DIGGA

AUGER DRIVE

SERVICE KIT

FOR PD15-PD22 DRIVES

INSTRUCTION GUIDE

IN THIS GUIDE:

- The importance of using the correct gearbox oil
- Service intervals & Digga service centres
- What happens when you don't change the oil in your auger drive
- Step by step guide - How to perform a service on your auger drive

DO YOU KNOW THE IMPORTANCE OF THE OIL IN YOUR DIGGA DRIVE?

THE GEAR OIL IN YOUR DRIVE UNIT IS INDEPENDENT OF YOUR MACHINE'S HYDRAULIC SYSTEM.

OIL FROM YOUR MACHINE DOES NOT LUBRICATE YOUR DRIVE UNIT.

YOUR AUGER DRIVE REQUIRES REGULAR OIL CHANGES TO REMAIN IN ITS OPTIMAL WORKING CONDITION.

DIGGA OIL IS HIGH QUALITY, EXTREME PRESSURE, ISO 320 GRADE MINERAL OIL

STANDARD OPERATING CONDITIONS

First oil change (Service)	Within 3 months OR initial 50 hours of use
Second oil change & subsequent oil change (Service)	After 500 hours of use or 12 months

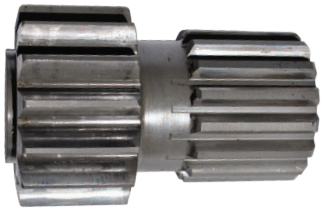
SEVERE OPERATING CONDITIONS (EXTREME HEAT / CONTINUOUS DRILLING IN HARD GROUND)

First oil change (Service)	Within initial 30 hours of use
Second oil change & subsequent oil change	After 300 hours of use & thereafter

CHANGING OF OIL & REGULAR SERVICING IS CRUCIAL TO THE LONGEVITY OF YOUR AUGER DRIVE

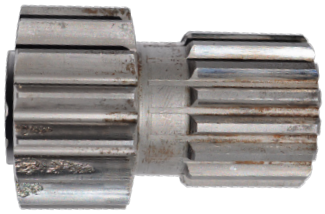
GEAR IN GOOD CONDITION

This is a gear from a drive which has been serviced as per the operators manual and shows very little wear with no more than bedin wear after 10 years of simulated augering.



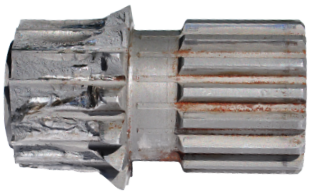
WORN GEAR

The same drive submitted to the same work load as above over 10 years, with the oil changed only once - at 5 years. While the drive unit shows no decrease in performance, the gear shows visible wear which will deteriorate quickly, leading to total failure.



FAILED GEAR

This drive has never been serviced. The image shows the damage to the gear, which causes total failure of the gearbox.



YOU WILL NEED...

TOOLS & CONSUMABLES

ENSURE YOU HAVE THE CORRECT TOOLS YOU NEED BEFORE YOU BEGIN

Torque wrench
Allen key – 8mm, 10mm, 13mm
Chisel
Dead blow hammer
Scraper / scourer
Wire brush
Screwdriver
Flat metal plate – At least 1" thickness (minimum size of shaft seal)

CONSUMABLES

Cleaning rags
Loctite 243 medium strength thread locker (or equivalent)
Loctite 567 sealant (or equivalent)
Loctite SI 587 flange sealant
Heavy duty grease
Alcohol-based cleaner
Marker - Light colour

PERSONAL PROTECTION (PPE)

Gloves
Safety glasses
Ear plugs

SERVICE KIT CONTENTS (PD15-PD22)

*CHECKLIST

Instruction Guide
Gear Oil (5L)
Shaft Seal
O-rings
Next Service Sticker

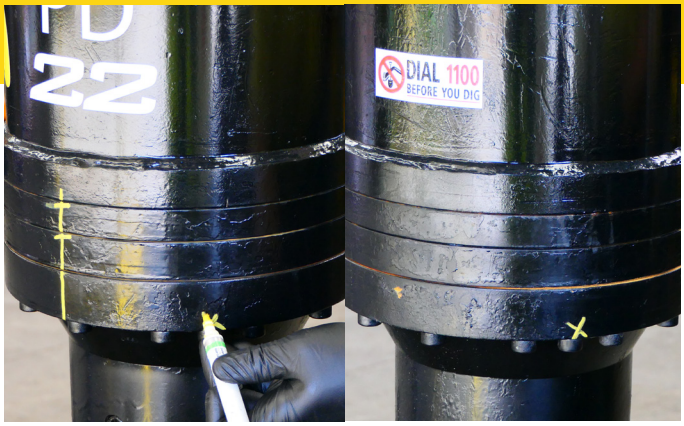
***NOTE** Not all O-rings may be required, depending on your auger drive model

PD15-PD22

GUIDE FOR SQUARE SHAFTS

WHEN SERVICING YOUR DIGGA AUGER DRIVE, YOU WILL BE OPENING UP THE DRIVE UNIT TO INSPECT THE GEARS AND BEARINGS FOR SIGNS OF WEAR & TEAR - IF METAL FRAGMENTS ARE FOUND IN THE SHAFT SEAL, OR THE GEARSET, PLEASE PHONE DIGGA SERVICE FOR ADVICE.

1. Place the drive unit on a stand. Alternatively, with an auger attached, drill a hole into soil, and leave the auger in as a stand. Mark a line on the hood and gearbox between the hoses.



2. Mark the 2 bolts which fasten the hood spacers to the gearset housing (located opposite each other, between 3 evenly spaced bolts).

