



## Installation Addendum: Jacobs Engine Brake™ Model 750B

Model 750B Jacobs Engine Brake has been designed and approved for 1999 Detroit Diesel Series 50 8.5L engines. The installation procedures for Model 750B differ slightly from the procedures for the model 750. The installation instructions are detailed in the Model 750 Installation Manual (P/N 019085D). The changes in procedure required for Model 750B are covered in this Installation Addendum. Please read this addendum in its entirety and note the changes to the installation manual where required before beginning installation.

### Section 1: Introduction

Note the following additional application and adjustment data:

The approved applications for Model 750B are:

Engine Model Number	Model Year/Size in Liters	Slave Piston Lash Adjustment	Gage P/N
6047MK60	1999 / 8.5	0.023" (0.584 mm)	25397
6047MK50	1999 / 8.5	0.023" (0.584 mm)	25397
6047MK45	1999 / 8.5	0.023" (0.584 mm)	25397
6047MK57	1999 / 8.5	0.023" (0.584 mm)	25397
6047MK28	1999 / 8.5	0.023" (0.584 mm)	25397

### Section 2B: Engine Preparation

The instructions for DDEC III should be followed for 1999 DDEC IV electrical systems.

### Section 3: Brake Housing Installation

Follow the housing installation instructions beginning on page 8. A change to these procedures is required for Model 750B at step 5 on page 9. The new instruction should read:

5. Before tightening the engine brake hold-down bolts, move the housing from side to side and locate as far towards the camshaft side of the engine as possible (see Fig. 18 in the installation manual).

Continue with the brake housing installation instructions, steps 6 and 7.

(continued)

### **Slave Piston Adjustment:**

Follow the instructions beginning on page 9, up through step 1. Note the correct slave piston adjustment in the table on page 1 of this addendum. A change is required for steps 2 through 4 as follows:

**NOTE:** MODEL 750B UTILIZES A NEW J-LASH<sup>®</sup> ADJUSTING SCREW TO SET THE SLAVE PISTON LASH. THE J-LASH ADJUSTING SCREW RETAINS OIL, WHICH CAN CAUSE AN INCORRECT LASH SETTING IF THE CORRECT SETTING PROCEDURE IS NOT FOLLOWED DURING ADJUSTMENT.

2. Turn in the J-Lash adjusting screw until the solid side of the slave piston bridge assembly contacts the exhaust valve and the valve springs begin to compress. Turn in one (1) additional turn. Wait at least 30 seconds for oil to be purged from the J-Lash adjusting screw.

**NOTE:** ALL OIL MUST BE PURGED FROM THE J-LASH ADJUSTING SCREW. OIL REMAINING IN THE J-LASH ADJUSTING SCREW WILL CAUSE INACCURATE CLEARANCE ADJUSTMENT, POSSIBLY LEADING TO DAMAGE TO THE ENGINE OR ENGINE BRAKE. IF OIL IS BELOW ROOM TEMPERATURE (BELOW 60° F, 16 C), WAIT AT LEAST TWO MINUTES FOR OIL TO BE PURGED FROM THE J-LASH ADJUSTING SCREW.

3. After the time interval specified in step 2, back out the adjusting screw ONLY until the correct size feeler gage can be inserted between the solid side of the slave piston bridge assembly and the exhaust valve (see Fig. 20 in the installation manual). Adjust the J-Lash so that a light drag is felt on the feeler gage. Do not back out the J-Lash adjusting screw more than required to obtain a light drag on the feeler gage. Use a screwdriver to hold the J-Lash in place and torque the lock nut to 25 lb-ft (35 N•m).

**NOTE:** IF THE J-LASH SCREW IS BACKED OUT UNTIL IT NO LONGER COMPRESSES THE SLAVE PISTON SPRING, OIL WILL ENTER THE SCREW AND THE ADJUSTMENT WILL BE INCORRECT. IF THIS OCCURS, REPEAT STEPS 2 AND 3 ABOVE.

4. Recheck lash settings. If clearance setting is incorrect, repeat steps 2 and 3 above.

**NOTE:** ONCE THE ENGINE BRAKE HAS BEEN RUN YOU WILL NOT BE ABLE TO CHECK THE ENGINE BRAKE ADJUSTMENT. THIS IS BECAUSE OF OIL IN THE J-LASH SCREW. IF UNSURE OF THE ADJUSTMENT, YOU MUST REPEAT STEPS 2 THROUGH 4 ABOVE.

Continue with step 5. The procedure in the installation manual on page 10 for steps 2 through 4 should be used for adjusting the clearance between the slave piston leveling screw and the rocker arm adjusting screw (see Fig. 21 in the installation manual).

### **Section 4B: Control System Installation**

The instructions for DDEC III should be followed for 1999 DDEC IV electrical systems.

The remaining instructions in the installation manual apply to Model 750B.