

SCX DE712

DESIGNED BY SANDVIK



HEAVY-DUTY CORE DRILL RIG FOR SURFACE APPLICATIONS

TECHNICAL SPECIFICATION

With safety set as priority, SCX has released the most recent addition to its range of SCX DE700 series exploration drills. The SCX DE712 is a heavy duty core drill for surface applications and is based on the established SCX DE710 model.

This highly productive and reliable rig offers peace of mind with increased safety on an already proven design.

- ▶ Depth capacity of 1,126 m (3,693 ft) N size
- ▶ Feed force of 5.5 tonnes (12,000 lbf)
- ▶ Pull force of 9.3 tonnes (20,500 lbf)

SCX recommends using only SCX quality manufactured parts. SCX does not guarantee the consistency or quality of other manufacturers.



Version 1

Image for illustration purpose only, please refer to the order specification for exact rig



SCX DE712

HEAVY-DUTY CORE DRILL RIG FOR SURFACE APPLICATIONS

KEY FEATURES

- Radio remote tramming with no driver compartment
- FOPS fitted over the control panel
- Rotating rod guard with interlock
- “P” size rotation unit with chuck drive and hollow spindle
- Stepless rotation speed control
- Pilot hydraulic controls
- Self-propelled drill unit
- One rod clamp can support B, N, H, P and S rod sizes, 44.5 to 177.8 mm (1-¾ to 7 in)
- Fits in a high cube 40 ft closed shipping container
- Hydraulically operated left-hand and right-hand walkways
- Tier 3 or Stage 5/Tier 4 diesel engine models available
- Wireline spooler - increases life of rope and uptime via smooth rewinding
- Fire suppression system - suitable for subzero climates
- Main winch travel limiter
- Safety spin capable of making up and breaking out of rod joints during tripping operations

OPTIONS

- High altitude system - enables operation above 2,000m+ (6,560 ft)
- Jaw kit to support B, N, H and P size rods

STANDARD FEATURES



DEPTH CAPACITY - STANDARD SPECIFICATION*

	Vertical Down		45 Degrees Down	
	Metric	Imperial	Metric	Imperial
TK46	2,222 m	7,290 ft	2,500 m	8,201 ft
A	1,841 m	6,040 ft	2,071 m	6,795 ft
TK56	1,953 m	6,408 ft	2,197 m	7,209 ft
B	1,440 m	4,725 ft	1,620 m	5,316 ft
TK66	1,674 m	5,492 ft	1,883 m	6,179 ft
N	1,126 m	3,694 ft	1,267 m	4,156 ft
TK76	1,156 m	3,792 ft	1,301 m	4,266 ft
H	754 m	2,743 ft	848 m	3,086 ft
P	509 m	1,670 ft	573 m	1,879 ft

*Calculations are based on pullout force in a clean, vertical, fluid-filled hole. In some cases the depth capacity may exceed the capacity of the down hole tooling. SCX does not guarantee that these results will be achieved in all drilling conditions.

ROTATION UNIT

	Metric	Imperial
Hollow Spindle - ID	120 mm	4.73 in
Torque @ 75 RPM	3,212 Nm	2369 lbf ft
Torque @ 900 RPM	646 Nm	477 lbf ft
Torque @ 1,500 RPM	316 Nm	233 lbf ft
Rotation speed	0 to 1,500 RPM	
Number of jaws	5	
Rod sizes	B, N, H, P	

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

ROD HOLDER / CLAMP

	Metric	Imperial
Number of jaws	2	
Rod sizes	B, N, H, P and S	
Maximum opening (no jaws or guides)	224 mm	8.81 in

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 tramping 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.

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)	30m/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 traverse, wireline winch, 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 QSB6.7 (inline 6 cylinder)	
Power	142 kW	190 hp
Emission rating	EU STAGE 5 / Tier 4	
Engine filtration	Standard plus remote fuel filter	

WIRELINE WINCH

	Metric	Imperial
Crawler Track	410 l	108 USgal

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 US gpm
Maximum pressure	7,000 kPa	1000 psi

WIRELINE WINCH

	Metric	Imperial
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	

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	

SAFE-T-SPIN

Diamond rod sizes N, H, and P sizes

The safety spin is a device that makes/breaks the rod joints and completely screws or unscrews the thread

The rod joint make torque is fully adjustable to ensure the correct torque setting is used for each thread type

Break torque is set to maximum to break the joint

DIMENSIONS - CRAWLER TRACK



SHIPPING

		Metric	Imperial
High cube 40 ft container	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 90° SET UP CRAWLER TRACK

	Metric	Imperial
Height	10,578 mm	34.70 ft
Length	6,906 mm	22.66 ft
Width	2,300 mm	7.55 ft

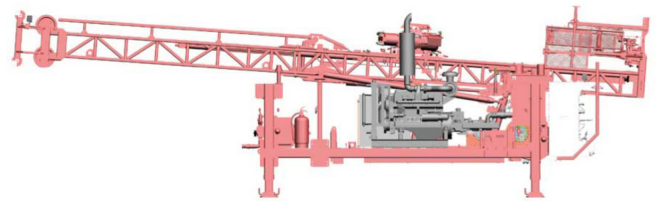


WEIGHT

	Metric	Imperial
Complete rig mass including crawler track	12,500 kg	27,558 lb
Rig excluding crawler track	9,500 kg	20,944 lb
Crawler track	3,000kg	6,614 lb

TRAVEL CRAWLER TRACK

	Metric	Imperial
Height	3,302 mm	10.83 ft
Length	10,653 mm	34.95 ft
Width	2,300 mm	7.55 ft



OPTIONS



OPTION QUANTITIES

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 N size	1
Lower chuck rod guide B 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

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



SCX TOOLS AND CONSUMABLES

SCX have a complete range of down hole tools and consumables to support exploration rigs for start up and continued operation, SCX can offer competitive tooling packages with the sale of drill rigs.

TOOLS AVAILABLE

- Underground core barrel systems
- Surface core barrel systems
- Core barrel and inner tube consumables. Full range available
- Overshot core retrieval systems
- Drill bits, reamers, PCD bits, casing shoes etc. Full range available
- Diamond rods and casing all sizes available
- Drill muds and additives
- Wedging tools
- Casing cutters
- Water swivels and hoisting plugs
- Full range of adaptor subs available

SCX AFTERMARKET

SCX has excellent aftermarket service and support with a global footprint.

AFTERMARKET AVAILABLE

- All spare parts are available through SCX global warehouses
- Spare parts packages can be supplied with new rigs
- SCX can tailor service contracts to suit customer requirements

SCX GEOLOGICAL CONSUMABLES

SCX has a comprehensive range of over seven hundred geological products available for global distribution.

SCX GEOLOGICAL CONSUMABLES

- Metal core trays
- Plastic core trays
- Core tray racking systems
- Automatic core saws and blades
- Manual core saws and blades
- Core handling systems
- Pipe wipers
- Orientation down hole tools
- Si-foam A and B
- Marking consumables
- Flagging tape
- Survey stakes
- Magnification tools
- Geo picks and hammers
- Compass and clinometers
- Chip sample boxes
- Calico bags
- Plastic bags
- Press seal bags
- Wetstrength bags
- Certified test sieves
- Over 700 products total