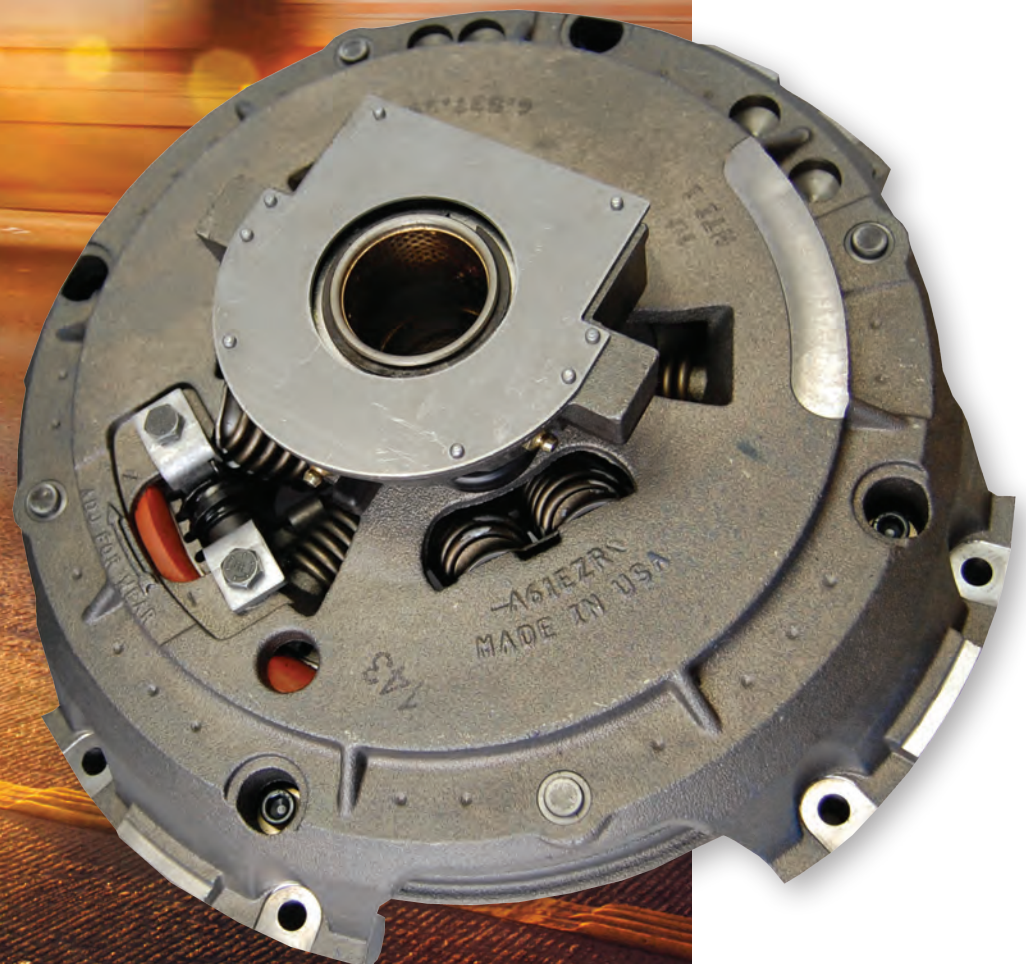


# MERITOR® ALLFIT CLUTCHES FOR MEDIUM- AND HEAVY-DUTY APPLICATIONS



**MERITOR**

  
**ALLFIT**



Adjustment Procedure .....	18
Clutch Accessories .....	13
Clutch Program .....	2
Clutch Selection .....	7
Clutches for 14" Flywheel .....	8
Clutches for 15 ½" Flywheel .....	10
Cryogenic Treated Disc Springs .....	3
Determine Proper Clutch .....	6
Engine Horsepower & Torque Ratings.....	25
Exploded View .....	4
Frequently Asked Questions .....	22
Installation Guidelines.....	15
Installation Kits.....	14
Maintenance Tips .....	21
Serviceability.....	20
Cross Reference .....	34



# Meritor AllFit Clutch Program

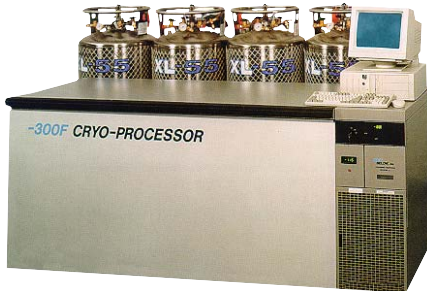
## Heavy-Duty Clutches & Clutch Accessories

- **Brand new** — Every clutch is made brand new in the U.S.A. in an ISO9001 certified factory. The fit and finish of the Meritor AllFit clutches is superior to remanufactured units. Interior component fit, performance and life cycles are superior to any remanufactured or rebuilt units.
- **No cores to handle** — Since every clutch is brand new, there is never a core charge or core handling expense attached to Meritor AllFit clutches.
- **Easy adjust feature** — Every Meritor AllFit Easy Pedal Effort clutch incorporates a patented EZ adjuster. The EZ adjuster permits single motion adjustment for faster adjustment and decreased downtime.
- **Actively expanding seal** — Meritor AllFit Self-Adjusting Clutches utilize an expanding seal housed in the adjusting ring to eliminate contamination-related failures.
- **Disc springs** — Meritor AllFit clutch discs incorporate chrome silicon, valve quality steel springs that have been cryogenically treated using a patented process. This cryogenic treatment virtually eliminates spring failures.
- **Clutch buttons** — High Performance Friction Material exclusive to Meritor AllFit product series.
- **Sealed throw out bearing** — A sealed throw out bearing is used in every Meritor AllFit clutch. This upgrade provides for increased lubrication intervals and longer clutch life.
- **Fiber brake spacer** — Shipped free of charge with every Meritor AllFit clutch. The spacer is essential to achieve proper clutch brake squeeze when the flywheel has been resurfaced.
- **State of the art assembly** — All Meritor AllFit clutch assemblies are serialized and shipped as matched units. Factory test data is tied to this serial number and used for production process control and warranty analysis.
- **Mack application coverage** — We offer Self-Adjusting and Manual Easy Pedal Effort clutches for the Mack 9-Spring applications.
- **Cast cover replacement** — Meritor offers a cast cover replacement for the medium-duty, stamped steel clutch.
- **Warranty** — All Meritor AllFit clutches offer a 12-month, unlimited mileage parts warranty against defect in material and workmanship. Approved labor expenses for the replacement of any nonconforming Part will be covered up to \$800.



## Cryogenic Treated Disc Springs

A patented process for all Meritor AllFit Clutches



One of the many selling features of the Meritor AllFit series clutch is a patented process of cryogenically treating the disc springs.

Our partner-supplier starts with a ASTM A877 chrome-silicon, valve-quality spring. The springs are then cryogenically treated creating a more consistent grain structure of the steel that results in more durable material which translates to improvements such as optimized stress relief, improved wear resistance and increased fatigue life.

Quality testing of the cryogenically-treated springs demonstrates an increase in spring life from two to five times that of an untreated spring. With the combination of robust materials and cryo-treating, disc spring failure is virtually eliminated.





# 15 ½” Manual Adjust Clutch Assembly

## 1. Adjuster

- a. Gear used to manually turn adjusting ring

## 2. Release Bearing Assembly

- a. Release bearing centered in housing
- b. Forks pull on housing to release clutch sleeve

## 3. Sleeve Spring

## 4. Cover Assembly

- a. 6-Spring standard pedal
- b. 9-Spring easy pedal
- c. Houses all internal clutch parts
- d. Often referred to as pressure plate

## 5. Adjusting Ring

- a. Threads into cover assembly
- b. Has 6-lever saddles
- c. Repositions levers when adjusting clutch for proper plate load and release to compensate for wear

## 6. Pressure Springs

- a. Springs put pressure on retainer to achieve proper plate load for unit
- b. Units have 6 pressure springs with total plate loads ranging from 2,400 to 4,000 lbs.
- c. Located between retainer and cover assembly

## 7. Assist Springs

- a. 3 springs located between retainer and cover to assist in pedal effort when releasing clutch
- b. Easy pedal only

## 8. Spring Pivots

- a. Fits over machined surfaces on retainer and cover assembly for smooth spring action and to reduce wear

## 9. Retainer

- a. All internal clutch components connect to retainer to release the clutch
- b. The retainer is pulled, compressing pressure springs and pivoting levers allowing pressure to be removed from pressure plate, thus allowing the clutch release

## 10. Thrust Washer

## 11. Levers

- a. 6 levers per unit located between retainer and saddles on adjusting ring
- b. Apply or remove pressure from pressure plate by pivoting on the fulcrum of the pressure plate

# 15 1/2" Manual Adjust Clutch Assembly



## 12. Sleeve

- a. Sleeve connects release bearing to retainer by bevel on sleeve
- b. Sleeve has 2 brass bushings pressed and indented
- c. Requires routine maintenance

## 13. Pressure Plate

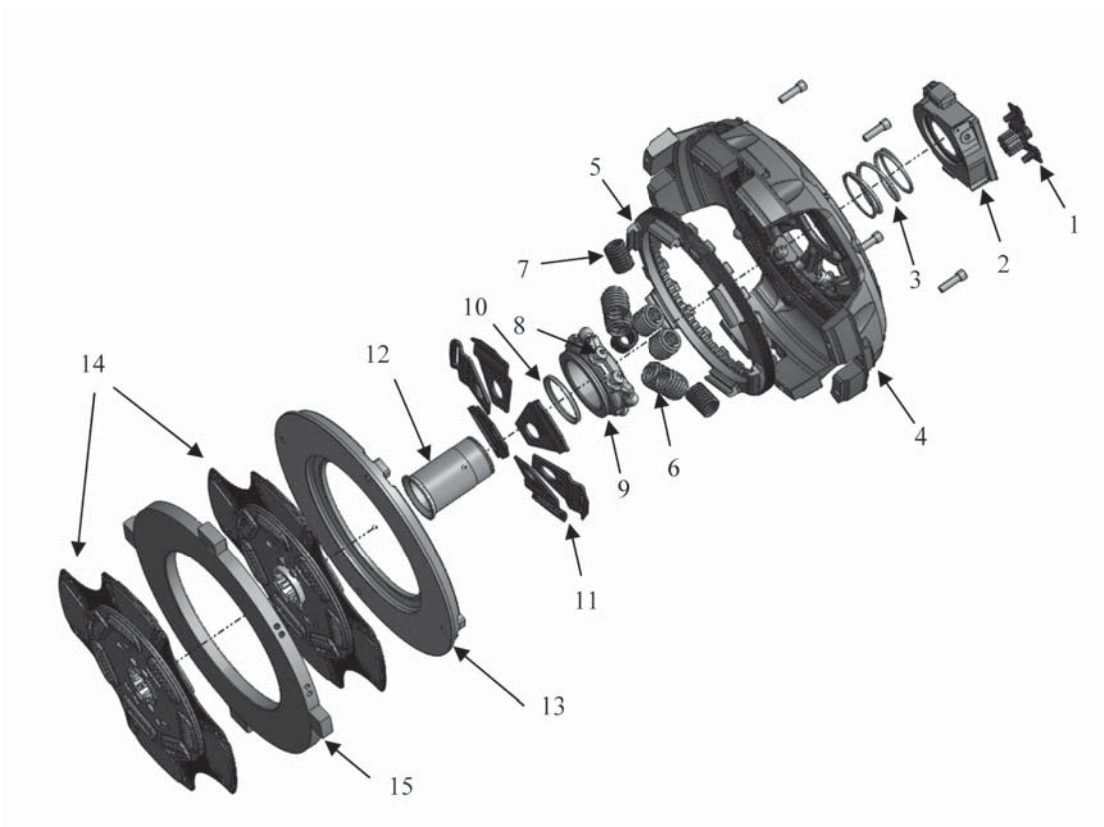
- a. Applies clamping force from cover assembly to discs and center plate against flywheel
- b. Plate is held in place by straps bolted to plate and riveted to cover

