



Industrial Lifting Equipment



Air Chain Hoists



Air chain hoists are the ideal choice when high speed, high duty-cycle, precision spotting, and the ability to operate in harsh environments are the determining factors. No one knows air chain hoists like Ingersoll Rand.

We offer the broadest range of air chain hoists in the world. This section highlights our offering of production hoists ranging in capacity from 0.125 to 6 metric tons.

The MLK and HLK Series hoists have proven themselves for years in the most difficult environments. The 7700 and 7790 Series hoists are renowned for exceptional speed and load control. The CLK Series hoist offer superior load control and low air consumption.

Our sales team and channel partners are available to help with selection, related accessories, and options to provide the optimal solution to your lifting and positioning challenges. Spare parts and our authorized service centers are there to keep them running in peak condition.

Visit our website at www.ingersollrandproducts.com to see our high-capacity chain hoists (up to 200 metric tons) and other products.

Choosing the right hoist

Material handling needs differ from application to application. Ingersoll Rand offers numerous hoist types with a range of options that can be matched to meet your specific requirements. When the time comes to select the appropriate hoist for your needs, consider the following criteria:

Maximum load

Consider the maximum load the hoist will need to accommodate. Ingersoll Rand hoists have weight ratings from 275 lb to 6 tons. Consider hoist speed. The speed requirement of a hoist is dependent on the corresponding cycle time of the task to be performed – lift, transport, lower, return, start again.

Installation requirements

Ingersoll Rand hoists, whether hook or trolley, can be mounted on several beam configurations. Compact for low headroom requirements, these hoists can be mounted in areas where others can't.

Air supply

To ensure maximum operating performance, Ingersoll Rand rotary-vane air hoists require air supplies that continually provide clean, lubricated air at sufficient pressure and volume. Ingersoll Rand hoists require 90 psig at 32 to 70 scfm.

Control method

Our rotary-vane air hoists control lift and descent by admitting proportional amounts of air to the motor through a valve. Ingersoll Rand offers two control systems:

1. Pendant control system — a 3-hose pilot pressure / bleed system opens and throttles the valve.
2. Pull-chain system — operator-controlled pull chains attached to arm open and close the valve.



MLK and HLK Series

0.25 to 6 metric ton lifting capacities

Benefits

- 100 percent duty cycle enables continuous operation
- Dust, dirt, moisture, and corrosive gases kept out of the motor by air pressure — ideal for foundries and electro-plating applications
- Minimum chance of electrical shock makes air hoists ideal for highly flammable environments such as chemical plants and refineries; spark-resistant models also available
- Simple pull-chain speed and directional controls provide precise load-spotting capabilities; easy-to-operate pendent air valves provide a variable control signal with adjustable response by a variable orifice. For more precise control, **MLKS slow-speed models are available.**
- Motor, brake, and throttle parts are interchangeable with all current Ingersoll Rand air chain hoists
- Ingersoll Rand air chain hoists are designed and constructed for trouble-free maintenance

Top and bottom latch-type swivel hooks

meet OSHA requirements and are supported by anti-friction roller bearings (Bullard Burnham hooks are available for all models, except spark-resistant)

Manual brake release kit allows operators to safely lower a suspended load in a power failure

Air-operated, non-asbestos, self-adjusting disc brake balances effort to motor torque by sensing air pressure in the valve chest, providing precise control and eliminating back-drop encountered with some mechanical brakes; if air supply is interrupted, pressure release causes instantaneous, automatic braking

Heat-treated planetary gearing system provides high-torque capability by splitting the torque path, thereby dividing and balancing the load over more teeth, assuring longer life and reduced maintenance

A small amount of exhaust air flows over chain and drive wheel to help lubricate chain from spent in-line lubrication of motor

Slack chain is guided into drive wheels by a specially designed opening that prevents dangerous cross-linking

Upper and lower limit stops prevent dangerous over-travel of the hook in either direction, reducing possible damage to hoist or load

Fabric or metal container keeps slack chain out of the way

Standard link load chain is zinc-plated steel; stainless steel chain available for 0.25-ton through 1-ton spark-resistant models

Two-piece, single-line hook block entraps chain links and hook bearing without using small load-bearing pins or fasteners

All bearings are either ball- or roller-type to minimize friction

An internal muffler reduces sound levels to 85 dBA; woven to prevent corrosion and clogging

Inlet swivel and strainer are combined for easy hookup from any direction — swivel reduces hose fatigue, especially on hook-mounted units; strainer nipple provides extra assurance of clean air for maximum wear protection

