

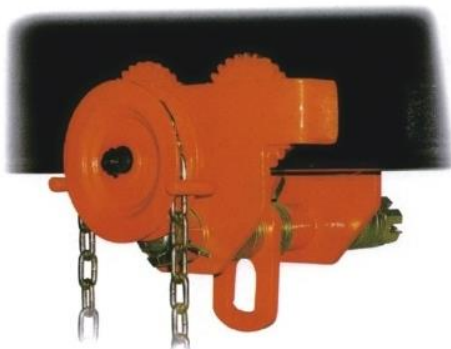


VULCAN
HOIST - PALAN

XT Series

Manual Trolleys

Operation Manual



Safety and Warnings

- **Do NOT use any lifting equipment before reading the Owner's Manual**
- **Do NOT let an unqualified person use the machine**
- **Do NOT install equipment onto beams of unknown capacity**
- **When using trolleys with other lifting equipment, ensure the equipment has the same rated load as the trolley. When devices with different rated loads are used, always use the smallest rated load to determine the lift capacity**
- **Do NOT lift more than the rated load (combined weight of equipment and load)**
- **Do NOT operate equipment with twisted, kinked, or damaged chain**
- **Do NOT operate damaged or malfunctioning device**
- **Do NOT lift people**
- **Do NOT pass loads over people**
- **Do NOT operate manual equipment with anything other than manual power**
- **Do NOT remove or obscure labels**

Use only Vulcan authorized replacement parts in the service and maintenance of Vulcan equipment.

Failure to comply with any of limitations may result in bodily injury or death.

Installation instructions

1. Measure the width of the runway beam
2. Assemble the trolley with the required number of spacer washers on the equalizer pin between the trolley side plates so that there is a slight clearance between the trolley's wheel flanges and the runway beam width. Make sure to have the same number of washers on each side of the lifting ring so the load is centered

There must always be at least one washer on the inside and outside of each trolley side plate

3. Assemble the remaining washers outside the trolley side plates and the hex nuts

On gear trolleys, the equalizer pin must be offset to one side as to not interfere with the chain wheel. Do so by putting more washers on the outer side of the trolley side plate opposite to the chain wheel
4. Loosen the hex nuts enough to spread the side plates and fit the trolley on the beam
5. Tighten the hex nuts by hand and make sure all wheels roll on the beam and the lifting ring is oriented vertically. Tighten the hex nuts against the washers with a wrench
6. Load the trolley and move it over the runway to ensure satisfactory operation. If the wheel flanges are too far from the beam or grinding against it, readjust the trolley by removing or adding washers between the trolley side plates

INSPECTION

Visual Inspection

The lifting equipment must be visually inspected by the operator on a daily basis during operation. Deficiencies to look for include, but are not limited to:

- Cracks or distortion in the structural frame, welds, mechanical operating parts, attached slings, clevises or hooks
- Malfunctions during the operation of the equipment or unusual sounds
- Loose or missing fasteners or stops
- Nameplates or other markings

Contact Vulcan Hoist for further instructions. The lifter must remain “out of service” until repairs are completed in compliance with Vulcan’s instructions.

In Service Inspection – Periodic

The lifting equipment must be inspected periodically by a qualified person. Inspection items include, but are not limited to:

- Evidence of loose fasteners (bolts, nuts, rivets, etc.)
- Cracks or distortion in the structural frame or welds
- Evidence of excessive wear of components like the trolley wheels, chain wheels, gears, etc.
- Nameplate integrity and legibility

The frequency of periodic inspection is dependent on the type of service:

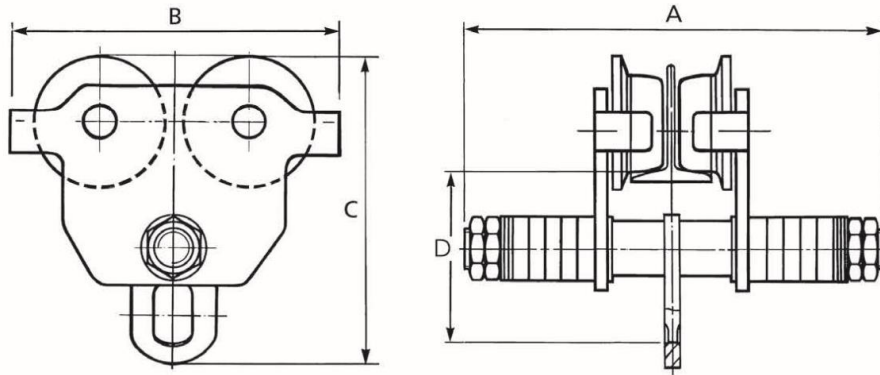
- **Normal service - yearly**
(operating within the working load limits with an average load of 65% of the working load limit or less)
- **Heavy service - semi-annually**
(operating within the working load limits with an average load of over 65% of the working load limit)
- **Severe service - quarterly**
(normal or heavy service with abnormal operating conditions)

If any deficiencies are found during an inspection, the equipment must be tagged immediately as “out of service”.

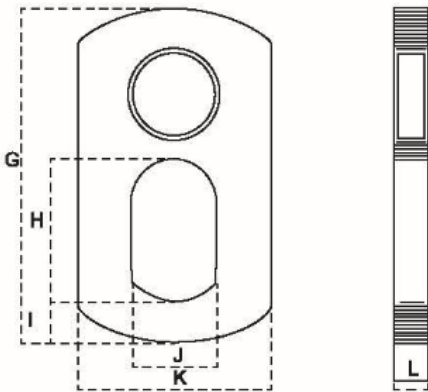
Contact Vulcan Hoist for further instructions. The equipment must remain “out of service” until repairs are completed in compliance with Vulcan’s instructions.

Dated records of all inspection and maintenance procedures are to be maintained by an appointed person as a permanent record as means of continuously monitoring the equipment.

Push Beam Trolley

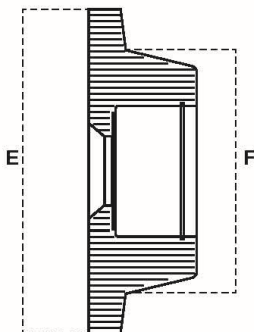


Specifications	0.5t	1.0t	2.0t	3.0t	5.0t	10.0t
Flange Width (in)	2.50 – 6.00	2.50 – 8.25	3.50 – 8.25	4.00 – 12.00	4.25 – 12.00	4.50 – 12.00
A (in)	9.75	12.69	13.19	14.31	15.07	16.13
B (in)	8.50	10.24	11.81	13.58	15.55	17.91
C (in)	7.67	9.41	11.26	13.23	15.47	19.68
D (in)	4.33	5.31	6.34	7.28	8.66	11.02
Minimum Radius Curve (ft)	2.95	3.28	3.60	4.26	4.59	5.57
Net Weight (lbs)	20	32	50	82	123	215



Trolley Lifting Ring

Dimension	1.0t	2.0t	3.0t	5.0t	10.0t	20.0t
s						
G (in)	4.65	5.71	7.09	8.67	11.23	12.99
H (in)	1.97	2.37	2.96	3.75	4.73	5.91
I (in)	0.60	0.79	1.03	1.38	1.78	2.75
J (in)	1.21	1.42	1.78	2.37	3.23	4.33
K (in)	2.68	3.35	3.94	4.73	5.91	9.45
L (in)	0.48	0.56	0.63	0.79	0.99	1.38



