

TF-3 TOP AND FACE SHARPENER OPERATOR'S MANUAL



MADE IN THE U.S.A.

WM **W** RIGHT **M**ACHINE

TALON TF-3 TOP & FACE SHARPENER

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TALON TF-3 TOP & FACE SHARPENER

LIMITED WARRANTY

This machine is warranted against defects in workmanship and materials under normal use and proper maintenance, for three years after date of purchase or 3,000,000 tips, whichever comes first. Any part which is determined to be defective in material or workmanship and returned to WRIGHT MACHINE TOOL CO., shipping costs prepaid will be repaired or replaced, at WRIGHT MACHINE TOOL CO. option.

WRIGHT MACHINE TOOL CO., INC.
365 Palmer Avenue
Cottage Grove, Oregon 97424

Phone (541) 942-3712
Fax (541) 942-0730



TALON TF-3 TOP & FACE SHARPENER

COOLANT SAFETY

Proper coolant maintenance will increase grinder life and grinding performance, and possibly reduce any risks associated with health concerns. Lack of proper coolant maintenance can result in increased exposure to grinding grit, bacteria, and other by products of grinding that may lead to increased skin sensitivity in some individuals.

WARNING!

Coolants used in this machine must be designed to be used in wet grinding operations. Do not use automotive coolant. Check with the manufacturer of the coolant to make sure it is designed for use in wet grinding of saws.

Water based coolants are designed to operate at precise mixture ratios. Check with the manufacturer of your coolant to determine the proper mix ratio.

CAUTION

Residual cleaning solutions on the saw will easily be dissolved into the coolant tank and can dramatically affect the chemistry of coolant which can significantly reduce wheel life, coolant efficiency, and corrosion efficiency.

Maintain the coolant filters that were shipped with this machine. If you have any questions on how to maintain the filters, call the factory at
1-541-942-3712

Test your coolant at regular intervals. Contact the manufacturer of your coolant to determine when to test, and which tests to perform.

Warning signs of improperly maintained coolant:

1. Strong (foul) odor coming from the coolant.
2. Color change in the coolant.
3. Noticeable stickiness on the saw.
4. Rust developing on the machine and/or saw steel.
5. Unexplained skin rash.
6. Deterioration of paint and/or plastic parts.

If you detect any of these warning signs consult the coolant manufacturer at once. If you are having trouble contacting the coolant manufacturer, call Wright Machine Tool Co. Inc. at 1-541-942-3712



TALON TF-3 TOP & FACE SHARPENER

GENERAL SAFETY RULES

Failure to follow the Safety Rules and other basic precautions, may result in serious injury.

Always use eye protection: When operating this machine, eye protection should be worn. Grinding particles and the possibility of wheel breakage make eye protection necessary. Also face or dust mask if operation is dusty. Use adequate ventilation.

Use ear protection: If operation is creating excessive noise.

Disconnect power: To machine when NOT in use.

Keep clear: Of grinding wheels and pinch points when machine is running.

Saws are sharp: Wear appropriate personal protective equipment when handling saw blades.

Mounting of wheels: Should only be done by persons with mechanical aptitude and good knowledge of mounting, care, and inspection of grinding wheels. Wheels must be rated for the RPM of the machine.

Dress properly: Do not wear loose clothing or jewelry. Nonskid foot wear is recommended. Wear protective hair covering to contain long hair.

Avoid dangerous environments: Don't use in wet location. Keep work area well lit. Do not use this machine in the presence of flammable liquid or gasses.

Keep children away: Do not let VISITORS contact this machine.

Keep work area clean: Cluttered areas invite accidents.

All electrical covers: Must be in place before applying electrical power to this machine. Electrical service must be locked out prior to removing any electrical covers or machine guards. Access to electrical components must be restricted to trained personnel only to avoid possible electrical shock.



TALON TF-3 TOP & FACE SHARPENER

GENERAL SAFETY RULES (CONTINUED)

Voltage greater: Than specified on name plate can result in serious injury to user.

Never stand on this machine: Serious injury could occur if the machine is tipped or if the grinding wheel is accidentally contacted.

Follow safety precautions: For wheels, coolant and material being ground. These items must also be compatible. This information is available on the Safety Data sheet for each of these products.

SPECIFICATIONS

Talon TF-3, an Automatic Top or Face Grinder Programmable for many tooth geometries.

ALTERNATES:	1 Pass
PATTERNS:	1 Pass
COMBO PLANER:	1 Pass
TRIPLE CHIP:	1 Pass
STANDARD VOLTAGE:	230 Volt, 3 Phase, 50/60 HZ
OPTIONAL VOLTAGE:	As Requested
SHIPPING WEIGHT:	2,200 lbs.
MACHINE WEIGHT:	1,900 lbs.
MACHINE SIZE:	L 54" X W 35" X H 74"
AIR REQUIREMENTS:	2 C.F.M. at 80 psi to 100 psi
STANDARD SAW SIZE:	4" to 34"
SPINDLE MOTOR:	(1) 2 h.p. 3450 RPM Motor
CIRCUIT SIZE:	230 VOLTS 15 A



TALON TF-3 TOP & FACE SHARPENER

OPTIONAL ACCESSORIES

LARGE BORE OPTION	W-50
3 PIN SAW CENTER	W-450
SPLINE BORE SAW CENTER	W-460
SAW CENTER WASHER	W-1320-(specify)
FACE WHEEL	W-25
TOP WHEEL	W-37-6-2

COMMON REPLACEMENT PARTS

FINGER ARM PIVOT BEARING	W-188
RAMP FOLLOWER	W-1330
FEED FINGER	W-259-1
FINGER BOSS	W-287
FINGER SPRING	W-280
FINGER ARM SPRING	W-384-1
FILTER PAPER	A-5825
FIXED CLAMP JAW	W-1322-1
FEED RAMP	W-1324
SPINDLE DRIVE BELT	W-1726

STANDARD ACCESSORIES

1 - 1/4 TEE HANDLE KEY	A-5920
1 - 13 PC. ALLEN WRENCH SET	A-5923
8 - 5 Through 40° ALTERNATING ANGLE WASHERS	W-1353-TF
9 - SAW BUSHING SIZES 1/2", 5/8", 3/4", 1", 1-1/8", 30mm, 1-1/4", 1-3/8", 1-1/2".	C-5958
1 - MAGNETIC SAW RECEIVER 1/2" TO 1-1/2"	M-101
2 - COOLANT FILTERS	A-5825
3 - WHEEL POSITION STOPS	



TALON TF-3 TOP & FACE SHARPENER

PRE SET UP

COOLANT

Coolant capacity is 15 gallons. A rust inhibiting grinding coolant **MUST** be used or severe rust damage to machine can result. Mix coolant according to manufacturer's instructions.

COOLANT FILTERS - Clean coolant will increase grinding wheel life, improve grind finish and increase removal rates. Change coolant filter as necessary. Part # A-5825.

RUST DAMAGE IS NOT COVERED BY THE WARRANTY

MOUNTING GRINDING WHEELS

**All grinding wheels must be rated for the RPM of this machine.
Wheels exposed to higher than rated RPM are dangerous.**

Mounting of the grinding wheel should only be done by persons with mechanical aptitude and good knowledge of mounting, care, and inspection of grinding wheels.

The TALON TF-3 can use 2 wheels. (D-36 for facing and D-37 for topping). Install the D-36 6" diameter facing wheel first with the diamond facing to the left. Then install the D-37 4-1/2" diameter topping wheel with the diamond facing to the right. With those 2 wheels back to back it will not be necessary to change when going from top to face. Individual face or topping wheels are also available.

Manufacturer recommends that separate 6" wheels be used for topping(D-37-6-2) and facing(D-50).

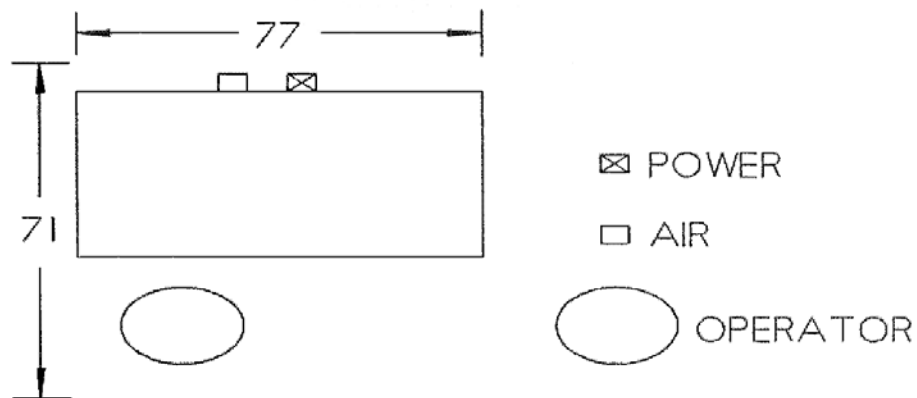


TALON TF-3 TOP & FACE SHARPENER

MACHINE INSTALLATION

Lifting this machine should only be done with a fork under the Machine base. Machine weight is approximately 1,900 pounds.

RECOMMENDED FLOOR SPACE FOR MACHINE AND OPERATOR



TALON TF-3 TOP & FACE SHARPENER

AIR SUPPLY

Your Talon TF-3 uses pneumatic and low voltage D.C. actuators to supply machine movements. These movements are superior to hydraulic controlled grinding machines.

Advantages of Pneumatic vs. Hydraulic...

1. Does not add vibration to Grinding machine which improve finish, speed and accuracy.
2. Does not build up heat which increases accuracy and eliminates a need for " warm up".
3. No oil to dispose of.
4. No oil leaks.
5. Easy and inexpensive to repair.
6. Safety.

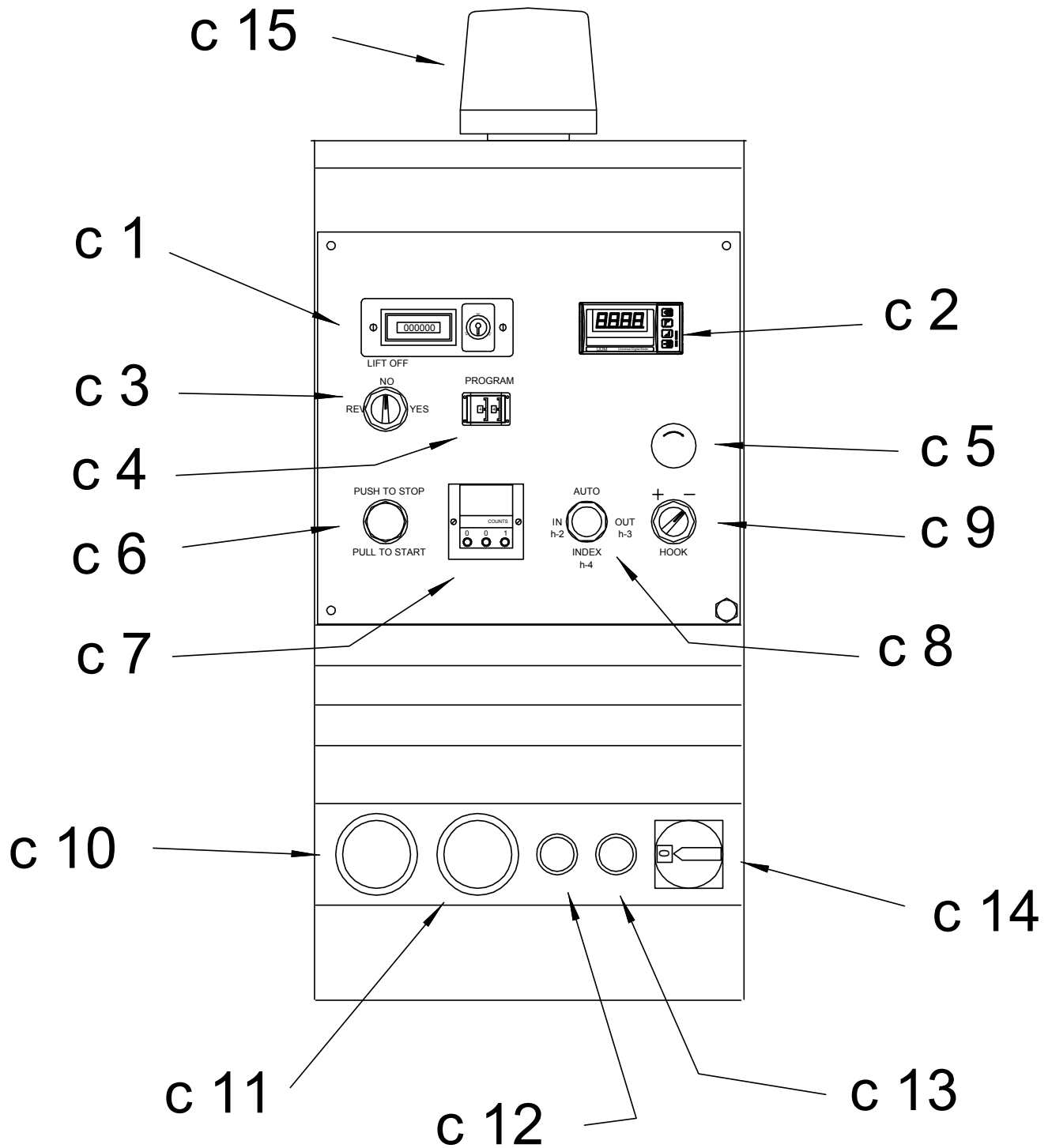
Your Pneumatic system should give years of trouble free operation if the following rules are followed.

1. Air pressure must be above 80 psi at all times during operation.
2. Do not use a oiler in the air line.
3. Do not use synthetic oil for lubrication as it can attack the o-rings in the machine.
4. The air should be reasonably dry and free of scale.
5. The air line to the machine must be 3/8 ID hose or larger.



TALON TF-3 TOP & FACE SHARPENER

CONTROL PANEL



TALON TF-3 TOP & FACE SHARPENER

CONTROL PANEL (continued)

c-1. TOTALIZER: The tooth totalizer will keep a tally of the total teeth ground.

c-2. GRIND LOAD SENSOR: The grinding load sensor, adjustable low set point (low load) will slow feed forward if excessive grinding load is encountered (blue light flashing rapidly). If exceeded the high adjustable set point (high load) will stop the cycle and retract the head. This will reduce wheel damage if a "crash" occurs.

To resume the machine cycle, move the joy switch to neutral then back to auto.

c-3. LIFT OFF CONTROL: The lift off control selects the desired motion. Normally this will be in the YES position.

c-4. GRIND PROGRAM: The program thumb wheel determines which of the 100 available tooth configurations that will be ground. The back of the operators manual has a description of programs. Some programs will only function in top grind position. An automatic scanner will stop feed forward if this condition exists.

c-5. EMERGENCY STOP: The panic stop is depressed if an emergency situation arises. Do not use this as a normal stop button.

c-6. START / STOP: Pull to start / push to stop. If the joy switch is in auto when started the machine will index and then start it's grind cycle. If the joy switch is out of auto and the start button is pulled a second time the coolant will shut off. To restart the coolant pull the start button again or place the joy switch in to automatic.

c-7. TOOTH COUNTER: The tooth counter is normally set for the number of teeth in the saw. To reset the counter during automatic operation, pull the start button and the counter will return to 0.

c-8. JOY SWITCH: When the machine is not running the joy switch controls the saw movement. (IN) moves the saw up, (OUT) moves the saw down. To position the saw height, place the height sensor on the index finger and hold the joy switch to (IN), the saw will raise to position and lock. When the machine is running the joy switch controls manual index or feed or starts the automatic cycle. If you are unsure of the program, step the machine through the cycle 1 tooth at a time. Index/Feed, etc.



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CONTROL PANEL (continued)

Note: The height sensor must be rotated out of the grind area and rested on the dowel pin when not in use.

c-9. HOOK: Hook angle switch operates at full speed (13 degrees per second) when the machine is off and at 1/2 degree per second when the machine is running. Hook angle can be jogged (with care) during the grind cycle.

c-10. INDEX PITCH: To adjust the tooth pitch, pull the pitch adjustment knob out and turn to desired pitch length. Do not adjust while the machine is cycling.

c-11. PLATE THICKNESS: Turn the plate thickness full clockwise, this is 0 plate thickness position. Turn the plate thickness knob counter clockwise to the thickness of the plate being ground. Each turn equals .100.

c-12 / 13. FEED SPEED ADJUSTMENTS: Two speed knobs control the traverse speed forward and reverse. If lift off is in the yes position, feed reverse (the right knob) should be full open. The forward speed control is on the left. The normal range of grinding speed will be 1 to 3 turns open on forward speed.

c-14. ELECTRICAL DISCONNECT: The main power disconnects all power components in the machine. This should be used for extended time shutdown.

c-15. MONITOR LIGHT: The machine's monitor light will signal when the machine stops it's automatic cycle. The first minute down, the light blinks on for 1 second, off 3 seconds. At 2 minutes it flashes on for 1 second, off for 1 second. At 3 minutes it flashes on for 1 second, off for 1/3 second. At 4 minutes the monitor light stays on. To turn the monitor light off, restart the machine, or move the joy switch out of automatic. The machine monitor also reminds you when routine maintenance is needed. At 100,000 cycles the monitor light flashes on for 10 seconds off for 1 second. To reset after maintenance is completed, push the start / stop button in and hold the joy switch in the index position for 10 seconds.



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SETUP CHECKLIST

1. Select the desired program
2. Set the number of teeth.
3. Set the hook / back angle.
4. Set the tooth pitch.
5. Set the plate thickness.
6. Set the forward speed 1 to 2 turns open.
7. Install the proper saw bushing.
8. Position the saw.
9. Install the wheel position stops.
10. Install the proper bevel angle washer, if bevels are being ground.
11. Close the door.
12. Pull start.
13. Move the joy switch to index, check index pitch adjustment.
14. Place in auto.
15. Grind the saw.

RELOAD CHECK LIST

1. Open door.
2. Remove saw.
3. Install next saw, close the door.
4. Pull start.



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SETUP

NOTE: It is very important during the first day of operation to only grind alternate or straight saws. This will greatly reduce frustrations and speed up the learning process.

NOTE: If the air pressure to the machine drops below 75 lbs. the machine will stop feed forward until the air pressure returns to required pressure of 90 lbs.

1. Set the grind load sensor c-2 as necessary. See page 8, c-2.
2. Place the lift off control c-3 to **YES**.
3. Select the desired grind program from the chart at the back of this manual. Set the grind program c-4 to that number. If the machine is in face position and a Top Grind program is selected the machine will not feed forward.
4. Set the tooth counter c-7 to the number of teeth required. In some grind programs this may be less than the total number of teeth. (example # 68)
5. Place the joy switch c-8 in the center position.
6. Set the Hook / Back angle by moving Hook angle switch c-9.
7. Adjust the index pitch c-10. On some programs it is necessary to set the Index Pitch twice the actual measurement. (example # 68)
8. Determine the plate thickness and adjust c-11 as required. To remove back lash always be turning counter clockwise for final adjustment.
9. Adjust the feed speed c-12 to 1 turn open.
10. Turn the electrical disconnect c-14 to **ON**.



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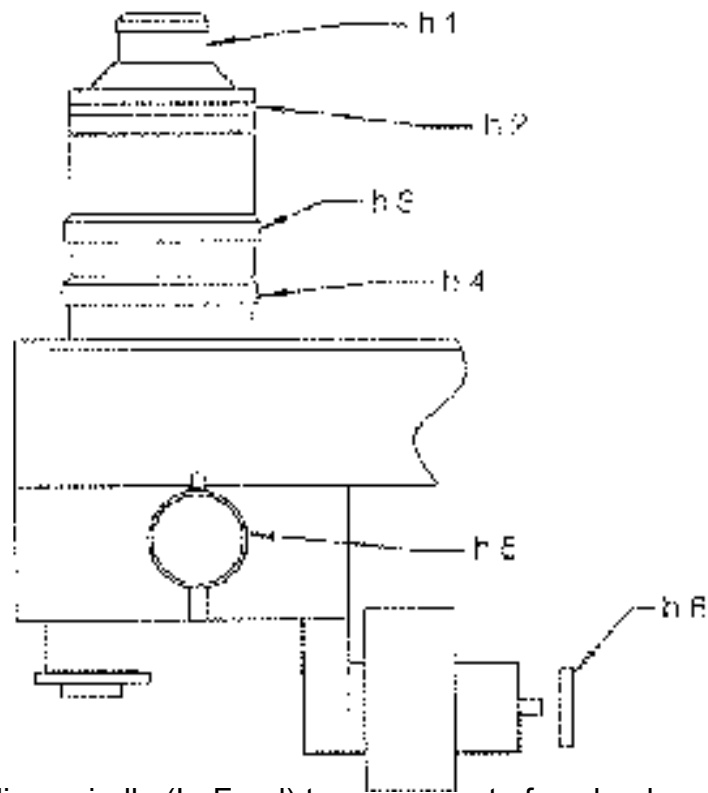
SETUP (CONTINUED)

- 12.** Install the proper saw bushing and mount the saw.
- 13.** Place the height sensor on the index finger and hold the joy switch c-8 to IN. The saw will rise to position and lock. Rotate the height sensor out of the way resting on the coolant arm bracket. This locks to the height adjustment.
- 14.** Install the wheel position stop that matches the wheel and grind position. 6" top - 6" face - 4.5" top stops are adjustable and are located between head and base and above slide system.
- 15.** Install the proper bevel angle washer on 3/8 pin. 5 to 40 degree. No washer is required for 45 or 0 degree. See following page for (h6).
- 16.** Position the correct tooth against the index finger. This is shown on the grind program chart diagram.
- 17.** Pull the **START / STOP** c-6 to start the machine.
- 18.** Move the joy switch c-8 to index until the index is full forward. If the index finger does not follow the radius of the saw adjust the index guide ramp as necessary with the 1/4 hex Tee handle.
- 19.** Move the joy switch c-8 to IN. This will move the grinding head forward. Adjust the infeed h-1 until proper removal is achieved. See following page for (h1).
- 20.** Finish grinding the set up tooth.
- 21.** Index to the next tooth.
- 22.** Place joy switch **IN** to **AUTOMATIC**. The machine will complete the saw.



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GRINDING HEIGHT ADJUSTMENTS



- h-1.** Infeed moves grinding spindle (In-Feed) to compensate for wheel wear or wheel thickness.
- h-2.** Height 2, adjust Hi-Low differential in top grind programs requiring Hi-Low and raker height on combo saws. Adjust lift off stroke when face grinding.
- h-3.** Height, adjust chamfer size in programs requiring chamfers.
- h-4.** Adjust the 4th height. Example: Broken edges of rake on grind program number 9.
- h-5.** Indicator.
- h-6.** Bevel angle adjustment. No washer required for programs with 0 or 45 degrees. Five

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PRESETTING THE GRINDING HEIGHT ADJUSTMENTS

On Top Grind programs that require h-2, h-3 or h-4 presetting of the grind height is accomplished as follows.

1. Set Grind program c-3 to 00. Set up only program.
2. Start the machine by pulling c-6.
3. Set the Indicator h-5 on 0.
4. Move the joy switch c-8 to IN. Turn h-2 height 2 until the desired difference on Indicator h-5 is seen. On triple chip saw this is normally .010 to .015. On Combo Saw set by using the height 2 chart.
5. If the Grind program requires a height 3, set h-3 by moving the joy switch c-8 to out. Turn h-3 until the desired difference is seen on Indicator h-5. Use the height 3 chart to determine this setting.
6. If the Grind program requires a height 4, set h-4 by moving the joy switch c-8 to index. Turn h-4 until the desired difference is seen on Indicator h-5. Use the height 4 chart to determine this setting.

Note: To turn h-2, h-3, h-4 it will be necessary to jog the joy switch c-8.



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HEIGHT 2 CHART

(h-2)

Amount of Height Movement required on combo saws.

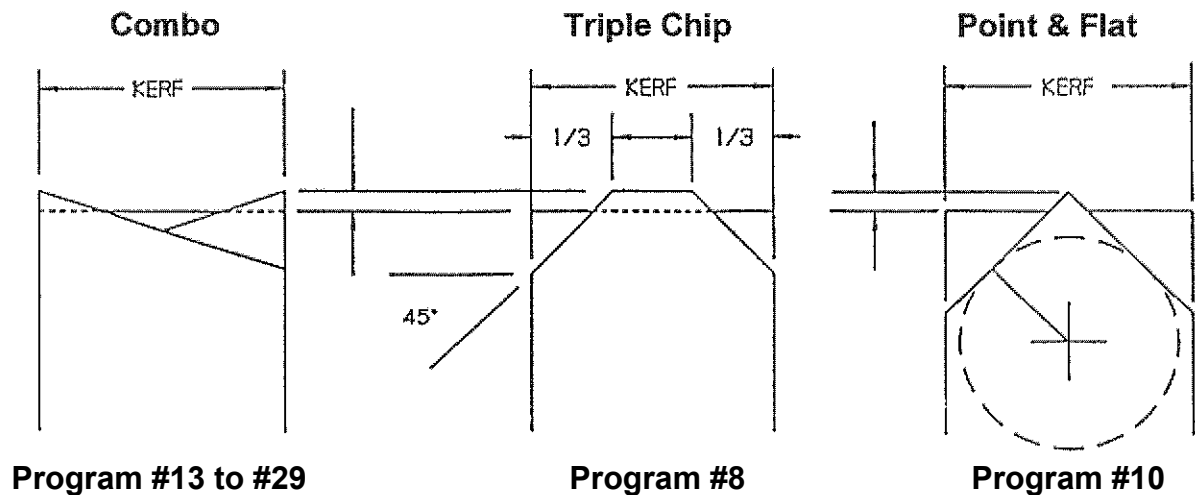
Kerf	5° Bevel	10° Bevel	15° Bevel	20° Bevel
	.010/.015 Ht. Dif.	.010/.015 Ht. Dif.	.015 Ht. Dif.	.015 Ht. Dif.
.215			.018	.031
.200			.016	.028
.185			.014	.026
.171			.012	.023
.156			.010	.020
.141			.008	.018
.140	*.004/.009	*.003/.002		
.127			.006	.015
.120	*.005/.010	*.002/.003		
.112			.004	.013
.100	*.006/.011	*.001/.004		
.080	*.007/.012	*.000/.005		

Note: The asterisk (*) figures require special programming.

On Triple Chip saw h-2 is set at the difference in height between the raker and chamfer flat.

Note: The amount of high movement will vary if the saw is not positioned to the correct height. The height sensor must be used and correctly adjusted for this chart to be correct. Set up height on the raker tooth. See (c8) on page 9, joy switch for height setup.

(h-2) Height difference



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20° BEVEL

Kerf	Height difference					
	.010	.011	.012	.013	.014	.015
.180	.029	.028	.027	.026	.025	.024
.170	.027	.026	.025	.024	.023	.022
.160	.026	.025	.024	.023	.022	.021
.150	.024	.023	.022	.021	.020	.019
.140	.022	.021	.020	.019	.018	.017
.130	.020	.019	.018	.017	.016	.015



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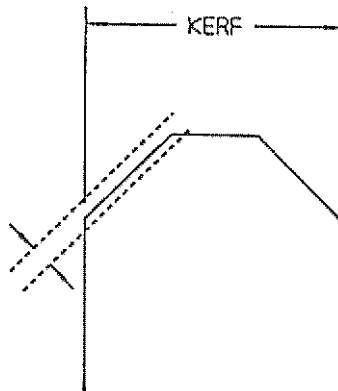
HEIGHT 3 CHART (h-3)

Amount of Height movement on chamfered teeth.

The H-3 adjustment is used to set the proper height for the grinding of the chamfer. As with all height adjustments, the saw must be positioned to the correct height initially for the charts to be accurate. The height sensor must be used (and must be correctly adjusted) for this chart to be accurate.

Note that some values in the table are printed in bold, while others are not bold, and are printed in italics and are slightly smaller. The bold numbers indicate that you must use programs #70-#73. The set up for the H-3 is still done the same, but for these numbers the cylinder will need to step up, instead of down to grind a proper chamfer.

	30°	35°	40°	45°
Kerf				
.275	.006	.004	.002	<i>.004</i>
.256	.005	.002	<i>.002</i>	<i>.006</i>
.240	.003	<i>.000</i>	<i>.004</i>	<i>.008</i>
.224	.002	<i>.001</i>	<i>.005</i>	<i>.010</i>
.208	.001	<i>.003</i>	<i>.007</i>	<i>.012</i>
.192	<i>.001</i>	<i>.004</i>	<i>.009</i>	<i>.014</i>
.175	<i>.002</i>	<i>.006</i>	<i>.011</i>	<i>.016</i>
.158	<i>.004</i>	<i>.008</i>	<i>.012</i>	<i>.018</i>
.142	<i>.005</i>	<i>.009</i>	<i>.014</i>	<i>.020</i>
.125	<i>.006</i>	<i>.011</i>	<i>.016</i>	<i>.022</i>
	<i>.108</i>	<i>.008</i>	<i>.012</i>	<i>.018</i>
<i>.024</i>				



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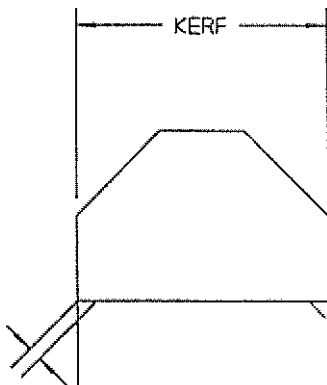
HEIGHT 4 CHART

(h-4)

The setting of the H-4 depends on how the H-2 is adjusted. The following tables show where to set the H-4 according to where the H-2 is set, and the angle of the corner break.

To find the correct setting for the corner break, first find the chart that corresponds to the angle you have selected (30°, 35°, 40° or 45°). Next, locate the column with your kerf width on the top. Now find on the left side of that chart the row that matches the height at which your H-2 is set. Now slide over in that row until you intersect the column that matches your kerf.

The number in that box is the setting to use before the corner break is figured in. Now add the amount of corner break you want to this value to determine the H-4 setting.



Examples shown on next page.

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HEIGHT 4 Example (h-4)

Example:

You have set up for a 45° corner break, on a saw with a .125 kerf width. You have set your H-2 for .015". You desire a .010 corner break.

Using the 45° chart on page 22 find the kerf column for .125 kerf (top of chart). Now on the left side of the chart find the row that shows H-2 .015. Sliding down the column from .125 and across from .015, you will find that the row and the column meet at the value of .003".

Now add .010 (the amount of corner break that you want) and .003 to determine the H-4 setting. In this case H-4 should be set at .013" (.010 + .003).

Note that most values in the table are printed in bold, while others are not bold, and are printed in italics and are slightly smaller. The bold numbers indicate that you must use programs #70-#73. The set up for the H-4 is still done the same, but for these numbers the cylinder will need to step up, instead of down to grind a proper corner break.

Example:

You have set up for a 35° corner break, on a saw with a .192 kerf width. You have set your H-2 for .010". You desire an .008 corner break.

Using the 35° chart on page 22 find the kerf column for .192 kerf (top of chart). Now on the left side of the chart find the row that shows H-2 .010. Sliding down the column from .192 and across from .010, you will find that the row and the column meet at the value of .024". Note that the value .024 is printed in bold. This means that for this set up, you will have to use programs #70-#73.

Now add .008 (the amount of corner break that you want) and .024 to determine the H-4 setting. In this case H-4 should be set at .032" (.008 + .024).



