

**YALE AIR HOISTS & TROLLEYS**



**AMERICA'S FIRST NAME IN INDUSTRIAL LIFTING**

# A Story of Innovation

In 1875 Linus Yale invented the “Differential Hoist” which started the modern hoisting industry in the United States and the company known today as Yale Hoists.

Since the beginning, Yale has been synonymous with quality and innovation. In 1879,

a Yale engineer, Thomas Weston, invented the Weston Screw Load Brake, a mechanical load control brake, of which modern versions are still the industry standard today. Since the late 19th Century, scarcely a year has gone by without new, better hoists and improved features being introduced. In 1938, Frank Locke, an engineer recruited from the Krupp Works company in Germany, developed the Cable King hoist. The Cable King was the first large capacity electric wire rope monorail hoist and is the predecessor of the modern Cable King line sold today.



Yale had already begun manufacturing hoists by the time General Armstrong Custer met his fate at the battle of the Little Big Horn.

The momentum that started over a century ago continues today. Yale hoists are used in every country of the world in every kind of application imaginable. Quality, time-tested

hoists for standard and special applications are the hallmarks of Yale. Yale hoists are sold through a worldwide organization of dealers. Parts and service depots are found in all major metropolitan areas around the globe. Well into its second century of existence, Yale is committed to maintaining the role as industry innovator and leader.

# Yale

# Yale® Air Hoists & Trolleys

## The answer is air

Yale Air Chain Hoists may be the best solution to your material-handling needs. You see, air hoists are ideal for many conditions that make electric hoists impractical. And Yale Air Chain Hoists feature precise, variable speed control, so expensive electrical controls are unnecessary.

## The benefits and why

Air motors are sealed against dust, moisture and corrosive gases. External air is kept out by internal air pressure. As a result, Yale Air Hoists are well suited for many environments. Because the motors do not overheat, and in fact perform well where heat may be a problem (from extremely heavy-duty cycles or above average ambient temperatures), they are often found in electroplating operations and foundries. In addition, Yale Air Hoists offer spark resistant models for hazardous environments such as the chemical and petrochemical industries.





1/2 Ton  
Pull cord  
control

1/2 Ton  
Pendant  
Throttle  
Control



## PULL CORD OR PENDANT THROTTLE CONTROL

**Rated Loads:** 1/4, 1/2 and 1 Ton

Yale YAL Air Hoists are precision built chain type hoists with a choice of capacities of 1/4, 1/2 and 1 ton. Each size is available in pull cord control and pendant throttle control models. Variations include link type or roller type load chains, hook suspension for portability or lug suspension for close headroom trolley hoist arrangements, and spark resistant link chain models.

### Features

- Pull Cord Control provides a lightweight, economical hoist for accurate control of loads.
- Pendant Throttle Control hoists offer 1 one-handed control, for ease of operation.
- Inlet air swivel with built-in strainer provides free hoist movement.
- Aluminum frame and end cover contributes to the lightweight, easily portable, and rugged design.
- Heavy duty shoe type brake is a proven design for stopping and holding loads in heavy duty applications.
- External adjustment screws for decreased lift and lower speeds.
- External brake adjustment.
- Limit stops prevent over-travel in upper and lowering directions.
- Equa-torque gearing of alloy steel, heat treated spur gears is accurately machined to provide a close meshed, compact gear reduction.
- Eight-vane motor provides high torque, smooth starting and excellent control.
- Tapped exhaust port 1/2 NPTF... for CLEAN applications or to add a supplemental muffler in addition to the built-in muffler for even quieter operation.
- Nylon mesh Chain Container standard up to 20 foot of lift.

## BASIC HOIST DATA

**Rated Loads:** 1/4, 1/2 and 1ton (Spark resistant models are rated at 3/8 and 3/4 ton).

**Air Pressure Recommended:** 90 PSI

**Air Consumption:** 48 SCFM at 90 PSI

**Net Weight (Basic Hoist):** 36 lbs.

**Suspension:** Hook or lug

**Control:** Pull Cord or Pendant Throttle

**Air Inlet Size:** 3/8 NPTF

**Air Supply Hose:** 1/2 I.D. min.

**Air Exhaust:** 1/2 NPTF

**Lift:** 10 foot lifts are standard. Longer lifts are an optional extra.

**Pendant Control:** 6 foot length is standard. Longer lengths are an optional extra.

## OPTIONAL

For greater corrosion resistance, a plated load chain is offered as an optional extra.

