

# PRECISION SCROLL SAW MODEL: 90.750 SETUP&OPERATION MANUAL



# **FEATURES**

- \*The head can be tilted 40° left and 40° right, meaning the blade tilts rather than the table, for better control of the work piece, higher precision and maximum comfort and convenience.
- \*The upper arm lifts to allow easy and rapid blade changes; areal advantage for work involving lots of interior cuts.
- \*50mm cutting thickness capacity.
- \*Quick blade changes with finger operated blade clamps.
- \*Easy access speed and tension controls.
- \*Onboard dust blower.
- \*Dust collector 63mm(2-1/2").

# **SPECIFICATIONS**

Model	90.750
Rated voltage	120V
Rated frequency	60Hz
Rated speed	400-1550
	strokes/min
Rated Input	1.3A
Max saw cutting	90°/51mm
Throat	535mm
Lpa (sound pressure)	67 dB(A)
Lwa (sound power)	80 dB(A)
Weight	29.5kg



Grobet USA, 750 Washington Avenue, Carlstadt, NJ 07072 Tel: 800-847-4188 www.grobetusa.com

# INTRODUCTION

Thank you for purchasing Pegas® scroll saw. You've made the right choice! We wish you great pleasure with these high quality tools. The scroll saw has been carefully tested and inspected before shipment and if properly used and maintained, will provide you with years of reliable service. To ensure optimum performance and trouble-free operation, and to get the most from your investment, please read this manual before installation and operation. Keep this manual handy for future reference.

## WARRANTY

Within a period of 1 year from date of purchase, with the proof of purchase, any genuine parts or parts which, upon examination, prove to be defective in workmanship or material are guarantee to repair or replace, expect the wearing parts. Along with the return of the product being claimed for warranty, a copy of the original proof of purchase, clearly stating the model and serial number of the unit and including an explanation of the complaint or presumed defect in material or workmanship.

### **SAFETY RULES**

- 1 Keep work area clear
  - Cluttered areas and benches invite injuries.
- 2 Consider work area environment
  - Do not expose tools to rain.
  - Do not use tools in damp or wet locations.
  - Keep work area well lit.
  - Do not use tools in the presence of flammable liquids or gases.
- 3 Guard against electric shock
  - Avoid body contact with earthed or grounded surfaces
- 4 Keep other persons away
  - -Do not let persons, especially children, not involved in the work touch the tool or the extension cord and keep them away from the work area.
- 5 Store idle tools
  - When not in use, tools should be stored in a dry locked-up place, out of reach of children.
- 6 Do not force the tool
  - It will do the job better and safer at the rate for which it was intended.
- 7 Use the right tool
  - Do not force small tools to do the job of a heavy duty tool.
  - Do not use tools for purposes not intended
- 8 Dress properly
  - Do not wear loose clothing or jewellery, they can be caught in moving parts.
  - Non-skid footwear is recommended when working outdoors.
  - Wear protective hair covering to contain long hair.
- 9 Use protective equipment
  - Use safety glasses.
  - Use face or dust mask.
  - Use ear protect.
  - Use safety gloves.
- 10 Connect dust extraction equipment
  - Tool is provided for the connection of dust extraction and collecting equipment, ensure these are connected and properly used.
- 11 Do not abuse the cord
  - Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

### 12 - Secure work

- Where possible use clamps or a vice to hold the work. It is safer than using your hand.

## 13 -Do not overreach

- Keep proper footing and balance at all times.

## 14 -Maintain tools with care

- Keep cutting tools sharp and clean for better and safer performance.
- Follow instruction for lubricating and changing accessories.
- Inspect tool cords periodically and if damaged have them repaired by an authorized service facility.
- Inspect extension cords periodically and replace if damaged.
- Keep handles dry, clean and free from oil and grease.

### 15 -Disconnect tools

- When not in use, before servicing and when changing accessories such as blade, disconnect tools from the power supply.

# 16 - Remove adjusting keys and wrenches

- Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

# 17 - Avoid unintentional starting

- Ensure switch is in "off" position when plugging in.

## 18 - Use outdoor extension leads

- When the tool is used outdoors, use only extension cords intended for outdoor use and so marked.