TALON TF-3 TOP & FACE SHARPENER

30° CORNER BREAK CHART **KERF**

	.092	.108	.125	.142	.158	.175	.192	.208	.224	.240	.256	.275
.000	.006	.010	.015	.019	.023	.027	.031	.035	.039	.043	.047	.052
.005	.002	.006	.010	.014	.018	.023	.027	.031	.035	.039	.043	.048
H 2 .010	.002	.002	.006	.010	.014	.018	.023	.027	.031	.035	.039	.043
.015	.007	.003	.002	.006	.010	.014	.018	.022	.026	.030	.034	.039
.020	.011	.007	.003	.001	.005	.010	.014	.018	.022	.026	.030	.035

35° CORNER BREAK CHART **KERF**

	.092	.108	.125	.142	.158	.175	.192	.208	.224	.240	.256	.275
.000	.004	.008	.013	.018	.023	.028	.032	.037	.042	.046	.051	.056
.005	.000	.004	.009	.014	.019	.023	.028	.033	.038	.042	.047	.052
H 2 .010	.004	.000	.006	.010	.015	.019	.024	.029	.033	.038	.043	.048
.015	.009	.004	.001	.006	.010	.015	.020	.025	.029	.034	.039	.044
.020	.013	.008	.003	.002	.006	.011	.016	.021	.025	.030	.034	.040

40° CORNER BREAK CHART **KERF**

	.092	.108	.125	.142	.158	.175	.192	.208	.224	.240	.256	.275
.000	.000	.005	.011	.016	.022	.027	.032	.038	.043	.048	.053	.059
.005	.004	.002	.007	.013	.018	.023	.029	.034	.039	.044	.049	.055
H 2 .010	.007	.002	.003	.009	.014	.019	.025	.030	.035	.040	.045	.051
.015	.011	.006	.000	.005	.010	.015	.021	.026	.031	.036	.042	.048
.020	.015	.010	.004	.001	.006	.012	.017	.022	.027	.033	.038	.044

45° CORNER BREAK CHART **KERF**

	.092	.108	.125	.142	.158	.175	.192	.208	.224	.240	.256	.275
.000	.004	.002	.008	.013	.019	.025	.031	.037	.043	.048	.054	.060
.005	.008	.002	.004	.010	.016	.022	.028	.033	.039	.045	.050	.057
H 2 .010	.011	.006	.001	.007	.013	.018	.024	.030	.036	.041	.047	.054
.015	.015	.009	.003	.003	.009	.015	.021	.026	.032	.038	.043	.050
.020	.018	.013	.007	.001	.005	.011	.017	.023	.028	.034	.040	.047



TALON TF-3 TOP & FACE SHARPENER

THINGS TO CHECK IF PROBLEMS EXIST (TROUBLE SHOOTING)

MACHINE WILL NOT START...

1. Is the machine plugged in and has proper voltage?
2. Is the Main Disconnect Switch turned on?
3. Is the Panic Button turned on?
4. Check the 7 amp fuse on the primary and secondary sides of the machine tool transformer located on top of the power panel.
5. Check the in-line 10 amp fuses located on the right side of the power panel.
6. Make sure that the Stop Block located in the Stroke Assembly is in place.
7. Make sure the tooth counter is not set on Zero.
8. Check if a grind program is selected.
9. Make sure that all terminal strips located on the output and power panels are plugged in.
10. Check the light on CR-1 relay. If not lit, then replace relay. Check line voltage (see wiring diagram).
11. Is the Output Panel powered up? Check the CPU run light.
12. Do a light check on the P.L.C..
13. Call Wright Machine Tool.

MACHINE WILL START BUT WILL NOT CYCLE...

1. Make sure that indicator needles on load meter are to the right of idle level (see control panel).
2. Make sure that the incoming air pressure is at 90 PSI. If not, then the head will lock up when the air pressure switch is untripped.
3. Check the feed speed knobs located below control panel and make sure they are turned on. Turning the knobs to a higher number will increase the speed of travel.
4. Make sure that the Stop Block located in the Stroke Assembly is in place.
5. Make sure the joystick located on the control panel functions properly (check IN, OUT, INDEX, and AUTO).
6. Check fuses located in fuse block on top of the output panel.
7. Check fuses located inside the output cards on the output panel.
8. Make sure that all terminal strips located on the output and power panels are plugged in.
9. Check the feed forward and feed reverse air solenoid valves located on the output panel.
10. Check stop valve located below oil reservoir on the left side (in back of the machine remove the rear cover). The stop valve should be powered up when the head moves forward. If not, double check steps 6 & 7 for blown fuses.
11. Do a light check on the P.L.C. to check for bad proximity switches. When proximity switch is on, then the light should be on.
12. Call Wright Machine Tool.



TALON TF-3 TOP & FACE SHARPENER

MACHINE STOPS CYCLE WITH INDEX FORWARD...

1. Check index proximity switch located on the large index cylinder (in back of the machine remove the rear cover).
2. Check positive stop located near where the index feed finger contacts the clamp jaw set screw.
3. Check for mechanical bind or lock up.
4. Do a light check on the P.L.C. located on output panel.
5. Call Wright Machine Tool.

MACHINE STOPS CYCLE WITH HEAD FORWARD...

1. Check feed forward proximity switch function, located on the stroke assembly. Adjust positive stop if needed, or replace proximity switch.
2. Check the feed speed knobs located below control panel and make sure they are turned on. Turning the knobs to a higher number will increase the speed of travel.
3. Make sure that the Stop Block located in the Stroke Assembly is in place.
4. Check for mechanical bind or lock up.
5. Do a light check on the P.L.C. located on output panel.
6. Call Wright Machine Tool.

LIFT OFF DOES NOT FUNCTION...

1. Check selector switch on control panel. Switch should be on YES position for top grinding.
2. If face grinding check the hi-low ring making sure that the h-2 knob is not turned too tight. (In face grinding the h-2 knob is used for adjusting lift off)
3. Make sure that the indicator, h-5 isn't sticky thus resulting in a false reading.
4. Check for water contamination in the air system. Check air filter at rear of the machine.
5. Check for kinked air line.
6. Check for air leaks around the cylinder stack on grinding head.
7. Check for excessive exhausting out of muffler when machine isn't cycling. See note below.
8. Check for blown fuses in fuse block located on output panel.
9. Check for blown fuses inside the output cards located on output panel.
10. Check lift off valve located on output panel to see if it's functioning properly.
11. Do a light check on the P.L.C. located on output panel.

MACHINE LIFTS OFF THE WRONG WAY...

1. Limit switch 5 located on the hook shaft needs to be adjusted. Remove rear cover and see Plate Thickness Sprocket Assembly.

Note: If constant air exhausting out of the muffler stops when pinching an air line to one side of the cylinder (red or black line on lift off cylinder) then there is a bad o-ring in that cylinder.



TALON TF-3 TOP & FACE SHARPENER

CYLINDER STACK H-2, H-3, H-4...

1. Check for sufficient air pressure. Make sure that the incoming air pressure is at 90 PSI. If not, then the head will lock up when the air pressure switch is untripped.
2. Check the 00 program. See programs.
3. Make sure that the height adjustment rings (h-2, h-3, h-4) are not locked up.
4. Check for kinked air lines.
5. Check for water contamination in the air system. Check air filter at rear of the machine.
6. Check air solenoid valves located on output panel to see if they are functioning properly.
7. Do a light check on the P.L.C. located on output panel.
8. Call Wright Machine Tool.

MACHINE DOES NOT ALTERNATE...

1. Make sure the proper angle washer is in place (see Alternate Assembly).
2. Make sure the proper grind program is selected (see h-6 on control panel).
3. Turn off the Main Disconnect switch and see if there is a mechanical bind. Feel for any tight spots by physically moving the head left to right.
4. If not alternating in manual, make sure index travels full forward by holding the joystick to Index until positive contact is made by the feed finger arm. Then release to neutral.
5. If not alternating in Auto, check the air solenoid valves located on output panel.
6. Do a light check on the P.L.C. located on output panel.
7. Call Wright Machine Tool.

HOOK ACTUATOR DOES NOT FUNCTION...

1. Check the main disconnect and panic button on control panel.
2. Check for a blown 7 amp fuse on primary and secondary side of transformer (located on power panel)
3. Check connections on main disconnect, diode bridge, capacitor (see power panel), and actuator (see hook actuator assembly).
4. Check the terminal strip located on the top side of power panel. Make sure connections are plugged in.
5. Check power at transformer (see power panel).
6. Check the speed control (see power panel).
7. Check the actuator. (see hook actuator assembly).
8. Call Wright Machine Tool.



TALON TF-3 TOP & FACE SHARPENER

SAWLIFT DOES NOT FUNCTION...

1. Check height sensor finger (see clamp assembly). The height sensor finger should be in the down position and proximity switch light should be on for machine to run.
2. Check the light on relay CR 3. If CR 3 relay does not light up in conjunction with height sensor proximity switch light then swap out CR 3 relay (see power panel).
3. Check connections on main disconnect, diode bridge, and capacitor (see power panel).
4. Check W-1429-1 transformer located on power panel.
5. Check the actuator. (see hook actuator assembly).
6. Call Wright Machine Tool.

NO COOLANT...

1. Check coolant level at coolant tank.
2. Check the shut off valve on coolant nozzle and make sure it is free of clogs.
3. Check the coolant line for any cuts, kinks, or clogs.
4. Does the coolant pump run?
5. Check the light on relay CR 2. If CR 2 relay does not light up then swap out CR 2 relay (see power panel).
6. Check the CR 2 relay connections (see electrical schematics).
7. At the control panel, pull the start button one time to turn the coolant pump on. Pull the start button again to turn the pump off. The next time the start button is pulled on again the coolant pump will start automatically.
7. Call Wright Machine Tool.



TALON TF-3 TOP & FACE SHARPENER

A	→	UNUSED		
B	→	CAROUSEL ONLY		
C	→	OUTPUT MODULE		
		WIRE COLOR	TERMINAL #	CONTROL
COMMON-1		WHITE	---	---
C-0		BLACK	---	C-BALANCE SOL.
C-1		BLACK	---	HEIGHT THREE SOL.
C-2		BLACK	---	HIGH LOW SOL.
C-3		BLACK/ORANGE-S	38	CR2-13 COIL
C-4		BLACK	---	HEIGHT FOUR SOL.
C-5		BLUE	---	AIR PRESSURE SWITCH TO STOP VALVE OIL POT
C-6		---	---	---
C-7		ORANGE	50	BLUE LIGHT
COMMON-2		WHITE	---	---
D	→	OUTPUT MODULE		
		WIRE COLOR	TERMINAL #	CONTROL
COMMON-1		WHITE	---	---
D-0		BLACK	---	CLAMP DRAG SOL.
D-1		BLACK	---	1/2 INDEX SOL.
D-2		BLACK	---	A-ALTERNATING SOL.
D-3		BLACK	---	B-ALTERNATING SOL.

TALON TF-3 TOP & FACE SHARPENER

D → OUTPUT MODULE CONT.

	WIRE COLOR	TERMINAL #	CONTROL
D-4	BLACK	---	C-ALTERNATING SOL.
D-5	BLACK	---	D-ALTERNATING SOL.
D-6	BLACK	---	INDEX SOL.
D-7	BLACK	---	LIFT OFF SOL.
COMMON-2	WHITE	---	---

E → OUTPUT MODULE

	WIRE COLOR	TERMINAL #	CONTROL
COMMON-1	WHITE	---	---
E-0	RED	33	OVERLOAD 95
E-1	BROWN	34	COUNTER 1
E-2	PURPLE	35	COUNTER PULSE 15 TO TOTALIZER
E-3	YELLOW	36	MSI-A1 COIL
E-4	BLUE	37	MSII-A1 COIL
E-5	BLACK	---	FEED FWD. SOL.
E-6	BLACK	---	FEED REV. SOL.
E-7	BLACK	---	CLAMP FULL PRESSURE SOL.
COMMON-2	WHITE	---	---



TALON TF-3 TOP & FACE SHARPENER

F → INPUT MODULE			
	WIRE COLOR	TERMINAL #	CONTROL
COMMON- I	WHITE	---	---
F1-0	BLUE/YELLOW-S	22	HILOAD-M
F1-1	RED	23	START-N
F1-2	BROWN	24	STOP-O
F1-3	PURPLE	25	COUNTER-P
F1-4	YELLOW	26	AUTO-Q
F1-5	BLUE	27	OUT-R
F1-6	BLACK/ORANGE-S	28	INDEX-S
F1-7	TAN	29	IN-T
COMMON- II	WHITE	---	---
F2-0	---	---	---
F2-1	---	---	---
F2-2	---	---	---
F2-3	---	---	---
F2-4	---	---	---
F2-5	---	---	---
F2-6	---	---	---
F2-7	---	---	---

TALON TF-3 TOP & FACE SHARPENER

G → INPUT MODULE

	WIRE COLOR	TERMINAL #	CONTROL
COMMON- I	WHITE	---	---
G1-0	BLUE/YELLOW-S	42	LS1-HEAD OUT
G1-1	RED	43	LS2-HEAD IN
G1-2	BROWN	44	LS3-INDEX FWD.
G1-3	PURPLE	45	LS4-CLOSED IN FACE
G1-4	---	---	---
G1-5	BLACK	11	---
G1-6	BLUE/YELLOW-S	12	STEP YES-C
G1-7	BLACK	21	LOW LOAD-L
COMMON- II	WHITE	---	---
G2-0	RED	13	D-1 THUMBWHEEL
G2-1	BROWN	14	E-2 THUMBWHEEL
G2-2	PURPLE	15	F-4 THUMBWHEEL
G2-3	YELLOW	16	G-8 THUMBWHEEL
G2-4	BLUE	17	H-10 THUMBWHEEL
G2-5	BLACK/ORANGE-S	18	I-20 THUMBWHEEL
G2-6	TAN	19	J-40 THUMBWHEEL
G2-7	ORANGE	20	K-80 THUMBWHEEL

TALON TF-3 TOP & FACE SHARPENER

H → C.P.U.

I → CONTROL UNIT

	WIRE COLOR	TERMINAL #	CONTROL
	BLACK	31	115V
	WHITE	32	115V
---	---	---	---
	---	---	---
	---	---	---
	---	---	---
	---	---	---
	G — GREEN	---	GROUND POLE



TALON TF-3 TOP & FACE SHARPENER

The useful life of this machine can be dramatically extended if the following rules of operation are followed.

1. Clean the machine regularly to avoid carbide buildup in the enclosure.
2. Leave all inspection covers closed and in place. Only open inspection covers during maintenance.
3. A good rust inhibiting coolant must be used in the correct ratio. Too weak a mix will cause rust problems and too thick will damage the paint and load the Diamond wheels.
4. When not in use leave the enclosure door open. This eliminates humidity build up in the enclosure.
5. Do not clean the machine with high pressure air or water. This can blow grit into the internal parts of the machine and cause rusting problems which is not covered by warranty.

MAINTENANCE

DAILY

1. Check coolant level and filter.
2. Clean interior of machine.
3. Check oil level on central lube system.

WEEKLY

1. Check coolant tank for carbide buildup.
2. Replace coolant filters.

MONTHLY or 100,000 CYCLES

1. Grease hook pivot.
2. Inspect finger for wear.
3. Inspect clamp jaws and ramp for wear.

EVERY 6 MONTHS or 500,000 CYCLES

1. Inspect spindle drive belt.
2. Clean spindle motor fan.
3. Remove stainless splash guards and clean completely.
4. Inspect and clean central lube points for lubrication, linear slide system, bevel pivot, and spindle slide.
5. Inspect lube filter.

EVERY 24 MONTHS or 1,000,000 CYCLES

1. Replace spindle drive belt and inspect pulleys.
2. Inspect pulleys for wear.



TALON TF-3 TOP & FACE SHARPENER

CENTRAL LUBRICATOR SYSTEM C-6060

Description

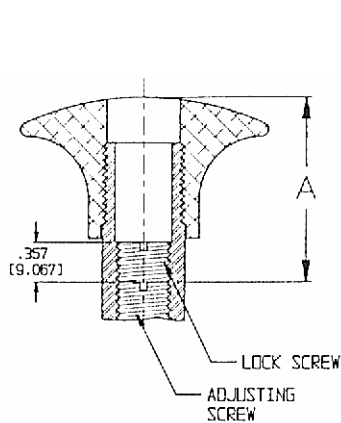
This unit pumps once every fifteen minutes of operation. To manually lubricate pull knob up. Lubricator is located at the right of the machine.

Oil Type	HD 220 Way Oil
Expected Consumption	Every three months (250 hours of operation)
Filter Part #	A-6062
Replace	Every 12 Months



TALON TF-3 TOP & FACE SHARPENER

Discharge Volume Per Cycle: Adjustable from 2.5cc minimum to 5.0cc maximum. The lubricator is supplied at the maximum stroke setting. To reduce oil deliver, remove the lock screw, measure **A**, turn adjusting screw clockwise, increasing dimension **A** in the increment (corresponding to the desired discharge) as shown on Table.



IN.	DISCHARGE
.400	2.5cc
.320	3.0cc
.240	3.5cc
.160	4.0cc
.080	4.5cc
0	5.0cc

Filter Replacement: A filter at pump inlet protects the lubrication system and should be inspected every six months. If not clean, replace. To remove filter, pry out snap ring with screwdriver and remove filter discs and screens. To reinstall, insert in the following order: Filter disc support (coarse screen), filter disc screen (fine screen), filter disc, filter clamp ring and filter snap ring.

Motor Replacement: Remove motor cover and the motor mounting screws. To reassemble, be sure slot in motor shaft engages with pin in drive shaft before replacing screws. When ordering motor, see instructions included in drawing on front of sheet.

Maintenance: Check oil level daily and refill when required. Replace filter group annually or as frequently as necessary.

TALON TF-3 TOP & FACE SHARPENER

GRIND SPEED

* CYCLE TIME IN SEC. PER TIP	TEETH PER MINUTE	FEED RATE INCH PER MIN.	**MAX. RECOMMENDED DEPTH OF CUT.180 GRIT WHEEL
2.1	29	17.2	.006
2.5	24	12.6	.020
2.9	21	9.9	.030
3.3	18	8.2	.036
3.7	16	7.0	.043
4.1	15	6.1	.049 +
5.0	12	4.7	.049 +
6.0	10	3.8	.049 +
8.0	7.5	2.4	.049 +

* 10° ATB TOP 1-1/4 PITCH
.315 TOTAL HEAD MOVEMENT
3/16 DIAMOND SECTION
10 GPM COOLANT FLOW
OFF CARBIDE TIME IS 1.01 SEC.

** GRINDING WHEEL QUALITY,
CONCENTRATION, AND BOND HARDNESS
MAY REQUIRE REDUCED DEPTH OF CUT.



TALON TF-3 TOP & FACE SHARPENER

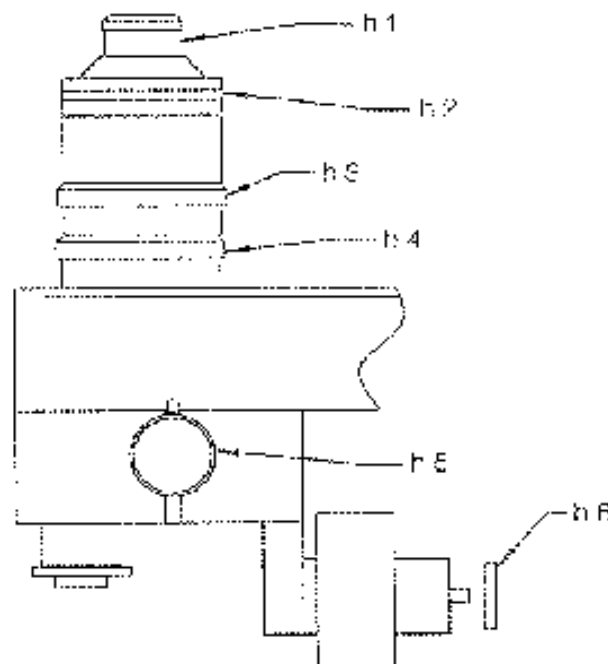
PROGRAMS

PROGRAM 00

This program is for set up only. It is used to pre set the h-2 / h-3 / h-4 height adjustment on the lift off assembly.

1. Set grind program C-4 on control panel to 00.
2. Pull start button C-6.
3. H-2 is adjusted by briefly jogging the joystick C-8 to the H-2 position (left), while turning the H-2 adjustment ring. Use dial indicator H-5 for precise adjustment.
4. H-3 is adjusted by briefly jogging the joystick C-8 to the H-3 position (right), while turning the H-3 adjustment ring. Use dial indicator H-5 for precise adjustment.
5. H-4 is adjusted by briefly jogging the joystick C-8 to the H-4 position (down), while turning the H-4 adjustment ring. Use dial indicator H-5 for precise adjustment.
6. After presetting is done, the operator must return to a grind program (01 to 99). Pull start

GRINDING HEIGHT ADJUSTMENTS



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 01

This program is for flat top or flat face sharpening. No pre set heights are required.

1. Set grind program C-4 on control panel to 01.
2. Set back angle (hook angle if face sharpening) at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
8. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
9. Index the set up tooth into position.
10. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide too hard. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
11. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
12. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 01 (Continued)

13. When the set up is complete, then select AUTO on joystick C-8.

PROGRAM 02

This program is used for left top, or left flat face sharpening.

1. Set grind program C-4 on control panel to 02.
2. Set back angle (hook angle if face sharpening) at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Install desired bevel angle washer onto H6. Washers are located in tool drawer.
8. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
9. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
10. Index the set up tooth into position.
11. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide too hard. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 02 (Continued)

12. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
13. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.
14. When the set up is complete, then select AUTO on joystick C-8.

PROGRAM 03

This program is used for right top, or right flat face sharpening.

1. Set grind program C-4 on control panel to 03.
2. Set back angle (hook angle if face sharpening) at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Install desired bevel angle washer onto H6. Washers are located in tool drawer.
8. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
9. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 03 (Continued)

10. Index the set up tooth into position.
11. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide too hard. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
12. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
13. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.
14. When the set up is complete, then select AUTO on joystick C-8.

PROGRAM 04

This program is used for alternate face, or alternate top sharpening.

1. Set grind program C-4 on control panel to 04.
2. Set back angle (hook angle if face sharpening) at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 04 (Continued)

8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This tooth must be right.
12. Turn the spindle motor on by using the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide too hard. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
14. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.
15. When face sharpening, a slight correction of the plate thickness C-11 may be necessary to achieve equal removal on left to right face bevels.
16. Stop by pushing C-6 then start by pulling C-6 until green light comes on. Move joy switch to INDEX to position right tooth.
17. Move the joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until the head stops. The grinding head should now bevel left.
18. Move joy switch C-8 to INDEX for the next tooth to be ground.
19. Move joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until head stops. The grinding head should now bevel right.
20. If removal is even then place joy switch C-8 to AUTO.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 05

This program is used for the tops of chamfer teeth.

1. Set grind program C-4 on control panel to 05.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 05 (Continued)

13. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
14. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
15. Move the joystick C-8 to IN to move the grinding wheel across the carbide until lift off engages. Then move joystick to OUT until head stops. Head should now bevel right. Use H-3 on lift off assembly to adjust the amount of chamfer by briefly jogging the joystick to IN while turning the H-3 ring. Continue this until the H-3 is adjusted to the desired amount. After H-3 is adjusted, hold the joystick to IN until the grinding head lifts off, then move the joystick to OUT.
16. Head should now bevel left. Check to see that carbide removal matches on left and right bevels. This is done by inspecting the tooth that you just ground.
17. If removal is even, place joy switch C-8 to AUTO.

PROGRAM 06

This program is used for the tops of pointed teeth.

1. Set grind program C-4 on control panel to 06.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 06 (Continued)

7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
14. Move the joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until the head stops. The grinding head should now bevel left.
15. Move joy switch C-8 to INDEX for the next tooth to be ground.
16. Move joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until head stops. The grinding head should now bevel right.
17. If removal is even then place joy switch C-8 to AUTO.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 07

This program is used for the flat top sharpening of hi/low teeth.

1. Set grind program C-4 on control panel to 07.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the raker tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
8. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
9. Index the set up tooth into position. This tooth will be the high tooth.
10. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
11. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
12. If removal is acceptable then place joy switch C-8 to AUTO.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 08

This program is used for the top sharpening of triple chip teeth.

1. Set grind program C-4 on control panel to 08.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the **raker tooth**. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This tooth will be the chamfer tooth.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 08 (Continued)

14. If you have not already set the desired height difference using program 00, index to the raker tooth and use H2 on lift off assembly to adjust desired height difference.
15. Move the joystick C-8 to IN to move the grinding wheel across the carbide until lift off engages. Then move joystick to OUT until head stops. Head should now bevel right. Use H-3 on lift off assembly to adjust the amount of chamfer by briefly jogging the joystick to IN while turning the H-3 ring. Continue this until the H-3 is adjusted to the desired amount. After H-3 is adjusted, hold the joystick to IN until the grinding head lifts off, then move the joystick to OUT.
16. Head should now bevel left. Check to see that carbide removal matches on left and right bevels. This is done by inspecting the tooth that you just ground.
17. If removal is acceptable, place joy switch C-8 to AUTO.

PROGRAM 09

This program is used for the top sharpening of triple chip teeth with corner breaks.

1. Set grind program C-4 on control panel to 09.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the raker tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 09 (Continued)

9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This tooth will be the chamfer tooth.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
14. Move the joystick C-8 to IN to move the grinding wheel across the carbide until lift off engages. Then move joystick to OUT until head stops. Head should now bevel right. Use H-3 on lift off assembly to adjust the amount of chamfer by briefly jogging the joystick to IN while turning the H-3 ring. Continue this until the H-3 is adjusted to the desired amount. After H-3 is adjusted, hold the joystick to IN until the grinding head lifts off, then move the joystick to OUT.
15. Head should now bevel left. Check to see that carbide removal matches on left and right bevels. This is done by inspecting the tooth that you just ground.
16. If you have not already set the desired height difference using program 00, index to the raker tooth and use H2 on lift off assembly to adjust desired height difference.
17. Head should bevel left. Use H4 on lift off assembly to adjust amount of corner break. Typically, operators do this by jogging the joystick C-8, while turning the H4 ring until the desired amount is achieved.
18. If removal is acceptable, place joy switch C-8 to AUTO.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 10

This program is used for point and flat teeth.

1. Set grind program C-4 on control panel to 10.
2. Set back angle (hook angle if face sharpening) at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on. The head should now be on Right Bevel.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This tooth will be the Pointed Tooth.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 10 (Continued)

13. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
14. Move the joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until the head stops. The grinding head should now bevel left.
15. Move joy switch C-8 to IN to move grinding wheel across the carbide until lift off engages. Then move joy switch to OUT until head stops. The grinding head should now bevel right.
16. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.
17. If you have not already set the desired height difference using program 00, index to the raker tooth and use H2 on lift off assembly to adjust desired height difference.
18. If removal is acceptable, place joy switch C-8 to AUTO.

PROGRAM 11

This program is used for the top sharpening of California triple chip Right teeth.

1. Set grind program C-4 on control panel to 11.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the raker tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 11 (Continued)

7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This will be the chamfer tooth.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
14. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
15. Move the joystick C-8 to IN to move the grinding wheel across the carbide until lift off engages. Then move joystick to OUT until head stops. Head should now bevel right. Use H-3 on lift off assembly to adjust the amount of chamfer by briefly jogging the joystick to IN while turning the H-3 ring. Continue this until the H-3 is adjusted to the desired amount. After H-3 is adjusted, hold the joystick to IN until the grinding head lifts off, then move the joystick to OUT.
16. Head should now bevel left. Check to see that carbide removal matches on left and right bevels. This is done by inspecting the tooth that you just ground.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 11 (Continued)

18. Head should bevel right. Use H-4 on lift off assembly to adjust the amount on right bevel by briefly jogging the joystick to IN while turning the H-4 ring until the desired amount is achieved. Then move the joystick to OUT.
19. Index the saw to the next tooth (this will be the flat). Move the joystick to IN until the head lifts off, then move the joystick to OUT.
20. Head should bevel left. Use H-4 on lift off assembly to adjust the amount on left bevel by briefly jogging the joystick to IN while turning the H-4 ring until the desired amount is achieved. Then move the joystick to OUT. Left and Right H-4 adjustments should be even. You may use 00 program to preset height adjustments.
21. If removal is acceptable, place joy switch C-8 to AUTO.

PROGRAM 12

This program is used for the top sharpening of California triple chip Left teeth.

1. Set grind program C-4 on control panel to 11.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the raker tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 12 (Continued)

9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
11. Index the set up tooth into position. This will be the chamfer tooth.
12. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
13. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
14. Turn H1 infeed knob for desired carbide removal, using dial indicator H5 for monitoring the amount of removal.
15. Move the joystick C-8 to IN to move the grinding wheel across the carbide until lift off engages. Then move joystick to OUT until head stops. Head should now bevel right. Use H-3 on lift off assembly to adjust the amount of chamfer by briefly jogging the joystick to IN while turning the H-3 ring. Continue this until the H-3 is adjusted to the desired amount. After H-3 is adjusted, hold the joystick to IN until the grinding head lifts off, then move the joystick to OUT.
16. Head should now bevel left. Check to see that carbide removal matches on left and right bevels. This is done by inspecting the tooth that you just ground.
17. Index the saw to the next tooth (this will be the flat). Move the joystick to IN until the head lifts off, then move the joystick to OUT.
18. Head should bevel left. Use H-4 on lift off assembly to adjust the amount on left bevel by briefly jogging the joystick to IN while turning the H-4 ring until the desired amount is achieved. Then move the joystick to OUT.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 12 (Continued)

19. Index the saw to the next tooth (this will be the flat). Move the joystick to IN until the head lifts off, then move the joystick to OUT.
20. Head should bevel right. Use H-4 on lift off assembly to adjust the amount on right bevel by briefly jogging the joystick to IN while turning the H-4 ring until the desired amount is achieved. Then move the joystick to OUT. Left and Right H-4 adjustments should be even. You may use 00 program to preset height adjustments.
21. If removal is acceptable, place joy switch C-8 to AUTO.

PROGRAMS 13 Through 27.

Combo Saws (Top Only)

Raker- Long Pitch- Alternates

These programs are used for top and flat face sharpening of combo saws.

1. Set grind program C-4 on control panel to 13-27.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the raker tooth. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.



TALON TF-3 TOP & FACE SHARPENER

PROGRAMS 13 Through 27 (Continued)

9. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
10. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system. Since this program uses both a short and a long index, be sure to check both short and long indexes. This is done on the first and second indexes only, unless you run the machine in complete manual cycle. To reset push stop button C-6.
11. Position the saw so that the first tooth before the raker is against the feed finger.
12. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
13. Index the set up tooth into position. This will be the raker tooth.
14. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.
15. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.
16. Turn H1 infeed knob for desired carbide removal. The dial indicator H-5 can be used to set the specific amount of material removal.
17. Index the saw to the first bevel tooth. Adjust H-2 by briefly jogging the joystick to IN while turning the H-2 adjustment ring on the lift off assembly until the desired removal is achieved. This ring will turn with pressure.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 28 / 29

Combo Saw

Equal tooth space

These programs are used for sharpening combo saws with equal tooth pitch.

