**INSTALLATION INSTRUCTIONS**

Part Number(s):
750-1000

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**IMPORTANT INFORMATION**

This Jagg oil cooler must be installed following these instructions. Read the easy-to-follow instructions fully prior to starting the installation of the oil cooler kit. Correct installation is the only way to ensure proper operation of the oil cooler kit.

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<table>
<thead>
<tr>
<th>QTY.</th>
<th>KIT CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jagg Deluxe oil cooler</td>
</tr>
<tr>
<td>1</td>
<td>Jagg 4700 offset oil filter adapter assembly</td>
</tr>
<tr>
<td>3 ft</td>
<td>Jagg 30R7spec black oil hose</td>
</tr>
<tr>
<td>4</td>
<td>7/8&quot; black worm-drive hose clamps</td>
</tr>
<tr>
<td>1</td>
<td>Jagg anti-rotation device for A-motors</td>
</tr>
<tr>
<td>1</td>
<td>Jagg anti-rotation device for B-motors</td>
</tr>
<tr>
<td>2</td>
<td>10-24 x 1-3/8&quot; cap head, black</td>
</tr>
<tr>
<td>1</td>
<td>Stock-to-Jagg oil filter nipple</td>
</tr>
<tr>
<td>1 pair/size</td>
<td>Jagg frame clamps in sizes 1-1/8&quot;, 1-1/4&quot;, 1-3/8&quot;, 1-1/2&quot;</td>
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</tbody>
</table>

**TOOLS NEEDED**

- Strap wrench or oil filter removal tool
- Phillips head screwdriver
- 5/32" Allen wrench
- 1/4" Allen wrench
- 7/8" socket
- 7/16" Allen wrench (if removing a stock H-D oil cooler)
- 1" deep-well socket
- Hose cutter or sharp knife

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**BASIC SYSTEM INSTALLATION GUIDELINES**

- Route oil hose to avoid any hot surfaces or moving parts. Ensure all bends are smooth, with no sharp turns that may restrict oil supply to the engine.
- Oil cooler is designed to mount as detailed in these instructions. Any modifications may lead to decreased performance or item failure.
- When cutting oil hoses, always use a sharp knife, single-edge razor blade, or hose cutter. Make a straight, clean cut at 90° to the oil hose. This will ensure a proper fit where the oil hose attaches to its connection.
- Over tightening hose clamps may cause oil leaks.

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**CAUTION: ALLOW MOTORCYCLE TO COOL BEFORE ATTEMPTING INSTALLATION OR RISK SERIOUS INJURY.**

**Part 1: Oil cooler mounting**

1. Determine oil cooler placement on left frame tube by holding the oil cooler to approximate height of desired location.
2. Choose the appropriate size clamps for your application according to specific frame diameter at the point of mounting.
3. Spread clamps and place around left frame tube.
4. Position oil cooler vertically on the left frame tube with oil inlet and outlet pointing downward.
5. Align the bolt holes in the oil cooler with the holes in the mounting clamps and install the nuts and bolts.
6. Carefully slide oil cooler and clamps up or down to position of desired height. Keep clamps free from any braces or indent that may interfere with a clean fitment. Ensure oil cooler is mounted at a 90° orientation (straight
Part 2: Oil cooler plumbing: install Offset oil filter adapter

The Jagg offset oil filter adapter is used to access the oil supply for the installation of a Jagg oil cooler. The adapter features a built-in automatic thermostat to allow oil to by-pass the oil cooler, simply being filtered and returned to the engine, until the bike warms up to operating temperature. Once the bike reaches operating temperature, the thermostat will close the adapter’s by-pass hole, sending hot, filtered oil to the oil cooler, and delivering cool, clean oil to the engine.

Oil flow direction from adapter: oil feeds the oil cooler from the fitting on the left side and returns to the fitting on the right side, as viewed from front with oil filter adapter fittings at bottom.