Precision throttle valves for smooth operation and metering of air; valves are poppet-type for ease of maintenance

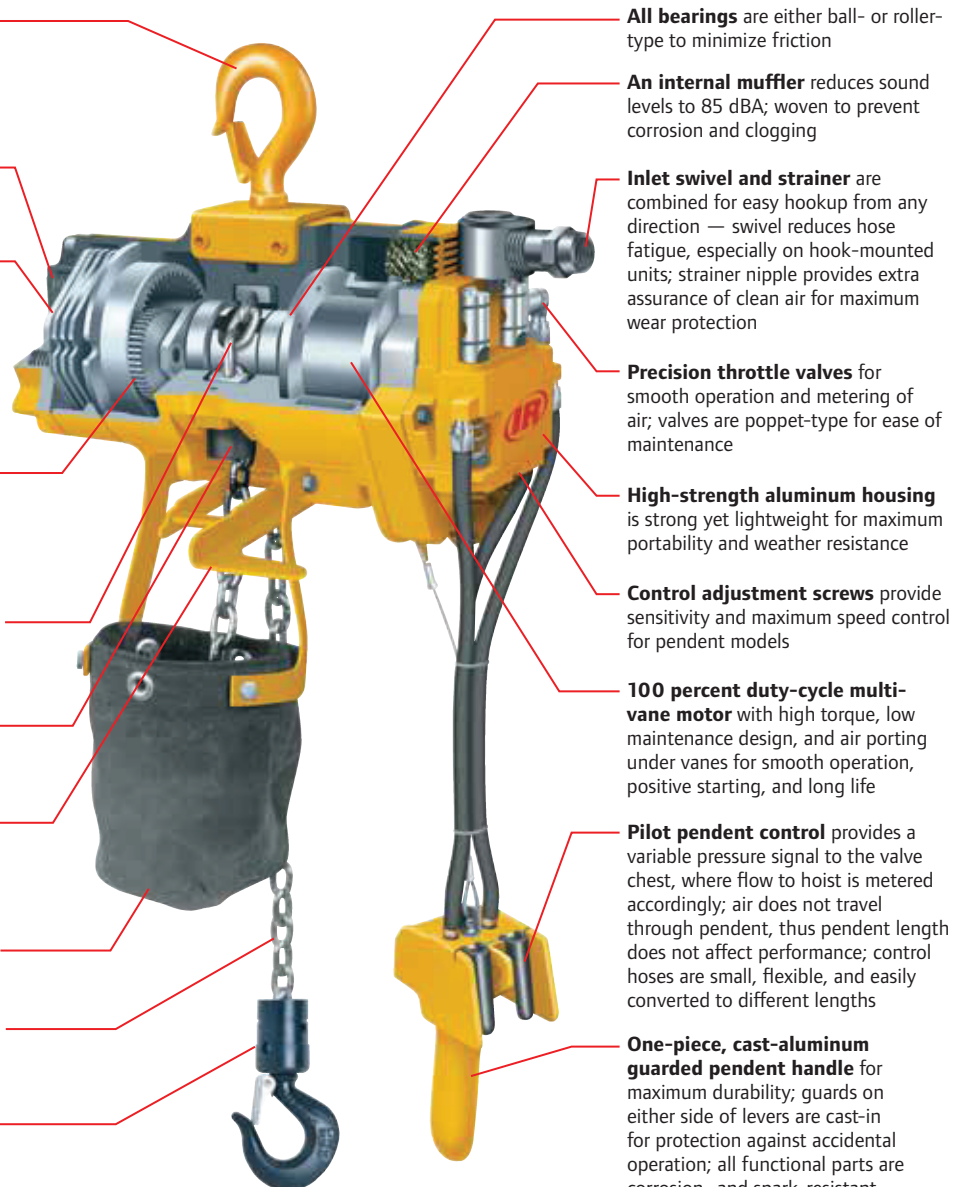
High-strength aluminum housing is strong yet lightweight for maximum portability and weather resistance

Control adjustment screws provide sensitivity and maximum speed control for pendent models

100 percent duty-cycle multi-vane motor with high torque, low maintenance design, and air porting under vanes for smooth operation, positive starting, and long life

Pilot pendent control provides a variable pressure signal to the valve chest, where flow to hoist is metered accordingly; air does not travel through pendent, thus pendent length does not affect performance; control hoses are small, flexible, and easily converted to different lengths

One-piece, cast-aluminum guarded pendent handle for maximum durability; guards on either side of levers are cast-in for protection against accidental operation; all functional parts are corrosion- and spark-resistant



MLK Series and HLK Series

0.25 to 6 metric ton lifting capacities

Features

MLK Series

The Ingersoll Rand MLK family of hoists is suitable for A5 / H5 severe-duty use in the 0.25 to 1 metric ton range. The MLK Series is designed to be used as a high-speed production hoist; the MLKS* is better suited for slow-speed spotting.

