


5-2-2 Adjustment

1. Reference position of turret indexing

The turret head is driven and indexed by a servomotor on the basis of an absolute positioning system. The controller has the factory-set reference position stored in its memory to perform absolute positioning. If the stored data should be lost due to a drop of the battery voltage or if the controller itself has been replaced, set and store the reference position anew by the following procedure:

- (1) Select the **[TURRET UNCLAMP]** menu item in manual operation mode to unclamp the turret.
- (2) Press the machine menu key  to call up the machine menu.
- (3) Select **[MAINTENANCE]** from the machine menu.

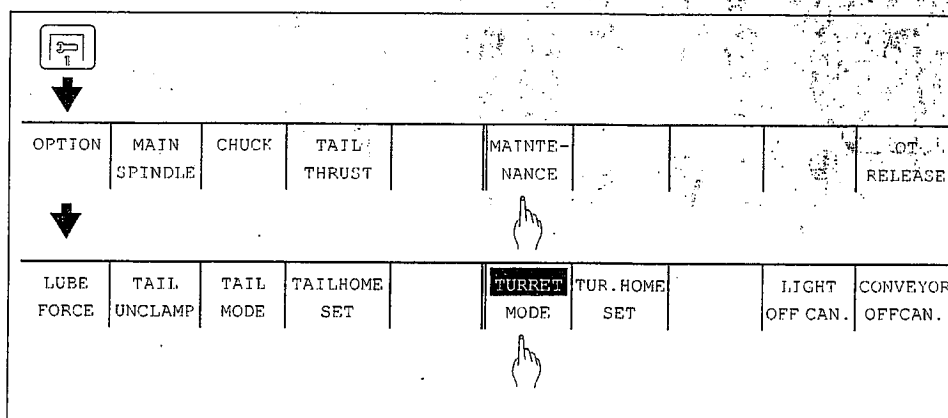


Fig. 5-12 Setting the reference position for turret indexing (1/2)

- (4) Press the **[TURRET MODE]** menu key together with the MF1 and MF2 keys to highlight the menu item in reverse display.
- (5) Using the tool select button, rotate the turret so as to direct the face of tool No. 1 to the axis of spindle revolution. Perform this setting to the reference angular position only approximately in this step by visually checking the required face for its parallelism with the upper side of the turret base.

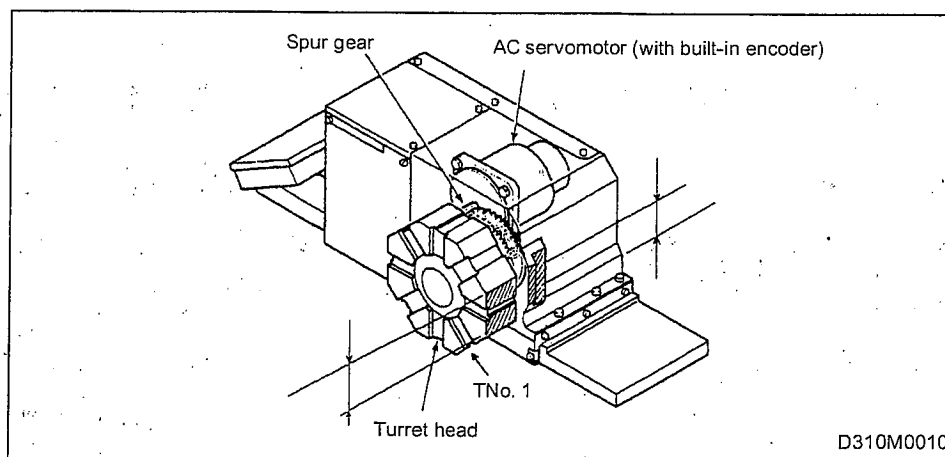


Fig. 5-13 Setting the reference position for turret indexing (2/2)

- (6) Select the **[TURRET MODE]** menu item again (by the aid of the MF1 and MF2 keys) to clear its reverse display.
- (7) Select the **[TURRET UNCLAMP]** menu item again to clamp the turret.
When the turret is clamped properly, clamping-pin contact sounds or motor beating sounds will not occur. Make sure that these sounds do not occur.
- (8) Mark the current position with a marking pen.
- (9) Select the **[TURRET UNCLAMP]** menu item anew to unclamp the turret.
- (10) Select the **[TURRET MODE]** menu item anew (by the aid of the MF1 and MF2 keys) to highlight its display.
- (11) Holding down the **[TUR. HOME SET]** menu key, set the tool select button to F (forward rotation) and press it. Then the turret will slightly turn to stop at the nearest grid point. Thus, the absolute position coordinate will be established.
- (12) Select the **[TURRET MODE]** menu item (by the aid of the MF1 and MF2 keys) to clear its reverse display.
- (13) Select the **[TURRET MODE]** menu item anew (by the aid of the MF1 and MF2 keys) to highlight its display.
- (14) Move the turret to the position marked in step (8) above.
- (15) Select the **[TURRET MODE]** menu item once again to clear its reverse display.
- (16) Select the **[TURRET UNCLAMP]** menu item once again to clamp the turret.
When the turret is clamped properly, clamping-pin contact sounds or motor beating sounds will not occur. Make sure that these sounds do not occur.
- (17) Press the power-off button and then repeat main power breaker off/on operations twice. Finally, turn power back on by pressing the power-on button. The procedure is now complete.