### 19 - Stay alert

- Watch what you are doing, use common sense and do not operate the tool when you are tired.

# 20 - Check damaged parts

- Before further use of tool, it should be carefully checked to determine that it will operate properly and perform its intended function.
- Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.
- A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual.
- Have defective switches replaced by an authorized service centre.
- Do not use the tool if the switch does not turn it on and off.

# 21 - Warning

- The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury.

# 22 - Have your tool repaired by a qualified person

 This electric tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.



WARNING The symbols below advise that you follow the correct safety procedures when using

this machine.



Keep away your fingers from the saw blade



Environmental Protection
Waste electrical products should not be disposed of with household waste.
Please recycle where facilities exist. Check with your local Authority or retailer for recycling



Dust mask should be worn



Disconnect from power supply before servicing



Eye protection should be worn



Fully read manual and safety instructions before use



Ear protection should be worn



Safety gloves should be worn

# **UNPACKING AND HANDLING**

Carefully unpack and remove the unit and its components from its shipping container and check for missing or damaged items as the list of contents below.

Lift the saw by the front of the table and by the motor.

# CORRECT



# INCORRECT



NOTE: Please report any damaged or missing items to your distributor immediately.

# **CONTENT LISTS**

- Scroll saw x 1
- Hex nut x 8
- Leveling foot x 4
- 3mm Allen key x1
- Pegas® blade set x 1
- Service kit x 1
- 5 AMP fuse x 1
- Manual x 1
- Pegas® sawblade selection chart x 1



# **OPTIONAL STAND**

90.751



# **INSTALLATION AND ASSEMBLING**

We recommend installing the scroll saw on specific stand:

# 90.751 stand for 90.750

It's possible to install the scroll saw on a solid and stable table or bench with leveling feet supplied with the machine. However we recommend adding screws on table for firm installation.



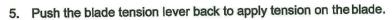


# **INSTALLING OR CHANGING BLADES**



Always turn off and unplug the machine before installing or changing blades.

- 1. Flip the tension lever forward to release the blade tension
- 2. Loose the thumbscrews A on the upper and lower blade mounts.
- 3. Remove the blade and verify parallelism refer to picture between table and arm.
- Fix new blade till the arm in upper position, bring the arm back to normal position, slide the blade to the table hole and position the blade into slot.

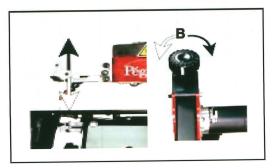


6. If necessary adjust the blade tension with the knob B.

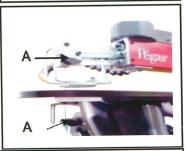
# **BLADE SELECTION**

Please refer the Pegas® blade selection chart which is enclosed to the machine.













## **OPERATING INSTRUCTIONS**

- Plug the machine, be sure the simple dust protected rocker ON/OFF style switch is on position "O".
- 2. Press the main switch green button to tension the operation.
- 3. Press the rocker switch to "I" or "O" every time you need to operate or stop the machine during your working period.
- 4. Remember to set the main switch red to OFF position when you finish the work.



The scroll saw is equipped with a variable speed control. It allows you to select or fine-tune to the exact blade speed required from 400-1400 strokes per minute for SC16CE, and from 400-1550 strokes per minute for SC21CE & SC30CE, for best result based on the type and thickness of material and type of blade being used.

The blade speed regulator **A** is on the front of the upper arm.

- To increase blade speed, turn the regulator clockwise.
- To decrease blade speed, turn the regulator counterclockwise. For best results and smoothest efficient cut, always select the highest speed that you are comfortable with based on our experience and skill level. Harder works or denser work piece material may require slower blade speeds. Slower speeds works well with thin blades, or when cutting most metals, and for brittle or delicate material such as fine veneers.

Inexperience users and kids should start to scroll at low speed.







# **WORK PIECE DOWN HOLDER**

The work piece down holder can be adjusted to assist in preventing the blade from lifting the work piece up from the table during the cut.

Make sure that the down holder is not adjusted too tightly to the work piece or that it abstracts the movement of the work piece.

