



# INSTRUCTIONS

J04802

2008-12-22



## SCREAMIN' EAGLE PRO TC 103 (1690 CC) STAGE 4 KIT

### GENERAL

#### Kit Number

27517-08 (Black)

#### Models

For model fitment information, see the P&A Retail Catalog or the Parts and Accessories section of [www.harley-davidson.com](http://www.harley-davidson.com) (English only).

#### Additional Parts Required

This kit requires the separate purchase of a SE air cleaner kit that is compatible with the supplied 58mm throttle body. See SE Pro catalog for available kits.

This kit also requires the separate purchase of the Cam Drive Retention Kit (25566-06) and Cam Service Kit (17045-99C) which are available from a Harley-Davidson dealer.

Please see appropriate sections in service manual for the special tools required to install this kit.

Proper installation of this kit also requires ECM recalibration using EFI Race Tuner Kit. Refer to Screamin' Eagle Pro Catalog or contact 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 to Figure 3, and Table 1 to Table 3.

#### NOTE

*This kit is intended for High Performance or Racing applications only and is not legal for sale or use on pollution controlled motor vehicles. This kit may reduce or void the limited vehicle warranty. Engine related performance parts are intended for the experienced rider only.*

### REMOVAL

#### Prepare for Service

1. Position motorcycle on a suitable lift.

#### NOTE

*If vehicle is equipped with Harley-Davidson Smart Security System, see Owner's Manual for instructions to disarm the system.*

2. Remove seat according to the instructions in the service manual.

#### ⚠ 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)**

3. Remove fuel tank according to the instructions in the service manual.
4. Remove main fuse. Refer to service manual for your motorcycle.

### Remove Engine Components

1. Remove existing air cleaner assembly. Refer to AIR CLEANER REMOVAL in service manual.
2. Remove existing exhaust system. Refer to EXHAUST SYSTEM REMOVAL in service manual.
3. Disassemble engine top end and cam plate assembly. Refer to appropriate ENGINE sections in service manual.
4. Remove existing clutch diaphragm spring. Refer to CLUTCH REMOVAL in service manual.

### INSTALLATION

#### Install Engine and Clutch Components

1. See Figure 3. Inspect camshaft needle bearings (7) and replace if necessary.
2. See Figure 1 through Figure 3. Assemble cams to cam plate, performance cylinder heads and engine top end using parts from kit. Refer to appropriate ENGINE sections in service manual.
3. Assemble throttle body and injectors from kit using original equipment fuel line and fuel rail. Refer to instructions in the supplied throttle body kit.

4. Install throttle body assembly to engine using intake flanges and seals supplied in the throttle body kit. Refer to instructions from the supplied throttle body kit.
5. Install clutch diaphragm spring from kit. Refer to CLUTCH INSTALLATION in service manual.
6. Install exhaust system. Refer to EXHAUST SYSTEM INSTALLATION in service manual.
7. Install air cleaner assembly. Refer to AIR CLEANER INSTALLATION in service manual.

## Final Assembly

1. Install main fuse. Refer to service manual for your motorcycle.
2. Install fuel tank according to the instructions in the service manual.
3. Install seat according to the instructions in the 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)**

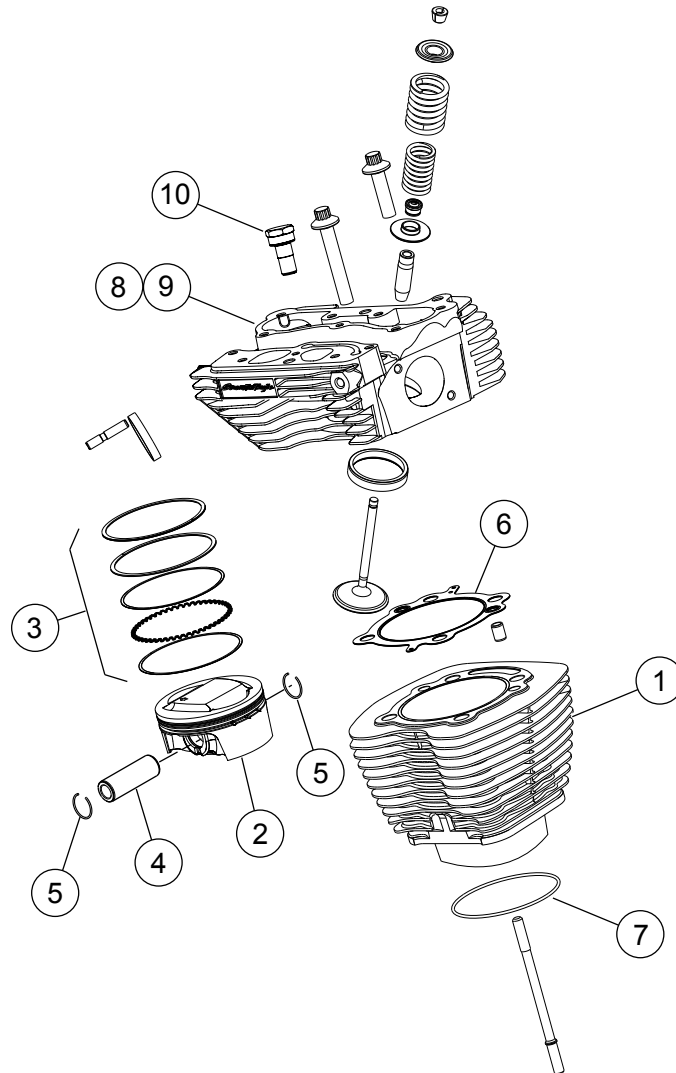
4. Download the new ECM calibration using EFI Race Tuner Kit and Interface Box supplied with kit. Refer to Screamin' Eagle Pro Catalog or contact a Harley-Davidson dealer.
5. Start and run engine. Repeat several times to verify proper operation.