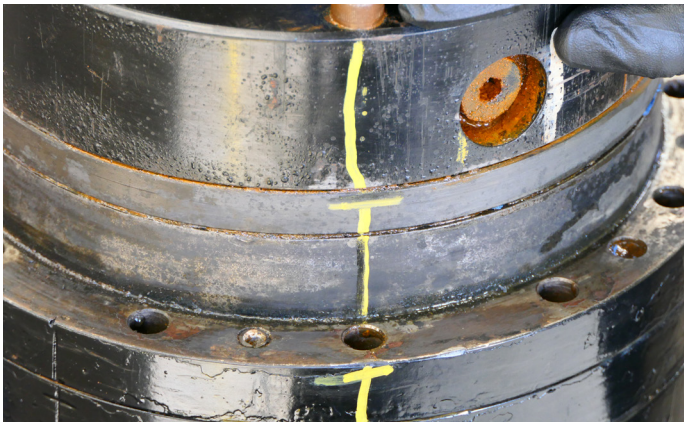
3. Remove the hood bolts with a 10mm socket (allen key) and remove the hood.

4. Wipe or hose down dirt to avoid contamination.

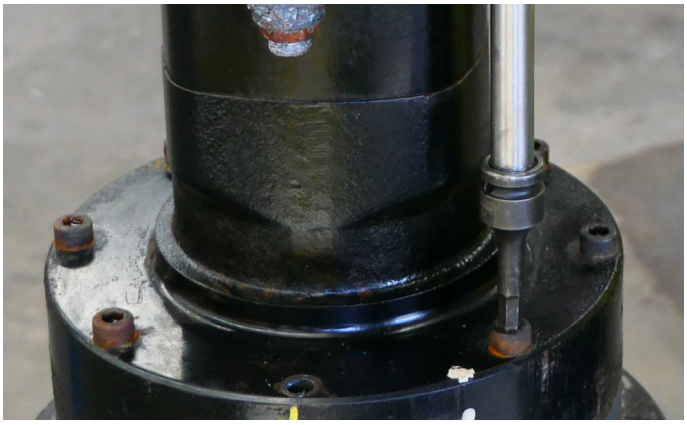
WATCH THE STEP-BY-STEP VIDEO
WWW.DIGGA.COM

OR SCAN
THE QR CODE:

DIGGA

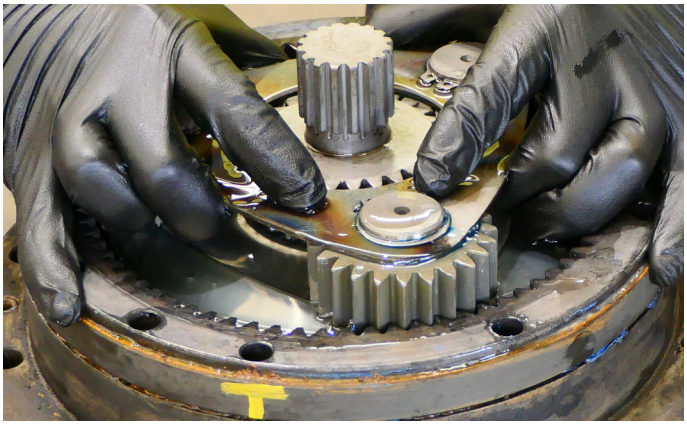


5. Continue the alignment mark to match the previous mark at the centre of the motor.

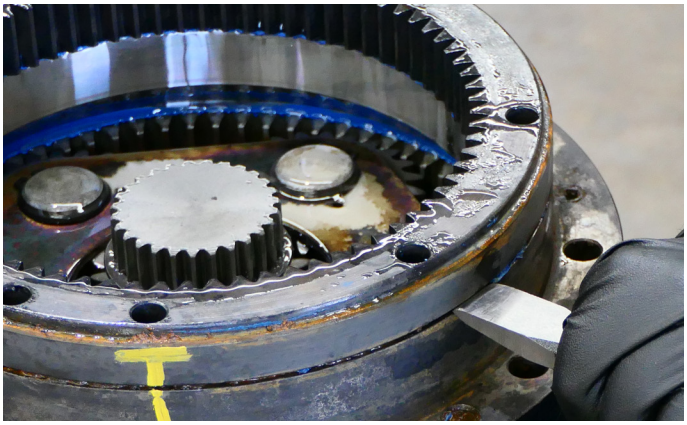


6. Remove the motor bolts and motor with a 10mm socket (allen key). If using a rattle gun we recommend using an extension bar.

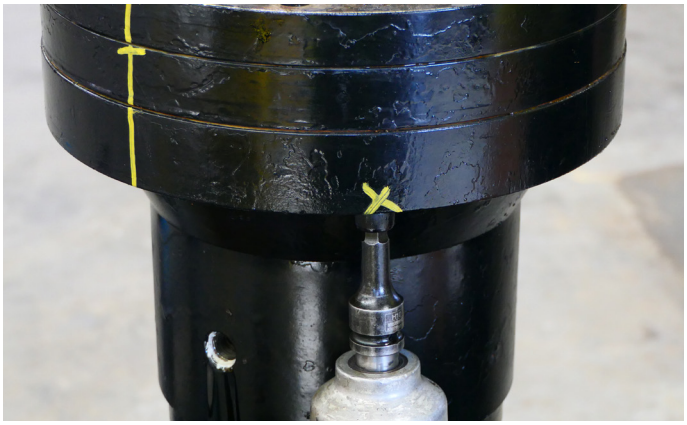
7. Once the motor has been removed, use an 8mm Allen key to remove the oil bung. Let the oil drain.



