

# RANGER DXi SERIES



## TAKE A BIGGER PIECE OF THE PIE



You have EARNED YOUR SHARE,  
DO NOT SETTLE FOR A SLICE!

TECHNICAL DATA	RANGER DX800i	RANGER DX900i
Hole diameter:	64 – 127* mm (3" – 5")	89 – 140* mm (3" – 5,5")
Rock drill	RD925M, RD925M-C, RD921S, RD921S-C	RD927L, RD927L-C
Percussion output power	25kW, 21kW, 33,5 hp, 28 hp	27kW, 36 hp
Rock tools:	38 mm, 45 mm, 51mm (1½", 1¾" and 2")	51 mm or 60mm (2" and 2 3/8")
Drilling coverage	55 m <sup>2</sup>	55 m <sup>2</sup>
Engine type	Volvo TAD871VE Tier4 , TAD851 Tier3	Volvo TAD872VE Tier4, TAD852 Tier3
Engine output	185kW, 248hp	210kW, 282hp
Cabin type	iCab	iCab
Control system type	Sandvik SICA, PLC controlled proportional electro- hydraulics	Sandvik SICA, PLC controlled proportional electro- hydraulics
Tramming/boom/drilling control	PLC controlled	PLC controlled
Flushing air:	8,5 m3/min, 300 cfm up to 10 bar	9,5 m3/min, 335 cfm p to 10 bar
Total weight :	19 600 kg , 43210 lb	19 600 kg, 43210 lb

\*if larger than 115mm holes drilled please consult factory

\*if larger than 127mm holes drilled please consult factory

Ranger DXi rigs offer  
a supreme coverage of  
290 degrees equalling

**55 m<sup>2</sup>**

The RD920 series  
rock drills offer  
percussion power

up to **27 kW.**



#### TOTALLY NEW FEED SYSTEM

- GT60 tools as option
- Carousel type of rod handler
- Linear moving retainer gives 1feed extra for drilling depth

#### FUEL EFFICIENCY TAKEN TO HIGHEST LEVEL

- Hydraulic compressor management system
- ELS-hydraulic pressure and flow management system
- Piston pump for dust collector

#### SANDVIK STYLE OF INTELLIGENCE

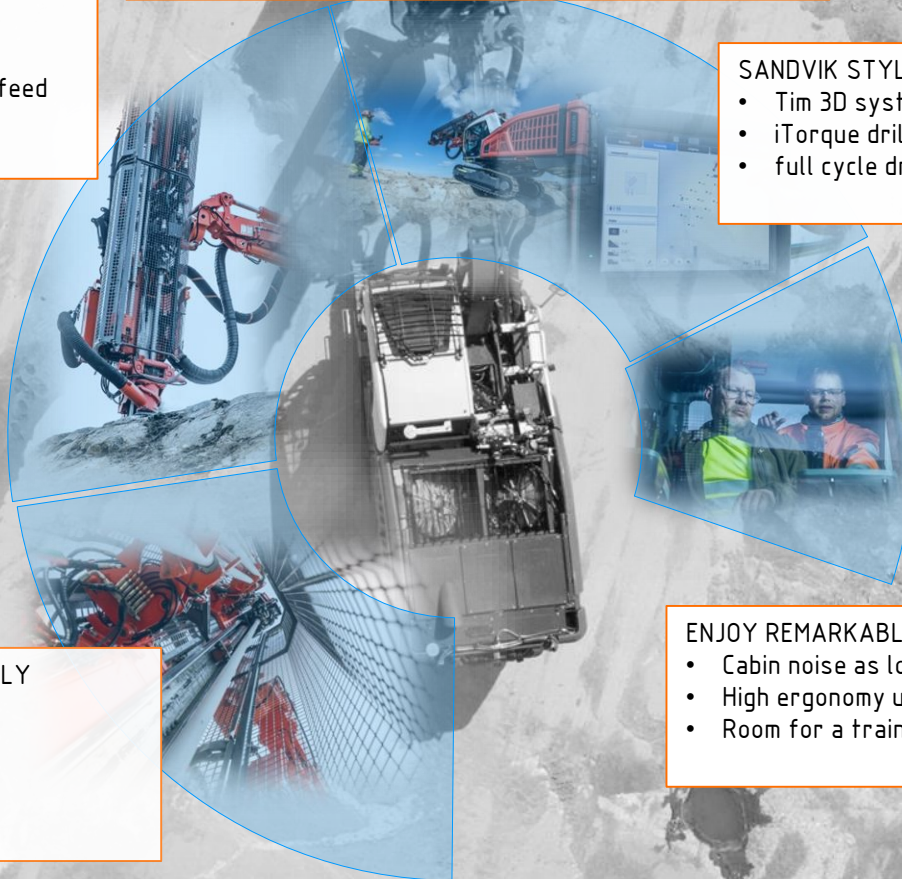
- Tim 3D system with surface model support
- iTorque drilling control system
- full cycle drilling automatics (option)