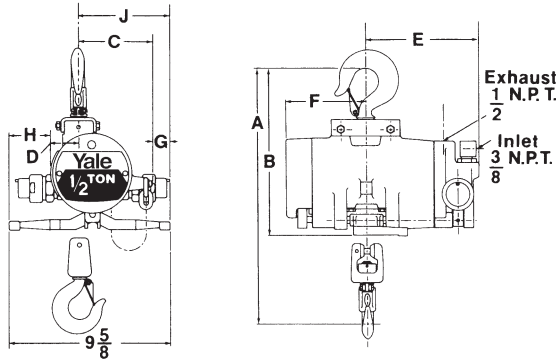
## HOOK MOUNTED/CATALOG NUMBERS AND SPECIFICATIONS

Type	Capacity (tons)	Pull Cord Control		Pendant Throttle Control*		Parts of Load Chain	Lifting Speed Max† (fpm)	Lowering Speed Max** (fpm)
		Catalog No.	Net Weight (lbs.)	Catalog No.	Net Weight (lbs.)			
<b>STANDARD MODELS</b>								
Link Chain	1/4	YAL 1/4-10**65P1	36	YAL 1/4-10**65T1	46	1	65	95
	1/2	YAL 1/2-10**45P1	36	YAL 1/2-10**45T1	46	1	45	120
	1	YAL 1-10**23P2	49	YAL 1-10**23T2	59	2	23	60
Roller Chain	1/4	YAR 1/4-10**65P1	37	YAR 1/4-10**65T1	47	1	65	95
	1/2	YAR 1/2-10**45P1	37	YAR 1/2-10**45T1	47	1	45	120
	1	YAR 1-10**23P2	51	YAR 1-10**23T2	61	2	23	60
<b>SPARK RESISTANT MODELS</b>								
Link Chain	3/8	YAL 3/8-10**60P1SR	36	YAL 3/8-10**60T1SR	46	1	60	100
	3/4	YAL 3/4-10**29P2SR	49	YAL 3/4-10**29T2SR	59	2	29	52

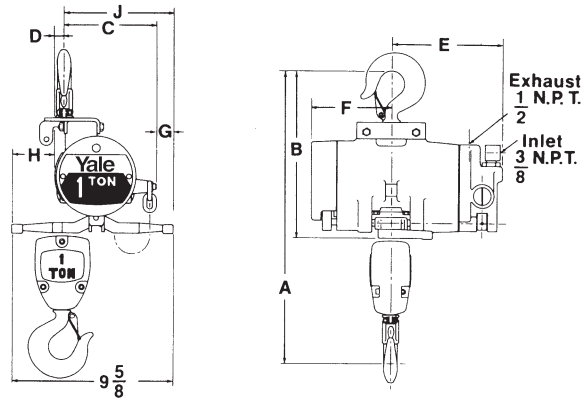
\*Equipped with 6 foot pendant control. †Speeds based on 90 PSI line pressure and with full rated hoist load. Hoist speeds are adjustable and can be reduced to 50% of full rated speed. Shipped from factory with hoisting speed set at maximum rated speed; lowering speed set at reduced speed.

\*\* To complete the model number insert **TH** or **LG** in place of the \*\* when ordering. This swivel top hook **LG** is rigid lug.

## HOOK MOUNTED



1/4 and 1/2 Ton Standard  
3/8 Ton Spark Resistant

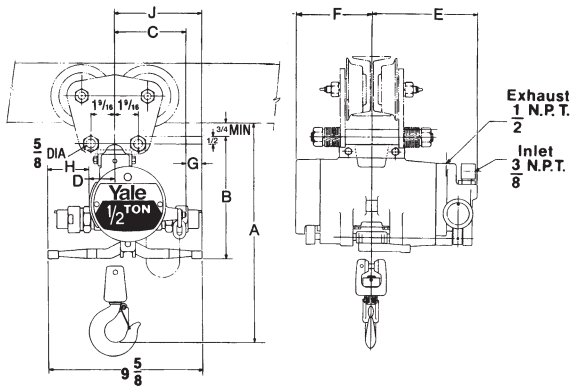


1 Ton Standard  
3/4 Ton Spark Resistant

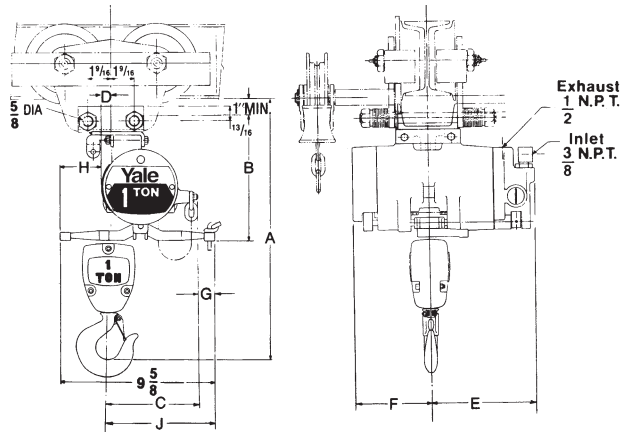
## OUTLINE DIMENSIONS (IN)