## 14. Clutch Discs

- a. Drives the input shaft through a splined hub
- b. Buttons refer to friction material looking like pads, pucks, or buttons
- c. Can have non-asbestos organic facing
- d. Dampens with 7, 8, 9, 10 dampening springs
- e. Have 4 or 6 sets of buttons

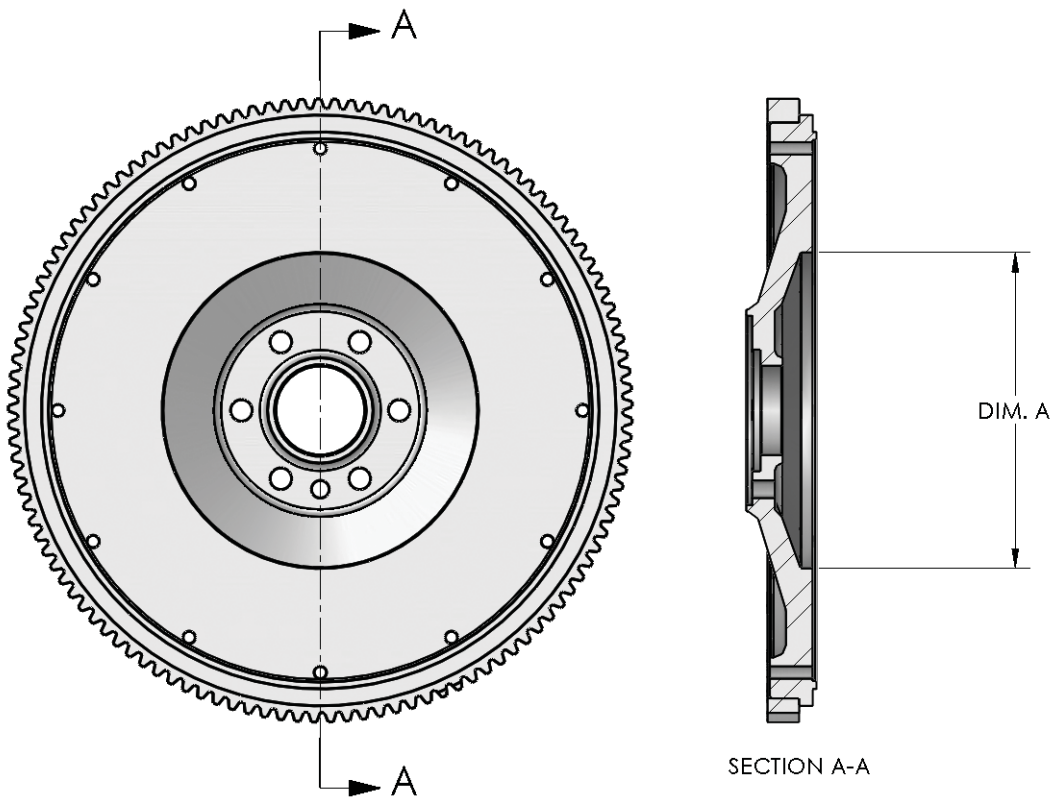
## 15. Intermediate Plate

- a. Used on dual disc clutch, adds friction surface to increase torque while absorbing heat
- b. The intermediate plate fits in cover assembly with lugs machined on plate and slots corresponding in cover



## Determining the Proper Clutch for Your Vehicle

1. Determine the size of the clutch. (14" or 15 ½")
2. If 15 ½", then measure the center flywheel opening or bore. (Dimension A in the illustration)  
Approximate bore sizes: 7", 8.5" or 10".
3. Determine engine torque at current settings. (See Page 21 - Torque Chart)
  - A. If flywheel bore is 7", ONLY use an 8-Spring disc.
  - B. If flywheel bore is 8.5", use a 10-Spring disc.
  - C. If flywheel bore is 10", use a 7-Spring, 6-Spring or a 9-Spring (Mack Only).
  - D. If you have a 10" flywheel bore, DO NOT USE ORGANIC FACING. The facing I.D. will extend into the flywheel bore opening, not having full facing contact.



## Meritor AllFit Clutch Selection Guide

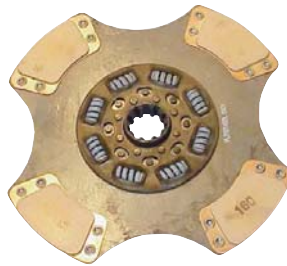
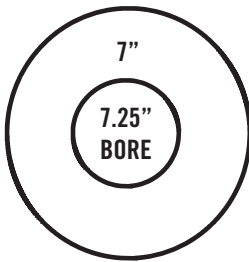
### Clutch Models to Use by Flywheel Bore Size

#### 14" Clutches

All 14" clutches use 8-Spring disc assemblies and can be used only with a 7" flywheel bore size.

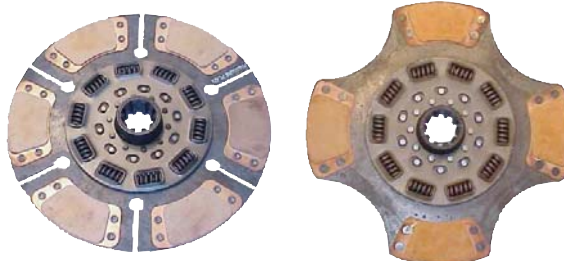
#### 15 ½" Clutches

Disc types will vary and are designed to be used with a specific flywheel bore size. Shown below are the Easy Pedal Effort Manual and Self-Adjusting clutch models designed for each bore size.



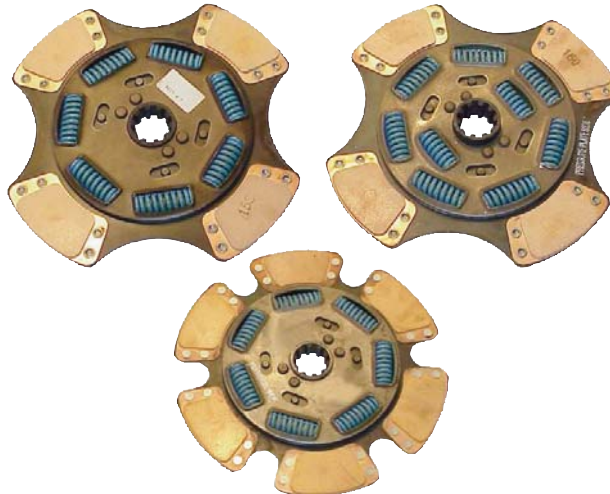
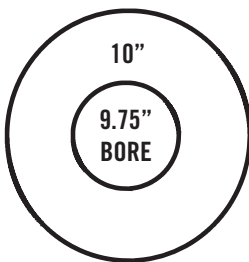
8-Spring Disc

Easy Pedal Effort  
MAF-108391-81



10-Spring Disc

Easy Pedal Effort  
MAF-108391-74  
MAF-108391-93  
MAF-108391-93H



7- & 9-Spring Disc

Easy Pedal Effort  
MAF-108925-82  
MAF-108925-25  
MAF-108935-51 (Mack)  
MAF-108935-91 (Mack)

Self-Adjusting  
MAF-209925-82  
MAF-209925-25  
MAF-209935-51 (Mack)  
MAF-209935-51H (Mack)

**Manually adjusted clutches are not recommended to be installed in vehicles with hydraulic linkage systems.**

\*For non-Standard requirements and/or selection of the specific model for a vehicle, follow the clutch selection procedure in the catalog.



## Heavy-Duty Clutch for Medium-Duty Truck H.D. Cast Version of Stamped Steel

### Single Disc



**MAF-107683-5** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
620	3600	Ceramic 8-Spring 3 Pad	EZ	EZ	107683-5



**MAF-107683-4CB** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
680	3600	Ceramic 8-Spring 4 Pad	EZ	EZ	107683-4

### Dual Disc



**MAF-107237-22** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
900	3600	Ceramic 8-Spring 3 Pad	EZ	EZ	107237-10 107237-22



**MAF-107342-12** 14" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
900	3600	Ceramic 8-Spring 3 Pad	EZ	EZ	107342-12



**MAF-107237-4CB** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
950	3600	Ceramic 8-Spring 4 Pad	EZ	EZ	107237-8

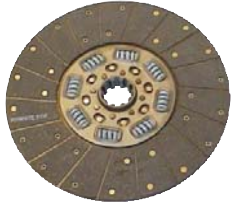


**MAF-107342-24** 14" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
950	3600	Ceramic 8-Spring 4 Pad	EZ	EZ	107342-11

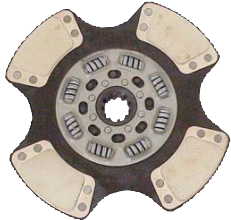
Note: These clutches are not adjusted for synchronized transmissions.

