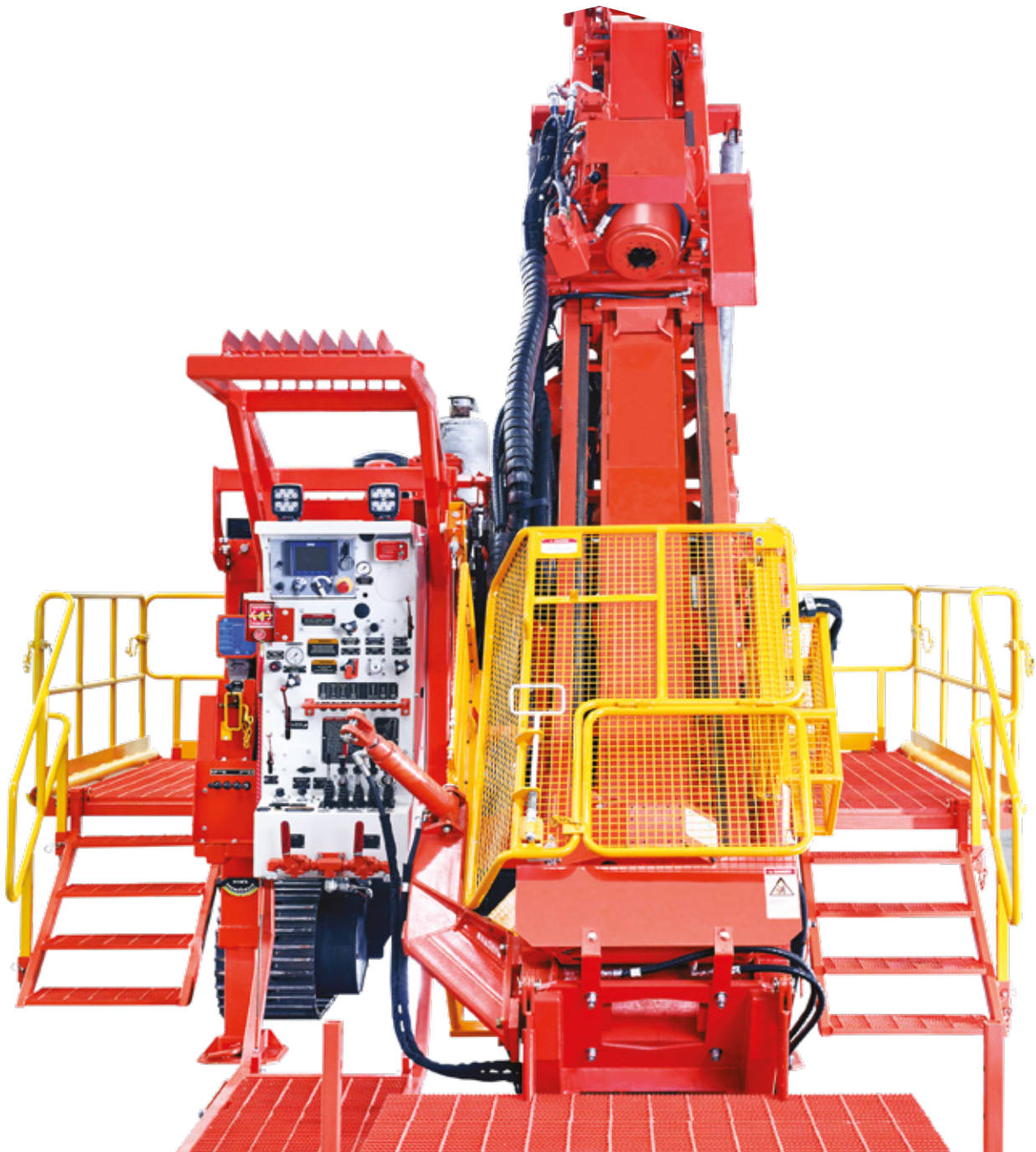


DRILLMAN
AUSTRALIAN OWNED COMPANY

DRILLMAN DE712

DESIGNED BY SANDVIK

HEAVY-DUTY SURFACE CORE DRILL





DRILLMAN

DRILLMAN DE712

DRILLMAN EXPLORATION

As the industry's leading supplier of comprehensive exploration solutions, Drillman meets all your exploration needs, right from the early stages of the mining process. Whether you're a local contractor or an international mining house, we're always close at hand to provide you with our full range of products and services.

