

Jefferson[®]

PROFESSIONAL TOOLS & EQUIPMENT

14" Cut Off Saw 2400W

JEFSWCFF14 / 230

JEFSWCFF14 / 110



User Manual

www.jeffersonstools.com

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2. Technical Specification

RATED VOLTAGE:	230V (13A) / 110V (16A)* 50Hz
OUTPUT:	2400W (3.2HP)
NO LOAD SPEED:	3600RPM
DISC TYPE:	FIBRE-REINFORCED METAL CUTTING
DISC DIAMETER:	355MM / 14"
BORE:	ø 30MM
STOP ANGLE:	RIGHT / LEFT 45°
CLAMP ANGLE:	RIGHT / LEFT 45°
SOUND PRESSURE LEVEL:	LpA = 97.7db
SOUND POWER LEVEL:	LwA = 108.2db
VIBRATION LEVEL:	k=1.5m/s2
NET WEIGHT:	18.5kg


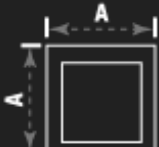
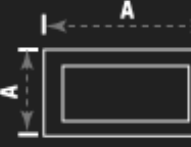

*Rated Voltage as indicated on box & equipment specification plate

Cutting Capacity:

Please refer to the adjacent table for guidelines on the respective cutting capacities for this equipment.

Visit our website to see our full range of replacement Cutting Discs, TCT Blades, and other abrasives.

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Angle Shape	0°	45°
	115mm	115mm
	119mm	106mm
	115mm x 130mm 102mm x 194mm 70mm x 223mm	115mm x 103mm
	137mm	100mm

3. General Safety Information

- Read these instructions carefully before use, and save them for future reference. Persons who have not read through these instructions must not use the tool.

Personal Protection

- Wear safety glasses & ear protection when using this equipment.
- Wear a dust filter mask if the work produces a lot of dust. Wear ear protection.
- Pay attention to what you are doing, and use your common sense when working with power tools.
- Read these instructions carefully to understand the applications for the tool, its limitations and potential risks.
- Avoid body contact with earthed surfaces such as pipes, radiators, cookers and refrigerators.
- There is an increased risk of electric shock if your body is earthed.
- Wear suitable clothing. Do not wear loose-fitting clothing or jewellery. They can get caught in moving parts. Rubber gloves and non-slip shoes are recommended when working outdoors. Wear a hair net if you have long hair.
- Do not overreach. Always maintain a firm footing and good balance.

Equipment Safety

- Safety devices must be fitted correctly and function properly.
- Always check that Allan keys/spanners etc. have been removed from the tool before switching it on.
- Do not force the tool. The tool does the job better and safer when used at the rate for which it was designed.
- Use the correct tool. Do not force small tools or accessories to do work that requires a powerful tool. Do not use the tool for purposes for which it is not intended.
- Take care of the tool. Keep tools sharp and clean for better and safer work. Follow the instructions for lubrication and the replacement of accessories.
- Avoid accidental starting. Check that the power switch is in the OFF position before plugging in the power cord.
- Only use recommended accessories. The use of other accessories can lead to the risk of personal injury.
- Do not use damaged discs.
- Never use the tool without the guard.
- Check for damaged parts. If a guard or some other part has been damaged, carefully check before using the tool that it will work properly and as intended. Check that moving parts are properly adjusted and do not jam, and that no parts are incorrectly fitted or damaged. Check for other factors that could affect functionality. Guards or other parts that are damaged must be repaired or replaced by an authorised service centre to avoid the risk of personal injury.
- Never leave the tool unattended when it is running. Switch off the tool, unplug the power cord, and wait until all moving parts have completely stopped before leaving the tool.
- Never remove the guard over the disc. Never use the tool if any safety equipment or guards have been removed. Always check that all the safety equipment is working properly before use.
- Keep your hands away from the cutting area and the disc. Do not put your hands under or behind the workpiece when the disc is rotating. Do not attempt to remove material when the disc is rotating. Keep your hands at least 7.5 cm from the disc when it is rotating.
- The disc continues to rotate for a while after the tool has been switched off.
- Check the power cord regularly. A damaged power cord must be replaced by an authorised service centre, or a qualified person, to ensure safe use. Keep the power cord away from the work area.
- Do not use the tool if it cannot be switched on and off with the power switch. If the power switch does not work, it must be replaced by an authorised service centre or other qualified person.
- Keep the tool and its handle clean, dry and free from oil and grease. Always use clean rags for cleaning. Never use brake fluid, petrol, oil-based products or strong solvents to clean the tool.
- Support long workpieces with roller supports, or the equivalent.
- Always check that all the adjusting devices are correctly fitted before use.
- Always secure the workpiece with the clamp.
- Never touch the disc or other moving parts during use.
- Never start the tool when a rotating part is in contact with the workpiece.
- Never cut more than one workpiece at a time. Never put more than one workpiece on the tool base.
- Avoid using your hands, always secure the workpiece with the clamp.
- Never hold the workpiece with your hand. The workpiece gets very hot during the sawing – risk of burn injuries.
- Switch off the tool by releasing the power switch, and wait until the disc has completely stopped before lifting the disc the workpiece.

