

232.2 02NI

NIRA AF-85 HANDPUMP MANUAL



232.2-02NI-18625

NIRA AF-85 DIRECT-ACTION HAND PUMP

Internationally acknowledged to be the best hand pump for shallow wells!

NIRA AF-85 Direct-Action Hand pump is the no. 1 hand pump and the most recommended for shallow wells.

The pump has been manufactured in Africa since the beginning of the 1990's.

The design principle of NIRA AF-85 has been to develop a simple pump with a minimum number of wearing parts following the VLOM-requirements (Village Level Operation and Maintenance).

NIRA AF-85 can reach the maximum depth of 20 metres.

NIRA AF-85 Direct-Action Hand Pump is High-Low technology for the rural people in Africa.



INTRODUCTION

This manual is to serve as a guide for proper use and maintenance of NIRA AF-85 pumps, so that in case of breakages, the users shall independently carry out repairs.

Read this manual before installing your pump and follow the instructions.

Keep the manual for future reference.

PROPER USE AND MAINTENANCE OF A WELL

Water plays a very important role and it is necessary to use clean and safe water for healthy life.

Livestock should be barred off the well site to avoid animals from damaging the slab or the pump and dirtying the well site. It is also not good to wash laundry, utensils or bath on the slab or very close to the well. The pit latrines should not be constructed upstream and the well should be more than twenty meters away from the house. Children should not be allowed to play at the well and with the pump.



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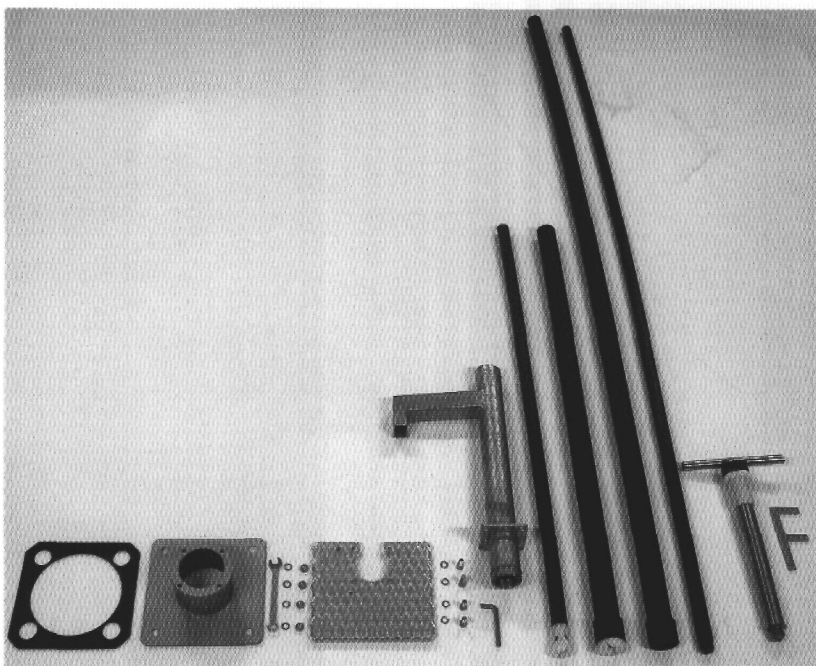
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**INSTRUCTIONS AND
ILLUSTRATIONS TO NIRA AF-85
HAND PUMP INSTALLATION.**





