IMPERIAL UNDERCUTTER INSTRUCTIONS

The simplicity of the operation of an Imperial Undercutter is such that we believe few instructions are necessary. The following discussion will enable the operator to obtain full efficiency and long life from the machine.

FLEXIBLE SHAFT MODEL:

Approximately every 100 operating hours the flexible shaft should be removed and wiped lightly with a high grade of light ball-bearing grease.

A flexible shaft loses efficiency of power transmission very rapidly if it is bent into a small radius: therefore the flexible shaft should be kept as straight as practical while undercutting. The best way to do this is to suspend the motor unit overhead and allow the flexible shaft to assume a natural gentle curve. This also takes some of the weight off the operator's hands.

AIR MOTOR MODEL:

Air motor operates at 90 to 120 lbs. air pressure. An Automatic Air Filter-Lubricator should be used to keep the Air Motor adequately lubricated.

GENERAL:

The slotting saw or V-cutter should revolve clockwise when viewed from the motor end, so that the teeth at the bottom of the saw revolve toward the operator.

The tapered guide wheel fits into a slot which has been cut and guides the saw through subsequent slots. The spacing between the guide wheel and the saw may be 1, 2 or 3 bars, depending on the width of the bars. The saw is centered accurately over the mica by adjusting the knurled knob on the end of the guide wheel block. The first slots must be cut carefully because any irregularities in these first guide slots will be transmitted to other slots through the guide wheel. They may be cut guiding the undercutter by hand, or may be started with a three-cornered file sufficiently to serve as a guide.

The guide wheel is adjusted vertically by loosening the thumb screw and lowering the guide block until the saw is perpendicular to the commutator.

The depth of cut is set by raising or lowering the "shoe" around the cutter spindle. Before adjusting the "shoe" loosen the knurled set screw which locks it in position.

The handles may be set at the most comfortable angle.

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If compressed air is available a hose connected to the 1/8” pipe-threaded hole will keep the mica dust blown clear of the slot.

Cutting is started at the back of the commutator and the undercutter is pulled towards the operator. It is well to go slow at first until the operator gets the “feel” of the tool.

The Imperial Undercutter uses a saw or a V-cutter with a 9/32” hole, and either a 7/8” or 1” outside diameter. Saws cut a “U” shaped slot. “U” slot saws are stocked in 21 thicknesses from .015” to .065” V-cutters are .045” thick and are stocked with 40°, 50°, or 60° between cutting edges.

It is recommended that a Dust Mask and Eye Protection be worn to insure safety and comfort.

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MARTINDALE

Imperial Undercutter

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Quantity	Description	Part No.
1	Saw Spindle Housing	IMPU324
1	Spindle	IMPU325
1	Saw Retaining Nut	IMPU326
1	Drive Coupling	IMPU327
1	Sheath Adaptor	IMPU328
2	Lock Screw	IMPU3211
1	Slot Guide Axle	IMPU3214
1	Slot Guide Wheel	IMPU3215
1	Guide Adjusting Screw	IMPU3217
1	Frame	IMPU3225
1	Slot Guide Block	IMPU3226
1	Depth Gauge	IMPU3227
2	Depth Adjusting Screw	IMPU3228
2	Screw Cap	IMPUD795
2	Handle	IMPUD858
4	#77-R-4 Bearing	IMPUR4ZZ
2	6/0 Taper Pin	Ref. No. 1
1	Hollow Hd. Set Screw	Ref. No. 2
2	Hollow Hd. Set Screw	Ref. No. 3
2	Hollow Hd. Set Screw	Ref. No. 4
2	Hex Hd. Cap Screw	Ref. No. 5

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