Cam Specs Stock '72
Seat Dur 257
.050" Dur 214
lift .265"

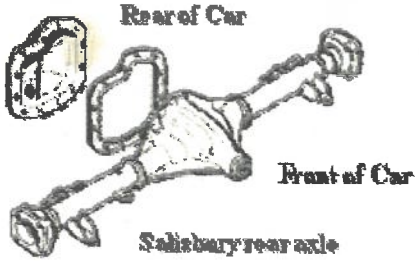
mild Road
duke 270-272°
lift .357
Autofo 388

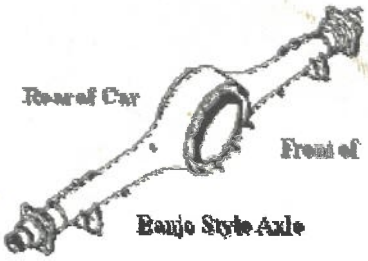
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Salisbury Rear Axle Anti-Clonk Cure

All MGB GTs and those MGB roadsters built from 1966/7 were fitted with tl Salisbury rear axle. An easy way of verifying what is fitted to your car (as a sometimes changed) is to look at the rear of the axle. If there is a cover tha on then it is a Salisbury axle if there are no bolts at the rear but a series of the front of the differential then the axle is the earlier Banjo type.

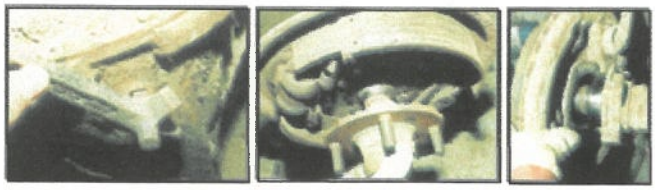




After many thousands of miles wear in the differential is inevitable. This ca itself as a clonk being both felt and heard on power take up or when slowir your MGB has wire wheels, first check that the hubs and splines are not w causing this 'clonk'. If your splines and hubs are sound but the clonk persis car is fitted with steel wheels then it is worth checking the universal joints c propshaft. If the propshaft is sound then the noise may be due to wear in th washers of the planet gears which are housed in the differential. Replacem care is taken, is quite straightforward and the parts required are cheap anc prolong the life of the rear axle before a reconditioned unit is required.

Preparation

As with the majority of work under the car first remove the battery earth lea prevent accidental starting, then secure the rear of the car on axle stands. the two rear road wheels. A container can be placed under the drain plug c and the square drive drain plug removed. It is well worth purchasing the co for this job as it makes life so much easier. Allow the oil to drain into the co and replace the drain plug securely.



The start of half-shaft removal

In order to proceed with the replacement of the thrust washer it is necessa remove only one of the half-shafts by about six inches. Therefore choose c then, using a pair of pliers remove the split pin of the main hub nut and use UNF socket to remove the nut. You will need an assistant to put their foot c brake pedal to hold the shaft in place. Now free off the brake shoe adjuste three quarters of a turn and remove the two screws that help hold the drum when the road wheel is not fitted. The drum can now be wriggled off. Gentl hub and pull it off of the half-shaft. The coned spacer can also be slid off fr shaft.

Back plate removal



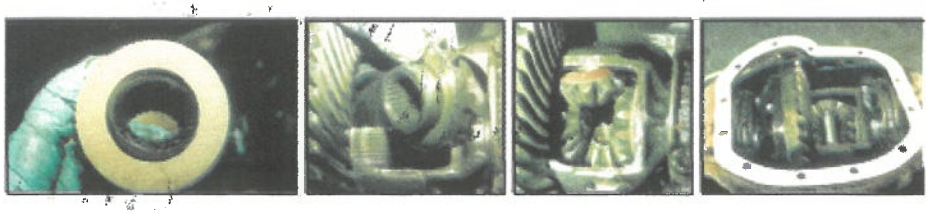
While it is possible to carry out the next procedure without disconnecting th circuit it is not advisable to do so. This is mainly due to the high chance of the brake line which obviously has very high safety implications. Therefore disconnect the handbrake cable from the lever. Now remove the brake ma cylinder top and place some cling film over the opening and replace the ca now possible to remove the rear brake line from the rear wheel cylinder wit minimum loss of fluid. Finally, the four bolts that hold the back plate and er the axle in place can be loosened and removed. Now lift the back plate aw the end of the axle.

