FRD
FURUKAWA

HYDRAULIC CRAWLER DRILL

HCR1000 - EDS

FURUKAWA

HD700 series HIGH-PERFORMANCE DRIFTER

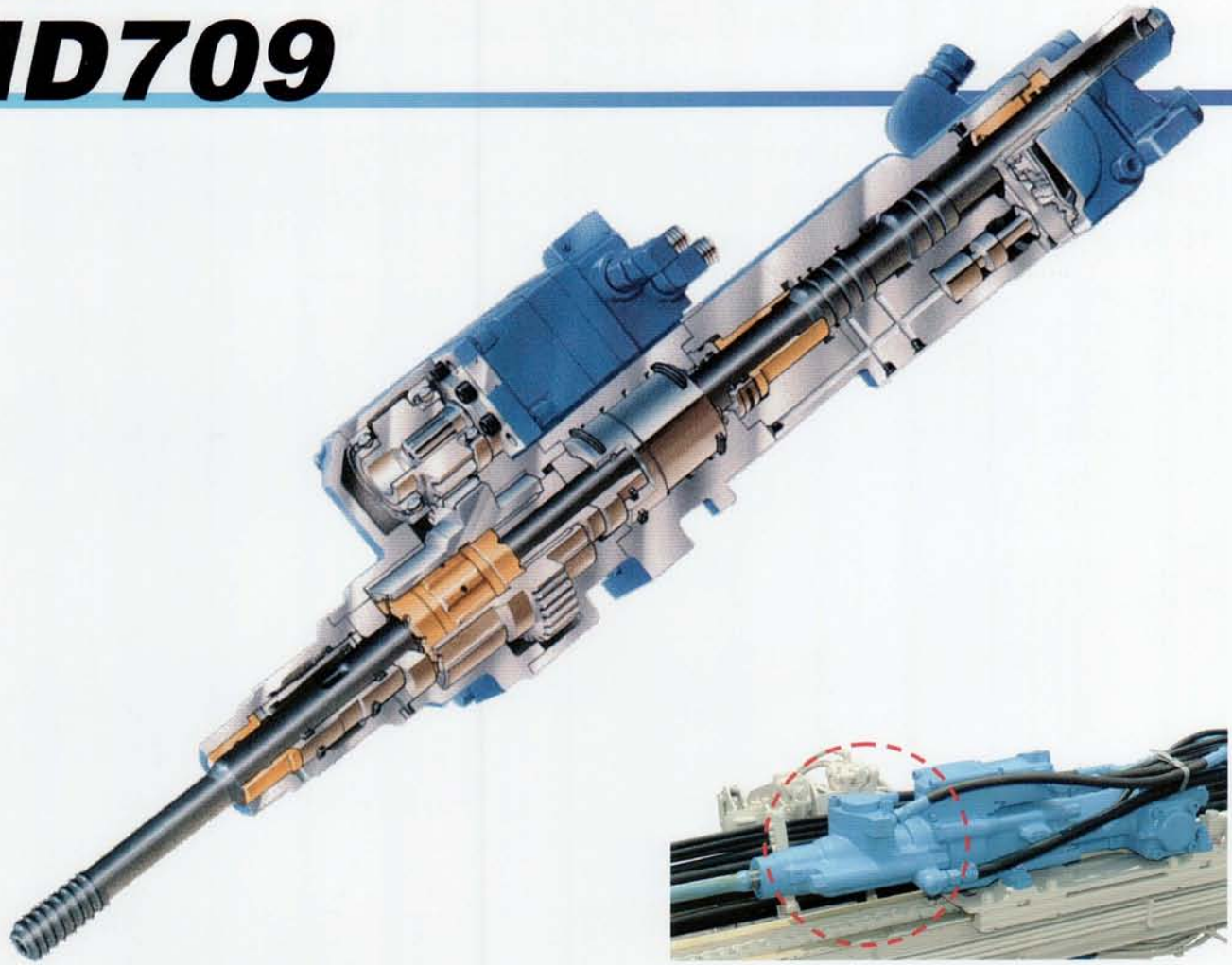
FURUKAWA HD700 series: drifter delivers superior performance. With the HD700 series, it's easier than ever before to drill faster and straighter.

