



TOOLS NEEDED

12MM HEX WRENCH
17MM CONE / OPEN END WRENCH
PLIERS
GREASE OR FREEHUB OIL (COLD TEMP)
TORQUE WRENCH
MEDIUM STRENGTH THREADLOCKER
BEARING REMOVAL TOOL
6903 BEARING PRESS OR 22MM SOCKET(30MM OD)
FLAT HEAD SCREWDRIVER
Mallet or HAMMER & WOOD BLOCK

PARTS

1. NON DRIVE-SIDE END CAP
2. BEARING DUST SEAL
3. NON DRIVE-SIDE BEARING
4. HUB SHELL
5. AXLE
6. DRIVE-SIDE BEARING
7. FREEHUB SPACER
8. FREEHUB (HG SHOWN)
9. DRIVE-SIDE END CAP

INSTRUCTIONS CONTINUED

1. REMOVE CASSETTE AND ROTOR IF INSTALLED.

2. CLEAN AND DEGREASE ALL SURFACES.

3. SLIDE THE END CAP (PART 1) OFF OF THE AXLE (PART 5) FROM THE NON-DRIVE SIDE TO EXPOSE THE 12MM HEX IN THE AXLE. IF NECESSARY USE PLIERS (WRAP PLIERS TEETH WITH TAPE TO PREVENT SCRATCHING) TO GRAB THE END CAP AND MOVE UP AND DOWN WHILE PULLING OUTWARD TO WALK OFF THE AXLE.

4. INSERT A 12MM HEX WRENCH INTO THE AXLE END ON THE NON-DRIVE SIDE.

5. USING A 17MM CONE OR OPEN END WRENCH, LOOSEN THE DRIVE SIDE AXLE END CAP IN A CLOCKWISE MOTION AND UNTHREAD FROM THE AXLE.

6. SLIDE THE FREEHUB BODY (8) OFF THE AXLE AND SERVICE OR REPLACE AS NEEDED.

7. REMOVE THE FREEHUB BODY SPACER (7) FROM THE AXLE. NOTE ORIENTATION; CHAMFERED EDGE FACES OUT. IF ONLY SERVICING OR REPLACING THE FREEHUB BODY, PROCEED TO STEP 17

8. REMOVE THE DUST SEAL (2) COVERING THE NON-DRIVE BEARING (PART 3) WITH A FLAT HEAD SCREWDRIVER.

9. USING A SOFT FACED HAMMER (OR HAMMER AND WOOD BLOCK), TAP ON THE 12 MM NON-DRIVE SIDE OF THE AXLE UNTIL THE INNER BEARING (6) AND AXLE ARE REMOVED FROM THE HUB SHELL(4). *WARNING: DO NOT STRIKE THE THREADED DRIVE SIDE OF THE AXLE AS THIS MAY CAUSE DAMAGE TO THE THREADS.

10. PUNCH OUT THE NON-DRIVE SIDE BEARING USING A BEARING REMOVAL TOOL OR A HAMMER AND SCREWDRIVER.

11. THOROUGHLY CLEAN ALL SURFACES AND SEALS.

12. LIGHTLY GREASE THE BEARING SEATS IN THE HUBSHELL AND ON THE AXLE.

13. INSTALL A NEW OR SERVICED BEARING INTO THE DRIVE SIDE OF THE HUBSHELL USING A 6903 BEARING PRESS OR A 22MM SOCKET(30.0MM O.D.) AND HAMMER. BE CAREFUL TO APPLY PRESSURE TO THE OUTER BEARING RACE ONLY!

14. INSERT THE AXLE INTO THE HUBSHELL, THREADED SIDE FIRST, ON THE NON-DRIVE SIDE. SLIDE THROUGH THE BEARING UNTIL AXLE BEARING SEAT MAKES CONTACT WITH THE BEARING RACE.

15. SLIDE A NEW OR SERVICED BEARING OVER THE AXLE ON THE NON-DRIVE AND PRESS INTO THE HUBSHELL USING A 6903 BEARING PRESS CUP OR A 22MM SOCKET AND HAMMER (30.0MM O.D.). BE CAREFUL TO APPLY PRESSURE TO THE OUTER BEARING RACE ONLY!

16. APPLY A LIBERAL AMOUNT OF GREASE OVER THE NON-DRIVE BEARING AND INSTALL THE DUST SEAL OVER THE AXLE AND INTO THE GROOVE IN THE HUBSHELL. USE THE 6903 BEARING PRESS CUP OR 22 MM SOCKET TO PUSH ON THE SEAL UNTIL IT POPS INTO THE GROOVE IN THE HUBSHELL.

17. LIGHTLY GREASE THE AXLE AND SLIDE THE FREEHUB BODY SPACER BACK ONTO THE AXLE WITH THE CHAMFERED EDGE FACING OUT. IF INSTALLING A NEW DRIVER BODY, BE SURE TO USE THE SHORTER SPACER PROVIDED WITH THE BODY.

18. APPLY A LIGHT COAT OF GREASE ONTO THE PAWLS AND THE HUBSHELL PAWL RING (DO NOT OVER GREASE). IN EXTREME COLD CLIMATES FREEHUB OIL MAY BE USED TO LUBRICATE THE PAWLS.

19. INSTALL THE FREEHUB BODY. APPLY LIGHT PRESSURE ON THE FREEHUB BODY AND DEPRESS THE PAWLS WITH YOUR FINGERS WHILE ROTATING BACKWARDS (COUNTER-CLOCKWISE) TO INSERT INTO THE DRIVE. DO NOT FORCE OR DAMAGE CAN OCCUR TO THE PAWLS AND PAWL SPRING.

20. APPLY A FEW DROPS OF MEDIUM STRENGTH THREADLOCKER TO THE AXLE THREADS.

21. IN A COUNTERCLOCKWISE DIRECTION, REINSTALL THE FREEHUB BODY END CAP AND TORQUE TO 12NM. IF INSTALLING A NEW BODY, USE THE APPROPRIATE PROVIDED ENDCAPS.

22. LIGHTLY GREASE THE O-RING ON THE INSIDE OF THE NON-DRIVE SIDE END CAP AND SLIDE ONTO THE AXLE.

23. REINSTALL CASSETTE AND ROTOR. TIGHTEN TO MANUFACTURER'S SPECIFICATIONS.