DIAMOND CORE DRILLING TOOLS

Drillman can supply you with the complete range of down the hole tools and consumables for underground and surface applications. As a single system for both underground and surface core drilling, the Sandvik designed SU core retrieval system has extra safety features compared to standard wireline systems. Drillman has a comprehensive range of diamond drilling products designed specifically for your exploration needs.

RC DRILLING TOOLS

Drillman RC down-hole hammers manufactured by Sandvik with integrated bits, are designed to provide you with a cost effective, heavy-duty sampling system for obtaining a continuous, high quality geological sample. By maximizing the energy output and minimizing air consumption, our products help you achieve superior production rates and low cost per meter drilling.

We also offer RC drill rods with Metzke and Remet threads. Manufactured to the highest quality and built for performance, the range is complemented by a full selection of drill string components for RC drilling applications.

GEOLOGICAL

Drillman has a full range of geological supplies to support every stage of your project.

COMPLETE RANGE OF EQUIPMENT

Our line of drilling equipment includes underground diamond core drills and surface drills for your multipurpose or diamond core applications. We also supply sampling equipment, and additional accessories to help keep your operators safe.

At Drillman, mineral exploration means a whole lot more than simply supplying you with world class products. At the very heart of our offering lies our huge accumulated store of human experience and expertise. As our customer you gain access to a worldwide wealth of knowledge and experience – across systems, processes and techniques. Our outstanding capabilities are inseparably linked to our long and fruitful relationships with our customers, right across the globe.

DRILLMAN DE712 CORE DRILL





HIGHLY PRODUCTIVE AND RELIABLE, THE DRILLMAN DE712 GIVES YOU PEACE OF MIND AND INCREASED SAFETY ON AN ALREADY PROVEN DESIGN.

The DE712 drill rig is simple to operate, boasting central pilot hydraulic controls of your drilling operations, plus radio remote controlled tramming to remove your operator from the rig. The remote control function is a significant enhancement.

A motion alarm sounds when the rig is tramming. The DE712 features stepless rotation speed control and a self-propelled drill unit, and is supplied with a standard rotating rod guard with interlock, to protect your operator. It also boasts hydraulically operated left-hand and right-hand walkways with safety handrails as standard, and a DA510 Safe-T-Spin which is capable of making up and breaking out of rod joints during tripping operations. Plus a certified FOPS protects your operator during drilling operations.

PEACE OF MIND

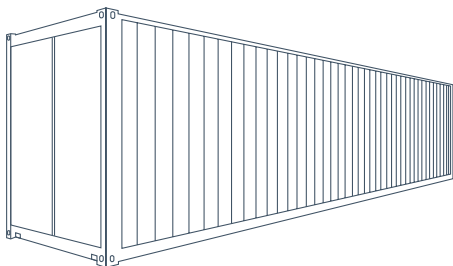
Confirming its credentials for high levels of safety and reliability, the Drillman DE712 provides significantly increased peace of mind and efficiency to operators worldwide.

In line with Drillman's Safety First priority, the DE712 meets all requirements for the European Union (Conformité Européenne). Designed with the Australian MDG 15 guidelines in mind, this state of the art surface applications drill has truly raised the bar for the safety and efficiency of surface core drilling operations across the globe.

EASY HANDLING, ECONOMICAL SHIPPING

The compact design of the DE712 allows it to fit into a 40ft high cube closed container, for cost effective shipping between locations, and worldwide. The mast is detached and sent in two sections, fitted to packing stands.

Overseas shipping of the DE712 incorporates the highest standards of international packing, including the use of export certified crates. A protective spray is applied to selected rig components prior to shipping. Plus Drillman handles all preparation and supply of your necessary export documentation.





CE CERTIFIED

CE marked, the DE712 incorporates a powerful Stage 5/Tier 4 final diesel engine to comply with the European market. It's also available in a Tier 3 model.

The improved design and safety features of the DE712 have been developed through close collaboration with our customers and their specific needs. Drillman pinpointed every detail when it came to making refinements to their already tried and tested DE710 rig. The DE712 is the outstanding result of this commitment.

TRUSTED

With advanced design and more than 500 DE700 series units sold across the globe, the DE712 has already proven its indispensable role in core drilling exploration. And with Drillman's renowned support, service and reliable availability of spare parts and consumables you're guaranteed peace of mind, every time.

With advanced design and more than 500 DE700 series units sold across the globe, the DE712 has already proven its indispensable role in core drilling exploration.

