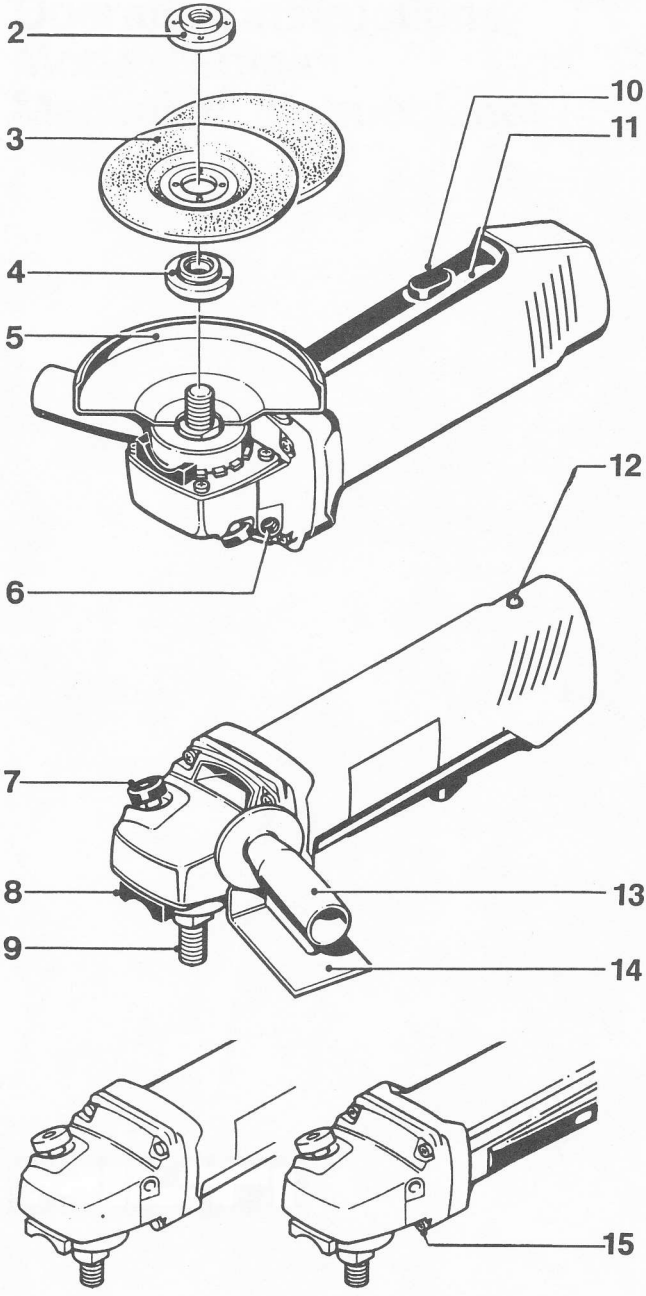
HG 500 / DC 500
Operating instructions
Mode d'emploi
Manual de instrucciones

HILTI



(96.03 E)

HG 500/DC 500 angle grinder

2 Clamping nut
3 Grinding/cutting disc
4 Clamping flange
5 Guard
6 Threaded bushing
7 Spindle lockbutton
8 Release button
9 Grinding disc spindle
10 Release button
11 On/off switch
12 Service indicator (LED)
13 Side handle
14 Hand guard
15 Screws (4)

Technical data

	DC 500	HG 500
Power input	1400 W	900 W
Power output	820 W	560 W
No-load speed	11000 r.p.m.	11000 r.p.m.
Max. grinding disc diameter	5″ (125 mm)	5″ (125 mm)
Drive spindle thread	5/8–11	5/8–11
Starting current regulator	●	
Constant-speed electronics	●	●
Restart interlock	●	
Weight approx. (without accessories)	1.85 kg (4.1 lbs)	1.85 kg (4.1 lbs)
Protection class	II	II

Noise information

The noise level when working can exceed 85 dB (A).
In this case, the operator must wear ear protector.

