

Iron Sportster oil line R & R

Tips and tricks for removing and replacing the top-end oil lines.

The tips and tricks:

1. **Clean everything with engine cleaner, hose off, and blow off with air.**
2. **Watch that chrome lines do not flake and shed plating.**
3. **Don't tighten the pipe-thread nipples in too far.**
4. **Braided steel lines don't cool as well and might leak.**
5. **Lift the tube up as you install it so it is the same depth in both nipples.**
6. **If the tube is too short, the O-rings can block the oil.**
7. **You can use 1/2" and 13mm wrenches.**
8. **Have a bin or tray for all the parts.**
9. **As always, return the tools to the toolbox as you work.**



As simple as the oil lines look, there are many little subtle things you have to know about. (Click for video.)

The two thin steel oil lines carry engine oil to the heads. The oil lubricates and cools the heads, and drains back down along the pushrod tubes, and through drilled passages down the cylinder and onto the piston sides.

They are simple and work OK, but you have to make sure they fit properly and that they are centered along the length as you tighten the nuts on the top and bottom.

You should be careful not to tighten the pipe-thread nipples too far into the heads or engine case. Doing so moves them farther apart and means the oil line will be too short. When they get short enough, the rubber O-ring collapses around the end of the pipe and blocks oil flow.

Don't use Teflon tape if you install new ones, Teflon pipe dope very carefully applied won't get into the oil system.



The stock fittings were black oxide, sometimes called Parkerizing, or cadmium plated. The factory never offered chrome, perhaps because of the flaking problem that might pollute the oil system. I wonder if the plain brass one was ever on a Harley, or is stripped chrome or what.



If you do have or change to chrome oil lines, be sure to examine the ends with a magnifying glass to make sure there is no flaking off of the plating. These all look pretty good, despite being filthy from sitting in a box for 30 years. Make sure to clean the inside of the tubes, perhaps with a gun brush and an air blow-off. You just can't be too clean with the oil system

Just because these lines look simple, you can't just slap them in and hope for the best, especially if the tubes are new to the bike. The oil line should just fit between the nipples so that the O-rings have plenty of tube to seal against.



The rubber O-ring above would collapse over the tube if it got tightened in this position. This is why you don't tighten the nipples unless you have to, and you might try several tubes until you get one just long enough to fit. It's a sketch proposition to try and reduce the depth of the nipples by using Teflon tape. You have to be very careful that the tape does not peel off into the oil lines.



This lines fits a bike with a magneto.