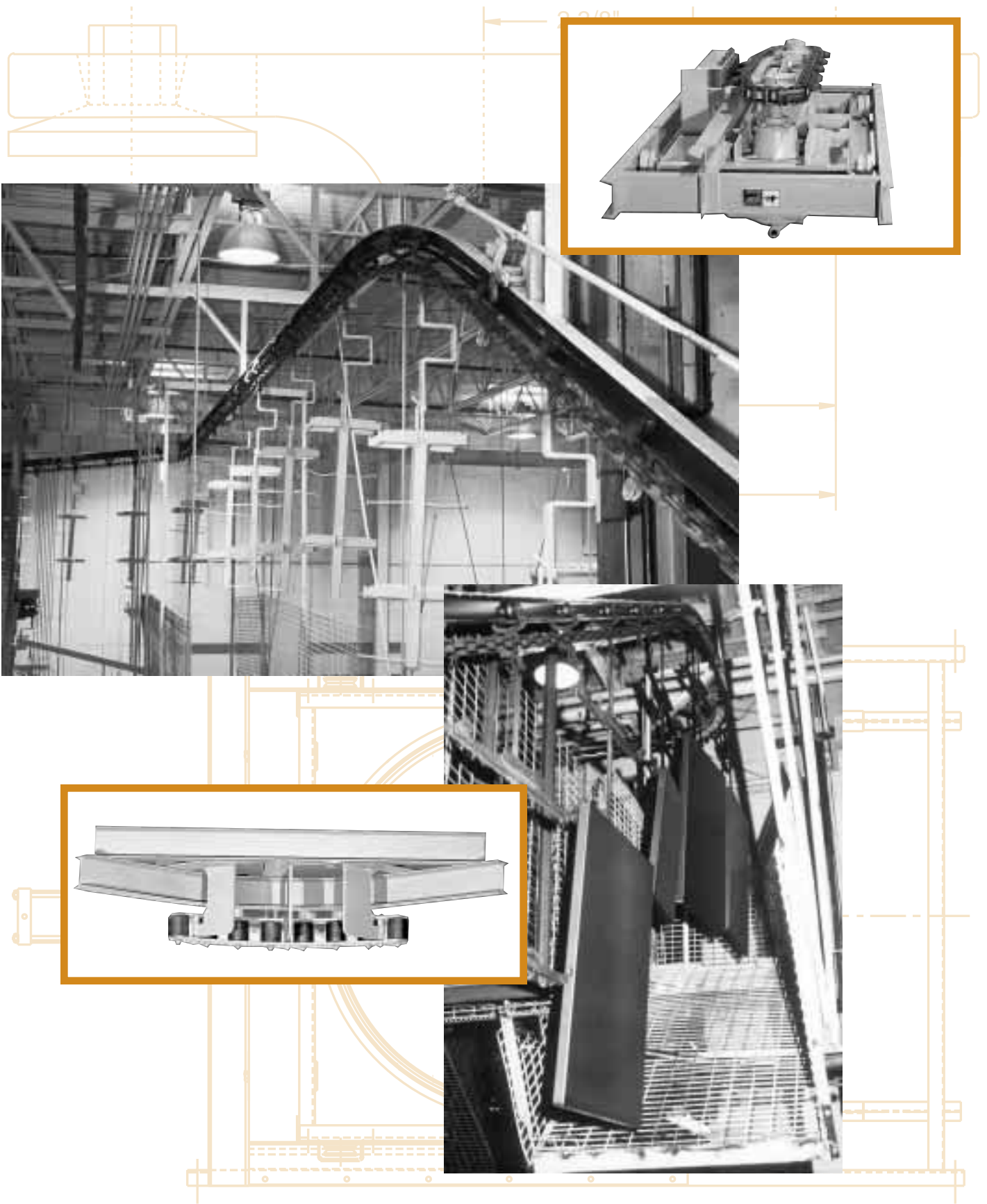


I-BEAM

348 and 458 Overhead Heavy Duty Monorail Conveyor



I-BEAM TRACK & CHAIN

3" & 4" I-BEAM TRACK

Hi-Carbon Steel Track

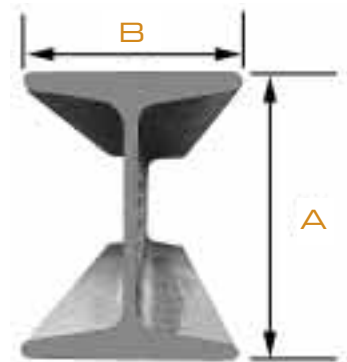
The Richards-Wilcox Track is constructed from High Carbon Structural I-Beam.

High Carbon I-Beam should be used on systems where there is a combination of high chain pull, high trolley loads, and multi-plane operation. The last is actually the controlling factor. This is understandable considering that on level systems, the load on the track flange is equal to the trolley load. However, on the top vertical curves the lower track flange is subjected to the trolley load, plus the additional force resulting from chain tension. The harder high carbon track will resist peening and will wear much longer than the softer, standard carbon steel.

Richards-Wilcox track is furnished in 20 foot lengths and is unpainted.



DIMENSIONS



	A	B
3"	3"	2.33"
4"	4"	2.66"

Pitch	Description	Part No.	Weight lbs. Per Ft.
3"	I-Beam x 20' long	0348.00001	5.7
4"	I-Beam x 20' long	0458.00001	7.7
