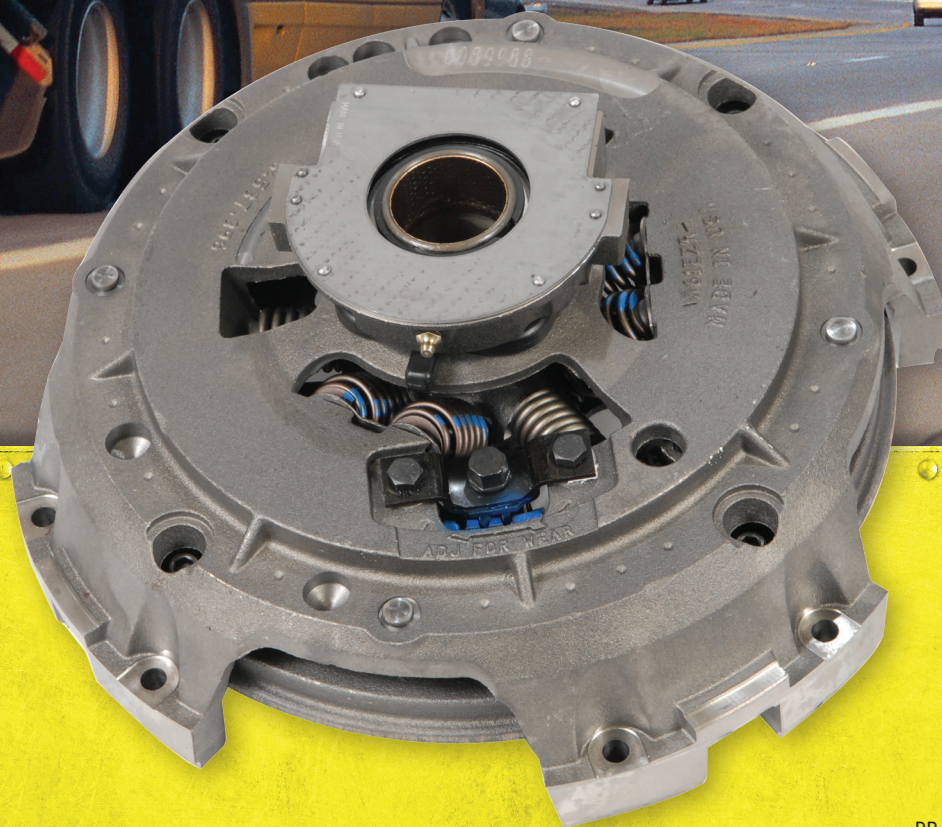


CLUTCHES FOR MEDIUM- AND HEAVY-DUTY APPLICATIONS



TRUST MATTERS.

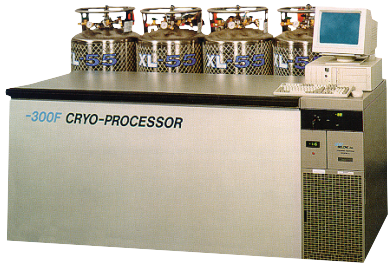


Adjustment Procedure	18
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Heavy Duty Clutches & Clutch Accessories

- **Brand New** — Every clutch is made brand new in the U.S.A. in an ISO9001 certified factory. The fit and finish of Euclid's new 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 Euclid clutches.
- **Easy adjust feature** — Every Euclid Easy Pedal Effort clutch incorporates a patented EZ adjuster. The EZ adjuster permits single motion adjustment for faster adjustment and decreased downtime.
- **Disc springs** — Euclid 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 under the Euclid Brand.
- **Sealed throw out bearing** — A sealed throw out bearing is used in every Euclid clutch. This upgrade provides for increased lubrication intervals and longer clutch life.
- **Fiber Brake Spacer** — Shipped free of charge with every Euclid clutch. The spacer is essential to achieve proper clutch brake squeeze when the flywheel has been resurfaced.
- **State of the art assembly** — All Euclid 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 Easy Pedal Effort clutches EP108935-51 (standard-duty) and EP108935-91 (heavy-duty) for the Mack 9 spring applications.
- **Cast cover replacement** — Euclid offers a cast cover replacement for the medium-duty, stamped steel clutch.
- **Warranty** — All Euclid clutch units offer a 24 month and unlimited mileage parts warranty against defects in material and workmanship.

Cryogenic Treated Disc Springs A patented process for all Euclid Clutches



One of the many selling features of Euclid's series clutch units is a patented process of Cryo treating our disc springs. Unlike most clutch manufacturers and rebuilders, we start with a chrome-silicon, valve quality spring. With the combination of higher quality steel and cryo treating, we have virtually eliminated disc spring failure.