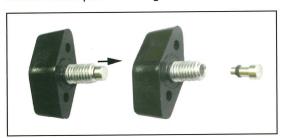


# MAINTENANCE ADJUSTMENT AND SERVICING

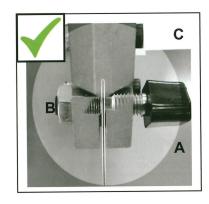
Blade clamping thumbscrews - set screws

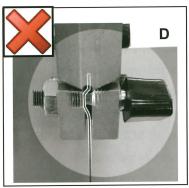
Over time with normal use and wear, the contact end of the thumbscrews will wear and can become smooth to the point where it will no longer clamp the blade properly. Therefore we recommend keeping spare set of replacement thumbscrews and setting screws on hand for use if needed.

When the blade is no longer well clamped, change C38-1 Thumb Screw Swivel prior to change the thumbscrews.



If you begin to experience frequent blade slippage it may be a sign that it is time to replace the blade clamp thumbscrew **A** and/or the set screws opposite the thumbscrews **B**.





Note: Before replacing either, always double check visually to make sure that the blade is being held between the set screw and the thumbscrew as shown in **C** and is not being bent or kinked into the opposite side of the blade clamping block because of a set screw that is adjusted too far back in the holder as shown in **D**.

WARNING: Never use a plier or anything else in order to increase the blade tightening. Any damage caused by this practice is not covered by the guaranty.

Note: Over tightening to compensate for blade slippage may damage, or in extreme cases strip, the threads in the blade clamping block.

# **DUST COLLECTOR OUTLET**

The dust collector outlet 63mm on this saw allows for hook-up to a user supplied shop vacuum or dust collector.

The dust collector outlet reduces clearance under the table, and limits the left tilt capacity of the saw to 36° (SC16CE), 40° (SC21CE&SC30CE)

If desired, the dust collector outlet can be removed to recover a maximum left tilt capacity of 45 degrees.





Always turn off and unplug the machine before removing or installing any component.

# **BLADE TENSION LEVER REPLACEMENT**

Over time, with normal wear, the blade tension lever will need to be replaced.

Use open wrench 8mm and Allen wrench 4mm to disassemble and assemble the tension lever.

## **UPPER ARM ADJUSTMENT**

Over time and with normal wear the upper arm adjustment screw A may require slight adjustment in order to hold the arm in the raised position when it's lifted by the operator. You may have to adjust the screw A from time to time.

- 1. Remove the blade and set the upper arm more or less parallel to the saw table.
- 2. Loosen the lock nut B.
- 3. Turn the adjuster screw clockwise 1/4 turn at a time, until there is just enough resistance to hold the arm in the raised position.
- 4. Re-tighten the lock nut and check again to make sure the upper arm will now stay up when lifted.



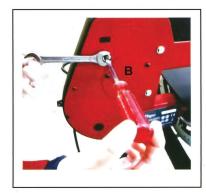




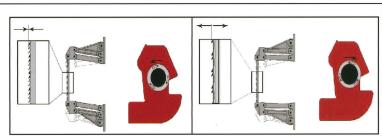
**Suggestion**: If it is necessary to modify the oscillating movement of the blade:

- 1. Stop the machine.
- 2. Unblock 3 Allen screws **C** until the engine can be turned by grasping it with both hands.

The adjustment can be made while the machine turns in the smallest speed. Block 3 Allen screws **C** after adjustment.







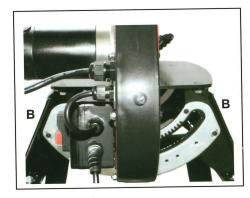
# SQUARING THE BLADE TO THE TABLE

Depending on frequency of use and how much the tilting mechanism is used, normal wear will over time cause the blade to come slightly out of alignment (90°) with the table.

Periodically check the blade for square with the table, when needed, adjust as described in the following steps to re-align the blade square to the table.

- 1. Turn off and unplug the saw.
- 2. Using the blade tilt controls at the front of the saw, set the blade angle to read 0 which 90° vertical to the table.
- 3. Set a machinist square on the table and against the blade to verify the blade angle.
- 4. If the blade angle requires adjustment, loosen the 4 bolts in the front trunnion A as well as the 4 bolts on the rear trunnion B.
- 5. By hand, move the entire head to bring the blade square to the table.
- 6. With the blade square to the table hold the head in position and re-tighten the bolts on the front and rear trunnion.

