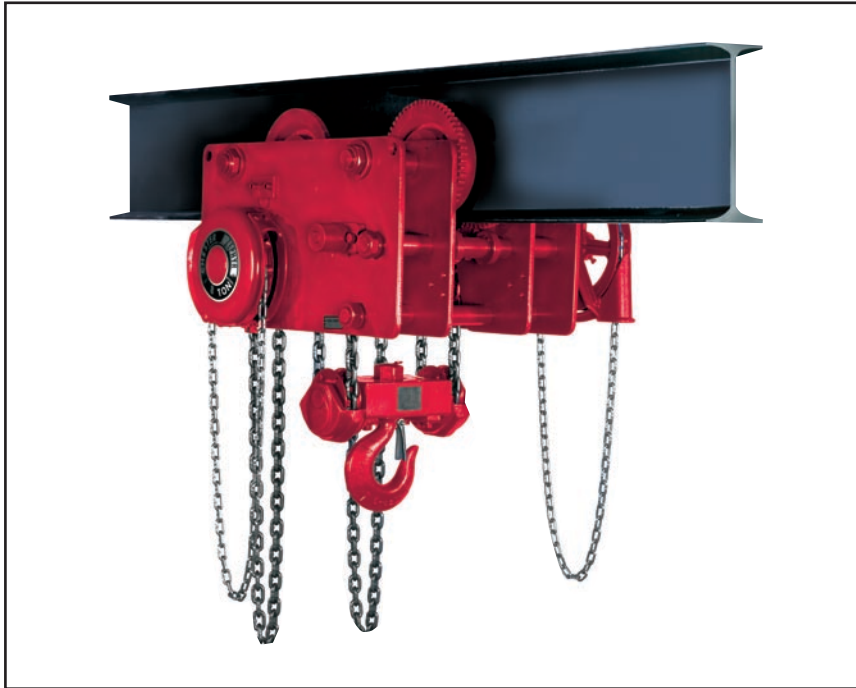# CHESTER HOIST

"Performance Plus Flexibility"

ZEPHYR LOW HEAD ROOM HOISTS

Chester Zephyr Low Head Room Trolley hoists, as the name implies are designed for those applications where head room is so limited that no other type hoist can be used. It offers the answer for existing structures with low ceilings and suggests interesting cost savings in new construction by allowing lower ceilings.

The Chester Low Head Room is not adjustable to varying size beams. Each unit is custom-built to fit the size beam specified in the order.

Zephyr Low Head Room hoists are equipped with concentrically machined, cast iron, precision bearing trolley wheels.

Beam size, height, flange width, and curve radius are required for all orders.

CATALOG NUMBER		RATED CAPACITY IN SHORT TONS	STANDARD LIFT IN FEET	LOAD CHAIN LENGTH 2 CHAINS PER HOIST	†† MINIMUM RADIUS CURVE	MINIMUM DISTANCE BOTTOM OF I-BEAM TO HOOK IN INCHES	CHAIN PULL TO LIFT FULL LOAD LBS.	CHAIN OVERHAUL TO LIFT LOAD ONE FOOT	NET WEIGHT LBS.	
PLAIN	GEARED								PLAIN	GEARED
1421 - 1 $\frac{1}{2}$	1422 - 1 $\frac{1}{2}$	1 $\frac{1}{2}$	8	9'-6"	6'-6"	6 $\frac{1}{4}$"	41	87'	207	230
1421 - 2	1422 - 2	2	8	9'-6"	6'-6"	6 $\frac{1}{4}$"	54	87'	210	233
1421 - 3	1422 - 3	3	8	18'-3"	6'-6"	7 $\frac{3}{8}$"	42	176'	305	335
1421 - 4	1422 - 4	4	8	18'-3"	7'-6"	8"	56	176'	308	340
1421 - 5	1422 - 5	5	8	10'	8'-6"	8 $\frac{3}{4}$"	79	165'	574	633
1421 - 6	1422 - 6	6	8	10'	8'-6"	8 $\frac{3}{4}$"	94	165'	574	633
1421 - 8	1422 - 8	8	8	19'	9'-6"	11"	64	355'	650	773
1421 - 10	1422 - 10	10	8	19'-6"	10'	11 $\frac{1}{2}$"	87	330'	1022	1105
1421 - 12	1422 - 12	12	8	19'-6"	†	11 $\frac{1}{2}$"	104	330'	1022	1105
1421 - 16	1422 - 16	16	8	38'-6"	†	13 $\frac{5}{8}$"	68	710'	1600	1681
1421 - 20	1422 - 20	20	8	39'	†	17 $\frac{1}{4}$"	87	731.5'	1950	2110
1421 - 24	1422 - 24	24	8	39'	†	17 $\frac{1}{4}$"	104	731.5'	1950	2110

