



## **4920 12" Ripsaw**

### **Owner's Manual**



**Oliver Machinery**  
Tukwila, WA

**M-4920 4/2012**  
© Copyright 2003  
[www.olivermachinery.net](http://www.olivermachinery.net)  
email: [info@olivermachinery.net](mailto:info@olivermachinery.net)

## **Warranty**

Oliver makes every effort possible to assure that its equipment meets the highest possible standards of quality and durability. All products sold by Oliver are warranted to the original customer to be free from defects for a period of 2 (two) years on all parts, excluding electronics and motors, which are warranted for 1 year. Oliver's obligation under this warranty shall be exclusively limited to repairing or replacing (at Oliver's option) products which are determined by Oliver to be defective upon delivery F.O.B. (return freight paid by customer) to Oliver, and on inspection by Oliver. This warranty does not apply to defects due, directly or indirectly, to misuse, abuse, negligence, accidents, unauthorized repairs, alterations, lack of maintenance, acts of nature, or items that would normally be consumed or require replacement due to normal wear. In no event shall Oliver be liable for death, personal or property injury, or damages arising from the use of its products.

## **Warning**

Read this manual thoroughly before operating the machine. Oliver Machinery disclaims any liability for machines that have been altered or abused. Oliver Machinery reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

## **For More Information**

Oliver Machinery is always adding new Industrial Woodworking products to the line. For complete, up-to-date product information, check with your local Oliver Machinery distributor, or visit [www.olivermachinery.net](http://www.olivermachinery.net)

# WARNING

Read this manual completely and observe all warning labels on the machine. Oliver Machinery has made every attempt to provide a safe, reliable, easy-to-use piece of machinery. Safety, however, is ultimately the responsibility of the individual machine operator. As with any piece of machinery, the operator must exercise caution, patience, and common sense to safely run the machine. Before operating this product, become familiar with the safety rules in the following sections.

- **Always keep guards in place and in proper operating condition.**
  - **Never reach around or under the saw blade.**
1. **If you are not properly trained** in the use of a rip saw do not use until the proper training has been obtained.
  2. **Read, understand and follow** the safety instructions found in this manual. Know the limitations and hazards associated with this machine.
  3. **Electrical grounding:** Make certain that the machine frame is electrically grounded and that a ground lead is included in the incoming electrical service. In cases where a cord and plug are used, make certain that the grounding plug connects to a suitable ground. Follow the grounding procedure indicated in the National Electrical Code.
  4. **Eye safety:** Wear an approved safety shield, goggles, or glasses to protect eyes. Common eyeglasses are only impact-resistant, they are not safety glasses.
  5. **Personal protection:** Before operating the machine, remove tie, rings, watch and other jewelry and roll up sleeves above the elbows. Remove all loose outer clothing and confine long hair. Protective type footwear should be used. Where the noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations, use hearing protective devices. Do not wear gloves.
  6. **Guards:** Keep the machine guards in place for every operation for which they can be used. If any guards are removed for maintenance, DO NOT OPERATE the machine until the guards are reinstalled.
  7. **Work area:** Keep the floor around the machine clean and free of scrap material, saw dust, oil and other liquids to minimize the danger of tripping or slipping. Be sure the table is free of all scrap, foreign material and tools before starting to use the machine. Make certain the work area is well lighted and that a proper exhaust system is used to minimize dust. Use anti-skid floor strips on the floor area where the operator normally stands and mark off machine work area. Provide adequate work space around the machine.
  8. **Material condition:** Do not attempt to saw boards with loose knots or with nails or other foreign material. Do not attempt to saw twisted, warped, bowed stock.
  9. **Operator position:** Maintain a balanced stance and keep your body under control at all times. *Although the machine is equipped with antikickback fingers, the operator should be aware of the possibility of material kick-back and position himself accordingly.*
  10. **Before starting:** Before turning on machine, remove all extra equipment such as keys, wrenches, scraps, and cleaning rags away from the machine and off the table.
  11. **Careless acts:** Give the work you are doing your undivided attention. Looking around, carrying on a conversation, and “horseplay” are careless acts that can result in serious injury.

12. **Disconnect all power sources:** Before performing any service, maintenance, adjustments or when changing blades. A machine under repair should be RED TAGGED to show it should not be used until the maintenance is complete.
13. **Job completion:** If the operator leaves the machine area for any reason, the rip saw should be turned "off" and the blade should come to a complete stop before departure.
14. **Replacement parts:** Use only genuine Oliver Machinery factory authorized replacement parts and accessories; otherwise the warranty and guarantee is null and void.
15. **Misuse:** Do not use this Oliver rip saw for other than its intended use. If used for other purposes, Oliver disclaims any real or implied warranty and holds itself harmless for any injury or damage which may result from that use.
16. **Drugs, alcohol and medication:** Do not operate this machine while under the influence of drugs, alcohol, or any medication.
17. **This machine is designed** for cutting wood products only. Do not use to cut any kind of metal or substance other than wood.
18. **Never start the saw** while a workpiece is in contact with the blade.
19. **Adjust the carriage/pressure roller** height for each workpiece. Lock the carriage in place before making cuts.
20. **Raise or lower the blade** only when the machine has been turned "off" and the blade has come to a complete stop.
21. **Damaged Saw Blade:** Never use a damaged saw blade or one that has been dropped. Check the saw blade for cracks or missing teeth. Do not use a cracked or dull blade or one with missing teeth. Make sure the blade is securely locked on the arbor.
22. **Make sure** the blade is running in the proper direction. Refer to the arrow on the blade. The teeth should be pointing up when viewing from the front of the saw.
23. **Health hazards:** Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead-based paint.
  - Crystalline silica from bricks and cement and other masonry products.
  - Arsenic and chromium from chemically-treated lumber.Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles.

Familiarize yourself with the following safety notices used in this manual:

**CAUTION:** (This means that if precautions are not heeded, it may result in minor or moderate injury and/or possible machine damage)

**WARNING:** (This means that if precautions are not heeded, it could result in serious injury or possibly even death).

<b>Table of Contents</b>	<b>Page Number</b>
Warranty .....	2
Warnings .....	3-4
Table of Contents .....	5
Specifications .....	5
Contents of the Shipping Containers .....	6
Uncrating the Machine .....	6
Machine Preparation and Setup .....	6
Dust Collection .....	7
Electrical Connections.....	7
<b>Fence</b> .....	8
Assembly.....	8
Adjustment of Fence to Blade .....	8
Adjustment of Rail to blade .....	8
<b>Saw Blade</b> .....	9
Choosing the Correct Saw Blade .....	9
Replacing the Blade .....	9
Setting the Saw Blade Height .....	10
<b>Pressure Roller/Carriage</b> .....	10
With Respect to Work Piece .....	10
Height Adjustment.....	10
<b>Chain Oiler</b> .....	11
<b>Operation</b> .....	12
Proper position of operator.....	12
Pre-start.....	12
Control panel .....	12
Feed Rate.....	13
<b>Maintenance</b> .....	13
Lubrication.....	13
Other .....	13
Troubleshooting .....	14
 <b>Specifications</b>	
Model No. ....	4920
Stock No. ....	4920.001
Arbor Diameter (in.).....	1
Blade Diameter (in.) .....	12
Blade Speed (RPM) .....	4,500
Feed Speed 7 Speed: .....	36-150 FPM
Cutting Depth (in.) .....	3-3/8
Maximum Ripping Width (in.) .....	18
Minimum Board Length (in.).....	12
Pressure Rollers.....	6
Anti-Kickback Device(s) .....	2
Table Size (W x L/in.).....	35 x 54-1/4
Table Height (in.).....	32
Dust Collection Port (in.) .....	4
Feed Motor .....	2HP, 3Ph, 220/440V
Motor .....	15HP, 3Ph, 220/440V
Shipping Dimension (L x W x H/in.) .....	61 x 45 x 64
Gross Weight (lbs.) .....	3019
CFM.....	400CFM at 4500FPM air velocity

## Oliver 4920 – 12" Ripsaw

### Contents:

1. Tool Box
2. Sawblade bolt wrench
3. Arbor wrench
4. Allen key set
5. Wrench set
6. Grease gun
7. Machine floor pads
8. Laser and bracket (optional)

### Uncrating the Machine

Uncrate the machine and inspect the unit for signs of shipping damage. If damage is found, contact your dealer immediately. Unbolt the machine from the pallet. Retain all packaging materials in case it becomes necessary to ship the machine to another site.

