

AKITA

AKITA Chain Block Mfg. Co., Ltd.

THE BEST CHAIN BLOCK AKITA



AKITA

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Product List

CHAIN BLOCK

K-II



VIT-II



LEVER HOIST

K-V



VIT-II



KX (250kg to 1.5 t)



YAL (250kg to 500kg)



Quality Control

MATERIAL TESTS:

(1) Chemical Analysis of Steel



Proficiency Testing Programs provide participating laboratories with a statistical quality assurance (SQA) tool for improving and maintaining performance with respect to inter-laboratory precision.

Basic elements to be determined by participants include carbon, sulfur, manganese, silicon, phosphorus, chromium, molybdenum, nickel and copper.

(2) Measuring Projector (for stamping parts)

The projector is a photoelectric measuring system of high precision and efficiency.



(3) Metallographic Sample Polishing Machine and Metallographic Microscope (for casts parts)



It is used for metal identification and analysis of the internal structure of metal and alloy steel. It is the important test instrument to study the metallography and identify the metal quality. It can take metallographic photo to carry out artificial contrast analysis.

Ductile iron, also known as ductile cast iron, nodular cast iron, spheroidal graphite iron, is a type of cast iron invented in 1943 by Keith Millis. It is popularly used in manual hoist industry.

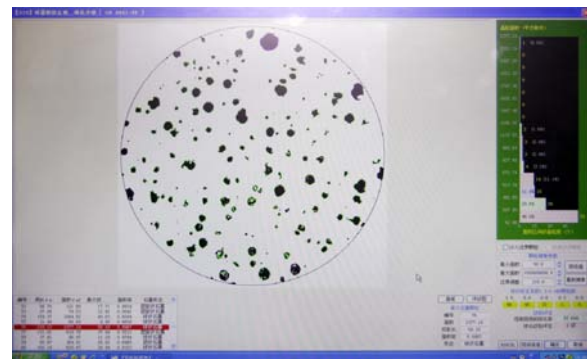
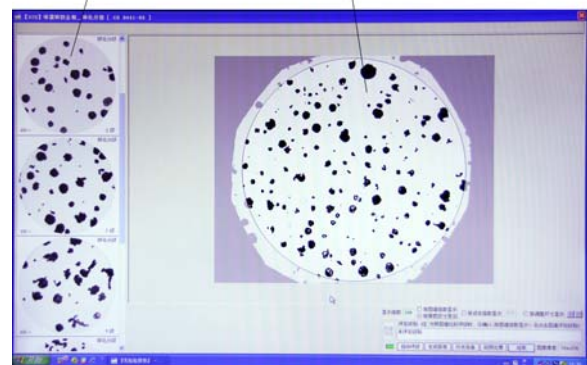
While most varieties of cast iron are brittle, ductile iron has much more impact and fatigue resistance, due to its nodular graphite inclusions. Ductile iron is not a single material but is part of a group of materials which can be produced to have a wide range of properties through control of the microstructure. The common defining characteristic of this group of materials is the shape (morphology) of the graphite. In ductile irons, the graphite is in the form of nodules rather than flakes (as in grey iron, thus inhibiting the creation of cracks, and providing the enhanced ductility that gives the alloy its name. The formation of nodules is achieved by addition of nodulizing elements, most commonly Magnesium (Magnesium boils at 1100°C and Iron metals at 1500°C).

A typical chemical analysis of this material:

- Iron
- Carbon 3.3 to 3.4%
- Silicon 2.2 to 2.8%
- Manganese 0.1 to 0.5%
- Magnesium 0.03 to 0.05%
- Phosphorus 0.005 to 0.04%
- Sulfur 0.05 to 0.02%
- Other elements such as copper or tin can be added to increase tensile and yield strength while simultaneously reducing elongation.

Samples of the microstructures from class 2 to 4

An image of the microstructures from specimen



The sample was classified as the class 3 by the computer. According to the standard, the class 4 or above is good quality.

Quality Control

PRODUCT TESTS:

(1) Salt Spray Test

The salt spray test is a standardized test method used to check corrosion resistance of coated samples. Coatings provide corrosion resistance to metallic parts made of steel. Since coatings can provide a high corrosion resistance through the intended life of the parts in use, it is necessary to check corrosion resistance by other means. Salt spray test is an accelerated corrosion test that produces a corrosive attack to the coated samples in order to predict its suitability in use as a protective finish. The appearance of corrosion products (oxides) is evaluated after a period of time. Test duration depends on the corrosion resistance of the coating. The more corrosion resistant the coating is, the longer the period in test without showing signs of corrosion.



The salt spray tester is to test the anti-erosion quality of the surface of all materials, after the rusting proofing of painting, powder coating, electroplating anodizing and rust proof greasing.

(2) Operational Test

Lifting equipment shall be subjected to a dynamic operating test of suspending a load of:

1.5 times the rated capacity for rated capacities less than 20 t and

1.25 the rated capacity equal to greater than 20 t

The tests shall be comprise repeated stopping and starting for each machine movement.

The test shall be considered satisfactory if no cracks, permanent deformation or damage that would adversely affect the function or safety of the lifting equipment is visible, and the connections have not become loose or damaged and if the braking device can hold the load without slipping.



(3) Endurance Test

Manual chain hoist that are mass-produced and have a rated capacity up to 5 t shall be exempt from the following endurance test.

With 110% of the rated capacity on the lower hook, operate the hand chain block for 1,500 cycles, over 300mm lifting and lowering the load. The path of 300mm ensures that all the component parts (e.g. gears, load wheel etc.) operate underload. At no time during the test shall the test load be set on to the floor. An automatic counting system shall be used to count the number of lifting and lowering cycles.



The speed of the lifting and lowering operating cycle shall be no less than the speed of an operator working continuously for 1 minute. The test could be done with higher lifting and lowering speeds, depending on the drive unit which is used.

The drive unit shall run continuously during the test except for lubricating the load chain, or to replace the load chain.

No other parts shall be replaced, or reworked and at the end of the test they shall show no signs of failure.

If after the 1,500 cycles, the hand chain block is still holding the load of 150% in a static test. The test result shall be considered satisfactory.

(4) Destruction Test

up to 1,000 N

Manual chain hoist with a rated capacity up to 5 t shall be subjected to a type test at the most unfavourable position of the lifting medium with static load of 4 times the rated capacity.

If after 10 minutes, the lifting equipment is still holding the test load, the test result shall be considered satisfactory.