1. Set grind program C-4 on control panel to 28/29.
2. Set back angle at hook switch C-9 on control panel.
3. Set # of teeth to be sharpened on tooth counter. C-7 on control panel.
4. Set lift off control to yes. C-3 on control panel.
5. Load saw. Use proper bushing located in tool drawer. Tool drawer is located under bottom row of adjustments, just under the control panel.
6. Use height sensor to set saw height. The height sensor arm is located above and behind the fixed clamp jaw. Rotate the arm so it is near the index finger. Then rotate the saw so the height sensor arm will rest on the **raker tooth**. Hold the joystick C-8 to in to move the saw up until the arm is lifted by the saw to the proper height (the saw lift will stop automatically). Now rotate the arm so it rests against pin behind height sensor arm. The saw is now at the proper height.
7. Set plate thickness C-11 to proper plate setting. Use micrometer to measure the thickness of the saw. Turn C-11 so that the numbers match the readings on the micrometer.
8. Install desired bevel angle washer onto H6. Washers are located in tool drawer. Note that no washer is necessary for a 45° bevel.
9. Position the saw so that the first tooth before the raker is against the feed finger.
10. Pull start button C-6 on control panel. Note that the coolant can be toggled on/off with the start button, while putting the joystick into automatic will always turn the coolant on.
11. Set index pitch. This is done by holding the joystick C-8 to index, while turning knob C-10 to the desired setting. Make sure that C-10 locks into position before releasing C-8 to the center position. This process may need to be repeated to fine tune the index system.
12. Index the set up tooth into position. This will be the raker tooth.
13. Turn the spindle motor on by briefly jogging the joystick C-8 to the IN position. Adjust feed speed forward C-12 to desired speed. Use caution not to let the grinding wheel contact the carbide. You can also adjust feed reverse C-13 at this time. Typically C-13 is adjusted fully open.



TALON TF-3 TOP & FACE SHARPENER

14. While adjusting feed speeds, the stroke length can also be set. When using a 6" top wheel select the 6" top stroke adjustment block. When using a 6" face wheel select the 6" face stroke adjustment block. When using wheel combination and a 4.5" top wheel select a 4.5" adjustment block. The stroke length can be adjusted by turning the knurled knobs on the selected block. This block is located between grind head and base and to the right of the hook scale.

15. Turn H1 infeed knob for desired carbide removal. The dial indicator H5 can be used to set the specific amount of material removal.

16. Index the saw to the first bevel tooth. Adjust H-2 by briefly jogging the joystick to IN while turning the H-2 adjustment ring on the lift off assembly until the desired removal is achieved. This ring will turn with pressure.

17. If set up is good, double check program selection or continue to run in manual mode by following saw geometry . Then stop machine by pushing stop button C-6 on control panel.

18. Position the saw so that the first tooth before the raker is against the feed finger.

PROGRAM 30 Through 39 and 50

Patterns top only

Set up same as alternate 04

The first tooth to be ground automatically will be the only right tooth.

PROGRAM 40 Through 49 and 60

Pattern top only

Set up same as alternate 04

The first tooth to be ground automatically will be the last tooth.

PROGRAM 51 Through 57 and 61 Through 67

This program is used for sharpening Dado type blades.

Set up same as Combo 13 through 27 except all index pitch's are equal. Use H-2 for bevel.

PROGRAM 68

This program is for high speed alternate top grinding. All right teeth will be ground first indexing 2 x pitch then 1 pitch will index and all left teeth will be ground. This program saves time and wear on the machine as the wheel direction and bevel angle changes only once per saw.

1. c-4 to 68.

2. c-7 to 1/2 the number of teeth in the saw.

3. c-10 to 2 x tooth pitch + 1/4" (approximately).

4. h-2 full clockwise then turn counter clockwise 1 1/2 turns. Now turn H-1 up 1-1/2 times.

5. The first tooth to be ground automatically will be a right.

Note: The feed rate remains unchanged on all high speed programs.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 69

This program is for high speed alternate top grinding.
Set up same as program #68 with the exception of no extra lift off on H-2.
Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 70

This program is for top grinding extra wide triple chip.
Set up same as program #08 with the exception that H-3 is adjusted on flats.

PROGRAM 71

This program is for top grinding extra wide triple chip with corner breaks.
Set up same as program #09 with the exception that H-3 is adjusted on flats.

PROGRAM 72

This program is for top grinding extra wide triple chip (Right).
Set up same as program #11 with the exception that H-3 is adjusted on flats.

PROGRAM 73

This program is for top grinding extra wide triple chip (Left).
Set up same as program #12 with the exception that H-3 is adjusted on flats.

PROGRAM 74

This program is for top grinding triple chip with extra flat.
Set up same as program #08 with the exception that extra flat is the same height as raker.

PROGRAM 75

This program is for top grinding point with two flats.
Set up same as program #10 with the exception that extra flat is the same height as raker.

PROGRAM 78

This program is for top grinding high speed flats.
Set up same as program #01 with the exception that H-2 is used as extra lift off. Turn H-2 full clockwise then turn counter clockwise 1 1/2 turns. Now turn H-1 up 1-1/2 times.
Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 79

This program is for top grinding high speed flats.
Set up same as program #01 with the exception that there is no extra lift off.
Note: The feed rate remains unchanged on all high speed programs.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 80

This program is for top grinding of high speed high-low.
Set up same as program #07 with the exception that H-3 is used as extra lift off. Turn H-3 full clockwise then turn H-1 up 1 full turn.

Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 81

This program is for top grinding of Dado saws.
Set up same as programs #13 through #27 with the exception that H-2 is used for Raker and equal pitch.

PROGRAM 82

This program is for top grinding high speed flats with adjustable second pass. Use H-4 to adjust second pass before indexing.

Set up same as program #78 with the exception that H-4 is used for the second pass. The machine will grind second finish pass before indexing.

Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 83

This program is for top grinding high speed alternates with adjustable second pass. Use H-4 to adjust second pass before indexing.

Set up same as program #68 with the exception that H-4 is used for the second pass. The machine will grind second finish pass before indexing.

Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 84

This program is for top grinding high speed high-low with adjustable second pass. Use H-4 to adjust second pass before indexing.

Set up same as program #80 with the exception that H-4 is used for the second pass. The machine will grind second finish pass before indexing.

Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 85

This program is for top grinding high speed triple chip with adjustable second pass on high-low tooth only. Use H-4 to adjust single pass on chamfers before indexing.

Set up same as program #88 with the exception that H-4 is used for the second pass.

Unlike the procedure in step four of program #88, this program must only grind carbide and then lift off as soon as the wheel clears.

Note: The feed rate remains unchanged on all high speed programs.



TALON TF-3 TOP & FACE SHARPENER

PROGRAM 86

This program is for top grinding pattern saws with 7 lefts and one right - right being adjustable. Set up same as pattern programs #30 through #39 and #50 with the exception that H-2 is used to adjust the height of the right tooth only. The auto sequence start on the right tooth only.

PROGRAM 87

This program is for top grinding pattern saws with 7 rights and one left - left being adjustable. Set up same as pattern programs #40 through #49 and #60 with the exception that H-2 is used to adjust the height of the rights and the auto sequence starts on the last right.

PROGRAM 88

HIGH SPEED TRIPLE CHIP PROGRAM

Program #88 is a very complex program and there are certain set up procedures that must be followed or the machine will grind the chamfers on the LOW tooth.

1. Set up the machine as per grinding program 08 (triple chip).
2. Test grind the triple chip, if "OK", proceed.
3. Set program to #88.
4. Raise "H1" up approximately one turn and "H4" down one turn.
5. Pull start/stop knob to turn on the machine.
6. Check feed finger index to pick up one tooth spacing.
7. Using the joystick index to the triple chip tooth bring the head in and adjust "H1" to grind on the top of the tooth. Bring the wheel across the top of the tooth. Move the joystick to bring the head back.
8. Leave the joystick in neutral. Push in on the start/stop knob (this resets the internal counter).
9. Pull out on the start/stop knob. Move the joystick to the automatic position. First tooth indexed must be chamfer!

You must not pull out on the start/stop knob to reset the external counter. If you do, the internal counter will not match the external counter and this will cause the machine to chamfer more teeth on the back and fewer teeth on the front. During the operation of the machine in program #88 the internal and external counters must match.

Hint - The triple chip tooth must be ground with the external counter in an even number, if not stop the machine and set up the machine again.

Note: The feed rate remains unchanged on all high speed programs.



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PROGRAM 89

HIGH SPEED TRIPLE CHIP WITH CORNER BREAKS PROGRAM

Program #89 is a very complex program and there are certain set up procedures that must be followed or the machine will grind the chamfers on the LOW tooth.

1. Set up the machine as per grinding program 09 (triple chip with corner breaks).
2. Test grind the triple chip with corner breaks, if "OK", proceed.
3. Set program to #89.
4. Raise "H1" up approximately 1/2 turn out.
5. Pull start/stop knob to turn on the machine.
6. Check feed finger index to pick up one tooth spacing.
7. Using the joystick index to the triple chip tooth bring the head in and adjust "H1" to grind on the top of the tooth. Bring the wheel across the top of the tooth. Move the joystick to bring the head back.
8. Leave the joystick in neutral. Push in on the start/stop knob (this resets the internal counter).
9. Pull out on the start/stop knob. Move the joystick to the automatic position. First tooth indexed must be chamfer!

You must not pull out on the start/stop knob to reset the external counter. If you do, the internal counter will not match the external counter and this will cause the machine to chamfer more teeth on the back and fewer teeth on the front. During the operation of the machine in program #89 the internal and external counters must match.

Hint - The triple chip tooth must be ground with the external counter in an even number, if not stop the machine and set up the machine again.

Note: The feed rate remains unchanged on all high speed programs.

PROGRAM 90 through 95

Carousel option program only.

PROGRAM 96

This program is for grinding 4-1 combo broken pattern saws with equal tooth pitch. Set up same as program #13 with the exception that all the equal pitch and first group bevel is opposite to the second group first bevel.



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PROGRAM 97

This program is for top grinding Dado saws with 3 Left and 1 raker - raker being adjustable. Set up same as program #13 through #27 with the exception that H-2 is used for the raker and equal pitch.

PROGRAM 98

This program is for top grinding Dado saws with 6 Left and 1 raker - raker being adjustable. Set up same as program #13 through #27 with the exception that H-2 is used for the lefts and auto sequence starts on raker.

PROGRAM 99













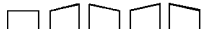




This program is for top grinding Dado saws with 6 Right and 1 raker - raker being adjustable. Set up same as program #13 through #27 with the exception that H-2 is used for the rights and auto sequence starts on raker.



TALON TF-3 TOP & FACE SHARPENER

GRIND PROGRAMS QUICK REFERENCE

TALON TF-3

PROGRAM	DESCRIPTION	AUTOMATIC SEQUENCE
00	SET UP ONLY	
01	FLAT	
02	LEFT	
03	RIGHT	
04	ALTERNATE	
05	CHAMFER ONLY	
06	POINTED	
07	HI-LOW	
08	TRIPLE CHIP	
09	TRIPLE CHIP CORNERS	
10	POINT & FLAT	
11	CALIF. TRIPLE CHIP / RIGHT	
12	CALIF. TRIPLE CHIP / LEFT	
	ON COMBO SAWS THE FIRST TOOTH GROUND IS THE RAKER.	
13	4-1 COMBO / LEFT	
14	4-1 " / RIGHT	
15	4-1 " / BROKEN	
16	5-1COMBO / BROKEN	
17	6-1 " / LEFT	
18	6-1 " / RIGHT	
19	6-1COMBO / BROKEN	
20	7-1 " / "	
21	8-1 " / LEFT	
22	8-1COMBO / RIGHT	
23	8-1 " / BROKEN	
24	9-1COMBO / BROKEN	
25	10-1COMBO / LEFT	

TALON TF-3 TOP & FACE SHARPENER

<u>PROGRAMS</u>	<u>DESCRIPTION</u>	<u>AUTOMATIC SEQUENCE</u>
26	10-1 " / RIGHT	
27	10-1 " / BROKEN	
28	4+1 LEFT	ALL PITCH EQUAL
29	4+1 RIGHT	ALL PITCH EQUAL
PATTERNS		
30 to 39 First tooth ground is the only right.		
30	ALL LEFT	
31	1L - 1R	
32	2L - 1R	
33	3L - 1R	
34	4L - 1R	
35	5L - 1R	
36	6L - 1R	
37	7L - 1R	
38	8L - 1R	
39	9L - 1R	
40 to 49 First tooth ground is the last right.		
40	ALL RIGHTS	
41	1R - 1L	
42	2R - 1L	
43	3R - 1L	
44	4R - 1L	
45	5R - 1L	
46	6R - 1L	
47	7R - 1L	
48	8R - 1L	
49	9R - 1L	
50 to 52 Starts on only right.		
50	10L - 1R	
51	4L - 1 Raker	Dado Saw Left - Starts on Raker
52	5L - 1 Raker	Dado Saw Left - Starts on Raker
53	6L - 1 Raker	Dado Saw Left - Starts on Raker
54	7L - 1 Raker	Dado Saw Left - Starts on Raker
55	8L - 1 Raker	Dado Saw Left - Starts on Raker
56	9L - 1 Raker	Dado Saw Left - Starts on Raker
57	10L - 1 Raker	Dado Saw Left - Starts on Raker
58	2 - 1 Combo / Left	Dado Saw Left - Starts on Raker
59	2 - 1 Combo / Right	Dado Saw Left - Starts on Raker



TALON TF-3 TOP & FACE SHARPENER

60 to 62 starts on last right.

60	10R - 1L	
61	4R - 1Raker	Dado Saw right - Starts on Raker
62	5R - 1Raker	Dado Saw right - Starts on Raker
63	6R - 1Raker	Dado Saw right - Starts on Raker
64	7R - 1Raker	Dado Saw right - Starts on Raker
65	8R - 1Raker	Dado Saw right - Starts on Raker
66	9R - 1Raker	Dado Saw right - Starts on Raker
67	10R - 1Raker	Dado Saw right - Starts on Raker
68	High Speed. Alternates tops all right then all left.	
69	High Speed. Alternate tops same as 68 with fixed lift off.	
70	Extra wide program #8.	
71	Extra wide program #9.	
72	Extra wide program #11.	
73	Extra wide program #12.	
74	Triple Chip with extra flat.	
75	Point with 2 flats.	
76	10L - 1 Raker	Adjustable Left H-2
77	10R - 1 Raker	Adjustable Right H-2
78	High Speed. Flat tops with adjustable lift off (Hi-Low Ring).	
79	High Speed. Flat tops fixed lift off.	
80	High Speed. Hi-low.	
81	3 Rights - 1 Flat (adjustable flat)	
82	Double Pass. High Speed Flat.	
83	Double Pass. High Speed Alt.	
84	Double Pass. High Speed High Low.	
85	Double Pass. High Speed Triple Chip.	
86	7 Lefts - 1 Right (adjustable right)	
87	7 Rights - 1 Left (adjustable left)	
88	High Speed Triple Chip - 3 revolutions.	
89	High Speed Triple Chip with Corner Breaks.	
90	Carousel - Flat (01)	
91	Carousel High Speed Flat (78)	
92	Carousel Alternate (04)	
93	Carousel High Speed Alt. (68)	
94	Carousel T.C. (08)	
95	Carousel High Speed T.C. (95)	
96	4-1 Combo broken with equal tooth pitch.	
97	3L - 1 Raker	Adjustable Left H-2
98	6L - 1 Raker	Adjustable Left H-2
99	6R - 1 Raker	Adjustable Right H-2



TALON TF-3 TOP & FACE SHARPENER

GRIND PROGRAMS (CPU CARTRIDGE #2)

Quick Reference

TALON TF-3

PROGRAM	DESCRIPTION	AUTOMATIC SEQUENCE
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00		
01		
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TALON TF-3 TOP & FACE SHARPENER

<u>PROGRAMS</u>	<u>DESCRIPTION</u>	<u>AUTOMATIC SEQUENCE</u>
26		
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49		
50		
51	2L - 1 Raker	Dado Saw Left - Starts on Raker
52	2R - 1 Raker	Dado Saw Left - Starts on Raker
53	3L - 1 Raker	Dado Saw Left - Starts on Raker
54	3R - 1 Raker	Dado Saw Left - Starts on Raker
55	ATB Right every 12th tooth missing face center only	
56	ATB Left every 12th tooth missing face center only	
57	Right 13 tips long index face center only	
58	Left 13 tips long index face center only	
59		



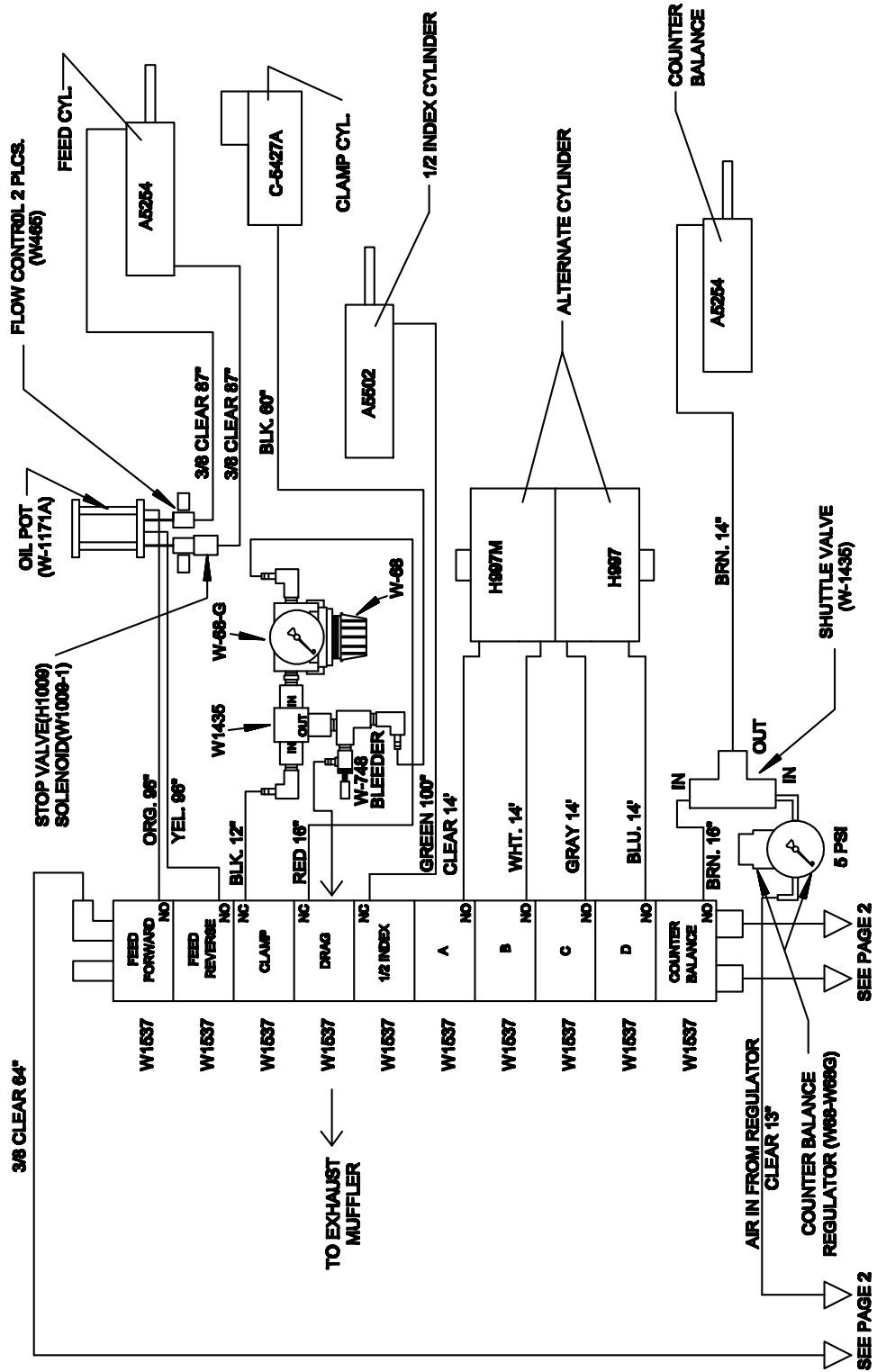
TALON TF-3 TOP & FACE SHARPENER

<u>PROGRAMS</u>	<u>DESCRIPTION</u>	<u>AUTOMATIC SEQUENCE</u>
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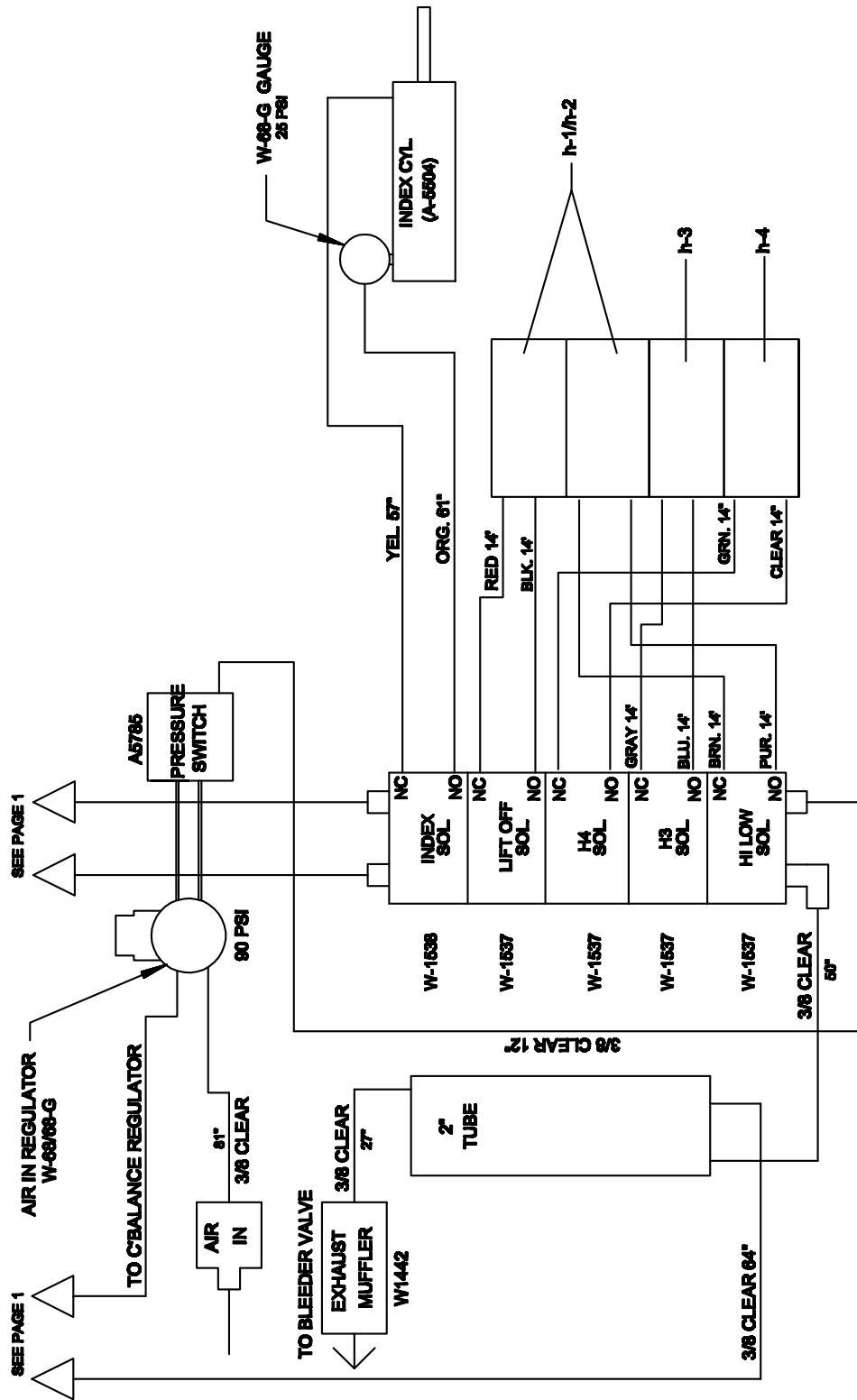
TALON TF-3 TOP & FACE SHARPENER

AIR SCHEMATIC (SHEET 1)



TALON TF-3 TOP & FACE SHARPENER

AIR SCHEMATIC (SHEET 2)

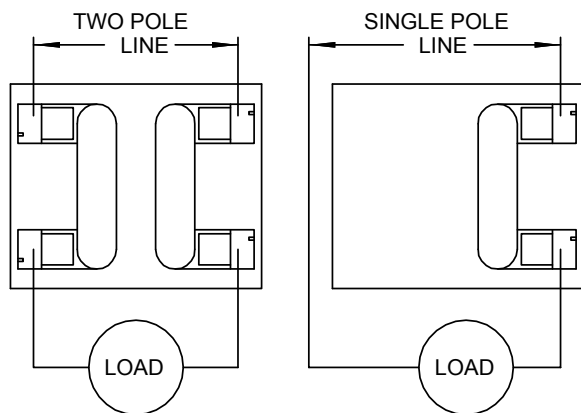


TALON TF-3 TOP & FACE SHARPENER

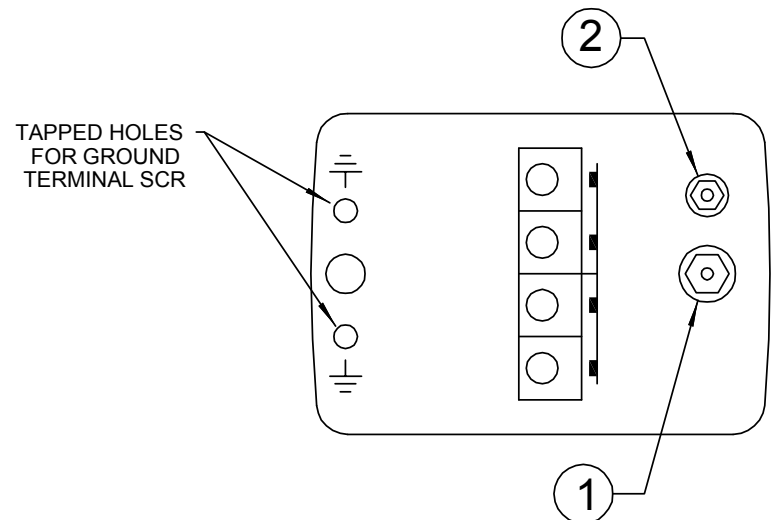
ADJUSTING AIR PRESSURE SWITCH (A-5785)

When air pressure to the machine falls below normal limits (80 P.S.I.), the machine cycle will lock up. The air pressure switch may be adjusted to compensate for low air pressure only if the maximum pressure does NOT exceed 80 P.S.I.. Call Wright Machine Tool if you have any questions or are in need for further details.

WIRING DIAGRAM



ADJUSTMENTS



ADJUST IN PROPER SEQUENCE

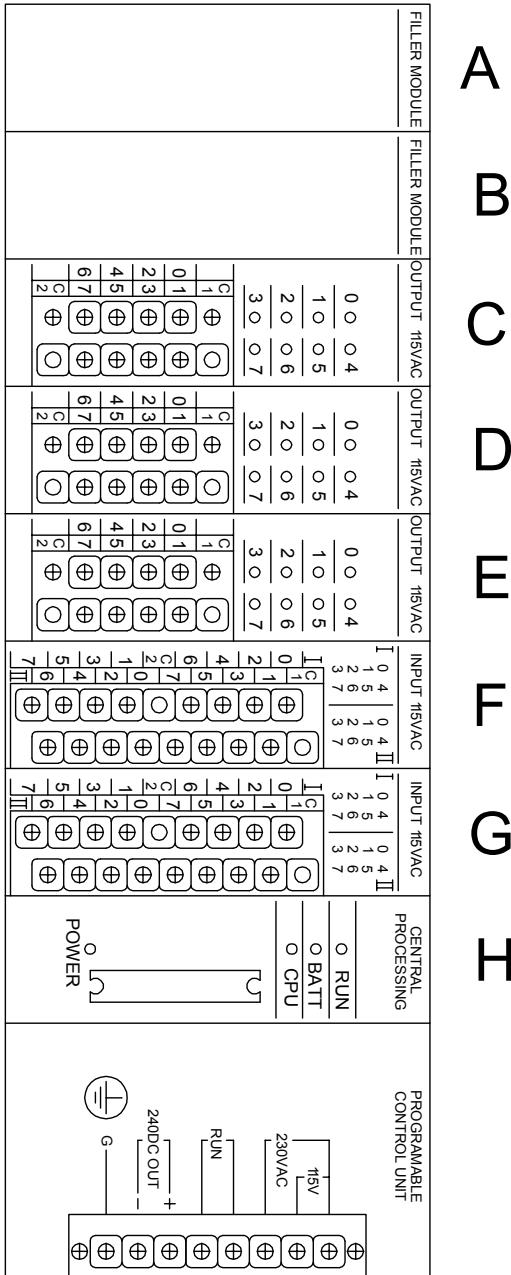
1. Turn nut 1 down to raise low operating point.
2. Turn nut 2 down to raise high operating point.

CAUTION: TO AVOID DAMAGE DO NOT EXCEED THE MAXIMUM ALLOWABLE PRESSURE. CHECK SWITCH OPERATION AFTER RESETTING.