Release of half shaft



Ideally a slide hammer can be used to release the bearing and half shaft out of the available replace the hub and retaining nut back on the half shaft and, using a bloc to protect the hub, hit with a club hammer on the opposite side until the shaft relea Once the bearing is out, the shaft can then be pulled out by hand by about six inch

Gaining access and replacing the thrust washers



Use a wire brush to thoroughly clean up the area around the rear diff cover sure you clean both the bolt face and surrounding area of the axle casing t that no dirt falls into the differential. Once the area is clean release all of th bolts making a mental note to where the handbrake pivot point is attached location of the top clips for securing the brake lines. The rear cover can no gently pulled away.

You are now able to see the workings of the differential. Look at the crown (the large cog on the left) and look for any wear lines, cracks or chips. If th visible damage you will need to consider replacing the rear axle as a comp The first task is to turn the nose of the differential until the planet gear carri around to reveal the roll pin that holds the main shaft in place for the top ar planet gears and to drift the roll pin out. Now that the roll pin is out, once a the nose of the differential until the other end of the main pin is facing you. now start to drift the main pin out of the carrier, see photos 6 & 7. Take car to push the pin too far through as it is very easy to lock the pin against the the axle with no way of pulling it back. You must take great care to avoid th happening as it could render your axle useless. Now observe when the pin started to move and as soon as it does, turn the nose of the differential arc so that the end can be pulled out from the top. Place a thin rod through the hole and use this to pull the main pin completely out of the planet gear car

Carefully turn the nose of the differential again and watch the top and bottc move away from each other; one will come out at the front while the other out at the back. Put you hand in to remove one along with the worn thrust and place on a clean cloth in the same orientation as it comes out of the a other gear can be removed in the same way.

Now that the top and bottom planet gears have been removed the other tw planet gears can be removed one at a time, the worn fibre washer can now out, replaced with a new washer and then the side gears can be re-installe location.

The top and bottom gears now need to be replaced. The easiest way to do turn the nose of the differential until you can get a hand either side of the c Then place the two gears opposite each other, hold in place and have an a slowly turn the nose of the differential again. You are aiming to be in a pos look down the hole where the main locating pin holds the gear in place and the way through. If you are a tooth out with the alignment one of the planet not line up. If the gears are in the correct position then slide the new thrust into place between the carrier and planet gear. Once all the gears and was positioned correctly, drift the main pin back into position and secure in plac new roll pin.

Reassembly

Ensure that the mating surfaces of the axle and cover are cleaned by remc gasket, dirt and grease. Using a new gasket and sealer, then replace the a remembering the brake line clips at the top and handbrake pivot on the left

The half shaft can be 'felt' back into position and making sure that the mati surfaces are clean, offer up the axle end cap and the back plate. Use the fi to pull the whole assembly together slowly by tightening opposite bolts a lit time. Replace the coned spacer, hub and the castellated nut followed by th drum, which needs to be secured with the two Philips screws. The handbra and cable can now be attached and the brake pipe screwed back into the v cylinder. Release the cling film from the master cylinder and bleed the brak are lucky you may only have to bleed the side you have removed the pipe however if the brake pedal feels spongy then bleed the whole system. Re-s rear shoes by using the adjuster on the back plate.

Refill the rear axle with EP90 gear oil until it drips out of the filler hole, repl road wheels, earth lead and then lower the car. Now the car is on its whee nut can be fully torqued up to 150 lb/ft and a locking split pin bent into plac

Clonking from the axle should now be much reduced, or barely audible. Hc there is no improvement, then providing you have checked hubs, wheels a propshaft universal joints you may need to consider a replacement axle.

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