HLK Series

The HLK Series incorporates a larger chain wheel to accommodate 3/8" diameter chain and a lower gear ratio to handle increased load capacities. HLK Series hoist capacities range from 1 to 6 metric tons and are severe-duty rated. Refer to the trolley section on page 61 for plain, geared, and motorized trolleys.

Spark-resistant features

MLKR and HLKR spark-resistant hoists have been designed to give maximum protection in explosive and other hazardous environments.

Components for spark-resistance include:

- Bronze hooks
- Bronze trolley wheels
- Stainless-steel (one part reeving) or aluminum (two parts reeving) lower hook blocks
- Aluminum stop ring (1/4-ton models)
- Stainless-steel load chain
- Stainless-steel pendent levers and bronze valve caps

The load capacity and speeds of MLKR and HLKR Series units are reduced. A restricted motor is used to accomplish this, as stainless-steel chain is not hardened and strength is less than standard alloy chain.



MLK Series



HLK Series

MLK and HLK Series

0.25 to 6 metric ton lifting capacities

MLK and HLK Specifications (performance at 90 psi, 6.3 bar)

Model	Capacity			Hook Mount Headroom		Trolley Mount Headroom		Lifting Speed				Lowering Speed				Chain Size	Chain Weight (per foot of lift)		Net Weight w/10 ft of Lift	
	lb	metric tons	# Falls	in	mm	in	mm	Rated Load	No Load	Rated Load	No Load	Rated Load	No Load	lb	kg		lb	kg		
ML250K	550	0.25	1	18	457.2	18	457.2	101	30.8	171	52.1	117	35.7	99	30.2	6.4 x 19.5	0.6	0.3	48	21.8
ML250KS	550	0.25	1	18	457.2	18	457.2	40	12.2	71	21.6	90	27.4	53	16.2	6.4 x 19.5	0.6	0.3	48	21.8
ML250KR	550	0.25	1	18	457.2	18	457.2	26	7.9	42	12.8	38	11.6	30	9.1	6.4 x 19.5	0.6	0.3	48	21.8
ML500K	1,100	0.50	1	18	457.2	18	457.2	55	16.8	106	32.3	97	29.6	59	18	6.4 x 19.5	0.6	0.3	48	21.8
ML500KS	1,100	0.50	1	18	457.2	18	457.2	22	6.7	44	13.4	66	20.1	32	9.8	6.4 x 19.5	0.6	0.3	48	21.8
ML500KR	1,100	0.50	2	18	457.2	18	457.2	13	4	21	6.4	20	6.1	15	4.6	6.4 x 19.5	1.1	0.5	61	27.7
ML1000K	2,200	1	2	18	457.2	18	457.2	28	8.5	53	16.2	49	14.9	30	9.1	6.4 x 19.5	1.1	0.5	61	27.7
ML1000KS	2,200	1	2	18	457.2	18	457.2	11	3.4	22	6.7	33	10.1	16	4.9	6.4 x 19.5	1.1	0.5	61	27.7
HL1000K	2,200	1	1	18.5	469.9	18.1	459.7	26	7.9	40	12.2	37	11.3	26	7.9	9.5 x 25.7	1.3	0.6	84	38.1
HL1000KR	2,200	1	1	18.5	469.9	18.1	459.7	26	7.9	40	12.2	37	11.3	26	7.9	9.5 x 25.7	1.3	0.6	84	38.1
HL1500K	3,300	1.50	1	18.8	477.5	18.9	480.1	16	4.9	28	8.5	26	7.9	16	4.9	9.5 x 25.7	1.3	0.6	84	38.1
HL2000K	4,400	2	2	23	584.2	21.6	548.6	13	4	20	6.1	18	5.5	13	4	9.5 x 25.7	2.6	1.2	125	56.7
HL3000K	6,600	3	2	25	635	22.6	574	8	2.4	14	4.3	13	4	8	2.4	9.5 x 25.7	2.6	1.2	125	56.7
HL4500K	9,900	4.50	3	30.9	784.9	28	711.2	4.6	1.4	10.5	3.2	10	3.1	6.6	2	9.5 x 25.7	3.9	1.8	193	87.5
HL6000K	13,200	6	4	36.2	919.5	32.2	817.9	3.5	1.1	8.4	2.6	7.6	2.3	4.8	1.5	9.5 x 25.7	5.2	2.4	248	112.5

Working pressure from 5 to 7 bar (70 to 100 psi). Air Consumption @ rated load - ML250KS, ML250KR, ML500KS, ML500KR, ML1000KS = 1.27m³ (45 cfm) all other models = 1.98m³ (70 cfm). Air inlet 1/2" NPT. Sound level 85 dBA.