### Machine Preparation and Setup

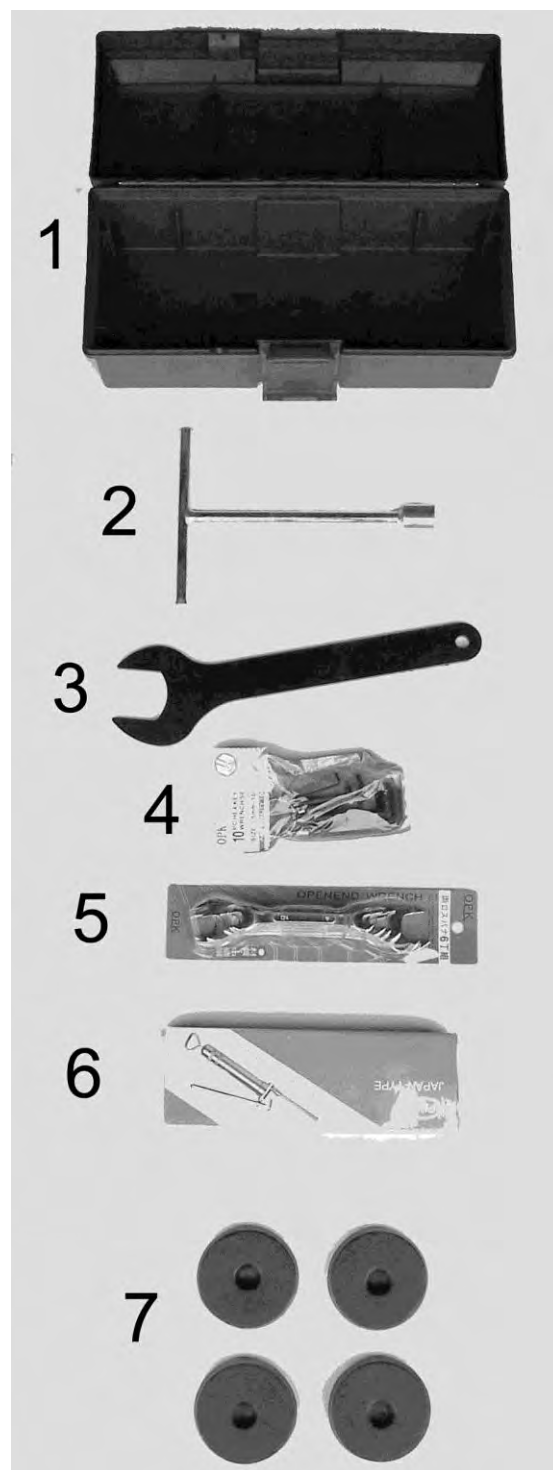
#### **WARNING!**

**The equipment used to lift this machine must have a rated capacity at, or above the weight of the ripsaw. Failure to comply may cause serious injury!**

The ripsaw must be positioned on a smooth, level surface. The area must be well lit and have plenty of room to maneuver with large pieces of wood.

Level the saw front to back and side to side using a level placed on the table. Use shims under the corners, if necessary, but make sure the saw is stable before being placed into service.

Clean all rust protected surfaces with a commercial solvent. Do not use acetone, gasoline, lacquer thinner or any type of flammable solvent, or a cleaner that may damage paint. Cover cleaned surfaces with WD-40 or a 20W machine oil.



Tool Box Contents

## Dust Collection

The 4" dust collection port (A, Figure 1) is located on top of the pressure roll carriage. Typically flex hose is used to run from this point to a central trunk line.

Do not operate the machine without dust collection.

## Electrical Connections

### **WARNING!**

**Electrical connection and wiring must be performed by a certified electrician. The machine must be properly grounded. Failure to comply may cause serious injury!**

This rip saw is 3-Phase, 220V/440V **pre-wired 220V**. If you need to switch from 220V to 440V have a certified electrician make the changes. Oliver Machinery recommends using a dedicated circuit.

Make sure the voltage of your power supply matches the specifications on the motor plate of the machine.

With 3-Phase power verify the blade is turning in the proper direction. If rotation is incorrect, swap two of the phases to reverse.

**Note:** *If running from a phase converter ensure the 'high leg' of the converter does not feed the control circuit of the rip saw.*



Figure 1

## Fence

### Assembly and Installation of the Fence

1. Remove the fence from the shipping pallet.
2. Thoroughly clean fence and rail including the inner race of the fence bracket to ensure smooth operation.
3. Slide the fence onto the fence rail from the outboard side the machine. Turn the handwheel to engage the gear rack on the rail. You may have to lift the fence slightly if the gears don't engage.

### Fence Alignment

If the fence is not in alignment with the chain the resulting cut will yield a board that is wider at one than the other.

1. Rip cut a scrap workpiece.
2. Measure the width at each end
3. If the width of 'A' is greater than 'B' then the fence needs to be adjusted as in Figure 3.
4. Loosen the four bolts that secure the rail to the table, make the fence adjustment then re-tighten the bolts.
5. If width 'A' is less than 'B' then adjust the fence in the opposite direction.

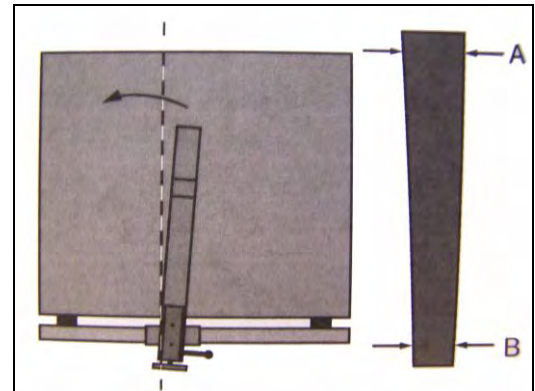


Figure 2



## Saw Blade

### WARNING!

Disconnect power to the machine before performing any maintenance.

### Choosing the Correct Saw Blade

Choose the correct saw blade according to the species of wood as well as it's dimension.

**Note:** Always use a sharp saw blade. A sharp blade not only gives a better cut it lessens load on the saw arbor thereby prolonging bearing life. As well, a dull blade heightens the possibility of material kick back and poses a danger to the operator.

### Replacing the Saw Blade

1. To remove the saw blade first loosen the arbor lock handle (B, Figure 3) and the carriage lock handle (A, Figure 3).

**Note:** Make sure the carriage lock handle is not pushed down and into the anti-kickback lift handle (E, Figure 3) or it will break when the carriage is lowered.

2. Turn the carriage height hand wheel (C, Figure 3) to lower the pressure wheels to a distance of approximately  $\frac{1}{4}$ " above the conveyor chain.
3. Turn the saw blade height hand wheel (D, Figure 3) to raise the saw blade to a distance of approximately  $\frac{1}{4}$ " above the conveyor chain. This will prevent the possibility of damage to the blade when removing it.
4. Use the supplied arbor wrench (A, Figure 4) and arbor bolt wrench (B, Figure 4) to loosen the arbor bolt. Use a block of wood (C, Figure 4) to support the arbor wrench for better stability. Remove the bolt and damper.

**Note:** The arbor bolt is standard right hand thread rotation.

5. Remove saw blade.
6. Before installing the new saw blade thoroughly clean the arbor bolt, damper, and arbor flange. Make sure saw blade is completely flush with arbor flange before installing damper and bolt. Failure to do so may result in a warped blade which can cause excessive vibration and premature bearing failure.
7. Install the blade making sure to secure the arbor bolt.

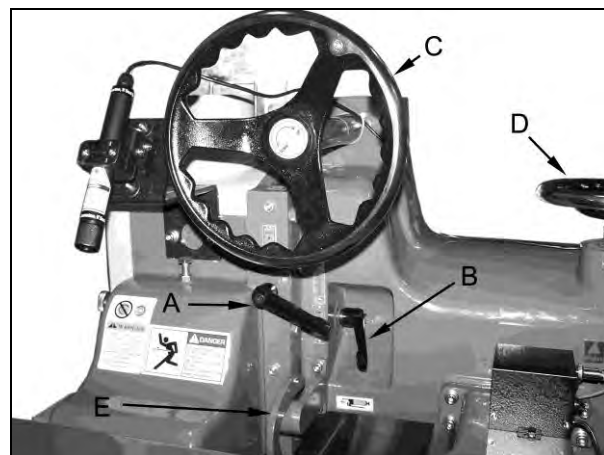


Figure 3

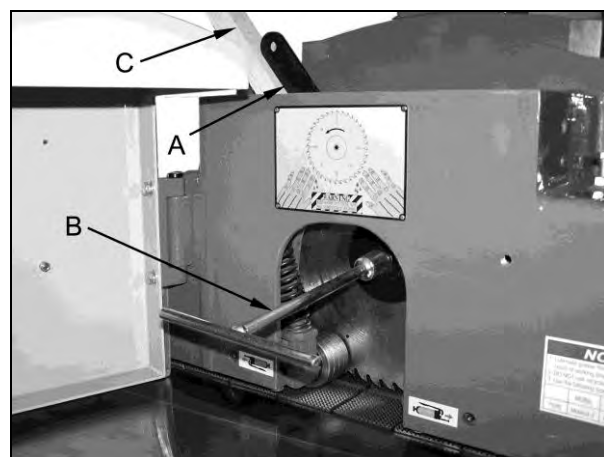


Figure 4

## Setting the Saw blade Height

1. For proper operation the height of the saw blade must be below the conveyor chain but no more than 1/16" (Figure 5). This will in effect allow the blade to cut into the rubber chain insert. This is normal. Adjust the arbor height hand wheel (D, Figure 3) accordingly.
2. Once the saw blade height is set lock into place with the arbor height locking handle (B, Figure 3).
3. Now return the carriage to it's correct height using the carriage height handwheel (C, Figure 3) and lock into place with the carriage lock handle (A, Figure 3).

