

ECM-660 III Hydraulic Crawler Drill

Setting The Pace.

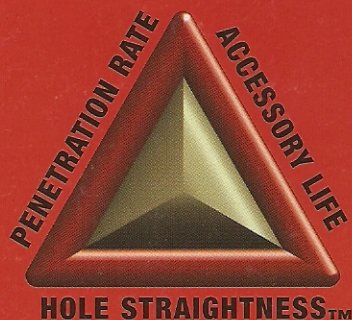
HOLE QUALITY | PENETRATION RATE | ACCESSORY LIFE



Tough Enough To Lead,

Highest Quality

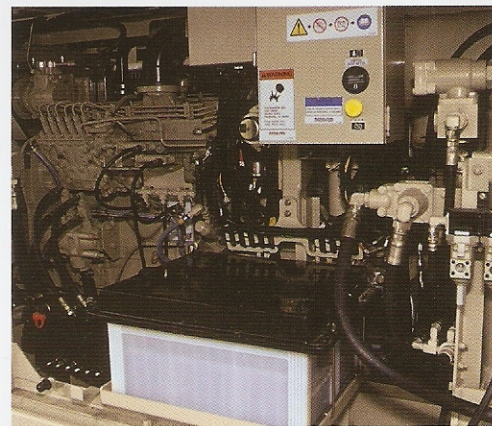
Ingersoll-Rand crawler drills are designed and manufactured to the highest quality standards, assuring you the most efficient and reliable drills available anywhere. The Ingersoll-Rand ECM-660 III crawler top hammer drills are perfect examples: straight holes and high penetration rates with lower operating, maintenance and parts costs for the lowest cost-per-ton drilled.



Greater Availability, Better Reliability, Long Life, Easy Serviceability

Reliable Engine & Simple Direct-Drive Powertrain

The Cummins after-cooled, turbo-charged 6CTAA8.3 Tier II engine is optimized for efficient operation. It provides 260 hp (194 kW) @ 2,200 rpm. The automatic throttle control lowers engine rpm during non-drilling operations to save up to 15 percent in fuel costs. Pumps and air compressors are coupled directly to the engine. No power divider, gear box, clutches or hydraulic motors are required, reducing maintenance and increasing efficiency. Full-length doors provide complete access for service.



Simple, Low-Pressure Hydraulic System

No microprocessors or complicated control systems are used. All controls for drilling functions (rotation, feed, percussion) are hydraulic instead of electric. This simple design basically eliminates troubleshooting time and increases machine uptime.

Superior Cutting Removal With High-Volume Air Compressor

The GHH-Rand air compressor produces 350 cfm @ 140 psi (10 m³/min @ 9.7 kg/cm²). It is a perfect match for the high production of the HC160 drifter. This powerful combination reduces regrinding of cuttings, increases drilling speed and ensures optimum bailing velocity for holes up to 4-1/2" (114 mm) in diameter.



Rugged Enough To Last

Comfortable Operating Environment

High Visibility

Excavator-style drilling controls, full-surface front glass and a large roof window provide excellent visibility of the hole during drilling and of the auto rod changer (ARC) during rod addition and retrieval. The cab is mounted to the main frame and is independent of track movement for better hole visibility on uneven terrain.

Easy Drilling Without Complex Electronics

Drilling is easier using two arm-mounted hydraulic pilot joystick controls. Full-flow hydraulics for boom and guide positioning provide smooth responsive movements for quicker setup between holes. Rod changing is simplified with one-lever control.

Quiet, Clean Environment

Pressurized air conditioning and heating system (using external, filtered air) provides a clean, comfortable operating environment. Noise in the cab has been reduced for quiet operation. The powerful dust suppression system keeps the air around the drill even cleaner.