Our cryogenic process involves taking springs slowly down to -300°F . The temperature cycle is regulated by a computer controlled flow of nitrogen into the chamber where the parts are placed. After the disc springs are returned to room temperature they are placed in a tempering furnace and tempered to a setting of $+300^{\circ}\text{F}/400^{\circ}\text{F}$.

A variety of improvements are gained, such as stress relief, wear resistance, and fatigue life. Testing reflects an increase in spring life from 2 to 5 times that of an untreated spring.

The Theory: The cryogenic process most commonly applies to heat treated steels. Heat treated steels are stronger and harder. Heat treating is a process of heating the steel, quenching in oil or water and draw tempering. Steel is comprised of austenite grain which is soft and weak. The quenching transforms the austenite into harder and stronger martensite. The martensite becomes too brittle in this state for most heat treated steels. By elevating the temperature again....but to a lower than original temperature that it was originally tempered makes the martensite less brittle yet stronger and harder. During this process, the austenite is not completely changed into martensite. The "retained" austenite may still make up more than 5% of the quenched and tempered structure in the steel. By cryogenically treating the steel, the austenite is transformed into martensite so that the structure is 100% martensite. It is believed the cryogenic process causes atoms to diffuse or migrate to these voids and fill them, creating a more homogeneous grain structure that aids in improved properties.



15 ½” 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 2400 to 4000 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" Clutch Assembly (continued)

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

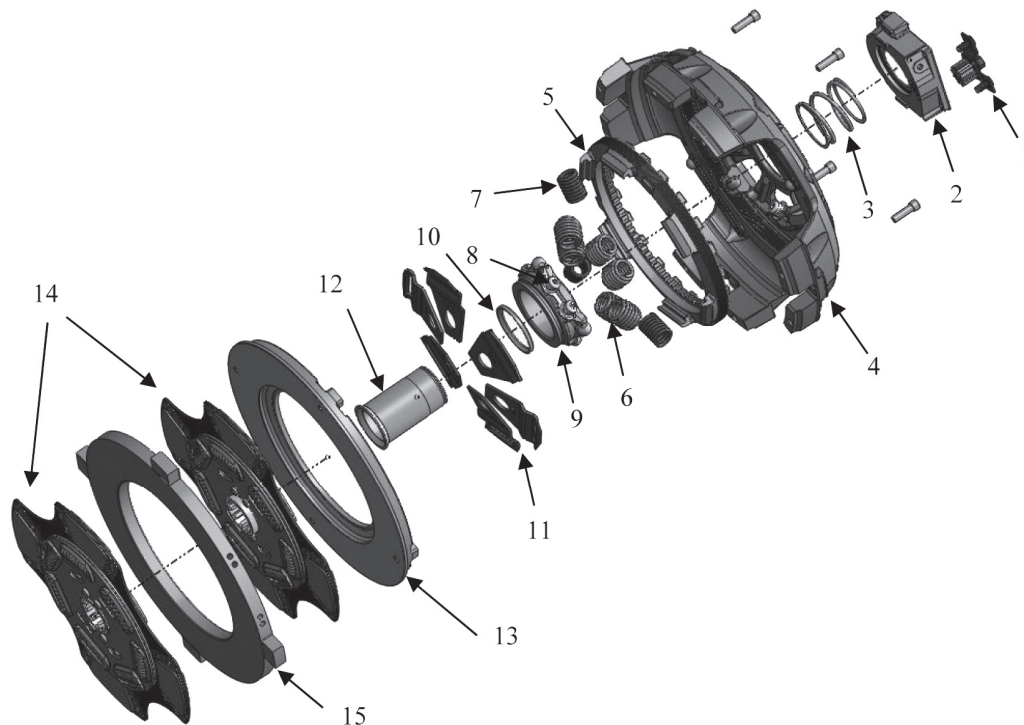
- a. Applies clamping force from cover assembly to discs and center plate against flywheel
- b. Plate is held in place by straps bolted to plate and riveted to cover

