



RSN Top Running End Truck

The RSN end truck is a new line of top running end trucks that is going to replace the RS end truck line.

The RSN09 end truck is the first model to be released to production and be included in QuoteMaster™. RSN09 is going to replace the RS11.

RSN09 Specifications

Crane capacities

1 - 3 ton up to about 62' [19 m] span (up to 5 ton with shorter spans)

Wheelbase range

1250, 1600, 2000, 2500 mm

Wheels

90 mm wheel diameter
Ductile iron - material GJS700-2
Flat tread and flanged
2 wheels per end truck (bogie style not available)

Groove width

2" – 2 3/4" [50 – 70 mm]
Grooves over 2 3/4" [70 mm] - use flangeless wheels and guide rollers.

Rail

ASCE
Bar

Truck construction

Rectangular tube
Integrated wheel axle failure support
Bolt-on end plates/rail sweep

Bridge Drive

GES3 gear and inverter-duty motor (limited two speed pole change motors and bridge speeds)
One wheel is driven as standard.
Nominal VFD speeds: 65, 80, 100, 130 fpm [20, 25, 32, 40 m/min]

Joint type

Joint plate is bolted to end truck and bridge girder is welded to joint plate.
Single girder or double girder
Supports bridge girder flange width up to about 16" [400 mm].
Standard or Low connection type in a side "shear" connection

Bumpers

Bumpers are standard and are sized according to the load

Options

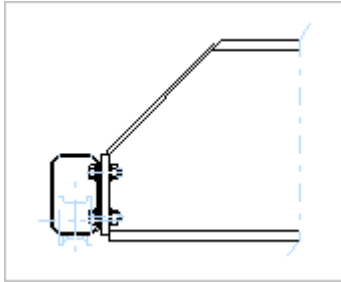
Derailment device
Bumper extension
Guide rollers (bolt on)
Rail cleaning device

Surface treatment

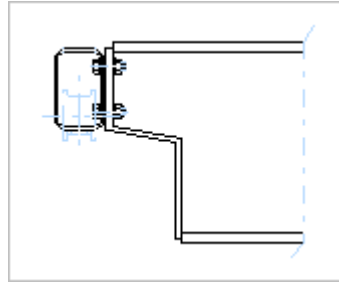
Primer only (RAL 1006)



