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LIMITED WARRANTY

This machine is warranted against defects in workmanship and materials under normal use and proper maintenance, for one year, after date of purchase from WRIGHT MACHINE TOOL CO. Any part which is determined to be defective, and is returned to WRIGHT MACHINE TOOL CO. (shipping costs prepaid) will be repaired or replaced, at the option of WRIGHT MACHINE TOOL CO.

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

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





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. 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 pinch points when machine is running.

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

Hot metal and sparks: Can cause burns. Wear correct eye, ear, and body protection. Allow equipment and work to cool before handling.

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

Keep work area clean: Cluttered areas invite accidents.

Never stand on this machine: Serious injury could occur if the machine is tipped.

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.

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





SPECIFICATIONS

STANDARD VOLTAGE: 115 Volt, 1 Phase, 30 AMP, 60 HZ

OPTIONAL VOLTAGE: None

SHIPPING WEIGHT: 300 lbs / 136 kg

CRATE SIZE: L 38" x W 32" x H 68"

AIR REQUIREMENTS: 90 psi





FEATURES

The Wright Machine Tool "WH-01" accurately hones large band saws to a fine finish. Deep grind grooves are removed resulting in a sharper saw with a much longer operational life between sharpening cycles. Heavy duty construction increases accuracy, productivity, and machine life. Machine control is achieved by the use of an advanced computer control system with integrated stepper control. Honing accuracy is accomplished through the use of a precision stepper motor as well. The WH-01 can interface with most band saw grinders on the market. It can be run as a stand alone version or in place of an air backfeed stand.

The WH-01 features include*:

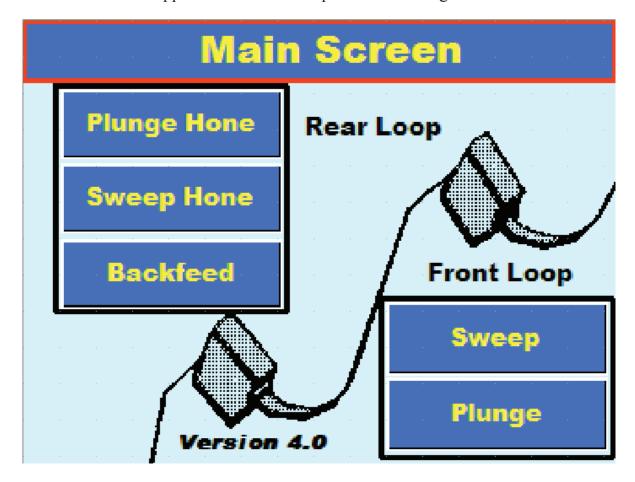
- Saw stabilizing clamp system
- Integrated stepper control system
- State of the art operator touch panel
- Ease of operation and adjustment
- Advanced computer control





Honer Touch Screen Operation

Boot/Setup Screen: Plug in the power cord and turn on the main power at the disconnect switch on the side of the Honer. Release the red mushroom button beside the touch screen. The machine will home the stepper drives and boot up to the following screen.

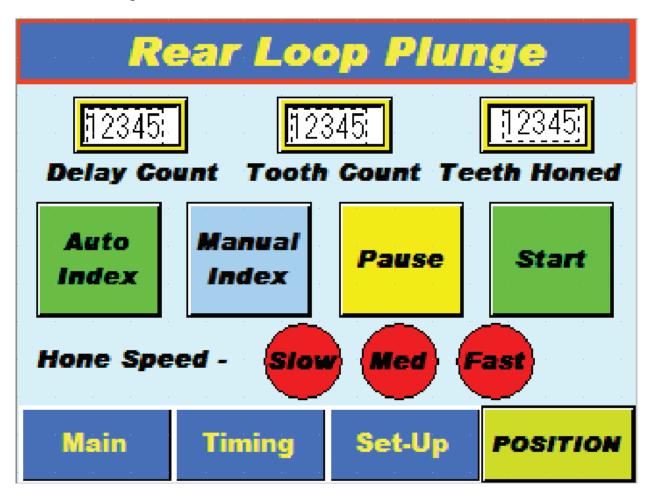


- Pressing the **Rear Loop** buttons **Plunge Hone**, **Sweep Hone** or **Backfeed** will take the operator to the corresponding screen for that function. In this mode the machine operates as a slave. The machine waits for an input before performing an operation.
- Pressing the **Front Loop** buttons **Sweep or Plunge** will also take the operator to the corresponding screen for that function. In this mode the machine operates as a master and sends an output signal when a tooth is finished honing.
- The software version is displayed at the bottom of the screen.



Honer Touch Screen Operation

Rear Loop Plunge: The hone assumes a stop position before moving into and away from both the face and top of the tooth.



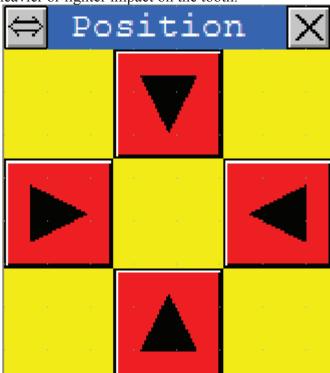
- **Delay Count:** A read/write display. Touching the display opens a pop-up screen that allows the operator to enter the desired value. The Honer will index once for each external input received until the count value is met.
- **Tooth Count:** A read/write display. Touching the display opens a pop-up screen that allows the operator to enter the desired value. The Honer will begin the honing operation once for each external input received after the **Delay Count** is met and will continue until the **Tooth Count** value is met.
- **Teeth Honed:** A read only display. The counted value of teeth honed.
- Pressing the buttons **Main**, **Timing** or **Set-Up** will take the operator to the corresponding screen for that function.



Honer Touch Screen Operation

Rear Loop Plunge Continued:

- **Start:** When pressed the button turns red and becomes the **Stop** button. The machine now waits for an external input. When the **Stop** button is pushed the Honer will finish ts current task, return to home position, stop and zero the **Delay Count** and **Teeth Honed** values.
- Pause: The machine finishes its current task and stops without resetting counters.
- Manual Index: Functional when the table is in the home position. Manually indexes the saw.
- **Auto Index:** Turns on and off the auto index function. Should the Honer be placed in a position that would not require the use of its indexing function it can be turned off. The machine will then pause fixed amounts of time before performing honing operations. This value is set on the **Timing** screen and allows a "mock" index for timing purposes.
- The hone speeds **Slow, Medium** and **Fast** are preconfigured speeds for performing honing operations.
- Pressing the buttons **Main**, **Timing** or **Set-Up** will take the operator to the corresponding screen for that function.
- The **Position** button enables a pop-up screen that allows the operator the ability to adjust the position of the hones in relationship to the saw tooth. This can be used while the machine is running to create a heavier or lighter impact on the tooth.

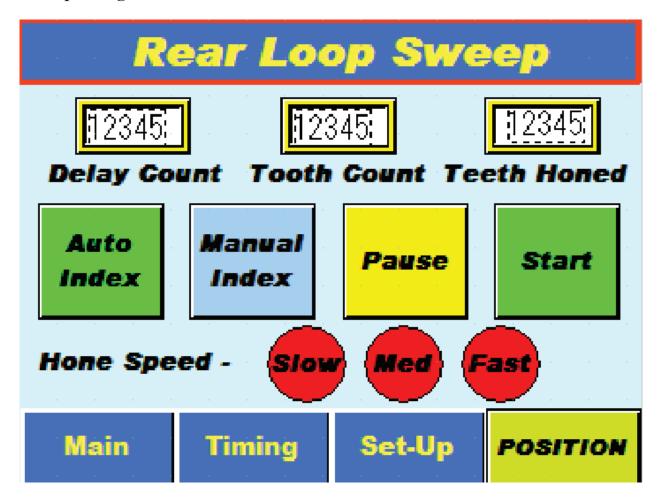






Honer Touch Screen Operation

Rear Loop Sweep: The hone continuously moves across the tooth while moving into and out of the face and top of the tooth. All functions and buttons work the same as stated in **Rear Loop Plunge**.

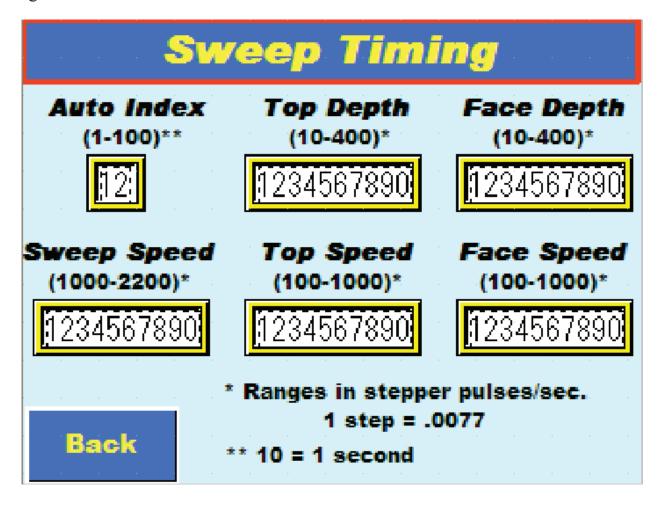






Honer Touch Screen Operation

Timing: The **Rear Loop Sweep Timing** and **Rear Loop Plunge Timing** screen functions are identical with one exception. The **Sweep Speed** function is omitted on the plunge timing screen.



