



# INSTRUCTIONS

-J02940

REV. 6-27-03

Kit Number 62996-04

## SPORTSTER VERTICAL-MOUNT OIL-COOLER KIT

### General

This kit is designed for installation on 1982 and later XL (Sportster®) model motorcycles, except when equipped with a Front Chin Spoiler Kit.

#### NOTE

A thermostat (Part Number 62878-99) is available as a separate purchase. See your Harley-Davidson Dealer for details.

#### NOTE

A Chrome Oil Cooler Cover (Part Number 74627-01) is available as a separate purchase. See your Harley-Davidson Dealer for details.

### WARNING

A service manual is required for correct installation of this kit. If you do not have a service manual, get one from your Harley-Davidson Dealer or have your Harley-Davidson Dealer install this kit. Incorrect installation of this kit could result in death or serious injury.

#### NOTE

A Service Manual for your motorcycle is available at your Harley-Davidson Dealer.

### Installation

1. See Figure 1. Remove the spin-on oil filter. Clean the stock filter-mounting area thoroughly.

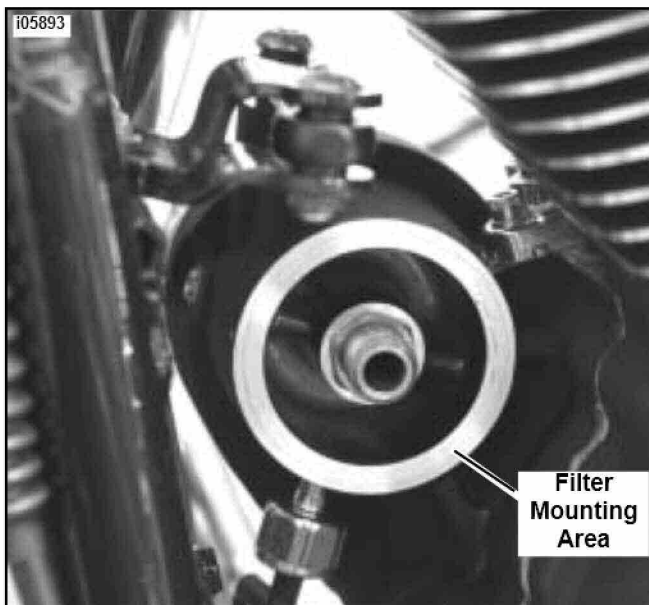


Figure 1. Remove Spin-On Oil Filter

2. See Figure 2. Obtain the oil filter adapter assembly and separate the adapter components.

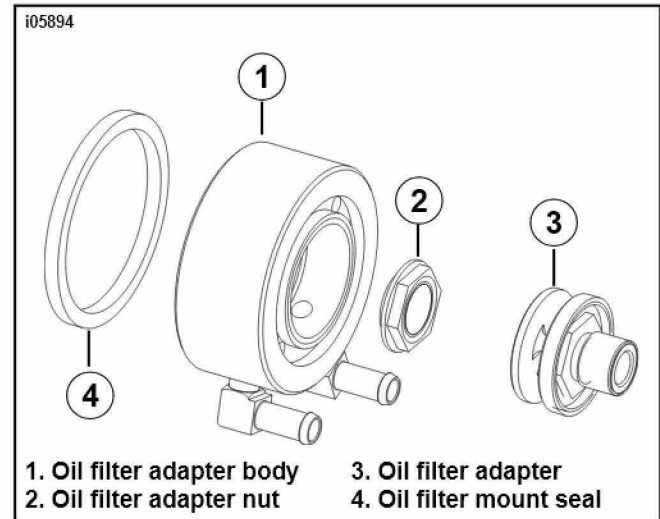


Figure 2. Separate Filter Adapter Assembly

3. See Figure 3. Orient the oil filter adapter nut as shown in Figure 2 and align with smaller hole in oil filter adapter body.
4. See Figure 3. Thread the oil filter adapter nut (with body) onto the stock oil filter mounting stud and finger tighten. **NOTE:** It is not necessary to lubricate the rubber sealing ring. Orient the oil filter adapter body so that hose fittings are located at the bottom of the assembly. While holding adapter body to keep from turning, tighten the oil filter adapter nut to 144 in-lbs (16.2 Nm).

