

Operating Instructions and Parts Manual Metal Band Saw Model 347V



CE-Conformity Declaration
CE-Konformitätserklärung
Déclaration de Conformité CE

Product / Produkt / Produit:

Metal band saw
Metallbandsäge
Scie à ruban portable

347V

Brand / Marke / Marque:

PROMAC

Manufacturer / Hersteller / Fabricant:

JPW (Tool) AG, Tämperlistrasse 5, CH-8117 Fällanden
Schweiz / Suisse / Switzerland

We hereby declare that this product complies with the regulations
Wir erklären hiermit, dass dieses Produkt der folgenden Richtlinie entspricht
Par la présente, nous déclarons que ce produit correspond aux directives suivantes

2006/42/EC

Machinery Directive
Maschinenrichtlinie
Directive Machines

2014/30/EU

electromagnetic compatibility
elektromagnetische Verträglichkeit
compatibilité électromagnétique

designed in consideration of the standards
und entsprechend folgender zusätzlicher Normen entwickelt wurde
et été développé dans le respect des normes complémentaires suivantes

EN ISO 12100:2010

EN 13898:2003+A1:2009

EN 60204-1:2006+A1:2009

EN 61000-6-2:2005

EN 61000-6-4:2007+A1:2011

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Schweiz / Suisse / Switzerland

Table of Contents

Table of Contents.....	3
Warning.....	4~5
Specifications.....	6
Shipping Contents.....	7
Contents of the Carton.....	7
Assembly.....	7
Assembly.....	7
Controls and Indicators.....	8~9
Material to be cut.....	8
Use a correct plug.....	8
Grounding instructions.....	8
Running in the blade.....	8
Correct positioning of the piece in the clamp.....	8
Choosing the Blade.....	9
Operation.....	10
Manual Cutting.....	10
Setting and Adjustments.....	11
Distance Set Bracket Adjustment.....	11
Blade Guide Adjustment.....	11
Cutting Angle Adjustment.....	11
Maintenance.....	12
Changing Blade.....	12
Transportation.....	13
Troubleshooting.....	14~15
Saw Assembly Drawing (1~2).....	16~17
Saw Assembly Parts.....	18~20
Wiring Diagram and Parts.....	21
Warranty.....	22

Warnings

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. This band saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a band saw, do not use until proper training and knowledge have been obtained.
5. Do not use this band saw for other than its intended use. If used for other purposes, PROMAC, disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this band saw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this band saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain 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, cement and other masonry products.
 - Arsenic and chromium from chemically treated lumber.

Your risk of exposure 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 face or dust masks that are specifically designed to filter out microscopic particles.
10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
12. Make certain the machine is properly grounded.
13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
16. Check damaged parts. Before further use of the machine, a guard or other part that is damaged 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.



Warnings

17. Provide for adequate space surrounding work area and non-glare, overhead lighting.
18. Keep the floor around the machine clean and free of scrap material, oil and grease.
19. Keep visitors a safe distance from the work area. **Keep children away.**
20. Make your workshop child proof with padlocks, master switches or by removing starter keys.
21. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
22. Maintain a balanced stance at all times so that you do not fall or lean against the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
23. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
24. Use recommended accessories; improper accessories may be hazardous.
25. Maintain tools with care. Keep blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
26. Make sure the work piece is securely clamped in the vise. Never use your hand to hold the work piece.
27. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
28. Do not stand on the machine. Serious injury could occur if the machine tips over.
29. Never leave the machine running unattended. Turn the power off and do not leave the machine until the blade comes to a complete stop.
30. Remove loose items and unnecessary work pieces from the area before starting the machine.

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 injury and/or possible machine damage.



WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

- - SAVE THESE INSTRUCTIONS - -

Specifications

Model.....	347V
Stock Number	347V
Cutting Capacity	
Round at 90° (mm).....	105
Round at 45° (mm).....	65
Square at 90° (mm).....	100
Square at 45° (mm).....	65
Rectangle at 90° (mm)	100 x 100
Rectangle at 45° (mm)	60 x 65
Blade Provided (mm)	13 x 0.65 x 1330
Blade Speeds (FPM)	30~80
Blade Wheel Diameter (mm).....	160
Motor	850W, 230V, 1Ph
Machine Dimension (mm)	650 x 310 x 450
Machine Package (mm)	724 x 375 x 446
Net Weight (kg)	19