Trolley Mount Specifications

Model	Trolley type	Capacity metric tons	Minimum Headroom		Trolley Speed at Rated Load		Air Consumption @ Rated Load		Trolley Flange Adjustment		Minimum Curve Radius		Air Inlet	Net Weight w/10 ft of Lift	
			in	mm	ft/min	m/min	ft ³ /min	m ³ /min	in	mm	ft	m		lb	kg
ML250K, KS, KR	Plain	0.25	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	68	31
	Gear	0.25	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	71	32
	Motor	0.25	18	457	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	78	35
ML500K, KS, KR	Plain	0.50	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	68	31
	Gear	0.50	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	71	32
	Motor	0.50	18	457	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	78	35
ML1000K, KS	Plain	1	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	81	37
	Gear	1	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	84	38
	Motor	1	17	432	93	28	35	1	2.66-12	68-305	3.5	1.1	1/4	91	41
HL1000K, KR	Plain	1	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	106	48
	Gear	1	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	109	50
	Motor	1	18	457	93	28	35	1	3.25-12	83-304	3.5	1.1	1/4	116	53
HL1500K	Plain	1.50	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	106	48
	Gear	1.50	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	109	50
	Motor	1.50	18	457	84	25	35	1	3.25-12	83-304	3.5	1.1	1/4	116	53
HL2000K	Plain	2	22	559	-	-	-	-	3.25-12	83-304	3.5	1.1	-	203	92
	Gear	2	22	559	-	-	-	-	3.25-12	83-304	3.5	1.1	-	206	94
	Motor	2	22	559	80	24	35	1	3.25-12	83-304	3.5	1.1	1/4	213	97
HL3000K	Plain	3	23	584	-	-	-	-	3.25-12	83-304	3.5	1.1	-	203	92
	Gear	3	23	584	-	-	-	-	3.25-12	83-304	3.5	1.1	-	206	94
	Motor	3	23	584	71	22	35	1	3.25-12	83-304	3.5	1.1	1/4	213	97
HL4500K	Plain	4.50	27	686	-	-	-	-	4.25-7.25	108-184	5	1.5	-	392	178
	Gear	4.50	27	686	-	-	-	-	4.25-7.25	108-184	5	1.5	-	395	180
	Motor	4.50	27	686	60	18	35	1	4.25-7.25	108-184	5	1.5	1/4	402	182
HL6000K	Plain	6	29	737	-	-	-	-	4.25-7.25	108-184	5	1.5	-	442	201
	Gear	6	29	737	-	-	-	-	4.25-7.25	108-184	5	1.5	-	445	202
	Motor	6	29	737	45	14	35	1	4.25-7.25	108-184	5	1.5	1/4	452	205

Working pressure from 5 to 7 bar (70 to 100 psi).

Hoist accessories for MLK and HLK Series

Chain Container

Series	Chain Capacity* ft	Metal Container Part Number	Fabric Container Part Number
MLK	13	ML10-K749	N/A
MLK	17	N/A	ML50K-K749-17
MLK	26	ML20-K749A	N/A
MLK	40	ML20-K749-20	N/A
MLK	45	N/A	ML50K-K749-45
MLK	80	MLK-K750-80	N/A
HLK	20	HLK-K750-20	HLK-K749-20
HLK	40	HLK-K750-40	HLK-K749-40
HLK	85	HLK-K750-80	N/A

*Chain containers are for one-part single lines. For two-part lines, divide capacity by two; for three-part lines by three, etc.



Metal Container



Fabric Container

Air Chain Hoists

Hooks

Series	Capacity metric tons	Bullard-Burnham Top Or Bottom Part Number	Bronze Latch Type* Top Or Bottom Part Number
MLK	0.25	CE110-KBB377	MLK-KRS304
MLK	0.50	CE110-KBB377	ML500KR-K377
MLK	1	CE120-KBB377	N/A
HLK	1	HLK-ABB377	HLK-SR377
HLK	1.50	HLK-ABB377	HL1500K-SR377
HLK	2	HL2000K-ABB377	HL2000K-SR377
HLK	3	HL3000K-ABB377	HL3000K-SR377
HLK	4.50	HL4500K-ABB377	HL4500K-SR377
HLK	6	HL6000K-ABB377	HL6000K-SR377

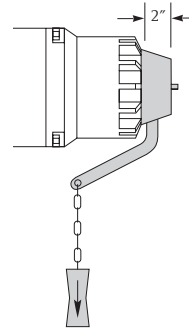


Bullard-Burnham hook

Bullard-Burnham hooks are not available for spark-resistant models.
*Not pictured.

