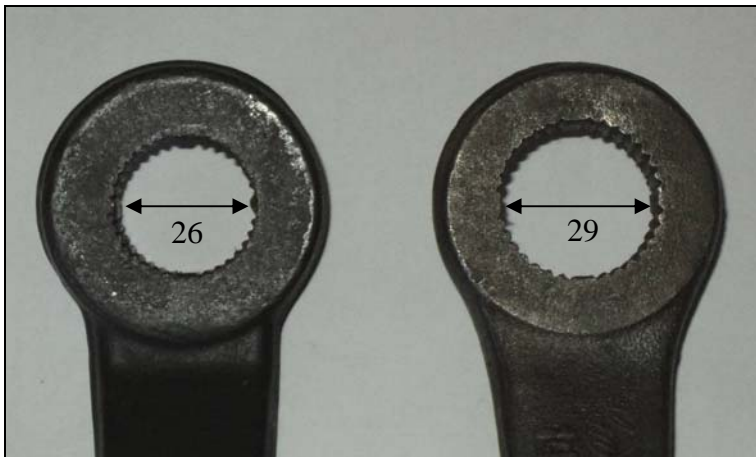


PITMAN ARMS & IDLER ARMS

There's always been some discrepancies with pitman arms and idler arms for our Australian cars compared to the US built cars. Several people have ordered what they thought was the correct part from the US, only to find it won't fit when it gets here. Hence ordering a pitman arm for a 1970 Rebel with power steering, for example, from the US, will result in the wrong one arriving. Well, it's the right one according to them but won't fit your car. This short article is for our most common cars – 1964 to 1977.

There are three points to look at:- The steering box shaft size ("pitman shaft"), the 'taper' size and the 'drop'.

- There are only two steering box shaft sizes: A small spline for the manual steering boxes and a large spline for the power steering boxes.



The spline size is apparent in this picture. The manual box is on the left and the power steering on the right.

The manual one is about 26 mm across the opening, and the PS one 29 mm.

- There are two 'taper' sizes, which I will call large and small. The large one is used on V8 power steering cars (Rebel, Matador, Ambassador, Javelin and AMX's, AND earlier non-power steering but V8 cars like Classics and pre '67 Ambo's). This one needs a 3/4" spanner to undo the castle nut. The small taper is used on non-power steering 6 cylinder cars (American & Hornet) and needs an 11/16" spanner on the nut. This size will be found on V8 imported cars (i.e. not an AMI car), and adds to the confusion.



The small and large tapers can be seen here

Generally, on our power steering cars you need a LARGE spline and a LARGE taper pitman arm. On manual steering cars you need a SMALL taper and a SMALL spline pitman arm. The confusion arises when AMC changed the US design and Australia kept going with what had been used (the heavier duty parts, and I guess to keep parts stocks as low as possible) up until about 1969-70.

So in the US they were using a pitman arm with a LARGE spline but a SMALL taper. Getting one of these is fine if you want to fit power steering to your Hornet as it enables you to install a power steering box from a V8 car and retain your draglink, idler arm and tie rod ends.



On this power steering pitman arm you can see letters and numbers cast into it. It reads "10 & 80 PS".

10 is AMC's model number for Classics, Rebels and Matadors, and 80 is the model for Ambassadors. This is another way of identifying the pitman arm. This marking can still be found on pitman arms bought today, so maybe they are NOS, or the aftermarket manufacturer still uses the original castings. This will also fit Javelins and AMX's

- The 'drop' is the height between the splines and the taper. This differs between the pitman arm types, as shown here:-



The top pitman arm is a small taper small spline arm for a Hornet

The lower is a large taper large spline power steering arm and has a much 'shallower' drop.

You can see the difference

So what to order ? As best I can work out from aftermarket parts books, this should be OK:

Hornet & American with manual steering	Small taper, small splines	Moog K-3106
Hornet you want to put AMC power steering in	Small taper, large splines	Moog K-3055
1967 onwards with PS as standard made by AMI	Large taper, large splines	Moog K-3038 *
1967 onwards with PS as standard but imported from the US	Small taper, large splines	Moog K-3055
Classic, Rebel & Ambo without PS	Large taper, small splines	Moog K-3025 *

* listed as obsolete from Moog (you can check the US applications at www.fme-cat.com)

Now let's have a look at our buddy on the other side; the idler arm. Again, we have to consider the taper (large or small) and the drop. What is nice about the idler arms is that the bush is available separately, so if the ball and socket is OK, you can just press in a new bush.