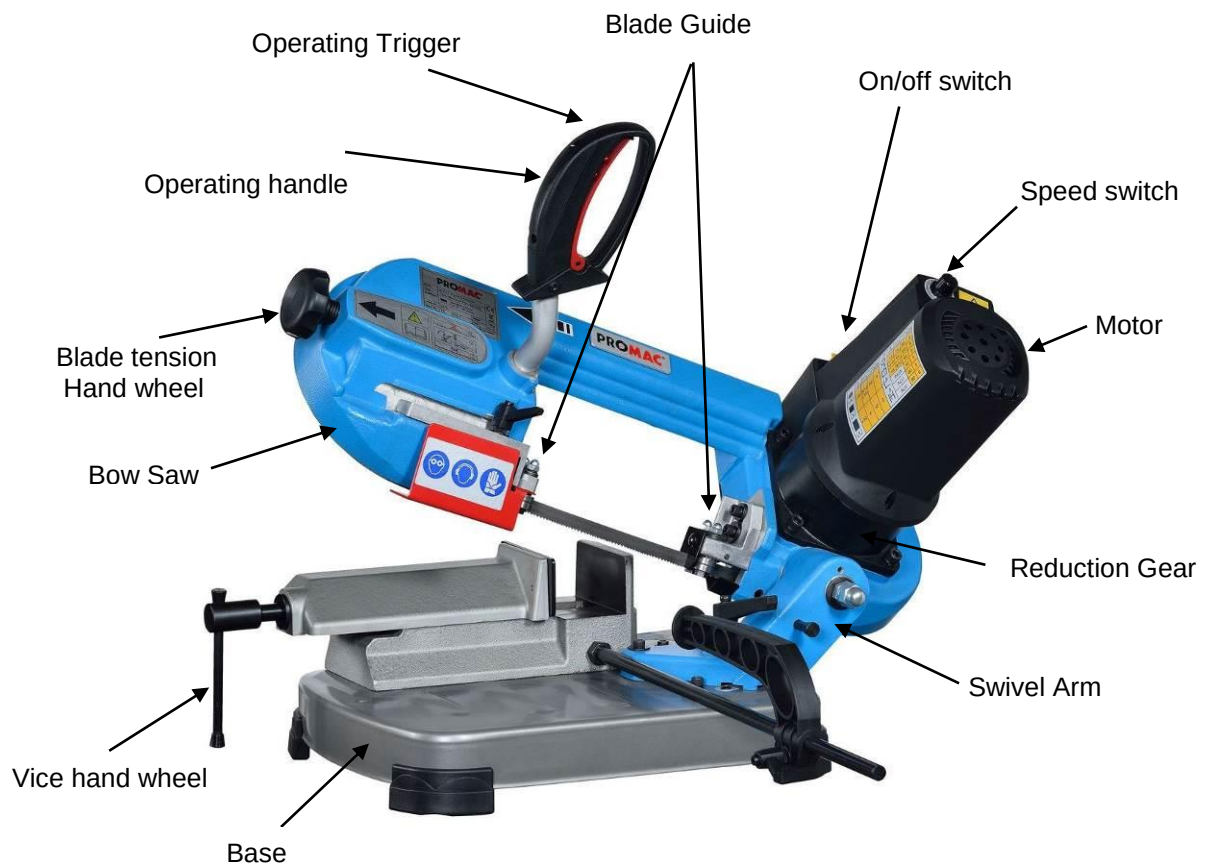


Fig 1

Shipping Contents

Contents of the Carton

- 1 Machine body (A)
- 1 Handle (B)
- 1 Set Screw (C)
- 1 Set Bracket (D)
- 1 Rod (E)
- 1 Locking Handle (F)
- 1 Operating Instructions/Parts List (not shown)

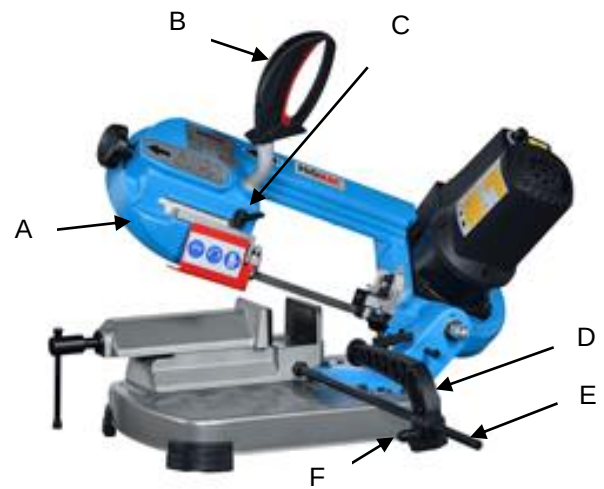


Fig 2

Assembly

Assembly

Referring to Fig 2:

- 1. Assemble the Rod (E) and Set Bracket (D) and Locking Handle (F) to machine base.

Controls and Indicators

Material to be cut

The tool is intended to cut matter material like steel. Iron, copper, etc. Never use this tool to cut wood and explosive metal materials.

Use a correct plug

As different countries may use different plug, so the user shall install the right plug approved by the local official.

