

SCX DE151

DESIGNED BY SANDVIK



Compact Underground & Surface Core Drill

TECHNICAL SPECIFICATION

The SCX DE151 is the most powerful H size drill rig in the SCX DE100 series range and suitable for both surface and underground applications. This easy to operate unit has a unique combination of size and capability. It has the highest push and pull capacity in the SCX underground drill rig range.

- ▶ Depth capacity of 1,945 m (6,381 ft) N size
- ▶ Feed force of 15 tonnes (33,000 lbf)
- ▶ Pull force of 15 tonnes (33,000 lbf)
- ▶ Direct feed (no chains)

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 DE151

Compact Underground & Surface Core Drill

KEY FEATURES

- CE marked to meet European standards (Conformité Européenne)
- Rotating rod guard with interlock
- All hydraulic operation
- Rod holder closes automatically by gas accumulator, and opens hydraulically
- Direct feed push and pull of 15 tonnes
- Synchronized rod handling for optimized rod tripping
- Load sensing hydraulic system for optimized power and efficiency
- Pilot operated control system
- Hydraulic feed boom positioner allowing telescoping to contact ground
- Stable steel mounting frame with tilt cylinders
- Mechanical feed boom lineal adjustment allowing the feed boom to contact ground
- Control panel - pilot operated hydraulic system, with central control of all drilling operations.
- Wireline hoist with capacity up to 1,200 meters
- 360 degree turn table attached to the rig base

OPTIONS

- Wireline hoist with 2,000 mt capacity
- 2,500 mm wire line mast

STANDARD FEATURES



ROTATING ROD GUARD

Rotating rod guard supplied	Yes
Feed boom fully enclosed	Yes
Interlock to stop rotation on open	Yes

SCX has designed the rod guard to fully enclose the feed boom for improved operator safety. The rod guard is interlocked with the rotation.

DEPTH CAPACITY*

	Metric	Imperial
WL56	3,060 m	10,040 ft
B	2,539 m	8,330 ft
WL66	2,940 m	9,646 ft
N	1,945 m	6,381 ft
WL76	2,112 m	6,929 ft
H	1,326 m	4,350 ft
WL103	1,428 m	4,685 ft

*To drill deeper than 1200 meters, the 2000 meter wire line winch option must be selected.

*Calculations are based on machine capacity, which in some cases may exceed the rated hole depth of the down hole tooling. SCX does not guarantee that these results will be achieved in all drilling conditions. Practical up-drilling capacity is approximately 50% of down-drilling capacity.

ROTATION UNIT H SIZE 1100 RPM

	Metric	Imperial
Hollow spindle - Id (N)	103 mm	4 in
Torque @ 50 RPM	1636 Nm	1207 lbf ft
Torque @ 1100 RPM	549 Nm	405 lbf ft
Rotation speed	0 -1,100 RPM	
Number of jaws	5	
Gripping range	38 – 102 mm	1 ½ - 4 in
Gripping range	15 mm	0.59 in

ROD HOLDER / ROD CLAMP

	Metric	Imperial
Number of jaws	4	
Gripping range	30 - 106 mm	1.2 - 4.17 in
Gripping range/set of jaws	20 mm	0.79 in
Maximum opening (<i>no jaws</i>)	136 mm	5.35 in

Clamping by accumulator action, open hydraulically. Rod holder and chuck work with inverted action. Exchangeable rod guide and jaws for standard drill rods casings and core barrels.

FEED BOOM

	Metric	Imperial
Feed force	147 kN / 15 t	33,000 lbf
Pull force	147 kN / 15 t	33,000 lbf
Feed length (<i>Stroke</i>)	1,710 mm	5 ft 7 in
Total length (<i>Underground version</i>)	3,210 mm	126 in
Feed rate, rod running max	0.63 m/s	24.8 in/s

The feed boom is made of very stiff and torsion resistant steel and has full range adjustment from vertical down to vertical up. Setting up is simplified with a hydraulic tilt cylinder and lineal feed boom adjustment cylinder.