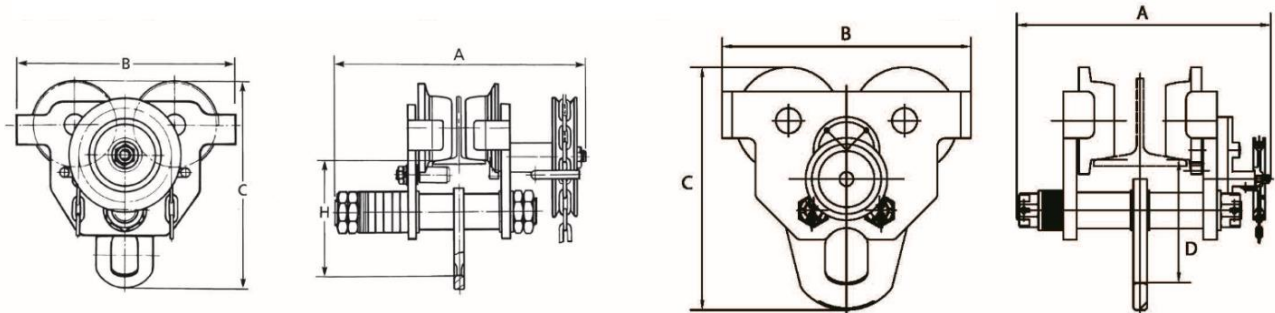
Trolley Wheel

Dimension	1.0t	2.0t	3.0t	5.0t	10.0t	20.0t
s						
E (in)	4.02	5.00	5.79	6.30	7.45	10.76
F (in)	2.96	3.55	4.34	4.81	5.95	7.88

Geared Beam Trolley

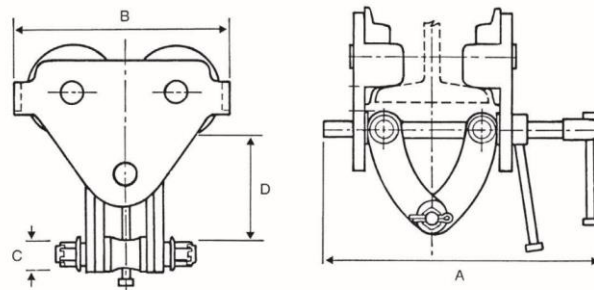
1, 2, 3, 5, and 10 tons

20 tons

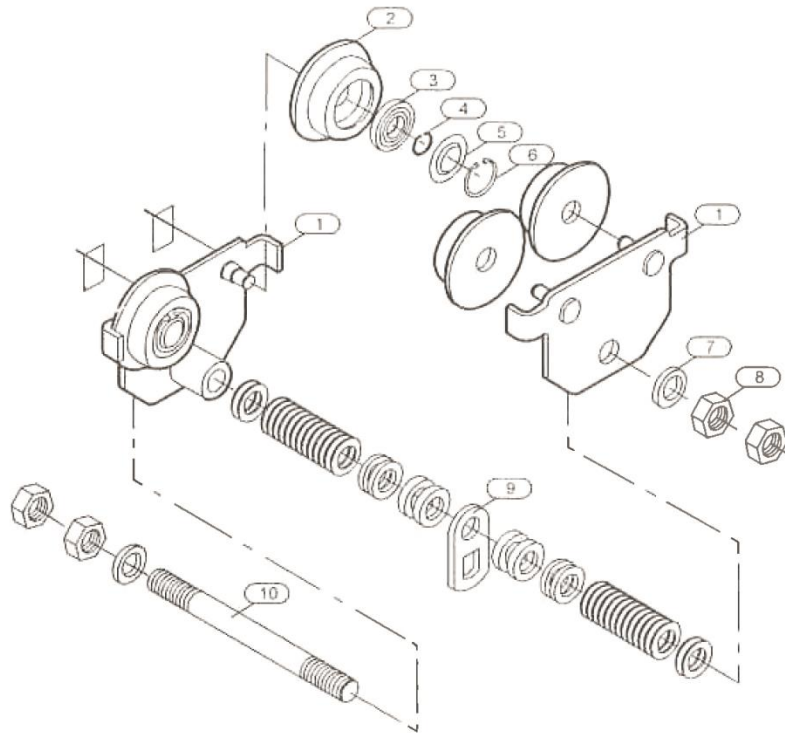


Specifications	1.0t	2.0t	3.0t	5.0t	10.0t	20.0t
Flange Width (in)	2.50 – 8.25	3.50 – 8.25	4.00 – 12.00	4.25 – 12.00	4.5 – 12.00	8.00 – 13.00
A (in)	15.56	15.63	17.69	18.25	18.75	25.48
B (in)	10.24	11.81	13.58	15.55	17.91	25.28
C (in)	9.41	11.26	13.23	15.47	19.68	24.49
D (in)	5.31	6.34	7.28	8.66	11.02	12.40
Minimum Radius Curve (ft)	3.28	3.60	4.26	4.59	5.57	14.76
Net Weight (lbs)	44	62	95	136	234	565

