

# MODEL H-9 HEAVY DUTY BENCH-TYPE UNDERCUTTER INSTRUCTIONS

### **CAPACITY:**

Between centers - 32" long x 12" diameter.

Between roller V- supports - 35" long x 17" diameter.

Maximum armature weight - 200 lbs.

## **SAW SPINDLES:**

5/16" Cutter Arbor for 7/8" x 5/16" or 1" x 5/16" saws or V-Cutters.

3/16" Cutter Arbor for 1/2" x 3/16" saws or V-Cutters.

## **SPINDLE SPEEDS:**

**H.S.S.** - For high speed steel saws or V-Cutters the pulleys on both the motor and the spindle should be the same 2" diameter.

**CARBIDE -** For carbide saws or V-Cutters, the larger 4" diameter pulley should be used on the motor and a 2" diameter pulley on the spindle.

Both pulleys and belts are supplied.

Saws and V-Cutters				
High-Speed Steel	O.D.	I.D.	Catalog Number	
16-HS Saws	1/2"	3/16"	HSMS16	
17-VHS Cutters	1/2"	3/16"	HSMSV17	
75-HS Saws	7/8"	5/16"	HSMS75	
75-VHS Cutters	7/8"	5/16"	HSMSV75	
85-HS Saws	1"	5/16"	HSMS85	
85-VHS Cutters	1"	5/16"	HSMSV85	
<b>Tungsten-Carbide</b>	O.D.	I.D.	Catalog Number	
16-TC Saws	1/2"	3/16"	TUNS16	
17-VTC Cutters	1/2"	3/16"	TUNSV17	
75-TC Saws	7/8"	5/16"	TUNS75	
75-VTC Cutters	7/8"	5/16"	TUNSV75	
85-TC Saws	1"	5/16"	TUNS85	
85-VTC Cutters	1"	5/16"	TUNSV85	
For further specifications see pages 14 and 15				
of Martindale Undercutters Catalog.				

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## **INSTRUCTIONS:**

#### **INITIAL ASSEMBLY:**

- 1. Reverse the Depth Adjusting Handwheel on the shaft and secure in place.
- 2. Attach the lamp to the motor mounting bracket platform.
- 3. Reverse the Center Adjusting Handwheel on the end of the Horizontal Adjusting Screw and secure in place.
- 4. Place magnetic-grip Eyeshield on front Roller-V-Support.

#### TO CHANGE SAW SPINDLE:

- 1. Loosen 2 set screws on Arbor Support and slide support off.
- Loosen 2 set screws in Spindle Block just enough to allow rotation of the 1" diameter Overarm Shaft.
- 3. Slide the new Arbor Support on and rotate the Overarm Shaft until the flat aligns with the set screws.
- 4. Tighten the set screws in the Arbor Support and then the set screws in the Spindle Block.

## **OPERATION:**

#### SET-UP:

- 1. Loosen the Tee Bolt and tilt the cutting head assembly back to make loading and unloading armatures easier.
- 2. Adjust the position of the Rear Support for the length of the armature and adjust the Center Jack for light tension on the table.
- 3. Mount the armature on the Roller-V-Supports.
- 4. Bring the cutting head assembly back into its normal operating position and tighten the Tee Bolt. Adjust the Carriage Jack for light contact on the table and secure it with the jam nut.
- 5. Level the commutator of the armature to be parallel with the Slide Rods using the Height Adjustment Knobs and lock in place with the Roller Height Knobs.



- 6. The Saw Spindle rotates in a counter-clockwise direction (when facing saw end of spindle). Mount saw so teeth on bottom rotate toward the operator.
- 7. Adjust the Carriage Stop Collars so as to prevent the saw from hitting the riser but also to allow a slight overtravel at the front.
- 8. Align the saw with a mica strip at the front of the travel and push the cutting head back to the riser. Adjust the skew knob to align the mica under the saw at the rear. Re-check for alignment for the entire trav el then when adjusted correctly, lock the skew adjustment.
- 9. To set the depth of the cut, align the saw with the mica and gently lower the cutter assembly into the mica. The Depth Adjusting Wheel will raise or lower the cutting head assembly approximately 1/16" for one complete turn of the wheel. After adjusting, lock the adjustment in place with the thumb screw.

Note: To cut small diameter commutators when using the centers, it may be necessary to remove the two 3/8" thick clamp plates on the vertical adjustment rods.

- 10. <u>To undercut</u> Start at the riser. Gently lower the saw into the mica and pull the carriage towards the operator. Release the handle to disen gage the saw and push the carriage back to the riser. The cutter assembly is spring-loaded to lift out of the slot on the return stroke.
- 11. Align the saw with the next mica strip and continue undercutting.

