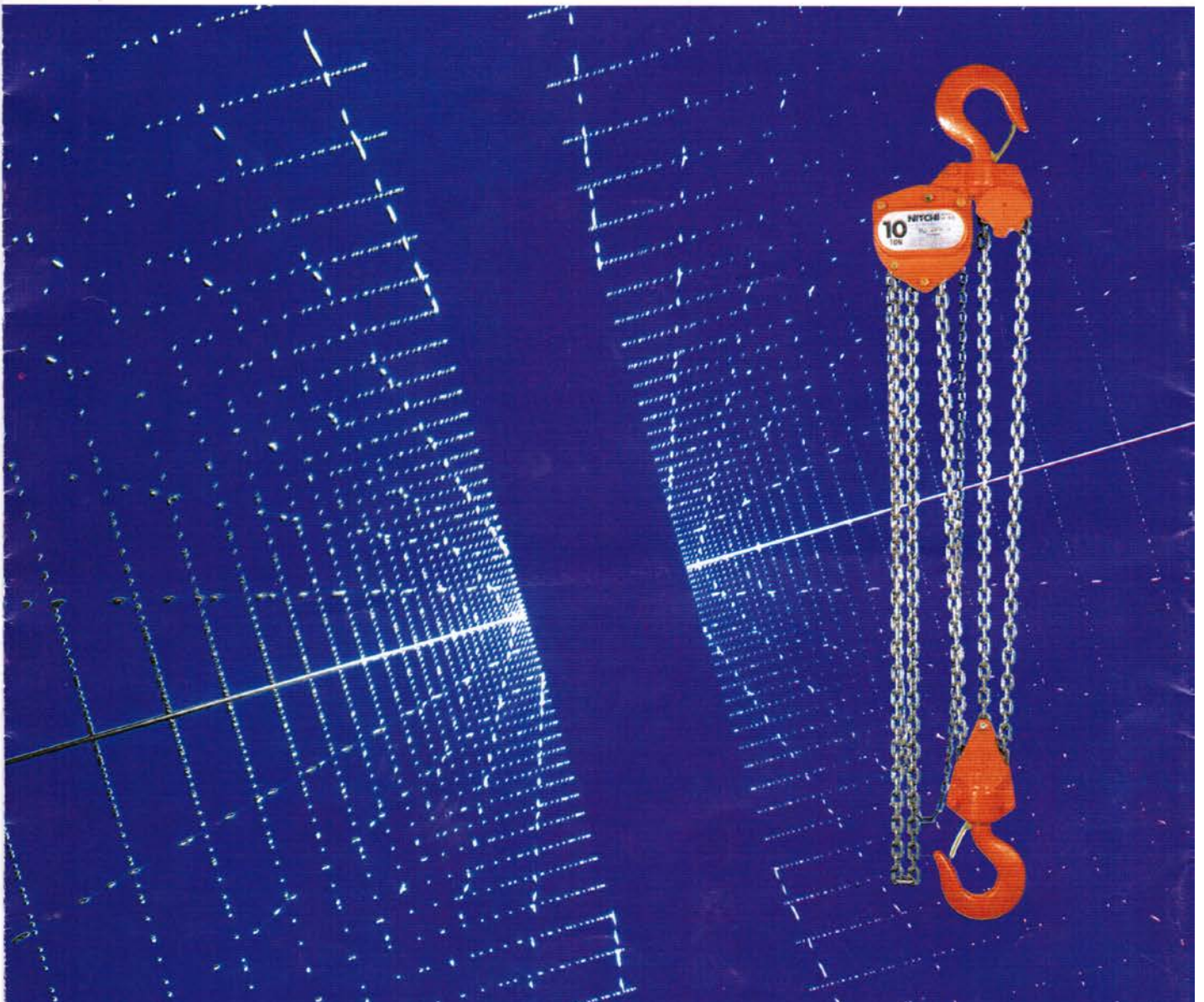


# NITCHI

## ***CHAIN HOIST H-50A***

available from 1/2 ton through 50 ton capacities

No.7







1 ton



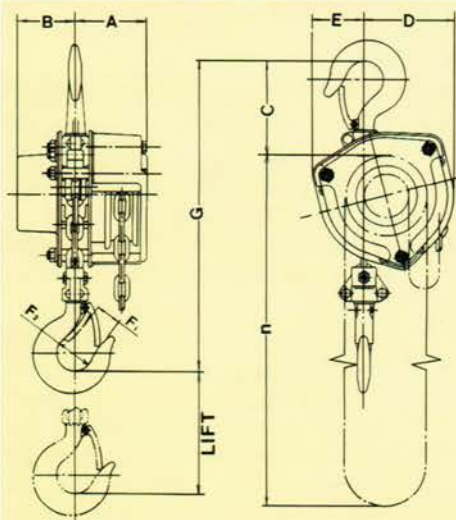
2 ton



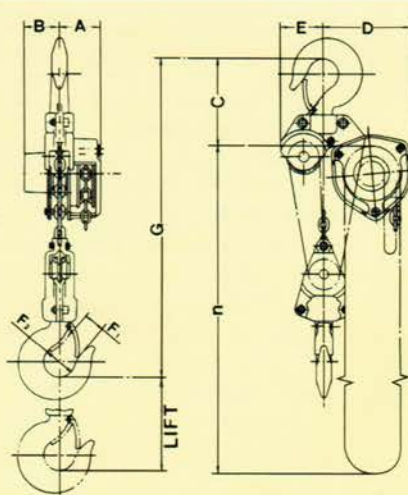
10 ton



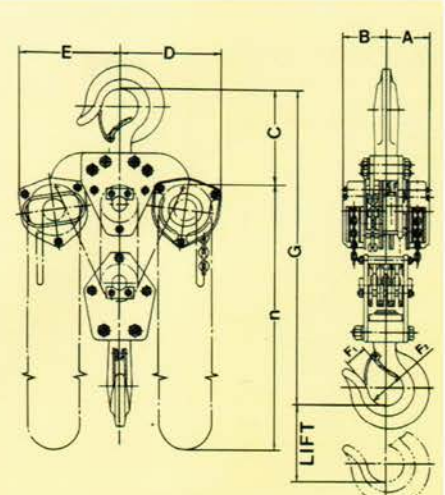
20 ton



1/2 ton — 3 ton Diagrammatic only



5 ton — 10 ton Diagrammatic only



20 ton — Diagrammatic only

# RATED CHAIN HOIST (triple spur geared)

## BEARING

The latest technology in bearing efficiency for chain hoists has led us to the combined use of high-grade precision needle bearings, long wearing special hardened steel bushings and ultra-modern carbon bushings. Bearing supported pinion shaft: This is a totally new concept in bearing efficiency for chain hoists. The carbon bushings used on ½ ton and 1 ton and the precision needle bearings on 1½ ton and large **H-50A** provide high and stable bearing efficiencies for super-smooth operation and eliminate the possibility of pinion shaft seizures.

## REDUCTION GEARS

The **H-50A** reduction gears are made of chromium molybdenum steel and the load sheave is made of spheroidal graphite cast iron and are precision machined and exclusively heat-treated. These materials and special heat-treating processes have already proven themselves to be remarkably tough and wear resistant on the reduction gears.