8. Remove the gearset.



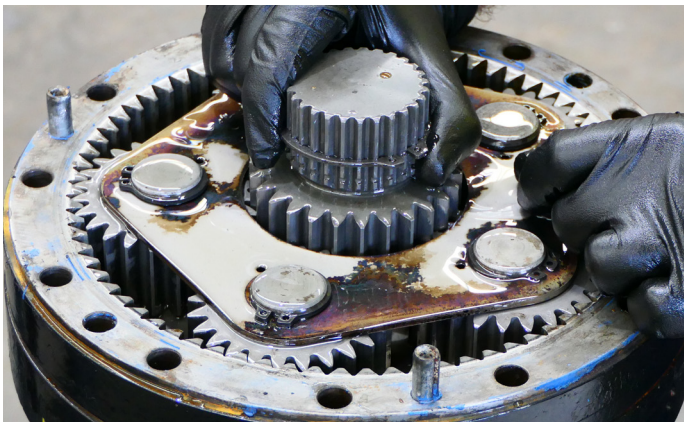
9. Remove the ring gear. Use a chisel and hammer to loosen it.



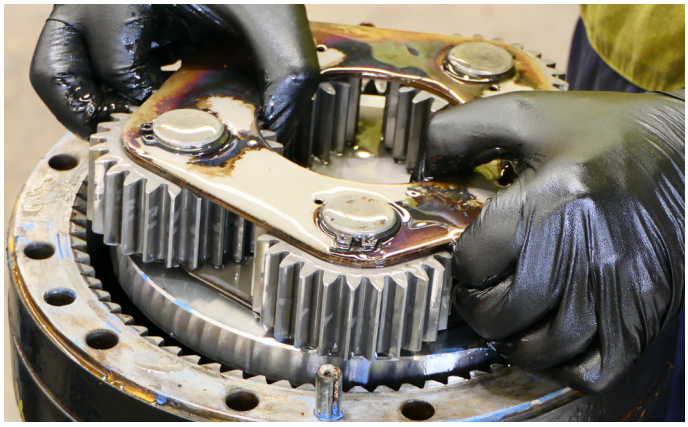
10. Unfasten the last 2 bolts from the gearset assembly housing to release the interim housing and ring gear.

Ensure all 4 spring pins remain on the hood ring gear (evenly spaced). They will help re-align ring gears during assembly.

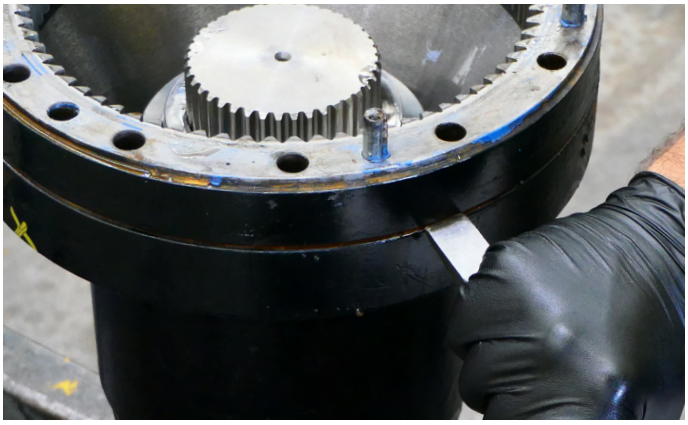
11. Using a chisel & hammer, remove the interim housing. A pry bar may be required.



12. Remove the sun gear.

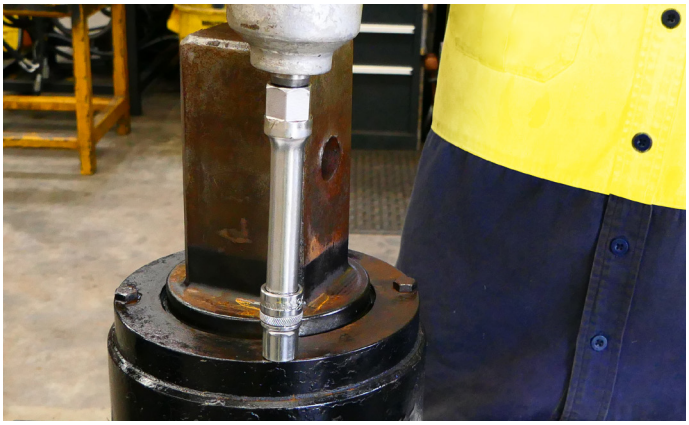


13. Remove the gear set.



14. Using a chisel & hammer, remove the hood ring gear.

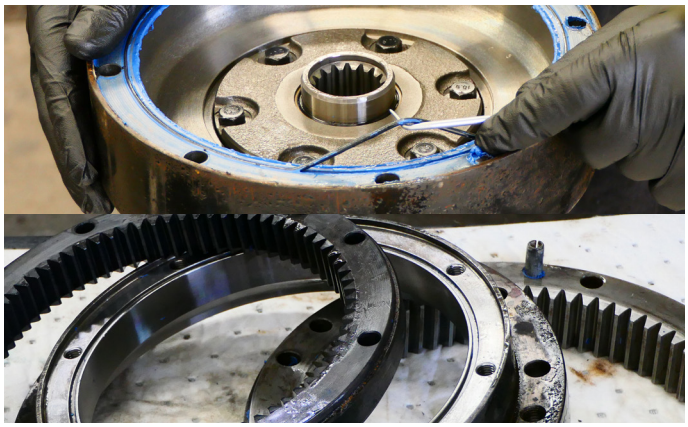
15. Remove the spacer.