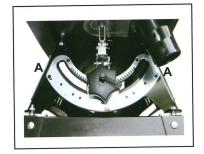




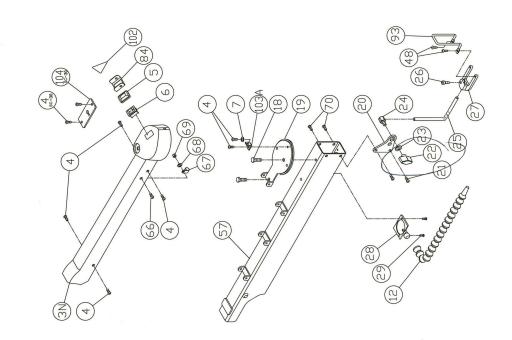
# **MAINTENANCE**

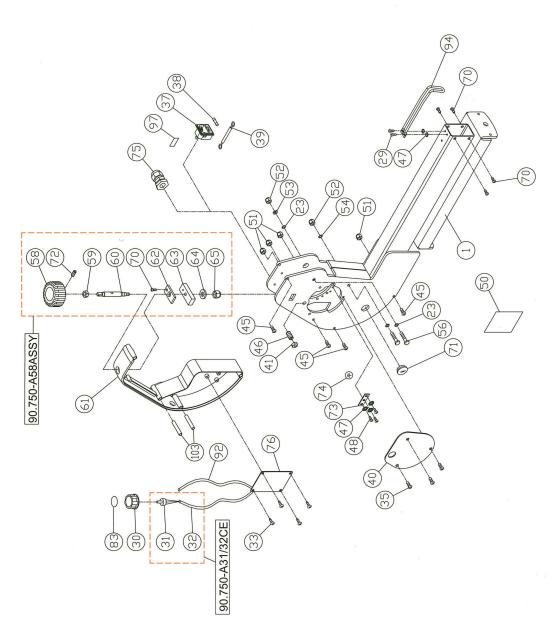
- 1. When the saw is not in use, always release tension on the blade.
- 2. Clean the saw regularly, keep cutting dust from accumulating.
- 3. An occasional application of a light dab of grease on the front and rear trunnions will keep the tilting mechanism working smoothly.