Wear ear protectors!

This Product is Listed by
Underwriters Laboratories Inc.
and Bears the Mark:

Safety precautions

Warning! **Read all instructions**
The following fundamental safety precautions must always be observed when using electric tools/machines as protection against an electric shock, the risk of injury and a fire hazard. Please read and take note of these precautions before you use the tool/machine. Please read and keep these safety precautions in a safe place!

1. Keep your place of work clean and tidy. Disorder where you are working creates a potential risk of accidents.
2. Make allowance for influence from the surroundings. Don't expose your electric tools/machines to rain. Don't use electric tools/machines in damp or wet surroundings. Make sure the work area is well lit. Don't use electric tools/machines near flammable liquids or gases.
3. Always protect yourself against an electric shock. Never touch grounding (earthing) parts e.g. pipes, radiators, cookers, ovens, refrigerators.
4. Keep children away. Don't let other persons touch the electric tool/machine or supply cord. Keep them away from your work area.
5. Keep your electric tool/machine in a safe place. Electric tools/machines not in use should be kept in a dry locked-up place out of the reach of children.
6. Don't overload your electric tools/machines. You will do your work better and safer in the specified performance/rating range.
7. Always use the right electric tool/machine for the job. Don't use underpowered tools/machines or attachments for heavier duty jobs. Don't use electric tools/machines for work and purposes for which they are not intended e. g. don't use a hand-held circular saw to cut down trees or cut up branches.
8. Wear suitable clothing. Don't wear loose clothing or jewellery. They could be caught up in moving parts. When working outside, the use of rubber gloves and non-slip shoes are recommended. Wear protective hair covering to contain long hair.
9. Always wear protective goggles. If work causes dust, wear a mask as well.
10. Don't use the supply cord for any other purpose. Don't carry the electric tool/machine by the supply cord and don't pull the plug out of the socket/ receptacle by pulling the supply cord. Protect the cable from heat, oil and sharp edges.
11. Secure the workpiece.Use a clamping device or vice to hold the workpiece. It is secured more reliably in this way than in your hand and you can then hold and operate your electric tool/machine with both hands.
12. Don't bend over too far when working. Avoid an unusual stance. Make sure that you are standing firmly and keep your balance at all times.
13. Take good care of your electric tools/machines. Keep the drill bits, insert tools etc. sharp and clean so that you can do your work better, safer and more reliably. Observe the cleaning and maintenance regulations and the instructions for changing drill bits, insert tools etc. Check the supply cord regularly and have it repaired in an authorized repair center. Check the extension supply cord regularly and, if it is damaged, replace it. Keep grips and side handles dry and free from oil or grease.
14. Always unplug the electric tool/machine when it is not in use, prior to cleaning and maintenance work and when changing a drill bit, insert tool etc., such as a drill bit, saw blade or insert tools of any kind .
15. Never leave a key in place. Always check before switching on that the key or adjusting tools have been removed.
16. Avoid any unintentional start-up. Never carry a plugged-in electric tool/machine with your finger on the switch. Always make sure that the switch is off when plugging the electric tool/machine into the electric supply.
17. If an extension supply cord is used outside, only use one which has been approved for the purpose and is correspondingly marked.
18. Be attentive at all times. Keep your eye on your work. Remain in a sensible frame of mind and don't use the electric tool/machine if you cannot concentrate completely.
19. Check your electric tool/machine for damage. You must check the safety devices or damaged parts carefully for perfect functioning in keeping with the intended purpose before using the electric tool/machine further. Check whether the moving parts function properly, whether they are binding, whether any parts are broken, whether all other parts work properly and are fitted correctly, and make sure that all other conditions which can influence operation and running of the electric tool/machine are as they should be. Damaged guards and protective devices and parts must be repaired properly by an authorized service workshop

