



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.

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 or single-edge razor blade. 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.
- The oil cooler mounting clamps included in this kit are designed to fit the frame tube diameters specific to the applications listed for this kit #. Any alterations or modifications to these clamps may cause failure of the clamp.
- Over tightening hose clamps may cause oil leaks.

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

INSTALLATION INSTRUCTIONS

Part 1: Oil cooler mounting

1. Determine cooler placement on left frame tube by holding 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. For 1" frame diameter, use the 1/16" rubber shim material included with 1-1/8" clamps.
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 cooler and clamps up or down to position of desired height. Keep clamps free from any braces or indents that may interfere with a clean fitment. Ensure cooler is mounted at a 90° orientation (straight out) from the bike to allow clear airflow.
7. Tighten bolts. Cooler should be firmly mounted now.

Part 2-A: Oil cooler plumbing (with oil filter adapter)

Note: If you are not using oil filter adapter, then skip to step 13.

8. Remove oil filter to install Jagg Oil Filter Adapter (sold separately). Refer to oil filter adapter mounting instructions provided with oil filter adapter.
9. Install fitting "T" in oil filter adapter to create an access point for fan switch installation. Refer to fitting "T" component installation instructions. It will be necessary to determine clocking orientation of the fitting "T" in order to allow clearance for installation of thermal switch and fan wiring.
10. Install fan switch included with kit into the fitting "T" in oil filter adapter.
 - a. **TIP: Use Teflon thread sealant on pipe threads of thermal switch. Tighten thermal switch approximately 2-1/2 turns-from-finger-tight.**
11. Cut provided oil hose into two lengths and install oil hoses on oil cooler. Secure with 7/8" black hose clamps included in kit.
 - a. **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 allow hoses to push on easily.

12. Measure, cut, route, and attach oil hoses to oil filter adapter installed in step 8. Secure with 7/8" black hose clamps supplied in oil filter adapter kit.
 - a. **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.**

Part 2-B Oil cooler plumbing (without oil filter adapter)

Note: Ignore steps 13-23 if you installed an oil filter adapter.

13. Locate the source of the return line to the oil tank on your bike. This may be on the oil pump or oil filter housing depending on the model. Refer to illustration by model (page 3).
14. Place a clean oil pan under the point of the return line fitting. Disconnect the oil return line from the fitting at its source. Some oil will drain out when disconnected. This oil can be reused if it remains clean.
15. Place a new hose clamp onto one end of the new oil hose and install onto the return hose fitting. Tighten the hose clamp securely.
16. Run this oil hose forward to the oil cooler where it is to be attached to one of the fittings. Determine the correct length and cut the hose.
17. Place a new hose clamp onto this end of the hose and install onto cooler. Tighten the hose clamp securely.
18. Place a hose clamp onto one end of the remaining piece of new hose and install onto the other fitting on the oil cooler. Tighten the hose clamp securely.
19. Run this hose back to the return line source. This end of the hose is to be spliced into the existing oil return hose that was disconnected in step 9.
20. If the end of the existing oil return hose disconnected in step 9 is hardened or starting to deteriorate, trim off the bad portion of the hose until you reach a good section of hose.
21. Determine the correct length of hose and cut the hose.
22. Place a new hose clamp onto the loose end of the oil return hose and insert it onto the other end of the black nylon hose mender supplied in kit. Tighten hose clamp securely.

23. To install fan switch included with kit, find a bulk oil point in the system, similar to where you would install a sending unit to take the oil's temperature.

- a. **TIP: Use Teflon thread sealant on pipe threads of thermal switch. Tighten thermal switch approximately 2-1/2 turns-from-finger-tight.**

Part 3: Fan wiring

24. Install convoluted wire cover on fan wiring harness by inserting wiring into split. If wire cover is too long, then it may be trimmed with scissors.
25. Install fan wiring harness by connecting the female disconnect onto a prong of the fan switch installed in step 10 or step 23.
26. Route fan wiring harness under the right side (air cleaner side) of motorcycle along frame.
27. Locate brake light switch under the frame (behind your right boot heel as you sit on the bike) and remove connector from the "hot" side of the brake light switch.
28. Install the "piggyback" dual-connector end of fan wiring harness on "hot" side of brake light switch.
29. Reinstall brake light switch connector onto exposed prong of "piggyback" dual-connector of fan wiring harness.
 - a. **TIP: A liberal coating of dielectric grease on terminals before making electrical**

connections will help prevent terminal connection corrosion.

