# **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 JTS-600XL table 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.

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#### 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\*\*.

CE type examination\*\*\* performed by\*\*\*\*.

# 2. Warranty

The Seller guarantees that the supplied product is free from material defects and manufacturing faults. This warranty does not cover any defects which are caused, either directly or indirectly, by incorrect use, carelessness, accidental damage, repair, inadequate maintenance or cleaning and normal wear and tear.

Guarantee and/or warranty claims must be made within twelve months from the date of purchase (date of invoice). Any further claims shall be excluded.

This warranty includes all guarantee obligations of the Seller and replaces all previous declarations and agreements concerning warranties.

The warranty period is valid for eight hours of daily use. If this is exceeded, the warranty period shall be reduced in proportion to the excess use, but to no less than three months.

Returning rejected goods requires the prior express consent of the Seller and is at the Buyer's risk and expense.

Further warranty details can be found in the General Terms and Conditions (GTC). The GTC can be viewed at <u>www.jettools.com</u> or can be sent by post upon request.

The Seller reserves the right to make changes to the product and accessories at any time.

This machine is designed for sawing wood, wood derived materials as well as similar to be machined hard plastics only.

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

No metal workpieces may be machined.

The workpiece must allow to safely be loaded, supported and guided.

No cuts without using the rip fence, the 90° fence or the sliding table may be performed.

No submerged cuts by removing the riving knife and/or saw guard may be performed.

The use of a power feeder is not considered.

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, maintenance and repair 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 this operating instruction and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of woodworking machines.

# 3. Safety

# 3.1 Authorized use

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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

Woodworking 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 operations 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 :

- safety goggles
- ear protection
- dust protection

Do not wear gloves while operating this machine.

For the safe handling of sawblades wear work gloves.

Observe the chapter "save operation" in this manual.

Check the correct rotation of the sawblade before operating the machine.

Do not start cutting operation until sawblade is at full speed.

Control the stopping time of the machine, it may not be longer than 10 seconds.

Do not use side pressure to stop rotating blade.

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

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

Always hold and guide the workpieces safely during machining.

Pay particular attention to instructions on reducing the risk of kickback.

The supplied raving knife must always be used. Adjust the space to the sawblade to be between 2 to 5mm.

Do not perform any operation freehand.

Never reach around or over the saw blade.

When ripping narrow workpieces (<120mm) use as push-stick or push-wood.

Always use crossfeed guide for cutting off.

The use of dado-blades is not permissible.

Make sure that small cut off workpieces will not be caught and thrown away by the rising saw blade teeth.

Take care when slotting.

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.

Keep an ergonomic body position. Maintain a balanced stance at all times.

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.

Wood dust is explosive and can also represent a risk to health. Dust form some tropical woods in particular, and from hardwoods like beach and oak, is classified as a carcinogenic substance. Always use a suitable dust extraction device

Before machining, remove any nails and other foreign bodies from the workpiece.

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!

Do not stand on the machine.

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

Always unwind any extension cords fully.

Have a damaged or worn cord replaced immediately.

Do not use the machine when the ON-OFF switch does not operate correctly.

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

Use only sawblades according to EN 847-1.

Never use sawblades made from High Speed Steel (HSS).

Take care that the selection of the saw blade depends on the material to be cut.

Remove defective sawblades immediately.

A worn table insert must be replaced.

# 3.3 Remaining hazards

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

The moving sawblade in the work area can cause injury.

Broken saw blades can cause injuries.

Thrown workpieces can lead to injury

Tipping of the workpiece due to insufficient support can lead to injury.

Wood chips and sawdust can be health hazards. Be sure to wear personal protection gear such as safety goggles ear- and dust protection.

Use a suitable dust exhaust system.

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

The type and condition of the sawblade is important in keeping the noise level as low as possible. This does not negate the fact that extra safety equipment such as ear protection must be used.