CONTROL PANEL

Pilot operated hydraulic system, with central control of all drilling operations, including flush pump, wireline hoist and boom tilt. Gauges for:

- Hydraulic system pressure
- Feeding force
- Hold back pressure
- Water pressure
- Water flow



POWER UNIT - ELECTRIC

	Metric	Imperial
Power	110 kW	150 hp
Maximum working pressure	250 bar	3,625 psi
Maximum oil flow	300 l/min	79 US gal/min
Tank volume (Oil)	200 l	53 US gal
Cooler	Water	
Other information	· Y/D connector	
	· Oil level indicator	
	· Filter indicator	
	· Thermometer	
	· Hand pump for oil fill	
	· Pressure and return filter	

WATER PUMP

	Metric	Imperial
Type	Hydraulic drive Bean1122	
Maximum flow	100 l/min	26 US gpm
Maximum pressure	69 Bar	1000 psi

WIRELINE HOIST 1200 METRE

	Metric	Imperial
Drum capacity	1,200 m x 5 mm	3,937 ft x 0.2 in
Pulling force, empty drum	12,4 kN	2,700 lbf
Speed full drum	2.7 m/s	9 ft/s
Cable leveler	Yes	

WIRELINE MAST

	Metric	Imperial
Length	1,000 mm	3.28 ft

Wireline mast includes a rod support and wireline sheave wheel assembly. The wireline mast is expandable with different length sections.

MOUNTING FRAME

- Stable steel frame with tilt cylinders for tilting the feed boom
- All main hydraulic valves installed in the cabinet on the mounting frame
- Fork lift "pockets"
- 360 degree turn table

WEIGHT

	Metric	Imperial
Drill unit <i>(Including feed boom, rod holder, rotation unit (H), mounting frame with tilt cylinder, hydraulic hoses, wireline hoist and wireline mast)</i>	3,500 kg	7,715 lb
Control panel	150 kg	331 lb
Power unit - electric 110 kw (150 hp)	1,200 kg	2,645 lb
Hydraulic hoses	80 kg	176 lb
Wireline hoist - 2,000 m <i>(Excluding rope)</i>	680 kg	1,500 lb

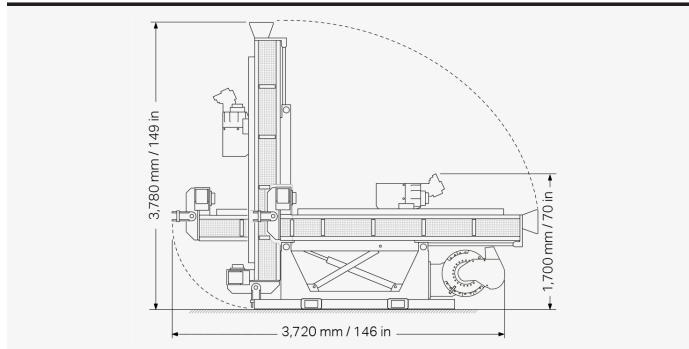
Note: Weights and dimensions are approximate only.

DIMENSIONS



OPERATING FOOTPRINT

Note: Drawing shows working range for SCX DE151 without the wireline mast mounted. With mast and sheave wheel mounted the measurements should be adjusted.



Note: Weights and dimensions are approximate only.