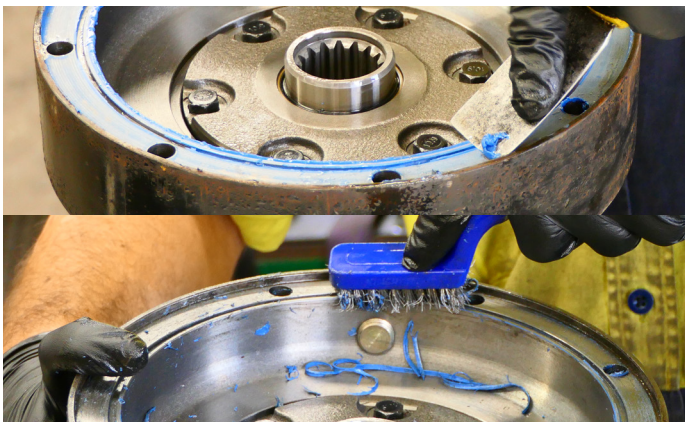
16. Place the housing on a flat surface with the shaft facing up. Remove the seal protector bolts with a 13mm socket or spanner.

17. Remove the seal protector. You may require a copper hammer to break the seal.

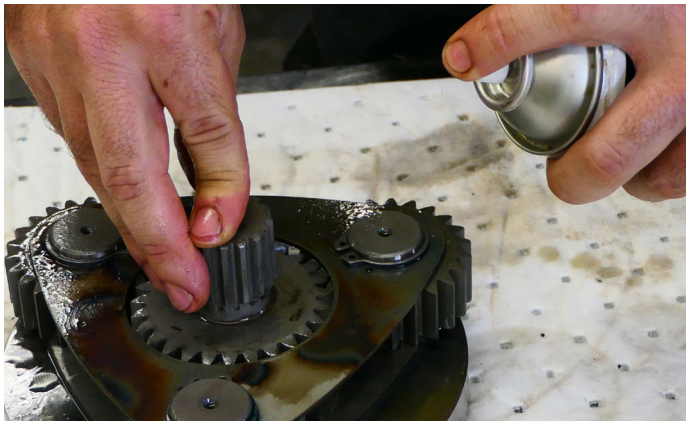
18. With a screwdriver & hammer, remove the seal from inside the seal protector.



19. Remove all (4) old O-rings on input housing (motor), output housing, interim housing and ring gear.



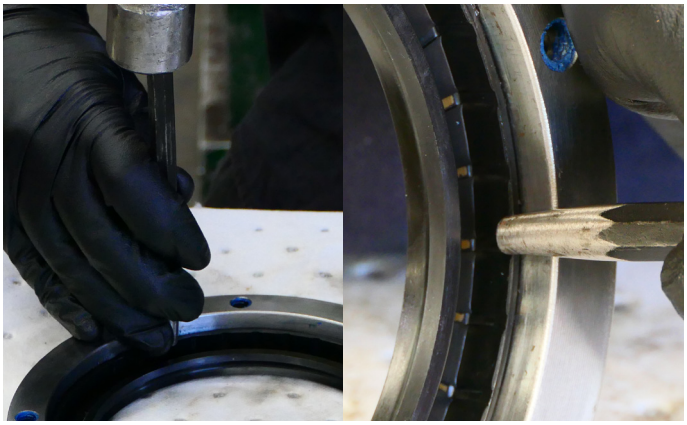
20. Clean all parts with a scraper & scourer or steel brush to remove excess sealant and contaminants. We advise using an air gun or air tool to ensure no contaminants are left inside the housing.



21. Clean down all parts. We recommend using degreaser / alcohol- based cleaner to remove old oil.

22. Before reinstalling the seal, use an alcohol-based cleaner on the seal protector surface (important). Apply Loctite (243 thread locker, medium strength) around the outside of the shaft seal.

23. Position the shaft seal level, with the open side facing up. Tap it in evenly using a flat metal plate & hammer.



24. With a pin punch & hammer, Tap the shaft seal into the seal protector (only hitting the outside wall of the shaft seal).

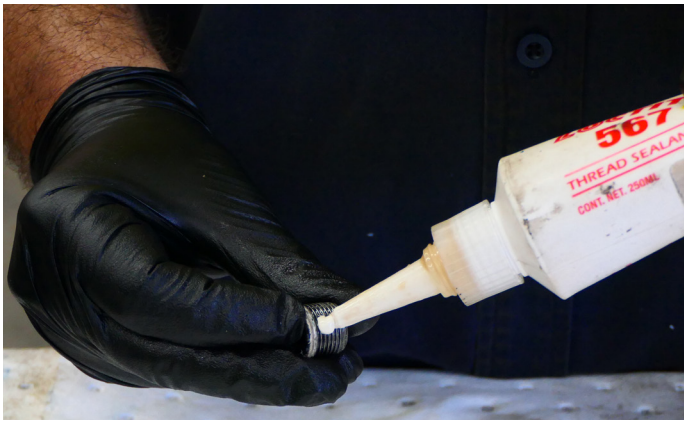
25. Apply grease to the inside of the shaft seal.

Before replacing the shaft seal protector, ensure the shaft surface is clean and free of any sharp edges. It may damage the new seal when reinstalling.