Equipment Safety (continued)

- Do not start and stop the motor in quick succession. This could cause the disc to come loose, and result in a risk of serious personal injury and/or material damage. If the motor has been started and stopped in quick succession, keep away from the line of the disc and wait until the disc has completely stopped. Unplug the power cord and tighten the disc screw.
- Repairs must only be carried out by an authorised service centre or qualified person.
- Only use identical spare parts when servicing. The use of other parts can be dangerous and damage the tool.
- Switch off the tool immediately and unplug the power cord if any part of the tool or safety equipment is missing or damaged in any other way, or if an electrical component is not working properly. Do not use the tool until it has been repaired.
- Always check before use that the disc is correctly fitted. Do not overtighten the disc screw, this could cause the disc to crack.
- Always check before use that the disc is not cracked or damaged, and that it rotates freely and smoothly.
- Only use discs that have as a minimum the same speed rating as the tool. Store the discs in a dry place, protected from extreme temperatures.
- Apply the disc carefully against the workpiece. Quick and/or hard application can damage the disc.
- Allow the disc to reach maximum speed before it makes contact with the workpiece.
- Never use the tool if you are tired or under the influence of drugs, alcohol or medication.
- Stay alert. Pay attention to what you are doing at all times, and use your common sense. A moment of inattention when using a power tool can result in serious personal injury.
- Do not make any modifications to the tool. Never use accessories that are not recommended by the manufacturer. Any modifications to the tool are considered to be misuse and can lead to serious personal injury.
- Do not plug in the power cord until all parts have been fitted, otherwise there is a risk of serious personal injury.
- Always unplug the power cord before carrying out service work or changing accessories like blades, bits or discs.
- The tool is supplied assembled and correctly adjusted. Replace the disc when it is worn with a new one of the same type.
- Only use discs with a diameter of 355mm. Never use a disc that is so thick that the outer flange does not come into contact with the flat surfaces on the spindle – there is a risk that the screw will not lock the disc correctly on the spindle. Failure to follow all the instructions can lead to the risk of personal injury and/or material damage.

- **WARNING:** Do not use the tool to cut wood, stone, bricks or the equivalent. Do not use the tool to cut magnesium or magnesium alloys. Failure to follow all the instructions can lead to the risk of serious personal injury and/or material damage.

Working Environment

- Keep the work area clean. Cluttered workbenches increase the risk of accidents and injuries.
- Do not expose the tool to water or any other liquid. Do not use power tools in damp or wet areas. Do not expose power tools to rain.
- Make sure the work area is well lit.
- Keep onlookers and children at a safe distance. Onlookers should wear safety glasses and be kept at a safe distance from the work area.
- Do not allow onlookers to touch the tool or extension cord.
- Put away tools that are not being used. When not in use, store the tool in a dry place out of the reach of children.
- Always unplug the power cord when the tool is not being used, and before carrying out service work or changing accessories, such as blades, bits or discs.
- Do not stand on the power tool. If the tool tips over or if you come in contact with the disc this can lead to serious injuries.
- Do not use power tools in explosive environments, for example, in the vicinity of flammable liquids, gases or dust.
- Cutting produces sparks. Do not use the tool near flammable materials – risk of fire and/or serious personal injury.
- If using the tool outdoors, only use an earthed extension cord approved for outdoor use.

Vibration Levels

The declared vibration values in the Technical Specification, which has been measured by a standardised test method, can be used to compare different tools with each other and for a preliminary assessment of exposure.

WARNING: The actual vibration level when using power tools may differ from the specified total value, depending on how the tool is used. It is therefore necessary to determine which safety precautions are required to protect the user, based on an estimate of exposure in actual operating conditions (taking into account all stages of the work cycle, e.g. the time when the tool is switched off and when it is idling, in addition to the start-up time).

4. Parts Identification

1. Bottom guard	11. Spindle lock button	21. Spindle
2. Disc	12. Motor	22. Screw, bottom guard
3. Adjustable stop	13. Control arm	23. Inner flange
4. Locking lever	14. Power switch	24. Outer flange
5. Clamp screw	15. Top guard	25. Outer washer
6. Clamp handle	16. Catch	26. Disc screw
7. Tool base	17. Spark guard	27. Scale indicator
8. Clamp	18. Carrying handle	28. Stop scale
9. Spanner	19. Rubber foot	
10. Depth stop screw	20. Stop screw	