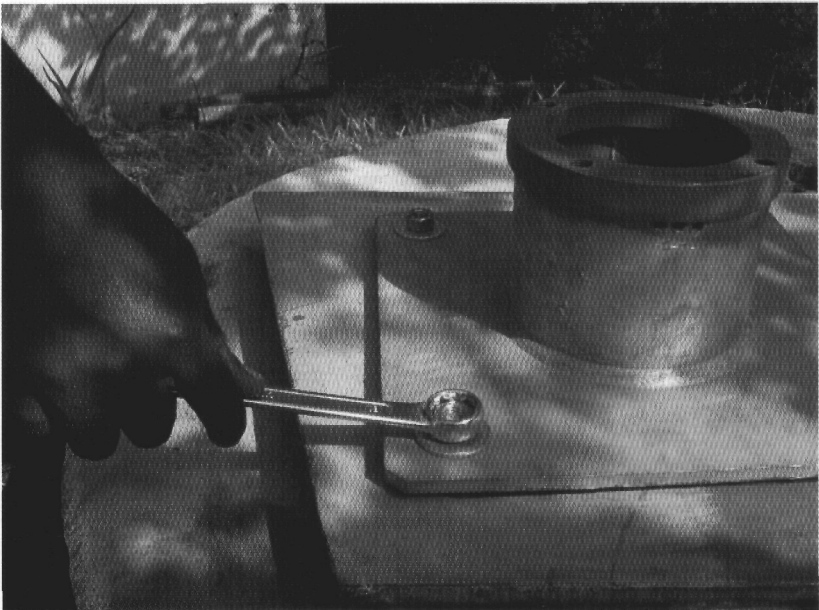
1. Place the gasket on the anchor bolts setting.



2. Place the base plate on the gasket.



3. Fasten the base plate to the well cover with M12 nuts and flat washers.



4. Tighten the nuts alternatively by using the spanner provided with the tool kit.



5. Connect the riser pipe to the cylinder pipe, to be hand-tighten only.



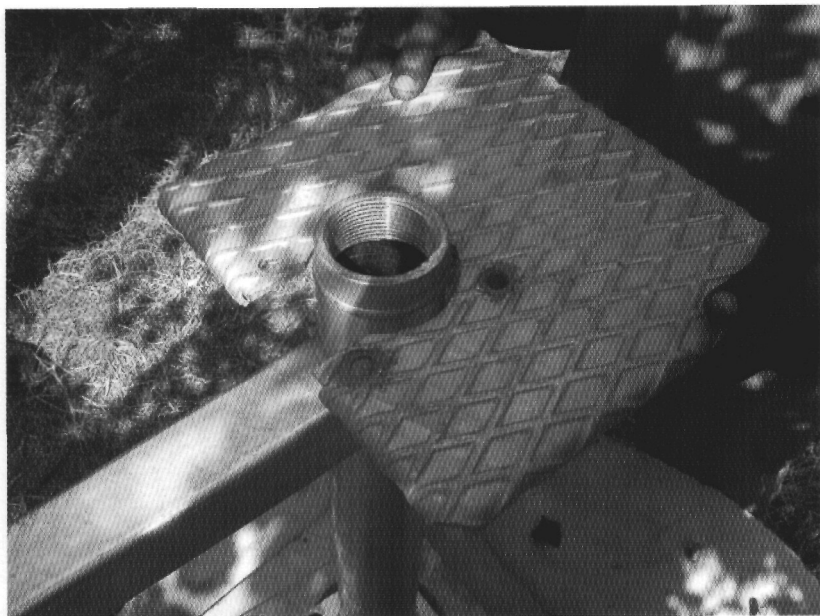
6. Enter the connected cylinder and pipe to the well and continue connecting riser pipes to each other until the desired depth.



7. Place the smaller gasket on the base plate.



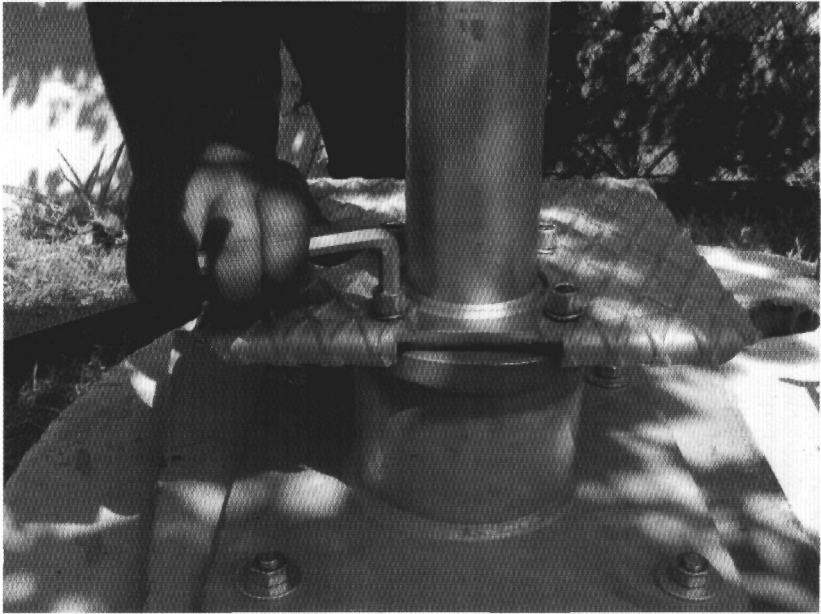
8. Connect the pump stand on to the last riser pipe.