## Heavy-Duty Clutch Recess (Pot) Flywheel



**MAF-108035-82B** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ
1150	3600	Organic 8-Spring	EZ	DUAL



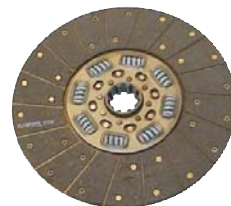
**MAF-108063-59A** 14" x 1-3/4"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ
1400	3600	Ceramic 8-Spring 4 Pad	EZ	DUAL



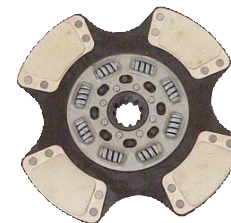
**MAF-108034-61B** 14" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
1250	3600	Ceramic 8-Spring 3 Pad	EZ	DUAL	108034-61B



**MAF-108034-82B** 14" x 2"

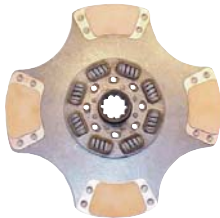
TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
1150	3600	Organic 8-Spring	EZ	DUAL	108034-82B



**MAF-108050-59B** 14" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES	COMMENTS
1400	3600	Ceramic 8-Spring 4 Pad	EZ	DUAL	108050-59	Heavy-Duty Plate

## Heavy-Duty Clutch 8-Spring 7" Flywheel Bore



**MAF-108391-81** 15 1/2" x 2

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
1400	3600	Ceramic 8-Spring 4 Pad	EZ	DUAL	108391-81B

## 10-Spring 8.5" Flywheel Bore

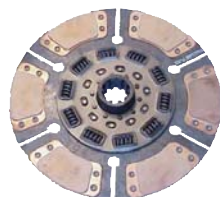
**MAF-108391-74** 15 1/2" x 2

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
1650	3600	Ceramic 10-Spring 4 Pad	EZ	DUAL	108391-74B



**MAF-108391-93**

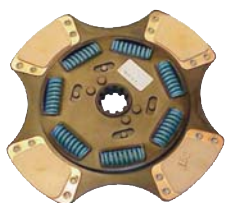
1860	4000	Ceramic 10-Spring 4 Pad	EZ	DUAL	108391-93B
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**MAF-108391-93H** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ
2050	4000	Ceramic 10-Spring 6 Pad	EZ	DUAL

## Heavy-Duty Clutch 7-Spring 10" Flywheel Bore



**MAF-108925-82** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
1700	3600	Ceramic 7-Spring 4 Pad	EZ	DUAL	108925-82B



**MAF-108925-25** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
2050	4000	Ceramic 7-Spring 6 Pad	EZ	DUAL	108925-10 108925-20 108925-25



**MAF-108925-32H** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES
2250	4500	Ceramic 7-Spring 6 Pad	EZ	DUAL	108925-45

## 9-Spring 10" Flywheel Bore



**MAF-108935-51** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES	COMMENTS
1700	3600	Ceramic 9-Spring 4 Pad	EZ	DUAL	108935-51	Mack Applications

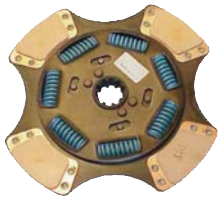


**MAF-108935-91** 15 1/2" x 2"

TORQUE	PLATE LD	DISC STYLE	PEDAL	ADJ	REPLACES	COMMENTS
2050	4000	Ceramic 9-Spring 6 Pad	EZ	DUAL	108935-94	Mack Applications



## Heavy-Duty Clutch 7-Spring 10" Flywheel Bore



**MAF-209925-82**

**15 1/2" x 2"**

TORQUE	PLATE LD	DISC STYLE	REPLACES
1700	3600	Ceramic 7-Spring 4 Pad	209701-82



**MAF-209925-25**

**15 1/2" x 2"**

TORQUE	PLATE LD	DISC STYLE	REPLACES
2050	4000	Ceramic 7-Spring 6 Pad	209701-25

## 9-Spring 10" Flywheel Bore



**MAF-209935-51**

**15 1/2" x 2"**

TORQUE	PLATE LD	DISC STYLE	REPLACES
1700	3600	Ceramic 9-Spring 4 Pad	209701-51



**MAF-209935-51H**

**15 1/2" x 2"**

TORQUE	PLATE LD	DISC STYLE	REPLACES
2050	4000	Ceramic 9-Spring 6 Pad	209701-92

## Clutch Accessories

Part Number	Reference	Description
MAF-A119BPB6	274C-6	Drive Pin 14" Flywheel (6 per card)
MAF-A148BPB6		2" Brake Spacer (6 per card)
MAF-A153BPB6		1.75" Brake Spacer (6 per card)
MAF-B175	127175	1.75" 2-pc Hinge Clutch Brake
MAF-B201	127200	2" 2-pc Hinge Clutch Brake
MAF-B201-450		2" 2-pc. Hinge Clutch Brake .450 thickness
MAF-B201-500		2" Oversized 2 pc Hinge Clutch Brake
MAF-A230EZBP		E-Z Adjuster
MAF-A236BP		Spring Loaded Adjuster
MAF-A237BP		2" 1-pc Clutch Brake
MAF-A238BP		1.75" 1-pc Clutch Brake
MAF-A239BP	127740	1.75" Torque Limiting Brake
MAF-A240BP	127760	2" Torque Limiting Brake
MAF-A537BP	127200	2" 2-pc Clutch Brake
MAF-A538BP	127175	1.75" 2-pc Clutch Brake
MAF-AB197VBP	6306-2VS	Pilot Bearing (Viton Sealed)
MAF-AB197SVBP	6306-SN	Pilot Bearing (Viton Sealed with Snap Ring)
MAF-CATLE100BP		Flywheel Gauge & Adjustment Tool
MAF-CSB12815BPB4	12815	Shaft Bushing (4 per card)
MAF-CSF105C-137BP	105C-137	Release Fork
MAF-IPS1659	S1659	Input Shaft



MAF-A119BPB6  
DRIVE PIN



MAF-A236BP  
SPRING ADJUSTER



MAF-A230EZBP  
E-Z ADJUSTER



MAF-A237BP-MAF-A238BP  
1 PC. CLUTCH BRAKE



MAF-A239BP-MAF-A240BP  
TORQUE LIMITING CLUTCH  
BRAKE



MAF-B201  
2-PIECE HINGE  
CLUTCH BRAKE



MAF-A148BPB6  
BRAKE SPACER

## Installation Kits

Part Number	Reference	Description
MAF-AK2468	RT Series	Major Install Kit
MAF-AK2468B	RT Series	Major Install Kit w/ MAF-B201
MAF-AK2175BP	1.75"	Minor Install Kit with Torque Brake
MAF-AK2200BP	2"	Minor Install Kit with Torque Brake
MAF-AK2201BP	2"	Minor Install Kit with 2 pc. Hinge Clutch Brake
MAF-AK3600	FRO Series	Major Install Kit



MAF-CSB12815BPB4  
SHAFT  
BUSHING

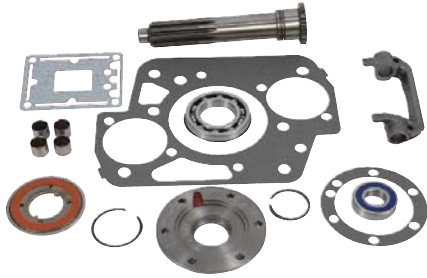


MAF-IPS1659  
INPUT SHAFT 2"  
10-SPLINE W/BUSHING



MAF-CSF105C-137BP  
RELEASE FORK

## Major Clutch Installation Kits



**Part # MAF-AK2468 Includes:**  
(for RT Transmission)

- Clutch Housing Gasket
- Front Bearing Cover Gasket
- Inner Retaining Ring
- Outer Retaining Ring
- Front Bearing Cover
- 2" Torque Brake
- Shift Lever Housing Gasket
- Bearing w/Snap Ring
- Pilot Bearing
- Cross Shaft Bushings
- Standard Release Yoke
- 2" - 10-Spline Input Shaft



**Part # MAF-AK2468B Includes:**  
(for RT Transmission)

- Clutch Housing Gasket
- Front Bearing Cover Gasket
- Inner Retaining Ring
- Outer Retaining Ring
- Front Bearing Cover
- 2" 2-piece Hinge Clutch Brake
- Shift Lever Housing Gasket
- Bearing w/Snap Ring
- Pilot Bearing
- Cross Shaft Bushings
- Standard Release Yoke
- 2" - 10-Spline Input Shaft



**Part # MAF-AK3600 Includes:**  
(for FRO Transmission)

- Clutch Housing Gasket
- Front Bearing Cover Gasket
- Inner Retaining Ring
- Outer Retaining Ring
- Front Bearing Cover
- 2" Torque Brake
- Shift Lever Housing Gasket
- Bearing w/Snap Ring
- Pilot Bearing
- Cross Shaft Bushings
- Standard Release Yoke
- 2" - 10-Spline Input Shaft

### Minor Clutch Installation Kit with Torque Brake



**Part # MAF-AK2200BP Includes:**

- Release Fork
- 2" Brake
- Bushings

**Part # MAF-AK2175BP Includes:**

- Release Fork
- 1.75" Brake
- Bushings

### Minor Clutch Installation Kit with Two-Piece Brake

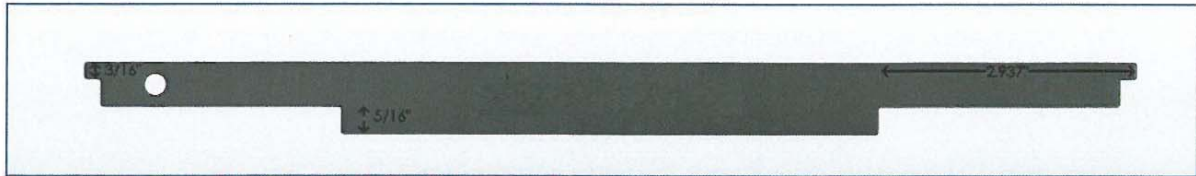


**Part # MAF-AK2201BP Includes:**

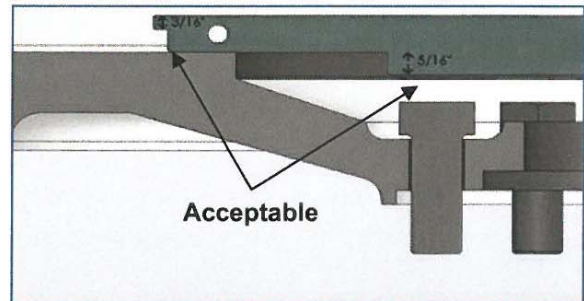
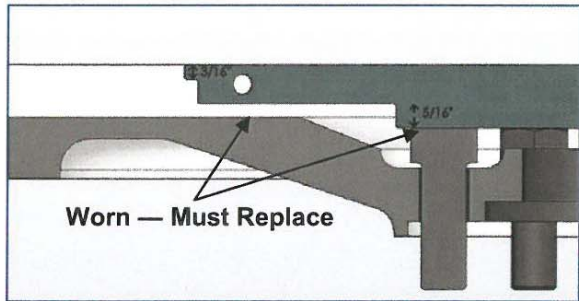
- Release Fork
- 2" 2-Piece Clutch Brake
- Bushings

## Using Your Flywheel Gauge\*

### Flywheel Gauge

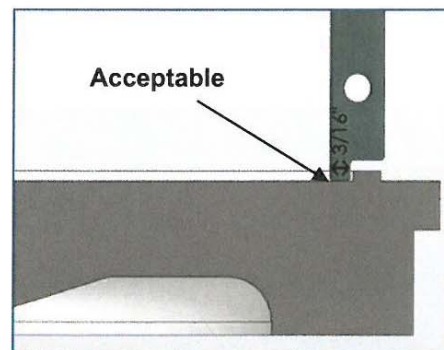
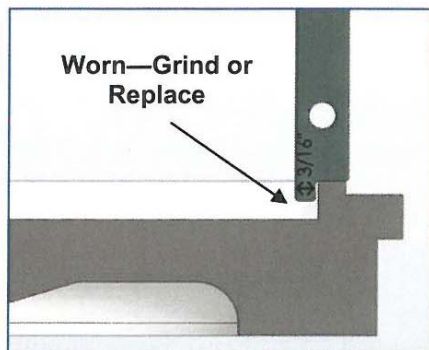


### Step 1 5/16 Gauge Mounting Bolt Clearance



With the flywheel mounting bolts installed, place gauge on the friction surface of the flywheel with the 5/16" step over the mounting bolts. If the 5/16" step contacts the head of the mounting bolts, the flywheel is too thin.

