

# IMPORTANT

## Dodge Truck Clutch Sets

Intermittent transmission issues are known to exist on some Dodge trucks. Hard shifting may occur from Neutral to 1st, 2nd or reverse gears. This is primarily due to the large diameter and heavy-duty nature of the transmission and clutch components. Normal operation calls for a 3 to 4 second "spin down time" in which the clutch pedal needs to be depressed and held before attempting to shift the transmission out of Neutral and into gear. This spin down time is NOT usually necessary when the vehicle is in motion (shifting from gear to gear). In order to minimize this hard shifting issue, we recommend customers to check/do following during the clutch change procedure:

1. Always install a new release bearing and new pilot bearing.
2. Properly resurface or replace the flywheel.
3. Check the transmission input shaft spline and pilot bearing surfaces – replace the input shaft if it is questionable.
4. Check the transmission input shaft for excessive "play" or wobble – this could signal a worn input shaft bearing.
5. Inspect the transmission release bearing collar, release bearing arm and pivot ball stud. Replace any questionable item.
6. Use only O.E. approved transmission and hydraulic clutch fluid.
7. Follow all other Centerforce supplied tech sheets and suggested procedures.

Also, please be advised; when upgrading from an O.E. Dual-Mass type flywheel and/or to a heavy-duty clutch set, it is not uncommon to experience increased transmission gear rattle (or "roll over noise") when idling in Neutral.



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## 2005.5 to 2016 Dodge Ram Cummins Turbo Diesel 5.9L or 6.7L Eng. With the G56 6-Spd Transmission

**PLEASE NOTE:** This Centerforce clutch set is an upgraded replacement for the Factory Original Equipment clutch. Please be sure to use all of the components (bearings, fasteners, etc.) included with this clutch set. The Factory Original Equipment clutch components are **NOT** compatible with your new Centerforce clutch.

**PLEASE NOTE:** This clutch set is designed to operate with the engine starter in the STOCK LOCATION. If you are replacing an aftermarket clutch there may be a spacer between the engine block and starter. If you find a spacer in this location, please remove the spacer and use shorter (stock) starter bolts.

**IMPORTANT:** For proper operation, you must use the enclosed hydraulic clutch activation system. This hydraulic system comes fully assembled and pre-bled with the proper factory clutch fluid.

**BOLT SPECIFICATIONS:** Please apply a small amount thread-locking compound to all clutch fastener threads and then use a high quality Torque Wrench to secure the clutch fasteners (by hand) to the following specifications:

5/16" diameter Pressure Plate Bolts = 25 ft/lbs. each bolt

12mm diameter Flywheel Bolts = 87 to 91 ft/lbs. each bolt.

Should you have questions or require further information, please contact Centerforce tech line directly at: (928) 771-8422



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## See Back for Flywheel Removal Tips

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## FLYWHEEL REMOVAL TIPS

### FOR TRUCKS EQUIPED WITH THE G56 TRANSMISSION

1. Remove Transmission.
2. Remove OE Clutch Pressure Plate and Disc from Flywheel.
3. Remove the Flywheel Bolt Access Cover (two 10mm bolts) from Engine side of the Flywheel Housing located on the passenger side of the vehicle.
4. From this access hole, remove eight 15mm Flexplate-to-Flywheel bolts. You will need to use a ring gear tool or a socket wrench from the front of the Engine in order to rotate the Engine and Flywheel to each bolt for removal. **Caution, the OE Flywheel is very heavy** – be sure to properly support the Flywheel before removing the Flexplate to Flywheel bolts. Remove Flywheel assembly from the Flexplate.
5. Remove the Flexplate bolts and Flexplate assembly from the engine crankshaft – these components WILL NOT be used with your new Centerforce Clutch assembly.
6. Re-install the Flywheel Bolt Access Cover from engine side of the Flywheel housing (from step 3 above).

