

LS 14/LS 16

Hydraulic Cut-off Saw



LS 14 Cut-off Saw/LS 16 Cut-off Saw

Safety and Operating Instructions



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INTRODUCTION

These operating and safety instructions must be read before operating the machine. Instructions for operation and basic maintenance are included. The purpose of this booklet is to give the machine user an understanding of how to safely and efficiently use and maintain the machine.

SAFETY INSTRUCTIONS

Introduction to safety

SAFETY INSTRUCTIONS	
• Before starting, read all instructions carefully	
• Special attention must be paid to information alongside this symbol	
• Only use Atlas Copco genuine parts	

To reduce the risk of serious injury to yourself or others, read these safety instructions before using the Cut-off Saw. Post these safety instructions at work locations, provide copies to employees, and make sure that everyone reads the safety instructions before using the Cut-off Saw. Comply with all safety regulations.

These instructions have been compiled from international safety standards and form part of the operating instructions. Signs and decals that are important for your safety and the care of the Cut-off Saw are included with each Cut-off Saw. Make sure that they are legible. New decals can be ordered using the spare parts list.

Safety symbols used

The indications DANGER, WARNING and CAUTION, as used in the safety instructions, have the following meanings:



DANGER

Immediate hazard which WILL result in serious or fatal injury if the warning is not observed



WARNING

Hazard or hazardous procedure which COULD result in serious or fatal injury if the warning is not observed



CAUTION

Hazard or hazardous procedure which COULD result in injury or damaged equipment if the warning is not observed

General safety rules

- The Cut-off Saw and accessories must only be used for their purpose
- Learn how the power source is switched off in the event of an emergency
- Only qualified and trained persons may operate or maintain the Cut-off Saw
- Keep the Cut-off Saw in a safe place out of the reach of children, locked up
- Pay attention and look at what you are doing
- Use your common sense
- Do not use the Cut-off Saw when you are tired or under influence of drugs, alcohol or anything else that may influence your vision, reaction or judgement
- Never leave the Cut-off Saw connected with the power source turned on
- Avoid lifting a higher weight than that allowed according to your local environmental working regulations
- Regular maintenance is prerequisite for machine safety. Carefully follow the operating instructions. Replace damaged and worn components in good time. For major service to the Cut-off Saw, contact your nearest authorized workshop. When cleaning mechanical parts with solvent, make sure to comply with current health and safety regulations and ensure sufficient ventilation

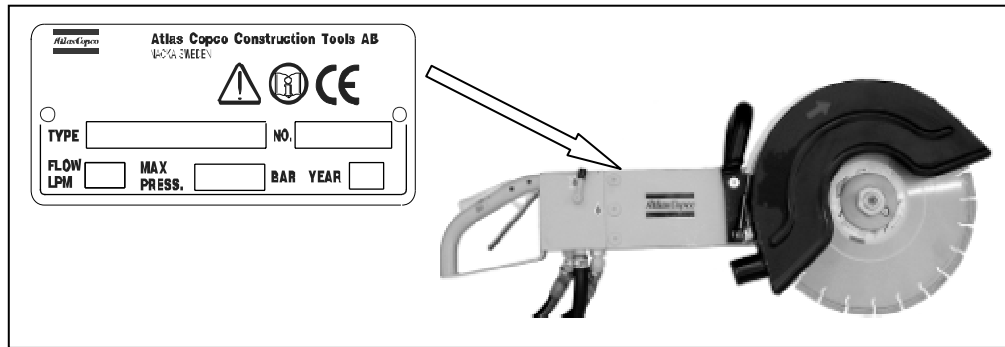
Protective equipment

Always use approved personal protective equipment. Operators and other staff in the proximity areas where work is in progress must as a minimum use the following approved protective equipment:

- Hearing protection
- Protective helmet
- Safety glass with side protection
- Respiratory protection when appropriate
- Protective gloves
- Protective boots