### Step 2 3/16 Gauge Clutch Centering Lip



Place gauge on end contacting flywheel by clutch mounting hole with 3/16" step over clutch centering lip. If the clutch centering lip contacts gauge, the lip is too tall and will not allow proper installation.

\*Tool MAF-CATLE100BP is available to assist with installation



## Clutch Installation Guidelines for 14" & 15 ½" Two-Plate Clutches

1. (14" & 15 ½") Resurface or replace flywheel. Surface must be smooth or premature clutch failure can occur. Flywheel depth must be 2.937" for 14" pot style flywheels. 15 ½" and 14" medium-duty clutches use a flat flywheel. **REMEMBER:** Machining the flywheel past the recommended .060" moves the pressure plate away from the transmission. In this event, install a fiber spacer (provided) on the pilot shaft between the clutch brake and the transmission. The release yoke in the bell housing may not align properly with the pressure plate release bearing housing. Linkage adjustment may be required.
2. (14" & 15 ½") Inspect and dial-indicate the mating surface of engine flywheel housing and clutch bell housing for alignment and also check flywheel run out. **CAUTION:** If misalignment is greater than recommended limits, this may cause poor clutch release, rapid wear on transmission pilot shaft and destruction of the clutch disc. Excessive flywheel run out may cause severe vibration in vehicle drive line.
3. (14" & 15 ½") A new pilot bearing should be used. Before installing pilot bearing into flywheel, check freedom of movement on transmission pilot shaft.
4. (14" Pot Flywheel Only) Drive pins in the flywheel should be replaced. Check to ensure drive pin heads are square with the flywheel friction surface. If drive pins are not replaced, assume they have turned. The constant pounding of the center plate may have changed the position of the drive pins in the flywheel. Play it safe — check them all!
5. (14" Pot Flywheel Only) After the drive pins are installed and properly aligned, position the center plate onto the drive pins and check the clearance with a feeler gauge. Clearance should be .006" to .010" and be measured from the same side of the drive pin at each location. The center plate should move up and down freely on the pins.
6. (14" Pot Flywheel Only) Install front clutch disc, center plate and rear disc as marked.
7. (14" Pot Flywheel Only) Insert alignment shaft through both clutch discs making sure it enters the pilot bearing. **NOTE:** If an old pilot shaft with worn splines is used to align clutch disc, transmission pilot shaft may damage clutch hubs during installation of transmission.
8. (14" Pot Flywheel Only) Position cover assembly onto the pilot shaft and guide towards flywheel mounting surface, making sure the cover fits into the flywheel pilot. Start cap screws.
9. (15 ½" and 14" Medium-duty Only) Insert alignment shaft through bearing housing. Install rear disc, center plate and front disc on alignment shaft. Move clutch housing towards flywheel making sure cover fits into flywheel pilot. **Note:** 14" medium-duty must install adapter ring on flywheel first.
10. (14" & 15 ½" Only) Install the cap screws that fasten the clutch housing on the flywheel. Tighten the cap screws to the specified torque and the sequence specified by the manufacturer of the vehicle or transmission. Cap screws should be Class 5 or greater.

## Clutch Installation Guidelines (continued) for 14" & 15 ½" Two-Plate Clutches

11. (14" & 15 ½") Examine transmission pilot shaft for wear and replace if necessary. Worn splines on pilot shaft will cause clutch to release improperly and may cause splined hubs in clutch disc to break out.
12. (14" & 15 ½") Inspect release bearing yoke and both cross shaft bushings in bell housing and replace if worn. NOTE: For proper clutch release, release bearing housing on cover must "squeeze" clutch brake during clutch disengagement. Worn parts in bell housing may prevent full movement of release bearing during operation of vehicle.
13. (14" & 15 ½") If clutch brake is to be used, place on transmission pilot shaft.
14. (14" & 15 ½") Rotate release bearing housing on cover assembly until flat section is on top. NOTE: Bell housing cross shaft on some vehicles may be below center. This requires the flat section on release bearing to be in down position. (Note position on clutch when being removed.)
15. (14" & 15 ½") Using extreme caution, guide transmission through cover and disc assembly, rotating bell housing shaft so that release yoke fingers are clear of the pads on the release bearing assembly. WARNING: Transmission must not hang or be forced into the clutch. This can warp the clutch disc and prevent the clutch from releasing. Lubricant on input shaft splines can cause slippage or release problems.
16. (14" & 15 ½") Start bell housing cap screws and tighten progressively to the vehicle manufacturer's recommended torque.
17. (14" & 15 ½") Release bearing has been pre-packed with grease from the factory.
18. (14" & 15 ½") Install clutch linkage. See "Clutch Adjustment Procedure".



# Clutch Adjustment

## Clutch Adjustment Procedure\* for Meritor AllFit Clutches

*NOTE: Meritor AllFit clutches are adjusted at the factory to original equipment specifications, and should require very little internal adjustment to achieve proper release and engagement. The clutch must not be adjusted to accommodate thin or worn flywheels, or worn linkage, yoke and/or cross shaft bushings, or to accommodate other deficiencies. Adjustment for such purposes will either cause the clutch to function improperly or will cause early clutch failure, and will be apparent on factory inspection of warranty claims... and therefore will void the manufacturer warranty.*

### THIS PROCEDURE COVERS BOTH 14" AND 15 1/2" CLUTCHES WHEN A CLUTCH BRAKE IS USED

#### **STEP #1**

After clutch installation, check the clearance between the yoke tips and wear pads on bearing housing for 1/8" clearance. This determines pedal free play. (see illustration)

Adjust the clutch **linkage** to increase or decrease the yoke-to-bearing clearance. **NEVER USE THE INTERNAL CLUTCH ADJUSTMENT FOR THIS PURPOSE.**

#### **STEP #2**

Check for proper clutch brake and bearing gap of 1/2" to 9/16". If the gap is not within these tolerances add or remove the fiber spacer or the clutch needs adjusting.

If the clutch does need adjusting, remove the lock strap or turn the quick adjuster and set the clearance between the bearing and clutch brake at 1/2" to 9/16". **THIS DIMENSION IS CRITICAL. DO NOT VARY — EITHER OVER OR UNDER THESE DIMENSIONS — UNDER ANY CIRCUMSTANCES.** Over adjusting either way will cause the clutch to slip or not release.

Use the internal adjustment on the clutch to move the bearing. Turn adjuster clockwise to move bearing towards transmission (to decrease clearance) or counter clockwise to move the bearing towards the engine (to increase clearance). If internal adjustment exceeds 4 notches either way the clutch may not release or may slip.

Put tension on the linkage to be sure bearing is stretched and no movement towards the engine is noticed. Measure clutch brake and bearing gap with 1/2" - 9/16" gauge (see illustration). Once the adjustment is set, re-install lock strap. Make sure quick adjuster is in the locked position.

**REMINDER:** The bearing must move a minimum of 1/2" or clutch will not release. Eliminate lost motion before checking for 1/2" movement. Lost motion is generally caused by loose or worn linkage, or worn yoke or cross shaft bushings.

#### **STEP #3**

If internal clutch adjustment was made re-verify the 1/8" clearance between the yoke tips and wear pads on bearing housing shown in Step #1 above (see illustration). If necessary, re-align linkage to obtain proper clearance.

#### **STEP #4**

Re-verify the clutch brake squeeze by inserting .010 feeler gauge between bearing and clutch brake, then depressing the pedal to end of stroke. The feeler gauge must be tightly clamped between the bearing and the clutch brake. This verifies the contact of the bearing to the clutch brake.

The clutch brake will be squeezed if the total pedal stroke slightly exceeds the movement required to move the yoke/fork 5/8" to 11/16" (the combined total of the 1/8" clearance between yoke tips and wear pads and the 1/2" - 9/16" brake squeeze gap).

\*Tool MAF-CATLE100BP is available to assist with installation.

## Clutch Adjustment Procedure (continued) for Meritor AllFit Clutches

**IN THE EVENT THE BRAKE IS NOT BEING SQUEEZED, DO NOT CHANGE THE 1/2" - 9/16" GAP FOR THE CLUTCH BRAKE, OR THE 1/8" CLEARANCE FOR THE BEARING HOUSING. CONSULT THE VEHICLE MANUFACTURER SERVICE MANUAL.**

In analyzing the reasons for the brake not being squeezed, other things to check for are:

- A. Worn linkage components or yoke and cross shaft bushings. If necessary, replace those components.
- B. Improper linkage assembly. Verify that linkage is assembled in the correct hole locations.
- C. Pedal stroke. To adjust, raise the upper and/or lower the lower pedal stops.