HIGHLY PRODUCTIVE AND RELIABLE

Setting new global benchmarks for dependability and productivity, the Drillman DE712 has been meticulously developed to meet the specific needs of our customers worldwide. This successful exploration rig incorporates significant enhancements on our already proven DE710 model, to deliver you high levels of safety, useability and reliability, wherever your surface core drilling operations.

LESS SERVICING AND MAINTENANCE

The advanced design of the DE712 features a durable direct coupled feed cylinder. The resulting decrease in moving parts means that the interval time between servicing is increased, and your maintenance costs decreased.





ADJUSTABLE
SPEED
— UP TO —
1500
RPM



POWERFUL ENGINE

The superior Cummins inline 6-cylinder diesel engine on the DE712 is available in Stage 5/Tier 4 final or Tier 3 options. It operates at 142 KW (190 HP) @ 2200 RPM.

STEADY ROTATION SPEEDS

The DE712 boasts a superior high powered P size rotation unit which improves your rotation speed at depths, increasing your productivity. It features a chuck drive, with P.H. N and B size jaws available. The rig incorporates both high and low gears, with an adjustable speed of up to 1500 RPM.



MORE PRODUCTIVE DRILLING

The long drill mast of the DE712 allows for a rod pull capacity of your core tubes and drill rods of up to six meters, significantly improving efficiency. It's suitable for angle drilling of 90° to 45°.

Other features include a mast dump which allows you to lower the mast to the ground. Plus lifting points make for safer mast assembly.

SAFETY INTEGRATED DESIGN

With safety set as first priority, the Drillman DE712 incorporates host of meticulously developed features that raise the bar on safety standards worldwide. We guarantee this highly advanced surface applications rig will deliver you significantly increased peace of mind and efficiency, whatever the scale of your operations.



RADIO CONTROLLED DRIVE

The radio controlled drive of the DE712, which removes the operator from the rig, delivers improved safety in the event of rig roll-over. Featuring an electronic throttle control, it provides increased visibility over on-board driver cabins, and makes loading onto truck trailers easier and safer. A motion alarm sounds when the rig is tramming.



ROD SPIN GUARD

A rod spin guard on the DE712 protects your operator from the rotating rod string. It features an interlock to slow the speed when the guard is open.



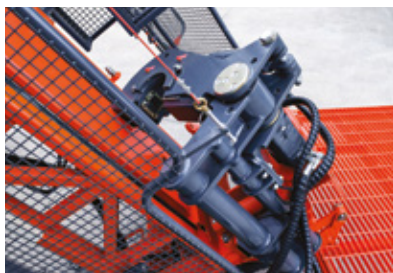
HYDRAULICALLY OPERATED WALK WAYS

Hydraulically operated walkways provide easier and safer access for your rig setup, prestart checks and service and maintenance. Safety handrails are included as standard.



SAFE-T-SPIN

The DA510 Safe-T-Spin on the DE712 eliminates the need to use break-out systems during your rod tripping operations, so considerably increasing productivity and safety.



HANDS FREE ROD BREAKING
 The hands free break out system of the DE712 means that your operator is removed from the rig during rod making and breaking operations. This raises safety standards to a whole new level.



SAFETY LOCKS
 The DE712 features safety locks, enabling functions such as tramming and jack leg set up to be locked out when not in use. These make for safer operations, as the chance of your operator engaging the wrong function is greatly reduced.



FOPS
 The certified FOPS featured on the DE712 protect your operator from falling objects.

EXPLORE THE DRILLMAN DE712 DRILL RIG

1

FEED SYSTEM

The feed system feeds the drill string at a smooth rate into the ground, even when cutting through broken rock formations. It features precise bit weight adjustment, and the operator can see the exact weight on the drill bit at all times.

2

DRILL MAST

The mast has the capacity to pull up to 6-meter core tubes. Incorporating convenient lifting points for assembly and disassembly, it also features a mast dump function for lowering the mast to the ground, providing lower, safer working heights.

6

WIRELINE WINCH WITH WIRE SPOOLER

The wireline winch hoists the core tube from the bottom of the hole to the surface. The wire spooler evenly winds the rope onto the drum, increasing the service life of the rope.

7

MAIN WINCH

The main winch hoists the drill string out of the ground. It can remove six-meter drill rods and has a winch stop to prevent over-winding of the winch.

