



CB SERIES MANUAL CHAIN HOIST & **TS SERIES** TROLLEY

KITO MIGHTY[®]

Model M3



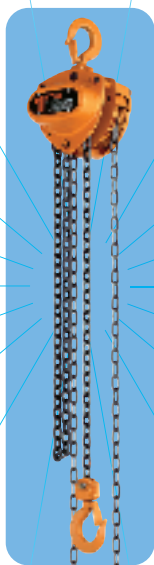
Ultra-light model!!
Minimum manual power
for operation!!
Durable and Reliable!!

KITO Manual Chain Hoists CB Series Up to 50 ton Capacity as Standard

KITO MIGHTY® Model M3 is manufactured with the leading design concept. The Model M3 is a leader in its design. Capacity range from 0.5t to 50t. The Model M3 was developed by KITO. The Model M3 results from the application of high technology with emphasis on overall performance required in a quality chain hoist.

Lighter weight, higher efficiency and more compact size, these hoists are valuable in lifting applications. This successful design derives from the development by the KITO's smallest yet ultra strong link load chain. Unparalleled in the world, these load chains have a breaking strength of $1,000\text{N/mm}^2$ (100kgf/mm^2).

KITO's exclusive improved process technology and years of experience assure superior quality and performance. We are confident that the Model M3 will fulfill user's needs because of the following important features.



**Best Design
Highest Efficiency
and Reliability
KITO MODEL M3**

Outstanding features

Durable and Reliable!!

The high-class load chain with the breaking strength of 1000N/mm^2 (100kgf/mm^2) constitutes the main factor for reliable and safe operation. Also dry type braking mechanism provides excellent performance.

This model is designed for hard work.

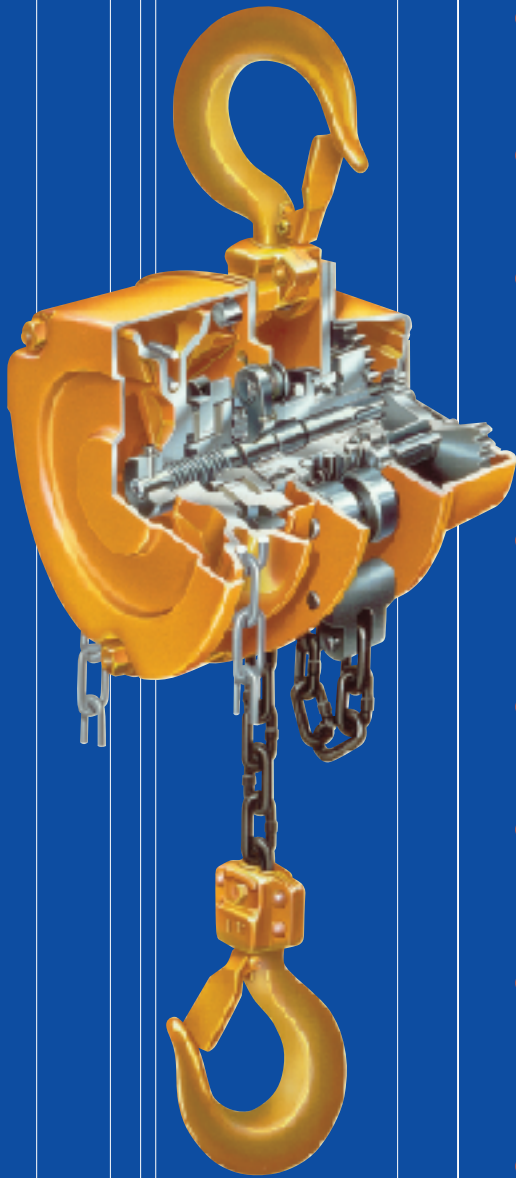
KITO MIGHTY®

Model M3



features

10 Important Features Of "KITO MIGHTY® Model M3" Chain Hoist Have Fulfilled User's Needs



1 **Gear Case and Hand Wheel Cover Resistant to External Shocks:**

Both sides of the hoist are covered with a thick steel gear case, processed with the highest level technology, and with a strengthened wheel cover. They have an ideal shape and rigidity to maintain bearing alignment and withstand external shock.

