OPERATOR'S MANUAL

WORK SAFELY AT ALL TIMES
WITH QUALIFIED OPERATORS ONLY.

MODEL_____**SERIAL #**_____

We, the undersigned, have read and understand the OPERATOR'S MANUAL.

QUALIFIED OPERATORS

NAME	SHIFT	DATE

Safety glasses are required when operating or observing this machine. Modification or alteration of this machine may be hazardous. Do not modify or alter this machine without Scotchman's written permission. Lesser quality parts may lead to injury.

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MODEL SU-280
BAND SAW

SU-280

BAND SAW

PRINTED JULY 2013

TABLE OF CONTENTS

1.0 INTRODUCTION

This instruction manual has been made in compliance with Legislation according to the Machine's directive, 2006/42/CEE, and its subsequent amendments.
The instruction manual represents an integral part of the machine. It must be consulted before, during and after the machine is put into service, as well as whenever it is considered necessary, thereby respecting its content in each and every one of its parts.
This is the only way in which the fundamental objectives that have been established on the basis of this manual will be reached, such as accident prevention and making optimal use of the machine features.
Within the framework of this manual, all aspects regarding safety and accident prevention on the job while using the machine have been considered in every detail, herein highlighting the information that is of greatest interest to the user.

➲ ATTENTION
Carefully read this manual before installing the machine. The manual must be kept throughout the machine's lifetime in a place that is easy to find in the event that it is needed. In the event that a used machine is sold, the machine shall be sold together with this manual. In the event that the machine is scrapped, the identification plate and any other document supplied with the same shall be destroyed.

1.1 Legislation applicable to planning and construction

EN-12100-1 Machine Safety. Basic concepts, general design principles.

EN-12100-2 Machine Safety. Basic concepts, general design principles.

EN-13857 Safety distances to prevent dangerous zones from being reached by the upper extremities.

EN-60204/1 Electrical equipment of industrial machines.

EN-13850 Machine safety; emergency stop equipment.

2006/42/CEE on "Machine Safety."

93/68/CEE on the CE Marking (amendment)

73/23/CEE on "Safety of Electrical Material."

2004/108/CEE on "Electromagnetic Compatibility."

2.0 GENERAL MACHINE INFORMATION

2.1 MACHINE IDENTIFICATION DATA

Model: _____ **SU-280**
Serial number: _____
Manufacture year: _____

✉ NOTE
In order to request replacement parts, whether they are covered by the warranty or not, always state the model and serial number of the machine, as well as the name of the part and the code that appear in the last chapter of exploded views.

3.0 TECHNICAL DATA

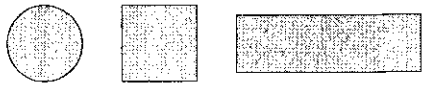
MAIN MOTOR POWER TRIF. 2 VEL.- MONOF.	1.5 HP
MOTOR SPEED	3000/1500 RPM - 1500 RPM
SHAVINGS PUMP POWER	0,09 Kw / 0,12 CV
CUTTING SPEED	80 / 40 m/min 262/131 FT/MIN
ANGLE OF CUT	30° RIGHT
BAND SAW BLADE DIMENSIONS	96.5 X 1 INCHES
CUT THICKNESS	1,5 mm
CLAMP ; MAXIMUM OPENING	290 mm 11.5 INCHES

Noise level

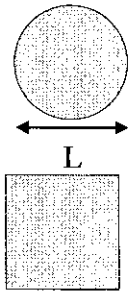
At a distance of 60 cm	**RUNNING OFF-LOAD**	**62 dB (A) Leq**
	MACHINING A 70x50 PROFILE	**83 dB (A) Leq**

DIMENSIONS	
WIDTH	55"
HEIGHT	69"
LENGTH	33.5"

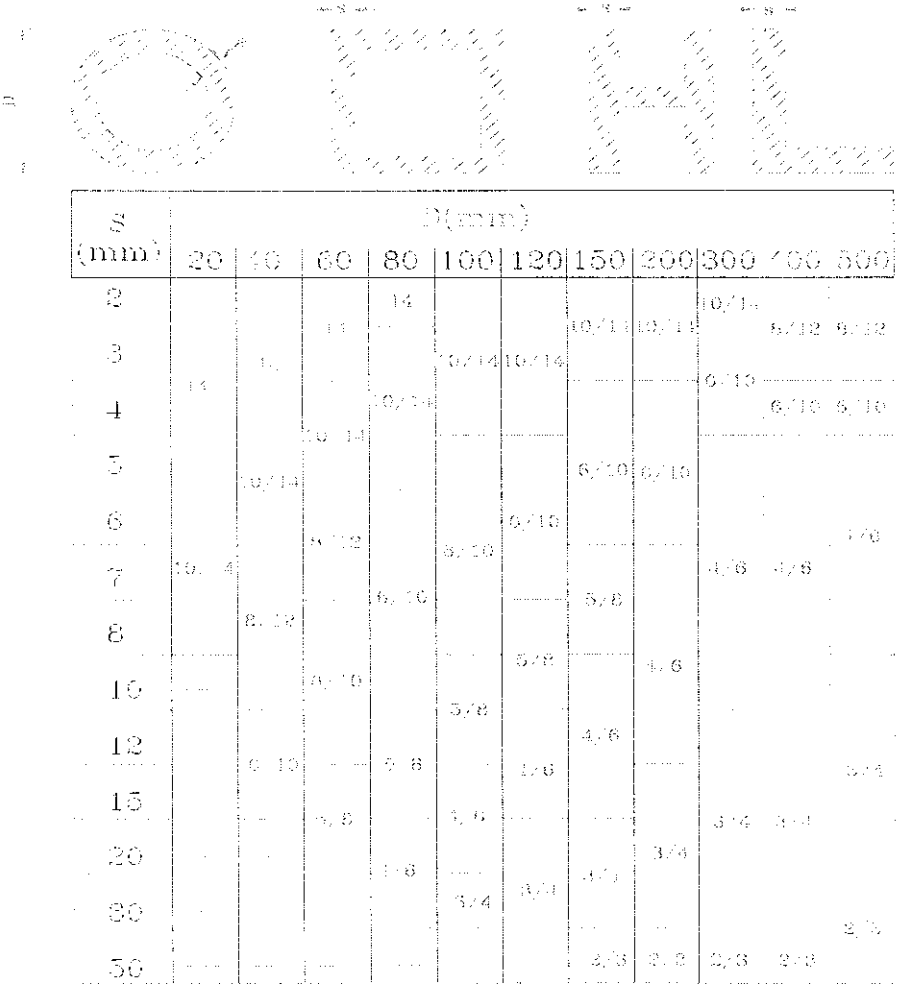
CUTTING CAPACITY



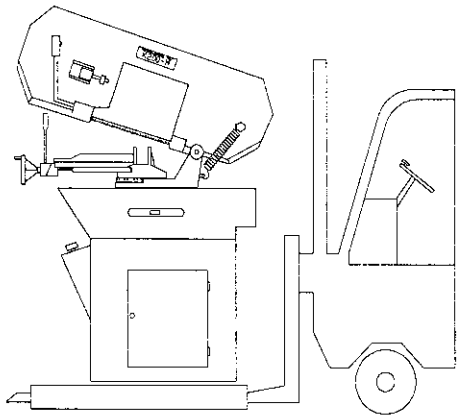
90°	8.5"	8.5"	11 X 7"
45° RIGHT	7"	6.25"	7 X 6.25"
30° RIGHT	7"	4.25"	4.25 X 4"

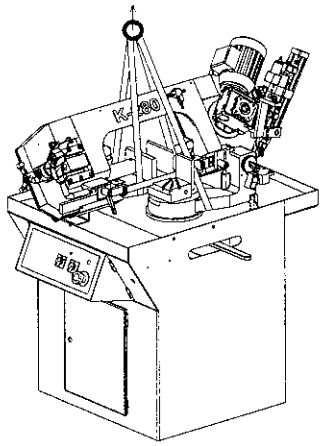


L (MM)	TEETH PER INCH
20MM 3/4"	10/14, 8/12
20 - 40MM 3/4 - 1-1/2"	6/10, 6
40 - 70MM 1-1/2 TO 2-3/4"	6, 4/6
70 - 140MM 2-3/4 TO 5-1/2"	4, 3/4
140 - 200MM 5-1/2 TO 7-3/4"	3/4, 3
200 - 400MM 7-3/4 TO 15-3/4"	3, 2/3
400MM 15-3/4"	1/2, 1.25



4. INFORMATION ABOUT TRANSPORT & STORAGE





Due to the size of the machine, it should be transported on a forklift or by a crane bridge, using slings.
If the machine is left in storage for a long period of time, lubricate periodically.
Do not expose to the elements.
The machine is supplied in a properly designed and sized wood crate, and it is also supplied wrapped in plastic.

⌦ **CAUTION**
Do not improperly dispose of the packaging. Send the materials to be recycled or eliminated in accordance with current legislation.

5. INSTRUCTIONS FOR ANCHORING AND SERVICE START-UP

5.1 Anchoring instructions

The machine must first be checked in order to ensure that it has not suffered any damage during transport. If so, immediately contact the manufacturer.