#### 4. Machine specifications

# 4.1 Technical data

Machine Table	800x350 mm
Right extension table	800x270 mm
Rear extension table	415x350mm
Sliding table size	1600x240 mm
Max. travel of sliding table	e 1700 mm
Max. length of cut	1600 mm
Sawblade diameter	max 250 mm
Blade bore diameter	30 mm
Blade speed $n_0$	4000 rpm
Cutting height at 90°/45°	80/54 mm
Tilting range of blade	90°- 45°
Max. width of rip cut	610 mm
Dust port diameter	100mm
Weight	170 kg
Mains ~400V Motor output power 1,5 Reference current Extension cord (H07RN-F Installation fuse protection	4.7 A -): 4x1,5mm <sup>2</sup>

#### 4.2 Noise emission

Determined according to EN 1870-1 (Inspection tolerance 4 dB) Workpiece plywood 16mm:

Acoustic power level (according to EN ISO 3746): Idling LwA 98,2 dB (A) Operating LwA 101,8 dB (A) Acoustic pressure level (according to EN ISO 11202): Idling LpA 84,2 dB (A) Operating LpA 88,5 dB (A)

The specified values are emission levels and are not necessarily to be seen as safe operating levels. This information is intended to allow the user to make a better estimation of the hazards and risks involved.

# 4.3 Dust emission

The circular saw has been dust emission evaluated.

At an air velocity of 20m/sec on the dust port dia. 100mm:

Vacuum pressure Volume flow

The TRK-value of 2 mg/m<sup>3</sup> is not exceeded.

850Pa

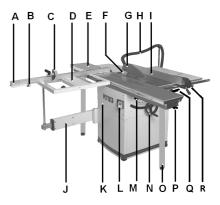
565 m³/h

#### 4.4 Content of delivery

Machine stand Sliding table Sliding table support legs Crosscut table Crosscut fence Telescopic arm Rare extension table Right extension table Rip fence with dual fence profile Rip fence support bar Saw guard Sawblade 250mm Dust connection hose and Y-adapter Hose tye Push stick

Operating tools Assembly bag Operating manual Spare parts list

#### 4.5 Description of machine



# Fig 1

- A.....Crosscut fence
- B.....Pull out lock knob
- C....Crosscut stop

D.....Crosscut table

- E.....Sliding table
- F.....Raving knife
- G.....Saw guard
- H....Dust connection hose
- I.....Rip fence
- J.....Telescopic arm
- K....Front cabinet cover
- L....On/ Off switch
- M....Blade tilt lock
- N....Blade rise handwheel
- O....Sliding table support leg
- P....Sliding table lock
- Q....Blade tilt handwheel
- R....Rip fence micro adjustment

# 5. Transport and start up

# 5.1 Transport and installation

For transport to the desired location use a forklift or hand trolley. Make sure the machine does not tip or fall off during transport.

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

The machine must be levelled in both directions to assure good sliding motion of the sliding table.

If possible, the machine must be placed on rubber plates which act as shock absorbers and reduce the noise level.

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.

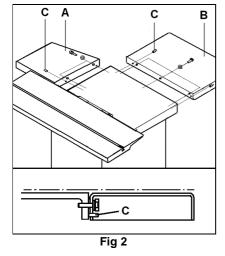
# Mounting table extensions

Attach rear extension table (A, Fig 2) to the machine table with hex head screws and washers.

Attach right extension table (B) to the machine table with hex head screws and washers.

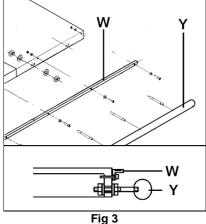
Put table surfaces in level to the main table.

Use the rip fence profile to check and the grub screws (C) to adjust.



# Mounting rip fence support bar

Mount the rip fence support bar (Y, Fig 3) to the front of the saw table and right table extension.





Mount the scale carrier (W).

# Mounting rip fence

Mount the rip fence to the rip fence support bar.