#### MOST POWERFUL ROCK DRILL FAMILY IN ITS CLASS

- RD927L,
- RD925M,
- RD921S,
- CSL-system as an option

#### ENJOY REMARKABLE SILENCE IN iCAB CABIN

- Cabin noise as low as 73,5 dB
- High ergonomy user interface
- Room for a trainer





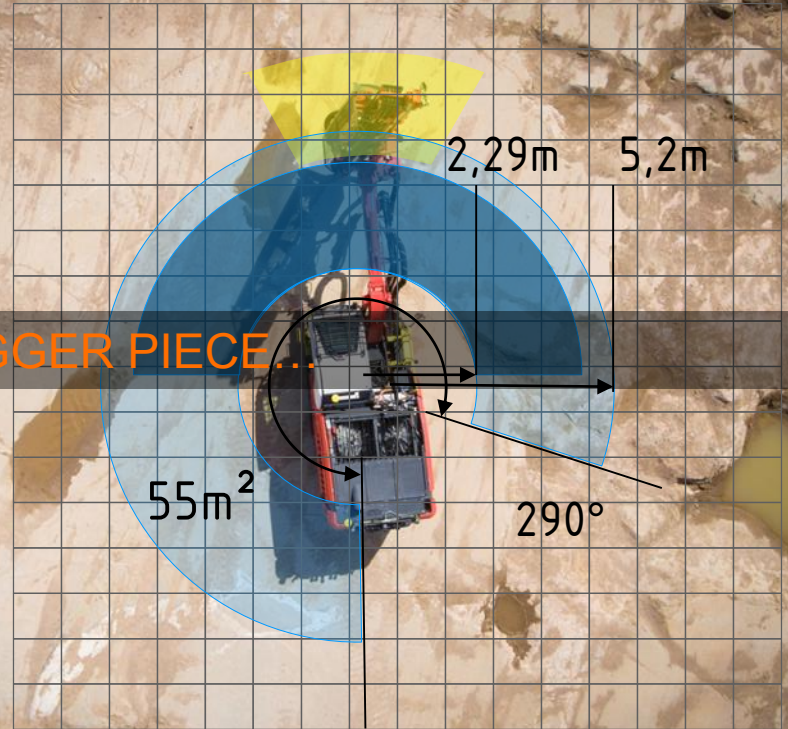
## Drilling coverage comparison

Dark blue, Ranger DX coverage

Yellow, machine without  
turnable superstructure

Light blue, Ranger DX 900i  
drilling coverage  $55\text{m}^2$

TAKE A BIGGER PIECE...





Ranger DXi rigs offer  
more drilling coverage in vertical  
up-hill drilling  
due extra tilt joint