2 **Double Enclosure to Keep Out Rainwater and Dust:**

The braking mechanism, which makes up heart of the hoist, is enclosed in a double cover: the wheel and the brake covers. These protective covers not only keep out weather elements but also help to prevent mud and dust from entering internal mechanisms. Hand chain guide attached to the wheel cover provides durability and smooth operation of a hand chain on a hand chain wheel.

3 **Double Pawl Spring Mechanism to Further Increase of Sureness:**

In case one of Pawl spring is damaged, the other maintains its functions. This mechanism further increases sureness.

4 **Sure and Reliable Mechanical Brake:**

KITO's dry type asbestos-free Mechanical Brake ensures strong brake performance.

5 **Hooks for Easy Work:**

Specially heat treated top and bottom hooks have enough strength and toughness for hard job. The design of the bottom hook, with relatively large dimensions, makes it easy to stabilize a load in proper position.

Bottom Yoke with Protecting Guard features a guard protecting the chain pin & nut from damage, enhancing safety.

6 **Bearing Mechanism to Increase Mechanical Efficiency:**

Use of unique ball and needle bearings remarkably increases mechanical efficiency and produces high output power with minimum manual input.

7 **Load Chain Guide Mechanism:**

Chain guide mechanism in flanged load sheave and guide roller facilitate smooth movement of the load chain.

8 **Highly Accurate and Durable Gears:**

As a result of KITO's research and development for a long time, KITO is successful in developing compact but highly efficient and durable gears.

9 **Stopper Prevents Excessive Lowering:**

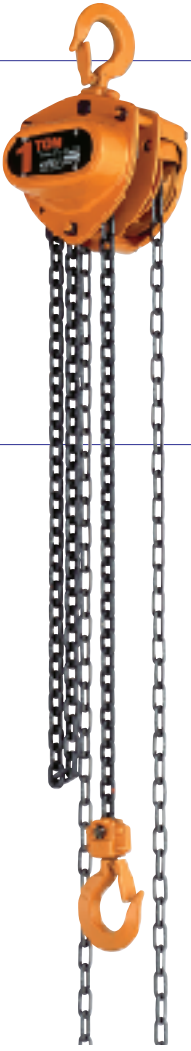
Stopper assembly prevents excessive lowering of a load and also keeps load chain from exiting if over lowered. When you feel a noticeable increase in pull force to lower the load, you may realize that you cannot lower the load any further.

10 **Ultra Strong Load Chain (Nickel plated)**

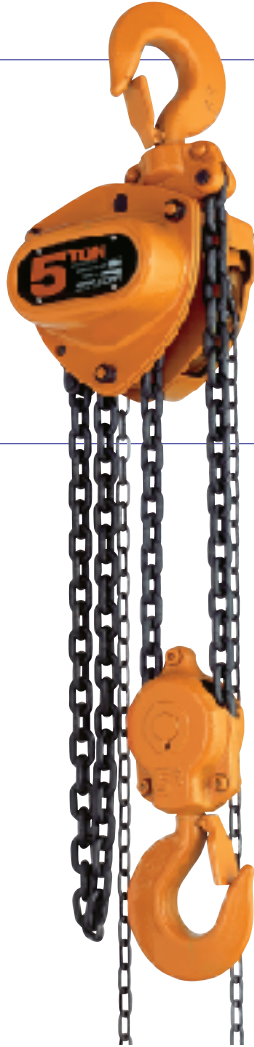
Load chains, the component comprising the heart of the chain hoist, are made of an exclusively developed, heat treated special steel alloy. Carefully selected special steel is entirely processed at KITO's fully automated production facilities under the most stringent quality control. Thus, all of the KITO chains are uniform in high breaking stress of 1000N/mm^2 (100kgf/mm^2). They have excellent quality including toughness and resistance to wear and corrosion.