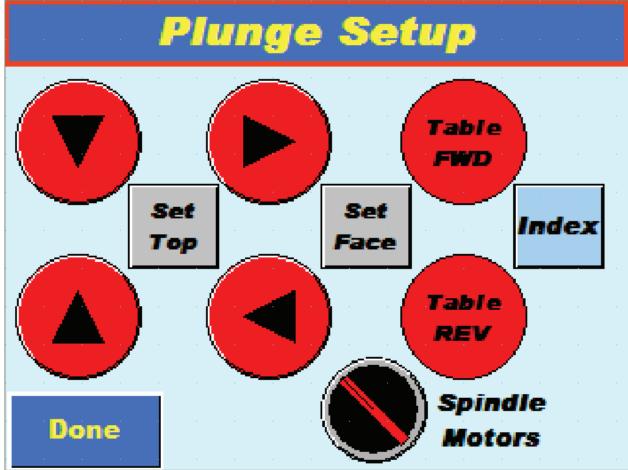
- Pressing the **Back** button returns the operator to the corresponding screen that the timing is set for.
- **Auto Index:** Read/Write display that is accessed by touching the display. This value sets the time lag between the input pulse received from an external machine and the time the Honer begins a cycle. This function is turned on or off on the rear loop main screens. The value scale is 10 = 1 second.
- The remaining speed and depth displays are read only and don't allow the operator to change the corresponding values. These reflect the **Slow, Medium** or **Fast** values selected on the main rear loop screens.



Honer Touch Screen Operation

Setup: The setup screens give the operator access to various jog and setup buttons for manual control and setup of the machine. The setup screen functions are the same for all

plunge and sweep modes.

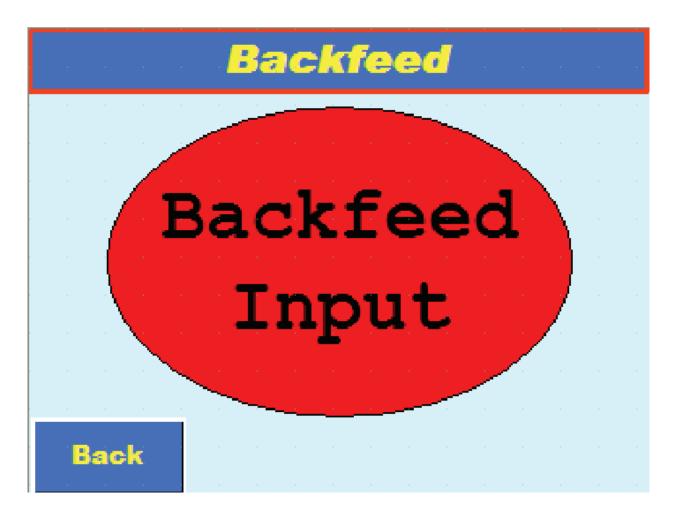


- Pressing the **Table FWD** or **Table REV** buttons will jog the table allowing the top and face hones to be positioned for setup.
- The up and down buttons jog the top hone toward or away from the top of the tooth.
- The forward and reverse buttons move the face hone toward or away from the face of the tooth.
- Pressing either the **Set Top** or **Set Face** button sets the zero location for that function. All moves of either hone are based on the locations set here.
- **Index:** Indexes the saw one time.
- **Spindle Motors:** A manual on/off switch for the spindle motors.
- Pressing the **Done** button returns the operator to the corresponding main screen that the setup was
 done for. When activated the table, top hone and face hone will return to their respective home
 positions.



Honer Touch Screen Operation

Backfeed: Main screen for the backfeed mode in the rear loop selection options.



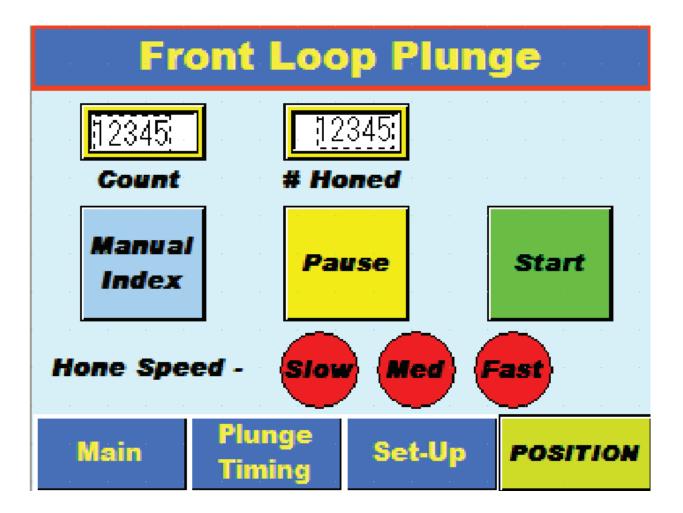
- Backfeed Input: Read only input that flashes green when activated by an external machine.
- **Back:** Returns the operator to the **Main Screen**.





Honer Touch Screen Operation

Front Loop Plunge and Sweep: In this mode the machine operates as a master and sends an output signal when a tooth is finished honing. All buttons and functions operate the same as listed in **Rear Loop Plunge.** The **Delay Count** display and **Auto Index** button are omitted on this screen.

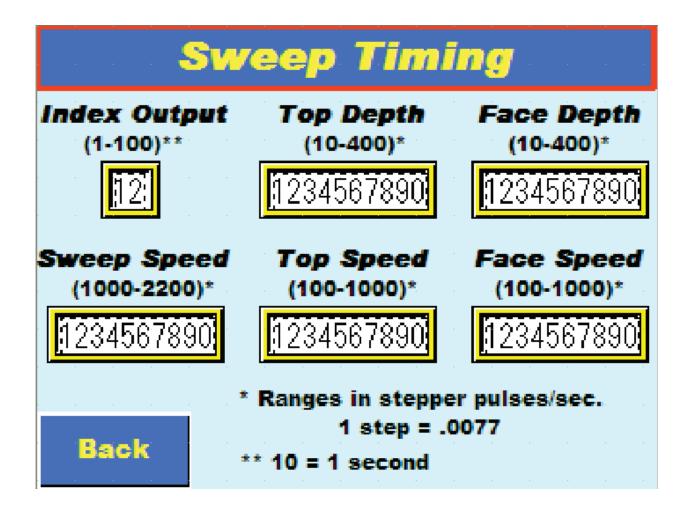






Honer Touch Screen Operation

Front Loop Sweep and Plunge Timing: All buttons, displays and functions operate the same as listed in the **Timing** section above. The **Index Output** display is a read/write display that sets the length of time the output is turned on after a hone cycle is complete. This gives the operator the ability to match the output time with an external backfeed machines index function.

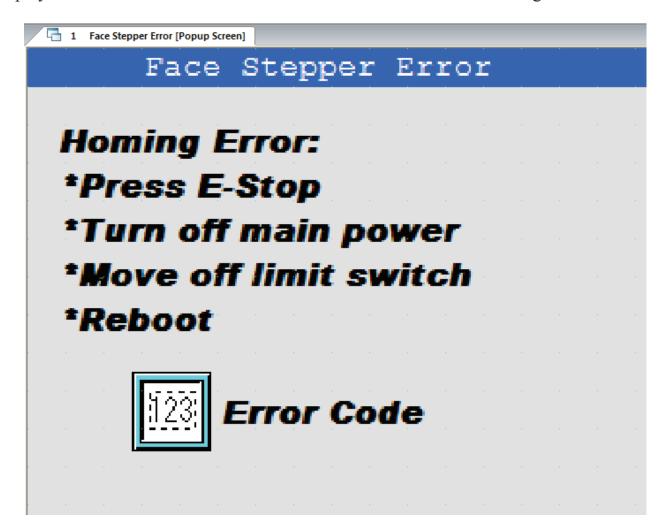






Honer Touch Screen Operation

Error Conditions: Stepper drive errors will activate the corresponding screen for the drive affected along with instructions for resetting the drive. The cause of the error is displayed under **Error Code**. These codes are described in the following chart.