**+ 35%**

Horizontal drilling  
sideways to right

6,5m

Vertical drilling  
Collaring height

2,6m

4,4m





**Machine without  
turnable superstructure**

28 holes average, 12m = 336m

2,5\*3m pattern, 89mm hole

Tramming hole to hole 5min

15 moves  $5\text{min} * 15 = 75\text{ min}$

DO NOT  
SETTLE  
FOR A SLICE



## Ranger Dxi-Series

2,5\*3m pattern, 89mm hole,  
28 holes average 12m = 336m

Tramming hole to hole average  
5min, 3 moves  $5\text{min} * 3 = 15\text{min}$

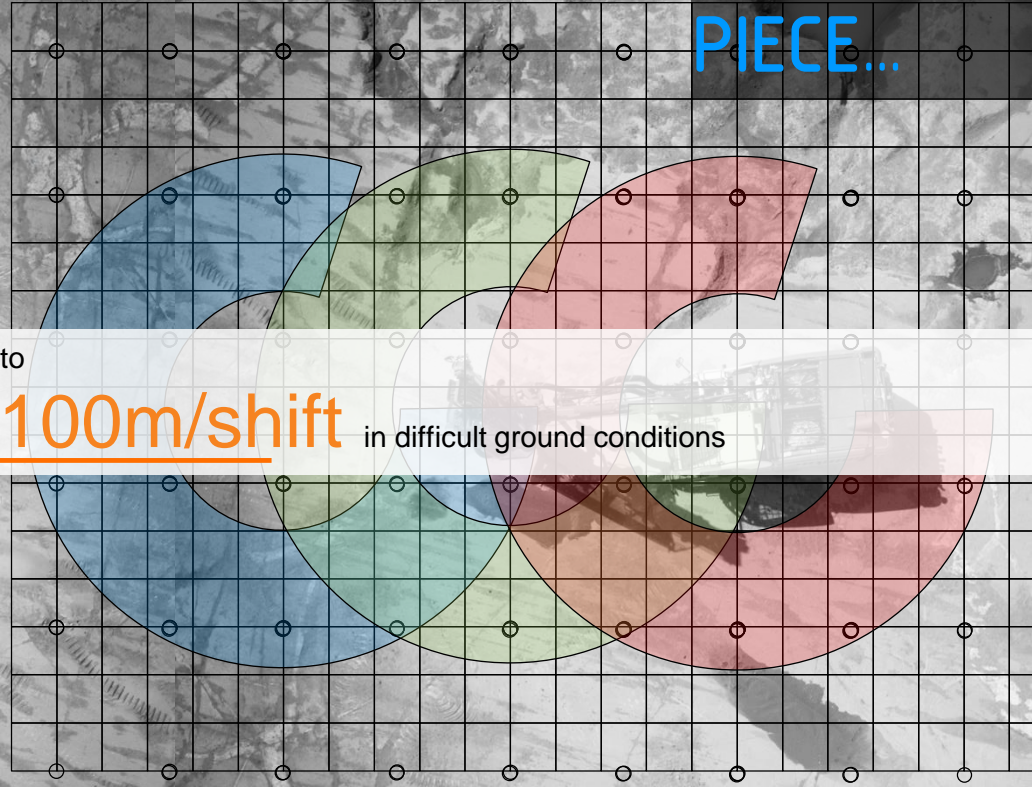
60min more drilling/shift means  
60-100m more meters

TAKE A  
BIGGER  
PIECE...

Up to

+100m/shift

in difficult ground conditions





### POWERFULL CLIMATE SYSTEM

- Flow optimized flushing channels, air speed +600%
- Air condition safety+ automatic climate system keeps constant temperature in extreme conditions
- HEPA filter as an option

### ROOM FOR TRAINER

- Fast and easy learning when trainer sits behind operator seat

### EASY TO USE USER INTERFACE

- Touchscreen
- All parameters can be adjusted from cabin
- Ergonomic joysticks
- 1-joystick or two-finger joystick tramming
- Maximum tramming speed adjustable

ENJOY  
REMARKABLE  
SILENCE IN  
iCAB CABIN

iCab reduces the  
noise level to an  
extremely low

73,5 dB.





## Full hole automatics (option)

- Drill hole automatically by using coupling and uncoupling automatics
- Automatic aligning and hole to hole navigation

## Troubleshooting functions

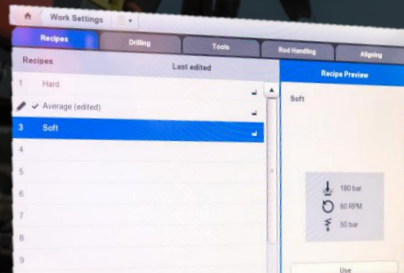
- Easy to use flow chart type of troubleshooting features for all system functions

## iTorque drilling control system

- Provides best drilling result even in most difficult rock conditions
- Several selectable drilling recipes for different rock conditions

## Full radio remote control

- Radio remote controlled drilling, tramming and boom control
- Remote screen option for aligning and hole navigation



## TIM3D hole navigation system (option)

- Fast and accurate drilling navigation and improved drilling result accuracy +/- 10cm/ 4inch
- Surface model and drilling plan can be used at the same time