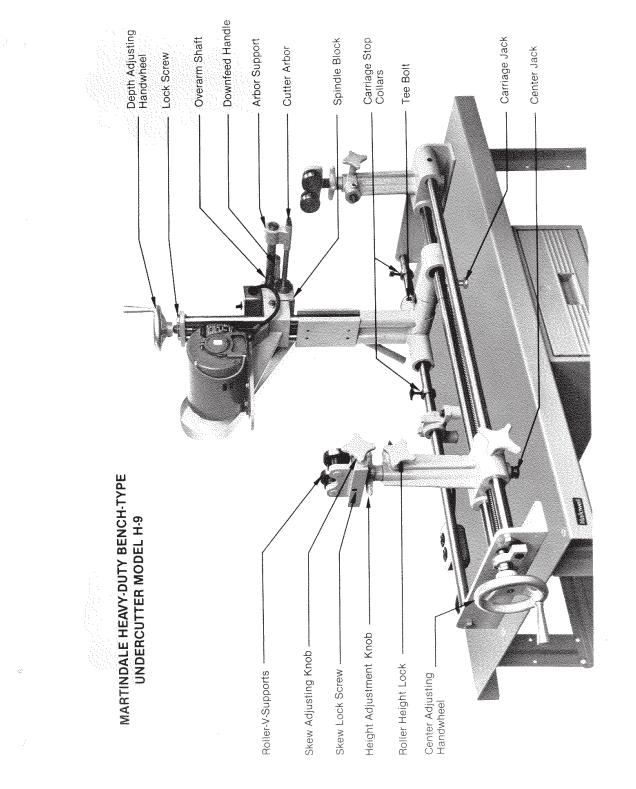
#### **MAINTENANCE:**

Keep the Carriage Slide Rods clean.

Apply a drop of oil to the Saw Arbor Bushings periodically.

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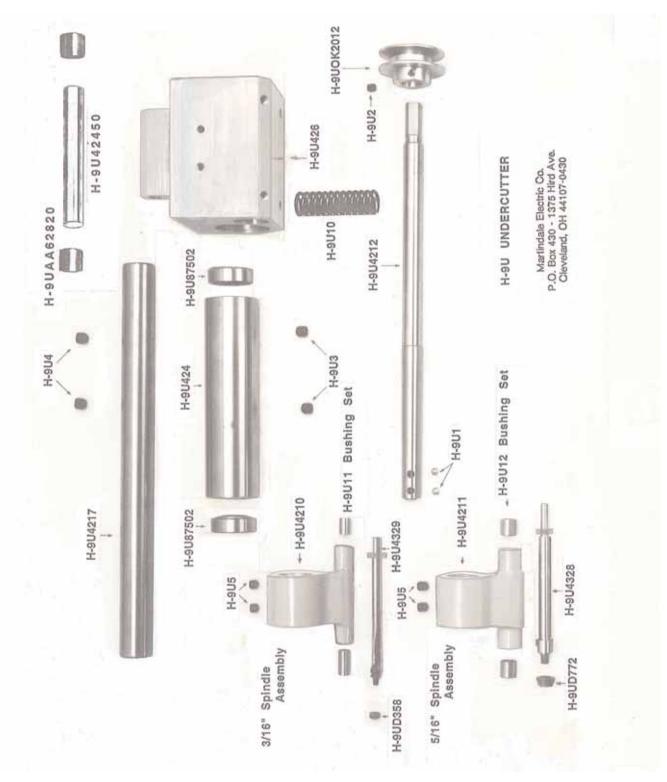


## MODEL H-9 HEAVY DUTY BENCH-TYPE U/C PARTS LIST

QTY.	DE\$CRIPTIION	PART NO.
1	Housing, Spindle, Drive	H-9U424
1	Block, Spindle	H-9U426
2	Screw, Cone, Slotted	H-9U427
1	Block, Outboard Bearing, 3/16"	H-9U4210
1	Block, Outboard Bearing, 5/16"	H-9U4211
1	Spindle, Drive	H-9U4212
1	Block, Pivot	H-9U4215
1	Arm, Over	H-9U4217
1	Spindle, Saw, 5/16"	H-9U4328
1	Nut, Saw Retaining, 5/16"	H-9UD772
1	Spindle, Saw, 3/16"	H-9U4329
1	Nut, Saw Retaining, 3/16"	H-9UD358
2	Screw, 1/4-28x3/16", Set, Hollow Hd.	H-9U1
1	Screw, 1/4-20 x 5/16", Set, Hollow Hd.	H-9U2
2	Screw, 5/16-18 x 1/4", Set, Hollow Hd.	H-9U3
2	Screw, 5/16-18 x 5/16", Set, Hollow Hd.	H-9U4
2	Screw, 3/8-16 x 5/16", Set, Hollow Hd.	H-9U5
2	Nut, 1/2-13, Jam	H-9U8
4	Plug, Brass	H-9U9
1	Spring	H-9U10
1	Bushing Set	H-9U11
1	Bushing Set	H-9U12
2	Bearing	H-9U87502
1	Pulley	H-9UOK2012

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