

RAIL CUM ROAD SHUNTER



Operation Principle:

The SCULFORT Shunter can be operated manually or with a portable remote-control unit.

Available options are; a roof, work lights, 4-wheel steering, ramping, dual drive and different types of height adjustable couplers on both front and rear ends. The excellent driving position makes tracking and de-tracking a very safe and easy procedure. Safety is a high priority, therefore the SCULFORT Shunter is equipped with several safety features around the vehicle.

TECHNICAL SPECIFICATION

Tracks to be specified	1.435 mm, level ± 1 ‰ average, with curves and switches
Min. curve radius	R=100 m x 30‰ bend and turn-outs 1:7
Type of rolling stock	3 x EMU / trains Light rolling stock
Weight of coaches max.	140 (3 x app. 47 t)
Length of 3 cars EMU app.	69 m (3x 22,6m)
Speed with full load	2% uphill V1 app. km/h 0 - 2 (= 0,56 m/sec)
Speed with full load	V2 app. km/h 0 - 3 (= 0,84 m/sec)
Speed solo on road / on rail	V3 app. km/h 0 - 4,5 (= 1,15 m/sec)
Gradient in solo on road	10 ‰ over app. 20 m.

CALCULATION OF TRACTIVE EFFORT

Power at 3 / 4,5 km/h (η mech. =0,8) 1,25 m/sec
 140 t EMU at start on straight at start with 1‰ kN 12
 140 t EMU in motion on straight on level track kN 3 Amps 102A
 140 t EMU at start in curve R=100 x 30° (50t/110N/t) max. kN 10 Amps 201A
 150 t EMU in motion on straight (30N/t- 1‰ uphill max.) kN 4,5 Amps 180 A
 150 t EMU in motion in curve R=100x30° (50t/60N/t) kN 7-8,5 kW 15,8
 150 t EMU in motion on straight, 2% uphill (220N/t- 20‰ uphill) kN 33 kW 21 / 0,5m/sec/280A
 150 t EMU at start on straight, 2% uphill (boost) kN 39 kW 22/ start=500A
 Selected power due to gear ratio for app. 4,5 km/h 2 x 11 kW/1500 rpm

BATTERY

Battery 80V - 805Ah.
 Min. battery level ~30 % = switch off level
 Accessories 80V-5A
 Battery capacity available ~0,7x805 560 Ah
 Solo resistance app. 60 A à 560: 60 = 9,3 hours /4,5 kph à app. 41,8 km max. running dist.
 150 t straight-level: 180 A à 560:180 = 3,1 hours /4,5 kph à app. 14 km max. running dist.

CONTROLS

- 1) Portable remote control.
- 2) Manual control panel on the shunter
- 3) Interlock system with an UWL

SAS SCULFORT YEL
 ZAC DES FONDS SAINT JACQUES, 59750, FEIGNIES, FRANCE
 Tel: +33 3 27 56 71 68 Fax : +33 9 59 38 85 16 N° Siren: 538 374 489
 info@sculfort-france.com www.sculfort-france.com