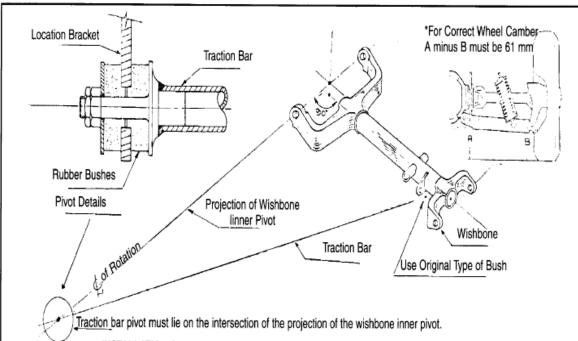
### APPENDIX 3 MOUNTING JAGUAR INDEPENDENT REAR SUSPENSION



## INSTALLATION OF JAGUAR REAR END TRACTION RODS SHOWING RIGHT ANGLE TRIANGLE.

# MOUNTING JAGUAR INDEPENDENT REAR SUSPENSION RADIUS RODS:

Radius rods should always be installed to support the lower control arms of the Jaquar IRS.

There is only one geometrically correct position for them to be mounted. The radius rods must be installed with the forward end located on the axis of the lower control arm pivot. (The center line of the shaft that connects the lower control arm to the differential housing). This axis and the radius rod combine to make a right angle triangle with the lower control arm. This allows full suspension travel without bind. (See diagram). Mounting the forward end of the radius rod anywhere else other than on this axis line causes partial or total bind and undue stress on lower pivot bracket bolts which can break.

The recommended minimum size of tubing for radius rod fabrication is 1-1/8" O.D. The type of pivot used on radius rod ends should be of such design to allow adequate twist under full suspension travel, such as stock Jaguar rubbers on control arm ends and independent suspension strut rubbers on the forward end.

The other method of fitting radius rods is where the radius rods cannot be fitted in the same axis as the lower control axles, and the rods are mounted directly forward of the lower control arm connecting point, (as with stock Jaguar). If this type of system is used, the rubbers both for and aft should have sufficient movement to allow full travel without bind.

#### TIE BARS:

Tie bars or plates should be fitted between the lower control arm pivots; both front and back. Also a tie plate should be fitted underneath between pivot brackets.

### TORQUE REACTION STRUTS:

These must be fitted between lower control axles and chassis to prevent the differential from twisting.

# SHOCK ABSORBERS AND SPRINGS:

Mounting points for shocks should be the same dimensions as they were in the parent car. If this cannot be done for clearance reasons a minimum distance between top mounts would be 21". A correctly installed Jaguar IRS would have shock centers of 11-1/2" and horizontal half shafts. Car height under normal load, should be altered by changing springs, not relocating shock mounts. Chroming of springs is not recommmended, but if they are, they should be heat treated or sagging and/or breakage will result.

# CAMBER:

Camber is adjusted by the use of shims between drive flange and half-shaft, and bottom pivot bracket and differential case. Correct camber is 3/4° plus or minus 1/4° negative.

# WHEEL BEARINGS:

It is very important to adjust bearings correctly. This is done with varying size shims to accomplish an end float of .002" to .006". These bearings are not preloaded. If they are, severe damage to the hubs will result.

Figure App 3 (a) Installation of Jaguar independent rear suspension Examples of Jaguar independent rear suspension are given in Figures Appendix 3(b) and (c).

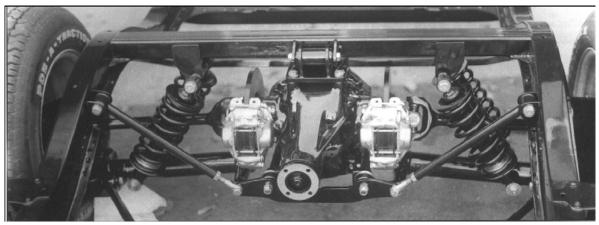


Figure App 3 (b) Jaguar rear suspension

Figure App 3(b) shows a Jaguar rear suspension in a Chevrolet chassis that closely duplicates the original Jaguar mounting in that the centre section is mounted on insulated bushes. This will help minimise noise transmission into the chassis. Strut rods at the front control the rear end's tendency to wind-up under hard acceleration.

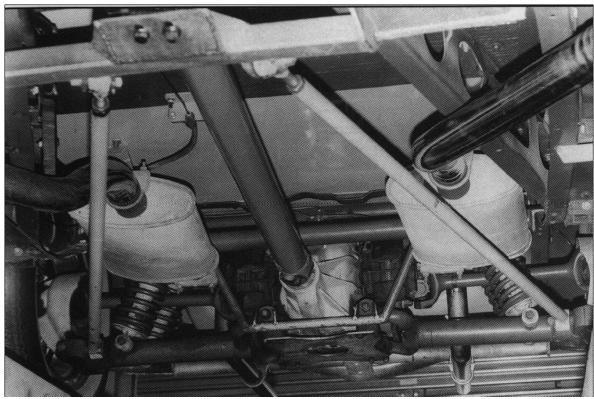


Figure App 3(c) Jaguar rear suspension radius rod

Figure 3(c) illustrates a Jaguar independent rear suspension installed in a 1933 Ford. It shows how the forward ends of the outer radius rods should be mounted so that they align with the lower pivot points of the rear suspension. This allows them to operate without binding. They must not be mounted straight along the chassis unless original Jaguar mounting bushes are used.