The machine must be installed on a firm surface that is as level as possible in order to reduce vibrations during operation and so that it operates according to the parameters established by the manufacturer.

5.2 CONNECTION TO THE ELECTRIC SYSTEM

Ensure that the power supply voltage corresponds to the to the voltage and phase of the machine. Connect the cable (4 x 1.5 sleeve) to the electric system using a plug that is appropriate for the characteristics of the same, in accordance with the National Electric Code.

After the machine has been connected, verify that the rotation of the hydraulic power pack motor agrees with the direction indicated by the arrow shown on the same. If the motor rotation is not correct, reverse the two phase connections of the line and then check again.

The pneumatic connection must be made to the supply system using a tube that is appropriate for the spigot of the machine. Adjust the pressure at the filtering group.

5.3 INSTALLING THE BAND SAW BLADE

In order to install the band saw blade:

Lift the frame guard and remove the blade guide guards.
Loosen the tension adjuster.
Put on the band saw blade, sending it through the interior of the guides.
Re-tighten the tension adjuster.
Put on all of the guards.
Turn the saw manually and use a brush to lubricate in between the two guides using SAE 30 lubricating oil.

- **ATTENTION: When replacing the band saw blade, always use protective gloves.**

- **DANGER: After changing the band saw blade, put on all guards again. It is absolutely prohibited to work with them removed.**

5.4 CUTTING COOLANT

When filling the cutting coolant, only use WATER SOLUBLE SYNTHETIC cutting oil mixed in a 7 to 1 ratio and pour it in through the coolant down-tube on the machine mount.

⌦ CAUTION

When it is necessary to empty the liquid coolant tank, do not improperly dispose of the coolant.

➲ ATTENTION

The use of any other kinds of coolants may cause irreparable damage to the machine, as well as diminish the quality of the cut and reduce the life of the saw.

6. INSTRUCTIONS FOR USE

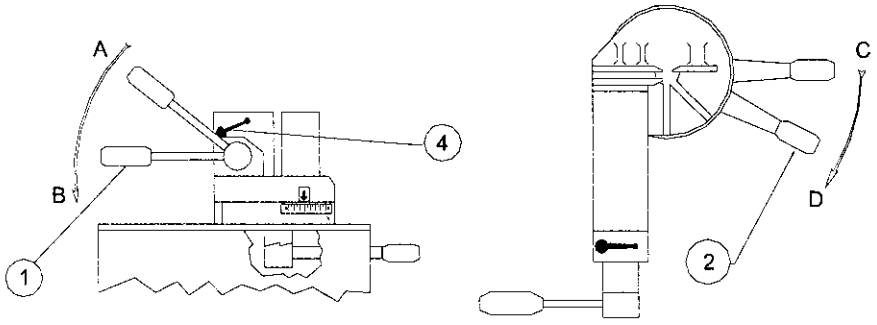
6.1 PROPER AND IMPROPER USE

Band saw machine for cutting all kinds of ferrous materials.
Use of the machine for cutting other materials is prohibited. Such use may cause damage to the machine and risk the safety and health of the worker.

➲ DANGER

We are hereby not liable for any possible accident caused by the failure to comply with the aforementioned provision.

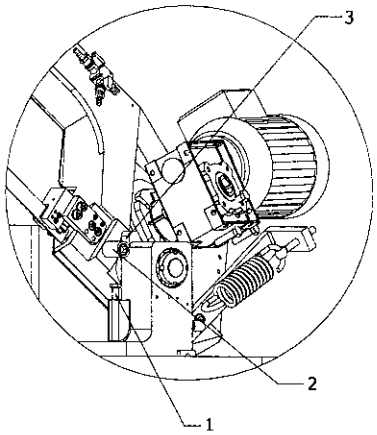
6.2 FUNCTION OF THE OPERATING MECHANISMS



1. **The vise is closed using lever no. 1. Work with the vise jaws less than ¼ inch (6 mm) from the material to be secured.**

2. **Angle locking lever. Set to position C to allow angled rotation.**

6.3. RAISING AND LOWERING THE STOP



The machine is fitted with lowering stops and a mechanical safety

Stop. Use the washer on the arc bolt to adjust the height.

➲ **WARNING: When performing the cut, it is important that the saw should be lowered at a constant rate, with no sharp changes of speed. If the saw becomes jammed in the material, release the rotation control and raise the head.**

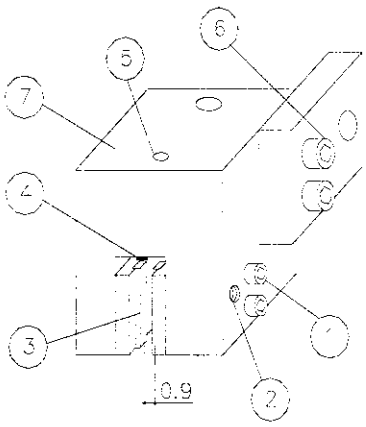
⌦ **IMPORTANT: Always secure the material with the vise jaws and never by hand.**

7. TROUBLESHOOTING/CORRECTIVE MAINTENANCE

PROBLEM	POSSIBLE CAUSES
The machine does not start.	Check that the main switch is connected to the power supply. Motor fuse has blown. 2A fuse has blown. The rear arc guard has not activated the safety micro-switch, or this is not working properly. Check the operating contactor, start-up control and transformer.
Bad quality or out-of-square cut.	Tension too low or too high. See Section 5.3 Condition of the cutting saw. Coolant liquid used. PURE SYNTHETIC must be used. Condition of the blade guide plates. Guide adjustment. See Section 7.1
Excessive wear on blade.	Tension too low or too high. See Section 5.3 Guide plates worn. Excessive pressure from upper plate. See Section 7.1 Downwards feed in high or batch cutting. Quality or pitch of blade unsuitable for the material or section to be cut. Coolant liquid used. PURE SYNTHETIC must be used.
Noises when saw rotates.	State of blade guides. See Section 7.2 Excessive tension in cutting saw. Bearings no. 26, 46 Figure 10.3 State of the cutting saw.
The pressure gauge does not reach 100 bars.	Top up with hydraulic oil (viscosity 32); to do so, the pressure gauge must be removed. Check for oil leaks. State of internal flanges. Tensing mechanism. Flywheel and bearing.

7.1 ADJUSTMENT OF CUTTING BLADE GUIDES

In order to obtain a correctly squared cut, you must make sure that there is a distance of .035 thousandths of an inch (0.9 mm) between the side plates (3), so that they are all in contact with the blade.



To adjust this distance, follow the instructions given below:

1. Loosen screws (1)

2. Place a .035 (0.9 mm) gauge or sheet between the plates and adjust the distance using the stud (2). The gauge must slide smoothly but without wobbling. (If a gauge is not available, a piece of the cutting blade from the machine may be used.)

The upper plate may also be exerting excessive pressure on the cutting blade, resulting in a widening at the upper edge. To prevent this, loosen the screws (6) and slightly raise the blade guide (7).

The guide must be positioned so that after rotating the saw when it is not in contact with any material, the plate (4) must not exert any downward pressure on the cutting blade when at rest (there should be a clearance of .004 (0.1 mm) with the blade).

7.2. CHANGING THE GUIDE PLATES

Over time, the side plates (3) and the upper plate (4) may need to be replaced. To do so, follow the steps indicated below:

1. **Loosen the screws (1) on both sides of the guide and remover the lateral plates.**
2. **Tap the plate (4) through the hole (5) until it comes out of its housing.**
3. **Fit the upper plate and then the side plates (3).**
4. **Adjust the lateral clearance of the plates, as explained in the previous section, Adjustment of cutting blade guides.**

8.0 RECOMMENDATIONS & MAINTENANCE

8.1 TYPE & FREQUENCY OF REVIEWS

LUBRICATION POINTS	TYPE OF GREASE/OIL	FREQUENCY
Arc turning bolt Fig. 10.2	BEARING GREASE	YEARLY
Long blade-guide bracket Fig. 10.3	SAE 30	WEEKLY
Bearings no. 26, 46 Fig. 10.3	BEARING GREASE	WEEKLY
CHECK	**MATERIALS TO USE**	**FREQUENCY**
Saw blade tension.	100 BARS	DAILY
Check level of coolant liquid	Top up with **WHITE COOLANT**	DAILY
Cleanliness of machine	Diluted mild degreasing fluid	WEEKLY
Cleanliness of coolant tank	Damp cloth, brush	MONTHLY
Condition of nylon shavings guard Fig.10.4	Replace if necessary	MONTHLY
Saw blade guides.	Sections 7.1 and 7.2	MONTHLY

