MINI REMOTE CONTROLLED MINE CLEARANCE SYSTEM

TA01000

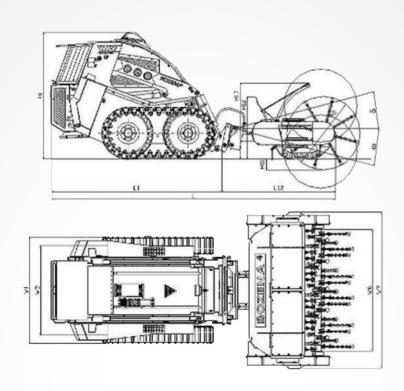


1. SYSTEM DESCRIPTION

- 1.1 General system description
- 1.2 Prime mover B4-L1203 RC
- 1.3 Flail unit FU2
- 1.4 Basic technical data
- 1.5 Transportability
- 2. Clearance productivity
- 3. Capabilities and features of
- 4. Optional accessories Prime mover
- 4.1 Camera system
- 5. Support equipment for

- 5.1 Operator's cabin
- 5.2 Transport trailer SPP6
- 6. Additional special accessories
- 6.1 Armored rake shovel
- 6.2 Rotar cleaners
- 7. Additional standard accessories
- 7.1 Armored rake shovel
- 7.2 Rotar cleaners
- 8. Colors
- 9. Remark of reference





DIMENSIONS

Width of a passage cleared by Flail unit		2 225 mm
Maximum width of the Flail unit		2 840 mm
Width of the prime mover with the tire tracks installed		1 960 mm
Maximum height of B4–L1203 RC with tire tracks installed		2 270 mm
Maximum length of the B4	L	5 280 mm
Length of the prime mover B4–L1203 RC	L1	3 200 mm
Overall length of the Flail unit (working tool)		2 100 mm
Overall height of Flail unit with cover		1 360 mm
Height of Flail unit's blade	H12	1 170 mm
Maximum depth of digging	H1	1 250 mm
Tires		10,5x18"
Activating drum diameter		1 400 mm
Number of chains and hammers 38 + 38		



WEIGHTS

Total weight of the B4	6 265 kg
Weight of detachable Flail unit (working tool)	1 335 kg
Weight of a fully equipped operator's cabin	1 092 kg
Weight of a transport pallet for two Flail units (working tools)	350 kg
Specific pressure on the surface with assembled tire tracks	0.66 kg/cm2
Specific pressure on the surface, without tracks – front axle	2.82 kg/cm2
Specific pressure on the surface, without tracks – rear axle	1.46 kg/cm2

PERFORMANCE

Activating drum diameter	1 400 mm
Maximum depth of digging	250 mm
Horizontal side-angle deflection of the flail unit (±3%)	150 + 150
Cleared area (per hour)	520 - 2 500 m2
Hammer impact energy	1 800 J
Maximum rotational speed of the clearing attachment (flail unit)	400 RPM
Optimal rotational speed of the clearing attachment (flail unit)	350-400 RPM
Mine clearing speed (dependant on terrain conditions)	0,5-3 km/h
Maximum speed of B4	9 km/h
Hill climbing ability	25 o

ENGINE

Туре	4-stroke, diesel, direct fuel injection, air-cooled
Bore / stroke	102 / 125 mm
Number of cylinders	4 in line
Cylinders volume	4 086 cm3
Rated power	78 kW / 2 500 RPM
Max. torque	350 Nm / 1 600 RPM
Fuel consumption (field average)	8,2 liters/1 hour
Idling engine RPM	0,5-3 km/h
Engine oil volume (incl. additional coolers)	14 dm3
Engine oil class	CF-4 (API) or E1-96 (ACEA)

REMOTE CONTROL SYSTEM

Power supply voltage (for both the transmitter and receiver)	12 V
Maximum operational time with fully charged battery	11 hours
Weight of the Control box (transmitter)	6 kg
Weight of Receiver RC-MFS R4	11,5 kg
Symbol rate	9 600 bps
Transmission band – working frequency	450 - 470 MHz
Maximal transmission range	5 km

HYDRAULIC WINCH RAMSEY RHP 10

Length of the wire rope	30 m
Diameter of the wire rope	10 mm
Traction force	40 kN



1.5 TRANSPORTABILITY

Transport on short distances:

This is the transport between demining operational sites distant 5 km or less. In such cases the B4 can be self transported because its design allows it to move easily in speed of up to 9 km/h.