**NOTE: MAXIMUM BRAKE SQUEEZE (IN CAB OF TRUCK) SHOULD NOT EXCEED 1" FROM THE END OF PEDAL STROKE. IF IT DOES, IT CAN BE ADJUSTED BY:**

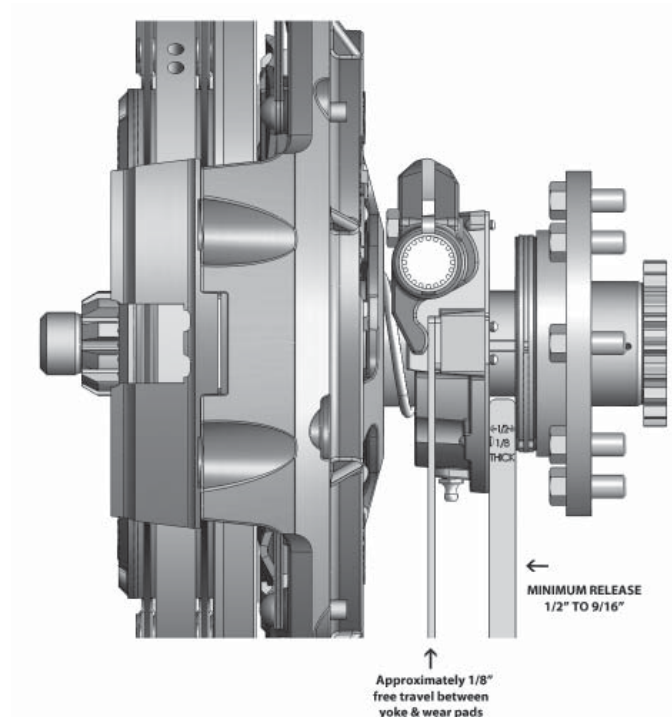
- A. Changing pedal stops in cab to reduce total pedal stroke.
- B. Increasing 1/8" yoke-to-bearing setting to lower squeeze. (this will increase free-pedal travel)

### **STEP #5**

Once the external parts are in tune with the clutch, record the measured amount of free-pedal movement in the vehicle log. This is the normal (standard) pedal free travel for this vehicle. If future adjustments are required, clutch should be adjusted back to this standard.

Example: If pedal free travel standard is 2", the clutch may need adjustment when wear has reduced pedal free travel to approximately 1".

**INSTALLER SHOULD CAREFULLY CHECK TO VERIFY THERE IS 1/8" OF FREE TRAVEL BETWEEN THE YOKE AND THE WEAR PADS AND A MINIMUM OF 1/2" TO 9/16" OF SPACE BETWEEN THE BEARING AND THE CLUTCH BRAKE.**



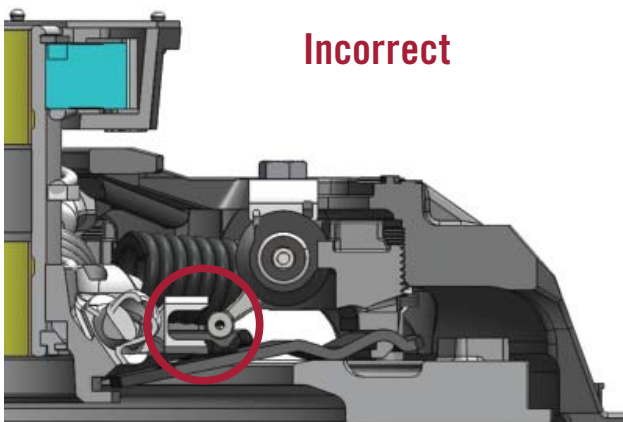
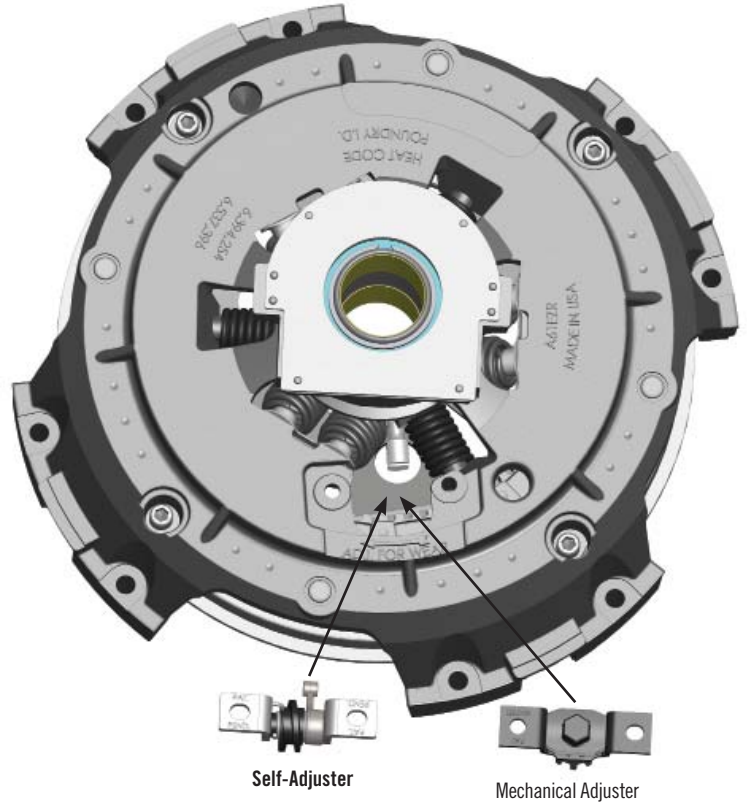


## Meritor AllFit Self-Adjusting Clutch

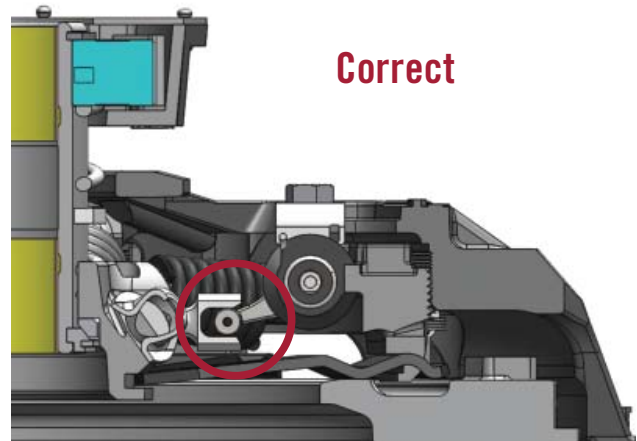
The Meritor AllFit self-adjusting clutch is just that – self-adjusting. It has been developed and designed for efficiency and ease of maintenance. With its robust adjuster design, the Meritor AllFit self-adjusting clutch eliminates the need for additional maintenance hours. If for any reason the clutch needs to be reset or manually adjusted, a simple reset procedure may be followed, without the need to remove the clutch.

1. Remove the self-adjusting mechanism (right)
2. Disengage the clutch
3. Install manual adjust mechanism (below)
4. Manually adjust the clutch to meet specs during the set-up procedure
5. Reinstall the self-adjusting mechanism. Ensure the adjusting arm is properly seated in the retainer stud as shown below
6. Before reinstalling the self-adjusting mechanism, it may be necessary to ratchet the self-adjuster by actuating the auto adjust lever by hand, so that the worm gear is seated properly in the adjusting ring teeth. For reinstallation, bolt the self-adjusting mechanism into the clutch assembly and visually verify that the worm gear is properly seated (refer to image below).

- No complicated reset procedure
- Resets with manual adjuster
- Same procedure as manual adjust clutch



**Incorrect**



**Correct**

## Maintenance Tips

**IT IS IMPORTANT TO NOTE THESE ARE GENERAL GUIDELINES ONLY AND THE INSTALLER SHOULD ALWAYS REFER TO THE VEHICLE MAINTENANCE MANUAL FOR SPECIFIC DETAILS.**

1. Only high temperature grease should be used for clutch bearing housing and linkage lubrication. Do not use chassis lubricant for clutch lubrication. Refer to the vehicle maintenance manual for lubricant specifications.
2. Lubricate the clutch release bearing each time the chassis is lubricated.
3. When lubricating the clutch, apply lubricant to each fitting on the clutch housing.
4. Every point in the clutch linkage must be lubricated in addition to the clutch housing.
5. Exercise caution in lubricating the bearing, as any excess lubricant will find its way onto the clutch facing.
6. Adjust the clutch before the pedal clearance has disappeared. Failure to do so will result in slippage and adjustment afterwards may not be effective.
7. If the clutch is hydraulically assisted, make sure the slave and master cylinders are functioning properly.

**Q: What components make up the clutch assembly?**

A: The clutch cover assembly (release bearing, adjuster, levers, pressure springs, adjusting ring, retainer, sleeve and pressure plate), the clutch discs and the intermediate plate. Related components include: clutch brake, input shaft, transmission bearing retainer, input shaft pilot bearing, release fork, cross shafts, cross shaft bushings and linkage.

**Q: How do the clutch assembly components interact with the following vehicle components: Engine, transmission, clutch linkage, clutch housing and flywheel?**

A: The clutch cover assembly, the intermediate plate and the discs are mounted to the engine flywheel and rotate with the engine crankshaft. The clutch discs are mounted on the transmission input shaft and rotate with the transmission input shaft. The clutch assembly engages and disengages by means of mechanical or hydraulic linkage moving the release bearing fore and aft on the input shaft. The clutch brake is engaged by the transmission linkage with the vehicle stopped to allow the input shaft to stop rotation and place the transmission from neutral to a forward or reverse gear, without grinding of the transmission clutch collar teeth. The pilot bearing is pressed into the engine crankshaft and supports the end of the input shaft, where the input shaft enters the crankshaft.

**Q: How does the clutch operate when engaged and disengaged?**

A: The “pull type” clutch is mechanically engaged and disengaged by the clutch pedal. When ENGAGED, the springs in the cover push the pressure plate toward the engine flywheel, pressing the driven discs and the intermediate plate into the flywheel. When DISENGAGED, the clutch pedal pulls the clutch release bearing, releasing the spring tension from the pressure plate. The driven discs move away from the flywheel and the intermediate plate, disengaging the engine from the transmission.

**Q: What is the purpose of the clutch brake and how does it work?**

A: The clutch brake is needed when a “pull type” clutch is installed in a vehicle with a non-synchronized transmission. The clutch brake is mounted on - and connected to - the transmission input shaft. The clutch brake is meant to stop the rotation of the input shaft while the clutch is disengaged when the vehicle is stopped with the engine at idle. This allows the driver to engage the transmission into a forward or reverse gear from neutral, without grinding the transmission gears.

When the driver disengages the clutch at the end of the clutch movement, or approximately one inch from the floor of the vehicle, the clutch pedal pulls the clutch release bearing rearward. This compresses the stationary release bearing and rotates the clutch brake against the stationary transmission input shaft bearing retainer, stopping the rotation of the clutch brake, which is splined to the transmission input shaft.

**Q: What is the main cause/reason for a clutch failure?**

- A:
1. Clutch torque rating too low for the application/vocation.
  2. Manual clutch adjustment not maintained.
  3. Clutch incorrectly adjusted (i.e. the clutch requires adjustment through the access area of the clutch housing; the clutch linkage requires adjustment at the clutch linkage).
  4. Incorrect usage of the clutch brake (i.e. engaging the brake with the vehicle in motion).
  5. Driver riding the clutch (i.e. only partially disengaging the clutch, thus causing slippage).
  6. Not resurfacing the flywheel.
  7. Not replacing any damaged or worn system components.

