SHUTTLEWAGON
MOBILE RAILCAR MOVERS

NAVIGATOR
NVX-e

NVX-e
Specifications

UP TO
4,500 TON
PUSHING/ PULLING CAPACITY

Tractive Effort: 45,000 lbs (200kN) single coupled without weight transfer to loaded or empty railcar.

- ***Fast Charge***
- ***Reduced Noise***
- ***Regenerative Braking***
- ***Zero Emissions***
- ***Precision Drive Technology***

For Narrow or wide applications: Please consult with factory.
*Note: Tractive effort may vary with rail and weather conditions.
Dimensions and Weight do not include optional equipment.
Specifications are subject to change without notice.

NVX-e General Specifications	
Drawbar Pull	45,000 lbs
Pushing/Pulling Capacity	4,500 Tons
Motor H.P.	Up to 155hp continuous, 230 intermittent
Battery	Up to 235kWh Lithium Ion
Max Speed	16 mph
Road Tires (mm)	Pneumatic Tires 14.00xR24
Road Braking System	Air over hydraulic, high pressure discs
Rail Wheels (mm)	Eight, 16" (406mm) diameter AAR profile
Rail Braking System	Same for road braking system, vehicle side
Air Tank, Service Brakes	10.5g
Train Air (cfm)	Electric Air Compressor; 67cfm
Road Turning Radius (m)	32'9'
Weight	68,000 lbs
Dimensions (LxWxH)	296" x 120" x 143.5"
Frame	Fabricated from A-36 cold rolled steel plate
Rail Gear	Eight, 16" (406mm) diameter AAR profile austempered ductile iron guide wheels; Rail gauge; 56 ½" (1435mm).
Couplers	AAR x 2
Brakes	**Service:** Foot and dash control located at drivers station for road travel. Vehicle brakes use ABS (Antilock Brake System). **Rail:** 67 cfm air compressor system. AAR Glad hand connections located front and rear. Emergency stop on dash panel. Rail brake valve protected with safety filter for harsh environments. **Park:** Electric over hydraulic.
Cab	10' full width cab constructed of galvaneel steel, mounted on rubber isolation bushings. 360-degree visibility.
Electrical	12V lighting and control system with 700V drive system.
Warning Signal	Two dual blast air horns. Back up alarm for on-road operation.
Tires & Rims	Pneumatic Tires 14.00xR24
Hydraulic Reservoir Capacity	50g
Air Tank (g), Rail Brakes	1X30g
Air Knife	1X30g

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Wabtec CORPORATION

SHUTTLEWAGON
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NAVIGATOR NVX-e

SHUTTLEWAGON ELECTRIC RAILCAR MOVERS PRODUCT RANGE

The compact electric series are easy to operate, require low maintenance, and are efficient and powerful enough to handle the most demanding applications. Shuttlewagon's compact electric models range in power from 310 tons to 4,000 tons of towing capacity. For more robust applications requiring battery power, the Navigator NVXe can move up to 40 loaded or empty railcars.

MODEL	MAX TRACTIVE EFFORT	MAX TOWING/ PULLING CAPACITY	ELECTRIC MOTORS	BATTERY	MAX SPEED	WEIGHT	DIMENSIONS
	lbs	tons	HP	Ah/V	mph	lbs	L x W x H
SWXe-5	1,125	110	2.7	240 / 48	1.5 – 2.5	4,500	5′ x 9′ 10″ x 1′ 8″
SWXe-16	3,100	310	9	420 / 80	1.2 – 3.2	7,500	8′ 6″ x 7′ 9 ½″ x 6 ½′
SWXe-25	5,250	525	18.3	700 / 80	1.2 – 4	10,600	9′ 10″ x 7′ 10 ½″ x 8′ 5″
SWXe-32	7,400	740	30	1,000 / 80	2 – 3.5	13,600	10′ 2″ x 7′ 10 ½″ x 8′ 6″
SWXe-50	10,000	1,000	43	1,000 / 80	2 – 4	21,000	13′ x 7′ 6″ x 8′ 6″
SWXe-90	20,000	2,000	2 x 27	2 x 1,000 / 80	3.5 – 10	34,000	16′ 5″ x 8′ 4″ x 8′ 6″
SWXe-120	26,000	2,600	2 x 40	2 x 1,400 / 80	3.5 – 10	46,000	26′x 8′ 4″ x 11′ 6″
SWXe-160	32,000	3,200	2 x 54	3 x 1,400 / 80	3.5 – 10	62,000	26′ x 8′ 4″ x 11′ 6″
NVX-E	45,000	4,500	155 hp cont./ 230 hp intr.	200kW Li-ion	16	67,000	24′6″x10′x11′9″

Efficient • Economical • Environmental

- **Low Operating Costs**
  Electric vehicles are dramatically cheaper to fuel than their diesel counterparts. The cost of the electricity has remained fairly static over the last decade, whereas the global oil market has caused the average price of gasoline to rise, drop, spike, dip, and rise again over the same time period.
- **Low Maintenance Costs**
  Despite being an advanced technology, electric vehicles are remarkably simple to maintain. Electric motors have fewer moving parts compared to diesel engines, and they do not require changing filters or hydraulic oil.
- **Performance**
  An electric engine generates instant torque whereas an internal combustion motor has a curve of torque that increases in tandem with engine revolutions per minute (rpm).
- **Reduced Noise**
  Electric motors are quieter than diesel engines and there are no engine-induced vibrations on-board.
- **Zero Emissions**
  When running, battery operated vehicles produce zero emissions.