GB - ENGLISH

Operating Instructions

Dear Customer,

Many thanks for the confidence you have shown in us with the purchase of your new JET-machine. This manual has been prepared for the owner and operators of a JET HVBS-712K metal band saw to promote safety during installation, operation and maintenance procedures. Please read and understand the information contained in these operating instructions and the accompanying documents. To obtain maximum life and efficiency from your machine, and to use the machine safely, read this manual thoroughly and follow instructions carefully.

…Table of Contents

1. Declaration of conformity

On our own responsibility we hereby declare that this product complies with the regulations* listed on page 2. Designed in consideration with the standards**.

2. JET Group Warranty

The JET Group 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:

2 YEAR LIMITED WARRANTY ON ALL PRODUCTS UNLESS SPECIFIED OTHERWISE.

This Warranty does not apply to defects due to directly or indirectly misuse, abuse, negligence or accidents, normal wear-and-tear, repair or alterations outside our facilities, or to a lack of maintenance.

The Jet group limits all implied warranties to the period specified above, from the date the product was purchased at retail.

To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an authorized repair station designated by our office.
Proof of purchase date and an explanation of the complaint must accompany the merchandise.

If our inspection discloses a defect, we 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 a refund.

We 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.

The JET Group reserves the right to make alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

3. Safety

3.1 Authorized use

This machine is designed for sawing machinable metal and plastic materials only.

Machining of other materials is not permitted and may be carried out in specific cases only after consulting with the manufacturer.

Never cut magnesium-
high danger to fire!

The proper use also includes compliance with the operating and maintenance instructions given in this manual.
The machine must be operated only by persons familiar with its operation and maintenance and who are familiar with its hazards.
The required minimum age must be observed

The machine must only be used in a technically perfect condition
When working on the machine, all safety mechanisms and covers must be mounted.

In addition to the safety requirements contained in these operating instructions and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of metalworking machines.

Any other use exceeds authorization. In the event of unauthorized use of the machine, the manufacturer renounces all liability and the responsibility is transferred exclusively to the operator.

3.2 General safety notes

Metalworking machines can be dangerous if not used properly. Therefore the appropriate general technical rules as well as the following notes must be observed.

Read and understand the entire instruction manual before attempting assembly or operation.
Keep this operating instruction close by the machine, protected from dirt and humidity, and pass it over to the new owner if you part with the tool.

No changes to the machine may be made.

Daily inspect the function and existence of the safety appliances before you start the machine.
Do not attempt operation in this case, protect the machine by unplugging the mains cord.

Remove all loose clothing and confine long hair.

Before operating the machine, remove tie, rings, watches, other jewellery, and roll up sleeves above the elbows.

Wear safety shoes; never wear leisure shoes or sandals.

Always wear the approved working outfit

Do **not** wear gloves while operating this machine.

For the safe handling of saw blades wear work gloves.

Insure that the workpiece does not roll when cutting round pieces.

Use suitable table extensions and supporting aids for difficult to handle workpieces.

Always adjust the blade guide close to the workpiece.

Remove cut and jammed workpieces only when motor is turned off and the machine is at a complete standstill.

Install the machine so that there is sufficient space for safe operation and workpiece handling.

Keep work area well lighted.

The machine is designed to operate in closed rooms and must be placed stable on firm and levelled ground.

Make sure that the power cord does not impede work and cause people to trip.

Keep the floor around the machine clean and free of scrap material, oil and grease.

Stay alert!
Give your work undivided attention.
Use common sense.

Do not operate the machine when you are tired.
Do not operate the machine under the influence of drugs, alcohol or any medication. Be aware that medication can change your behaviour.

Keep children and visitors a safe distance from the work area.

Never reach into the machine while it is operating or running down.

Never leave a running machine unattended.
Before you leave the workplace switch off the machine.

Do not operate the electric tool near inflammable liquids or gases.
Observe the fire fighting and fire alert options, for example the fire extinguisher operation and place.