Transport on medium distances:

This is the in-country transport between more remote areas. B4 is recommended to be transported on the SPP6 trailer. Other accessories, as the cabin or tool or spare parts can be placed on the towing truck.

Transport on long distances by air:

The whole B4 system is air transportable on C-130 or similar plane. The B4-L1203 RC prime mover and FU2 flail unit can also be adjusted for transport being hanged under helicopters.

Transport on long distances by sea:

The whole B4 system including the SPP6 trailer, operator's cabin, tools and spare parts can be packed in one 40 ft and one 20 ft container. One 40 ft container is suitable for transport of the system without the cabin and trailer. All B4 components are properly conserved before a transport commencement to be protected against environmental effects.

For long-distance transports, the sets of tools and spare parts are packed in metallic euro pallets with durable walls.











2. CLEARANCE PRODUCTIVITY HOURLY / DAILY CLEARED AREA:

2,500 /12,500 square meters (5-hour working time)

Soil and Ground: - dry topsoil, not too hard,

without the stones and boulders

Terrain: - flat or modest slopes only

Vegetation: - seldom, not dry, stems max. 3 cm thick

- not higher than 1 m

Obstacles: - no trees, razor fences, no large refuse piles, other

obstacles classified as "moderate"



1,100 / 5,500 square meters (5-hour working time)

Soil and Ground: - hard soil, partially stony or wet with

- seldom boulders

Terrain: - flat or with moderate slopes up to 15°

Vegetation: - moderate, wet (max. 10 cm thick stems)

- not higher than 1,5 m

Obstacles: - not too many trees

- gaps between trees not less then 10 m
- not too many razor fences and refuse piles
- other obstacles classified as "difficult"

HOURLY / DAILY CLEARED AREA:

520 / 2,600 square meters (5-hour working time) Soil and Ground: - muddy and marshy or very stony with large boulders

Terrain: - very uneven surface with slopes over 20°

- easy to be stuck in

Vegetation: - dense and hard bushes higher than 1,5m

- covering more than 60% of cleared area
- gaps between trees not less then 5 m

Obstacles: - not many razor fences and refuse









3. TRANSPORT TRAILER SPP6

The SPP6 trailer is specially designed for short and medium range transport of B4 on paved and field roads. The nominal load of the trailer is 6000 kg and max. travel speed is 80 km/h.

Trailer is to be towed by a truck with coupling system meeting requirements for vertical static load and connection of pneumatic and electric installation according to the EHK as well as NATO regulations (DIN 74053 and STANAG 4101). SPP6 is designed for climatic zones with temperatures from (-) 10° to 50°C. Its deployment in other climates requires modification upon agreement between the customer and manufacturer. The trailer's design allows for an automatic tilting of its platform. This enables the B4 to be loaded or unloaded just by driving it on or off the trailer. Takes just few minutes and can be performed only by one operator.







Total length	L1	7 200 mm
Total width	W1	2 250 mm
Total height	H1	1 820 mm
Adjustable height of coupling	H3	850 - 1 000 mm
Diameter of a coupling pins		40 or 50 mm
Leg retraction in to zero level	H4	190 mm
Height of loading area	H5	865 mm
Leg extension from zero level	H6	250 mm
Length of loading area	L2	5 500 mm
Width of loading area	W2	2 200 mm
Min. raid width of machine	W3	870 mm
Max. raid width of machine	W4	2 170 mm
Raid angle	A1	16 o
Tyres		215/75-R17,5 135/133 J 100
Wheel tyre		6,00 x 17,5
Pressure in tires P1		830 kPa
Wheel gauge	W5	1 700 mm
Operational brake		air operated with ABS
Parking brake		mechanical
Dead weight	m1	2 500 kg
Load capacity	m2	6 000 kg
Max. load on coupling	m	5 800 kg
Electrical lighting and signalization		24 V

