

## ARMSTRONG DAS 8 LEVER ARM DAMPERS MORRIS EIGHT 1934-38

These were offered in kit form by Armstrong to replace the old pear shaped units.

Can I suggest that you note the following to ensure you have the correct parts?

### FRONT UNITS

The units at the front should be marked on the edge of the fixing flange 2374 LH or RH (they are handed). The mounting adaptor plate is vaguely 'd' shaped (see later drawing) stamped from  $\frac{1}{4}$ " steel and is attached to the front face of the chassis bracket (i.e sandwiched between bracket and shock absorber body) with four bolts spring washers and nuts. The lever arm is a flat casting marked 1246,  $4\frac{7}{8}$ " approx length from centre of shaft to centre of fixing hole for link. The link is marked 4221,  $7\frac{1}{2}$ " approx length from centre to centre of fixing studs; rod type with a 'ball' shaped connector at one end, barrel shaped at other.

### REAR UNITS

The units at the rear should be marked 2375 LH or RH (they are handed). The mounting adaptor plate is more tear-drop shaped (see later drawing) stamped from thicker  $\frac{3}{8}$ " steel and is attached to the chassis bracket with two countersunk set screws spring washers and nuts, followed by one bolt (one of the shock absorber mounting bolts) when the shock absorber is fitted. The lever arm is an offset casting marked 1066,  $5\frac{1}{2}$ " approx length from centre of shaft to centre of fixing hole for link. The link is marked 4220,  $7\frac{1}{2}$ " approx length from centre to centre of fixing studs; rod type with a 'ball' shaped connector at one end, barrel shaped at other.

The rear lever arms are offset in plane to put the link end approx  $\frac{3}{8}$ " further out from the shaft end of the unit; this is in order for it to line up vertically with the lower link mounting; and also possibly because, due to the tilted positioning (25 degrees approx. from vertical) of the unit on the chassis, the lever arm is fitted further round on its splined shaft to that of the front units, and it may otherwise foul on a projection on the unit body in use. In practise it has been found that the arm for the rear unit is actually fitted 21 degrees further round on its splined shaft than that of the front unit.

It is not vital that this angle is precisely 21 degrees, and any slight variation will make no difference in use.

### GENERALLY

In practise, the lever arms both at front and rear should be close to being horizontal in mid stroke when the car is at rest.

It has been found in the past that the additional stresses applied by the more efficient DAS 8 units to the front shock absorber brackets, riveted to the Morris 8 chassis, can lead to cracks. I would recommend that during a restoration, these brackets are removed and refitted using HT bolts and nuts. It is then a lot easier to change, because removing rivets from a completely assembled car is very tricky. The rear chassis brackets do not appear to be at risk.

It may well be that the 2374 and 2375 are, with the exception of the type and position of the lever arm, identical. But it is possible that the internal valve etc is set up differently to suit the differing load/travel between the front and rear of the car.

In some instances N/S and O/S are stamped instead of LH and RH.

DAS 8 units were used on a great deal of different cars, and as there were correspondingly many shapes and lengths of lever arms fitted to the same unit body, it would not be difficult to have incorrect units fitted, especially if picked up at an autojumble. They may appear very similar without a correct one to compare.