3"	X-348 Chain	0348.00024	2.2
4"	X-458 Chain	0458.00024	3.2

3" & 4" CHAINS FOR I-BEAM SYSTEMS

Chain

Richards-Wilcox offers chain in two sizes, X-348 and X-458. Chain is drop forged, rivetless, and is extremely flexible on both vertical and horizontal curves. Richards-Wilcox chain provides strength and flexibility to accommodate all I-Beam conveyor applications.



Part No. 0348.00024 (3") and 0458.00024 (4")

	Chain Type	
	X348	X458
Normal Pitch	3"	4"
Pin Diameter	4/8"	5/8"
Wt. Per Foot	2.1 lbs.	3.1 lbs.
Max. Recommended Chain Tension	1800 lbs.	3000 lbs.

I-BEAM TROLLEY & CHAIN

TROLLEY SIZES

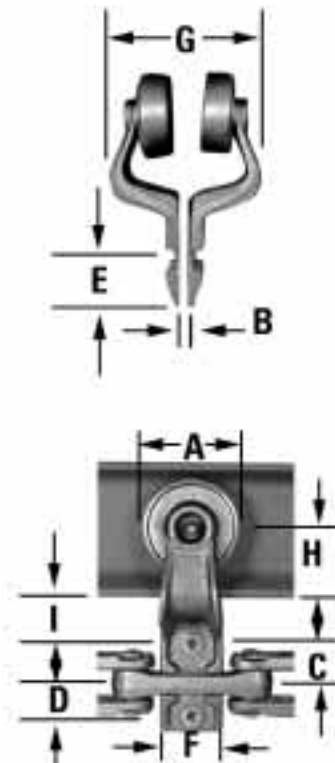
Richards-Wilcox trolleys provide the key to dependable operation and have full-ball complement bearings with drop forged steel side arms. Many attachments are available to accommodate most applications.

Trolley selection is most frequently chosen by product weight. Refer to the chart for your trolley requirements, or call the factory for assistance.

NOTE: Standard 4" Trolley has a 7 3/16" drop, 8" drop is available upon request.