ALL HEADROOM DIMENSIONS DETERMINED WHILE HOIST UNDER LOAD.

†Straight track operation only recommended for these units.
††Curves less than minimum may be fitted by special construction. Consult factory. Curve radius must be specified on order since wheels are modified to negotiate curves.
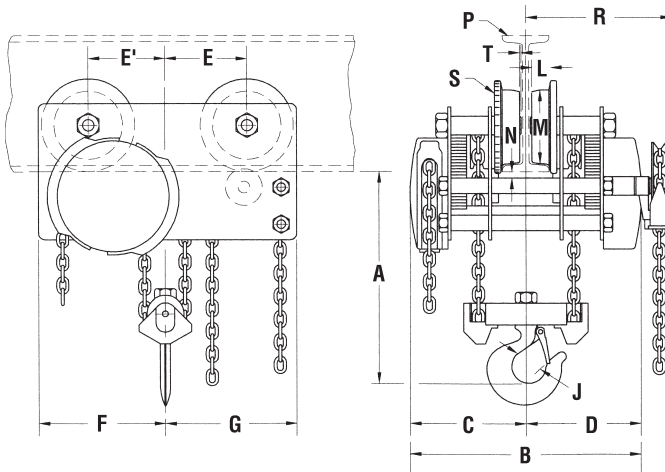
Bulletin J

LOW HEAD ROOM HOISTS

Minimum Radius Curves

CAPACITY	MINIMUM RADIUS CURVE
1 1/2-3 Ton	6'6"
4 Ton	7'6"
5, 6 Ton	8'6"
8 Ton	9'6"
10 Ton	10'"

For over 10 Ton, straight track operation is recommended.

Curve radius must be specified on orders.

Curves less than minimum radius may be fitted upon application.