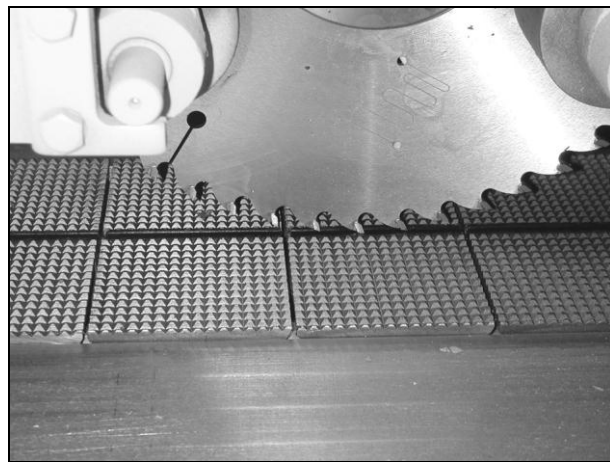


Figure 5

## Pressure Roller/Carriage

### With Respect to the Work Piece

#### **WARNING!**

**Incorrect height setting of pressure rollers can cause material kick back and injury to operator.**

Figure 6 shows the relation of the pressure roller height to the work piece. The pressure roller height should be 1/16" to 3/16" below the height of the material. The lower the rollers the more pressure is exerted on the material. Typically when running thick heavy material more pressure is required. Inadequate pressure can cause poor feeding and subsequently a poor cut. Inadequate pressure can also heighten the probability of material kick back and serious injury to the operator.

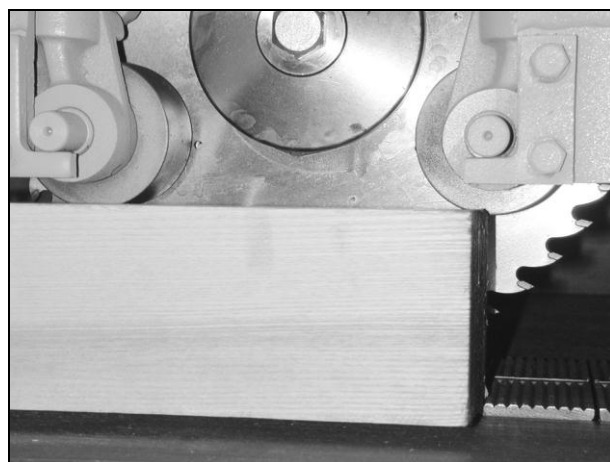


Figure 6

## Height Adjustment

1. Loosen the carriage lock handle (A, Figure 3). Turn the carriage height adjustment wheel (D, Figure 3) to the correct height according to the previous section.
2. Lock the carriage in place with the carriage lock handle (A, Figure 3).

## Chain Oiler

The Oliver Model 4920 rip Saw is equipped with an automatic conveyor chain oiler. The correct operation and maintenance of this oiler is critical to the machine operation. Inadequate lubrication will result in worn chain guides, blocks, and pins. A worn conveyor will not give a straight cut. If the oil level becomes too low the machine will automatically shut off. Fill up the lubricator to restart the machine.

### **WARNING!**

**Inspect chain lubricator reservoir (Figure 7) daily for adequate oil level. Failure to do so may result in machine failure.**

The oiler is located on the bottom right hand side of the machine when feeding and is behind a door panel. To gain access, remove the two Phillips screws and pull the door open.

The oiler has been factory preset to deliver an adequate amount of oil however if the chain appears to dry or wet, adjustment is possible by unscrewing the blue plastic cap to gain access to the adjusting screw.

**Recommended Oil** (Mobil Vactra #2 can be purchased through Grainger Supply)

ISO Spec.	cst@40	Mobil	Esso	Shell
VG-68	68	Vactra #2	Febis K68	Tonna T68

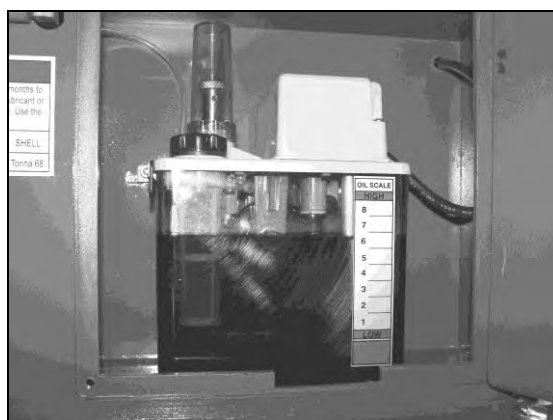


Figure 7

## Operation

### Proper Position of Operator

#### **WARNING!**

**Never stand directly in line with the saw blade when feeding material. Failure to do so may bring injury to the operator.**

Although the machine is equipped with two rows of anti-kickback fingers this does not eliminate the danger of material kickback. For this reason it is very important for the operator to be aware of the position of the saw blade and never stand directly in line with it while feeding. For safety the operator must stand off to the side. See figure 8. Line 'A' represents the line of the saw blade.

#### **Pre-Start**

1. Check for proper oil level in lubricator reservoir.
2. Remove any article from the machine table and ensure the blade is free and clear.
3. Position the carriage height according to the material to be run through and lock into place.
4. Position the fence accordingly and lock into place.
5. Turn dust collection on.

#### **Control Panel (Figure 9)**

1. Emergency Stop - give a half turn to the right to dis-engage
2. Power Indicator Light
3. Saw Blade Start

**Note:** The conveyor will not start until the saw blade is running first. This is a safety feature to prevent feeding material into a blade that is not spinning thus damaging the machine.

4. Saw Blade Stop
5. Conveyor Start
6. Conveyor Stop



Figure 8



Figure 9

## Feed Rate

### WARNING!

**Do not move feed rate adjust lever without the conveyor running. Failure to comply will result in machine damage.**

The feed rate is determined by the thickness of material being run as well as the species. Also consideration as to the moisture content should be taken. Heavy green lumber should be run slower than dry lumber.

To set feed rate find the variable speed pulley adjusting knob at the rear of the machine and turn the knob CW or CCW to adjust.

**Note:** The conveyor feed rate is based on a variable speed pulley mechanism. Only adjust the feed rate when the conveyor is running.

## Maintenance

### Lubrication

See Figures 11 for the various lubrication points on the machine. Points are as follows:

1. **Gear Reducer** of conveyor chain. After 100 hours drain the gearbox and refill with Mobil Gear 630 or equivalent. Thereafter the oil should be changed every 2500 hours.
2. **Grease nipples** (four) of pressure roller axles. Once a month with #2 bearing grease such as Mobilux 2.
3. **Travel gear** of fence. Once a month clean the gear and re-grease with general purpose grease.
4. **Grease nipple of spindle bearing.** Grease every 250 hours with #2 bearing grease such as Mobilux 2.
5. **Flanged bearings** of conveyor chain. Remove cover to gain access and grease once every two weeks with #2 bearing grease.

### Other

The machine should be blown clear of dust and debris after each shift and the V-belt tension of the main spindle should be checked monthly.