Part No.	Description
0348.00040	3" Trolley, FBC, Sealed, 5 1/2" drop
0348.00041	3" Trolley, FBC, Open, 5 1/2" drop
0458.00040	4" Trolley, FBC, Sealed, 7 3/16" drop
0458.00041	4" Trolley, FBC, Open, 7 3/16" drop
0458.00061	4" Trolley, FBC, Sealed, 8" drop
0458.00063	4" Trolley, FBC, Open, 8" drop

Trolley Selection Guide	3"	4"
Trolley Capacity	200 lbs.	400 lbs.
Trolley Capacity w/Load Bar	400 lbs.	800 lbs.
Chain Size	X-348	X-458
I-Beam Track	S3" x 5.7 lbs.	S4" x 7.7 lbs.
Drop	5 1/2"	7 3/16"
A	2 5/16"	3 3/16"
B	1/4"	3/8"
C	1"	1 5/16"
D	7/8"	13/16"
E	1 1/4"	1 5/16"
F	1 9/16"	2 1/8"
G	4 1/16"	5 3/8"
H	1 7/16"	1 7/8"
I	1 1/2"	1 7/8"



RECOMMENDED TROLLEY SPACING

Trolley Size	Drop	Trolley Spacing		I-Beam Size	Chain Size	Shipping Weight
		Minimum	Maximum			
3"	5 1/2"	6"	30"	3"	X-348	2 1/2 lbs. -/set
4"	7 3/16" or 8"	8"	32"	4"	X-458	4 3/4 lbs. -/set

I-BEAM ROLLER TURNS



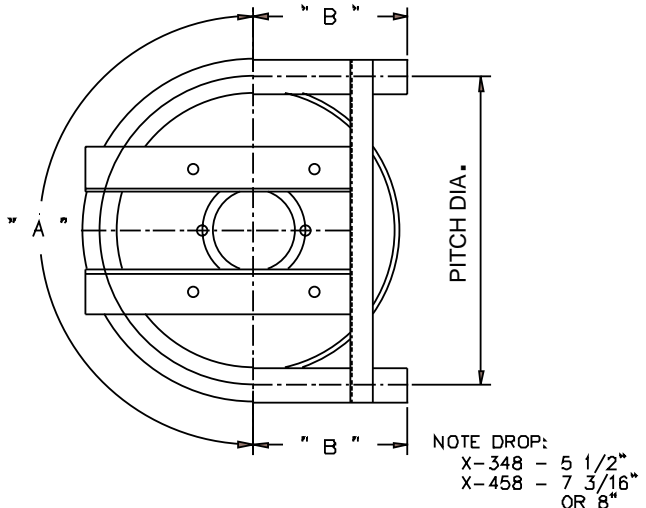
HORIZONTAL ROLLER TURNS

RADIUS	30°		45°		60°	
	3"	4"	3"	4"	3"	4"
18"	0348.00186	0458.00186	0348.00185	0458.00185	0348.00187	0458.00187
24"	0348.00094	0458.00094	0348.00062	0458.00062	0348.00095	0458.00095
30"	0348.00188	0458.00188	0348.00189	0458.00189	0348.00190	0458.00190
36"	0348.00164	0458.00164	0348.00165	0458.00165	0348.00166	0458.00166
42"	0348.00191	0458.00191	0348.00192	0458.00192	0348.00193	0458.00193
48"	0348.00196	0458.00196	0348.00197	0458.00197	0348.00198	0458.00198
60"	0348.00199	0458.00199	0348.00200	0458.00200	0348.00201	0458.00201
72"	0348.00202	0458.00202	0348.00203	0458.00203	0348.00204	0458.00204

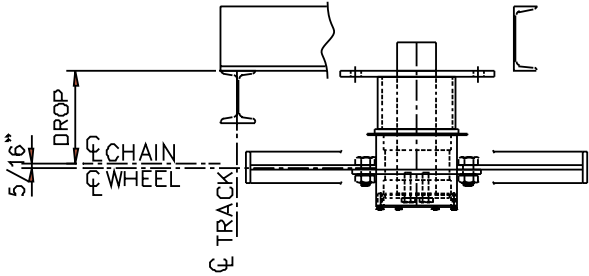
RADIUS	90°		180°	
	3"	4"	3"	4"
18"	0348.00092	0458.00092	0348.00093	0458.00093
24"	0348.00002	0458.00002	0348.00064	0458.00064
30"	0348.00096	0458.00096	0348.00097	0458.00097
36"	0348.00065	0458.00065	0348.00066	0458.00066
42"	0348.00194	0458.00194	0348.00195	0458.00195
48"	0348.00098	0348.00098	0348.00099	0458.00099
60"	0348.00100	0458.00100	0348.00101	0458.00101
72"	0348.00102	0458.00102	0348.00103	0458.00103