Model M3

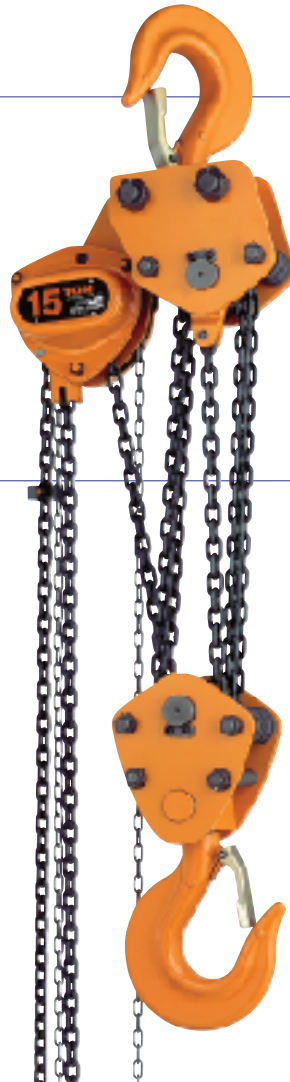
0.5t to 50t



0.5t~2.5t



3t~5t



7.5t~15t

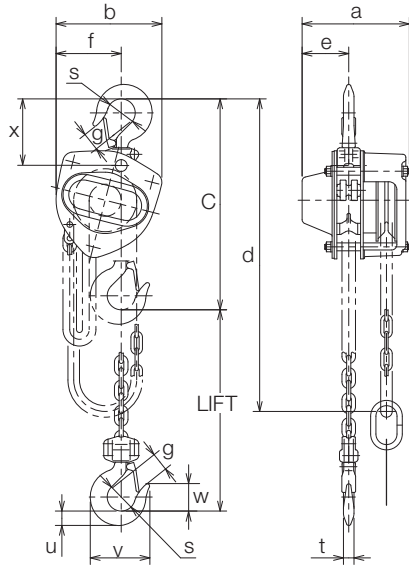


20t~50t

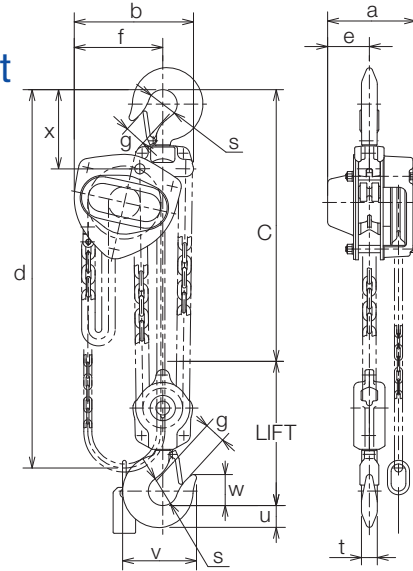
specifications & dimensions

KITO MIGHTY® *Model M3*

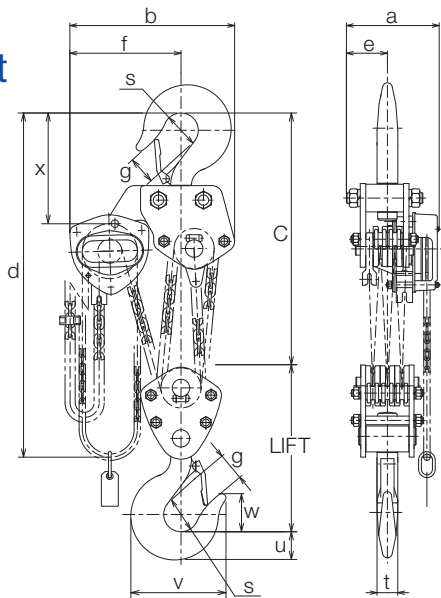
1t



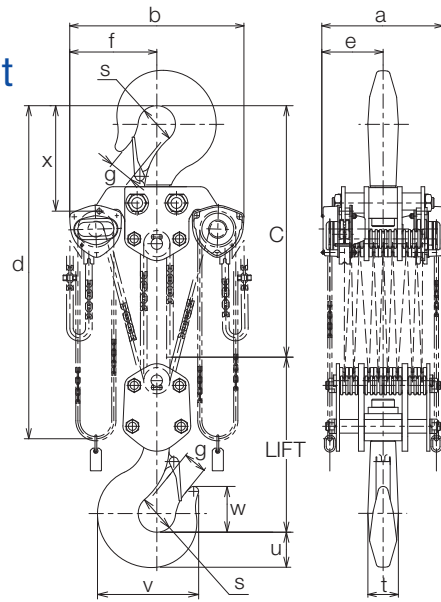
5t



15t



50t



- Any lift of chain is available upon request.
- As Kito chains are heat treated, splicing of the load chain is prohibited. In case longer lifting height is required, specify required lifting height when ordering.