Fig 4

The rip fence must be guided parallel to the table surface. Adjust the round bar (Y) up-down as needed.

#### Mounting sliding table:

With the help of another person, lift the sliding table carefully to its place and attach (see Fig 5,6, 7 and 8).

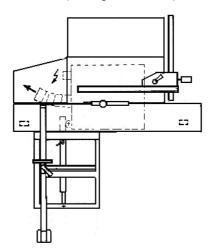


Fig 5



Fig 6





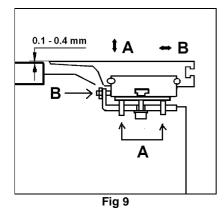
Fig 8

Attach the sliding table support legs.

#### Sliding Table Adjustment:

The sliding table is adjusted ex works.

The sliding table must be aligned to run parallel to the sawblade The table surface must be 0,1 - 0,4 mm higher than the machine table. Use rip fence profile to check (Fig 9).



#### Adjustment:

The sliding table guide assembly can be adjusted up-down and parallel to the sawblade.

Use the grub screws (A & B) to adjust.

#### Mounting telescopic arm:

Insert the beam (S, Fig 10, Fig 11) into the telescopic arm

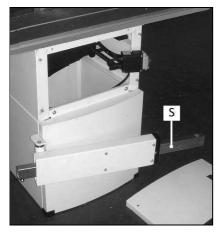






Fig 11

**Crosscut table setup** 

Crosscut table setup shall never be performed when the machine is running.

Lift the crosscut table (R, Fig 12) onto telescopic arm and slide onto sliding table T-groove and lock in place).

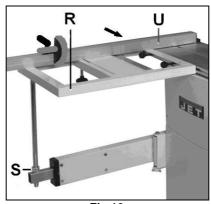


Fig 12

Crosscut table and telescopic arm are rough aligned ex works (The table surface must be in level with the sliding table).

# Telescopic arm adjustment:

The telescopic arm is adjusted ex works.

For correction, move the sliding table so that telescopic arm reaches out straight (like shown in Fig 12)

Align the crosscut table height with the two hex nuts (S). Use crosscut fence profile (U) to check.

Move the sliding table forward. For example: if the crosscut table falls, tighten the left adjust screw (T, Fig 13) until the crosscut table does not move in height during sliding table travel.

Loosen and tighten the adjust screws and lock nuts as needed.

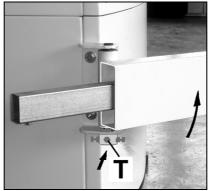


Fig 13

Finish alignment by setting crosscut table and machine table in level with nuts (S). Lock the two nuts (S, Fig 12) against

each other.

Start the machine with care.

#### Crosscut fence setup:

Crosscut fence (U, Fig 12) setup shall never be performed when the machine is running.

The cross-cut table has 2 precision holes, allowing the crosscut fence to be put in 2 positions: At the back and front of the crosscut table.

Simply put the fence onto the crosscut table and lock it in position using the supplied knobs.

The 90° adjustable stops (R, Fig 12) are factory set.

The fence scale is factory set. Adjustment can be made by moving the pivot point along the T-grove.

Confirm by test cuts.

When, after some time, the plastic protection cap at the front on the cross-cut fence is cut away, a new one has to be installed (part no.: JTS600-178).

# **Mounting Sawblade**

See chapter 7.1

Adjusting Raving Knife See chapter 7.2

Mounting Saw Guard See chapter 7.3

# 5.3 Dust connection

Before initial operation, the machine must be connected to a dust extractor. The suction should switch on automatically when the saw is switched on.

A connecting hose, a hose support, a Y-piece and a hose tye are supplied with the machine.

# **Mounting Hose Support:**

Attach the hose support (AA, Fig 14) to the table extension with the supplied fastening clip.