NOTE: Minimum recommended horizontal roller turn size for X-348 systems is 18" radius.
Minimum recommended horizontal roller turn size for X-458 systems is 24" radius.

I-BEAM TRACTION WHEEL TURNS



Pitch Diameter	"A"	"B"
24"	3'-1 11/16"	1'-0"
30"	3'-1 1/4"	1'-0"
36"	4'-8 9/16"	1'-0"
42"	5'-6"	1'-0"
48"	6'-3 3/8"	1'-0"
54"	7'-13/16"	1'-0"
60"	7'-10 13/16"	1'-0"
72"	9'-5 1/8"	1'-0"
84"	10-11 15/16"	1'-0"



	24" Pitch Diameter				36" Pitch Diameter			
	Graphite		Timken		Graphite		Timken	
	90°	180°	90°	180°	90°	180°	90°	180°
3"	0348.00111	0348.00071	0348.00105	0348.00067	0348.00112	0348.00072	0348.00106	0348.00068
4"	0458.00111	0458.00071	0458.00105	0458.00067	0458.00112	0458.00072	0458.00106	0458.00068

	42" Pitch Diameter				48" Pitch Diameter			
	Graphite		Timken		Graphite		Timken	
	90°	180°	90°	180°	90°	180°	90°	180°
3"	0348.00205	0348.00206	0348.00207	0348.00208	0348.00113	0348.00073	0348.00107	0348.00069
4"	0458.00205	0458.00206	0458.00207	0458.00208	0458.00113	0458.00073	0458.00107	0458.00069

	60" Pitch Diameter				72" Pitch Diameter			
	Graphite		Timken		Graphite		Timken	
	90°	180°	90°	180°	90°	180°	90°	180°
3"	0348.00114	0348.00074	0348.00108	0348.00070	0348.00115	0348.00116	0348.00109	0348.00110
4"	0458.00114	0458.00074	0458.00108	0458.00070	0458.00115	0458.00116	0458.00109	0458.00110

NOTE: Minimum recommended traction wheel turns size for X-348 systems is 24" diameter.
Minimum recommended traction wheel turns size for X-458 systems is 30" diameter.

I-BEAM ROLLER AND TRACTION TAKE-UPS



ROLLER TURN TAKE-UPS

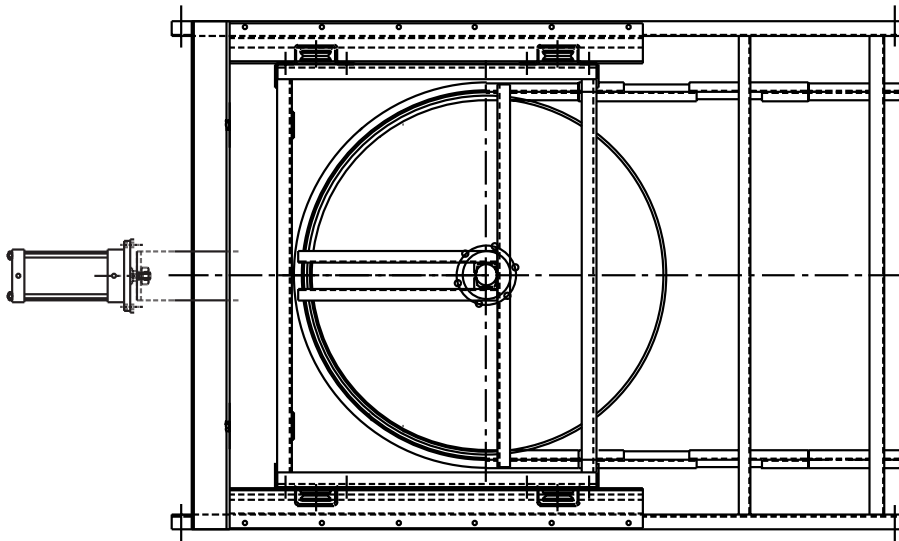
	18" Radius		24" Radius	
	Spring	Air	Spring	Air
3"	0348.00075	0348.00119	0348.00038	0348.00076
4"	0458.00075	0458.00119	0458.00038	0458.00076

