

OPERATING INSTRUCTIONS

Compact Core Drill with Petrol Motor

47-5175

ELE International Chartmoor Road, Chartwell Business Park Leighton Buzzard, Bedfordshire, LU7 4WG England phone: +44 (0) 1525 249200 fax: +44 (0) 1525 249249 email: ele@eleint.co.uk http://www.ele.com <small>ELE International, a division of Hach Lange Ltd.</small>	Distributor:	ELE International Soiltest Product Division PO Box 389, Loveland, CO 80539 USA phone: +1 (800) 323 1242 fax: +1 (970) 663 9781 email: soiltest@eleusa.com http://www.eleusa.com
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Contents

Section		Page
1	Introduction	3
2	Operation	3
3	Maintenance	4

1 Introduction

- 1.1 This compact and portable core drilling machine is designed to produce cores up to 150mm diameter from concrete, asphalt and similar construction materials. The machine can easily be transported by one person using the integral wheels.
- 1.2 The vertical support column is mounted on a base frame and carries the drilling head/motor assembly. A ball screw mechanism is incorporated enabling precise control of drilling rates and quick return when drilling is completed.
- 1.3 A water swivel for lubricating the core barrel is built into the machine head assembly. The petrol engine is 4 hp four stroke, with fixed speed setting of 800 rpm. The machine provides vertical drilling capability only.
- 1.4 The unit uses standard ELE core barrels which are detailed below.

Accessory core drills

Size	Core Barrel
50 mm	47-5515
75 mm	47-5525
100 mm	47-5565
150 mm	47-5605

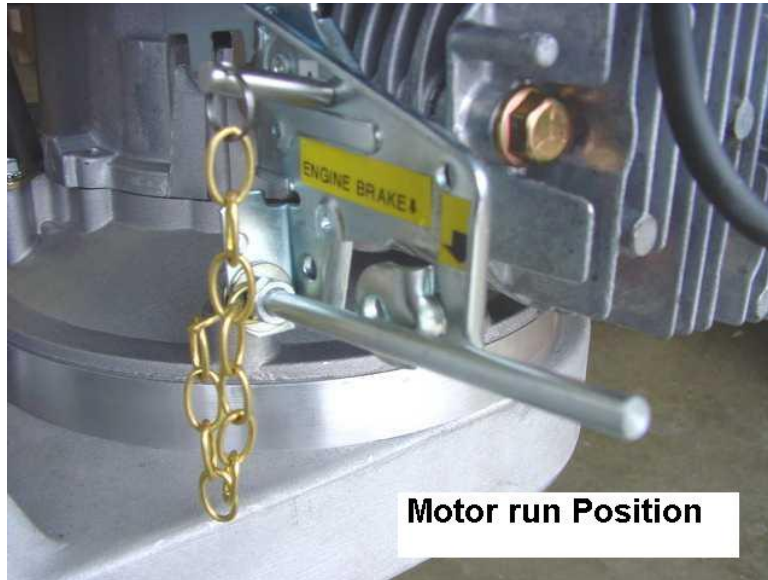
2 Operation

- 2.1 Before fitting or removing core barrels, ensure the engine brake lever is in the run position (brake released). Also disconnect the spark plug lead and keep away from spark plug (to prevent inadvertent starting of the engine).
- 2.2 After fitting the selected core barrel move the brake lever to the stop position (brake applied) and reconnect the spark plug.
- 2.3 Set up the machine in the required position using the base jacking screws to eliminate rocking. Suitable weights or ballast should be applied to the base frame to prevent lifting during drilling. Extra weights can be applied by extending the base sub frame if required.
- 2.4 Connect a water hose to the water swivel inlet pipe.
- 2.4.1 Before starting, check oil level (see engine instruction manual).
- 2.5 Fill the fuel tank with unleaded petrol as stated in the engine manufacturer's instruction manual. (The starting procedure is also covered in the same manual and this should be read before attempting to start the engine.)

- 2.6 To start the engine, move brake lever to **RUN** position and start the engine using the pull cord (see Fig. 1).

Note: When the engine is cold, it will be necessary to press the cold start primer approximately 5 times before using the pull cord.

Fig. 1



- 2.7 To stop the engine move lever to **STOP** (see Fig. 2)

Fig. 2



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- 2.8 Apply water and release the feed handle locking screw and advance the drill gently down into contact with the material to be drilled. During the initial drilling stage and until the full diameter of the hole has been drilled, pressure on the drill should be enough to obtain penetration but prevent the drill from wandering off line. Thereafter maintain sufficient pressure to ensure steady cutting without overloading, stalling the motor or lifting the base of the machine.
- 2.9 When the drill is cutting correctly only light finger pressure should be required on the feed handle, if excessive pressure is required check that:
- (a) the machine has not moved causing the core barrel to rub on the side of the hole.
 - (b) the water supply is adequate.
 - (c) the diamond core drill cutting matrix is in good condition.
- 2.10 After drilling to the depth required, withdraw the drill from the hole whilst it is still running. Then shut off the engine and water supply. The core can be broken off by driving a tapered wedge or chisel into the circular groove.
- 3 Maintenance**
- 3.1 Dry and oil or grease all moving parts after use. For engine maintenance refer to the manufacturer's instructions supplied.
- 3.2 Avoid mechanical damage to the column and core barrels particularly in transit.