



# INSTRUCTIONS

-J00942

REV 12-21-98

Kit Numbers 16459-96A, 16460-96A

## SCREAMIN' EAGLE SPORTSTER 1200 CYLINDER HEADS

### General

This instruction sheet covers the following Cylinder Head Kit part numbers:

Part No.	Description
16459-96A	Silver heads
16460-96A	Black heads

These kits are designed for installation on 1991 and later XL 1200 models.

### Additional Required Parts

On all models, a Top End Overhaul Gasket Kit, Part No. 17032-91 must be purchased from your Harley-Davidson Dealership. In addition, on 1991 models the four (two per head) stock short head screws must be replaced with Part No. 16480-92 heads screws.

#### NOTE

Service Parts for these kits are listed on page 2. A Service Manual for your motorcycle is available at your Harley-Davidson Dealership.

### Installation

#### CAUTION

This engine-related performance part is intended for High Performance or Racing applications 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.

1. Refer to appropriate Service Manual for all removal, assembly and disassembly procedures.
2. Remove existing cylinder head assemblies.

#### CAUTION

For 1991 models, it is very important that head screws, Part No. 16480-92 are used. The stock 1991 screws length is 1-11/16 in. The Part No. 16480-92 screws length is 1-7/8 in. Damage to engine could occur if shorter screws are used.

#### NOTE

This kit contains secondary hole plugs for use if cylinder heads are used with only one spark plug. If the ignition system used does not support dual spark plug cylinder heads, install a secondary hole plug and gasket (item 16 on Service Parts illustration) into the middle spark plug hole in each cylinder head (the hole located under the center of the rocker boxes). See Service Parts illustration for location. Tighten hole plug to 11-18 ft-lbs (15-24 Nm).

3. Install new cylinder heads using appropriate Service Manual procedures and new gaskets from Top Overhaul Gasket Kit, Part No. 17032-91. On 1991 models, make certain Part No. 16480-92 heads screws are used.

#### NOTE

Due to increased compression ratio, use at least 91 octane gasoline. Octane rating is usually found on the pump.

4. Check assembly for proper installation and operation.

### Notes on Valve Springs

The valve springs on these cylinder heads have an installed spring height of 1.800 in., which equals 155 lbs. of seat pressure. Seat pressure can be changed by placing shims (P.N. 18224-98 [.015 in.] or 18225-98 [.030 in.]) under lower spring collars.

Every .015 in. reduction in spring height equals 5 lbs. more of seat pressure. For example:

1.785 in. installed spring height = 160 lbs. seat pressure

1.770 in. installed spring height = 165 lbs. seat pressure

#### NOTE

Shim to desired seat pressure by placing shims under lower collar, but do not use more than .075 in. of shims.

### To Change Installed Valve Spring Height (Seat Pressure)

1. Compress valve springs and remove upper collar keys, upper collar, and lower collar on all four valves.

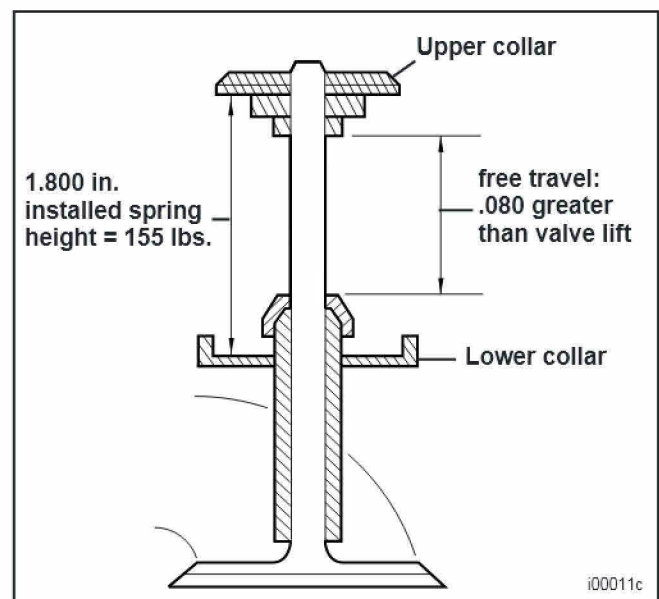
#### NOTE

Do not remove valves. If valves are removed, new seals must be installed.

#### CAUTION

Because of the large diameter of the springs in this kit, there may be slight interference between the spring and the rocker box. If interference is detected, it will be necessary to remove a small amount of material from the rocker box.

2. See illustration. Using shims required for desired seat pressure (see notes above), install lower valve spring collars, upper collars, and collar keys. Check installed spring height. Add shims or remove material from spring seat to reach installed spring height. Remove upper collar keys and upper collars and assemble cylinder heads following applicable Service Manual procedures.



