

AP Products, Inc.

800-417-2477 (Administration & Non-Technical)

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Preventative Maintenance Kit for D-Celerator Diesel Exhaust Brakes

For all late-model D-Celerator Diesel Exhaust Brakes
(Serial number 26816 and higher)
Part Number PMKEXB

Service Kit Components

1. EG-3000 Gasket (1 each)
2. NB-1006 Bushings (2 each)
3. PB-7000 Cap Screws (2 each)
4. SN-524 SS Flex-lock Nuts (2 each)
5. AS-3000 Anti-Seize Lubricant, 1 oz. (1 each)

Tools, Equipment and Supplies

1. 1/2" wrench
2. 9/16" wrench
3. 7/16" deep well socket (either 3/8" or 1/2" driver with ratchet)
4. 3/16" Allen wrench
5. 1/2" 3/8 deep well, thin wall socket (for stubborn bushings)
6. Wire brush
7. Emery cloth or small round wire brush (for bushing bores)
8. Flat file
9. Penetrating lube or similar product

Due to soot build-up, it may become necessary to re-lubricate the large butterfly pivot shaft bushings in the D-Celerator Diesel Exhaust Brake. We recommend that this service be performed on a regular basis according to use (normally every couple of years). This process should be performed when the truck and exhaust are sufficiently cooled and you have ample time to work on it (one to two hours average). It will be necessary to remove the cast iron main housing assembly from the exhaust system to ease the service procedure. In most cases you will be working over your head and eyes, so proper care and eye protection are required.

1) Disconnect wires from solenoid on main housing assembly. Some applications simply unplug the three-wire connector. For other applications, remove three small screws that attach wires to solenoid. **Note:** Gray wire attaches to Pull terminal, White wire attaches

to Hold terminal, and Black wire is the common ground.

- 2) Loosen v-clamps that hold cast iron housing to the pipe adapters. At this point the housing can be removed from the exhaust system for further work.
- 3) On a suitable work surface, remove two 3/8x16x1 bolts that hold solenoid heat shield onto main housing. Remove butterfly lever from butterfly pivot shaft. Set that assembly aside until ready to reassemble.
- 4) Using 3/16" Allen wrench, remove button head bolts that attached butterfly to pivot shaft. Be careful not to round out Allen corners. In some cases, splitting the nut, or use of heat, will ease the removal of the button bolts.
- 5) Once the button bolts are removed, the butterfly can be removed. This will require some turning of the pivot shaft and twisting the butterfly to allow the butterfly's removal. After removing the butterfly, locate the diamond-shaped plate on the lever side. Remove the two bolts that connect the plate to the housing, and then carefully remove the shaft and two bushings.
- 6) Inspect housing for signs of corrosion in the bushing bores, etc. Use a wire brush to remove any sign of corrosion or carbon buildup in the bushing area. Also, remove the remnants of the front gasket.
- 7) After thorough cleaning of the housing, it is ready for reassembly.

Cover new bushings with anti-seize on both the outer and inner surfaces.

Inspect and dress down, if necessary, any irregularity on the pivot shaft. Bushing must move freely on the shaft and inside the bushing bore in the cast iron housing for smooth operation.

Install the shaft and bushings into the housing and loosely attach diamond-shaped plate to housing.

Insert butterfly into housing, making sure that the butterfly is properly oriented on the shaft between the shaft and the bypass port on the main housing before installing new cap screws and new stainless steel nuts that attach the butterfly to the shaft.

Install second diamond-shaped plate and the solenoid heat shield to the lever side of the housing.

Tighten the two sets of cap screws that attach the bushing cover and heat shield to the housing.

8) Snug the butterfly bolts and close the butterfly completely, allowing the arc of the interior of the housing to center the butterfly, and tighten into place. Tighten bolts to approximately 30 foot-pounds of torque. Install butterfly lever.

9) With new gasket in place on front side of housing, re-install the housing into the pipe adapters as it was before removal. Re-attach wires to proper places and then check operation of brake and inspect for any exhaust leak. (It is normal to have a slight

exhaust leak from the pivot shaft on the lever side.)

1-800-874-3271

Return to [D-Celerator Diesel Exhaust Brake Operating and Installation Instructions](#)

Return to [D-Celerator](#) Product Page

Return to [Installation](#) Page

[Return to Home Page](#)

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