	36" Radius		48" Radius	
	Spring	Air	Spring	Air
18"	0348.00117	0348.00120	0348.00118	0348.00121
24"	0458.00117	0458.00120	0458.00118	0458.00121

TRACTION WHEEL AIR TAKE-UPS

3"	36" Pitch Diameter x 180° 0348.00126	48" Pitch Diameter x 180° 0348.00127
4"	36" Pitch Diameter x 180° 0458.00126	48" Pitch Diameter x 180° 0458.00127

NOTE: All Traction Wheel Take-ups use Timken bearings.
All Take-ups have 8" travel. Please contact the factory for additional travel requirements.

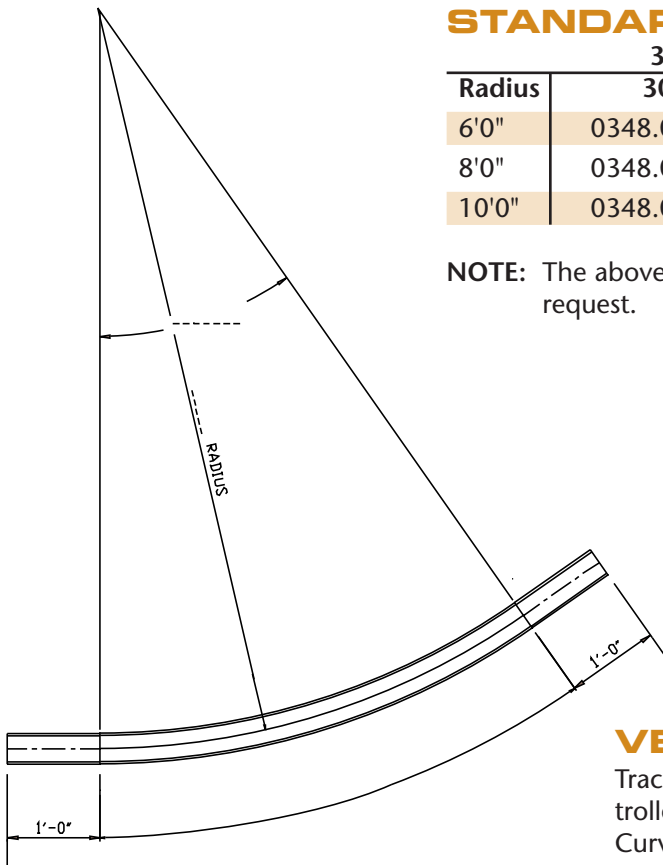


I-BEAM VERTICAL CURVES

STANDARD SINGLE VERTICAL CURVES

Radius	3"	4"	3"	4"
	30°	30°	45°	45°
6'0"	0348.00162	0458.00162	0348.00163	0458.00163
8'0"	0348.00054	0458.00054	0348.00055	0458.00055
10'0"	0348.00056	0458.00056	0348.00057	0458.00057

NOTE: The above chart shows the standard radii. Other radii available upon request.



VERTICAL CURVE DATA

Track — Vertical curve radii for overhead conveyors as related to trolley spacing. Minimum and Recommended Radius of Vertical Curve.