## Driller's Notes

- Measuring while drilling (MWD) option to collect data during drilling

## SanRemo Premium

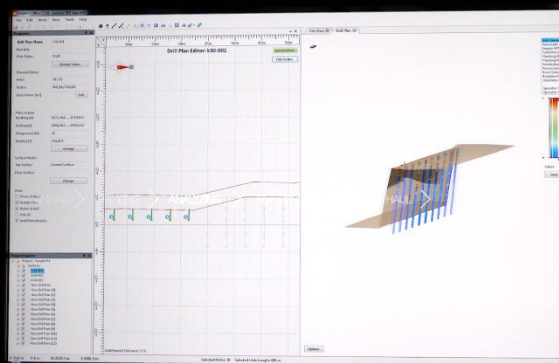
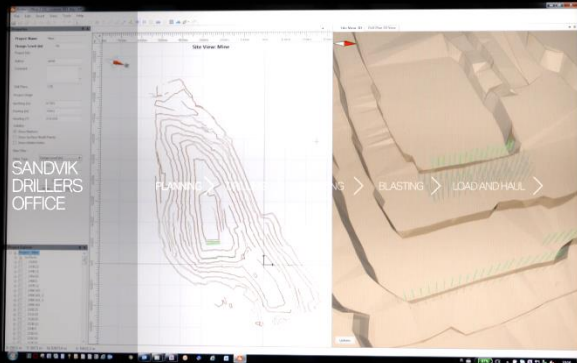
- Wireless data transfer

## Driller's office

- Fast and easy drilling plan creation and MWD data analyzing

“Surface model and drilling plan can now be used at the same time in Sandvik TIM3D software.”

Jarno Viitaniemi, Product Manager





# MOST POWERFULL ROCK DRILL FAMILY IN ITS CLASS

- **RD921SC**

- Designed for T45 rock tools and 64–89 mm
- High 71 Hz frequency

- **RD925MC**

- T51 rock tools and 89–115 mm hole sizes.
- 69 Hz frequency with 25 kW power

- **RD927LC**

- Option to use GT60 rock tools
- 92–127 mm hole sizes
- Excellent tool life with maximum drilling power

- **CSL SYSTEM IS OPTION FOR ALL OF THESE ROCKDRILLS**

- Significant savings in lubrication oil consumption
- Oil consumption can be reduced even by 300g per hour



HYDRAULIC ROCK DRILL

Rock drill	RD921S, RD921S-C	RD925M, RD925M-C,	RD927L, RD927L-C
Hole range	64–89mm, (2 ½"– 3 ½")	76–127mm (3"–5")	89–140mm (3 ½" – 5 ½")
Optimum hole range	76–89mm (3"–3 ½")	89–115mm (3 ½"– 4 ½")	92–127mm (3 5/8" – 5")
Rock tools	38, 45, 51, mm (1 ½", 1 ¾", 2")	45, 51, mm 1 ¾", 2"	51, 60 mm (2", 2 3/8")
Operating pressure	100–200 bar	100–200 bar	100–200 bar
Percussion rate	71 Hz	69 Hz	56 Hz
Percussion output power	21kW, 28hp	25kW, 33,5hp	27kW, 36hp
Maximum rotation torque	1 750 Nm	1 750 Nm	1 750 Nm
Rotation motor	OMT 250/315	OMT 315/400	OMT 400/500
Shank lubrication	SLU / CSL Air / oil mist	SLU / CSL Air / oil mist	SLU / CSL Air / oil mist
Flushing	Air	Air	Air
Weight	345 kg, 760lb	345 kg, 760lb	345 kg, 760lb

GT60 rock tools for faster  
drilling and excellent hole  
quality in 92–127 mm holes

**+ 20%**

# FEED SYSTEM WITH HIGH PRODUCTIVITY AND RELIABILITY

## DOUBLE RUM HORE REEL

- Easy maintenance and long service life of hoses

## CYLINDER FEED

- Long service interval with leaf chain

## CAROUSEL TYPE OF ROD HANDLER

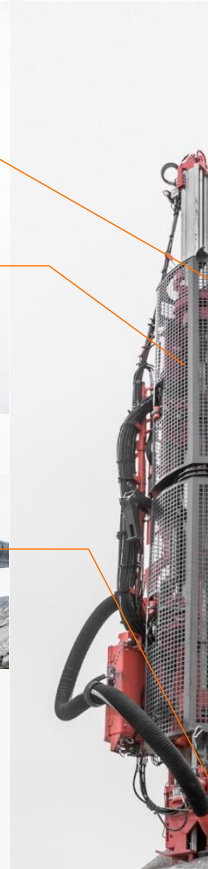
- GT60 tools as an option
- Max hole depth 30m with T38-T51 tools, 19m with GT60 tool

## LINEAR MOVING RETAINER

- Collaring guide and retainer in the same actuator
- Linear moving retainer gives 1feed extra for drilling depth
- You can take a grip from female thread or rod section

Moving retainer gives 1feeth  
deeper drilling depth

+1feeth





# FUEL EFFICIENCY TAKEN TO THE HIGHEST LEVEL

Fuel consumption reduction up to

- 15%

## INNOVATIVE COOLER LAYOUT

- Constant flow through the cooler cell due the fan layout
- Decreases need of cooling power
- Cooling RPM controlled by ambient temperature