30. Ensure wiring is clear of exhaust pipe and use zip ties included in kit to secure connected fan wiring harness to frame.
31. Install fan power lead onto prong of fan switch installed in step 10 or step 23.
32. Attach black fan ground lead to an appropriate chassis ground point.

Part 4: Final inspection

33. Install oil filter on to oil filter adapter nipple.
34. 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 oil hoses to the frame with plastic zip-ties.
35. Refill the engine with the correct amount and type of oil. Check the level with the dipstick.
36. Start the engine and let it idle. Check all oil hose connections for any leakage. Tighten any hose clamps that may be leaking.

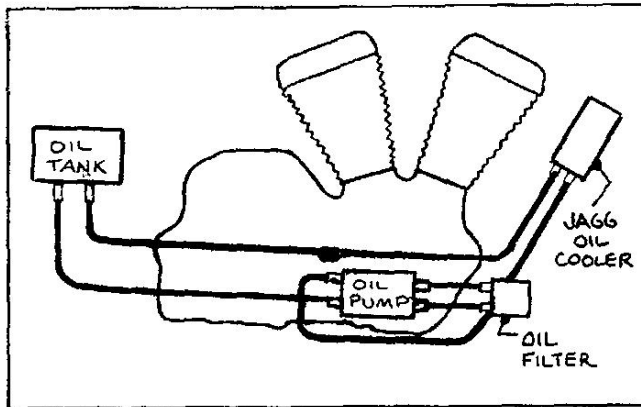
Note: Over-tightened hose clamps may cut into oil lines and cause oil leaks.

37. 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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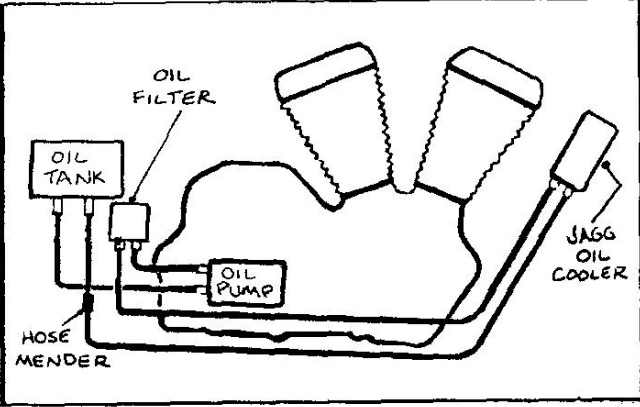
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NEW XL5-SPEED

Loop the oil hose under the pump and along side of the frame. The return hose can run back on top of the oil pump and then be connected to the existing oil return hose using the hose mender.

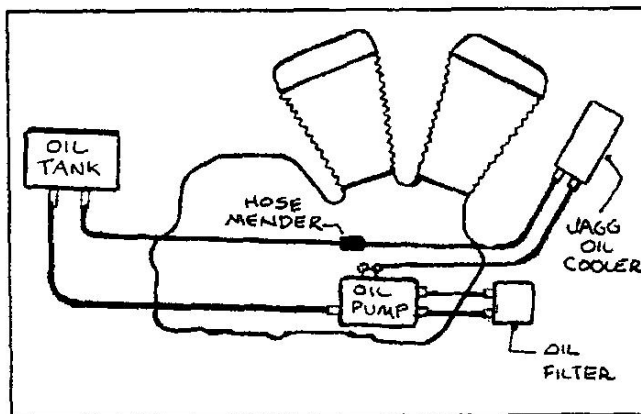
Avoid a sharp turn of the oil cooler feed oil hose where it attaches to the oil pump.