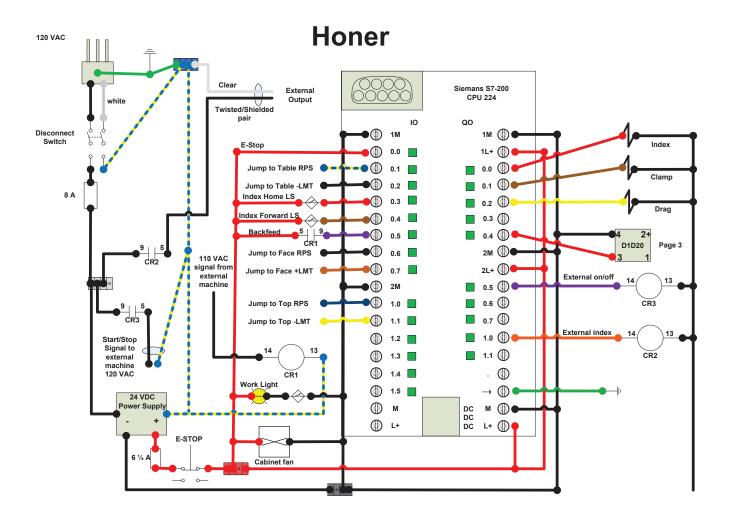
Honer Touch Screen Operation

0	No error
1	Aborted by user
2	Configuration error Use the EM 253 Control Panel Diagnostics tab to view error codes
3	Illegal command
4	Aborted due to no valid configuration Use the EM 253 Control Panel Diagnostics tab to view error codes
5	Aborted due to no user power
6	Aborted due to no defined reference point
7	Aborted due to STP input active
8	Aborted due to LMT- input active
9	Aborted due to LMT+ input active
10	Aborted due to problem executing motion
11	No profile block configured for specified profile
12	Illegal operation mode
13	Operation mode not supported for this command
14	Illegal number of steps in profile block
15	Illegal direction change
16	Illegal distance
17	RPS trigger occurred before target speed reached
18	Insufficient RPS active region width
19	Speed out of range
20	Insufficient distance to perform desired speed change
21	Illegal position
22	Zero position unknown
23 to 127	Reserved
128	Position module cannot process this instruction: either the Position module is busy with another instruction, or there was no Start pulse on this instruction
129	Position module error: Module ID incorrect or module logged out. Refer to SMB8 to SMB21 (I/O Module ID and Error Register) for other error conditions.
130	Position module is not enabled
131	Position module is not available due to a module error or module not enabled (See the POSx_CTRL status)
132	The Q memory address that was configured with the Position Control wizard does not match the memory address for the module at this location.





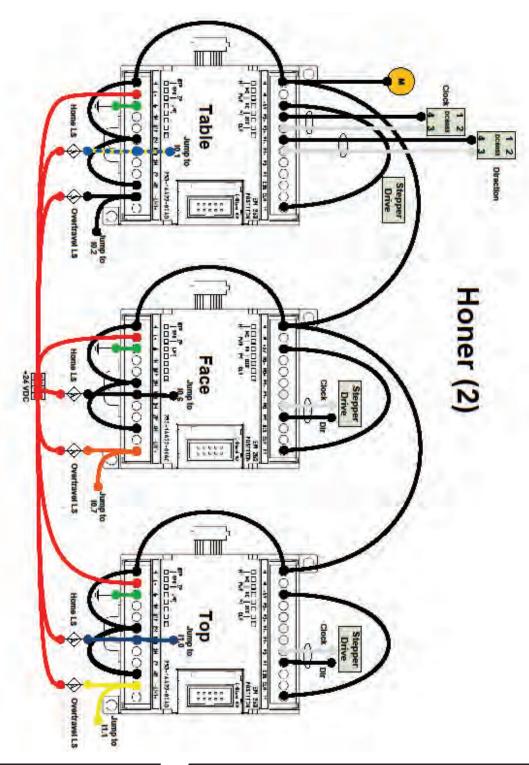
ELECTRICAL SCHEMATIC







ELECTRICAL SCHEMATIC

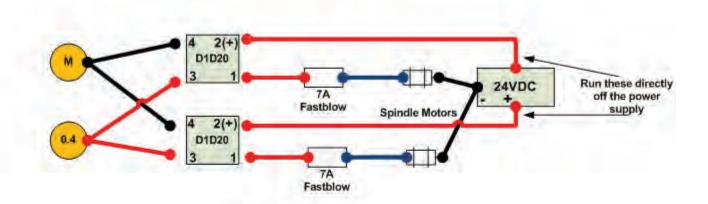






ELECTRICAL SCHEMATIC

Honer (3)



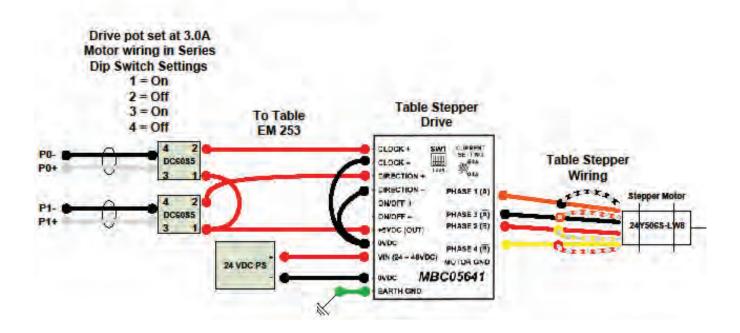
Top & Face Stepper Drives CLOCK Reverse wires on MS1 phase 1 and 3 for MS2 the face stepper. DIRECTION ON/OFF PHASE 1 (A) Stepper Motor PHASE 3 (A) PHASE 2 (B) 23Y9106S-LW8 VIN 24 VDC PS PHASE 4 (B) GND Jumper pins 182





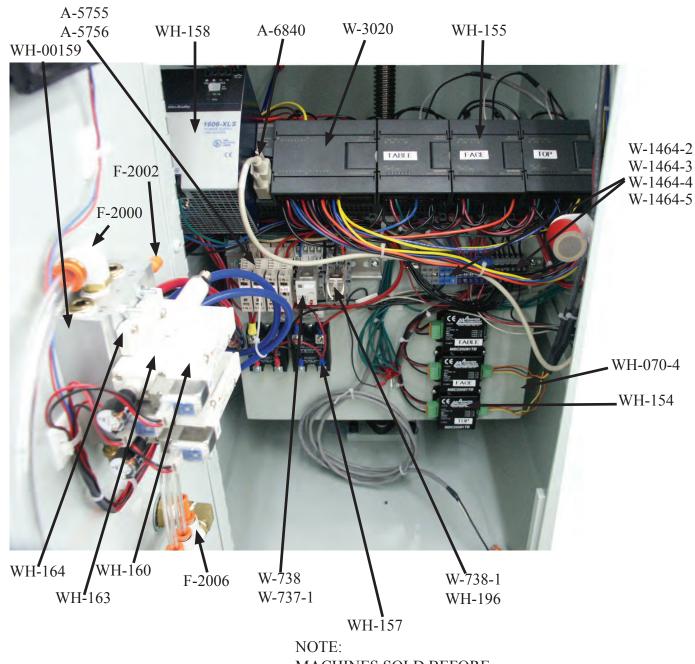
ELECTRICAL SCHEMATIC

Honer (4)





AIR / ELECTRICAL COMPONENTS

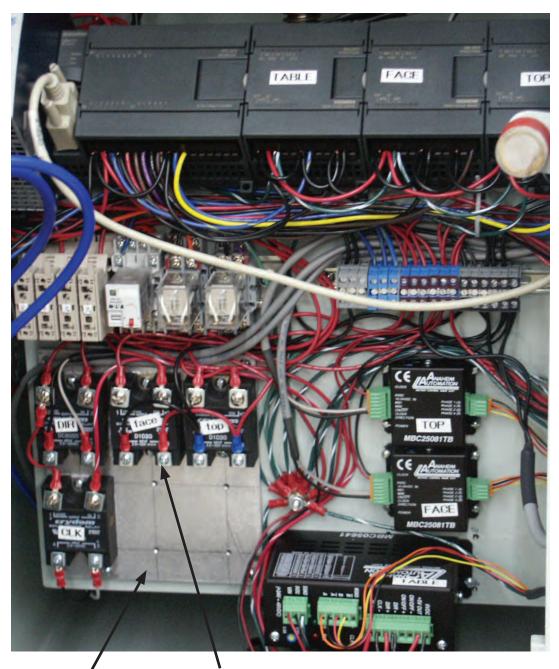


NOTE: MACHINES SOLD BEFORE SEPTEMBER 2011 USE TWO RELAYS.