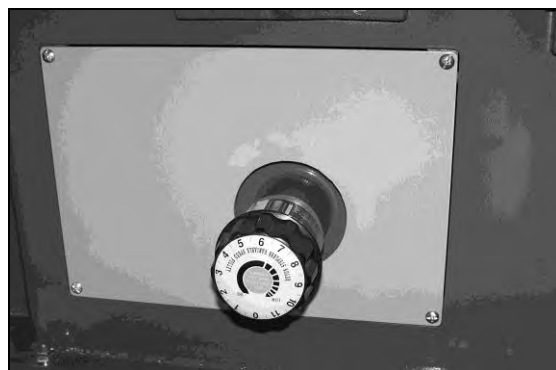


Figure 10

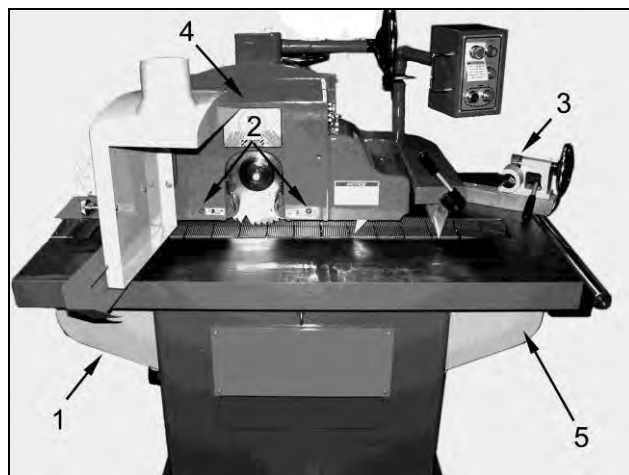


Figure 11

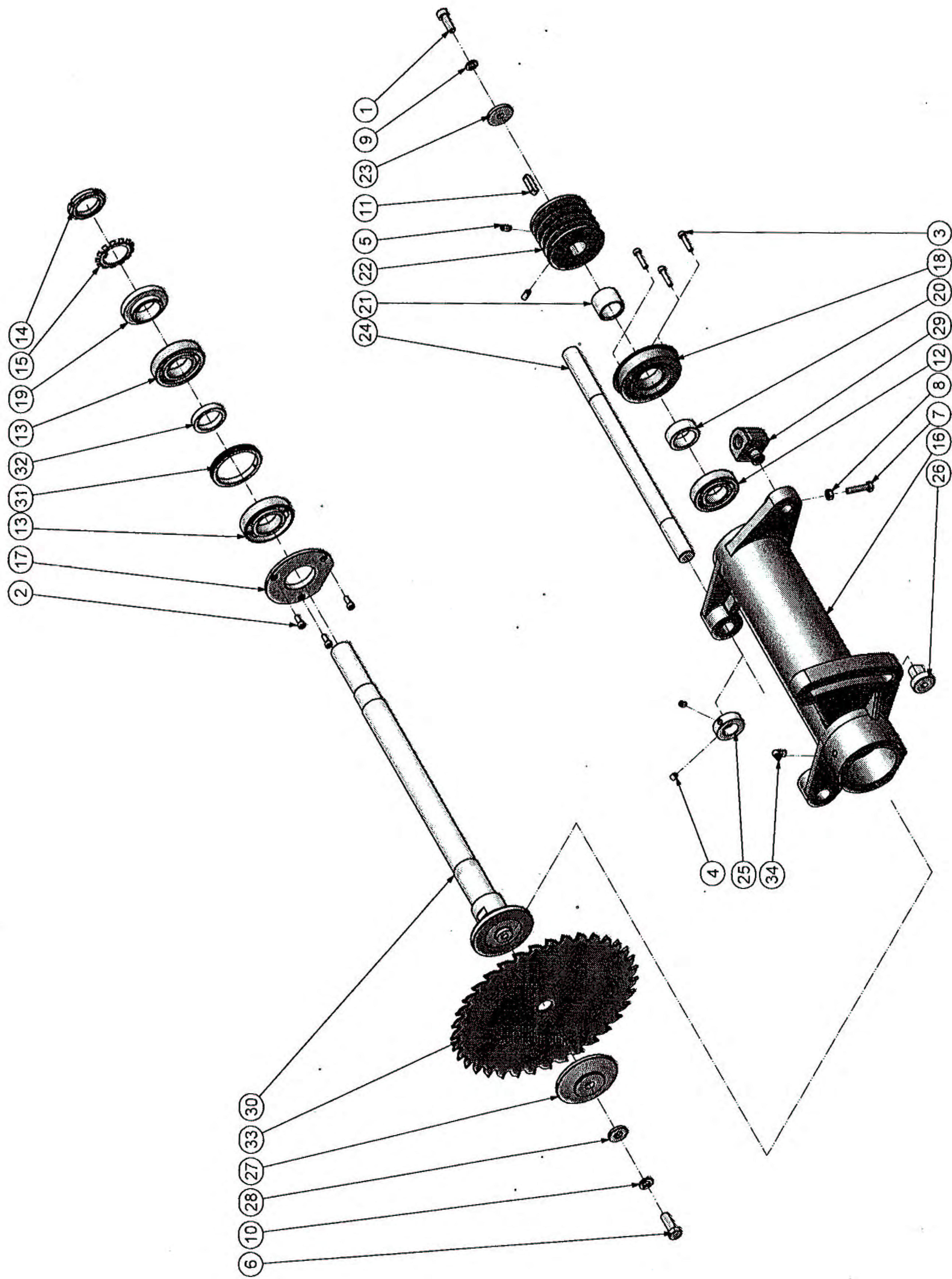
## Troubleshooting

Description of Symptoms	Possible Cause	Corrective Action
Machine will not start	<ol style="list-style-type: none"> <li>1. Fuse blown or circuit breaker tripped</li> <li>2. Cord Damaged</li> <li>3. Faulty switch</li> <li>4. Not connected to power source</li> <li>5. No power to machine</li> <li>6. Emergency stop button pressed</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuse or reset circuit breaker</li> <li>2. Have cord replaced</li> <li>3. Replace switch</li> <li>4. Check connection</li> <li>5. Check voltage</li> <li>6. Rotate emergency stop button clockwise until it pops out</li> </ol>
Blade does not come up to speed	<ol style="list-style-type: none"> <li>1. Cable too light or too long</li> <li>2. Low current</li> <li>3. Motor not wired for correct voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace with adequate size cable</li> <li>2. Contact local electric company</li> <li>3. Refer to motor nameplate for correct voltage</li> </ol>
Saw makes unsatisfactory cuts	<ol style="list-style-type: none"> <li>1. Dull blade</li> <li>2. Blade mounted backwards</li> <li>3. Gum or pitch on blade</li> <li>4. Incorrect blade for cut</li> </ol>	<ol style="list-style-type: none"> <li>1. Sharpen or replace blade</li> <li>2. Turn blade around</li> <li>3. Remove blade and clean</li> <li>4. Change blade to correct type</li> </ol>
Material binds blade when ripping	<ol style="list-style-type: none"> <li>1. Fence not aligned with blade</li> <li>2. Warped wood</li> <li>3. Excessive feed rate</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and adjust fence</li> <li>2. Select another piece of wood</li> <li>3. Reduce feed rate.</li> </ol>
Saw vibrates excessively	<ol style="list-style-type: none"> <li>1. Machine not level.</li> <li>2. Damaged saw blade</li> <li>3. Bad V-belts</li> <li>4. Bent pulley</li> <li>5. Improper motor mounting</li> <li>6. Loose hardware</li> </ol>	<ol style="list-style-type: none"> <li>1. Reposition on flat, level surface</li> <li>2. Replace saw blade</li> <li>3. Replace V-belts</li> <li>4. Replace pulley</li> <li>5. Check and adjust motor</li> <li>6. Tighten hardware</li> </ol>
Material kicked back from blade	<ol style="list-style-type: none"> <li>1. Fence out of alignment.</li> <li>2. Dull blade</li> <li>3. Carriage height set incorrectly.</li> <li>4. Anti-kick back paws dull</li> </ol>	<ol style="list-style-type: none"> <li>1. Align fence to chain.</li> <li>2. Replace blade</li> <li>3. Set carriage height and lock.</li> <li>4. Replace or sharpen anti-kick back paws</li> </ol>
Adjustments do not move freely.	Sawdust and debris in mechanisms	Clean and regrease
Cut not straight	Damaged to chain or way due to insufficient lubrication	Replace chain or way.
Conveyor will not start	Saw blade not running	Turn on saw blade



