

2.25 Emulsion Shocks

Tools Needed:

Big Shocks 2.25/2.5 Shock Tool

5/64" Allen Wrench

9/16" Socket/Wrench

Torque Wrench

1/4" Hose 2'-3'

Drain Pan

AW-32 / SAE 10w Hydraulic Fluid

1. Clean shock and depressurize shock completely.
2. Clamp in soft jaw vice upside down (shaft pointed to the ceiling).
3. Loosen set screw with a 5/64" allen wrench (**Fig. 1**) and use Big Shocks shock tool to loosen and remove the seal cap (**Fig. 2**).



Fig.1



Fig.2

4. Push shaft guide assembly downward into the shock to expose snap ring (**Fig. 3**). Remove the snap ring.



Fig.3

5. Remove shaft and shaft guide assembly slowly. Be cautious of oil running out and allow to drain into shock body (**Fig. 4**). Wipe assembly with rag and set aside.



Fig.4

6. Drain all old oil from shock.

7. Clamp shaft, piston side up in vice with soft jaws to not damage it. Remove the nut with a 9/16" wrench or socket (Fig. 5). Be sure to keep track of valve shims and piston orientation during disassembly.



Fig.5

8. Inspect valve shims, piston, shaft spacer, seal cap and shaft guide assembly for any damage. Clean all parts (Fig. 6-8).



Fig.6



Fig.7



Fig.8

9. Remove seals from seal cap and shaft guide assembly if they need replaced. Be careful to not scratch any surfaces. If you are only re-valving the shock or changing the oil you do not need to remove the seals and can skip to Step 11.
10. Install new seals using a small amount of shock oil or grease.
11. Inspect shock shaft if it is bent or has any deep pitting/nicks. Replace if required as this may cause seal failure.
12. Install shaft guide assembly onto shaft then shaft spacer. Be cautious to not force and damage any seals.
13. Install compression valving shims, piston and rebound valving shims in the same order they came off. Torque nut to 25 ft/lbs.
14. Clean shock body assembly. Place in a vise open end up.
15. Slowly start to fill the shock body with AW-32 hydraulic oil or SAE 10w until about 3" from the top.

16. Insert shaft, valving assembly and shaft spacer into shock (**Fig. 9**). Try to keep it just below the oil level.



Fig.9

17. Hold the shaft at the same height while you slowly insert the shaft guide assembly into the shock body. Oil may spill out of shock as shaft guide goes in. Push the shaft guide in so that the snap ring can be installed.

18. Install the snap ring and verify it is fully seated in the groove (**Fig. 10**).



Fig.10

19. Extend shock shaft to expose the shaft guides treads. Install seal cap (**Fig. 11**). Screw it on and snug with Big Shocks wrench.



Fig.11

20. Verify shock shaft can move up and down without binding. If so you have over tightened the seal cap.

21. After you have checked for no binding, tighten the set screw with a 5/64" allen wrench (**Fig. 12**).



Fig.12

22. Thread lower heim joint into shaft and remove from vice.

23. With shock upright, verify shaft is fully extended and remove the schrader core. You will then attach a ¼" hose over the schrader valve, long enough to reach into a bucket (**Fig. 13**).



Fig.13

24. With the shock still upright very slowly compress the shock until it is fully bottomed out. The extra fluid will exit into the bucket (**Fig. 14-15**).



Fig.14



Fig.15

25. Remove your hose and reinstall the schrader core.

25. Pressurize the shock with 150 psi. Install schrader valve cap.

Shaft Assembly