TALON TF-3 TOP & FACE SHARPENER

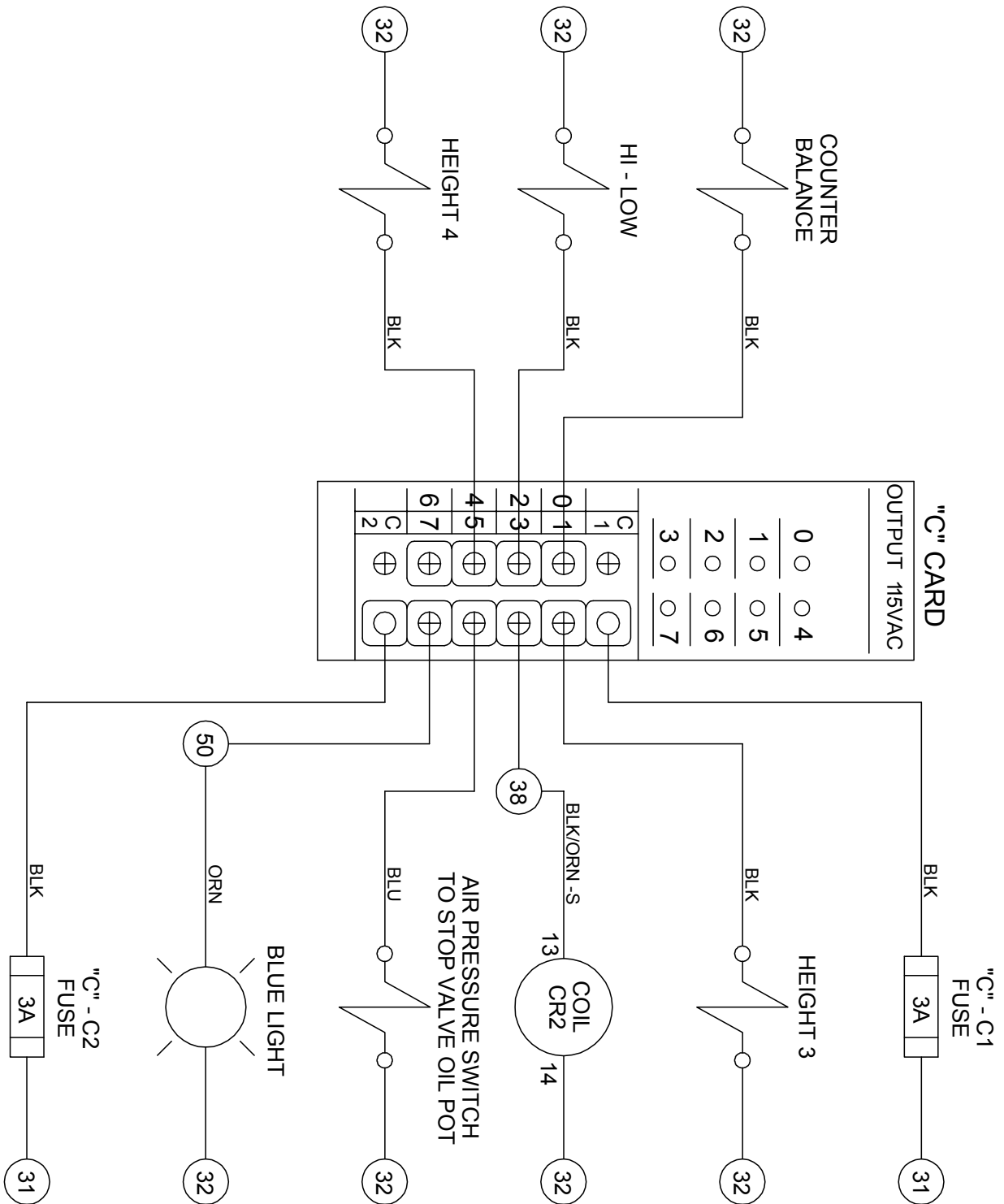
P.L.C. LOGIC

PLC WIRING SCHEMETIC TALON T/F



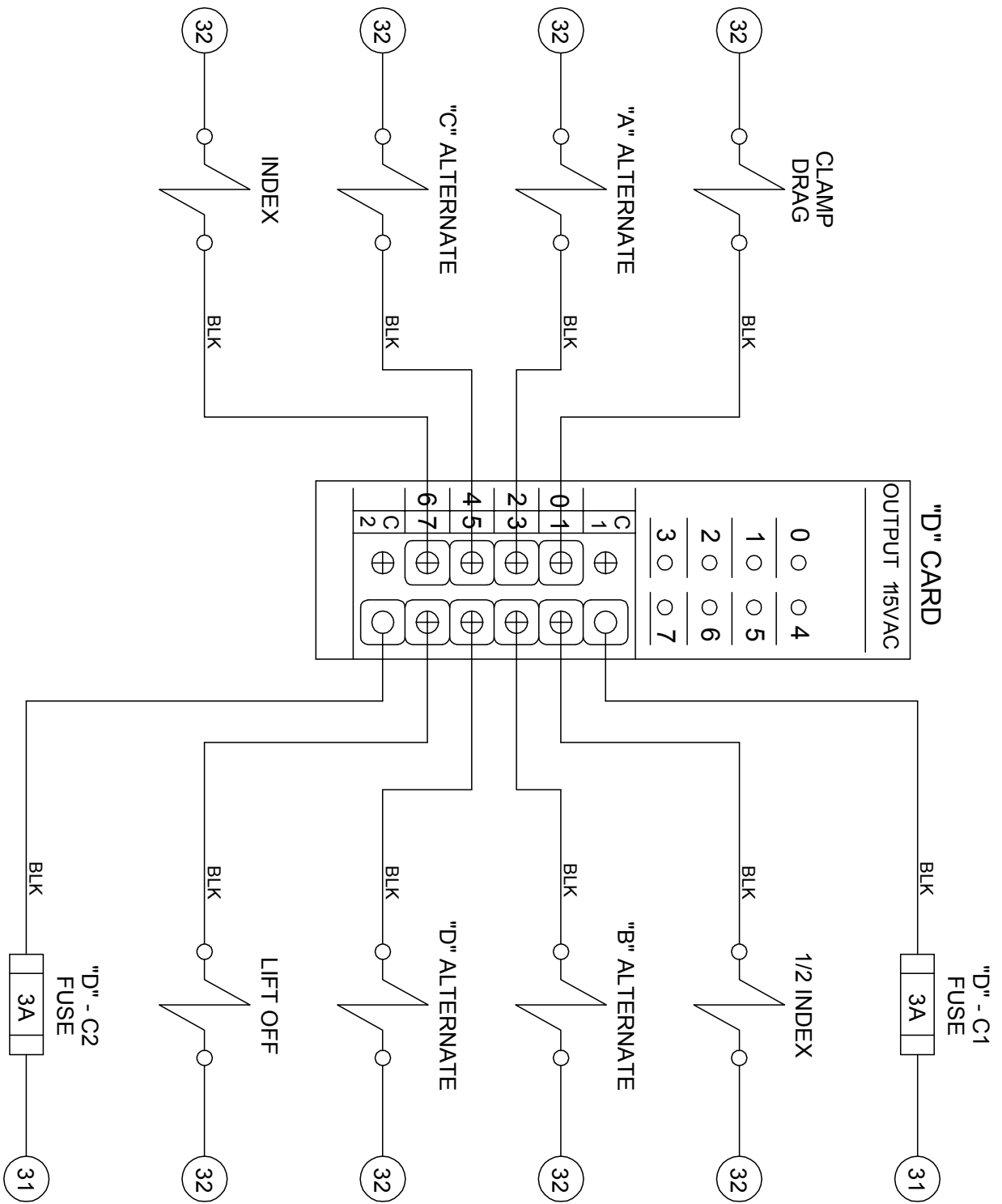
TALON TF-3 TOP & FACE SHARPENER

"C" CARD SCHEMATIC



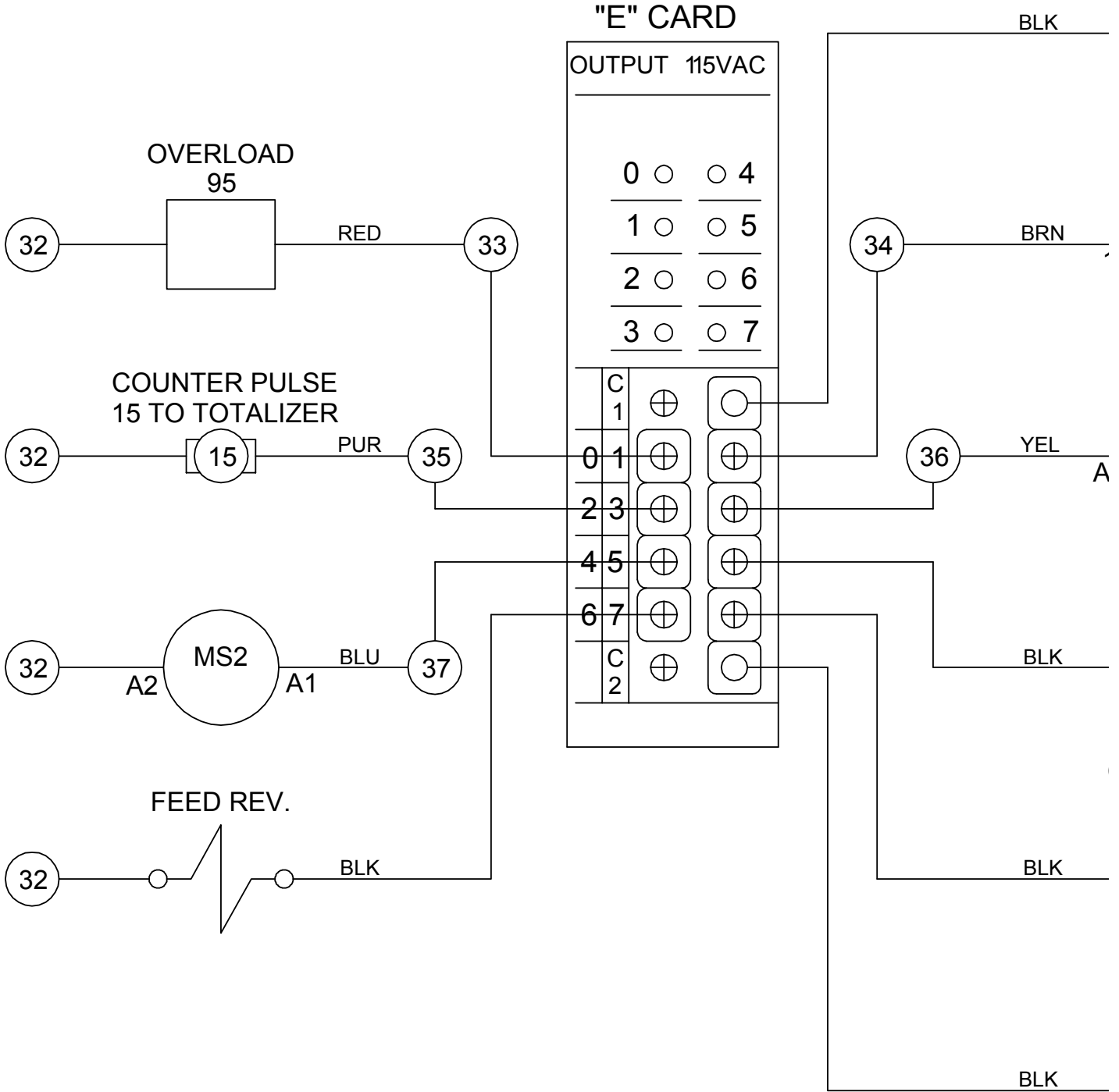
TALON TF-3 TOP & FACE SHARPENER

"D" CARD SCHEMATIC



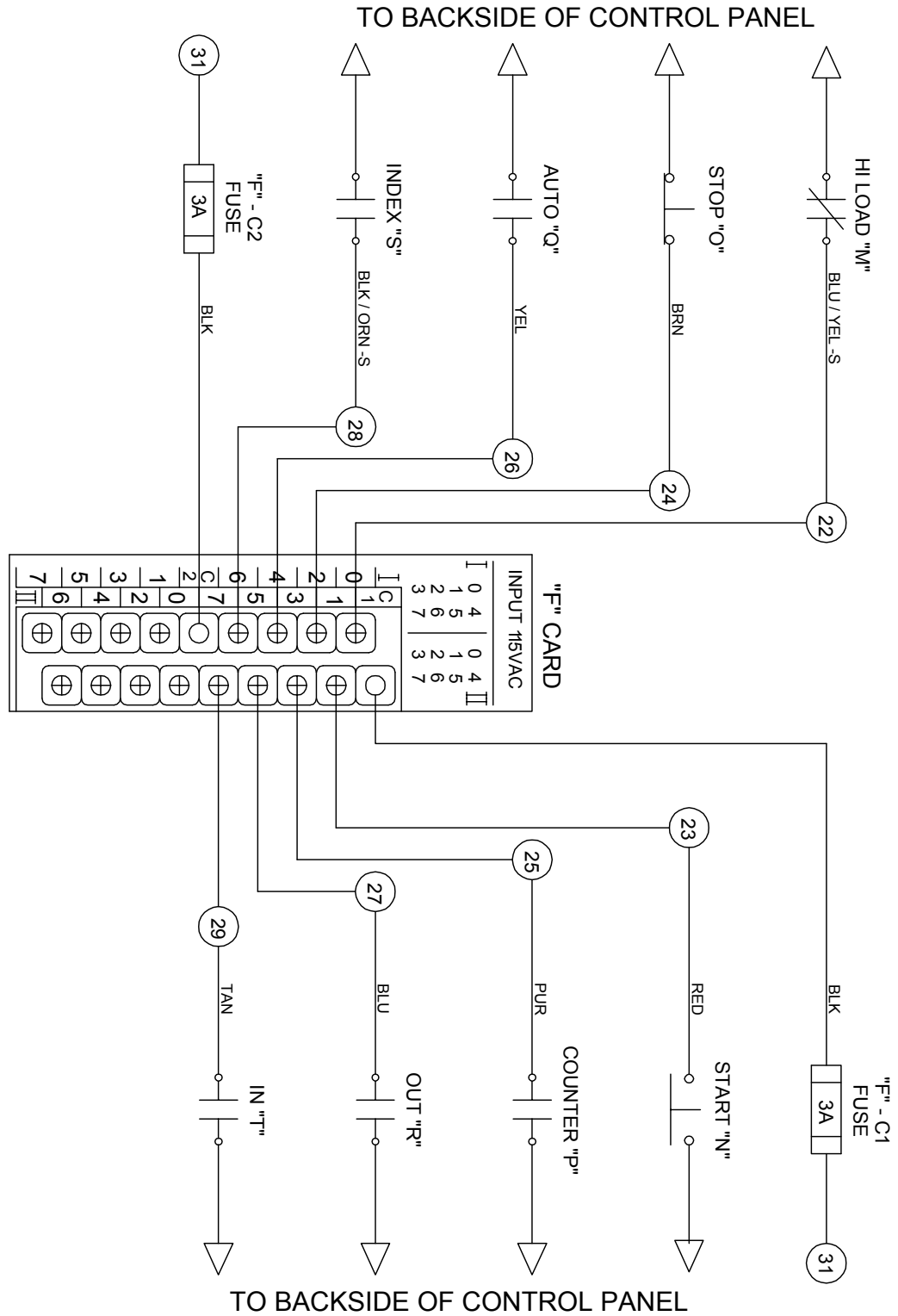
TALON TF-3 TOP & FACE SHARPENER

"E" CARD SCHEMATIC



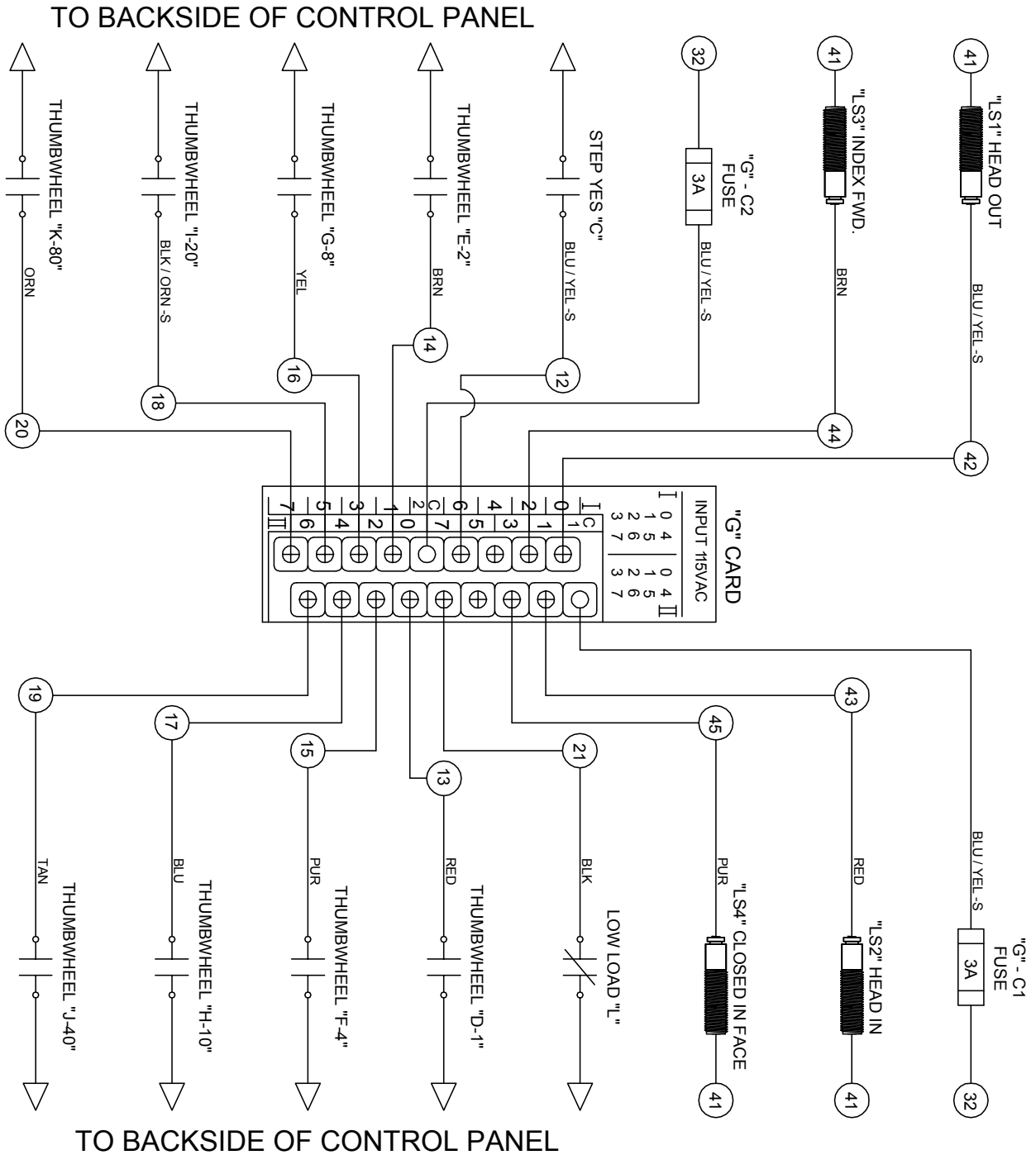
TALON TF-3 TOP & FACE SHARPENER

"F" CARD SCHEMATIC



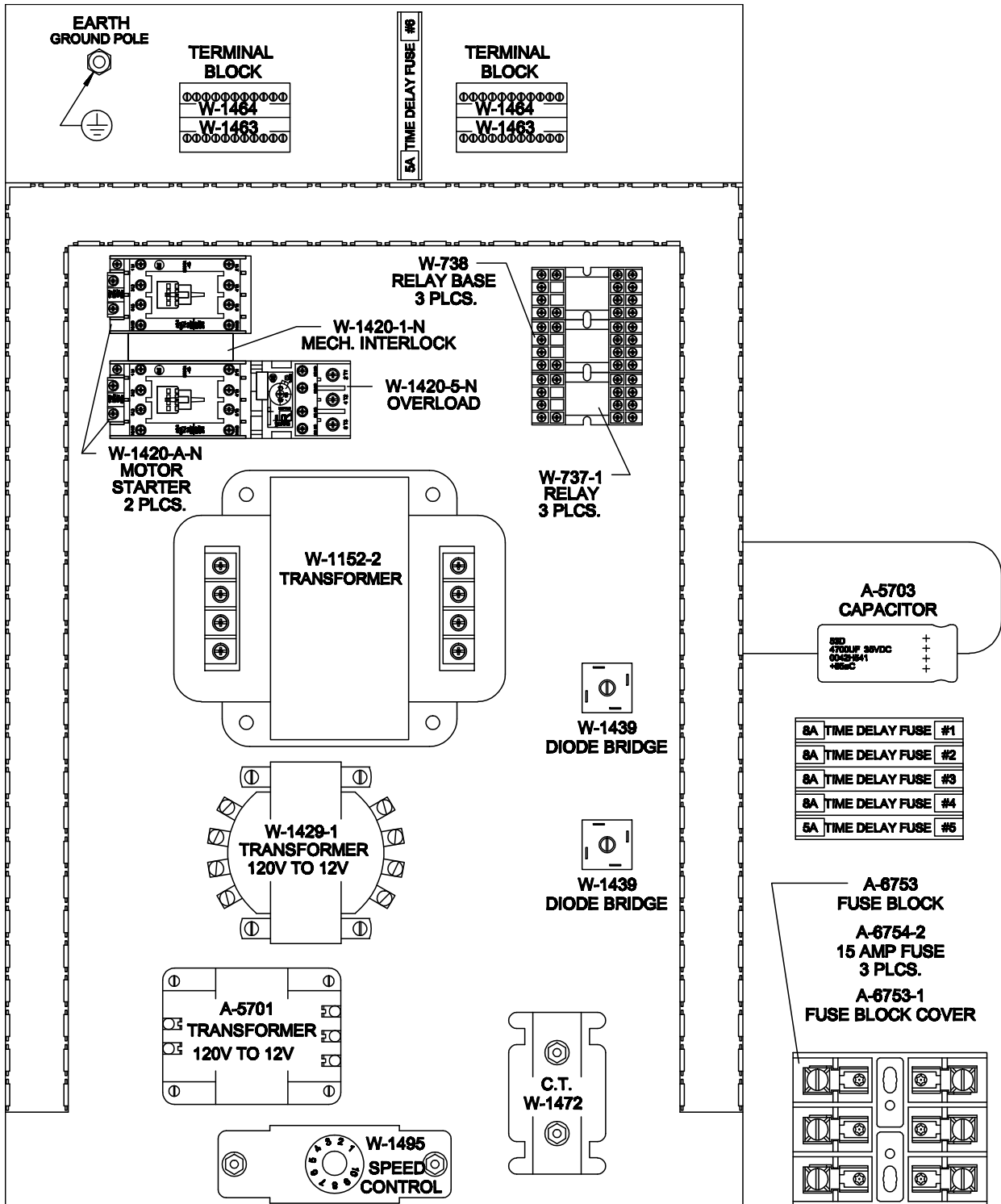
TALON TF-3 TOP & FACE SHARPENER

"G" CARD SCHEMATIC



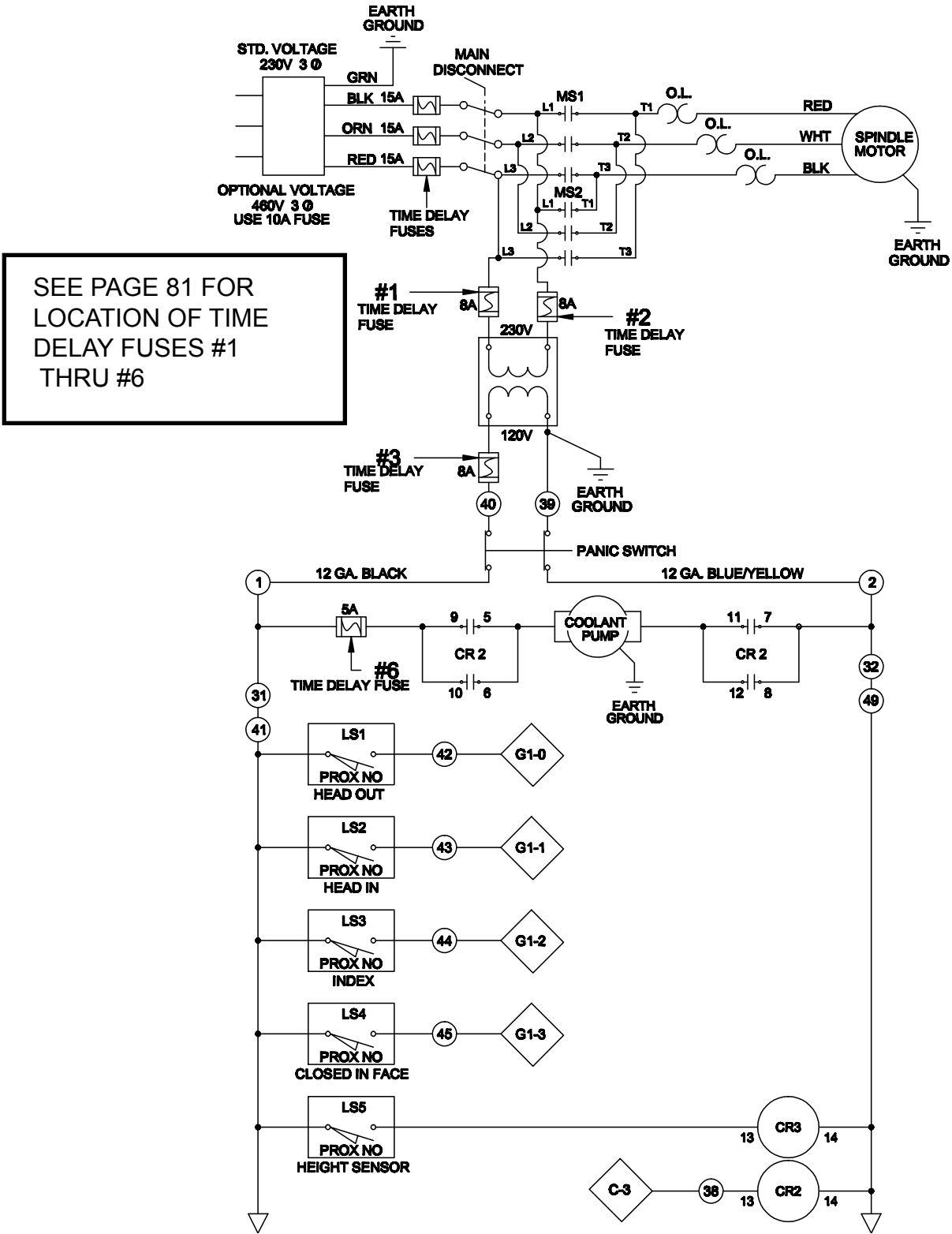
TALON TF-3 TOP & FACE SHARPENER

POWER PANEL LAYOUT



TALON TF-3 TOP & FACE SHARPENER

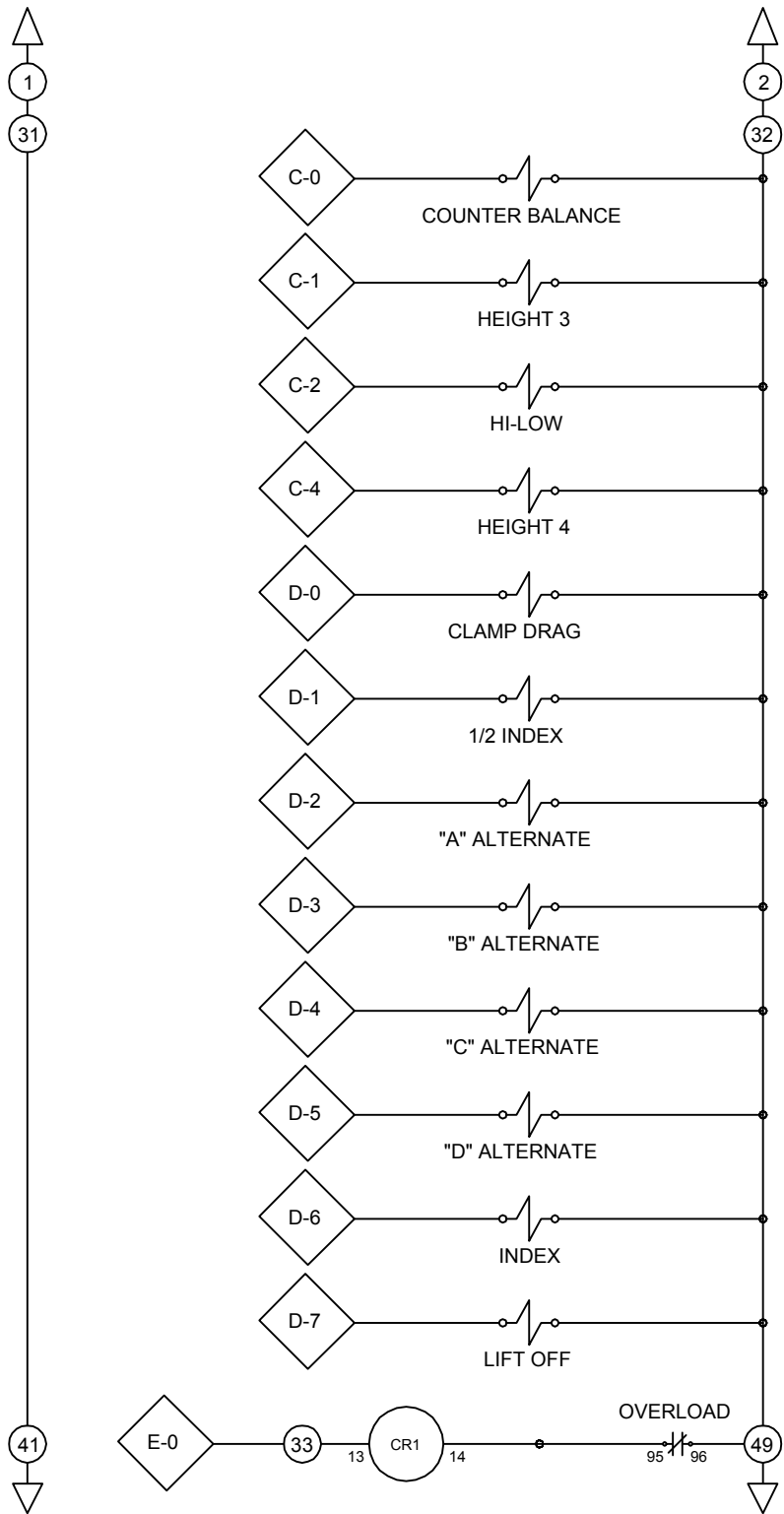
ELECTRICAL SCHEMATICS



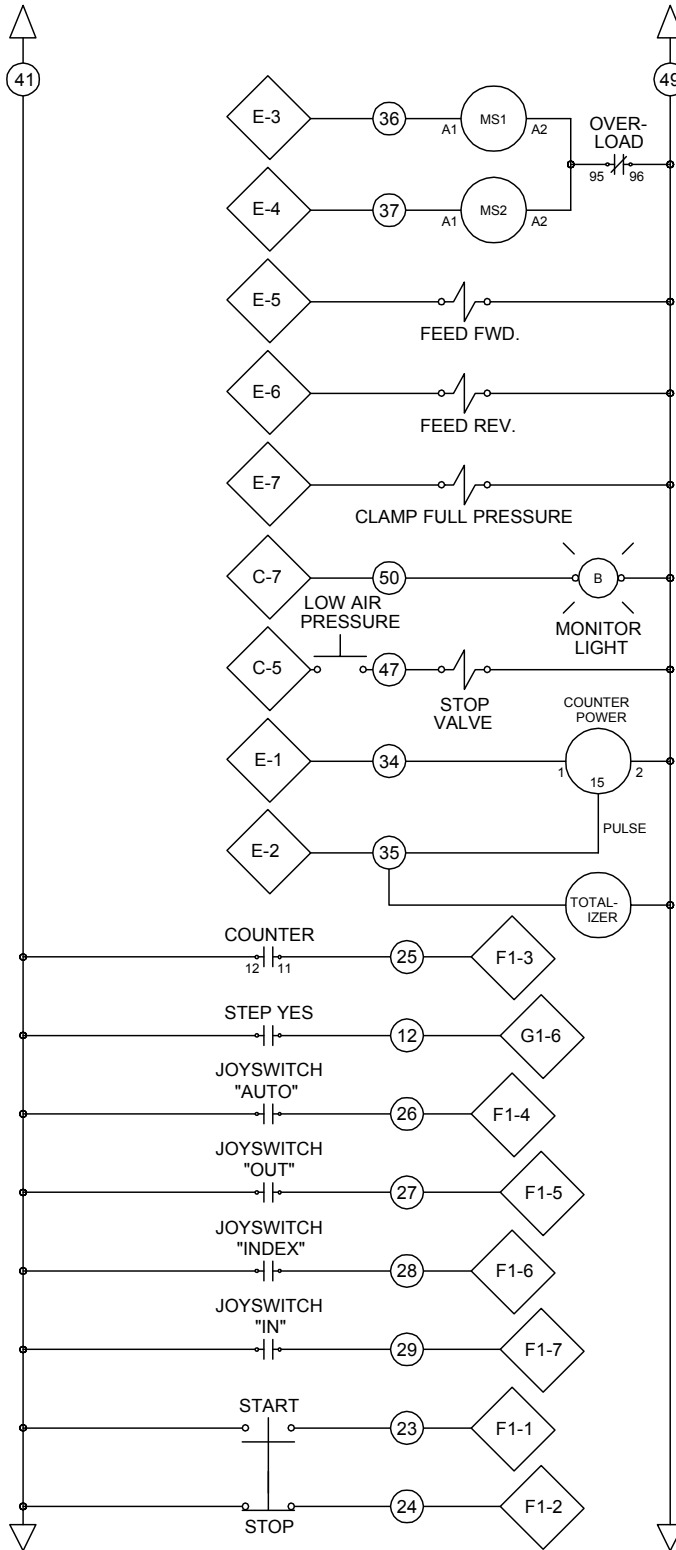
SEE PAGE 81 FOR LOCATION OF TIME DELAY FUSES #1 THRU #6



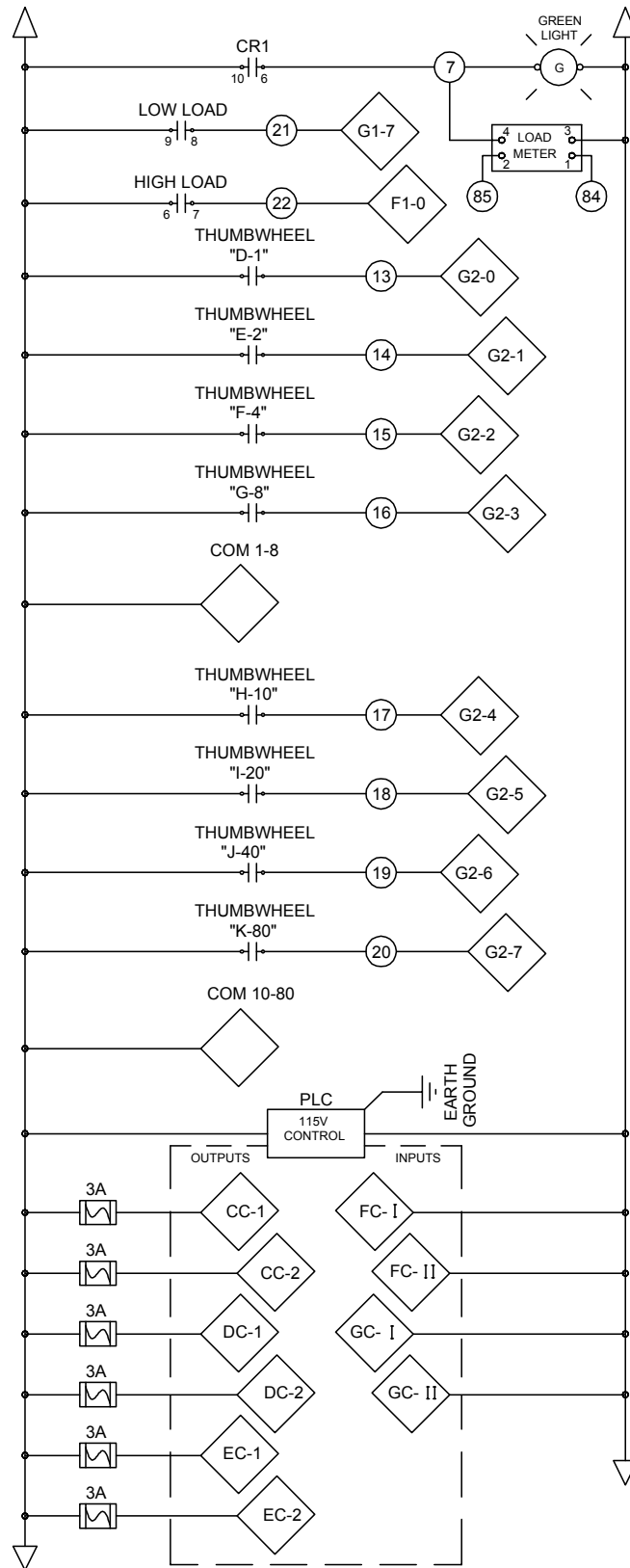
TALON TF-3 TOP & FACE SHARPENER



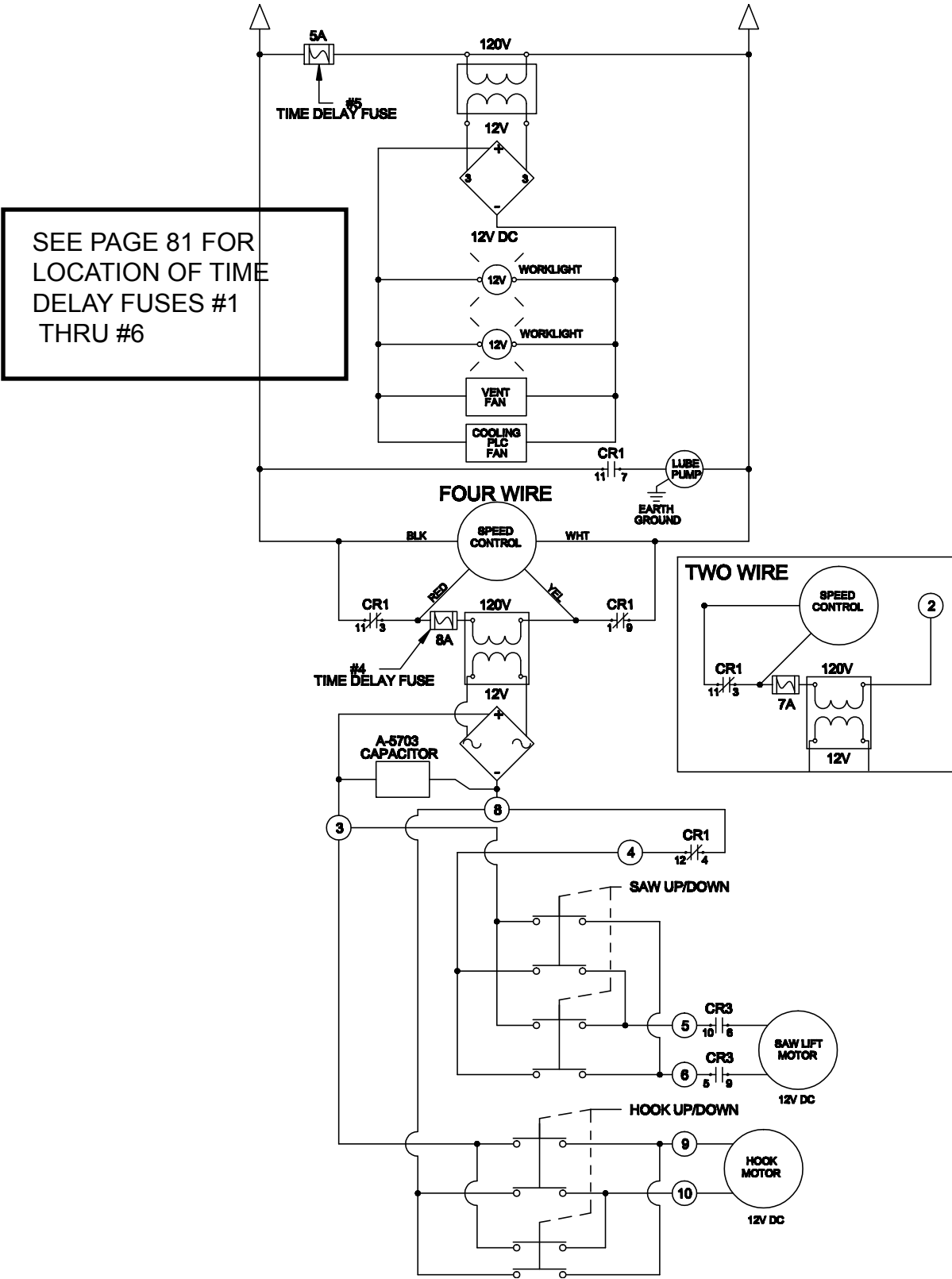
TALON TF-3 TOP & FACE SHARPENER



TALON TF-3 TOP & FACE SHARPENER



TALON TF-3 TOP & FACE SHARPENER



TALON TF-3 TOP & FACE SHARPENER

NOTE: DISCONNECT POWER FIRST!
CONVERTING 230V TO 440V

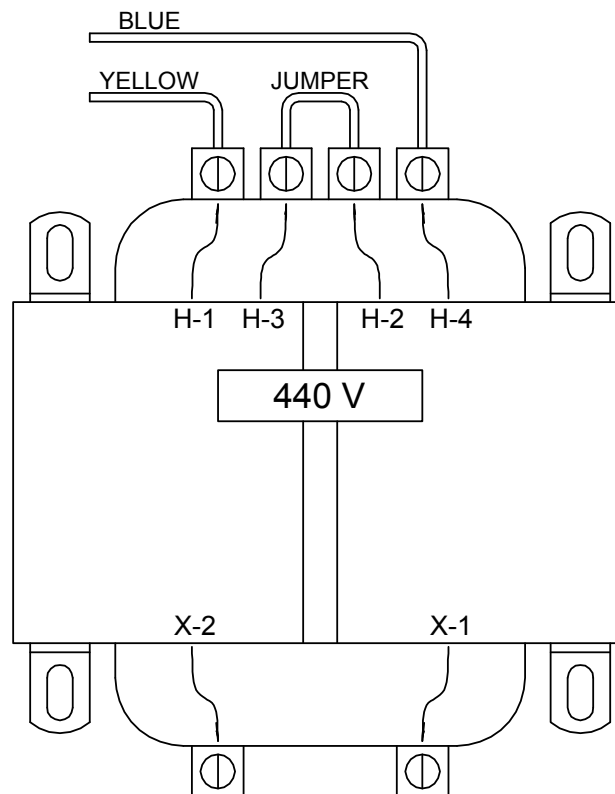
WIRING CHANGE FOR MOTOR

LINE 1 WHITE
 LINE 2 RED
 LINE 3 BLACK

SET MOTOR STARTER
 OVERLOAD AT 3.2

JUMP TOGETHER 6 & 9
 5 & 8
 4 & 7

TRANSFORMER



TAKE JUMPER OFF H-1 AND H-3 AND OFF H-2 AND H-4, SO THE RED AND BLACK WIRE ARE THE ONLY WIRES IN CONNECTION. CONNECT A JUMPER BETWEEN H-2 AND H-3. PUT THE 440 STICKER OVER THE 240 ON THE ELECTRICAL NAME PLATE.