## Operation

Refer to BREAK-IN RIDING RULES in the Owner's Manual for instructions to break-in the motorcycle.

## SERVICE PARTS

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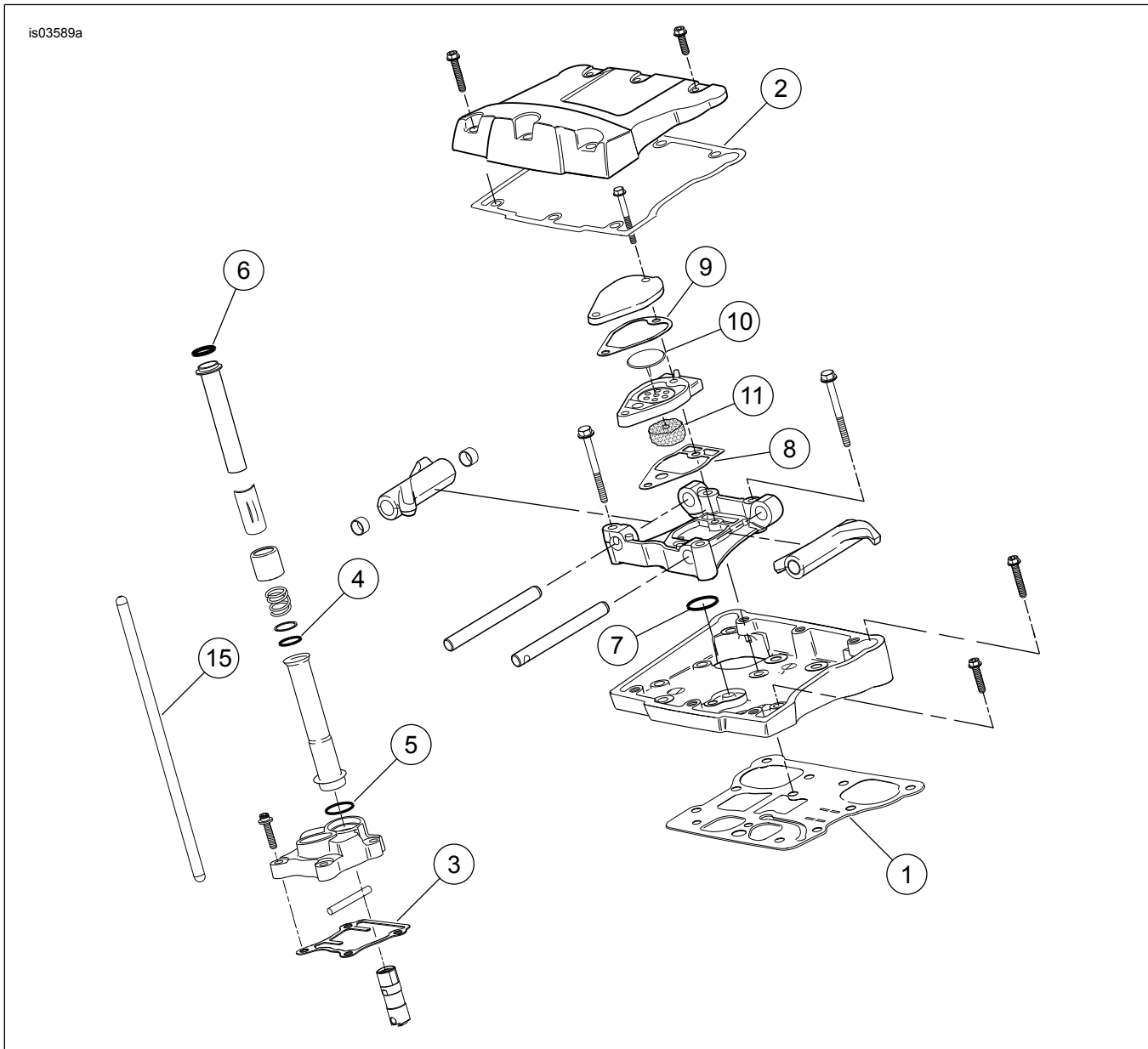
**Figure 1. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

**Table 1. Service Parts Table: Screamin' Eagle PRO TC 103 (1690 cc) Stage 4 Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
1	3.875 cylinder assembly (black) (2)	16547-99	7	O-ring, cylinder base	11256
2	Piston (2)	Not Sold Separately	8	Cylinder head assembly, front (black)	17067-08A
3	Piston ring set (2)	22457-03	9	Cylinder head assembly, rear (black)	17065-08A
4	Piston pin (2)	22455-03	10	Automatic compression release (ACR) plug	16648-08A