or replaced provided that nothing else is stated in the operating instructions. Damaged switches must also be replaced in the recognized service work-shop. Never use electric tools/machines which cannot be switched on and off by the switch.
20. Only use accessories and attachments which are given in the operating instructions or in the respective catalogue. The use of accessories or insert tools or attachments other than those specified in the operating instructions can result in personal injury to you.
21. Only have repairs carried out by recognized electrical specialists. This electric tool/machine complies with respective safety regulations. Repairs may only be carried out by an electrical specialist otherwise an accident hazard for the operator can exist.
22. Wear ear protectors when using for extended periods.
23. For tools with side handle: always make sure side handle is secure and use both hands during operation of tool.
24. Keep guard in place. Always use the appropriate guard for your particular application as directed in ANSI B7.1, «Safety requirements for the use, care and protection of abrasive wheels».
25. Use only grinding wheels having a maximum operating speed at least as high as the «No load RPM» marked on the tool's nameplate.

26. Extension Cords
Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the AWG gage number, the heavier the cord.

Table 1: Minimum Gage for Cord Sets

Volts		Total Length of Cord in Feet			
120 V		0–25	26–50	51–100	101–150
Ampere Rating		AWG			
More than	Not more than				
6	10	18	16	14	12
10	12	18	16	14	12
12	16	14	12	*	*

* Not recommended

1. Replacement Parts
When servicing use only identical replacement parts.

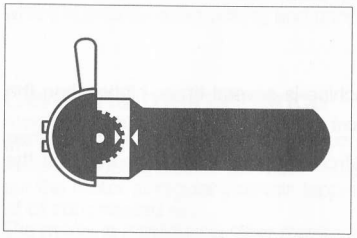
2. Polarized Plugs
To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

Save these instructions.

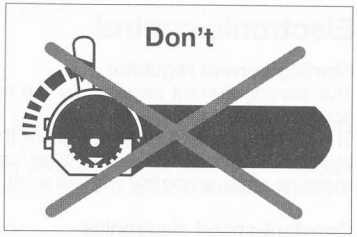
Before initial operation

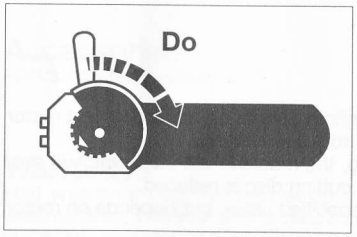
Disc guard
The appropriate disc guard must always be attached while the grinder is in use. For grinding applications (Type 27 discs), use the standard guard supplied with the tool (5).
The locating lugs of the approved disc guard run in the guide groove on the spindle collar. This prevents the disc guard from contacting the disc.
The guard can be adjusted to the position required for the work being done.
Adjusting the guard, ensure that the closed side is towards the operator's body.
During use: Do not adjust with the machine running.
The machine is equipped with a bayonet-type quick-release adjustment device for the disc guard.

Fitting the guard

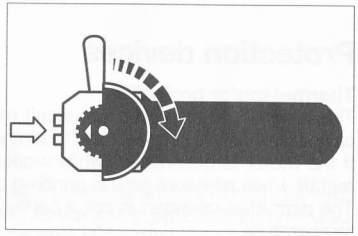


Fit the guard **5** so that the two triangular marks on the guard and the machine are aligned.





Press the guard onto the spindle collar against the spring force and rotate it beyond first notch so that the guard protects the user from accidental contact.



To adjust the guard, press the release button **8** and rotate the guard to the desired position.

Removing the guard
Press release button **8** and rotate the guard until the two triangular marks are aligned.

Side handle and hand guard
For safety reasons, the side handle **13** must always be used. The side handle **13** can be fitted on either the right or left side of the machine.

Fitting a grinding disc
Place the clamping flange **4** on the grinding disc spindle **9** (see illustration).
Fit the grinding disc **3**.
Screw on the clamping nut **2**.
Lock the spindle by pressing the spindle lockbutton **7**.
The spindle lockbutton 7 should be operated only when the spindle is not rotating.
Tighten the clamping nut **2** with the pin wrench.
Check that the grinding disc can rotate freely before switching on the machine.

