

Your saw serial number is



Everett Portable Bandsaw, Inc.

NOTICE:

The O & M Portable Bandsaw (Oliver Machine Products) is now manufactured by:

Everett Portable Bandsaw, Inc. 4 Carry Way Suite 100 Carson City, NV 89706 Ph: (775) 246-9077

Please read the enclosed, it <u>WILL</u> save you from the most common issues we see with new users.

We thank you for your purchase.



Everett Model EPB12M (8" throat) and PLUS (12" throat) Portable Band Saw <u>New Customer Instructions</u>

- 1. Information/Instructions, Pg. 4
- 2. Warranty Information, Pg. 5
- 3. Tool Safety, Pgs. 6
- 4. Operating Instructions, Pg. 8

(Please read greasing, blade and adjustment info)

- 5. Safety Instructions, Pg. 9
- 6. Milwaukee Motor Information, Pg. 10
- 7. Motor Parts List, Pgs. 11 & 12
- 8. Return Procedure, Pg. 13
- 9. Removal and Replacement of Tire, Pg. 15
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- 11. Removing and Replacing the Upper Drive Wheel, Pg. 17
- 12. Replacing the Lower Wheel Bronze Bushing, Pg. 18
- 13. Lower Wheel Maintenance, Pgs. 19 & 20
- 14. Replacing Custom EPB Spindle on the MW Motor, Pgs. 28 & 29

Also included

- A. Brochure Saw Frame Breakdown and Parts List is in the saw brochure, Pg. 14
- B. Warranty Card
- C. Blade hang-up notice, Pg. 16



INSTRUCTIONS FOR THE EVERETT MODEL EPB12M and PLUS PORTABLE BANDSAW

EVERETT PORTABLE BANDSAW, INC., manufacturers of the MODEL EPB12M PORTABLE BANDSAW, would like to congratulate you on your purchase of one of the finest tools of its kind on the market today. This tool was designed and built in 1973 primarily for the use in cutting of Bandsaw materials, such as corbels, outlookers, rounded rafter tails, band-sawed beams, scalloped materials, etc. Actually, for all of your special cutting that in the past had to be cut in special yards. These items may now be cut with the EVERETT PORTABLE BANDSAW, at the job site, with considerable savings to you in cost, and without loss of time waiting for these special items.

> Manufactured and distributed by EVERETT PORTABLE BANDSAW, INC. 4 CARRY WAY, STE 100 CARSON CITY, NEVADA 89706 PHONE: (775) 246-9077

DISCLAIMER STATEMENT:

FAILURE TO ADHERE TO THE LUBRICATING INSTRUCTIONS AND ALL OTHER INSTRUCTIONS AS TO CARE AND HANDLING OF THE EVERETT PORTABLE BANDSAW WILL AUTOMATICALLY VOID THE WARRANTY OF THIS PRODUCT.

IF YOU HAVE ANY QUESTIONS REGARDING THE PRODUCT, YOU CAN CONTACT THE DEALER FROM WHICH IT WAS PURCHASED OR CALL EVERETT PORTABLE BANDSAW DIRECTLY.

Everett EPB12M & PLUS Portable Band Saw

WARRANTY

This tool carries a warranty of one (1) year against workmanship or defective materials on the frame and related parts.

The motor, which is a Milwaukee ½ horse, geared motor, model# 1660-1/1660-6. Milwaukee warrants the motor for thirty (30) days. Everett Portable Bandsaw, Inc. adds an additional thirty (30) days giving you a total of sixty (60) days on the motor.

These <u>warranties are null and void if the saw is not properly maintained</u>, according to our specific instructions contained in the documents herein, or if it is misused, dropped or damaged by the Dealer and/or Customer in any way. If a saw is modified by the Dealer and/or Customer, in anyway, it will automatically void the warranty.

Everett Portable Bandsaw accepts <u>NO</u> responsibility for the failure of any person or persons to follow safety practices whether described herein or implied. Each person operating this tool must practice the utmost safety as they would with ANY power tool they are handling or operating whether described herein or implied.

Everett Portable Bandsaw, Inc. Ph: (775) 246-9077 Shipping/Mailing Address: 4 Carry Way, Ste 100 Carson City, NV 89706

TOOL SAFETY

- 1. KEEP work area clean. Cluttered areas and benches invite accidents.
- AVOID dangerous environments. DO NOT use power tools in damp and/or wet locations. DO NOT expose power tools to rain. Keep your work area well lit.
- 3. KEEP CHILDREN AWAY! All visitors should be kept a safe distance away from the work area.
- 4. STORE idle tools. When not in use, tools should be stored in a high dry and locked-up place and OUT OF THE REACH OF CHILDREN.
- 5. <u>DO NOT FORCE SAW!!!</u> It will do the job better and safer at the rate for which it was designed. Causing damage to your saw <u>will</u> nullify the warranty.
- 6. WEAR proper apparel. No loose clothing or jewelry that may get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
- ALWAYS PROTECT YOUR EYES Use safety glasses. A face or dust mask, is recommended, if the cutting operation is dusty.
- **8.** DO NOT abuse the cord. NEVER carry the tool by its cord or yank on the cord to disconnect from power receptacle.
- **9. SECURE** work. Use clamps or vises to hold your work. It's safer than using your hand and it frees up both hands to operate the saw.
- 10. DO NOT over reach. Keep proper footing and balance at all times.
- 11. MAINTAIN tool with care. Keep tool sharp and clean for the best and safest performance. FOLLOW INSTRUCTIONS FOR LUBRICATING AND CHANGING ACCESSORIES. (Refer to the disclaimer).
- **12.ALWAYS DISCONNECT** tool. When not in use, before servicing, and when changing accessories such as blades.