**Table 1. Service Parts Table: Screamin' Eagle PRO TC 103 (1690 cc) Stage 4 Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
5	Piston pin circlip (4)	22456-03	Notes: Piston Kit (22137-08) includes items 2 through 5. For cylinder head assembly (8, 9) components, refer to instruction sheet J04792.		
6	Gasket, cylinder head (2)	16787-99			



**Figure 2. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

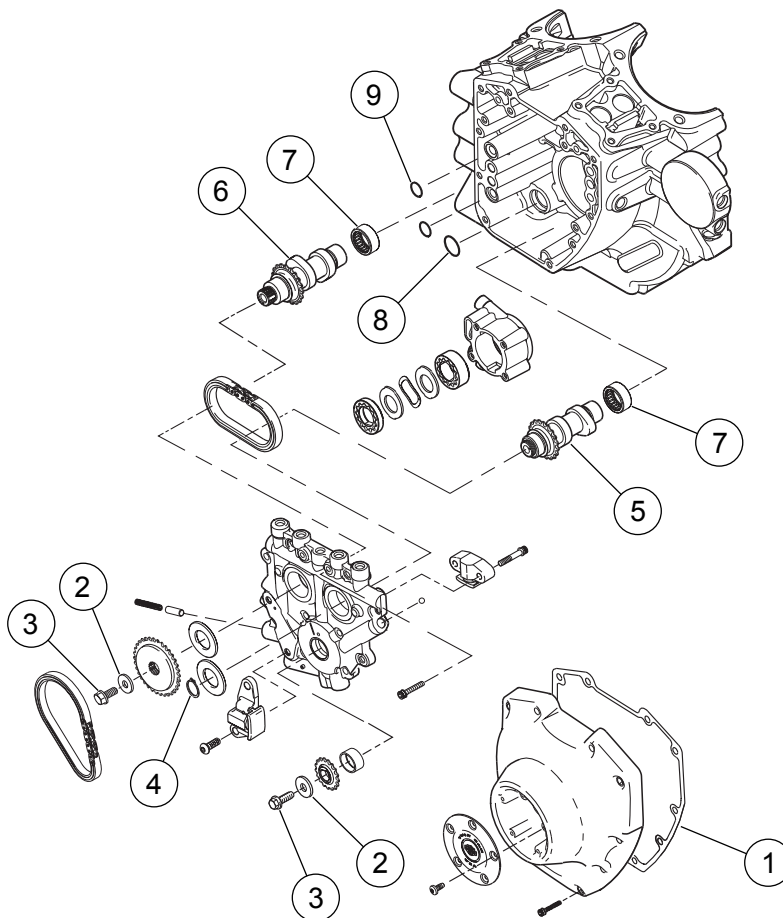
**Table 2. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
1	Gasket, rocker cover base (2)	16719-99A	9	Gasket, breather (2)	Not Sold Separately
2	Gasket, rocker cover top (2)	17386-99A	10	Umbrella valve (2)	26858-99
3	Gasket, tappet cover (2)	18635-99B	11	Filter element, breather (2)	63815-99
4	O-ring, middle push rod cover (4)	11132A	12	Seal, EFI intake (2) (Not Shown)	29995-86B
5	O-ring, lower push rod cover (4)	11145A	13	Seal, map sensor (Not Shown)	11291
6	O-ring, upper push rod cover (4)	11293	14	Spring, clutch diaphragm (Not Shown)	37951-98

**Table 2. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
7	O-ring, rocker arm support (2)	11270	15	Perfect fit pushrods kit, (+0.030 inch)	18401-03
8	Gasket, breather (2)	Not Sold Separately	Notes: Breather Gasket Kit (17162-03) includes 8 through 11. Items 1 through 13 are included in Upper End Overhaul Kit (17052-99B) and items 6 and 7, Figure 1.		

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**Figure 3. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

**Table 3. Service Parts: Screamin' Eagle Pro TC 103 (1690 cc) Stage 4 Kit**

Item	Description (Quantity)	Part Number
1	Gasket, cam cover	25244-99A
2	Washer	Not Sold Separately
3	Capscrew, flanged	Not Sold Separately
4	Retaining ring	11461
5	Camshaft, front	Not Sold Separately
6	Camshaft, rear	Not Sold Separately
7	Bearing, needle (2) (must be purchased separately, if needed)	9215
8	O-ring, oil pump to cam plate	11293
9	O-ring, cam plate to crankcase (2)	11301
10	Hi-flow injectors kit (not shown)	27796-08
11	58 mm ETC throttle body kit (not shown)	27713-08
12	Interface box, (VCI), Super Tuner (not shown)	32109-08A

Notes: Cam Drive Retention Kit (25566-06) includes 2 and 3. Items 1, 4, 8 and 9 are included in Cam Service Gasket Kit (17045-99C). Items 5 and 6 available in Cam Kit (25475-06).