

2008 Ford Mustang
2008 TRANSMISSIONS Clutch - Mustang

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Clutch - Mustang

SPECIFICATIONS

MATERIAL SPECIFICATIONS

Item	Specification	Fill Capacity
Premium Long-Life Grease XG-1-C or XG-1-K (US); CXG-1-C (Canada)	ESA-M1C75-B	-
PTFE Lubricant XG-8	ESB-M1C111-B	-

GENERAL SPECIFICATIONS

Item	Specification
Clutch Disc	
4.0L	No. of springs: 4 springs Inner floating damper design
4.6L	No. of springs: 4 plain Color identification: no paint daub
5.4L	No. of springs: 6 springs
Pressure Plate	
Pressure plate diameter (4.0L)	254 mm (10.0 in)
Pressure plate diameter (4.6L)	280 mm (11.0 in)
Pressure plate diameter (5.4L)	215 mm (8.5 in)

TORQUE SPECIFICATIONS

Description	Nm	lb-ft
Pressure plate bolt (4.0L) ^a	-	-
Pressure plate bolt (4.6L) ^a	-	-
Pressure plate bolt (5.4L) ^a	-	-

^a Refer to appropriate procedures.

DESCRIPTION AND OPERATION

CLUTCH

The clutch operating mechanism consists of the following:

- Flywheel

- Pilot bearing
- Clutch disc
- Clutch pressure plate
- Release bearing

The primary function of the clutch is to transfer power from the engine to the drivetrain. The clutch connects and disconnects a manually operated transmission and the remainder of the drivetrain from the engine. This permits shifting and changing speeds, that correspond to the engine speed through gear reductions, for both forward and reverse gears.

The clutch is a single plate, dry friction clutch disc. The clutch disc has a splined hub (with integral torsional dampening springs) which attaches the clutch disc to the input shaft. Engine output is coupled to the input shaft by the friction existing between the clutch disc facings and the flywheel/clutch pressure plate assembly.

The clutch system is disengaged when the clutch pedal is depressed and engaged when the clutch pedal is released. When the clutch pedal is depressed, it pushes the clutch master cylinder plunger, which transmits hydraulic pressure to the clutch slave cylinder. The slave cylinder engages and compresses, through the release bearing, the clutch pressure plate diaphragm spring, releasing the pressure on the clutch disc. This displacement removes the spring load from the clutch pressure plate and eliminates the coupling friction between the engine and the transmission.

DIAGNOSTIC TESTS

CLUTCH

Refer to [MANUAL TRANSAXLE/TRANSMISSION & CLUTCH - GENERAL INFORMATION](#) article.

REMOVAL AND INSTALLATION

CLUTCH DISC AND PRESSURE PLATE - 4.0L

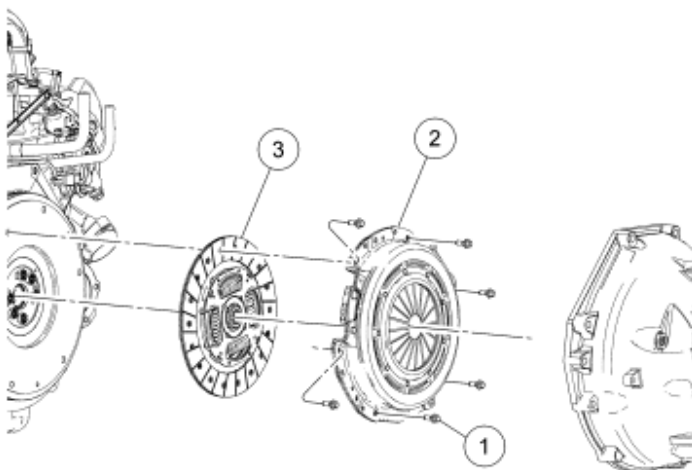


Fig. 1: Clutch Disc & Pressure Plate Components
Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	W709479	Clutch pressure plate bolt (6 required)
2	7563	Clutch pressure plate
3	7550	Clutch disc

REMOVAL

1. Remove the transmission. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION - T50D** article.

NOTE: Loosen the bolts evenly to prevent clutch pressure plate damage.

NOTE: If the parts are to be reused, index-mark the pressure plate to the flywheel.

2. Remove the 6 pressure plate bolts, then remove the pressure plate and the clutch disc.
 - Discard the pressure plate bolts.