EVOLUTION FXR, FLHS, FLH PRIOR TO 1992 RUBBER MOUNTED

On these models, the return hose to the oil pump comes from the oil filter that is located behind the transmission.

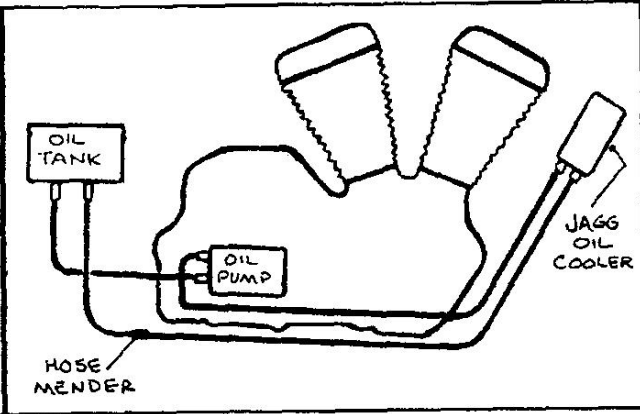
The oil hose can be routed under the engine and top of the frame tubes forward to the oil cooler.



EVOLUTION AND OLDER XL 4-SPEED

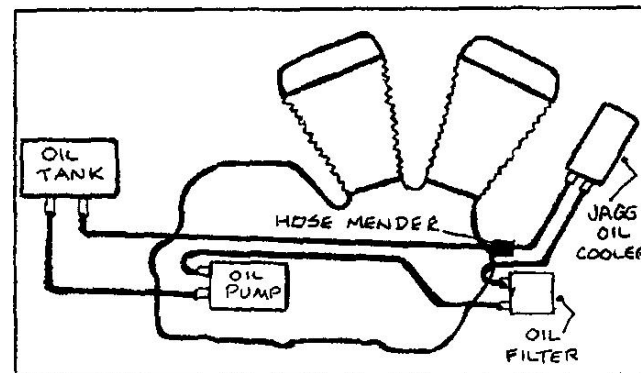
After disconnecting the oil return hose from the oil pump, rotate the fitting 1/4 to 1/2 turn so that it faces slightly forward. Be careful not to strip the threads on the fitting by tightening too much. Also if the fitting is loosened too much it may cause an oil leak.

By rotating the fitting toward the front it will make the installation of the hose onto the fitting easier.



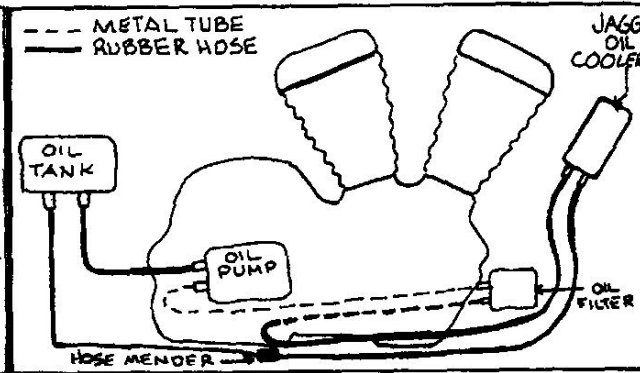
FLH 1979 AND PRIOR

NOTE: These models are equipped with a vent hose that exits the top surface of the oil tank and is attached to the engine crankcase. DO NOT confuse this vent hose with the return hose from the oil pump.



EVOLUTION SOFTAILS PRIOR TO 1992

NOTE: All softails have an amber side reflex reflector attached to the frame down tube in the location where the oil cooler must be mounted. Remove the reflector and reinstall it in another location after the oil cooler is attached to the frame down tube.



EVOLUTION BIG TWINS 1992 ON

1992 models have metal tubing plumbed to the oil filter from the oil pump, the return line from filter to tank changes back to rubber hosing approx. mid-way, this is the connecting point for oil line to cooler.