## ELS FLOW AND PRESSURE MANAGEMENT SYSTEM

- Hydraulic pressure and flow are optimized according to need
- Pressure losses minimized during drilling
- Piston pump for dust collector

## COMPRESSOR PRESSURE MANAGEMENT SYSTEM CRS-LITE

- Decreases compressor pressure as low as 0,5 bar when pressure is not needed
- Extremely low pressure losses
- Operator can optimize flushing from the cabin







RANGER i-SERIES MEETS THE SAME TILTING ANGLES AS PREDECESSOR

2017/06/14

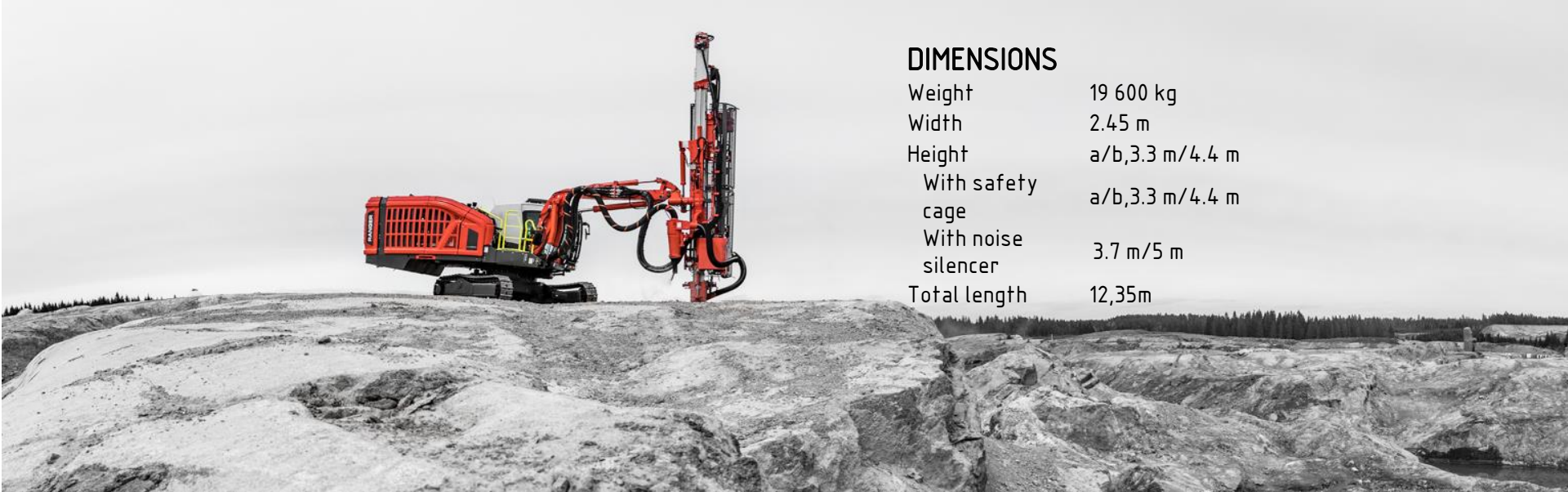


## STANDARD COMPONENTS

1pc Rock drill RD92X, hydraulic with SLU system  
1pc CylF 16 feed HR, With hose reel  
1pc Rod handler RC1712 incl. 1 set of jaws  
1pc BoomDB5200, articulated  
1pc Carrier track mounted, Rotating upper structure CW180+CCW110 Degrees  
1pc Power pack diesel driven, hydraulic pumps and on-board compressor with twin pressure control  
1pc Control system iTorque, incl Flushing control automatics, Shutdown of suction for waterholes  
1pc Operator's cabin F.O.P.S. and R.O.P.S. with Intelligent air condition safety +  
1pc Radio, 12V with USB MP3 Bluetooth, without CD  
1pc Dust collection system DC 900 H, hydraulic, Primary separator  
10 pcs Working lights, Halogen  
1pc Gauge set for accumulator pressure checking  
1pc Alarm signal  
1Set Manuals, paper copy  
1Set Manuals, CD rom  
1pc Alarm beacon  
1pc Service light  
EU-safety devices, EN16228