8

7

6



3

P SIZE ROTATION UNIT

The rotation unit rotates the rods. Featuring high powered rotation torque and variable speeds from zero to 1500 rpm, it deploys a low gear for rotary and a high gear for coring.

4

ROD HOLDER

The rod holder holds the string in the hole during drilling operations. It features interchangeable jaws, ranging from B size to 5 size.

5

CONTROL PANEL

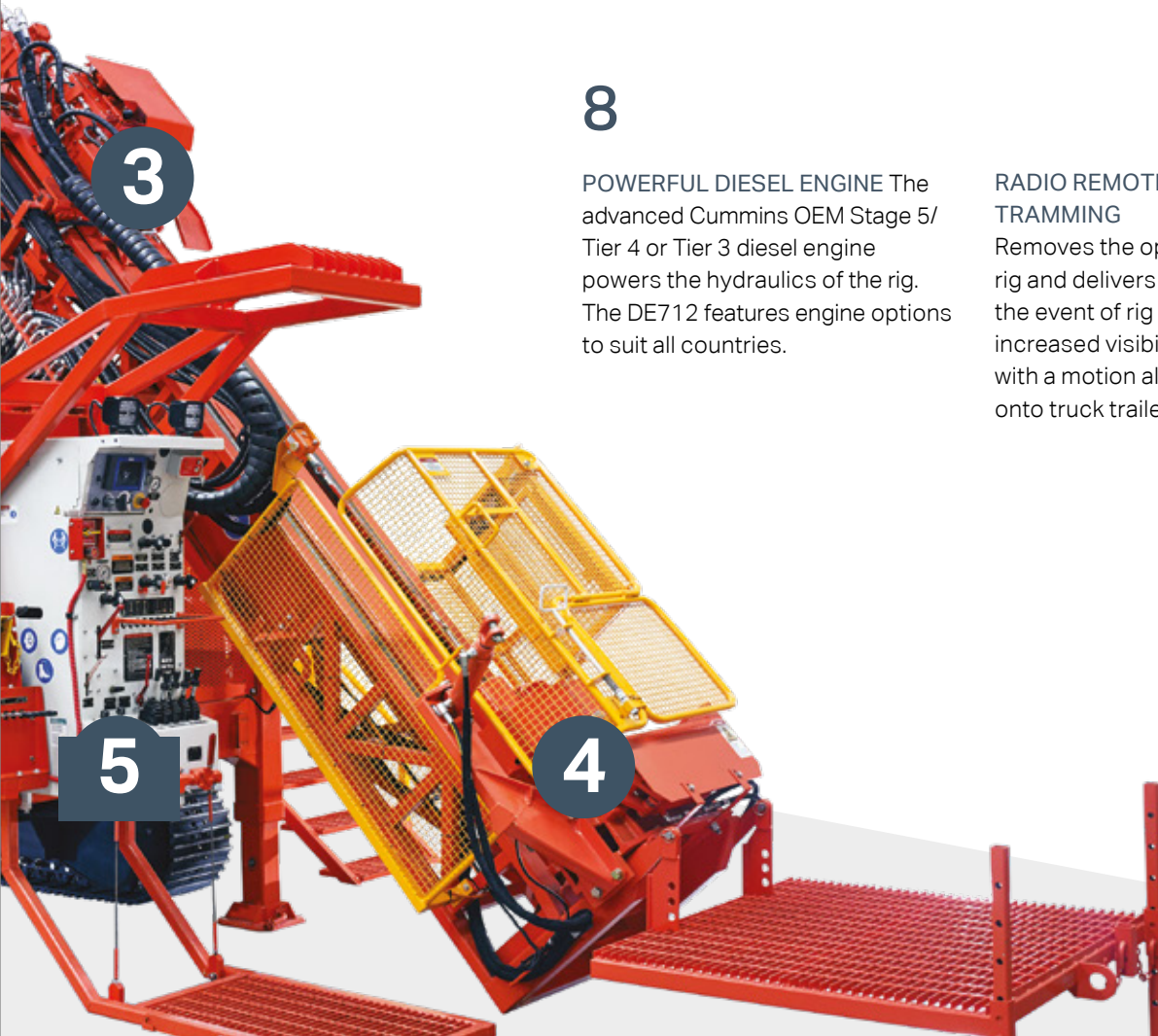
This is the highly efficient central control panel for all drilling functions. Ideally positioned, it delivers a good view of the drilling operations and site, and features a light weight driller platform.