ELECTRICAL COMPONENTS



WH-070-5

WH-157

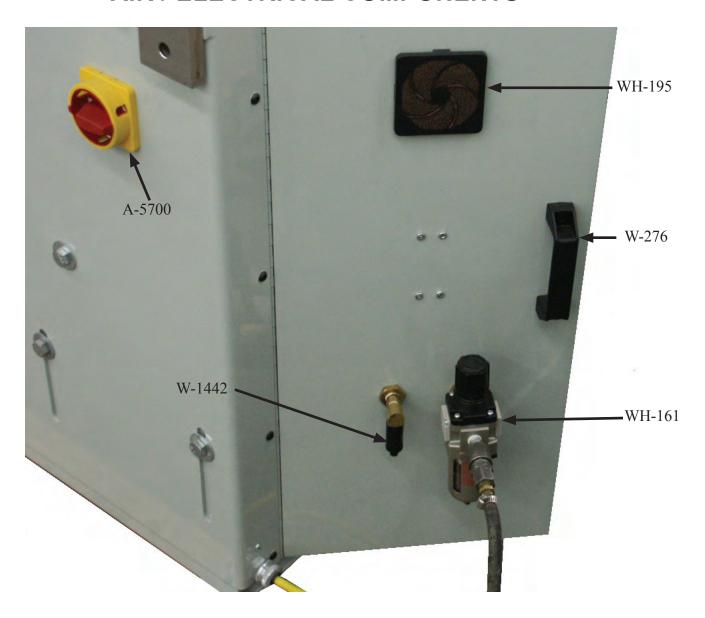
NOTE:

MACHINES SOLD AFTER SEPTEMBER 2011 USE FOUR RELAYS.





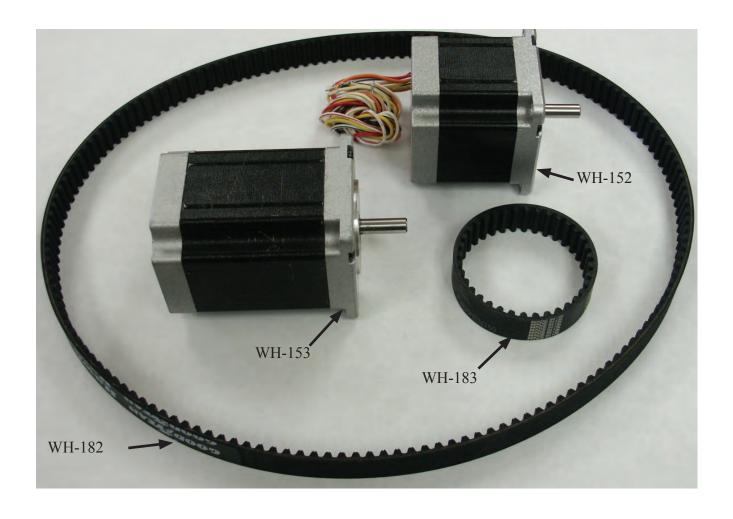
AIR / ELECTRICAL COMPONENTS







STEP MOTORS







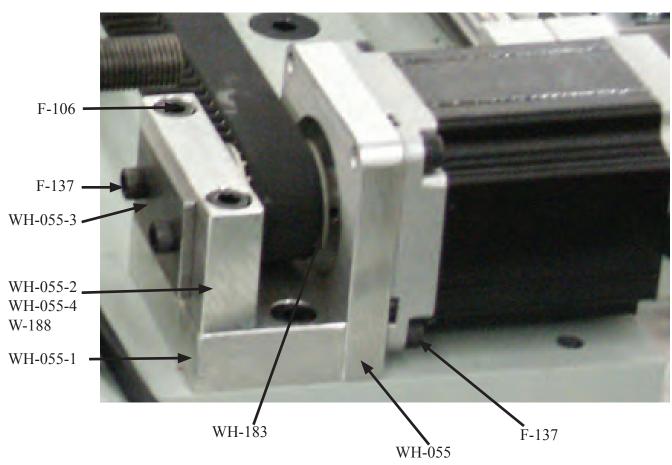
AIR / ELECTRICAL COMPONENTS (continued)

PART#	QTY	DESCRIPTION
A-5700	1	MAIN DISCONNECT
A-5755	4	FUSE BLOCK
A-5756	4	END COVER
A-6840	1	CABLE
F-2000	1	3/8 T x 1/4 NPT MALE
F-2002	4	FITTING PLUG FOR MANIFOLD
F-2006	1	1/4 T x 1/8 NPT FITTING
W-276	1	HANDLE
W-737-1	1	RELAY WITH LIGHT
W-738	1	RELAY BASE
W-738-1	1	RELAY BASE
W-1442	1	FILTER
W-1464-2	9	COMPRESSION CLAMP
W-1464-3	9	COMPRESSION CLAMP
W-1464-4	2	6 POLE JUMPER
W-1464-5	2	4 POLE JUMPER BAR
W-3020	1	CPU
WH-070-4	1	ELECTRICAL PANEL
WH-070-5	1	RELAY PANEL
WH-152	2	HEAD, STEPPER MOTOR
WH-153	1	TABLE, STEPPER MOTOR
WH-154	3	STEPPER DRIVE
WH-155	1	SIEMENS POSITIONING MODULE(EM)
WH-157	4	SOLID STATE RELAY
WH-158	1	POWER SUPPLY
WH-159	1	VALVE MANIFOLD
WH-160	3	SOLENOID VALVE
WH-161	1	AIR FILTER / REGULATOR
WH-163	2	INTERFACE REGULATOR FOR MANIFOLD
WH-164	1	BACKING PLATE FOR MANIFOLD
WH-182	1	TABLE DRIVE BELT
WH-183	2	HEAD, DRIVE BELT
WH-195	1	FAN ASSEMBLY





TABLE STEP MOTOR



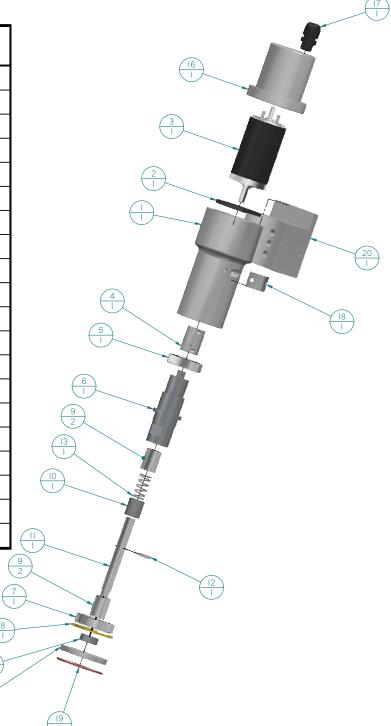
PART #	QTY	DESCRIPTION
WH-055	1	TRANSPORT STEPPER MOUNT
WH-055-1	1	TRANSPORT MOTOR PLATE MOUNT
WH-055-2	1	TRANSPORT MOTOR PULLEY SUPPORT
WH-055-3	1	PULLEY SUPPORT NEARING COVER
WH-055-4	1	MOTOR PULLEY SUPPORT ROD
WH-183	1	MOTOR PULLEY
W-188	2	BEARING





TOP HEAD SPINDLE ASSEMBLY

Item Number	TOP HEAD SPINDLE ASSEMBLY	Quantity
1	WH-110-2	I
2	WH-107	I
3	WH-185	I
4	WH-110-11	I
5	WH-188-I	I
6	WH-101-2	I
7	WH-188-2	I
8	WH-201	I
9	WH-185-I	2
10	WH-105-I	I
11	WH-104-3	I
12	WH-203	I
13	WH-202	I
14	WH-103-2	I
15	WH-110-7	I
16	WH-110-10	I
17	W-1460-2	I
18	WH-110-8	I
19	WH-001	I
20	WH-110-3	I







TOP HEAD SPINDLE ASSEMBLY

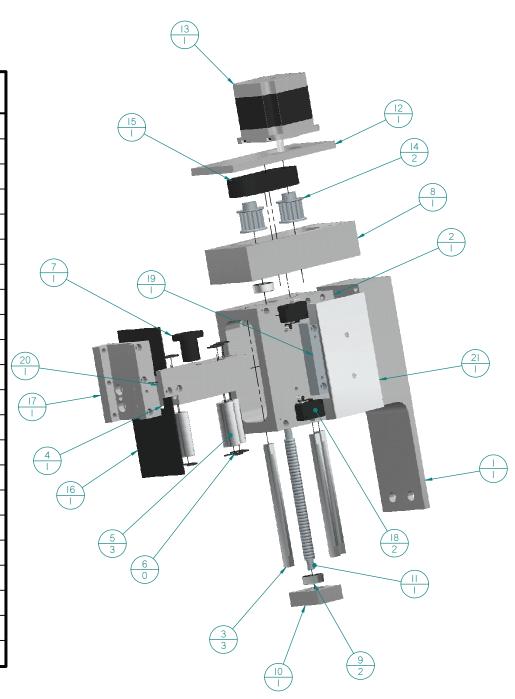
PART NUMBER	DESCRIPTION
WH-001	GRINDING PAD
WH-101-2	SPINDLE BODY
WH-103-2	SPINDLE RETAINER NUT
WH-104-3	SPINDLE SHAFT, TOP HEAD
WH-105-1	SPINDLE ANTI ROTATION SLEEVE
WH-107	SPINDLE, MOTOR PLATE
WH-110-2	SPINDLE HOUSING
WH-110-3	TOP HEAD, SPINDLE HOUSING BRACKET
WH-110-7	SPINDLE DISC PAD
WH-110-8	SPINDLE HOUSING, WINDOW COVER
WH-110-10	SPINDLE MOTOR COVER
WH-110-11	SPINDLE COUPLER
WH-185	SPINDLE DRIVE MOTOR
WH-185-1	LINEAR BEARINGS
WH-188-1	UPPER BEARING
WH-188-2	LOWER BEARING
WH-201	SNAP RING
WH-202	SPRING
WH-203	DOWL PIN
W-1460-2	CORD GRIP





