

Langa Nhlabathi



Mzwakhe Simelane



APPENDIX 7: LOESCHE MILLS (UNITS 5 & 6)

TASK: HYDRAULIC CYLINDER REPLACEMENT

PURPOSE

This work instruction is drawn up to Renew Hydraulic Cylinder on Loesche Mills.

SERVICE ACTIONS

NOTE: Ensure that you are familiar with the risk assessment, health and safety precautions and hazards as well as the isolations pertaining to this instruction before attempting any of the following:

1. Release all hydraulic pressures (working and lifting) by pressing Y3 valve to drain pressure.
2. Loosen bolts and remove coupling between cylinder and rocker fork 8@ (M20x170).
3. Fit chain block to landing around mill and by using a sling secure hydraulic cylinder in position.
4. Remove retaining pin of shock absorber.
5. Close 2 isolating valves on hydraulic lines connected to accumulators.
6. Loosen cap screws on flanges of control lines on cylinder and use plastic bags to seal flanges. (NB (No. rags).
7. Loosen hydraulic lines connected to accumulators, just after isolating valve and loosen U-bolt at bracket.
8. Loosen and remove retaining bolt and plate at main connecting pin as well as retaining flanges next to accumulators.
9. Use hydraulic jack to remove main pin.
10. Using the chain blocks remove old cylinder.
11. Clean area before fitting the new cylinder especially where the main pin enters.
12. Remove and clean spacer from old cylinder and fit to new cylinder.
13. Fit new cylinder in position and make sure the hole of cylinder is aligned with holes in casing where main pin enters.
14. Lubricate main pin with copper compound and fit into position.
15. Carefully align main pin and using the jack, pull main pin into position.
16. Fit retaining pin and shock absorber to hydraulic cylinder.
17. Connect hydraulic control lines to cylinder using new allen cup screws (M12x45m material grade 10.9). Torque allen cup screws to 65 Nm using the diametrically opposite sequence method.
18. Open two isolating valves.
19. Fit retaining flanges next to accumulators.
20. Fit coupling and tighten 8 @ M20x170 bolts with impact wrench.
21. Operator to start Hydraulic pump in the control room.
22. Operate Y1 and Y2 valves (manually).
23. Loosen bleeding screw on top of main hyd cylinder and wait until all air is released and clean oil that is coming through and tighten.
24. Make sure rollers lift and there is no oil leaks.
25. Area left cleaned (work area).

WITNESS POINT:

Plant specialist	Signature	Date

Notification No:

5.6 HISTORY REQUIREMENTS

1. Which cylinder was changed?.....
2. Why is the cylinder changed?.....

3. What is the serial number of cylinder?

OLD:

NEW:

SPARES USED

STOCK NUMBER:	DESCRIPTION	USED