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

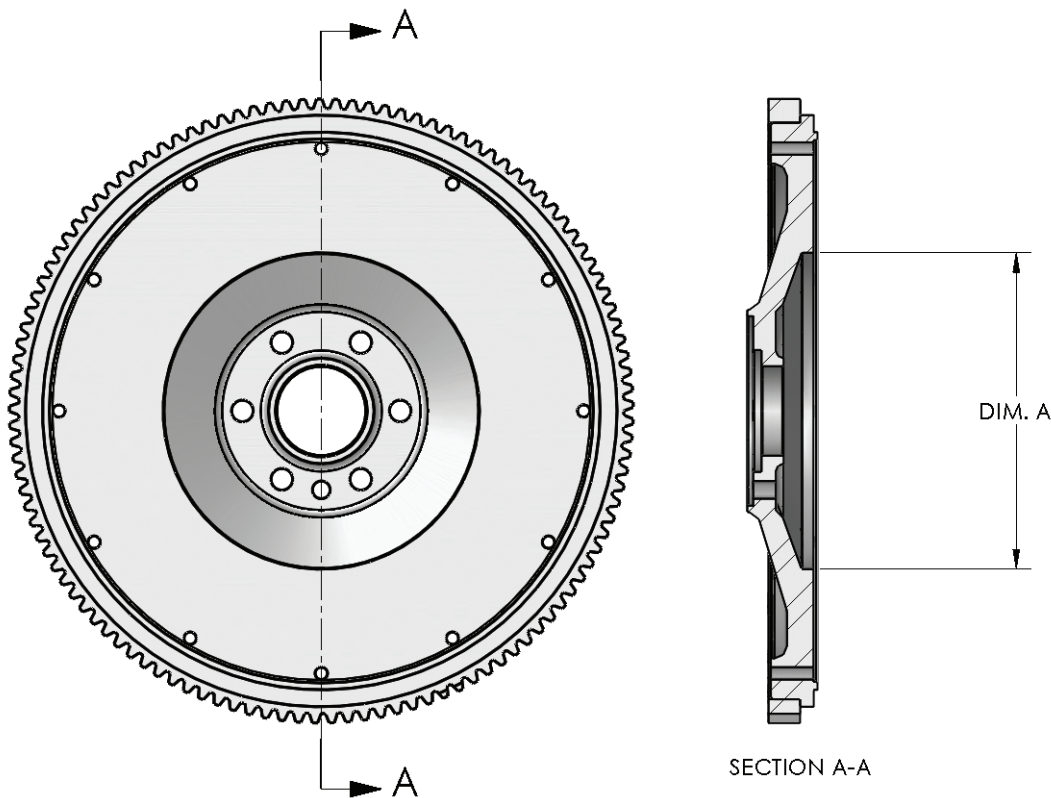
- a. Used on dual disc clutch, adds friction surface to increase torque while absorbing heat
- b. The intermediate plate fits in cover assembly with lugs machined on plate and slots corresponding in cover



Determine Proper Clutch

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 20 - 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.



Euclid Clutch Selection Guide

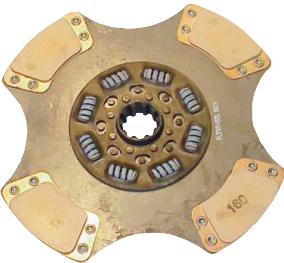
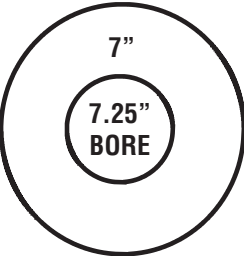
Clutch Models to Use by Flywheel Bore Size

14" Clutches

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

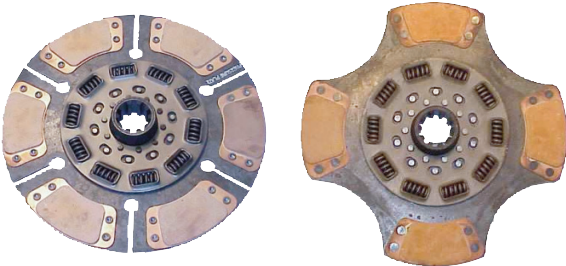
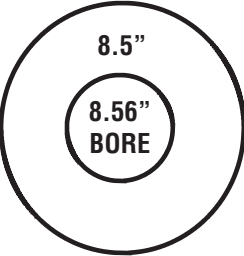
15 1/2" Clutches

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



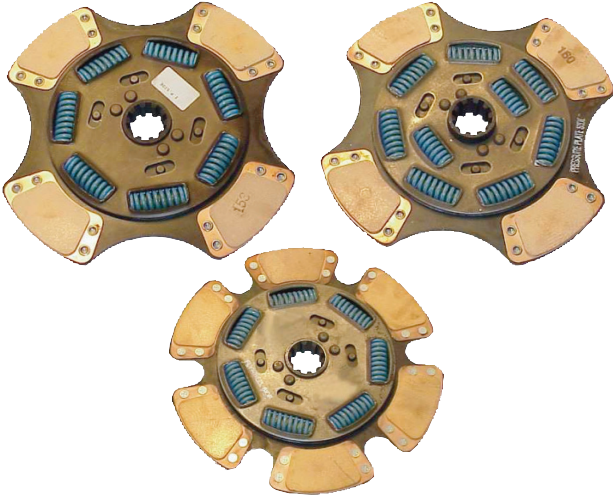
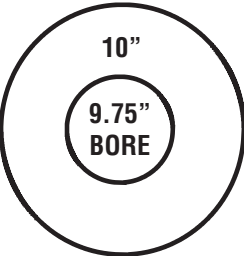
8 Spring Disc

