

GENERAL

This manual contains operation and maintenance information for the Mini Rail Train Model RT1, manufactured by NORDCO EQUIPMENT SERVICES (NES), Arcola, IL. Information regarding operation and maintenance of OEM parts not of NORDCO manufacture can be found at the back of this manual, behind the tab marked **Component Data**.

Become familiar with all safety instructions, controls and instruments before operating this machine. Follow all instructions carefully.

ABOUT THIS MANUAL

This manual has been broken down into sections which have been separated by index tabs:

Mechanical has individual parts breakdown drawings and lists for each assembly

Pneumatic includes adjustment instructions and troubleshooting for the air (pneumatic) system; and all piping and function drawings for a standard machine and optional equipment

Component Data includes parts breakdowns and service instructions for components installed on the machine that are not of NORDCO's manufacture. This section has been expanded upon and is also broken down into tabbed sections.

SPECIFICATIONS

GENERAL

Model	RT1
Gross Weight	
Lead Anchor Cart.....	1380 lbs. (626 kg)
Cart with Brakes	1343 lbs. (609 kg)
Cart without Brakes	1210 lbs. (549 kg)
Maximum Load Capacity per Cart	15,000 lbs. (6803.9 kg)
Length	4 feet (1.22 meters)
Width.....	6 feet 10 Inches (2.08 meters)
Wheel Base	3 feet (0.9 m)
Travel Speed (Maximum)	10 mph (37 km/h)
Rated Draw Bar Pull (on rail)	15,000 lbs. (6803 kg)

PNEUMATIC SYSTEM - System Pressure Relies on Machine Towing Carts

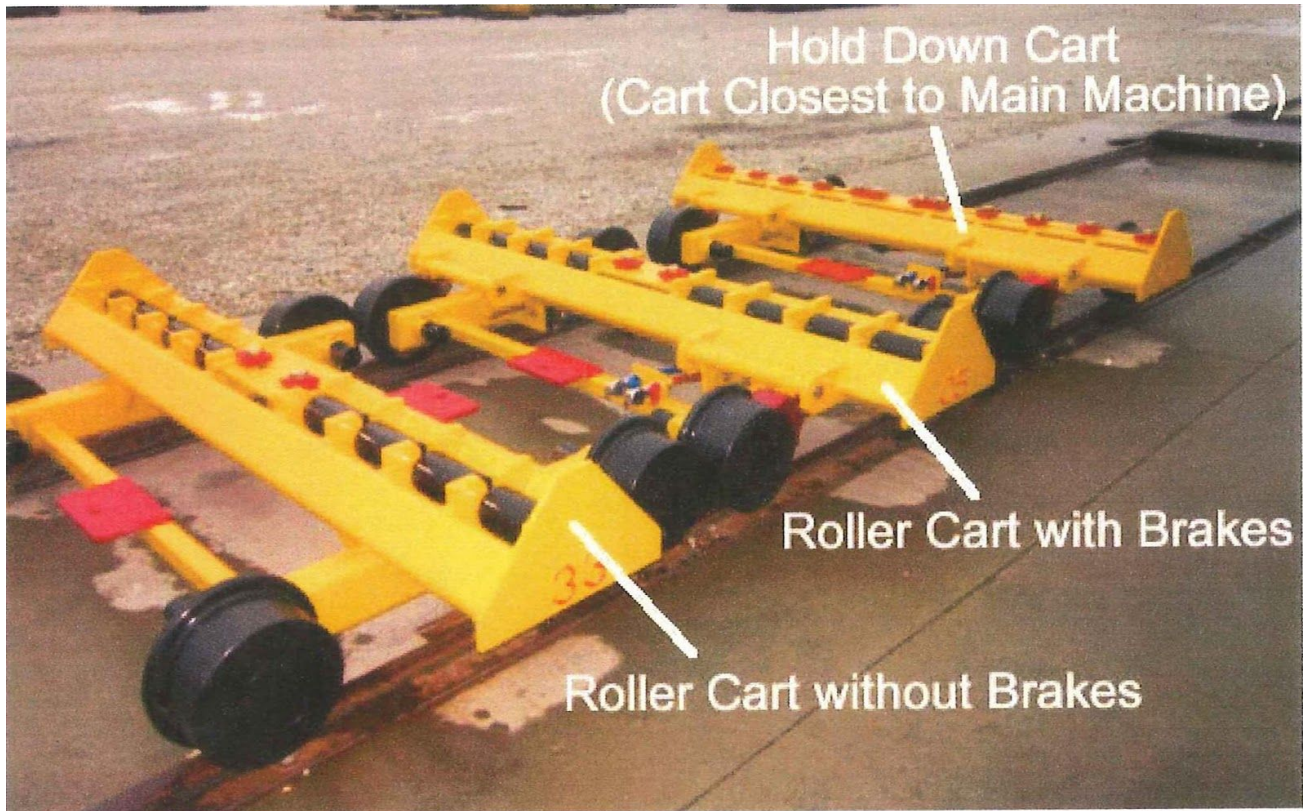
Brakes.....	13 cfm @120 psi
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WHEELS AND BRAKES