Industry-leading features of FURUKAWA HD700 series includes:

- Dual Damper System automatically tunes the drifter for maximum performance regardless of the rock condition.
- New piston design, engineered to maximize energy transmission and to drill effectively in a variety of rock types.
- Manually adjustable percussion, feed force, feed speed, and rotation speed all of which may be utilized for obtaining optimum drilling performance.
- New drifter design minimizes drill noise and vibration.
- Simplified operation allows even inexperienced operators to perform well.
- The HD700 series — the key to high-performance drilling.

Drifter

HD709



DUAL DAMPER SYSTEM

For maximum energy transfer, the system minimizes return shock waves by keeping the bit firmly against the rock at all times during drilling, resulting in lower energy loses. By reducing the overall feed force required by the system, straighter holes are achieved. An additional benefit is greatly improved shank rod and drill tools life.

COMPACT VALVE DESIGN

The new design takes an innovative approach to operating efficiency. A compact valve built in the HD700 cylinder is positioned in close proximity to the piston resulting in a rapid valve and piston response, both leading to outstanding drifter performance.

QUICK EXTRACTION DEVICE (Q.E.D.)

Makes it easier to free a stuck rod. A substantial increase in extraction force allows field proven Quick E.D. to remove the stuck rod more efficiently.

IDS-2 DRIFTER CONTROL (Optional)

Field proven Furukawa-IDS has been simplified and customized as IDS-2 for HCR1000DS series.

- IDS-2 hydro-mechanically monitors feed-speed of the drifter during drilling.
- Furukawa has a newly developed flow-censing IDS-2 valve which manages feed speed of the drifter during the drilling operation.
- When the drill bit enters air gaps or mud seams between rocks or loose rock layers, IDS-2 lowers feed speed of the drifter to pre-adjusted slow feed-speed until the bit once again contacts solid rock. The dual damper also shifts the position of the shank rod forward allowing the piston to drive the shank rod with reduced power.
- When the drill bit passes between rock layers, feed speed is lowered to maintain straight in line drilling.
- IDS-2 reduces total steel cost and lost drill time due to stuck drill rods.

THE ULTIMATE COMBINATION OF PERFORMANCE AND ECONOMY

New drifter design incorporating the IDS-2 drilling system delivers the highest-possible drilling performance at the lowest-possible operating cost.

HIGH-OUTPUT COMPRESSOR

High-output compressor increases flushing air volume, provides faster drilling and decreases bit wear. It also prevents redrilling of cuttings, and improves drilling speed.

IMPROVED PRE-CLEANER PERFORMANCE

Allows increased flushing air volume which reduces system clogging. Outlet design expels the large cuttings before they reach the main housing, filter life is extended.

IN-LINE-2 ROD CHANGER

All hydro-mechanical In-Line-2 rod changer is an updated model of the conventional Furukawa In-Line rod changer.
Rod change time is reduced.

LOW-EMISSION ENGINE

Quiet, powerful engine meets major exhaust-emissions regulations, the European Union, the United States, and Japan. In addition to being clean, it is also economical, offering low fuel consumption. And, thanks to an engine frame that sits on rubber mounts, the operator's cab is isolated from engine vibrations. In cold weather, an intake air heater ensures quick starting.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NEW S-SERIES CAB

Drilling control sticks are placed at both sides of the operator's seat and are pilot operated. Visibility during drilling is greatly improved. Pressurized air conditioning keeps the cab climate controlled and clean.

JOY-STICK OPERATION

Two multi-function levers control the drilling and rod changer operations. Ergonomic designed levers are pilot operated for effortless day long operation.

HIGH VISIBILITY GAUGES

Hydraulic and air pressure gauges are mounted on the front right post, allowing the operator to check them simply by glancing. This common-sense positioning lets the operator monitor machine functions while continuing to focus attention on the drilling.

WALK-AROUND GROUND-LEVEL MAINTENANCE

All daily maintenance can be performed at ground level. Gas-assisted dampers allow the hinged service doors to be opened easily for access to all required maintenance locations.