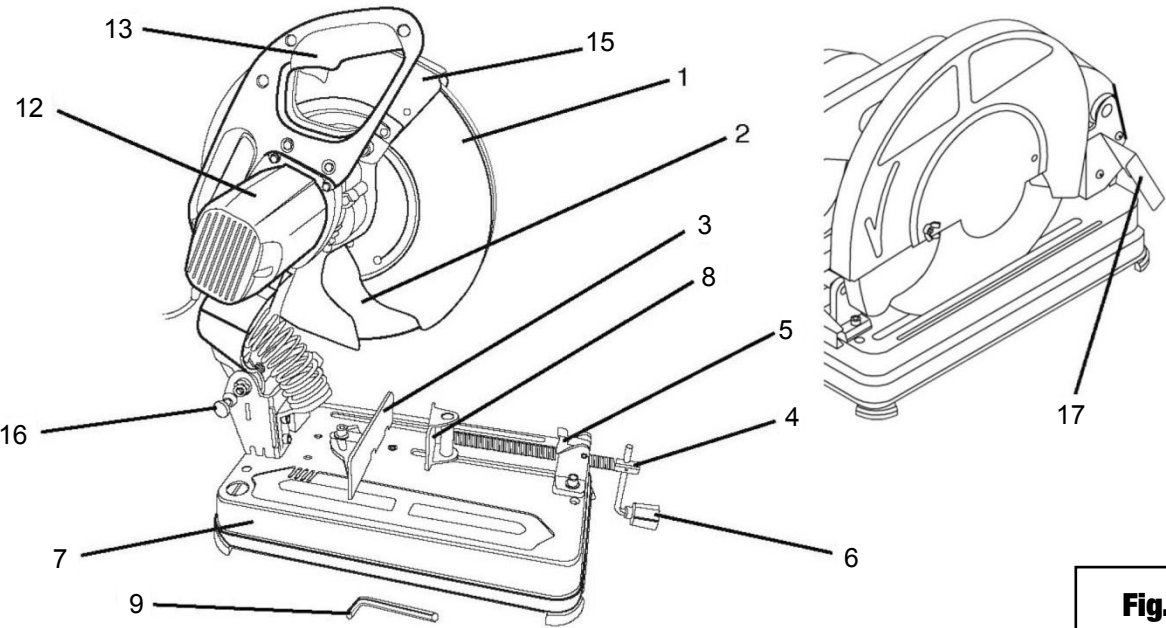


Fig.1

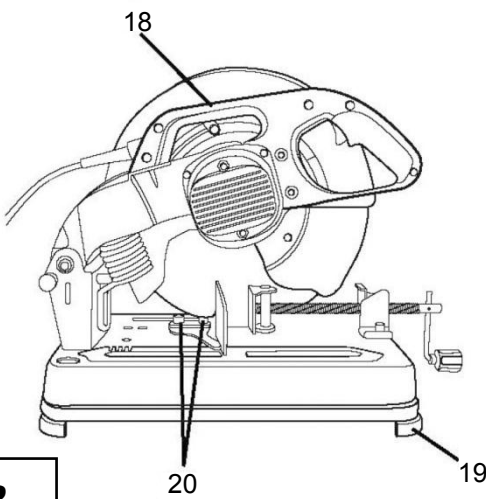


Fig.2

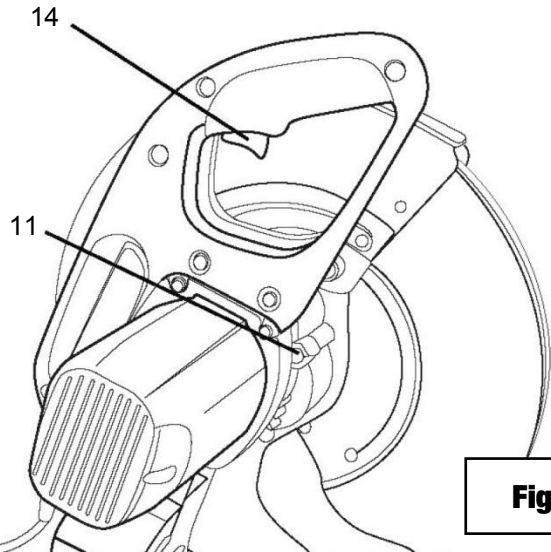


Fig.2a

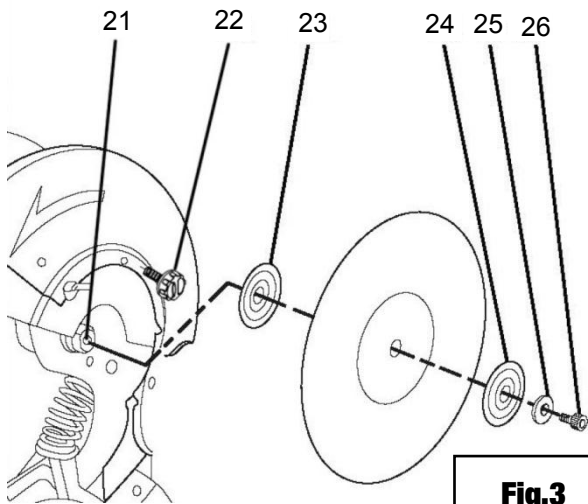


Fig.3

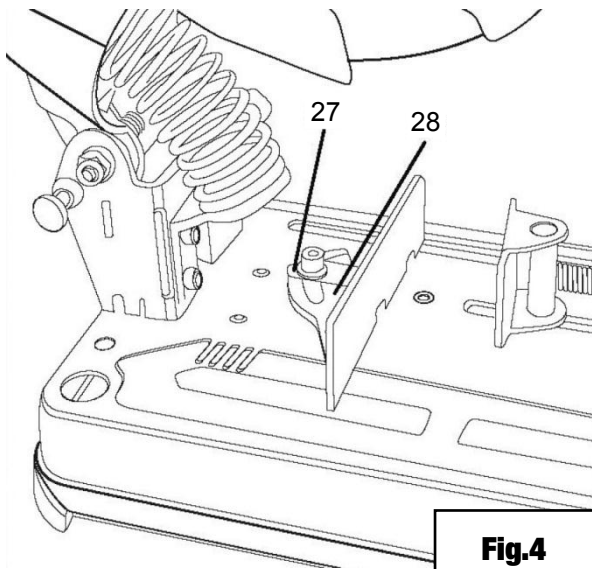


Fig.4

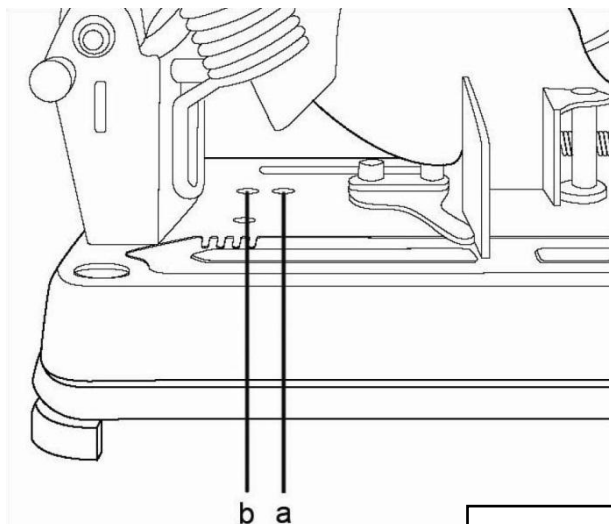


Fig.5

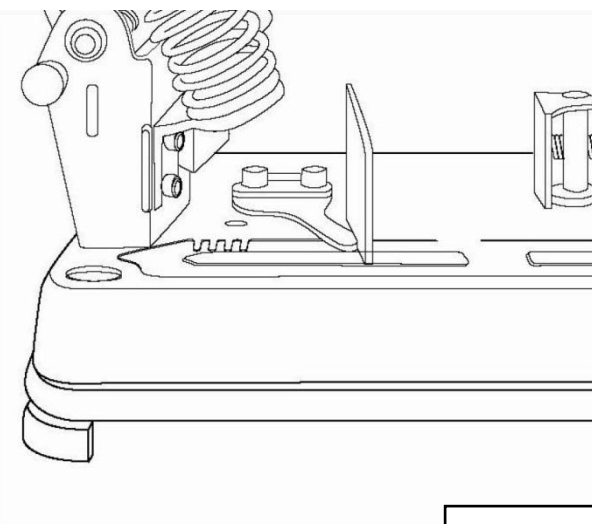


Fig.6

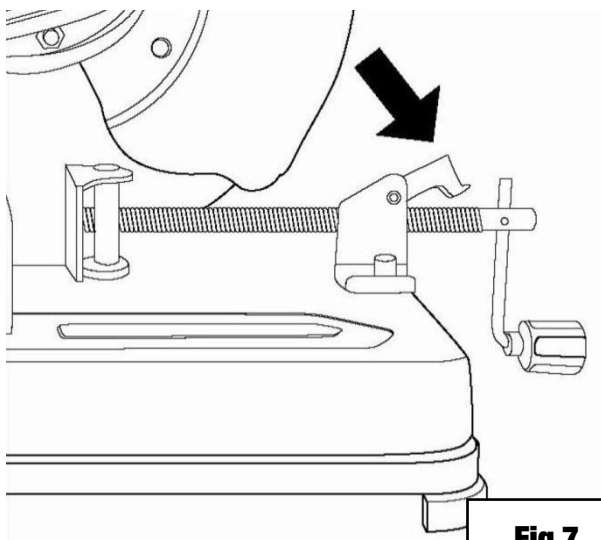


Fig.7

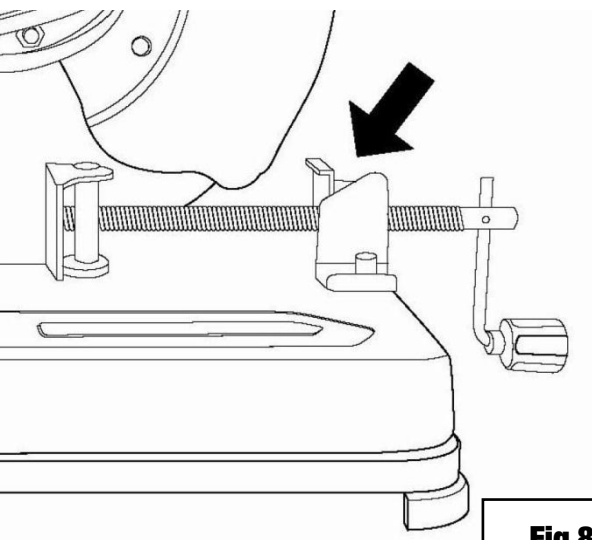


Fig.8

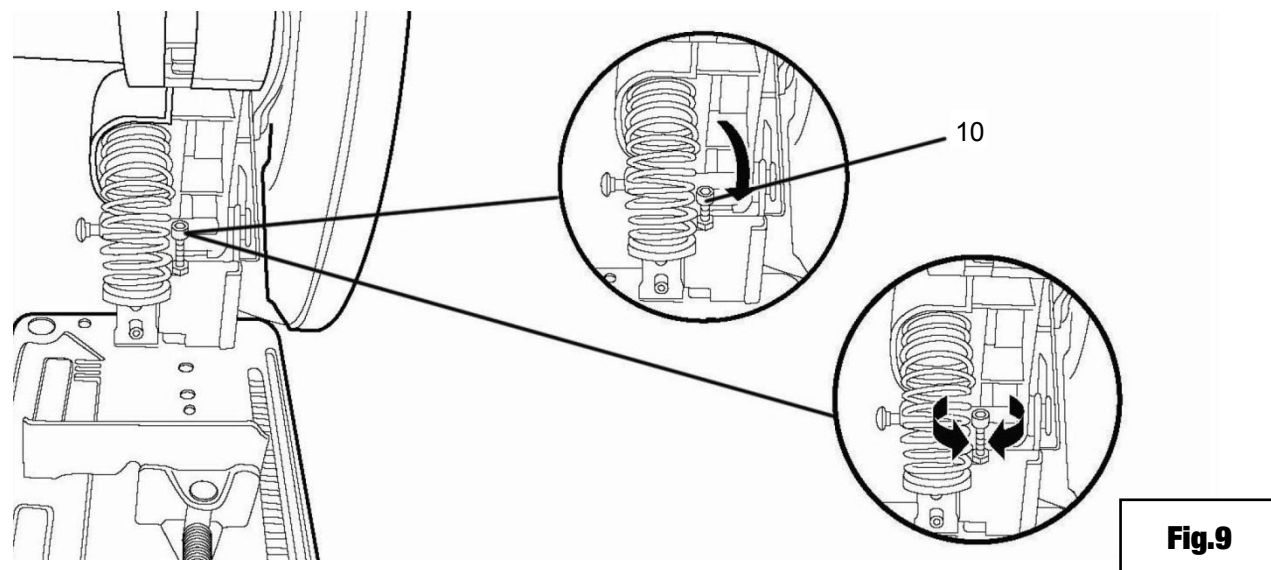


Fig.9

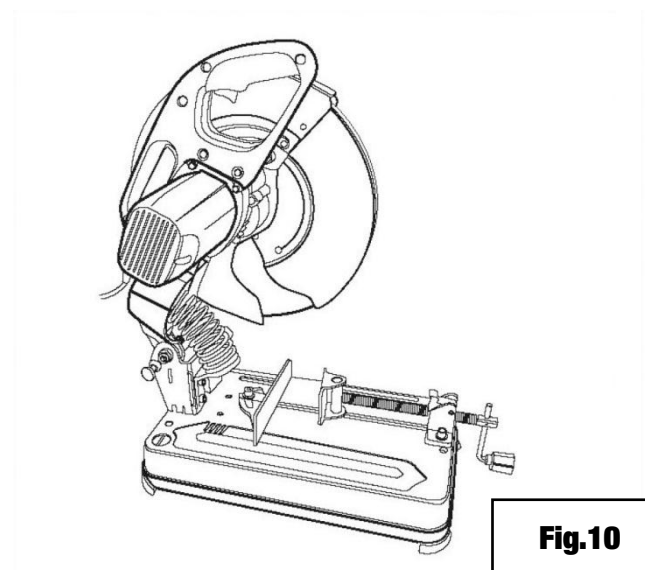


Fig.10

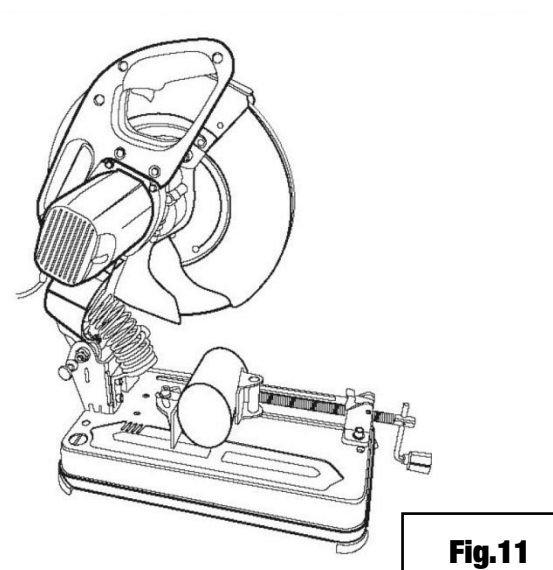


Fig.11

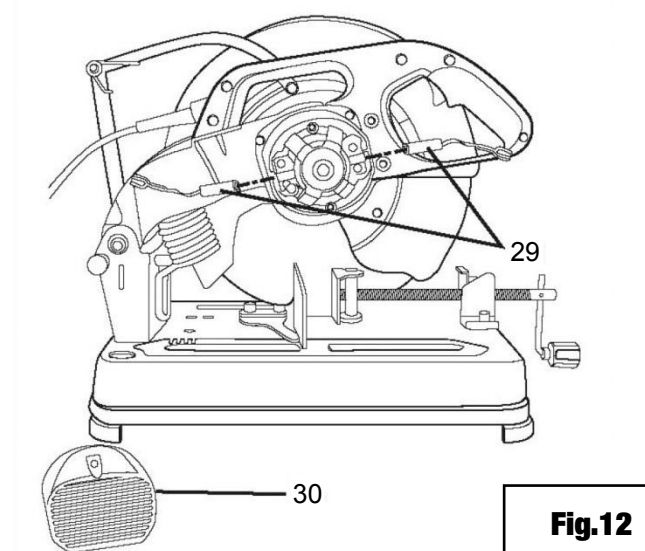


Fig.12

5. Operation Guide

Intended use

The tool is intended for cutting metal with fibre-reinforced discs. Never fit steel blades on the tool and never attempt to cut other materials, e.g. wood or stone – risk of serious personal injury and/or material damage.

Retractable bottom guard

The bottom guard covers the sides of the disc and folds in over the top guard when the disc is lowered down on the workpiece.

Clamp

The tool has a screw clamp, which is used to hold the workpiece pressed against the stop. The clamp also prevents the workpiece from moving against the disc during the cutting.

Adjustable stop