13. REMOVE adjusting keys and wrenches. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool **<u>BEFORE TURNING IT ON!</u>**

14. AVOID accidental starting. **DO NOT** carry a plugged-in saw with your finger on the switch. **Be** sure the switch is OFF before plugging in your saw!!!

Blade Tips- Even if you think you know what you're doing this is good to read!

Observe Band Saw 'Do's and Don't'sboth these tips <u>AND</u> the information contained in your Operating Manual.

Do: Break-In New Blades!!! Start first cut at recommended speed and reduce feed pressure or feed rate by 50%. After the first 50-100 square inches are cut gradually increase feed pressure or feed rate until recommended levels are attained. <u>Don't</u>: Start new blade in an existing cut. Narrow kerf from worn previous blade may strip teeth or break the new blade. Avoid starting cuts on sharp edges or corners.

Do: Tension blade properly for straight cuts, longer life (3/16" between coils of the spring). Reduce tension when machine is not in use.

<u>Don't</u>: Over or under – tension blades. Excess tension may break blades or damage the machine. Insufficient tension may cause crooked cuts or blade damage. <u>TIGHTER IS NOT BETTER</u>!!!

Do: Vise work tightly.

<u>Don't</u>: Allow moving work pieces to break blade or destroy teeth.

Do: Make sure guides do not touch set teeth.

Don't: Allow teeth to contact guides. Set may be destroyed.

Do: Position guide arms as close to the work as possible.

<u>Don't</u>: Position guides where they may alter the path of the blade or bind blade. Blades may break or fail prematurely.

Do: Position blade on machine wheels so that blade back rests against thrust rollers. <u>**Don't</u></u>: Let blade ride up onto the side of the thrust rollers. Resulting contact of teeth with guide rollers will destroy the set (and ruin the blade).</u>**

Do: Examine chips formed in cutting. Fine, powdery chips mean insufficient feed pressure. Coarse, heavy burned chips mean excessive feed pressure.
<u>Don't</u>: Increase speeds or feeds for faster cutting without checking chip texture and color.

DO: LET THE SAW DO THE WORK DON'T EVER FORCE THE SAW THROUGH THE WOOD.

OPERATING INSTRUCTIONS

EVERETT EPB12M & PLUS Portable Bandsaw

This is a very simple piece of equipment, which has been designed to require a minimum of maintenance. <u>This saw is designed to cut wood only</u>. It has a throat opening of 8 7/8 inches and will cut up to 8 inches of material. There is a bushing in the hub of the lower wheel, which has a grease fitting. This should be greased every four (4) hours of saw operation. This is to be done to ensure the long life of the wheel bushing (note: on newer saws this bushing has been replaced with a self-greasing bearing. The bearing in the motor should be greased every six (6) months to prolong the life of the motor.

Keep the blade sharp. Keep the blade adjusted to ride slightly on blade guides. *The blade should ride between the two top bearing guides, and on top of the bottom bearing guides. If it gets behind the guides you will lose the set on the blade...saw won't track or cut properly....blade is ruined! Keep your saw clean and well adjusted for a trouble free and long operational life.

BLADES

The size of the blade for the EPB12M saw (cuts 8" beams) is 3/8" wide X .025" thick and is 64" in length. The size of the blade for the PLUS saw (cuts 12" beams) is 3/8" wide X .025" thick and is 72" in length. Everett Portable Bandsaw installs a 6-tooth blade in each saw, as this has proven to be the best for a more finished cut. We can also supply a 4-tooth blade for a rougher cut. We cannot express strongly enough that you <u>DO NOT USE</u> any other size blades as they will cause the saw to operate improperly.

ADJUSTMENT AND CHANGING THE BLADE

To change the blade, loosen the tension knob at the bottom of the saw and remove blade. Replace with new blade; tighten tension knob within 3/16" of full spring compression. <u>TIGHTER IS NOT BETTER</u>!

Turn the bottom wheel by hand to make sure the blade is tracking properly (see * above) before turning on the power switch. To ensure long blade life and better sawing satisfaction always adjust the adjustable guide within 1/4 '' of work.

To adjust the tracking of the blade, loosen wing nut behind the thumb screw, turn slightly in or out to desirable location and re-tighten wing nut.

I CAUTION !! ALWAYS DISCONNECT POWER PLUG BEFORE CHANGING BLADE!

SAFETY INSTRUCTIONS FOR THE USE OF THE EVERETT MODEL EPB 12 & PLUS PORTABLE ELECTRIC BANDSAW

GROUNDING INSTRUCTIONS

This tool should be grounded while in use to protect the operator from electric Shock. The tool is equipped with an approved three-conductor cord and three-prong grounding-type plug to fit the proper grounding-type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire.

NEVER connect the green (or green and yellow) wire to a live terminal.

EXTENSION CORDS.

Use only three-wire extension cords, which have three-prong grounding- type plugs and three-pole receptacles which accept the tool's plug. Replace or repair damaged cords.

PRECAUTION:

Before using the unit, check to make sure the voltage agrees with the nameplate rating. If an extra length extension cord is required, the recommended wire size for 115 volts are as follows:

25' Length No. 14 Gauge 50' Length No. 12 Gauge 110' Length No. 10 Gauge

Note: Not adhering to the above recommendation may result in loss of power.