Grounding instructions

In the event of a malfunction or breakdown, Grounding provides a path of least resistance for Electric current to reduce the risk of electric shock.

This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the Equipment-grounding conductor can result in a risk of electric shock. The conductor with Insulation having an outer surface that is green with or

without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the Equipment-grounding conductor to a live Terminal. Check with a qualified electrician or service Personal if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Running in the blade

To safe guard the life and quality of a new blade, the first two or three cuts must be made exerting slight pressure on the work piece so that the cutting time is almost twice the one normally needed (see cutting table).

Correct positioning of the piece in the clamp

Work pieces to be cut must always be held firmly in the clamp, directly between the two jaws and without inserting other objects. Were profiles, flat bars or particular shapes to be cut, refer to the examples shown in (Fig 3).

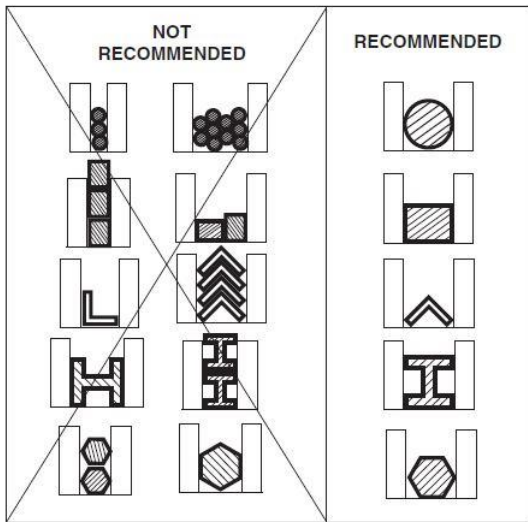


Fig 3

Choosing the Blade Fig 4

1. Never use bands which are damaged or deformed.
2. Never clean the saw band whilst it is in motion.

The choice of the right blade with its own toothing which depends on the type of material that you want to cut, and on its standard. Your band saw is fitted with a 1325mm x 13mm, 0.65mm thick metal blade.

However, blades with 6 or 14 teeth per inch are also available for special cutting requirements, indicated in the "cutting table" (Fig 4).

To cut a long work piece, use roll stand to support it.

 30 50 115 max	8/12 6 6	 30x s.1 40x s.2 50x s.5 max	14 14 8/12
 30 40 115 max	8/12 6 6	 30x s.1 50x s.2	14 14
 25x35 40x50 115x153 max	8/12 6 6		

Fig 4

Operation

Manual Cutting

When manual cutting slacken the set screw G of (Fig 5) and push the arm H of (Fig 5) to suitable position. Then tighten the set screw G of (Fig 5).



Fig 5

To start the machine switch I of (Fig 6) to ON.



Fig 6

Press the position trigger K of (Fig 7) while conducting manual cutting.



Fig 7

⚠ WARNING

To stop the machine switch J of (Fig 6) to OFF when cutting finished.

Setting and Adjustment

Distance set bracket adjustment

If you have to cut several pieces together at the same length, use the set bracket L of (Fig 8) which is provided with the band saw in order to save times for repeating measurements.



Fig 8

Blade guide adjustment

Your cutting machine is provided with a sliding guide M of (Fig 9) with built-in protection, which guides the part of the blade necessary to make the cut, and at the same time, protects the part of the blade while not in use. To do this, simply slacken the locking handle N of (Fig 9) and slide the blade guide M of (Fig 9), so as to bring it closer or farther from the work piece that is set to be cut.

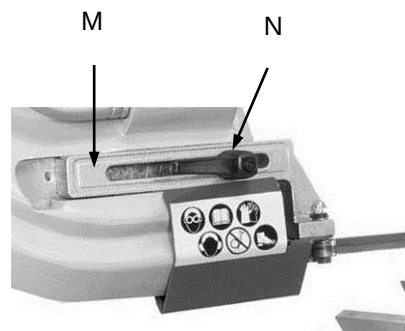


Fig 9

Cutting angle adjustment

The band saw can cut a varying angle from 0° to 60°. Slacken the locking handle O of (Fig 10) and turn the bow-saw P of (Fig 10) until the scale to the desired angle. Then tighten the locking handle after.

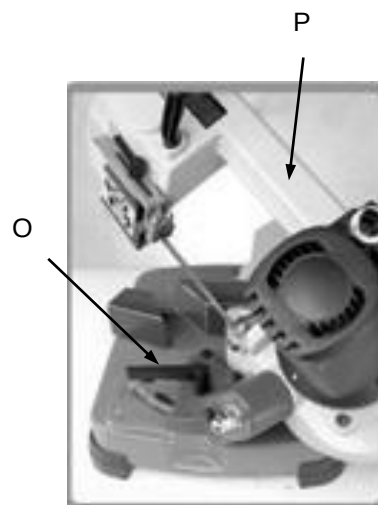


Fig 10

Maintenance

1. Be careful, before every cleaning or maintenance operation, ensure that the plug is not in the electric supply socket.
2. Keep the cutting machine free from residue by means of a vacuum cleaner

or a brush, passing it also over the blade guides. Keep the band saw in good condition, if it is not to be used for a long time, put it away in its original packing in a damp-free place. In these cases it is advisable to slacken the blade so as not to keep it under tension unnecessarily.

