TORNADO 100, 200 AND 300
Z-AXIS REFERENCE PROCEEDURE

Before commencement of this procedure remove any workshifts set in z-axis

1. Ensure parameter No. 22 = 00000001. If not go into MDI mode and page down to PWE on the second parameter page, set PWE to 1. Ignore any alarms at this stage.
2. Set parameter 22 to 00000001.
3. Press the red controls off button.
4. Press the green controls on button.
5. A Z-axis reference return alarm should appear.
6. To set the Z-axis position, use the chuck face as a datum.
7. Measure the length of the chuck (or use the manufacturers specification of length) using vernier callipers.
8. In MPG mode, move the Z-axis towards the chuck until the turret disc face is 100mm from the chuck face, use a slip block to measure this or steel rule depending on accuracy required
9. Refer to parameter 709 to find the Z-axis stroke length (EG Tornado 200 = 558000), the first 3 digits of this value are to be noted.
10. Return to the position page and press REL soft-key below the screen.
11. Press W then CAN. W should now read 0.
12. To get the required movement, the following equation is used:

Distance to move in Z = value from step 9. - chuck length - slip block length

EG Distance to move in Z = 558 - 93-100

13. Move the saddle in +Z direction the exact amount calculated in step 12.
14. In MDI mode return to parameter 22 and set to 00000011.
15. Press the red control off button.
16. Press the green control on button.
17. The Z reference position is now set.
18. Set PWE to 0.
19. Press RESET on the machine to clear the alarms.