Easy Pedal Effort
EP108391-81
Standard Pedal Effort
E107091-77B
E107091-83B
E107091-81B



10 Spring Disc

Easy Pedal Effort
EP108391-74
EP108391-93
EP108391-93H
Standard Pedal Effort
E107091-74B



7 & 9 Spring Disc

Easy Pedal Effort
EP108925-82
EP108925-25
EP108935-51 (Mack)
EP108935-91 (Mack)
Standard Pedal Effort
E107925-82B
E107935-51B (Mack)

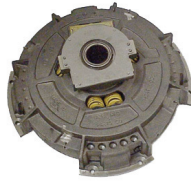
Manually adjusted clutches are not recommended to be installed in vehicles with hydraulic linkage systems.

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

Clutches for 14" flywheel

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

Single Disc



EP107683-5 14" x 1-3/4"

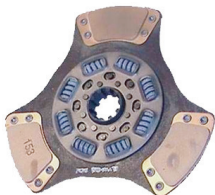


TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
620	3600	Ceramic 8 Spring 3 Pad	EZ	EZ	107683-5

Dual Disc

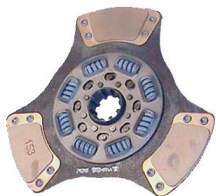


EP107237-22 14" x 1-3/4"



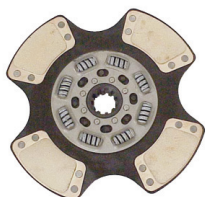
TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
900	3600	Ceramic 8 Spring 3 Pad	EZ	EZ	107237-10 107237-22

EP107342-12 14" x 2"



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

EP107342-24 14" x 2"

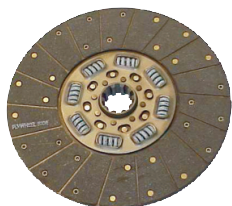
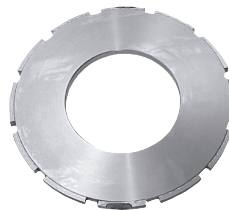
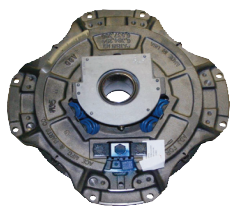


TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
950	3600	Ceramic 8 Spring 4 Pad	EZ	EZ	107342-11

Note: These clutches are not adjusted for synchronized transmissions.

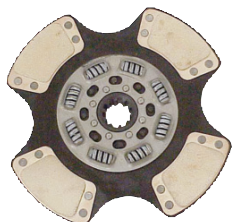
Clutches for 14" flywheel

Heavy-Duty Clutch Recess (Pot) Flywheel



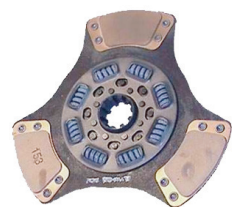
EP108035-82B 14" x 1-3/4"

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



EP108063-59A 14" x 1-3/4"

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

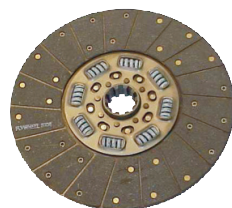


EP108034-61B 14" x 2"

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

E107034-61B

1250	3600	Ceramic 8 Spring 3 Pad	STD	STD	107034-61B
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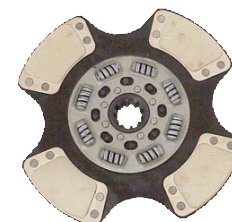


EP108034-82B 14" x 2"

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

E107034-57B

1150	3600	Organic 8 Spring	STD	STD	107034-57B
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EP108050-59B 14" x 2"

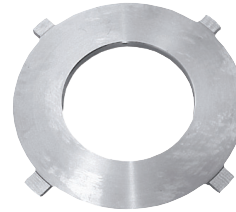
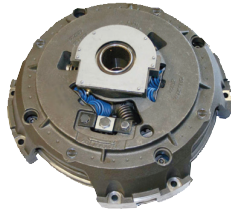
TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES	COMMENTS
1400	3600	Ceramic 8 Spring 4 Pad	EZ	DUAL	108050-59	Heavy Duty Plate

E107050-59B

1400	3600	Ceramic 8 Spring 4 Pad	STD	STD	107050-59	Heavy Duty Plate
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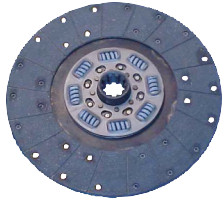
Manually Adjusting Clutches for 15 1/2" flywheel

Heavy-Duty Clutch 8 Spring 7" Flywheel Bore



E107091-77B 15 1/2" x 2"

TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
1250	3600	Organic 8 Spring	STD	STD	107091-77B

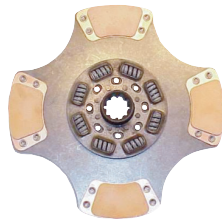


E107091-83B

1400	4000	Organic 8 Spring	STD	STD	107091-83B
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EP108391-81 15 1/2" x 2"

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



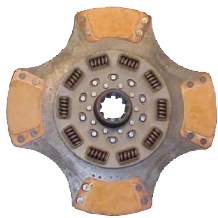
E107091-81B

1400	3600	Ceramic 8 Spring 4 Pad	STD	STD	107091-81B
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10 Spring 8.5" Flywheel Bore

EP108391-74 15 1/2" x 2"

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



E107091-74B

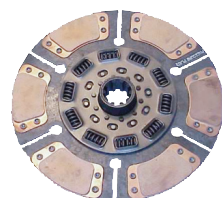
1650	3600	Ceramic 10 Spring 4 Pad	STD	STD	107091-74B
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EP108391-93

1860	4000	Ceramic 10 Spring 4 Pad	EZ	DUAL	108391-93B
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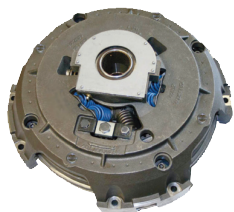
EP108391-93H 15 1/2" x 2"

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

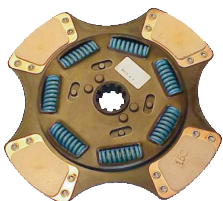


Manually Adjusting Clutches for 15 1/2" flywheel

Heavy-Duty Clutch 7 Spring 10" Flywheel Bore



EP108925-82 15 1/2" x 2"

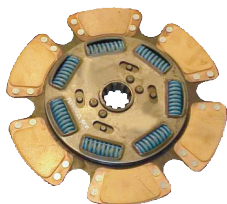


TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
1700	3600	Ceramic 7 Spring 4 Pad	EZ	DUAL	108925-82B

E107925-82

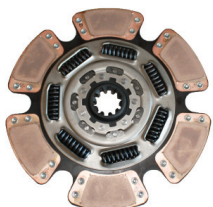
1700	3600	Ceramic 7 Spring 4 Pad	STD	STD	107925-82
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EP108925-25 15 1/2" x 2"



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

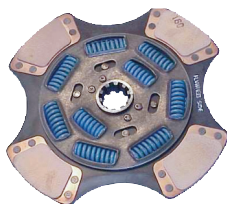
EP108925-32H 15 1/2" x 2"



TORQUE	PLATE ID	DISC STYLE	PEDAL	ADJ	REPLACES
2250	4500	Ceramic 7 Spring 6 Pad	EZ	DUAL	

9 Spring 10" Flywheel Bore

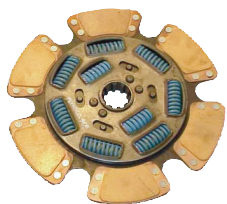
EP108935-51 15 1/2" x 2"



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

E107935-51B

1700	3600	Ceramic 9 Spring 4 Pad	STD	STD	107935-51B	Mack Applications
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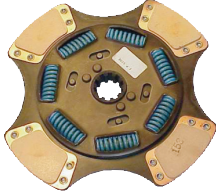
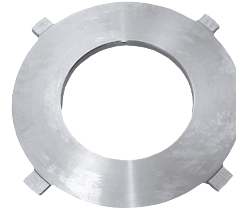
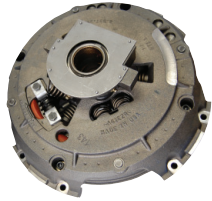


EP108935-91 15 1/2" x 2"

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

Self-Adjusting Clutches for 15 1/2" flywheel

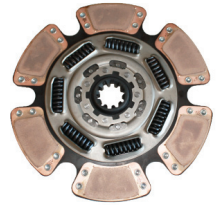
Heavy-Duty Clutch 7 Spring 10" Flywheel Bore



E-SA209925-82

15 1/2" x 2"

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

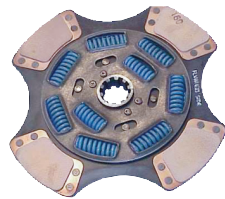


E-SA209925-25

15 1/2" x 2"

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

9 Spring 10" Flywheel Bore



E-SA209935-51

15 1/2" x 2"

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



E-SA209935-51H

15 1/2" x 2"