# DIAGRAM A

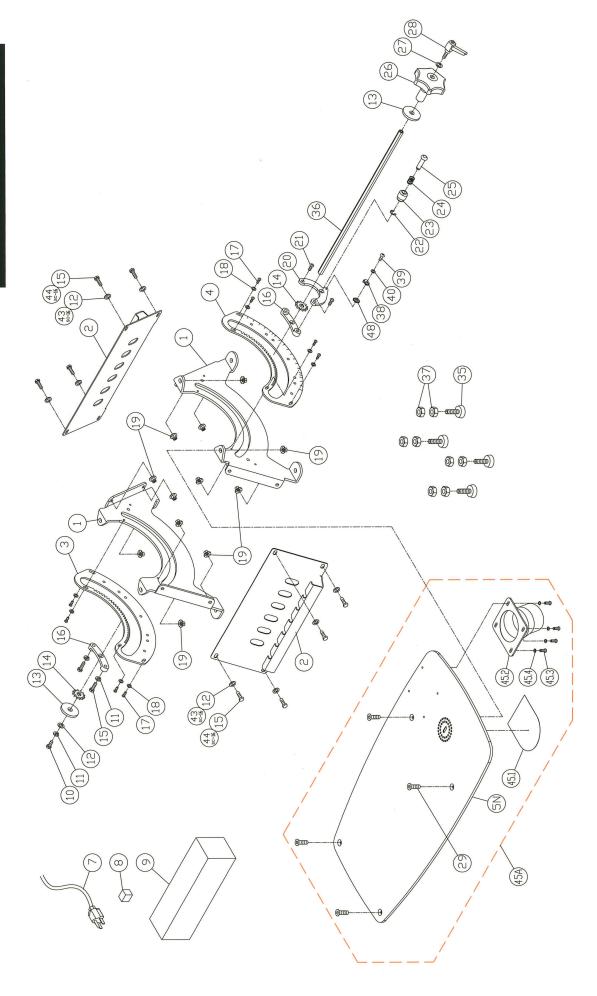




REF.		DESCRIPTION	SPECIFICATION	Q'ty
01	90.750-A01	Main Body	71-7	1
03N	90.750-A03N	Top Cover		1
04	90.750-A04	Allen Screw	#10-32x1/4"	6
05	90.750-A05	Switch Cover		1
06	90.750-A06	Switch		1
07	90.750-A07	Washer	M5 ,	1
12	90.750-A12	Air Nozzle		1
18	90.750-A18	BOLT	1/4"-20x1/2"	2
19	90.750-A19	Upper & Lower Tension Plate	b.	1
20	90.750-A20	Hold Down Mount Plate		1
21	90.750-A21	Allen Screw	#10-32x3/8"	2
22	90.750-A22	Hold Down Clamp Knob		1
23	90.750-A23	Washer	1/4"x16x1.8	4
24	90.750-A24	Hold Down Clamp Screw		1
25	90.750-A25	Hold Down Bar		1
26	90.750-A26	Cap Screw	#10-32x1/2"	1
27	90.750-A27	Hold Down Forks	4	1
28	90.750-A28	Dust Blower		1
29	90.750-A29	Tap Screw	#8-32UNF3/8"	4
30	90.750-A30	VR Knob		1
31	90.750-A31CE	VR		1
32	90.750-A32CE	Control Cable		1
31/32	90.750-A31/32CE	VR-With control cable		1
33	90.750-A33	Screw	M3.5x8	4
35	90.750-A35	Allen Screw	1/4"-20x1/2"	3
37	90.750-A37	Line Cord Socket	V (2)	1
38	90.750-A38	Fuse		1
39	90.750-A39	Ground Jumper		1
40	90.750-A40	Gear Cover		1
41	90.750-A41	Nut	3/8"xT5.5	.1
45	90.750-A45	Allen Screw	#10-32x2-1/4"	4
46	90.750-A46	Screw	3/8"x5/8	1
47	90.750-A47	Washer	#8	5
48	90.750-A48	Screw	#8-32x1/4"	5
50	90.750-50	ID Label		1
51	90.750-A51	Nylon Nut	#10-32	4
52	90.750-A52	Nylon Nut	1/4"-20UNC	2
53	90.750-A53	Lock Washer	1/4"	1
54	90.750-A54	Flat Washer	1/4"(O.D.13)	1
56	90.750-A56	Screw	1/4"*2-1/2"	2
57	90.750-A57	Upper Arm		1
58	90.750-A58	Knob		1
	90.750-A58ASSY	Upper arm rising knob assembly		