9. Place the standing plate on the pump stand by sliding it from the top of the pump stand.



10. Place the standing plate on the corresponden holes of the flange and fasten the standing plate and the pump stand to the base plate by using M12 hexagonal head bolt, don't forget to place the spring cotters under the bolt head.



11. Tighten the all four bolts alternatively by using the allen key



12. Connect the plunger rod to the pump rod.



13. It is advisable to connect the rod in the same order as the riser pipes were done earlier.



14. Enter the connected plunger in to the pump, the plunger pipe first, continue connecting pump rods until the desired depth (same length with the riser pipe connection).



15. Connect the pump handle (already assembled) to the last pump rod.

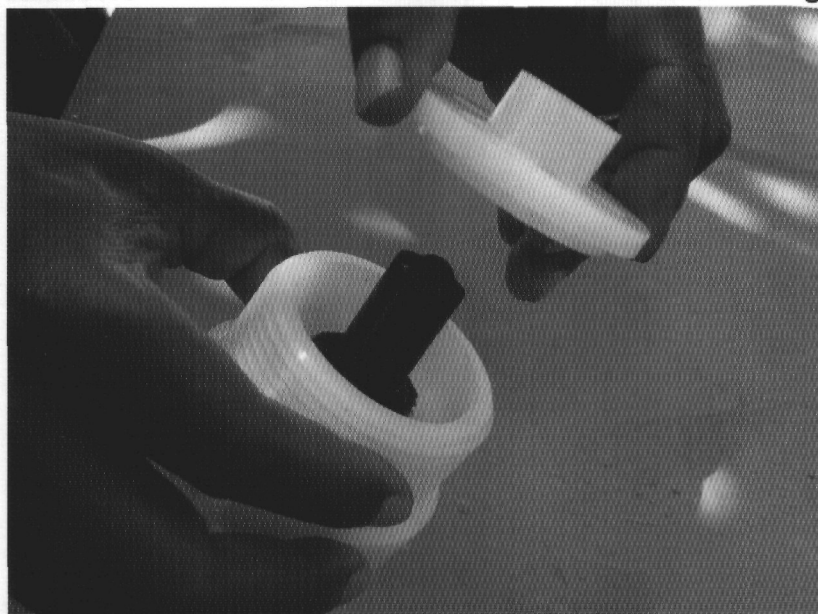


16. Fasten the sleeve bearing on to the pump stand by using the F-key.

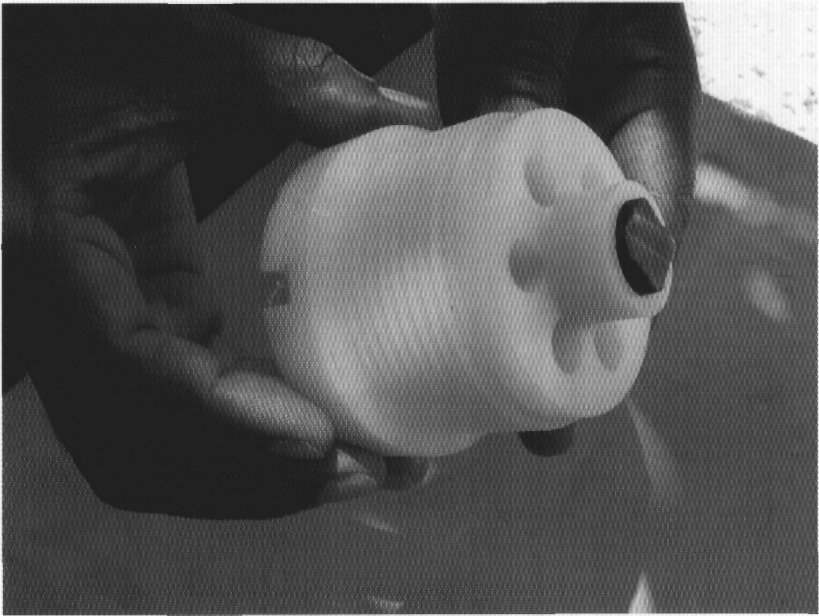


17. Pump water out until it is clean enough for use.

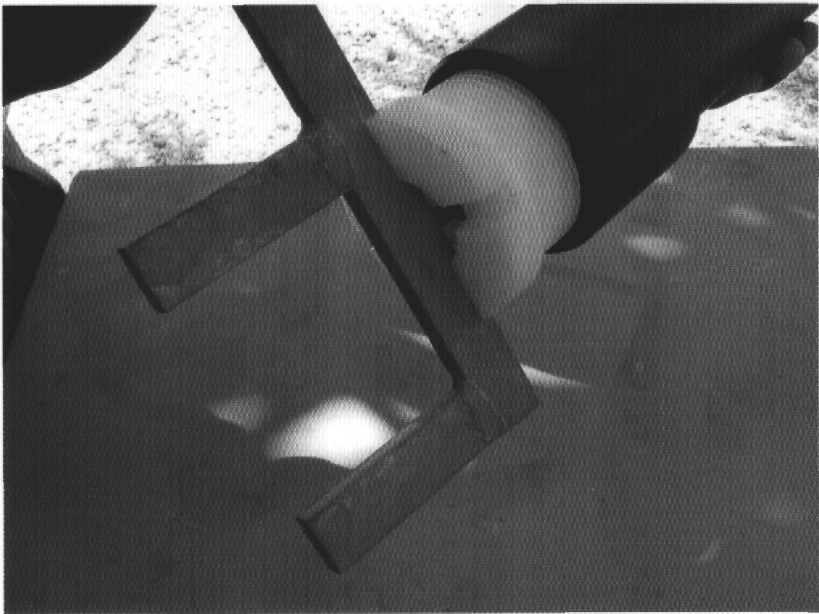
REPAIRS AND MAINTENANCE: Bottom valve assembling



