

1. VEHICLE DATA

1.1. TECHNICAL INFORMATION 1600 649

SPRAYMEC 9140 WP

is a self propelled centre articulated unit for mechanized wet shotcreting of large profile caverns and medium to large profile tunnels.

Length	12200 mm
Width	2400 mm
Height	2900 mm
Wheel base	3250 mm
Ground clearance	320 mm
Outer turning radius	7500 mm
Inner turning radius	3100 mm
Weight, max. total	19500 kg

SHOTCRETING PUMP BPN 300 RE

is a low-wear and low-maintenance multipurpose with the output of 4-33 m³/pump hour. The pumping cylinders with a diameter of 180 and the large suction openings ensure good suctioning. Furthermore high pumping pressures up to 65 bar make the conveying even of stiff concrete consistencies, with a low water-cement ratio and a max. grain size of 16 mm (also crushed), possible.

BPN 300 RE	Piston pump
Cylinder diameter	180 mm
Cylinder stroke	630 mm
Pumping pressure	65 bar
Pumping capacity	4 - 33 m ³ /h

ACCELERATOR DOZING SYSTEM

ensures that the adjustment of accelerator is proportional to the pump output and cement content.

Bulk container volume	1000 l
Dozing capacity	0 - 300 l/h or 0 - 600 l/h
Proportional adjustment of accelerator	

ELECTRO-HYDRAULIC POWER PACKS

for operating both shotcreting pump and booms, complete including pumps, oil receiver and filters. Boom can also be operated diesel hydraulically.

Electric motor for boom	15 kW/400 V
Electric motor for pump	37 kW/400 V

Spraymec 9140 WPC

Operator manual

ELECTRICALLY DRIVEN SCREW COMPRESSOR

Capacity 9,5 m³ min at 7 bar
55 kW / 400 V

POWER DRIVEN CABLE REEL

is installed for total power supply of the electrically operated functions. Cable reel includes 100 m of cable.

Electric cable

Diam. 4 x 35 mm², L = 100m

WATER HOSE REEL together with a HIGH PRESSURE WATER CLEANER

is installed with 30 m hose to supply water needed for cleaning of rock surface as well as cleaning of the shotcreting unit after shotcreting and before maintenance work.

Manual, 3/4" hose 30 m

Washing effect 7,0 kW, 200 bar/18 l/min

Max. input watertemperature .. + 70° C

SUPPORT LEGS

1 pair in front and 1 pair at rear are hydraulically operated, front pair with lateral extensions.

LIGHTS FOR GOOD VISIBILITY

On shotcreting basket 2 x 60 W, 2 x 500 W

On carrier 2 x 60 W, 2 x 500 W

SAFETY CANOPY OVER THE DRIVER'S SEAT

is installed to fulfil the safety regulations in various countries.

BUMPER FOR PROTECTION OF SHOTCRETING PUMP

is designed to eliminate risk of damaging the pump by the concrete supply vehicle.

CARRIER NC 95

is specially designed for underground work. Diesel engine with hydrodynamic transmission and 4-wheel drive gives max. tractive effort 80 kN and max. speed 22 km/h. Multidisc 2-circuit brakes and parking and emergency brake make operating reliable and safe in the hardest underground conditions.

Engine Deutz BF 4 M 1012

Output 62 kW / 2300 rpm

Max. tractive effort 80 kN

Speed max. 22 km/h

NORMET SUPER BOOM NSB 900

is a heavy duty multipurpose boom for shotcreting, mechanized scaling and lifting. With the shotcreting basket the maximum lateral reach of $2 \times 8 = 16$ m and roof heights of up to 14 m can be covered. The boom controls are located in the shotcreting basket and at the driver's seat. Additionally there is a remote control unit connected with the SPRAYME by means of 10 m electric cable. All boom operations are proportionally controlled in order to ensure smooth and exact movements.

Boom lift	50°
Boom slew	+/- 20°
Horizontal access	16 m
Vertical access	14 m

SHOTCRETING BASKET

enables the operator to work near the nozzle and observe easily the shotcreted surface. It is convenient in use because it can slew 370 degrees and it is equipped with an automatic parallel stabilizing device. The basket has a load capacity of 500 kg (or 2 persons during shotcreting) It can be also used to control the quality and properties (eg. thickness) of the sprayed layer or to lift pipes or mesh for installation.