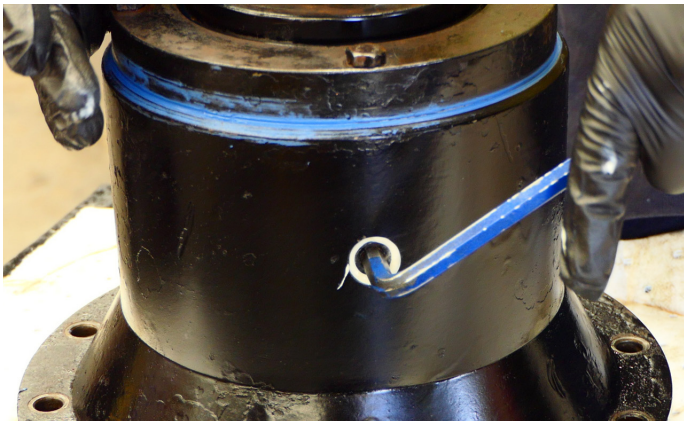
26. Apply oil-resistant sealant (Flange sealant – Loctite – SI 587) to the output housing surface.

27. Apply Loctite 243 thread locker, medium strength to the seal protector bolts.

28. Replace the shaft seal protector by fastening the bolts with a 13mm socket or spanner.

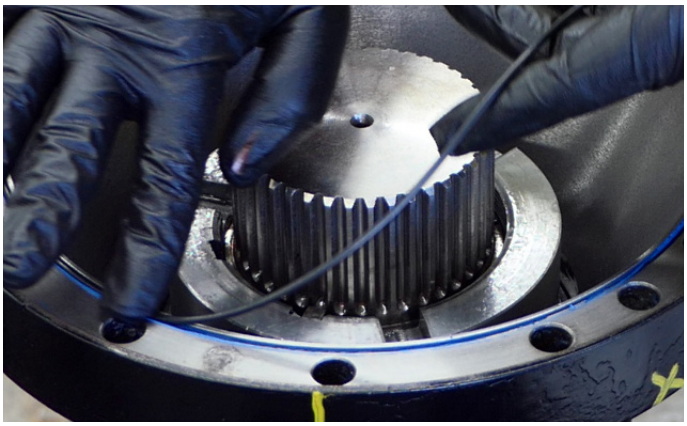


29. Apply Loctite 567 thread sealant to the oil bung.

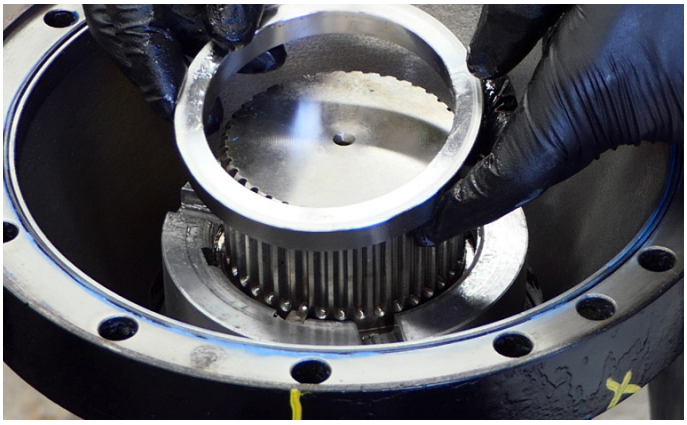


30. Replace the oil bung.

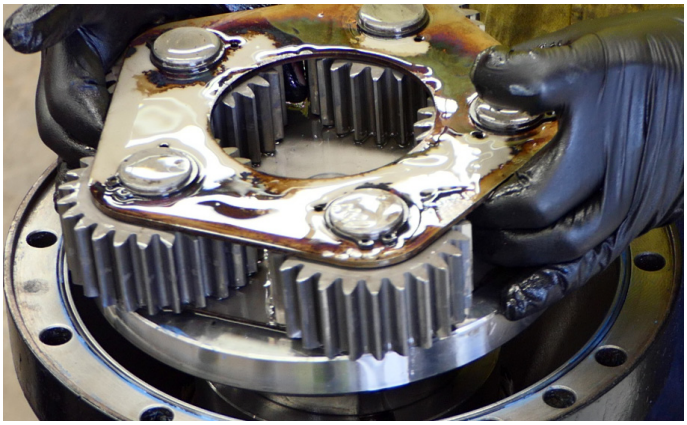
31. Place the output housing (with shaft) back on the stand. Apply a light bead of oil-resistant flange sealant (Loctite SI 587) into the O-ring gauge.



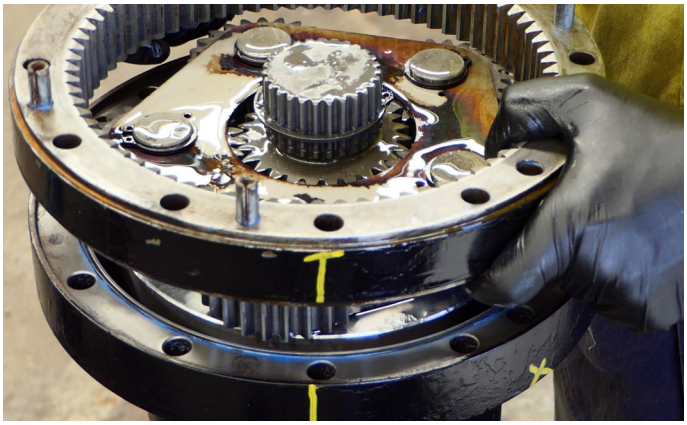
32. Replace with new O-ring.



