

# 進給器 安裝說明 (Z軸-上下向適用)

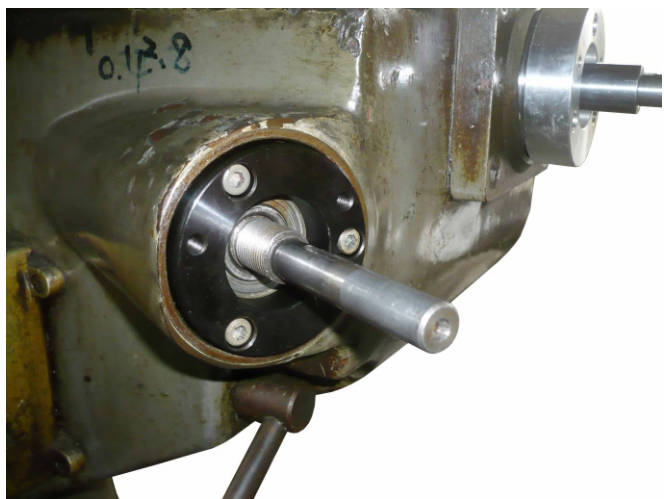
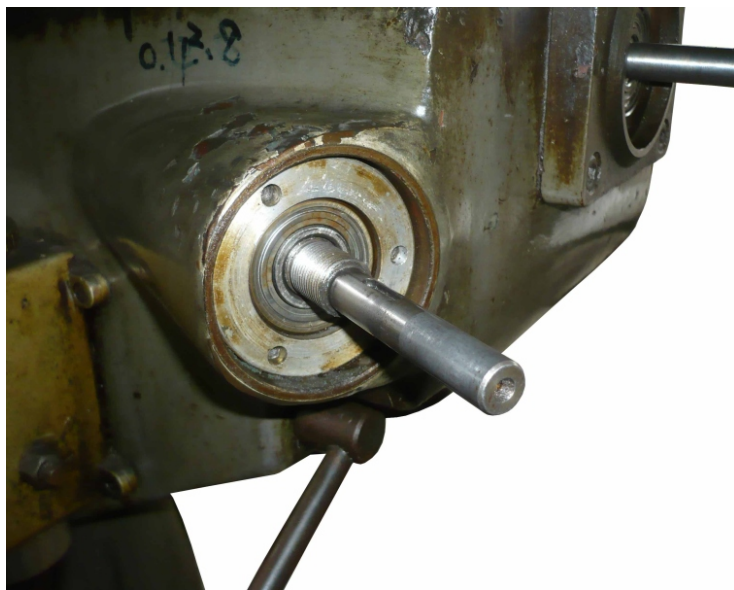
# POWER TABLE FEED INSTALLATION MANUAL (AVAILABLE FOR CROSS TRAVEL)

## 步驟 1

1. 將Z軸車臂移到最下方。
2. 從銑床上拆下把手、平行埋頭鍵、把手連動環、尺標刻度環及其他結構件。
3. 鬆開原有固定座之固定螺絲(M6×P1.0 - 3 pcs)，取下原有固定座。

## Step 1

1. Move cross table to the column end.
2. Disassembly handle fix screws, handle (hand wheel), parallel socket key and dial from the milling machine.
3. Loosen fix screws (M 6×P1.0-3 pcs) from fix stand. Take out fix stand from axis screw.

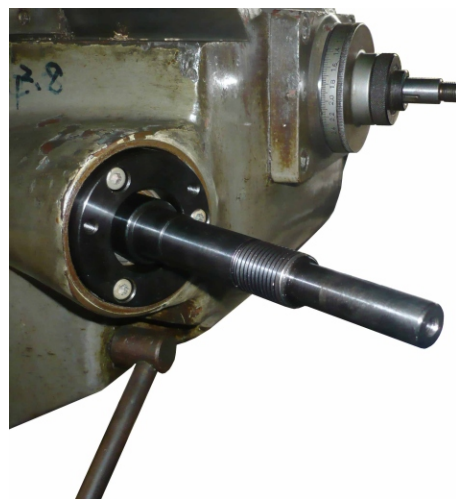


## 步驟 2

安裝Z軸固定座，以剛才拆下之固定螺絲(M6×P1.0-3 pcs)鎖緊。

## Step 2

Install Z-axis fix stand, tighten up fix screws (M6×P1.0 - 3 pcs).



## 步驟 3

將Z軸延長桿直接鎖入Z軸螺桿，直到迫緊培林。

## Step 3

To set Z-axis extension shaft onto Z-axis screw, until the bearing is pressed.



步驟 4  
將進給器機體套入延長桿，貼近固定座，以所附(M6×P1.0×25-2 pcs)螺絲鎖緊。

Step 4  
To set power table feed onto extension shaft and close to fix stand. And tighten up with inner hex socket screws (M6×P1.0×25-2 pcs)



步驟 5  
取下齒輪蓋

Step 5  
Take out the gear housing.



步驟 6  
注意!左手必須緊緊握住中心傳動軸。

Step 6  
NOTE!  
Left hand must hold the center transmission shaft.



