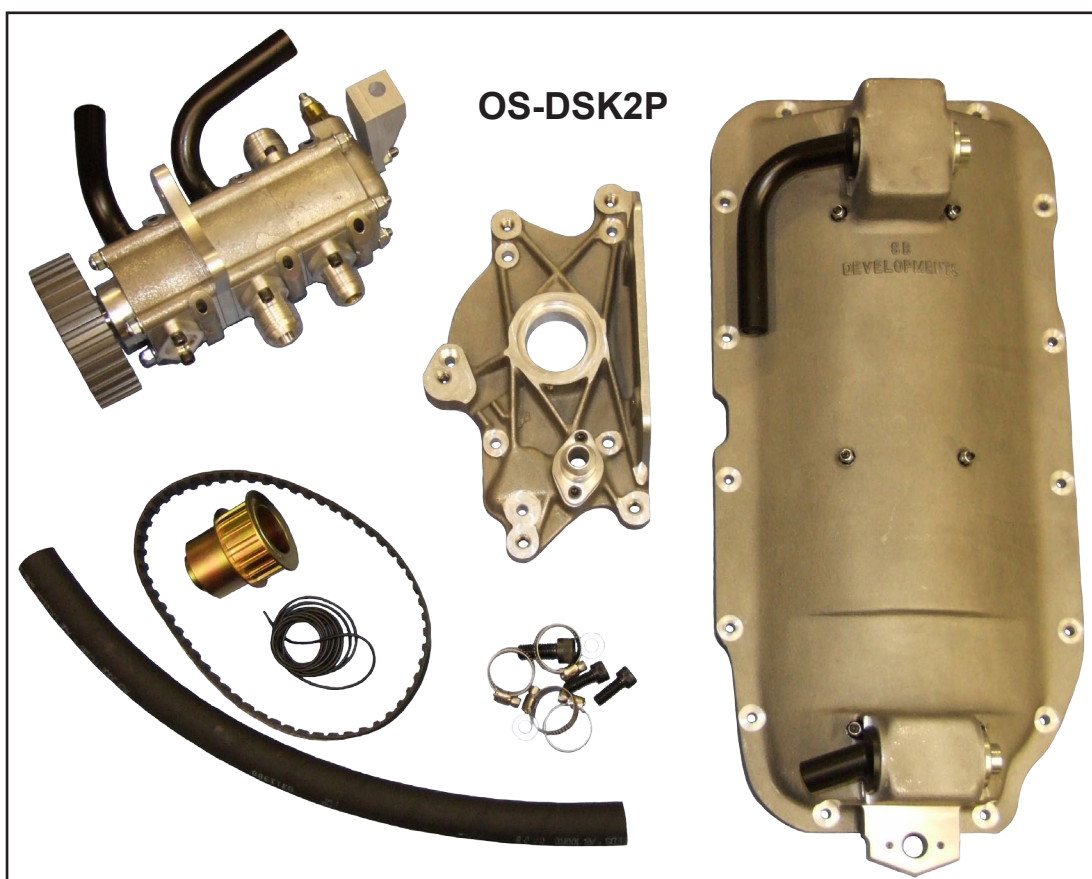
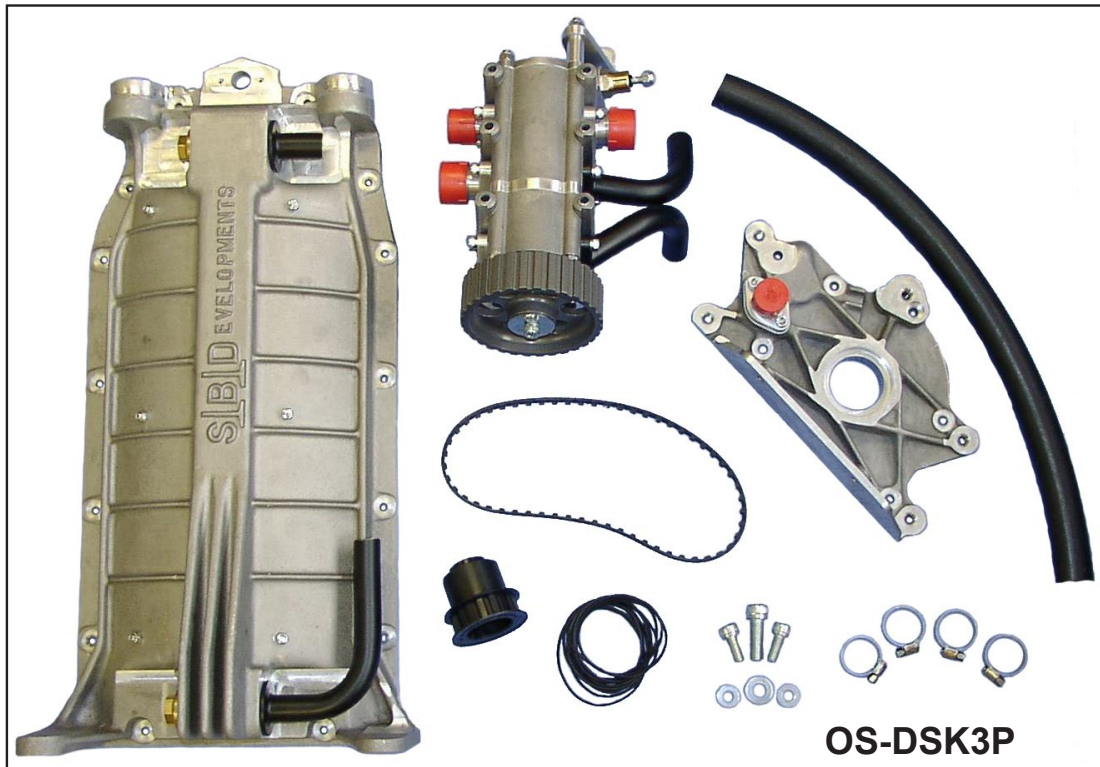


June 2018

2.0L XE Dry Sump System Instructions

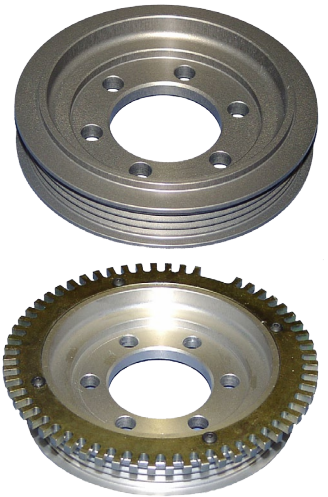


If your engine is not running an alternator then you do not need a pulley

We recommend the use of our multivee pulley PLY-MV1, which will fit straight on. A 58 tooth timing wheel is also available TW-58-EX1

Shown right is our multivee pulley with 58 tooth timing wheel attached. PLY-MV1TW-58-EX1

Or you can discard the alternator and the pulley altogether.



You can not use this type of SINGLE MULTIVEE pulley.



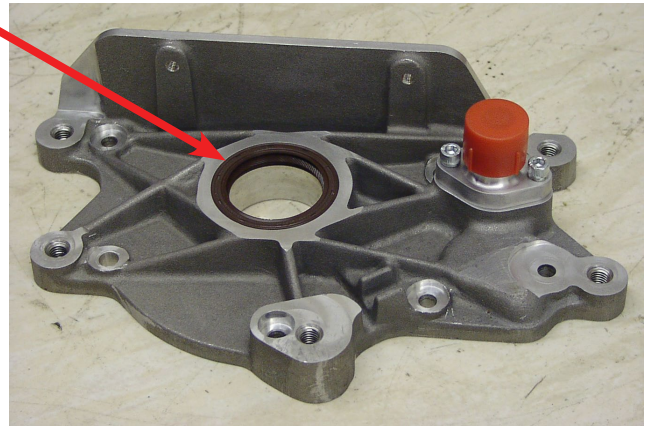
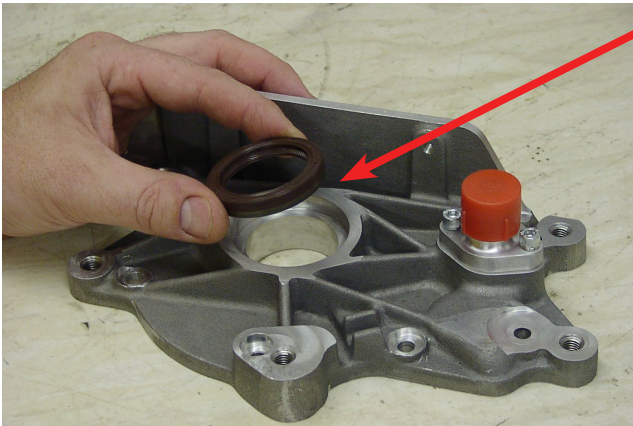
If you have a DOUBLE SINGLE VEE pulley you will have to machine the front (power steering) vee off which will give you enough clearance for the dry sump pump pulley. This option is more likely to throw the belt.