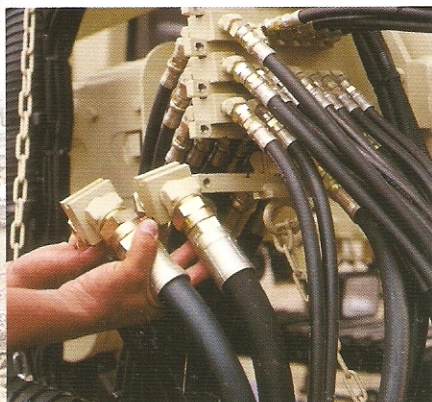


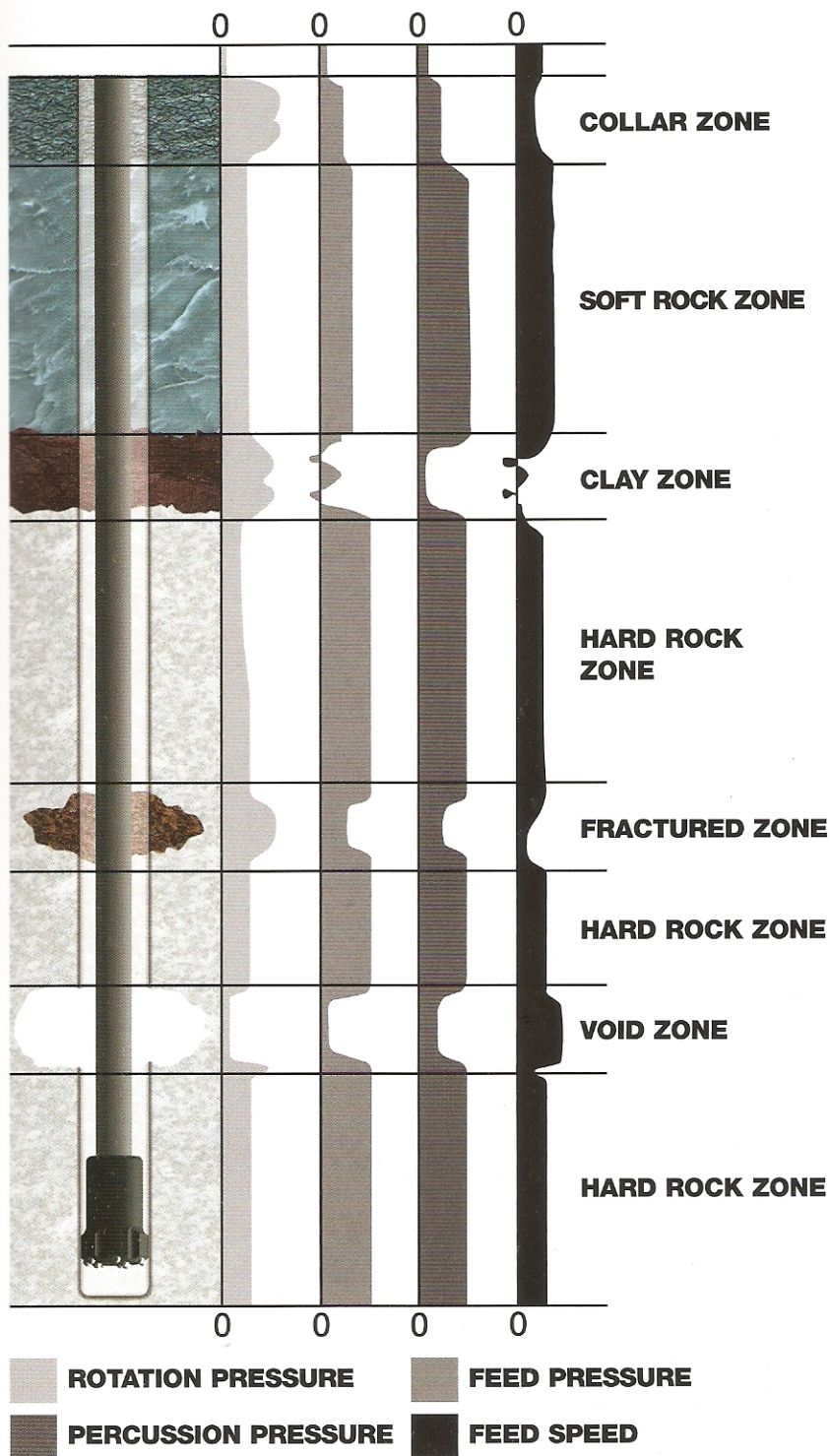
Arm-mounted Drilling Controls



Clever Hose Management

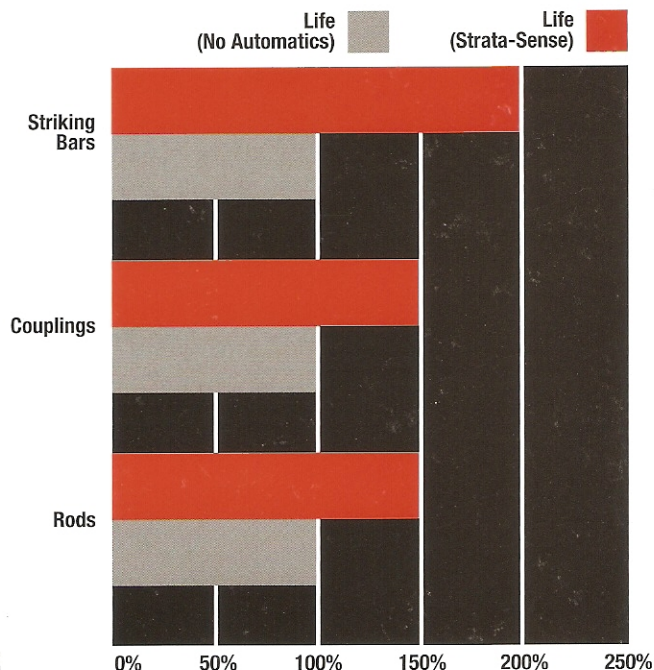
Use of sliding hose reel, steel pipe sections and separation of percussion hoses from other (non-vibrating) hoses reduces hose wear and damage. Hose segmentation into shorter, uniform lengths and the use of individual hose brackets improves maintenance costs and serviceability.





Strata-Sense® Drill Automatics

Optimization of drilling speed, hole straightness and trouble avoidance with Strata-Sense® Drill Automatics can increase the life of your drill accessories up to 200 percent.



High-performance Features

- Function-dedicated pumps provide optimal hydraulic loading
- Reversible fans for cold weather operation
- Tier II emission compliant engine
- Perimeter access for routine maintenance
- Rod changer automation with single-lever control
- 500-hour oil change interval

PRO-TECH Advantage

5-year/10,000-hour warranty on all airends when you use genuine Ingersoll-Rand parts, service and fluids.

World-class Drifter Control Technology