Catalog No.	A	B	C	D	E	F	G	H	J
YAL 1/4, YAL 1/2, YAL 3/8	15 1/4	10 1/4	4 3/4	1 3/4	7 1/16	5 1/16	15/16	2 3/16	5 11/16
YAL 1, YAL 3/4	18	10 1/4	5 3/4	3/4	7 1/16	5 1/16	15/16	2 3/16	6 11/16

## LUG MOUNTED



1/4 and 1/2 Ton Standard  
3/8 Ton Spark Resistant



1 Ton Standard  
3/4 Ton Spark Resistant

## OUTLINE DIMENSIONS (IN)

Catalog No.	A	B	C	D	E	F	G	H	J
YAL 1/4, YAL 1/2, YAL 3/8	13 7/8	8 1/8	4 3/4	1 3/4	7 1/16	5 1/16	15/16	2 3/16	5 11/16
YAL 1, YAL 3/4	17	8 1/4	5 3/4	3/4	7 1/16	5 1/16	15/16	2 3/16	6 11/16

## SPARK RESISTANT MODELS

Spark resistant models offer maximum protection in hazardous environments. Components for spark resistance include bronze alloy hooks, stainless steel hook latches, non-magnetic chrome-nickel stainless steel load chain, modified load sprocket, guide and stripper arrangement and lower blocks of stainless steel for the 3/8 ton single line model and anodized aluminum body on the 3/4 ton two part reeved model.

The spark resistant models have capacities derated. The stainless steel load chain is lower strength and not as hard as the standard alloy steel load chain, thereby requiring reduced capacity ratings on these models.

**WARNING:** The equipment illustrated here is not designed or suitable as a power source for lifting or lowering persons. Exceeding rated capacity is dangerous and can result in injury to persons and damage property.



1 Ton  
Pendant  
throttle  
control  
air hoist

## PENDANT THROTTLE CONTROL

### Rated Loads: 1, 2, and 3 Tons

Yale KALC Air Hoists are made in single line 1 ton, double line 2 ton and triple line 3 ton models. All units are equipped as standard with pendant throttle control, clutch overload protection, link chain, and hook or lug suspension. Spark and corrosion resistant models are also available.

KALC Air Hoists utilize the popular Yale Electric Hoist frame. Practically all mechanical parts used in these air hoists are interchangeable with comparable Yale Electric Hoists. This assures users of a proven performance record of mechanical parts and ease of maintenance. Mechanical load brake offers load control for the most precise spotting capabilities not found in air hoists without a mechanical load brake.

### Features

- Aluminum Frame and Cover – lightweight, rugged holding shafts and bearings in close alignment.
- Gearing – combination of precision cut, heat treated helical and spur gears for quiet, efficient operation.
- Mechanical Load Brake – positive action, spring biased Weston type load brake holds the load and provides exacting load spotting and control.
- Overload Protection – the overload device protects against excessive overloads...clutch also acts at upper and lower limits.
- Multi-vane Rotary Air Motor – eight vanes provide high torque, smooth operation, positive starting and excellent control.
- Internal Muffler – reduces sound level.
- Pendant Control – pendant throttle handle is of the full flow design for the finest throttling capabilities.
- Throttle Valve – precision throttle valves meter the air for smooth operation.
- Nylon mesh Chain Container standard up to 20 foot of lift.

## BASIC HOIST DATA

Rated Loads: 1, 2, and 3 ton (Spark resistant models are rated at 1/2, 1 and 2 ton).

Air Pressure Recommended: 90 PSI

Air Consumption: 70 SCFM (full load–full speed) slow speed model; 80 SCFM (full load–full speed) fast speed model.

Pendant Control Hose: 6 foot pendant hose standard for 10 foot lift hoist, longer hose assemblies up to 36 foot available.

Lift: 10 foot lifts are standard. Longer lifts are an optional extra.

Net Weight (Basic Hoist): 100 lbs.