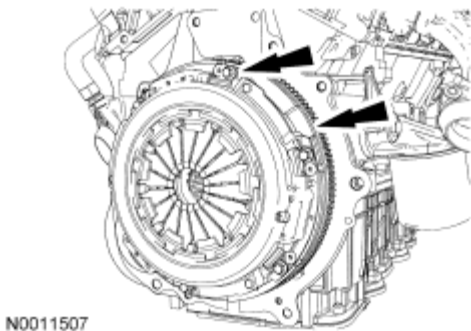


Fig. 2: Locating Pressure Plate Bolts
Courtesy of FORD MOTOR CO.

INSTALLATION

NOTE: If installing the original pressure plate, align it using the index marks made during removal.

NOTE: Always install new pressure plate bolts.

1. Inspect the flywheel. For additional information, refer to Flywheel Runout Check in **MANUAL TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION** article.
2. Using a suitable clutch aligner, position the clutch disc on the flywheel, then install the pressure plate and 6 new pressure plate bolts.

2008 Ford Mustang

2008 TRANSMISSIONS Clutch - Mustang

- Tighten the bolts in a star pattern.
- Tighten to 35 Nm (26 lb-ft).

NOTE: Before securing the transmission to the engine, connect the clutch hydraulic tube to the slave cylinder.

3. Install the transmission. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION - T50D** article.
4. Bleed the clutch hydraulic system. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION** article.

CLUTCH DISC AND PRESSURE PLATE - 4.6L

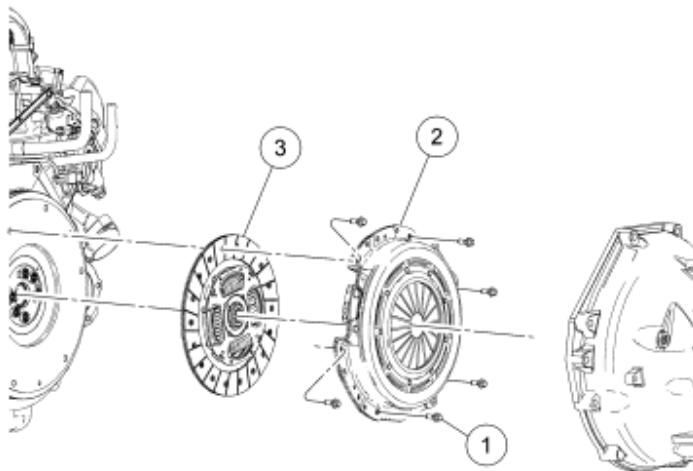


Fig. 3: Clutch Disc & Pressure Plate Components
Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	N808969	Clutch pressure plate bolt (6 required)
2	7563	Pressure plate
3	7550	Clutch disc

REMOVAL

1. Remove the transmission. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION - TR3650** article.

NOTE: Loosen the bolts evenly to prevent damage to the pressure plate.

NOTE: If the pressure plate is to be reused, index-mark the pressure plate to the flywheel.

2. Remove the 6 pressure plate bolts, then remove the pressure plate and the clutch disc.
 - Discard the pressure plate bolts.

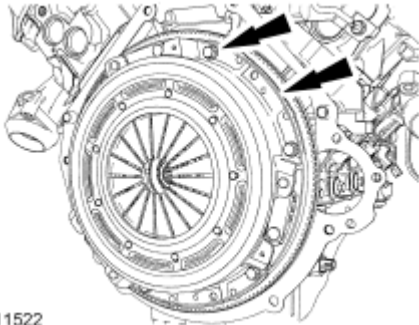


Fig. 4: Locating Pressure Plate Bolts
Courtesy of FORD MOTOR CO.

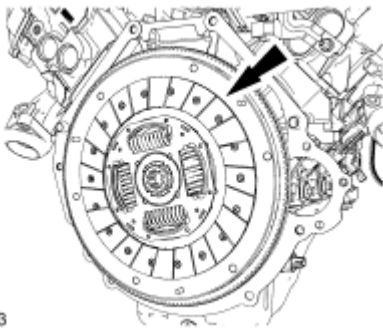


Fig. 5: Locating Pressure Plate And Clutch Disc
Courtesy of FORD MOTOR CO.

INSTALLATION

1. Inspect the flywheel. For additional information, refer to Flywheel Runout Check in **MANUAL TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION** article.

NOTE: If installing the original pressure plate, align it using the index marks made during removal.

NOTE: Always install new pressure plate bolts.