Do not use the machine in a dump environment and do not expose it to rain.

Specifications regarding the maximum or minimum size of the workpiece must be observed.

Do not remove chips and workpiece parts until the machine is at a complete standstill.

Never operate with the guards not in place – serious risk of injury!

Connection and repair work on the electrical installation may be carried out by a qualified electrician only.

Have a damaged or worn cord replaced immediately.

Make all machine adjustments or maintenance with the machine unplugged from the power source.

Remove defective saw blades immediately.

3.3 Remaining hazards

When using the machine according to regulations some remaining hazards may still exist

The moving saw blade in the work area can cause injury.

Broken saw blades can cause injuries.

Thrown cutting chips and noise can be health hazards.
Be sure to wear personal protection gear such as safety goggles and ear protection.

The use of incorrect mains supply or a damaged power cord can lead to injuries caused by electricity.

4. Machine specifications

4.1 Technical data

Cutting capacity 90°	Ø180 mm
	□180 mm
	65x300 mm
Cutting capacity 45°	Ø110 mm
	□180x110 mm
Vice adjustment	0° - 45°
Vice bed above floor	585 mm
Wheel diameter	300 mm
Sawblade size	20x0,9x2362 mm
Cutting speeds	20/ 32/ 45/ 72 m/min
Coolant tank	10 litre
Coolant pump	0,13 HP
Overall LxWxH	1250x520x960 mm
Weight	145 kg
Mains	230V ~1/N/PE 50Hz
Output power	0,55 kW (0,75 HP)-S1
Reference current	5 A
Extension cord (H07RN-F):	3x1,5mm²
Installation fuse protection	10 A
Mains	400V ~3/PE 50Hz
Output power	0,75 kW (1 HP)-S1
Reference current	3 A
Extension cord (H07RN-F):	5x1,5mm²
Installation fuse protection	10 A

4.2 Noise emission

Acoustic pressure level (EN 11202):

Idling	74,1 dB (A)
Operating	85 dB (A)

The specified values are emission levels and are not necessarily to be seen as safe operating levels.

As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

4.3 Contents of delivery

Machine stand with wheels
20mm bimetal sawblade
Adjustable material stop
Belt drive and cover
Hydraulic cylinder
Coolant facility
Assembly kit
Operating manual
Spare parts list

5. Transport and start up

5.1 Transport and installation

Lift machine off the pallet to the desired location.

Use lifting straps and place them as shown in Fig 1.

Fig 1

Warning:
The machine weight is 145 kg.
Assure the sufficient load capacity and proper condition of your lifting devices.
Never step underneath suspended loads.

The machine is designed to operate in closed rooms and must be placed stable on firm and levelled ground.

For packing reasons the machine is not completely assembled.

5.2 Assembly

If you notice any transport damage while unpacking, notify your supplier immediately. Do not operate the machine!

Dispose of the packing in an environmentally friendly manner.

Clean all rust protected surfaces with a mild solvent.

Place the machine stable on wooden blocking.

Wheel mount

Slide the axles (A, Fig 2) through the swivel base and place one wheel (B) on each side before you secure with the supplied split pins (C).

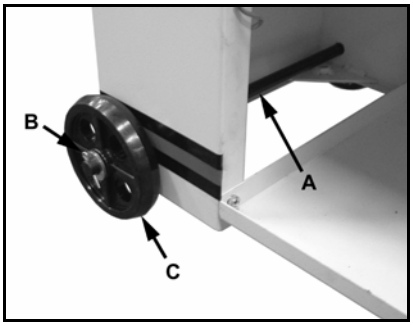

Fig 2

Material stop mount

Insert the stop rod (A, Fig 3) into the bed and tighten the screw (B).

Slide stock stop (C) onto the rod and tighten the thumb screw (D).