Process Flow Diagram

Chain Hoist Production



Tooling

- CNC linear cutting machines
- Milling machines & etc



Parts Production

- CNC lathes
- NC machine tools
- NC multi-tool chunking lathes
- Roll thread machines
- Cylindrical surface grinders & etc



High Frequency Induction Heat Treatment



Steel Sheet Cutting



Body Covers & Side Plates Stamping



Heat Treatment Facility

Load Chain Production



Computer Control Forming & Welding



Computer Control Calibration

- Each link is conducted a proof load test at 2.5 times of the rated capacity.



Parts Stamping



Chains Installation



Operational Test

- Each hoist is conducted an operational test at 1.5 times of the rated capacity.
- An individual serial no. will be assigned to each hoist.



Assembly



Endurance Test

- The hoist shall withstand 1,500 cycles with 110% of the rated capacity at least 300mm per cycle.



Heat Treatment



Destruction Test

CHAIN BLOCK K-II



1 t



7.5 t



15 t



30 t

CHAIN BLOCK K-II

TOP-OF-THE-LINE CHAIN BLOCK

Standard Features:

- Seal type caged ball bearings #21 & #21A on load sprocket



- Seal type caged ball bearings #21B & caged roller bearings #31B on the pinion shaft (minimize manual effort thanks to efficient drive train)



- Superior design of top hook holders for double / several columns of load chains
- Experience exceptional durability thanks to all-steel construction featuring rugged gear case enclosure and hand-wheel cover
- Enjoy increased lifting height thanks to low headroom
- Grade 100 heat-treated galv. alloy load chain resists abrasion and wear while minimizing chain weight
- Reinforced double pawl brake system and larger dia. pawl springs ensure reliable brake

Optional Features:

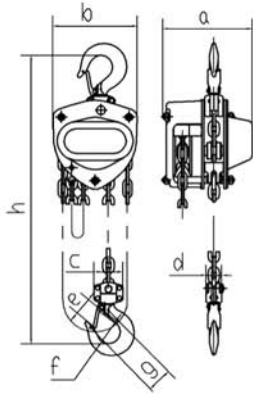
- Overload protection system
- Patent fused brake disc



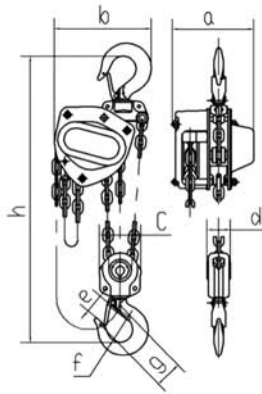
- Thrust bearings in bottom hook assembly
- Easy removable top hook



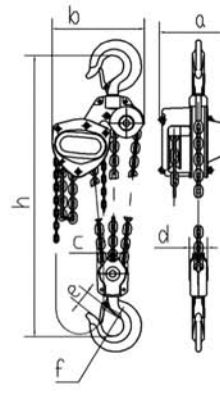
0.25 t, 0.5 t, 1 t, 1.5 t, 2 t & 3.2 t



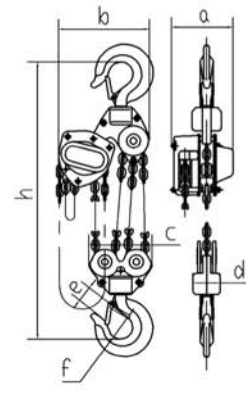
3 t & 5 t



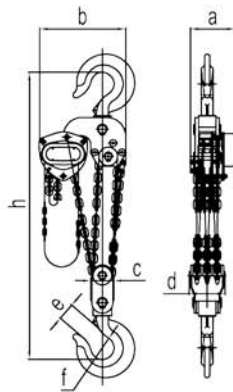
7.5 t & 10 t (3-fall)



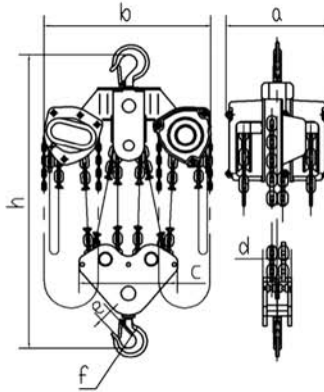
10 t



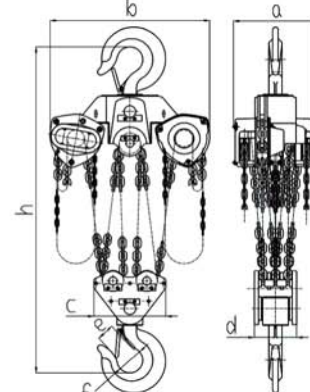
15 t



20 t



30 t



Capacity	(tonnes)	0.25	0.5	1	1.5	2	3	3.2	5	7.5	10	10	15	20	30	
Model No.		K025	K050	K100	K150	K200	K300	K320	K500	K750	K1000A	K1000	K1500	K2000	K3000	
No. of Falls		1	1	1	1	1	2	1	2	3	3	4	6	8	12	
Load Chain	(mm)	4x12	5x15	6.3x19	7.1x21	8x24	7.1x21	10x28	9x27	9x27	10x28	9x27	9x27	9x27	10x28	
Load Chain Grade		100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Pull to Rated Load	(N)	186	228	284	343	353	353	368	333	343	398	353	363	353x2	345x2	
Proof Load	(tonnes)	0.375	0.75	1.5	2.25	3.0	4.5	4.8	7.5	11.25	15.0	15.0	22.5	25.0	37.5	
Hand Chain	(mm)	3x15x10	4.8x22x18	5x25x18												
Standard Lift	(m)	3	3	3	3	3	3	3	3	5	5	5	5	5	5	
Net Weight	(kg)	3.9	10.8	12.4	15.6	20	24	27.4	41	72.4	85.2	94.9	153	205	284	
Gross Weight	(kg)	4.3	11.3	12.9	16.4	21	24.8	28.9	42.5	75.4	93.2	105	166	219	301	
Extra Wt. per m	(kg)	0.76	1.5	1.8	2.1	2.3	3.2	3.2	4.4	6.2	7.6	7.9	11.4	15.8	29.3	
Dimensions	a (mm)	96	130.5	161.5	170	183.5	170	190.5	192	192	190.5	192	220	230	360	
	b (mm)	109	139.5	161	182	202.5	235	235	282	373	356	360.5	492	655	680	
	c (mm)	29.5	43	51	64	64	106	68.5	133	120	120	263	110	286	306	
	d (mm)	21	25	30	34	34	53	38.6	64	70	70	95	170	123	180	
	e (mm)	27	27	33	33.5	37	43.5	43	51	64	64	64	80	82	82	
	f (mm)	32	32	40	42	46	52	49.5	60	85	85	85	100	110	110	
	g (mm)	35.5	35	45	47	52	62.5	62	79	-	-	-	-	-	-	
	h (mm)	250	285	295	350	375	510	485	600	740	760	760	1,000	1,150	1,250	

50 t is available on request.

