VE - CM VALIANT IFS FRONT END

1. To start out all of the original front suspension K Frame, Shocks, Steering and Torsion bars need to be removed from the car, Keeping original K frame and upper control arm mounting bolts.

Note – Some people may choose to suspend the driveline in position, while others may remove everything to save complications.

2. The only modifications to the chassis required is the removal of the droop and compression bump stop plates, these can be easily removed by cutting the mig welds and drilling the spot welds

Note – The brake line bracket can remain unaltered and be reused.

3. With bump stop brackets removed the chassis rail needs to be buffed smooth including the plug welds on the underside of the rails where the sub frame bolts up to ensure new crosmember seats home correctly

4. Next a small part of the upper control arm mounting bracket needs to be trimmed for clearance at droop to the top arm. Dotted line suggest trim area

5. It is STRONGLEY recommended that if any rust is found in the chassis rails at this point it should be repaired and the worked areas painted for some longevity.

6. With all modifications complete Start assembly with the top control arms

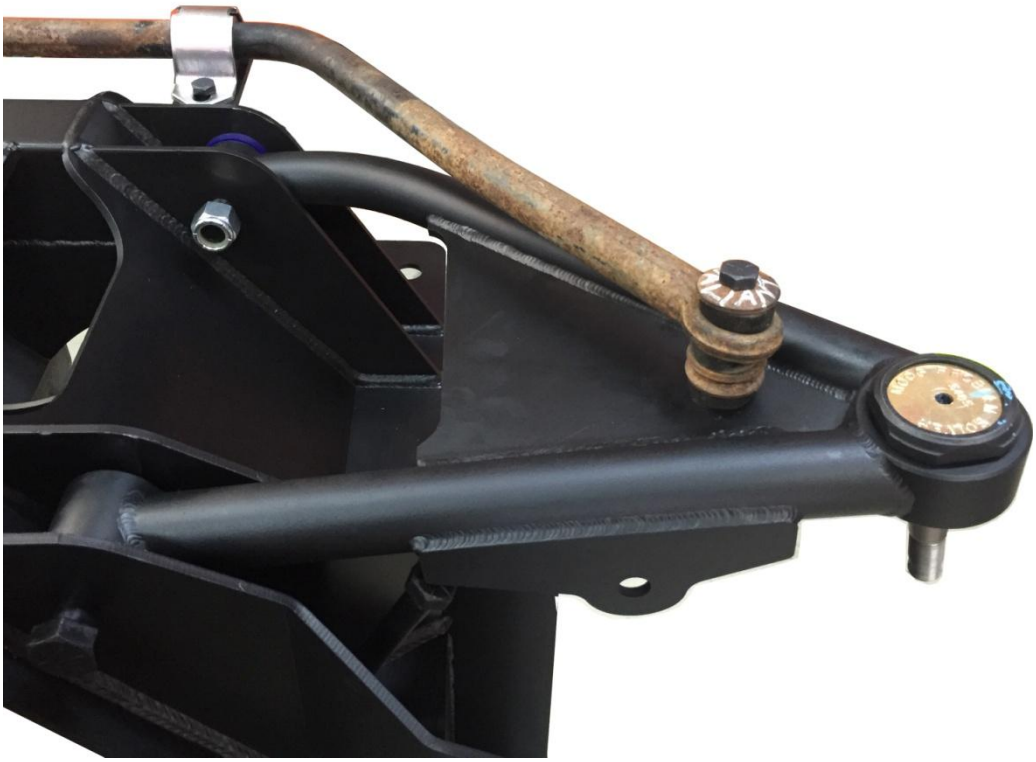
this photo shows the upper arm hardware, the original bolts and eccentric washers are installed as standard the supplied spacers fitted either side of the control arm bush

Flat side of spacer sits against bush & chamfered side with small face against the bracket. , Note the ball joints in upper arms are offset from centre to the rear of the car

7. Your new CRS subframe can now be installed using the original bolts, Please note that the bolts should be gradually tightened to ensure subframe stays located on mounting bolt shanks before any are fully tightened.

8. All suspension componants can be re-installed as it was pre assembled on delivery, Ensure all necessary items are greased, lock tighted , split pinned etc.

9. The factory Sway Bar can be removed from original K frame and original mounting rubbers deleted. The sway bar mounts to CRS Front end under the lower control arms and mounted with universal saddles and d rubbers to suit the sway bar diameter, in the past we have used a “Whiteline” Universal saddle kit (part number **KS30**)
The link ends are mounted as per factory with crush tube spacers removed so the rubbers are back to back and the 2 supplied 3/8” x 3 ¾” unc bolts fitted and tightened to crush rubbers appropriately



A complete wheel alignment will be required.

DRIVE LINE

All engines will require a modified sump.
If you haven't supplied CRS with a Changeover sump and oil pick up already, You can send them to us for modifications.

HEMI 6 uses factory engine mounts BUT all other engines require CRS items to fit.

LA Small block V8's also may require a low profile remote oil filter depending on steering set up.

STEERING COLUMN

CRS recommends the use of a collapsible steering column

If a factory column is to be used it will require the following modifications

- Column will need to be removed from car and dismantled.
- The housing will need to be shortened and nylon bush installed to carry the end of the main shaft.
- The main shaft will need the pressed rose cut off the end and a small section machined to 17mm in diameter with two flats ground to accept a double d steering universal,
  A groove for a external cir-clip may be required to prevent end float depending on year and model of column used.
- Connecting up the steering is then just a simple task of trimming a length of ¾ double d steering shaft to fit between universals on the rack and column.

ALIGNMENT

Camber 0° + 0.0° - 0.5°

Caster 4° + 2° - 2° (Depending on Manual or Power steering)

Toe 2-3mm overall at installers discression.

Adjust the upper control arms as per factory or adjust the bushed rod ends, can both be utilised without any major effects to operation.

- In circuit racing, drift, autocross applications the installer may find handling gains by shortening upper control arms and running the factory eccentric adjust outboard to the maximum keeping the control arms as short as possible to assist with static camber and pitch camber curves.

- For street duties the opposite is required for maximum driveability and tyre ware

For shock settings please refer to the Viking information sheets.

Ride height is designed to be set with lower control arms level with the ground.

CASTLEMAINE ROD SHOP

SINCE 1976

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