PLEASE CALL THE CENTERFORCE TECHLINE AT  
(928) 771-8422  
IF YOU HAVE ANY QUESTIONS



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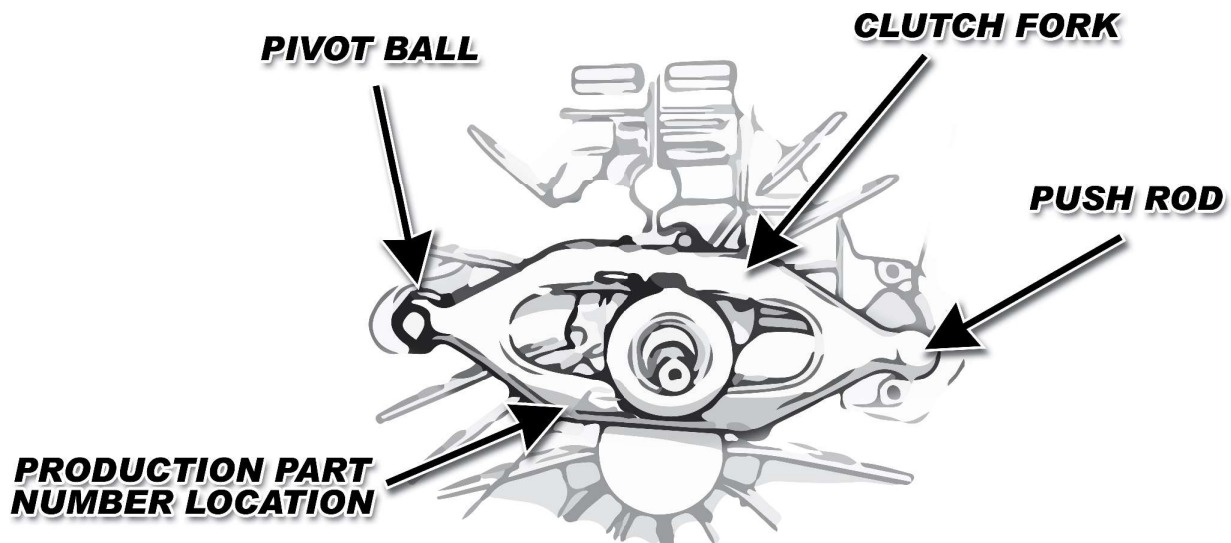
## Dodge Trucks

When converting 1988-93 diesel trucks from the OEM 13" clutch to Centerforce® P/N DF989966 or 315989966, use the supplied pressure plate mounting hardware.

On 1994-04, diesel trucks reuse the stock pressure plate bolts.

**Note:** 5.9L/6.7L Cummins Turbo diesel & 8.0L gas trucks. When servicing the release fork, be sure to install the clutch release fork properly. To ensure proper installation, the clutch fork production part number should be near the pivot ball ( see diagram ).

Failure to properly install the clutch release fork may cause a growling sound coming through the clutch pedal when depressed.



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The enclosed Hydraulic clutch actuation system **MUST** be used in conjunction with your new Centerforce clutch.

## Dodge RAM Hydraulic Clutch system removal/installation:

**NOTE: DO NOT** disassemble the clutch master cylinder, hydraulic line and/or the slave cylinder system. The entire hydraulic clutch system will be removed and re-installed as a complete assembly.