CHAIN Trolley Spacing	X-348		X-458	
	Minimum	Recommended	Minimum	Recommended
8"	—	—	3'-0"	6'-0"
12"	4'-0"	5'-0"	—	—
16"	—	—	5'-6"	8'-0"
18"	5'-0"	6'-6"	—	—
24"	6'-6"	8'-0"	7'-0"	10'-0"
30"	7'-8"	10'-0"	—	—
32"	—	—	9'-0"	12'-0"
36"	9'-0"	12'-0"	—	—

NOTE: Minimum radii to be used only when absolutely required and only after considering chain pull, imposed load on trolley, beam wear, and possibility of surge.

I-BEAM DRIVES AND LUBRICATOR

I-BEAM DRIVES

The selection of the right drive or drives for your overhead conveyor system is one of the most important factors in developing a successful system. Richards-Wilcox offers a full selection of caterpillar drives for your specific application. The caterpillar drive can be located in a straight run of conveyor track, which is an advantage for multiple drive applications.

These drives are available in speed ranges from 1 FPM for slow moving applications, such as finishing systems, up to 90 FPM for fast moving applications such as transport systems.

Where variations in conveyor speed are desired, the drives are available with variable speed motor pulleys which allow a 3:1 variation in conveyor speed. The drives are also available with A.C. variable speed frequency controller.

Consult the factory for your specific drive requirements.



Cat Drives	Chain Pull Capacity
X-348	1200 lb. pull 2200 lb. pull
X-458	1200 lb. pull 2200 lb. pull 3000 lb. pull 3300 lb. pull

LUBRICATOR - CHAIN PIN & TROLLEY WHEELS

The Richards-Wilcox Lubricator is controlled to automatically lubricate the chain pins and trolley bearings. The lubricator is pre-mounted on a 3" or 4" I-Beam section of track. The solid state microprocessor control board has separate adjustments to control the amount of lubrication dispensed to the chain pins and trolley bearings. This lubricator operates on 110-130 VAC, 60 Hz., lamp service and does not require compressed air as many conventional lubricators.