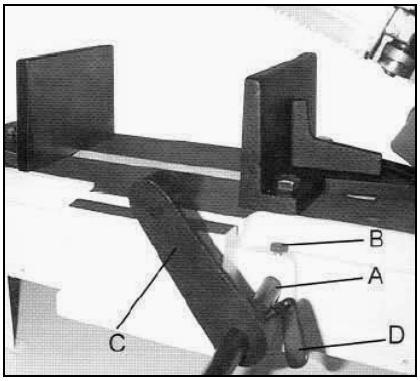

Fig 3

Pulley cover mount

Slide the belt cover over the pulley assemblies and fasten with screws and washers (A, Fig 4).

Close belt cover and secure with lock knob (B, Fig 4)

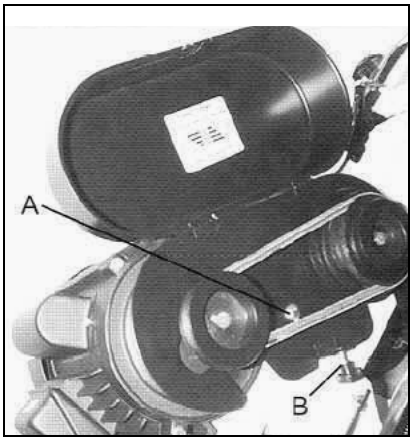

Fig 4

Coolant Tank Preparation

Use of a water-soluble coolant will increase cutting efficiency and prolong blade life.

Follow manufacturers instructions as to its uses and precautions.

Fill the tank to approximately 80% of capacity.

5.3 Mains connection

Mains connection and any extension cords used must comply with applicable regulations.

The mains voltage must comply with the information on the machine licence plate.

The mains connection must have a 10A surge-proof fuse.

Only use power cords marked H07RN-F

Connections and repairs to the electrical equipment may only be carried out by qualified electricians.

5.4 Starting operation

You can start the machine with the green on button (A, Fig 5). The red button (B) on the switch box stops the machine.

The coolant pump (C) can be switched on and off independently.

The switch cover (D) has an emergency stop function and can be used to lock the machine.

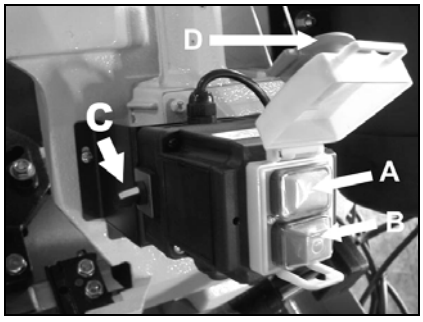

Fig 5

Note:
The saw is equipped with an automatic Shut-Off.
The saw should stop just after the cut has been completed. The stop tip has to be adjusted accordingly.

6. Machine operation

Support long workpieces with helping roller stands.

Work only with a sharp and flawless sawblade.

Don't take measurements when the machine is running

Don't chuck too short in vice.

Use the coolant facility to keep cutting temperatures down, reduce friction and extend the life of your sawblade.

Make sure the cutting liquid is properly contained to the machine.

Use only water soluble cutting emulsions and dispose of it in an environmentally friendly manner.

Don't cut magnesium-
high danger to fire!

7. Setup and adjustments

General note:
Setup and adjustment work may only be carried out after the machine is protected against accidental starting by pulling the mains plug.

7.1 Changing blade speed

The general rule is the harder the material being cut, the slower the blade speed.

20 m/min
for tool steel, alloy steel and bearing bronzes.

32 m/min
for mild steel, hard brass or bronze.

45 m/min
for soft brass

72 m/min
for aluminium or other light materials.

Disconnect the machine from the power source.

Place saw arm in the horizontal position.

Loosen the motor plate lock bolt (A, Fig. 6).

Loosen belt tension on the hex cap bolt and nut (B)

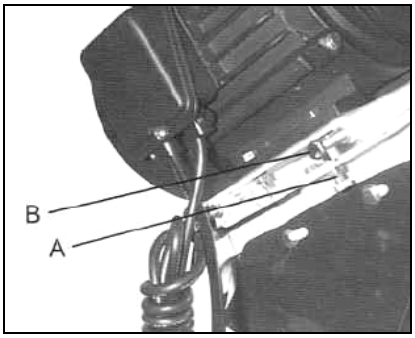

Fig 6

Open pulley cover and place the belt on the desired pulley combination.