## SELECTION OF OPTIONS

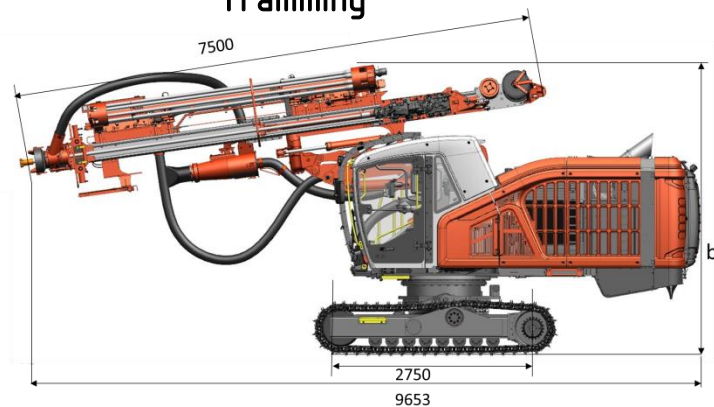
Alternative seat with 3-point seat belt and air cushioning  
H13 Cabin filter, HEPA  
Cooler bag in cabin  
Radio, 12V, CD, USB, Bluetooth and siriusXM interface  
Radio CD/MP3 Bluetooth, Handsfree, DAB  
Reversing camera  
Roller blinds for cabin windows  
Vacuum cleaner for cabin  
Explosive proof cabin window  
Heated mirrors  
Automatic feed alignment for TIMi  
GPS aiming device for TIM and TIMi inclined holes  
TIM3D hole navigation system  
TIMi for inclined holes and hole depth measuring  
TIMi laser level based depth measuring  
Horizontal drilling kit  
Kit for alternative steels, each  
Thread greasing  
One hole automatic drilling down to preset depth  
Power extractor  
Readiness for Power Extractor  
CSL-system for R92x series rock drill, replaces standard component  
RD921S rock drill, replaces standard component  
Biodegradable hydraulic oil  
Central lubrication system Sandvik  
Electric fuel filling pump  
Electric hydraulic oil filling pump  
Electric water filling pump  
Fast fill connection for engine coolant, hydraulic and engine oils  
Fast fill connection for fuel and water tanks (not with option 5110)  
Guides for grousers  
Hydraulic rear ground support  
Hydraulic winch with full radio drilling, tramming boom and rod handling  
Towing hook  
Extra brake for turnable upper structure (included in horizontal drilling)  
Led lights, 9 pcs  
Led lights 17 pcs. also carrier rear and side option lights  
Cold weather package - 25 degrees  
Cold-weather package -25degree, incl watertank heater  
Fuel powered heater for engine, cabin and water tank  
Readiness for fuel powered heater  
Dustmizer requires flap feeder (engine heater option needed below freezing point)  
Flap feeder for dust collector  
Sampling device  
Water injection system  
Grinder Sandvik RG420H  
Extra manuals, price will be added according to pricing sheet  
First service kit for Ranger DXi series  
Special tools for RD92x series, field  
Special tools for RD92x series, complete  
Service agreement - select level from extra item  
SanRemo - select level from extra item



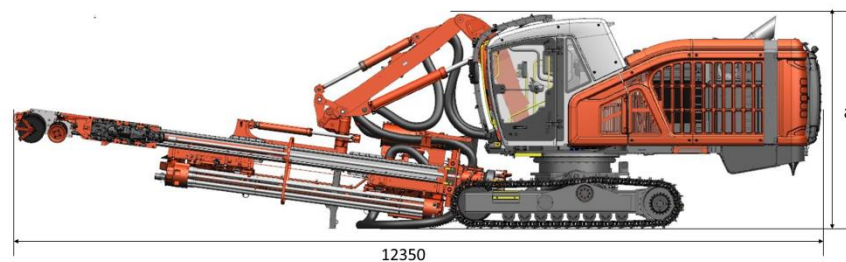
## DIMENSIONS

Weight	19 600 kg
Width	2.45 m
Height	a/b, 3.3 m/4.4 m
With safety cage	a/b, 3.3 m/4.4 m
With noise silencer	3.7 m/5 m
Total length	12,35m

## Tramming



## Transportation





# NEW OPTIONS FOR CABIN

## ALTERNATIVE SEAT WITH 3-POINT SEAT BELT AND AIR CUSHIONING

- Integrated compressor
- Continuous height adjustment, up to 150 kg (fully automatic on KA, manual on KM)
- Suspension travel, 80 mm
- Tilt adjustment
- Height adjustment (with memory on KA)
- Two seat belt points in line with current regulations
- Backrest adjustment
- Adjustable vertical shock absorber
- Seat cushion adjustment
- Pneumatic lumbar support
- Hard-wearing, breathable textile cover