8

POWERFUL DIESEL ENGINE The advanced Cummins OEM Stage 5/ Tier 4 or Tier 3 diesel engine powers the hydraulics of the rig. The DE712 features engine options to suit all countries.

RADIO REMOTE CONTROLLED TRAMMING

Removes the operator from the rig and delivers improved safety in the event of rig roll-over. Provides increased visibility, and combined with a motion alarm makes loading onto truck trailers easier and safer.



SPECIFICATIONS

DRILLMAN DE712
HEAVY-DUTY SURFACE CORE DRILL

STANDARD FEATURES

DEPTH CAPACITY - STANDARD SPECIFICATION*

	Metric	Imperial
TK46	N/A	
A	N/A	
TK56	1,953 m	6,406 ft
B	1,440 m	4,723 ft
TK66	1,674 m	5,491 ft
N	1,126 m	3,693 ft
TK76	1,156 m	3,792 ft
H	754 m	2,473 ft
P	509 m	1,670 ft

*Calculations are based on machine capacity, which in some cases may exceed the rated hole depth of the down hole tooling. Drillman does not guarantee that these results will be achieved in all drilling conditions.

ROTATION UNIT

	Metric	Imperial
Hollow spindle - ID (N)	120 mm	4.73 in
Number of jaws	5	
Gripping range	B, N, H and P	
Torque @ 75 RPM	3212 Nm	2369 lbf ft
Torque @ 900 RPM	646 Nm	477 lbf ft
Torque @ 1500 RPM	316 Nm	233 lbf ft
Rotation speed	0 to 1,500 RPM	

High - low manual gear change and 0 - 1,500 RPM stepless speed control.

ROD HOLDER / ROD CLAMP

	Metric	Imperial
Number of jaws	2	
Gripping range	44.5 - 177.8 mm	1.75 - 7 in
Gripping range - Jaw sets	B, N, H, P and S	
Maximum opening (no jaws)	224 mm	8.81 in

Hydraulically operated and self energizing rod holder.

FEED

	Metric	Imperial
Feed force	53.2 kN (5.5 t)	12,000 lbf
Pull force	91.2 kN (9.3 t)	20,500 lbf
Feed length (stroke)	3.45 m	11 ft 3 in
Speed (up and down)	30 m/min	100 ft/min
Flow fuse hose burst system	Prevents uncontrolled dropping of rotation head if hoses fails.	

Head traverse system directly coupled to rotation unit carriage with no ropes or chains.

CONTROL PANEL

All drilling functions controlled from one control panel. Control panel include features such:

- Lift to shift interlock on travers, wireline winche, main winch and rotation controls.
- Guard for 8 spooler valve levers
- Guard over remote tram levers
- Provision for Safe-T-Spin controls
- Safety lock on drill / jack lever
- Alarm during jack leg operation

POWER UNIT DIESEL TIER 3

	Metric	Imperial
Diesel engine	Cummins QSB6.7 (inline 6 cylinder)	
Power	142 kW	190 hp
Emission rating	Tier 3	
Engine filtration	Standard plus remote fuel filter	

POWER UNIT DIESEL STAGE 5 / TIER 4

	Metric	Imperial
Diesel engine	Cummins B6.7 (inline 6 cylinder)	
Power	142 kW	190 hp
Emission rating	EU STAGE 5 / Tier 4	
Engine filtration	Standard plus remote fuel filter	

HYDRAULICS

	Metric	Imperial
Hydraulic filtration	Full flow 10 µm rated return oil filter	
Maximum working pressure (rotation hydraulic oil)	265 bar	3,844 psi
Maximum oil flow	200 l/min	53 USgal/min
Tank volume (hydraulic oil)	400 l	106 USgal
Cooler	Engine	Jacket water
	Hydraulics	Air
Electrical system	24 V	

Highest quality axial and radial piston pumps and motors used in three independent circuits. Larger than typical hoses and control valve sizes used for maximum efficiency.

WATER PUMP

	Metric	Imperial
Type	Hydraulic driven, FMC Bean W1122	
Maximum flow	140 l/min	37 gpm
Maximum pressure	7,000 kPa	1,000 psi

MAST

	Metric	Imperial
Rod pull capacity	6 m	20 ft
Mast dump	1,067 mm	42 in
Mast length	9 m	30 ft
Mast angle	90 - 45° angle holes	
Mast rest	Double post support (prevents mast from moving out of position when tramming on rough terrain)	
Mast access package	Comprising fall arrest system and mast platform (above control panel)	

Lifting points on mast included for safe handling of mast during assembly.

