



# INSTRUCTIONS

J03261

2010-12-15



## SCREAMIN' EAGLE BIG BORE STAGE 1 KIT

### GENERAL

#### Kit Number

29774-02B

#### Models

This kit fits the following Twin Cam 88 motorcycles equipped with Electronic Fuel Injection (EFI) and black engines:

- 2001-later Softail models (except 2005 FLSTFI 15th Anniversary)
- 2004-later Dyna models
- 2002-later Touring models

#### Additional Parts Required

Proper installation of this kit requires the use of Digital Technician™ at a Harley-Davidson dealer.

#### ⚠ WARNING

**Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)**

#### NOTE

*This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from a Harley-Davidson dealer.*

#### Kit Contents

See Figure 1, Table 1 and Figure 2, Table 2.

#### NOTE

*Installation of this kit by an authorized Harley-Davidson dealer will not impact your limited vehicle warranty.*

*This Big Bore Stage 1 kit is intended for High Performance applications only. This engine related performance part is legal for sale or use in California on pollution controlled motor vehicles. Engine related performance parts are intended for the experienced rider only.*

*The Product Information Label contained in this kit is a requirement of the California Air Resource Board (CARB) emission regulation. Place the label on the right side of the frame directly beneath the VIN sticker. This label is not required outside the state of California.*

*The air cleaner contained in this kit is designed to perform with this kit only. Any other combination of components is not confirmed to be legal for street use.*

### REMOVAL

#### ⚠ WARNING

**To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding. (00307a)**

#### ⚠ WARNING

**Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)**

1. *Softail, 2003-Earlier Dyna, and 2003-Earlier Touring Models:2004-Later Dyna and 2004-Later Touring Models:*
  - a. Remove seat according to the instructions in the Service Manual.
  - b. Disconnect battery cables, negative (-) cable first.
  - c. Remove maxi-fuse. Refer to MAXI-FUSE REMOVAL in Service Manual.

#### NOTICE

**Head gaskets provided in the Big Bore kit eliminate the need for original equipment (O.E.) O-rings. Do not install the two O-rings from the kit on the top cylinder dowels or severe engine damage can occur. (00484d)**

#### ⚠ WARNING

**When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00330a)**

2. Remove existing cylinder heads, cylinders, and pistons. Refer to ENGINE section in appropriate Service Manual.
3. Remove existing primary chaincase cover, diaphragm spring retainer, and clutch diaphragm spring. Refer to DRIVE section in appropriate Service Manual.

### INSTALLATION

1. Install pistons, cylinders, and cylinder heads from kit. Refer to ENGINE section in appropriate Service Manual.
2. Install diaphragm spring retainer, clutch diaphragm spring ( Table 2, item 15) and primary chaincase cover. Refer to DRIVE section in appropriate Service Manual.



3. Install high performance air cleaner. Refer to instructions included with Air Cleaner Kit (29440-99C) on Instruction Sheet J03252.
4. *Softail, 2003-Earlier Dyna, and 2003-Earlier Touring Models: 2004-Later Dyna and 2004-Later Touring Models:*
  - a. Connect battery cables, positive (+) cable first.
  - b. Install seat according to the instructions in the Service Manual.
  - c. Install maxi-fuse. Refer to MAXI-FUSE INSTALLATION in Service Manual.

**▲ WARNING**

After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070b)

**NOTICE**

You must recalibrate the ECM when installing this kit. Failure to properly recalibrate the ECM can result in severe engine damage. (00399b)