SPECIFICATIONS

Rated Load (W.L.L.) (t)	Code	Std.Lift (m)	Hand Chain Folded Length (m)	Chain Pull to Lift Full Load (N)[kgf]	Chain O'hauled to Lift Load One Meter (m)	Load Chain Dia.xChain Fall (mm)	Test Load (t)	Mass [Net weight] (kg)	Shipping Mass [weight] [approx.](kg)	Mass [weight] in kg for Additional One Meter of Lift (kg)
0.5	CB005	2.5	2.5	235 [24]	25	5.0x1	0.75	10	10.5	1.5
1	CB010	2.5	2.5	284 [29]	43	6.3x1	1.5	11.5	12	1.8
1.5	CB015	2.5	2.5	343 [35]	57	7.1x1	2.4	14.5	15	2.1
2	CB020	3.0	3.0	353 [36]	70	8.0x1	3	20	21	2.3
2.5	CB025	3.0	3.0	323 [33]	99	9.0x1	3.8	27	28	2.7
3	CB030	3.0	3.0	353 [36]	114	7.1x2	4.8	24	26	3.2
5	CB050	3.0	3.5	333 [34]	198	9.0x2	7.5	41	43	4.4
7.5	CB075	3.5	4.0	343 [35]	297	9.0x3	9.5	63	66	6.2
10	CB100	3.5	4.0	353 [36]	396	9.0x4	12.5	83	91	7.9
15	CB150	3.5	4.5	363 [37]	594	9.0x6	20	155	165	11.4
20	CB200	3.5	4.5	353 [36] x2	396x2	9.0x8	25	235	305	15.8
30	CB300	3.5	4.5	421 [43] x2	495x2	9.0x10	40	310	400	19.2
40	CB400	3.5	4.5	421 [43] x2	693x2	9.0x14	50	480	630	26.2
50	CB500	3.5	4.5	480 [49] x2	792x2	9.0x16	62.5	640	790	29.7

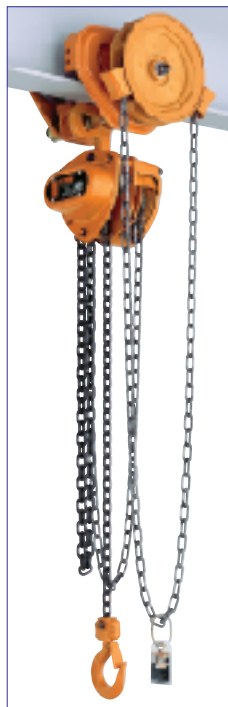
- Other capacities are available upon request.
- Any lift of chain is available upon request.
- As Kito chains are heat treated, splicing of the load chain is prohibited.
- When ordering, specify lifting height.
- Chain Falls varies on each capacity.

DIMENSIONS (mm)

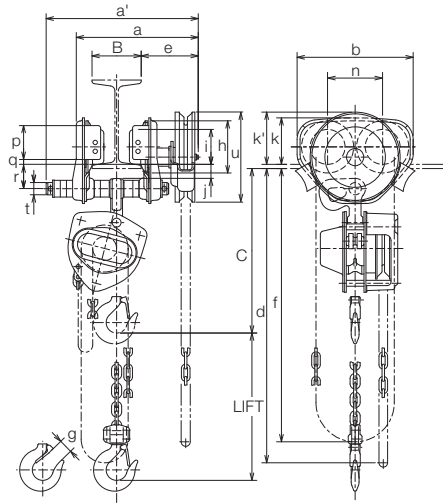
Rated Load (W.L.L.) (t)	Headroom :C	a	b	d	e	f	g	s	t	u	v	w	x
0.5	285	158	161	2500	69	99	27	35.5	12.1	17	77	35	89
1	295	162	161	2500	71	99	29	42.5	16	21.8	93	41	101
1.5	350	171	182	2500	78	112	34	47.5	19.5	26.5	106	47	119
2	375	182	202	3000	87	125	36	50	21.8	30	116	49	124
2.5	420	192	233	3000	91	143	40	53	24.3	33.5	126	53	136
3	510	171	235	3100	78	162	42.5	56	27.2	37.5	138	57	148
5	600	192	282	3600	91	194	46.5	63	34.5	47.5	161	67.5	172
7.5	770	192	373	4200	91	253	72.5	85	47.5	63	231	97.5	275
10	760	192	438	4200	111	308	72.5	85	47.5	63	231	97.5	295
15	1020	268	492	4700	119	337	80	100	60	80	275	110	320
20	1180	374	746	4800	187	373	81	110	67	90	301	125	351
30	1300	404	746	4800	202	373	103	125	85	112	367	143	400
40	1480	502	760	4900	251	380	96	145	123	133	412.5	182.5	445
50	1560	544	796	4900	272	398	100	165	135	155	447.5	202.5	467