MARKINGS

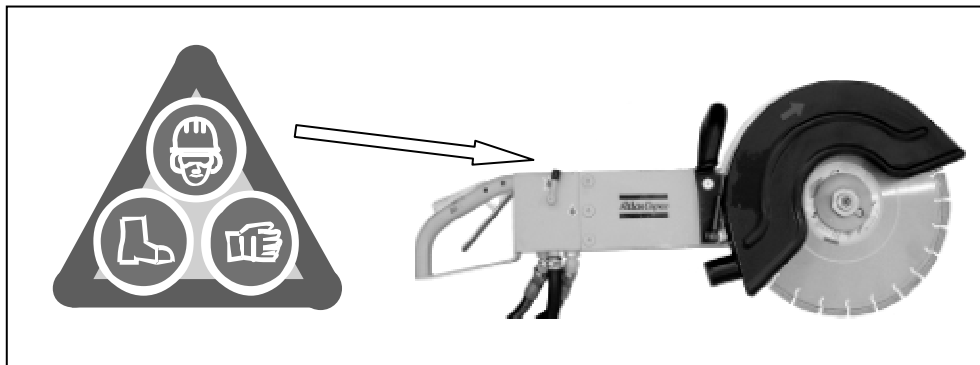
Identification



CE

The CE marking verifies that the machine is CE approved. The marking is on the ID-tag. See the "Declaration of Conformity" supplied with the Cut-off Saw for more information.

Safety signs on the Cut-off Saw



GENERAL INFORMATION

The Atlas Copco LS 14 Cut-off Saw and the LS 16 Cut-off Saw are sturdy and reliable saws designed for working together with Atlas Copco power packs.

The Cut-off Saw is available in both a 14" and a 16" version. The saws are designed for cutting in all directions with discs both for dry and water flushed cutting. An aspirator can be connected to the flange socket of the guard.

The Atlas Copco LS 14 Cut-off Saw and the LS 16 Cut-off Saw are delivered with 2 m 3/8" tail-hoses with 1/2" Flat-Face quick-release couplings.

The direct driven hydraulically powered design provides consistent speed and torque. It also enables underwater cutting.

5 English

For precise and clean cutting jobs on roads, sidewalks and floors, the Atlas Copco LSC Cart for the Cut-off Saw is recommended. The use of the Cart gives a better working posture, and the cutting depth can be adjusted by means of an arm at the front of the Cart. The Cart is equipped with water kit. The Cart is not standard equipment.

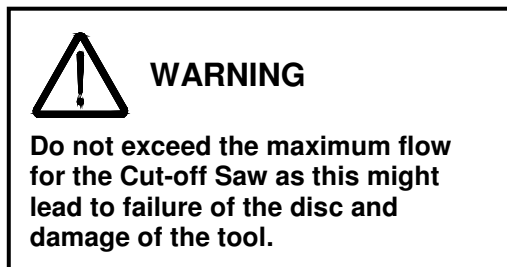
A separate water kit with pressure tank is also available (see the spare parts list).

OPERATING INSTRUCTIONS

Starting the Cut-off Saw

The following checks should be made each time you start to use the Cut-off Saw. All these checks concern the serviceability of the Cut-off Saw. Some concern your safety.

1. Check that the disc is in a good condition and properly attached
2. Clean all safety decals. Replace any that are missing or cannot be read
3. Inspect the hoses generally for signs of damage
4. Check for fluid leakages
5. Ensure that the hydraulic couplings are clean and fully serviceable
6. Ensure that any power source you plan to use is compatible with the model of the Cut-off Saw you are using. See the section **Technical data**. Atlas Copco recommends using an oil flow divider, if the flow from the power source **can** exceed the maximum allowed oil flow (see the spare parts list)

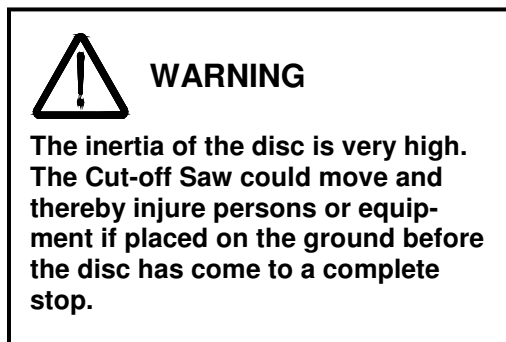


7. Connect the hoses
8. Mount the Cut-off Saw in the Cart (if a Cart is used)
9. Start the power source

10. Activate the water supply or aspirator if used
11. Place the Cut-off Saw at a right angle on the surface to be cut and activate the trigger lever

Stopping the Cut-off Saw

1. Release the trigger. Keep a firm grip on the Cut-off Saw, until the disc has come to a complete stop



2. Stop the power source
3. Disconnect the hoses and fit the protective caps to the quick-release couplings

Service schedules

A poorly maintained Cut-off Saw is a hazard. Doing regular maintenance and lubrication jobs as listed in these schedules will help keep the Cut-off Saw in a safe working condition.