Tension the belt (don't over tighten the belt).

Tighten the bolt (A).

Close the pulley cover and connect to power source.

7.2 Changing sawblade

Disconnect the machine from the power source.

The sawblade has to meet the technical specification.

Check sawblade for flaws (cracks, broken teeth, bending) before installation. Do not use faulty sawblades.

Always wear suitable gloves when handling sawblades.

Turn away the saw arm stop bracket (A, Fig 7).

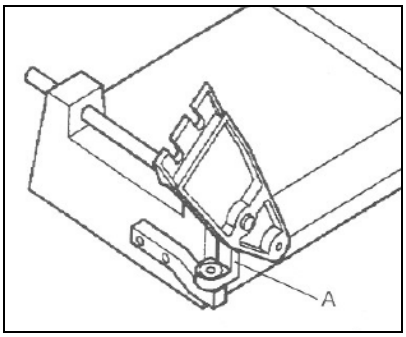

Fig 7

Raise the saw arm to the vertical position and lock in place.

Open the wheel cover.

Remove the red blade guards and the brush assembly.

Release the blade tension and remove the blade.

Place new blade and make sure the teeth are pointing the cutting direction (Fig, 8).

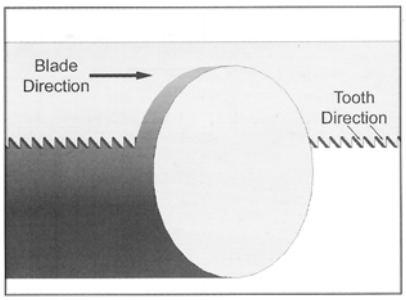

Fig 8

Turn the blade tension knob until the proper blade tension is achieved at green block of tension scale (C, Fig 9).

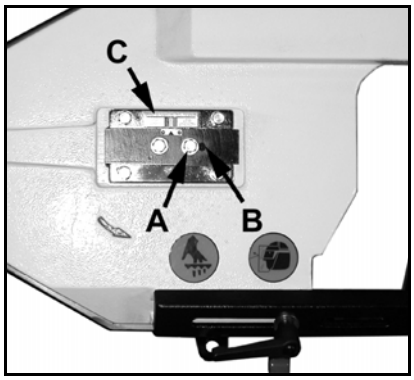

Fig 9

Place a few drops of lightweight oil on the blade.

Install the red blade guard, the brush assembly and the wheel cover.

Reposition the arm stop bracket.

Warning:
It is essential that the two red guards and the wheel cover are installed after the new blade has been fitted. Failure to comply may cause serious injury!

Connect to the power source.

7.3 Blade guides adjustment

Disconnect the machine from the power source.

Loosen the lock knobs (A, B, Fig 10).

Slide blade guide assemblies as close as possible without interfering the material being cut.

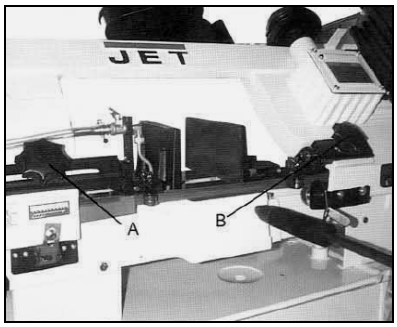

Fig 10

7.4 Guide bearing adjustment

Disconnect the machine from the power source.

Loosen nut (B, Fig 11) and turn eccentric shaft to adjust bearing to a clearance of 0,05mm. Tighten nut to lock.

