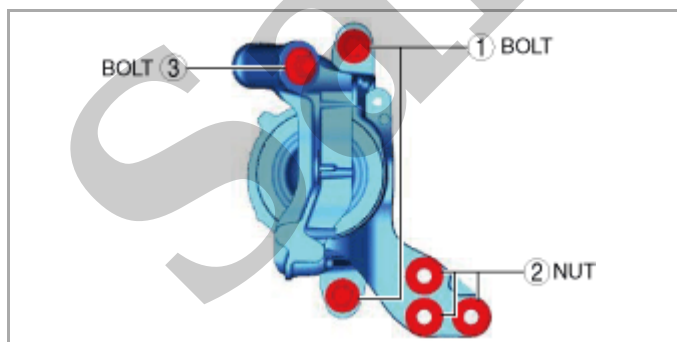


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Note

- If the stud bolts are deviated from the center of the slots, align the stud bolts with the center of the slots while slightly moving the transaxle, and temporarily tighten the installation nuts.

6.Tighten the No.3 engine mount installation bolts and nuts in the order shown in the figure.

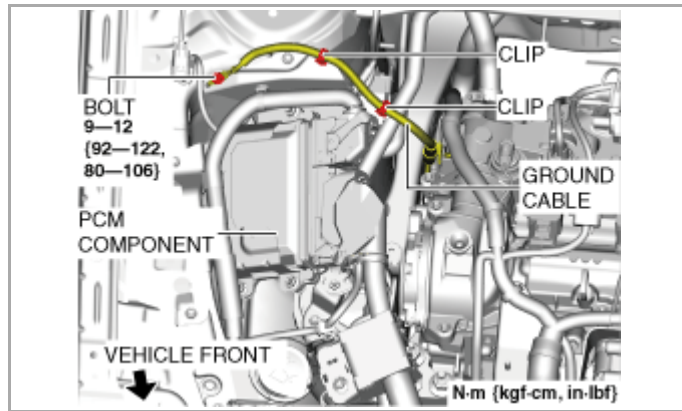


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Tightening torque

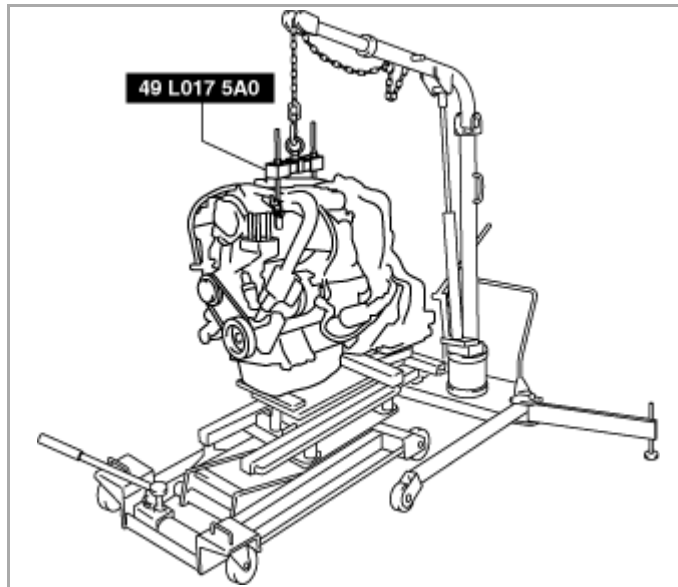
No.	Tightening torque
1	76–95 N·m {7.8–9.6 kgf·m, 57–70 ft·lbf}
2	82–95 N·m {8.4–9.6 kgf·m, 61–70 ft·lbf}
3	49–65 N·m {5.0–6.6 kgf·m, 37–47 ft·lbf}

7.Tighten the No.4 engine mount bracket installation bolt and nuts in the order shown in the figure.



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4.To ensure the safety of the work (control engine and transaxle sway), set a hoist as shown in the figure.



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Caution

- Do not lift up the engine.

5.Remove the WU-TWC. (See [EXHAUST SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

6.Remove the dynamic pressure turbo. (See [DYNAMIC PRESSURE TURBO REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

7.Remove the oil cooler. (See [OIL COOLER REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

8.Remove the exhaust manifold. (See [EXHAUST SYSTEM REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