Blade Replacement

1. Raise saw head to vertical position and open the blade cover.
2. Loosen tension screw knob Q of (Fig 11) sufficiently to allow the saw blade to slip off the wheels. Install the new blade.
3. Place the blade in between each of the guide bearings R of (Fig 11).
4. Slip the blade around the motor pulley (bottom) with the left hand and hold in position.
5. Hold the blade taut against the motor pulley by pulling the blade upward with the right hand, which is placed, at the top of the blade.
6. Remove left hand from bottom pulley and place is at the top aide of the blade put 1-2 drops of oil on the blade. To continue the application on the upward pull on the blade.
7. Remove right hand from blade and adjust the position of the top pulley to permit left hand to slip the blade

around the pulley using the thumb. Index and little finger as guides.

8. Adjust the blade tension knob Q of (Fig 11) clockwise until it is just right enough so no blade slippage occurs. Do not tighten excessively.
9. Replace the blade guards.

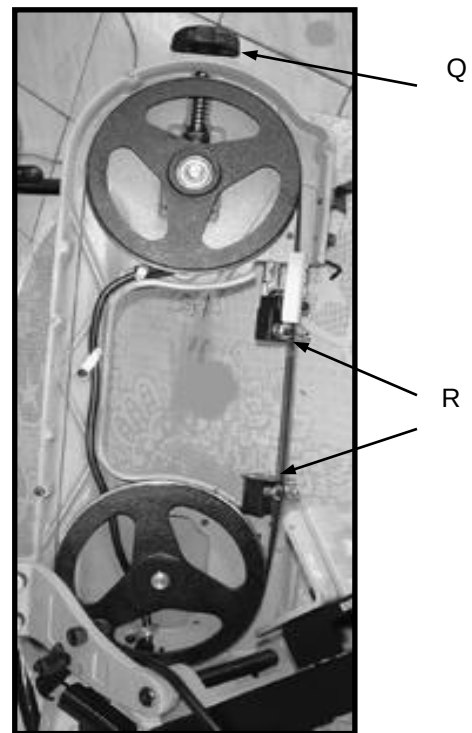


Fig 11

Transportation:

Before transporting the machine, be sure to lock the upper and lower side as shown in Fig 12. Then lift the machine as shown in Fig 13.