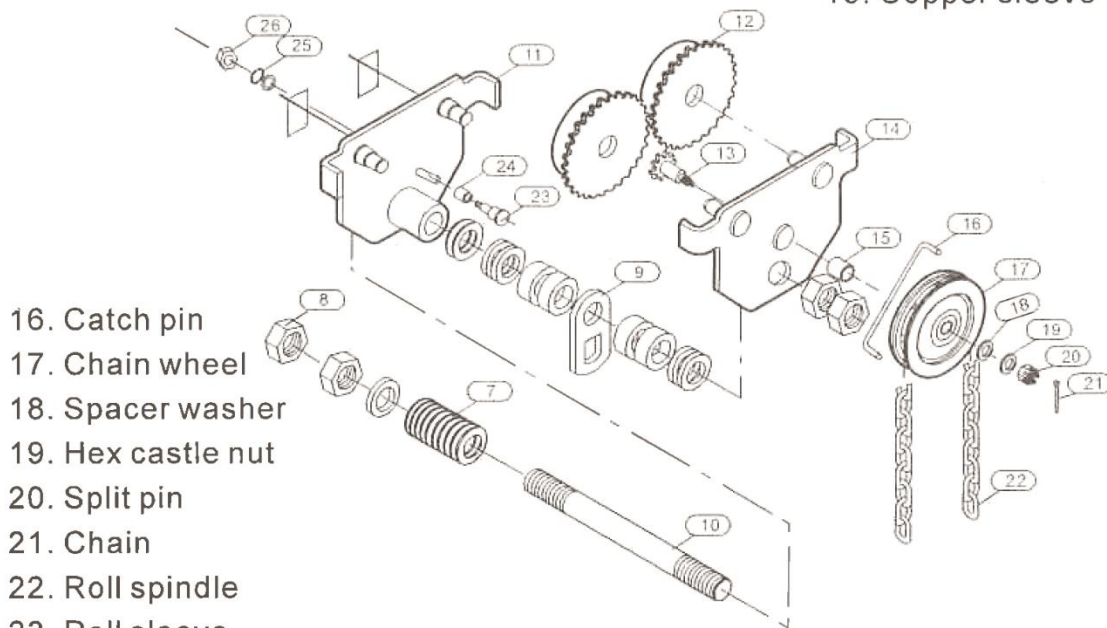
Beam Trolley with Clamp



Specifications	0.5t	1.0t	2.0t	3.0t	5.0t
Flange Width (in)	2.50 – 8.00	2.50 – 8.00	3.00 – 8.25	3.00 – 8.25	4.00 – 12.00
A (in)	11.75	13.98	14.71	14.71	18.50
B (in)	8.00	9.53	11.06	12.91	14.84
C (in)	0.75	0.88	0.88	0.97	1.11
D (in)	5.87 – 7.12	5.75 – 7.22	6.06 – 7.22	6.35 – 7.97	8.81 – 10.61
Net Weight (lbs)	13	28	38	57	102



1. Two gear case assembly
2. Driven wheel
3. Bearing
4. Axle ring
5. Bearing ring
6. Hole ring
7. Spacer washer
8. Hex nut
9. Lifting ring
10. Equalizer pin
11. Left side gear case assembly
12. Tooth gear
13. Driven spindle
14. Right side gear case assembly
15. Copper sleeve



16. Catch pin
17. Chain wheel
18. Spacer washer
19. Hex castle nut
20. Split pin
21. Chain
22. Roll spindle
23. Roll sleeve
24. Spring washer
25. Hex nut



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