

Service manual of Stiff boom crane(Hiab 190T)

4. Disassembly and assembly of the swing reducer

4.1 Removal of the swing reducer from the base

- 1) Disconnect the hoses and plug them.(fig. 4.1)
- 2) Remove the turntable bearing cover(fig. 4.2) and unscrew the bolts except one bolt.(fig. 4.3)
- 3) Screw the special support for removal on the top of the gear.(fig. 4.4)
- 4) Remove the swing reducer by using hoist crane.(fig. 4.5, 4.6)



Figure 4.1 disconnect hoses



Figure 4.2 remove turntable bearing cover



Figure 4.3 remove bolts

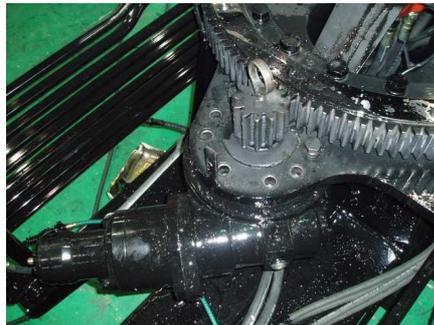


Figure 4.4 special support for removal



Figure 4.5 remove swing reducer



Figure 4.6 remove swing reducer

4.2 Assembly of the swing reducer to the base

- 1) Put the swing reducer in place by using hoist crane.(fig. 4.7)
- 2) Screw the bolts(fig. 4.8) as adjusting the backlash by using feeler gage.(fig. 4.9)
- 3) Connect the hoses.(fig. 4.10)
- 4) Top up gear oil if necessary.(fig. 4.11)

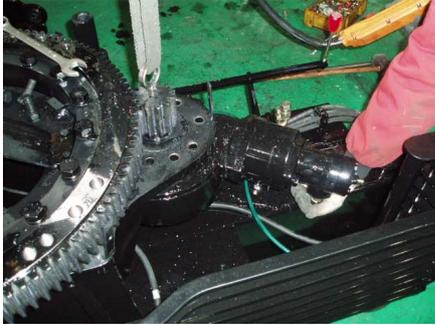


Figure 4.7 put swing reducer in place



Figure 4.8 tighten bolts



Figure 4.9 adjust backlash to 0.05-0.1mm
by using feeler gage



Figure 4.10 connect hoses



Figure 4.11 top up gear oil if necessary

4.3 Overhaul of the swing reducer

- 1) Remove the hydraulic motor.(fig. 4.12)
- 2) Remove the bolts for the brake cover by using L-wrench.(fig. 4.13)
- 3) Remove the hydraulic brake.(fig. 4.14, 4.15)
- 4) Remove the cogwheel washer.(fig. 4.16)
- 5) Remove the worm shaft as turning it counterclockwise.(fig. 4.17)



Figure 4.12 remove hydraulic motor



Figure 4.13 remove bolts for hydraulic brake cover



Figure 4.14 remove hydraulic brake



Figure 4.15 components of hydraulic brake



Figure 4.16 remove cogwheel washer



Figure 4.17 remove worm shaft

6) Unscrew the bolts for the casing.(fig. 4.18)

7) Remove the casing by screwing the bolts into threaded holes for removal.(fig. 4.19, 4.20)



Figure 4.18 unscrew bolts for casing



Figure 4.19 remove casing by screwing the bolts for removal



Figure 4.20 casing



Figure 4.21 housing with gear shaft and worm wheel



Figure 4.22 worm shaft