

Afridev Maintenance and Repair Sheet



1. Before starting, wash your hands and fill some buckets with clean water for cleaning parts.



2. Loosen the pump head cover bolt



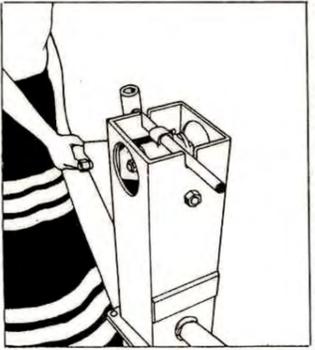
3. Take off the cover



4. Loosen both hanger nuts



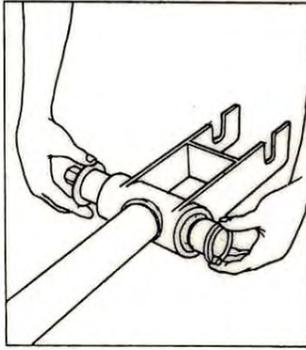
5. Loosen both fulcrum nuts



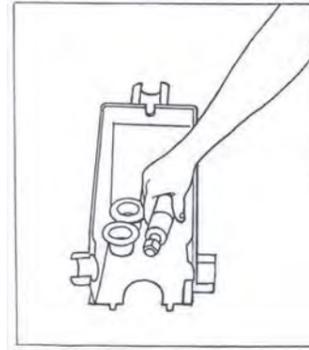
6. Put spanner through hanger eye



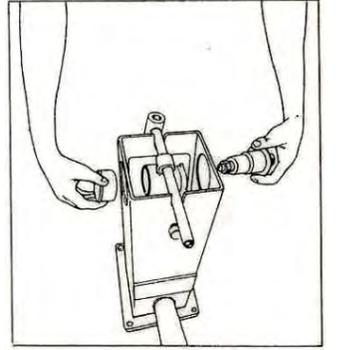
7. Raise and withdraw handle. Take care! As you remove the handle make sure the bush bearings and pin do not fall out as they may break on the floor.



8. Remove fulcrum pin and bush bearings.



9. Place all parts in cover for safe keeping



10. Remove hanger pin and bush bearings



11. Pull up the hanger and first rod.



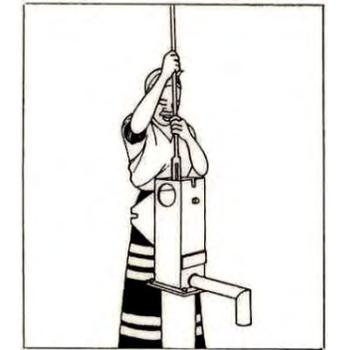
12. Slide the rubber centraliser where the rods join.



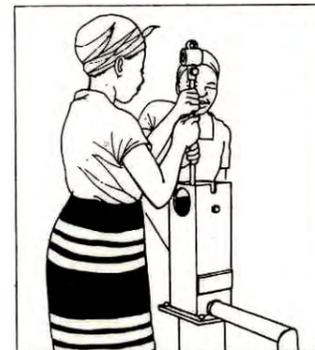
13. Disconnect and remove all rods. Remember to keep the rods in the same order. The last rod taken out should be the first rod put back.



14. Remove the plunger



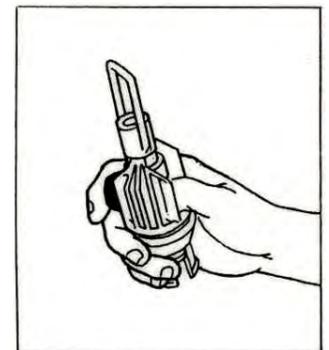
15. Lower the fishing tool and connect to the rods.



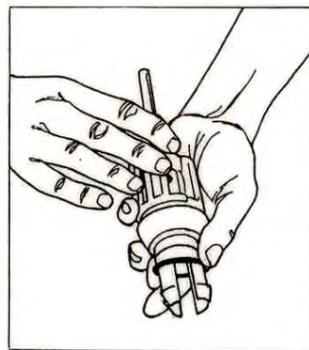
16. Gently lower the last rod and hanger until you feel that you have caught the foot valve.



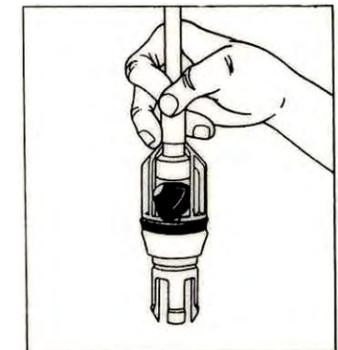
17. Remove all the rods, the fishing tool and the foot valve.



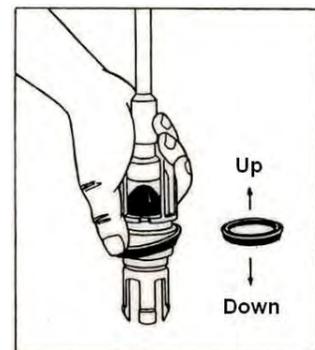
18. Push out the bobbin from the foot valve with your thumb. If the bobbin is damaged, replace it with a new one.



19. Remove the O-ring from the foot valve. If the O-ring is damaged, replace it with a new one.



20. Push out the bobbin from the plunger with your thumb. If the bobbin is damaged, replace it with a new one.



21. Carefully remove the U-seal. If it is damaged, replace it with a new one. Make sure the groove faces upwards



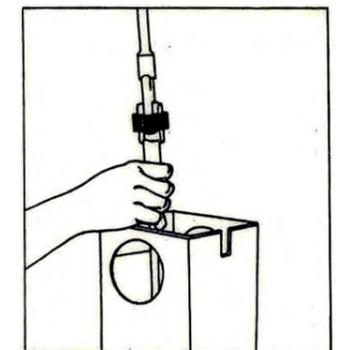
22. Wash the foot valve, plunger and rods. Use only clean water.