PARTS LIST				PARTS LIST			
NO.	PART NO.	DESCRIPTION	QUANTITY	NO.	PART NO.	DESCRIPTION	QUANTITY
1	401021105	Cap Screw, M10-30	1	21	RS-3013	Spcer	1
2	401021053	Cap Screw, M6-16	3	22	RS-3014	Pulley, Spindle	1
3	401021057	Cap Screw, M6-30	3	23	RS-3015	Flat Washer	1
4	401072049	Set Screw, M8-10	2	24	RS-3016	Shaft	1
5	401072052	Set Screw, M8-16	2	25	RS-3018	Set Collar	1
6	401010053	Hex Head Bolt, M12-35	1	26	RS-3019	Special Nut	1
7	401010022	Hex Head Bolt, M8-35	1	27	RS-3020	Press Plate	1
8	401101005	Hex Nut, M8	1	28	RS-3021	Special Washer	1
9	401150005	Lock Washer, 10mm	1	29	RS-3041	Special Nut	1
10	401150006	Lock Washer, 12mm	1	30	RS-3051	Main Spindle	1
11	401230022	Parallel Key, 10-8-36	1	31	RS-3058	Ring	1
12	403017137	Ball Bearing, 6207-2NK	1	32	RS-3059	Ring	1
13	403020001	Ball Bearing, 7208	2	33	413012108	Saw Blade, 12"-48T-4W	1
14	401120003	Spanner Lock Nut, AN08	1	34	410030003	Grease Nipples, 1/8"-90	1
15	401160003	Ext Tooth Washer, AW08	1				
16	RS-3003	Spindle Shaft Box	1				
17	RS-3008	Cover, Front	1				
18	RS-3009	Cover, Spindle	1				
19	RS-3011	Stopper, Front	1				
20	RS-3012	Stopper, Rear	1				





9810

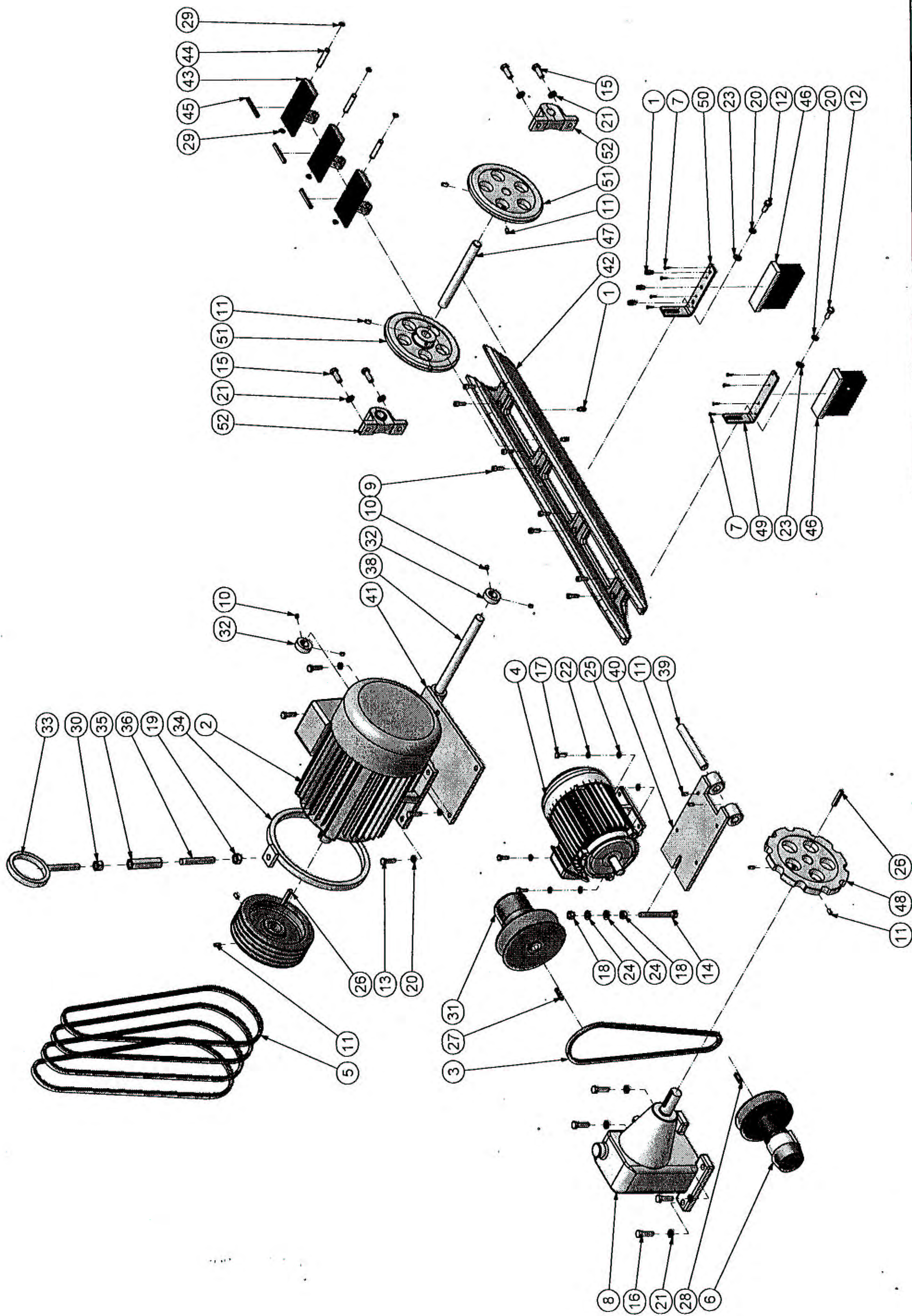
Arbor Spindle Assembly

Article No RS12Y010A



PARTS LIST				PARTS LIST			
NO.	PART NO.	DESCRIPTION	QUANTITY	NO.	PART NO.	DESCRIPTION	QUANTITY
1	410010008	Handy Couplings, 1/8"-4mm	5	36	RS-3026	Special Bolt, M16-110	1
2	132M4P	Motor, 10HP/15HP	1	37	RS-3028	Pulley	1
3	405020003	Cog Tooth Belt, 1220VB30-22	1	38	RS-3032-JET	Shaft	1
4	90L4P	Motor, 2HP	1	39	RS-3036	Shaft	1
5	405010002	V-Bell, A-55	4	40	RS-3052	Motor Seat, 2HP	1
6	405120203	Reducer Pulley, AH2-24	1	41	RS-3053	Motor Seat, 10HP	1
7	401060001	Phillips Head Sheet Metal Screw, #8-3/4"	8	42	RS-4005	Rail Body	1
8	406060125	Reducer Worm Gear, B-80-1/50	1	43	RS-4006-C	Caterpillar Block	38
9	401022079	Cap Screw, M8-25	8	44	RS-4007	Shaft	38
10	401072051	Set Screw, M8-10	4	45	RS-4030-A	Bakelite	38
11	401072052	Set Screw, M8-16	10	46	RS-5007	Brush	2
12	401010036	Hex Head Bolt, M10-25	2	47	RS-5013	Shaft	1
13	401010039	Hex Head Bolt, M10-35	4	48	RS-5022	Sprocket 10T	1
14	401011008	Hex Head Bolt, M12-110	1	49	RS-5028	Brace	1
15	401010053	Hex Head Bolt, M12-35	4	50	RS-5029	Brace	1
16	401010054	Hex Head Bolt, M12-40	4	51	RS-5030	Idle Wheel	2
17	401010020	Hex Head Bolt, M8-25	4	52	403100001	Ball Bearing Assembly, UCP205	2
18	401101007	Hex Nut, M12	2				
19	401101012	Hex Nut, M16	1				
20	401150005	Lock Washer, 10mm	6				
21	401150006	Lock Washer, 12mm	8				
22	401150004	Lock Washer, 8mm	4				
23	401140005	Washer, 10*21	2				
24	401140014	Washer, 12*24	2				
25	401140004	Washer, 8*17	4				
26	401230027	Parallel Key, 10-8-56	2				
27	401230015	Parallel Key, 7-7-40	1				
28	401230005	Parallel Key, 8-7-32	1				
29	401252007	Retaining Rings For Shaft, S12	76				
30	M 16 - LEFT	Hex Nut, M16-Left	1				
31	405120207	Reducer Pulley, PH2-22	1				
32	RS-3018	Set Collar	2				
33	RS-3022	Spec Eye-Bolt	1				
34	RS-3023	Adjusting Ring	1				
35	RS-3024	Special Nut, M16-LH/RH	1				