Wheel Size and Type.....	10" Hardened
Brake Type.....	Pneumatically Applied (Air) on Two Wheels
Style	Four Wheel

* **Approximate weight. Actual weight may vary according to options on your machine. Actual weight of your machine is as stenciled.**

OPERATION



GENERAL

the carts.

DO NOT use this equipment for operations other than for which it was intended.

FRA regulations require that a copy of this Operation Manual be kept on the equipment at all times. Additional copies of the Operation Manual only can be ordered from Nordco Parts Sales at 1-800-647-1724.

Carefully read all safety messages in this manual and on the decals located throughout the equipment. Learn how to operate the equipment and how to use controls properly.

ABOUT THIS EQUIPMENT

The rail train is capable of moving a maximum of 8 rails at a time. The carts are design to handle a specific weight. Any size rail up to 136 lb. can be used with the carts. The longer the rail, more roller carts with and without brakes are required.

Carts are numbered consecutively and should be assembled in numerical order behind the host machine that will be supplying pneumatic power to

The carts are held together for high speed travel to the jobsite using the tow bars supplied with each cart.

Once at the jobsite, the tow bars are removed and stored and the carts moved to the correct spacing for the length of rail being moved.

CAUTION

Maximum Distance between carts is 40 feet. Anything more than that will cause the load to become unstable.

There are three types of carts:

1. *Hold Down Cart w/Brakes (#01)*
2. *Roller Cart with Brakes*
3. *Roller Cart without Brakes*

These carts are assembled to the host machine in the order shown above.

The longer the rail being transported using these carts, the more brake carts required.

The pneumatic hoses provided with the carts allow the carts to be spaced up to 40 feet apart in the train. It is suggested that the pneumatic hoses be tied off to the spine rail (center rail holding all the carts together) using cable ties.

In the event of the rail carts becoming disconnected from the host machine during travel, the glad-hand connections will provide failsafe application of the braking systems on the carts.

Multiple carts throughout the train should have the rail bound to the carts by means of chains and binders. This allows rail to move as needed, but not slip off the train due to a sudden stop or start.

The carts with brakes are hoses in series with the emergency, or parking side setup with free-flowing air fittings. So at any given time, if a cart or carts should become separated, the air will blow down setting brakes on all the carts. At approximately 70psi of air pressure will release the brakes enough for travel. The optimal air pressure to run is 125psi. Air pressure is needed to release the brakes. The service side or pedal side of the brake system is setup with a quick exhaust valve. After applying the brakes to slow the train, air is quickly dumped out of each cart, so movement can occur more rapidly.

Always operate at slow controlled speeds. Never exceed 10 mph travel, with or without rails.

Hold Down Cart with Brakes



HOLD DOWN CART

The hold down cart is always the first cart of the train. This cart is always numbered 01 on the side of the cart.

The hold down cart has no rollers and is used to hold the rails in place during travel. The rails are

clamped to the cart using the rail clips shown.

Roller Cart with Brakes



CART WITH BRAKES

The roller cart with brakes contain 8 rollers and a center spine for holding the carts together. This cart has a braking system that is connected to the Hold Down cart through a series of red and blue hoses connected to Glad Hands. These carts ALWAYS follow the Hold Down Cart.

Roller Cart without Brakes

The roller cart without brakes is identical to the roller cart with brakes with the exception that it has no braking capability. These are the last carts in the train.

DETERMINING AMOUNT OF CARTS NEEDED

It also requires that you know the amount of carts you will need, and the distance between the carts that is allowable. **Refer to the Charts on the following pages for cart requirements and for capacity requirements.** The first chart is used to determine the spacing of the cart based on Rail Size and the amount of rails being transported. The second chart tells you how many carts you will need based on rail length and spacing.

Note: The amount of carts with brakes (including the Hold Down Cart) should match the amount of carts without brakes. If you need 20 carts for the length of the rail, you will need the Hold Down Cart with Brakes, 9 Roller Carts with Brakes, and 10 Roller Carts without Brakes.