**Q: How often does the Meritor AllFit manual adjust clutch require adjustment?**

A: The clutch disc, the flywheel, the intermediate plate and the pressure plate wear differently, depending upon the vehicle application (i.e. a linehaul tractor will generally not need clutch adjustment as often as an off-highway dump truck). However, the clutch adjustment /component wear should be checked during each vehicle preventive maintenance inspection.

**Q: How often does the Meritor AllFit self-adjusting clutch require adjustment?**

A: The clutch disc, the flywheel, the intermediate plate and the pressure plate wear differently, depending upon the vehicle application (i.e. a linehaul tractor will generally not need clutch adjustment as often as an off-highway dump truck). Even though the clutch is self-adjusting, clutch adjustment/component wear should be checked during each vehicle preventive maintenance inspection.

**Q: How often should the Meritor AllFit manual or Meritor AllFit self-adjusting clutch need preventive maintenance inspection and lubrication?**

A: The clutch disc, the flywheel, the intermediate plate and the pressure plate wear differently, depending upon the vehicle application (i.e. a linehaul tractor will generally not need clutch adjustment as often as an off-highway dump truck). However, clutch adjustment/component wear should be checked during each vehicle preventive maintenance inspection. The release bearing and the clutch linkage should be lubricated during each vehicle preventive maintenance inspection.

**Q: What clutch assembly-related components require inspection or replacement when replacing with a new clutch assembly?**

A: Resurface or replace the flywheel, install a new pilot bearing and clutch brake. If worn, replace the input shaft, cross shaft bushings, cross shafts, release bearing fork, control linkage and the transmission bearing retainer.

**Q: If the above mentioned components are not inspected and replaced, how might this affect the new clutch assembly operation and life?**

A: A damaged or worn pilot bearing, worn input shaft, worn cross shaft bearings, worn release bearing fork or worn control linkage can cause a new clutch assembly to hang-up, resulting in poor release or engagement of the clutch assembly. Any damage to these components can shorten the life of the clutch.

**Q: Can a self-adjusting and a manual adjust clutch be interchanged?**

A: Yes, a self-adjusting and a manual adjust clutch can be interchanged.

**Q: In what application should a self-adjusting clutch be installed instead of a manual adjust clutch?**

A: A self-adjusting clutch can be installed in any application and will maintain adjustment during vehicle operation, at all times. For any vehicles equipped with a hydraulic linkage system, it is recommended that a self-adjusting clutch be installed. This is recommended due to the lack of pedal free play with a hydraulic linkage system.

**Q: Are there any differences in the installation procedure for the Meritor AllFit self-adjusting clutches compared to the Meritor AllFit manual adjust clutches?**

A: No, the installation procedures are the same for Meritor AllFit manual or Meritor AllFit self-adjusting clutches.

**Q: Can the Meritor AllFit self-adjusting clutch replace an Eaton Solo?**

A: Yes, the Meritor AllFit self-adjusting clutch is a competitive cross-reference replacement to the Eaton Solo clutch.

**Q: What is the reset procedure for the Meritor AllFit self-adjusting clutch?**

A: Replace the auto adjuster with a manual adjuster. Adjust the clutch to the proper settings. Then replace the auto adjuster or leave as a manual adjust clutch.

**Q: How does the Meritor AllFit self-adjusting clutch deal with contamination?**

A: The Meritor AllFit self-adjusting clutch addresses contamination in three ways:

1. Specialized lubrication used on adjusting ring.
2. An actively expanding seal.
3. A robust adjuster equipped with self-contained internal mechanisms capable of delivering 50 lb-ft of torque.



## Engine Horsepower (HP) and Torque Ratings

The data listed herein has been compiled from vehicle manufacturers and other reliable sources of information and is correct to the best of our knowledge. However, Meritor cannot assume any responsibility for the accuracy of or possible errors in this information or in any other current or future informative bulletins of this nature.

IN SEQUENCE BY HORSEPOWER  
 NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
CUM 4BT3.9	105	2500	260	1700
CUM 4BTA3.9	120	2500	304	1700
GM 6.5L NATASP	155	3600	275	1700
CUM 6BT55.9	160	2500	400	1700
GM 6.5 L NATASP	160	3400	290	1700
FD-1060	160	2500	400	1600
INTL T444E	160	2600	400	1500
FORD 7.3 HI. ALT.	165	3000	325	1600
CAT 3116 (HEUI)	170	2200	420	1560
CAT 3116 (MD)	170	2600	420	1560
CAT 3126	175	2400	420	1440
FD-1060	175	2500	420	1600
INTL DT-408	175	2600	430	1800
INTL T444E	175	2600	430	1500
GM 6.5L TURBO	180	3400	360	1700
CAT 3116	185	2600	520	1560
CAT 3116G	185	2600	495	1560
CAT 3116	185	2200	520	1560
FORD 7.3L NATASP	185	3000	360	1400
CAT 3126	190	2200	520	1440
CUM 6BTA5.9	190	2500	475	1600
FD-1060	190	2500	475	1600
FORD 7.3L TURBO	190	3000	395	1400
GM 6.5 L TURBO	190	3400	385	1700
INTL DT-408	190	2600	485	1800
INTL T444E	190	2600	485	1500
MACK E3-190 (MECH) CAT	190	2500	475	1300
3116	195	2200	521	1560
INTL DT 466	195	2400	520	1600
CAT 3116 (MD)	200	2600	520	1560
CAT 3208T(MD)	200	2000	620	1400
CAT 3208T(MD)	200	2600	495	1560
CAT 3208T(MD)	200	2600	520	1560
CAT 3126	210	2200	605	1440
CAT 3126	210	2400	520	1440
CUM 6BTA5.9	210	2500	520	1600
CUM 6CT8.3	210	2200	605	1500
FD-1060	210	2500	485	1600
FD-1060	210	2300	520	1600
FD-1460	210	2200	605	1300



# Engine HP & Torque

IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
INTL DT 408	210	2600	520	1800
INTL DT 466	210	2400	605	1600
CAT 3116	215	2200	605	1560
CAT 3116 (GM '91 UP)	215	2600	605	1560
CAT 3116 (GM '91 UP)	215	2600	550	1560
CUM NHTC-220	220	2100	644	1500
MACK E3-220 (MECH)	220	2350	627	1400
FD-1460	225	2200	660	1300
DD 6-71	230	2100	611	1600
CAT 3116	230	2200	660	1560
CAT 3126	230	2200	660	1440
CAT 3176ATTMC	230	1800	975	1100
CUM 6BTA5.9	230	2500	605	1600
FD-1060	230	2300	605	1600
INTL DT 408	230	2600	605	1800
INTL DT-466	230	2400	660	1600
CAT 63306 CNG/LNG	235	2100	800	1200
CUM-FORM-L10-240	240	1400	858	1300
CUM L10-240	240	1900	870	1300
CUM FORM.240	240	1800	870	1300
CUM PT 240	240	2100	900	1300
CUM 6CTA8.3	240	2200	645	1500
L-10 FORM 240	240	1900	860	1300
L-10 240/250PT	240-2100	250-2200	900	1300
CAT 3306	245	2200	820	1300
CAT 3306	245	2100	860	1350
CAT 63306 LPG (HD5)	250	2100	820	1200
CAT 3116	250	2200	660	1560
CAT 3126	250	2200	660	1440
CAT 3126	250	2200	800	1440
CAT 3208T (MD)	250	2600	640	1400
6CTA-250	250	2200	720	1300
CUM 6CTA8.3	250	2200	728	1500
FD-1460	250	2200	660	1300
FD-1460	250	2000	800	1300
MACK E6-250	250	2100	750	1500
CAT 3306	250	1800	860	1350
MACK EM6-250	250	2100	940	1260
DD HAL	250	1800	970	1200
CAT 3176 ATMC	250	2100	975	1300
CAT 3406	250	1600	1000	1200
INTL 530	250	2200	800	1300
INTL DT-466	250	2400	660	1600

# Engine HP & Torque



IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
MACK EM6-250L	250	1750	1190	1020
MACK E7-250 (MECH)	250	1950	975	1200
MACK EM7-250 (MECH)	250	1750	1190	1020
MACK EM7-250L	250	1750	1190	1020
CAT 3116 (GM-MD)	250	2600	650	1560
SERIES 50 8.5L-IL-4	250	2100	780	1200
CAT 3066	260	1900	860	1350
CUM 1-10	260	1800	975	1200
CUM L-10 STC 12CGA	260	1600	975	1200
CUM L-10 STC 12CGB	260	1700	975	1200
VOLVO 260E/300AE	260	2100	800	1080
CAT 3306	270	2200	775	1400
DD 6-71TAC	270	2100	786	1200
CUM L10	270	1900	858	1300
CUM 1-10	270	2100	858	1400
CUM FORM 270	270	1800	1000	1300
CUM FLEET 270	270	1600	1020	1100
CAT 3116	275	2200	750	1560
CAT 3116 (GM MD)	275	2450	735	1560
CAT 3126	275	2200	800	1440
CAT 3126	275	2200	860	1440
DD 6-71T	275	2100	853	1200
FD-1460	275	2000	800	1300
FD-1460	275	1800	860	1300
INTL 530	275	2000	950	1300
INTL 530	275	2200	860	1300
INTL DT 466	275	2400	800	1600
MACK E6-275	275	2100	1020	1200
MACK EM6-275	275	2100	1038	1260
CAT 3176 ATMC	275	1800	1050	1100
CAT 3176 ELEC	275	1800	1050	1100
CAT 3176 ELEC	275	1800	975	1100
CAT 3176 ATMC	275	2100	1050	1200
MACK EM6-275L	275	1750	1305	1020
MACK EM7-275 (MECH)	275	1750	1305	1250
MACK EM7-275 (V MAC)	275	1750	1305	1250
CAT 3176B	275	1800	1050	1100
SERIES 50 8.5L-1 L-4	275	2100	890	1200
CAT C-10	280	1800	1050	1100
CAT C-10	280	2100	975	1100
CAT 3406	280	2100	1015	1200
CUM L-10 STC 12CGC	280	1600	1050	1200
CUM L-10 STC 12CGD	280	1700	1050	1200