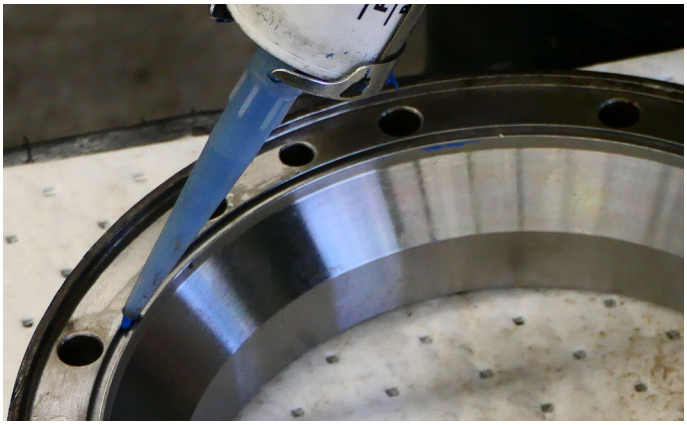
33. Replace the spacer.



34. Replace the gearset.

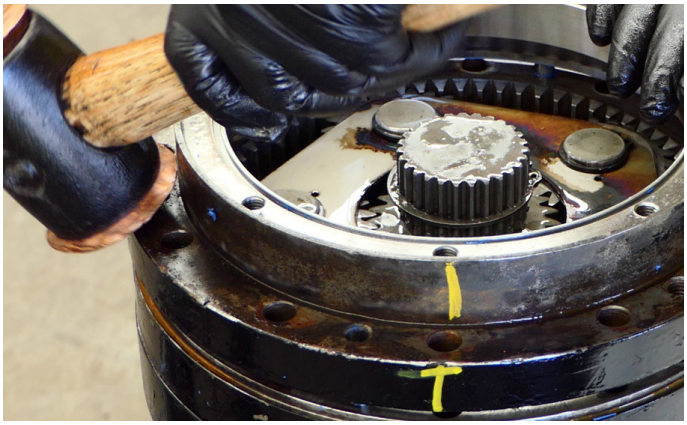


35. Replace the ring-gear. Ensure parts are aligned correctly with previously drawn alignment marks.

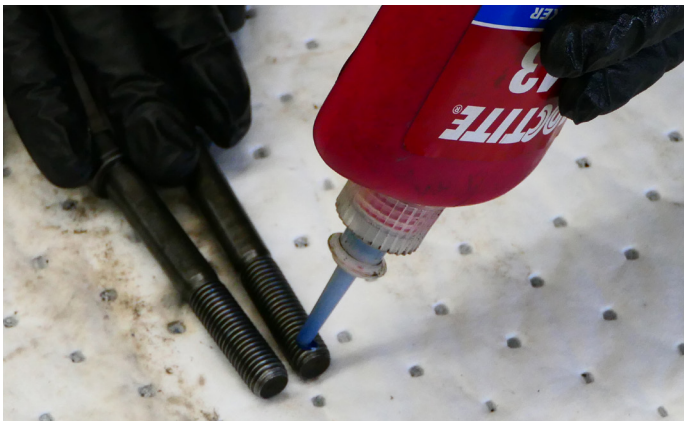


36. Apply a light bead of oil-resistant sealant (Flange sealant – Loctite – SI 587) into the O-ring gauge of the interim housing.

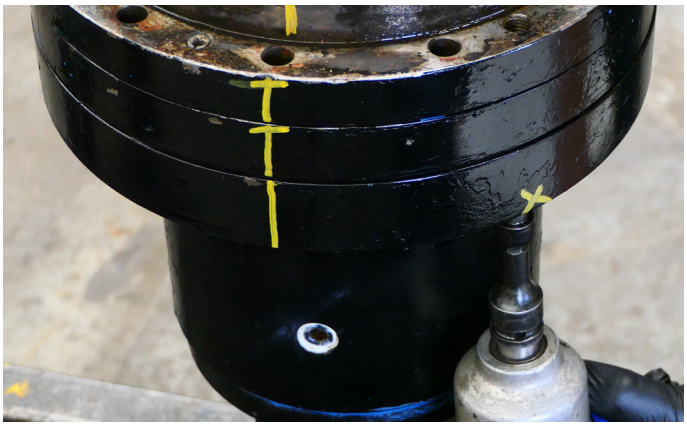
37. Replace the O-ring.



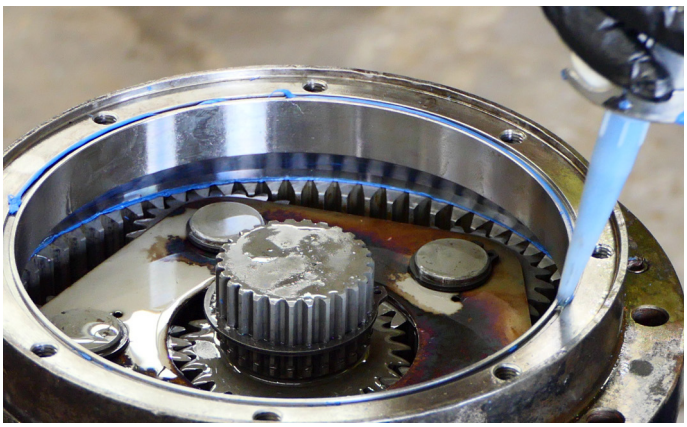
38. Place interim housing on the ring gear. Use a copper hammer to ensure housing and spring pins are fully inserted.



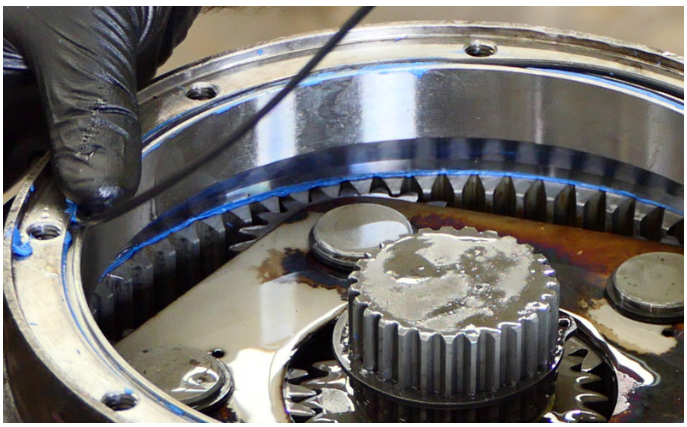
39. Loctite 243 thread locker, medium strength may be used on bolts which hold the hood spacers to the gearset housing.