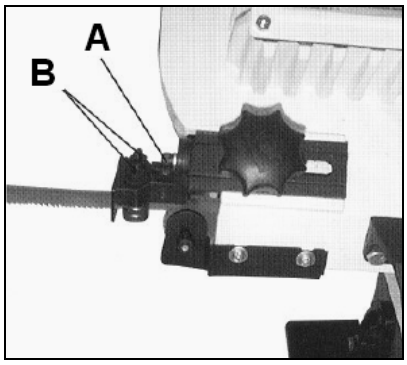

Fig 11

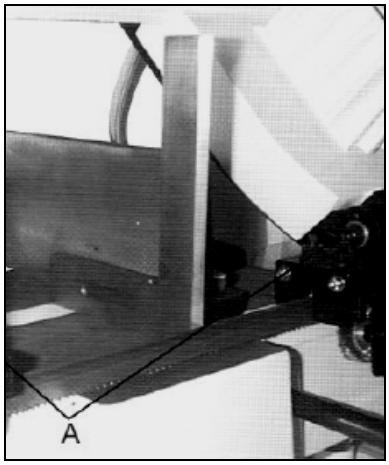

Fig 12

Place a machinist's square on the table and check that blade is square Fig 12.

If adjustment is necessary, loosen bolt (A) and rotate the blade guide assembly.

7.5 Blade tracking adjustment

Warning:
Blade tracking adjustment requires running the saw with the wheel cover open. This adjustment must be completed by qualified persons only.
Failure to comply may cause serious injury!

The blade tracking has been set at the factory and should not need adjustments.

Confirm that the blade tension is set properly.

Run the saw at lowest speed.

The blade should run next to but not tightly against the wheel flange.

If blade tracking needs to be adjusted loosen the bolt (A, Fig 13).

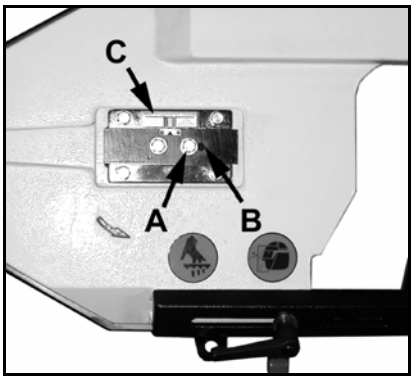

Fig 13

Turning the set screw (B) clockwise tracks the blade closer to the wheel flange.

The tracking is sensitive, start with ¼ turn of the set screw.

Once tracking is set, tighten bolt (A) firmly.

7.6 Feed speed adjustment

You can control the sawblade downward feeding with the valve control knob (A, Fig 14) and lock the saw with the on/off valve (B).

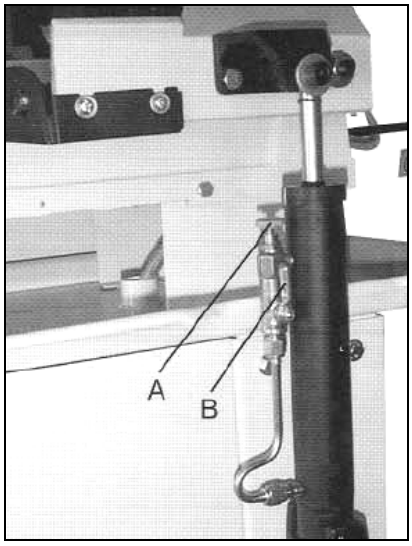

Fig 14

The cutting of thin-walled workpieces (profiles, tubes etc.) requires slow feeding to avoid excessive wear of sawblade.

Adjusting bow weight

Bow weight has been set at the factory and should not need adjustment .
Adjustment can be made on screw (A, Fig 15) :

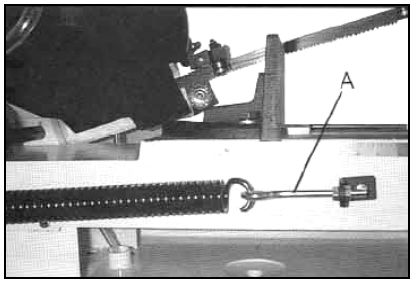

Fig 15

7.7 Vice adjustment

Use the handle (A, Fig 16) to open and close the vice for clamping.