WM **RIGHT** **M** **ACHINE**

TALON TF-3 TOP & FACE SHARPENER

MACHINE ASSEMBLY SHEETS

The following pages provide drawings of various assemblies contained in this machine.

DRAWINGS OF...

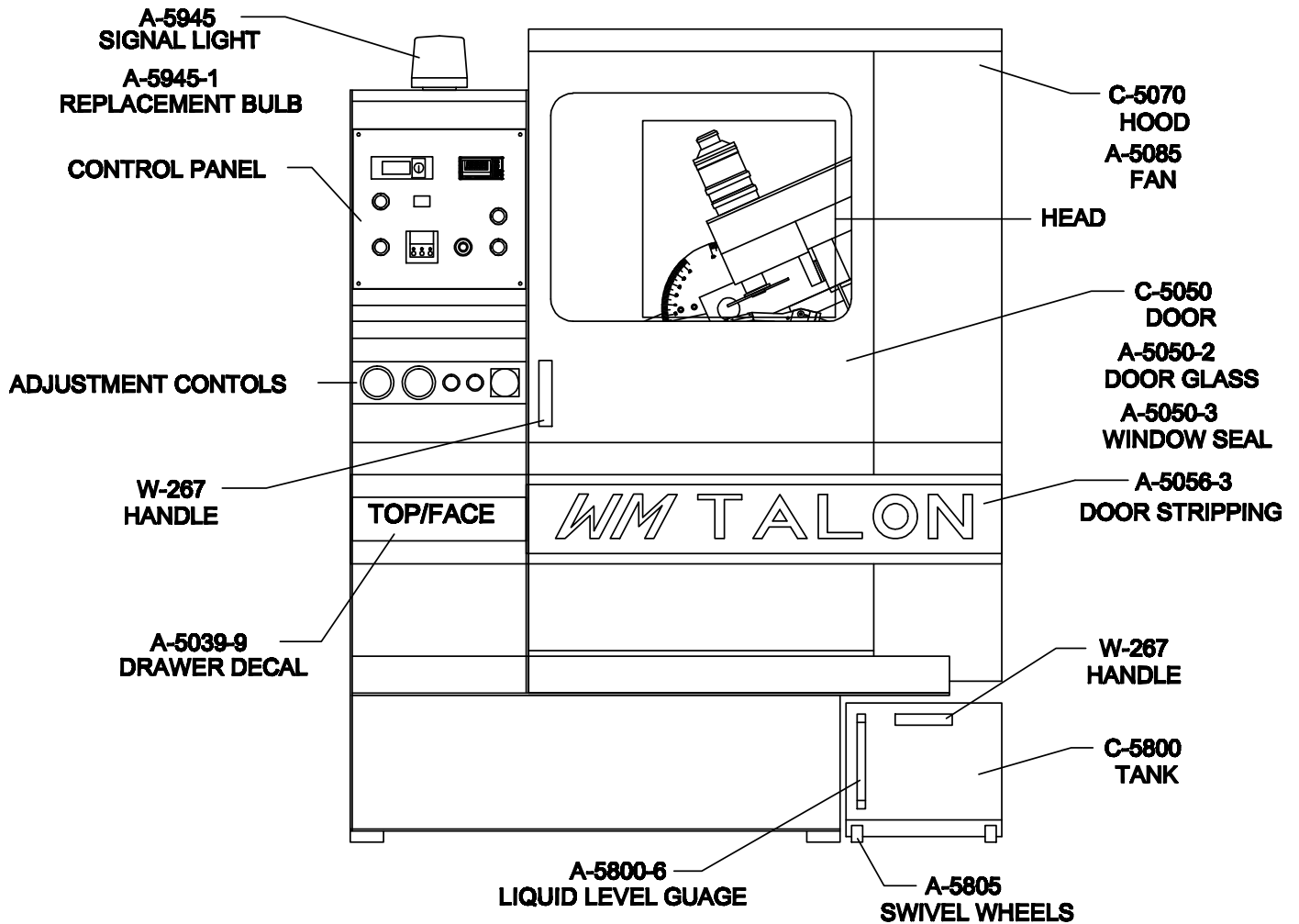
Base Layout

Control Panel Components
Adjustment Control Components
Inside of Enclosure Assemblies
Head Assembly
Hi-Low Lift Off Assembly (H-4)
Stroke Assembly
Alternate Assembly
Feed System Assembly
Counter Balance Assembly
Saw Clamp/Coolant Pump Assembly
Band Saw Carrier Assembly
Band Saw Carrier Cylinder Assembly
Index Arm Assembly
Index Cylinder Assembly
Saw Lift Assembly
Hook Actuator Assembly
Plate Thickness Sprocket Assembly



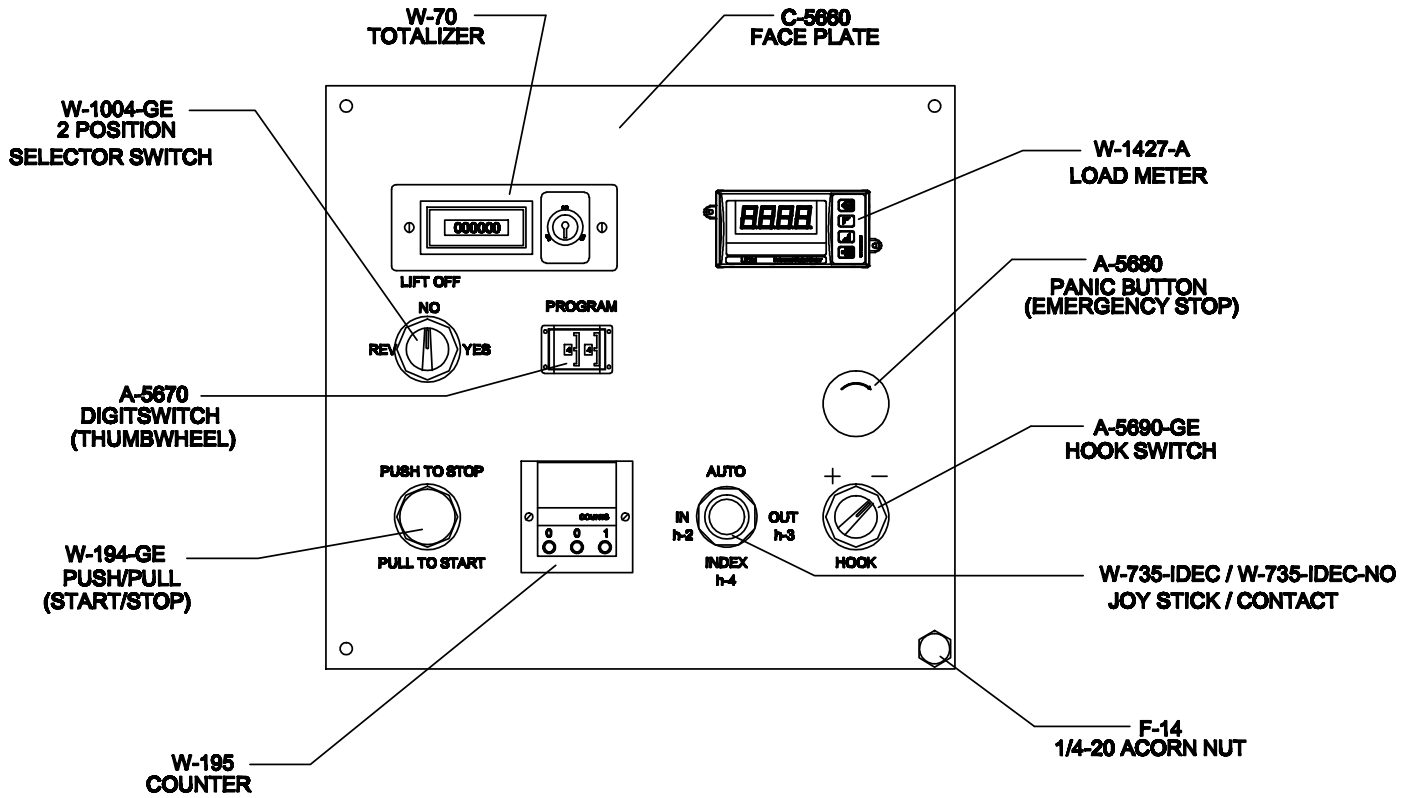
TALON TF-3 TOP & FACE SHARPENER

BASE ASSEMBLY LAYOUT



TALON TF-3 TOP & FACE SHARPENER

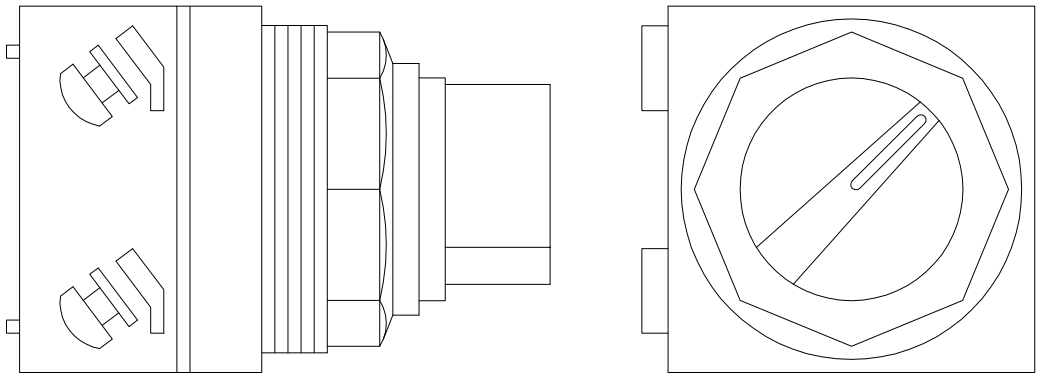
CONTROL PANEL COMPONENTS



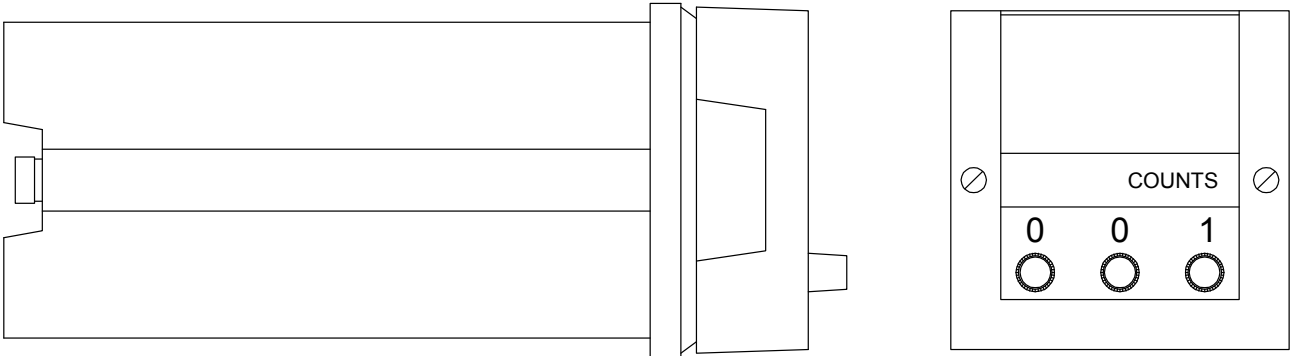
TALON TF-3 TOP & FACE SHARPENER

CONTROL PANEL COMPONENTS CONTINUED

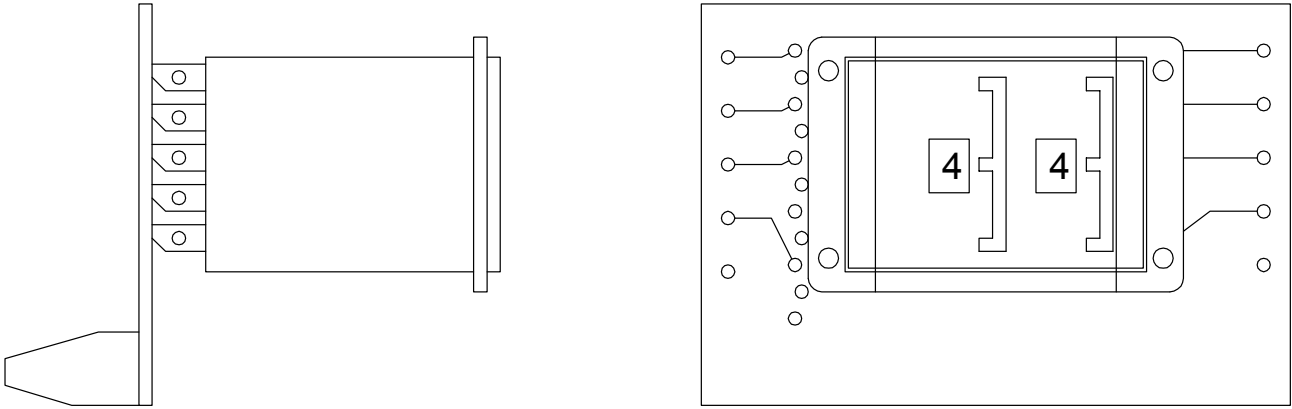
2 POSITION SELECTOR SWITCH - W1004-GE



COUNTER
COMPLETE - W-195
COVER ONLY - W-195-1



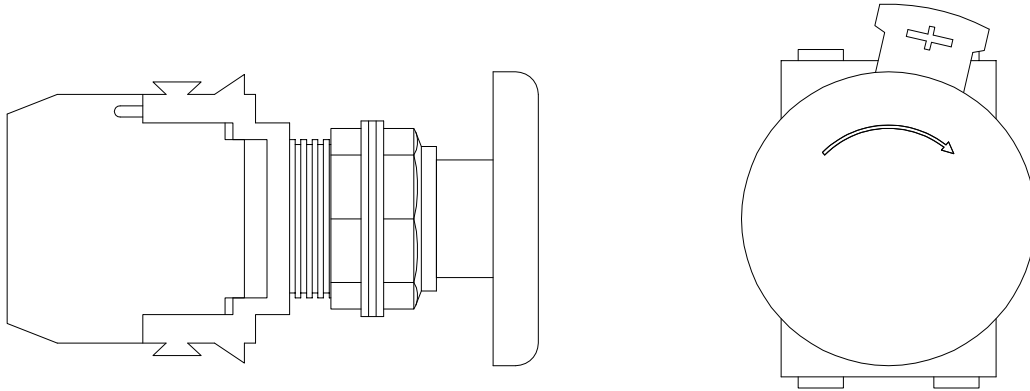
DIGIT SWITCH (THUMBWHEEL) - A-5670



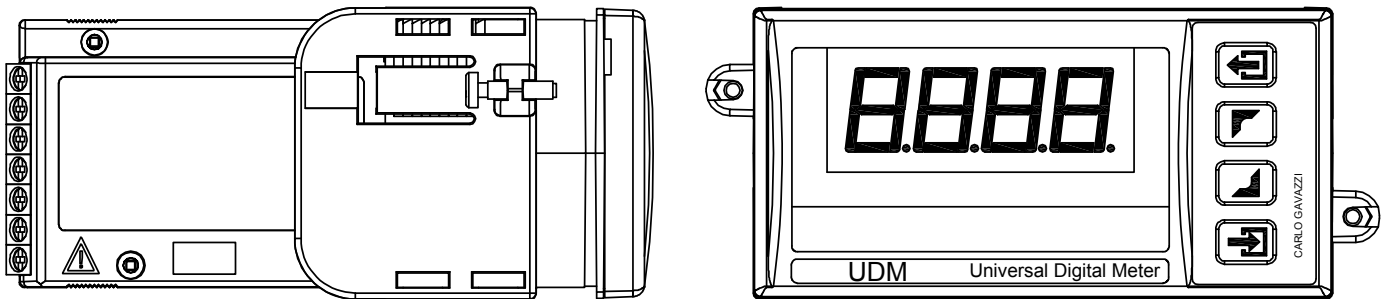
TALON TF-3 TOP & FACE SHARPENER

CONTROL PANEL COMPONENTS CONTINUED

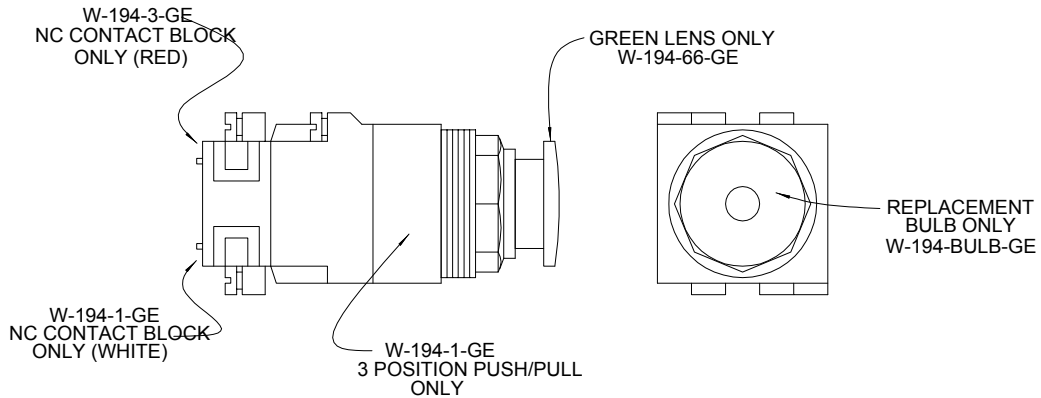
EMERGENCY STOP (PANIC BUTTON) - A-5680



LOAD METER - W-1427-A



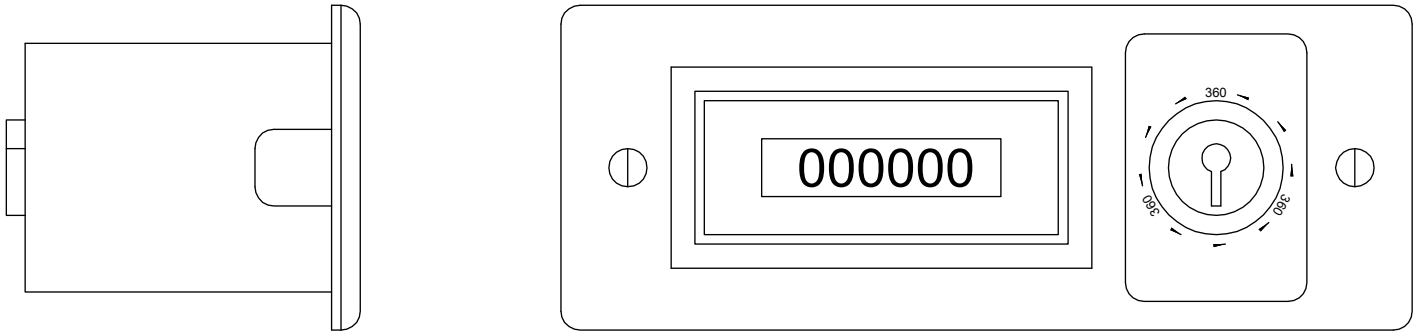
PUSH / PULL : START / STOP BUTTON - W-194-GE