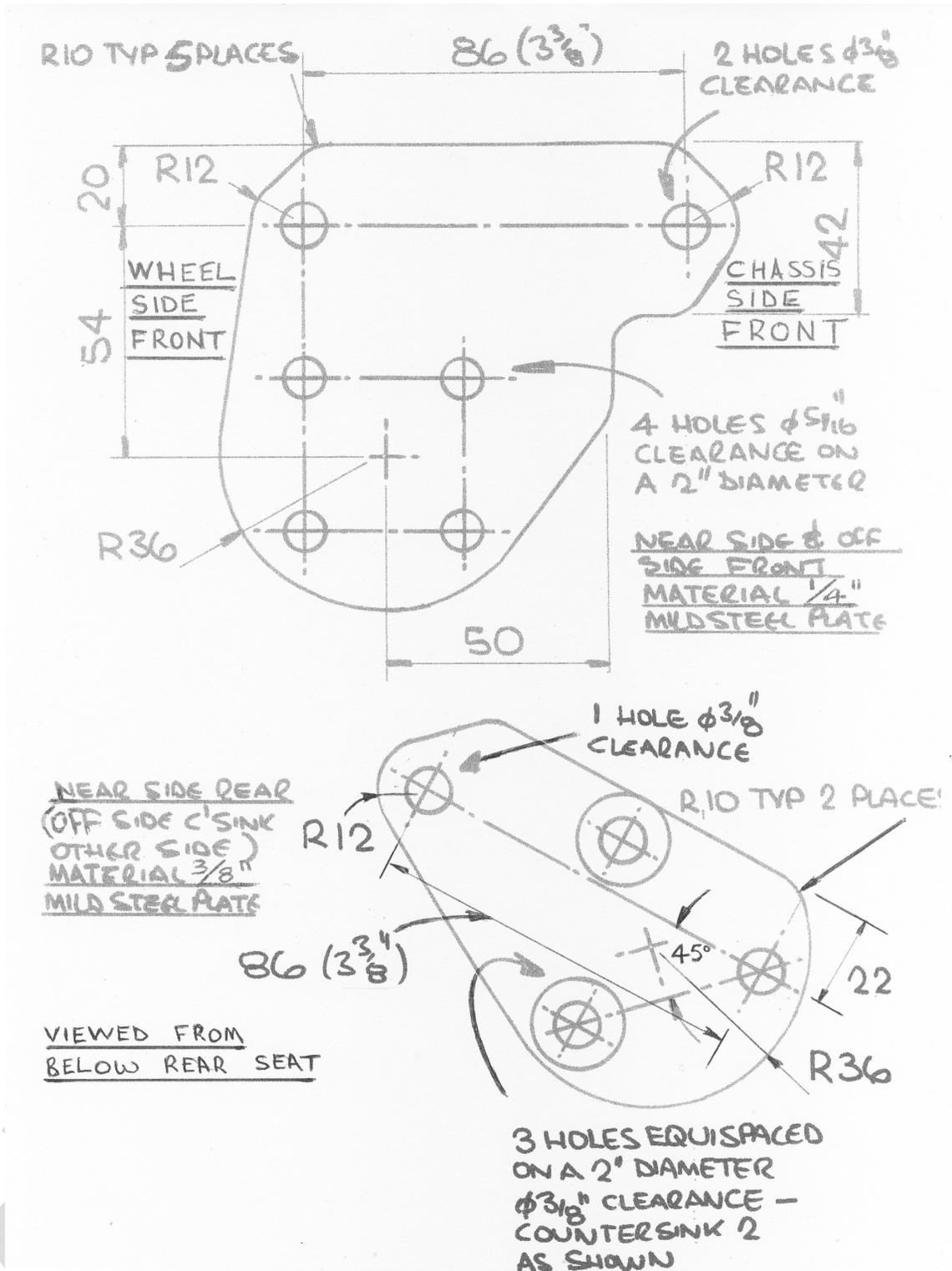
I am reliably informed that the 4220 and 4221 links differ in that the stud at the axle end is longer on the front link (4221).

Earlier units had a bottom plug, later ones a lower side plug.

### Important Note.

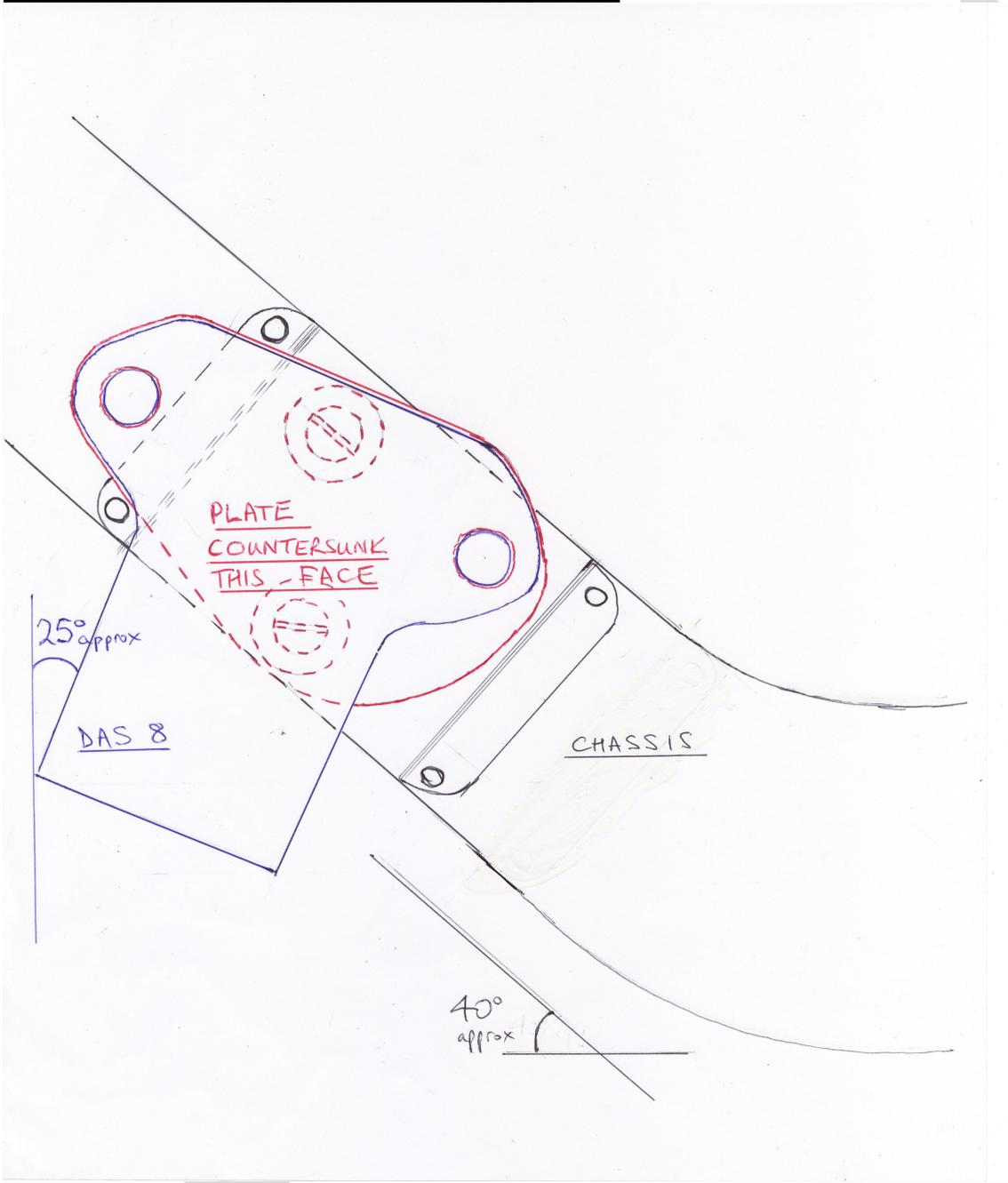
**These side plug units could foul the chassis when installed at the front. I am informed that they will fit provided a slightly different pattern mounting adaptor plate is used (see later diagrams.**