DOUBLE INSULATION

The construction of this tool affords equivalent protection to a properly grounded tool without the necessity of using a grounding conductor. A three-wire cord and grounded supply system is not required. All exposed metal parts are isolated from the internal metal motor components with protection insulation. The lead wires, switch, etc., with their functional insulation have the added protection of the non-conductive switch handles to complete the double insulation system.

Please note-on the Milwaukee motor the following: <u>We rewire this motor</u>, so regular wiring configurations are not accurate (if you were to order a motor directly from Milwaukee, that is).

We do not use:

- Item 2, Spade handle: 31-44-1550
- Item 5, Nameplate blank: 12-99-3150
- Item 6, Nameplate screw: 06-85-0200
- Item 43, Chuck Washer: 45-88-0330
- Item 45, Reversing Chuck: 48-66-1381
- Item 46, Chuck Key: 48-66-3280
- Item 47, Key holder: 48-66-4040
- Item 48, Screw: 06-75-3150

We use the following but **do customize it**: Item 4, 43-62-0122

We do not use Item 33, Spindle: 38-50-5430

We use a custom manufactured spindle, and that part # is, 38-50-5430-C

Milwau	KEE SERVICE P	SERVICE PARTS LIST			
111110	TS REVISED BULLETIN DATE 54-10-0126 Feb. 2010				
	1/2 REVERSING	G COMPACT DRILL	WIRING INSTRUCTION		
EXAMPLE:	CATALOG NO. 1660-1 or 1660	6 SERIAL NO. 719D	58-01-0541		
00 0 Component Par Are Included W The Assembly (hen Ordering	29× 30 31			
5-6			33 ★= Part number change from previous service parts list.		
		53 54 56 57 29 26 26	41 41 42 45 at 48		
12 11 10 12	20 21	52	46		
14		31 32-75-2701 S 32 06-42-2000 V 33 38-50-5430 S 34 02-04-0820 B 35 32-44-1161 Ir 36 06-42-0800 V	DESCRIPTION OF PART NO.REQ. Spindle Gear (1) Spindle (1) Spindle (1) Spindle (1) Spindle (1) Spindle (1) Noodruff Key (1) Noodruff Key (1)		
FIG. PART NO. 1 06-82-8908 2 31-44-1550 3 43-62-0246 4 43-62-0122 5 12-99-3150 6 06-95-0500 7 26-50-6300 8 44-66-5510 9 06-82-5270 10 22-20-0660 11 22-18-0680 12 23-44-0210 ★ 13 31-44-1443 14 06-82-7326 15 31-17-0155 ★ 16 06-82-7270 ★ 17 23-66-0169 18 06-82-7326 15 31-44-1448 20 23-16-1275 21 06-65-1230 ★ 22 18-50-0063 23 02-04-0847 24 23-16-1276 25 16-50-1060 26 02-04-1050 27 28-28-1700 28 06-65-0625	DESCRIPTION OF PART NO.REQ. 12-24 x 3/4" Pan Hd. Sit. Tapt. T-27 (2) Spade Handle (1) Handle Grip (1) Pipe Handle (1) Nameplate Blank (1) 4-40 x 5/16" Tapt. Stick Screw (2) Motor Housing (1) Cover Plate (1) 6-32 x 1/4" Pan Hd. Slt. Tapt. T-15 (2) Brush Tube (2) Carbon Brush Assembly (2) Brush Retaining Screw (2) Right Hand Handle Half (1) 8-16 x 5/8" Slt. Pan Hd. Plast. T-20 (3) On-Off Switch (1) 1/4-20 x 3/4" Pan Hd. Slt. Tapt. T-27 (4) Left Hand Handle Half (1) Motor Insulator Right Half (1) Motor Insulator Right Half (1) Saring (1) Ball Bearing (1) Motor Insulator - Left Half (1) 120 V. Field (1) Ball Bearing (1) Diaphragm Assy. (Incl. 29, Qty. 3) (1)	38 02-04-0820 B 39 28-14-1715 G 40 06-82-7784 T 41 02-04-1567 B 42 34-80-2500 F 43 45-88-0330 G 44 06-82-7752 T 45 48-66-1381 T 46 48-66-3280 G 47 48-66-4040 K 48 06-75-3150 T 50 44-76-0150 G 51 06-95-5150 6 52 22-84-0660 F 53 02-04-0820 B 54 32-42-1221 Irr 55 06-42-0800 V 56 36-66-2201 Irr 57 02-04-0820 B ★ 58 23-66-2517 F ★ 59 45-24-1005 F ★ 60 05-78-0305 M 10-98-5986 V 10-98-5986 ¥ 00-98-5	Intermediate Shaft (1) Sall Bearing (1) Gear Case Assy. (Incl. 29, Qty. 2) (1) O-24 x 1-7/16" Tapt. T-27 (2) Sall Bearing (1) Retaining Ring (1) O-24 x 1-3/16" Tapt. T-27 (2) Jail Bearing (1) Chuck Washer (1) O-24 x 1-3/16" Taptite Sem.T-27 (2) /2" Reversing Chuck (1) Chuck Key (1) Chuck Key (1) Card Set (1) Cord Set (1) Cord Set (1) Cord Set (1) Cord Set (1) Sall Bearing (1) Sall Bearing (1) Nodruff Key (1) Mall Bearing (1) Mall Bearing (1) Wod/Rev. Shuttle Button (1) Sall Bearing (1) Wid/Rev. Shuttle Button (1) Wid/Rev. Shuttle Button (1) Sall Bearing (1) Wid/Rev. Shuttle Button (1) Sa		
29 45-30-0060 30 02-04-0820	Bearing Retaining Slug (5) Ball Bearing (1)		ISBON RD., BROOKFIELD, WI 53005		

EVERETT PORTABLE BANDSAW, INC.