9.0 GENERAL RULES & SAFETY CHECKS

- **Before using the machine, check the effectiveness and perfect operation of the safety devices. Check that the moving parts of the machine are not blocked, that there are no damaged elements and that all of the machine components are positioned correctly and that they work properly.**
- **Verify that the motor-guard switch works correctly by testing it during a no-load cycle of the machine.**
- **It is absolutely prohibited to manipulate any safety device.**
- **It is absolutely prohibited to work without the guards in place.**
- **It is mandatory to use gloves when changing the saw blade.**
- **It is mandatory to use officially approved work clothing, which must be fastened.**
- **Before starting work, the operator must be sure to remove all tools and wrenches that have been used for any maintenance or adjustments.**
- **In the event of fire, use powder extinguishers and disconnect the machine from the electric system.**

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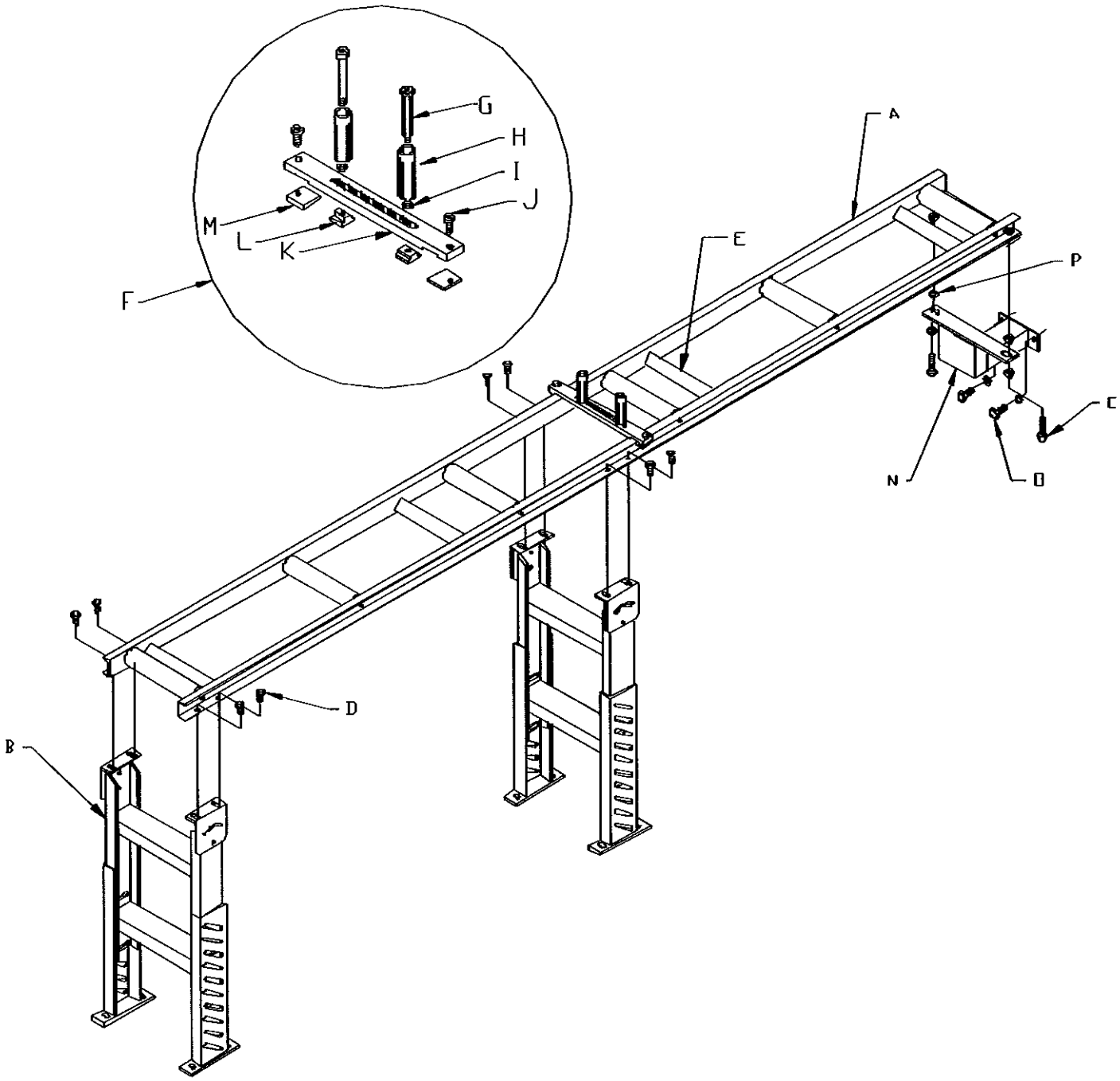
10.0 ACCESSORIES

10.1 MATERIAL SUPPLY TRACKS

A ten foot roller supply track, that can be bolted to the input side of the saw to support longer pieces of material, is an available option for this saw. The supply tracks can also be bolted end to end, to supply longer tracks, if needed. The ten foot supply track bolts to the machine on the left side of the base casting.

SEE THE DRAWING ON THE FOLLOWING PAGE.

1. Attach the roller support bracket (N) to the left side of the base casting with the 10 x 30mm hex head bolts and lock washers provided.
2. Bolt the legs (B) to the rail assembly (A) with the remaining 10 x 30mm hex head bolts.
3. Place the two remaining 10 x 80mm hex bolts through the end of the rail assembly and lock them in place with the hex nuts.
4. Thread another nut on each bolt and attach the track to the support bracket with the remaining two 10mm hex nuts.
5. Space the rollers along the rail at an even spacing.
6. Adjust the supply track so that the rollers are at the same level as the bed of the material vise on the saw. The track is adjusted by loosening the bolts in the legs and the bolts that attach the support Bracket to the track.
7. The track may be anchored to the floor, using the mounting holes provided.
8. The optional vertical guide assembly (F) can be used as a guide for materials that do not lay flat on the feed roller.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C
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P

10.2 DISCHARGE TRACKS WITH SCALES

Roller discharge tracks equipped with either a right or left hand quick-loc are available in two lengths:

60" and 120" (122 & 303 CM).

The discharge tracks mount to the machine in place of the 30 inch (76 CM) stop that was provided with the machine. The discharge tracks allow fast set-up and accuracy for various lengths of cuts.

SEE THE DRAWING ON THE FOLLOWING PAGE.

1. **Bolt the support bracket (A) to the side of the base casting with the 10 x 30mm head bolts and lock washers provided.**

2. **Bolt the legs (B) to the rail assembly (C) with the remaining 10 x 30mm hex head bolts.**

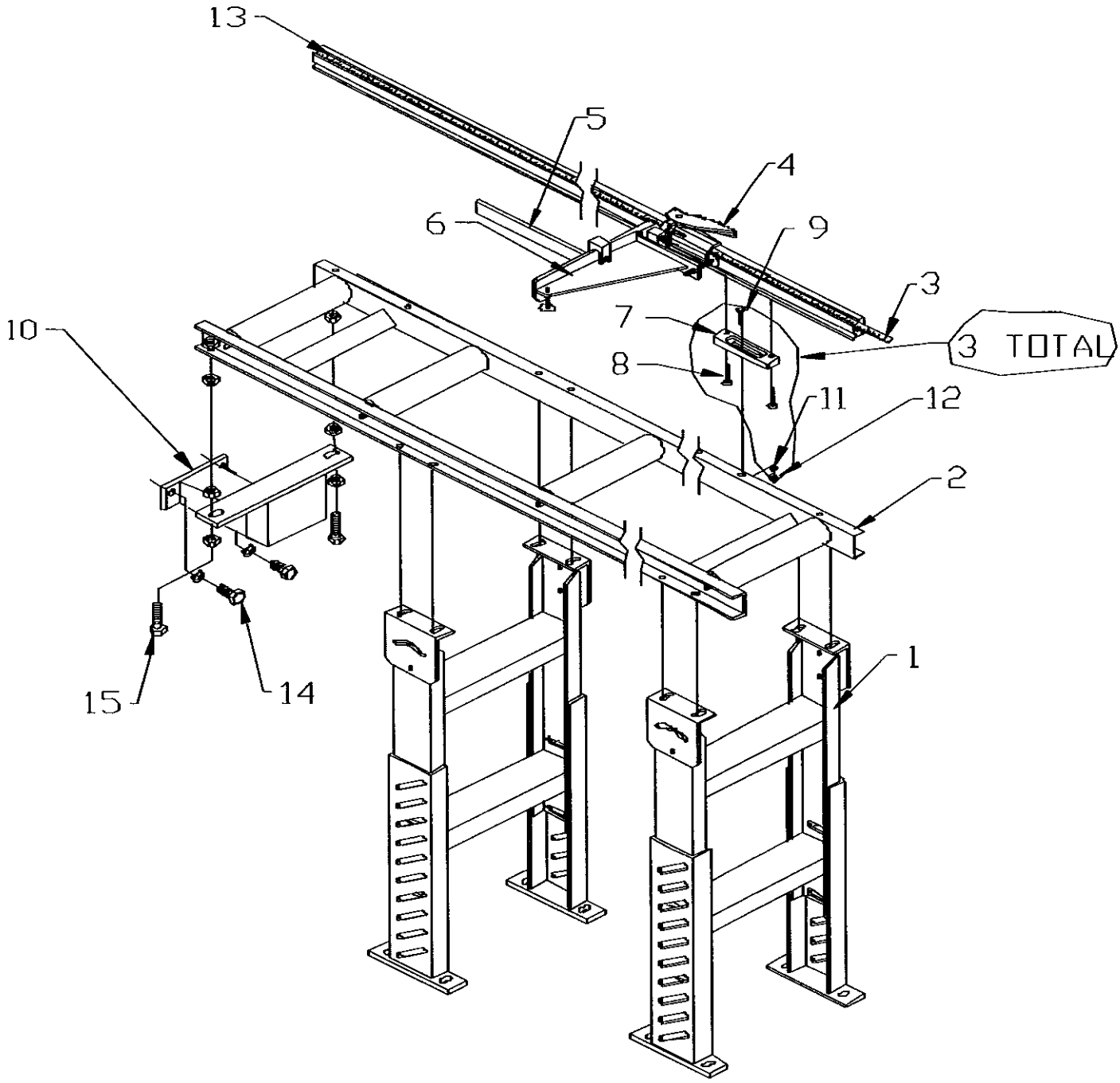
3. **Place the two remaining 10 x 80mm hex bolts through the end of the rail assembly and lock them in place with the hex nuts.**