Manual Brake Release Kit (M)

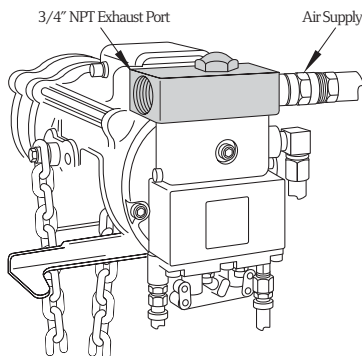
For all MLK Series and HLK Series hoists. Part number MLK-K390.



Piped-away Exhaust Kits for MLK Series and HLK Series Hoists

Part Number MHLK-KEXH

This two-piece kit replaces swivel air inlet on hoist. Noise is reduced with addition of piped-away exhaust hose. Use 1" diameter exhaust hose to minimize reduction in lift speed.



Hose Trolleys

Part Number	Flange Width in
7703	2.33 to 5
D10-8888	5 to 8.75

Maximum hanging weight per unit is 35 lb; each can be adjusted to fit 1/2" to 1-1/4" O.D. hoses.



7703

Hoist accessories for MLK and HLK Series

Pendent Handles

Type / Part Number	NPT Air Inlet			
	A in	B in	C in	D in
SINGLE-MOTOR				
MLK-A269C	1/8	1/8	N/A	N/A
EZG-A269	3/8	1/8	N/A	N/A
MR-269C	3/8	3/8	N/A	N/A
G6H20A-A169B	1/2	1/2	N/A	N/A
TWO-MOTOR				
PILOT-A122B	3/8	1/8	1/8	N/A
MLK-K122B	3/8	1/8	3/8	N/A
MR-A122C	3/8	3/8	3/8	N/A
G6H20A-A122B	1/2	1/2	3/8	N/A
THREE-MOTOR				
PILOT-A132B	3/8	1/8	1/8	1/8
MLK-K132B	3/8	1/8	3/8	3/8
MR-A132C	3/8	3/8	3/8	3/8
G6H20A-A132B	1/2	1/2	3/8	3/8

When a pendent-controlled hoist is purchased with a pendent-controlled power trolley or tractor, the required two- or three-motor pendent is furnished at no extra cost in place of an individual pendent, when specified.

Link Load Chain

Series	Type	Bulk Part Number	Chain Size Diameter / Pitch mm
MLK	Zinc-plated*	M745Z	6.4 x 19.5
MLK	Stainless steel**	M745S	6.4 x 19.5
HLK	Zinc-plated*	H745Z	9.5 x 25.7
HLK	Stainless steel**	H745S	9.5 x 25.7

*Standard.

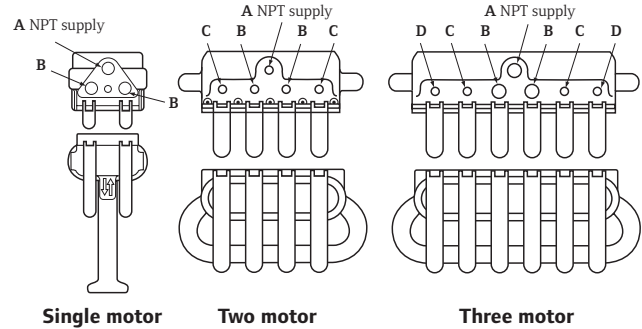
**For spark-resistant models only.

Pull Chain Conversion

Part Number	Description
MLK-K415A	Wooden directional and crossbar handles only
CA110-B240	Standard chain; specify total length of both chains
DO2-1413	Aluminum spark-resistant chain; specify total length of both chains

Pendent Conversion Kit

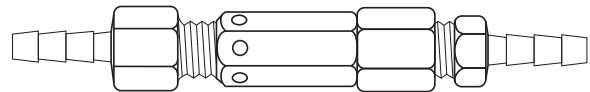
Part Number	Description
MLK-AL269C	MLK Series, HLK Series, and HLKR Series hoists; specify length



Quick Exhaust Valves

Part Number	For Use With	Control Type	Style	Pendent Length ft	Quantity Recommended*
20417	All MLK Series	Pilot	Push-on	21 - 50	2
20417	HLK Series hoists		1/4" NPT hose	51 - 75	4
MR-939-6	TIR Series trolleys	Full-flow	Push-on	21 - 50	2
MR-939-6	MTK Series tractors		3/8" NPT hose	51 - 75	4

*The first pair of full-flow valves will be installed between 5' and 7' from the pendent handle. Any additional valves will equally divide the remaining hose length.