18. Place the plunger/bottom valve (bobbin) in the bottom valve body.

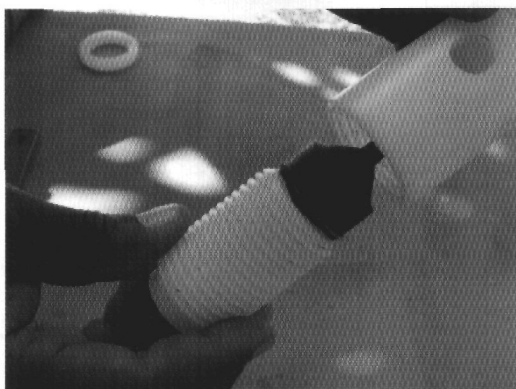


19. Slide the limiter over the bobbin.

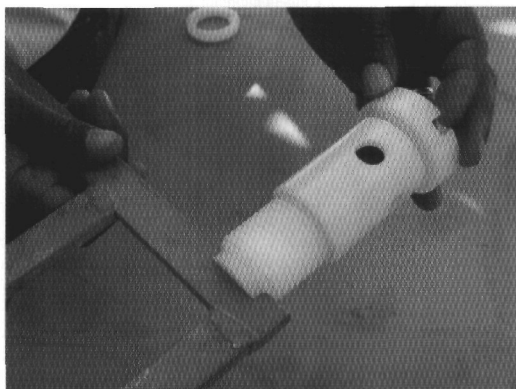


20. Fasten the bottom valve assembly to the coupled Riser pipe using the F-key.

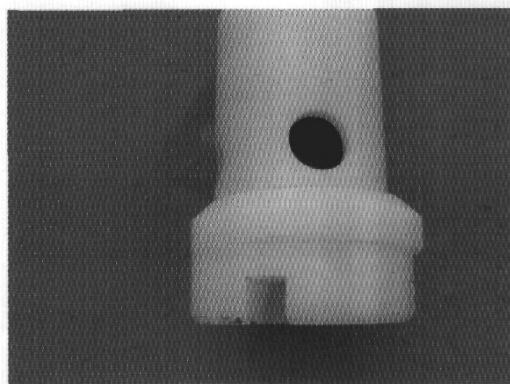
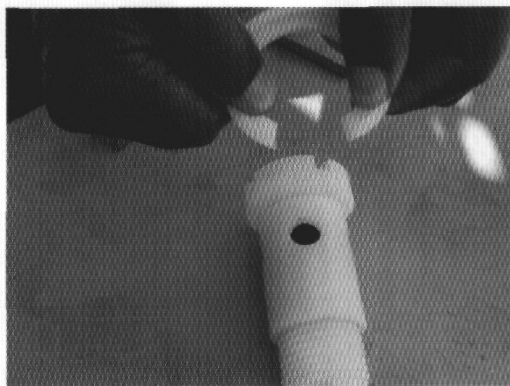
Plunger valve assembling



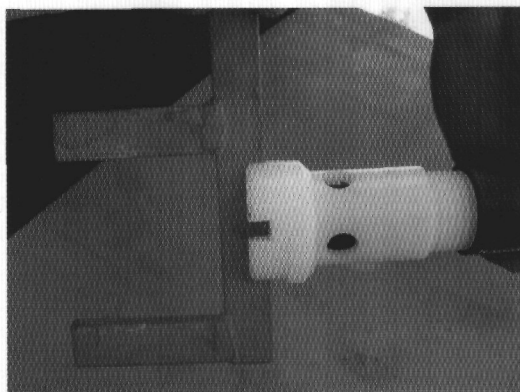
21.-22. Place the bobbin in the plunger nipple and fasten the plunger body to it.



23. Hold the plunger body firmly in hand and use the F-key.

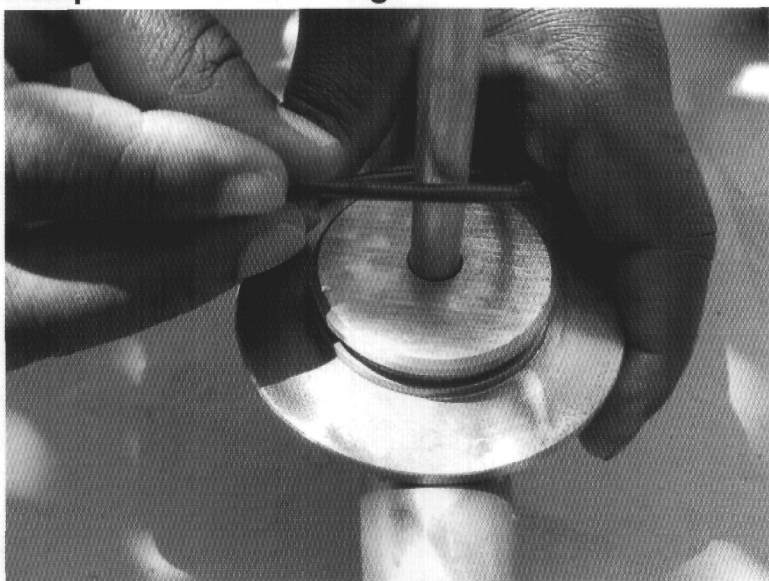


24.-25. Stretch the plunger ring and force it on to the plunger body assembly with the flat face downwards.