8. Remove spin-on oil filter, and clean the filter mounting surface thoroughly.
9. If removing and upgrading a factory Harley-Davidson oil cooling system, uninstall the stock oil filter adapter by removing the flanged oil filter nipple that holds the adapter in place using a 7/16” Allen wrench. Locate the stock-to-Jagg oil filter nipple (shown at right) included in the kit. Install by inserting the orange-painted end into the port where the stock oil filter stem was removed. Using a 7/8” socket, tighten until the hex is flush against the oil filter housing.
10. Disassemble the Jagg offset oil filter adapter by removing the five Allen head bolts from the front face of the adapter using a 5/32” Allen wrench. Then remove the front half of the adapter (the portion with hose fittings attached).
11. With the longer/offset end of the adapter at the top, place the back half of the adapter (the portion with the flat rubber o-ring) over the threaded oil filter stem and tighten the included 1” lock-nut to finger-tight. The adapter’s flat sealing rubber o-ring should face in, toward the stock oil filter housing, and be free of debris. (Do not apply oil to this o-ring.)
12. Locate parts 4600AR-A and 4600AR-B Jagg anti-rotation devices. Choose plate “A” for Touring or Dyna fitment. Choose plate “B” for Softail fitment. Installation of this device will ensure the Jagg 4700 offset oil filter adapter will not rotate during oil filter removal.
13. Place the appropriate anti-rotation device against the face of the front half of the adapter in the orientation shown below. The “A” device affixes to the two lower holes on the right side and center of the adapter in the orientation shown below. The “B” device affixes to the two lower holes on the left side and center of the adapter in the orientation shown below.
14. Insert the two black 10-24 Allen head bolts included with the anti-rotation device through the appropriate holes on the oil filter adapter.
as shown above.

15. Place the front half of the adapter over the already-installed back half and rotate the entire adapter to the left until the anti-rotation device makes contact with the engine case.

16. Remove the front half of the adapter and hold the back half of the adapter in its current orientation. Using a 1” deep-well socket securely tighten the 1” lock-nut so the back half of the adapter will not rotate and the sealing o-ring is tight against the stock filter mount. This may require a prying force applied against the adapter to allow tightening while retaining the chosen orientation.

**NOTE**: On rubber-mounted engine models, allow adequate clearance to ensure that the adapter will not strike any object when the motor shakes.

17. Install AFM gasket onto the back half of the adapter.

**CAUTION**: AFM gasket should be applied dry. No additional gasket sealing compound is required. Ensure that the adapter halves are free of oil residue.

18. Place the front half of the adapter against the gasket and install Allen bolts loosely. If a thread lock compound is optioned, please choose a medium strength and use it on the Allen bolts at this step.

19. Evenly draw the two halves of the adapter together by gradually tightening the Allen bolts in an alternating criss-cross pattern (e.g., like tightening wheel lug nuts on a car).

20. When the adapter halves have been evenly drawn together, firmly tighten the Allen bolts in the same alternating criss-cross pattern as the previous step.

**SERVICE NOTE**: Inspect adapter and screws for tightness at each oil filter change.

21. Cut the provided oil hose into two lengths and install the oil hoses onto the hose fittings on the oil cooler. Secure hose over the fittings with the 7/8” black hose clamps included in the kit so the hose cannot pull over the barb on the fitting. The flow orientation of the oil cooler is non-directional, so either hose fitting will allow proper flow as an inlet or an outlet. **TIP**: Install 7/8” black hose clamps loosely onto hoses before installing hoses onto oil cooler nipples. A touch of oil on oil cooler nipples allows the hoses to push on easily.

22. Measure, cut, route, and attach the oil hoses to the oil filter adapter. Secure hose over the fittings using the 7/8” black hose clamps onto the oil filter adapter inlet and outlet as detailed in the previous step.

**NOTE**: It may be necessary to rotate hose clamps to ensure hose clamps do not interfere with oil filter installation.

**CAUTION**: Take care to make gentle bends in oil hose routing from oil cooler to adapter. Sharp bends may collapse under heat load and cause restriction to oil flow.

23. Install oil filter onto the threaded stem of the oil filter adapter. Tighten per factory/service manual recommendations.

**Part 3: Final inspection**

24. Inspect the oil hoses to ensure there are no tight bends that may restrict oil flow and that they are not contacting any moving parts. If necessary secure the new hoses to the frame with plastic zip-ties.

25. Refill the engine with the correct amount and type of oil. Check the oil level per factory/service manual recommendations.

26. Start the engine and let it idle. Check all oil hose connections for any leakage. Tighten any hose clamps that may be leaking.
NOTE: Over-tightened hose clamps may cut into oil lines and cause oil leaks.

27. After installation completion and engine warm-up, shut the engine down and recheck the oil level. Correct the oil level if necessary, but do not over-fill.

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<thead>
<tr>
<th>SERVICE &amp; UPGRADE ITEMS AVAILABLE</th>
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<tbody>
<tr>
<td>PART NO.</td>
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<tr>
<td>----------</td>
</tr>
<tr>
<td>GK4600</td>
</tr>
<tr>
<td>21-SSN06-B</td>
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<tr>
<td>08-0069</td>
</tr>
<tr>
<td>22-HF06-SI (silver)</td>
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<tr>
<td>22-HF06-BK (black)</td>
</tr>
<tr>
<td>22-HS06-SI (silver)</td>
</tr>
<tr>
<td>22-HS06-BK (black)</td>
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</tbody>
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See these items and more, including high-performance K&P reusable oil filters, Spectro™ fluids, and other quality products at: www.jagg.com