WE DO NOT RECOMMEND THIS OPTION



DO NOT USE SEALANT UNLESS SHOWN

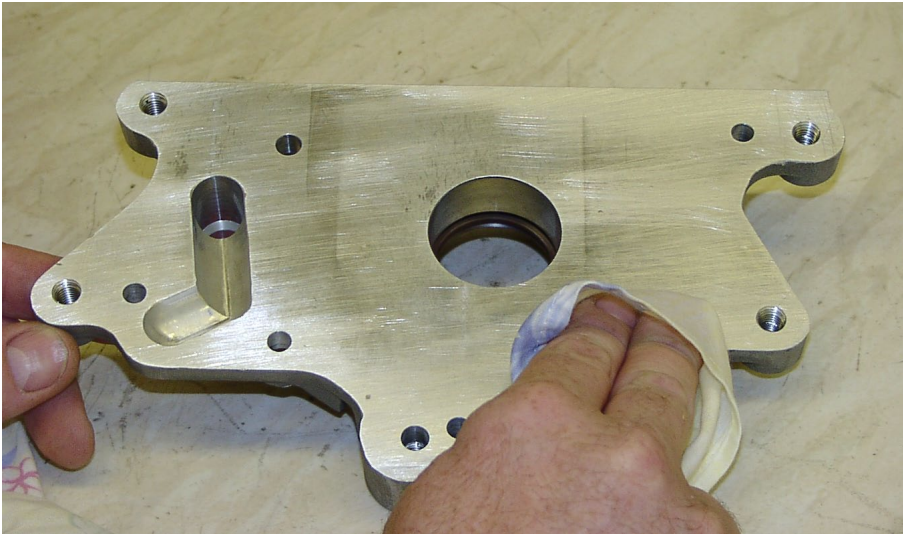
Make sure there is a new seal in the front cover.



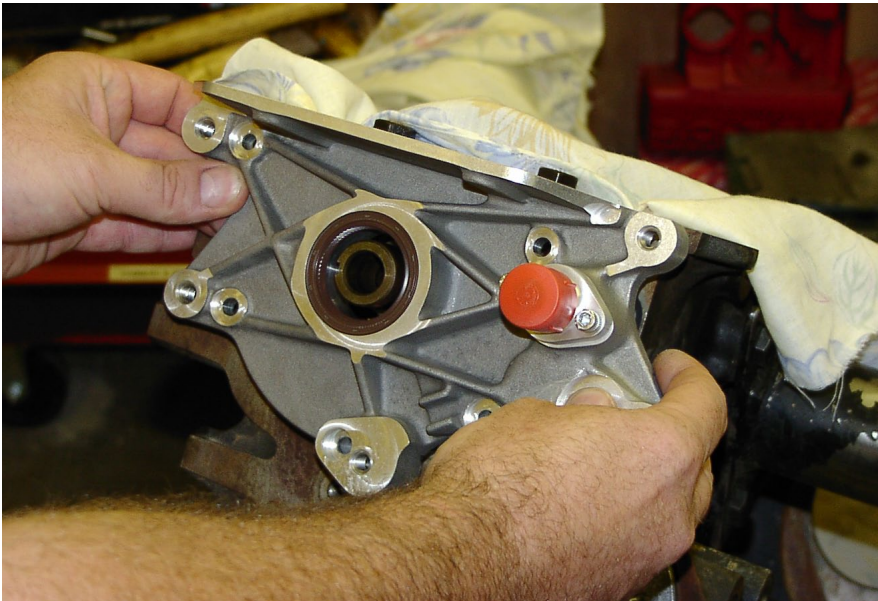
Ensure all faces are clean.



Fit gasket GSK4



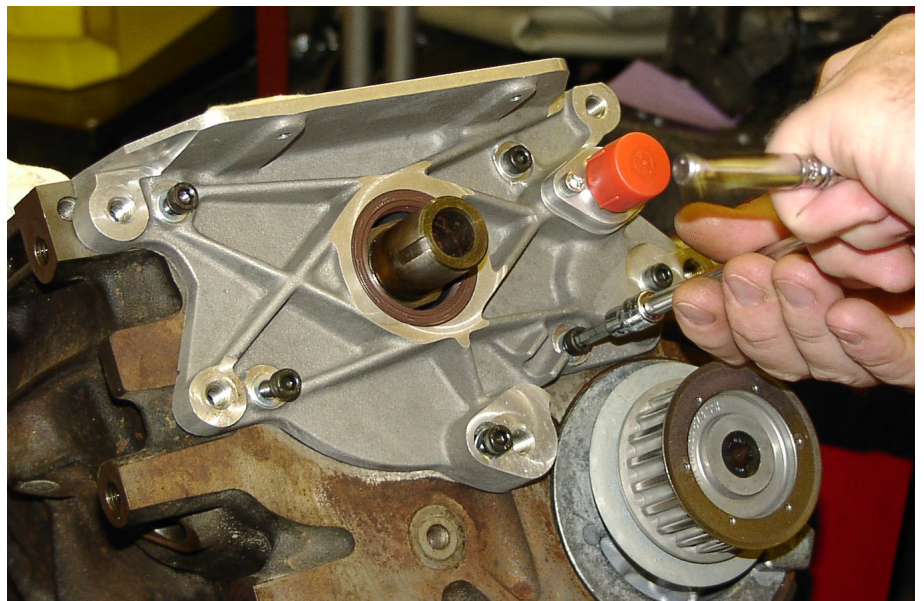
Ensure all faces are clean.

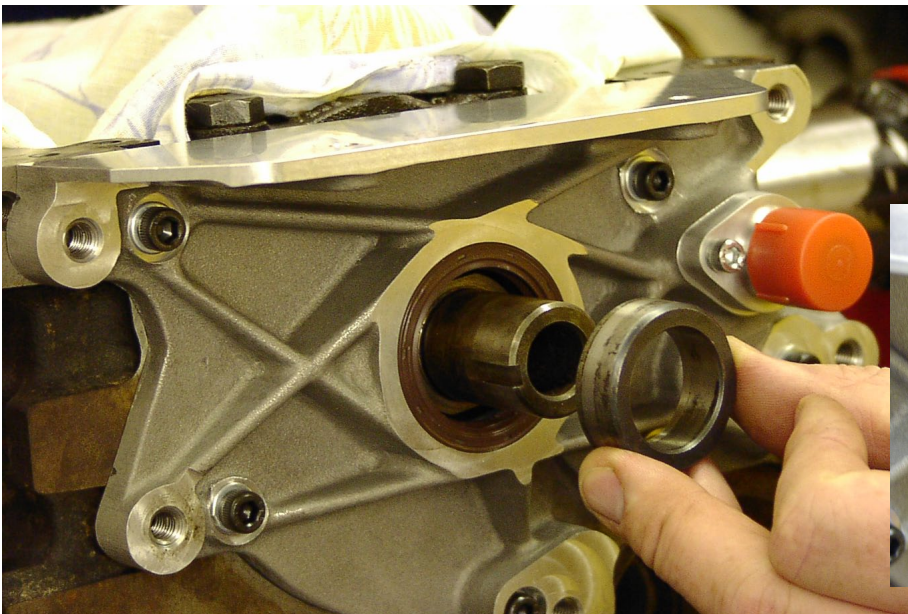
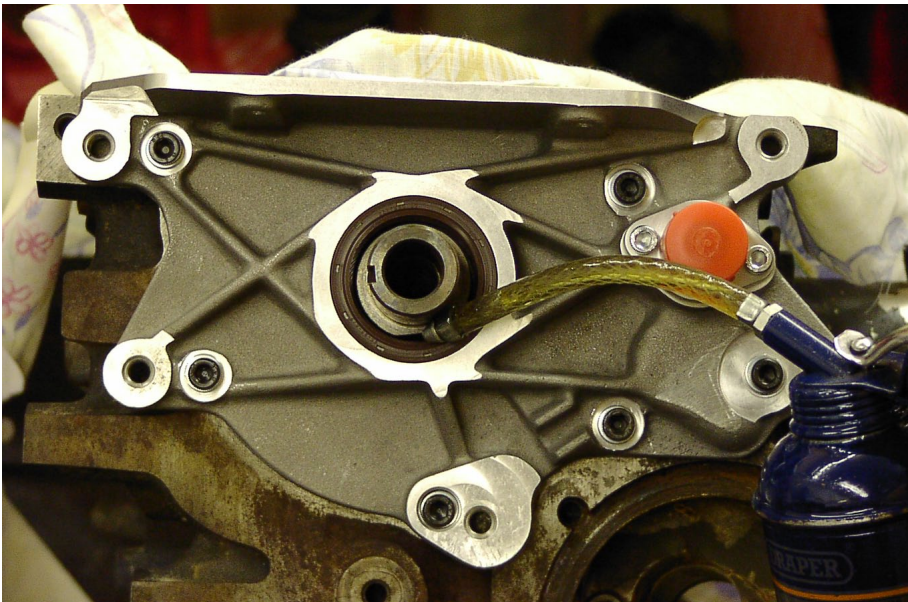
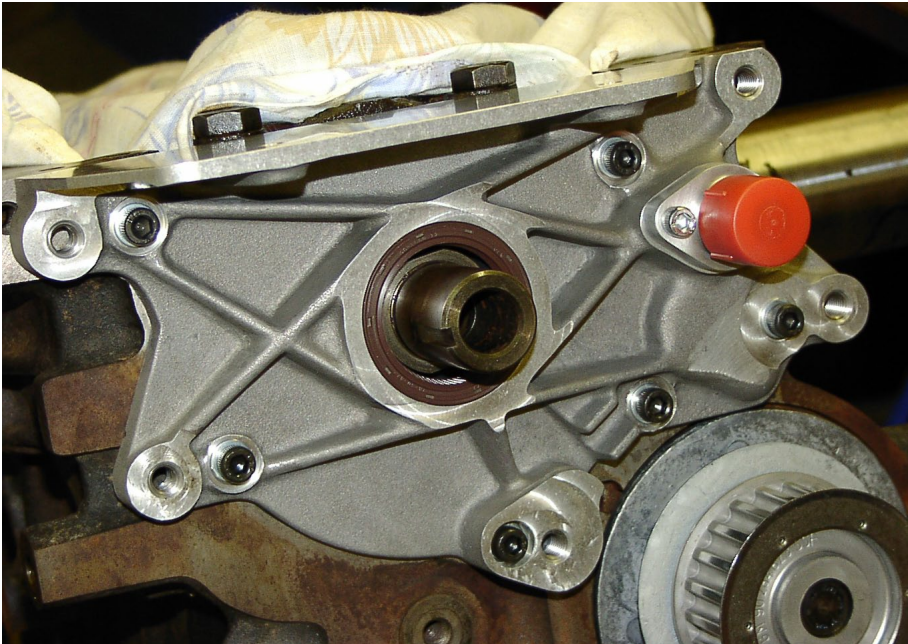