26. Fasten the plunger assembly to the pump rod using the F-key.

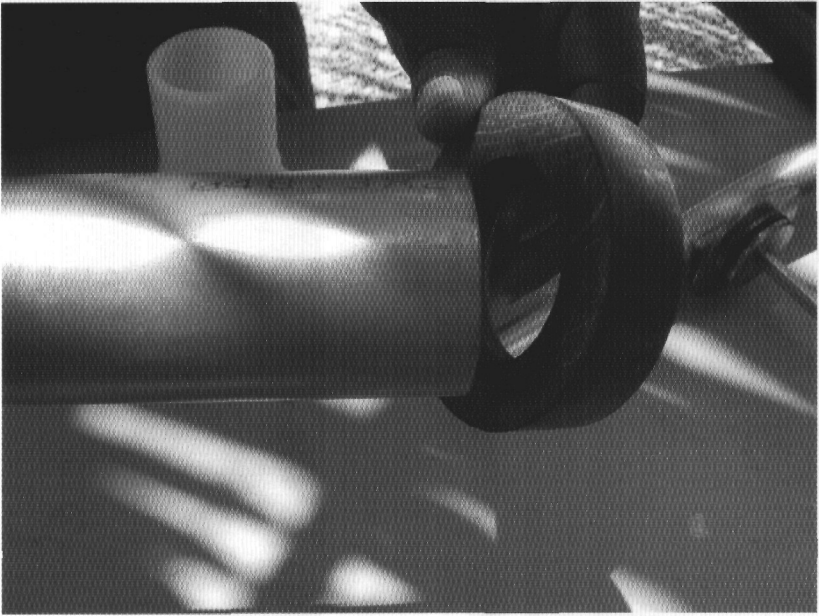
Pump handle assembling



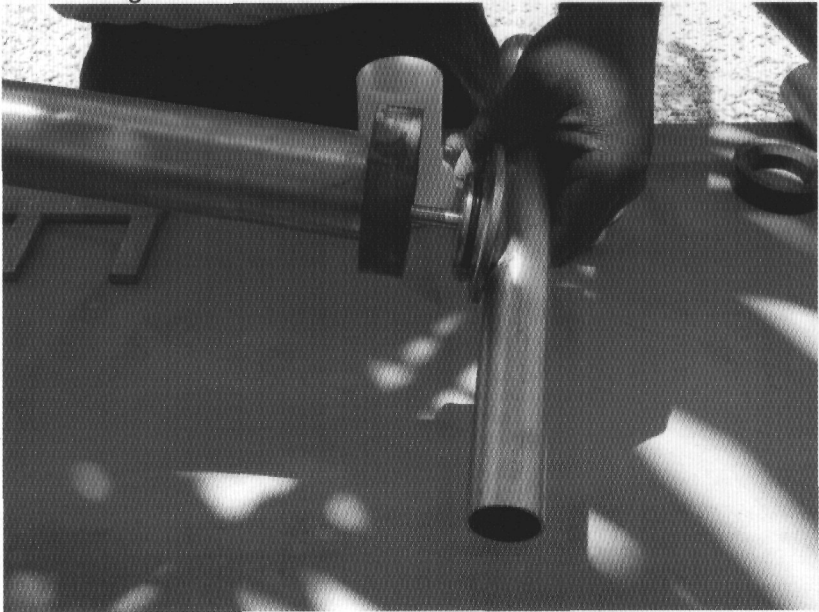
27. Place the o-ring in the grooved part of the handle T-bar.



