

Locking and Unlocking of Spindle

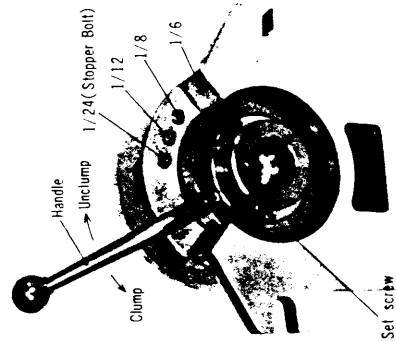
Turn the handle **5** fully to the left, and three pins **9** are pushed up along the tapered groove of the clamp ring **4**. At this time, the spindle is drawn in and thus the sliding surface of the body closely comes into contact with that of the spindle **2** to stop and lock the spindle.

Turn the handle **5** to the right by approx 15° from the locked position above-mentioned, and the spindle is unlocked.

Adjustment of Clamping Position

When the workpiece cannot be clamped due to shift of the clamping position or when dividing of $1/24$, $1/12$, $1/8$ or $1/6$ does not work well, adjust the clamping position as follows: Loosen the three socket fitted to the thrust nut **6** located at the rear of the spindle and set the stopper at $1/24$ position. Turn the handle until it touches the stopper, and then turn it reversly in the direction of clamping by approx. 15° .

As a result, the ratchet pin engages the adjoining tooth with clicking. Adjust the thrust nut **6** in such a manner that clamping is carried out between the first clicking and the second clicking. (Turning the handle clockwise will advance the clamping position, and turning it counterclockwise will retreat the clamping position.) After adjustment, tighten the three bolts of the thrust nut **6** so as to fix this nut.



Method of Indexing

* How to Set Dividing Number

The stopper bolt located at the rear of the body can be tightened with a 4ϕ wrench handle, and when the bolt head does not stick out, the handle **5** can be turned to the next stopper bolt.

For example, to set at $1/8$, tighten the first stopper bolt $1/24$ and the second stopper bolt $1/12$.

When three stopper bolts are all tightened, the handle **5** can be turned to the side of the body passing over all stopper bolts, so that dividing of $1/6$ can be carried out. (Fig. 1)

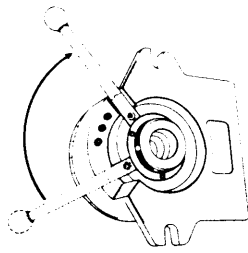


Fig. 1

* How to Set Dividing Number **2**, **3** and **4**

One notch of the ratchet represents $1/24$ on the indicator plate **3**.

In case of bisection,

$$24 \times \frac{1}{2} = 12$$

Move the ratchet twelve times, from the starting point, and a bisectional point is obtained.

In case of trisection,

$$24 \times \frac{1}{3} = 8$$

Move the ratchet whose one tooth is equivalent to $1/24$ of the circumference eight times from the starting point, and an $1/3$ turned (trisectioned) point of the full circumference is obtained.

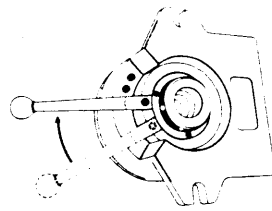
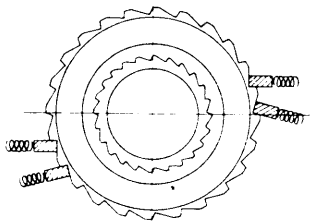


Fig. 2

Features and Mechanism

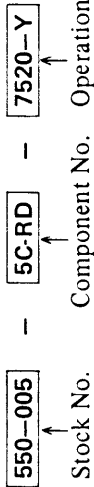
As shown in Figure, four ratchet pins for dividing are located opposite to each other centering around the dividing gear.

Also, since one ratchet pin is designed to be positioned at the upside and another ratchet pin at the lower side, both pins can be completely fitted into the tooth bottom of the dividing gear so that any play of these pins may be prevented.



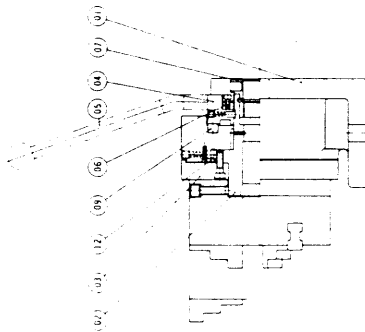
Suggestion for Ordering Parts

The parts names in this operation and service manual are abbreviated for description. Therefore, when ordering parts for replacement, be sure to specify as shown under:



(N.B) When ordering parts in accordance with the exploded view No. given in the individual product catalogue or general catalogue, be sure to write in addition its publishing year and page.

Sectional Drawing



Name of Each Component Part

- 1 Base
- 2 Spindle
- 3 Dial Plate
- 4 Clamp Ring
- 5 Handle
- 6 Thrust Nut
- 7 Draw Spindle
- 8 Lever
- 9 Pin
- 10 Spring
- 11 Snap ring
- 12 Thrust plate

Mounting of Collet and Clamping of Workpiece

Insert a 5C-Collet into the spindle from its upside along the key slot and screw the 5C Collet to the spindle with the draw spindle 7 from the rear of the body, thereby 5C-Collet being mounted in the body 1.

Insert a workpiece into the hole of the 5C-Collet. After putting the lever handle 8 into the hole of the draw spindle 7, rotate the lever handle 8 clockwise and draw in the 5C-Collet along the tapered hole of the spindle, thereby the workpiece being fixed.

•5C-Collet

Stock No. and Dimensions



Inch-Sized Type	
Stock No.	Inner Dia. of Bore (in)
500-100	1/8
500-110	3/16
500-101	1/4
500-111	5/16
500-102	3/8
500-112	7/16
500-103	1/2
500-113	9/16

Inch-Sized Type	
Stock No.	Inner Dia. of Bore (in)
500-104	5/8
500-114	1 1/16
500-105	3/4
500-115	13/16
500-106	7/8
500-116	15/16
500-107	1
—	—

(unit: inch)