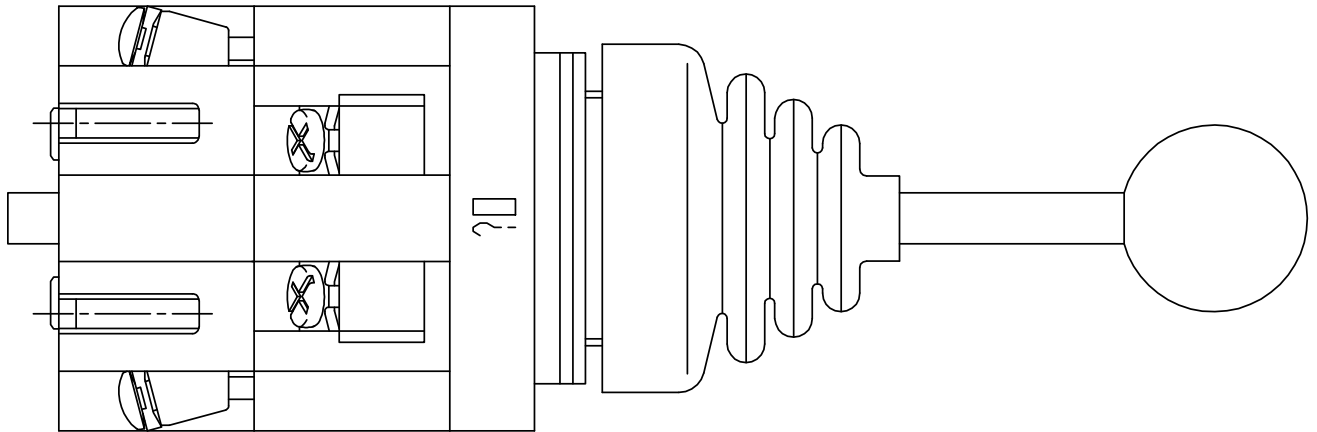
TALON TF-3 TOP & FACE SHARPENER

CONTROL PANEL COMPONENTS CONTINUED

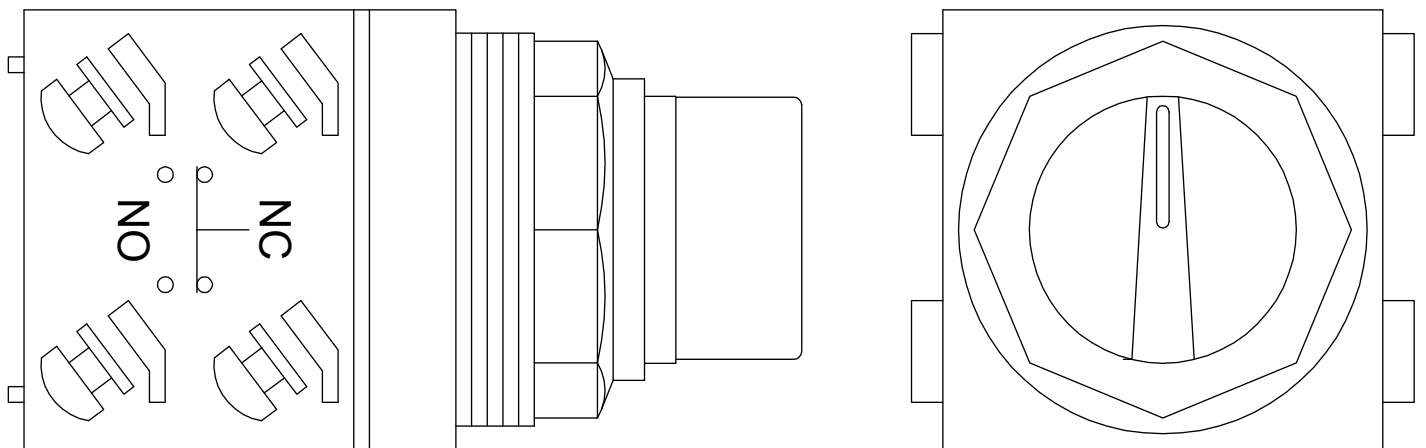
TOTALIZER - W-70



JOY SWITCH - W-735-IDEC / W-735-IDEC-NO

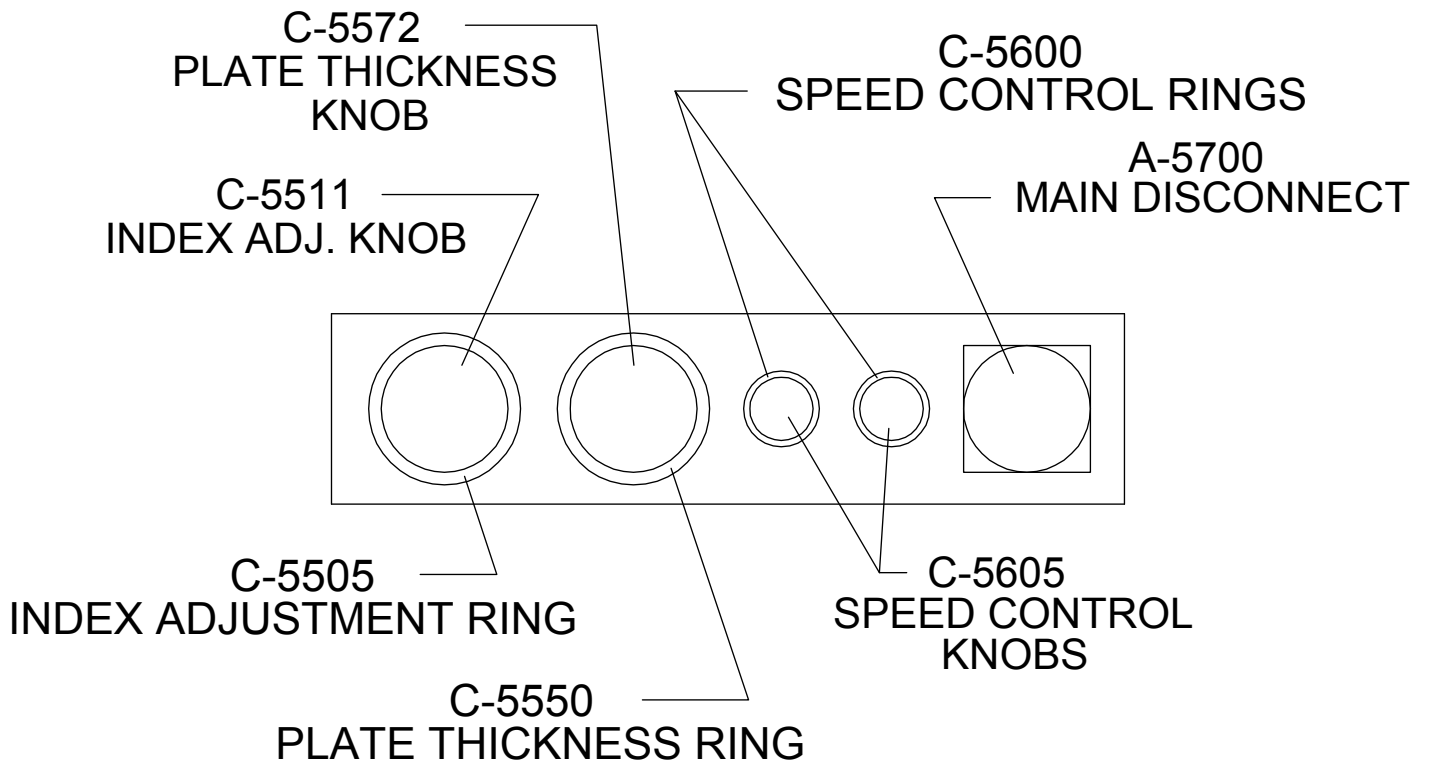


HOOK SWITCH - A-5690-GE



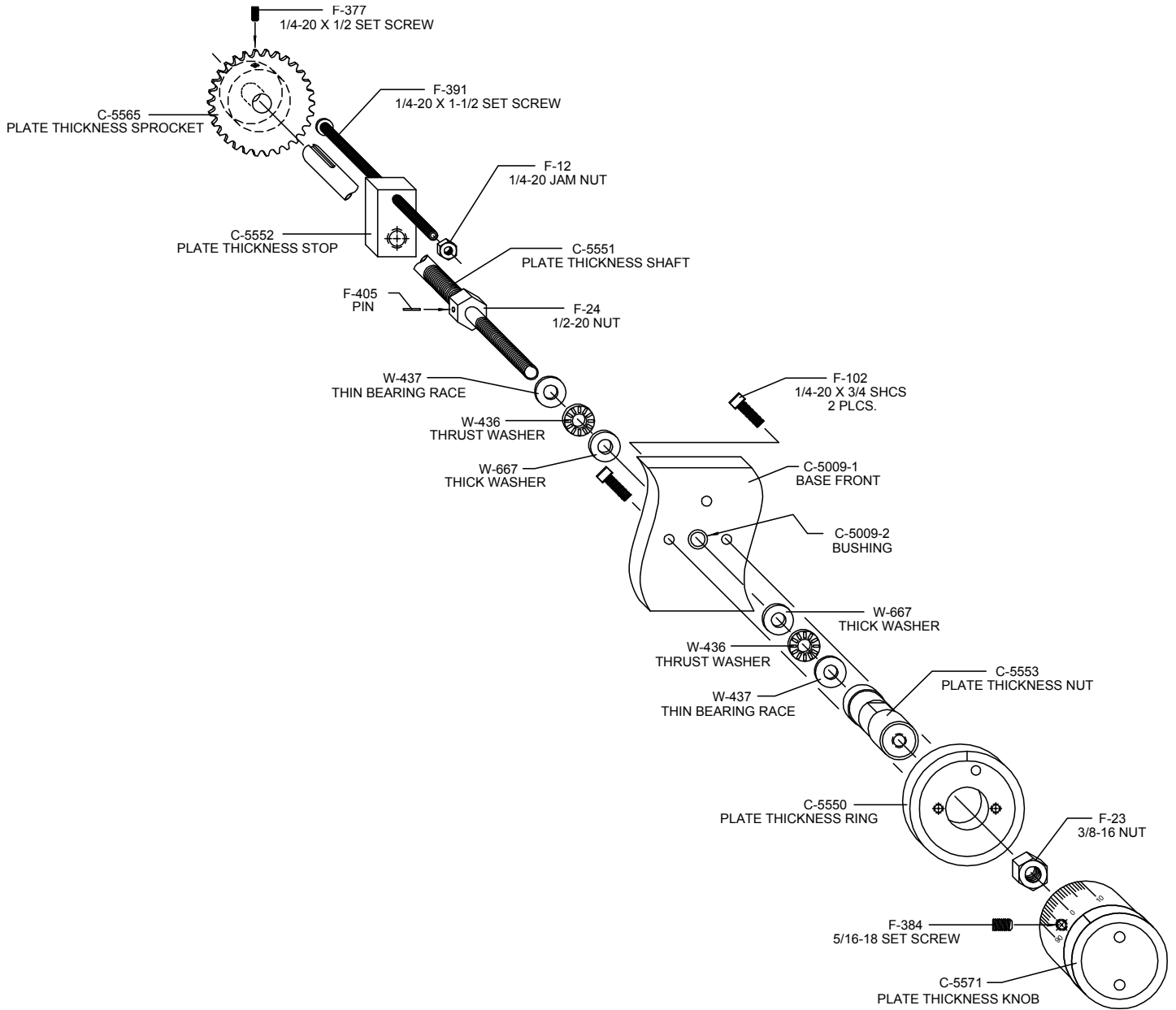
TALON TF-3 TOP & FACE SHARPENER

ADJUSTMENT CONTROL COMPONENTS



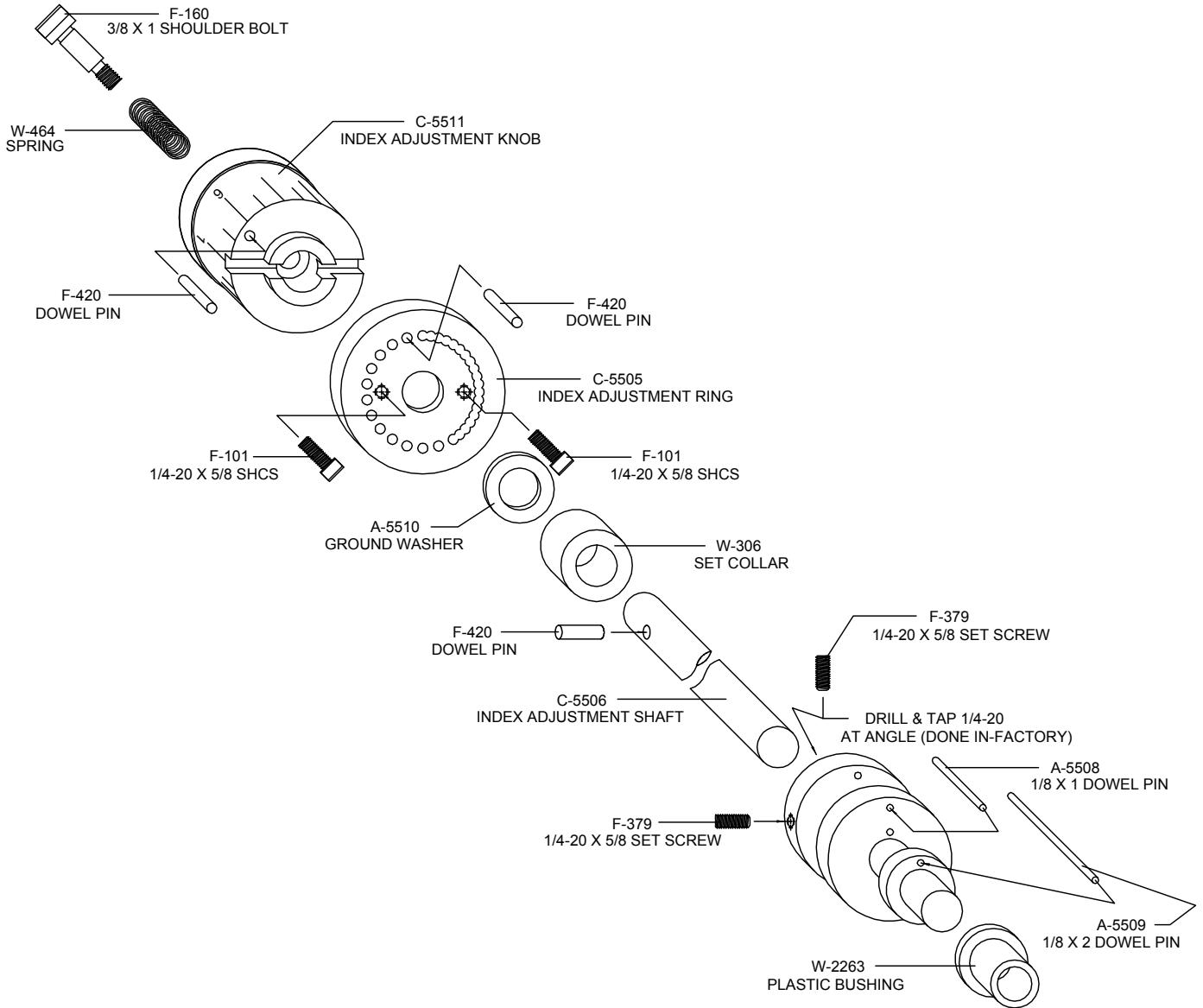
TALON TF-3 TOP & FACE SHARPENER

ADJUSTMENT CONTROL COMPONENTS CONTINUED... PLATE THICKNESS KNOB ASSEMBLY



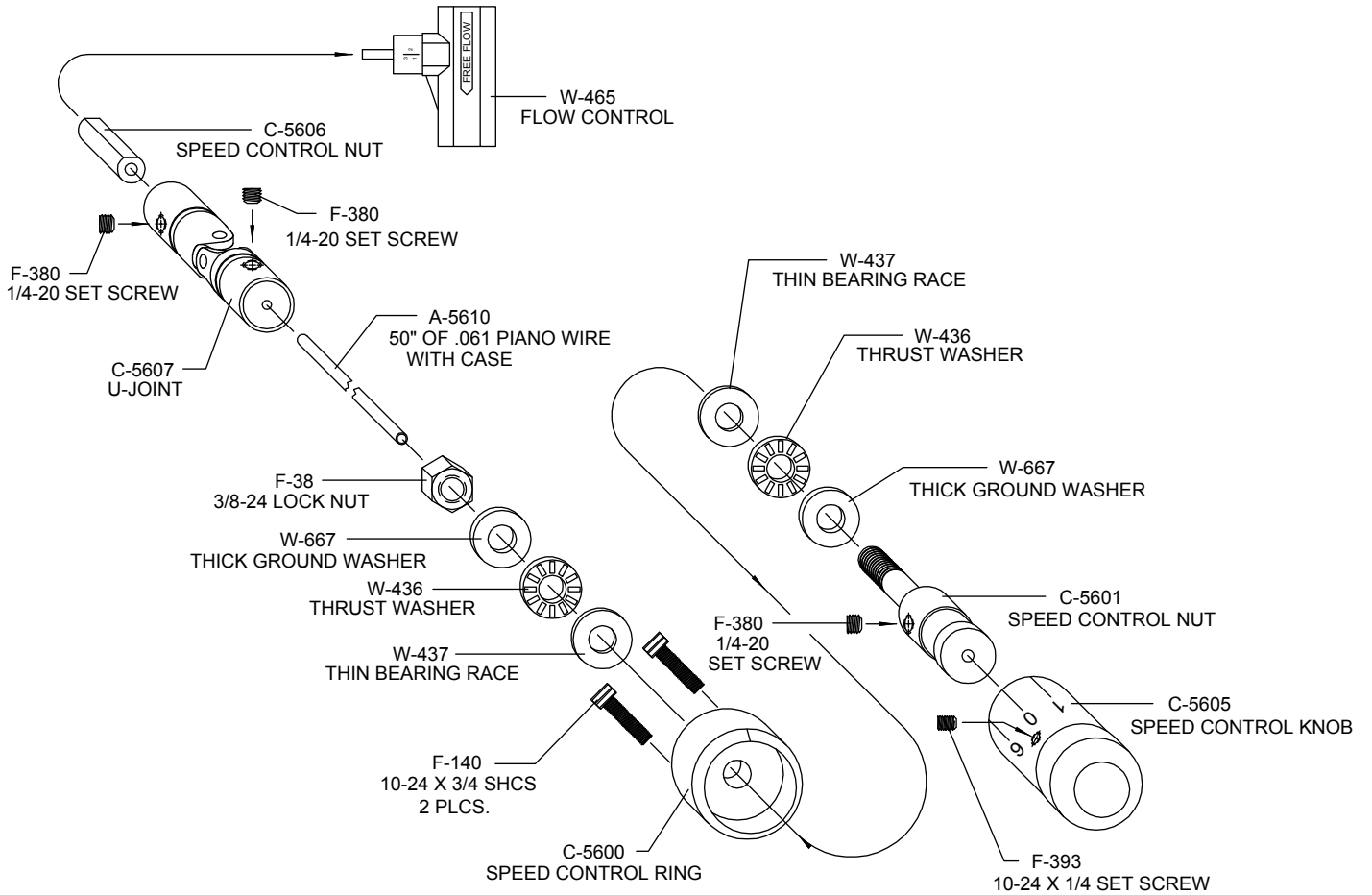
TALON TF-3 TOP & FACE SHARPENER

ADJUSTMENT CONTROL COMPONENTS CONTINUED... INDEX ADJUSTMENT KNOB ASSEMBLY



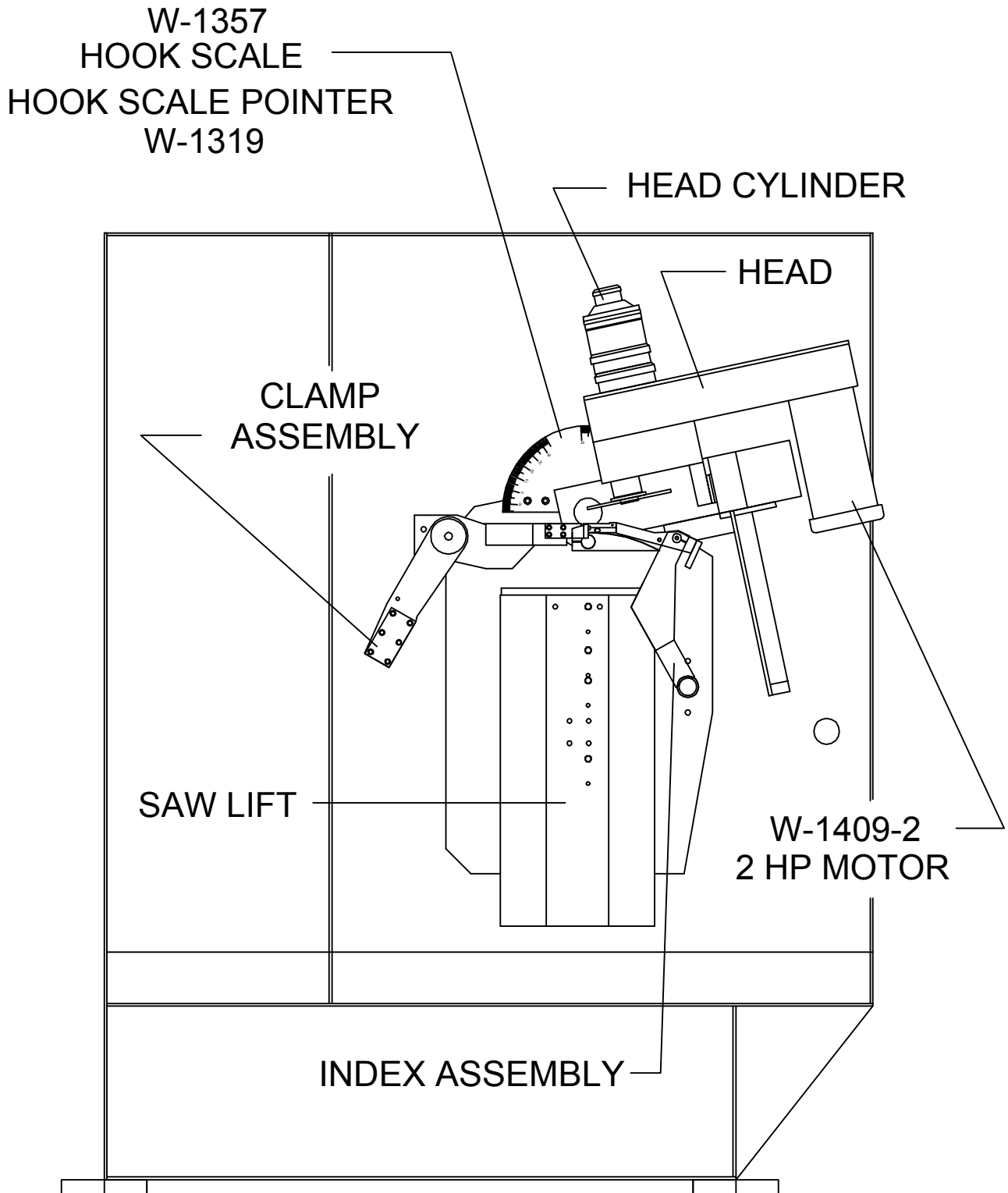
TALON TF-3 TOP & FACE SHARPENER

ADJUSTMENT CONTROL COMPONENTS CONTINUED... SPEED CONTROL KNOB ASSEMBLY



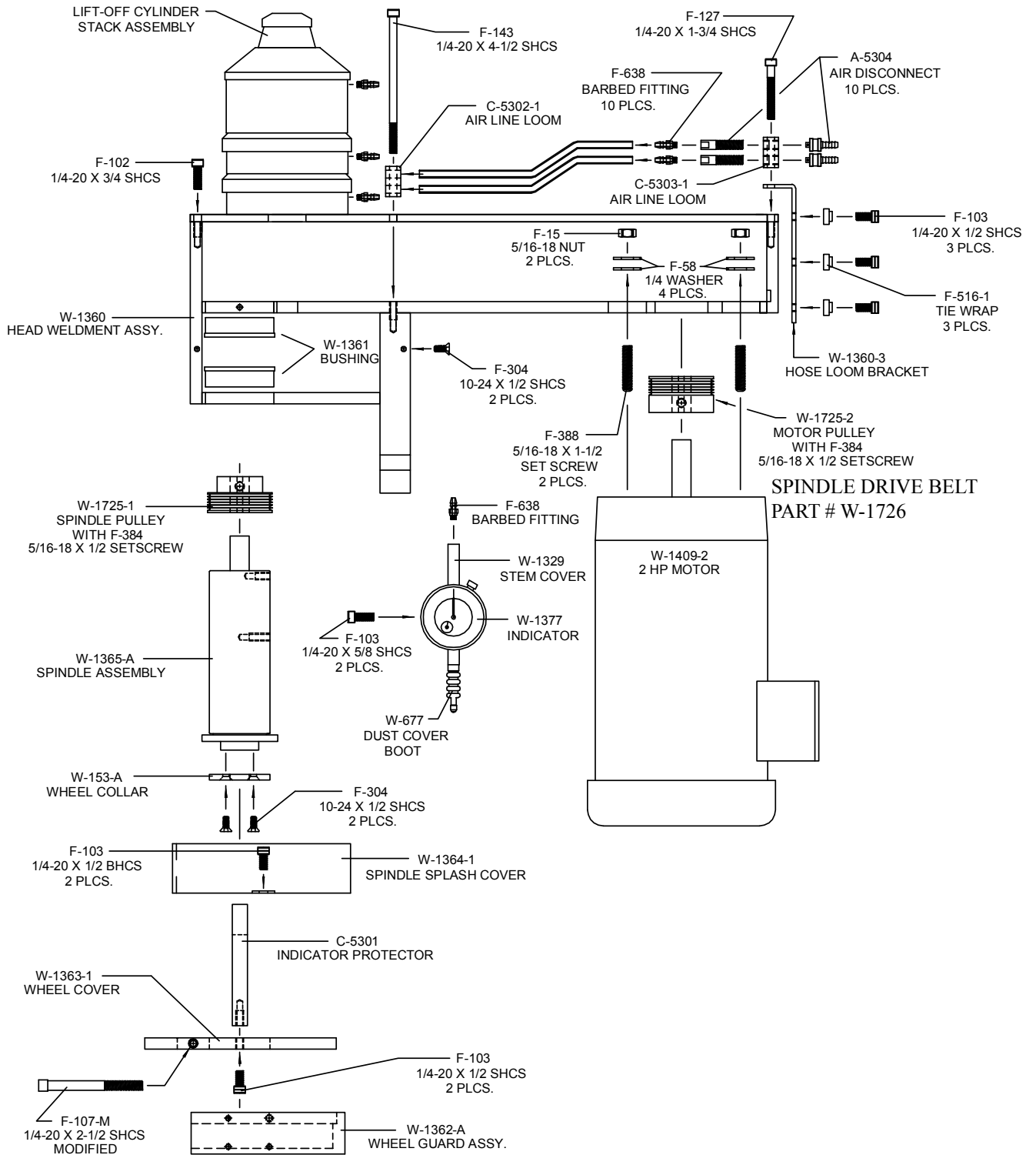
TALON TF-3 TOP & FACE SHARPENER

INSIDE ENCLOSURE



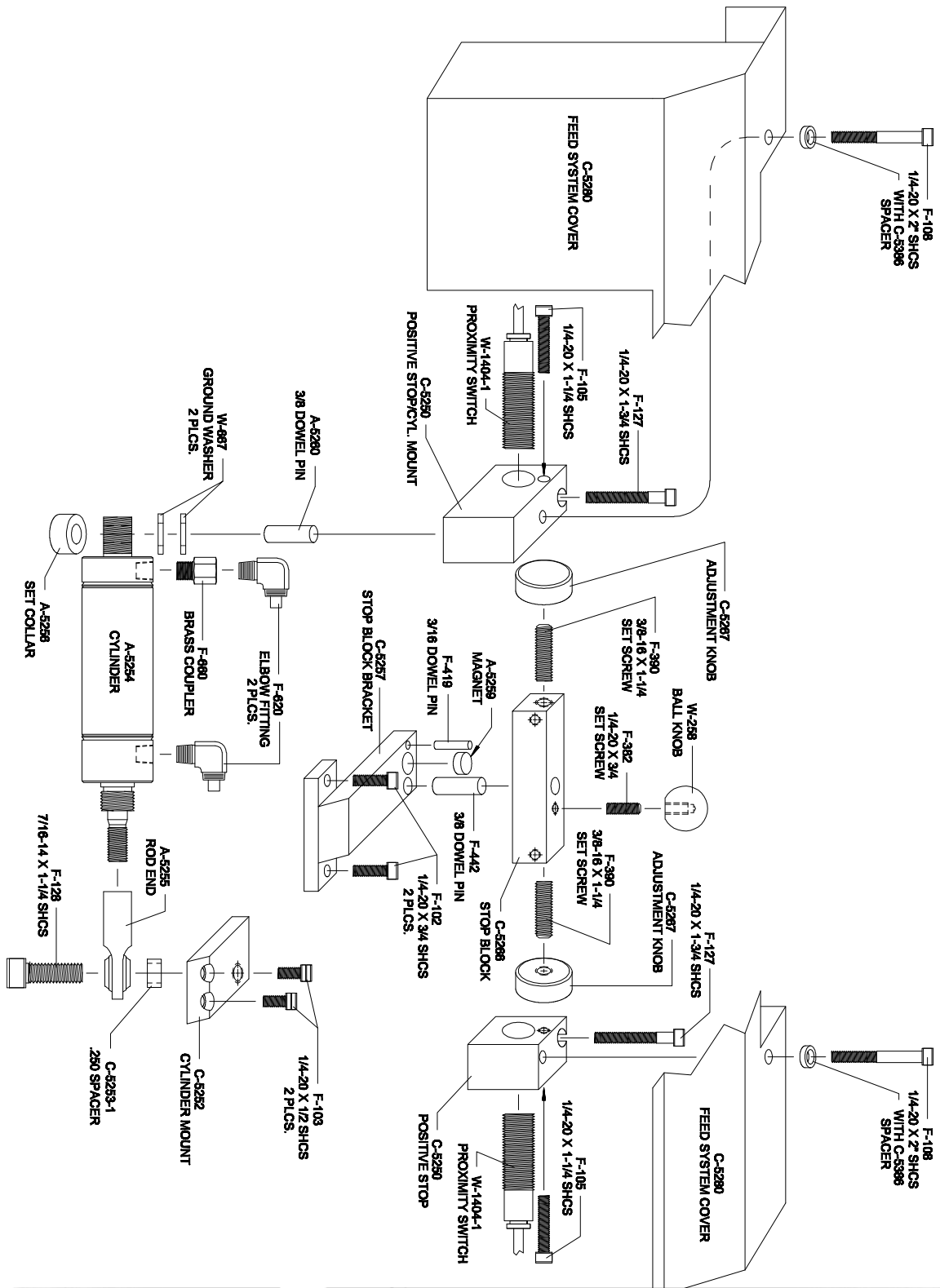
TALON TF-3 TOP & FACE SHARPENER

HEAD ASSEMBLY



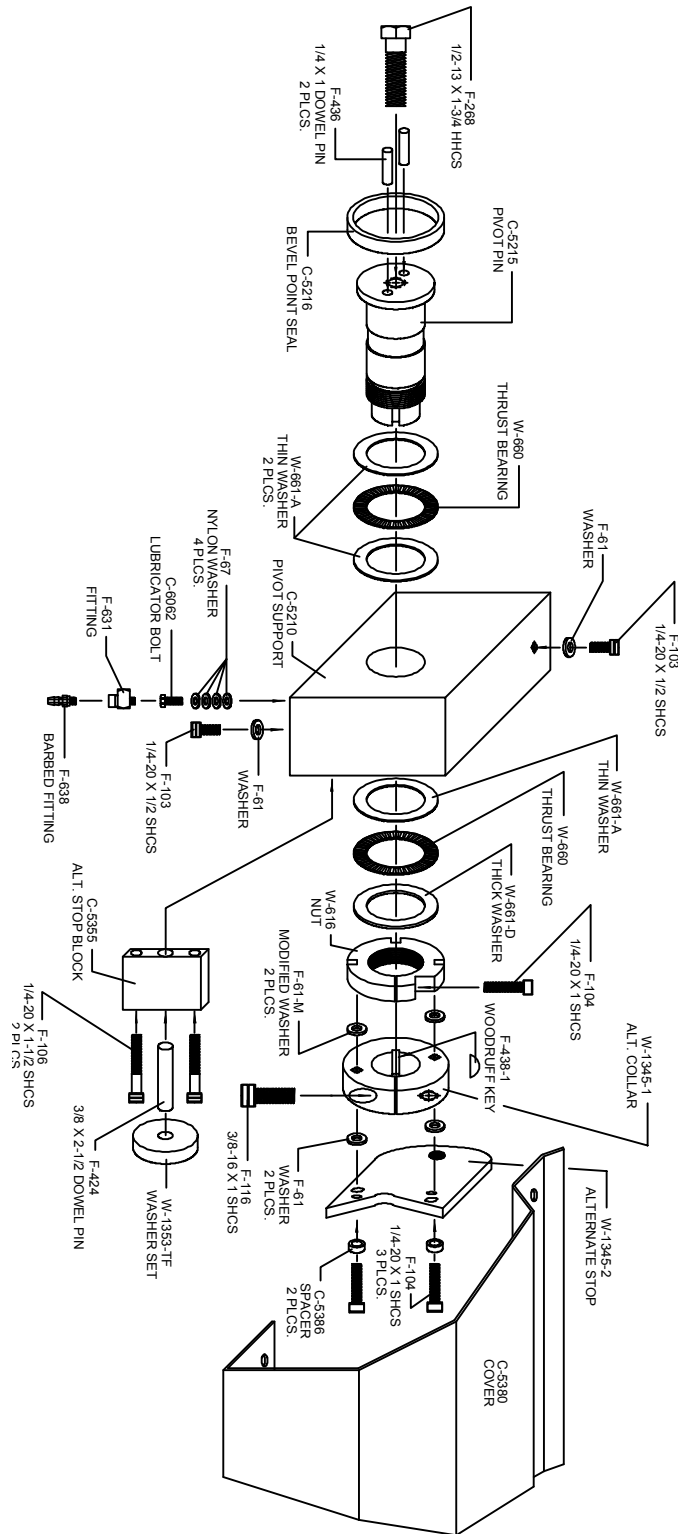
TALON TF-3 TOP & FACE SHARPENER

STROKE ASSEMBLY



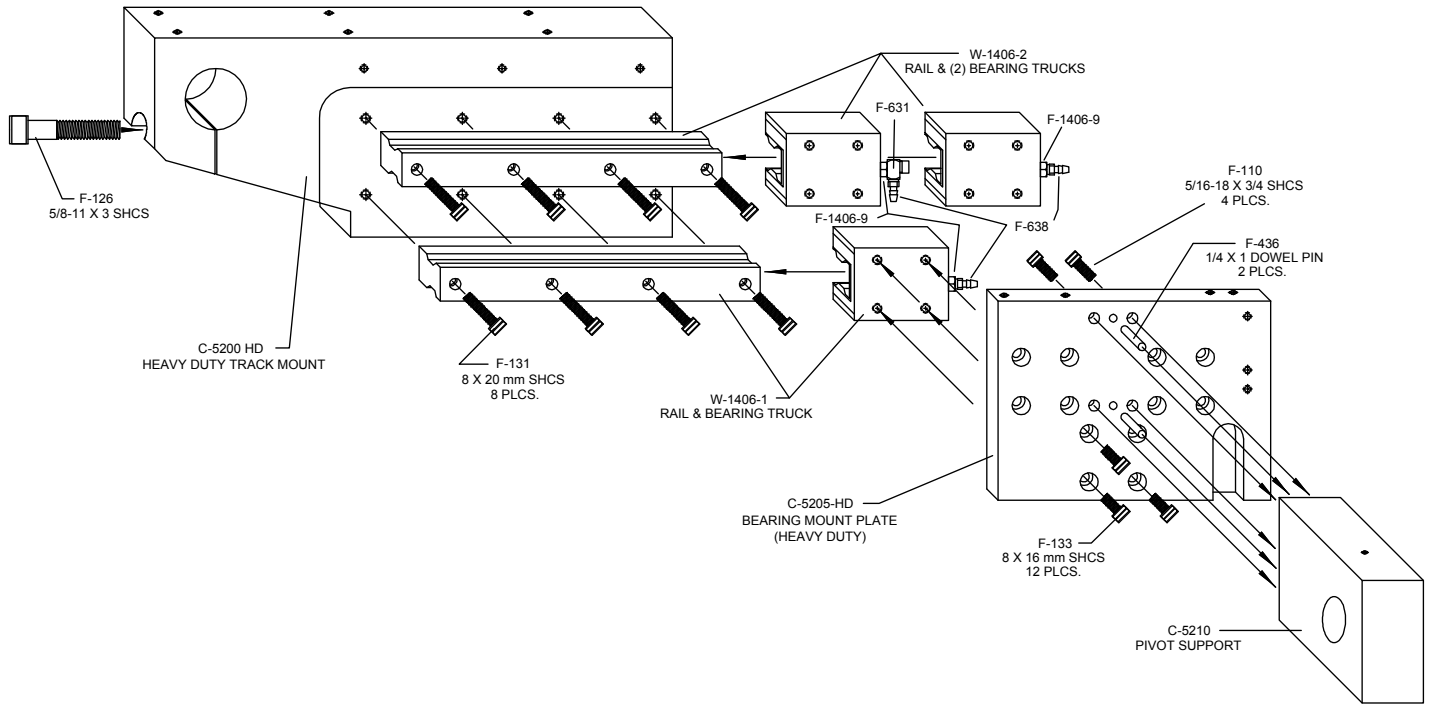
TALON TF-3 TOP & FACE SHARPENER

PIVOT ASSEMBLY



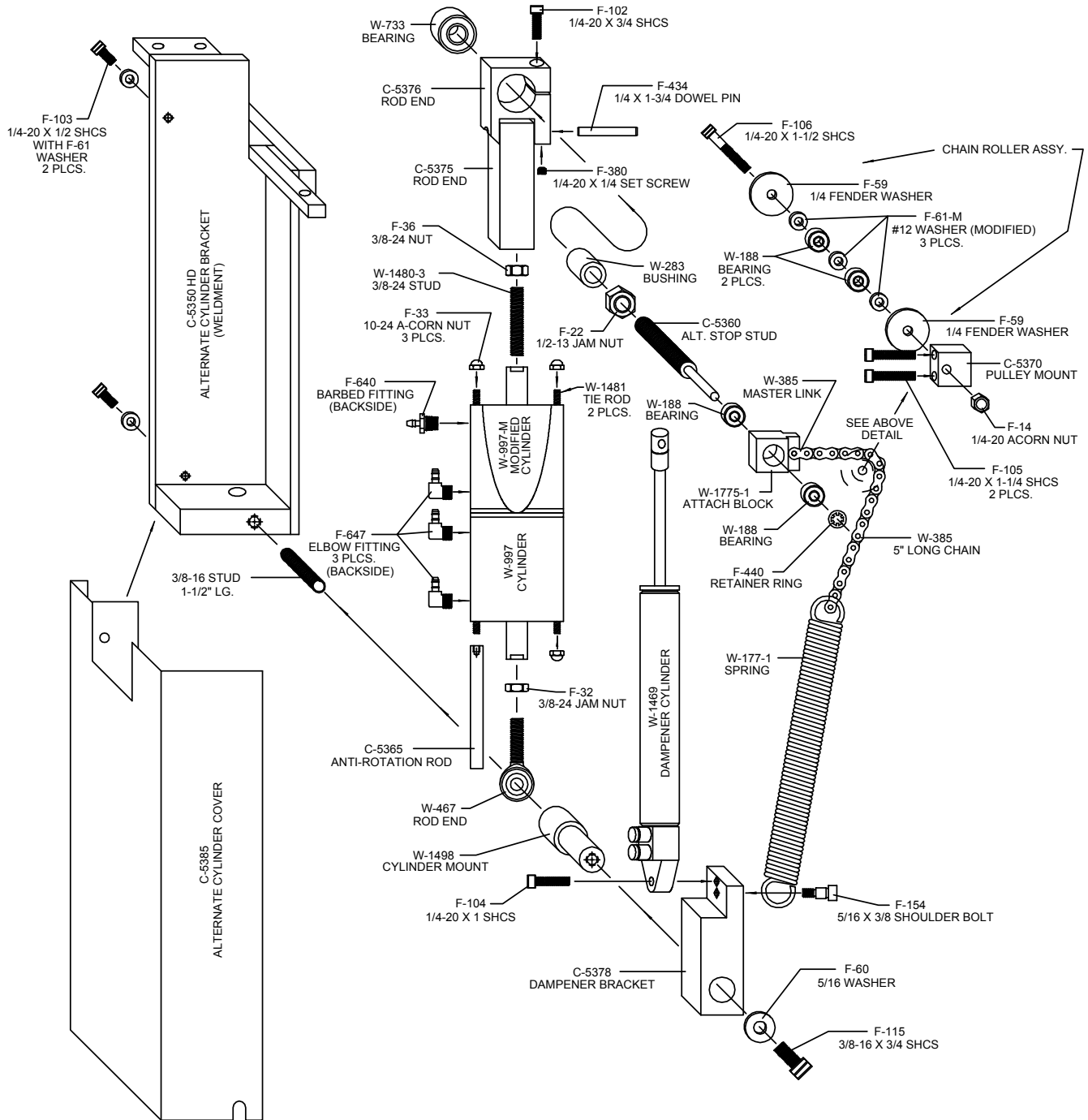
TALON TF-3 TOP & FACE SHARPENER

FEED SYSTEM ASSEMBLY



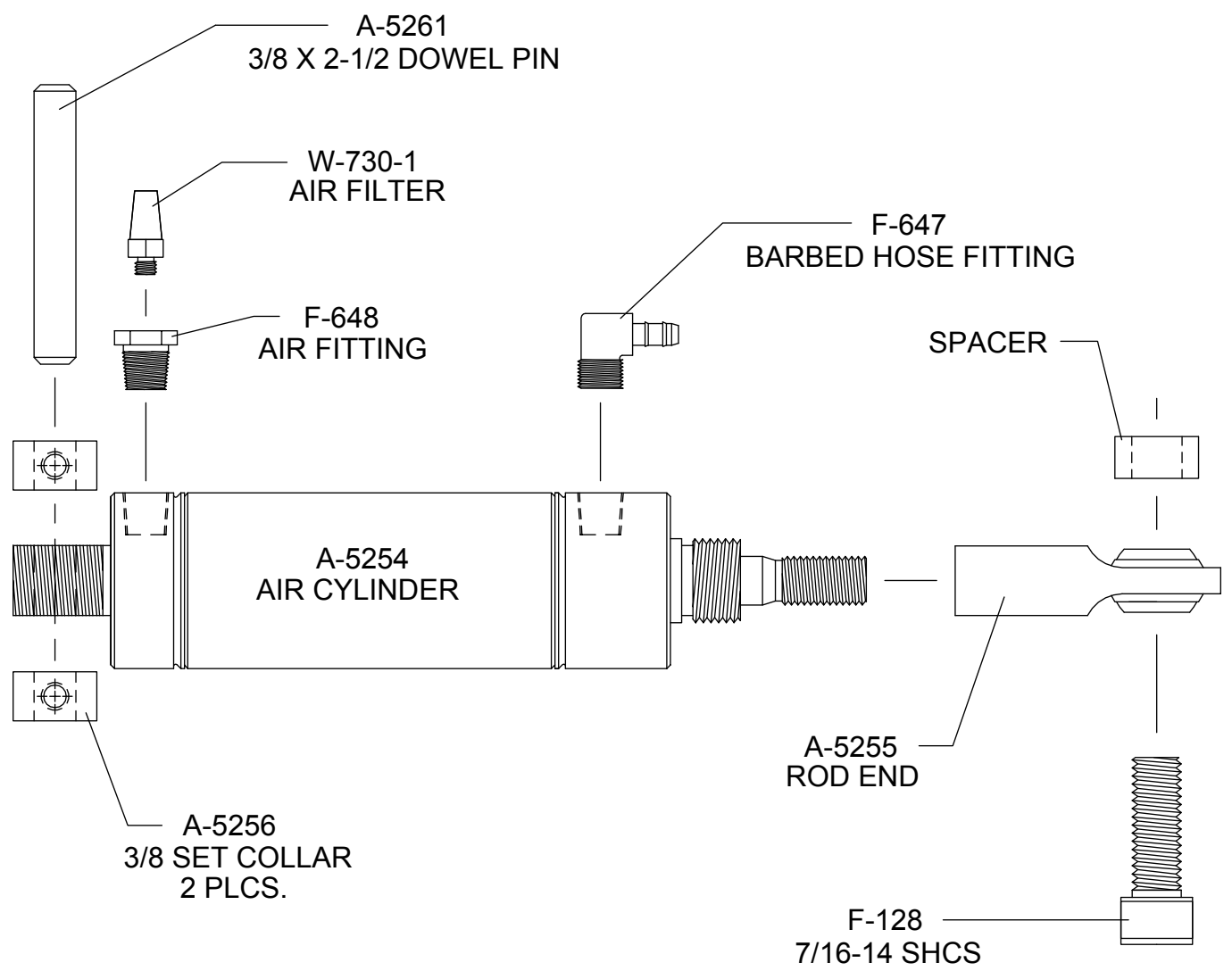
TALON TF-3 TOP & FACE SHARPENER

COUNTER BALANCE ASSEMBLY



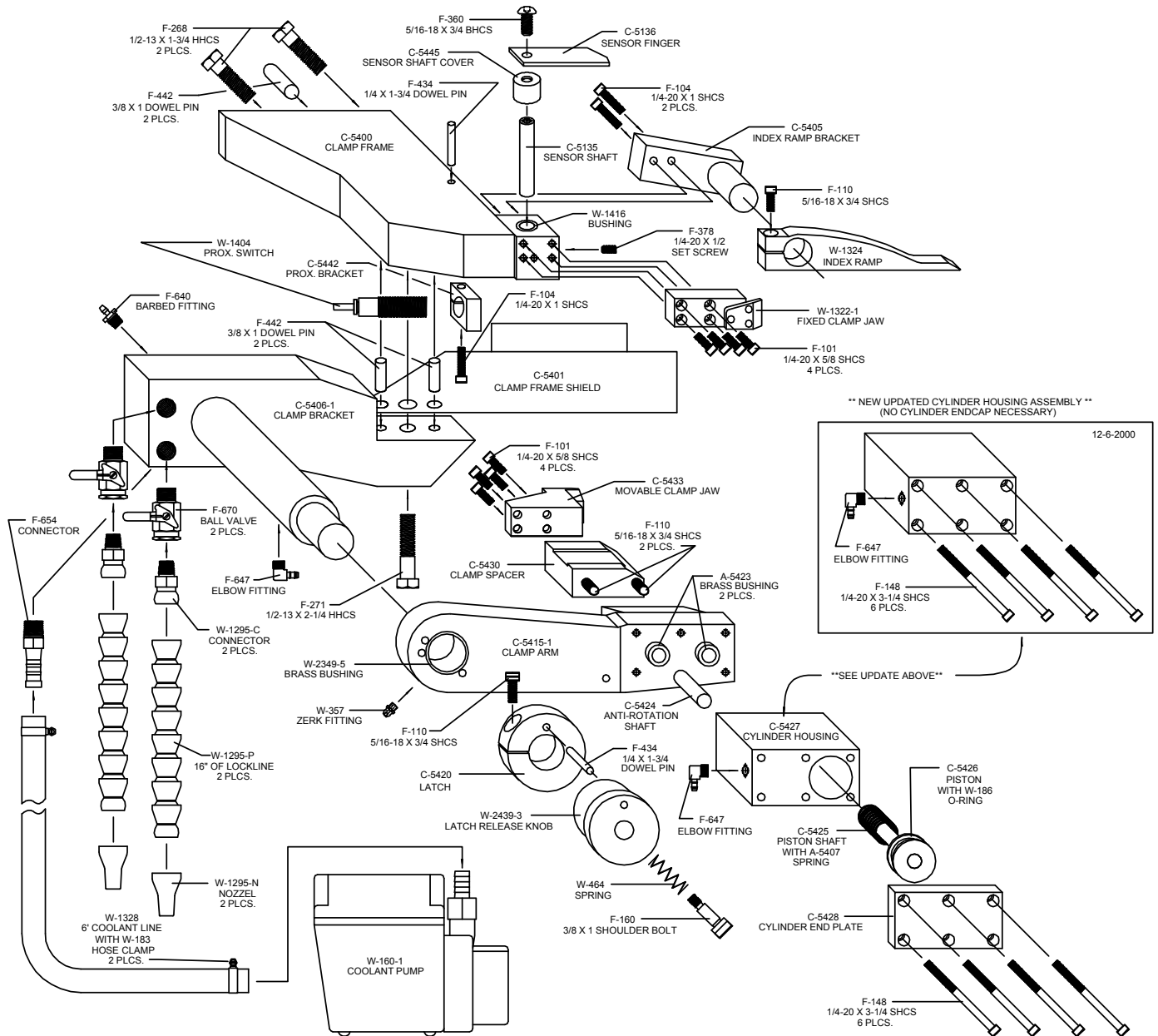
TALON TF-3 TOP & FACE SHARPENER

COUNTER BALANCE CYLINDER ASSEMBLY



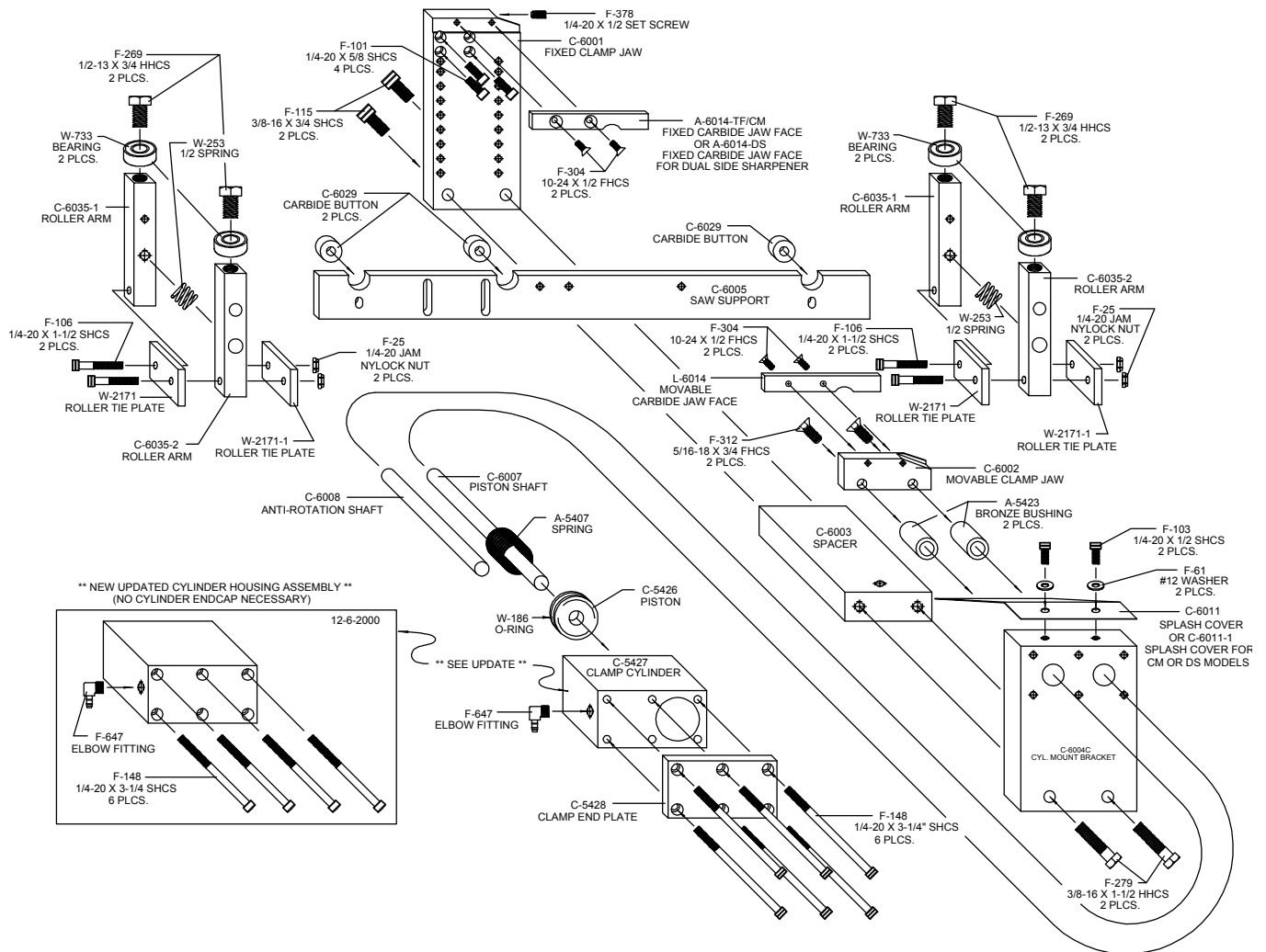
TALON TF-3 TOP & FACE SHARPENER

SAW CLAMP AND COOLANT PUMP ASSEMBLY



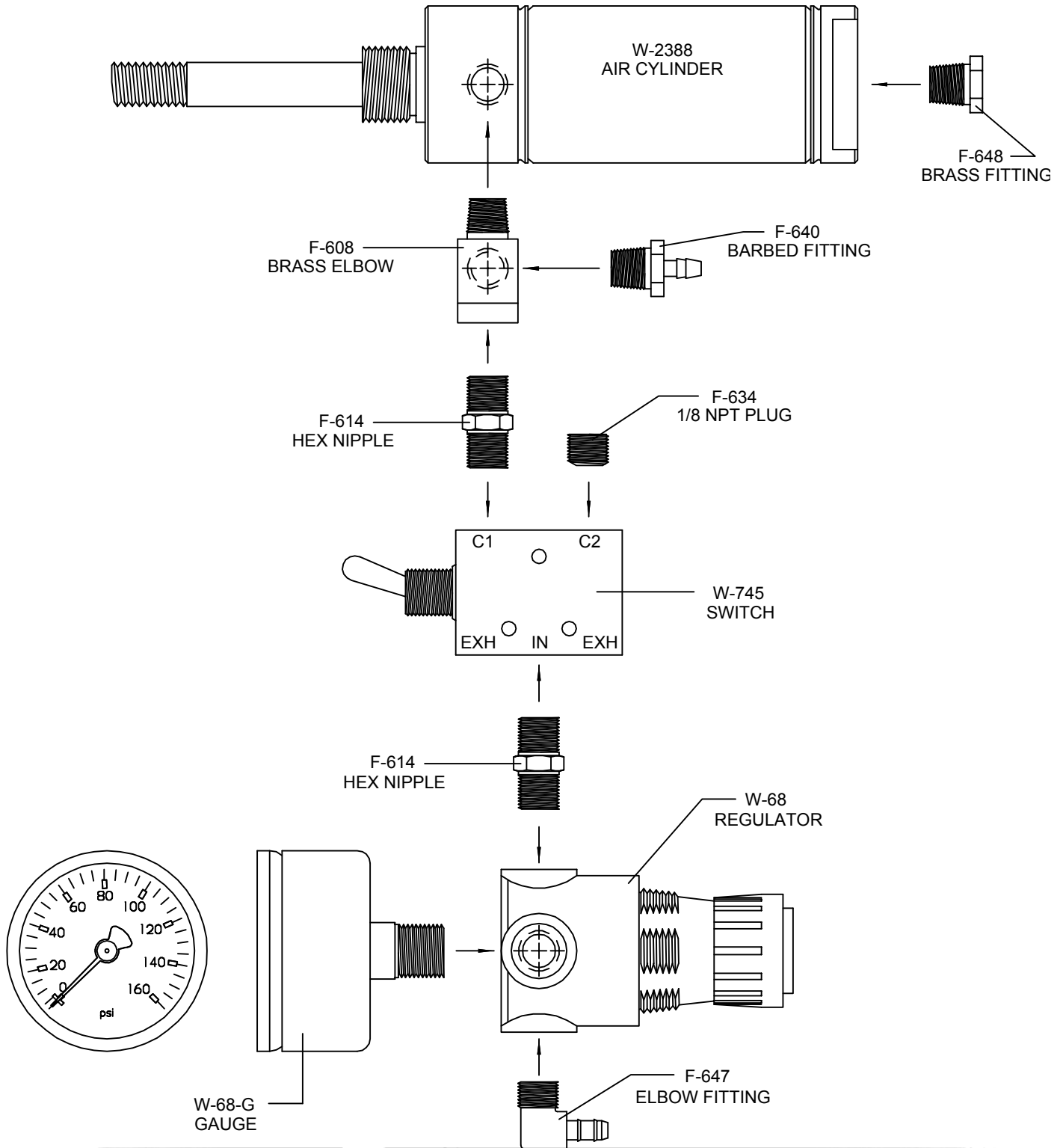
TALON TF-3 TOP & FACE SHARPENER