- 1) From under the dashboard; pull UP (hard) on the clutch pedal to release the clutch rod from the clutch master cylinder. With force, the clutch rod will "POP" out of the clutch master cylinder.
- 2) Remove clutch rod and clip from the clutch pedal (save clip for re-installation).
- 3) Take note of the clutch safety switch position as located on the clutch rod. Lift the white safety switch retention clip and slide the safety switch off the clutch rod and set aside for re-installation (no need to disconnect the safety switch from the wire harness).
- 4) From under truck; Remove clutch slave from Bellhousing and save the mounting hardware for re-installation.
- 5) Remove two plastic line retention clips from the underbody. Take note of the hydraulic line routing for re-installation.
- 6) From under dash; Remove 2 nuts from the clutch master cylinder bracket (save the nuts for re-installation) and remove the clutch master cylinder from under hood.
- 7) If possible, drop the master cylinder down to the drivers side wheel well opening. Feed the entire hydraulic assembly out of the wheel well. Having a second person available for this step is helpful.
- 8) Reverse this procedure for installation of the new hydraulic clutch system.
- 9) Important note: DO NOT cut the white plastic retention straps on the new slave cylinder push-rod. These straps will automatically "POP" off once installation is complete and the clutch pedal is depressed for the first time. DO NOT depress the clutch pedal or otherwise "cycle" the hydraulic release system until the transmission has been installed and the hydraulic slave cylinder attached to the bellhousing.
- 10) Cycle the clutch pedal several times and then check the clutch master cylinder reservoir. The clutch fluid should be at normal level as marked. If needed, add a small amount of high quality DOT 3 fluid.
- 11) Once the hydraulic clutch system installation procedure is complete, the clutch should engage and start to move the truck at approximately half of the clutch pedal travel up from the floor. NOTE: there is no conventional hydraulic bleeder within this system. It SHOULD NOT be necessary to bleed this sealed system. However, should any air be introduced into the clutch hydraulic system, you will need to vacuum bleed the system from the clutch reservoir.



CENTERFORCE  
DUAL FRACTION



DYAD  
QUALITY ENGINEERED MULTI DISC CLUTCH SYSTEMS



LMC  
SERIES

CENTERFORCE  
FLYWHEELS

## **5/16" Pressure Plate Bolts**

Centerforce does not require you to use any type of thread locking compound for the Pressure Plate bolts. If you decide to use a thread locking compound on the Pressure Plate bolts, just one SINGLE drop is adequate.

**DO NOT use a washer with this pressure plate bolt.**

Tighten all bolts evenly, ¼ turn at a time in a crisscross pattern until pressure plate is completely drawn-up to the flywheel.

**Final torque to: 25 - 28 ft/lbs.**

**Note:** These specifications apply only to the fasteners supplied by Centerforce.

I01MI008 **CENTERFORCE TECH. LINE (928) 771-8422**

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***Please follow these instructions in regards to the installation and use of your new Centerforce DFX***

**Flywheels:** Be sure to install your new Centerforce DFX clutch on a clean and properly resurfaced or brand new flywheel. Centerforce recommends DFX to be used in conjunction with an aftermarket Billet Steel or Billet Aluminum (with steel insert) flywheel. Nodular Cast Iron OE flywheels are also approved. Gray Cast Iron OE flywheels are NOT recommended for use with Centerforce DFX (If you are unsure of what type of cast flywheel you have please call the tech office).

**Break-In:** The Centerforce DFX series clutch will perform best after a minimum 100-mile break-in period. Stop and go type driving is best for this procedure. Please do not apply full engine power or excessively slip the clutch during the break-in period. This period is required to properly seat the disc with the pressure plate and flywheel friction surfaces.

**Centrifugal Weight System:** If your new Centerforce DFX clutch is equipped with the patented Centerforce centrifugal weight system, do not remove the ring, weights or retaining spring wire that attaches the weight system to the clutch diaphragm fingers. If your Centerforce DFX clutch does not include the centrifugal weight system, it is because there is not sufficient clearance for Centerforce to safely and effectively install the centrifugal weight system for your application. In these cases Centerforce has made other, internal modifications to improve the clutch holding capacity.

**Aftermarket Hydraulic Release Bearings:** When using an aftermarket hydraulic release bearing it is important to check for proper clearance between the bearing and the centrifugal weight system. Some aftermarket hydraulic bearings have an anti-rotator pin that may come into contact with the centrifugal weight system.

Due to its positive engagement characteristics, the Centerforce DFX clutch is designed primarily for competition use. However, DFX can also be used in high-powered street or dual-purpose vehicles with excellent results. Please be advised that the increased holding capacity of this clutch can contribute to clutch chatter and/or cause an audible noise during operation.

**Failure to follow the above procedures will void your warranty and may result in decreased performance and/or premature wear!**



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