- Armrests, folding and tilt-adjustable
- Seat heating, 12/ 24 V with on/ off switch
- Seat climate control
- Headrests, height and tilt adjustable
- Horizontal isolator



# NEW OPTIONS FOR CABIN

## COOLER BAG



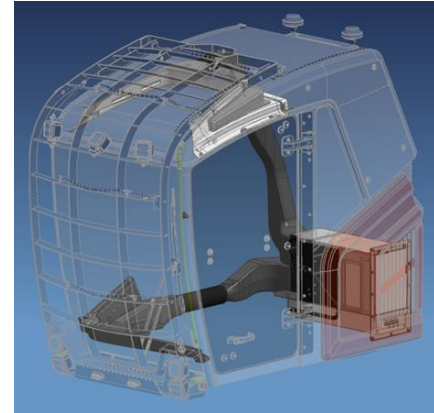
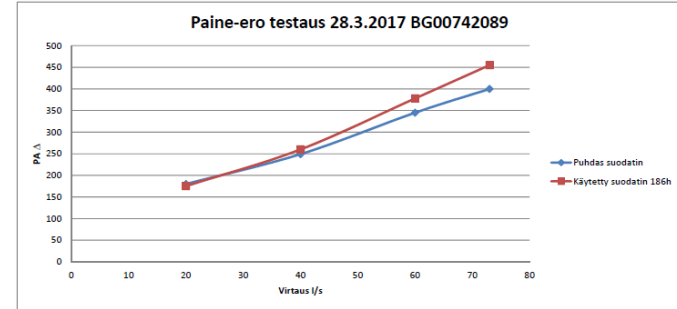


# NEW OPTIONS FOR CABIN

## HEPA FILTER

- F7 as standard
- H13 filtration as option

<p>F</p> <p><b>Filters for fine dust.</b></p> <p>Efficient for particulates <math>\geq 1 \mu\text{m}</math></p> <p><b>EN 779</b></p>	<p><b>F7 F8</b></p>	<ul style="list-style-type: none"> <li>• Accumulated carbon black</li> <li>• So called dust going through lung</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Circulating filters in air conditioning</li> <li>• End filters in air conditioning pro average request e.g. shops, offices and specific production areas.</li> <li>• Pre filters for the filtration class E11 and E12.</li> </ul>
<p>H</p> <p><b>Filters for micro particles.</b></p> <p>Efficient for particles <math>\geq 0,01 \mu\text{m}</math></p> <p><b>EN 1822</b></p>	<p><b>E12 H13</b></p>	<ul style="list-style-type: none"> <li>• Oil smoke in the initial stage</li> <li>• Aerosol micro particles</li> <li>• Radioactive aerosol</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• End filters for hospitals with higher requirements but without any prescription for leakage test</li> <li>• End filters for food. electronic, pharmacy and foil industry</li> <li>• Filters for waste air in nuclear technics</li> <li>• End filters for "clean area" classes <math>\geq \text{ISO } 5</math></li> <li>• The end filters in public protection equipments</li> </ul>



# NEW OPTIONS FOR CABIN

## CABIN RADIO, 3 OPTIONS

- Radio, 12V with USB MP3 Bluetooth, without CD, **Standard**
- Radio, 12V, with CD & DAB
  - Handsfree mic. For phone
- Radio, 12V, CD, USB, Bluetooth and siriusXM interface



TR7412UB-OR  
Fixed-front  
Radio/USB MP3/WMA  
Bluetooth®  
12 V



CDD7418UB-OR  
Fixed-front  
CD Radio/USB MP3/WMA  
DAB/DAB+/DMB  
Bluetooth®  
12 V