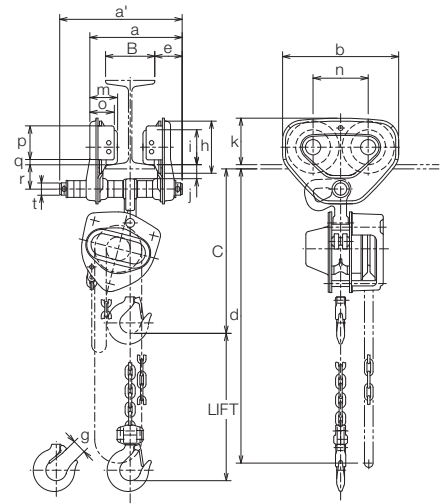
TROLLEY-CONNECTED HOIST



GEARED TYPE



PLAIN TYPE



SPECIFICATIONS

Rated Load (W.L.L.)(t)	Code	Std.Lift (m)	Hand Chain Folded Length (m)	Load Chain Dia. x Chain Fall (mm)	Test Load (t)	Mass (Net Weight) (kg)	Mass [weight] in kg for Additional One Meter of Lift (kg)
0.5	CBSG(CBSP)005	2.5	2.5	5.0x1	0.75	23(15)	2.4(1.5)
1	CBSG(CBSP)010	2.5	2.5	6.3x1	1.5	24(19)	2.7(1.8)
1.5	CBSG(CBSP)015	2.5	2.5	7.1x1	2.4	32(28)	3.0(2.1)
2	CBSG(CBSP)020	3.0	3.0	8.0x1	3	37(33)	3.3(2.3)
2.5	CBSG(CBSP)025	3.0	3.0	9.0x1	3.8	52(48)	3.6(2.7)
3	CBSG(CBSP)030	3.0	3.0	7.1x2	4.8	48(44)	4.1(3.2)
5	CBSG(CBSP)050	3.0	3.5	9.0x2	7.5	92(87)	5.4(4.4)
7.5	CBSG075	3.5	4.0	9.0x3	9.5	175	7.1
10	CBSG100	3.5	4.0	9.0x4	12.5	185	8.8
15	CBSG150	3.5	4.5	9.0x6	20	395	12.3
20	CBSG200	3.5	4.5	9.0x8	25	495	15.8
30	CBSG300	3.5	4.5/5.0	9.0x10	40	670	21.1

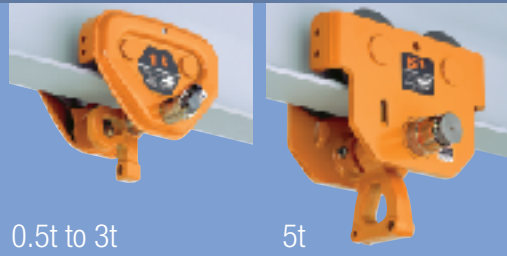
- CBSG and CBSP mean the CB Series connected with TS Series geared trolley and plain trolley respectively.
- Figures in parentheses show the data for plain trolley. Other data are same both for plain and geared trolleys.
- The data for standard I-beam width and minimum radius for curve are same as the ones shown in the page 9.
- In case of 7.5 ton and over cap., "j" show the data for hook suspension type.
- 15 ton and over capacity trolleys have 8-wheel construction and "n" shows the distance between outside wheel centers.
- 40 ton and over cap. are available on request.