# Engine HP & Torque

IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
L10	280	1800	1050	1200
CUM MII 280E CELECT	280	2000	1050	1200
CUM MII 280E CELECT	280	1800	1050	1200
M11-280E	280	1800	1050	1200
M11-280E	280	2000	1050	1200
M11 ESP1	280-330	1800	1050-1250	1200
VOLVO 280G/330BE	280	1700	925	1200
L10 285PT	285	2200	1020	1300
CUM FLEET 285	285	1600	1150	1100
CAT 3406	290	1800	1000	1200
CUM V-903C	295	2600	1000	1800
CAT 3116 (GM-MD)	300	2600	732	1560
CAT 3126	300	2200	800	1440
CAT 3126	300	2200	860	1440
DD 6-71T	300	2100	830	1400
CUM-FORM-VT-350	300	2100	860	1400
CUM L10	300	2100	950	1300
CUM L10 FORM	300	1900	950	1300
CUM-FORM-300	300	1800	1000	1300
CUM NTC300	300	2100	1000	1300
CUM L-10 STC 12CGH	300	1700	1150	1200
CAT 3406	300	2100	1054	1200
MACK E-6-300	300	1700	1112	1200
CUM FLT 300	300	1700	1150	1100
CAT 3176 ATMC	300	1800	1150	1100
CAT 3176 ELEC	300	1800	1050	1100
CAT 3176 ELEC	300	1800	975	1100
CAT 3176 ATMC	300	2100	1150	1300
INTL 530	300	2200	950	1300
INTL 530	300	2000	1050	1300
MACK EM6-300L	300	1750	1425	1020
MACK EM7-300 (MECH)	300	1750	1425	1020
MACK EM7-300VMAC	300	1750	1425	1020
MACK E7-300 (MECH)	300	1950	1083	1200
MACK E7-300(V MAC)	300	1700	1160	1200
CAT 3176B	300	1800	1050	1100
CAT 3306C	300	1900	1150	1200
DD 11.1 LITER	300	1800	1150	1200
SERIES 50 8.5L-1L-4	300	1800/2100	1000	1200
SERIES 55 12L-1L-6	300	1800	1150	1100
SERIES 60 11.1L-1L-6	300	1800	1150	1200
SERIES 92 9.05L-V6	300	2100	975	1200
VOLVO 300A/360CE	300	2100	925	1200
VOLVO 300CC/410DE	300	2100	955	1200
DD 8V71	304	2100	818	1400
CAT C-10	305	1800	1150	1100

# Engine HP & Torque



IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
CAT C-10	305	2100	1150	1100
CAT 3406	310	1800	1090	1200
CAT 3406	310	2100	1139	1100
CAT 3406	310	1800	1140	1100
CAT 3406E	310	1800	1150	1200
CAT 3406E	310	1800	1250	1200
CAT 3406E MULTI TQ	310	1800	1150/1350	1200
CUM 1-10 310	310	1800	1150	1200
CUM N14 310	310	1800	1150	1350
CUM N14 STC 12CEH	310	1600	1250	1100
CUM N14 CELECT 12 CDK	310	1600	1250	1300
CUM N14 CELECT 12 CDR	310	1699	1450	1200
CUM M11ESP11	310-370	1800	1150	1350
CUM N14EAPI	310-390	1800	1250	1450
CUM M11 31 OE	310	2000	1150	1200
CUM M11 31 OE	310	1800	1150	1200
CUM L-10 STC 12CGG	310	1600	1150	1200
VOLVO 310B	310	1900	985	1200
CUM FORM 315	315	1800	1150	1300
CUM NTC 315	315	1800	1150	1300
SERIES 508.5L-1L-4L	315	1950/2100 1150	1200	
CAT C-10	325	2100	1250	1200
CAT 3176ATMC	325	1900	1225	1200
CAT 3176ATMC	325	2100	1225	1300
CAT 3406	325	2100	1050	1200
CAT 3176B	325	1800	1250	1200
MACK E7 325 VMAC	325	1800	1260	1250
CAT 3406	330	1600	1320	1200
CAT 3406E	330	1800	1350	1200
CUM 1-10 330E	330	1800	1250	1200
DD 6V92TA	330	2100	963	1200
CUM N14 330E	330	2100	1350	1200
CUM N14 330E	330	600	1350	1200
CUM M11 330E	330	2000	1350	1200
CUM M11 330E	330	800	1350	1200
CUM STC 12 CEA	330	1600	1350	1100
CUM STC 12 CEB	330	1600	1350	1100
CUM N14 CELECT 12 CDS	330	1600	1350	1100
DD 11.11	330	1800	1150	1200
DD 11.11	300-330	1800	1150	1200
DD 11.L	330	1800	1250	1200
DD 11.L	330-350	1800	1350	1200
DD 11.L	220-365	1800	1350	1200
SERIES 55 121-1L-6	330	1800/2000	1250	1100





# Engine HP & Torque

IN SEQUENCE BY HORSEPOWER  
 NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
SERIES 55 121-1L-6	330/350	1800	1250	1100
SERIES 55 121-1L-6	330/350	1800	1350	1100
SEREIS 60 11.1L-1L-6	330	1800	1150	1200
SERIES 60 11.1L-1L-6	300/330	1800	1150	1200
SERIES 60 11.1 L-1 L-6	330	1800	1150	1200
CAT C-10	335	1800	1250	1200
CAT C-10	335	1800	1350	1200
CUM NTC 350	350	2100	1120	1300
DD 6V92TA	350	2100	1020	1200
CUM FORM 350(90)	350	1800	1175	1300
CUM FORM 350(90)	350	1800	1200	1300
CUM NTC350(90)	350	2100	1200	1300
DD 11.1L	350	1800	1250	1200
MACK E6-350	350	1800	1277	1250
MACK E7-350	350	1800	1277	1250
MACK E7 350 VMAC	350	1800	1250	1250
CAT C-10	350	1800	1350	1200
CAT 3406B	350	2100	1320	1200
CAT 3406BEC	350	1800	1320	1200
CAT 3406C	350	1800	1350	1200
DD 12.7L	350	2100	1400	1200
CUM N14 350E	350	2100	1400	1200
CUM N14 350E	350	1800	1400	1200
CUM N14 STC 12CEJ	350	1600	1400	1100
CUM N14 STC 12CEK	350	1600	1350	1100
CUM N14 CELECT 12 CDI	350	1600	1400	1100
CUM N14 CELECT 12 CDI	350	1600	1350	1100
N 14ESP11	350-390	1800	1350	1500
M11350E	350	1800	1350	1200
CAT 3176B	350	1800	1350	1200
CAT 3406C	350	1800	1350	1200
DD 11.1L	350	1800	1250	1200
DD 11.1L	350	1800	1350	1200
SERIES 55 121-1L-6	350	1800/2000	1250/1350	1100
SERIES 55 121-1L-6	350	1800/2000	1350	1100
SERIES 60 11.1-1L-6	350	1800	1250	1200
SERIES 60 11.1L-1L-6	330/350	1800	1250	1200
SERIES 60 11.1L-1L-6	350	2100	1250	1200
SERIES 60 11.1L-1L-6	350	2100	1250	1200
SERIES 60 11.1L-1L-6	350	2100	1250	1200
SERIES 92 9.051-V-6	350	2100	1020	1200
CAT C-12	355	1800	1350	1200
CAT C-12 MULTI TQ	355/410	1800	1350/1450	1200
CAT C-12 MULTI TQ	355/410	1800	1350/1550	1200
CAT 3406E(94)	355	1800	1350	1200
CAT 3406E(94)	355	1800	1450	1200
CAT 3406E MULTI TQ	355	1800	1350/1450	1200

# Engine HP & Torque



IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
CAT C-12	360	2100	1350	1200
CUM NTC 365	365	1800	1320	1300
CUM FORM 365(90)	365	1800	1325	1300
DD 11.1L	365	1800	1350	1200
SERIES 55 12L-1L-6	365	1800/2000	1450	1100
SERIES 55 12L-1L-6	365/400	1800	1450	1100
SERIES 60 11.1L-1L-6	365	1800	1350	1200
SERIES 60 11.1 L-1L-6	330/365	1800	1350	1200
CUM M11 370	370	1800	1350	1200
CUM M11 370	370	2000	1350	1200
CUM N14 370E	370	2100	1450	1200
CUM N14 370E	370	1800	1450	1200
CUM N14 12 CEC	370	1600	1400	1200
CUM N14 12 CED	370	1600	1400	1200
CUM N14 CELECT 12 CDB	370	1600	1400	1100
CUM N14 CELECT 12 CDS	370	1600	1550	1200
DD 12.7L	370	1800	1450	1200
DD 12.7L	370/400	1800	1450	1200
DD 12.7L	370/430	1800	1450	1200
DD 12.7L	370	2100	1450	1200
CAT C-10	370	1800	1350	1200
CAT C-10 MULTI	335/370	1800	1250/1350	1200
SERIES 60 12.7L-1L-6	370	1800	1450	1200
SERIES 60 12.7L-1L-6	370	2100	1450	1200
CAT 3406E	375	1800	1450	1200
CAT 3406E(94)	375	1800	1550	1200
CAT 3406E MULTI TQ	375	1800	1450/1550	1200
CAT 3406E MULTI TQ	375/435	1800	1450/1550	1200
MACK E7 375 VMAC	375	1800	1460	1250
CAT C-12	380	1800	1450	1200
CAT C-12 MULTI TQ	380/410	1800	1450/1550	1200
CAT 3406	380	2100	1285	1200
CAT C-12	390	2100	1450	1200
CUM NTC-FORM400	400	1800	1325	1300
DD 8V92TA	400	1800	1250	1200
CUM NTC400	400	2100	1250	1300
CUM FORM 400	400	1800	1250	1300
CAT 3406BEC	400	2100	1265	1300
CAT 3406BEC	400	1800	1375	1260
CAT 3406B	400	2100	1375	1260
MACK E7 400	400	1800	1460	1250
CUM N14ESP3	400/460	1800	1450	1650
DD 12.7L	400	1800	1450	1200
DD 12.7L	400	2100	1450	1200
CUM M-11	400	1800	1450	1200