TOP HEAD LIFT OFF ASSEMBLY

Item Number	TOP HEAD LIFT OFF ASSEMBLY	Quantity
1	WH-008	I
2	WH-004-4	I
3	WH-005-2	3
4	WH-006-10	I
5 *	WH-180	3
6*	WH-181	6
7	WH-170	I
8	WH-006-I	I
9	WH-187	2
10	WH-002-3	I
11*	WH-005	I
12	WH-005-I	I
13	WH-152	I
14	WH-183-1	2
15	WH-184	I
16	WH-110-6	I
17	WH-110-5	I
18*	W-190	2
19	WH-003	I
20	WH-003-2	I
21	WH-004-I	I







TOP HEAD LIFT OFF ASSEMBLY

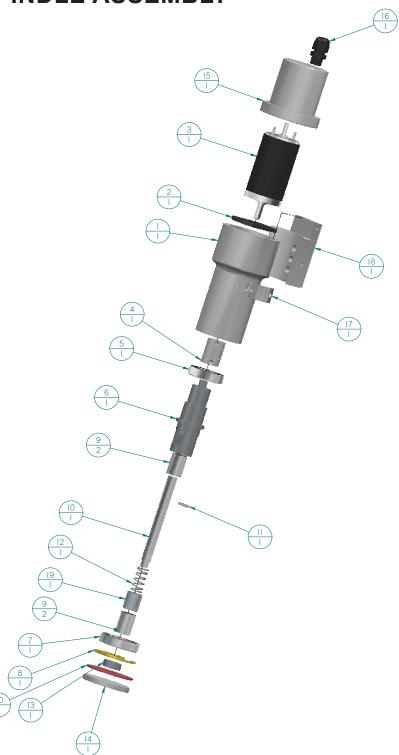
PART NUMBER	DESCRIPTION
WH-002-3	LEAD SCREW SUPPORT
WH-003	LIMIT SWITCH COVER MOUNT
WH-003-2	TOP HEAD, LIMIT SWITCH BLOCK
WH-004-1	HEAD, LIMIT SWITCH COVER
WH-004-4	HEAD, MAIN BODY
WH-005	LEAD SCREW
WH-005-1	HEAD, PULLEY COVER
WH-005-2	LINEAR BEARING RODS
WH-006-1	HEAD, BELT HOUSING
WH-006-10	LIFT OFF BEARING BLOCK
WH-008	HEAD, TOP BACK PLATE
WH-110-5	LIFT OFF HEAD BRACKET
WH-110-6	HEAD, BEARING SHIELD
WH-152	STEPPER MOTOR
WH-170	LEAD SCREW NUT
WH-180	LINEAR BEARING
WH-181	BEARING RETAINER CLIPS
WH-183-1	DRIVE PULLEY
WH-184	DRIVE BELT
WH-187	LEAD SCREW BEARING
WH-190	LIMIT SWITCH





FACE HEAD SPINDLE ASSEMBLY

		1
Item Number	FACE HEAD SPINDLE ASSEMBLY	Quantity
1	WH-110-2	-
2	WH-107	Ι
3	WH-185	
4	WH-110-11	
5	WH-188-I	_
6	WH-101-2	I
7	WH-188-2	1
8	WH-201	
9	WH-185-1	2
10	WH-104-2	_
П	WH-203	_
12	WH-202	_
13	WH-103-2	_
14	WH-110-7	_
15	WH-110-10	I
16	W-1460-2	I
17	WH-110-8	I
18	WH-110-4	I
19	WH-105-1	I
20	WH-001	I







FACE HEAD SPINDLE ASSEMBLY

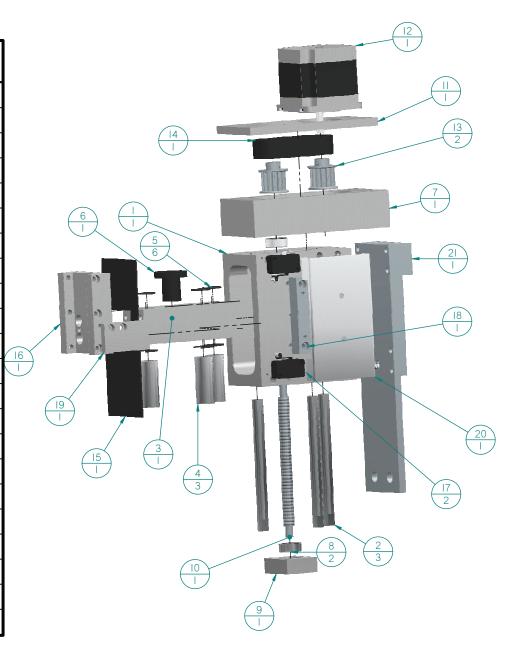
PART NUMBER	DESCRIPTION
WH-001	GRINDING PAD
WH-101-2	SPINDLE BODY
WH-103-2	SPINDLE RETAINER NUT
WH-104-2	SPINDLE SHAFT, FACE HEAD
WH-105-1	SPINDLE ANTI ROTATION SLEEVE
WH-107	SPINDLE, MOTOR PLATE
WH-110-2	SPINDLE HOUSING
WH-110-4	FACE HEAD, SPINDLE HOUSING BRACKET
WH-110-7	SPINDLE DISC PAD
WH-110-8	SPINDLE HOUSING, WINDOW COVER
WH-110-10	SPINDLE MOTOR COVER
WH-110-11	SPINDLE COUPLER
WH-185	SPINDLE DRIVE MOTOR
WH-185-1	LINEAR BEARINGS
WH-188-1	UPPER BEARING
WH-188-2	LOWER BEARING
WH-201	SNAP RING
WH-202	SPRING
WH-203	DOWL PIN
W-1460-2	CORD GRIP





FACE HEAD LIFT OFF ASSEMBLY

ltem Number	FACE HEAD LIFT OFF ASSEMBLY	Quantity
ı	WH-004-4	ı
2	WH-005-2	3
3*	WH-006-10	I
4	WH-180	3
5	WH-181	6
6	WH-170	I
7	WH-006-I	I
8	WH-187	2
9	WH-002-3	I
10*	WH-005	I
П	WH-005-I	I
12	WH-152	I
13	WH-183-I	2
14	WH-184	I
15	WH-110-6	I
16	WH-110-5	I
17	W-190	2
18	WH-003	I
19	WH-003-I	I
20	WH-004-I	I
21	WH-008-2	I







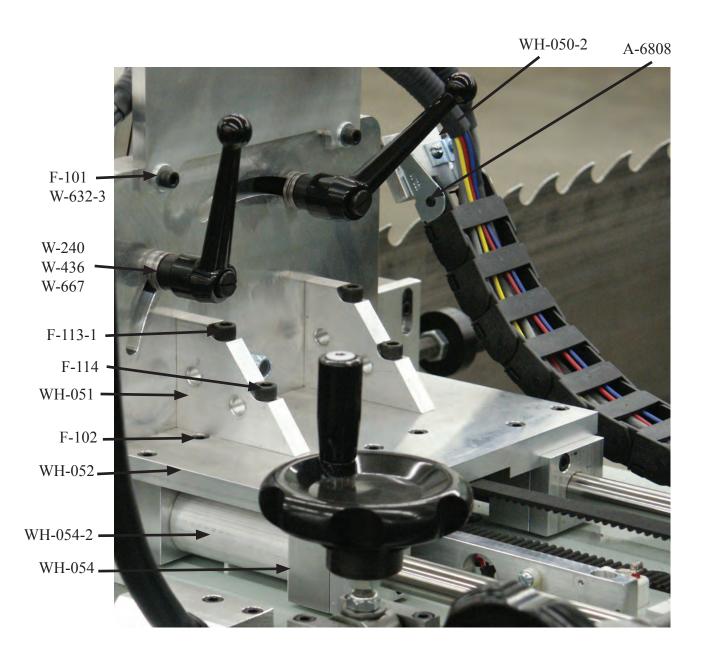
FACE HEAD LIFT OFF ASSEMBLY

PART NUMBER	DESCRIPTION
WH-002-3	LEAD SCREW SUPPORT
WH-003	LIMIT SWITCH COVER MOUNT
WH-003-1	FACE HEAD, LIMIT SWITCH BLOCK
WH-004-1	HEAD, LIMIT SWITCH COVER
WH-004-4	HEAD, MAIN BODY
WH-005	LEAD SCREW
WH-005-1	HEAD, PULLEY COVER
WH-005-2	LINEAR BEARING RODS
WH-006-1	HEAD, BELT HOUSING
WH-006-10	LIFT OFF BEARING BLOCK
WH-008-2	HEAD, FACE BACK PLATE
WH-110-5	LIFT OFF HEAD BRACKET
WH-110-6	HEAD, BEARING SHIELD
WH-152	STEPPER MOTOR
WH-170	LEAD SCREW NUT
WH-180	LINEAR BEARING
WH-181	BEARING RETAINER CLIPS
WH-183-1	DRIVE PULLEY
WH-184	DRIVE BELT
WH-187	LEAD SCREW BEARING
WH-190	LIMIT SWITCH