DIMENSIONS (mm)

Rated Load (W.L.L.)(t)	Head room :C	a (Max)	a'	b	d	e	f	g	h	i	j	k	k'	m	n	o	p	q	r	t	u
0.5	305(295)	275(173)	309(204)	236(182)	2500	116(46)	2200	27	106(82)	71(60)	28(19)	95(76)	106	56(47.5)	112(84)	50(42)	69(54)	10	50(38)	25(22)	183
1	305	275(215)	309(249)	236	2500	116(56)	2200	29	106	71	28	95	106	56	112	50	69	10	50	25	183
1.5	365	349(218)	385(300)	280	2500	154(69)	2200	34	127	85	34	112	109	71	131	63	83	10	62	32	183
2	380	349(218)	385(300)	280	3000	154(69)	2700	36	127	85	34	112	109	71	131	63	83	10	62	32	183
2.5	435	359(280)	398(320)	324	3000	157(79)	2700	40	148	100	36	134	114	80	152	74	102	10	68	36	183
3	535	359(280)	398(320)	324	3100	157(79)	2700	42.5	148	100	36	134	114	80	152	74	102	10	68	36	183
5	660	377(273)	401(297)	400	3600	156(53)	3200	46.5	169	118	47	144	131	81	178	70	104	10	88	54	183
7.5	870	443	595	480	4300	182	3700	72.5	185	155	53	170	165	120	196.5	104	89	8	153	70	214
10	860	443	595	480	4300	182	3700	72.5	185	155	53	170	165	120	196.5	104	89	8	153	70	214
15	1150	454	677	1000	4800	182	4200	80	185	155	62	170	165	120	716.5	104	89	8	203	80	214
20	1310	454	677	1000	4900	182	4200	81	185	155	62	170	165	120	716.5	104	89	8	203	80	214
30	1450	790	—	—	5000	300	4700	103	218	175	62	197	199	103	833	85	100	8	147	80	214

KITO UNIVERSAL TROLLEYS TS SERIES

PLAIN TYPE



• Shape of the Suspender for 3t is similar to the shape of the Suspender for 5t.

GEARED TYPE



• Shape of the Suspender for 3t is similar to the shape of the Suspender for 5t.

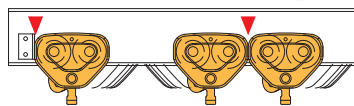
SMOOTH AND RELIABLE OPERATION

Bumpers (Protective Lugs)

KITO's TS Series Trolleys have bumpers, which hold trolley surely on the beam and guard against damage to a trolley and wheels arising from a collision with the stopper or between two trolleys. Buffers are available as option to install on the bumpers. Also, extended arms are available as option to install on the bumpers to help prevent damage to a hoist from collision between the hoists suspended from trolleys on the same beam.

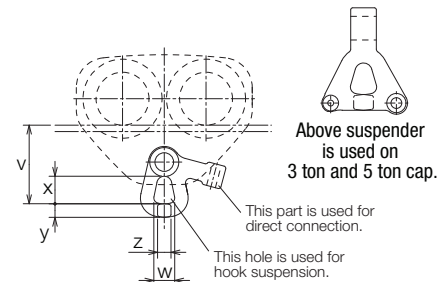
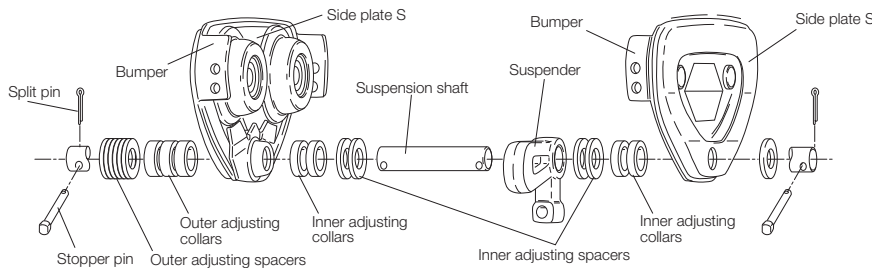


Buffer is prepared as option.