The vice can be adjusted for square and mitre cuts. Loosen the hex cap bolts (C) and adjust the vice for the cut.

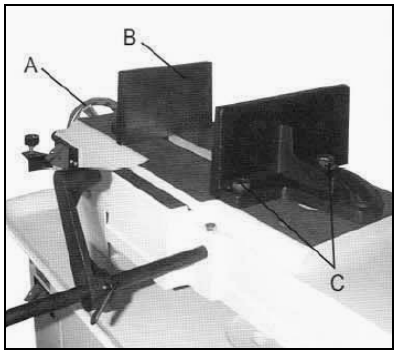

Fig 16

Adjust the movable vise parallel to the fixed vise by loosening bolt (A, Fig.17).

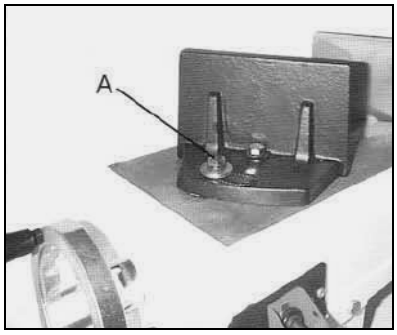

Fig 17

There is a scale on the back side of the bed to aid in setting up the vice. (Always check the vice setup with a combination square against the blade and vice).

To set vise for maximum width of stock cutting remove the nut and bolt assemblies (C, Fig 16).

8. Maintenance and inspection

General notes:
Maintenance, cleaning and repair work may only be carried out after the machine is protected against accidental starting by pulling the mains plug.

Repair and maintenance work on the electrical system may only be carried out by a qualified electrician.

Clean the machine regularly.

Only use sharp and properly set saw blades.
Replace a defective sawblade immediately.

All protective and safety devices must be re-attached immediately after completed cleaning, repair and maintenance work.

Defective safety devices must be replaced immediately.

Regularly lubricate the vice lead screw with grease.

Changing Gearbox Oil:
Change gear box oil after the first 3 months of operation (respectively after 50 operating hours).

There after, change the oil once a year (respectivel every 500 operating hours)

Disconnect the machine from the power source.

Place the saw arm in the horizontal position.

Remove screws (A, Fig. 18) from the gear box and remove the cover plate and gasket.

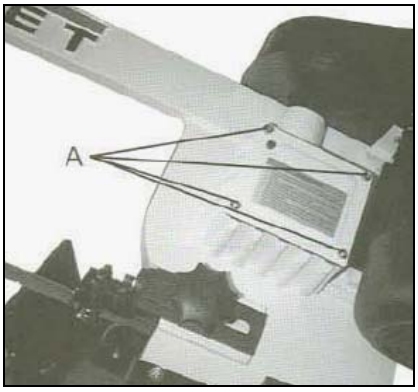

Fig 18

Hold a container under the lower right corner of the gear box while slowly raising the saw arm.

Place the saw arm in the horizontal position again.

Wipe out remaining oil with a rag.

Fill the gear box with approximately 0,350 liters of
Mobil Gear 634 (ISO VG 460)
gear oil or equivalent.

Replace the gasket and cover.

9. Trouble shooting

Motor doesn't start
*No electricity-
check mains and fuse.

*Defective switch, motor or cord-
consult an electrician.

Machine vibrates excessively
*Stand on uneven floor-
adjust stand for even support.

*sawblade has cracks-
replace sawblade immediately

*Tool heavy a cut-
reduce feed pressure and feed speed.

Cut is not square
*Vice setting is bad.
*Blade guide setting is bad.
*Sawblade is dull.

Cutting surface is bad
*Wrong sawblade chosen

*Sawblade is dull

*Blade guide setting is bad

*Blade tension too low

*Feed pressure too high

*Feed speed too high

10. Available accessories

Refer to the JET-Pricelist
for various saw blades.