2. Using a suitable clutch aligner, position the clutch disc on the flywheel, then install the pressure plate and 6 new pressure plate bolts.
 - Tighten the pressure plate bolts in 2 stages in a star pattern.
 - Stage 1: Tighten to 45 N.m (33 lb-ft).
 - Stage 2: Tighten an additional 60 degrees.

2008 Ford Mustang

2008 TRANSMISSIONS Clutch - Mustang

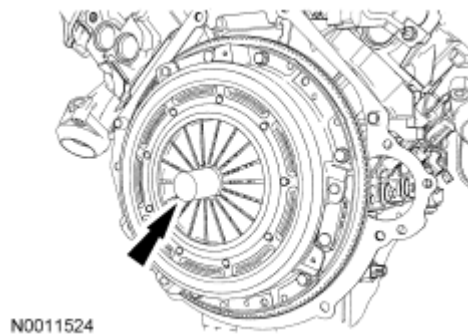


Fig. 6: Locating Clutch Aligner
Courtesy of FORD MOTOR CO.

NOTE: Before securing the transmission to the engine, connect the clutch hydraulic tube to the slave cylinder.

3. Install the transmission. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION - TR3650** article.
4. Bleed the clutch hydraulic system. For additional information, refer to **MANUAL TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION** article.

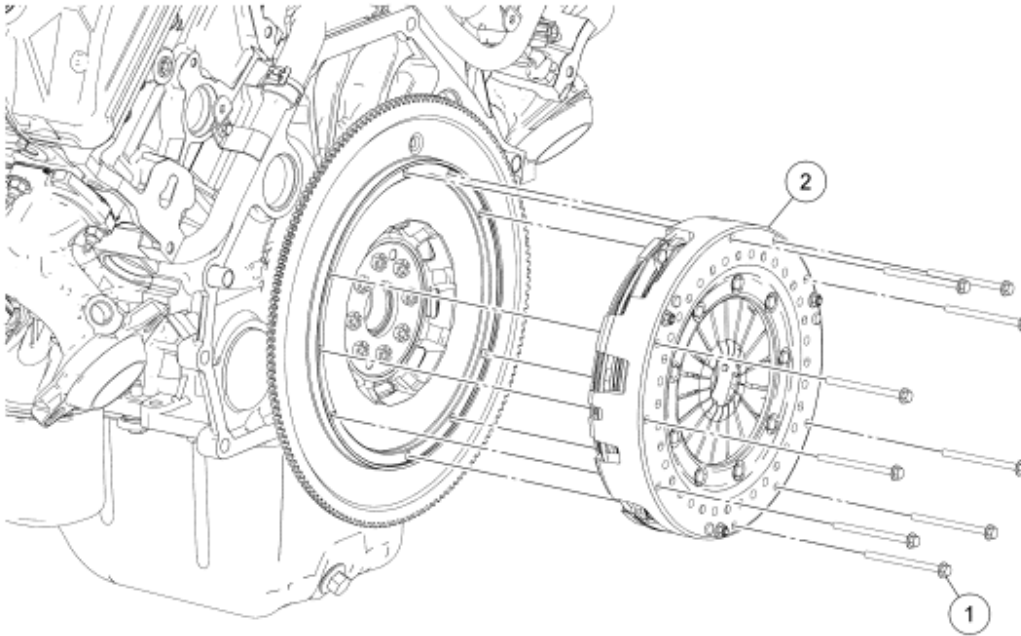
CLUTCH DISC AND PRESSURE PLATE - 5.4L

Material

Item	Specification
PTFE Lubricant XG-8	ESB-M1C111-B

2008 Ford Mustang

2008 TRANSMISSIONS Clutch - Mustang



N0072640

Fig. 7: Identifying Clutch Disc and Pressure Plate - 5.4L
Courtesy of FORD MOTOR CO.

Item	Part Number	Description
1	W712838	Disc and plate assembly bolt (9 required)
2	7B546	Clutch disc and plate assembly

REMOVAL

1. Remove the transmission. For additional information, refer to **MANUAL** **TRANSAXLE/TRANSMISSION - TR6060** article.

NOTE: Loosen the bolts evenly to prevent damage to the pressure plate.

NOTE: If the pressure plate is to be reused, index-mark the pressure plate to the flywheel.

2. Remove the 9 pressure plate bolts, then remove the pressure plate and the clutch disc.
 - Discard the pressure plate bolts.

