



FILE

OPERATOR'S MANUAL

VBS-1408 METALWORKING BANDSAW

JET EQUIPMENT AND TOOLS
A WMH - WALTER MEIER HOLDING COMPANY

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JET EQUIPMENT & TOOLS, INC.
A WMH - Walter Meier Holding Company

NO. M-414483

Important Information



JET offers a one year warranty on all products

REPLACEMENT PARTS

Replacement parts for this tool are available directly from JET Equipment & Tools. To place an order call **1-800-274-6844**. Please have the following information ready:

1. Visa, MasterCard or Discover Card number
2. Expiration date
3. Part number listed within this manual
4. Shipping address other than a Post Office box

REPLACEMENT PARTS WARRANTY

JET Equipment & Tools makes every effort to assure that parts meet high quality and durability standards and warrants to the original retail consumer/purchaser of our parts that each such part(s) be free from defects in materials and workmanship for a period of thirty (30) days from the date of purchase.

PROOF OF PURCHASE

Please retain your dated sales receipt as proof of purchase to validate the warranty period.

LIMITED TOOL AND EQUIPMENT WARRANTY

JET makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows: **1 YEAR LIMITED WARRANTY ON ALL JET PRODUCTS.** Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities or to a lack of maintenance. **JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD SPECIFIED ABOVE FROM THE DATE THE PRODUCT WAS PURCHASED AT RETAIL. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. JET SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY OR FOR INCIDENTAL, CONTINGENT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.** To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an authorized service station designated by our Tacoma office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, JET will either repair or replace the product or refund the purchase price, if we cannot readily and quickly provide a repair or replacement, if you are willing to accept such refund. JET will return repaired product or replacement at JET's expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of JET's warranty, then the user must bear the cost of storing and returning the product. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

JET Equipment & Tools, P.O. Box 1477, Tacoma, WA 98401-1477: (206) 572-5000.

SPECIFICATIONS:

VBS-1408

STOCK NUMBER..... 414483
BLADE SPEED (SPFM) 82-330
MAXIMUM CAPACITY..... HEIGHT - 8"
..... THROAT - 14"
TABLE SIZE..... 20" x 20"
TABLE TILT..... 8 DEGREES F&B
..... 12 DEGREES LEFT
..... 15 DEGREES RIGHT
WELDER CAPACITY..... 1/2"
BLADE LENGTH (APPROX.) 114"
BLADE WIDTH (MAXIMUM) 1/2"
OVERALL HEIGHT 68-1/2"
TABLE HEIGHT @ 90 DEGREES 39"
FLOOR SPACE REQUIRED 34" x 24"
MOTOR..... 1 HP, 1Ph
..... 115V/230V
..... PREWIRED 115V
NET WEIGHT (APPROX.) 580 LBS.
SHIPPING WEIGHT (APPROX.)..... 685 LBS.

CONNECTING TO POWER SUPPLY

WARNING!

All electrical connections must be done by a qualified electrician. Failure to comply may cause serious injury!

All adjustments or repairs must be done with the machine disconnected from the power source. Failure to comply may result in serious injury!

The VBS-1408 bandsaw is rated at 115V/230V and comes from the factory prewired 115V.

To switch to 230V operation, follow the wiring diagram found on the inside cover of the motor junction box. The plug on the end of the motor cord will have to be replaced with a plug that is rated at 230V.

The bandsaw must be grounded. A qualified electrician can make the proper electrical connections and confirm the power on site is compatible with the saw.

Before hooking up to the power source, make sure the switch is in the off position.

CONTROLS

Variable Speed Hand Wheel (A, Figure 2) - located below work table on right side of machine base. Turn clockwise to increase speed and counter-clockwise to decrease speed. **Caution:** Do not turn handle while machine is stopped. Adjust speed only when machine is running.

Upper Blade Guide Lock Knob (B) - located on right side of upper arm. Turn counter-clockwise to loosen and clockwise to tighten.

Work Lamp Switch (C) - on top of lamp shade; turns lamp on and off.

Main Motor Start Switch (D) - found on upper front column. Depress to start bandsaw.

Main Motor Stop Switch (E) - found on upper front column. Depress to stop bandsaw.