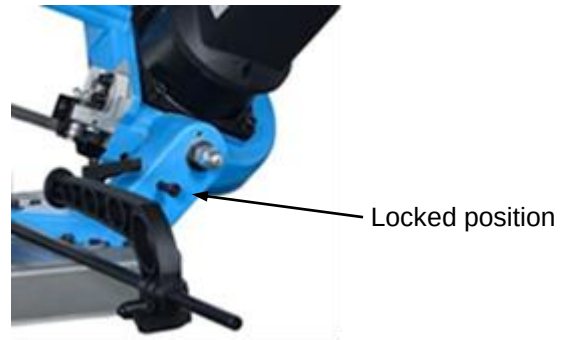


Fig 12



Fig 13

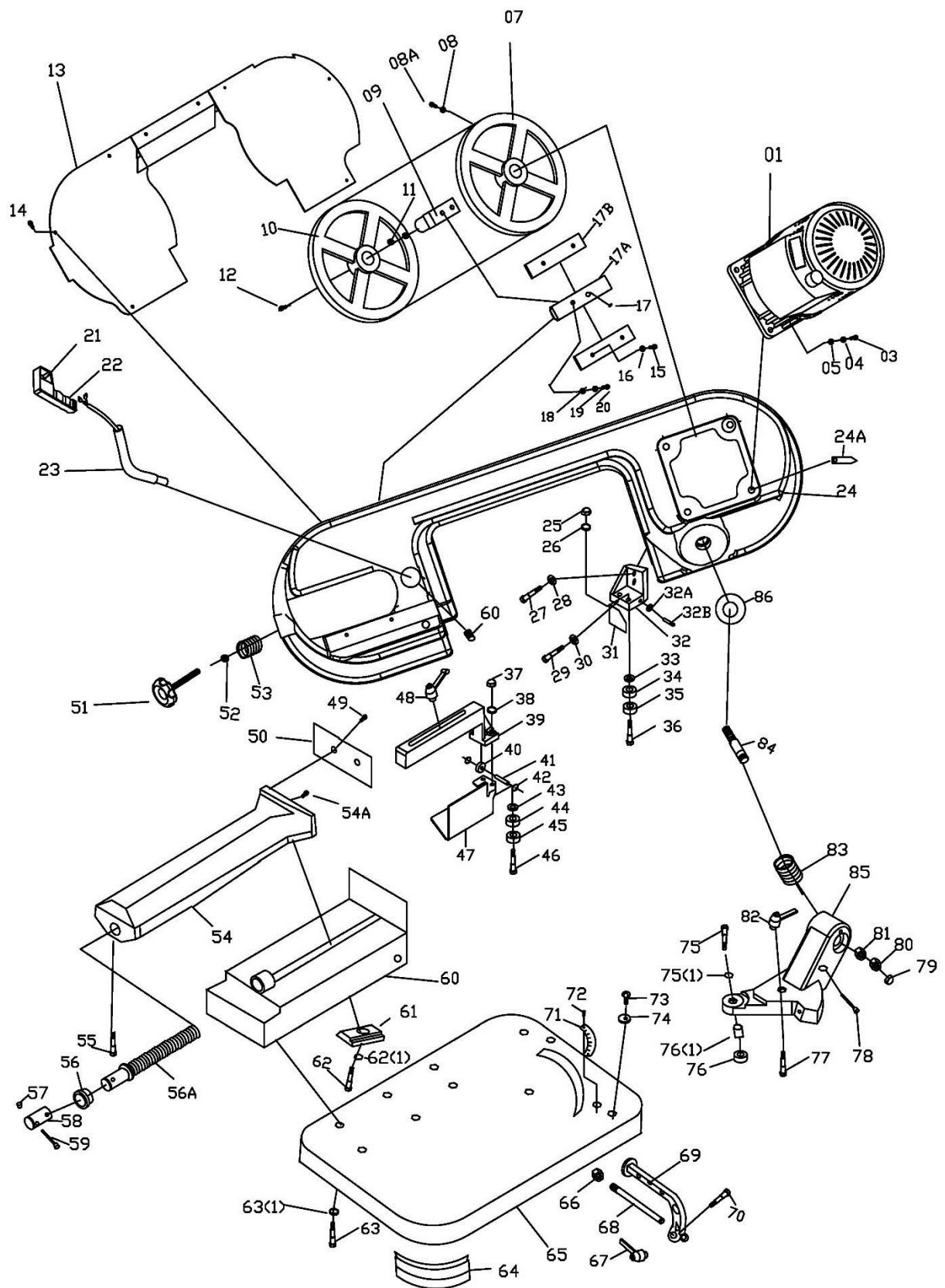
Troubleshooting

Fault	Probable Cause	Suggested Remedy
Excessive Blade Breakage	1. Material loose in vise. 2. Incorrect speed or feed. 3. Teeth too coarse for material. 4. Incorrect blade tension. 5. Saw blade is in contact with work-piece before the saw is started. 6. Misaligned guides. 7. Cracking at weld.	1. Clamp work securely. 2. Check Machinist's Handbook for speed/feed appropriate for setting the material being cut. 3. Check Machinist's Handbook for recommended blade type. 4. Adjust blade tension to the point where the blade just does not slip on the wheel. 5. Start the motor before placing the saw on the work-piece. 6. Adjust guides. 7. Longer annealing cycle.
Premature Blade Dulling	8. Blade teeth too coarse. 9. Blade speed too high. 10. Inadequate feed pressure. 11. Hard spots in work-piece or scale on/in work-piece. 12. Work hardening of material (especially stainless steel). 13. Insufficient blade tension. 14. Operating saw without pressure on work-piece.	8. Use a finer tooth blade. 9. Try a lower blade speed. 10. Decrease spring tension. 11. Increase the feed pressure (hard spots). Reduce the blade speed, increase feed pressure (Scale). 12. Increase the feed pressure by reducing spring tension. 13. Increase tension to proper level. 14. Do not run blade at idle in/on material.
Bad Cuts (crooked)	15. Work-piece not square with blade. 16. Feed pressure too fast. 17. Guide bearings not adjusted properly. 18. Inadequate blade tension. 19. Span between the two blade guides too wide. 20. Dull blade. 21. Incorrect blade speed. 22. Blade guide assembly is loose. 23. Blade guide bearing assembly loose. 24. Blade track too far away from wheel flanges. 25. Guide bearing worn.	15. Adjust vise so it is square with the blade. (Always clamp the work-piece tightly in the vise). 16. Decrease pressure. 17. Adjust guide bearing clearance to 0.001 inch (0.002 inch maximum). 18. Gradually increase blade tension. 19. Move blade guide bracket closer to work. 20. Replace blade. 21. Check blade speed. 22. Tighten blade guide assembly. 23. Tighten blade guide bearing assembly. 24. Adjust blade tracking. 25. Replace worn bearing.