# Engine HP & Torque

IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
CAT 3406	400	1900	1450	1250
SERIES 60 12.7-1L-6	400	1800	1450	1200
SERIES 60 12.7-1L-6	400	2100	1450	1200
SERIES 60 12.7-1L-6	370/400	1800	1450	1200
SERIES 92 12.11-V8	400	2100	1330	1200
CAT C-12	410	1800	1450	1200
CAT C-12	410	1800	1550	1200
CAT C-12	410	2100	1550	1200
CUM N14 410E	410	2100	1450	1200
CUM N14 410E	410	1800	1450	1200
CUM N14 STC 12 CEE	410	1600	1450	1200
CUM N14 STC 12 CEG	410	1600	1450	1200
CUM N14 CELECT 12 CEN	410	1600	1450	1200
CAT 3406E	410	1800	1450	1200
CAT 3406E(94)	410	1800	1550	1200
CAT 3408	420	1900	1460	1200
DD 12/7L	425	2100	1400	1200
CAT C-12 RCVBUS	425	2100	1450	1200
CAT 3406B	425	2100	1450	1200
CAT 3406C	425	1800	1550	1200
CAT 3406C	425	1900	1650	1200
MACK E7 427	427	1800	1560	1250
CUM N14 CELECT 12 CDC	430	1700	1450	1100
CUM N14 CELECT 12 CEP	430	1700	1550	1300
DD 12/7L	430	1800	1450	1200
DD 12/7L	430	1800	1450	1200
DD 12/7L	430	2100	1450	1200
DD 12/7L	430	1800	1550	1200
DD 12/7L	430	2100	1550	1200
DD 12.7L	430/470	1800	1550	1200
SERIES 60 12.7L-1 L-6	430	1800	1450	1200
SERIES 60 12.7L-1 L-6	430	2100	1450	1200
SERIES 60 12.7L-1 L-6	370/430	1800	1450	1200
SERIES 60 12.7L-1 L-6	370/430	2100	1450	1200
CAT 3406	435	1800	1550	1650
CAT 3406E(94)	435	1800	1650	1200
CAT 3406E	435	1800	1550	1200
CAT 3406E	435	2100	1650	1200
CAT 3406E	435	2100	1550	1200
CUM N14 435E	435	2100	1650	1200
CUM N14 435E	435	2100	1550	1200
CUM N14 435E	435	1800	1450	1200
DD 8V92TAC	440	2100	1250	1300
CUM 444	444	2100	1400	1500
CUM NTC444XT	444	2100	1400	1500

# Engine HP & Torque



IN SEQUENCE BY HORSEPOWER  
NOTE: RATE VARIABLE HORSEPOWER ENGINES TO HIGHEST HORSEPOWER/TORQUE

ENGINE	HP	@ RPM	TORQUE	@ RPM
DD 8V92TA	445	2100	1250	1300
CUM FORM 450	450	1900	1420	1300
CUM KT 450	450	2100	1350	1500
CAT 3408	450	2100	1350	1500
CAT 3408	450	2100	1460	1200
CAT 3406	455	1800	1460	1200
MACK E9 450	450	1900	1495	1300
SERIES 92 12.1L-V-8	450	2100	1425	1200
3406 CAT	455	2100	1650	1200
MACK E-7 454	454	1800	1560	1250
CUM N14 469E	460	2100	1650	1200
CUM N14 CELECT 12 CDJ	460	1700	1550	1100
DD 12.7L	470	2100	1450	1200
DD 12.7L	470	1800	1550	1200
DD 12.7L	470	2100	1550	1200
SERIES 60 12.7L-1 L-6	430/470	1800	1550	1200
SERIES 60 12.7L-1 L-6	430/470	2100	1550	1200
SERIES 60 12.7L-1L-6	470	1800	1550	1200
SERIES 60 12.7L-1L-6	470	2100	1450/1550	1200
CAT 3406	475	2100	1650	1750
CAT 3406E	475	2100	1650	1200
CAT 3406E	475	1800	1650	1200
CAT 3406E	475	1800	1750	1200
CAT 3406E	475	2100	1750	1200
DD 8V92TA	475	2100	1330	1300
CUM TWIN TURBO	475	2100	1430	1400
NTC 475	475	2100	1430	1400
CAT 3406E(94)	475	1800	1750	1200
DD 12.71	500	1800	1550	1200
DD 12.71	500	2100	1550	1200
CUM N14 500	500	1800	1750	1200
MACK E9 500	500	1900	1660	1300
CUM N14 500E	500	2100	1750	1200
CUM N14 500E	500	2100	1650	1200
CUM N14 500E	500	1750	1650	1600
CAT 3406E(94)	500	1800	1850	1200
CAT 3406	500	2100	1450	1850
CAT 3406	500	2100	1450	1200
CAT 3406	500	2100	1850	1200
SERIES 60 12.7L-1 L-6	500	1800	1550	1200
SERIES 60 12.7L-1 L-6	500	2100	1450/1550	1200
SERIES 92 12.1L-V8	500	2100	1470	1200
CAT 3406 510	510	1600	1850	1200
CUM N14 525	525	1800	1850	1200
CUM KT 525 (1983)	525	2100	1650	1300
CAT 3406	550	2100	1850	1200
CAT 3406E	550	1800	1850	1200
MACK E9	550	2100	1660	1300
CUM KTA 600 (1983)	600	2100	1650	1600
CAT 3406E	600	2100	2050	1200
CUM SIGNATURE 600	600	2100	2050	1200



# Cross Reference

## 14" Clutch Cross Reference

D&W®	Eaton® Easy Pedal	Eaton EverTough Value Clutch Reman	Haldex®	Illinois Auto®	Mid-America®	Unique®	Meritor AllFit Easy Pedal
SS108034-82B	108034-82B	108034-82MO 107034-57B	N10703482 N10803482	NMU051-020-4 NMU390-020-1 NMU390-020-4 NMU890-020-4 NMU890-090-1	MU-127390-DS MU-145390-DS	M107391-6A5 M108034-6A5	<b>MAF-108034-82B</b>
SS108034-61B	108034-61B	108034-61MO 107034-61B	N10703461 N10803461	NMU051-023-1 NMU890-023-1		M108034-6F5	<b>MAF-108034-61B</b>
			N10803582	NMU054-020-4 NMU400-020-1	MU-145400-DS	M108035-6A5	<b>MAF-108035-82B</b>
SS108034-59B	108050-59B	108050-59AM 108050-59MO 107050-59B	N10705059 N10805059	NMU051-024-1 NMU051-184-1 NMU390-024-1 NMU390-184-1 NMU890-184-1	MU-145390-DSCB	M108050-6J5	<b>MAF-108050-59B</b>
			N10806359	NMU054-024-1 NMU054-084-1	MU-145400-DSCB	M108063-6J5	<b>MAF-108063-59A</b>
		107237-10 107237-22 107237-10MO	N10723710	NMU044-023-2-A NMU060-022-5-A NMU060-023-5-A NMU060-092-5-A	MU-129044-37-DSCB	M129044-6F5-NSR	<b>MAF-107237-22</b>
		107342-12	N10734222	NMU061-092-5-A	MU-129055-37-DSCB	M129055-6F5-NSR	<b>MAF-107342-12</b>
		107342-24	N1076862CE	NMU061-024-3-A	MU-129055-37-DSCB	M129055-6F5-NSR	<b>MAF-107342-24</b>
		107683-5 107683-MO	N1076835CE	NMU059-022-1 NMU059-093-1 NMU747-022-1 NMU747-024-2	MU-12774-7-DSCB	M127747-6F5	<b>MAF-107683-5</b>



## 15 1/2" Clutch Cross Reference

D&W	Eaton Solo Advantage	Eaton EverTough Value Clutch Reman	Haldex	Illinois Auto	Mid-America	Unique	Meritor AllFit Self-Adjusting	Meritor AllFit Easy Pedal
SS108391-74B		108391-74AM 108391-74MO 107091-74B	N10709174 N10839174	NMU597-064-4 NMU705-064-4 NMU898-064-4	MU-129698-SB-10 MU-155698-SB-10	M127597-5G5 M108391-5G5		MAF-108391-74
		107901-77B	N10709182	NMU597-020-6 NMU597-090-4	MU-127597-DS	M127597-6A5		
SS108391-82B		108391-81AM 108391-81MO 107091-81B	N10709181 N10839181	NMU597-024-4 NMU597-094-4 NMU705-094-4 NMU898-094-4	MU-127597-DSCB MU-155597-DSCB	M127597-6G5 M108391-6G5		MAF-108391-81
		107091-83B	N10709182	NMU597-060-6	MU-127597-DS	M127597-6A5		
SS108391-93B		108091-93B	N10839174	NMU597-067-6	MU-155698-SB-10			MAF-108391-93
SS108391-93H		108091-93	N10839193H	NMU705-067-6 NMU898-067-6	MU-155698-12-SB-10	M108391-5W5		MAF-108391-93H
SS108925-25 SS108925-82H	209701-25 208925-20 208925-25	108925-20AM 108925-25AM 109701-20AM 109701-25AM	N10893515 N10892582H	NMU455-147-6 NMU898-047-6 NMU898-147-6	MU-155698-12-SB-7	M1089251-4W5 M1089351-4W5	MAF209925-25	MAF-108925-25
SS108925-45			N10892535 HN10892525HTN	NMU898-157-8				MAF-108925-32H
SS108925-82B	209701-82 208925-34 208925-82	107925-82 108925-82AM 108935-82MO 109701-82AM	N10792582 N10892582	NMU455-044-4 NMU455-044K-6 NMU698-044-4 NMU898-044-4	MU-129698-SB-7 MU-155698-SB-7	M1089251-1G5	MAF209925-82	MAF-108925-82
SS108935-51	209701-51 208925-51 208925-91	107935-51B 108925-51AM 108935-91AM 108935-61MO 108935-91MO 109701-51AM	N10793551 N10893551	NMU455-054-4M NMU698-054-4M NMU898-054-4M	MU-129698-SB-9 MU-155698-SB-9	M108925-9G5	MAF209935-51	MAF-108935-51
SS108935-61 SS108935-91	208925-61	108935-61AM 108935-61MO	N10893594	NMU455-057-4M NMU455-057-6M	MU-155698-12-SB-9	M108925-9W5		MAF-108935-91
	209701-92 208925-92	109701-92AM					MAF209935-51H	

## **MERITOR ALLFIT HEAVY-DUTY CLUTCH PARTS WARRANTY**

We warrant new Meritor AllFit Heavy-Duty Clutch Assembly and any Installation Accessories you may have purchased with it (collectively referred to hereinafter as "Parts") for one year from date of shipment to the buyer against defective material or workmanship (but not against damage caused by accident, abuse or improper installation, maintenance or repair) when such Parts are used on vehicles the specifications of which have been approved by our Engineering Department.

Be advised, failure to replace the clutch pilot bearing and any worn release system components, or to properly resurface or replace the flywheel at the time of installation, voids this warranty.

In addition, be aware that friction material is covered under this warranty only for defective material or workmanship. Normal wear and tear are excluded from coverage.

As the exclusive remedy under this warranty, we will, at our option, repair or replace such Parts free of charge, or take back the nonconforming Parts and refund the monies paid by buyer for such parts, if found on examination by us to be nonconforming and if any necessary return charges are prepaid.

If it is necessary to return any Parts under this warranty, buyer agrees not to make any deduction on account thereof from remittances on current accounts while claims are in the process of disposition. Any expense incurred without our consent for repairs or replacement will not be allowed. Approved labor expenses for the replacement of any nonconforming Part will be covered up to \$800.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. IN NO EVENT SHALL SELLER BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

Only genuine Meritor replacement parts are covered by this aftermarket parts warranty.

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