INSTALLATION

All vehicles

1. Inspect the flywheel. For additional information, refer to Flywheel Runout Check in **MANUAL**

TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION article.

Vehicles with spoke design flywheel

NOTE: If installing the original plate and disc assembly, align it using the index marks made during removal.

NOTE: Always install new pressure plate bolts.

2. Using a suitable clutch aligner, position the clutch disc on the flywheel, then install the pressure plate and 9 new pressure plate bolts.
 - Tighten in a cross pattern to 9 Nm (80 lb-in).



N0093007

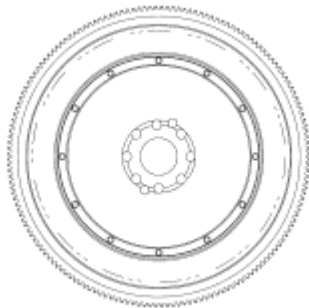
Fig. 8: Spoke Design Flywheel
Courtesy of FORD MOTOR CO.

Vehicles with solid design flywheel

NOTE: If installing the original plate and disc assembly, align it using the index marks made during removal.

NOTE: Always install new pressure plate bolts.

3. Using a suitable clutch aligner, position the clutch disc on the flywheel, then install the pressure plate and 9 new pressure plate bolts. Tighten the bolts in 2 stages using a cross pattern.
 1. Tighten to 10 Nm (89 lb-in).
 2. Tighten an additional 90 degrees.



N0093006

Fig. 9: Solid Design Flywheel
Courtesy of FORD MOTOR CO.

All vehicles

- 4. Remove the clutch aligner.

NOTE: Apply a small amount of PTFE lubricant to the splines of the clutch hub. This will make sure that the clutch will not bind on the transmission input shaft, making sure of correct clutch operation. Using lubricant other than Motorcraft PTFE lubricant may cause clutch chatter.

NOTE: Before securing the transmission to the engine, connect the clutch hydraulic line to the slave cylinder.

- 5. Install the transmission. For additional information, refer to MANUAL TRANSAXLE/TRANSMISSION - TR6060 article.
- 6. Bleed the clutch hydraulic system. For additional information, refer to MANUAL TRANSAXLE/TRANSMISSION CLUTCH - GENERAL INFORMATION article.

PILOT BEARING

Special Tools

Illustration	Tool Name	Tool Number
 ST1282-A	Remover, Pilot Bearing	308-001 (T58L-101-B)

REMOVAL

- 1. Remove the clutch disc and the clutch pressure plate. For additional information, refer to Clutch Disc and Pressure Plate - 4.0L, Clutch Disc and Pressure Plate - 4.6L or Clutch Disc and Pressure Plate - 5.4L.

2. Using the Pilot Bearing Remover, remove the pilot bearing.

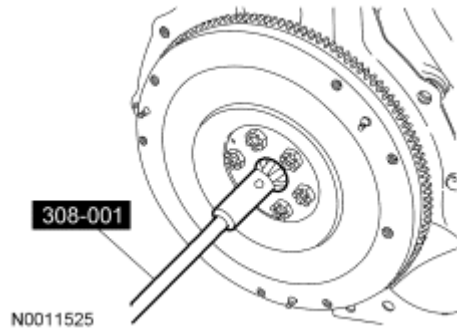


Fig. 10: Identifying Special Tool 308-001
Courtesy of FORD MOTOR CO.

INSTALLATION

1. Position the pilot bearing to the crankshaft. Using a suitable driver, install the pilot bearing.

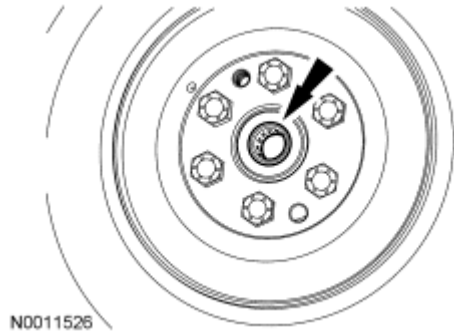


Fig. 11: Locating Pilot Bearing To Crankshaft
Courtesy of FORD MOTOR CO.

2. Install the clutch disc and the clutch pressure plate. For additional information, refer to **Clutch Disc and Pressure Plate - 4.0L**, **Clutch Disc and Pressure Plate - 4.6L** or **Clutch Disc and Pressure Plate - 5.4L**.