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FACT SHEET

**Atlas Copco
CS-1500**

GEOTECHNICAL AND EXPLORATION DRILLING RIG

**GEOMECH AFRICA
LEVEL 1 - B-BBEE**

www.geogroup.co.za



About Atlas Copco CS-1500

The Atlas Copco CS-1500 is a trailer-mounted rotary core drill rig used in exploration drilling. The CS-1500 has the capability to drill holes deeper and faster in various geotechnical investigation sectors.

Exploration Drilling is used in the mineral mining sector to probe the contents of known ore deposits or to explore sites for potential geological/commercial value. Exploration drilling allows geologists to extract and examine sample core profiles at the surface with reduced environmental impact and lower costs.



The GeoGroup CS-1500 is trailer-mounted for easy transport compatibility.

Standard Equipment

- Dump mast
- Derrick in 2 sections
- Four Hydraulic Jacks 610 mm (24 in) stroke
- Fuel tank 190ℓ (50 gal)
- Hydraulic P-size holding clamp
- Control panel hydraulic slide
- Hydraulic rod centralizer
- Fuel filter & water separator
- Mud pump hydraulic driven
Type: FMCW1122BCD
Max flow: 37 gpm (140 lpm)
Max pressure: 700 psi (4.9 mpa)
- Single large diameter main hoist sheave
- mast lighting kit

ATLAS COPCO CS-1500

Technical Specifications

| | | | | |
|---|---|------------------------------|--|---|
| DEPTH CAPACITY CORING (WIRELINE OR CONVENTIONAL) | B Wireline - 1,370 m (4,500 ft) N Wireline - 1,070 m (3,500 ft) H Wireline - 730 m (2,400 ft) P Wireline - 400 m (1,300 ft) <i>Depth ratings are based on vertical and dry hole</i> | SECONDARY PUMP | | 2,5000 psi - 8 gpm (17.2 mpa - 30 lpm) |
| | AUXILIARY PUMP | | 2,500 psi - 8 gpm (17.2 mpa - 30 lpm) | |
| | HYDRAULIC OIL COOLING | | Air | |
| MAIN HOIST | | | | |
| SINGE LINE CAPACITY | Bare drum 5,443 kg / 12,000 lbd | DRILLHEAD AND SPINDLE SPEEDS | | |
| LINE SPEED | Bare drum 40 m/min (132 ft/min) | POWER | | Hydraulic motor - variable speed / reversible |
| CABLE SIZE | 33,5 m x 14,3 mm (110 ft x 9/16 in) | FINAL DRIVE | | 4 in HV chain drive in oil bath- 2.5 ration |
| WIRELINE | | SPINDLE | | 117 mm (4 5/8 in) |
| CAPACITY | 1,830 m of 4,76 mm (6,000 ft of 3/16 inch) 975 m of 6,35 mm (3,200 ft of 1/4 in) | SPINDLE SPEEDS | | |
| | | GEAR RATIO | SPEED (RPM) | TORQUE, NM (FT LB) |
| LINE PULL BARE DRUM | 1,134 kg (2,500 lb) | 1st 6.63:1 | 130 - 196 | 4,382 - 3,007 (3,232 - 2,218) |
| LINE PULL FULL DRUM | 318 kg (700 lb) | 2nd 3.17:1 | 270 - 410 | 2,095 - 3, 007 (1,545 - 1,060) |
| LINE SPEED: BARE DRUM FULL DRUM | 119 m/min (390 ft/min) 457 m/min (1,500 ft/min) | 3rd 1.72:1 | 500 - 756 | 1,138 - 780 (839 - 575) |
| | | 4th 1.00:1 | 857 - 1,300 | 662 - 454 (488 - 335) |
| MAST AND FEED SYSTEM | | RANGE SELECTION | | Manual control from operator's station |
| FEED TRAVEL | 3,5 m (11,5 ft) | HINGED HEAD | | Swing away |
| FEED SPEEDS | Fast and slow with variable control | CHUCK ASSEMBLY | | |
| THRUST | 5,895 kg (13,000 lb) | TYPE | | Hydraulic open, spring closed |
| PULL | 9,525 kg (21,000 lb) | MAXIMUM INSIDE DIAMETER | | 117 mm (4 5/8 in) |
| DRILLING ANGLE | 45 degrees | HOLDING CAPACITY | | 18,143 kg (40,000 lb) |
| ROD PULL LENGTH | 6,09 m (20 ft) | | | |
| HYDRAULIC SYSTEM | | WEIGHT | | |
| PRIMARY PUMP | 3,500 psi-43 gpm (24.1 mpa - 162 lpm) | RIG WEIGHT | | 6,350 kg (40,000 lb) |

About Geomech Africa

Geomech Africa (Pty) Ltd is an industry leader in the geotechnical investigations in Southern Africa. Certified as a **Level 1 B-BBEE** contributor. Providing drilling and testing services to the minerals exploration market, as well as geotechnical and civil industries in and around Southern Africa and Africa.

Geomechanics has long-term policies of developing operational/maintenance staff and upgrading equipment, to ensure that geotechnical investigations conducted for our clients are accurate, timely, cost effective and easily interpreted.

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The GeoGroup

GeoGroup comprises of a group of companies, each a leader in its own field, providing a range of services to the geotechnical, civil, mining and energy industries.

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