CHAIN BLOCK VIT-II

Heavy Duty Type for Professional & Industrial Users

Standard Features:

- Meets all pertinent world standards
- Lightweight high strength grade 100 alloy steel load chain
- Compact design for limited headroom applications
- High strength steel frame and gear case built to be durable for the rugged needs of construction and maintenance rigging
- Heat-treated spur gear efficiently designed to provide smooth load handling and low hand chain pull
- Reinforced double pawl brake system and larger dia. pawl springs ensure reliable brake
- Open frame design for self-cleaning, quick load sheave inspection and easy hoist maintenance

Optional Features:

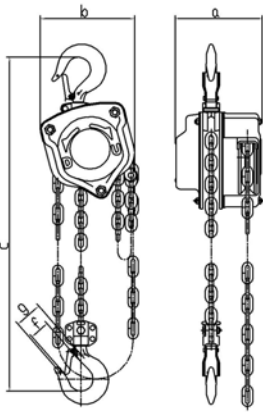
- Caged roller bearings on load sprocket



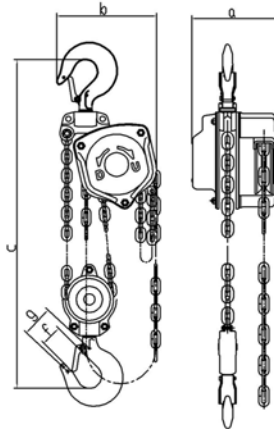
- Zinc plated load chain
- Cast latches
- Cr plated side plate assemblies
- Thrust bearings in bottom hook assembly



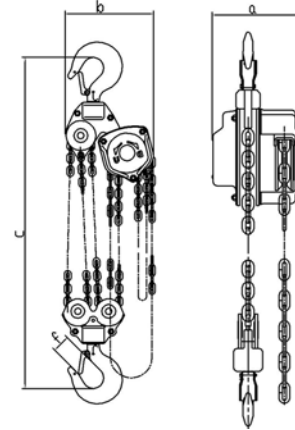
0.5 t, 1 t, 1.5 t, 2 t & 3 t



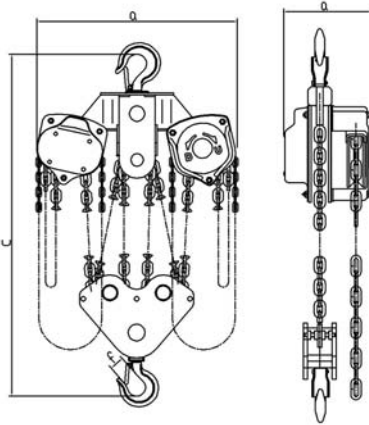
3 t, & 5 t



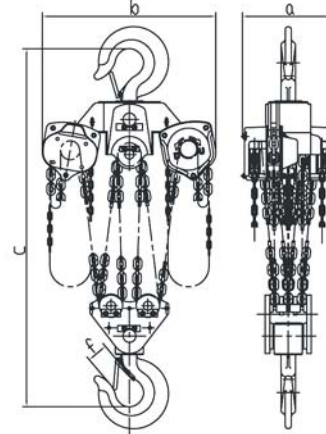
10 t



20 t



30 t



Capacity	(tonnes)	0.5	1	1.5	2	2	3	3	5	10	20	30	
Model No.		VIT05	VIT10	VIT15	VIT20V	VIT20	VIT30B	VIT30	VIT50	VIT100	VIT200	VIT300	
No. of Falls		1	1	1	1	1	1	2	2	4	8	12	
Load Chain	(mm)	5 x 15	6.3 x 19	7.1 x 21	7.1 x 21	8 x 24	9 x 27	7.1 x 21	9 x 27	9 x 27	9 x 27	9 x 27	
Load Chain Grade		100	100	100	100	100	100	100	100	100	100	100	
Pull to Rated Load	(N)	250	330	340	450	340	380	350	390	410	410 x 2	420 x 2	
Proof Load	(tonnes)	0.75	1.5	2.25	3.0	3.0	4.5	4.5	7.5	15.0	25.0	37.5	
Hand Chain	(mm)	4.8 x 22 x 18							5.5 x 23.6 x 19				
Standard Lift	(m)	3	3	3	3	3	3	3	3	5	5	5	
Net Weight	(kg)	9.0	12.2	14.5	15.5	21.0	34.0	22.0	40.0	89.4	214.7	278	
Gross Weight	(kg)	9.4	12.7	15.0	16.0	22.2	34.5	22.7	41.5	96.9	225.7	293	
Extra Wt. per m	(kg)	1.42	1.73	1.97	1.97	2.58	2.76	3.07	4.71	8.23	16.46	23.5	
Dimensions	a (mm)	127	147	147	147	179	182	147	179	179	207	350	
	b (mm)	144	157	174	174	204	263	206	263	367	873	694	
	c (mm)	285	315	340	355	380	550	475	600	740	870	1,300	
	f (mm)	27	33	33.5	37	37	43.5	43.5	51	64	82	82	
	g (mm)	35	45	47	52	52	62.5	62.5	78	-	-	-	

50 t are available on request.

LEVER HOIST K-V

MORE COMPACT & LIGHT WEIGHT The Best Lever Hoist for Professional & Industrial Users

Main Features:

- More compact
- Very robust but light weight
- Short lever handle
*New shape & thicker steel sheet
1.6 t & 2.5 t lever handle is slightly longer than 800kg only.*
- Low headroom
- Zinc plated grade 100 load chain
- Interchangeable parts for standard and overload protected hoist
*Change the standard hoist into overload protected hoist
Simply replace the #20 Change Over Gear into #20L Overload Protected Assembly*
- Reasonable Pulling force to rated capacity
more efficient to operate the hoist
- #26 Cam can protect the hoist even the user wrongly put the loading on the end ring.
- Each lever hoist is tested at 1.5 times of the rated capacity.
- Complied with EN 13157



- Unique hand wheel & knob design



- No preload required
unique free knob design different from conventional free wheel system