步驟 7  
將左手按住中心傳動軸，右手將銅傘齒輪套入螺桿上，並左、右晃動感覺齒輪間之問隙是否在0.1~0.2mm之間。

Step 7  
By using left hand to hold the center transmission shaft.  
By using right hand to set the bevel gear on axis screw.  
Then, check the backlash between gears is in the range 0.1~0.2mm.

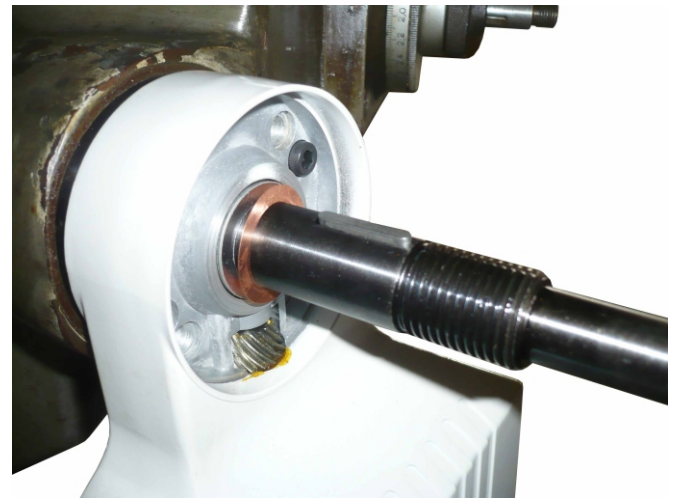


#### 步驟 8

若齒輪間隙太小，則取適當厚度(1.0t,0.25t,0.1t)之間隙墊圈套入，然後再重復步驟7，直到間隙達到要求為止。

#### Step 8

If the backlash is too small, to add shims (1.0t,0.25t,0.1t). Then ,repeat the step 7 until the backlash is satisfied.



#### 步驟 9

在延長軸之鍵槽中放入平行埋頭鍵 (4×4×25)，對準鍵槽再套入Z軸專用銅質傘齒輪(72齒)。

#### Step 9

To set parallel key (4×4×25) into key way of extension shaft, align with the key way, to set the bevel gear (72T).

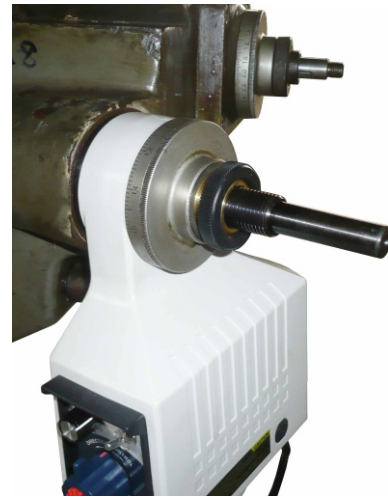


#### 步驟 10

1. 套上大間隙墊圈(Φ43.4×Φ33.4)，建議先使用0.25t 2片，然後裝上尺標刻度盤。

#### Step 10

1.To set the shim (Φ43.4×Φ33.4). It is suggested that to use 0.25t- 2 pcs, then to set the dial.

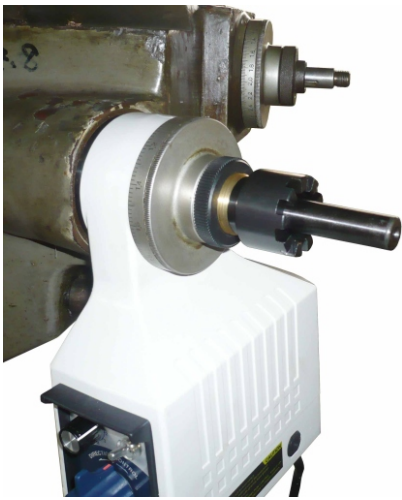


#### 步驟 11

1. 檢查尺標刻度盤與機體端面之間隙尺寸(0.5~0.75mm)，若不在此範圍內請重覆10、11步驟，直到間隙尺寸正確為止。  
2. 鎖上固定環，將尺標刻度盤固定。

#### Step 11

1.To check backlash (0.5 ~ 0.75mm) between dial and surface of power table feed. If it's not in the range, please repeat the procedures step 10 & step 11 until proper backlash is obtained.  
2.To lock fix ring and dial.



圖A (FIG.A)

#### 步驟 12

1. 鎖上把手連動環，套入曲柄把手，轉動幾圈，檢查是否動作順暢，並感覺齒輪轉動時是否平順，若有明顯之齒間咬合聲即表示步驟 7 之間隙不正確，須重複7~11步驟，直到平順為止。
2. 在(圖A)所示位置鑽孔 $\Phi 5$ 貫通延長軸，並以所附彈簧銷 ( $\Phi 5 \times 30$ ) 插入固定。

#### Step 12

1. To set handle (or hand wheel), tighten the dial. Rotate handle few times, to check whether it is interfere with power table feed. Also check whether the gear rotate smoothly. If there any noise from gear mash, it shows the backlash in step 7 is not correct. Please repeat the procedures from step 7 to step 11 until gear rotating is smoothly.
2. Drill a through hole ( $\Phi 5$ ) at position as FIG.A, then set with spring pin ( $\Phi 5 \times 30$ ).



步驟 13  
最後再套上齒輪蓋，並固定極限開關

Step 13  
Finally, to set the gear housing and limit switch.