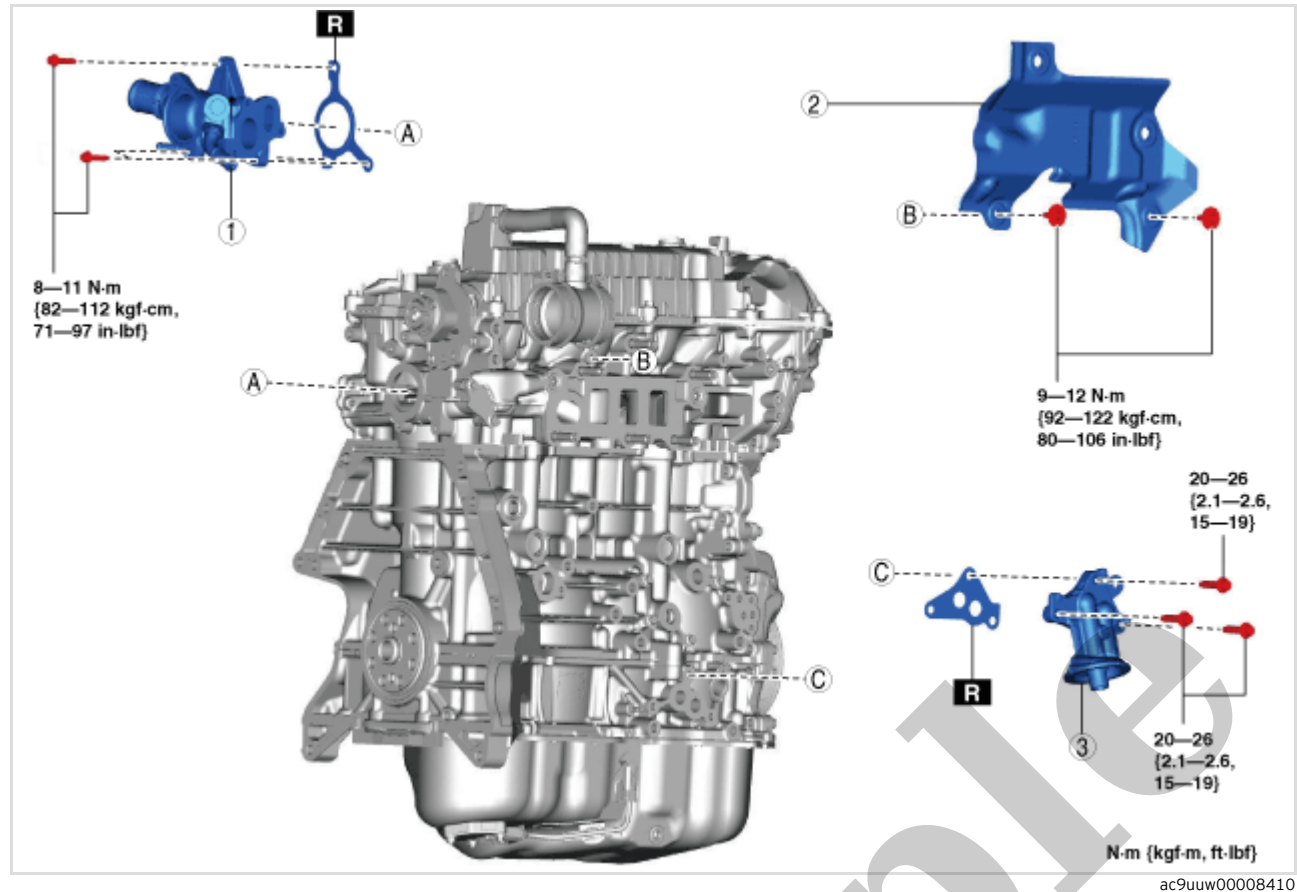
9.Remove the starter. (See [STARTER REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))

10.Fix the drive plate using the crankshaft pulley lock bolt.

11.Remove the torque converter installation nut from the starter installation hole. (See [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION \[GW6A-EL \(SKYACTIV-G 2.5T\)\] \(2WD\).](#)) (See [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION \[GW6AX-EL \(SKYACTIV-G 2.5T\)\] \(AWD\).](#))

12.Disconnect the engine and transaxle, and lower only the engine from the engine lifter. (See [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION \[GW6A-EL \(SKYACTIV-G 2.5T\)\] \(2WD\).](#)) (See [AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION \[GW6AX-EL \(SKYACTIV-G 2.5T\)\] \(AWD\).](#))

13.Remove the generator. (See [GENERATOR REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\].](#))



1	Water outlet component
2	Insulator
3	Oil filter body (See Oil Filter Body Installation Note .)

Oil Filter Body Installation Note

Note

- The tightening order of the three bolts is optional.

1. After tightening the three bolts, tighten the first tightened bolt to the specified tightening torque again.

Tightening torque

20—26 N·m {2.1—2.6 kgf·m, 15—19 ft·lbf}

1. Complete the engine tune-up preparation. (See [Engine Tune-up Preparation](#).)

2. Verify that the idle speed according to each load (M-MDS PID: RPM) is within the specification using the PID/data monitor function of the M-MDS (except idle speed decrease after applying load). (See [PCM INSPECTION \[SKYACTIV-G 2.5T\]](#).)

- If the engine speed is not within the specification when a specified load is applied, inspect the related input parts, wiring harnesses, and connectors.

Idle-up speed (P position or N position)

A/C on: 650–800 rpm

Electrical loads on: 650–800 rpm