4. **Thread another nut on each bolt and attach the track to the support bracket with the remaining two 10mm hex nuts.**

5. **Space the rollers along the rail at an even spacing.**

6. **Adjust the discharge track so that the rollers are at the same level as the bed of the material vise on the saw. The track is adjusted by loosening the bolts in the legs and the two bolts that attach the rail to the support bracket.**

7. **After a discharge track is mounted, the scale should be calibrated. To do this, draw the saw head down and set the quick-loc extension (6) ten inches from the blade. Install the scale so that the ten inch mark lines up to the quick-loc pointer. When the quick-loc extension (5) is used, you have to add ten inches to the length of the part that you want to cut. If the stop requires fine adjustments, remove the quick-loc handle from the track and turn it over. There is a fine adjustment on the bottom side of the quick-loc handle.**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3 TOTAL
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12
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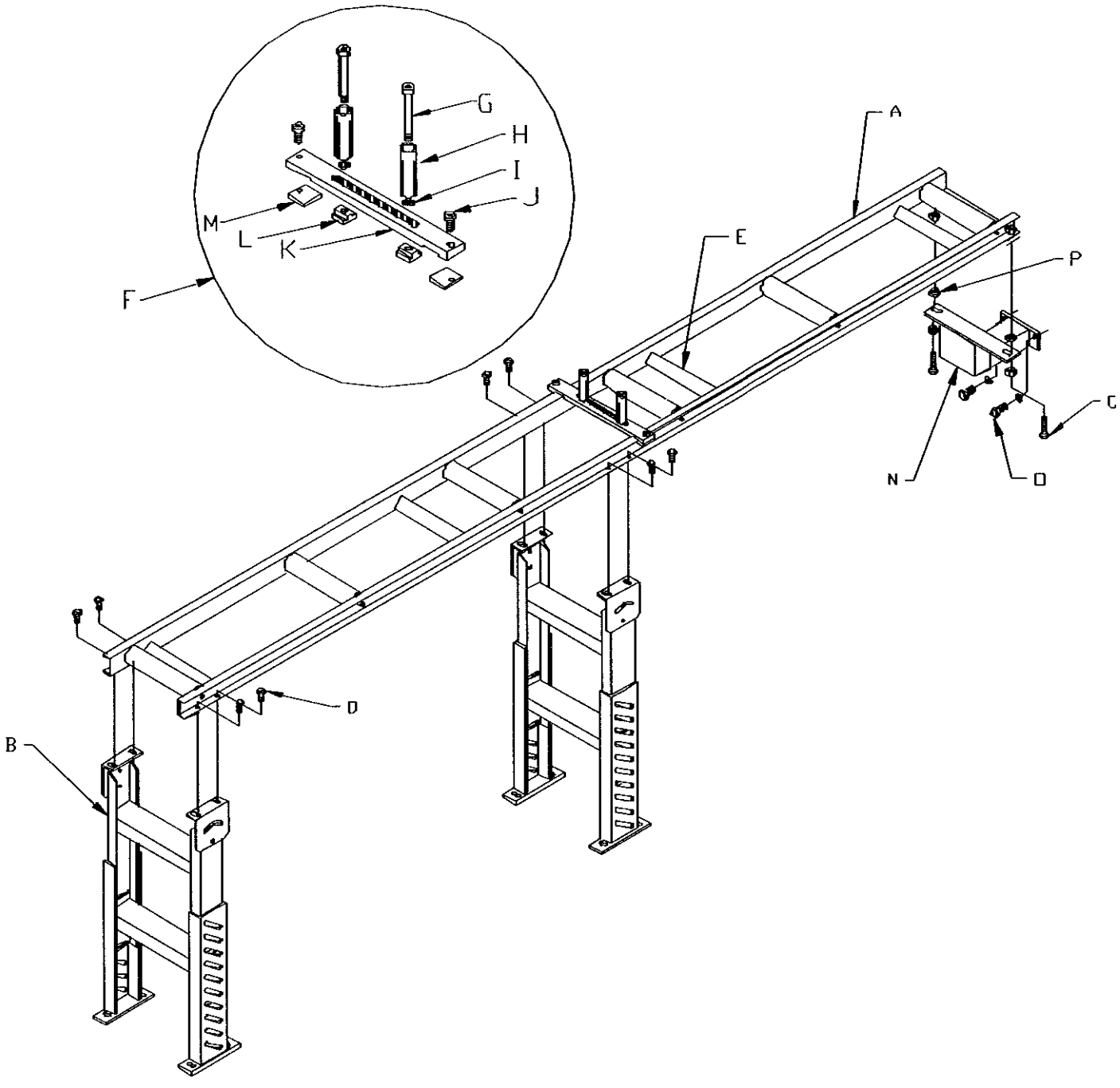
15
14

10.3 TEN FOOT (304 CM) SUPPLY TRACK

ITEM	PART #	DESCRIPTION
A	029243	Conveyor Assembly
B	029244	Leg Assembly
C	204230	M-10 x 100 HHCS
D	221210	M-10 x 25 HHCS
E	029245	Roller
F	076938	Optional Guide Assembly
G	229225	M-10 x 70 Shoulder Bolt
H	043003	Guide Roller
I	214012	M-10 Washer
J	221120	M-8 x 25 SHCS
K	076943	Mounting Plate
L	026619	Tee Nut
M	076941	Guide Bar
N		Mount Support
O	203212	M-10 x 30 HHCS
P	208012	M-10 Hex Nut
Q	029989	Complete 10' Supply Track
R	029995	Complete 20' Supply Track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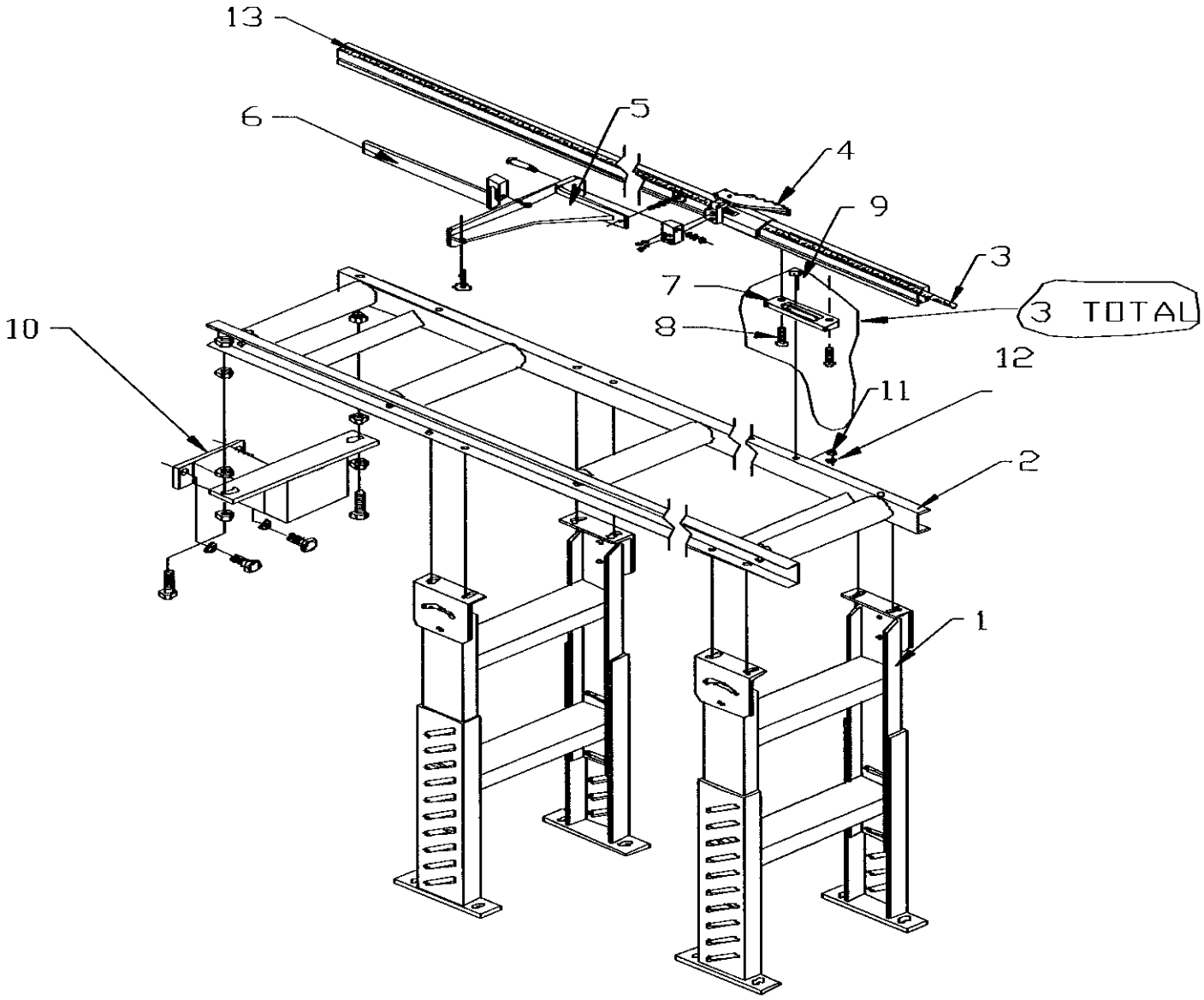
10.4 DISCHARGE TRACKS W/QUICK-LOC (60 & 120 INCH)