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

Clutch Accessories

Part Number	Reference	Description
EA119BPB6	274C-6	Drive Pin 14" Flywheel (6 per card)
EA148BPB6		2" Brake Spacer (6 per card)
EA153BPB6		1.75" Brake Spacer (6 per card)
EB175	127175	1.75" 2 pc Hinge Clutch Brake
EB201	127200	2" 2 pc Hinge Clutch Brake
EB201-500		2" Oversized 2 pc Hinge Clutch Brake
EA230EZBP		E-Z Adjuster
EA236BP		Spring Loaded Adjuster
EA237BP		2" 1pc Clutch Brake
EA238BP		1.75" 1pc Clutch Brake
EA239BP	127740	1.75" Torque Limiting Brake
EA240BP	127760	2" Torque Limiting Brake
EA537BP	127200	2" 2pc Clutch Brake
EA538BP	127175	1.75" 2pc Clutch Brake
EAB197VBP	6306-2VS	Pilot Bearing (Viton Sealed)
EAB197SVBP	6306-SN	Pilot Bearing (Viton Sealed with Snap Ring)
ECATLE100BP		Flywheel Gauge & Adjustment Tool
ECSB12815BPB4	12815	Shaft Bushing (4 per card)
ECSF105C-137BP	105C-137	Release Fork
EIPS1659	S1659	Input Shaft
Installation Kits		
EAK2468	RT Series	Major Install Kit
EAK2175BP	1.75"	Minor Install Kit with Torque Brake
EAK2200BP	2"	Minor Install Kit with Torque Brake
EAK2201BP	2"	Minor Install Kit with 2 pc. Hinge Clutch Brake



EA119BPB6
DRIVE PIN



EA236BP
SPRING ADJUSTER



EA230EZBP
E-Z ADJUSTER



EA237BP-EA238BP
1 PC. CLUTCH BRAKE



EA239BP-EA240BP
TORQUE LIMITING
CLUTCH BRAKE



EB201
2 PIECE HINGE
CLUTCH BRAKE



EA148BPB6
BRAKE SPACER



ECSB12815BPB4
SHAFT
BUSHING

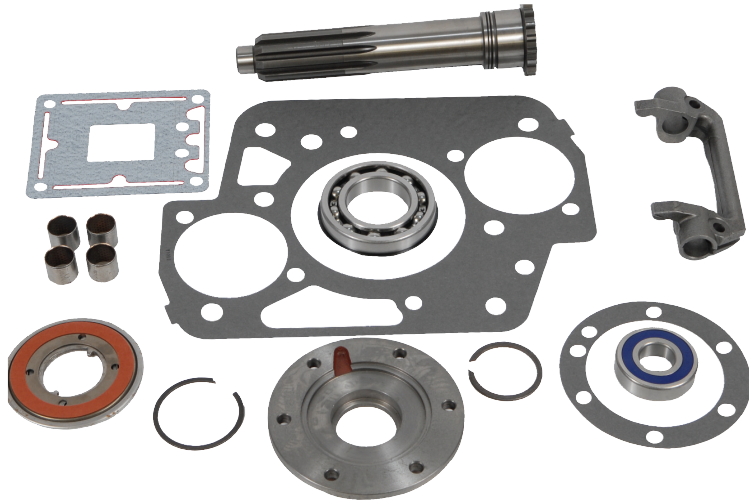


EIPS1659
INPUT SHAFT 2"
10 SPLINE W/BUSHING



ECSF105C-137BP
FORK

Major Clutch Installation Kit



Part # EAK2468 Includes:

- 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 # EAK2200BP Includes:

- Release Fork
- 2" Brake
- Bushings

Part # EAK2175BP Includes:

- Release Fork
- 1.75" Brake
- Bushings

Minor Clutch Installation Kit with Two-Piece Brake

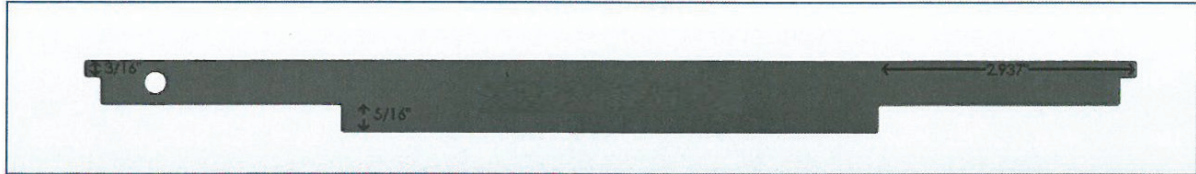


Part # EAK2201BP Includes:

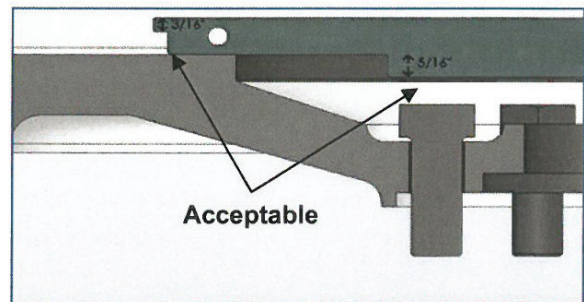
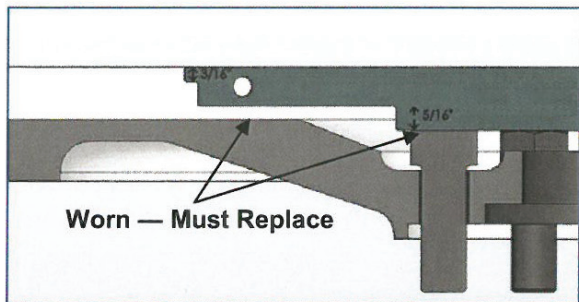
- Release Fork
- 2" 2 Piece Clutch Brake
- Bushings

Using Your Flywheel Gauge*

Flywheel Gauge

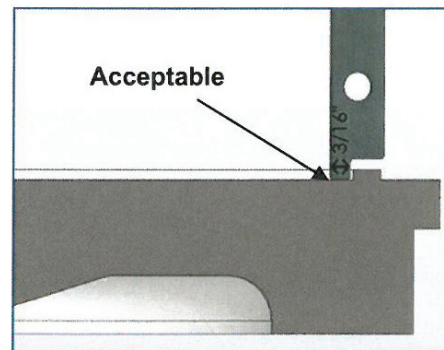
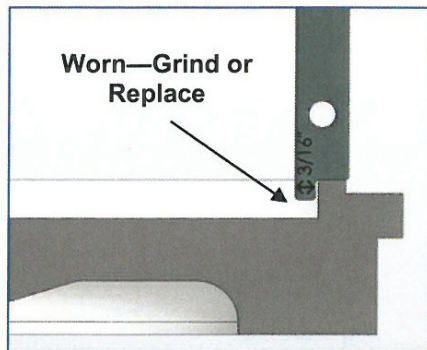


Step 1 5/16 Gauge Mounting Bolt Clearance



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 ECATLE100BP 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 Euclid Clutch

NOTE: Euclid 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 ECATLE100BP is available to assist with installation.

Clutch Adjustment Procedure (continued) for Euclid Clutch

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:

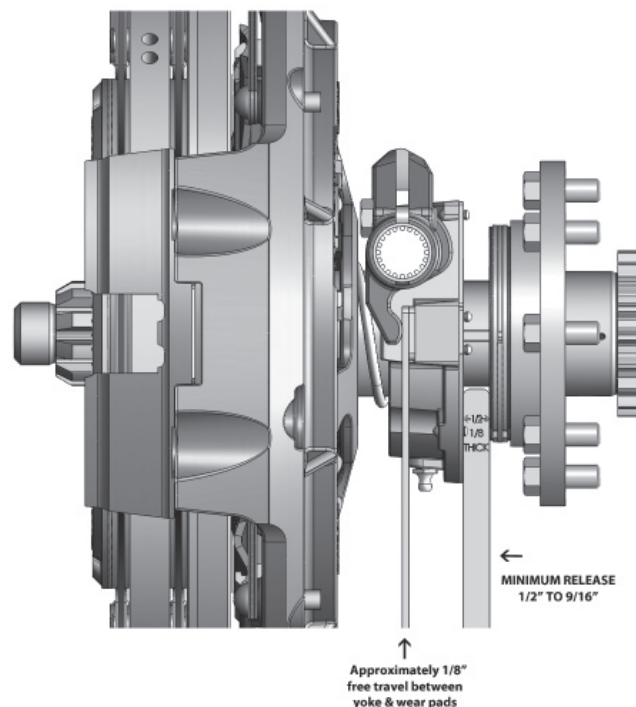
- A. Changing pedal stops in cab to reduce total pedal stroke.
- B. Increasing 1/8" yoke-to-bearing setting to lower squeeze. (this will increase free-pedal travel)

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.



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.

Engine Horsepower 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
	200	2600	495	1560
	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
	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
	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
	310	2100	1139	1100
	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
	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
	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
	330	600	1350	1200
CUM M11 330E	330	2000	1350	1200
	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
	300-330	1800	1150	1200
DD 11.L	330	1800	1250	1200
	330-350	1800	1350	1200
	220-365	1800	1350	1200

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	1800/2000	1250	1100
SERIES 55 121-1L-6	330/350	1800	1250	1100
SERIES 55 121-1L-6	330/350	1800	1350	1100
SERIES 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
	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 14ESPII	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
	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 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
	355	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 3406E MULTI TQ	355	1800	1350/1450	1200
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
	370	2000	1350	1200
CUM N14 370E	370	2100	1450	1200
	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
	370/430	1800	1450	1200
	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
	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