- Innovated & patent fused brake disc automotive technology



- Heavy duty cast latches

- Improved hook tip design
self-locking with cast latch

- With caged roller bearings on load sprocket



- Phosphoric surface treatment for #3 driving shaft

DACROMET Finish for Important Parts

Mainly used for automotive industry
Due to corrosion accounting for the bulk of repair costs and the core of customer complaints.
It is the superior corrosion protection for the product.
Salt Spray Performance: > 300 hours
(Zinc Plating about 30 hours)



#14 Disc Hub
#15 Fused Brake Disc



#20 Change Over Gear



#26 Cam

Optional Features

- #20L Overload protection system
- #36 Cast enlarged end ring
- Shipyard hook 1.6 t & 3.2 t



- #37 Thrust bearings in bottom hook assembly

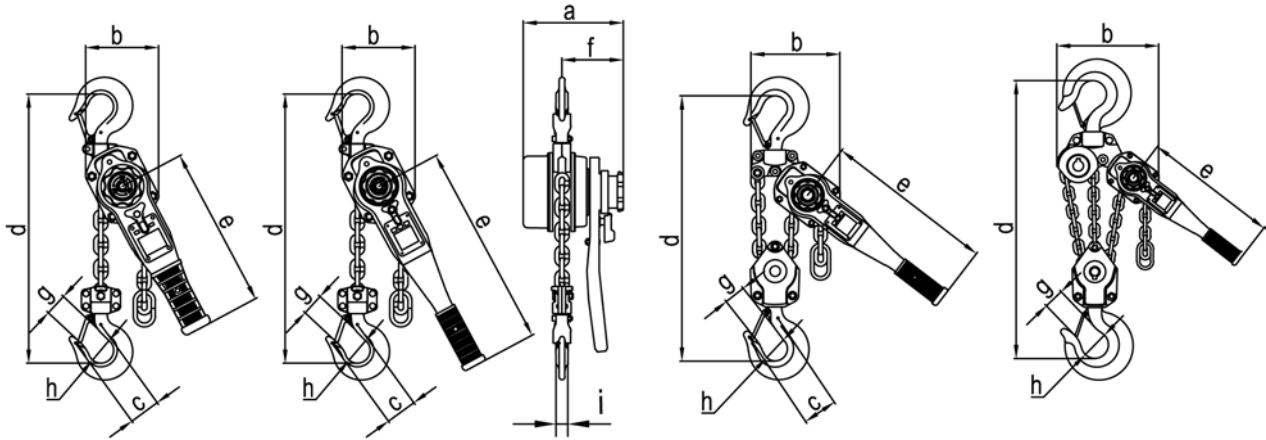


0.8 t, 1 t, 1.6 t & 2.5 t

3.2 t

6.3 t

9 t



Capacity	(tonnes)	0.8	1	1.6	2.5	3.2	6.3	9	
Model No.		KV008	KV010	KV016	KV025	KV032	KV063	KV090	
No. of Falls		1	1	1	1	1	2	3	
Load Chain	(mm)	5.6 x 15.7	5.6 x 15.7	7.1 x 19.9	8.8 x 24.6	10 x 28	10 x 28	10 x 28	
Pull to Rated Load	(N)	215	294	304	363	372	382	392	
Proof Load	(tonnes)	1.2	1.5	2.4	3.8	4.8	9.5	13.5	
Standard Lift	(m)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Net Weight	(kg)	5.7	5.9	8.0	11.2	13.6	26.0	40.0	
Gross Weight	(kg)	6.1	6.3	8.5	11.6	14.2	26.6	46.5	
Extra Wt. per m	(kg)	0.7	0.7	1.1	1.7	2.3	4.7	7	
Dimensions	a	(mm)	146	146	164	179	196	196	196
	b	(mm)	119	119	126	150	159	218	298
	c	(mm)	41.5	49.4	52	58.6	61.9	84.3	-
	d	(mm)	280	300	335	375	395	540	680
	e	(mm)	245	245	265	265	415	415	415
	f	(mm)	96	96	100	103	114	114	114
	g	(mm)	26.5	31.5	35.5	41	43	53	64
	h	(mm)	35.5	42.5	42.5	47	50	60	85
	i	(mm)	14	15	19	21	24.5	34	40

Comparison of Model KIT-III and K-V (%)

Type	KIT-III 008	K-V 008	KIT-III 015	K-V 016	KIT-III 030	K-V 025	KIT-III 030	K-V 032
Net Weight		-8.1		-16.7		-27.7		-3.2
Length of Lever Handle		-7.5		-36.1		-36.1		±0
Height of Lever Hoist		-5.9		-6.5		-11.3		-2.3
Min. Headroom between Hooks		±0		-4.3		-10.7		-6.0

LEVER HOIST VIT-II

**A dependable lever hoist
with capacities and features that make it ideal for
all industrial lifting, pulling and position applications.**

Standard Features:

- Meets all pertinent world standards
- All steel construction for external impact resistance
- High-strength, cold-formed, stamped steel construction makes it lighter in weight yet impact resistant for longer life
- Open frame design provides access for easy cleaning and inspection
- 360° degree handle rotation with short stroke to ratchet loads
- Rubber grip handle for a better comfortable operation, even without glove
- Easy free chaining operation