ITEM	PART #		DESCRIPTION
		COMMON PARTS	
1	029244		Leg Assembly
2	029241		60" Roller Conveyor
2A	029243		120" Roller Conveyor
5	029114		Quick-Loc Arm Extension
7	029175		Rail Mounting Bracket
8	130107		5/16 x 18 x FSHCS
9	130212		3/8 x 16 x 1-1/4 C-Bolt
10			Mounting Bracket
11	114011		5/16 Washer
12	108012		3/8 x 16 Hex Nut
14	203212		M-10 x 30 HHCS
15	204230		M-10 X 100 HHCS
		60" RIGHT HAND	
3	029226		Tape
4	029232		RH Quick-Loc
6	029100		RH Quick-Loc Extension
13	029201		60" Main Rail
		60" LEFT HAND	
3	029220		Tape
4	029230		LH Quick-Loc
6	029100		LH Quick-Loc Extension
13	029201		60" Main Rail
		120" RIGHT HAND	
3	029226		Tape
4	029232		RH Quick-Loc
6	029100		RH Quick-Loc Extension
13	029206		120" Main Rail
		120" LEFT HAND	
3	029220		Tape
4	029230		LH Quick-Loc
6	029100		LH Quick-Loc Extension
13	029206		120" Main Rail
		COMPLETE ASS'Y	
	029220		60" RH
	029998		60" LH
	029990		120" RH
	029992		120" LH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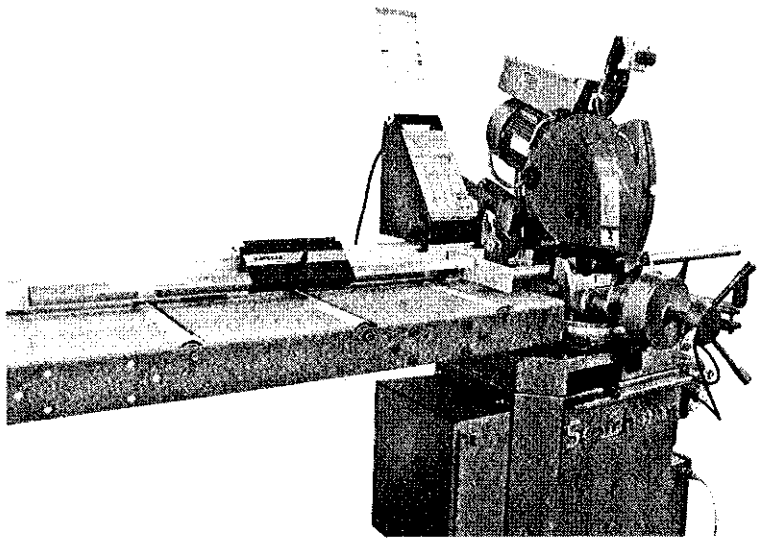
1

Scotchman SG Measuring System



Stop pulling a tape! Stop marking! Stay productive!

Quick. easy installation
Simple keypad design ~ makes every operator your best
Works the way you do: Enter feet, inches, fractions & decimal fractions, or switch to metric mode
Adjustable stop
Flip stop ~ can be flipped up, away from table to back feed
Portable power head ~ quickly detaches from rail
List storage: Holds 10 lists with up to 10 moves each
Quick and easy calibration

Options include: Roller conveyors, flat tables, Brackets to mount to saw, or legs for free standing tables.

Ideally suited for these machines:

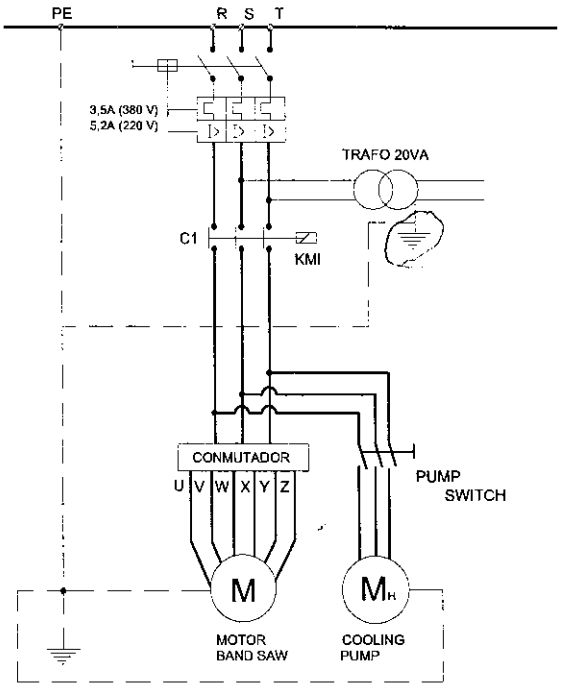
- Cold Saws
- Aluminum cutting saws
- Abrasive saws
- Drill presses
- Iron workers
- Wood saws
- Anywhere you are pulling a tape measure to mark a measurement

System Specifications

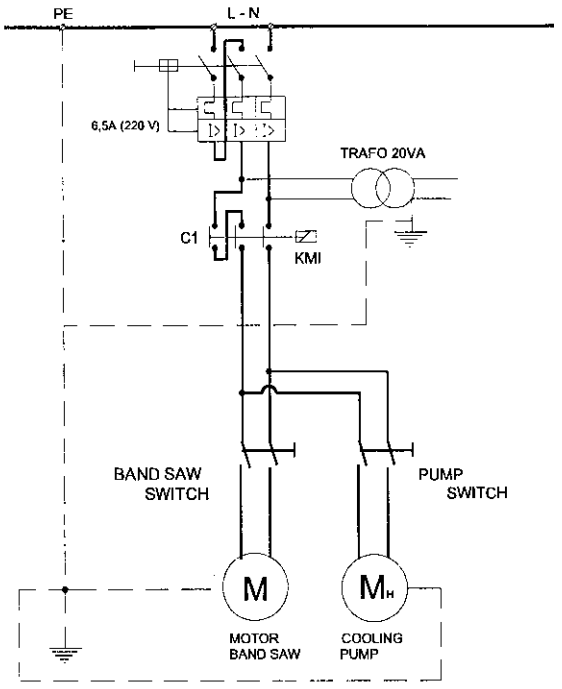
Sizes:	8' and 12' working lengths
Speed:	125 ft/min.
Accuracy:	Repeatable accuracy of +/-.008
Voltage:	110 VAC