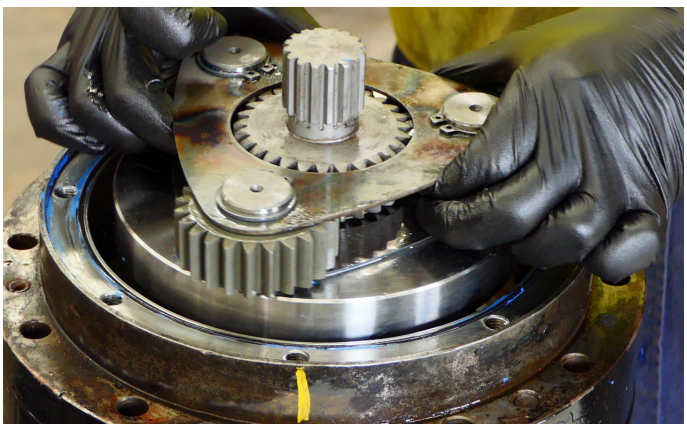
40. Fasten the hood spacers to the gearset housing by replacing the 2 bolts at the marking points, with a socket or spanner.



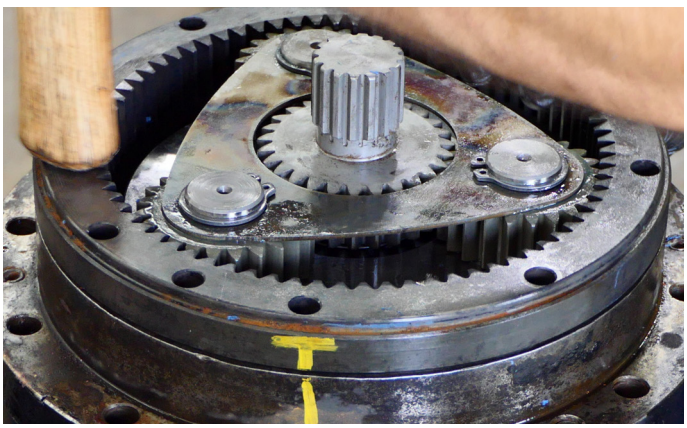
41. Apply a light bead of oil-resistant sealant (Flange sealant – Loctite – SI 587) into the O-ring gauge of the interim housing.



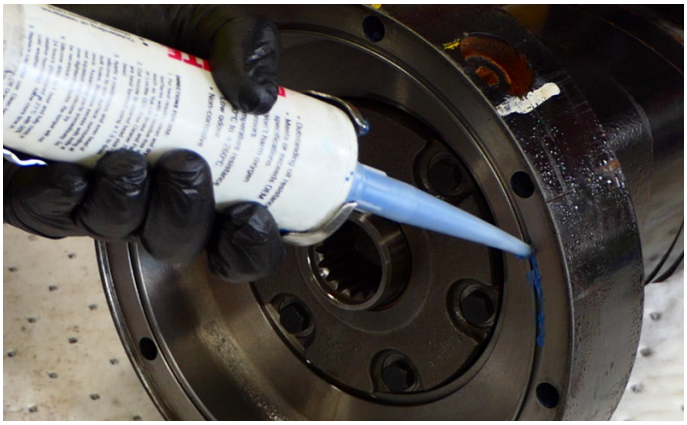
42. Replace the interim housing O-ring.



43. Replace the gearset.

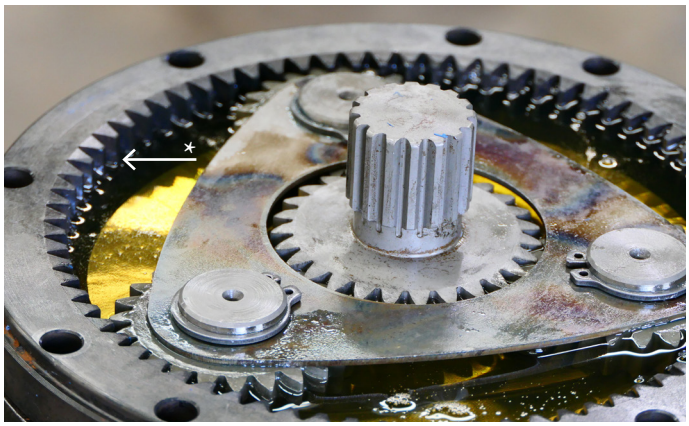


44. Replace the ring gear, lining up the previously made marks. Tap down on the ring gear with the bottom of a hammer, if necessary..