WIRELINE WINCH

Pull capacity	7.8 kN	1,750 lbf
Speed	270 m/min	887 ft/min
Cable capacity	1,000 m x 5 mm	2,380 ft x 3/16 in
Wireline spooler	Increases life of rope and uptime via smooth rewinding	
Wireline wiper and safety cut out	Keeps rig cleaner and prevents overwind during wireline operations	

Incorporates hydraulic park brake to prevent creeping during survey and other activities.

MAIN WINCH

	Metric	Imperial
Pull capacity (single line)	76.6 kN (7.8 t)	17,200 lbf
Speed (up to)	55 m/min	180 ft/min
Cable diameter	16 mm	0.63 in
Travel limiter	Prevents the winch from over - winding	

MOUNTING CONFIGURATIONS

	Metric	Imperial
DE712 is available in two speed crawler (triple grouser) configuration		
Maximum speed	2.6 km/h	1.62 m/h

The DRILLMAN DE712 track sub-structure has a tow hook provision built into the design for easier handling in an event of breakdown.

WALKWAYS

Hydraulically operated left-hand and right-hand walkways - provides easy access to areas of rig requiring maintenance.

CRAWLER TRACKS

- Radio controlled removing the need for ROPS (roll-over protective structure) operator compartment
- 2 speed track controls included
- Inclinometers for rig inclination angles
- Electronic throttle control
- Sub-structure has a tow hook built into the design
- Maximum speed of 2,6 km/h
- Triple grouser track configuration
- Ground pressure: 0,075 N/mm²

SHIPPING DIMENSIONS

		Metric	Imperial
40 ft High cube closed container (door opening)	Width	2,336.8 mm	7 ft 8 in
	Height	2,565.4 mm	8 ft 5 in

When shipping in container the mast is removed

OPERATING FOOTPRINT MAST AT 90°

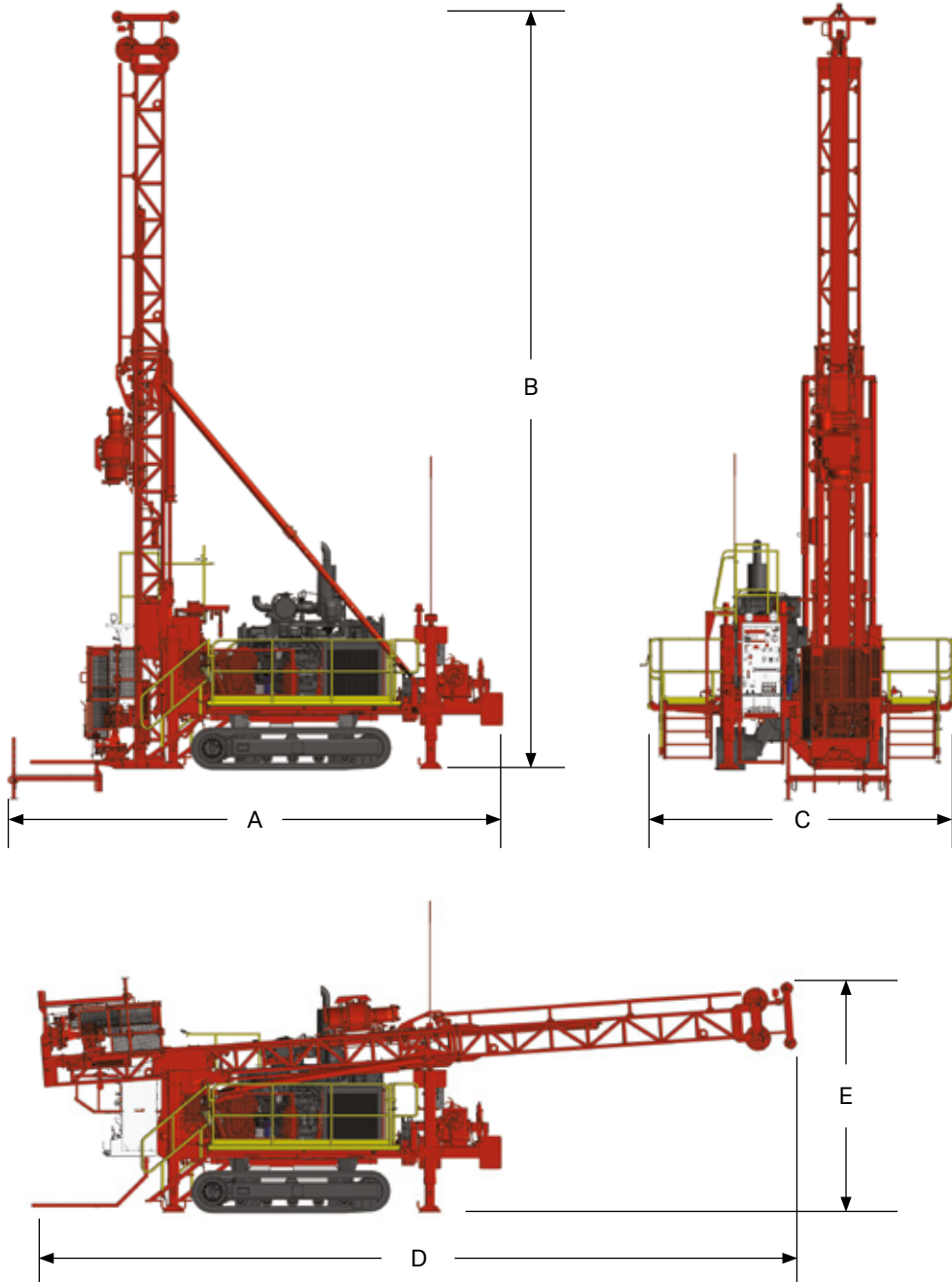
	Metric	Imperial
Length A	6,906 mm	22.66 ft
Height B	10,578 mm	34.70 ft
Width C	4,240 mm	13.91 ft