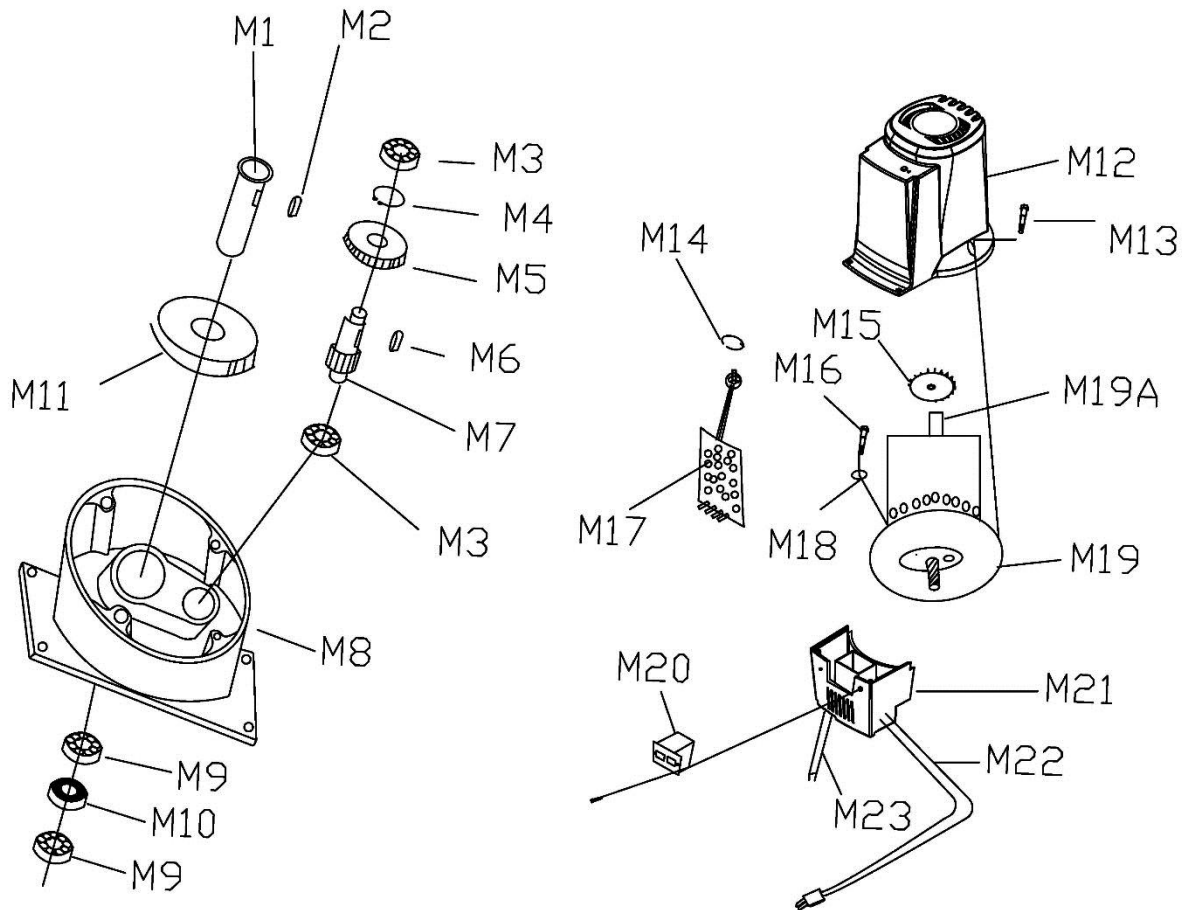
Troubleshooting

Fault	Probable Cause	Suggested Remedy
Bad Cuts (rough)	26. Blade speed is too high for feeding pressure. 27. Blade is too coarse.	26. Reduce the blade speed and feed pressure. 27. Replace with finer blade.
Blade is Twisting	28. Blade is binding in the cut. 29. Blade tension too high	28. Decrease feed pressure. 29. Decrease tension on Blade
Unusual Wear on Side/Back of Blade	30. Blade guides worn 31. Blade guide bearings not adjusted. 32. Blade guide bearing bracket is loose.	30. Replace blade guides. 31. Adjust blade guide bearings. 32. Tighten blade guide bearing bracket.