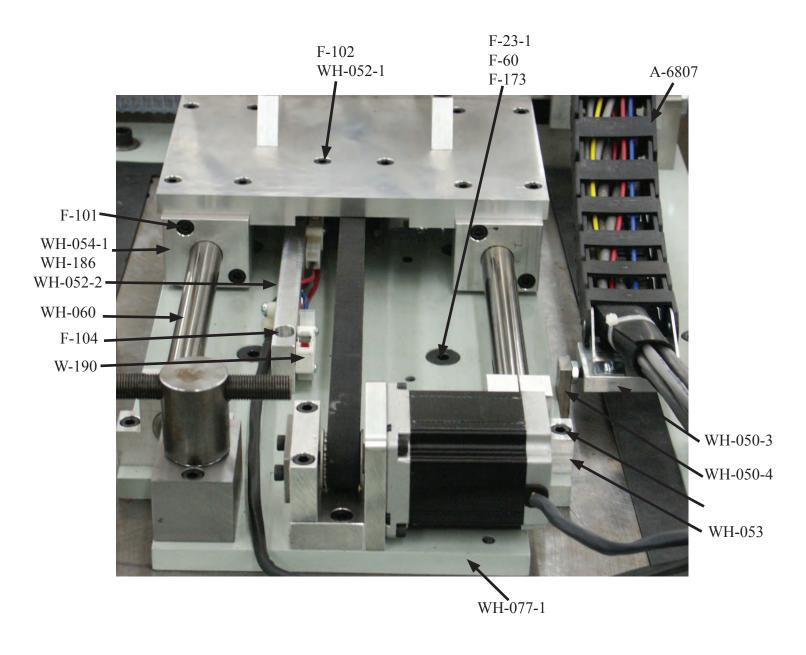
TRANSPORT PLATE AREA







TRANSPORT PLATE AREA



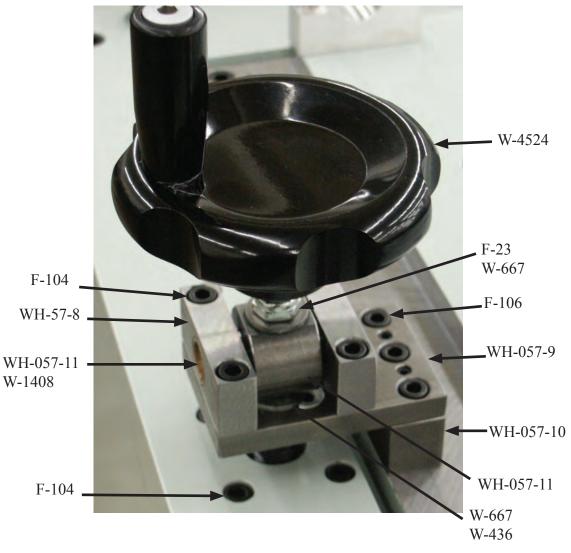
TRANSPORT PLATE AREA

PART#	QTY	DESCRIPTION
A-6807	1	IGUS TRACK (9 SEGMENTS)
A-6808	2	IGUS MOUNTONG BRACKETS
WH-050-2	1	UPPER IGUS TRACK MOUNT
WH-050-3	1	LOWER IGUS TRACK MOUNT
WH-050-4	1	REAR IGUS TRACK PIVOT
WH-051	2	TRANSPORT GUSSET
WH-052	1	TRANSPORT PLATE
WH-052-1	1	TRANSPORT BELT STRAP
WH-052-2	1	TABLE LIMIT SWITCH MOUNT
WH-053	4	TABLE LINEAR SHAFT SUPPORT
WH-054	4	TABLE BEARING BLOCKS
WH-054-1	4	WIPER SEAL BLOCK
WH-054-2	2	BEARING BLOCK SPACER
WH-060	2	TABLE, LINEAR SHAFT
WH-077-1	1	L/R ANGLE PLATE
WH-186	4	SEAL
W-190	2	LIMIT SWITCH
W-240	2	LEVER
W-436	2	BEARING
W-632-3	2	SPACER
W-667	4	GROUND WASHER





TABLE ANGLE ADJUSTMENT, (UPPER)

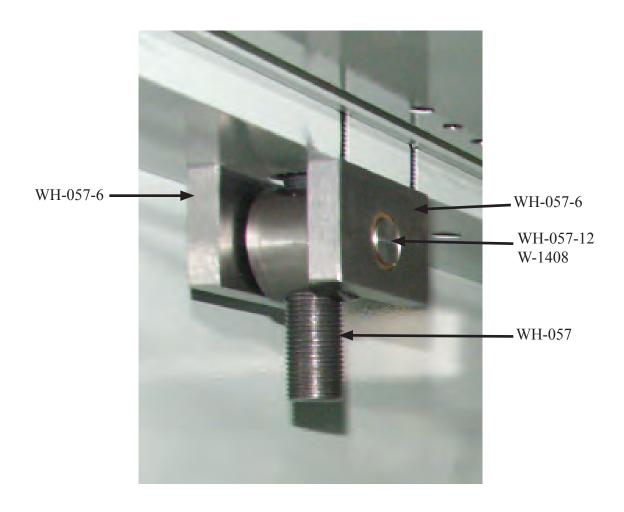


PART#	QTY	DESCRIPTION
W-436	1	BEARING
W-667	3	GROUND WASHER
W-1408	2	BUSHING
W-4524	1	HANDLE
WH-057	1	TABLE TILT ROD
WH-057-8	2	TILT AXIS UPPER BUSHING BLOCK
WH-057-9	1	TILT AXIS UPPER PLATE
WH-057-10	1	TILT AXIS UPPER SPACER
WH-057-11	1	UPPER TILT AXIS PIVOT

RIGHT



TABLE ANGLE ADJUSTMENT, (LOWER)

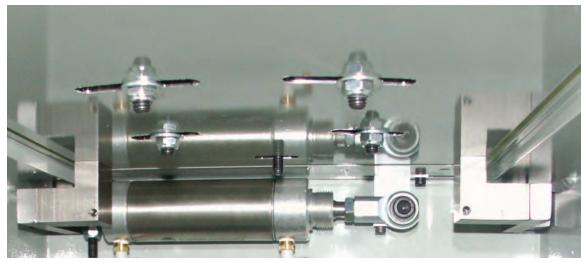


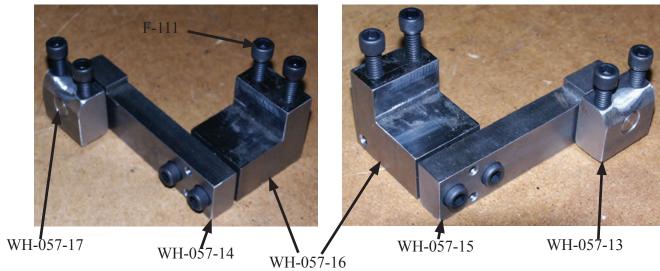
PART#	QTY	DESCRIPTION
W-1408	2	BUSHING
WH-057	1	TABLE TILT ROD
WH-057-6	2	TILT AXIS LOWER BUSHING BLOCK
WH-057-12	1	LOWER TILT AXIS PIVOT