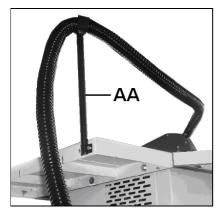
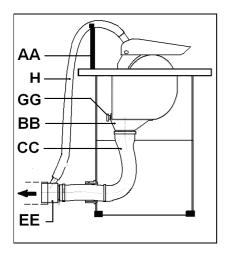


Fig 14



# Fig 15

Mount the Y-piece (EE) and the connecting hose (H) for the upper dust collection.

The flow rate on the suction port dia. 100mm must be 20m/sec.

Flexible hoses must be of nonflammable quality, and must be connected to the machine ground system.

#### 5.4 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 16A surge-proof fuse.

Only use connection cables marked H07RN-F

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

#### Attention:

-Check first if the saw spindle runs freely and if all safety devices are fitted before starting the machine. For safety reasons this must only be done without the sawblade installed!

- If the direction of rotation is not correct, the phase converter inside the CCE Euro plug must be pushed in and turned 180°.

(Clockwise direction of the spindle is correct).

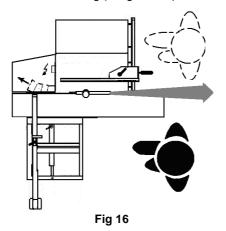
# 5.5 Starting operation

You can start the machine with the green On-button. The red Off-button stops the machine.

In case of machine overload the motor overload cut-off will react. After appr.10 min of cooling the machine can be started again.

# 6. Machine operation

**Correct working position:** In front of the machine standing out of the line of cutting (danger zone).



# Workpiece handling:

Hands placed flat on the workpiece outside the cutting area.

Feed the workpiece towards the saw blade in the direction of the saw line.

Push the workpiece steadily forward; complete the cut as a single movement.

Support long and wide workpieces with helping roller stands.

The use of a power feeder is not considered.

# **Operating hints:**

Work only with a sharp and flawless sawblade.

Take care that the selection of the saw blade depends on the material to be cut.

Use a suitable wedge to prevent round timber from turning under the pressure of the cut.

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

Always hold and guide the workpieces safely during machining.

Do not perform any operation freehand.

Take care when slotting.

When ripping narrow workpieces (<120mm) use as push-stick or push-wood.

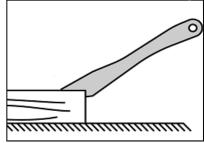


Fig 17

Make sure that small cut off workpieces will not be caught and thrown away by the rising saw blade teeth.

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

Pay particular attention on reducing the risk of kickback.

The supplied raving knife must always be used.

#### For the authorized use of the machine observe the appendix A "safe operation" (on the last pages of this operating manual)

A.1.: Ripping

A.2.: Ripping of narrow stock

A.3.: Crosscutting on rip fence

A.4.: Use of push wood handle

#### 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 sawblade

The sawblade has to meet the technical specification.

Use only sawblades according to EN 847-1

The maximum diameter of the saw blades used on the machine is 250 mm.

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

#### Warning:

The use off HSS saw blades is prohibited; use only carbide tipped saw blades.

The sawblade teeth must point in cutting direction (down)

Always wear suitable gloves when handling sawblades.

# WARNING:

When installing or changing saw blade, always disconnect saw from power source, unplug!

Remove the crosscut table.

Remove the sliding table.

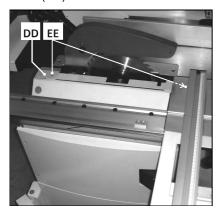
Raise the main sawblade to its highest position.

Remove the saw guard.

# Changing saw blade:

Move the sliding table to the end to get access to the sawblade.

Loosen the 2 screws (EE, Fig18) and remove the sheetmetal protective cover (DD).



# Fig 18

Loosen the arbor nut (J, Fig 19) while stopping the arbor against rotation with the locking pin (K).

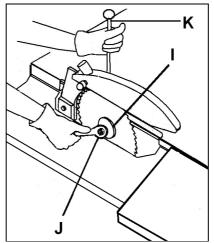


Fig 19

# Attention: left hand thread.

Remove the arbor nut (J) and flange (I).