SAW LIST - MOTOR PARTS- MILWAUKEE

Please see the list showing parts we do not use or modify.

			. O. B. Factory - Carson City, NV					
ITEM NO.	PART NO.	# Req'd	DESCRIPTION					
03	43-62-0246	1	Handle Grip					
04	43-62-0122-C	1	Custom EPB Pipe Handle					
07	26-50-6300	1	Motor Housing					
08	44-66-5510	1	Cover Plate					
09	08-82-5270	2	6-32x1/4" Pan Hd. Sit. Tapt. T-15					
10	22-20-0660	2	Brush Tube					
11	22-15-0680	2	Carbon Brush Assembly					
12	23-44-0210	2	Brush Retaining Screw					
13	31-44-1441	1	Right Hand Handle Half					
14	06-82-7326	3	5-16 x 1" Plastite T-20 Screw					
15	31-17-0155	1	Cord Clamp					
16	06-82-7270	2	8-16x5/8" Sit. Pan Hd. Plast. T-20					
17	23-66-1420	1	On-Off Reversing Switch					
18	06-82-5382	4	1/4-20x3/4" Pan Hd. Sit. Tapt. T-27					
19	31-44-1446	1	Left Hand Handle Half					
20	23-16-1275	1	Motor Insulator - Right Half					
21	06-65-1230	2	Grooved Pin					
22	18-50-0062	1	120 V Field					
23	02-04-0847	1	Ball Bearing					
24	23-16-1276	1	Motor Insulator - Left Half					
25	16-50-1060	1	120 V Armature					
26	02-04-1050	1	Ball Bearing					
29	45-30-0060	5	Bearing Retaining Slug					
30	02-04-0820	1	Ball Bearing					
31	32-75-2701	1	Spindle Gear					
33	38-50-5430-C	1	Custom EPB Spindle (not shown)					
34	02-04-0820	1	Ball Bearing					
35	32-44-1161	1	Intermediate Gear					
36	06-42-0800	1	Woodruff Key					
37	36-66-2252	1	Intermediate Shaft					
38	02-04-0820	1	Ball Bearing					
39	28-14-1715	1	Gear Case Assy. (incl. 29, Qty 2)					
40	06-82-7784	2	10-24 x 1-3/16" Taptite Sem. T-27					
41	02-04-1567	1	Ball Bearing					
42	34-80-2500	1	Retaining Ring					
43	45-88-0330	1	Chuck Washer					
44	06-82-7752	2	10-24 x 1-3/16" Taptite Sem. T-27					
49	22-64-0121	1	Cord Set					
50	44-76-0150	1	Cord Protector					
51	06-95-5150	1	6-32 x 1/4" Hex Hd. Tapt. Sems					
52	22-84-0660	1	Fan					
53	02-04-0820	1	Ball Bearing					
54	32-42-1221	1	Intermediate Gear					
55	06-42-0800	1	Woodruff Key					
56	36-66-2201	1	Intermediate Shaft					
57	02-04-0820	1	Ball Bearing					
OTHER MOTOR PARTS ARE AVAILABLE - CALL US OR YOUR DEALER FOR PART NUMBERS AN								

OTHER MOTOR PARTS ARE AVAILABLE - CALL US OR YOUR DEALER FOR PART NUMBERS AND PRICES

RETURNED PARTS ARE SUBJECT TO A 25% RESTOCKING FEE

MINIMUM ORDER - \$25.00

Shipping and Handling is added to each order

Shipping/Mailing Address: 4 Carry Way, Ste 100, Carson City, NV 89706 PHONE: (775) 246-9077

EVERETT PORTABLE BANDSAW, INC.