Joint Connection Types



Standard Connection
Profile girder



Low Connection
Box or profile girder



Product Code

RSN	09	-	16	65	-	400	200	C	0000	-	N
1-3	4,5	6	7,8	BT08 9,10	11	12-14	15-17	BT19 18	19-22	23	24

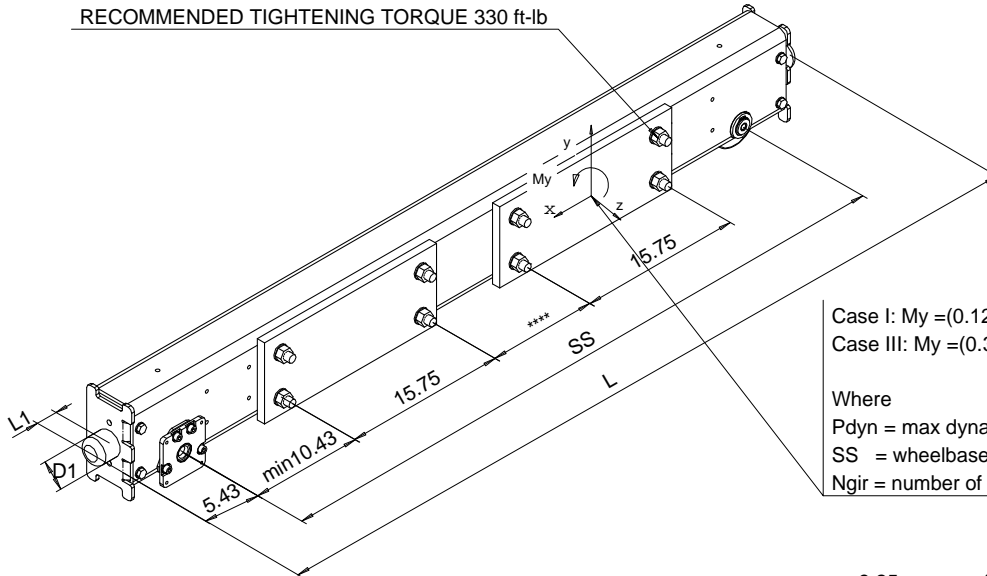
Pos.	Code	Feature code	Feature	Available properties										
1-3	RSN		Product name	RSN End truck series										
4,5	09		Wheel diameter	09 90 mm										
6	-		Description	- Standard C Asymmetrical joint with single girder										
7,8	16		Wheelbase	<table border="0"> <tr> <td><u>Wheelbase dimension</u></td> <td><u>Applicable end truck</u></td> </tr> <tr> <td>13 1250 mm</td> <td>RSN09</td> </tr> <tr> <td>16 1600 mm</td> <td>RSN09</td> </tr> <tr> <td>20 2000 mm</td> <td>RSN09</td> </tr> <tr> <td>25 2500 mm</td> <td>RSN09</td> </tr> </table>	<u>Wheelbase dimension</u>	<u>Applicable end truck</u>	13 1250 mm	RSN09	16 1600 mm	RSN09	20 2000 mm	RSN09	25 2500 mm	RSN09
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13 1250 mm	RSN09													
16 1600 mm	RSN09													
20 2000 mm	RSN09													
25 2500 mm	RSN09													
9,10	65	BT08	Groove width	<u>Applicable end truck</u> 50-70 RSN09										
11	-		Number of drive wheels	- One drive wheel / truck D Two drive wheels / truck										
12,14	400		Joint type	EBN09 400										
15-17	200		Joint plate height	EBN09 200										
18	C	BT19	Buffer type	RSN09 A, B, C A...C Rubber buffers 0 No buffer										
19-22	0000		Bogie inner wheel distance	0000 No bogie type end carriage										
23	-		Color code	- Standard primary paint K Standard finishing paint										
24	N		Special properties	N Standard E Special										

RSN09 END TRUCK

For single and double girder cranes

US-60Hz

RECOMMENDED TIGHTENING TORQUE 330 ft-lb



Case I: $My = (0.125 \times P_{dyn} / 1.15 \times SS) / N_{gir}$
 Case III: $My = (0.3 \times P_{dyn} \times SS) / N_{gir}$

Where
 P_{dyn} = max dynamic wheel load
 SS = wheelbase
 N_{gir} = number of girders

SS	H	H1	SG		DG	
			WT	P_{dyn} max	WT	P_{dyn} max
[in] (mm)	[in]	[in]	[lb]	[lb]	[lb]	[lb]
49.21 (1250)	8.07	0.39	190	6300	-	-
63 (1600)	8.07	0.39	218	6300	256	6300
78.74 (2000)	8.07	0.39	249	6300	287	6300
98.43 (2500)	8.07	0.39	291	6300	328	6300

$$L = SS + 10.87" + 2 \times L1$$

$$\text{Max } My(I) = 6633 \text{ ft-lb, } My(III) = 15920 \text{ ft-lb}$$

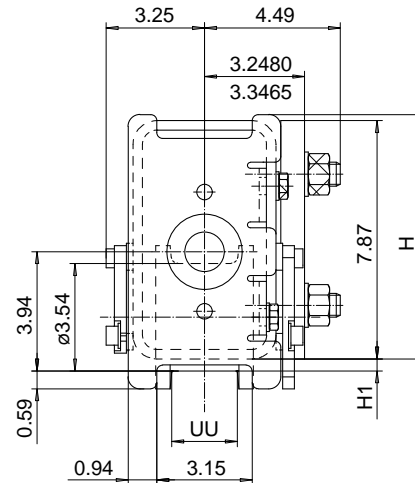
Available only with ductile iron wheel.

$$UU = 1.97" \dots 2.76"$$

RSN09 end truck is compatible with the GES3 gear motor and can be equipped with a second gear motor.

The max. allowable wheel load listed above is only a guideline (calculated with double girder) and is based on the assumption that the crane speed is 130 fpm, the duty is CMAA Class C, and the runway rail width is 2".

If the crane speed is faster, duty group is more severe, or the actual runway rail is narrower, then the max. allowable dynamic wheel load must be recalculated.