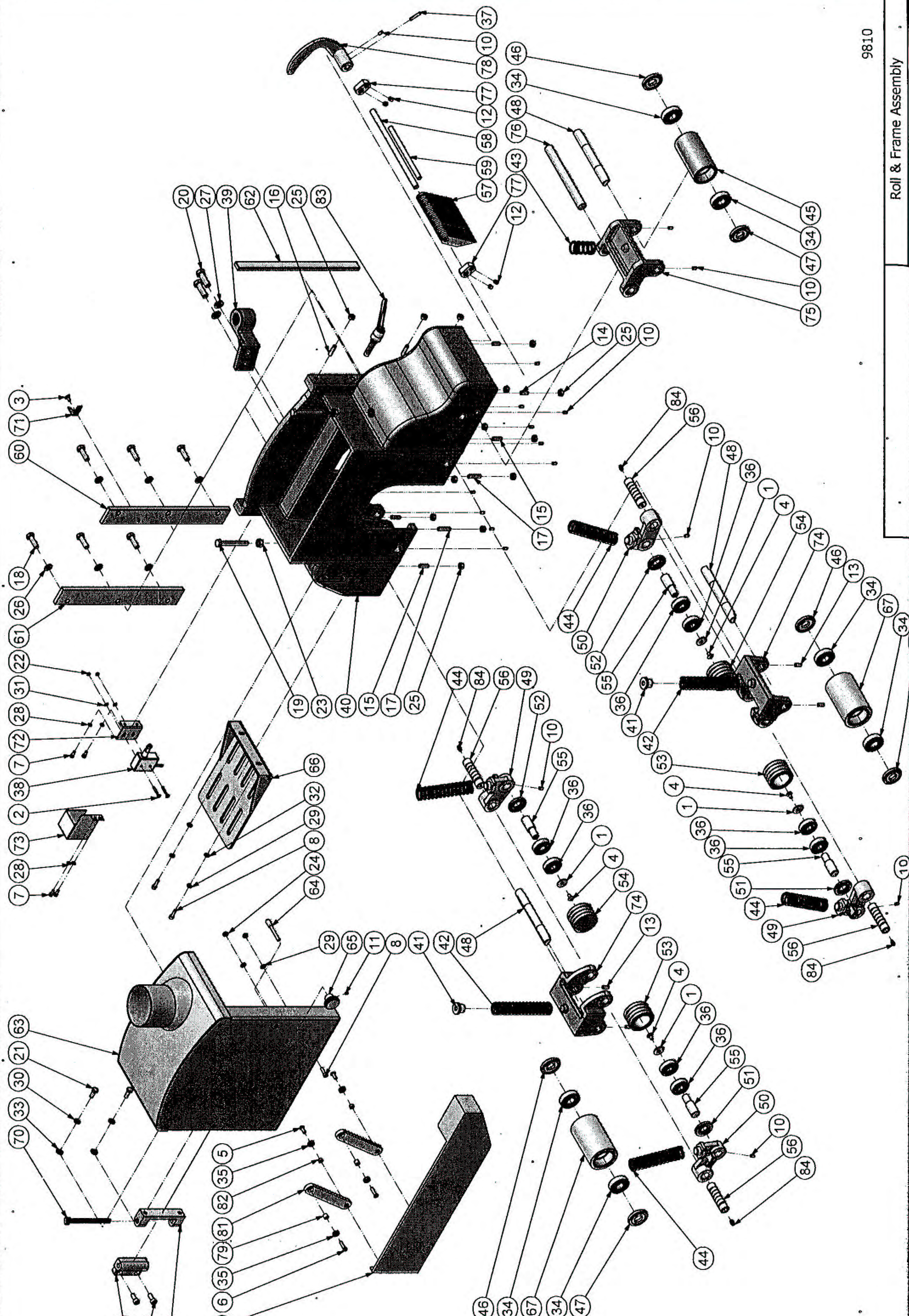
PARTS LIST				PARTS LIST			
NO.	PART NO.	DESCRIPTION	QUANTITY	NO.	PART NO.	DESCRIPTION	QUANTITY
1	6.5-25-2.0	Washer, 6.5*25	4	46	RS-2007	Bearing Cover, Right	3
2	401042002	Phillips Head Screw, M4-30	2	47	RS-2008	Bearing Cover, Left	3
3	401042004	Phillips Head Screw, M5-12	1	48	RS-2009	Shaft	3
4	401042010	Phillips Head Screw, M6-12	4	49	RS-2010	Arm, Left	2
5	401032032	Button Head Screw, M6-16	2	50	RS-2011	Arm, Right	2
6	401032034	Button Head Screw, M6-25	2	51	RS-2012	Bearing Cover, Left	2
7	401021028	Cap Screw, M5-12	4	52	RS-2013	Bearing Cover, Right	2
8	401022055	Cap Screw, M6-20	3	53	RS-2014	Roller, Left	2
9	401022078	Cap Screw, M8-20	2	54	RS-2015	Roller, Right	2
10	401071035	Set Screw, M6-10	17	55	RS-2016	Shaft	4
11	401071033	Set Screw, M6-6	1	56	RS-2017	Shaft	4
12	401071049	Set Screw, M8-10	4	57	RS-2022_1	Anti-Kickback Finger	29
13	401071052	Set Screw, M8-16	4	58	RS-2023-GR	Shaft	1
14	401072054	Set Screw, M8-20	2	59	RS-2025	Shaft	1
15	401072055	Set Screw, M8-25	4	60	RS-2029	Lock Bar	1
16	401072056	Set Screw, M8-30	3	61	RS-2030	Lock Bar	1
17	401072057	Set Screw, M8-35	4	62	RS-2031	Slide Plate	1
18	401010038	Hex Head Bolt, M10-35	6	63	RS-2034-GR	Chip Funnel	1
19	401010043	Hex Head Bolt, M10-80	2	64	RS-2039	Knob Screw, M10-20	1
20	401010054	Hex Head Bolt, M12-40	2	65	RS-2040	Knob	1
21	401010019	Hex Head Bolt, M8-20	2	66	RS-2083-1	Back Safety Guard	1
22	401101002	Hex Nut, M4	2	67	RS-2094-JET	Roller	2
23	401101006	Hex Nut, M10	2	68	RS-2095-GR	Hinge (Small)	1
24	401101004	Hex Nut, M6	3	69	RS-2096-GR	Hinge (Big)	1
25	401101005	Hex Nut, M8	13	70	RS-2097-GR	Shaft	1
26	401150005	Lock Washer, 10mm	6	71	RS-5034	Needle	1
27	401150006	Lock Washer, 12mm	2	72	RS-5036	Bracket	1
28	401150002	Lock Washer, 5mm	4	73	RS-5037	Cover	1
29	401150003	Lock Washer, 6mm	5	74	RS-6021-JET	Roller Seat	2
30	401150004	Lock Washer, 8mm	2	75	RS-6025-JET	Roller	1
31	401140001	Washer, 4*9	2	76	RS-6026-GR	Shaft	1
32	401140010	Washer, 6*13	2	77	RS-7003-JET	Block	2
33	401140004	Washer, 8*17	2	78	RS-7037-8	Bracket, 100mm	1
34	403015134	Ball Bearing, 6204-2NSE	6	79	RS-8052	Bushing	2
35	403070001	Ball Bearing, 696-ZZ	4	80	RS-8053	Side Guard	1
36	403015162	Ball Bearing, 6302-2NSE	8	81	RS-8054	Wobble Arm	2
37	401200019	Spring Pins, 6-28	1	82	RS-8055	Bushing	2
38	416040001	Limit Switch TZ7311	1	83	402040004	Adjustable Hand Lever, M12-45	1
39	RS-1007	Bracket	1	84	410030001	Grease Nipples, M6	4
40	RS-2001-GR2	Roller Seat	1				
41	RS-2002	Spring Seat	2				
42	RS-2003	Wire Spring, 155mm	2				
43	RS-2003-JO	Wire Spring, 55mm	1				
44	RS-2004	Wire Spring, 135mm	4				
45	RS-2006-GR	Roller	1				

