

齒輪箱耦合齒更換流程

Gearbox coupling replacement procedure

注意事項: Notice:

1. 請先將刀塔油壓停止，以免拆卸油管後液壓油噴出。

Switch off hydraulic system to prevent hydraulic oil from spraying out when disconnect the oil tube.

2. 油壓缸固定座上之 SENSOR 可不用拆除，但更換過程中需注意避免撞擊到 SENSOR。

It is okay not to remove S11 sensor located on hydraulic cylinder fixing seat, but be careful not to damage the sensor during replacement.

- 步驟 1. 請先拆除耦合齒背蓋，共 4 顆螺絲。

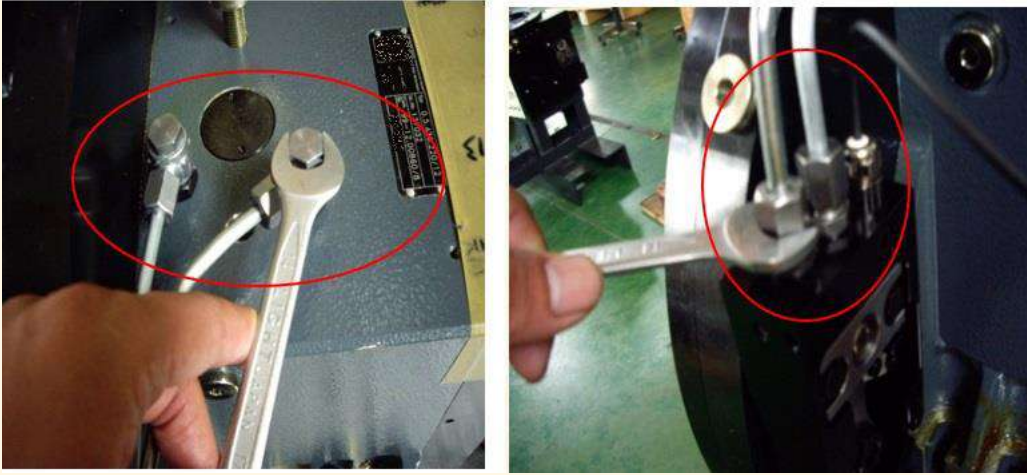
STEP 1. Remove 4 screws to take off back plate.



- 步驟 2. 將本體上方及油壓缸油管拆除，請務必停止油壓系統以免液壓油外洩。

STEP 2. Disassemble the oil tube located on top of turret housing and the oil tube of

hydraulic cylinder. Ensure to switch off hydraulic system to prevent hydraulic oil from spraying.