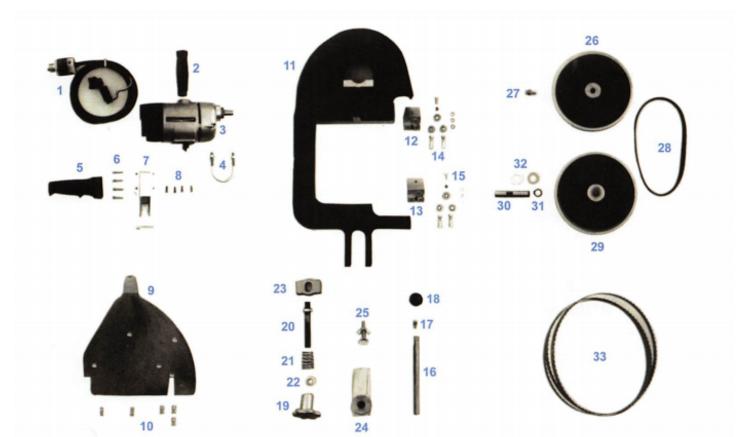
RETURNING FOR REPAIR

- 1. If you purchased an EPB saw, call the dealer for instructions.
- In the unlikely event of a 'Repair Under Warranty", you will need to provide the serial number on the saw, the date of purchase and a detailed description of why you feel that it is a warranty repair. Note: Many saw repairs require a simple 'tweak' adjustment and can be done by you while on the phone with Everett Portable Bandsaw.
- 3. If you are returning the saw for credit due to defective, you must call your dealer or Everett Portable Bandsaw first for a return authorization. You will need to have the serial number of the saw, the date the saw was purchased and detailed explanation of why and what you feel may be defective. If it is the motor, please note there is only a 90-day warranty on the motor and motor parts from the date the saw was purchased. If it is defective workmanship on the saw frame, wheels, etc., the warranty is one year from the date of purchase.
- 4. Everett Portable Bandsaw will determine if the repair is under warranty upon receipt and inspection of the saw. Warranties are null and void if the saw is not properly maintained, according to our specific instructions contained in this manual, or if the saw has been misused, dropped or damaged by the Dealer and/or Customer in any way.
- 5. If the saw is modified by the Dealer and/or Customer, in anyway, it will automatically void the warranty.
- 6. If you merely wish to return the saw to us because you do not want it or you do not feel it has performed as expected, you must call dealer. The saw <u>MUST be</u> <u>unused</u> to be considered for this. There is a restocking charge of 25% of the purchase price of the saw.

Note: This return policy has been in effect since manufacturing first began in 1970.

Everett Portable Bandsaw, Inc., Ph: 775/246-9077 4 Carry Way, Ste 100, Carson City, NV 89706

Your Serial # is



Item Part No. Numb	a courrent of the	Qty Re- quired	Item Pa No. Num		Qty Re- quired
1. 12-100	01 Switch Assembly	1	18. 12-10	18 Lock Knob	1
2. 12-100	02 Handle	1	19. 12-10	19 Tension Adj. Handle	1
3. 12-100	03 Motor Assembly	1	20. 12-10	20 Shaft & Jam Nut	1
4. 12-100	04 Motor "U" Bolt	1	21. 12-10	21 Spring	1
5. 12-100	05 Switch Handle	1	22. 12-10	22 Spring Seat	1
6. 12-100	06 Switch handle Bolts	4	23. 12-10	23 Guide Bar	1
7. 12-100	07 Switch handle Bracket	1	24. 12-10	24 Lower Wheel Bracket	1
8. 12-100	08 Bracket Bolts	4	25 12-10	25 Alignment Screw & Wing Nu	t 1
9. 12-100	09 Table	1	26. 12-10	26 Upper Drive Wheel	1
10. 12-10	10 Table Bolts w/Nuts	5	27. 12-10	27 Hub Bolt	1
11. 12-10	1 Main Frame	1	28. 12-10	28 Rubber Tires	2
12. 12-10	2 Upper Guide Bracket	1	29. 12-10	29 Lower Wheel w/Bushing	1
13. 12-10	3 Lower Guide Bracket	1	30. 12-10	30 Wheel Shaft & Bushing	1
14. 12-10	4 Guide Rollers & Shaft Ass	y 4	31. 12-10	31 Snap Ring	1
15. 12-10	5 Thrust Rollers & Shaft Ass	sy 2	32. 12-10	32 Inner & Outer Thrust Washe	r 2
16. 12-10	6 Lower Guide Shaft	1	33. 12-10	33-4 4 Tooth 3/8" x 64" Blade	
17. 12-101	8 Bolt, Guide Shaft	1	33. 12-10	33-6 6 Tooth 3/8" x 64" Blade	



Removal and Replacement of Tire

You will need: Screw Driver Acetone or equivalent 3M Black Trim Cement Adhesive*

In order to remove the old tire from the upper and lower wheels, you will need to take a screwdriver and gently loosen the tire all the way around the wheel.

Once you have the old tire off, you need to clean the wheel with acetone or some solution that will remove the old adhesive.

After the wheel is clean, put the adhesive around the center of the wheel in a wavy pattern.

Place the new tire in the center of the wheel. Once the tire is in place, you will need to roll the wheel back and forth on a hard surface to seat the tire to the wheel.

Clean any excessive adhesive off with acetone.

*Note: you can buy 3M Black (Super Weatherstrip & Gasket) Adhesive at most automotive parts stores.

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If the blade gets hung up STOP the motor AT ONCE.

DO NOT FORCE THE BLADE THROUGH THE WOOD!!!

LET THE <u>BLADE</u> DO THE CUTTING!!!

If you force the blade through the wood, the blade will go behind the guide roller (instead of over it)...set is lost on the blade and the blade becomes no good (operator error!). Saw will veer to one side and proper cutting is impossible with no set on blade (blade teeth should go right, left, right, left, etc. If you run your fingers down the blade and the teeth are straight, or don't follow this pattern; the set is lost and the blade is **RUINED**!). You may also shear off the woodruff key, ruin all gears, the spindle and the wheel!

Instructions to Remove the Upper Drive Wheel

- 1. Loosen the screws on the table to ensure that the table is loose.
- 2. Un-tighten the U-Bolt on both sides.

3. Remove the hub bolt and washers form the wheel and set aside.

4. Take a metal rod or something similar to fit down into where the spindle meets the wheel and use a hammer to tap the rod until the motor comes free. You will need to use a lot of force to get the motor free. It helps to have two people so one person can catch the motor, if it should fall, once it is loose.

Instructions to Replace Upper Drive Wheel

1. Place the lock washer on the hub bolt followed by the other (regular) washer.

2. Attach the hub bolt to the upper drive wheel and check that the when the wheel is placed on the spindle that it is square to the spindle.

