

# KZ650 Oil Cooler

Lockhart made an oil cooler for the KZ650 / Z650 back in the late '70s however this is no longer available. A company in Germany called Klasmo have recently started to produced the special engine fittings.

This oil cooler diverts the oil flow at the oil filter discharge, located at the rear of the oil pan, sending the hot oil through the cooler. The cooled oil then returns to the engine via the main oil supply galley at the front of the engine.

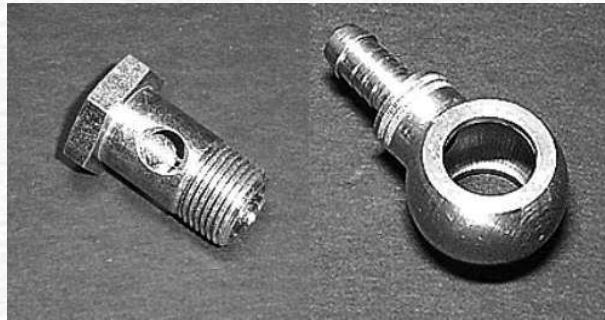
Normal oil flow rates through a 9mm (3/8") Inside Diameter oil cooler will be from 1.9 litre/min (0.5 gal/min) @ 1000 rpm to 9.5 litre/min (2.5 gal/min) @ 6000 rpm. Pressure drop across the cooler will range from 1-12 psig @ 166F. Upstream of the cooler, operating pressures will range from 13.0 to 85.0 psig @ 166F.

## INSTALLATION INSTRUCTIONS

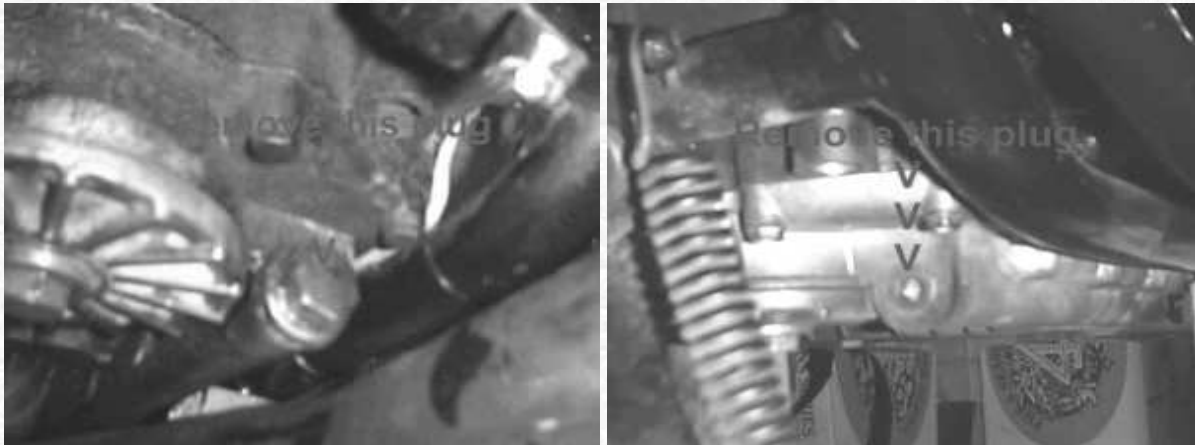
- Remove the horn and the horn mounting bracket screws. Remount the horn elsewhere on the bike.
- Mount the oil cooler in a position that does not interfere with the movement of the front forks.
- Remove the 18mm oil passage plug located on the right hand side crankcase, just below the points / ignition cover (viewed from front of the bike).



- Fit a washer on both sides of the banjo adapter and push the oil inlet setscrew through the adapter and thread it into the tapped hole left by the removal of the oil passage plug.  
NOTE: Do not over torque the adapter screw. Approximately 7 nm (5 ft-lbs) is sufficient for this purpose.



- Remove the oil passage plug from the rear right hand side of the oil pan. Note: The '77, '78, '79 KZ650 had a 18mm bolt head plug (confirmed) while the '80 and later KZ650 and all KZ750 had a 17mm socket head plug (unconfirmed). See Materials list at end for correct Klasmo part numbers.



- Fit a washer to the oil outlet adapter and install it into the tapped hole. Note: Do not over tighten. Approximately 7 nm (5 ft-lbs) is adequate.



- Place a hose clamp over the end of one hose. Push the hose end over oil pan outlet adapter. Tighten the hose clamp. Route the hose around the oil filter plate rising up the frame tube to the cooler connector. Slip on a hose clamp and tighten. Make sure that the centre stand does not chafe, rub or pinch the oil hose.

- Slip a hose clamp on the other hose and push it over the oil inlet adapter near the side case. Tighten the hose clamp and route the hose up the frame tube to the cooler connector. Secure the hoses to the frame using the nylon hose ties provided. Make sure that the hoses are not touching hot or moving parts.
- Examine the oil hoses at each oil change and replace the hoses if hardness or brittleness is evident. It is recommended that the hoses be replaced every two (2) years.
- The installation of the oil cooler will require the addition of approximately a 250ml (½ pint) of oil to the existing supply. Check the oil level before and after the Leak test.
- Start the engine. Examine all the hoses, connectors and O-rings for leakage. If none is observed, let the engine warm up. The face of the oil cooler should warm up as the engine heats up.