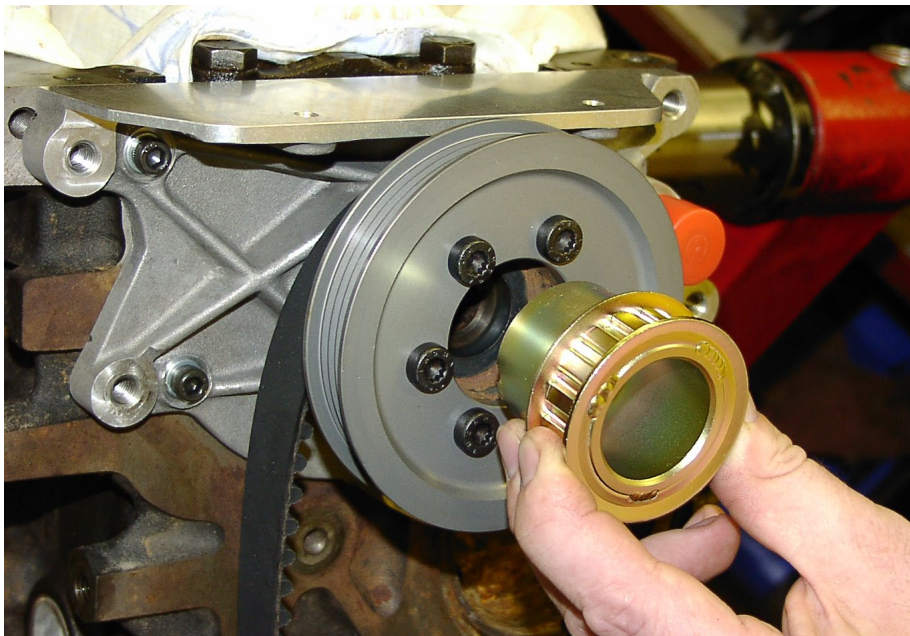
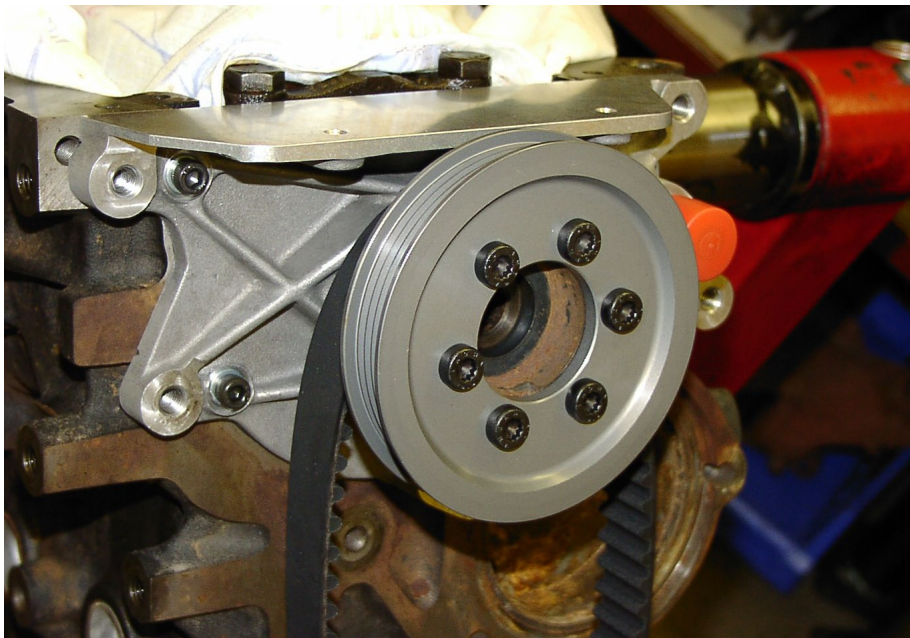
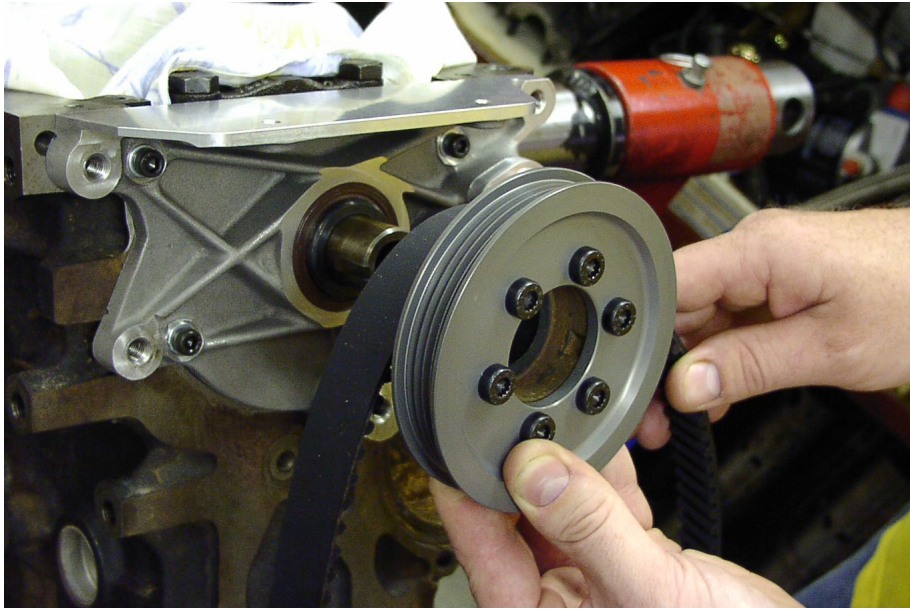
Bolt the bottom of the front cover to the dry sump pan using cap head M6 x 20mm bolts.

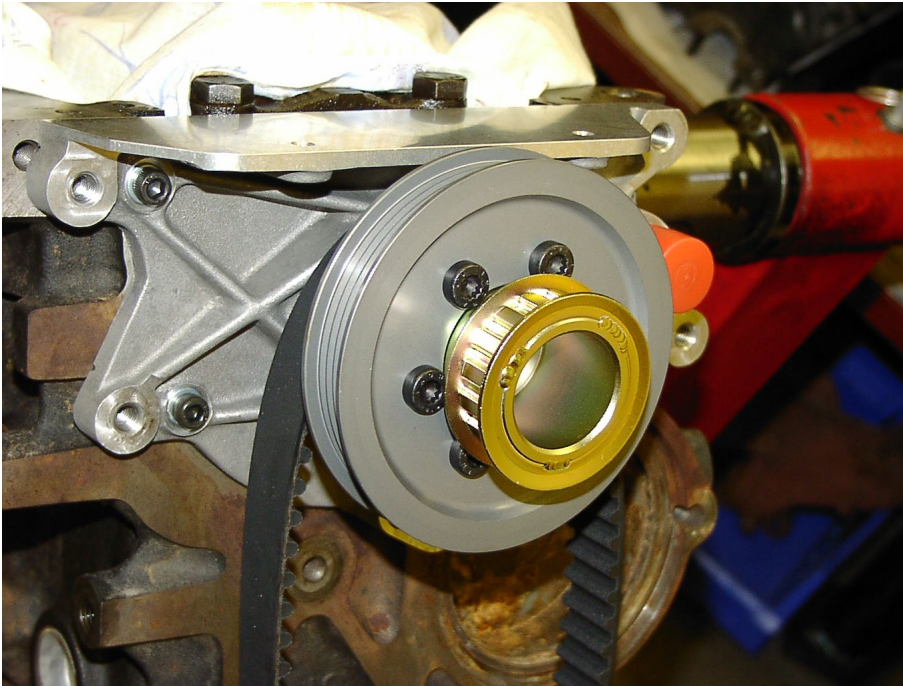
These can be bought from SBD part number OS-DS-FC1-BOLT-KIT. This kit also contains the 2 longer bolts that go through the 2 longer sump bolt holes into the front cover M6 x 25mm