The stop supports the workpiece and acts as a stop for the clamp, so that the workpiece is held firm during the cutting. The stop can be adjusted to the required angle from 0 to 45° to the left or right when cutting at an angle. There are different retaining holes for the stop, so that it can be moved forward when cutting high or thick workpieces, or moved back when cutting low or thin workpieces.

Locking lever

The locking lever is used to quickly release the clamp without using the handle.

Carrying handle

There is a carrying handle on the top of the tool to facilitate transport. Before moving the tool, switch it off, unplug the power cord and wait until all moving parts have completely stopped, then fold down the control arm and lock in the lower position with the transport chain.

Spindle lock button

The tool has a spindle lock button, which locks the spindle when replacing discs. Only use the spindle lock button when removing, replacing and fitting a disc.

Removing and fitting discs

Switch off the tool, unplug the power cord and wait until all moving parts have completely stopped before cleaning, maintenance and/or replacing accessories.

Removing an old disc

1. Press down the control arm and release the chain from the hook on the motor housing to release the control arm.
2. Move the control arm up to the top position. Be careful, the arm is spring-loaded.
3. Pull up the bottom guard to expose the disc screw.
4. Press in the spindle lock button and turn the screw until the spindle locks and cannot rotate.
5. Remove the screw with the supplied spanner. **NOTE:** The screw has a right-hand thread. Unscrew anti-clockwise.