Place saw blade on arbor shaft making sure teeth point down at the front of the saw.

Reinstall flange, washer and arbor nut and securely tighten.

Remove the locking pin (K).

Check the correct position of the raving knife in regards to the saw blade (see Chapter 7.2).

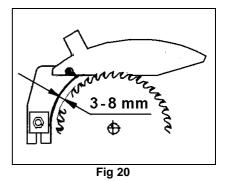
Reinstall the saw guard and the protective cover (DD).

# 7.2 Mounting the raving knife

The supplied raving knife must always be used.

The machine is equipped with a raving knife for the use of sawblades diameter 250 mm.

The raving knife has to be adjusted in such a way that over its entire length the gap between sawblade and raving knife does not exceed min. 3 mm and max. 8 mm (Fig 20).



The raving knife (P, Fig 21) can be adjusted in both vertical and horizontal direction.

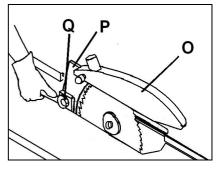


Fig 21

The height setting has to be adjusted in such a way that the sawguard bottom never exceeds more than 3 mm above the highest placed sawblade tooth.

After height adjustment always locks the central bolt (Q).

Never remove this raving knife. Kickbacks are severe and very dangerous.

No submerged cuts by removing the raving knife and/or saw guard may be performed.

# 7.3 Mounting the saw guard

The sawguard (O, Fig 21) must always be used.

Attach the saw guard to the raving knife (P).

The sawguard must be lowered to the workpiece to minimise the amount of exposed teeth.

Adjustment shall never be performed when the machine is running.

The saw guard has to be connected to the dust extractor system.

# 7.4 Rising and tilting sawblade

Setup adjustments of the sawblade shall never be performed when the machine is running.

Use the front hand wheel to raise the sawblade (one turn of the handwheel equals to approximately 3 mm of height setting).

Use the right hand wheel to tilt the sawblade.

Both 45° and 90° positive stops are factory set.

Start the machine with care.

#### 7.5 Sliding table setup

Sliding table setup shall never be performed when the machine is running.

When loading panels and when rip cutting the sliding table must be locked.

It is recommended to clean the sliding table once a week, and to remove all sawdust and chips which gradually slow down the sliding table.

Never use oil or grease!

#### 7.6 Rip fence setup

Rip fence setup shall never be performed when the machine is running.

#### Note:

The rip fence profile can be placed flat and adjusted in length.

-The cutting of small work pieces (width less than 120mm) shall only be performed with the rip fence profile placed flat (Fig 22).

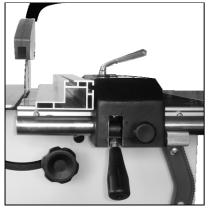


Fig 22

When cross cutting using the rip fence, to avoid the wood getting stuck between the fence and the riving knife (resulting in a highly dangerous kickback) it is necessary to position the fence so that its end corresponds with the front of the sawblade (Fig 23).



Fig 23 Start the machine with precaution.

# 7.7 Blade tilt 45° and 90° positive stop adjustment

The blade tilt positive stops can be adjusted with an allen key (Fig 24).

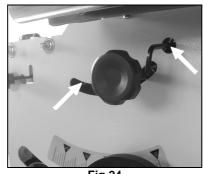


Fig 24

# 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.

Inspect the proper function of the dust extraction daily.

Keep the inside of the cabinet clear of sawdust and wood chips. Make sure the motor fan and fan cover are also kept clear of sawdust.

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

Defective safety devices must be replaced immediately.

A worn table insert must be replaced.

#### Removal of dust chute blockage:

Cut off pieces can block off the chip flow in the lower saw guard.

Disconnect the machine form the power source, pull mains plug.

Loosen screws, lift and remove the front cabinet cover (CC, Fig 25).

