

*Twin XTend automatically adjusts for clutch wear; no manual adjustments required.*

## Removal Guide

### ZF Sachs Twin XTend™

### Two plate 15.5"

### Self-Adjusting Clutch

- 1 Insert Alignment Tool and Install (4) Shipping Bolts
- 2 Removal of Clutch Assembly

## Hazard Alert Messages

### ▲ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service procedures.

### ▲ WARNING

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury and damage to components can result.

### ▲ WARNING

Use a brass or leather mallet for assembly and disassembly procedures. Do not hit steel parts with a steel hammer. Pieces of a part can break off and cause serious personal injury.

### ▲ WARNING

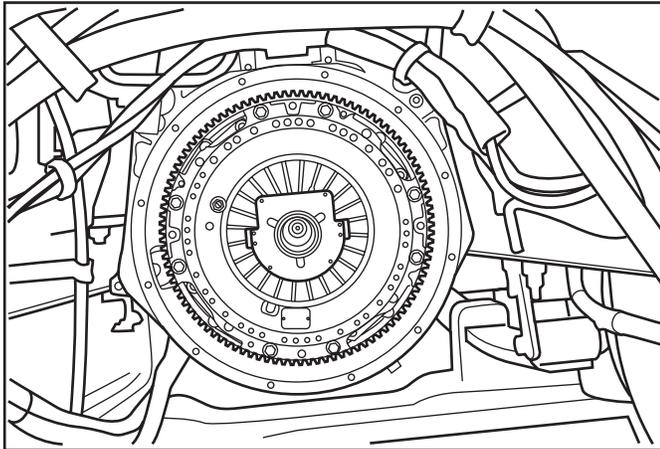
Many clutch linings contain asbestos fibers, a cancer and lung disease hazard. Meritor and ZF Sachs clutches do not contain asbestos fibers. However, use caution when you handle clutches during maintenance and service procedures, because clutch components, such as facings and buttons, contain non-asbestos material that can cause respiratory tract or eye irritation.

In addition, some experts believe that long-term exposure to non-asbestos material can cause lung, kidney or liver damage; blood disorders; and possibly cancer. Meritor and ZF Sachs recommend that you use caution to prevent creating dust when you work on clutches that contain non-asbestos materials.

1. If possible, service clutches in an area that is separate from other operations.
2. Always wear an approved respirator for all clutch service procedures, including removal and installation.
3. Do not use compressed air or dry brushing to clean clutch parts or assemblies. Use a cylinder with arm sleeves and a high-efficiency (HEPA) filter that encloses the clutch and vacuums the dust.
4. If a cylinder is not available, carefully clean clutch parts and assemblies in the open air. During disassembly, carefully place all parts on the floor to prevent dust from becoming airborne. Use an industrial vacuum cleaner with a high-efficiency (HEPA) filter to remove dust. After using the vacuum, remove any remaining dust with a rag soaked in water and wrung until nearly dry. Dispose of used rags with care to prevent dust from becoming airborne.
5. Do not use compressed air or dry sweeping to clean the work area. Use an industrial vacuum with a high-efficiency (HEPA) filter and rags soaked in water and wrung until nearly dry. Dispose of used rags with care to prevent dust from becoming airborne.
6. After servicing clutch parts and assemblies, thoroughly wash your hands before you eat or drink. Do not wear work clothes home. Do not shake work clothes after you remove them. Vacuum clothes to help prevent dust from becoming airborne. Launder work clothes separately.

## Removal of Flywheel Mounted Twin XTend Clutches

Removing a **Fully Operational Clutch**  
to be later **Re-Installed**  
or  
Removing a **Failed Clutch**  
for **Warranty Claim Evaluation**

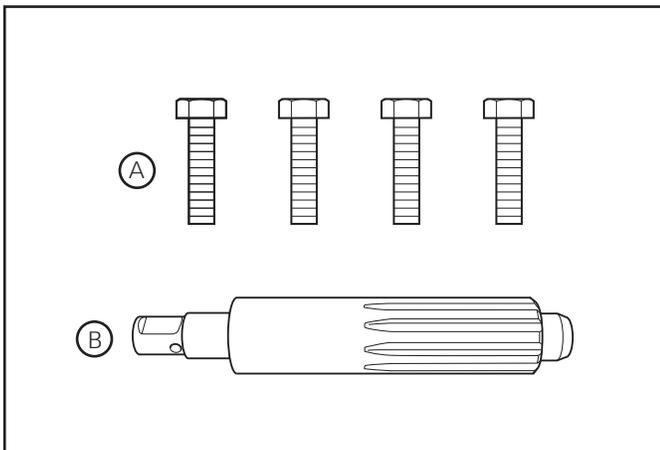


Prior to dismantling the Clutch Cover housing from the Flywheel, it is essential that the internal self-adjustment mechanism of the Twin XTend clutch is "caged" with 7/16" x 1.5" long shipping bolts. Without correct caging, the clutch will lose its proper adjustment settings and will malfunction upon re-installation and no warranty evaluation/approval can be done.