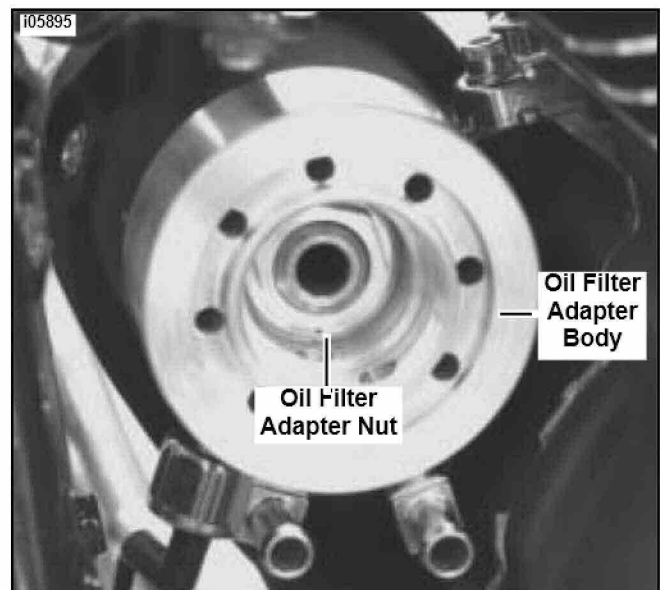


Figure 3. Install Oil Filter Adapter Nut and Body

- See Figure 4 Orient the oil filter adapter as shown and thread into the larger hole in the oil filter adapter body. Tighten the oil filter adapter to 144 in-lbs (16.2 Nm).

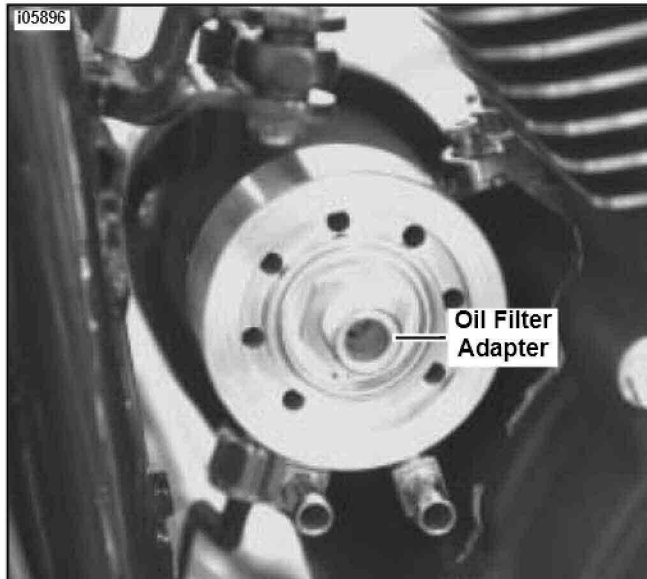


Figure 4. Install Oil Filter Adapter

- See the Service Parts Illustration. Obtain the oil cooler clamp assembly (2) or (3). Include in assembly are mounting clamps, screws and nuts. **NOTE:** For 2003 and earlier models, use the 1-1/4 inch clamps. For 2004 and later models, use the 1-3/8 inch clamps.

**NOTE**

When performing the following Step make sure clutch cable will not interfere with installation. On 2003 and earlier models, it may be necessary to cut the upper strap and using strap in kit, install strap to cable in different location. On newer models (2004 and later), remove clips and install to new location. Position upper and lower clips so that oil cooler components do not interfere with the clutch cable.

- See Figure 5. Using the hardware obtained in previous step, position and mount the oil cooler to the outside of the left front frame downtube. See NOTE.

**NOTE**

On models with horn installed between downtubes, install the oil cooler so that horn will reside approximately midway between the upper and lower clamps. On models without horn between downtubes, install the oil cooler at approximate center so oil filter hoses will route from cooler to oil filter adapter with a relaxed curve (not binding or kinking).

- See Figure 5. Obtain the amber reflector (8) from kit and remove adhesive backing. Thoroughly clean the area shown. Align and install the reflector so it is parallel to the outer sides of the oil cooler. Press firmly for a minimum of 30 seconds to allow the adhesive to cure.
- See the Service Parts Illustration. Obtain the two lengths of hose and 4 worm drive clamps from the kit.

**IMPORTANT**

If oil cooler thermostat kit is to be installed at this time, follow the hose sizing/cutting procedures included with the thermostat kit. Install the hoses to the thermostat fittings, then follow the rest of the instructions in this kit.