Experience powerful drilling with load-sense, progressive-percussion pressure control while the progressive-feed control reduces jamming and senses voids. Automatic reverse percussion, automatic air protection circuit — vital when drilling through clay — and auto-collaring increase productivity.

GENERAL SPECIFICATIONS

DRIFTER

Model	HC160
Hole Diameter	3 – 4-1/2" (76 – 114 mm)
Rotation Speed	0 – 130 rpm
Max Rotation Torque	904 lb-ft (1225 Nm)
Frequency	2500 bpm
Impact Energy	413 ft-lb (560 J)
Fronthead Lubricator	0.7 qt. (0.66 L)
Accessory Size Standard (Option)	51R (45R)

ENGINE

Model	Cummins 6CTAA8.3
Rated Power	260 hp (194 kW)
Operating speed	2200 rpm
Fuel capacity	106 gal (400 L)

BOOM AND GUIDE

Drifter Travel	13' 11" (4250 mm)
Feed Force/pullback	4,409 lb (19.6 kN)
Feed Speed-Fast	132 ft/min (40 m/min)
Feed Speed-Slow	Max 33 ft/min (10 m/min)
Guide Extension	59" (1500 mm)
Starter Rod Length	14' (4.3 m)
Boom Extension	31.5" (800 mm)
Auto Rod Changer	(6)12' x 51R, Opt. (6)12' x 45R
Drill Depth	82' (25 m)

ROPS/FOPS CAB

Safety Shutdown	Standard
Wipers, Top and Front	Standard
Noise Level	83 dBa
Cooling — External Air	11,904 BTU (3000 k.calories) AC
Heating	13,980 BTU (3500 k.calories) Heat
Seat	6-way adjustable, air cushion
Glass	Safety

GHH-RAND ROTARY SCREW COMPRESSOR

Compressor Volume	350 cfm (10 m³/min)
Max Compressor Pressure	140 psi (9.7 kgf/cm²)