Wide selection of Beam width

Trolleys are adjustable for various widths of both tapered and flat flanges by changing the adjusting spacers. Also, they can fit on the beams up to 305mm-flange width by replacing suspension shaft and spacers, etc.



SPECIFICATIONS

Rated Load (W.L.L.)(t)	Code		Flange Width Adjustability (mm)			Min. Radius for Curve (mm)	Mass (Net Weight) (kg)		Hand Chain Folded Length (m)	Dimensions (mm)				
	Plain Trolley	Geared Trolley	Standard	Option			TSP	TSG		v	w	x	y	z
				W20*	W30*									
0.5	TSP005	TSG005	50 to 102 (58 to 127)	103 to 203 (128 to 203)	204 to 305	1100 (1300)	4.5	12	2.5	93 (106)	26 (28)	33 (37)	14 (18)	14 (18)
1	TSP010	TSG010	58 to 127	128 to 203	204 to 305	1300	8.0	12	2.5	106	28	37	18	18
1.5	TSP015	TSG015	82 to 153	—	154 to 305	1500	14	18	2.5	129	32	40	22	22
2	TSP020	TSG020	82 to 153	—	154 to 305	1500	14	19	3.0	129	32	40	22	22
2.5	TSP025	TSG025	82 to 153	—	154 to 305	1700	23	27	3.0	144	36	44	27	25
3	TSP030	TSG030	82 to 153	—	154 to 305	1700	23	27	3.0	169	40	48	24	30
5	TSP050	TSG050	100 to 178	—	179 to 305	2300	50	56	3.5	228	60	70	33	36
7.5	—	TSG075	150 to 220	—	221 to 305	3000	—	112	4.0	connection with CB Series is hook suspension type for 7.5 ton and over cap. as standard.				
10	—	TSG100	150 to 220	—	221 to 305	3000	—	112	4.0					
15	—	TSG150	150 to 220	—	221 to 305	∞	—	265	4.5					
20	—	TSG200	150 to 220	—	221 to 305	∞	—	265	4.5					

• Figures in () are for TSG005. • *: W20 and W30 mean 203 and 305mm flange width adjustability as option.

• In case of 7.5t and over capacity, trolley wheels for tapered flange are standard. Wheels for flat flanges are available as option. If you prefer wheels for flat flanges, please specify it in advance.

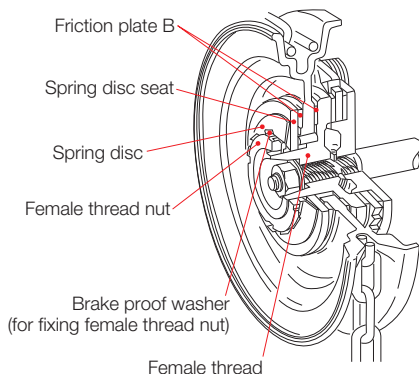
• In case of only straight I-beam, 0.5ton plain trolley can be used on 57mm and less width beam and 1ton plain trolley and geared trolley can be used on 73mm and less width beam and 2.5 & 3ton plain and geared trolley can be used on 89mm and less.

KITO MANUAL CHAIN HOISTS

OPTIONAL EQUIPMENT

Overload Protection Device (OLL)

The hoist with overload limiter protects hoist mechanism from damage due to overloading. When an overload is applied to the hoist, the overload limiter actuates to stop lifting.



Corrosion Resistant N.D. Chain

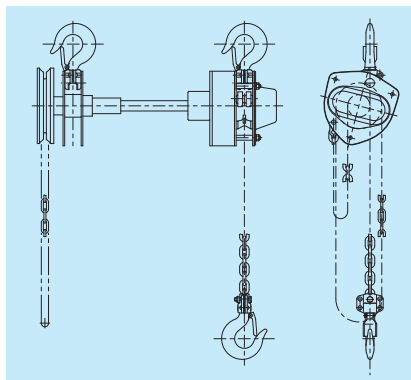
We recommend chain hoists with ND (Nickel Diffused) chain, with outstanding corrosion resistance, for use at work sites under the strong influences of rainwater, seawater, vapor or chemicals, etc. Since the ND chains are manufactured by giving a unique osmotic-diffusion treatment to special metals with KITO's unique technology, they have extremely strong resistance to corrosion. Also there is no peeling



off of plating. Clients are requested to consult with the nearest KITO distributor before use of these chains because of their corrosion resistant efficiency differs, depending upon which chemicals are in the environment.