Mini Rail Train Model RT1

SETUP AND OPERATION

		40 Foot Spacing of Carts – Number of Rails Being Moved Shown Includes Spine Rail							Weight
Rail Size	40 ft. Section Weight	1	2	3	4	5	6	7	8
90	1,197	2,394	3,591	4,788	5,985	7,182	8,379	9,576	10,773
100	1,330	2,660	3,990	5,320	6,650	7,980	9,310	10,640	11,970
115	1,530	3,059	4,589	6,118	7,648	9,177	10,707	12,236	13,766
132	1,756	3,511	5,267	7,022	8,778	10,534	12,289	14,045	15,800
136	1,809	3,618	5,426	7,235	9,044	10,853	12,662	14,470	16,279
140	1,862	3,724	5,586	7,448	9,310	11,172	13,034	14,896	16,758
152	2,022	4,043	6,065	8,086	10,108	12,130	14,151	16,173	18,194
155	2,062	4,123	6,185	8,246	10,308	12,369	14,431	16,492	18,554

		35 Foot Spacing of Carts – Number of Rails Being Moved Shown Includes Spine Rail							Weight
Rail Size	35 ft. Section Weight	1	2	3	4	5	6	7	8
90	1,050	2,100	3,150	4,200	5,250	6,300	7,350	8,400	9,450
100	1,167	2,333	3,500	4,667	5,833	7,000	8,167	9,333	10,500
115	1,342	2,683	4,025	5,367	6,708	8,050	9,392	10,733	12,075
132	1,540	3,080	4,620	6,160	7,700	9,240	10,780	12,320	13,860
136	1,587	3,173	4,760	6,347	7,933	9,520	11,107	12,693	14,280
140	1,633	3,267	4,900	6,533	8,167	9,800	11,433	13,067	14,700
152	1,773	3,547	5,320	7,093	8,867	10,640	12,413	14,187	15,960
155	1,808	3,617	5,425	7,233	9,042	10,850	12,658	14,467	16,275

		30 Foot Spacing of Carts – Number of Rails Being Moved Shown Includes Spine Rail							Weight
Rail Size	30 ft. Section Weight	1	2	3	4	5	6	7	8
90	900	1,800	2,700	3,600	4,500	5,400	6,300	7,200	8,100
100	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
115	1,150	2,300	3,450	4,600	5,750	6,900	8,050	9,200	10,350
132	1,320	2,640	3,960	5,280	6,600	7,920	9,240	10,560	11,880
136	1,360	2,720	4,080	5,440	6,800	8,160	9,520	10,880	12,240
140	1,400	2,800	4,200	5,600	7,000	8,400	9,800	11,200	12,600
152	1,520	3,040	4,560	6,080	7,600	9,120	10,640	12,160	13,680
155	1,550	3,100	4,650	6,200	7,750	9,300	10,850	12,400	13,950

 Indicates that at the rail size, you will be exceeding the weight limitation of the cart

Number of Carts Required

Spacing*	Rail Length (Feet)	Carts		Spacing*	Rail Length (Feet)	Carts
30	1900	63		30	1250	42
35	1900	54		35	1250	36
40	1900	48		40	1250	31
30	1850	62		30	1200	40
35	1850	53		35	1200	34
40	1850	46		40	1200	30
30	1800	60		30	1150	38
35	1800	51		35	1150	33
40	1800	45		40	1150	29
30	1750	58		30	1100	37
35	1750	50		35	1100	31
40	1750	44		40	1100	28
30	1700	57		30	1050	35
35	1700	49		35	1050	30
40	1700	43		40	1050	26
30	1650	55		30	1000	33
35	1650	47		35	1000	29
40	1650	41		40	1000	25
30	1600	53		30	950	32
35	1600	46		35	950	27
40	1600	40		40	950	24
30	1550	52		30	900	30
35	1550	44		35	900	26
40	1550	39		40	900	23
30	1500	50		30	850	28
35	1500	43		35	850	24
40	1500	38		40	850	21
30	1450	48		30	800	27
35	1450	41		35	800	23
40	1450	36		40	800	20
30	1400	47		30	750	25
35	1400	40		35	750	21
40	1400	35		40	750	19
30	1350	45		30	700	23
35	1350	39		35	700	20
40	1350	34		40	700	18
30	1300	43		30	650	22
35	1300	37		35	650	19
40	1300	33		40	650	16

Cart Spacing is Determined by the Rail Size Shown on Next Page