

# 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



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## 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 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	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 = 1.27m<sup>3</sup> (45 cfm) all other models = 1.98m<sup>3</sup> (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 <sup>3</sup> /min	m <sup>3</sup> /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

## 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



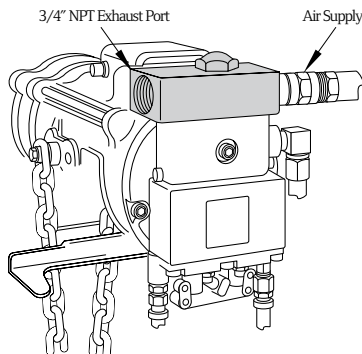
Bullard-Burnham hook

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

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

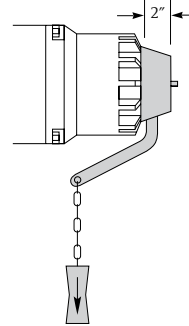
Part Number MHLK-KEXH

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.



## Manual Brake Release Kit (M)

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



## 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

Air Chain Hoists

# Hoist accessories for MLK and HLK Series

## Pendent Handles

Type / Part Number	NPT Air Inlet			
	A in	B in	C in	D in
<b>SINGLE-MOTOR</b>				
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
C6H20A-A169B	1/2	1/2	N/A	N/A
<b>TWO-MOTOR</b>				
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
C6H20A-A122B	1/2	1/2	3/8	N/A
<b>THREE-MOTOR</b>				
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
C6H20A-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.

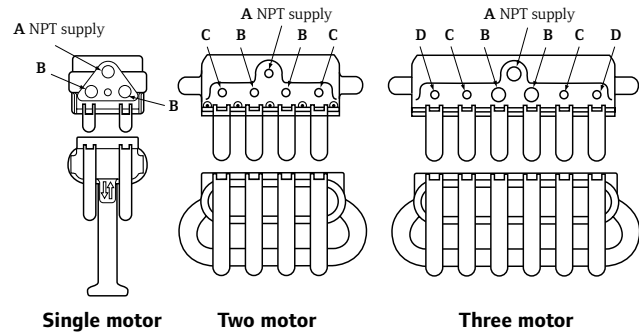
\*\*For spark-resistant models only.