11.0 DRAWINGS & SCHEMATICS

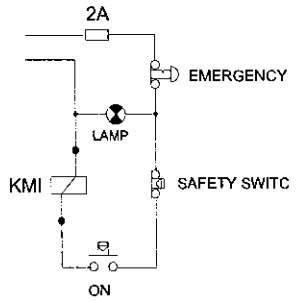
THREE PHASE



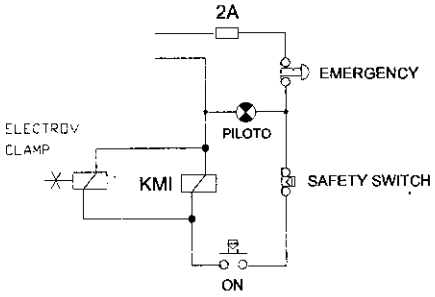
MONO PHASE



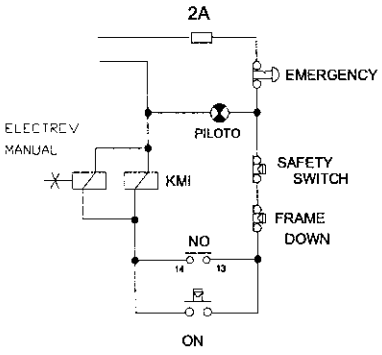
WORKING MANUAL CIRCUIT



PNEUMATIC CLAMP DEVICE CIRCUIT



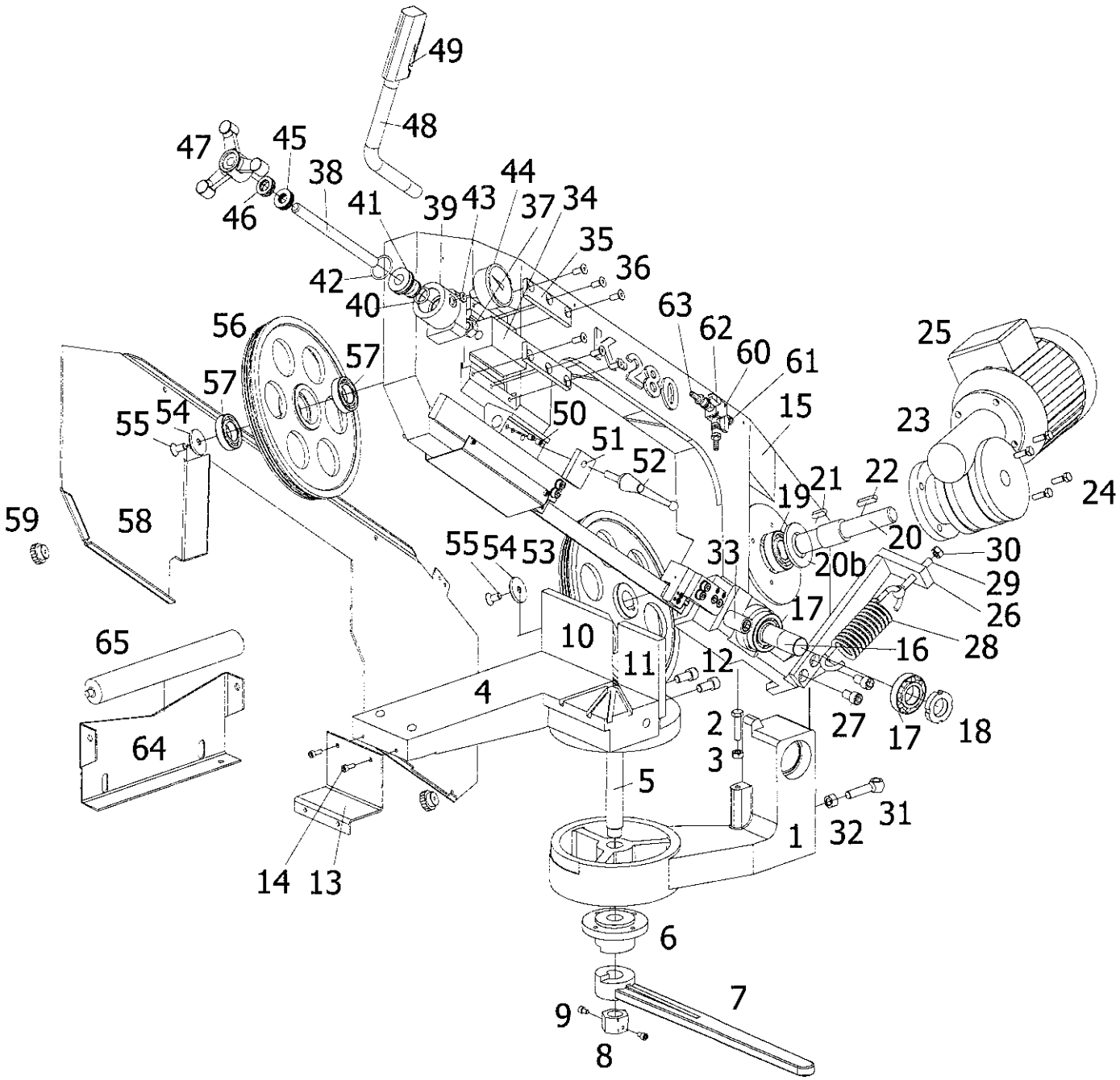
HYDRAULIC DESCENY CIRCUIT

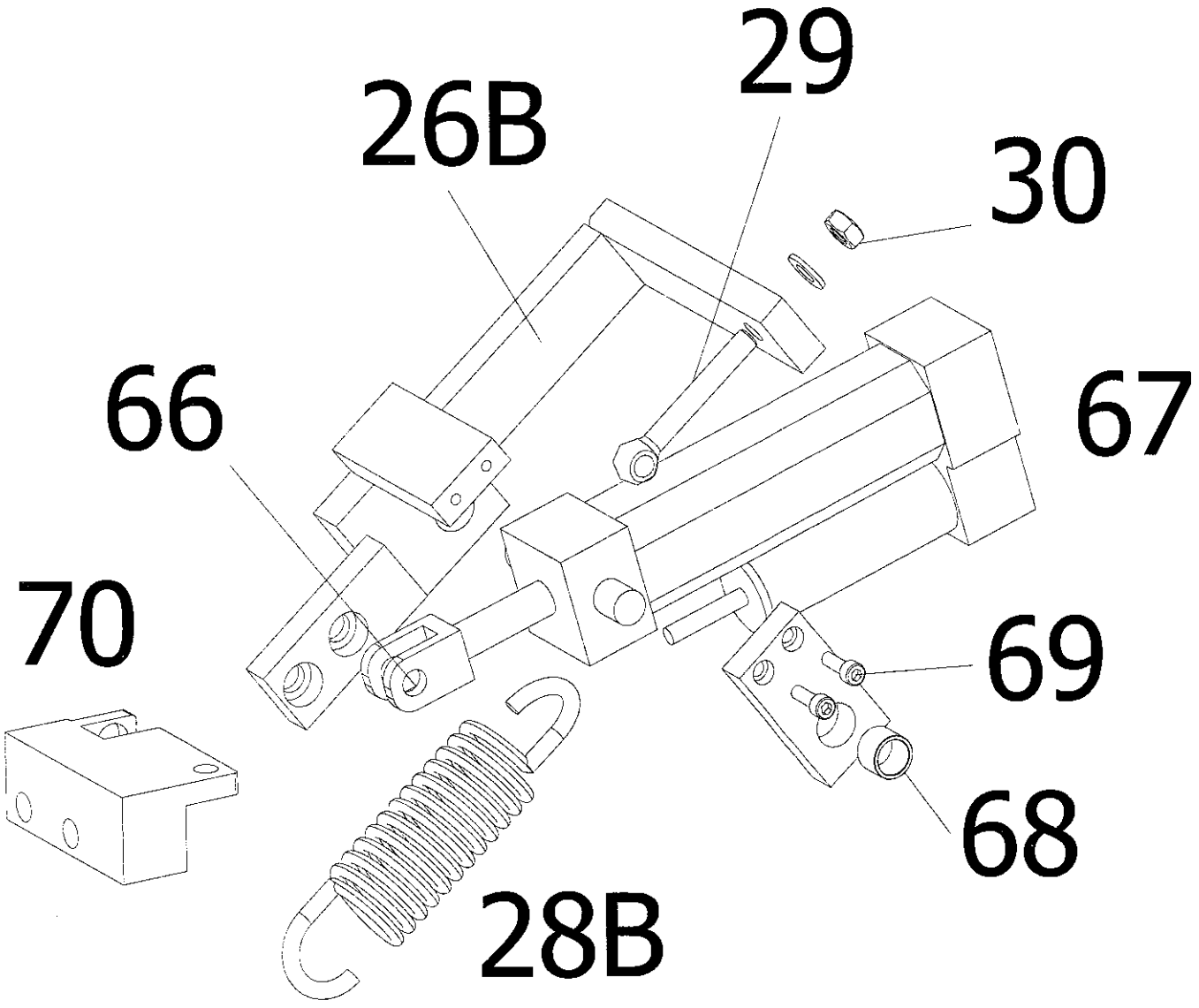


DESCRIPTION	CODE	DESCRIPTION	CODE
MAIN SWITCH		1,3 HP MONO PHASE MOTOR	2K280000M3
EMERGENCY	E000000010	COOLING PUMP	2K20000051
SAW BLADE ON	2K20000071	FUSE 2 A	E000000024
SAFETY SWITCH	E00000D681	GREEN INDICATOR 24 V.	E000000030
MINICONTACTOR 4 KW N.O.	E000000013	PUMPO SWITCH	2K30000131
CONMUTADOR 1-0-2	2K30000141	BAND SAW SWITCH	2K30000131
1,5/1,1 HP MOTOR III 380V - III 220 V	2K280000M1 2K280000M2	TRANSFORMER 20 VA	E000000021
END-OF-TRAVEL FRAME DOWN	E000000025		