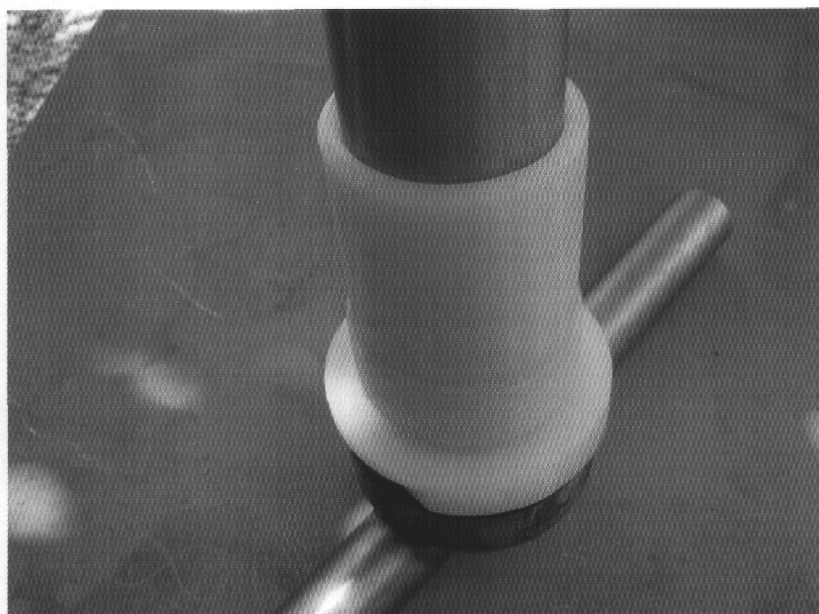
28. Place the o-ring in the grooved part of the handle nipple



29. Slide the shockabsorber to one end of the handle pipe, note to lubricate the pipe and the shockabsorber with water before assembling.



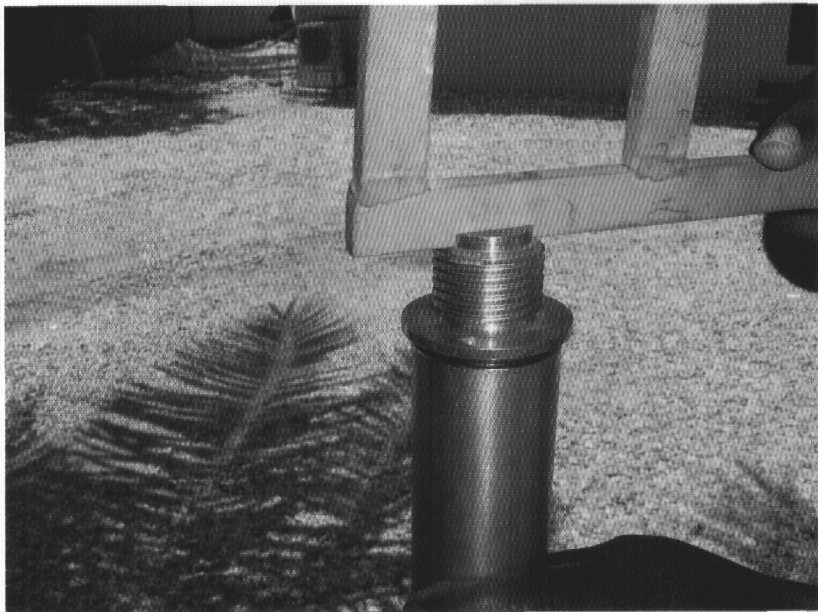
30. Slide the handle pipe with shockabsorber over the handle T-bar.



31.-32. Slide the sleevebearing on the handle pipe.



33. Connect the handle nipple to the handle T-bar.



34. Fasten the handle nipple to the handle T-bar using the F-key.

NIRA in AFRICA

Tanira Ltd and Ghanira Ltd are authorized manufacturers of NIRA AF-85 Water Hand Pumps.

The factories were established in early 1990s and based in Dar es Salaam, Tanzania and Accra, Ghana.

Since the beginning, the companies have delivered NIRA pumps for Eastern and Western Africa for various countries. Pumps and spare parts are always available ex stock. Prompt deliveries and a good quality of NIRA products are guaranteed.

By manufacturing pumps in the region the companies are enhancing the wellbeing of private people.

Water Hand Pumps

- NIRA AF-85 for shallow wells down to 20 mts
- AFRNIRA for medium deep wells, down to 45 mts
- NIRA AF- 2000 for deep wells, down to 64 mts.

Other NIRA products

- NIRA 9, NIRA 6B hand pumps for domestic use
- NIRA 2 barrel pump.
- NIRA BLUE, NIRA RED and NIRA BRASS Waste-Not-Tap (Self Closing Water Taps)





NIRA Water Hand Pumps in AFRICA

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