3. Tighten the hub bolt until the wheel begins to rotate and test the motor to see if it is spinning correctly.

4. To ensure that the wheel is secured as tightly as possible, take a metal object that you can set on the outside of the wheel (we use a 32 M/M socket in the shop) and tap the wheel in a couple more times with a hammer.

5. Once tapped with the hammer, re-tighten the hub bolt until the wheel begins to rotate and test the motor once more to verify that the wheel is spinning correctly if so, you have successfully replaced the upper drive wheel.

Replacing Bronze Bushing on the Lower Wheel (note this bushing has been replaced with a self-greasing bushing on newer saws and is interchangeable)

1) Take wheel to an arbor press and set parallels on each side of the wheel to allow enough room for the bushing to be pressed out.

2) Press out the bushing with a piece of metal or something that equals the diameter of the bushing which is 1.003 inches.

3) Take the bushing and smooth out the side furthest away from the hole with a buffer to allow it to press in easier to the hole of the wheel.

4) Grease the inside of the wheel with Sta-Lube Super White grease or any other automotive grease.

5) Line up the hole in the bushing to the hole for the grease fitting.

6) Set a parallel underneath the wheel and press in the bronze bushing.

7) You will need to ream the bushing on the wheel with a $\frac{3}{4}$ inch reamer so the wheel will fit on the shaft.

8) Clean off the chips from the reaming process and ensure that nothing is left behind.

9) Reassemble the lower wheel. Position the wheel shaft so there will be enough space for the thrust washers, wheel, and snap ring.

10) Make sure that the wheel shaft sits flat before you tighten it. Tighten the shaft onto the wheel shaft with a $\frac{1}{2}$ inch crescent wrench but don't tighten it all the way down; make sure it is snug but leave some room to tighten it at the end.

11) Replace the lower wheel and its various parts by starting with a thrust washer, the wheel, another thrust washer, and finally the snap ring.

12) Lightly tap the wheel shaft with a hammer and rotate the wheel until the wheel turns with a little bit of tension. You should be able to spin the wheel around once after it has been tightened.

13) Once the tension has been achieved, tighten the shaft once more as tight as you possibly can. DO NOT USE LOCK-TITE OR SUPER GLUE WHEN TIGHTENING THE LOWER WHEEL. DOING SO WILL CAUSE FURTHER ISSUES IF TROUBLESHOOTING IS NEEDED IN THE FUTURE BECAUSE IT WILL BE TOO

TIGHT TO LOOSEN. Then tighten the jam nut as tight as possible.

14) Replace grease within the grease fitting located on the inside of the wheel. Acceptable grease includes Chevron Ultra-Duty EP NLGI 2 or Sta-Lube Multi-Purpose Super White Grease. Always remember that while you are working with the saw to add grease every four hours.

15) Next place the guide bar on the assembly. Before replacing the other parts, take some grease and place it on the shaft's threads to lubricate the tension adjustment knob.

16) Then complete the assembly by placing the spring seat on the guide bar, followed by the spring, and finally the tension adjustment knob.

<u>Lower Wheel Maintenance</u> (see note about bronze bushing on Replacing Bronze Bushing page)

The lower wheel plays an essential role in blade tracking as well as the overall alignment of the saw. When experiencing tracking issues, checking the lower wheel is crucial to verify that it has the proper tension needed for the saw to run properly. By checking the bronze bushing as well as the tightness of the lower wheel, you will be able to gauge if part or all of your tracking issue pertains to these items.

1) First, unplug the saw to begin troubleshooting.

2) Loosen the tension adjustment knob on the lower wheel and remove the blade from the saw.

3) Remove the lower wheel and test by spinning the wheel to verify if it is loose. If there is no tension while rotating the wheel and it spins freely, then you will need to tighten the lower wheel. Also check to see if there is any play between the wheel and the casting because that might indicate that there could be issues with the bronze bushing. (Note this bushing has been replaced with a self-greasing bushing on newer saws)

4) Remove the snap ring on the outside of the wheel and remove the wheel from the wheel shaft.

5) Check the bronze bushing to ensure that it hasn't galled to the inside of the shaft. If there are visible chaffing marks present within the bushing then it will need to be replaced and if that is the case also check to ensure that the wheel shaft doesn't have any chaffing marks either. If you must replace the bronze bushing, we highly recommend you replace the shaft. If unseen bronze is on the shaft, it will ruin the new bushing.

6) Over time, grease and grime will build up between the wheel and the casting so remove any grime that is present to allow a clean surface for the wheel to be able to rotate with ease.

7) To tighten the lower wheel, proceed by loosening the jam nut and the shaft. If you experience trouble trying to loosen it, it could be that the shaft has rusted to the wheel shaft and they might need to be replaced.

8) Position the wheel shaft so there will be enough space for the thrust washers, wheel, and snap ring.

Lower Wheel Maintenance page 1 of 2 (cont.)

Lower Wheel Maintenance page 2 of 2

9) Make sure that the wheel shaft sits flat before you tighten it. Tighten the shaft onto the wheel shaft with a $\frac{1}{2}$ inch crescent wrench but don't tighten it all the way down; make sure it is snug but leave some room to tighten it at the end.

10) Replace the lower wheel and its various parts by starting with a thrust washer, the wheel, another thrust washer, and finally the snap ring.

