

An Inexpensive way to Mount an Oil Cooler on the XS 360/400 SOHC

Written by FrankWw 04.2012

Introduction:

During normal operation an oil cooler is unnecessary on an XS400.

If you are traveling with a lot of luggage or with a passenger, often times goes on the motorway or its XS often in flatter pace (especially the derestricted variants) when outdoor temperatures are moved, for an additional oil cooler be interesting.

In warm ambient temperatures oil temperatures exceeding 140 ° are not uncommon.

The result is a very low viscosity oil, which means that the oil pressure drops sharply to the bearings of the crankshaft

1. It is significantly reduced by the very low viscosity oil, the efficiency of the oil pump.
2. The oil pressure in the bearing shells of the crankshaft greatly degrades over the storage column.
3. The remaining "oil film" loses its carrying capacity and the KW running with elevated Spiel.
4. In another episode of the "oil film" loses its lubricating properties.
5. This affects then throughout the engine due to increased wear of all rotating and moving parts and which are dependent on an intact "oil film" from.
In worst case, this eventually leads then to a major engine damage.
6. Also gear damage, etc. Increased Pitting may be a consequence.

To a certain extent you can, of course, this operation through the use of high-quality alloyed, summer suitable motorcycle oils compensate.

Oils which these temperatures are exposed to change relatively quickly their special characteristics.

A regular oil change at relatively short intervals, as required by all Yamaha 3000 Tkm, founded in large part by the high temperature load.

The process:

For the realization of the oil cooler the following parts are required:

- Oil cooler XJ550 / 650 (small version of the older models)
- Hoses and adaptors intermediate plate of the XJ550 / 650
- Central banjo bolt with washer
- Another adaptor intermediate plate with a
- Another central hollow screw and washer

2x 18 m m copper Solder Sleeve (DIY installation required)

Aluminum sheet 3x30 or 3x35 some Aluminum angle pieces from

The grab bag and a couple of blind rivets (or small screws)

Bracket for oil cooler so that the radiator design directly under the lower triple clamp comes.

The rubber bearing of the oil cooler serve as vibration protection and should be involved in the construction of

An oil cooler intermediate plate is used as a spacer.

The lateral connections do not fit otherwise not between the engine bracket.

For this purpose, remove the bypass valve (return valve) and from the back room to meet a free flow of oil create.

(See illustrations)

The two lateral bores close.

Either cold metal, or better cut a thread in and a piece

Threaded rod (screw)

Glue with high strength thread locking M10X1,25 works, or drill and use M12.

The original tubes can be used, but are a bit too long. They are materially often in good condition.

Unfortunately, the excess length of the hoses can not be put through arches make way.

Therefore, the two hoses must Vedas shortened about 2.5 to 3 cm.

These saw open the compression sleeve on one side and carefully remove. Tube and pipe disconnect.

The whole sample mounting and thereby the connecting pipes to adjust the top and bottom by carefully bending over a piece of wood.

Then specify the length of the hoses and reduced accordingly.

Now you need the help of an electrician who for crimping cable lugs

A large hydraulic crimping pliers. (Important: hexagonal crimping)

Instead of the old steel press sleeves the two copper sleeves now be used. With pre-pressing and pressing stage, using 120qmm 150qmm.

Tubular fabric before mounting degrease, then you can all afterwards Overpainted with black heat-resistant paint.

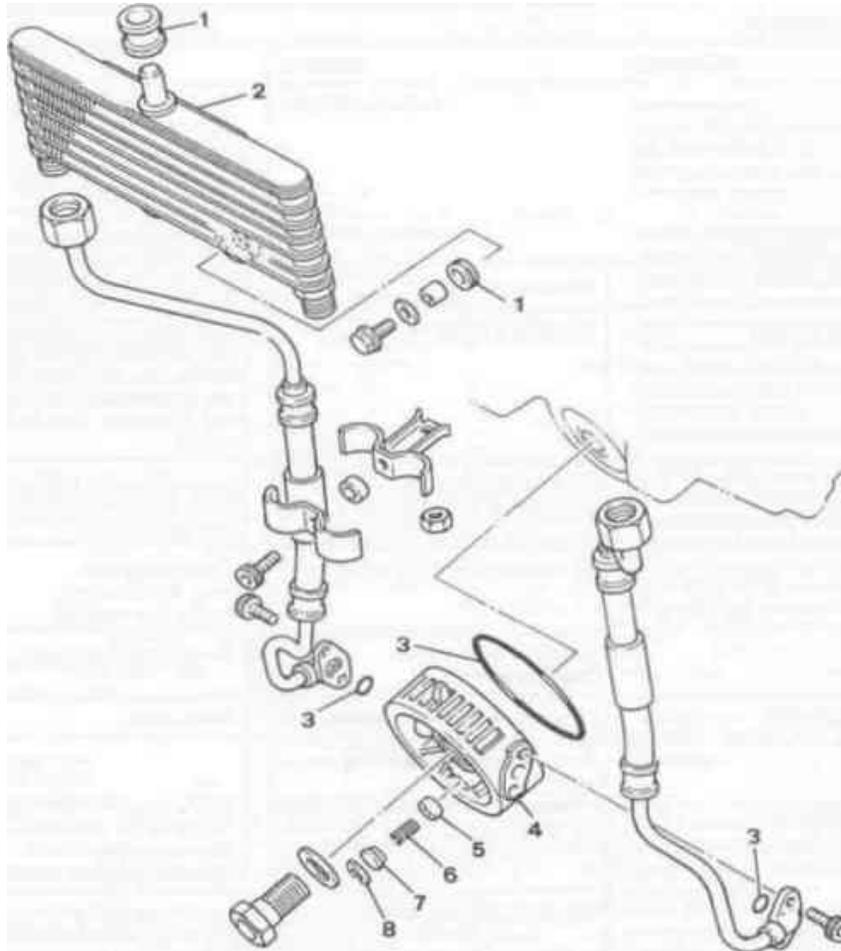
During assembly you should fix the hollow screws properly with thread lock compound. This prevents trouble when changing the oil filter.

Finally, a clamp made of aluminum sheet bend the hoses in the field of Manifold nice close to the ceiling joist holds.

The manifolds have as their hottest place and space is limited. All other details are clearly visible in the photos.

The wire fuses for road use, of course, not necessary.

Oil cooler parts for the XJ550



Oil cooler components:

- 1 Grommet
- 2 Oil cooler assembly
- 3 o-rings
- 4 Adaptor plate
- 5 Plunger
- 6 Compression Spring
- 7 Washer
- 8 Circlip

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