11.1 ELECTRICAL SCHEMATIC

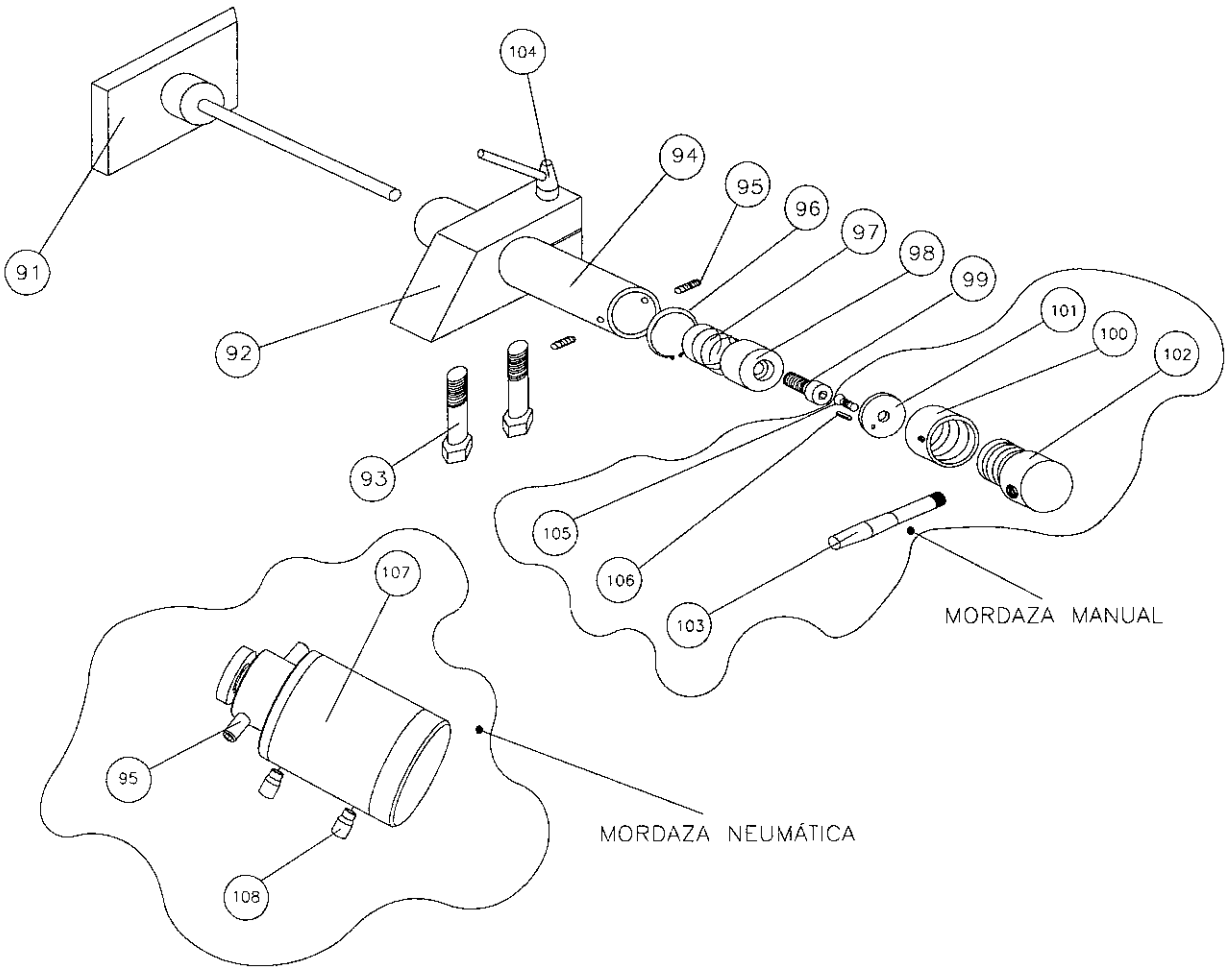
11.2 MACHINE EXPLODED VIEW




29
26B
30
66
67
70
69
68
28B

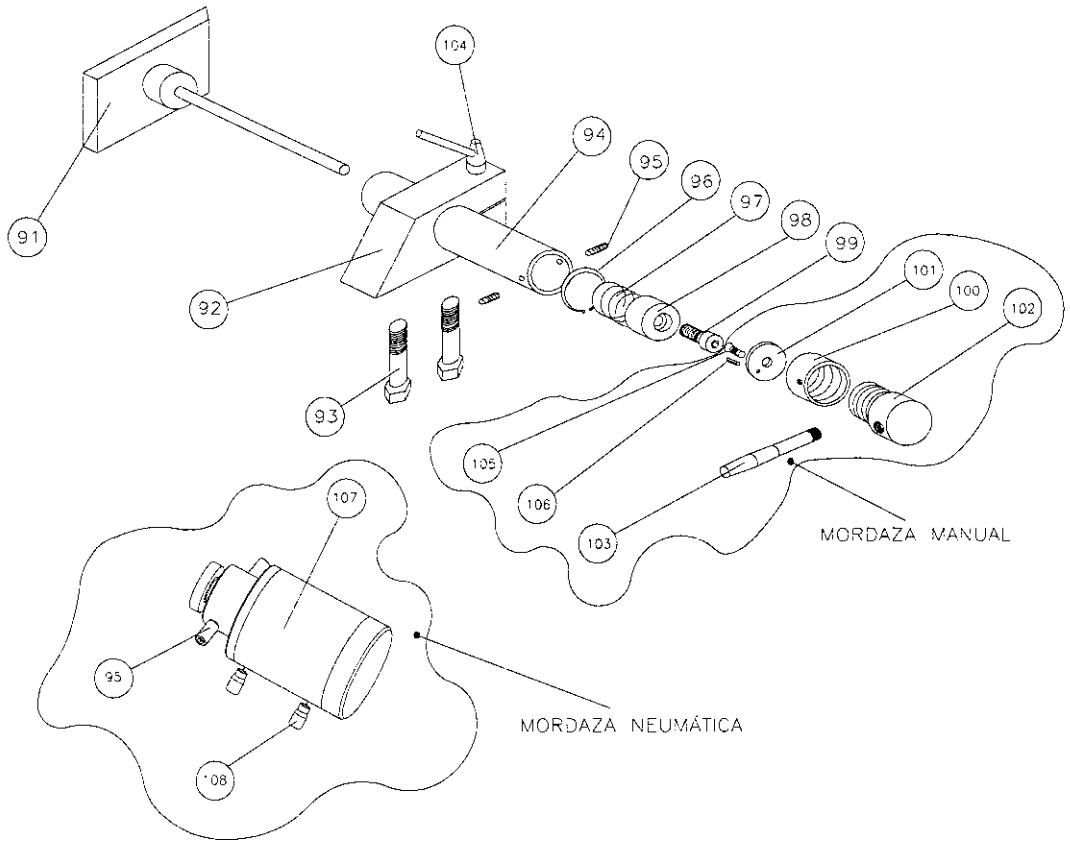
Nº	DESCRIPTION	CODE	Nº	DESCRIPTION	CODE
1	*ARCH SUPPORT*	2K28000061	34	TENSION ADJUSTER CARRIAGE	2K28000291
2	M-10x40 DIN 933 SCREW	TD93310040	35	*ADJUST GUIDES*	2K20000461
3	NUT DIN 934 M-10	TD93400010	36	M-8x20 DINN7991 SCREW	TZ79910820
4	*CLAMP MOLTEN IRON BASE*	2K28000011	37	M-16 DIN 934 NUT	TD93400016
5	*BLOCKADE AXIS* K-280	2K28000021	38	TENSION SHAFT M-16x215	2K26000101
6	*ECCENTRIC*	2K20000681	39	TENSION CYLINDER	2K37005311
7	*BLOCKADE LEVER DEGRESS*	2K28000281	40	Ø 22 x 28 x 4,5 HYDRAULIC SEAL	2K26000741
8	*BLOCKADE NUT DEGRESS*	2K20000671	41	TENSION CYLINDER PISTON	2K37005321
9	M-6x10 DIN 912 SCREW	TD91206010	42	Ø 35 x 45 x 6 HYDRAULIC SEAL	2K26001741
10	*LEFT REST PLATES*	2K28000171	43	¼" ROUND	T00000MB14
11	*RIGHT REST PLATES*	2K28000181	44	0-160 ¼" MANOMETER	2K30000121
12	M-12x20 DIN 912 SCREW	TD91212C20	45	A-31,5 (4) SPRING SOCKET	2K3700MU31
13	CLAMP FIX PLATE	2K28000151	46	51103 BEARING	2K26000721
14	M-6x16 DIN 912 SCREW	TD91206016	47	M-16 WHEEL	B000000140
15	ALUMINIUM ARCH K-280	2K28000101	48	*LEVER OF DESCENT*	2K20000061
16	*ARCH BOLT*	2K28000005	49	*OPERATE BAND SAW*	2K20000071
17	30206 BEARING	2C30000031	50	M-8x10 SCREW	TD93308010
18	M-30x1,5 SAFETY NUT	T00TCM3015	51	*MOVIL GUIDE BRAKE*	2K20000481
19	6206 2RS BEARING	2K20000291	52	M-10x25 LEVER	B0000P1025
20	REDUCER SHAFT	2K20000151	53	REDUCTER DISC	2K280003R1
20b	*BEARING REDUCER COVER*	2K26000121	54	Ø40x6 ROCKET	2K2600A402
21	8x7x25 PIN	2K20000441	55	M-10x20 DIN7991 SCREW	TD79911020
22	8x7x35 PIN	2K20000451	56	TENSION DISC	2K280003T1
23	T50 REDUCTOR 1/30 THREE – 1/15 MONO	2K26000041 2K20000041	57	6006 2RS BEARING	2K20000141
24	M-8x25 DIN 933 SCREW	TD93308025	58	*ARCH PROTECTOR*	2K28000331
25	1,5/1,1 HP 3000/1500 RPM III 380V MOTOR 1,5/1,1 HP 3000/1500 RPM III 220V MOTOR 1,3 HP 1500 RPM MONO PHASE MOTOR	2K280000M1 2K280000M2 2K280000M3	59	M-6 WHEEL	B000000005
26	*TENSION ADJUSTER SPRING*	2K28000145	60	1/8" DISTRIBUTOR	N00000RC18
26B	*TENSION ADJUSTER SPRING* B.H.	2K28000475	61	1/8" Ø12 SCREW	N0000E1218
27	M-12x20 DIN 912 SCREW	TD91212020	62	1/8" M-H *MINI BALL VALVE*	2K3700R281
28	Lt180xLp95x45xØ6 SPRING	2K2800R008	63	1/8" Ø8 SCREW	N0000E0818
28B	Lt180xLp95x45XØ5 SPRING	2K20000011	64	K-280 SUPPORT ROLLER	2K28000461
29	M-10x75 DIN 444 SCREW	TD44401075	65	STEEL ROLLER Ø40×300 Ø10	2230000111
30	M-10 DIN 934 NUT	TD93400010	66	ISO 40 FEMALE PIN JOINT	N000004057
31	M-12x60 DIN 444 SCREW	TD44401260	67	CYLINDER UX32/100 C/REG. T.750MM	2K30000741
32	M-.12 DIN 934 NUT	TD93400012	68	A-16-20-15 BRONZE TIP	2K37R02016
33	MANUAL END-OF-TRAVEL ARCH	2K28000161	69	M-6x20 DIN 912 SCREW	TD91206020
33B	B.H. END-OF-TRAVEL ARCH	2K28016BH1	70	CYLINDER YOKE	2K28000501