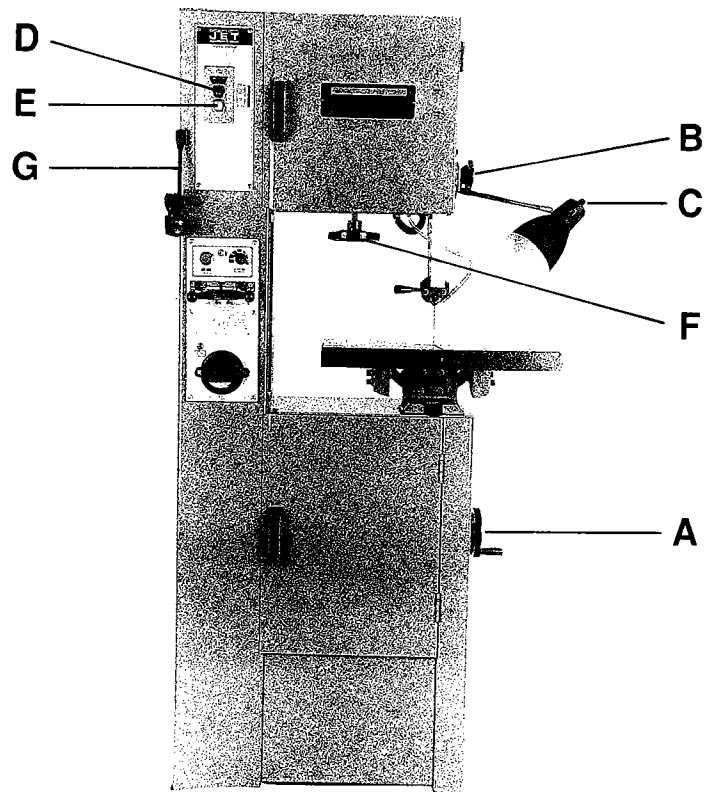


Figure 2

2. Apply finger pressure to the blade. Travel from vertical should be approximately 3/8" each way.
3. To tighten blade, turn handwheel (C) clockwise.
4. To loosen blade, turn handwheel counter-clockwise.
5. Use the blade tension indicator (D) as reference only. Blade should be tensioned using the finger pressure method.

BLADE TRACKING ALIGNMENT

Blade tracking has been adjusted at the factory. Run the bandsaw and observe the blade on the wheels. The blade should run next to but not against the flange at the rear. If adjustment is necessary:

1. Slightly loosen all four hex cap screws (A) found at the rear of the machine at the top. See figure 7.
2. Tighten two top set screws (B) slightly to shift blade toward the front. Conversely, tighten two set screws (C) to shift blade toward the rear. Once blade is tracking properly, slightly tighten other two set screws and then tighten all four hex cap screws.

BLADE GUIDE ADJUSTMENT

CAUTION!

Blade guides must be properly adjusted or damage may occur to the blade and/or the guides.

WARNING!

Blade guard has been removed to show detail. Never operate saw without the blade guard in place and properly adjusted. Failure to comply may cause serious injury!

Blade guide adjustment has been set at the factory. Should adjustment be necessary:

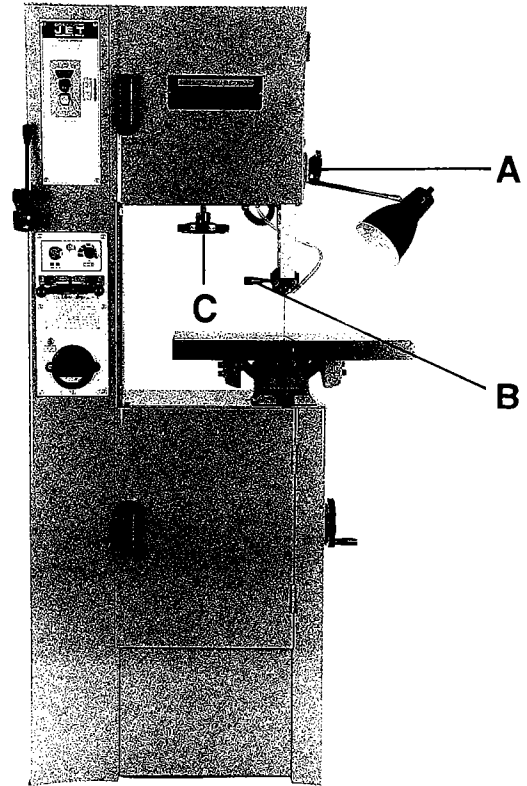


Figure 6

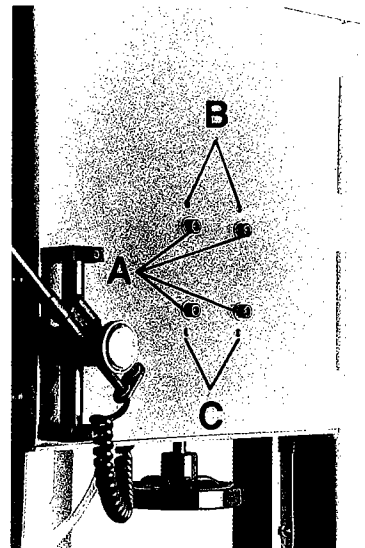


Figure 7

4. Remove the blade from both wheels and maneuver it around the blade guard on the column and protective shield on the upper blade guide.
5. Install new blade by maneuvering around blade guard on the column and protective shield on the upper blade guide.
6. Place it between the fingers of both blade guides and onto both wheels. Position next to both wheel flanges. Make sure teeth point down toward the table.
7. Retention the saw blade by turning tension hand wheel. Rotate the wheel by hand and make sure the blade is properly seated in the blade guides. Blade guides will have to be adjusted if the replacement blade is a different type and width.
8. Turn on the saw and check blade tracking. Adjust tracking if necessary.

BLADE SELECTION

Proper blade selection is just as important to band saw operation as is blade speed and material feed. Proper blade selection will impact blade life, straightness of cut, cut finish, and efficiency of operation. Excess blade breakage, stripping of teeth, and waviness of cut are some of the results of improper blade selection.

Blades are classified by material composition, tooth shape, pitch of teeth, and type of set, gage of the band material, and kerf of the set (width of cut).

MATERIAL COMPOSITION

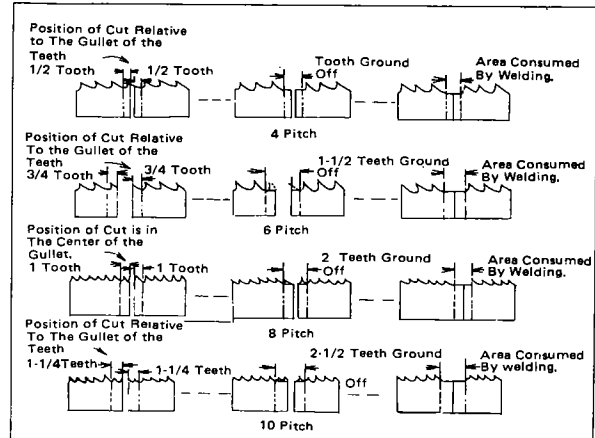
Carbon Steel - low cost, for use with non-ferrous materials, wood, and plastics.

High Speed Steel - resists heat generated by dry cutting. Used for ferrous metals and are more expensive than carbon steel blades.

Alloy Steel - tough and wear resistant, cuts faster with longer blade life. Used on hard materials. More expensive than carbon or high speed steel.

General rules for blade selection:

1. Select coarser pitch blades for thicker or softer material.
2. Select finer pitch blades for thinner or harder material.
3. Use fine pitch blades to obtain a smooth finish.
4. Use coarse pitch blades to obtain faster cutting speeds (thick material).
5. To prevent premature blade wear, use the fastest practical speed.
6. Adjust the feed rate to ensure continuous cutting action.
7. Run the bandsaw with the blade centered in the upper and lower guides and the guide fingers adjusted as close as possible without touching the blade or weld joint.

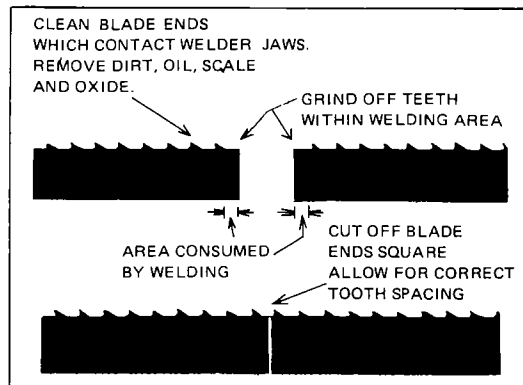


Follow these cutting and grinding instructions and the teeth will be uniformly spaced after the weld.