TABLE ANGLE PIVOT



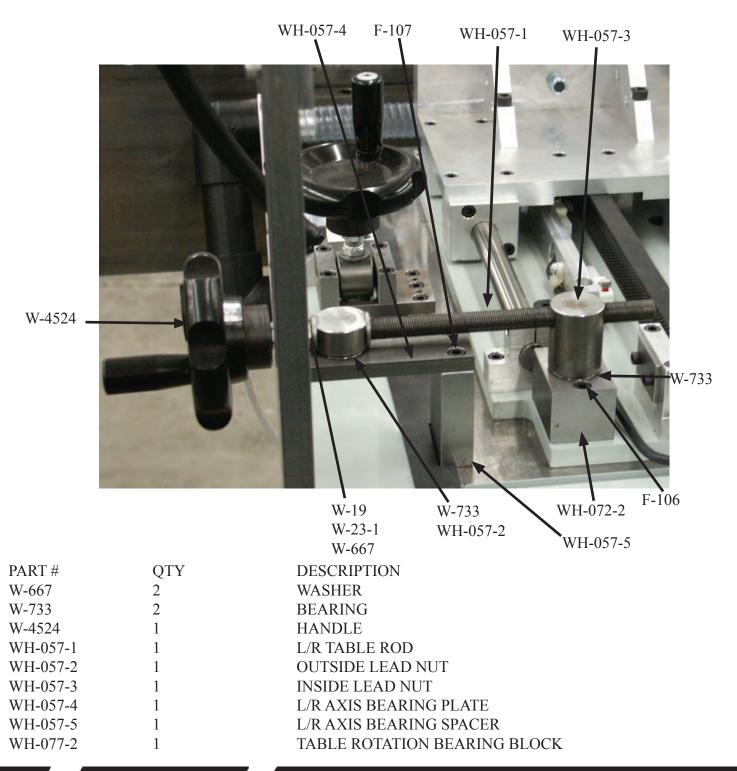


PART#	QTY	DESCRIPTION
WH-057-13	2	TOP PLATE PIVOT BLOCK
WH-057-14	1	LEFT PIVOT ARM
WH-057-15	1	RIGHT PIVOT ARM
WH-057-16	2	PIVOT MOUNT BLOCKS
WH-057-17	2	PIVOT SHAFT





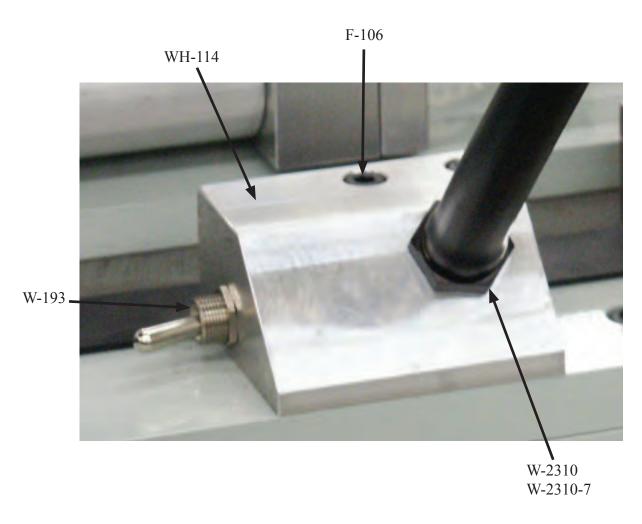
TABLE ANGLE ADJUSTMENT LEFT / RIGHT







LIGHT

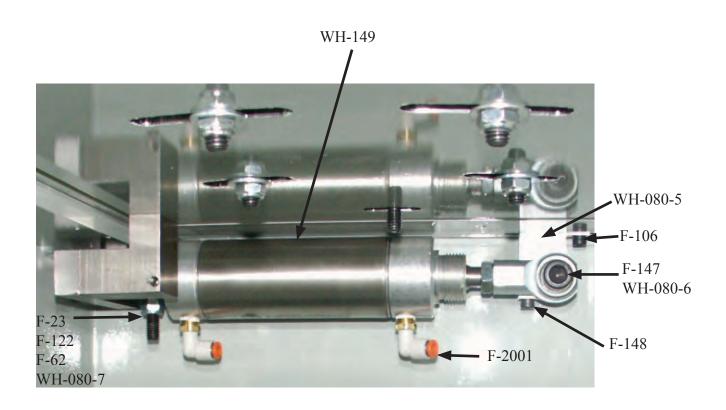


PART #	QTY	DESCRIPTION
W-193	1	TOGGLE SWITCH
W-2310	1	LIGHT ASSEMBLY
W-2310-7	1	REPLACEMENT LIGHT BULB





INDEX CYLINDER

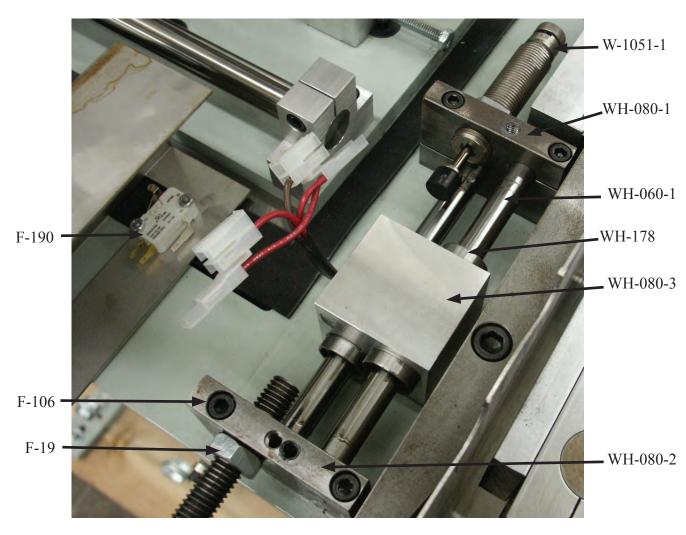


PART #	QTY	DESCRIPTION
F-2001	2	1/4T X 1/8 NPT ONE TOUCH MALE ELBOW
WH-080-5	1	INDEX CYLINDER DRIVE MOUNT
WH-080-6	1	INDEX CYLINDER DRIVE SPACER
WH-080-7	1	REAR INDEX CYLINDER SPACER
WH-149	1	INDEX CYLINDER





INDEX

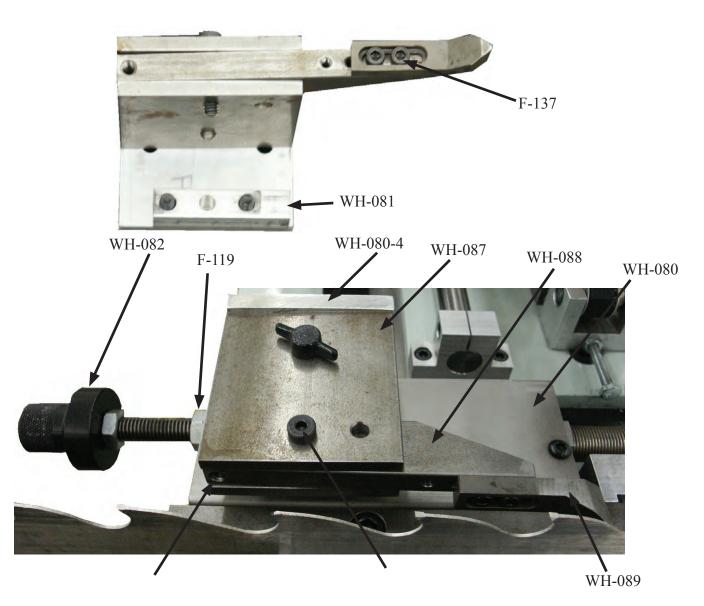


PART#	QTY	DESCRIPTION
F-190	2	LIMIT SWITCH
W-1051-1	1	DAMPENER
WH-060-1	2	LINEAR SHAFT
WH-080-1	1	INDEX SHAFT SUPPORT, FRONT
WH-080-2	1	INDEX SHAFT SUPPORT, BACK
WH-080-3	1	INDEX BEARING BLOCK
WH-178	2	LINEAR BEARING