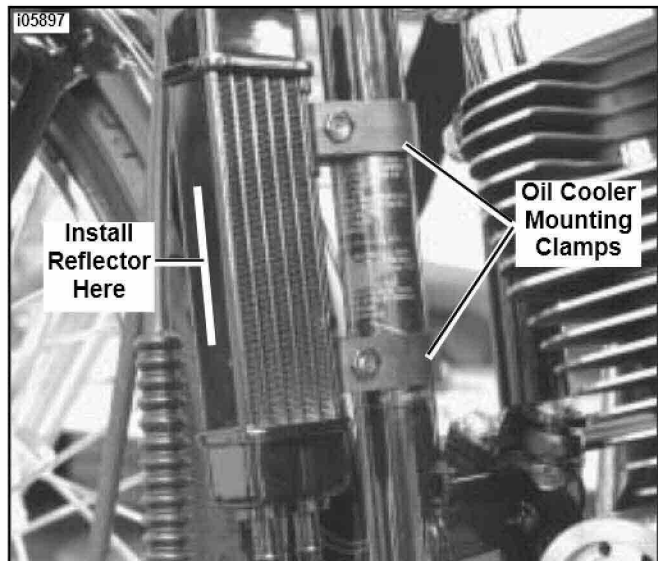


Figure 5. Install Oil Cooler to Frame Downtubes

- See Figure 6. Using a worm drive clamp, install the 10 inch length of hose onto the rear 90 degree hose fitting (closest to engine). With another worm drive clamp, install the opposite end onto the left nipple of (as looking toward front of bike) the oil cooler. Adjust hose so that no kinking exists and tighten both hose clamps.
- Repeat Step 10 for the 9 inch hose fastening one end onto the forward 90 degree adapter fitting on the adapter and the opposite end onto the right nipple of the oil cooler. Tighten both hose clamps securely.
- Install the oil filter.
- Start the motorcycle and check for oil leaks on and around installed parts. Check the oil level according to the applicable service manual. Add oil as needed.
- Perform system flow test as described on the following page.

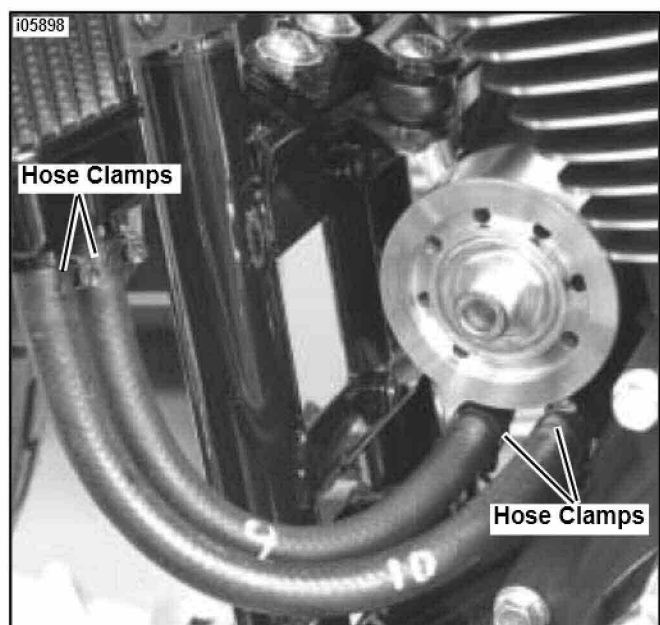


Figure 6. Install Oil Cooler Hoses

## System Flow Test - All Models

### CAUTION

Check oil supply before operating motorcycle, and again after running the engine for a few minutes. Fill up to, but not above, full mark on dipstick. Failure to follow instructions could result in engine damage.

1. Start engine. Examine all hose connections for leaks. If there is no leakage, allow engine to warm up and proceed to Step 2.

2. Verify that temperature of oil cooler increases when engine reaches normal operating temperatures. If the oil cooler remains cool after engine has warmed up, there may be an oil passage obstruction. Turn off engine and check system for source of obstruction.
3. After engine has cooled, re-tighten all hose clamps.