**SAFETY LINK** A specially processed safety link joins the endless hand chain and wards off sudden excessive power that may be imposed on the hand chain when **H-50A** is operated under overload and other unexpected causes.

**SAFETY FACTOR:** The high safety factors of **H-50A** assure maximum safety to men and materials. **H-50A** ½ ton to 50 ton are made with over 4 times safety.

**CONVERTIBILITY:** Besides conventional hook-suspension system, all **H-50A** are designed to join them directly with our trolleys of the equivalent capacity. Direct-coupling is very effective for obtaining the lowest possible headroom and for improving stability with **H-50A** when used together with our trolleys.

**INTERCHANGEABILITY:** All the components are precisely manufactured by our skilled craftsmen under severe quality control and are replaceable for easy and economical servicing.

**USEFUL MANUAL:** A comprehensive handbook giving detailed instructions and information on installation, operation and maintenance is supplied with each **H-50A**, with inspection certificate.

## OPTIONAL EQUIPMENT

Listed below are some optional equipment available with **H-50A** at moderate extra costs. Please contact your nearest authorized NITCHI products distributor or agent for further information :

**NN Chains:** This is a series of standard chains with a special non-electrolytic nickel plating that rigidly bonds itself into the chains. This special plating called NN chains does not effect the original features of the chains and will not peel off like conventional surface plated chains. The NN chains have outstanding characteristics in resisting rust and corrosion caused by rain, seawater, steam and chemicals.