HEAVY-DUTY UNDER CARRIAGE

Heavy-duty track frames provide strength and durability. They feature a pentagonal section design to reduce dirt build up and track wear. One-piece drive sprockets are manufactured with hardened wear surfaces for longer life. Track rollers and carrier rollers are forged and hardened for durability, and lifetime-lubricated to reduce maintenance requirements. Heavy-duty track links are forged from high-manganese alloy steel, and pins and bushings are induction-hardened. Alloy steel front idlers are hardened, and lifetime-lubricated. Standard full track guards protect under carriage. Track tension can be adjusted easily with a grease gun.


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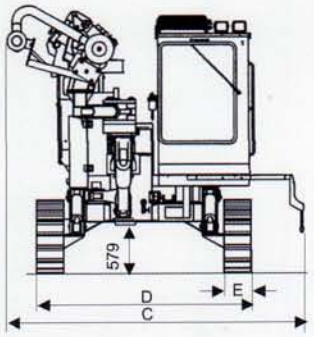
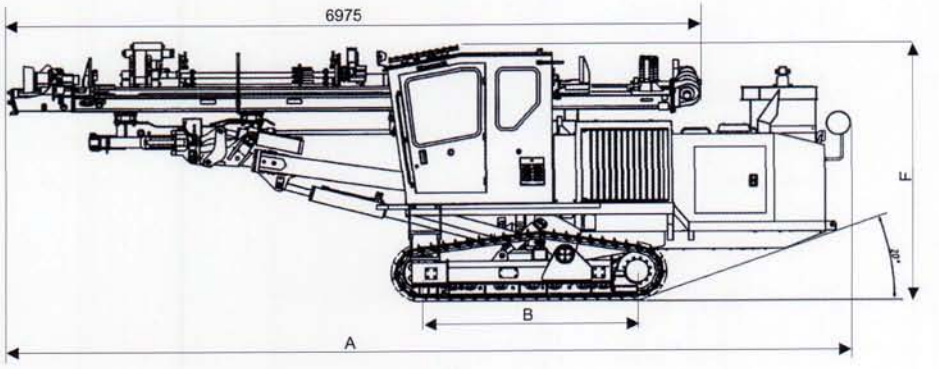
■DIMENSIONS





■SPECIFICATIONS

Model		HCR1000-EDS
Weight & dimensions		
Operating weight with ROPS/FOPS cab	kg	11700
A Overall length	mm	9260
B Ground contact length	mm	2380
C Overall width with pre-cleaner	mm	3280
D Width over tracks	mm	2400
E Width of shoe	mm	300
F Overall height(traveling)	mm	2890
Drifter		
Model		HD709
Weight	kg	185
Impact rate	min^{-1}	2250 - 2500
Number of rotations	min^{-1}	0 - 250
Undercarriage		
Ground clearance	mm	579
Oscillating angle	deg	±10
Travel speed	km/h	0 - 3.8
Grade ability	%	57.7 (30 deg)
Engine		
Make/Model		CATERPILLAR / 3126B
Type		Turbocharged and air to air after cooled diesel, direct fuel injection, electronic governor
Output/speed	kW/min	131 / 2200 Net usable output available at flywheel of the installed engine with all the standard accessories. SAE J1349, SAE J1995 conditions.
Piston displacement	Liter	7.2
Hydraulic pump		
Type		2-variable displacement piston pumps supply pressure oil for both travel and drilling. 2-gear pumps for cooling and dust collector.
Compressor		
Model		PDS265-S35A
Free air delivery	m^3/min	6.1
Working air pressure	MPa	1.03
Boom		
Model		JE326
Lift angle up-down	deg	40 - 28
Swing angle right-left	deg	35 - 10
Extension length	mm	1200
Guide shell		
Model		GH831
Length	mm	6975
Feed length / with Reverse Percussion	mm	4727 / 4552
Slide length	mm	1500
Swing angle right-left	deg	30 - 90
Tilt angle	deg	180
Rod pull	kN	24.5
Dust collector		
Suction capacity	m^3/min	20
Rod arrangement		
Type		Rod changer
Number of rods		5+1 (starter rod)
Bit and rod		
Bit diameter	mm	65 - 90
Rod size		32H, 38R, 45R, (38H)
Rod length	mm(ft)	3050(10ft) or 3660(12ft)
Starter rod length	mm(ft)	3660(12ft) or 4000(14ft)

The contents of this specifications are subject to change without notice in the future.

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