6. Remove the outer washer, outer flange and the disc. Do not remove the spacer, inner flange and inner washer.

NOTE: If the inner flange, spacer and/or inner washer are removed they must be fitted again before putting the disc of the spindle, otherwise the disc cannot be fitted properly.

Fitting a new disc

1. Check that the new disc is not cracked or otherwise damaged and that it has as a minimum the same speed rating as the tool.
2. Do not clean the inner washer and inner flange.
3. Put the new disc on the spacer and put both the spacer and disc on the spindle, pressed against the inner flange.
4. Clean the outer flange, align the flat surfaces to the flat surfaces on the spindle, and put the flange on the spindle until it is pressed against the disc.
5. Put the outer washer with the recessed side first on the spindle and put the disc screw in the threaded hole in the end of the spindle.
6. Screw in the screw clockwise.
7. Press in the spindle lock button and turn the screw until the spindle locks and cannot rotate.
8. Tighten the screw firmly with the supplied spanner. NOTE: The screw has a right-hand thread. Tighten clockwise. Do not overtighten the disc screw, this could cause the disc to crack and result in a risk of serious personal injury and/or material damage.

Spark guard

Undo the screw and move the spark guard to the required position to provide protection from sparking.

Adjustable stop (fig. 4)

- The adjustable stop is used together with the clamp to secure the workpiece during the cutting.
- It can be turned 45° to the left and right to adjust the required cutting angle.
- The clamp can be moved forward when cutting thick workpieces, or moved back when cutting thin workpieces.

Adjusting the cutting angle (fig. 4)

Switch off the tool, unplug the power cord and wait until all moving parts have completely stopped before cleaning, maintenance and/or replacing accessories.

1. Release the catch for the stop with the supplied spanner. Release the locking screw for the stop.
2. Turn the stop to the required angle on the scale on the tool base.
3. For the most accurate precision, check the set angle with a set square or protractor.
4. Tighten the catch for the stop with the supplied spanner and firmly tighten the locking screw for the stop. Replace the spanner in the holder on the tool base.

Adjusting the depth stop (fig. 5–6)

Switch off the tool, unplug the power cord and wait until all moving parts have completely stopped before cleaning, maintenance and/or replacing accessories.

1. Press down the control arm and check the disc clearance and maximum cutting width (the gap from the stop, along the slot in the tool base).
2. Adjust, if necessary.
3. Firmly tighten the lock nut on the locking screw for the depth stop.
4. Tighten the locking screw on the depth stop with the supplied spanner.

