

THE FERRARI 250 GT REAR AXLE

BY DERRY F. MALLALIEU

Having acquired a Ferrari, a 1960 250 GT with a rumble in its back axle, I had of course to remove the rumble, being an engineer it annoyed me, not to mention that it also annoyed my wife and obliterated the radio, the latter having to be tuned to the average American station was not too bad a fault.

However, literature and even information on how to take Ferraris to pieces seems to be scarce, in fact almost non-existent in the colonies, a short conversation with the local "Service Manager" not adding anything to diminish the dearth, I have put on record the method of removing rumbles in B As in the hope that it may be useful to fellow owners and also so that I shan't forget it myself.

I proceeded as follows at a rather slow pace as my particular Ferrari had been screwed together by the strongest mechanic in Modena when he was obviously not in the best of temper, in short the correct spanner, stance and mental attitude, all co-ordinated, was required in every nut to produce the required result. Spanner sizes, socket, ring and open end required are: 10, 14, 15, 16, 19, 24, and 26, 27 m/m plus jack, horses, screw drivers, diagonals, pliers, beer and Band Aids.

1. Jack rear of car and place horses under cross member immediately forward of the rear axle.
2. Remove wheels
3. Remove jack
4. Remove exhaust pipes
5. Remove nuts and bolts in the following order - rear universal, spring pads, shock absorber, torque arms and rear spring shackles if you can. The latter removal is

32.

spectacular as the springs as distinct from the more civilized British type, coil 'emself into a complete half circle when relaxed, but believe me the relaxation is violent and covers the place in dust. Have a beer, and apply Band Aids if your reflexes were dulled for any reason.

6. Disconnect hydraulic brake line
7. Wriggle the whole masterpiece out from under, sideways, lifting torque arm, depressing springs and dodging shock arm as required. I did it on my own, but I'm boasting and I didn't feel right the following day.
8. Clean it
9. Remove nut A and draw hub and brake drum off splined axle.
10. Split axle at ring of nuts B and C
11. Knock out races, wash in petrol, spin, listen to 'em, let your friends listen to 'em over a beer and ignoring their advise replace the lot, I don't want to go through the whole thing again, I know very few people who would.

I hope the drawing will help to make the whole thing clear, after all its a simple axle, unsophisticated is the modern word, and is made as Ettore would have made it only he would have wasted a lot of time polishing the welds, etc., but Enzo knows more about brakes, these you will admit, are most impressive and they work.

The only snag about replacing the axle is to get control of the curly springs, these have to be flattened by some means in order to get 'em to approach the shackles.

In the dim and distant past Ford owners were faced with the same problem when replacing their transverse springs, but they could buy "spreaders", we can't, the manufacturers think the demand has vanished. It hasn't, but their spreaders wouldn't fit our springs anyway. I made one as in sketch, and it works.

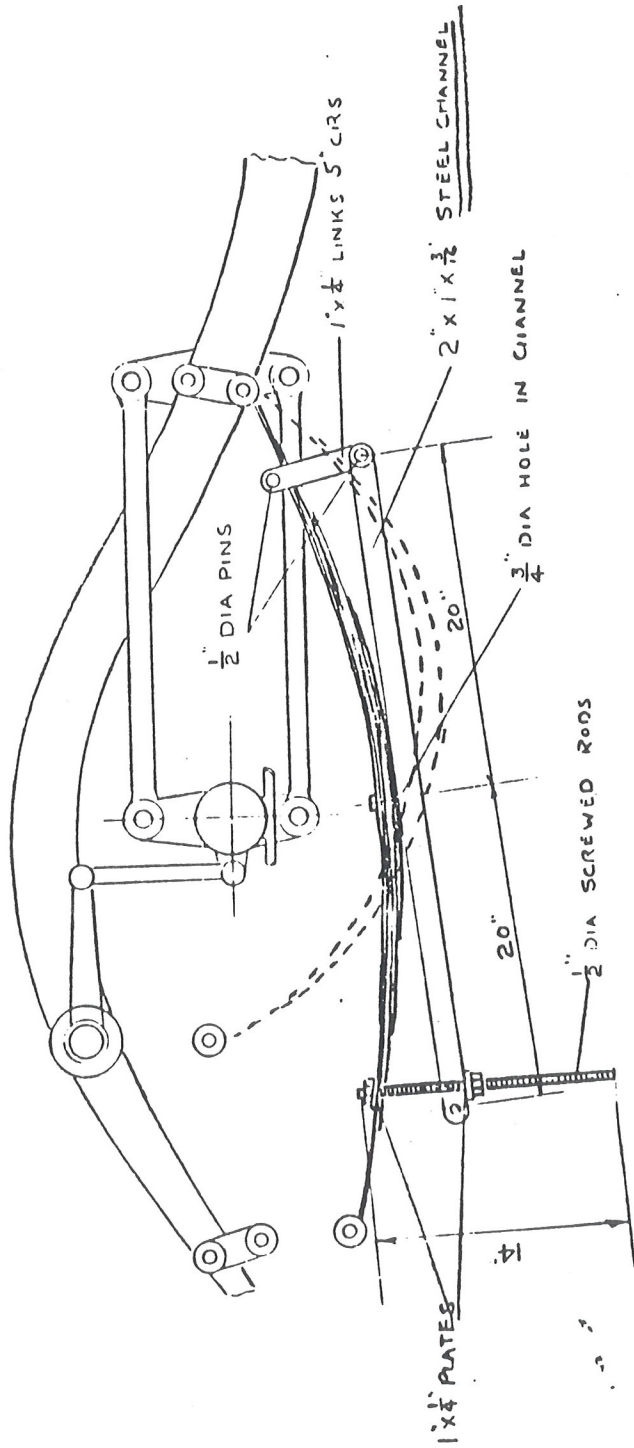
There is an alternative method, do not disconnect the springs but divide the axle at flange C and extract each half on its own side, this could be messy but with a warm clean garage could involve less toil. One has to know how it comes to pieces before using the latter method, tapping with a hammer in the wrong place can be frustrating and expensive, I know.

The capacity of the differential case is 3 - 1/2 litres and I packed the outer races with grease. However, even if one does not disconnect the springs from the shackles and using the spring tamer, it's still damn tricky if not outright dangerous getting everything back. A rather complicated rig could be made to hold everything in place, but the body would have to come off in order to use it. With patience, determination, luck, brute force and skill I got 'em back, it could be assumed that Enzo had just replaced a pair before making his mind up to do the deal with Fiat.

The best of luck to you.

(The author, a friend of many years, is a brilliant Engineer who prefers the technicalities of vintage cars to the outpourings of the assembly line - Ferraris being in a different category, naturally. Don't be fooled by the light-hearted approach. - Ed.)

3.20.NL1088-4



DM 27 FEB 70

FERRARI REAR SPRING TAMEING BAR 250GT