9810

Roll & Frame Assembly

Article No \* RS12Y031A

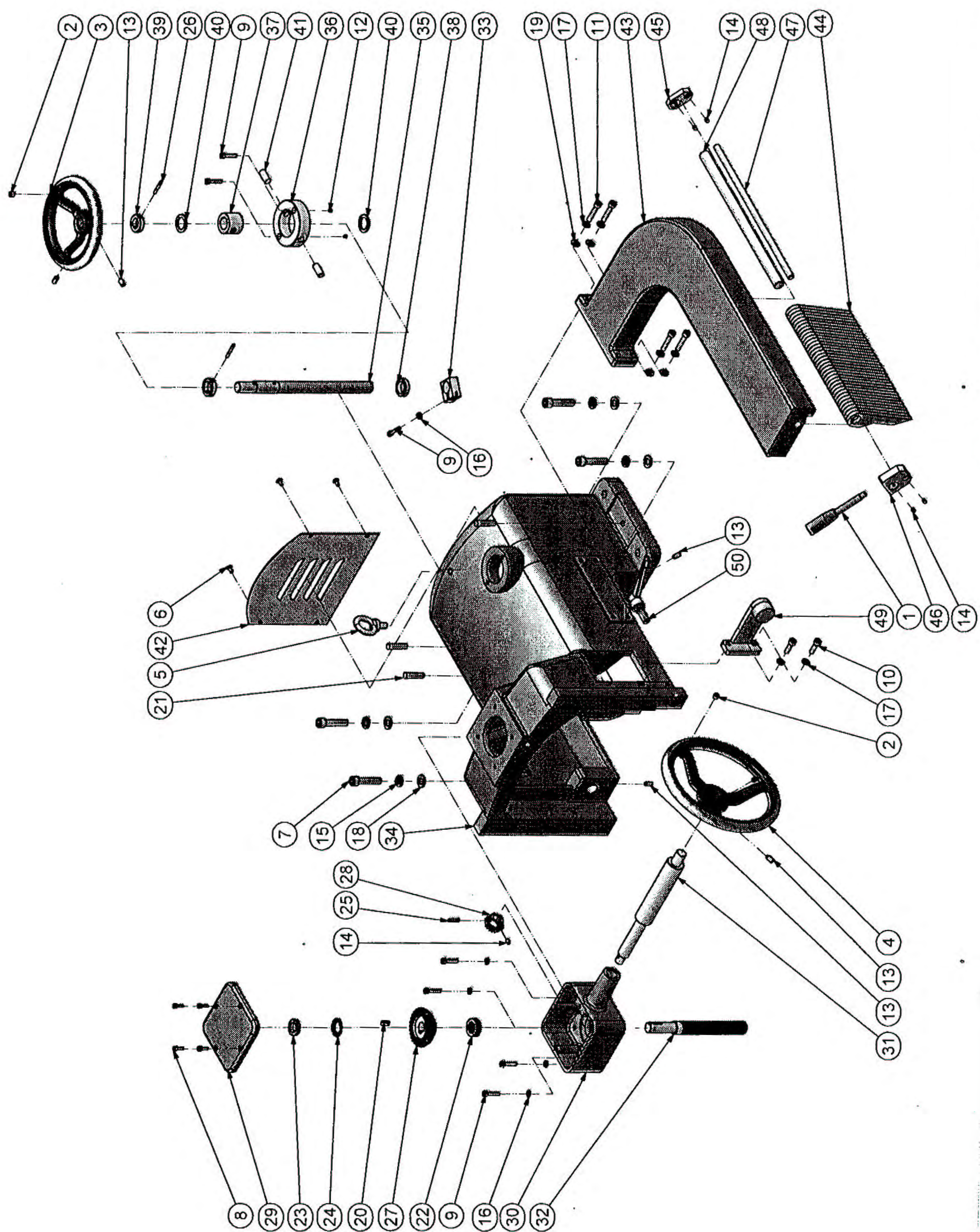




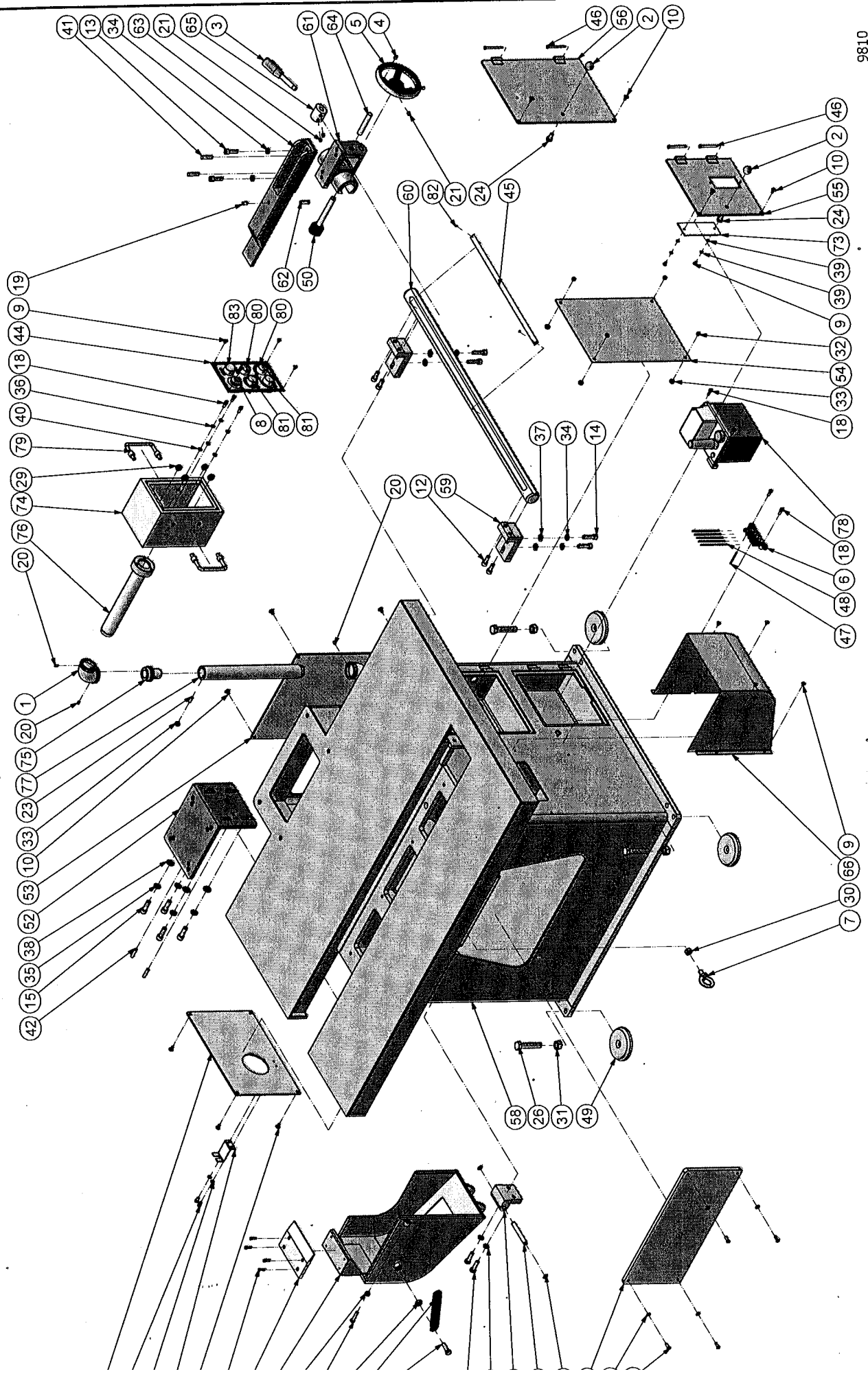


PARTS LIST				PARTS LIST			
NO.	PART NO.	DESCRIPTION	QUANTITY	NO.	PART NO.	DESCRIPTION	QUANTITY
1	402010002	Gear Lever Handles, 1162-M10-125	1	36	RS-3042	Cover	1
2	401072133	Set Screw, 3/8-16-3/8	2	37	RS-3043	Bushing	1
3	402050002	Wandwheel, D200-20	1	38	RS-3044	Special Ring	2
4	402050004	Wandwheel, D200-25	1	39	RS-3045	Special Ring	1
5	401271004	Lifting Eye Bolt, M12	1	40	RS-3046	Spacer	2
6	401042004	Phillips Head Screw, M5-12	4	41	RS-3048	Special Pin	2
7	401021132	Cap Screw, M12-55	4	42	RS-3056	Cover	1
8	401021030	Cap Screw, M5-16	4	43	RS-7011-GR3	Seat	1
9	401022057	Cap Screw, M6-30	7	44	RS-7012-4	Anti-Kickback Finger	36
10	401022079	Cap Screw, M8-25	2	45	RS-7013-JET-GR	Block	1
11	401022082	Cap Screw, M8-40	4	46	RS-7014-JET-GR	Block	1
12	401071033	Set Screw, M6-6	2	47	RS-7015-JET	Shaft	1
13	401071052	Set Screw, M8-16	6	48	RS-7016-JET	Shaft	1
14	401071035	Set Screw, M6-10	5	49	RS-7038-GR	Bracket	1
15	401150006	Lock Washer, 12mm	4	50	402040005	Adjustable Hand Levers, M12-30	1
16	401150003	Lock Washer, 6mm	5				
17	401150004	Lock Washer, 8mm	6				
18	401140022	Washer, 12*24	4				
19	401140013	Washer, 8*17	4				
20	401230004	Parallel Key, 7-7-18	1				
21	401220002	Special Taper Pin, 10-45	3				
22	403060001	Thrust Bearing, 51104	1				
23	401120001	Spanner Lock Nut, AN04	1				
24	401160001	Eat Tooth Washer, AW04	1				
25	401200002	Spring Pin, 5-25	1				
26	401200003	Spring Pin, 5-32	2				
27	RH-2020	Bevel Gear, 30T	1				
28	RH-2024	Bevel Gear, 14T	1				
29	RS-1001	Cover, Gear Box	1				
30	RS-1002	Gear Box	1				
31	RS-1005	Shaft	1				
32	RS-1006	Lead Screw	1				
33	RS-1008	Locking Stopper	1				
34	RS-3001-2	Lock Seat	1				
35	RS-3040	Lead Screw	1				