## 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



Single motor

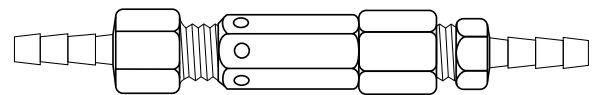
Two motor

Three motor

## 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.

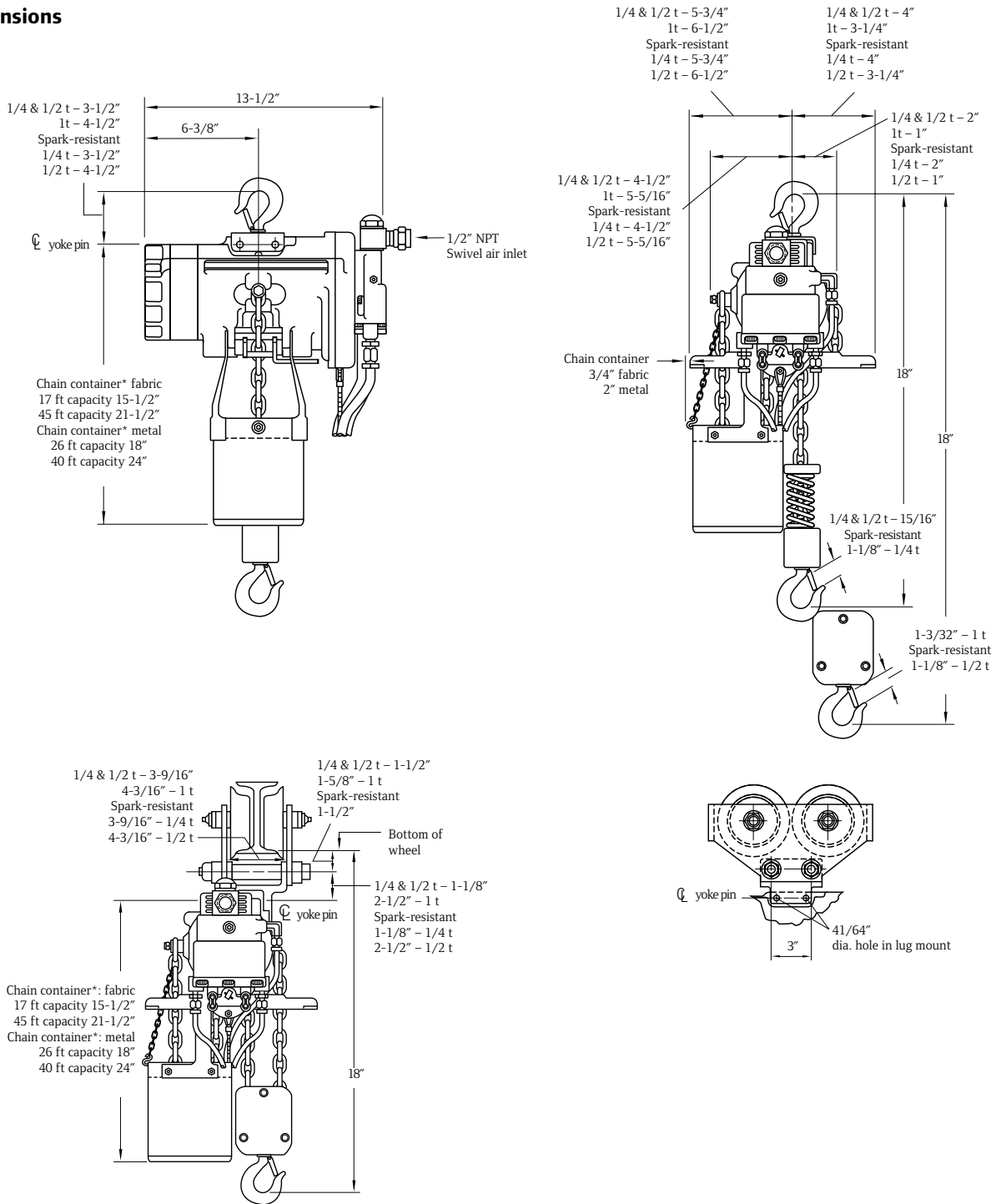
## Drawbar Hitch Kits for Use with MTK Series Tractors

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.

Air Chain Hoists

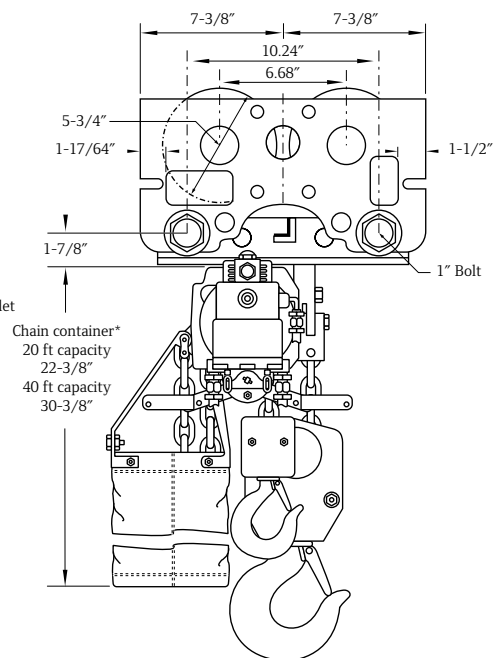
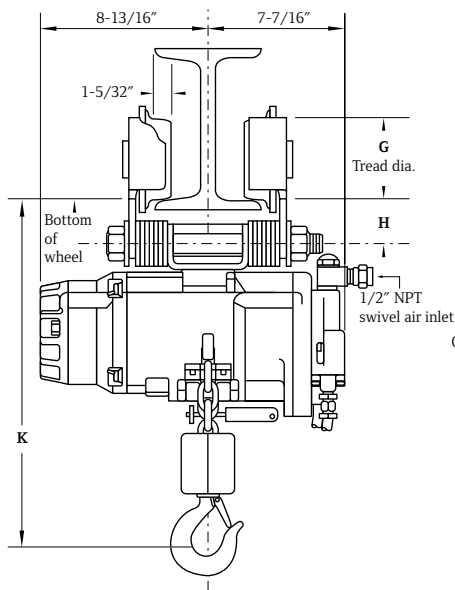
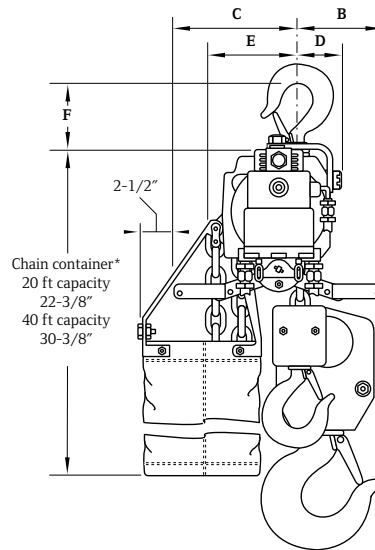
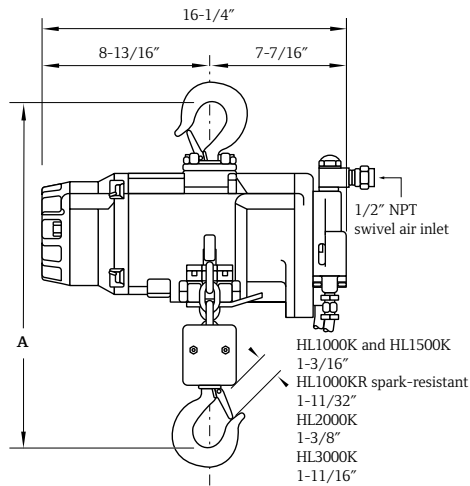
# HLK and HLKR Series