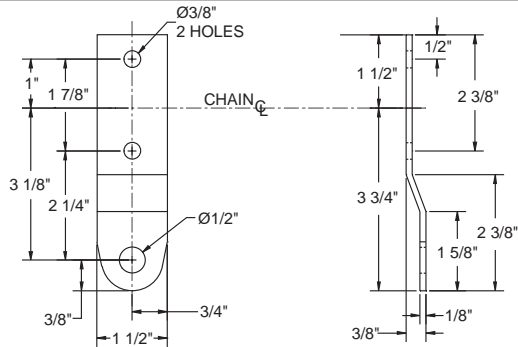
X-348	0348.00173
X-458	0458.00153

I-BEAM ATTACHMENTS

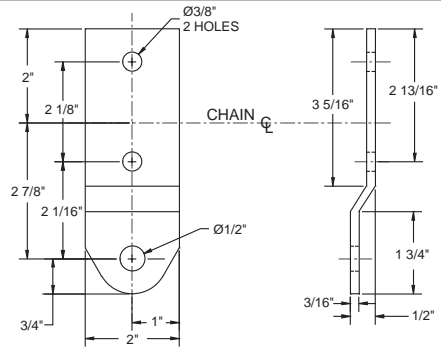
3" Systems

4" Systems

Type H

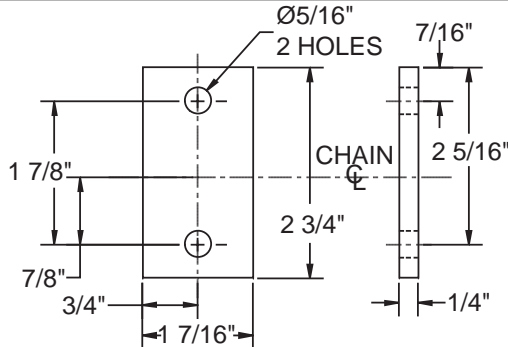


Part 0348.00043

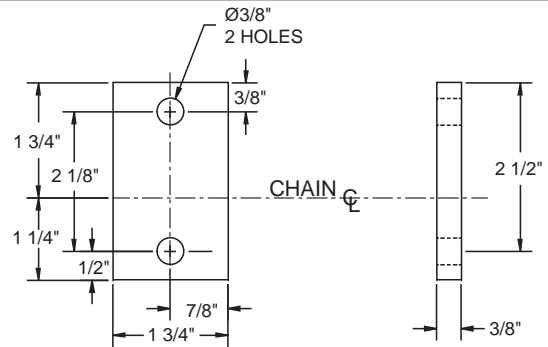


Part 0458.00043

Type I

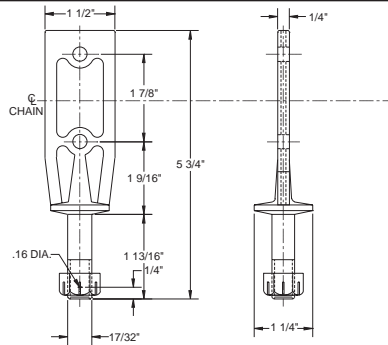


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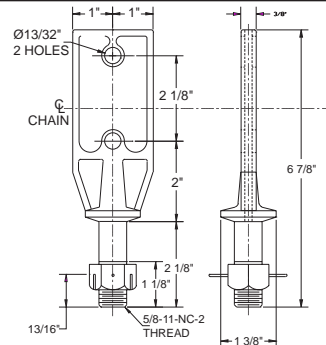


Part 0458.00044

Type B

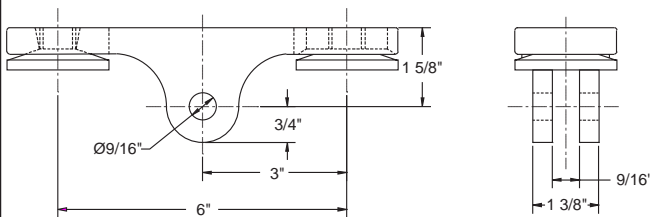


Part 0348.00042

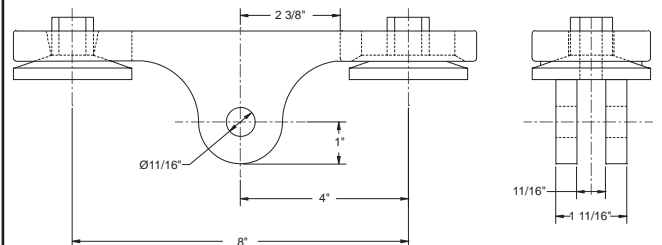


Part 0458.00042

Load Bar



Part 0348.00060



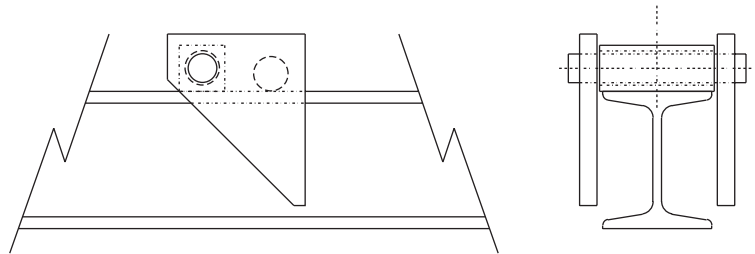
Part 0458.00060

ANTI-BACKUP DEVICE

Part No. 0348.00088

Part No. 0458.00088

Anti-backups are used as a safety device in the event of a possible chain breakage due to overloading conditions or jams. The anti-backups are designed for installation on the incline portion of a vertical curve.



ANTI-RUNAWAY DEVICE

Part No. 0348.00090

Part No. 0458.00090

Anti-runaway devices are used as a safety device in the event of a possible chain breakage due to overloading conditions or jams. The anti-runaways are designed for installation on the decline portion of a vertical curve. A sudden increase in trolley speed will cause the stop mechanism to rotate up and backward to the tripped position. The drive motor is stopped when the limit switch is actuated by the safety device.