Part number 20417. Part number MR-939-6 not shown.

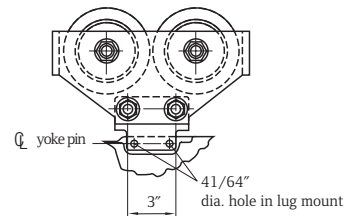
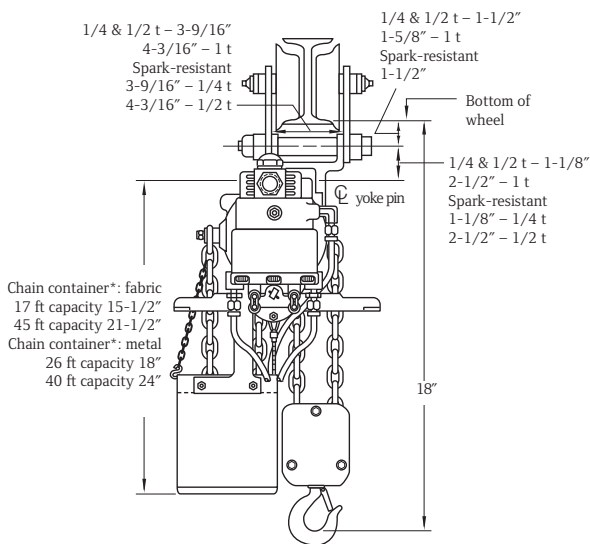
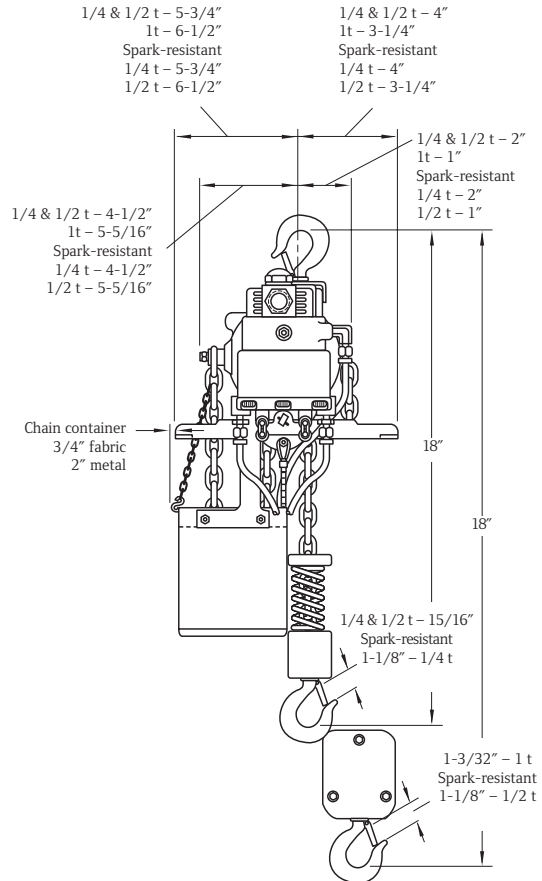
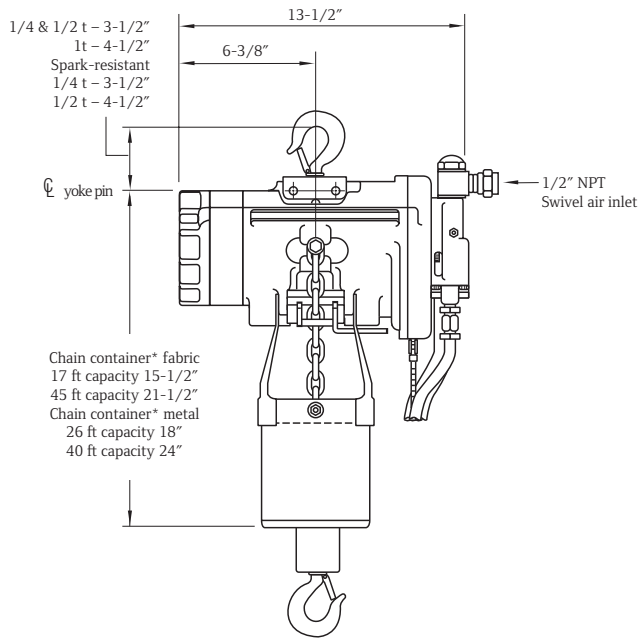
Drawbar Hitch Kits for Use with MTK Series Tractors

Series	Part Number
HL1000K, HL1500K, HL2000K and HL3000K with rigid trolley	No kit required; standard drawbar kit included with MTK Series tractors fits these hoists
MLK with rigid trolley	MR-K1

MLK, MLKS and MLKR Series

0.25 to 1 metric ton lifting capacities

Dimensions



*Chain container capacities are for one-part single lines. For two-part lines, divide capacity by two.

