

**Subject** ► Changes on change plate, spindle and some relevant parts

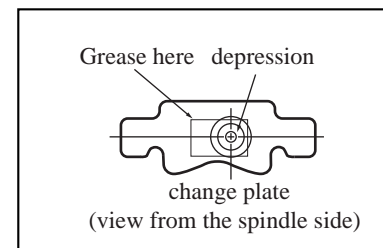
**For Models** ► HP1500, HP1510, HP1501

**Description** ► As described below, the parts in the subject have been changed for improvement in endurance.

► Current	► New
<p>① cam holder ② cam ③ spindle ④ steel ball 4.8 ⑤ change plate * Cam holder complete consists of 1 and 2</p>	<p>①' cam holder (reformed) ②' cam (reformed) ③' spindle (reformed) ④' steel ball 3.5 (changed to smaller one) ⑤' change plate (reformed and hardened) ⑥ plane bearing (added) ⑦ pin 4 (added) * Cam holder complete consists of 1', 2' and 6.</p> <p>1. Against seizure of spindle and cam; A plane bearing is added to the cam complete. Diameter of the cam holder's hole which receives the cam is enlarged. Inner and outer diameters of the cam is enlarged. 2. Against abrasion of change plate in drilling mode; Pin 4 is added to disperse the load on the change plate (surface contact of pin 4 while point contact of steel ball 4.8). The change plate is improved in hardness. The grease stocked around the steel ball makes lubrication life longer.</p>

## Important)

When replacing these parts be sure to fill up the hole of the spindle with grease for longer lubrication life before setting the steel ball 3.5 and the pin 4 in place. Also provide enough grease on the surface of the change plate where it contacts with the pin 4 (the shaded area of the change plate as illustrated on the right).



## Interchangeability(I/C)

Item No.	Current part		Q'ty	I/C	New part		Q'ty	Note
23	Change Plate 344112-2		1	No	Change Plate 344419-6		1	No interchangeable as a set
17	Spindle 322674-0		1	No	Spindle 322900-7		1	
22	Steel Ball 4.8 216002-8		1	No	Steel Ball 3.5 216001-0		1	
37					Pin 4 256251-5		1	
25	Cam Holder Complete 152473-4		1	<=	Cam Holder Complete 152529-3		1	

## Note

Interchangeability mark; <= means that the new part can be substituted for the current.

## Implementation

From Dec., 1995