

# Jacobs Engine Brake™

## Model 765A & 750A Retrofit Kit

### Installation Instructions

**P/N 025678 Three-housing Retrofit Kit contains:**

P/N	Description	Qty.
025681	5/8" Power-Lash®	6
017048	Slave piston	6
019740	Buttonhead screw	6

**P/N 025679 Two-housing Retrofit Kit contains:**

P/N	Description	Qty.
025681	5/8" Power-Lash®	4
017048	Slave piston	4
019740	Buttonhead screw	4

#### 1. Determine the current adjusting screw in the housing.

Remove the valve covers and inspect the adjusting screws installed in the housing. If the housing contains P/N 24367 Robo-Lash™ adjusting screws, they must be replaced with the new Power-Lash adjusting screws included in the kit. The type of adjusting screw can be determined by inspecting the **top** of the screw. The old Robo-Lash adjusting screws have a screwdriver slot that extends across the entire head of the screw. The new Power-Lash screwdriver slot extends only across the internal plunger assembly. The differences are illustrated in Figure 1 below.

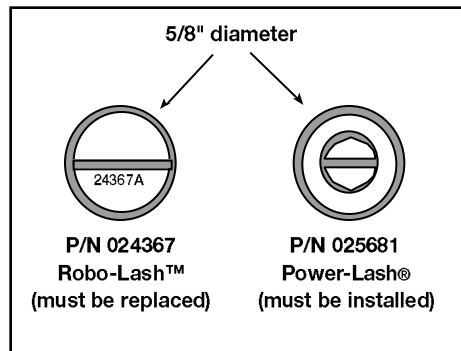


FIG. 1

**If the new Power-Lash screws are installed in the housing,** no changes are required. Replace the rocker cover, using new gaskets where necessary.

**If the old Robo-Lash screws are installed in the housing,** replace them with the new Power-Lash screws following the steps below.

#### 2. Replace the adjusting screws with the new Power-Lash adjusting screw.

- a. Loosen the adjusting screw locknuts. Retain the locknuts for use on the new Power-Lash screws.
- b. Back out the Robo-Lash adjusting screws. Retain the screws for return to Detroit Diesel Corporation.
- c. Loosely install the new Power-Lash adjusting screws from the kit into the housing. Install the locknuts removed in the previous steps on the Power-Lash adjusting screws. Do not tighten at this time.

(over)

### 3. Replace the Slave Piston and Torsion Spring Buttonhead Screw

- a. Loosen the engine brake mounting bolts and remove the housing from the engine.
- b. Remove the screw and washer that retain the slave piston torsion (return) spring. Remove the bridge assembly and the slave piston (see Fig. 2). Set the old buttonhead screw and slave piston aside for return to DDC. Retain the washer for reinstallation.

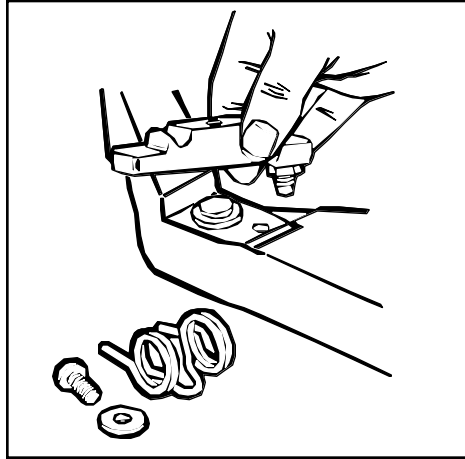


FIG. 2

- c. Install the new slave piston with the hole facing the housing. Install the bridge assembly with the leveling screw locknut facing the housing.
- d. Install the torsion spring with the new buttonhead screw and old washer.



WHILE TIGHTENING THE TORSION SPRING SCREW, PUSH THE SPRING TOWARD THE SLAVE PISTON ASSEMBLY. FAILURE TO DO SO MAY RESULT IN CONTACT BETWEEN THE INTAKE VALVE ADJUSTING SCREW AND THE TORSION SPRING. SERIOUS ENGINE DAMAGE MAY RESULT.

Torque the screw to 15 lb-ft (20 N•m).

- e. Repeat the above procedures for all housings.

### 4. Housing Installation and Adjustment

- a. Install the housings as detailed on pages 9 and 10 in the Model 760/765 Installation Manual, P/N 014328.
- b. Adjust the slave piston clearance as detailed on pages 10 and 11 in the Installation Manual, **setting the slave piston clearance (lash) at 0.023" (.584 mm), NOT 0.026" as stated in the manual.**
- c. Replace the rocker covers, using a new gasket where needed.

### 5. Return Parts to DDC

Return the old Robo-Lash adjusting screws, old slave pistons and old button head screws to Detroit Diesel Corporation using the following address:

Detroit Diesel Corporation  
Attn: Return Material Room  
13400 W. Outer Drive  
Detroit, MI 48239