Torque setting - 4lbft (6NM) torque using Loctite 243



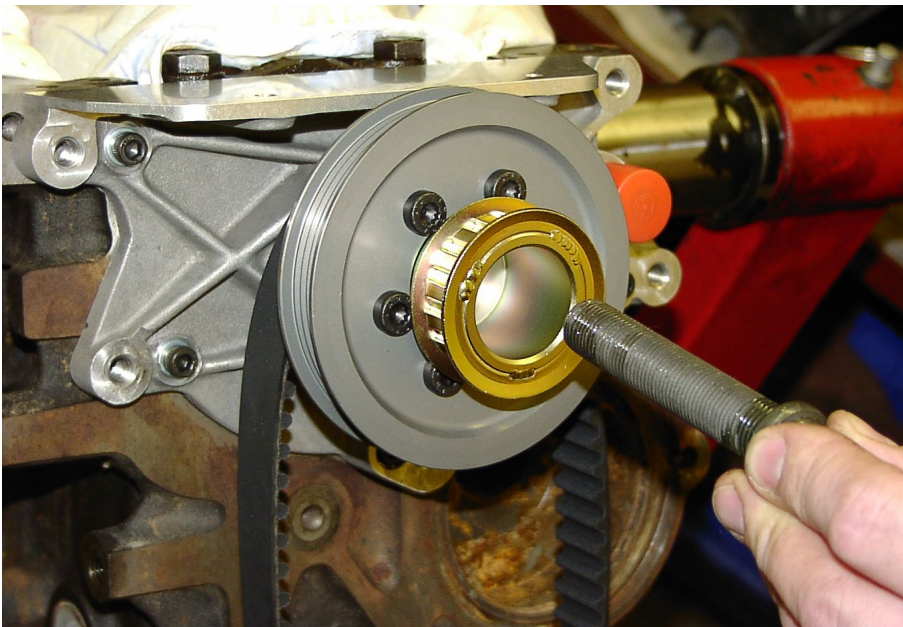






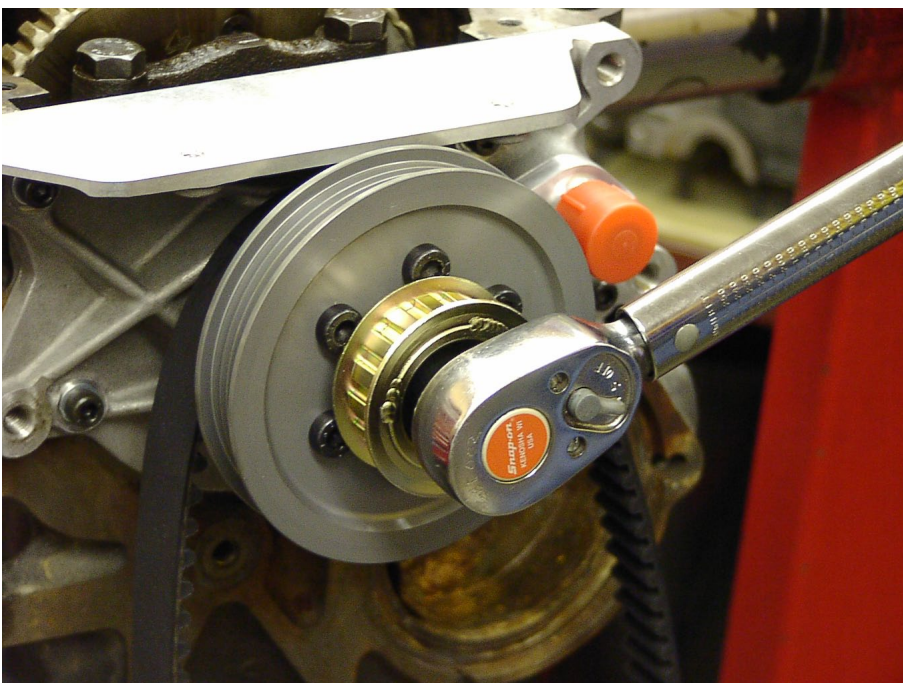
Use genuine GM Torx bolts to hold pulley on (Cap Heads are too long)

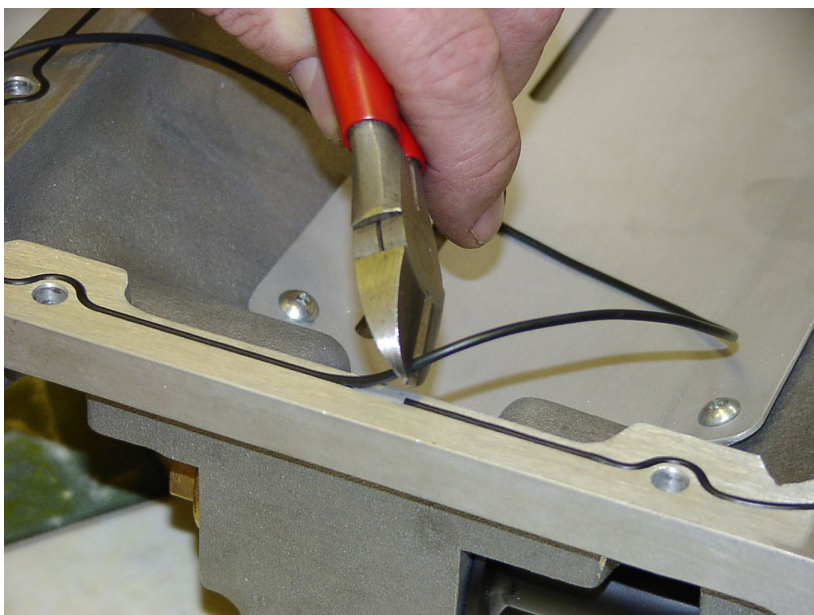
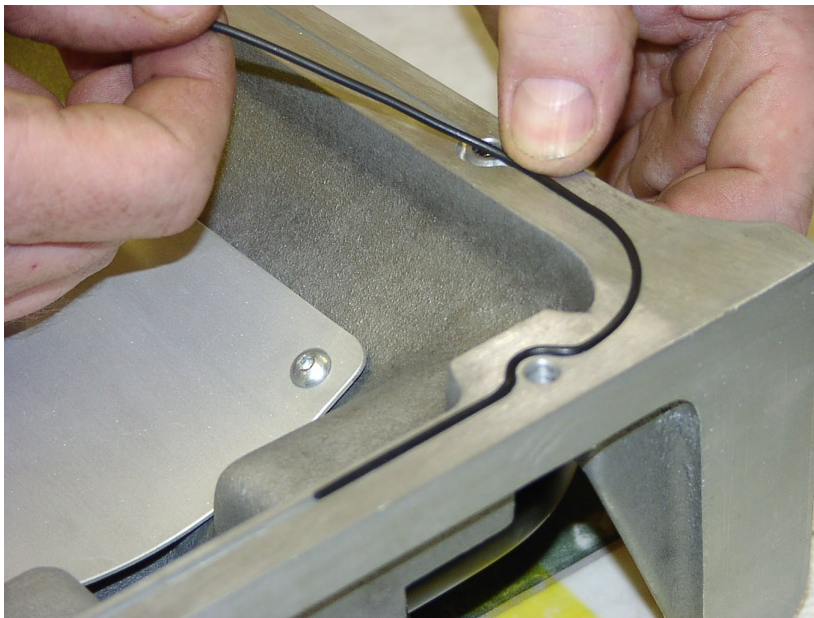
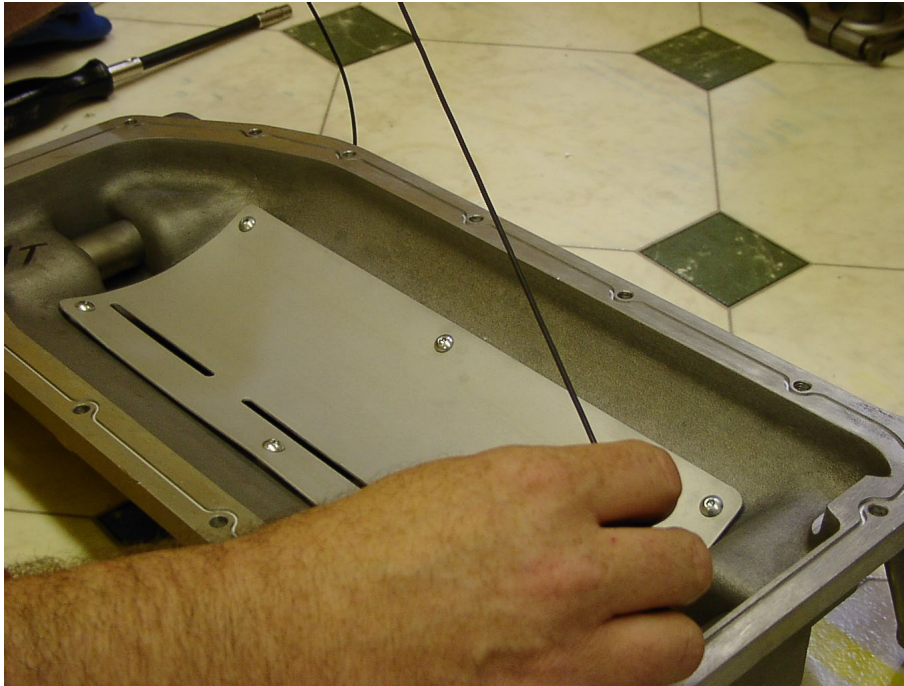
Torque setting: 15lbft (20NM)