11) Lightly tap the wheel shaft with a hammer and rotate the wheel until the wheel turns with a little bit of tension. You should be able to spin the wheel around once after it has been tightened.

12) Once the tension has been achieved, tighten the shaft once more as tight as you possibly can. <u>DO NOT USE</u> LOCK-TITE OR SUPER GLUE WHEN TIGHTENING THE LOWER WHEEL. DOING SO WILL CAUSE FURTHER ISSUES IF TROUBLESHOOTING IS NEEDED IN THE FUTURE BECAUSE IT WILL BE TOO TIGHT TO LOOSEN. Then tighten the jam nut as tight as possible.

13) Replace grease within the grease fitting located on the inside of the wheel. Acceptable grease includes Chevron Ultra-Duty EP NLGI 2 or Sta-Lube Multi-Purpose Super White Grease. Always remember that while you are working with the saw to add grease every four hours.

14) Next place the guide bar on the assembly. Before replacing the other parts, take some grease and place it on the shaft's threads to lubricate the tension adjustment knob.

15) Then complete the assembly by placing the spring seat on the guide bar, followed by the spring, and finally the tension adjustment knob.

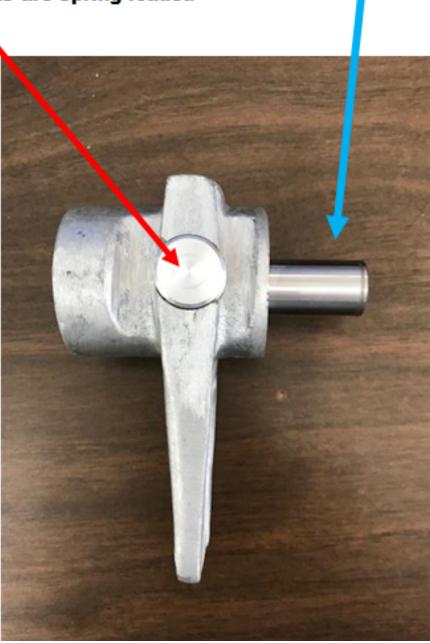
See Picture on Page 21

NOTE! Do not remove anti-seize compound (black greasy material) when mounting. It's there for a reason.

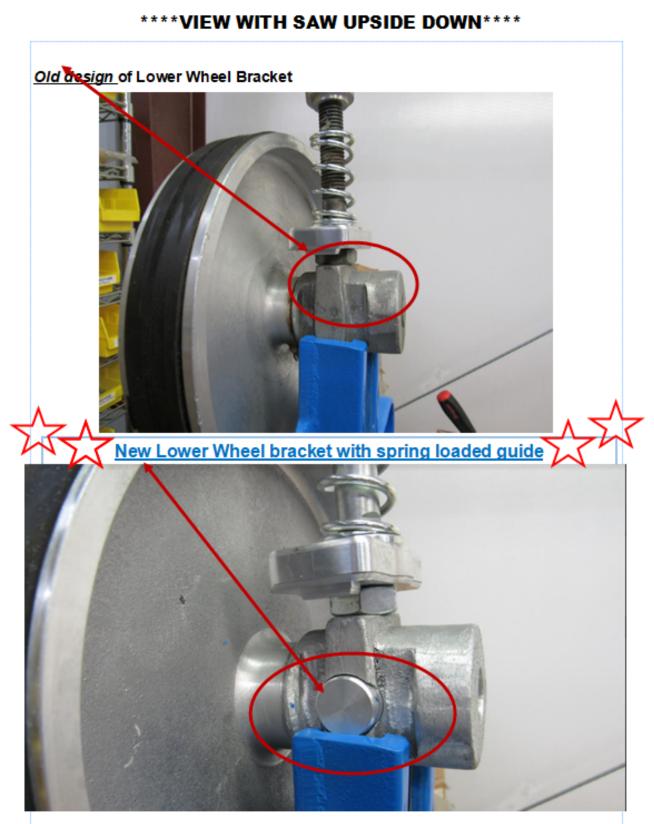


DO NOT EVER REMOVE THIS SHAFT!