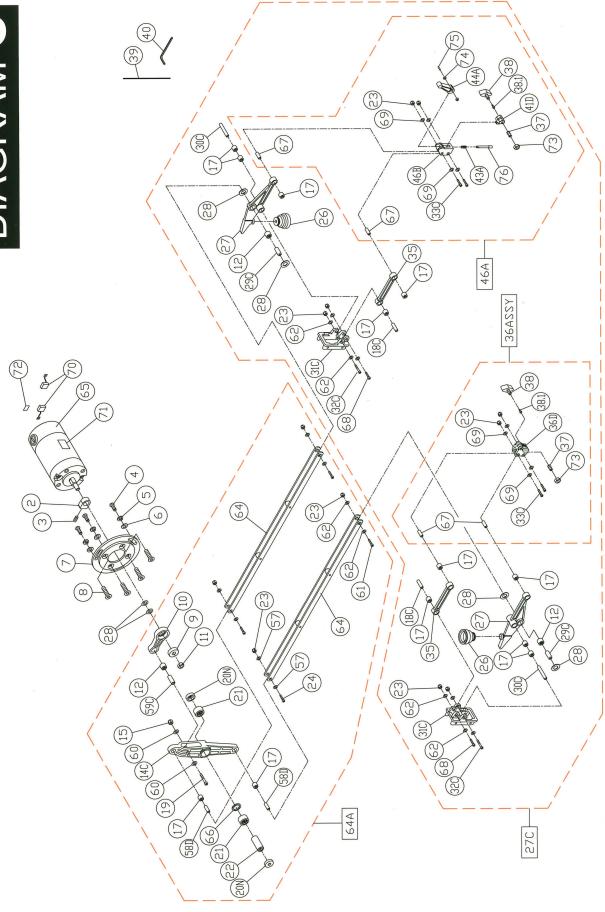
REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
59	90.750-A59	Nut	M8	1
60	90.750-A60	Adjusting lever		1
61	90.750-A61	Control Box		1
62	90.750-A62	Cross Block Retainer		1
63	90.750-A63	Housing Cross Block		1
64.	90.750-A64	Flat Washer	M6x16x2	1
65	90.750-A65	Nylon Nut	M6	1
66	90.750-A66	Allen Screw	#10-32x1/2"	1
67	90.750-A67	R Fastener	ACC2	1
68	90.750-A68	Washer	#10	1
69	90.750-A69	Nylon Nut	#10-32	1
70	90.750-A70	Allen Screw	#10-32x5/16"	7
71	90.750-A71	Button		1
72	90.750-A72	Set Screw	M4x5	1
73	90.750-A73	Ground Plate		1
74	90.750-A74	Ground Label		1
75	90.750-A75	Strain Relief	PG11	1
76	90.750-A76	Motor Control Set		1
83	90.750-A83	Label	* /-	1
84	90.750-A84	Switch Box		1
92	90.750-A92	Power Cord		1
93	90.750-A93	Protection bracket-Up		1
94	90.750-A94	Protection bracket-Down		1
97	90.750-A97	Fuseholder Label		1
102	90.750-A102	Warning Label		1
103	90.750-A103	Tube		2
103A	90.750-A103A	Bracket Protection bracket		1

# DIAGRAM **B**



REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
01	90.750-B01	Trunnion		2
02	90.750-B02	Side Panel		2
03	90.750-B03	Rear Trunnion Plate		1
04	90.750-B04	Front Trunnion Plate		1
05N	90.750-B05N	Table		1
07	90.750-B07	Power Cord		1
08	90.750-B08	Spong Block		1
09	90.750-B09	Polyfoam		1
10	90.750-B10	Screw	1/4"-20UNC*1/2"	1
11	90.750-B11	Lock Washer	1/4"	3
12	90.750-B12	Washer	1/4"	9
13	90.750-B13	Blade Tilt Washer		2
14	90.750-B14	Blade Tilt Drive Gear		2
15	90.750-B15	Screw	1/4"-20UNC*3/4"	10
16	90.750-B16	Angle Follower		2
17	90.750-B17	Screw	#10-32x5/16"	8
18	90.750-B18	Washer	#10x12x1	8
19	90.750-B19	Nut	1/4"-20UNC	12
20	90.750-B20	Angle Indicator		1
21	90.750-B21	Allen Screw	1/4"-20x1"	2
22	90.750-B22	E Ring	ETW-3	1
23	90.750-B23	Tilt Detent Barrel		1
24	90.750-B24	Spring		1
25	90.750-B25	Detent Plunger		1
26	90.750-B26	Tilt Handle		1
27	90.750-B27	Washer	1/4"x16X3	1
28	90.750-B28	Blade Tilt Locking Lever		1
29	90.750-B29	Flat Head Screw	1/4"-20x3/4"	4
35	90.750-B35	Leveling foot	3/8-16x1-1/4	4
36	90.750-B36	Tilt Lock Draw Rod	,	1
37	90.750-B37	Nut	3/8"-16UNC	8
38	90.750-B38	Pointer		1
39	90.750-B39	Round Head Screw	M4x6mm	1
40	90.750-B40	Washer	M4	- 1
43	SC16-B43	Washer	1/4"	8
44	SC16-B44	Allen Screw	1/4"-20UNC*3/4"	8
45A	90.750-B45A	Dust collector table kit		
45.1	90.750-B45.1	Plastic shroud		1
45.2	90.750-B45.2	Dust chute		1
45.3	90.750-B45.3	Round Head Screw	#8-32UNC-3/8"	4
45.4	90.750-B45.4	Washer	#8-32UNC	4
48	90.750-B48	External Tooth Washer	M4	1