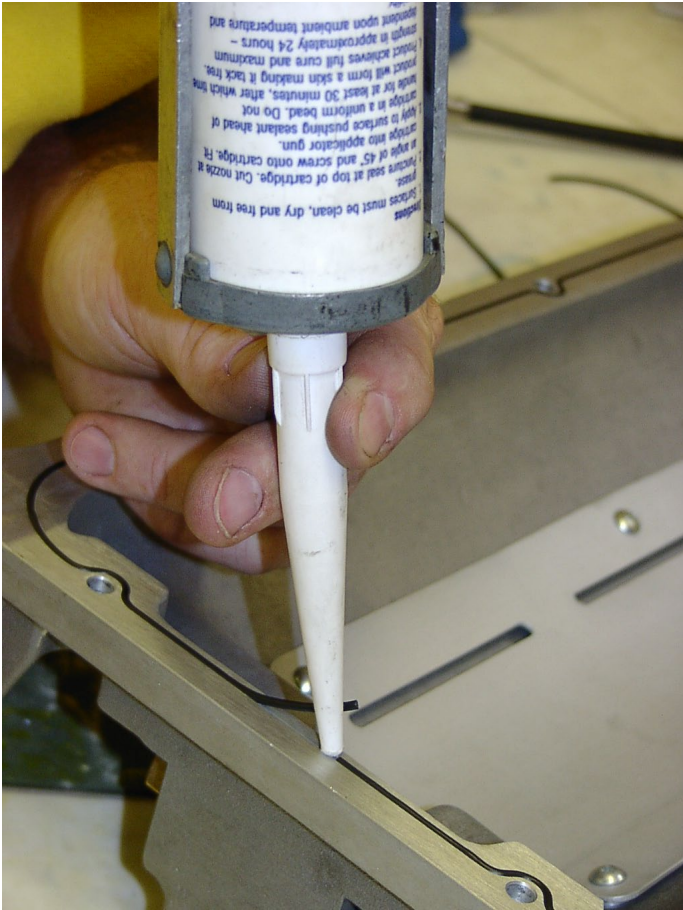


Fit the dry sump drive pulley using the E20 Torx bolt (original GM) available from SBD part number BLT-CRK-1. Use graphite grease under the head of the bolt and use engine oil on thread.

Torque setting:
1st Stage: 184lb/ft (250NM),
2nd Stage: 40 to 50-deg

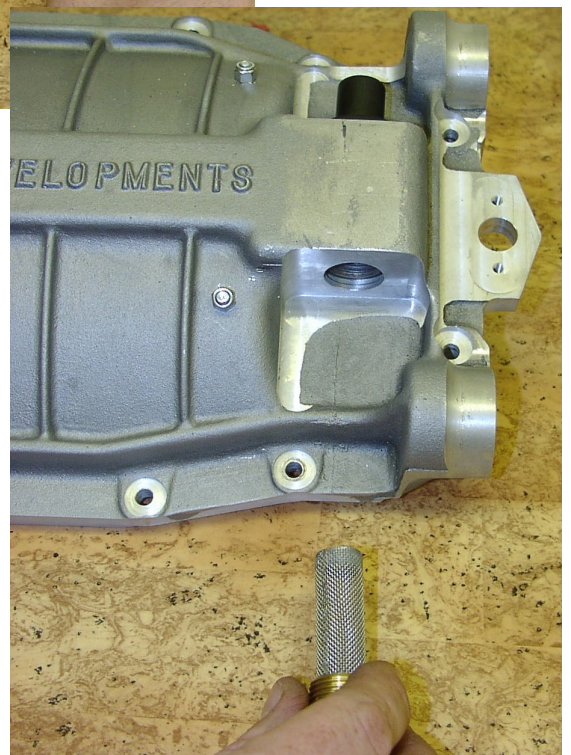
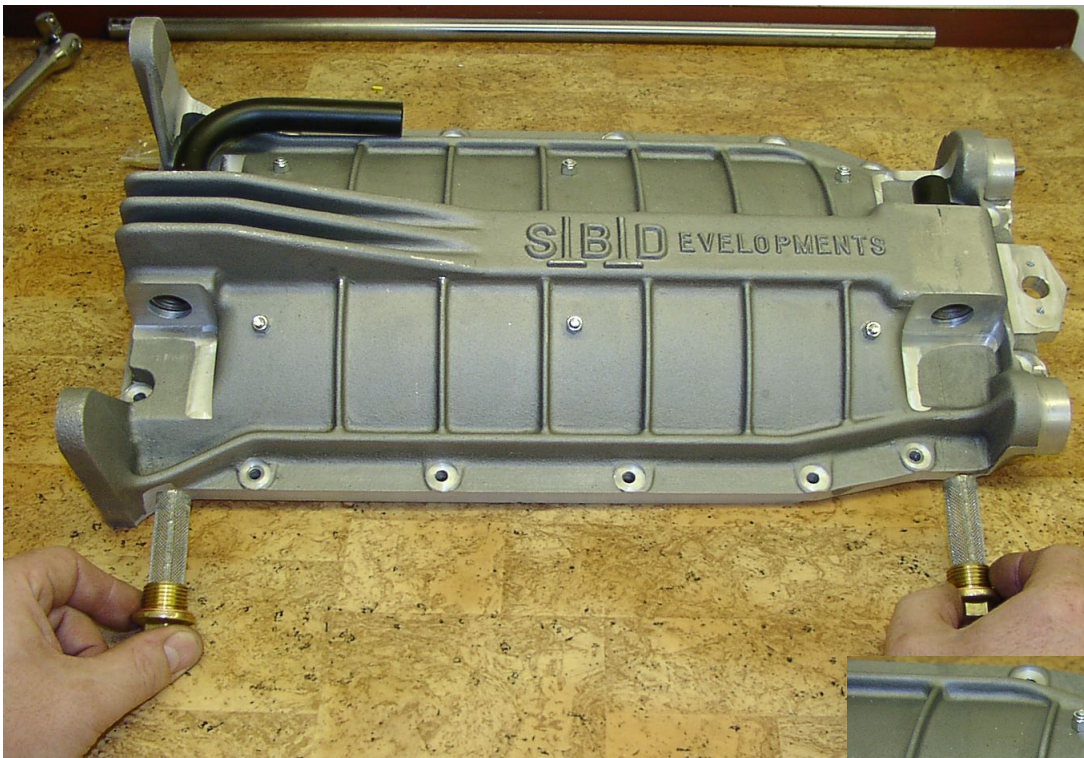


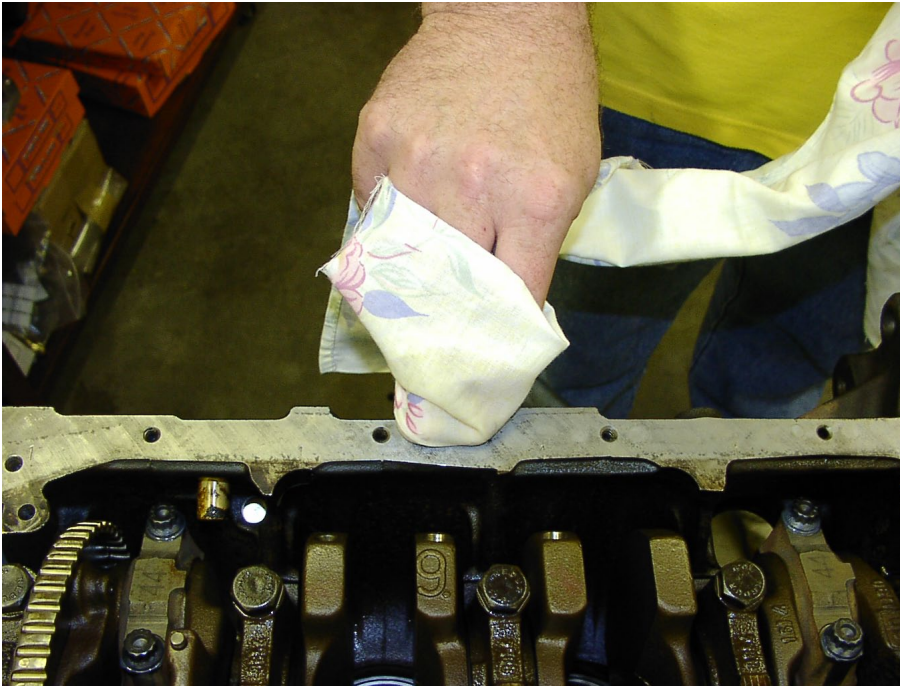




Apply a small dab of silicone to seal the joint between the o-ring joints.