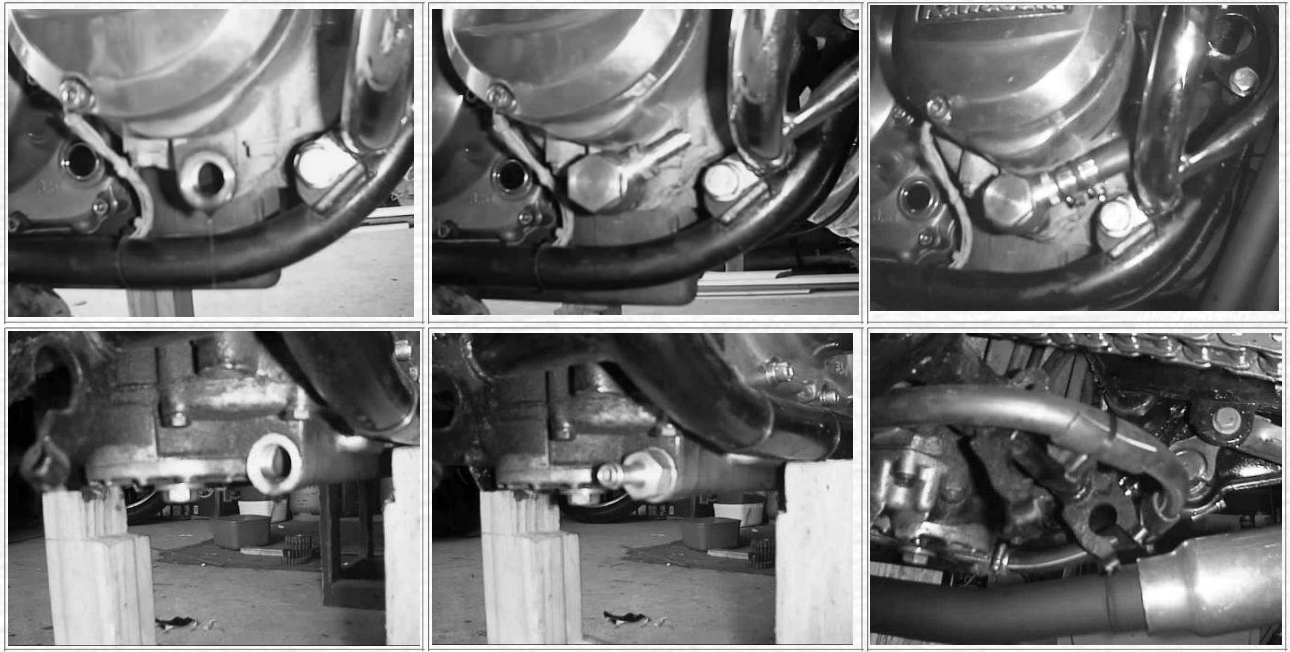
CAUTION: If the oil cooler fails to heat up with the engine, there may be an oil obstruction. Turn off the engine and check the system for the source of the obstruction.

#### SPECIAL NOTES and MATERIAL LIST

- You will require one (1) rear oil pan adapter, one (1) front inlet screw and one (1) front banjo. It is recommended that you send an email to Klasmo with your KZ Year, Model, Frame No. and Engine No. to confirm correct part number.
- Klasmo rear oil pan adapter 92002003Z ---> 18mm thread for '77, '78, '79 KZ650
- Klasmo rear oil pan adapter 92002004Z ---> 17mm thread for '80, '81, '82, '83 KZ650 and the '80, '81, '82, '83 KZ750
- Klasmo front inlet setscrew 92002001Z ---> All models of the KZ650 and KZ750
- Klasmo front banjo \*\* 92002002Z ---> All models of the KZ650 and KZ750
- Approximately 2 metres (6.5 feet) oil pressure hose
- Hose clamps to suit oil pressure hose
- Cable ties

Note: Klasmo sells a 9mm (3/8") adapter to replace 92002002Z, 92002003Z and 92002004Z if you intend to use a 9mm (3/8") ID cooler.

## Pictures of the Installation Process



## COMMENTS

- The exhaust pipe has to be removed in order to get the to rear plug fitting easily.
- It is not necessary to drain the oil from the bike, even though a small amount of oil (less than a 1/4 cup) will come out when you remove the plugs.
- Make sure there are no kinks or sharp bends in the hoses. I routed the rear hose around the back of the centre stand brackets and secured with cable ties to ensure it did not contact the chain.
- I used a 9mm - 3/8" OD oil cooler/radiator, so I order the 9mm front and rear fittings from Klasmø. I suggest you purchase your cooler before you order the fittings, so that you can order the correct ones from Klasmø.