7.4 PREPARATION FOR STORED LEADSCRE ERROR COMPENSATION AND STORED STROKE LIMIT +

Return to Reference Point

With an NC equipped with the stored leadscrew error compensation or the stored stroke limit functions, either of the following two reference point return motions must be performed after switching on the power supply and before starting automatic operation.

a. Manual return to reference point (See 6.2.1)

b. Execute G91 G28 X0 Y0 Z0 ; in the MDI mode.

   This procedure is to teach the reference point to the control, since doing so is necessary because both pitch error compensation and stored stroke check are performed with reference to the reference point.

   Checking Parameter #6006$_{D1}$

   When the control is equipped with the pitch error compensation function or the stored stroke limit function, set this parameter to "1." With the parameter #6006$_{D1}$ set to "1," a return to the reference point is required before starting cycles, alarm codes (001 - 004 "reference point return incomplete") are displayed, if the CYCLE START key is pushed without making a reference point return immediately after turning on the power supply. Be sure to perform the operation for return to reference point.

7.5 PREPARATION FOR AUTOMATIC OPERATION

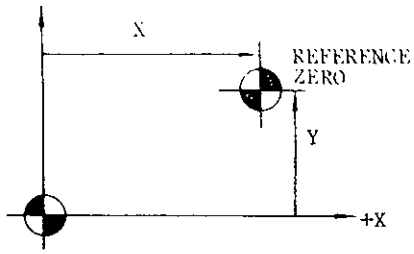
The machine must be positioned properly according to the part program prior to the start of automatic operation. After positioning the absolute coordinate system for the machining must be set properly by manual operation or programming.

1. When G92 is not programmed in a tape or memory.

   · Return the machine manually to the reference point.
   (Refer to 6.2.1 MANUAL RETURN TO REFERENCE POINT.)

   · The G92 command according to the part program should be executed by MDI.

   G92 X··· Y··· Z··· ;



ABSOLUTE ZERO POINT (0, 0)

Fig. 7.1

If "G92 X0 Y0 Z0 ;" setting is required, the coordinate of each axis can be set to "0" easily using ORG key.
Refer to 4.1.9 ORG KEY.

EXAMPLE

```
EOR ;
N1 G00 X··· Y··· Z··· ;
 .
 .
 .
```

Fig. 7.2

2. When G92 is programmed in a tape or memory.

   When the program requires G92 to be executed at the reference zero, return the machine to the reference point by manual return to reference point to reference zero.

EXAMPLE:

```
EOR ;
N1 G92 X··· Y··· Z··· ;
 .
 .
 .
```

Fig. 7.3

3. When G28 and G92 are programmed.

   When the program begins with G28 and with G28 and G92, move the machine manually into the area where return to reference point can be performed.