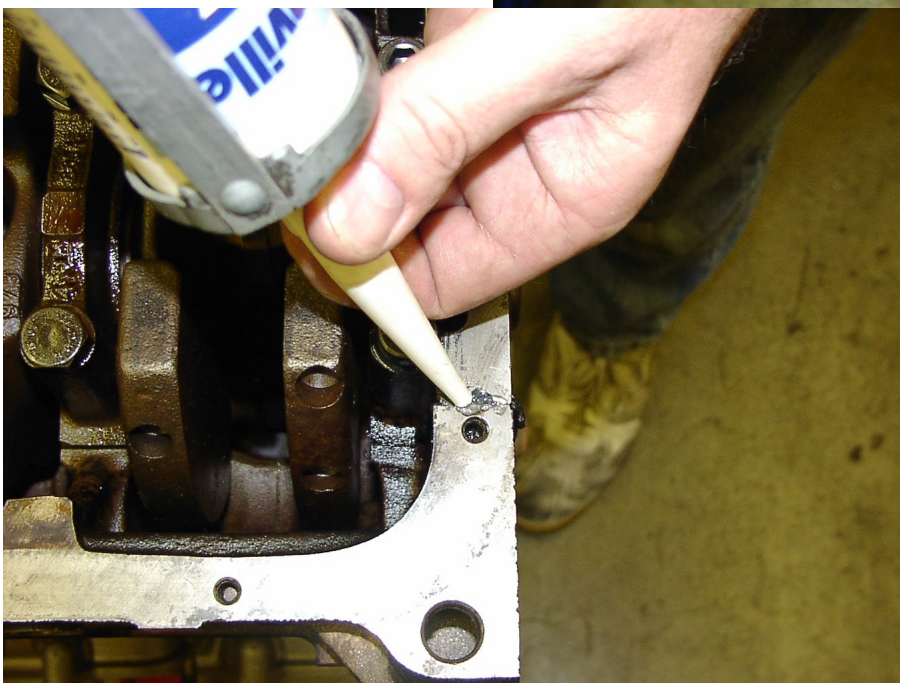
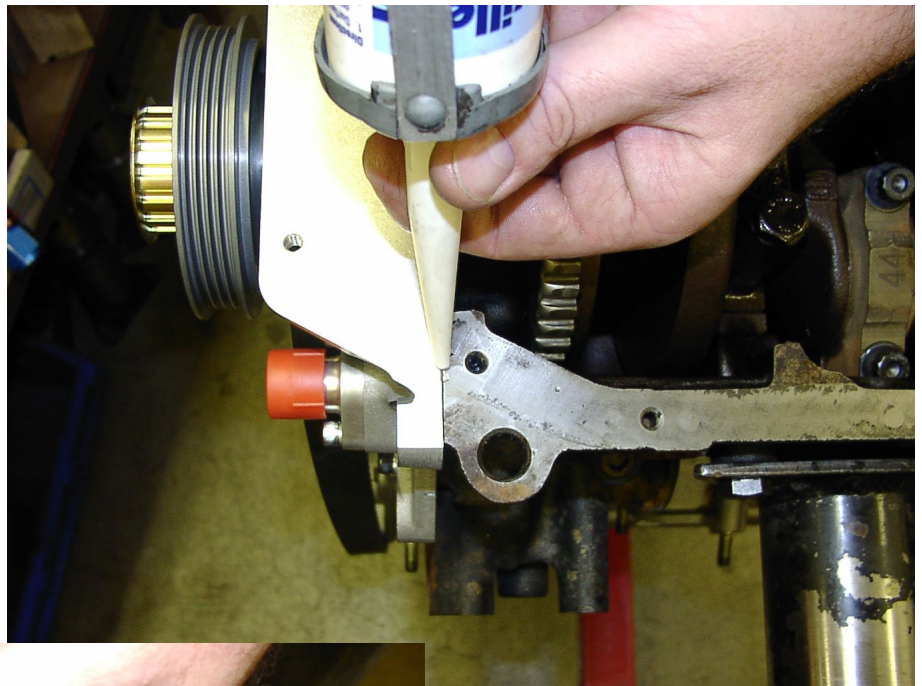


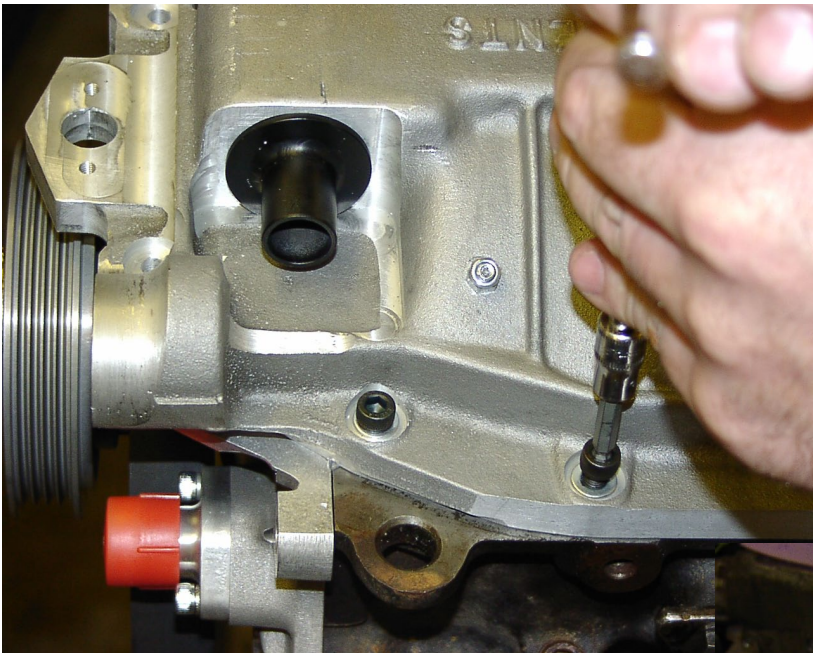
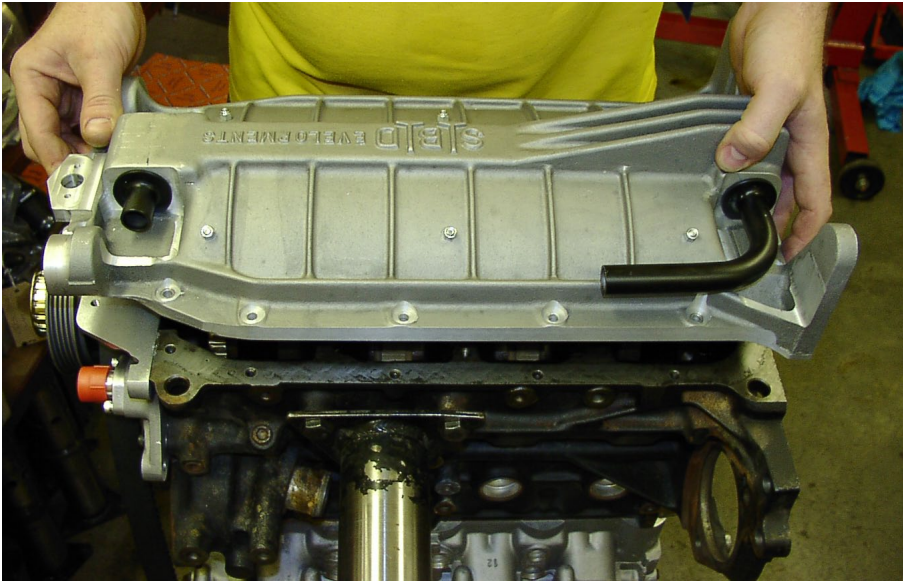


Ensure all faces are clean.

All surfaces should be thoroughly cleaned and then a bead of silicone should be run across the gaps from the block to the front cover and the back bearing journal.

NOTE: Once the silicone has been applied the sump should be assembled as quickly as possible.