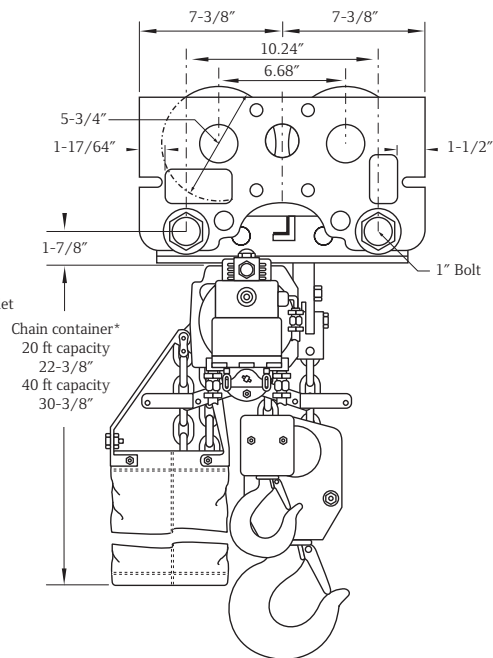
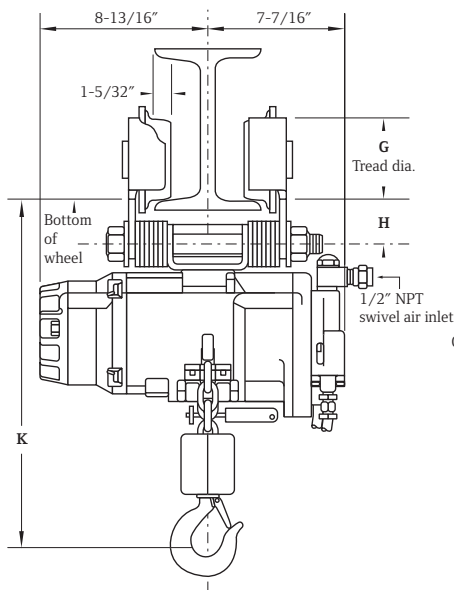
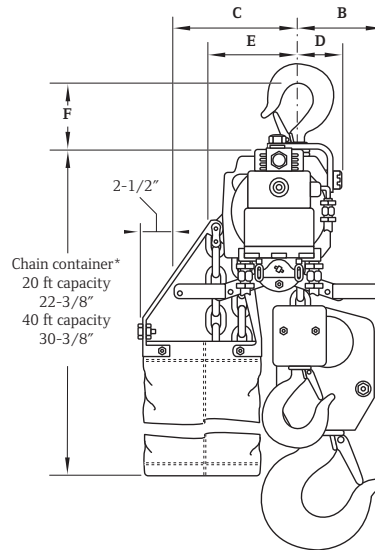
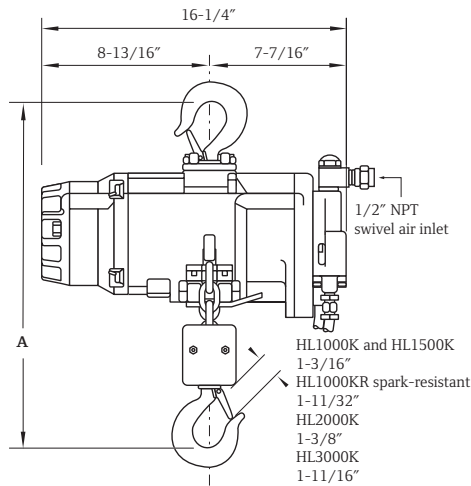
HLK and HLKR Series

1 to 3 metric ton lifting capacities

Dimensions

Series	A in	B in	C in	D in	Min		F in	G in	H in	K in
					E in	G in				
HL1000K/R	18.5	4.8	7.3	2.4	5.4	3.5	4.5	2.4	18.1	
HL1500K	18.5	4.8	7.3	2.4	5.4	3.5	4.5	2.4	18.9	
HL2000K	23	3.6	8.4	2.4	6.6	5.8	4.5	2.4	21.6	
HL3000K	23	3.6	8.4	2.4	6.6	6.3	4.5	2.4	22.6	