**Chain Collecting Bucket:** The chain collecting bucket can be easily connected to **H-50A** without modifications.

**Eye (Ring) Type Hooks:** The ring type top and bottom hooks are ideal for all types of special applications.

## STANDARD SPECIFICATIONS (H-50A)

Capacitys (ton)	Lift (m)	Pulling Efforts (kgf)	Drawn-up head room G (mm)	Net weight (≈kg)	Test Load (t)	Major Dimension (approx.) (mm)							
						A	B	C	D	E	F <sub>1</sub>	F <sub>2</sub>	Π (m)
0.5	2.5	21	260	8	0.75	82	56	100	90	48	24	36	2.5
1		24	300	10.5	1.5	84	66	110	100	59	29	43	2.5
1.5		29.5	345	15	2.25	91	77	120	115	69	33	48	2.5
2	3.0	33.5	380	21	3.0	99	88	125	132	82	35	52	3.0
3		38	435	30.5	4.5	106	94	140	160	94	40	60	3.0
5		36	575	35	7.5	91	77	200	205	94	47	68	3.1
10	3.5	43	790	76	12.5	106	94	260	283	122	68	95	3.8
15		47	1,040	155	18.75	106	94	340	340	212	75	105	4.0
20		45X2	1,080	250	25.0	153	153	350	390	390	79	125	4.0
25		44X2	1,100	≈320	31.25	183	183	345	390	390	79	125	4.0
30		47X2	1,470	≈440	37.5	213	213	435	400	400	106	140	4.3
40		46X2	1,700	≈650	50.0	255	255	530	400	400	105	165	4.6
50		47X2	1,820	≈850	62.5	328	328	590	400	400	120	180	4.6

## NOTES:

a — Only the hoists with the standard lifts are covered in the above table.  
Extra long lifts available on specific orders.

The designs, materials and specifications contained herein are subject to change for improvements without prior notice.



*new ultra-lightweight compact hoist that beats the heavies.....*

# NITCHI MODEL H-50A HAND-OPE

## COMPACT AND LIGHTWEIGHT

H-50A is made in our ultra-modern production facilities incorporating high quality materials, up-to-minute engineering and manufacturing techniques. The robust steel construction gives **H-50A** its lightweight and compact size for the advantages to present convenient portability, easy installation and simple relocation. The exceptional short headroom, when the bottom hook is in its highest position, permits the highest possible lift where the last inch of lift must be obtained.

## DURABILITY

When durability is taken into consideration, **H-50A** is in a class of its own ahead of the other chain hoists. Tests have proven that the durability of **H-50A** clearly exceeds the former **H-40** which was a legend in its own era for its durability and ruggedness.

## PULLING EFFORT

Extra attention was given to the pulling efforts and they are lowered remarkably to obtain higher productivity with as small as possible effort from operators. The pulling efforts to release the brake exceptionally light with **H-50A**.

## TWO INDEPENDENT PAWLS

Failure of a pawl is very rare, but if one pawl should fail, the second backup pawl on **H-50A** will hold a load securely and prevent the dangerous free falling of the load.