Apart from the daily jobs, the schedules are based on the operation hours of the Cut-off Saw. Keep a regular check of hours in use. Do not use a Cut-off Saw that is due for regular service. Rectify any defects found during regular maintenance before clearing the Cut-off Saw for use



WARNING

Maintenance must be done only by suitably qualified and competent persons.

Before doing any maintenance, make sure that the Cut-off Saw is safe and correctly sited on level ground.

Daily

1. Clean the Cut-off Saw in general
2. Check hoses and fittings for cracks or leaks. Replace if necessary
3. Check for damages



WARNING

Fine jets of hydraulic oil at high pressure can penetrate the skin. Do not use your fingers to check for hydraulic oil leaks. Do not put your face close to suspected leaks. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of hydraulic oil. If hydraulic oil penetrates your skin, get medical help quickly.

Note: Check tightness of nuts, bolts, screws and hose fittings after the first days of operation and thereafter in accordance with the maintenance schedule

Every 3 months

1. Do the daily jobs
2. Check tightness of nuts, bolts, screws and hose fittings

Every 300 hours or every year

1. Do the daily jobs and jobs every 3 months
2. Check the moving parts, disc, seals and bolts for wear and cracks. Replace if necessary
3. Check the function of the Cut-off Saw

Scrapping and waste disposal

Used and worn out parts must be treated and disposed of in such a way that the greatest possible part of them can be recycled and the influence on the environment kept as low as possible.

TROUBLE SHOOTING



WARNING

Maintenance must be done only by suitably qualified and competent persons.

Problem	Cause	Solution
Cut-off Saw turns too fast or develops too much torque	Connected to improper power source	Use proper power supply
	Power source out of adjustment	Adjust power source flow and pressure settings as per the manufacturer's instructions
Cut-off Saw will not turn at all or turns too slowly	Power supply defect	Disconnect Cut-off Saw and check power supply
	Valve/valve block defect	Repair or replace
	Motor defect	Disconnect power source and try to turn the motor shaft by hand. Repair or replace
Cut-off Saw does not develop enough torque (insufficient power to cut material)	Power supply defect	Repair or replace
	Motor defect	Repair or replace

TECHNICAL DATA

	LS 14 Cut-off Saw	LS 16 Cut-off Saw
Weight without hoses and disc	9.8 kg (21.6 lbs)	10.6 kg (23.4 lbs)
Oil flow range	20-30 l.p.m. (5-8 gal/min)	20-40 l.p.m. (5-10 gal/min)
Max. pressure relief valve setting on power source	170 bar (2500 psi)	
E.H.T.M.A. category	C and D	C, D and E
Max. back pressure in return line (measured at Cut-off Saw)	30 bar (450 psi)	
Oil working temperature	30-70°C (86-158°F)	
Motor performance (max.)	6.7 kW (9.1 HP)	8.8 kW (12.0 HP)
Motor torque (max.)	16 Nm (11.8 ft-lbs)	21 Nm (15.5 ft-lbs)
Circumferential speed	46-75 m/s	42-85 m/s
Number of revolutions	2500-4000 min ¹	2000-4000 min ¹
Blade size	365 mm (14 in)	405 mm (16 in)
Arbor hole diameter	25.1 mm (1 in)	25.1 mm (1 in)
Cutting depth		
Handheld	133 mm (5.2 in)	150 mm (65.9 in)
Mounted in Cart	100 mm (3.9 in)	125 mm (4.9 in)
Required cooling capacity	Approx. 1 kW	
Vibration level (ISO 8662-4)	<2.5 m/s ²	

Note: Atlas Copco hydraulic Cut-off Saws are clearly marked with E.H.T.M.A. categories. It is important that any power source is of a compatible category. If any doubt, consult your Atlas Copco dealer.



Noise declaration statement

	LS 14 Cut-off Saw	LS 16 Cut-off Saw
Sound pressure level at work station (ISO 15744) L_{PA}	95 dB	99 dB
Sound power level (ISO 15744) L_{WA}	106 dB	110 dB

IMPORTANT

We, Atlas Copco Construction Tools AB, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation, over which we have no control.