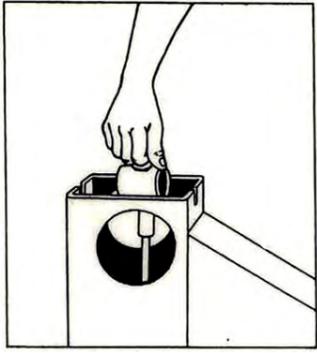
23. To reassemble the pump, first drop the foot valve down the borehole. Make sure the hook is upwards



24. Put the plunger and pump rods back together and lower them down the borehole.



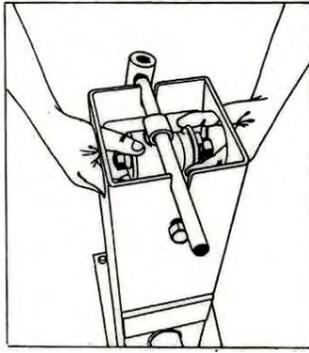
25. Make sure the rubber centraliser is slid down over each joint on the pump rods.



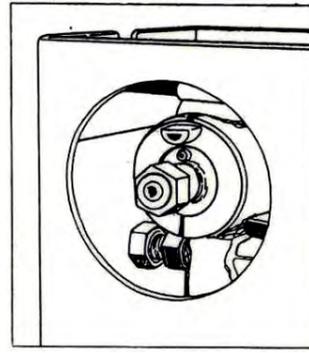
26. Join all the rods together until the hanger rod is connected.



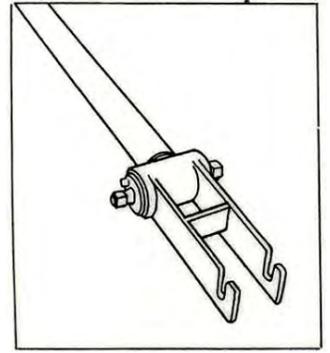
27. Make sure the foot valve is in place by pushing the rods at arms length down the borehole.



28. Put the spanner through the hanger eye to support the rods and then replace the hanger pin and bush bearings. If the bush bearings are worn out or damaged, replace them with new



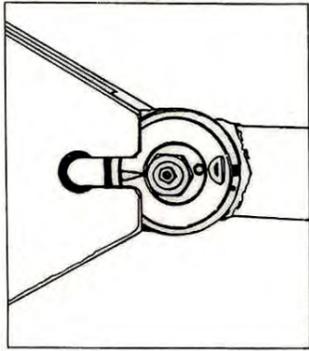
29. Turn the hanger pin and bush bearings so that the small projecting lugs are at the top.



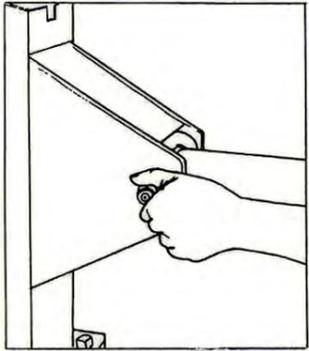
30. Put back the fulcrum pin and bush bearings in the handle. If the bush bearings are worn out or damaged, replace them with new ones.



31. Put the handle back.



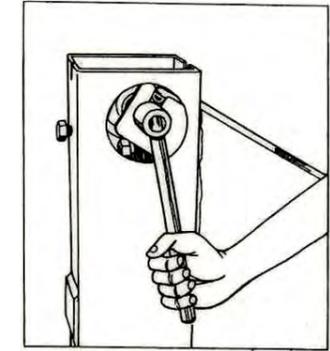
32. Make sure the projection lugs on the pin and bush bearings will fit into the slots on the pump body. Ensure that the pin is pushed right to the back of the slot.



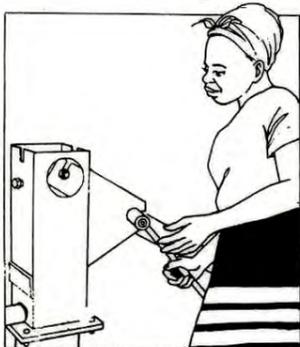
33. Tighten the fulcrum nuts by hand.



34. Push the handle down so that the slots engage in the hanger. Ensure that the hanger pin has slid to the bottom of the slots. Remove the spanner.



35. Tighten the hanger nuts with the spanner. Tighten alternatively on both sides.



36. Tighten the fulcrum nuts with the spanner. Tighten alternatively on both sides.



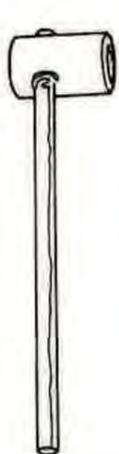
37. Put the cover back on.



38. Tighten the cover nut.



39. Pump water until clear water comes out before using for drinking.



Spanner



Fishing Tool

Afridev Maintenance Tools

Afridev Handpump Fast Moving Spare Parts



Bush Bearing



U-seal



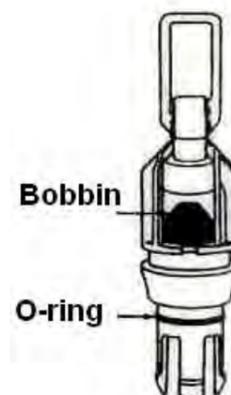
Bobbin



O-ring

Produced for the Rural Water Supply and Sanitation and Hygiene Program being implemented by the Ministry of Water Resources and funded by the World Bank.

Ethiopia 2006



Bobbin
O-ring

Foot Valve



Bobbin
U-seal

Plunger Valve