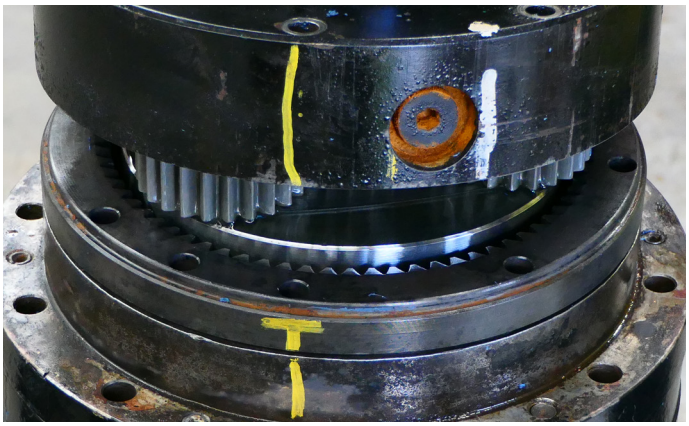


45. Apply a light bead of oil-resistant sealant (Flange sealant – Loctite – SI 587) into the O-ring gauge of the Motor

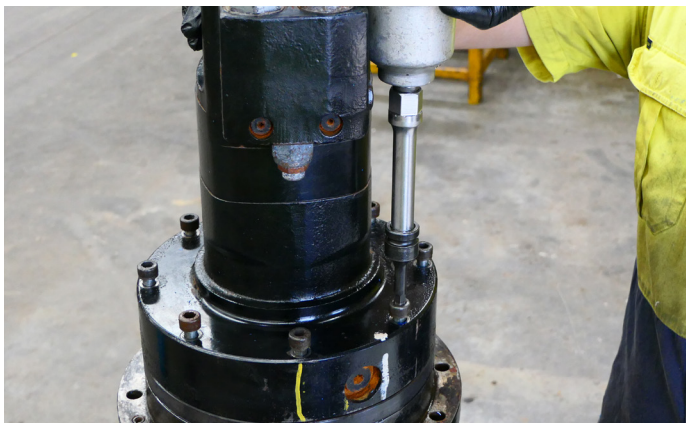
46. Replace new O-ring.



47. Fill with Digga Gear Oil to 5mm below the top of the ring gear*, and allow time for it to settle to the bottom.

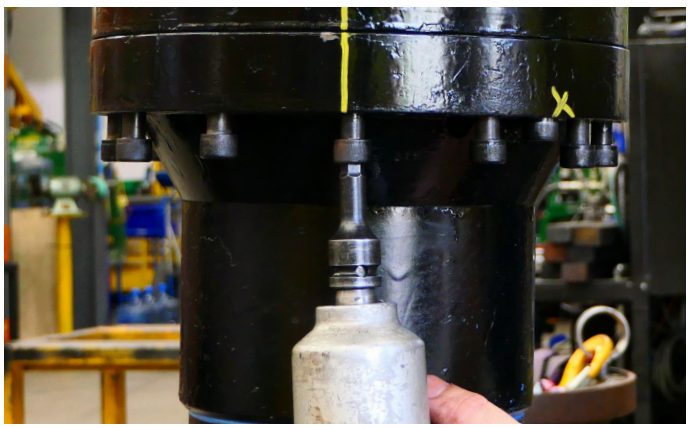


48. Replace the motor lining up previously marked alignment lines.



49. Fasten motor bolts. Use Loctite 243 Thread locker - medium strength on bolts.

50. Replace the hood. Align the previously marked line with those marked on the housing.



51. Fasten the hood bolts - Use Loctite 243 medium strength thread locker. Torque to 184Nm.

SERVICE NOTES:

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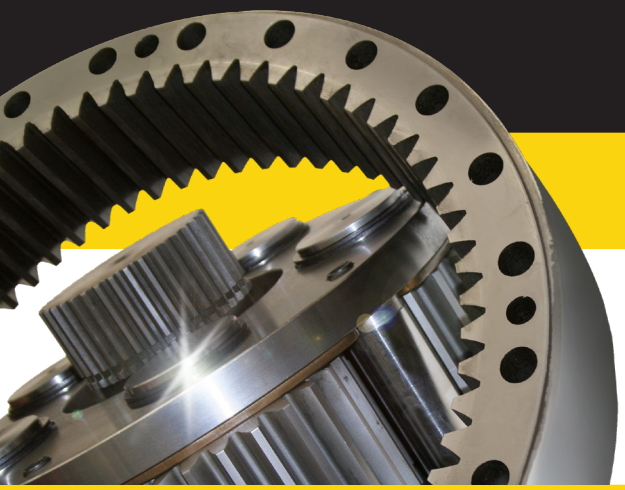
ORDER YOUR NEXT DIGGA SERVICE KIT

SERVICE KIT TYPE	INCLUSIONS	ORDER CODE
PDD-PD5 Kit (Oil Change)	Gear Oil (1L), Oil Change Guide, Next Service Sticker	SER-000056
PD6-PD12 Kit (Oil Change)	Gear Oil (2.5L), Oil Change Guide, Next Service Sticker	SER-000057
PD15-PD50 Kit (Oil Change)	Gear Oil (5L), Oil Change Guide, Next Service Sticker	SER-000061
PDD-PD5 Kit (Service)	Gear Oil (1L), Shaft Seal, O-rings, Service Guide, Next Service Sticker	SER-000082
PD6-PD12 (Service)	Gear Oil (2.5L), Shaft Seal, O-rings, Service Guide, Next Service Sticker	SER-000083
PD15-PD22 (Service)	Gear Oil (5L), Shaft Seal, O-ring, Service Guide, Next Service Sticker	SER-000084
PD25-PD50 (Service)	Gear Oil (5L), Shaft Seal, O-rings, Service Guide, Next Service Sticker	SER-000085



DIGGA SERVICE

YOU CAN BOOK A SERVICE WITH DIGGA AT ONE OF OUR SERVICE CENTRES LOCATED IN BRISBANE, MELBOURNE & SYDNEY. ALTERNATIVELY, PURCHASE A DIGGA DRIVE SERVICE KIT & FOLLOW OUR STEP BY STEP GUIDE.