CAPACITY TONS	A	B	C	D	E	E'	F	G	H
1 ¹/₂	6 ¹/₄"	20 ³/₈"	10 ³/₁₆"	10 ³/₁₆"	5 ¹/₈"	5 ¹/₈"	8 ³/₄"	8 ¹/₄"	⁵/₈"
2	6¹/₄"	20 ³/₈"	10 ³/₁₆"	10 ³/₁₆"	5 ¹/₈"	5 ¹/₈"	8 ³/₄"	8 ¹/₄"	⁵/₈"
3	7 ³/₈"	20 ³/₈"	10 ³/₁₆"	10 ³/₁₆"	6 ¹/₂"	6 ⁵/₈"	10 ⁵/₈"	10 ⁵/₈"	⁹/₁₆"
4	8"	20 ³/₈"	10 ³/₁₆"	10 ³/₁₆"	6 ¹/₂"	6 ⁵/₈"	10 ⁵/₈"	10 ⁵/₈"	⁹/₁₆"
5	8 ³/₄"	26 ¹/₄"	13 ¹/₈"	13 ¹/₈"	7 ³/₈"	7 ³/₈"	12"	12"	²⁹/₃₂"
6	8 ³/₄"	26 ¹/₄"	13 ¹/₈"	13 ¹/₈"	7 ³/₈"	7 ³/₈"	12"	12"	²⁹/₃₂"
8	11"	26 ¹/₄"	13 ¹/₈"	13 ¹/₈"	8 ³/₈"	8 ⁷/₈"	14"	13 ¹/₂"	⁹/₁₆"
10	11 ¹/₂"	26 ¹/₄"	13 ¹/₈"	13 ¹/₈"	8 ¹/₂"	9 ³/₄"	15 ⁵/₈"	14 ³/₈"	⁹/₁₆"
12	11 ¹/₂"	26 ¹/₄"	13 ¹/₈"	13 ¹/₈"	8 ¹/₂"	9 ³/₄"	15 ⁵/₈"	14 ³/₈"	⁹/₁₆"
16	13 ⁵/₈"	30 ³/₈"	15 ³/₁₆"	15 ³/₁₆"	11 ⁷/₈"	11 ⁷/₈"	18 ⁵/₈"	18 ⁵/₈"	⁹/₁₆"
20	17 ¹/₄"	30 ³/₈"	15 ³/₁₆"	15 ³/₁₆"	12 ¹/₈"	12 ³/₈"	19 ¹/₄"	19"	³/₄"
24	17 ¹/₄"	30 ³/₈"	15 ³/₁₆"	15 ³/₁₆"	12 ¹/₈"	12 ³/₈"	19 ¹/₄"	19"	³/₄"

CAPACITY TONS	J	L	M	N**	P*	R	S
1 ¹/₂	1 ¹/₈"	1 ¹/₈"	4 ¹/₂"	¹/₂"	6" I @ 12.5#	13 ¹/₁₆"	6"
2	1 ¹/₈"	1 ¹/₈"	4 ¹/₂"	¹/₂"	6" I @ 12.5#	13 ¹/₁₆"	6"
3	1 ¹¹/₃₂"	1 ¹¹/₃₂"	6 ³/₈"	¹/₂"	8" I @ 18.4#	13 ¹/₁₆"	8"
4	1 ¹¹/₁₆"	1 ¹¹/₃₂"	6 ³/₈"	¹/₂"	8" I @ 18.4#	13 ¹/₁₆"	8"
5	1 ¹¹/₁₆"	1 ¹³/₃₂"	7 ³/₁₆"	⁹/₁₆"	10" I @ 25.4#	16 ¹/₂"	9"
6	1 ¹¹/₁₆"	1 ¹³/₃₂"	7 ³/₁₆"	⁹/₁₆"	10" I @ 25.4#	16 ¹/₂"	9"
8	2 ¹/₁₆"	1 ¹¹/₁₆"	8 ¹/₄"	⁹/₁₆"	10" I @ 25.4#	16 ¹/₂"	10"
10	2 ¹/₄"	1 ³/₄"	9 ³/₄"	⁵/₈"	12" I @ 31.8#	16 ¹/₂"	11 ¹¹/₁₆"
12	2 ¹/₄"	1 ³/₄"	9 ³/₄"	⁵/₈"	12" I @ 31.8#	16 ¹/₂"	11 ¹¹/₁₆"
16	3"	2"	11 ³/₄"	³/₄"	15" I @ 42.9#	18 ⁷/₈"	13 ¹/₂"
20	3 ⁵/₈"	2"	11 ³/₄"	⁵/₈"	18" I @ 54.7#	18 ⁷/₁₆"	13 ¹/₂"
24	3 ⁵/₈"	2"	11 ³/₄"	⁵/₈"	18" I @ 54.7#	18 ⁷/₁₆"	13 ¹/₂"

**At Under Beam Roller

*P — Min. Std. I-Beam for Proper Wheel Running Clearance Only.

Customer must verify their beam is adequate for the applied loads.

*⚠ WARNING

Overloading and improper use can result in injury.

To avoid injury:
- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain and attachments for overhead lifting.
- Read and follow all instructions.
- This equipment for manual operation only.