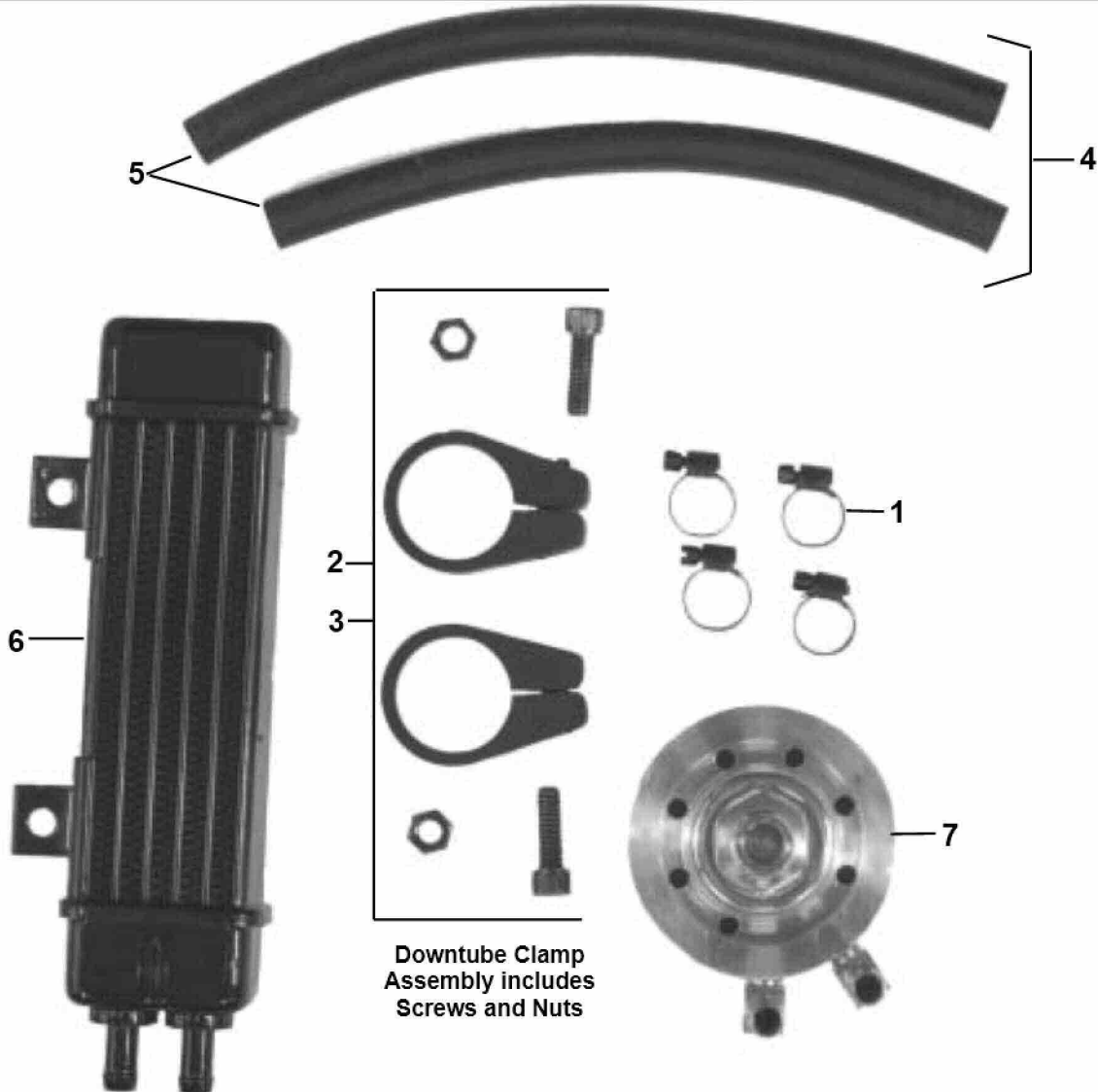
# Service Parts

Part Number 62996-04

Date 6/03

Sportster Vertical Oil-Cooler Kit

i05899



Downtube Clamp  
Assembly includes  
Screws and Nuts

Item	Description/Qty	Part Number
1	Worm-drive clamp, #4 (4)	9946
2	Clamp assembly, downtube 1-1/4 inch (2)	62032-04
3	Clamp assembly, downtube 1-3/8 inch (2) (not shown)	62031-04
4	Hose service kit, consists of	62585-04
5	Hose, pre-cut oil, 10 inches long and	not sold
	Hose, pre-cut oil, 9 inches long	not sold
6	Cooler, oil black vertical mount	62875-99
7	Adapter, oil filter	62998-04
8	Reflector, amber (1) (not shown)	59253-87
9	Strap, cable, zip-lock (1) (not shown)	10006