# DIAGRAM C



Parts List -90.750					
REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty	
02	90.750-C02	Balance Block		- 1	
03	90.750-C03	Set Screw	M6*6	1	
04	90.750-C04	Allen Screw	1/4"-20x1/2"	3	
05	90.750-C05	Lock Washer	1/4"	3	
06	90.750-C06	Flat Washer	1/4"x16x1.8	3	
07	90.750-C07	Motor Cover Plate		1	
08	90.750-C08	Screw	M6x16	4	
09	90.750-C09	Bearing	608ZZ	1	
10	90.750-C10	Motor Cam		1	
11	90.750-C11	Nut	M8XP1.25 LH	1	
12	90.750-C12	Bearing	HK0810	3	
14C	90.750-C14C	Rocker Cam		1	
15	90.750-C15	Lock Nut	M5	1	
17	90.750-C17	Bearing	HK0609	12	
18C	90.750-C18C	Inner Bearing Sleeve (KC30-C18C)	ψ6.03x21	2	
19	90.750-C19	Cap Screw	M5*28	1	
20N	90.750-C20N	Bearing Cover		2	
21	90.750-C21	Bearing	HK1412	2	
22	90.750-C22	Main Rocker Pivot	ψ14.04x35.5	1	
23	90.750-C23	Nut	M4	12	
24	90.750-C24	Cap Screw	M4*25	2	
26	90.750-C26	Air Pump Bellows		2	
27	90.750-C27	Front Rocker		2	
27C	90.750-C27C	Upper and Lower rocker assembly			
28	90.750-C28	Washer	M8*15*0.6	6	
29C	90.750-C29C	Inner Bearing Sleeve-Front Rocker	ψ8.03x18.40mm	2	
30C	90.750-C30C	Bearing Inner Sleeve (KC30-C30C)	ψ6.03x37mm	2	
31C	90.750-C31C	Rocker Mount(KC30-C31C)		2	
32C	90.750-C32C	Cap Screw	M4*45	2	
33C	90.750-C33C	Cap Screw	M4*24	4	
35	90.750-C35	Strut		2	
36D	90.750-C36D	Blade Chuck		1	
36ASSY	90.750-C36ASSY	Blade Chuck bottom assembly			
37	90.750-C37	Set Screw	M6*14	2	
38	90.750-C38	Blade Clamp Thumb screw		2	
38.1	90.750-C38.1	Thumb Screw Swivel		2	
39	90.750-C39	Blade		1	
40	90.750-C40	Allen Key	3MM	1	
41D	90.750-C41D	Clamp Bracket		1	
43A	90.750-C43A	Spring	,, ,	1	
44A	90.750-C44A	Tension Lever	,	1	
46B	90.750-C46B	Sliding Bracket		1	
46A	90.750-C46A	Upper blade tension assembly			
57	90.750-C57	Washer	M4x10x1	4	
58D	90.750-C58D	Inner Bearing Sleeve	ψ6.03 x 16.5mm	2	
59C	90.750-C59C	Bearing Inner Sleeve	ψ8.03 x 21.5mm	1	
60	90.750-C60	Washer	M5	2	
61	90.750-C61	Cap Screw	M4*27	2	
	1 00 001	Toub Solow	INT 41		

REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
62	90.750-C62	Washer	M4x14x1.2	12
64	90.750-C64	Drive link Assy		2
64A	90.750-C64A	Complete drive link Ass'y		
65	90.750-C65	Motor		1
66	90.750-C66	Espaceur		1
67	90.750-C67	Cylinder internet du roulement (KC30-C67)	ψ6.03x16mm	4
68	90.750-C68	Cap Screw	M4x30	2
69	90.750-C69	Rondelle	M4*8*1	8
70	90.750-C70	Brosse du moteur		2
71	90.750-C71	Motor Label		1
72	90.750-C72	Black Label		1
73	90.750-C73	Nut	M6	2
74	90.750-C74	Sleeve for Handle		2
75	90.750-C75	Axis For Handle		1
76	90.750-C76	Axis Of Tension		1