步驟 3. 將油壓缸固定座螺絲拆除。

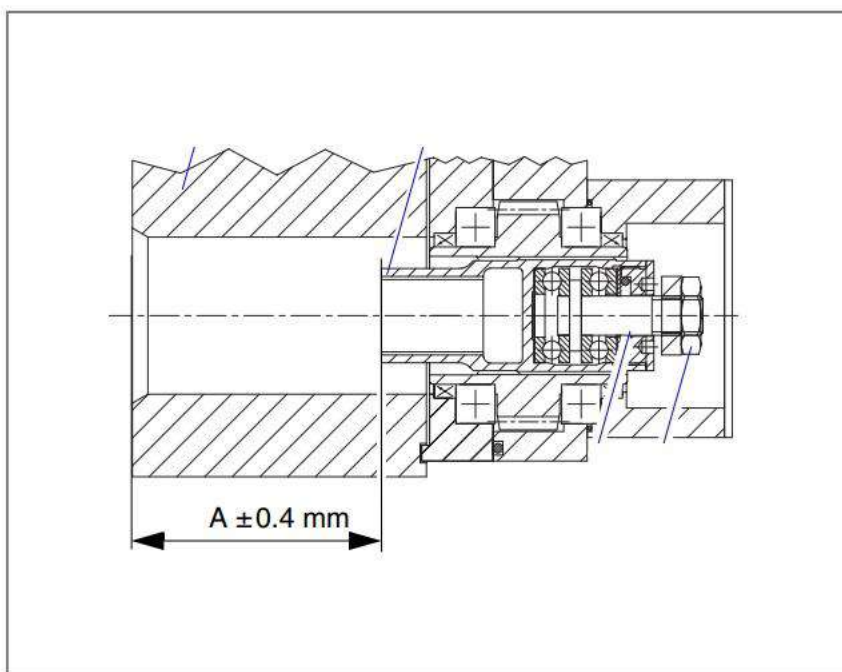
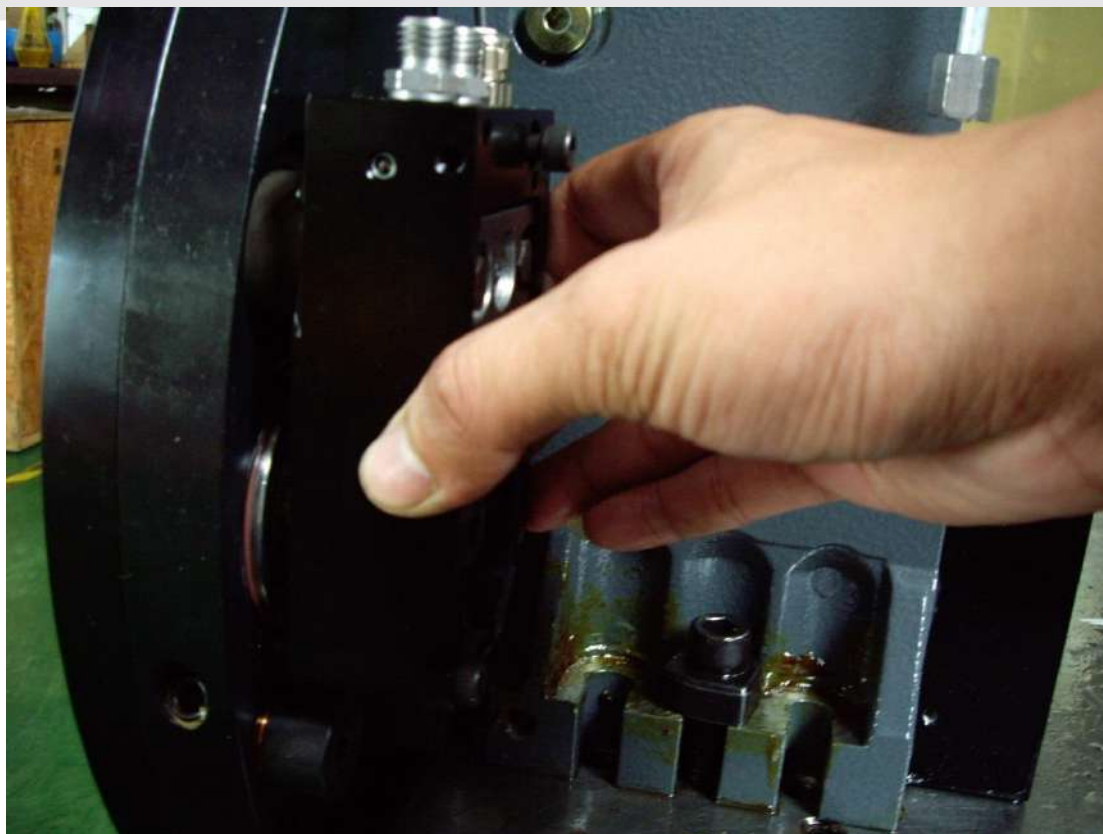
STEP 3. Remove 2 screws of hydraulic cylinder fixing seat.



步驟 4 將油壓缸固定座拿出。

STEP 4. Take out the hydraulic cylinder fixing seat.





Coupling profile	耦合齒距離	clearance A ± 0.4 [mm]
11×0.8	DIN 5480	41
14×0.8	DIN 5480	49.5 VDI25
16×0.8	DIN 5480	58.5 VDI30
20×0.8	DIN 5480	65 VDI40
24×1.25	DIN 5480	83 VDI50
30×1.25	DIN 5480	95 VDI60

上圖耦合齒前端與 VDI 刀盤表面距離，量測時注意要以刀塔鎖緊時去量測

以下為調整方式

The above table shows the distance between the coupling front and VDI tool disc surface. Only measure the distance when turret is at clamping status.

The followings are the adjustment method:



1. 使用 4mm 板手,轉動耦合齒後方止付螺絲調整耦合齒位置.

1. Use 4mm wrench on the set screw located at the rear side of coupling to adjust coupling position.



2. 測量是否在公差範圍內

Confirm measured value is within tolerance.



3. 螺帽與止付螺絲添加螺絲固定劑,建議廠牌規格: Loctite 211

Apply adhesives to nut and set screw. Recommended brand" Loctite 211.



4. 可用下列兩種工具鎖緊 There are 2 types of tools can be used for tightening -

4-1. 4mm 六角板手固定止付螺絲, 17mm 開口板手鎖緊

Fix set screw by 4mm Hex wrench and fasten by 17mm open wrench.



4-2. 或用 17mm 套筒鎖緊, 使用套筒有一個缺點, 因為沒有 4mm 板手可以固定止付螺絲, 鎖

緊過程中可能連帶旋轉止付螺絲

4-2. Or you may fasten by using 17mm sleeve, however, the downside is if without 4mm Hex wrench to fix set screw, the set screw might also rotate during fastening.



5. 鎖緊後再測量一次距離是否在標準內

Measure if the distance is within tolerance after fastening.



6. 調整完成後,設定 C 軸定位角度需將齒輪記號設定在三點鐘方向

下圖表示記號位置

After the adjustment, set C axis positioning angle at 3 o' clock same as gear wheel

mark. (see below picture)



7. 完成後先測試空刀換刀是否正常，才可使用刀具

7. Test indexing when there are no tool holders mounted; Only mount tool holders after testing is normal.