INDEX

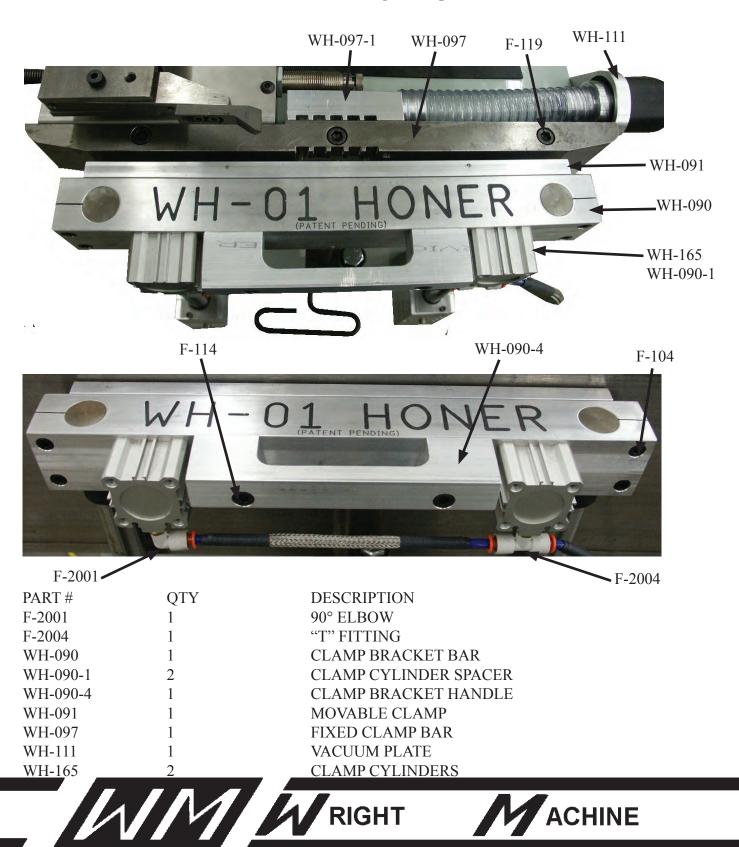


PART#	QTY	DESCRIPTION
WH-080	1	INDEX COVER
WH-080-4	1	INDEX ATTACHMENT BLOCK
WH-081	1	INDEX SPACER
WH-082	1	INDEX REAR STOP KNOB
WH-087	1	INDEX PIVOT BLOCK
WH-088	1	INDEX FINGER MOUNT
WH-089	1	INDEX FINGER

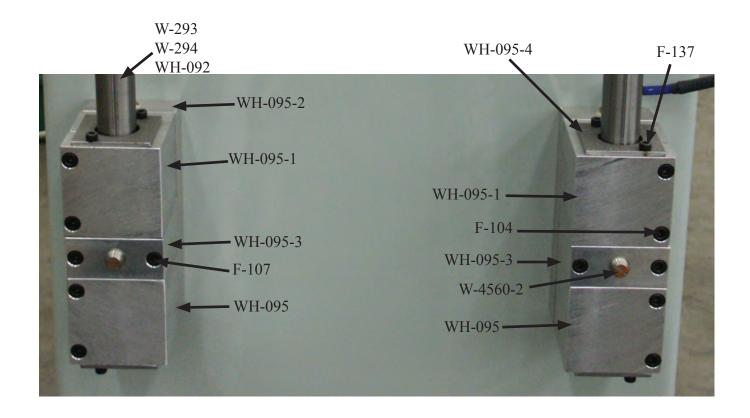




CLAMP JAWS



CLAMP ROD

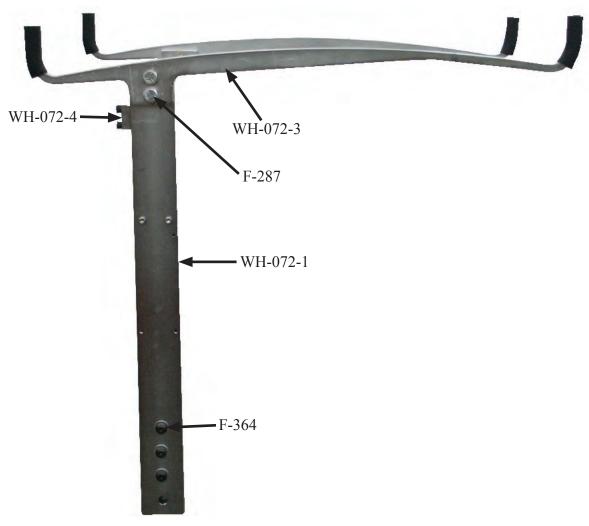


PART#	QTY	DESCRIPTION
W-293	4	LINEAR BEARING
W-294	4	LINEAR BEARING SEAL
W-4560-2	2	BALL END THRUST SCREW
WH-092	2	CLAMP ROD
WH-095	2	CLAMP, BEARING BLOCK BOTTOM
WH-095-1	2	CLAMP, BEARING BLOCK TOP
WH-095-2	2	CLAMP, BEARING BLOCK SPACER
WH-095-3	2	CLAMP, HEIGHT BLOCK
WH-095-4	4	CLAMP, BEARING RETAINER





SAW RACK

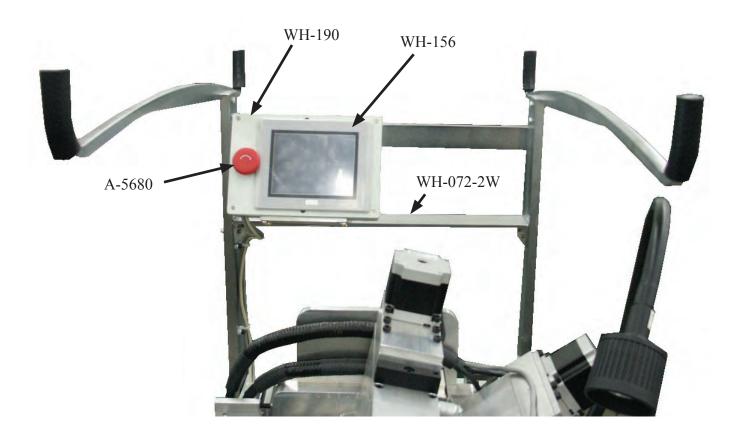


PART#	QTY	DESCRIPTION
WH-072-1	2	SAW RACK BAR
WH-072-3	2	SAW RACK
WH-072-4	1	SAW RACK BRACE





SAW RACK



PART#	QTY	DESCRIPTION
A-5680	1	EMERGENCY STOP BUTTON
WH-072-2W	1	TOUCH PANEL BAR
WH-156	1	TOUCH PANEL
WH-190	1	TOUCH PANEL ENCLOSURE





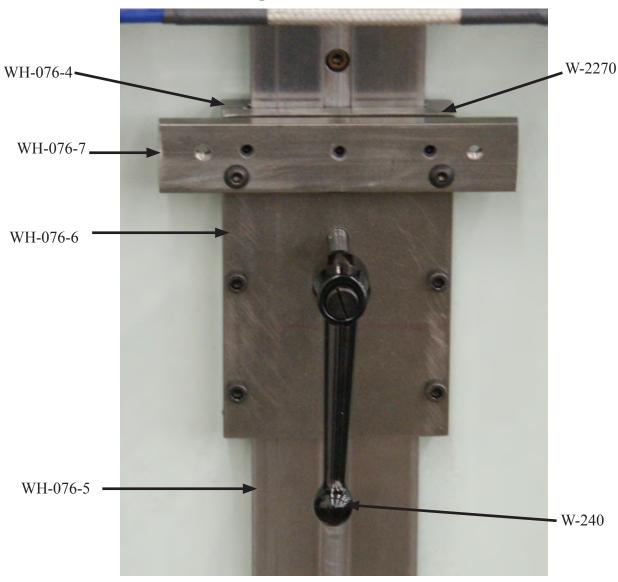
FASTENER DESCRIPTION

PART #	DESCRIPTION
F-1	1/4-20 X 3/8 SHCS
F-12	1/4-20 NUT
F-19	3/8-16 NUT
F-23	3/8-16 LOCK NUT
F-23-1	3/8-16 LOCK NUT
F-60	3/8 WASHER
F-62	3/8 WASHER
F-64	M10 FLAT WASHER
F-101	10-24 X 5/8 SHCS
F-102	1/4-20 X 3/4 SHCS
F-104	1/4-20 X 1 SHCS
F-107	1/4-20 X 2-1/2 SHCS
F-106	1/4-20 X 1-1/2 SHCS
F-111	5/16-18 X 1 SHCS
F-113-1	5/16-18 X 2-1/2 SHCS
F-114	5/16-18 X 1-1/2 SHCS
F-119	3/8-16 X 2-1/2 SHCS
F-122	3/8-16 X 2 SHCS
F-136	10-24 X 1/4 SHCS
F-137	10-24 X 1/2 SHCS
F-147	1/2-13 X 1 SHCS
F-148	1/4-20 X 3-1/4 SHCS
F-173	1/2 X 3/4 SHOULDER BOLT
F-287	1/2-13 X 1-1/4 HEX HEAD
F-327	4-40 SCREW
F-333	10-24 X 3/8 SCREW
F-343-1	10-24 X 2-1/2 SCREW
F-339	10-24 X 1 SCREW
F-364	3/8-16 X 1 BUTTON HEAD
F-368	3/8-16 X 2 SHCS
F-377	1/4-20 X 1/2 SET SCREW
F-398	1/4-20 X 1 SET SCREW





SAW CARRIER



PART#	QTY	DESCRIPTION
W-240	1	LOCK HANDLE
W-2270	1	CARBIDE STRIP
WH-076-4	2	SAW CARRIER GUIDES
WH-076-5	1	SAW CARRIER ADJUSTMENT BAR
WH-076-6	1	CARBIDE PAD BLOCK
WH-076-7	1	CARBIDE CLAMP