Engine HP & Torque

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

ENGINE	HP	@ RPM	TORQUE	@ RPM
DD 12.7L	400	2100	1450	1200
CUM M-11	400	1800	1450	1200
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
	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
	430	1800	1450	1200
	430	2100	1450	1200
	430	1800	1550	1200
	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
	435	2100	1550	1200
CUM N14 435E	435	1800	1450	1200
DD 8V92TAC	440	2100	1250	1300
CUM 444	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
CUM NTC444XT	444	2100	1400	1500
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
	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
	470	1800	1550	1200
	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
	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
	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

Quick Reference

14" Clutch Cross Reference

D&W®	Eaton® Easy Pedal	Eaton EverTough Value Clutch Reman	Haldex®	Illinois Auto®	Mid-America®	Unique®	Euclid Easy Pedal	Euclid Std 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	E-P108034-82B	E-107034-57B
SS108034-61B	108034-61B	108034-61MO 107034-61B	N10703461 N10803461	NMU051-023-1 NMU890-023-1		M108034-6F5	E-P108034-61B	E-107034-61B
			N10803582	NMU054-020-4 NMU400-020-1	MU-145400-DS	M108035-6A5	E-P108035-82B	
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	E-P108050-59B	E-107050-59B
			N10806359	NMU054-024-1 NMU054-084-1	MU-145400-DSCB	M108063-6J5	E-P108063-59A	
		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	E-P107237-22	
		107342-12	N10734222	NMU061-092-5-A	MU-129055-37-DSCB	M129055-6F5-NSR	E-P107342-12	
		107342-24	N1076862CE	NMU061-024-3-A	MU-129055-37-DSCB	M120955-6F5-NSR	E-P107342-24	
		107683-5 107683-MO	N1076835CE	NMU059-022-1 NMU059-093-1 NMU747-022-1 NMU747-024-2	MU-12774-7-DSCB	M127747-6F5	E-P107683-5	

15 1/2" Clutch Cross Reference

D&W	Eaton Solo Advantage	Eaton EverTough Value Clutch Reman	Haldex	Illinois Auto	Mid-America	Unique	Euclid Self-Adjust	Euclid Easy Pedal	Euclid Std 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		EP108391-74	E-107091-74B
		107901-77B	N10709182	NMU597-020-6 NMU597-090-4	MU-127597-DS	M127597-6A5			E-107091-77B
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		EP108391-81	E-107091-81B
		107091-83B	N10709182	NMU597-060-6	MU-127597-DS	M127597-6A5			E-107091-83B
SS108391-93B		108091-93B	N10839174	NMU597-067-6	MU-155698-SB-10			EP108391-93	
SS108391-93H		108091-93	N10839193H	NMU705-067-6 NMU898-067-6	MU-155698-12-SB-10	M108391-5W5		EP108391-93H	
SS108925-25 SS108925-82H	209701-25 208925-20 208925-25	108925-20AM 108925-25AM	N10893515 N10892582H	NMU455-147-6 NMU898-047-6 NMU898-147-6	MU-155698-12-SB-7	M1089251-4W5 M1089351-4W5	ESA209925-25	EP108925-25	
SS108925-45			N10892535 HN10892525HTN	NMU898-157-8				EP108925-32H	
SS108925-82B	209701-82 208925-34 208925-82	108925-82AM 108935-82MO 107925-82	N10792582 N10892582	NMU455-044-4 NMU455-044K-6 NMU698-044-4 NMU898-044-4	MU-129698-SB-7 MU-155698-SB-7	M1089251-1G5	ESA209925-82	EP108925-82	E-107925-82
SS108935-51	209701-51 208925-51 208925-91	108925-51AM 108935-91AM 108935-61MO 108935-91MO 107935-51B	N10793551 N10893551	NMU455-054-4M NMU698-054-4M NMU898-054-4M	MU-129698-SB-9 MU-155698-SB-9	M108925-9G5	ESA209935-51	EP108935-51	E-107935-51B
SS108935-61 SS108935-91	208925-61	108935-61AM 108935-61MO	N10893594	NMU455-057-4M NMU455-057-6M	MU-155698-12-SB-9	M108925-9W5		EP108935-91	
	209701-92 208925-92						ESA209935-51H		

EUCLID HEAVY-DUTY CLUTCH PARTS WARRANTY

We warrant new Euclid Heavy-Duty Clutch Assembly and any Installation Accessories you may have purchased with it (collectively referred to hereinafter as "Parts") for two years 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.

This warranty is a limited parts-only warranty, and does not include any labor, regardless of the source of that labor.

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 Euclid replacement parts are covered by this aftermarket parts warranty.

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