USING THE BLADE WELDER

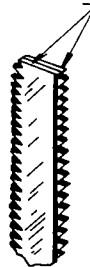
Blade Shear and Blade Preparation

1. Blade should be cut to the longest length that machine will accept.
2. Put handle in the upright position.
3. Place blade against the back of the square cutting guide of the shear.
4. Bring handle down firmly to cut blade.
5. Use the blade grinder to assure the blade ends are flat, square, and smooth.
6. With fine pitched blades, one or more teeth from each side will have to be removed by grinding so that the cross section of the weld area is uniform.



Points to remember in preparing the blade for welding.

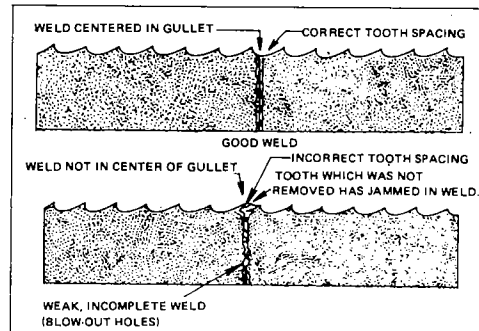
GRIND HERE



If snips are used to cut blade, grind ends square as shown.

Welder Preparation

1. Clean the welder jaws and the lower jaw inserts.



Bi-Metal Blades

1. Heat the blade slowly by jogging the annealing switch button until the weld just begins to emit light (dull red color). The desired color may not always be visible in normal room light - always shade the weld area with your hand.
2. Cool the weld quickly by releasing the annealing button.
3. Follow this procedure before and after grinding bimetal blades.

BLADE GRINDING

WARNING!

**Keep hands away from rotating grinding wheel!
Failure to comply may cause serious injury!
Always heed the indicator light - when glowing, it warns that the grinder motor is running.**

After annealing, the blade must be ground to remove excess metal or flash from the weld. With the teeth facing out, grind the weld carefully. Do not hit the teeth, grind deeper than the weld, burn, or overheat the weld area. Be sure to remove flash from the back edge of the blade. Any flash or "stub" teeth which project beyond the normal set or height of the other teeth must be ground off.

SECONDARY ANNEALING

Anneal the weld 2-3 times again after grinding.

WELDER CLEAN-UP

It is important that the welder jaws be kept clean at all times. The jaws and inserts must be wiped or scraped clean after every weld. Doing this will ensure better welds by:

1. Holding proper alignment.
2. Preventing flash from becoming embedded in the blade.
3. Preventing shorts or poor electrical contact.

PARTS LIST FOR THE VBS-1408 BANDSAW

PLEASE ORDER BY PART NUMBER ONLY

INDEX NO.	PART NO.	DESCRIPTION	SIZE	QTY.
1010	VBS1408-1010	WORK TABLE		1
1020	VBS14-102	TABLE SUPPORT FRAME		1
1030	1030	TABLE BRACKET - RIGHT		1
1040	1040	TABLE BRACKET - LEFT		1
1060	TS-0680061	WASHER	1/2	2
1070	1070	TUBE SCREW		4
1090	1090	TABLE SUPPORT HOUSING		1
1100	1100	GUIDE SUPPORT HOUSING		1
1310	VBS16-131	BLADE GUIDE SUPPORT		2
1320	VBS1220A-132	BLADE GUIDE		2
1330	VBS16-133	BLADE STOPPER		2
1350	1350	BLADE GUIDE POST		1
1360	1360	GUIDE POST HOUSING		1
1361	1361	GUIDE POST SPRING		1
1370	1370	BLADE GUARD - LEFT		1
1380	1380	BLADE GUARD - RIGHT		1
1390	1390	POST HOLDING PIN		1
	VBS1610-BS	BLADE SHEAR ASSEMBLY COMPLETE		1
1910	1910	BUSHING > SEE VBS1610-BS		4
1920	1920	LIFT > SEE VBS1610-BS		1
1930	1930	BLADE SHAFT > SEE VBS1610-BS		1
1940	1940	VANED IRON PLATE > SEE VBS1610-BS		2
1950	1950	LOWER BLADE > SEE VBS1610-BS		2
1960	1960	UPPER BLADE > SEE VBS1610-BS		1
1970	1970	JOINT PLATE(LEFT) > SEE VBS1610-BS		1
1980	1980	CHAIN JOINT(RIGHT) > SEE VBS1610-BS		1
1990	1990	HANDLE BAR > SEE VBS1610-BS		1
2000	VBS14-009	DRIVE MOTOR		1
2010	VBS1408-2010	MOTOR PULLEY		1
2020	2020	MOTOR SUSPENSION ARM		2
2130	2130	REDUCER PULLEY	8"	1
2300	2300	SPEED REDUCER		1
3010	VBS1408-3010	LOWER WHEEL		1
3020	VBS14-302	RUBBER TIRE		2
3030	VBS1408-3030	TAPER SLEEVE		1
3040	VBS1408-3040	WHEEL LOCK NUT		1
3050	VBS1408-3050	UPPER WHEEL		1
3060	VBS1408-3060	UPPER WHEEL LOCK		1
3070	3070	UPPER WHEEL NUT		1
3080	3080	SLIDE BLOCK HOUSING		1
3090	VBS14-309	SLIDE BLOCK SEAT		2
3100	3100	SLIDE BLOCK GUIDE		2
3110	3110	UPPER WHEEL SLIDE		1
3120	VBS1408-3120	WHEEL SHAFT		1