BAND SAW CARRIER ASSEMBLY



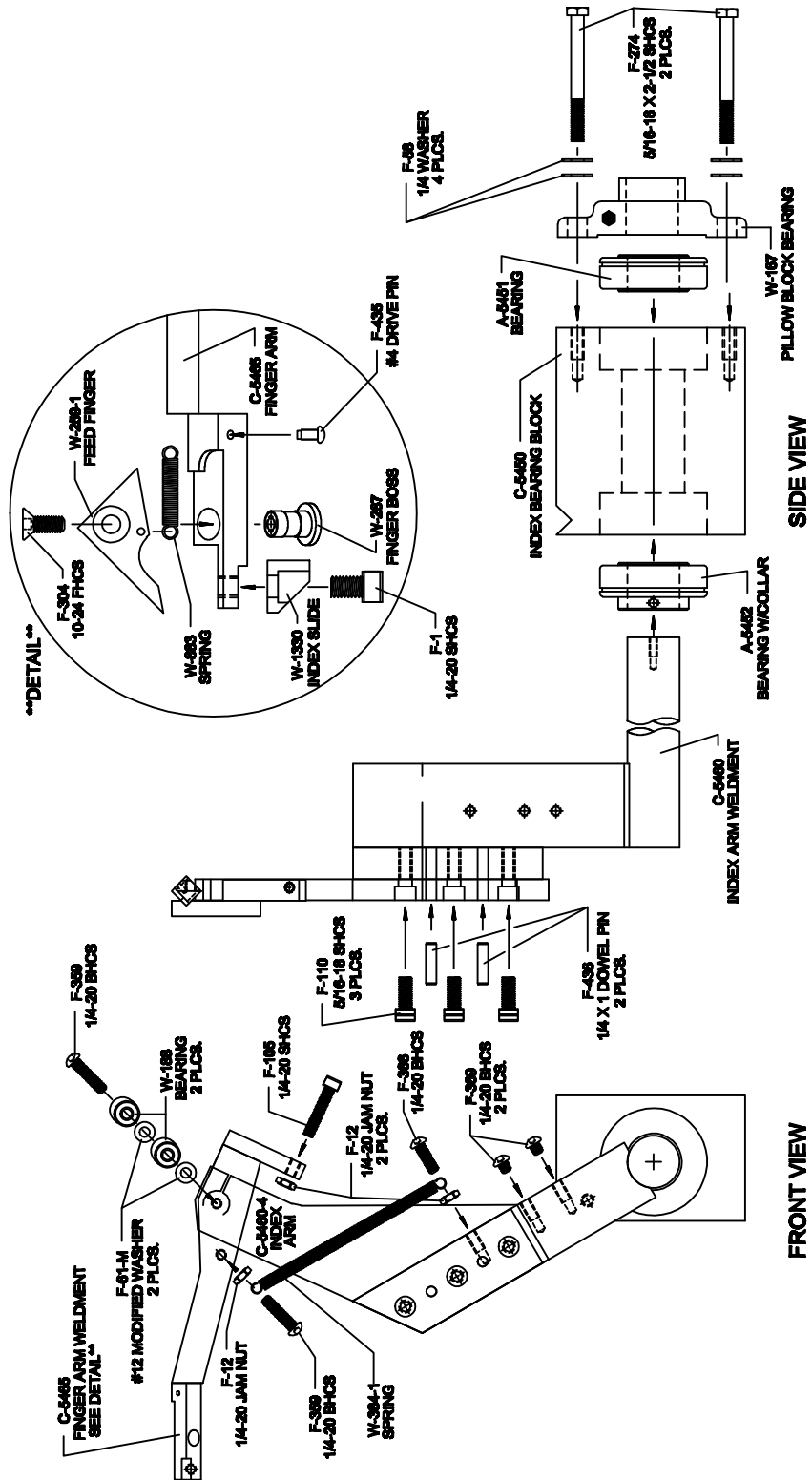
TALON TF-3 TOP & FACE SHARPENER

BAND SAW CARRIER CYLINDER ASSEMBLY



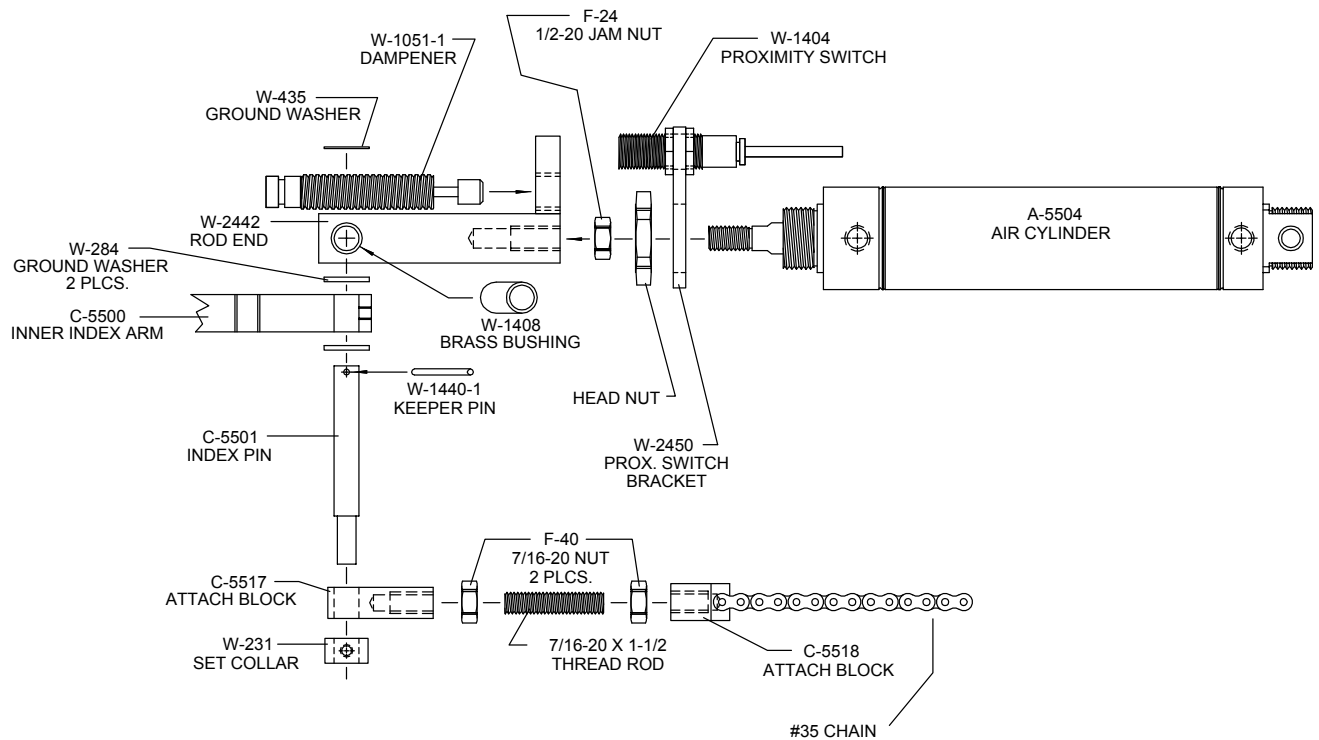
TALON TF-3 TOP & FACE SHARPENER

INDEX ARM ASSEMBLY



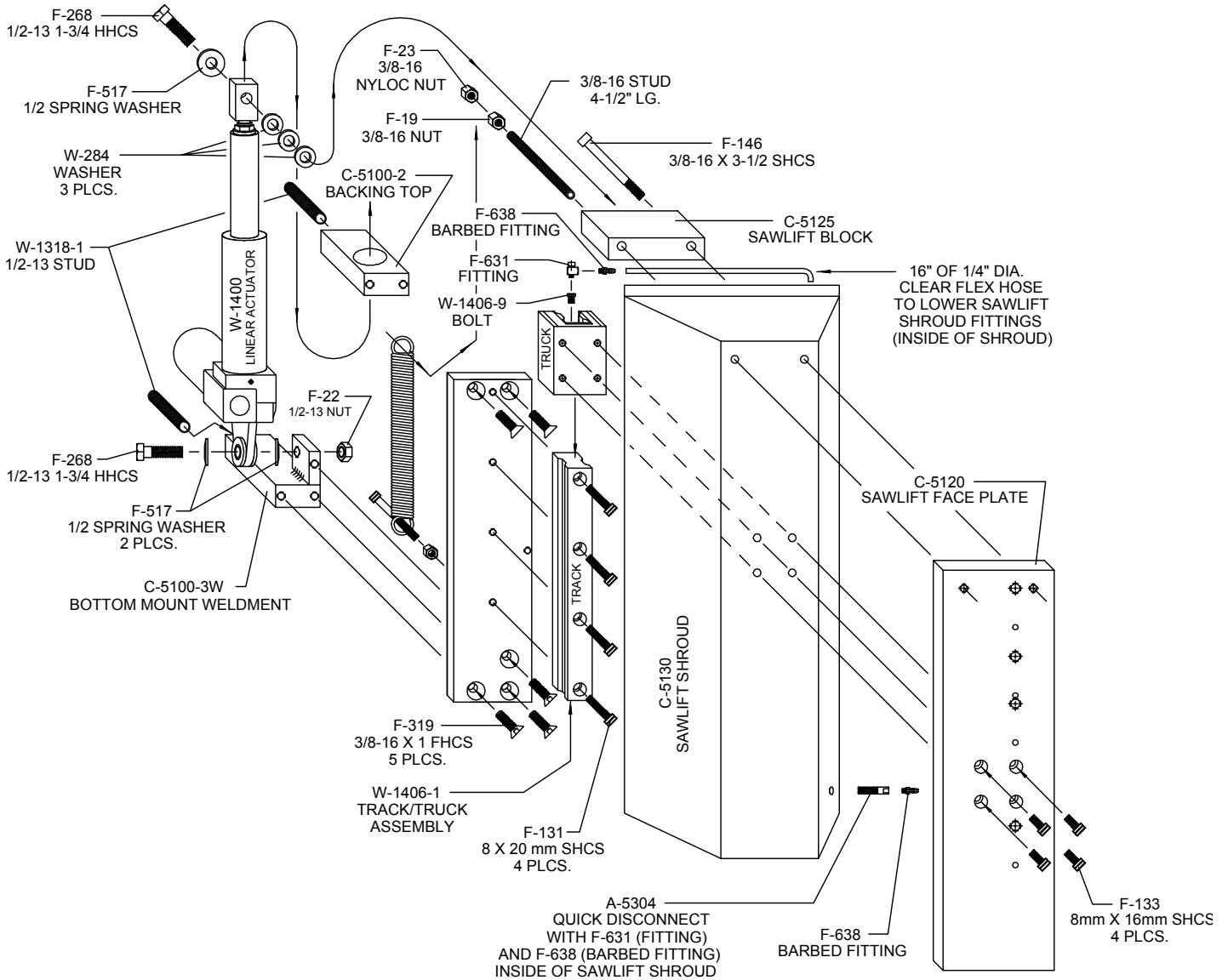
TALON TF-3 TOP & FACE SHARPENER

INDEX CYLINDER ASSEMBLY



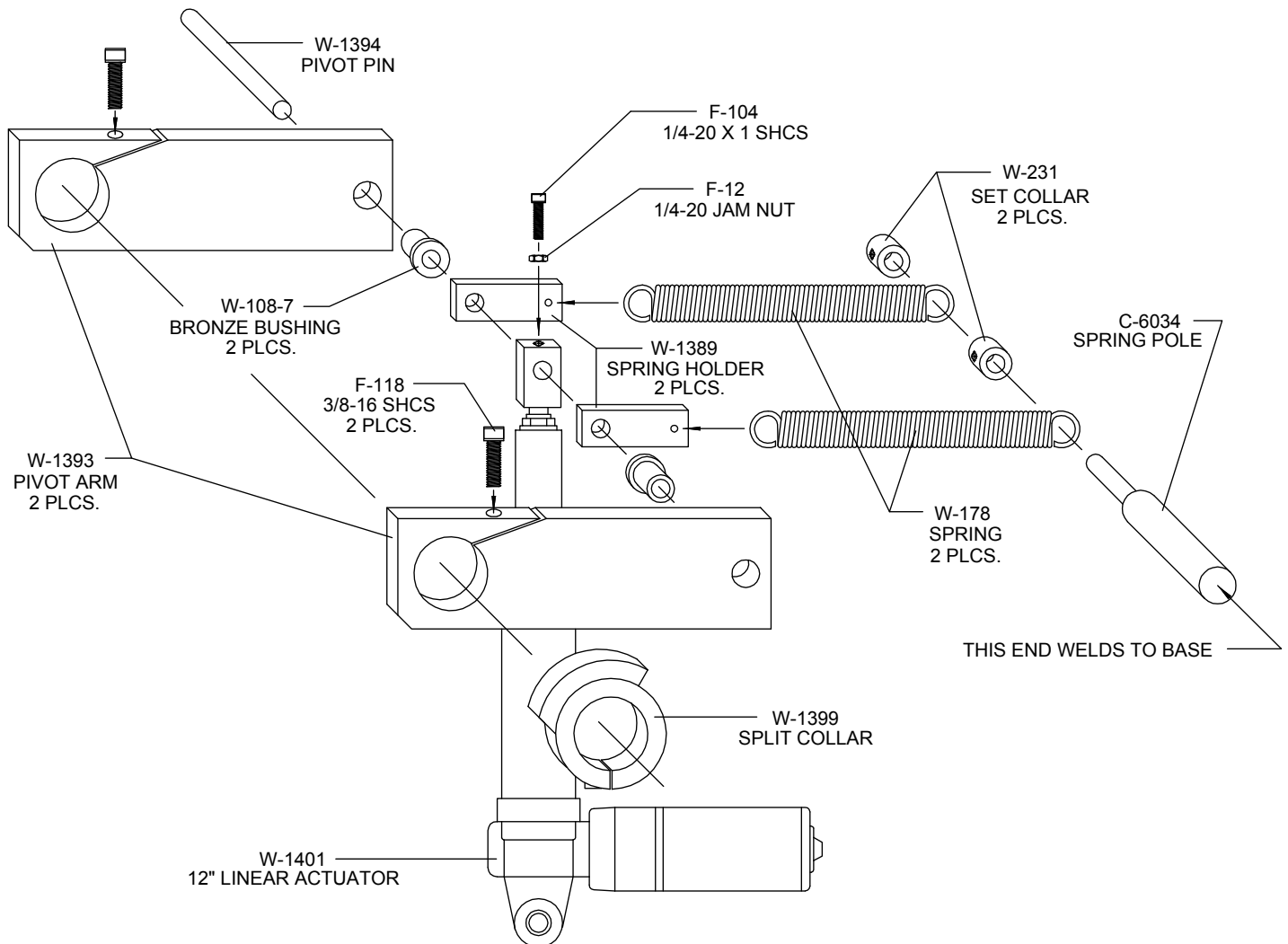
TALON TF-3 TOP & FACE SHARPENER

SAWLIFT ASSEMBLY



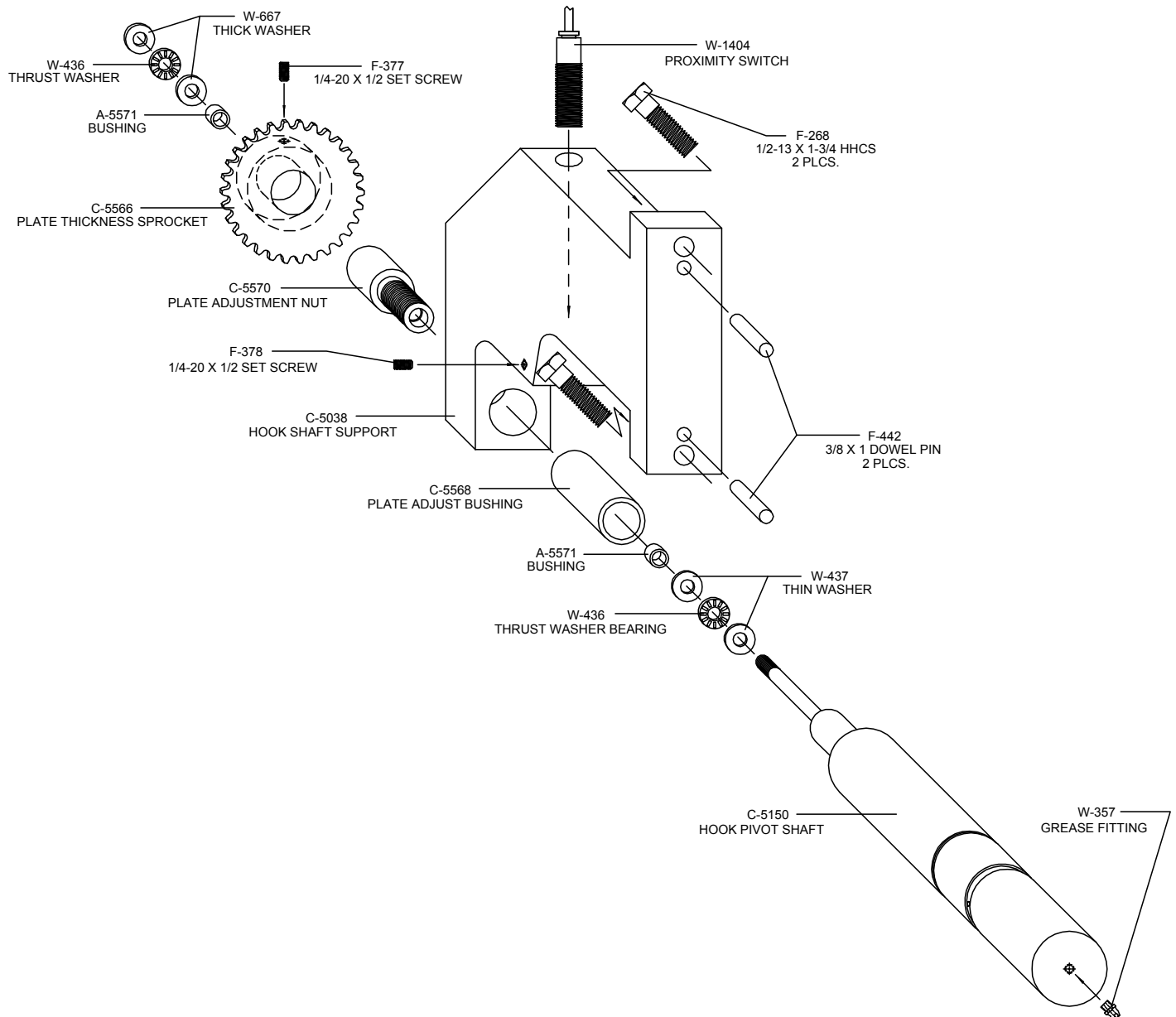
TALON TF-3 TOP & FACE SHARPENER

HOOK ACTUATOR ASSEMBLY



TALON TF-3 TOP & FACE SHARPENER

PLATE THICKNESS SPROCKET ASSEMBLY

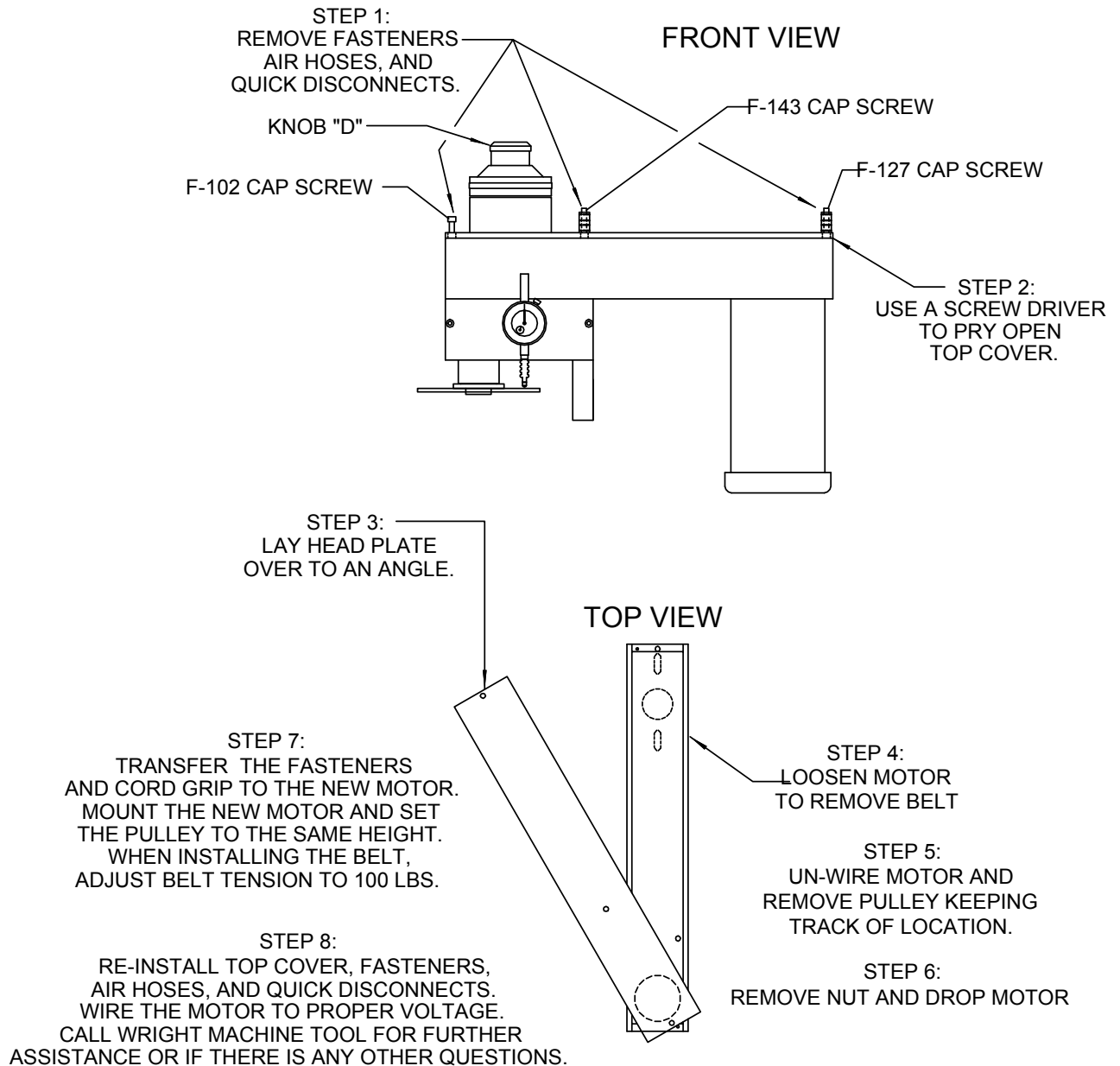


WM **RIGHT** **MACHINE**

Revised 7/10/2015

TALON TF-3 TOP & FACE SHARPENER

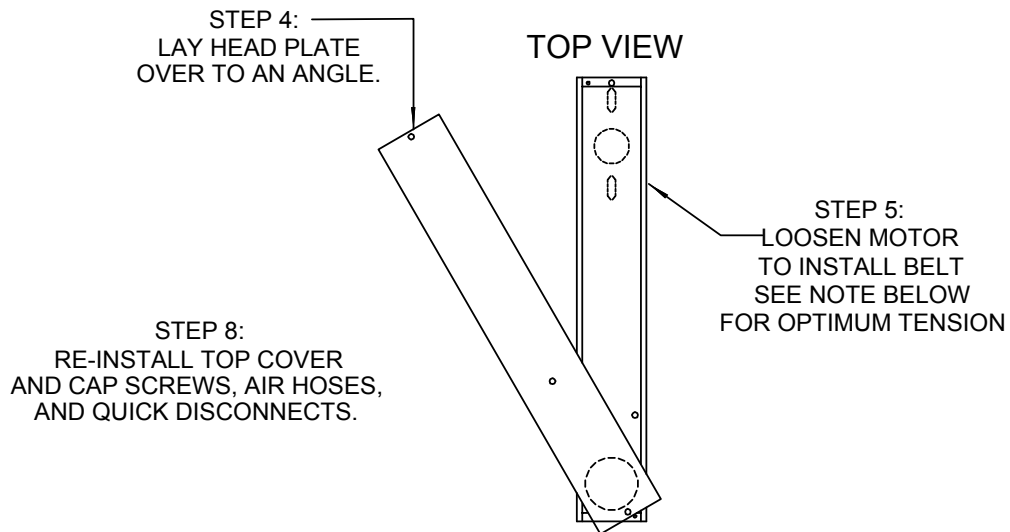
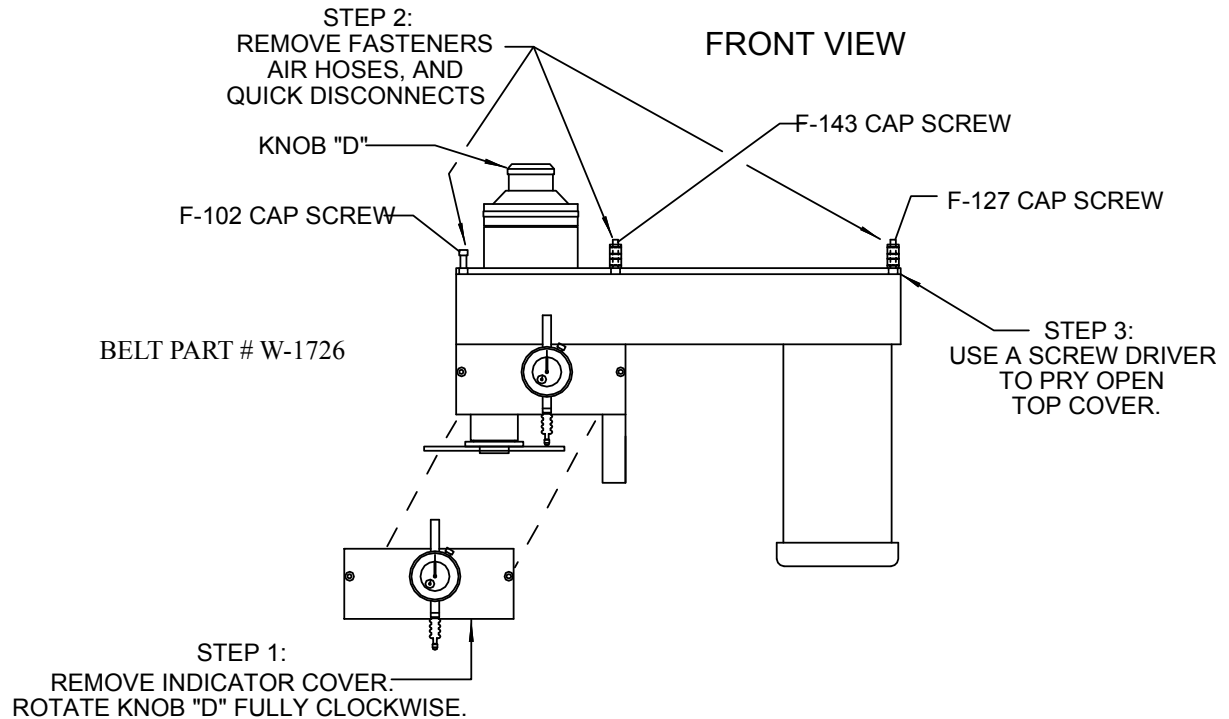
NOTE: DISCONNECT POWER FIRST! MOTOR REPLACEMENT INSTRUCTIONS



NOTE:
RUN MACHINE IN ALTERNATE. IF THE BELT
SQUEALS WHEN REVERSING THEN TIGHTEN BELT.
IF LIFT OFF DOES NOT FUNCTION THEN LOOSEN
BELT BY ADJUSTING THE MOTOR.

TALON TF-3 TOP & FACE SHARPENER

NOTE: DISCONNECT POWER FIRST! BELT REPLACEMENT INSTRUCTIONS

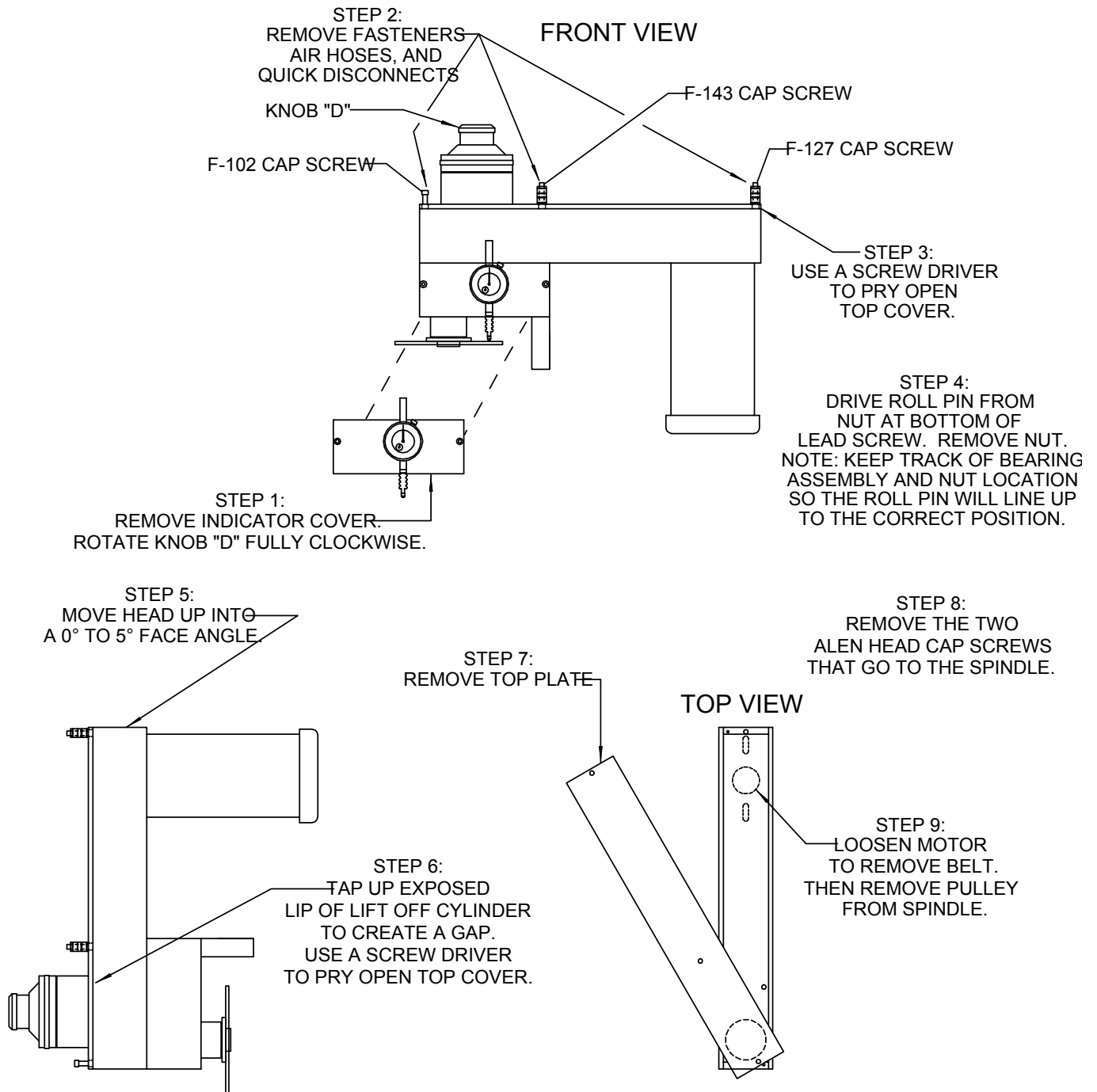


NOTE:
RUN MACHINE IN ALTERNATE. IF THE BELT
SQUEALS WHEN REVERSING THEN TIGHTEN BELT.
IF LIFT OFF DOES NOT FUNCTION THEN LOOSEN
BELT BY ADJUSTING THE MOTOR.



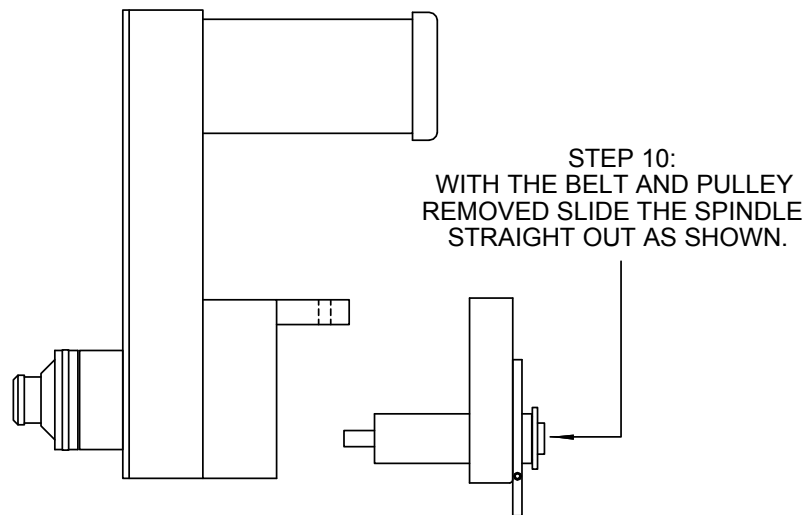
TALON TF-3 TOP & FACE SHARPENER

NOTE: DISCONNECT POWER FIRST! SPINDLE REPLACEMENT INSTRUCTIONS

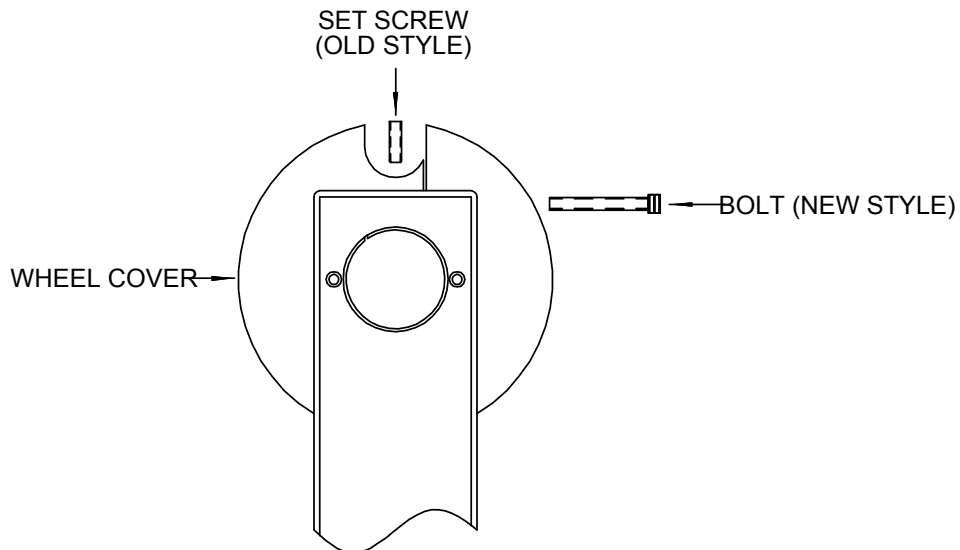


TALON TF-3 TOP & FACE SHARPENER

NOTE: DISCONNECT POWER FIRST!
 SPINDLE REPLACEMENT INSTRUCTIONS CONTINUED







INSTALL THE NEW SPINDLE IN THE SAME MANNER AS SHOWN IN STEPS 1-10.