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	

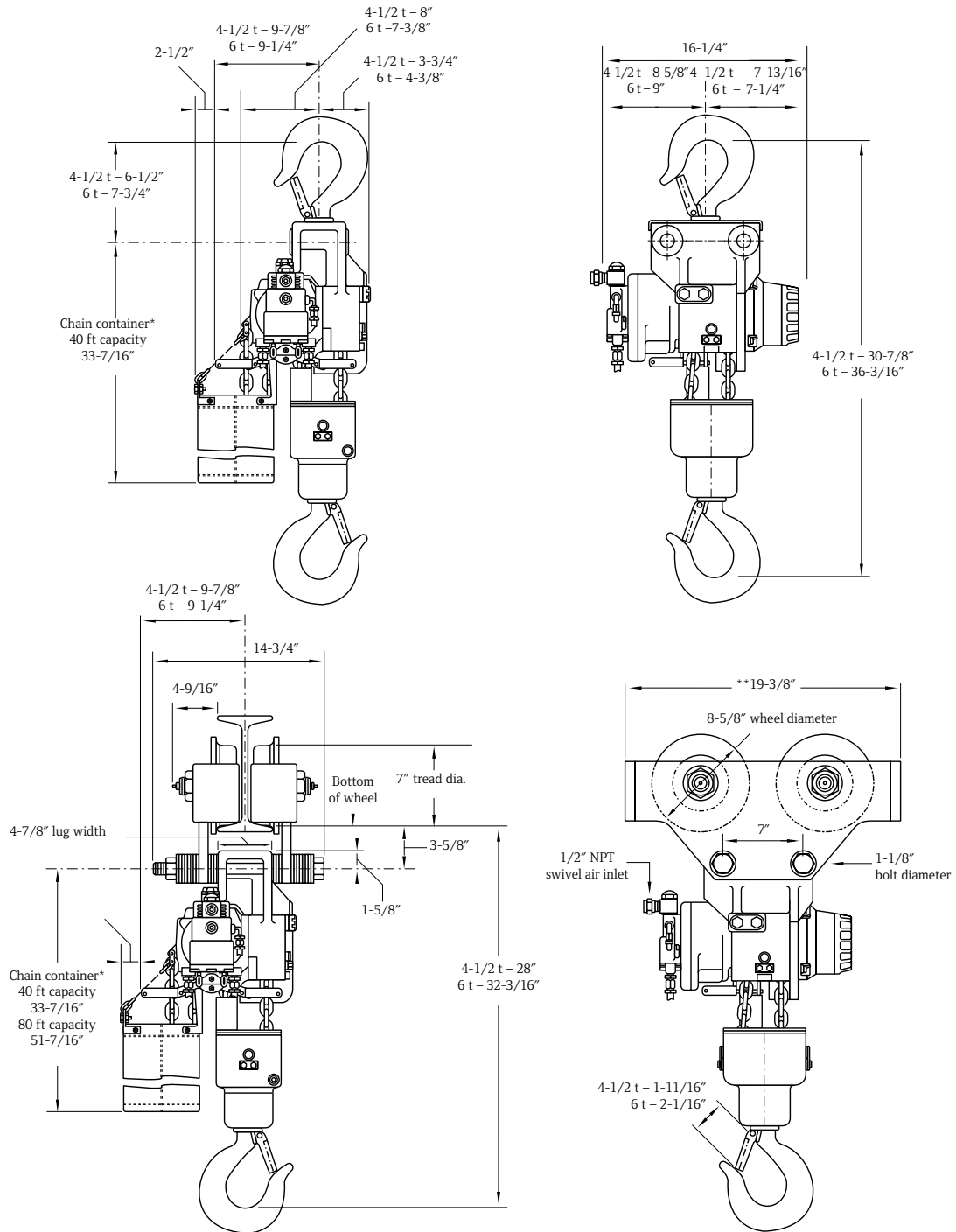
\*Chain container capacities are for one-part single lines (1- and 1.50-ton). For two-part lines, divide capacity by two.