PARTS LIST				PARTS LIST			
NO.	PART NO.	DESCRIPTION	QUANTITY	NO.	PART NO.	DESCRIPTION	QUANTITY
1	410020002	Elbow, 1-1/4PT	1	46	KT02	Shaft, Hinge	4
2	402060001	Ball Knobs 1110-25-M10	2	47	410050005	Oil Tube, 4x2.5-270	1
3	402010009	Gear Lever Handles, 7108-M12-138	1	48	410050010	Oil Tube, 4x2.5-700	5
4	401072133	Set Screw, 3/8-16-3/8	1	49	RH-1015	Cast Iron Feet	4
5	402050001	Wandwheel, D150	1	50	RS-1033-GR	Gear	1
6	417020001	Contact, Lubrication DB-7	1	51	RS-2100	Tension Spring, 150	1
7	401271004	Lifting Eye Bolt, M12	1	52	RS-3047	Bracket	1
8	416010011	Emergency Stop	1	53	RS-4001-2_A	Cover	1
9	401042008	Phillips Head Screw, M5-8	10	54	RS-4001-2_C	Plank, Electrical Box	1
10	401042101	Phillips Head Screw, M6-12	12	55	RS-4001-2_D	Cover	1
11	401032033	Button Head Screw, M6-20	4	56	RS-4001-2_E	Cover	1
12	401021104	Cap Screw, M10-25	4	57	RS-4001-2_F	Cover	1
13	401021106	Cap Screw, M10-35	2	58	RS-4001-JO	Stand	1
14	401021107	Cap Screw, M10-40	4	59	RS-4016	Bracket	2
15	401021128	Cap Screw, M12-35	4	60	RS-4017	Column Gear	1
16	401022030	Cap Screw, M5-16	4	61	RS-4019-GR3	Gear Box	1
17	401022051	Cap Screw, M6-12	2	62	RS-4025	Special Screw	1
18	401021053	Cap Screw, M6-16	7	63	RS-4028-GR1	Fence	1
19	401071065	Set Screw, M10-16	1	64	RS-4031-GR	Shaft	1
20	401072035	Set Screw, M6-10	3	65	RS-4032-GR	Setting Block	1
21	401072049	Set Screw, M8-10	4	66	RS-5009	Cover	1
22	401072052	Set Screw, M8-16	2	67	RS-5017	Cover Plate	1
23	401072054	Set Screw, M8-20	1	68	RS-5018	Bracket	1
24	401010035	Hex Head Both, M10-20	2	69	RS-5019	Shaft	1
25	401010038	Hex Head Both, M10-35	3	70	RS-5032	Cover	1
26	401010070	Hex Head Both, M16-80	4	71	RS-5035	Bracket	1
27	401010022	Hex Head Both, M8-35	1	72	RS-6008	Cover	1
28	401101006	Hex Nut, M10	1	73	RS-6013	Acrylic Piece	1
29	401101013	Hex Nut, M10 x 1.25	4	74	RS-7030-JET	Switch Box	1
30	401101007	Hex Nut, M12	1	75	RS-7031-JET-GR	Rotation Seat	1
31	401101012	Hex Nut, M16	4	76	RS-7032-JET	Arm, Control Box	1
32	401101004	Hex Nut, M6	4	77	RS-7033-JO	Arm, Control Box	1
33	401101005	Hex Nut, M8	6	78	417010001	Lubricator, SMA-602-5FB	1
34	401150005	Lock Washer, 10mm	8	79	402020004	"U" Collapsible Handle, A-42-A-3/8"	2
35	401150006	Lock Washer, 12mm	4	80	416010013	Button, OFF	2
36	401150003	Lock Washer, 6mm	5	81	416010012	Button, ON	2
37	401140005	Washer, 10*21	4	82	401280002	Rivet, #3-5	2
38	401140014	Washer, 12*24	4	83	416010014	Electric Power Button	1
39	401140023	Washer, 5*10	4				
40	401140003	Washer, 6*13	7				
41	401220002	Taper Pins, 10-40	2				
42	401220001	Taper Pins, 7-35	2				
43	401252007	Retaining Rings For Shaft, S12	2				
44	K-026	Panel	1				
45	K-036	Scale, 480mm	1				

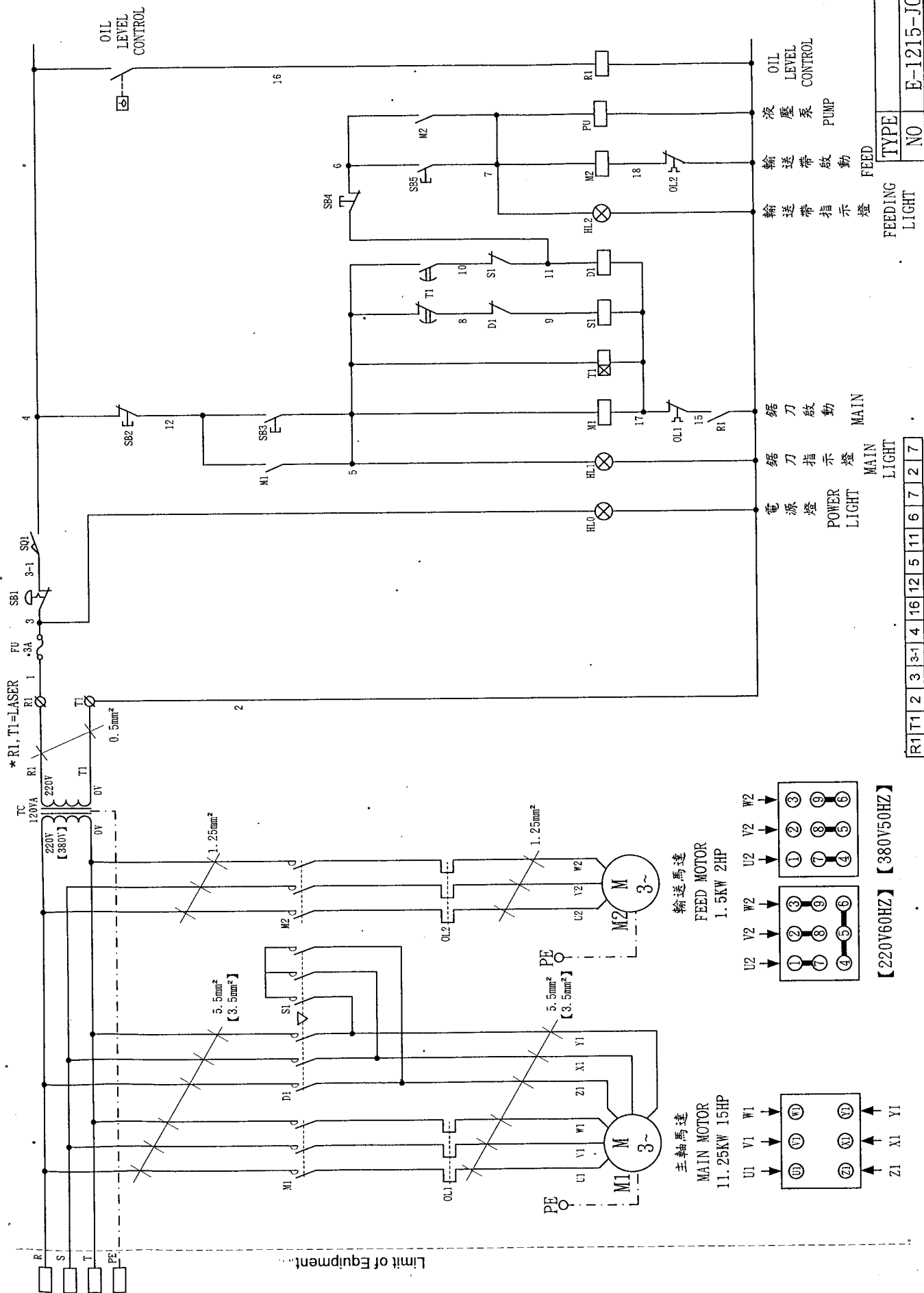
Variable Speed + safe protecting cover

9810

Table & Stand Assembly	
Article No	RS12Y041A



Power supply: 220V 60HZ 【380V 50HZ】



R1	T1	2	3	3-1	4	16	12	5	11	6	7	2	7
----	----	---	---	-----	---	----	----	---	----	---	---	---	---

FEEDING LIGHT	TYPE
	NO

E-1215-J0
-----------