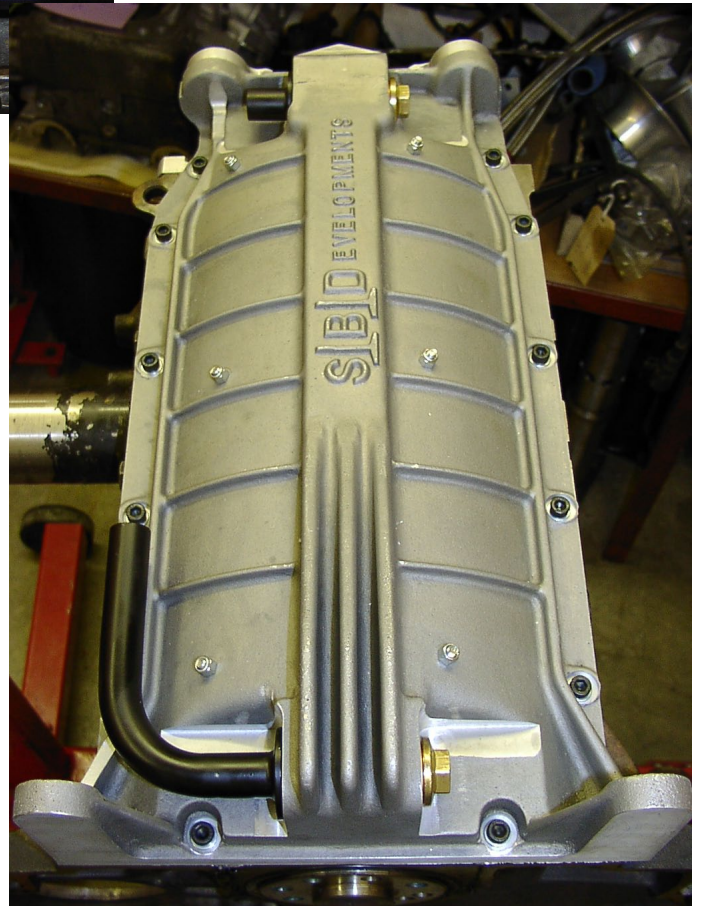
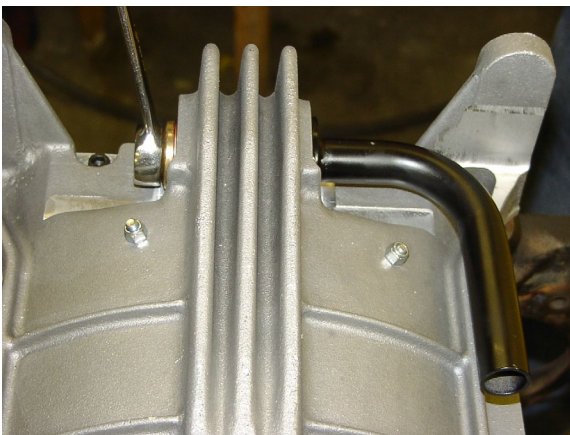


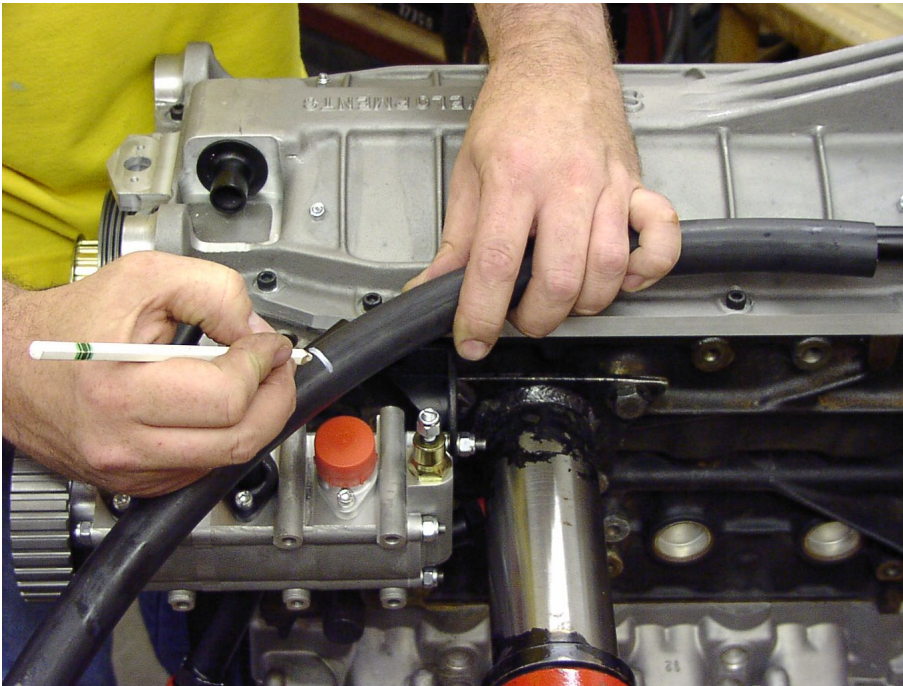
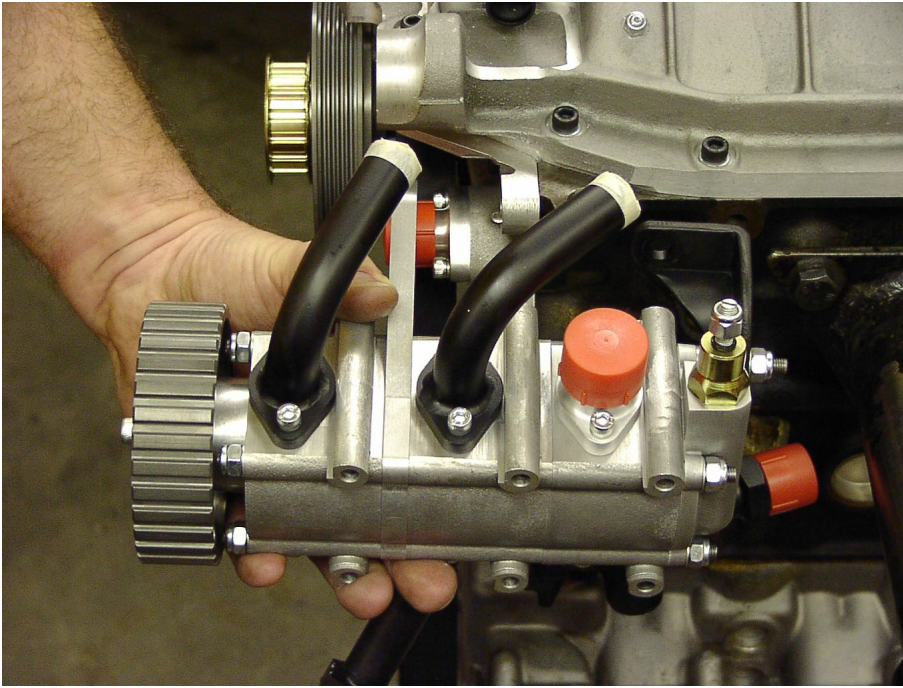


You will require 14 x M6 x 20mm cap head bolts. There is a kit available from SBD part number OS-DSK-2.0-BOLT-KIT, which includes these bolts and washers.

Bolt the dry sump pan to the block.

Torque setting - 243 Loctite 4lb/ft (6NM)