5. Download the new ECM calibration using the Digital Technician™ at a Harley-Davidson dealer.

**SERVICE PARTS**

is03129

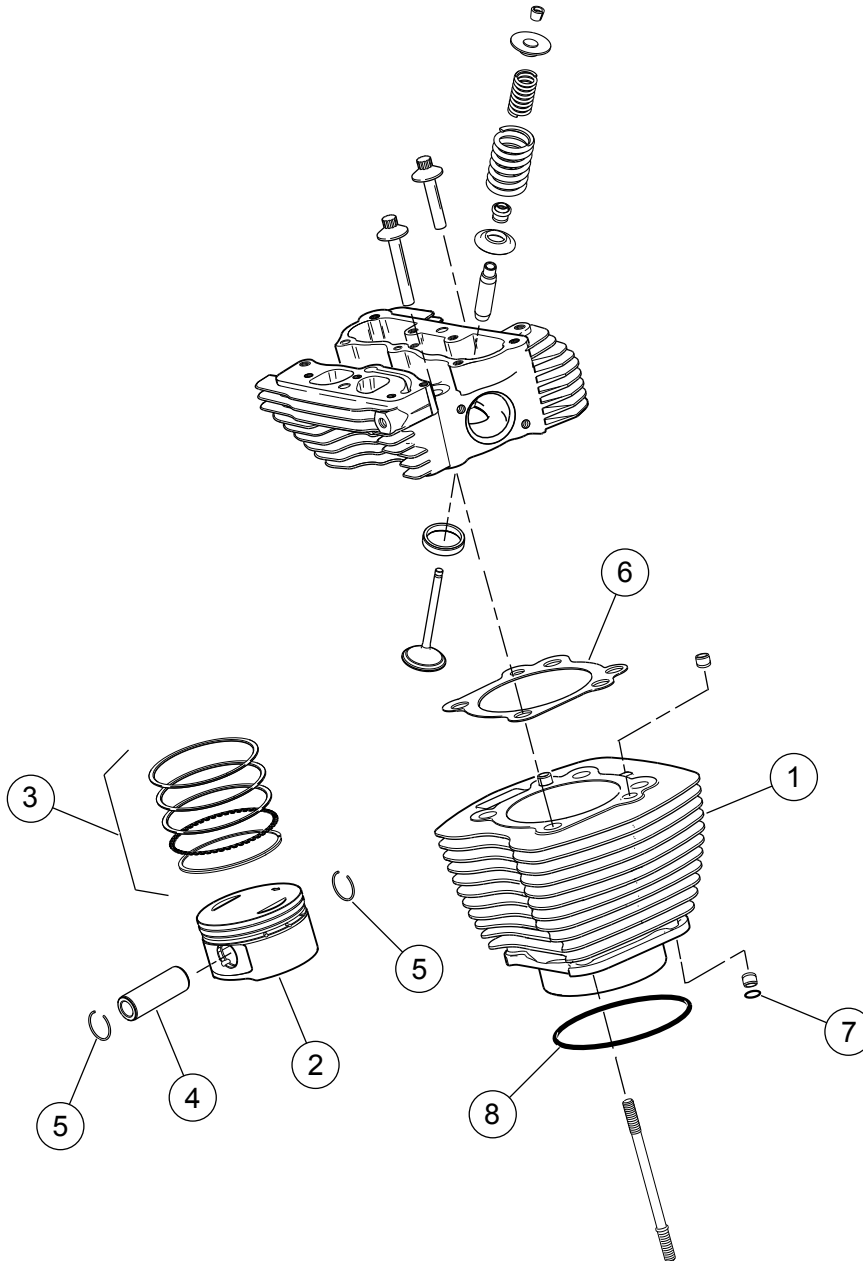
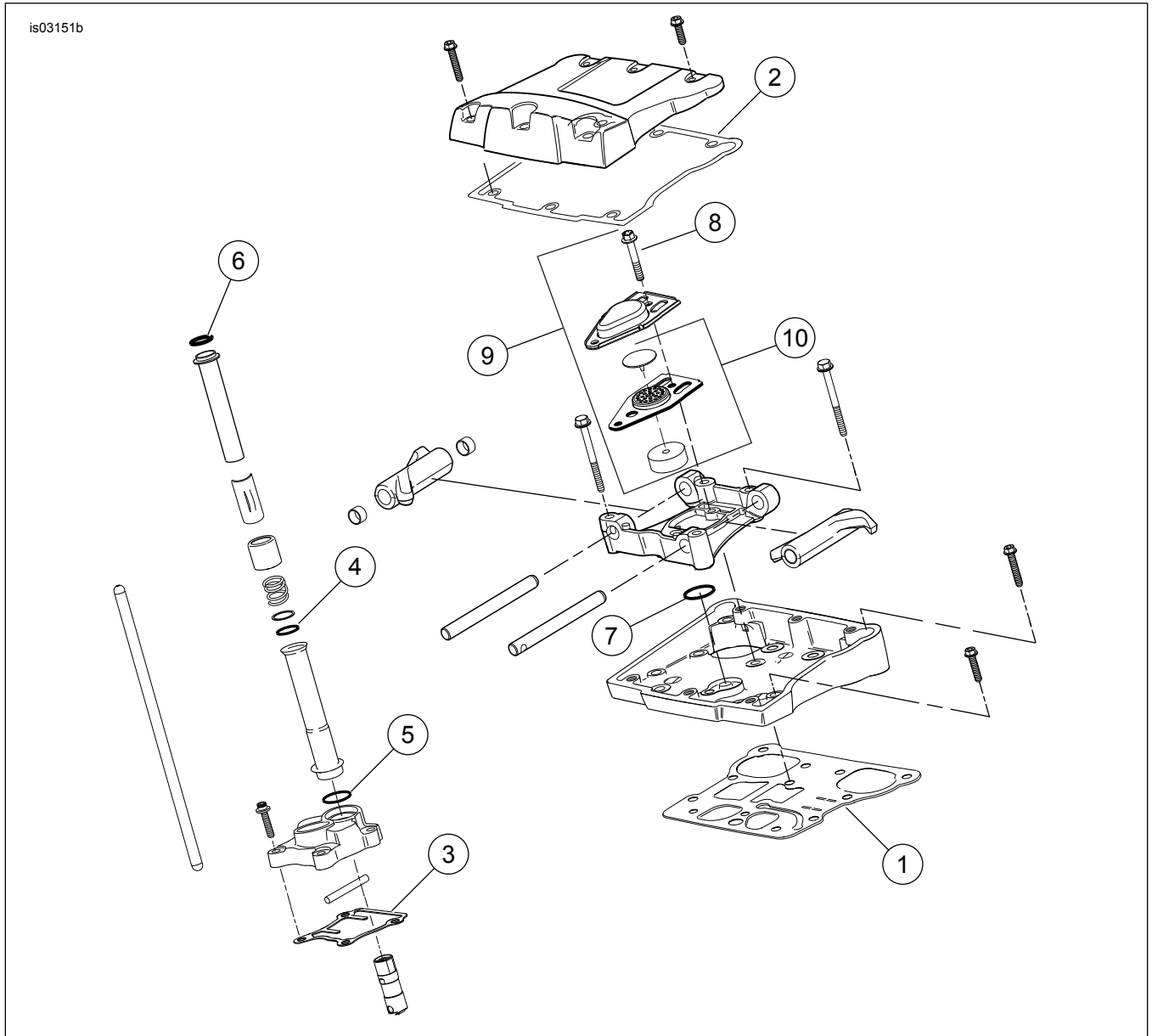