6290	VBS16-629	GRINDER GUARD	1
6291	6291	GRINDER COVER	1
6330	6330	WELDER NAME PLATE	1
6340	6340	INSTRUCTION LABEL	1
6350	6350	GRINDER LABEL	1
6420	6420	ANNEAL SWITCH	1
6745	6745	VOLTAGE REDUCER	1
6799	6799	WIRING PLATE	1
	VBS1610-WL	WORK LAMP ASSEMBLY COMPLETE	1
6810	6810	SHIELD > SEE VBS1610-WL	1
6820	6820	JOINTER > SEE VBS1610-WL	1
6830	6830	BRASS NUT > SEE VBS1610-WL	1
6840	6840	LAMP ARM > SEE VBS1610-WL	1
6850	6850	ARM JOINTER > SEE VBS1610-WL	1
6860	6860	ARM TUBE > SEE VBS1610-WL	2
6870	6870	TUBE HOLDER > SEE VBS1610-WL	1
6880	6880	ARM NUT > SEE VBS1610-WL	4
6890	6890	TUBE LOCKER > SEE VBS1610-WL	2
6900	6900	ARM HOUSING ADJUSTER > SEE VBS1610-WL	1
6910	6910	HOUSING ADJUST SCREW > SEE VBS1610-WL	1
6920	6920	LAMP ARM HOUSING > SEE VBS1610-WL	1
6930	6930	HOLDER > SEE VBS1610-WL	1
6931	6931	HOLDER > SEE VBS1610-WL	1
6940	6940	HEX NUT > SEE VBS1610-WL	1
6950	6950	LAMP SOCKET > SEE VBS1610-WL	1
7400	VBS16-7400	SPEED CHANGE SHAFT	1
7410	VBS16-7410	SHAFT BLOCK	1
7420	VBS16-7420	SPEED INDICATING SHAFT	1
7430	VBS16-7430	GEAR SHAFT ARM	1
7440	7440	INDICATE GEAR SHAFT ARM	1
7450	VBS16-7450	SPEED SHAFT HOUSING	1
7451	VBS16-7451	WASHER TUBE	1
7460	VBS16-7460	PULLEY SHAFT ARM	1
	VBS1610-VP	VARIABLE PULLEY ASSY CP	1
7470	VBS16-7470	VARIABLE PULLEY HOUSING *	1
7490	VBS16-7490	PULLEY SHAFT HOUSING *	1
7500	VBS16-7500	INNER PULLEY *	1
7510	VBS16-7510	MIDDLE PULLEY *	1
7520	VBS16-7520	OUTER PULLEY *	1
8111	8111A	NAME PLATE	1
8741	8741	TILT INDICATOR (L&R)	1
8771	8771	TILT INDICATOR (F&B)	1
9015	9015	GUIDE POST LOCK	1
9030	9030	HAND WHEEL	1
9031	9031	HAND WHEEL	1
9040	9040	BRASS HAND WHEEL > SEE VBS1610-WL	1
9210	9210	HANDLE KNOB	2
9230	9230	HAND WHEEL KNOB	1
9290	VBS14-609	KNOB	2
9300	9300	UPPER DOOR HINGE	2
9310	9310	HINGE	4
9500	9500	SPRING PLATE	4
9590	9590	HANDLE ARM	3
9600	9600	CHIP STOPPER	1

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