# 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.



# MLK and HLK Series

## 0.25 to 6 metric ton lifting capacities

### ► HOW TO ORDER

Specify hoist by complete model number code as illustrated below. If a trolley is required, specify beam size, type and flange width. Specify accessories separately by part number. Note that 0 is a number, not a letter, in model part numbers.

#### Example: ML500KR-2R10R6U

<b>M</b>   <b>Series</b> M = Series H = Series	<b>L</b>   <b>Link chain type</b>	<b>500K</b>   <b>Capacity</b> 250K = 250 kg = 550 lb <b>500K</b> = 500 kg = 1,100 lb 1000K = 1,000 kg = 2,200 lb 1500K = 1,500 kg = 3,300 lb 2000K = 2,000 kg = 4,400 lb 3000K = 3,000 kg = 6,600 lb 4500K = 4,500 kg = 10,000 lb 6000K = 6,000 kg = 13,200 lb	<b>R</b>   <b>Control</b> 0 = No controls 1 = Pull chain <b>2</b> = Pendant 3 = 2 Motor pendant <sup>(1)</sup> 4 = 3 Motor pendant <sup>(1)</sup>	<b>R</b>   <b>Lift (ft)</b> <b>10</b> = 10 ft (standard) XX = Specify length	<b>R</b>   <b>Length of pull/chain or pendant control hose (ft)</b> <b>6</b> = 10 ft (standard) XX = Specify length	<b>U</b>   <b>Options</b> CR = Copper-plated bottom block M = Manual brake release kit P = Piped away exhaust S = Steel chain container <b>U</b> = Fabric chain container E = Epoxy paint
		<b>Spark-resistant</b> <b>R</b> = Add for spark-resistant (0.25, 0.50 t MLKR and 1 t HLKR) <b>S</b> = Add for slow speed spotting (0.25, 0.50, 1 t MLKS)				
		<b>Lower hook</b> C = Steel snap hook CP = Copper-plated lower hook <b>R</b> = Bronze snap hook B = Bullard self-closing hook				
		<b>Suspension</b> A = Fixed lug B = Bullard hook (self closing) <b>R</b> = Bronze snap hook C = Swivel top hook CP = Copper-plated top hook DA <sup>(3)</sup> = Plain rigid trolley (universal wheels "A" flange) DD <sup>(3)</sup> = Plain rigid trolley (universal wheels "D" flange) FXXA <sup>(2)(3)</sup> = Hand geared trolley (universal wheels "A" flange) FXXD <sup>(2)(3)</sup> = Hand geared trolley (universal wheels "D" flange) HA <sup>(3)</sup> = Vane mtr. powered trolley (universal wheels "A" flange) HD <sup>(3)</sup> = Vane mtr. powered trolley (universal wheels "D" flange)				

#### NOTE:

(1) Required with "H" suspension.

(2) XX = specify hand chain length if other than standard "08" (8 ft) required.

(3) For solid bronze wheels on non-spark resistant models, add "R" to the end of the trolley suspension code. (See pages 20 and 21 for price.)