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**Mini clubman Vauxhall 2.0l 16v xe kit installation guidelines and disclaimer.**

**This manual is only intended as a guide.**

**Please study and familiarise yourself with the project before attempting installation.**

**A comprehensive tool kit will be required as well as a good knowledge and skill in automobile mechanical and electrical engineering.**

**It is strongly advised that at interim periods and on completion that the conversion is inspected by a qualified engineer.**

**Allspeed Engineering Ltd accept no responsibility or liability for the incorrect fitting and or misuse of the conversion or its products.**

**This conversion is only intended for use with the Vauxhall 2.0l 16v xe engine and F20 gearbox assembly.**

## ***Basic mini preparation guidelines.***

**The mini shell used for conversion must be in 1<sup>st</sup> class condition and as near rust free as possible.  
It is strongly advised that a crash/roll cage is correctly installed by a competent person.  
If a new front end is being fitted then this can be removed along with the standard subframe and  
engine assembly.**

**Remove the clutch and brake master cylinders.**

**Remove the engine stabiliser bracket from the bulkhead.**

**Gear select linkage clearance bulhead cutout dimensions as below.**



## New subframe preparation/ installation.

The mini rubber donuts and top arms are best fitted before subframe installation.

The top arm pivot shaft front nut and washer needs to be removed and replaced with a 0.5 in unf half nut (included) A propriety stud lock adhesive should be used, the protruding thread should then be cut flush with the half nut as shown below. It is recommended to use a thick thrust washer both ends of the pivot shaft.



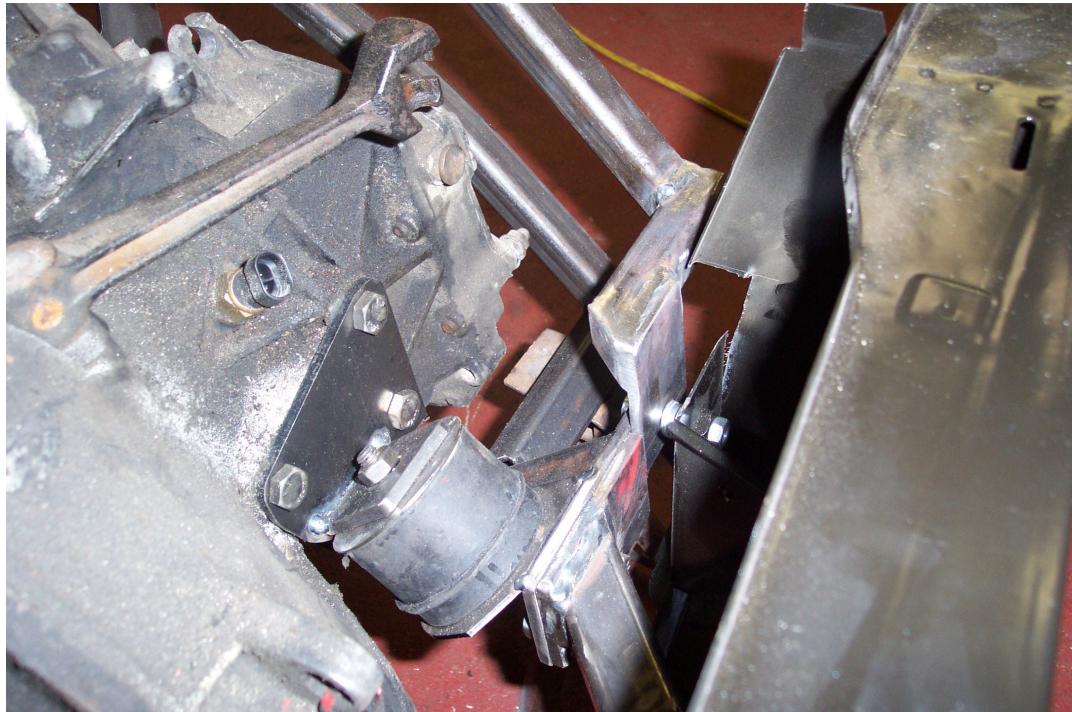
The subframe can now be lifted into position, passing the large original top bolts through the new steel washers (included). Show below



Then bolt the rear mounts to the floor.

## **Brace bars.**

The brace bars can now be fitted if being used as shown below as well as the front cross member. Spacers may be required to pack out to the front panel.



The top end can be bolted or welded to the inner wing ( welding is preferred).  
It is also desirable to extend the brace bars thru to the front roll cage legs for extra strength.  
For improved appearance new inner wings can be fabricated from the wing lip to the brace bars,  
this also improves the front end strength.

## Engine and gearbox preparation.

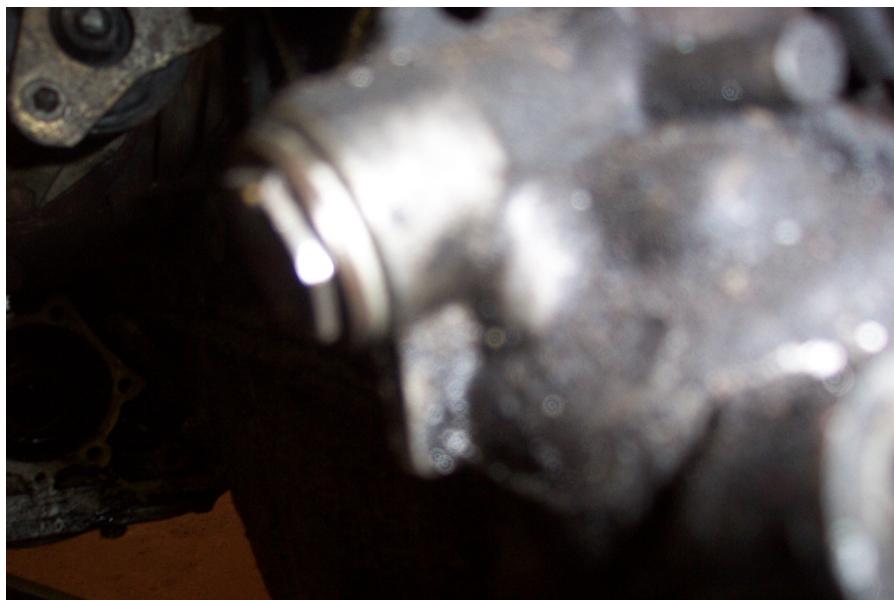
All ancillaries and driveshaft/cv joints should be removed prior to fitment.

The alternator pulley must be of the 'V' type and if it has a power steering 'V' this must be machined off as shown.



The plug head on the back of the oil filter housing needs 4mm machining off and the housing it screws into needs reducing by 7mm, ie. By sawing off ensuring the cut is square, the plug then needs refitting with a good thread sealer ie. Ptfe tape. As shown. This gives clearance to the o/s top arm pivot shaft.

A steel sump pan ie. 1800 Vaux. Cavalier and uprated conn rod bolts are recommended.



The engine can now be lowered into position and when near, fit the engine mounts and brackets. The engine can now be leveled and squared, this will take time and patience, there are shims included as a last resort to level the unit. The engine should be level to 1 deg. Sloping forward. Gear linkages/driveshafts / ancillaries and wiring can now be fitted.

*Typical engine in position.*



The alternator bkt is supplied in kit form so can be adapted to suit various alternators.