## DOUBLE-COVER PROTECTION

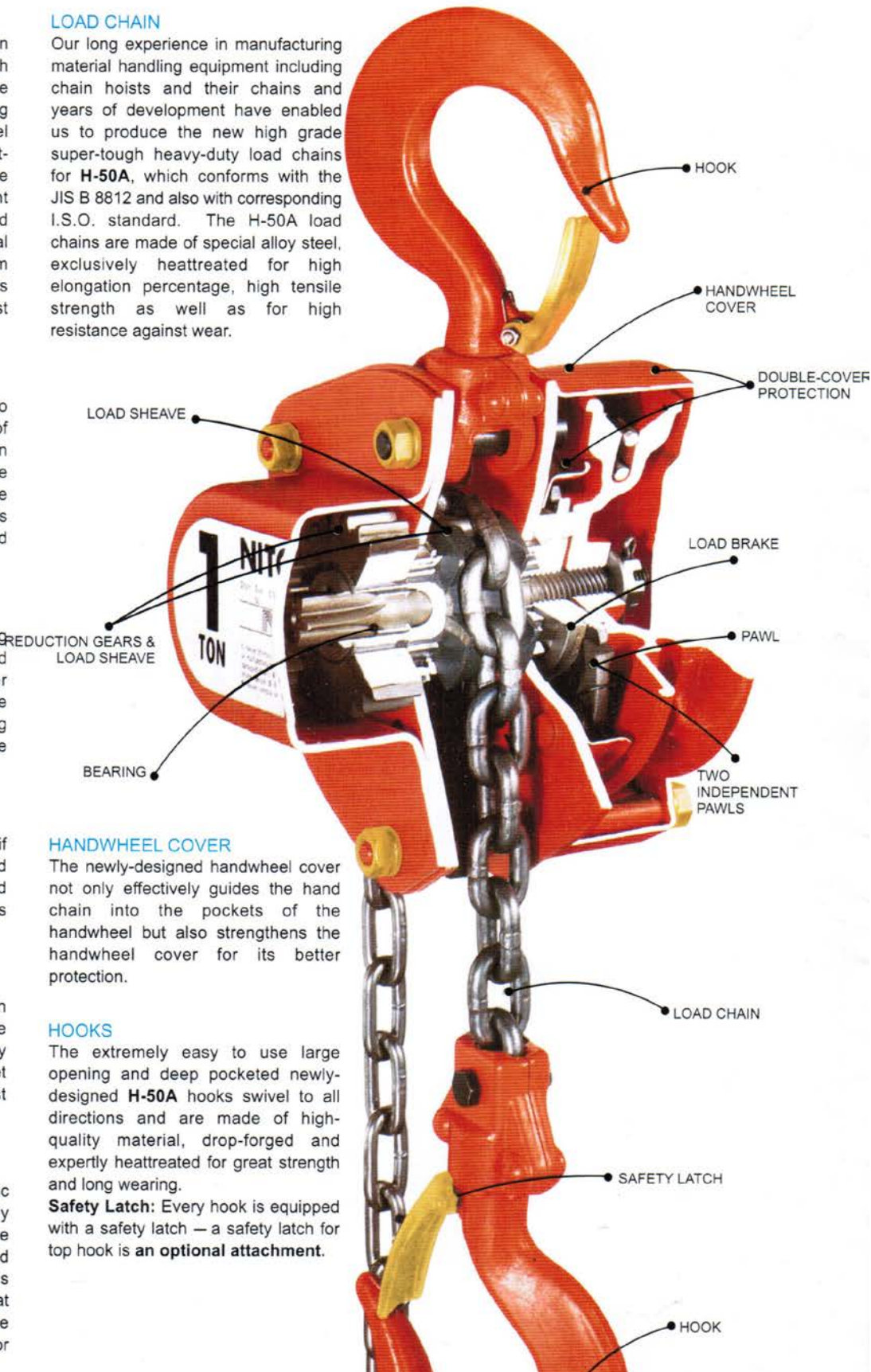
Chain hoists are known to be used in all types of harsh environments. The brake system of **H-50A** is guarded by both the handwheel cover and ratchet cover for higher protection against rain, dust and other foreign matters.

## LOAD BRAKE

The precision ratchet type automatic mechanical brake engages instantly and provides uniform performance with rated loads or less than the rated capacity. When lowering, a load is under perfect control at all times, that is exceptionally valuable where accurate movement is demanded for spotting loads.

## LOAD CHAIN

Our long experience in manufacturing material handling equipment including chain hoists and their chains and years of development have enabled us to produce the new high grade super-tough heavy-duty load chains for **H-50A**, which conforms with the JIS B 8812 and also with corresponding I.S.O. standard. The H-50A load chains are made of special alloy steel, exclusively heat-treated for high elongation percentage, high tensile strength as well as for high resistance against wear.



## HANDWHEEL COVER

The newly-designed handwheel cover not only effectively guides the hand chain into the pockets of the handwheel but also strengthens the handwheel cover for its better protection.

## HOOKS

The extremely easy to use large opening and deep pocketed newly-designed **H-50A** hooks swivel to all directions and are made of high-quality material, drop-forged and expertly heat-treated for great strength and long wearing.