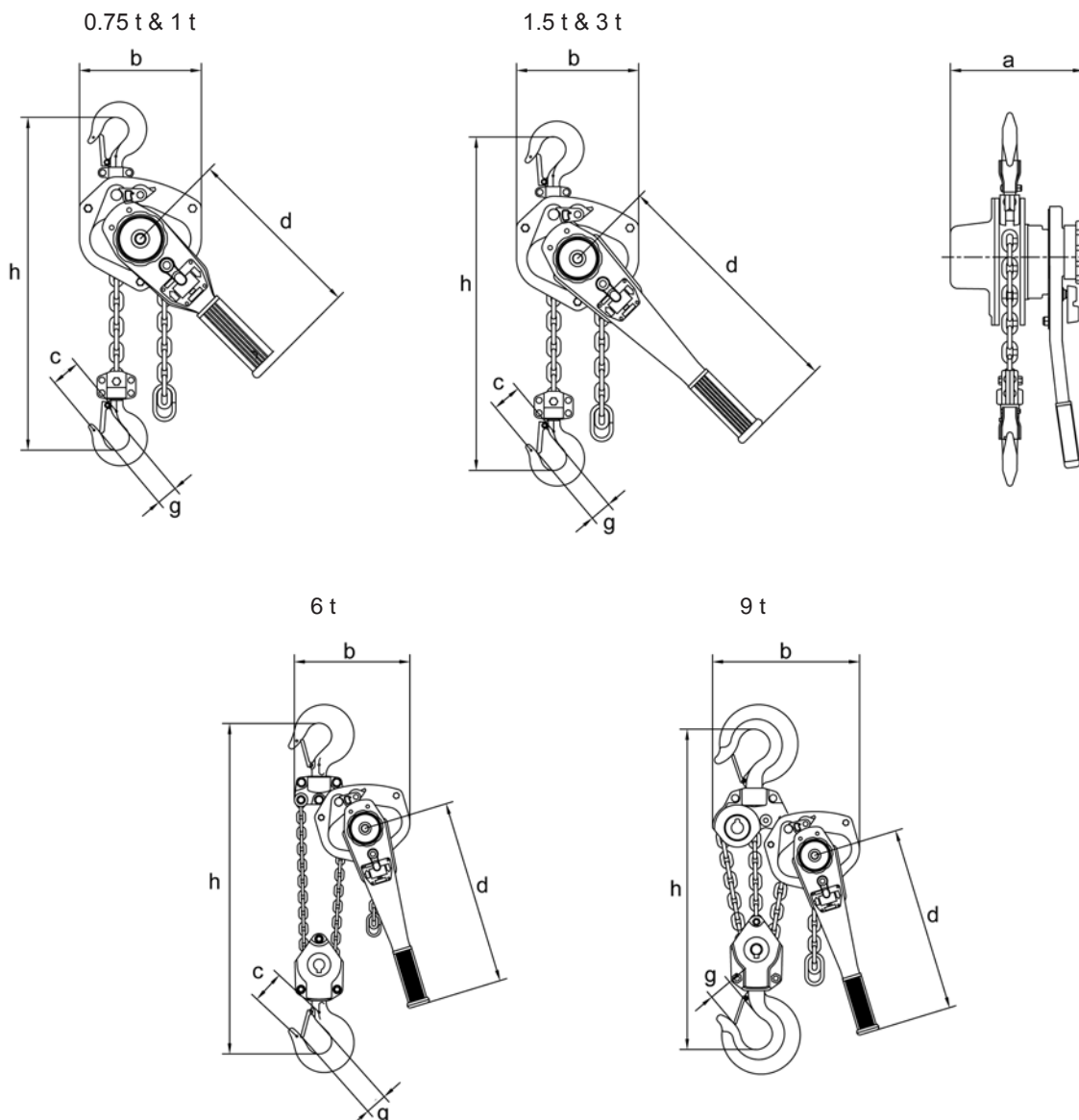
Improved Features:

- Reinforced pinion shaft #8
- 360° rotation handle needs only 15 position loads, an advantage in tight places
- All the load chains are grade 100
- Forged alloy steel hooks have wide throat opening with deformation indicators. Hooks are designed to spread at 270-350% of the rated load to indicate a clear visual warning of hoist overload

Optional Features:

- Overload Protection System
- Zinc Plated Load Chain
- Cast Latches
- Cast Enlarged End Ring
- Shipyard hook 1.5 t & 3 t
- Thrust Bearings in Bottom Hook Assembly





Lever Hoist

Capacity	(tonnes)	0.75	1	1.5	3	6	9
Model No.		VIT075	VIT100	VIT150	VIT300	VIT600	VIT900
No. of Falls		1	1	1	1	2	3
Load Chain	(mm)	6.3 x 19	6.3 x 19	7.1 x 21	9 x 27	9 x 27	9 x 27
Load Chain Grade		100	100	100	100	100	100
Pull to Rated Load	(N)	150	204	193	409	420	430
Proof Load	(tonnes)	1.13	1.5	2.25	4.5	9.0	13.5
Standard Lift	(m)	1.5	1.5	1.5	1.5	1.5	1.5
Net Weight	(kg)	6.9	7.1	9.7	16.3	26.7	38.5
Extra Wt. per m	(kg)	0.86	0.86	1.1	1.76	3.52	5.28
Dimensions	a	(mm)	148	148	163	191	191
	b	(mm)	128	128	148	181	244
	c	(mm)	37	45	47	62	78
	d	(mm)	256	256	368	368	368
	g	(mm)	28	33	33.5	43.5	51
	h	(mm)	295	310	335	405	550

LEVER HOIST KX

The Smallest Lever Hoist in the World

Advanced gear reduction system

with 5 gears in the gear box
Most of the other 250 kg lever hoist consists of 2 gears or without gear.

Double Pawl

higher safety standard
The other 250 kg lever hoist is single pawl.

4 links load sprocket

more stable in lifting and longer life for the load chain, especially for the 250 kg hoist
The other 250 kg lever hoist has 3 links load sprocket.

All the rotating parts are fitted with abrasion resistant bush

All the main parts and gears are made of alloy steel and heat treated

More durable and longer life

Li & MoS₂ grease

Suitable to work in high & low temperature environment

Operational test

Each hoist is conducted an operational test at 150% of the rated capacity

Endurance test

The hoist shall withstand 1,500 cycles with 110% of the rated capacity at least 300mm per cycle
Most of the other hoists cannot pass the endurance test.



Aluminum alloy steel cover

The lightest weight in the world
1.5 kg only for 250 kg lever hoist

The lightest
in the world

1.5kg
Only!
(KX025)

Alloy steel side plate with heat treated

higher durability
The other lever hoists are made of high carbon steel.

140mm

Only!
(KX025)

The shortest handle

140mm for 250 kg lever hoist

Galv. load chain

Grade 80 or 100
Customers can choose either one of them.

More compact and durable

Load sprocket and the load gear are combined as an integral part of the 250 kg lever hoist

Heavy duty carry bag

for 250 kg lever hoist
Option for 500 kg & 750kg

Optional Feature

Zinc Plated Load Chain
Cast latches

KX025



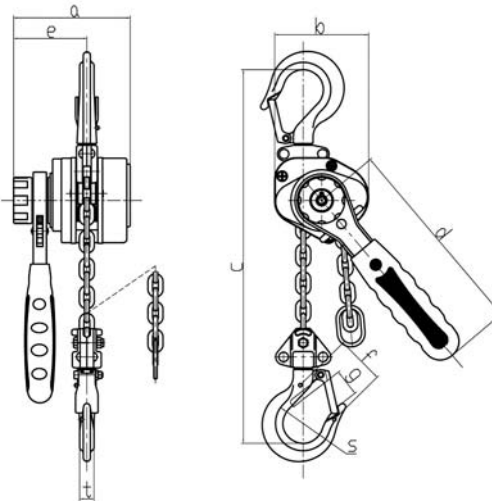
KX050



KX075



Disc gear and pinion gear are in 1 piece for 250 kg lever hoist.