Slew	370°
Load capacity:	
During shotcreting	2 persons
During lifting	500 kg
Automatic parallel stabilizing	

SHOTCRETING BOOM SB 300

is fitted on the shotcreting basket. It has the following automatic movements: nozzle rotation and telescopic stroke. These automatic functions help the operator to concentrate on the spraying process and on minimizing of rebound.

Boom lift	- 30° ... + 60°
Telescopic stroke	2200 mm
Nozzle rotation	450°
Nozzle tilting	105°
Automatic functions:	Nozzle rotation, telescopic stroke

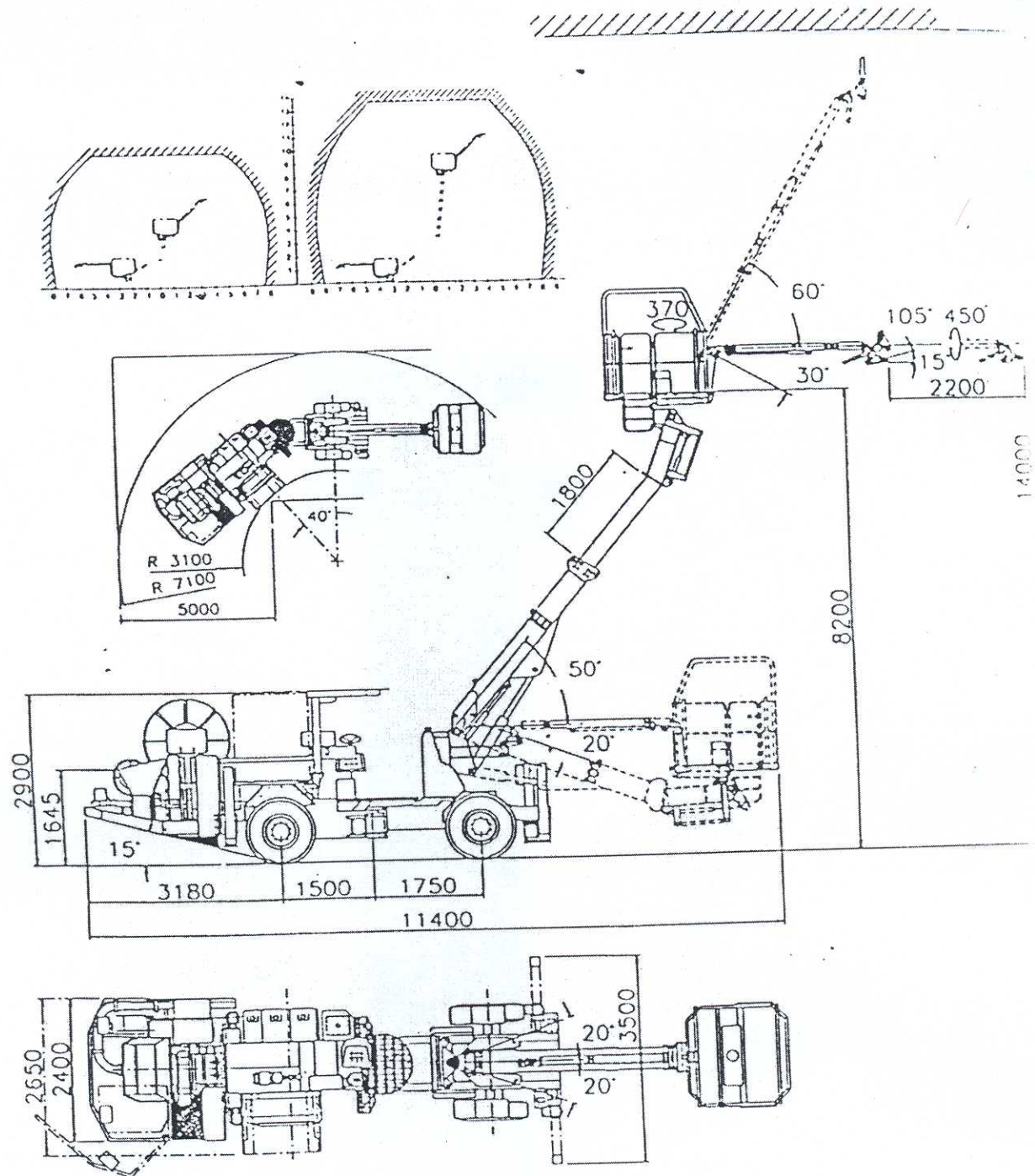


Fig. 2. Dimensioned drawing