**Safety Latch:** Every hook is equipped with a safety latch — a safety latch for top hook is an optional attachment.



# NITCHI

## CHAIN HOIST HE-50A

available from 0.5 ton through 2 ton capacities



### COMPACT AND LIGHTWEIGHT

HE-50A is made in our ultra-modern production facilities incorporating high quality materials, up-to-minute engineering and manufacturing techniques. The robust steel construction gives HE-50A its lightweight and compact size for the advantages to present convenient portability, easy installation and simple relocation. The exceptional short head room, when the bottom hook is in its highest position, permits the highest possible lift where the last inch of lift must be obtained.

### REDUCTION GEARS AND LOAD SHEAVE

The HE-50A reduction gears are made of chromium molybdenum steel and the load sheave is made of spheroidal graphite cast iron and are precision machined and exclusively heat-treated. These materials and special heat treating processes have already proven themselves to be remarkably tough and wear resistant on the reduction gears.

### LOAD CHAIN

Our long experience in manufacturing material handling equipment including chain hoists and their chains and years of development have enabled us to produce the new high grade super-tough heavy-duty load chains for HE-50A, which conforms with the JIS B 8812 and also with corresponding I.S.O standard. The HE-50A load chains are made of special alloy steel, exclusively heat treated for high elongation percentage, high tensile strength as well as for high resistance against wear.

**Safety Latch :** Every bottom hook and top hook is equipped with a safety latch.



### DURABILITY

When durability is taken into consideration, HE-50A is in a class of its own ahead of the other chain hoists. Tests have proven that the durability of HE-50A clearly exceeds the former H-40 which was a legend in its own era for its durability and ruggedness.

### HOOKS

The Extremely easy to use large opening and deep pocketed newly-designed HE-50A hooks swivel to all direction and are made of high-quality material, drop-forged and expertly heat treated for great strength and long wearing. Both top and bottom hooks on 0.5 ton to 2 ton capacities have two convex marks for checking the opening of the hooks. If the distance between the two convex marks exceeds the permissible limit, indicated in the manual supplied with each hoist, the hook is dangerously deformed and must be replaced at once.

### DOUBLE-COVER PROTECTION

Chain hoists are known to be used in all types of harsh environments. The brake system of HE-50A is guarded by both the handwheel cover and ratchet cover for higher protection against rain, dust and other foreign matters.

### LOAD BRAKE

The precision ratchet type automatic mechanical brake engages instantly and provides uniform performance with rated loads or less than the rated capacity. When lowering, a load is under perfect control at all times, that is exceptionally valuable where accurate movement is demanded for spotting loads.

### PULLING EFFORT

Extra attention was given to the pulling efforts and they are lowered remarkably to obtain higher productivity with as small as possible effort from operators. The pulling efforts to release the brake exceptionally light with HE-50A.



# NITCHI TROLLEYS (GT & PT)

**1/2-ton to 10-ton capacities (for hand chain hoists)**

The heavy-duty NITCHI Trolleys have extremely low headrooms and are designed and made for the efficient transportation of loads.

## FRAMES:

The self-aligning rugged steel side-plates together with the suspension plate align the center of balance of the hook-suspension hoist with the trolley and distribute the load equally to all four wheels.

## CONVENIENT ADJUSTABILITY:

1/2-ton to 10-ton capacity can be adjusted to fit the different beam sizes listed in the table simply by relocating the spacing washers to the inside or to the outside of the frame.