The following procedure describes the steps involved for removing an installed Twin XTend clutch from the Flywheel. The procedure begins following Removal of the Transmission. Precautionary steps and care have to be taken with regards to supporting transmission weight and Input shaft alignment during removal, such that no excessive weight or bending forces have been applied to the Clutch and the Clutch Bearing.

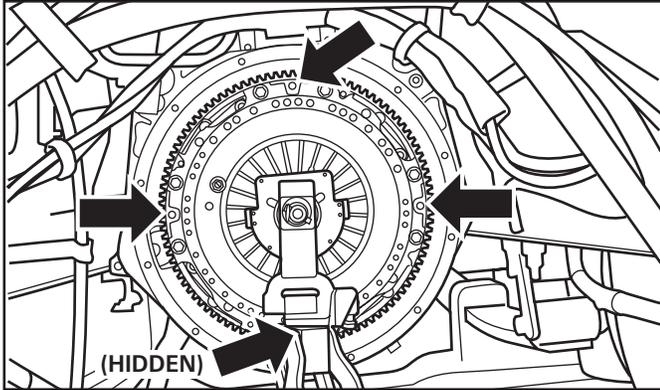
### Required Tools, Parts, Equipment

- (A) (4) Shipping bolts  
(7/16" x 1.5" length x 14 threads/inch)
- (B) Clutch alignment shaft  
PN 5029 (SPX, OTC)
- (C) Clutch jack (not shown)

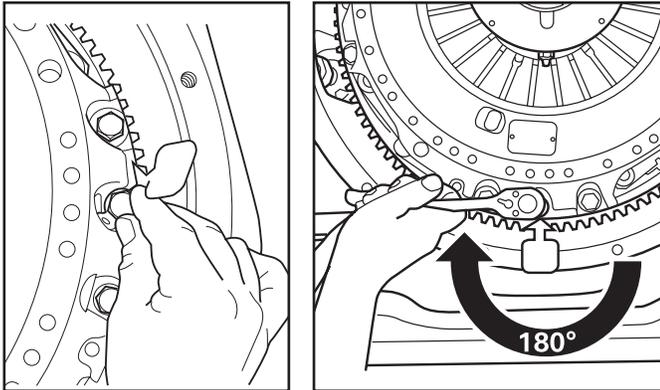


## Step 1

### Insert Alignment Tool and Install (4) Shipping Bolts



- First, insert alignment tool through the clutch all the way into the pilot bearing



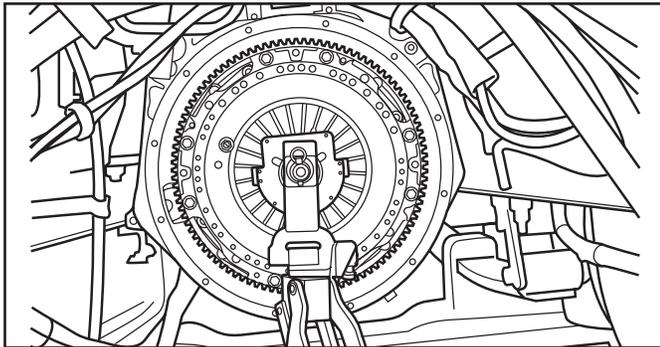
- Second, insert (4) shipping bolts (locations as shown by the arrows in top picture) and hand tighten
- Then, turn shipping bolts an additional 1/2 turn (180 degrees rotation) **with hand wrench**

#### Note:

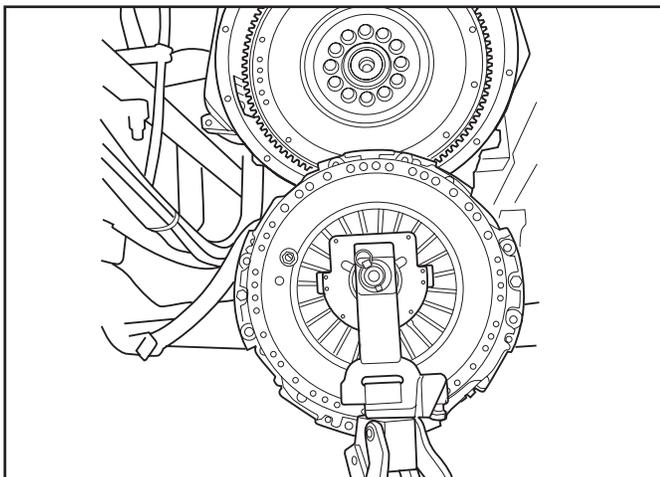
DO NOT USE IMPACT WRENCH as tightening beyond the recommended amount can damage clutch release mechanism!

## Step 2

### Removal of Clutch Assembly



- While supporting the clutch, remove (8) mounting bolts



- Remove clutch assembly from flywheel



**Flywheel side disc is loose and could fall down!**

Dealers, Fleets, and Service Parts Customers contact:

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Troy, MI 48084

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[www.meritorhvs.com](http://www.meritorhvs.com)

Original Equipment Manufacturers contact:

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