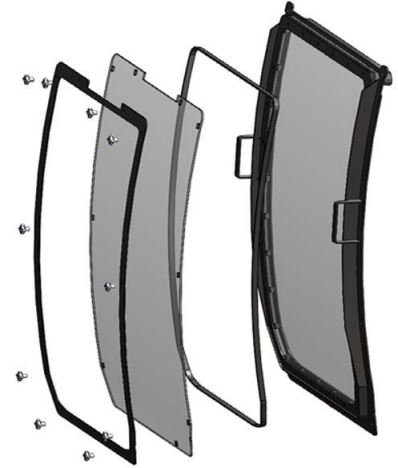




# NEW OPTIONS FOR CABIN

## EXPLOSIVE PROOF WINDOW

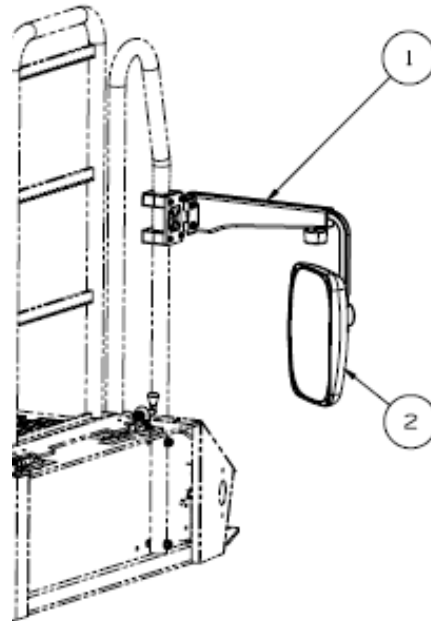
- Attached on standard window
- Changeable wearing slides



# NEW OPTIONS

## HEATED MIRRORS

- For cold enviroment





# OPTIONS

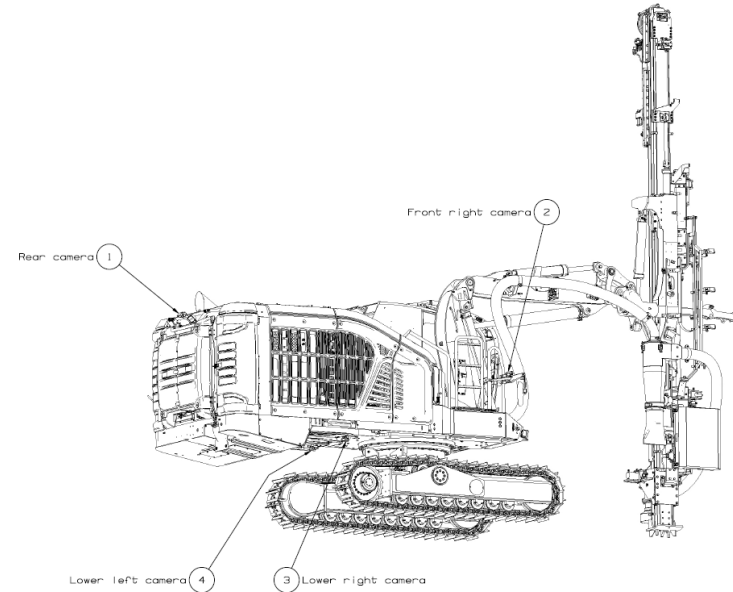
- Water injection/dustmizer
  - Rotational Molding Tanks
  - 2x 120l
  - Pump injection system



# NEW OPTIONS

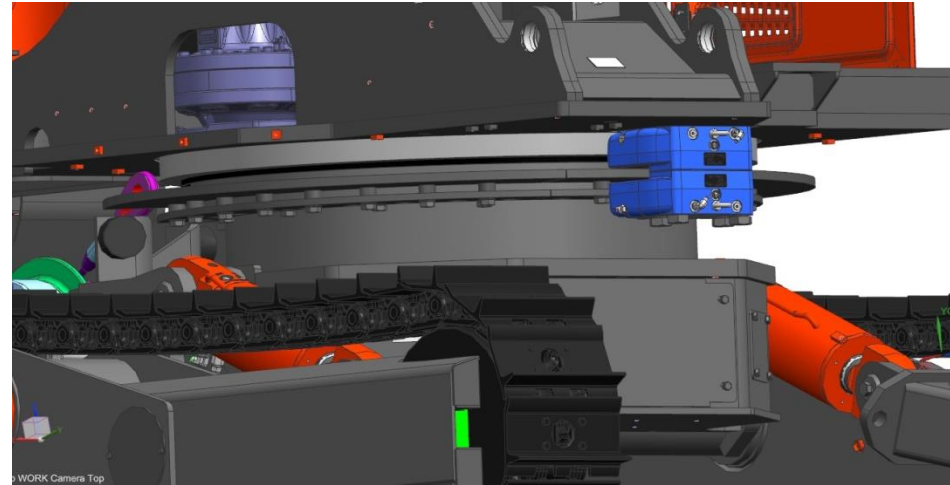
## INTEGRATED REVERSING CAMERA

- 4-cameras
- User interface integrated to cabin touch screen



# OPTIONS

- Extra brake
  - Hydraulic brake
  - Pmax 160bar
  - Clamping force 200kN
  - Weight 63kg
  - Mandatory in Horizontal drilling
  - Takes a way clearance between upper and lower body





# OPTIONS

## LOWER FRAME

- Winch
  - Rotzler Hz 090
  - 108 kN
  - 18mm rope
- Rear jack