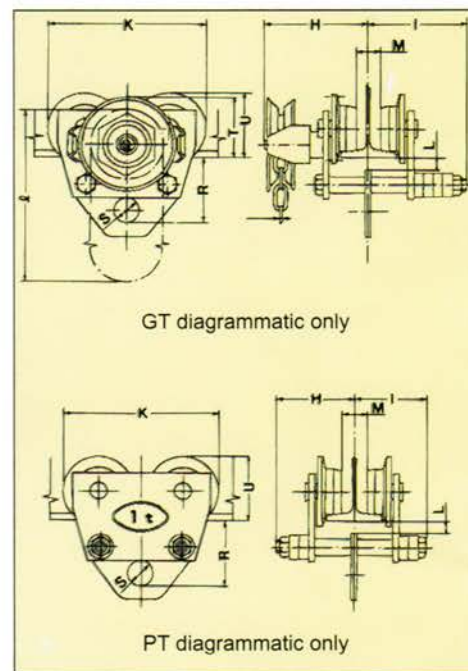
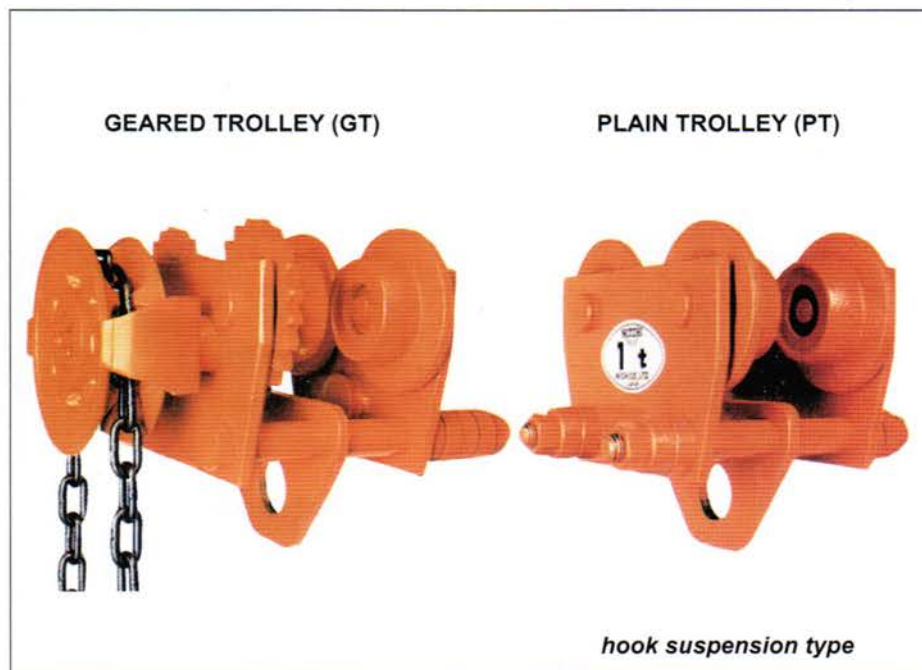
Width adjustability for large capacity trolleys for narrower or wider beams are also available on specific enquiries and orders

## WHEELS:

Both, the plain and geared wheels are made of super grade cast iron. The unique tread profiles of the trolley wheels make use on flat and taper beams possible and the deep wide flanges prevent the wheels from climbing the track.

## BALL BEARINGS:

All the trolley wheels are equipped with precision anti-friction ball bearings that will provide smooth and easy rolling.