Capacity	(kg)	250	500	750	1500	
Model No.		KX025	KX050	KX075	KX150	
No. of Falls		1	1	1	1	
Load Chain	(mm)	3.2 x 9	4.3 x 12	5 x 15	7.1 x 19.9	
Pull to Rated Load	(N)	200	240	290	320	
Proof Load	(kg)	375	750	1,125	2,250	
Standard Lift	(m)	1	1.5	1.5	1.5	
Net Weight	(kg)	1.45	2.5	3.4	6.27	
Gross Weight	(kg)	1.65	2.7	3.6	6.5	
Extra Wt. per m	(kg)	0.22	0.37	0.54	1.1	
Dimensions	a	(mm)	87	100.5	105	122
	b	(mm)	68	81	92	109
	c	(mm)	200	250	260	330
	d	(mm)	145	160	180	220
	e	(mm)	55.5	62.5	64	68.5
	f	(mm)	35.5	42	42	52
	g	(mm)	21	24.5	28.5	35
	s	(mm)	32	34.5	35.5	42.5
	t	(mm)	11	12	14	21.5

LEVER HOIST YAL 250 kg & 500 kg



YAL050
Very light weight
2.35 kg Only!

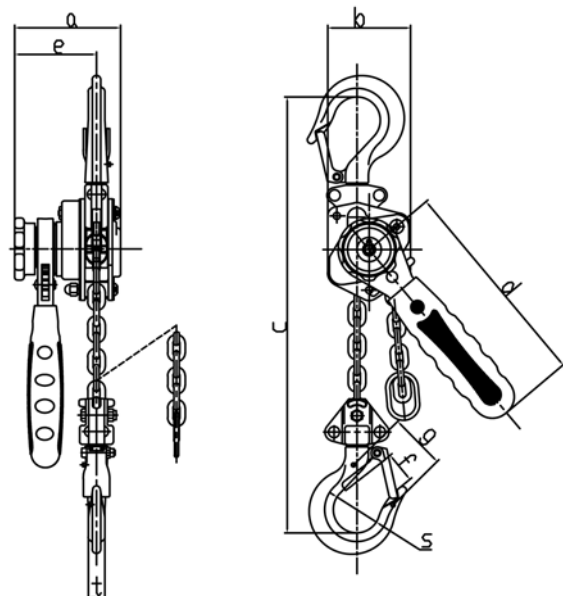
Special Feature:

Load sprocket and pinion shaft are in 1 piece for 250 kg lever hoist



Capacity	(kg)	250	500
Model No.		YAL025	YAL050
No. of Fall		1	1
Load Chain	(mm)	4 x 12	4.3 x 12
Pull to Rated Load	(N)	270	360
Proof Load	(kg)	375	750
Standard Lift	(m)	1.5	1.5
Net Weight	(kg)	1.84	2.35
Gross Weight	(kg)	2.0	2.55
Extra Wt. per m	(kg)	0.38	0.45
Dimensions	a (mm)	78.5	95
	b (mm)	62	68
	c (mm)	210	255
	d (mm)	150	215
	e (mm)	61	65
	f (mm)	21	24.5
	g (mm)	35.5	42
	s (mm)	32	34.5
	t (mm)	11	12

250 kg & 500 kg



Grade 100, VH, Load Chain for Lifting Purposes fine tolerance for manually operated chain hoists According to ISO 16872

WLL = 0.040 044 1dn² in tonnes
FMP = 0.981 747 7dn² in kilonewtons
FB = 1.570 796 3dn² in kilonewtons

Normal dia dn (mm)	Pitch pn (mm)	Link width			Working Load Limit WLL (tonne)	Mfg Proof Force FMP (kN)	Breaking Force FB (kN)	Weight (=kg/m)
		Internal w1 min. (mm)	External w3 max. (mm)	Internal w4 min. (mm)				
3	9	3.8	10.7	3.6	0.36	8.8	14.1	0.21
4	12	5.0	14.3	4.8	0.63	15.7	25.1	0.35
5	15	6.3	17.9	6.0	1.00	24.5	39.3	0.54
6	18	7.5	22.5	7.2	1.44	35.3	56.6	0.78
6.3	18.9	7.9	22.6	7.6	1.60	39.0	62.3	0.86
7.1	21.3	8.9	25.4	8.5	2.00	49.5	79.2	1.10
8	24	10.0	28.6	9.6	2.50	62.8	101.0	1.39
9	27	11.3	32.2	10.8	3.15	79.5	127.0	1.76
10	30	12.5	35.8	12.0	4.00	98.2	157.0	2.17

Minimum total ultimate elongation: 17%
Minimum mean stress at breaking force, FB: 1000 N/mm²

$$\frac{2(FB)}{\pi dn^2}$$

Grade 80, TH, Load Chain for Lifting Purposes fine tolerance for manually operated chain hoists According to ISO 16877

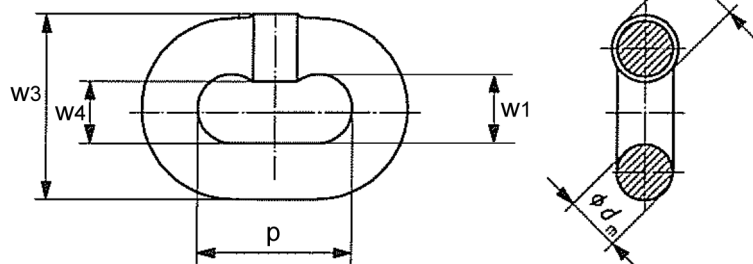
WLL = 0.032 035 3dn² in tonnes
FMP = 0.785 398 2dn² in kilonewtons
FB = 1.256 637 1dn² in kilonewtons

Normal dia dn (mm)	Pitch pn (mm)	Link width			Working Load Limit WLL (tonne)	Mfg Proof Force FMP (kN)	Breaking Force FB (kN)	Weight (=kg/m)
		Internal w1 min. (mm)	External w3 max. (mm)	Internal w4 min. (mm)				
3	9	3.8	10.7	3.6	0.28	7.1	11.3	0.21
4	12	5.0	14.3	4.8	0.50	12.6	20.1	0.35
5	15	6.3	17.9	6.0	0.80	19.6	31.4	0.54
6	18	7.5	22.5	7.2	1.15	28.3	45.2	0.78
6.3	18.9	7.9	22.6	7.6	1.25	31.2	49.9	0.86
7.1	21.3	8.9	25.4	8.5	1.60	39.6	63.3	1.10
8	24	10.0	28.6	9.6	2.00	50.3	80.4	1.39
9	27	11.3	32.2	10.8	2.50	63.6	102.0	1.76
10	30	12.5	35.8	12.0	3.15	78.5	126.0	2.17
11.2	33.6	14.0	40.1	13.4	4.00	98.5	158.0	2.71

Minimum total ultimate elongation: 15%
Minimum mean stress at breaking force, FB: 800 N/mm²

$$\frac{2(FB)}{\pi dn^2}$$

Nominal pitch, pn based upon 3dn with a maximum nominal value of 3, 3dn;
Minimum internal width w4 = 1.2dn at the weld;
Minimum internal width w1 = 1.25dn away from the weld;
Maximum external width w3 = 3.75dn over the weld.