Hoist with Extended Shaft Hand Wheel

It is convenient to use a chain hoist with an extended hand wheel shaft when it is necessary to operate a hoist at a distance due to the conditions of the work site. The standard length of the extended shaft is 1m.



Trolleys for Curved Beam

Specially small radius for curve is available upon request by removing protective lug as follows. Please consult with the nearest KITO distributor for detail.

Rated Load (W.L.L.)(t)	Std. flange width (mm)	Min. radius for Curve (mm)
0.5	74 to 127 (58 to 102)	450 (350)
1	74 to 127	450
2	82 to 153	550
2.5	90 to 153	650
3	90 to 153	650

Figures in () show the data for plain trolley.

Spark Resistant

KITO also produces special spark resistant chain hoists to be used in places where any sparks are undesirable. Clients can consult with the nearest KITO distributor about the conditions of job sites.

Chain Container

In case load chain on no-load side becomes a hindrance to work when load is raised, it can be kept in a chain container attached to a chain hoist. Both steel and canvas chain containers are available upon request.

Rail Clamp Device

Rail clamp is a device to prevent a manually operated trolley from travelling of itself. It is fixed to a beam by manipulating hand chain. The trolley with rail clamp is convenient when fixing the trolley at a pre-set position in a rolling and pitching ship or in a sloped tunnel, etc.

Large Capacity Chain Hoist

Large capacity chain hoists up to 100t are available upon request.



For a load range 0.8-9t, use **KITO LEVER HOIST** Model L5.

Much lighter and tougher

Seven capacities range from 0.8 to 9 tons to choose the one that best suits your application.

Extremely compact and light

Kito's innovative technology makes this model smaller and lighter than ever before. It's easy to carry and store, and the Lever Hoist is much easier to use, even in a narrow working spaces.

Nickel-plated chain

Kito's unique R&D produces world-class performance. The grade 100(1000 N/mm²) chain, made from a special high strength alloy, features an unbeatable combination of toughness and resistance to corrosion and wear. (For special environments consult your Kito distributor since corrosion resistance varies depending on corrosives involved)

High-strength frame

High grade alloy steel with solid construction, a patented induction hardening process on the load-supporting part, and increased material thickness produces an extremely strong and rigid frame.

For details please refer to the "**KITO LEVER HOIST** Model L5" catalog.

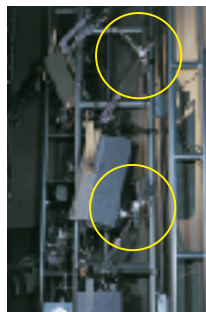


*Based on comparison of Model L4 1.5t to Model L5 1.6t.

Extremely compact, lightweight, portable design for ease of use in elevated work positions. Small hand-pull force for highly reliable pulling and lifting to the last click.



KITO LEVER BLOCK™



Reliable load-holding performance

The LX series, designed with a single-step reduction gear, is characterized by a small manual fastening force and assured load holding. Reliable load fastening can be provided to the last clicking of the lever.

Extremely compact and light

Kito's innovative technology makes the LX series extremely compact and light. It's very easy to carry, and easy to use, even in tight quarters or in elevated work locations. What's more, it can be conveniently stored in a special carrying case (LX003 only).

Nickel-plated chain

Kito's unique R&D produces world-class performance. The grade 100(1000 N/mm²) chain, made from a special high strength alloy, features an unbeatable combination of toughness and resistance to corrosion & wear. (For special environments consult your Kito distributor since corrosion resistance varies depending on corrosives involved)

Load fastening	Tension	Lifting/ lowering	Anchoring	Positioning	Distortion correction	Alignment of structures	Other load handling
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For details please refer to the "**KITO LEVER BLOCK™ LX Series**" catalog.



KITO CORP.



JAB
QMS, EMS
Accreditations
ISO 14001, ISO 9001



JMA
JMAQA-149
JMAQA-ETP2
ISO 9001
ISO 14001 HEADQUARTER

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