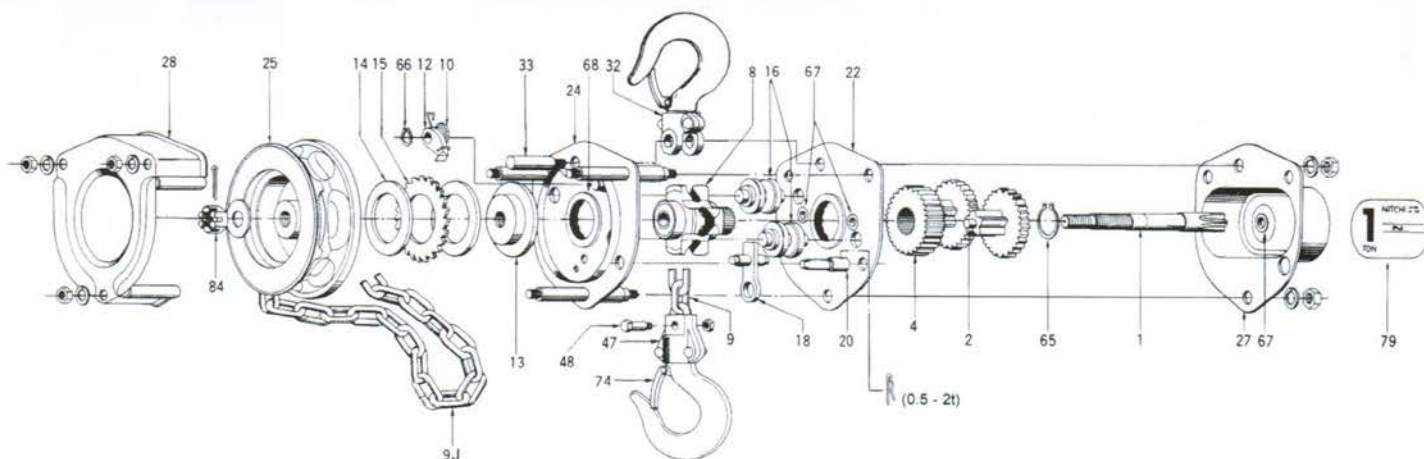


## STANDARD SPECIFICATIONS

GEARED TROLLEY (HGB) & PLAIN TROLLEY (HPB)										GEARED TROLLEY (HGB)					PLAIN TROLLEY (HPB)		
Cap. (ton)	Standard I-Beam (mm) a X b X t <sub>1</sub>	Minimum curve radius (mm)	Test Load (t)	Major Dimension (approx.) (mm)						Net weight (≈kg)	H (mm)	I (mm)	T (mm)	Q (m)	Net weight (≈kg)	H (mm)	I (mm)
				K	L	M	R	S	U								
0.5	※ 125X 75X5.5 180X100X6 250X125X7.5	800	0.75	195	23-t <sub>2</sub>	b-43	94-t <sub>2</sub>	32	72+t <sub>2</sub>	9	b/2 +73	168- b/2	96+t <sub>2</sub>	2.5	6	105	93
1	※ 150X 75X5.5 180X100X6 250X125X7.5	1,000	1.5	206	25-t <sub>2</sub>	b-42	99-t <sub>2</sub>	35	78+t <sub>2</sub>	12	b/2 +98	168- b/2	72+t <sub>2</sub>	2.5	8	103	95
1.5	※ 150X 75X5.5 180X100X6 250X125X7.5	1,100	2.25	221	32-t <sub>2</sub>	b-41	108-t <sub>2</sub>	40	85+t <sub>2</sub>	15	b/2 +98	174- b/2	72+t <sub>2</sub>	2.5	11	112	112
2	※ 200X100X7 250X125X7.5 300X150X8	1,200	3.0	262	31-t <sub>2</sub>	b-63	130-t <sub>2</sub>	45	102+t <sub>2</sub>	23	b/2 +108	203- b/2	115+t <sub>2</sub>	3.0	17	128	128
3	※ 200X100X7 250X125X10 300X150X11.5	1,500	4.5	306	32-t <sub>2</sub>	b-63	130-t <sub>2</sub>	56	126+t <sub>2</sub>	32	b/2 +108	208- b/2	119+t <sub>2</sub>	3.0	26	133	133
5	※ 250X125X10 300X150X11.5 450X175X11	1,500	7.5	329	37-t <sub>2</sub>	b-76	152-t <sub>2</sub>	65	132+t <sub>2</sub>	52	b/2 +141	253- b/2	128+t <sub>2</sub>	3.3	45	166	166
10	※ 400X150X12.5 450X175X13	3,000	12.5	420	45-t <sub>2</sub>	b-84	235-t <sub>2</sub>	80	175+t <sub>2</sub>	115	b/2 +189	179	130+t <sub>2</sub>	4.1	—	—	—