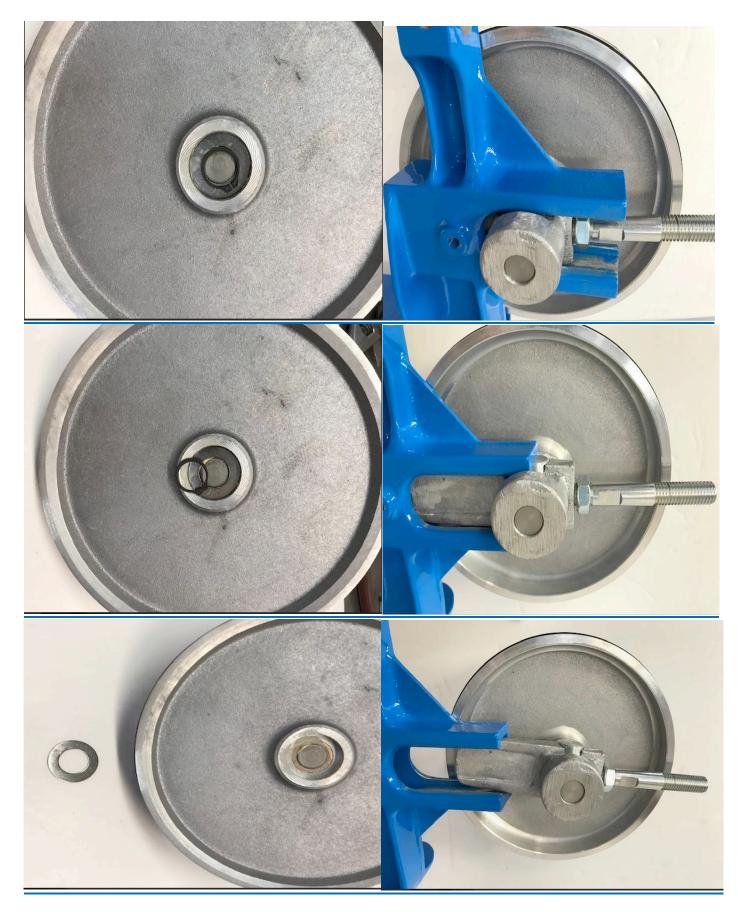
Internal parts are spring loaded

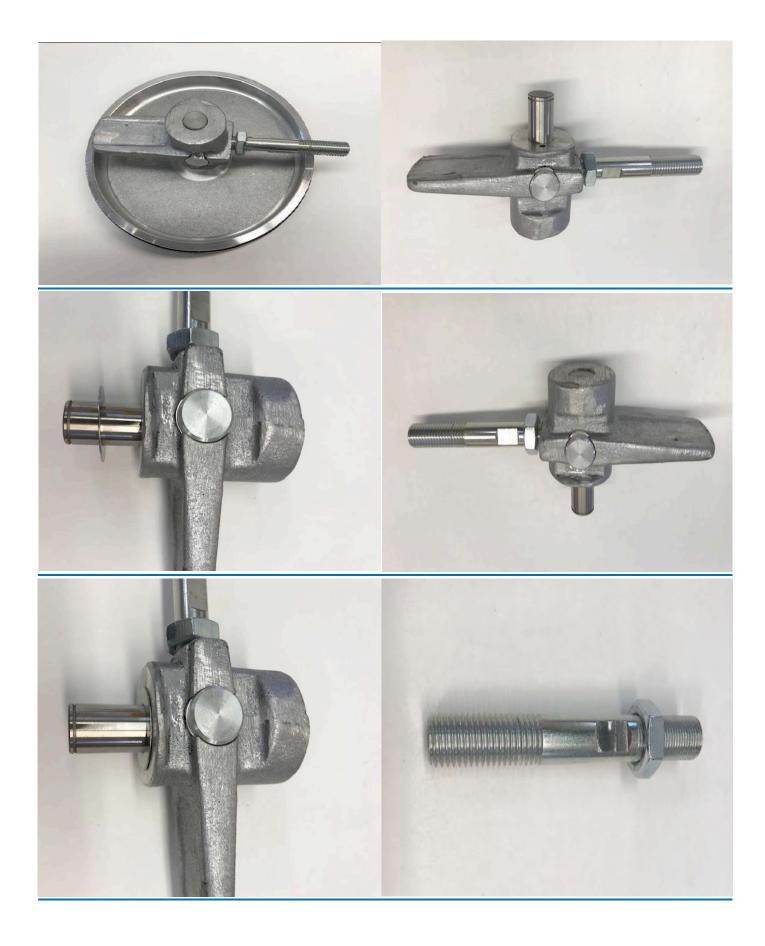


Your Serial # is



To install lower wheel guide bracket, press on both sides and slide in.











Replacing Your Custom EPB Spindle on the Milwaukee Motor

ALWAYS UNPLUG SAW BEFORE ATTEMPTING ANY SERVICE

1. Remove the screws holding the motor housing in place.

2. Once it is opened, remove the grease within the motor and set it aside to replace it later.

3. Remove intermediary gears and place them in the other half of the motor within the bearings. Place the smaller gear in first with the circles facing upward and then place the bigger gear in with the circles facing upwards.

4. Take housing to an arbor press to remove the spindle.

5. Position two parallels beneath the motor housing to prevent damage to the housing while pressing it out.

6. Press out the spindle and save the gear as well as the metal spacer that comes free between the gear and the spindle.

7. Remove the key within the spindle and set it aside if reusing it.

8. Take the new spindle and start the woodruff key by lightly tapping the key into the spindle with a small hammer.

9. Once started, remove the key with wire cutters or pliers. If burs were formed on the key while removing it, use a file to smooth out the burrs.

10. Once the key is removed, take the spindle back to the arbor press and press it back into the housing.

11. Take housing and place it within a vice or clamps and secure the motor housing upside down. Insure to allow space to work within the housing by facing the hole of the spindle towards you.

12. Insert the woodruff key with a pair of needle-nose pliers and center it within the spindle.

13. Tighten/squeeze the key to allow the metal spacer that was saved to sit on top of the key.

Replacing Your Custom EPB Spindle on the Milwaukee Motor page 1 of 2 pages (cont.)

Replacing Your Custom EPB Spindle on the Milwaukee Motor page 2 of 2 pages (cont.)

14. Take a $\frac{1}{2}$ inch socket or something similar and a little hammer to lightly tap the spacer down enough to allow the gear that was set aside to sit on top of it.

15. When placing the gear make sure that the blank side of the gear is down and that the side with the circles is facing up.

16. Take housing back to the arbor press and press the gear in until it sits all the way down directly over the bearings and can rotate easily.

17. Replace the grease that was removed and place it up and around the top gear.

18. Screw the motor housing back together and test the motor to verify that the replacement was successful.