



Read all of the maintenance instructions and safety procedures before proceeding.

1	3000 SERIES HOUSING	1
2	3000 SERIES SHAFT	1
3	BALL BEARING PLUG	2 SET
4*	BALL BEARING	X
5*	O-RING	2
6*	SEAL RING	1
7*	INTERNAL SCRAPER	1
8	GREASE RING	1
9	GREASE RELIEF VALVE	1

\* Spare parts set

1. Close inlet and outlet valves and wait for all the medium in the system to be drained completely. If hot medium is used, wait system to be cooled down to normal temperature.
2. Disassemble the swivel joint from the system with an appropriate tool.
3. Now the joint is ready for maintenance.
4. Put the swivel joint on a clean table on to the back side of the joint.
5. First of all, take out the grease ring(8) and grease relief valve(9).
6. Remove ball plug set(3) with an appropriate tool. Be careful not to damage edges of the ball plugs when taking out from the housing.
7. Remove all grease inside ball bearing chamber with a suitable degreaser.
8. Rotate the shaft(2) and take out all ball bearings(5).
9. After all ball bearings(4) are removed, take out the shaft from the housing.
10. Remove ball bearing o-rings(5) from the shaft.
11. Take out the seal ring(6) and internal scraper(7) from the seal chamber.
12. Control ball bearings o-rings(5), if necessary replace them with new ones.
13. Be careful not to damage when assembling ball bearing o-rings onto the shaft.
14. Apply grease to a new seal ring(6) and place it inside sealing chamber.
15. Assemble internal scraper(7) to the slot of the shaft.
16. After applying grease onto the ball bearing o-rings, while rotating the shaft, push the shaft into the housing until ball bearing races are aligned.
17. Replace all deformed ball bearings(4) with new ones and place them all inside the bearing chamber.
18. Align ball plug(3.1) to the ball bearings and place it inside the housing and fix it with the plug stopper(3.2).
19. Control rotation of the swivel joint, if there is any problem, take out all ball bearings and control bearing chambers.
20. Assemble grease relief valve(9) and grease ring(8). Apply enough grease to the ball bearings.
21. Swivel joint is ready to be assembled back in system.
22. Assemble swivel joint to the system.
23. Open inlet and outlet valves, check if any leaking occurs. If there is no leakage, the swivel joint is ready to be placed back in service.