NOTE: Always check before use that the disc cannot come in contact with the tool base. The disc can be damaged if it comes in contact with the tool base – risk of personal injury and/or material damage.

Power supply

Check that the mains voltage corresponds to the rated voltage on the type plate. Voltage drops result in reduced power and overheating. Voltage drops can be caused by thin or long extension cords, or because several units are connected to the same power source.

Power switch

1. Start the tool by pressing the power switch on the control arm handle.
2. Release the power switch to switch off the tool.

Cutting (fig. 10)

1. Check that the power switch is in the OFF position before plugging the plug into a mains outlet.
2. Place the tool on a stable surface before use.
3. Lock the workpiece with the clamp.
4. Stand to one side of the disc without any part of the body in line with it.

NOTE: Large, round or irregular workpieces can be difficult to clamp securely with the clamp. Secure such workpieces with clamps along the left and front edge of the base. Use pallets and blocks if necessary.

Cutting (fig. 11)

Cutting involves making the cut across the workpiece. Put the stop at an angle of 0° to cut at right angles. Put the stop at the required angle for diagonal cuts.

1. Clamp the workpiece firmly between the clamp and the adjustable stop.
2. Release the catch and locking screw for the stop.
3. Turn the stop to the required angle.
4. Tighten the catch and locking screw for the stop.
5. Place the workpiece flat on the tool base, with one edge firmly pressed against the stop.
6. Align the cutting line of the workpiece to the edge of the disc.
7. Press in the clamp handle and turn up the clamp until it is flush with the workpiece. Turn it another 1/2 to 1 turn to press the workpiece firmly against the stop.
8. Support long workpieces with roller supports, or the equivalent.
9. Do a “dry run” as a collision check before starting the tool.
10. Start the tool by gripping the handle and pressing in the power switch. Wait a few seconds for the disc to reach maximum speed before it makes contact with the workpiece.
11. When the disc has reached maximum speed, slowly move down the control arm until the disc comes into contact with the workpiece. Continue pressing the control arm firmly down to achieve a smooth cut through the workpiece. Never force the disc into the workpiece. NOTE: Keep your hands at least 7.5cm from the disc when it is rotating.
12. When the cut is ready, release the power switch and wait until the disc has completely stopped before lifting the disc the workpiece.

NOTE: Check before use that the catch and locking screw for the stop are properly tightened, otherwise there is a risk of serious personal injury and/or material damage. The workpiece could move during the cutting if the catch and locking screw for the stop are not properly tightened.

- Avoid using your hands, always secure the workpiece with the clamp.
- The workpiece gets very hot during the sawing – risk of burn injuries.
- Keep your hands away from the workpiece – risk of serious personal injury.
- Do not touch the workpiece until it has cooled – risk of burn injury.

6. Maintenance

NOTE: Switch off the tool, unplug the power cord and wait until all moving parts have completely stopped before cleaning, maintenance and/or replacing accessories.

Replacing the carbon brushes (Fig. 12)

Check the carbon brushes on the tool regularly for wear.

Replace them according to the instructions below if they are worn.