11.3 EXPLODED VIEW HYDRAULIC DESCENT



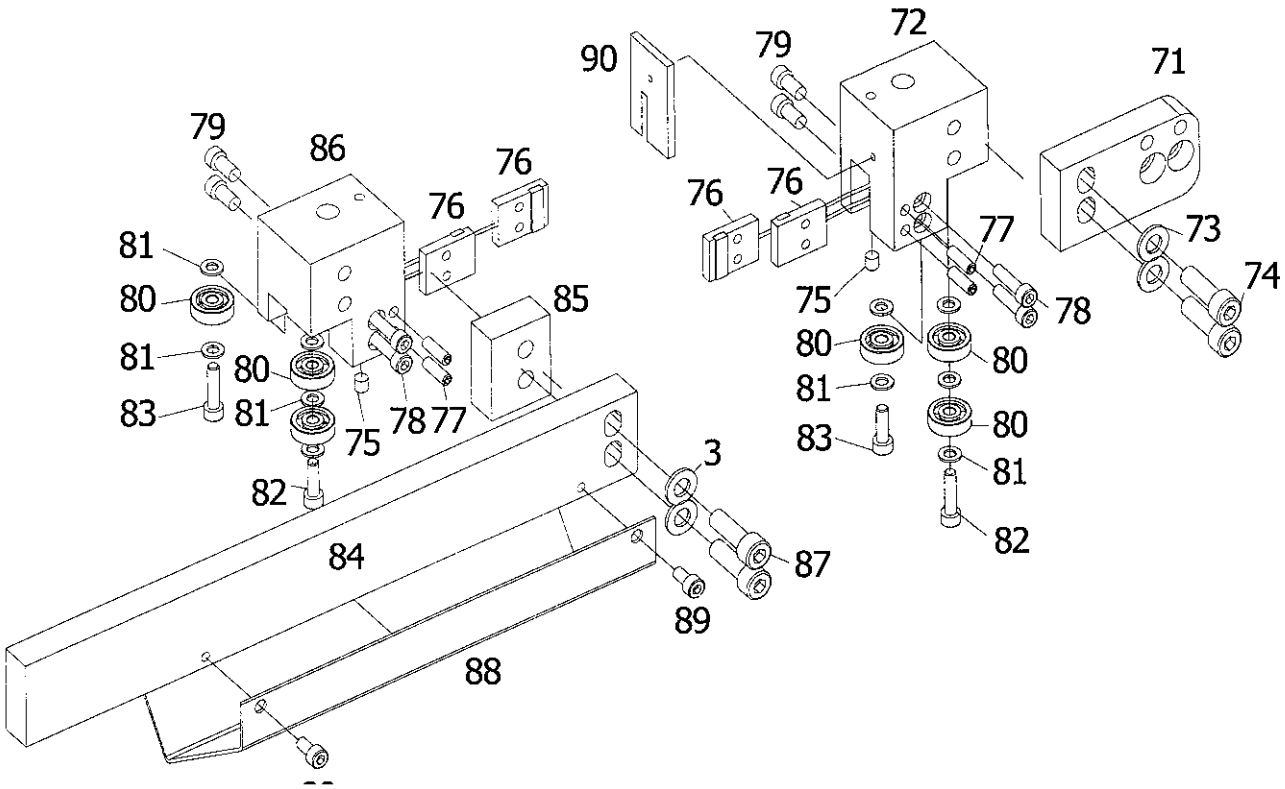
Nº	DESCRIPTION	CODE	Nº	DESCRIPTION	CODE
91	K-280 CLAMP PISTON	2K28000045	100	CAST IRON NUT	2K20000741
92	CAST IRON TWEEZER	2K20000401	101	TOP ROUND	2K2600A403
93	M14 SCREW	TD93101460	102	CLAMP SCREW	2K20000711
94	K-280 CLAMP	2K28000351	103	CLAMP LEVER	2K20000531
95	M8x10 DIN 913 SCREW	TD91300810	104	M14x50 LEVER	2K20000611
96	Ø50 DIN 472 RING	TD47200I50	105	M -8x20 DIN 7991 SCREW	TD91208020
97	Lt35x30xp9xØ5 SPRING	2K20000091	106	Ø 5x20 ELASTIC PIN	TD14810520
98	HOOP OF PUSH	2K2600A372	107	PNEUMATIC CYLINDER	2K28000051
99	M10x25 DIN912 SCREW	TD91210025	108	1/8" Ø6mm PNEUMATIC RACOR	N000RC1806

11.4 CLAMP EXPLODED VIEW



Nº	DESCRIPTION	CODE	Nº	DESCRIPTION	CODE
91	K-280 CLAMP PISTON	2K28000045	100	CAST IRON NUT	2K20000741
92	CAST IRON TWEEZER	2K20000401	101	TOP ROUND	2K2600A403
93	M14 SCREW	TD93101460	102	CLAMP SCREW	2K20000711
94	K-280 CLAMP	2K28000351	103	CLAMP LEVER	2K20000531
95	M8x10 DIN 913 SCREW	TD91300810	104	M14x50 LEVER	2K20000611
96	Ø50 DIN 472 RING	TD47200I50	105	M -8x20 DIN 7991 SCREW	TD91208020
97	Lt35x30xp9xØ5 SPRING	2K20000091	106	Ø 5x20 ELASTIC PIN	TD14810520
98	HOOP OF PUSH	2K2600A372	107	PNEUMATIC CYLINDER	2K28000051
99	M10x25 DIN912 SCREW	TD91210025	108	1/8" Ø6mm PNEUMATIC RACOR	N000RC1806

11.5 GUIDES EXPLODED VIEW



Nº	DESCRIPTION	CODE	Nº	DESCRIPTION	CODE
71	*FIXED GUIDE SUPPORT*	2K2800019A	81	M-5 ROUND	TD12500005
72	FIXED GUIDE K-280	2K2600007F	82	M-5x20 DIN 912 SCREW	TD91205020
73	DIN 125 M8 SOCKET	TD12500008	83	M-5x15 DIN 912 SCREW	TD91205015
74	M-8x25 DIN 912 SCREW	TD91208025	84	*MOBILE GUIDE SUPPORT*	2K2800019B
75	ROUND GUIDE PLATES	2K26000131	85	*GUIDE SEPARATOR*	2K280019G1
76	*SIDE GUIDE PLATES*	2K26000301	86	MOBILE GUIDE K-280	2K2600007M
77	M-5x15 DIN 913 SCREW	TD91305015	87	M-8x40 DIN 912 SCREW	TD91208040
78	M-5x20 DIN 912 SCREW	TD91205020	88	MOBILE GUIDE PROTECTOR K-280	2K28000311
79	M-5x10 DIN 912 SCREW	TD91205010	89	M-5X10 DIN 912 SCREW	TD91205010
80	635ZZ BEARING	2K2800R001	90	NYLON BAND SAW PROTECTOR	2K26000701