Figure 1. Service Parts: Screamin' Eagle Big Bore Stage 1 Kit

**Table 1. Service Parts: Screamin' Eagle Big Bore Stage 1 Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
1	Cylinder assembly (Black) (2)	16547-99	6	Head gasket (2)	16787-99A
2	Piston (2)	Not Sold Separately	7	O-ring, cylinder deck ring dowel (2)	11273
3	Piston ring set (2)	21918-99	8	O-ring, cylinder spigot (2)	11256
4	Piston pin (2)	22132-99	--	Piston kit (includes items 2 through 5)	22851-99A
5	Piston pin circlip (4)				22097-99

Note:  
Do not install O-rings (item 7) to top cylinder dowels.



**Figure 2. Service Parts: Screamin' Eagle Big Bore Stage 1 Kit**

**Table 2. Service Parts: Screamin' Eagle Big Bore Stage 1 Kit**

<b>Item</b>	<b>Description (Quantity)</b>	<b>Part Number</b>	<b>Item</b>	<b>Description (Quantity)</b>	<b>Part Number</b>
1	Gasket, rock cover base (2)	16719-99A	10	Baffle assembly (2)	26500002
2	Gasket, rocker cover top (2)	17386-99A	11	Product information label (Not Shown)	Not Sold Separately
3	Gasket, tappet cover (2)	18635-99B	12	Seal, exhaust (Not Shown)	17048-98
4	O-ring, middle push rod cover (4)	11132	13	Seal, EFI intake (2) (Not Shown)	26995-86B
5	O-ring, lower push rod cover (4)	11145	14	Valve seal kit (Not Shown)	18004-86
6	O-ring, upper push rod cover (4)	11293	15	Spring, clutch diaphragm (Not Shown)	37951-98
7	O-ring, rocker arm support (2)	11270	16	Air cleaner kit (Not Shown)	29440-99C
8	Bolt (4)	4400	--	Breather Assembly (includes items 8 through 10)	17025-03A
9	Breather assembly	17025-03A			