



## ST - Turret - Grid Offset/Tool Change Offset - Parameter 128/212

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#### Turret Home Switch Check and Adjustment

- 1) Reset E-stop and clear alarms.
- 2) Zero-return the A-axis,
  - a, If there are no alarms and the A-axis load is no more than 4% no adjustment needed.
  - b, If A-axis alarms come up or the A-axis load is more than 4% parameter 128 & 212 need adjustment
- 3). Set parameters 128 and 212 to values of 0. Power off and on the machine.
  - Change setting 7 off, press ALARM MESSAGES, type DEBUG and press write enter
  - Zero return all axes
  - Type "GRID A" and press write enter (Make sure there is space between GRID & A )  
Display shows (GRID OFFSET DONE)
  - Verify that parameter 128 now has a value. If not repeat step 3.
  - Unclamp the turret. (M43 in MDI)
  - Once the turret is unclamped press "A" then hand jog and .001
  - Rotate the turret counter clock wise (CCW) to pocket 1
  - Clamp the turret (M44 in MDI)
- 4) Go to POS-RAW DATA screen. ( press position , F4 key then right arrow to view the position for -A- axis )  
( Record the COMMAND - A- value from the RAW DATA )  
Take this value and enter the opposite "COMMAND" value displayed into parameter 212 with no decimal sign.  
For example,if the value on the screen is 0.6612, enter -6612 for parameter 212.
- 5) Zero return the A-axis.Tool 1 should be in the correct position if not cycle power and zero return all axes.  
If tool 1 is still out of position repeat step 3-4
- 6) Once tool pocket 1 is in position, be sure that the A-axis load is no more than 4%.  
(To view A-axis load change parameter 43 bit 18 INVIS AXIS to 0 and press CURNT COMDS then,page up or down)  
If the load is too high,you must continue to adjust parameter 212 until the load is less than 4%
- 7) Perform tool change to test all pockets
- 8) Change parameter 43 bit 18 INVIS AXIS back to 1. Cycle power and zero return machine. Test tool changer.

MEM 008009 N00000000  
 008009 (BALL BAR SS-20 & ST-30 GIN.);  
 (Latest revision 5/30/01 by Scott Gasich);  
 ;  
 ;  
 ;

DEBUG RAW DATA

	A	B	C
(END_PT )	0.0000	-0.0095	0.0000
(COMMAND)	-52.1011	-0.0095	0.0000
(ACTUAL )	-52.1011	-0.0095	0.0000
(ERROR )	0.0000	0.0000	0.0000
(TARGET )	-52.1011	-0.0095	0.0000
(INTEG )	0	0	0
(CURR )	0	0	0
(FUSE )	0	0	0
(LAG )	0	0	0

I/O	VAR	ATASTORE	LOOKAHEAD	AINT	ACROS	EY	HISTORY	DNIS	JBE	AFETY	ENSOR
ID	PRIME	ENC	TARGET	POSCMD	VELCMD	SRVO	ERR	CH	RAW	CH	ENCER
X		-26301	-26301	-26301	0	0	100	100	-26301		
Y		0	0	0	0	0	204	101	0		
Z		-117189	-117189	-117189	0	0	102	102	-117189		
A		-521011	-521011	-521011	0	0	103	103	-521011		
B		-95	-95	-95	0	0	104	104	-95		
C		0	0	0	0	0	203	105	0		
U		0	0	0	0	0	200	106	0		
V1		0	0	0	0	0	101	107	0		
W		0	0	0	0	0	202	200	0		
SPL		0	0	0	0	0	105	201	0		
TT		0	0	0	0	0	201	202	0		
SS		0	0	0	0	0	205	203	0		
								204	0		
								205	0		
								206	0		
								207	0		


PAGE DOWN FOR OPTIONS:

RAW DATA | FLAGS | ADDRESSES | BDM | AXES | IRQ-INFO | TASK-INFO | VARS

DEBUG HELP

F1 : ACTIVATE SERVO HISTORY DISPLAYS  
 F2 : TOGGLE BETWEEN DEBUG SCREENS  
 F3 : ACTIVATE ACTIVE PROGRAM BOX  
 F4 : ACTIVATE POS RAW DATA BOX

MAIN SPINDLE

 SPEED(RPM) SP LD: 0.0 KW  
 0 PGM SPD: 0 RPM  
 CMD SPD: 0 RPM  
 LOAD(%) 0% FEED RATE: 0.  
 ACT FEED: 0.

I/O 1 | AR | ATASTORE | LOOKAHEAD | AINT | ACROS | EY | HISTORY | DNIS | JBE | AFETY | ENSOR

DISCRETE I/O 1

MEM 008009 N00000000  
 008009 (BALL BAR SS-20 & ST-30 GIN.);  
 (Latest revision 5/30/01 by Scott Gasich);  
 ;  
 ;  
 ;  
 (TESTIG CENTER=);  
 (MACHINE COORD);  
 (X-14. Z-7.5);  
 (CHANGED G54 TO G55);  
 ;  
 ;  
 ;  
 G98 (IPM);  
 G55;  
 G01 X-1.0294 Z5.942 F50.;  
 M00;  
 Z5.883;  
 G03 X-1.0294 Z-5.883 I0.5147 K-5.883;  
 G01 Z-5.942;  
 G04 P7.;  
 Z-5.883;  
 G02 X-1.0294 Z5.883 I0.5147 K5.883;  
 G01 Z5.942;  
 M30;  
 ;  
 ;


	POSITION: (IN)	JOG RATE	0.0010
	OPERATOR	WORK G 54	LOAD
X	-0.07905	-0.07905	0%
Z	-0.17605	6.82405	0%
A	-0.530	-0.530	0%

	MACHINE	DIST TO GO
X	-0.07905	-0.07905
Z	-0.17605	-0.17605
A	-0.530	-0.530

Cursor up and down to change position displays

MAIN SPINDLE

 Commanded RPM: 0  
 Actual RPM: 0  
 Load: 0

SPINDLE: 100%  
 FEED: 100%  
 RAPID: 100%

	POSITION: (IN)	JOG RATE	0.0010	
	OPERATOR	WORK G 54	MACHINE	DIST TO GO
X	-0.07905	-0.07905	-0.07905	-0.07905
Z	-0.17605	6.82405	-0.17605	-0.17605
A	-0.530	-0.530	-0.530	-0.530

ACTIVE TOOL

TOOL 1 -----  
 LOAD 0 LIFE 100%

TAILSTOCK

INPUT: |