



FORD BA-BF-FG REAR DIFF HAT FITTING INSTRUCTIONS

STEP 1

Remove diff cradle from vehicle and support on jack stands. It is important that the cradle is placed on a level surface and well supported. An angle gauge will be required to measure the pinion angle on the diff. This can be simply done by placing a digital or analogue angle gauge on the pinion flange of the diff. You will need to make note of the angle for final fitment of the rear cover prior to welding. This will ensure that the tail shaft angle remains the same.

STEP 2

You will need to remove the diff from the rear cradle and whilst this is out this gives you a good opportunity to assess the front bushes. If these need replacing, please do so. You can either run a Ford genuine bush or replace it with an aftermarket style bush. It is very important that if you do decide to replace your bushes and your vehicle does already have the OEM bush in place that you measure the depth of the bush and assure that the new bushes are pressed in to the cradle at the exact measurement as the ones you have removed. If the bushes don't go back to their original depth, this will create clearance issues on the rear of the hat.

STEP 3

You will need to fit your new rear diff hat to your diff housing and seal it with Three Bond Grey Sealant. We will supply you with 8 new bolts and washers; you will have to re-use your existing drain bolt. This is the largest of bolts that you will remove from your old diff hat. It is also recommended that you fit 2 new rear axle seals to the diff. There are also 2 brackets marked with red paint (as pictured below). You will need to cut all of the red marked section out of the brackets.



STEP 4

You will need to cut the existing diff bush bracket off the diff cradle (see below picture) and dispose of as you will no longer be requiring this.



STEP 5

There is a bracket on the car body that used to bolt to the old diff bush bracket. You will need to cut this off as this is no longer required (see below picture).



STEP 6

You will need to pre-fit the diff housing into the rear cradle, assuring all of the front bushes and brackets are bolted up to the diff. You will also need to put your drive shafts back into the diff. The 4 mounting plates that are bolted to the diff hat will need to be sitting flat along the top of the diff cradle. Now is the time that you will need that pinion angle (as per Step 1). Place your angle gauge on your pinion flange and adjust if required. If you wish to run more or less pinion angle, you can pre-set this prior to welding, but we recommend you running the factory setting (which you would have written down if you have read the instructions prior to fitting). **PLEASE NOTE that not all Ford diff cradles are not the same, it is your responsibility to ensure that there is enough clearance between the lower diff hat and the cradle. If you do run into clearance issues another cause may be that your front bushes have been pressed in too far.** Once you are happy, you will need to tack weld the 4 brackets. We also supply an extra brace, which you will also need to tack on now. The extra brace runs horizontally across the rear of the flanges, which can be clearly seen in the picture supplied. It is very important that you **DO NOT** weld the brackets with the diff in place. You will need to remove the diff housing prior to welding the brackets.



STEP 7

It is now time to re-install the diff housing for final fitment.

STEP 8

Re-install diff cradle back into vehicle.

ADDITIONAL NOTES:

- The top plug is the oil cooler return.
- The middle orange plug in the photo is the filler plug.
- The bottom plug is the oil cooler feed.
- All 3 threads are 3/8 NPT.
- The top breather thread is 1/8 BSP.