GENERAL

Gradeability	30° (60%)
Ground Clearance	16.6" (420 mm)
Track Oscillation	18° (total)
Tram Speed	0 – 2 mph (0 – 3.2 km/h)
Grouser Width	13" (330 mm)
Hydraulic Oil Tank	53 gal (200 L)
Ambient Temperature Rating	52°C (125°F)

DUST COLLECTOR

Suction Capacity	989 cfm (28 m³/min)
Air Vacuum	7,845 Pa (800 mm Hg)
Filter Area	27.5 yd² (23 m²)
Dust Hood	Remote-controlled, vertical sliding
Pre-Skimmer	Optional
Vaporsol	Optional 40 gal (151 L)

SHIPPING:

Weight	28,670 lb (13000 kg)
Shipping Width	8'2" (2470 mm)
Shipping Length	32'9" (9980 mm)
Shipping Height	9'5" (2870 mm)

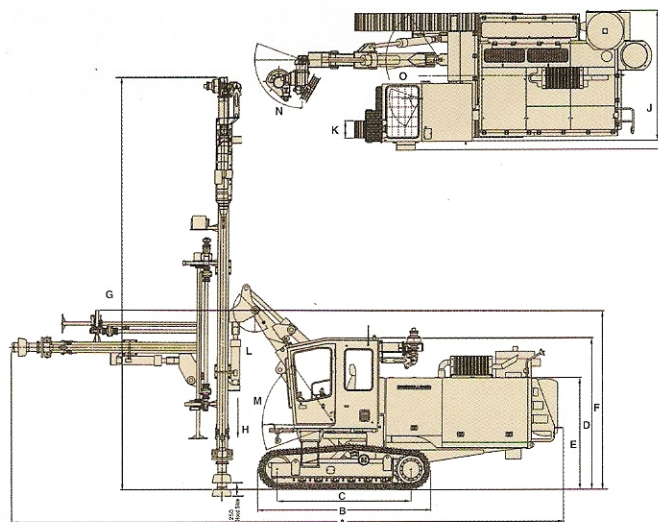
A 32' 9" (9980 mm)	E 6' 8" (2024 mm)	I 8' 8" (2630 mm)	M 20°D/55°U
B 10' 6" (3200 mm)	F 9' 5" (2870 mm)	J 8' 2" (2470 mm)	N 20°R/90°L
C 8' 0" (2430 mm)	G 25' 2" (7660 mm)	K 13" (330 mm)	O 55°R/10°L
D 9' 8" (2940 mm)	H 4' 11" (1500 mm)	L 135°	P 32" (800 mm)

STANDARD EQUIPMENT

Extendible boom
HC160 reverse percussion hydraulic drifter
Strata-Sense drilling automatics
Two-lever drilling controls (arm-mounted)
One-lever ARC control
350 CFM@140 psi (10 m³@9.7 kg/cm²) air compressor
90 degree indexed drill guide
Auto rod changer with auto greaser
Carries 6' x 12' (1.83 x 3.66 m) x T51 rods
ROPS/FOPS cab with heat/air & full front glass
Hydraulic centralizer (72 mm half bushing)
Engine auto throttle
Dust collector with vertical sliding hood
Rear mirror
Night lights (front-3, rear-1)
Fire extinguisher (6.0 kg, 13.2 lb)
24-volt electric system
JIC fittings
Two-speed tram motors
Full-length track guards
Triple-grouser pads
Warning horn
Back buzzer
Drifter hour meter
Filter kit
Low level indicator for fuel & hyd. oil
Three sets of operation/parts manuals

OPTIONAL EQUIPMENT

6' x 12' (1.83 x 3.66 m) x T45 ARC
with 63 mm or 66 mm half bushing
ARC lockout system
Anti-freezing system (compressor)
Pre-skimmer
Vaporsol set up (less tank)
Vaporsol — with tank 40 gal/ASME (150 L)
Accumulator charge kit (CPN 86323532)
Electric angle indicator (2 dim)
Hydraulic pressure test kit
Single-grouser pads
77 mm half bushing for T51 ARC
Extra set of parts book/operation manuals



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Form 01-0001 Printed in USA. 10-03