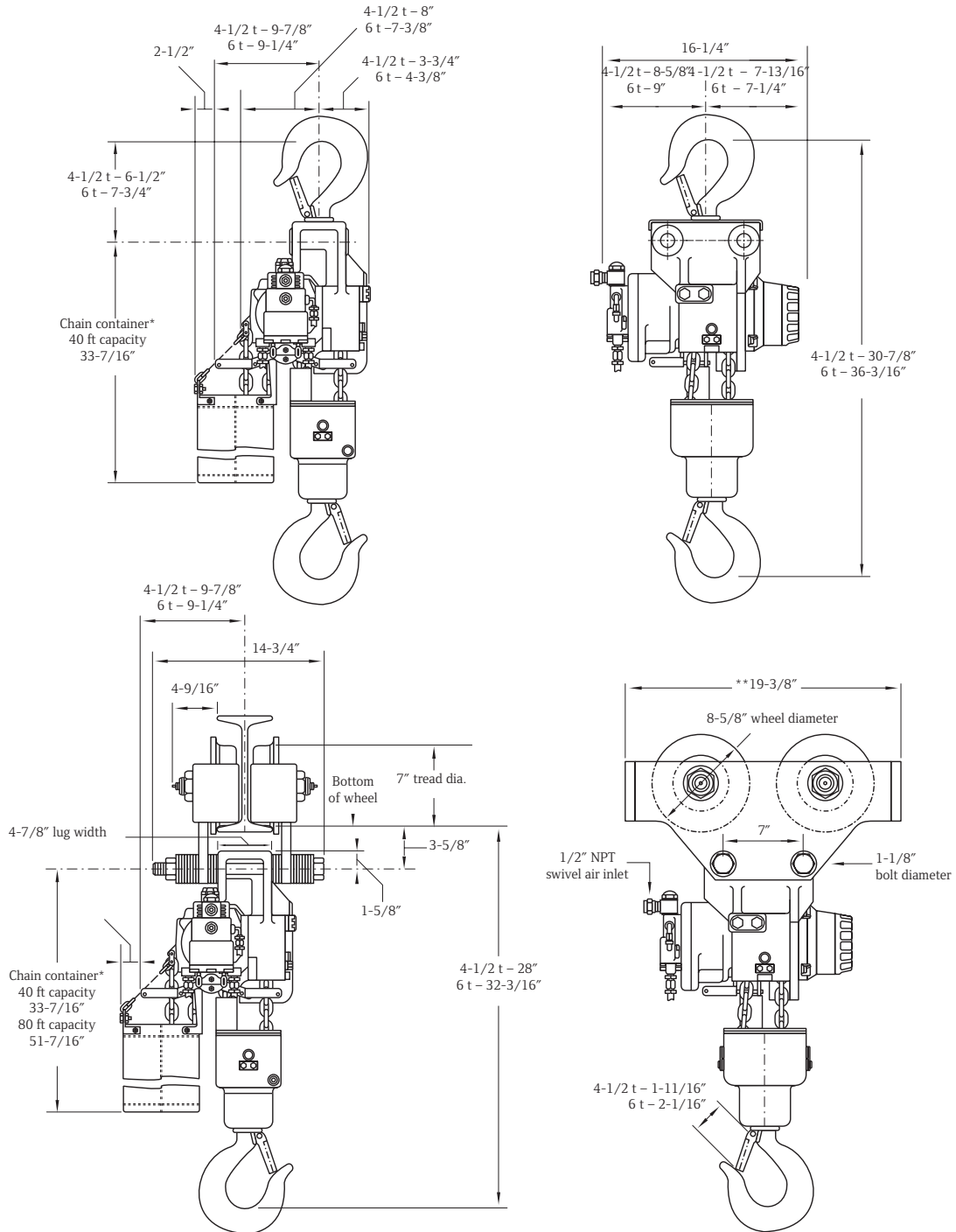
*Chain container capacities are for one-part single lines (1- and 1.50-ton). For two-part lines, divide capacity by two.



HLK Series

4.50 to 6 metric ton lifting capacities

Dimensions



*Chain container capacities are for single-line. For three-part 4.50-ton units, divide capacity by three. For four-part 6-ton units, divide capacity by four.
 **For additional geared and motorized trolley dimensions refer to dimensions in the TIR Series trolley section.

Air Chain Hoists