Saw Assembly Drawing (1 of 2)



Saw Assembly Drawing (2 of 2)



Saw Assembly – Parts

Index No.	Part No.	Description	Size	Q'ty
1	PM-349001	Motor		1
2	PM-347002	Cable (not show)		1
3	PM-349003	Screw		4
4	PM-349004	Spring Washer		4
5	PM-349005	Washer		4
7	PM-349007	Motor Flywheel		1
8	PM-349008	Washer	M6	1
8A	PM-349008A	Screw		1
9	PM-349009	Shaft Seat		1
10	PM-349010	Return Flywheel		1
	51024	Saw Blade (not show)	13x0.65x1330	1
11	855174	Bearing		2
12	PM-349012	Screw		1
13	PM-347013	Body Cover	black	1
14	PM-349014	Screw		4
15	PM-349015	Screw		4
16	PM-349016	Washer		4
17	PM-349017	Set Screw		1
17A	PM-349017A	Blade Tension Sliding Block		1
17B	PM-349017B	Slide		2
18	PM-349018	Washer		4
19	PM-349019	Spring Washer		4
20	PM-349020	Screw		4
21	HS201402	Head Lever Handgrip (including 21 & 22)		1
22	PM-349022N	Handle		1
23	PM-349023N	Tube		1
24	PM-347024	Body Frame	blue	1
25	PM-349025	Nut		2
26	PM-349026	Washer		2
27	PM-349027	Screw		2
28	PM-349028	Washer		2
29	PM-349029	Screw		1
30	PM-349030	Washer		1
31	PM-349031	Chip Fence		1
32	PM-349032	Fixed Blade Guard Plate		1
32A	PM-353016	Bearing	625	1
32B	PM-349032B	Pin		1
33	PM-349033	Washer		2
34	855167	Bearing		2
35	855167	Bearing		2
36	PM-349036	Bias Axis		2
37	PM-349037	Nut		2
38	PM-349038	Washer		2
39	PM-347039	Arm		1
40	PM-353016	Bearing	625	2
41	PM-349041	Pin		2
42	PM-349042	Washer		2
43	PM-349043	Washer		2
44	855167	Bearing		2
45	855167	Bearing		2
46	PM-349036	Bias Axis		2
47	PM-347047R	L Blade Guard	red	1
48	PM-349048	Bolt		1
49	PM-349049	Screw		1
50	PM-347050	Vise Plate		1
51	PM-349051	Handle Wheel		1