HAND HOIST YAL

Backward & Forward lever

placed in tandem providing a slim design and assuring power transfer along the center

Built-in shearing pin

prevent overload
It functions at approx. 25% overload.
The pins can be replaced without removing the load.

Safety pin

fastens the anchor bolt



Anchor bolt

offers numerous and versatile connection possibilities with load hooks, sling ropes and sling chains

Spare shear pins

Two pieces of spare shear pins located in the carrying handle

Rope clamp system

easily disengaged with a lever allowing smooth installation of the wire rope

High strength cast aluminium alloy body

Light weight
Simple to operate
Smooth contour design with large, flat bottom surface for increased stability in horizontal as well as vertical working position

Stamped serial number for easy identification

Galv. steel wire rope mounted on a reel

Every rope is operationally tested to 150% of the rated capacity and is issued with an individual test certificate



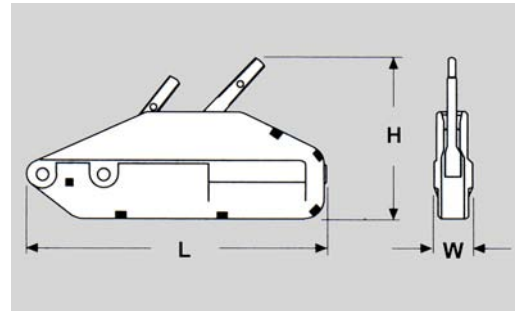
Adjustable lever handle

for easy operation



Remarks: Hand hoist is also called as jaw winch

Optional Feature:
Front hook fixed into the anchor bolt and fastened by castle nut and split pin (for 1.6 t & 3.2 t only)



Model No.		YAL008	YAL016	YAL032	YAL054
Lifting Capacity (Rated Load)	(tonnes)	0.8	1.6	3.2	5.4
*Pulling Capacity	(tonnes)	1.2	2.4	4	8.1
Lever Pull at Rated Load	(N)	284	412	441	850
Forward Travel	(mm)	52	55	28	25
Wire Rope Diameter	(mm)	8.3	11	16	20
Net Weight (Body)	(kg)	6.4	12.4	23.3	58
Net Weight (20 metres Wore Rope)	(kg)	7	11.5	23.5	36
Net Weight (Lever Handle)	(kg)	1.15	2.5	2.5	3.7
Dimensions (Body) L x W X H	(mm)	440 x 70 x 255	560 x 100 x 295	675 x 120 x 350	940 x 170 x 440

* Observe local regulations



0.8 t



1.6 t



3.2 t

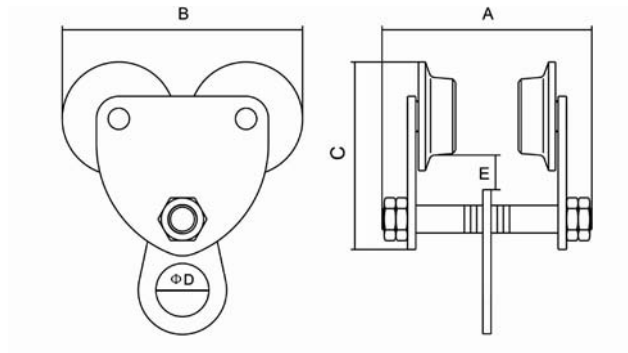


5.4 t

PLAIN TROLLEY VIT-II

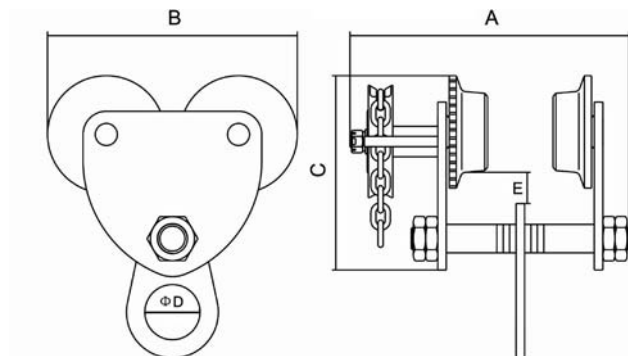
GEARED TROLLEY VIT-III

Plain Trolley VIT-II



Model No.		VIT005A	VIT010A	VIT020A	VIT030A	VIT050A
Capacity	(t)	0.5	1	2	3	5
Proof Load	(t)	0.75	1.5	3	4.5	7.5
I-Beam Width	(mm)	75-125	75-125	100-150	100-150	125-150
Dimensions (mm)	A	200	210	242	262	297
	B	170	204	233	279	306
	C	134.5	164	180	224.5	252
	D	35	44	60	70	80
	E	19.5	18.25	21	17	16.5
Min. Radius Curve	(m)	0.9	1	1.1	1.3	1.4
Net Weight	(kg)	4.6	7.4	11.9	20	32.1

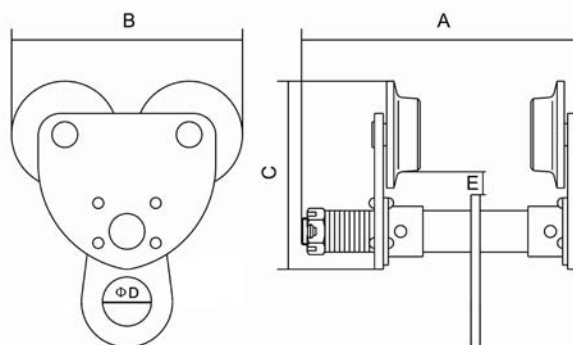
Geared Trolley VIT-III



Model No.		VIT010B	VIT020B	VIT030B	VIT050B	VIT100B
Capacity	(t)	1	2	3	5	10
Proof Load	(t)	1.5	3	4.5	7.5	15
I-Beam Width	(mm)	75-125	100-150	100-150	125-175	125-250
Dimensions (mm)	A	255	292	314	360	457
	B	204	233	279	306	389
	C	164	180	224.5	252	383.5
	D	45	60	70	80	80
	E	18.25	21	17	16.5	48
Min. Radius Curve	(m)	1	1.1	1.3	1.4	2.6
Net Weight	(kg)	11.6	16.1	24.7	37.1	96