Note: Weights and dimensions are subject to change depending on selected options and rig specification.
Dimension B measures to the underside of the crawler tracks

TRANSPORT DIMENSIONS MAST INSTALLED

	Metric	Imperial
Length D	10,653 mm	34.95 ft
Height E	3,302 mm	10.83 ft
Width	2,300 mm	7.55 ft
Weight Rig	11,140 kg	28,970 lb

Note: Weights and dimensions are subject to change depending on selected options and rig specification.
Dimension D measures to the underside of the crawler tracks



OPTIONS

POWER UNIT DIESEL STAGE 5 / TIER 4

	Metric	Imperial
Diesel engine	Cummins B6.7 (inline 6 cylinder)	
Power	142 kW	190 hp
Emission rating	EU STAGE 5 / Tier 4	
Engine filtration	Standard plus remote fuel filter	

Note: This option will increase the weight of the DRILLMAN DE712

JAW KIT - OPTION

Chuck jaws, rod clamp jaws and guides for drilling B, N, H and P sizes

Lower chuck rod guide P size	1
Lower chuck rod guide H size	1
Lower chuck rod guide B size	1
Lower chuck rod guide N size	1
Socket head cap screw M12 x 35	10
Socket head cap screw M12 x 50	10
Washer flat M24	10
Lynch pin Diameter 6mm x 42mm	10
Pin - jaw holder rod clamp	2
Rod clamp set jaw holder	1
Rod clamp set jaw 2 3/16" B size	1
Rod clamp set jaw 2 3/4" N size	1
Rod clamp set jaw 3 1/2" H size	1
Rod clamp set jaw 4 1/2" P size	1
Jaw Storage box	1
Retaining ring for chuck jaw P size	1
Retaining ring for chuck jaw H size	1
Retaining ring for chuck jaw N size	1
Retaining ring for chuck jaw B size	1
Upper head rod guide P size	1
Upper head rod guide H size	1
Upper head rod guide N size	1
Upper head rod guide B size	1
Chuck jaw set P size rod 5 pieces	1
Chuck jaw set H size rod 5 pieces	1
Chuck jaw set N size rod 5 pieces	1
Chuck jaw set B size rod 5 pieces)	1

HIGH ALTITUDE - OPTION

High altitude boost system is required for operation above 2,000 m

Photos and Illustrations may show equipment with options. Test results and calculations are to be considered as results reached under certain and controlled conditions. These test results and calculations should not be treated as specifications and Drillman does not guarantee, warrant or represent the outcome of test results or calculations in any or all circumstances. Drillman reserves the right to make changes to the information on this publication without prior notification to users.

Please contact a Drillman representative for clarification on specifications and options or visit DRILLMAN.COM.AU