Suitable buffers		
Code	D1 [in]	L1 [in]
A	2.48	2.09
B	3.15	2.68
C	3.94	3.35
A, B, C: Rubber		

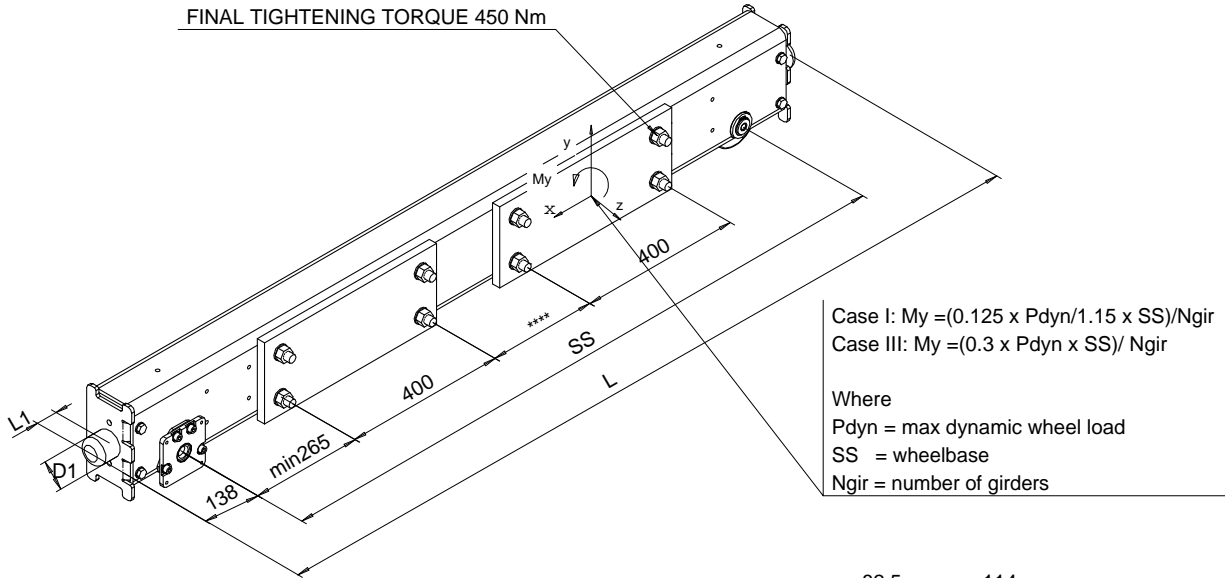
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2007-01-03 Date	END CARRIAGE			
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D004769-A				Issue 1

RSN09 END TRUCK

For single and double girder cranes

SI-60Hz



SS	H	H1	SG		DG	
			WT	P _{dyn} max	WT	P _{dyn} max
[mm]	[mm]	[mm]	[kg]	[kN]	[kg]	[kN]
1250	205	10	86	28	-	-
1600	205	10	99	28	116	28
2000	205	10	113	28	130	28
2500	205	10	132	23	149	28

$$L = SS + 276 + 2 \cdot L1$$

$$\text{Max } My(I) = 9 \text{ kNm}, My(III) = 21.6 \text{ kNm}$$

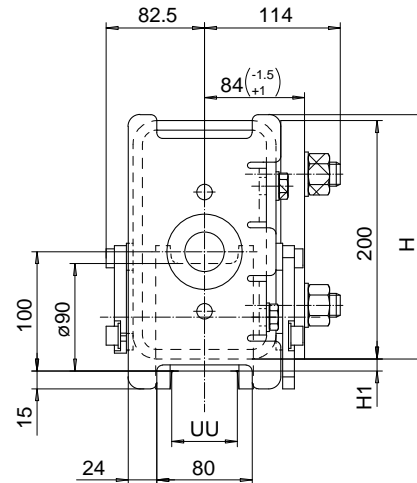
Available only with ductile iron wheel.

$$UU = 50 \dots 70$$

RSN09 end truck is compatible with the GES3 gear motor and can be equipped with a second gear motor.

The max. allowable wheel load listed above is only a guideline (calculated with double girder) and is based on the assumption that the crane speed is 40m/min, the duty is Fem 2m, and the runway rail width is 50mm.

If the crane speed is faster, duty group is more severe, or the actual runway rail is narrower, then the max. allowable dynamic wheel load must be recalculated.



Suitable buffers		
Code	D1 [mm]	L1 [mm]
A	63	53
B	80	68
C	100	85
A, B, C: Rubber		

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