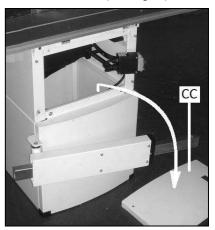


Fig 25

Remove the lock knob (GG, Fig 26) and lower the dust port (BB).

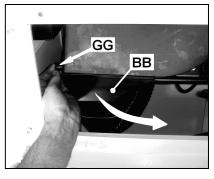


Fig 26

Remove blocking parts.

Reinstall the dust port and front cabinet cover immediately.

#### Cleaning:

Clean the machine regularly.

Remove rust from the table e.g. with WD-40® and a Scotch-Brite<sup>TM</sup> Hand Pad.

Never smoke while cleaning the machine, and especially when using petrol, kerosene or other inflammable products.

This could lead to an explosion and serious burns for the operator.

# Saw blades:

Check saw blades regularly for faults. Replace a defective sawblades immediately.

Only use sharp and properly set saw blades.

The servicing of saw blades should only be performed by a trained person.

#### Main drive belt tensioning:

The machine is equipped with a durable Poly-V belt

In case of belt slip (yelling noise), the belt must be tightened.

Disconnect the machine form the power source, pull mains plug.

Remove the front cabinet cover (CC, Fig 25).

Tilt the sawblade to 45° for better access.

Loosen the 2 hex bolts (Fig 27).



Fig 27

Tension the belt by lowering the sawblade (spindle nut moves the motor pivot plate).

Make sure the belt is not over tensioned, because this could lead to damage of the saw arbor and bearings.

Tighten the bolts.

Reinstall front cabinet cover.

#### Motor Break:

The motor break works electromechanically (break motor). If breaking time should exceed 10 seconds, the motor break assembly needs to be replaced. Contact your Jet service station immediately.

# 9. Trouble shooting

Motor doesn't start \*No electricitycheck mains and fuse.

\*Defective switch, motor or cordconsult an electrician.

\*Overload has reacted-Wait and start again.

Machine vibrates excessively \*Stand on uneven floor-

adjust levelling screws for even support.

\*dust on saw flangesclean saw arbor and flanges.

\*defective sawblade replace sawblade immediately

\*Bad Poly-V-beltreplace Poly-V-belt

Cut is not accurately square \*Stops not adjusted correctlycheck with square and adjust stops.

Material binds blade when ripping \*Fence not aligned with sawblade-

check and adjust rip fence. \*Wrapped wood-

select another piece of wood.

Material kicked back from blade \*Fence not aligned with sawbladecheck and adjust rip fence.

\*Raving knife not in placehigh danger, mount immediately with guard.

Cutting surfaces is bad \*Wrong sawblade used \*Blade mounted backwards \*resin collection on sawblade \*sawblade is dull \*workpiece inhomogeneous \*Feed pressure too high-Do not force the workpiece.

Blade does not raise or tilt \*Sawdust in mechanismsclean and regrease.

Sliding table does not move \*Sawdust in bearing guideswipe out any sawdust.

#### Low cutting performance \*Poly-V belt slips -

Tension main drive belt.

\*Wrong voltage -Check electric power supply

#### **10.** Environmental protection

Protect the environment.

Your appliance contains valuable materials which can be recovered or recycled. Please leave it at a specialized institution.

#### 11. Available accessories

Stock number 708118 Universal mobile base 250kg



Fig 25

Stock number 10000073

Precision mitre gauge with adjustable stops -45° / 90° / +45°

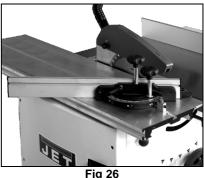


FIG 20

Refer to the JET-Pricelist for various accessories.

#### 12. Safe operation

See appendix A (on the last pages of this operating manual)

A.1.: Ripping A.2.: Ripping of narrow stock A.3.: Crosscutting on ripfence A.4.: Use of push wood handle