

How to avoid the grease staining of your pre-war engine.

Ever had a water leak from the shaft on your water pump?

Does your water pump spray grease onto your engine and bonnet?

Allan Fishburn has come up with an ingenious, yet simple solution. Replace the original Rolls Royce designed packing with a modern hydraulic seal.



Originally the water pumps used two types of packing, a square graphite type, this comes in straight lengths, the packing is moulded round the shaft and then cut to length. The second packing type uses a string like gland packing; this is simply wrapped round the shaft until the desired thickness is obtained. The seal I used was supplied by "simply bearings.co.uk" it is a 0.5x1x0.25 inch Nitrile Rubber Double Lip Rotary Shaft Oil Seal with Garter Spring R23/TC Style.

https://simplybearings.co.uk/shop/p32581/0.5x1x0.25-inch-Nitrile-Rubber-Double-Lip-Rotary-Shaft-Oil-Seal-with-Garter-Spring-R23-/-TC-Style/product_info.html



If your car has this problem, before you remove and then attempt to do this job, first check that you are using the correct type of grease in your pump. You need to use, "Water Pump

Grease". Regular grease is not viscous enough to seal the shaft. Using the correct grease, may solve your problems without much effort. However modern Water Pump Grease can sometimes be too hard for vintage cars. This was researched by John Eastwood some years ago and a report can be found on page 9 of The Newsletter No 21. John recommends using a Fuchs product "Renolit CZ 2" which is a petroleum based grease thickened with calcium soap and is highly water resistant. It has been used for a number of years by a number of long distance 20hp tourists and found to be successful.

First drain water from engine. Remove the two nuts holding the screw down greaser housing. Disconnect the water pump coupling nuts and lastly nuts, bolts and pipe clip from the pumps in and outlet pipework.

Once the pumps are off the car, tap the drive coupling off the splines on the shaft, remove left-hand threaded gland nut, remove body nuts and then split pump body.

Once the body is split, all will be apparent. If the impellor is worn or damaged, or the shaft is scored, these items will have to be replaced with new before proceeding to change seals.

Hopefully there is not any internal wear or damage and you can proceed to change the seals. As you can see from the below picture of my pump the shaft and impellor were worn and had to be replaced.



The bushings and the new hydraulic seals can be assembled on the shaft using a good helping of water pump grease. Insert the shaft into the pump, then screw on the left-hand threaded impellor.



The above pictures show the new seals on and off the drive shaft. The orientation of the shaft on the first picture, should be the other way around.

Reassemble the pump body with a new paper gasket. Screw on gland packing nut, push the drive coupling onto the splines of the shaft. Mount pump and attach grease housing. Attach coupling. Attach the pump's pipework to engine. Fill the radiator with a mixture of water and antifreeze. Car is now ready to proceed.