DIMENSIONS DRILL UNIT - WITHOUT WL MAST

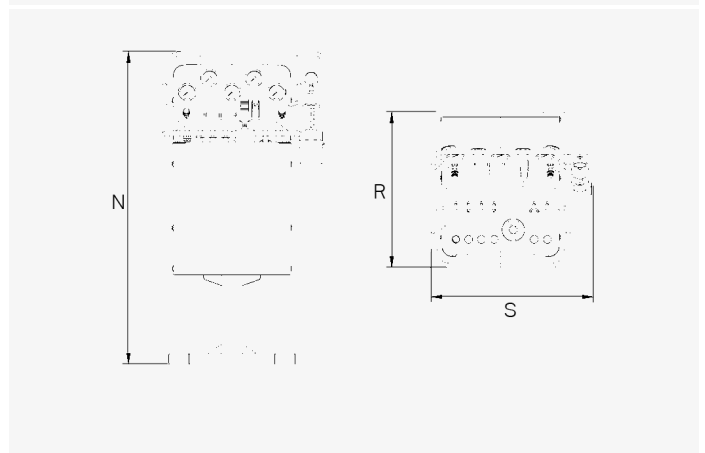
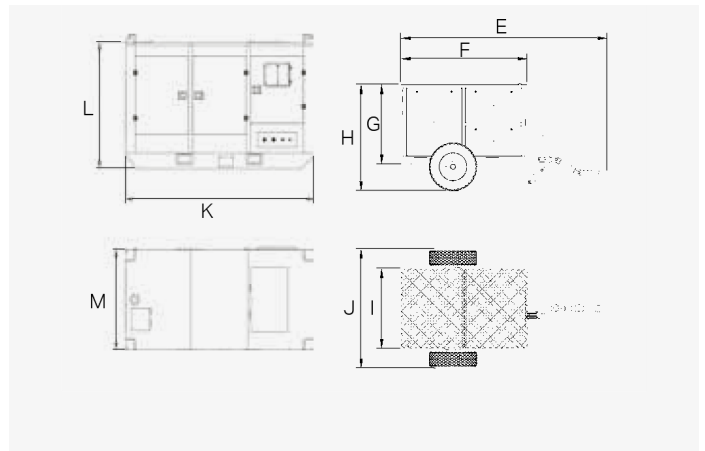
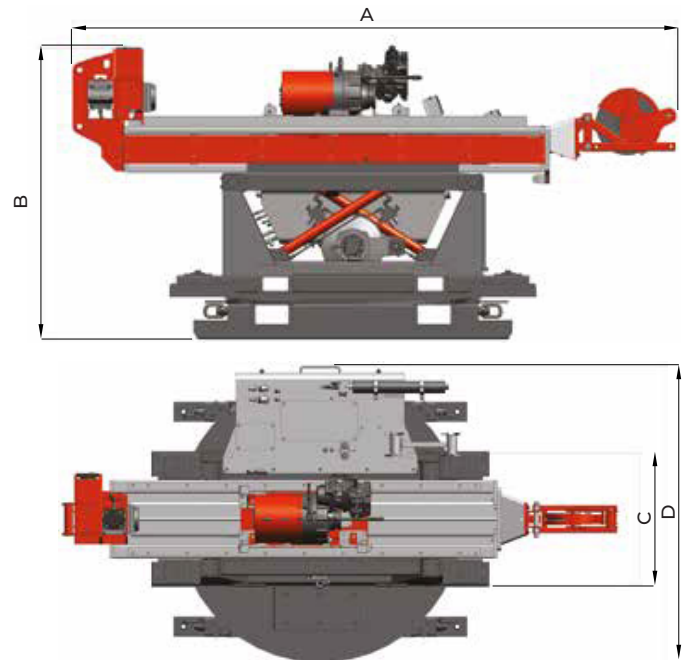
	Metric	Imperial
A	4,283 mm	-
B	2,062 mm	-
C	1,010 mm	-
D	1,800 mm	-

DIMENSIONS POWER UNIT

110 KW - ELECTRIC	Metric	Imperial
E	3,115 mm	123 in
F	1,845 mm	73 in
G	1,165 mm	46 in
H	1,550 mm	61 in
I	1,170 mm	46 in
J	1,740 mm	69 in

DIMENSIONS CONTROL PANEL

	Metric	Imperial
N	1,472 mm	58 in
R	732 mm	29 in
S	765 mm	30 in



OPTIONS



WIRELINE HOIST 2000 METRE - OPTION*

	Metric	Imperial
Drum capacity	2,000 x 6.5 mm	6,562 ft x 0.26 in
Pulling force, empty drum	20 kN	4,500 lbf
Speed full drum	4.5 m/s	14.8 ft/s
Cable leveller	Yes	

*This option must be selected to drill deeper than 1200 meters

*This wireline winch will only suit hole angles from 90 degrees down to 0 degrees horizontal.

*This option is supplied as an additional item.

WIRELINE MAST - OPTION

	Metric	Imperial
Length	2,500 mm	8.24 ft

Wire line mast includes a rod support and wireline sheave wheel assembly. The wireline mast is expandable with different length sections. 500mm, 1000mm and 2000mm sections of wireline mast are available

DIESEL OPTIONS

	Model
Diesel Power Unit Tier 3	SCX DA601
Diesel Power Unit Stage 5 / Tier 4	SCX DA602



SCX TOOLS AND CONSUMABLES

SCX has 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