Testing new discs: See «Initial operation.»

Initial operation

Switching on/off
The on/off switch consists of **2** control elements, the release button **10** and the switch **11**.
To switch on: 1. Press button **10** (to release).
2. Press switch **11** (to switch on). The machine runs as long as switch 11 is depressed.
To switch off: Release switch **11**.

Testing new discs
Allow the machine to run for one minute under no load. If the disc vibrates it must be replaced immediately.
Keep discs free of grease and protect from impact damage. Follow the requirements of ANSI B7.1 on the use and care of discs.

Electronic control

Starting current regulator
The starting current required by the machine is several times higher than the nominal current input.
The starting current regulator limits the current drawn by the machine when starting, helping prevent the mains fuse from tripping. It also ensures that the machine starts smoothly without a jolt.

Constant-speed electronics
The constant-speed electronic control system keeps the running speed almost constant under load or no-load conditions. This permits materials to be ground or cut optimally as a result of the constant disc speed.

Protection devices

Thermal motor protection
The thermal motor protection circuit monitors current consumption and motor temperature. This prevents the machine from overheating.
If the motor is overloaded while working, the machine will stop, and will only restart when pressure on the grinding or cutting disc is reduced.
The permitted overload is not a certain specified value, but depends on motor temperature.

Restart interlock
This protection device prevents uncontrolled restarting of the machine after interruption of the power supply, e.g. when the mains plug is accidentally disconnected by another person.
Even after the supply cord has been reconnected to the mains supply, the machine can only be restarted by operating the on/off switch intentionally. The machine must first be switched off before it can be restarted.

Service indicator
The service indicator LED 16 lights up or begins to flicker approximately 8 hours before the automatic cut-out carbon brushes finally switch off the machine.
LED 16 will no longer be light up once the automatic cut-out carbon brushes have switched off the machine after this approx. 8 hour period.
The machine must then be serviced by Hilti.

Changing discs

Always disconnect the mains plug from the mains supply before working on the machine!

Grinding discs: Lock the spindle by pressing the spindle lockbutton **7**. The spindle lockbutton **7** should only be pressed once spindle rotation has stopped. Release the clamping nut **2** using the pin wrench. Clean the grinding disc, clamping flange **4** and clamping nut **2**.

Permitted disc types: Use only grinding discs which are approved for a speed of at least 11,000 r.p.m. Use only synthetic resin-bonded, fibre-reinforced grinding discs which are approved for a peripheral speed of 80 m/sec.

Type	Max.-diameter	Max. r.p.m.	Max. peripheral speed
Synthetic resin-bonded, fibre-reinforced grinding discs	125 mm	11500 r.p.m.	80 m/sec.

Always observe the permitted max. peripheral speed/r.p.m. printed on the disc label.

Operation

Rough grinding
For best results with rough grinding (smoothing) discs, hold the disc at an angle of 30 to 40° to the working surface.
Materials containing asbestos must not be ground.

Fire risk: Ensure that no flammable materials are located within a wide area of where sparks fly when cutting and grinding metal.

Care and maintenance

Always disconnect the mains plug from the mains supply before working on the machine!
Keep the cooling slots in the motor housing clean and free of obstructions. Clean out the motor at regular intervals (approx. every four weeks), if possible, using a jet of compressed air.
The machine requires no other maintenance.
Should the machine develop a fault despite having been subjected to careful manufacturing and inspection procedures, it should be repaired by an authorised Hilti service centre.

Accessories

Abrasive grinding discs

Warranty

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, all warranty claims are made within 12 months from the date of the sale (invoice date), and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool. This warranty provides the free-of-charge repair or replacement of defective parts only. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.
Under no circumstances will Hilti be ogligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Hilti specifically excludes the implied warranties of merchantability and fitness for a particular purpose.
For repair or replacement, send tool and/or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.
This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.