 BE SURE THE BELT LINES UP IN BELT GROOVES ON THE MOTOR AND SPINDLE PULLEYS.










NOTE: ON THE WHEEL COVER SET SCREW - JUST RUNNING IT UP SNUG IS ALL THAT IS NEEDED.
 OVERTIGHTENED SET SCREW WILL HARM SPINDLE.
 ON LATER MACHINES THE SET SCREW WAS REPLACED BY A SPLIT GUARD AND SOCKET HEAD CAP SCREW.
 THE NEW STYLE SHOULD ONLY BE SNUG AND NOT OVERTIGHTENED.

TALON TF-3 TOP & FACE SHARPENER

LOAD METER SET UP

 ENTER
  VALUE / SCROLL
  DECIMAL / EXIT
 

HOLD ENTER FOR 2 SECONDS → **PASS** → **0000** PRESS ENTER

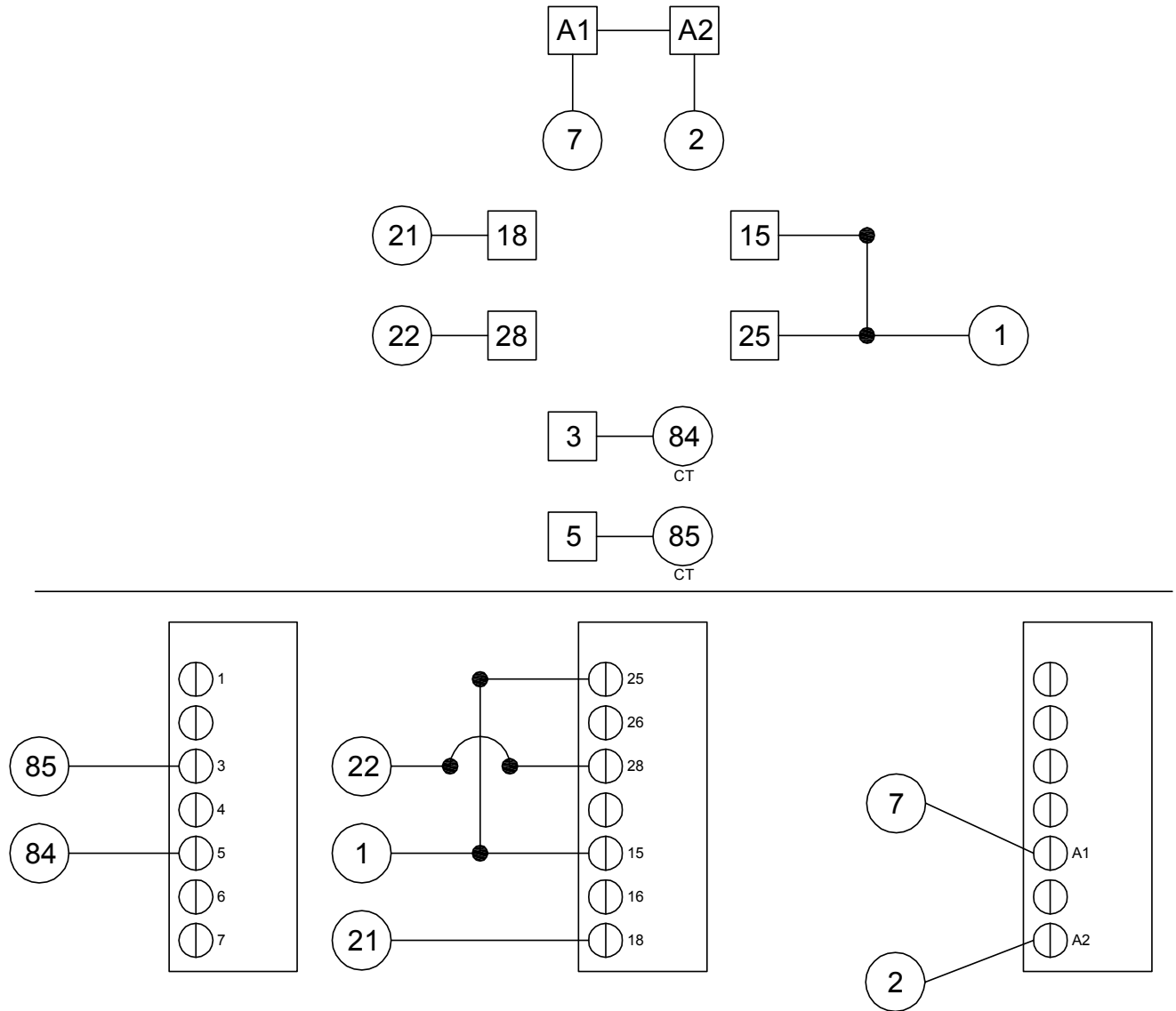
 SCROLL → **InP** PRESS ENTER → **r3** PRESS ENTER
rAng → **trns** PRESS ENTER
tYPE → **Auto** PRESS ENTER
inbt → **GrEn** PRESS ENTER
 SCROLL → **COLr** PRESS ENTER → **LoE** PRESS ENTER
 SCROLL → **SCAL** PRESS ENTER → **0500** PRESS ENTER
Hi.E → **5000** PRESS ENTER
dP → **1111** PRESS ENTER
Lod → **0500** PRESS ENTER
Hi.d → **5000** PRESS ENTER
 SCROLL → **L in** PRESS ENTER → **nanE** PRESS ENTER
 SCROLL → **SP.1** PRESS ENTER → **LoS** PRESS ENTER
Hi.S → **5000** PRESS ENTER
SEt → **3000** PRESS ENTER
HYS → **0500** PRESS ENTER
aFFd → **0000** PRESS ENTER
and → **0000** PRESS ENTER
rLY → **nd** PRESS ENTER
ALr → **uP** PRESS ENTER
colr → **orAn** PRESS ENTER
 SCROLL → **SP2** PRESS ENTER → **LoS** PRESS ENTER
Hi.S → **5000** PRESS ENTER
SEt → **5000** PRESS ENTER
HYS → **0500** PRESS ENTER
aFFd → **0000** PRESS ENTER
and → **0000** PRESS ENTER
rLY → **nd** PRESS ENTER
ALr → **uP** PRESS ENTER
colr → **orAn** PRESS ENTER
SP.1 PRESS EXIT  → RETURNS TO DISPLAY

(LOW LOAD)

(HIGH LOAD)

TALON TF-3 TOP & FACE SHARPENER

LOAD METER WIRING



TALON TF-3 TOP & FACE SHARPENER

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