## EXPLODED VIEW (Model HE-50A)



## PART LIST (Model HE-50A)

Index No.	Part Name	Consisting of index No.	0.5 t Part No.	1 t Part No.	1.6 t Part No.	2.0 t Part No.
1	Pinion shaft		GHH5A001	JHH5A001	KHH5A001	LHH5A001
2	Pinions (with pinions gear) (set of 2)		GHH5A003T	JHH5A003T	KHH5A003T	LHH5A003T
4	Load gear		GHH5004	JHH5004	KHH5004	LHH5004
8	Load sheave		GHE5008	JHE5008	KHE5008	LHE5008
9	Load chain		T-5	T-6.3	T-7.1	T-8
9J	Hand chain		J-5			
13	Disc hub		GHH5A013	JHH5A013	KHH5A013	LHH5A013
14	Friction disc (set of 2)		GHH5A014	JHH5A014	KHH5A014	LHH5A014
15	Ratchet		GHH5A015	JHH5A015	KHH5A015	LHH5A015
16	Load chain guide (set of 2)		GHH5016	JHH5016	KHH5016	LHH5016
18	Stripper		GHH5018U	JHH5018U	KHH5018U	LHH5018U
20	Load chain anchoring pin		GHH5020	JHH5020	KHH5020	LHH5020
22	Gear-side plate	w/o 67, 68	GHE5022	JHE5022	KHE5022	LHE5022
67	Plain bushing for pinion (set of 4)		GHH5A067		KHH5A067	LHH5A067
68	Plain Bushing for load sheave (set of 2)		GHE5005	JHE5005	KHE5005	LHE5005
24	Wheel-side plate assembly	10, 12 66 w/o 68	GHE5024T	JHE5024T	KHE5024T	LHE5024T
10	Pawl spring		GHH5010		KHH5010	
12	Pawl		IRB3007		KRB3007	
66	Snap ring for pawl pin		SRC5108		SRC5112	
25	Handwheel		GHH5A025	JHH5A025	KHH5A025	LHH5A025
27	Gear cover	w/o 67, 79	GHH5027	JHH5027	KHH5027	LHH5027
79	Label		E-HE5A1	E-HE5A2	E-HE5A3	E-HE5A4
32	Top hook assembly	w/o 74	GHH5032T	JHH5032T	KHH5032T	LHH5032T
33	Yoke pin		RH4010033		RH4015033	RH4020033
47	Bottom hook assembly	74 w/o 48	GHH5047U	JHH5047U	KHH5047U	LHH5047U
48	Load chain fastening bolt with nut		GHH5048U	JHH5048U	KHH5048U	LHH5048U
74	Safety latch assembly		GHH5074U	JHH5074U	KHH5074U	LHH5074U
65	Snap ring for load sheave		SRC5122	SRC5125	SRC5130	SRC5138
84	Check nut		KN11M8		KN12M12	

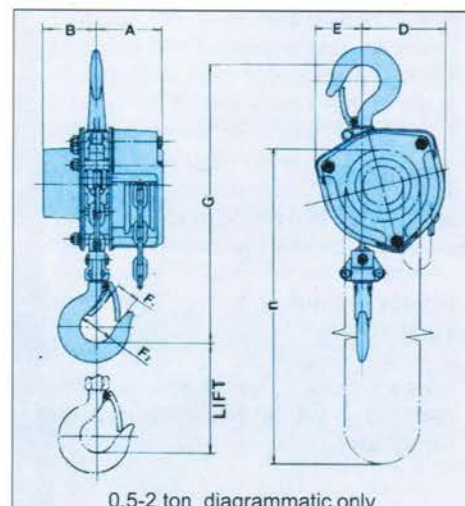
When ordering spare parts, please be sure to state parts numbers, capacities, model symbol and quantities referring to the above list.

## STANDARD SPECIFICATIONS (HE-50A)

Capacity	S.W.L. Safe working Load		Lift		Pulling Efforts		Nos. of Load-chain fall	Drawn-up (G) Dimension		Net weight		Test Load
(ton)	lbs.	(kg)	feet	(m)	lbs.	(kg)		in.	(mm)	lbs.	(kg)	(ton)
0.5	1,100	500	8.2	2.5	55.0	25	1	10-15/64	260	17.6	8	0.75
1	2,200	1,000			59.4	27		11-13/16	300	23.1	10.5	1.5
1.6	3,520	1,600			72.6	33		13-47/64	345	33.0	15	2.4
2	4,400	2,000	9.8	3.0	88.0	40		14-61/64	380	46.2	21	3.0

A		B		D		E		F1		F2		n	
in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	feet	(m)
3-15/64	82	2-13/64	56	3-35/64	90	1-57/64	48	1-15/16	24	1-27/64	36	8.2	2.5
3-5/16	84	2-19/32	66	3-15/16	100	2-21/64	59	1-9/64	29	1-11/16	43		
3-37/64	91	3-1/32	77	4-17/32	115	2-23/32	69	1-19/64	33	1-57/64	48		
3-57/64	99	3-15/32	88	5-13/64	132	3-15/64	82	1-3/8	35	2-3/64	52		

The design, materials and specifications are subject to change for improvements without notice.



0.5-2 ton diagrammatic only