Adaptor Plates ( by courtesy of M.R Spares).



Important Note. Front Plate above not suitable for later side plug units

Nearside Rear Mounting Viewed from Below Rear Seat.

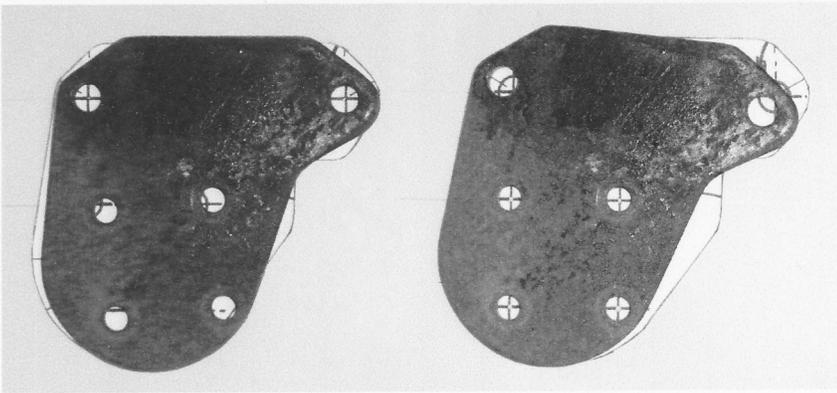
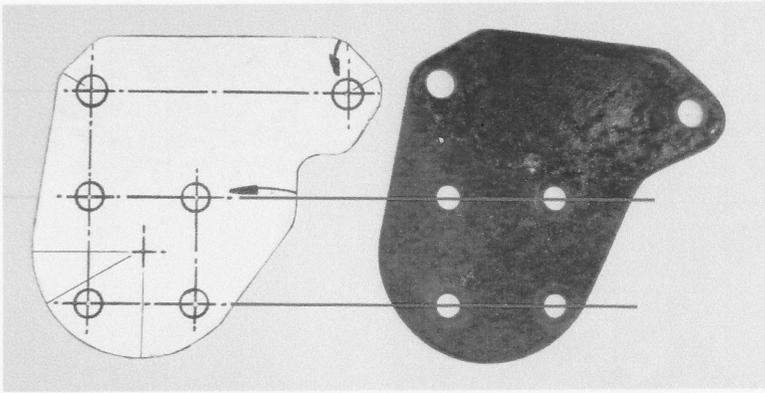
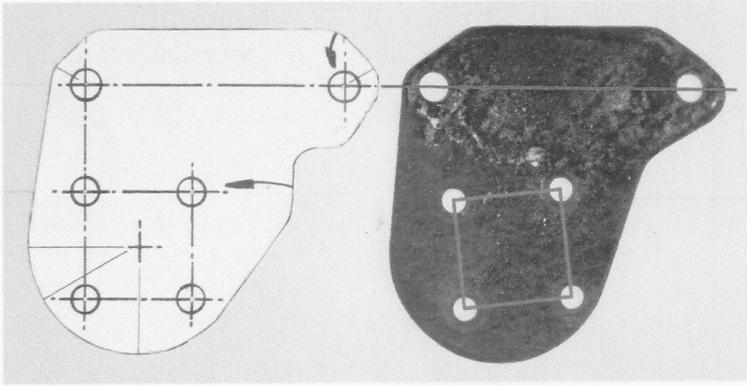




#### **Later Side Plug DAS 8 Shock Absorbers.**

The information provided earlier in this article relates to the earlier 'bottom plug' DAS 8 shock absorber. There was a later 'side plug' version which, due to its body shape is very likely to foul on the chassis when mounted at the front of the car. To avoid this, a modified adaptor plate was produced, shown in black on the following diagram. In effect, the group of 4 mounting holes is turned through an angle of about 6 degrees, but there are other minor differences.

I am indebted to Richard Fuller for this information.



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I would be pleased to hear from anyone who requires further information, or has anything to add or amend.

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