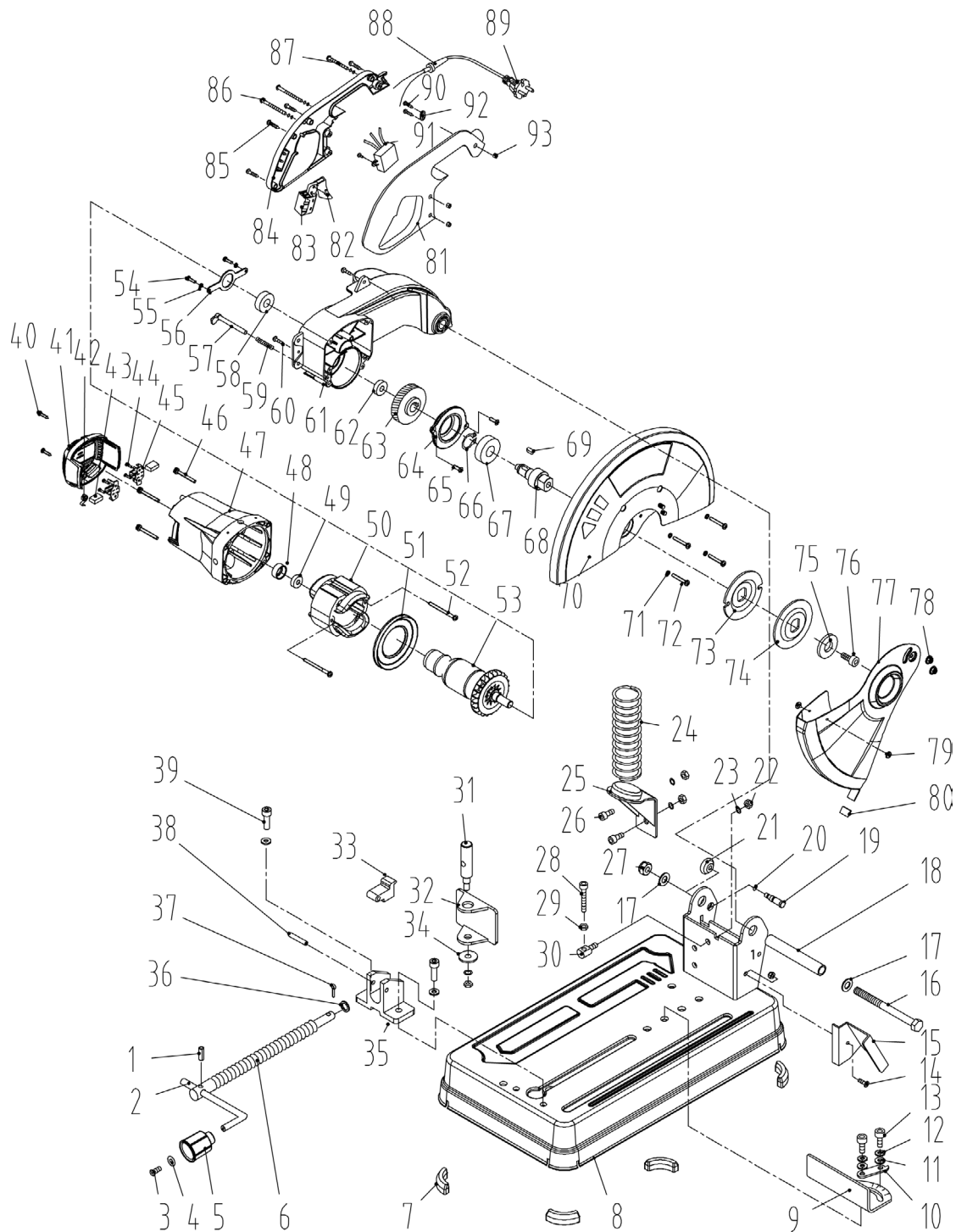
1. Remove the carbon brush cover with a screwdriver. The carbon brushes are spring-loaded and will come out when you remove the cover.
2. Take out the carbon brushes.
3. Check the carbon brushes for wear. Replace the carbon brushes if one of them is shorter than 6.35mm. Always replace both carbon brushes at the same time.
4. Fit the new carbon brushes so that their curvature follows the shape of the commutator. Check that the carbon brushes can move freely.
5. Replace the carbon brush cover.
6. Tighten the carbon brush cover. Do not overtighten.

7. Troubleshooting

Problem	Cause	Solution
The tool will not start.	The power cord is not plugged in.	Plug in the power cord.
	The power cord is damaged.	Have the power cord replaced by an authorised service centre or other qualified personnel.
	The safety switch has tripped.	Reset the switch.
	The fuse has tripped.	Replace the fuse.
	The power switch is damaged.	Have the power switch replaced by an authorised service centre or other qualified personnel.
The motor does not reach maximum speed.	The mains voltage is too low.	Have the mains voltage checked.
	The power circuit is overloaded.	Try connecting the tool to another circuit, or disconnect all other equipment from the circuit.
	The motor has burned.	Have the motor repaired and the mains voltage checked.
	Incorrect rating of fuses or safety switch.	Allow an authorised electrician to replace the fuse and/or switch.
	The extension cord is too thin or too long.	Use a thicker or shorter extension cord.
	The power switch is faulty.	Have the power switch replaced by an authorised service centre or other qualified personnel.
The motor stops or a fuse or safety switch trips.	The power switch is faulty	Have the power switch replaced by an authorised service centre or other qualified personnel.
	Mains voltage too low	Have the mains voltage checked.
	Incorrect rating of fuses or safety switch, or they are faulty.	Allow an authorised electrician to replace the fuse and/or switch.

Problem	Cause	Solution
The motor overheats.	The motor is overloaded.	Have the mains voltage checked.
	The disc has been pressed too hard against the workpiece.	Do not press the disc so hard against the workpiece
Abnormal noise from tool.	The motor needs servicing.	Have the motor checked by an authorised service centre or other qualified personnel.
The disc does not go to the base.	The disc is not fitted properly.	Fit the disc according to the instructions.
	The depth stop is not properly adjusted.	Adjust the depth stop according to the instructions.
The disc does not go all the way through the workpiece.	The depth stop is not properly adjusted.	Adjust the depth stop according to the instructions.
	The disc is worn.	Replace with a new disc with a diameter of 355 mm.
	The cutting does not work properly.	Carry out the cutting according to the instructions.
	Incorrect rating of fuses or safety switch.	Allow an authorised electrician to replace the fuse and/or switch.
The tool vibrates.	The disc is out of round.	Replace the disc.
	The disc is damaged.	Replace the disc.
	The disc is not fitted properly.	Tighten the disc screw.
	The tool is not properly secured.	Check and tighten all screw connections.
	The tool has been placed on an uneven surface.	Place and secure the tool on a level, stable surface

8. Parts List



IMPORTANT! SAFETY FIRST!

Before attempting to use this product please read all the safety precautions and operating instructions outlined in this manual to reduce the risk of fire, electric shock and personal injury.



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