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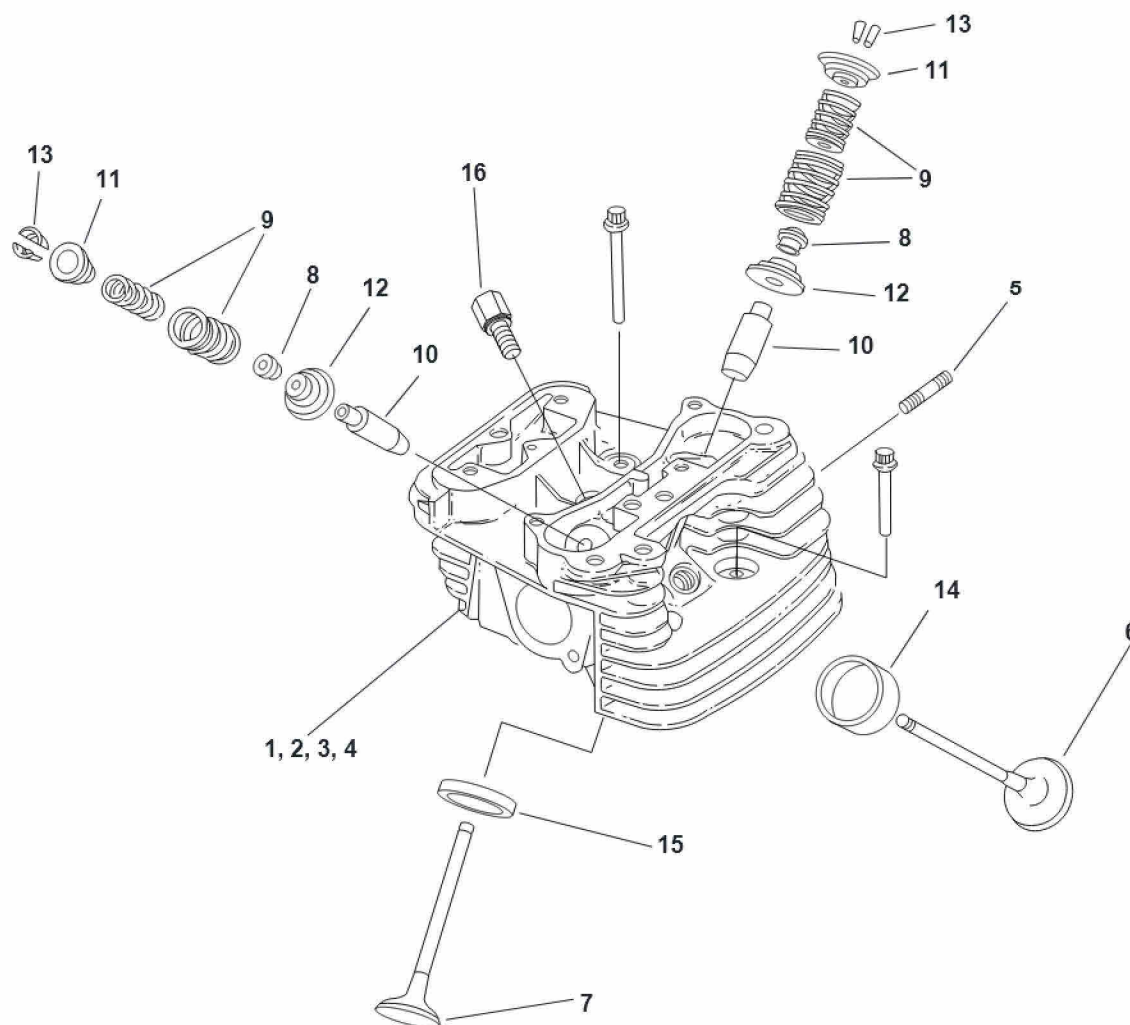
# Service Parts

16459-96A

Date 12/98

Screamin' Eagle 1200 Cylinder Heads

sp16459



**Kit Numbers 16459-96A, 16460-96A**

Item	Description	Part No.
1	Front cylinder head, silver*	16454-96A
2	Rear cylinder head silver*	16456-96A
3	Front cylinder head, black*	16453-96A
4	Rear cylinder head, black*	16455-96A
5	Stud, exhaust port (4)	16715-83
6	Intake valve (2)	18023-87
7	Exhaust valve (2)	18024-87
8	Seal, valve (4)	18001-83B
9	Valve spring, outer and inner (4)	18218-98
10	Valve guide, intake and exhaust (4)	18113-96Y
11	Collar, valve spring-upper (4)	18216-98
12	Collar, valve spring-lower (4)	18217-98
13	Retainer, valve collar (8)	18211-86
14	Intake valve seat (2)	18020-87
15	Exhaust valve seat (2)	18022-96Y
16	Secondary hole plug and spark plug gasket (2)	16604-98

**\* With valve guides and seats installed**

Note: Quantities shown are for kit, only one cylinder assembly shown