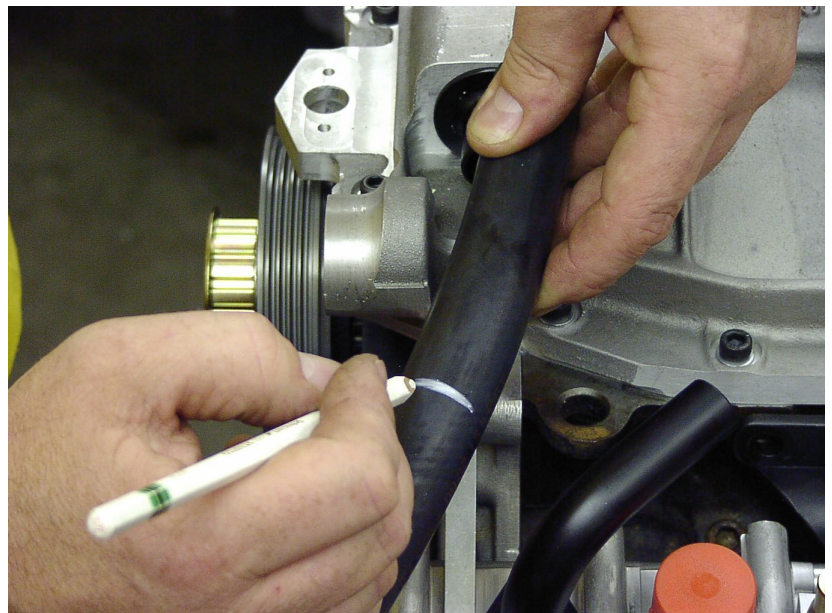


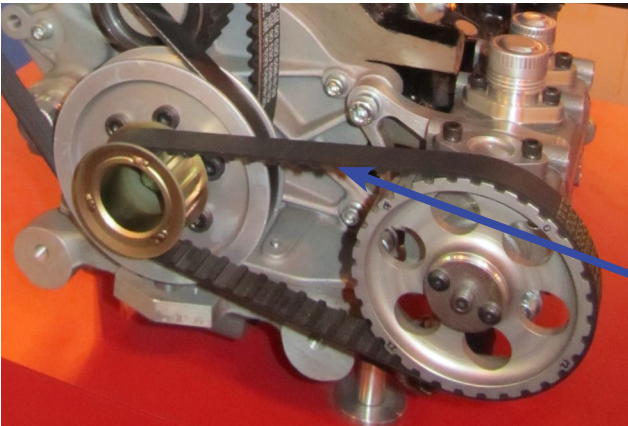
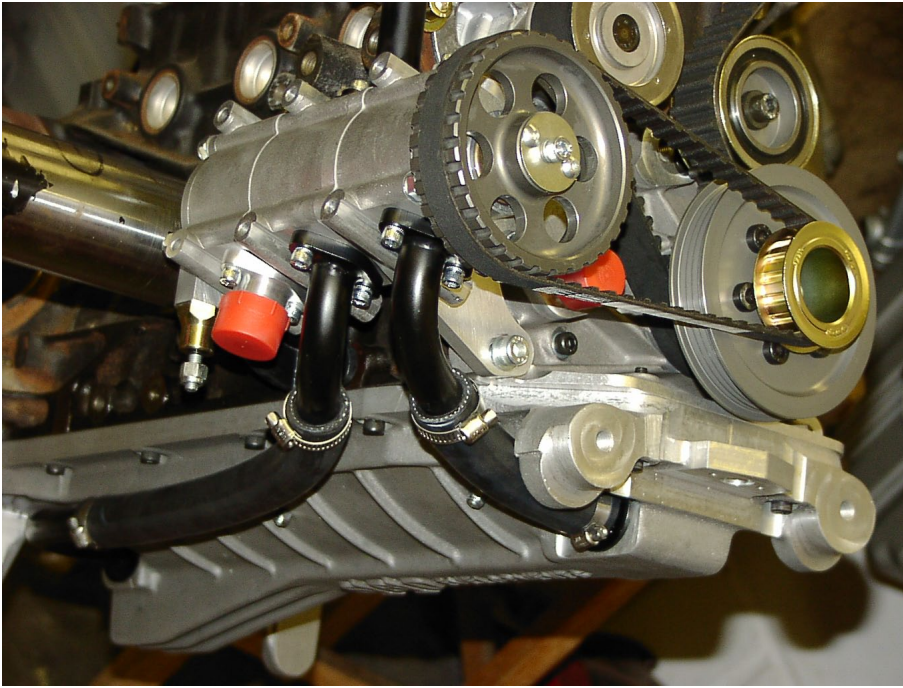


Trial fit the hoses and cut to the required length. Quite often they are supplied at the correct length but if you have issues with chassis components, you may need to trim or alter the hoses to suit.

Fit the hoses in and use the jubilee clips to secure the hoses in position. They do not need to be excessively tighten as the pipes are under vacuum and after a short period of use they will normally seal themselves tighter on to the fittings.

If you are replacing the scavenge hoses make sure there is enough overlap and also use new jubilee clips.





The belt doesn't have to be put under any tension, there should be about 5mm play up and down.

Notes

1. We recommend that the oil cooler, if required for your installation, is fitted into the -12 return line to your oil tank (size and type depend on installation and use)
2. SBD Dry sump systems (Car Based engine) have never run any breathers.

GM Vauxhall/OPEL XE Engine Oil Recommendation

The information within this data sheet is built from our experience, this is intended as a guide but the customer must be aware that there may be scenarios where an alternative is more suitable, we cannot foresee all eventualities and applications.

See separate sheet for new engines which require "running in", this sheet is intended for engines which are ready to be run on fully synthetic oil.

4 Cylinder GM Vauxhall/OPEL XE Competition Engines

OIL-EN-RP-XPR-10W40-01

This oil is able to offer protection your engine even at high oil temperatures. The engine block on a XE is made of cast iron so has virtually no expansion with heat, but as oil temperature rises the viscosity of the oil will reduce.

Advised oil temperature range

(Always monitor Oil temperature it is dangerous not to)

Min 60C

Max 125C

Optimal Oil temp 80C to 100C

Advised oil pressure range

Set PRV to achieve 65-85psi when oil is at running temperature and engine revs are between 3500rpm and Max revs.

Idle pressure is a result of Oil viscosity and temperature, expect between 25-35psi and NOT adjustable with PRV.

Remember that as the oil temperature rises the oil pressure will drop. In order to get an indication of the condition of the bearings in your engine, always monitor and compare oil pressures at the same temperature. If you notice a drop in oil pressure compared to what was seen previously, then the engine needs inspection. DO NOT adjust the pressure relief valve setting; you are only hiding a problem and the engine will fail!

Please note:

It is very costly and time consuming to test various oil manufacturers products, we have seen good results with Royal Purple products and as such would always advise the use of the oil as listed in this information sheet, please do not ask our opinion on other oils which we have not tested or used.

Please be aware that Technical Support involving our Technicians is chargeable



SBD Motorsport Ltd
Unit 15, Red Lion Business Park, Red Lion Road, Surbiton, Surrey. KT6 7QD
Tel: 020 8391 0121
Website: www.sbdmotorsport.co.uk

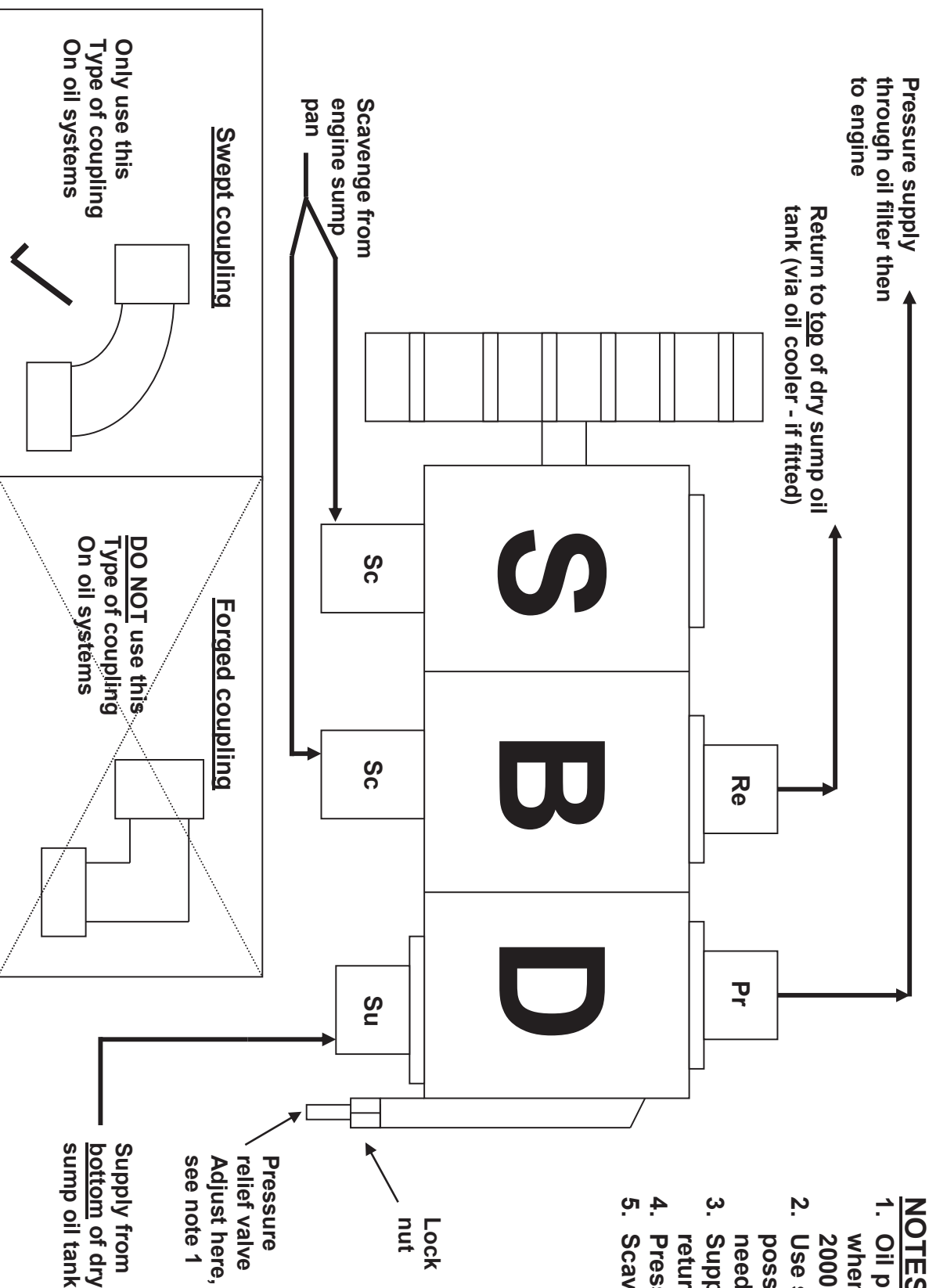


SBDMotorsport



sbdevelopments

2.0L Vauxhall Connections for the SBD dry sump system



NOTES

1. Oil pressure should be set to 65 psi when engine is hot and RPM is at 2000
2. Use straight couplings where possible or if swept couplings are needed only use swept ones.
3. Supply to pump from oil tank & return to oil tank should be JIC-12
4. Pressure to engine JIC -10
5. Scavenge pipes are push on 3/4" I/D

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