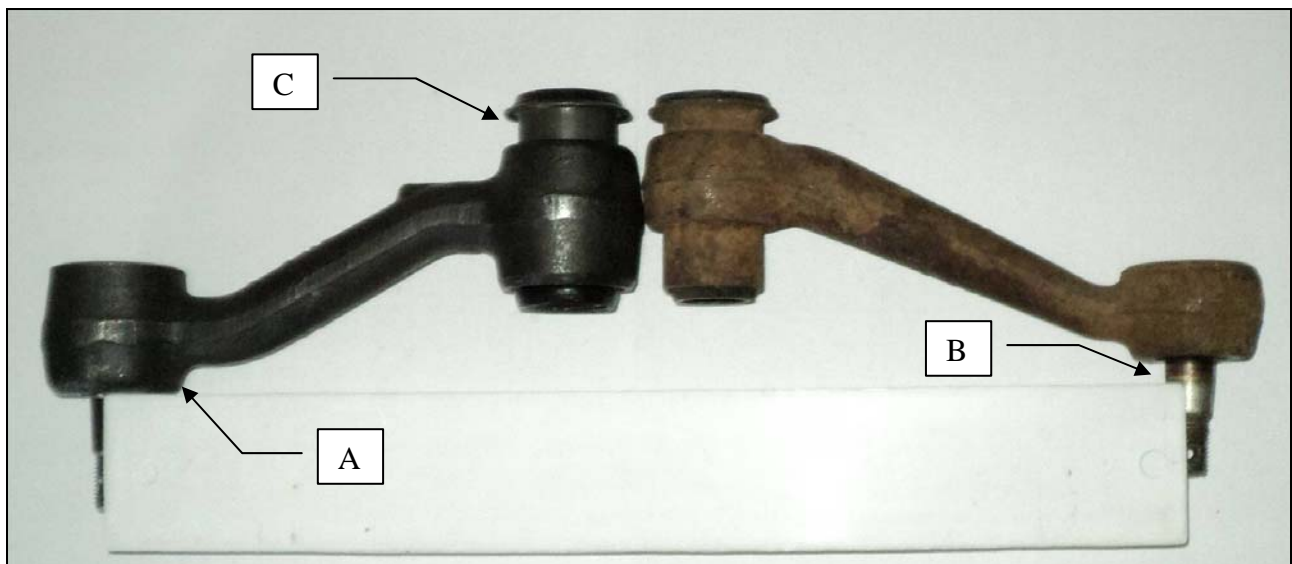
The top idler arm is a small taper original for a Hornet

The lower is a Moog K-3087 after-market replacement. Looks totally different.

Notice the bush isn't pressed in as far on the original, and the ball/taper housing is much fatter on the new one. They have made these greasable, and you get a grease nipple with it, along with a new castle nut & split pin

The bush pressed-in distance is crucial

What we are interested in is will it fit correctly? It will certainly fit the drag link because the taper is correct, and all the bushes are the same for power or manual steering so that end will fit too. The point we need to be sure of is the 'drop', otherwise our drag link will be pulled up or hang down a bit, and not be parallel to the ground. I've lined up a new and old one in the pic below.



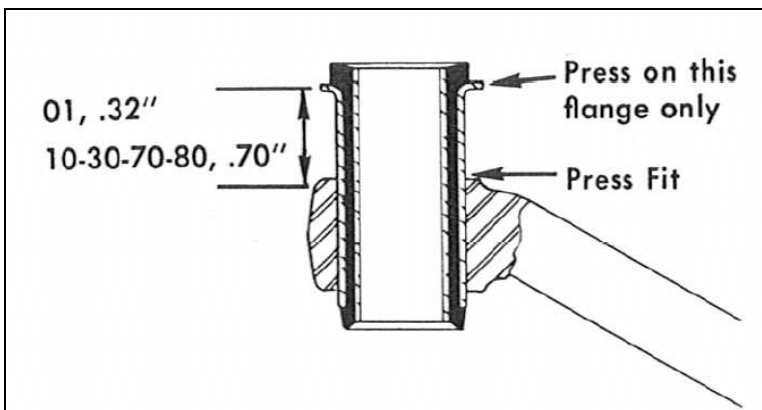
At the top, you can see the top of the bushes are lined up level. But where the ruler lines up with the bottom of the socket on the left (A), it's not level on the old one (B). So what we can do is press the bush through a bit more at (C) to make up the difference. That will make the drag link parallel.

I have found the manufacturer (Moog, but there are others, such as Mevotech, Chassis-Rite, Raybestos and AC Delco)) have the same arms but just press the bush in differently and give it a different part number. The 'pressed in' distance is important, and may need to be altered on a new one to match your old one.



Check out the pressed in distance on these two. The top one is a power steering one off a Matador (large taper)

The bottom one is a small taper off a 1964 American (Hornets are the same)



This is from the 1970 workshop manual, illustrating the distance to press the bush in. As it states, 01 (Hornets) has a 0.32 inch (8.1 mm) gap and all others for that year 0.7 inch (17.8 mm) gap. This would be about right for the ones in the pic above. (Maybe the bottom one is a bit more than 8mm...)

So what to order ? As best I can work out from aftermarket parts books, these should be OK:

Hornet & American with manual steering	Small taper	Moog K-3087 or K-3074
Hornet you want to put AMC power steering in	No need to change	
1967 onwards with PS as standard made by AMI, and Classic, Rebel & Ambo without PS	Large taper	Moog K-3034
1967 onwards with PS as standard but imported from the US	Small taper	Moog K-3087 or K-3074

On all these, be prepared to press the bush in or out to suit.

What about the press fit bush that we mentioned ? It looks like this.



The part number is K-3026 and should be readily available as they are used on Ramblers from 1962 onwards. These aren't used on any other car, like pitman arms and idler arms – AMC-Rambler only !

Earlier Rambler part numbers and cross references:-

Part	Rambler Model	Other Car(s)	Part number
Idler arm	1962 all	None	K-3023
Idler arm bush	1958-61 Classic & Ambo	1952-60 Ford 1955-60 Ford T'bird 1952-56 Mercury	K-8005
Idler arm bush	1962 all	None	K-3026
Pitman arm manual steering	1962-63 Classic & Ambo	None	K-3025