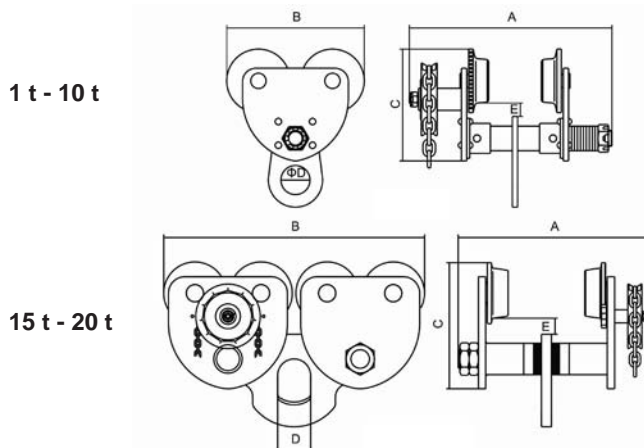
Heavy Duty

Plain Trolley VP-II



Model No.		VP005	VP010	VP020	VP030	VP050	VP100
Capacity	(tonnes)	0.5	1	2	3	5	10
Proof Load	(tonnes)	0.75	1.5	3	4.5	7.5	15
I-Beam Width	(mm)	64-152	64-210	88-210	102-250	114-250	114-250
Dimensions (mm)	A	220	220	249	270	300	410
	B	174	229	272	304	336	389
	C	150	179	233	262	302	383.5
	D	45	45	60	60	78	80
	E	17.7	23	29	38	43	48
Min. Radius Curve	(m)	0.9	1.3	1.5	2	2.6	2.6
Net Weight	(kg)	6.5	10.2	18.7	30	46	91

Geared Trolley VG-III



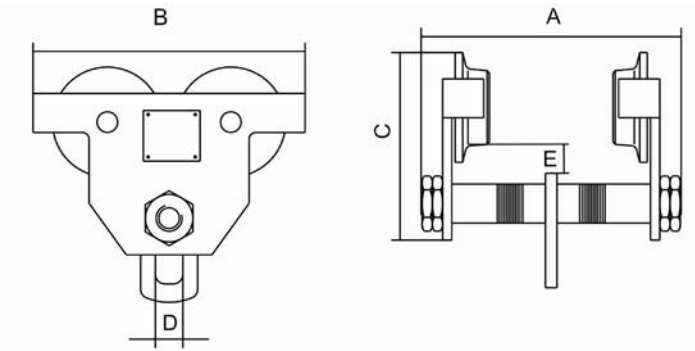
Model No.		VG010	VG020	VG030	VG050	VG0100	VG200
Capacity	(t)	1	2	3	5	10	20
Proof Load	(t)	1.5	3	4.5	7.5	15	30
I-Beam Width	(mm)	64-210	88-210	102-250	114-250	114-250	114-250
Dimensions (mm)	A	298	319	340	368	457	457
	B	229	272	304	336	389	789
	C	179	233	262	302	383.5	383.5
	D	45	60	60	78	80	100
	E	23	29	38	43	48	48
Min. Radius Curve	(m)	1.3	1.5	2	2.6	2.6	5
Net Weight	(kg)	15	23.9	35.8	52.1	96	193

PLAIN TROLLEY KW-II

GEARED TROLLEY KW-III

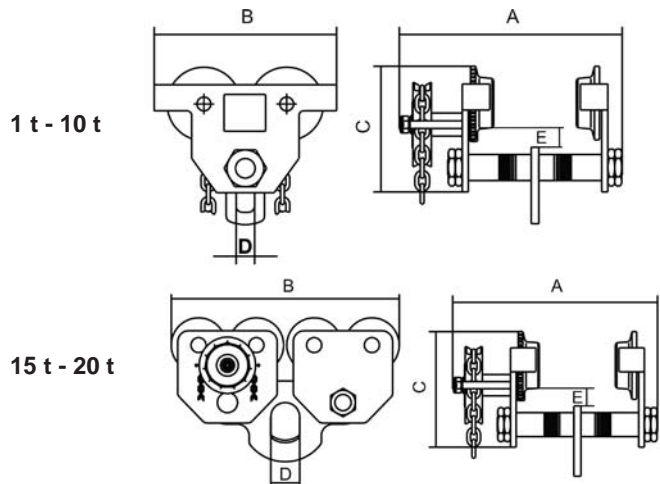
Heavy Duty for European Market

Plain Trolley KW-II



Model No.		KW005A	KW010A	KW020A	KW030A	KW050A	KW100A
Capacity	(t)	0.5	1	2	3	5	10
Proof Load	(t)	0.75	1.5	3	4.5	7.5	15
I-Beam Width	(mm)	64-152	64-210	88-210	102-250	114-250	114-250
Dimensions (mm)	A	230	296	313	334	363	410
	B	218	257	300	340	380	389
	C	155	181	214.5	252	290	364.5
	D	24	30	36	45	60	80
	E	21.7	23.5	23.5	32.5	28	48
Min. Radius Curve	(m)	1	1	1.1	1.3	1.4	1.7
Net Weight	(kg)	7.1	12.8	18.8	33.7	50.7	88

Geared Trolley KW-III



Model No.		KW010B	KW020B	KW030B	KW050B	KW100B	KW200B
Capacity	(t)	1	2	3	5	10	20
Proof Load	(t)	1.5	3	4.5	7.5	15	30
I-Beam Width	(mm)	64-210	88-210	105-250	114-250	114-250	114-250
Dimensions (mm)	A	344	362	383	416	461	480
	B	257	300	340	380	389	789
	C	181	214.5	252	290	364.5	364.5
	D	30	36	45	60	80	100
	E	23.5	23.5	32.5	28	48	48
Min. Radius Curve	(m)	1	1.1	1.3	1.4	1.7	1.7
Net Weight	(kg)	17	23.5	38.7	55.7	93	191



AKITA

AKITA Chain Block Mfg. Co., Ltd.

www.akitablock.com

Distributor

A large, empty rectangular box with a thin black border, intended for the distributor's name and contact information.