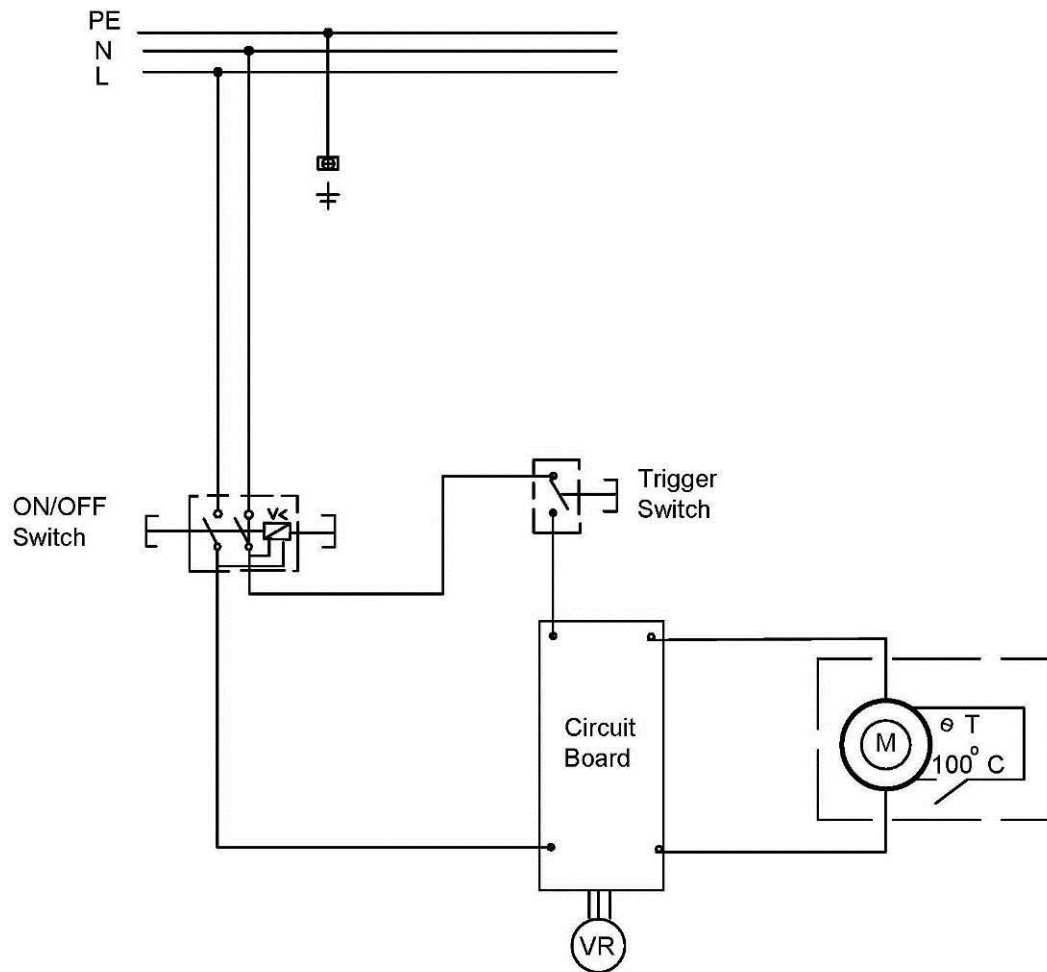
Saw Assembly – Parts

Index No.	Part No.	Description	Size	Q'ty
52	PM-349052	Washer		1
53	PM-349053	Washer		8
54	PM-349054B	Vise	black	1
54A	PM-349054A	Screw		1
55	PM-349055	Screw		1
56	PM-349056	Bushing		1
56A	PM-349056A	Acme Screw		1
57	PM-349057	Knob		2
58	PM-349058	Shaft Bushing		1
59	PM-349059	Handle Rod		1
60	PM-349060B	Fence base	black	1
61	PM-349061	Locking Seat		1
62	PM-349062	Screw		1
62(1)	PM-349062A	Washer		1
63	PM-349063	Screw		6
63(1)	PM-349063A	Washer		1
64	PM-349064	Rubber Pad		4
65	PM-349065G	Base	grey	1
66	PM-349066	Nut		1
67	PM-349067	Bolt		1
68	PM-349068	Rod Stock Stop		1
69	PM-349069	Stop Bracket		1
70	PM-349070	Screw		1
71	PM-347071	Scale		1
72	PM-349072	Screw		1
73	PM-349073	Screw		2
74	PM-349074	Washer		2
75	PM-349075	Screw		1
75(1)	PM-349075A	Washer		1
76	PM-349076	Nut		1
76(1)	PM-349076A	Bushing		1
77	PM-349077	Screw		1
78	PM-349078	Locking Pin		1
79	PM-349079	Nut		1
80	PM-349080	Nut		1
81	PM-349081	Nut		1
82	PM-349082	Bolt		1
83	PM-347083	Spring		1
84	PM-347084	Axis		1
85	PM-347085	Miter Plate	blue	1
86	PM-347086	Washer		1
M1	PM-349101K	Main shaft (including M1-M11)		1
M2	PM-347M02	Key		1
M3	PM-347M03	Bearing	607	2
M4	PM-347M04	C-Ring		1
M5	PM-347M05	Gear		1
M6	PM-349101	Key		1
M7	PM-347M07	Gear Shaft		1
M8	PM-347M08	Gear Box		1
M9	PM-347M09	Bearing	6202	2
M10	PM-347M10	Oil Seal		1
M11	PM-347M11	Gear		1
M12	PM-349112	UP Cover		1
M13	PM-349113	Screw	M4x8	1
M14	PM-349114	Nut		1
M15	PM-349115	Fan		1

Saw Assembly – Parts

Index No.	Part No.	Description	Size	Q'ty
M16	PM-349116	Screw	M5x20	1
M17	PM-349117	Electrical Board		1
M18	PM-349118	Oil Seal		1
M19	PM-349119	Motor		1
M20	PM-349120	Switch	KJD-10	1
M21	PM-349121	Down Cover		1
M22	200032	Plug		1
M23	PM-349123	Handle Wire		1

Wiring Diagram



DESCRIPTION	FUNCTION	BRAND NO.	SPECIFICATION
On/Off Switch	On/Off	KJD-20 (Kedu)	IP54 250VAC CE
Cable	Supply Cable	H05VV-F	AC300V,10A, 3G/0.75mm
M	Motor	DC Motor	850W/230V/1PH
Handle Switch	Trigger Switch	CW100D	20.5A 125 / 250 VAC CE
VR	Variable Speed		B10K



Garantie

Wir gewähren Ihnen auf den unten eingetragenen Artikeln Garantie auf die Dauer von 24 Monaten ab Laufdatum. Einzige Voraussetzung: **dieses ausgefüllte persönliche Garantie-Zertifikat muss der zur Reparatur eingesandten Maschine beigelegt sein.**

Par ce document nous nous engageons à réparer l'article mentionné ci-dessous en garantie pendant une période de 24 mois à partir de la date d'achat. **Cette garantie ne sera pas honorée si ce certificat dûment complété n'est pas renvoyé avec la machine en question pour toute réparation.**

Modell / Modèle

Namen und Anschrift des Käufers / Nom et adresse de l'acheteur

Serie-Nr. / N° de série

Kaufdatum / Date de l'achat

Händler-Stempel

Cachet du revendeur