Suspension: Hook or lug

Air Inlet Size: 3/4 NPTF

Air Supply Hose Size: 3/4 I.D. min.

## HOOK SUSPENSION/CATALOG NUMBERS AND SPECIFICATIONS

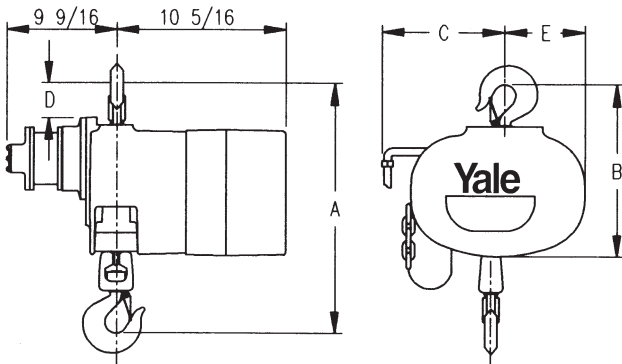
Capacity (tons)	Catalog No.	Net Weight (lbs.)	Parts of Load Chain	Full Load Hoist Speed in FPM	Full Load Lowering Speed in FPM
<b>STANDARD MODELS</b>					
1	KALC1-10TH13S1	93	1	13	18
	KALC1-10TH30S1	95		30	42
2	KALC2-10TH6S2	110	2	6	9
	KALC2-10TH15S2	112		15	21
3	KALC3-10TH4S3	144	3	4	6
	KALC3-10TH10S3	146		10	14
<b>SPARK RESISTANT MODELS</b>					
1/2	KALC1/2-10TH16S1SR	95	1	16	22
1	KALC1-10TH8S2SR	112	2	8	11
2	KALC2-10TH5S3SR	146	3	5	7

## LUG SUSPENSION/CATALOG NUMBERS AND SPECIFICATIONS

Capacity (tons)	Catalog No.	Net Weight (lbs.)	Parts of Load Chain	Full Load Hoist Speed in FPM	Full Load Lowering Speed in FPM
<b>STANDARD MODELS</b>					
1	KALC1-10LG13S1	106	1	13	18
	KALC1-10LG30S1	108		30	42
2	KALC2-10LG6S2	116	2	6	9
	KALC2-10LG15S2	118		15	21
3	KALC3-10LG4S3	164	3	4	6
	KALC3-10LG10S3	166		10	14
<b>SPARK RESISTANT MODELS</b>					
1/2	KALC1/2-10LG16S1SR	110	1	16	22
1	KALC1-10LG8S2SR	120	2	8	11
2	KALC2-10LG5S3SR	170	3	5	7

Hoist speeds based on 90 PSI line pressure with full load at full throttle.

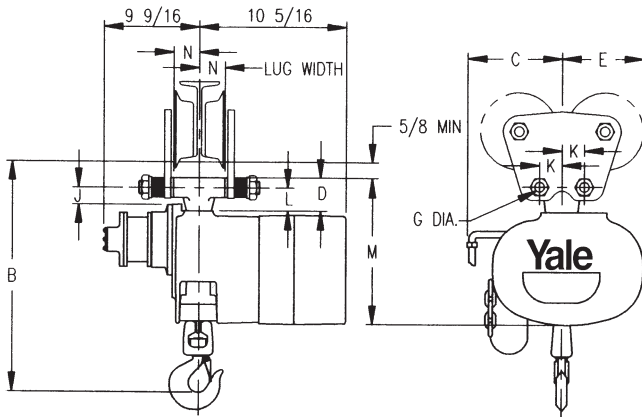
## HOOK SUSPENSION



## OUTLINE DIMENSIONS (IN)

Catalog No.	A	B	C	D	E
KALC1	16 <sup>9</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	2 <sup>11</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>16</sub>
KALC <sup>1</sup> / <sub>2</sub> SR	16 <sup>3</sup> / <sub>4</sub>				
KALC2	22 <sup>1</sup> / <sub>4</sub>	12 <sup>13</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>
KALC1SR	22 <sup>7</sup> / <sub>8</sub>				
KALC3	24	14 <sup>3</sup> / <sub>8</sub>	5 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>
KALC2SR	25 <sup>7</sup> / <sub>8</sub>				

## LUG SUSPENSION



## OUTLINE DIMENSIONS (IN)

Catalog No.	B	C	D	E	J	K	L	M	N	G
KALC1	16 <sup>1</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	2	6 <sup>3</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>
KALC <sup>1</sup> / <sub>2</sub> SR	16 <sup>1</sup> / <sub>4</sub>									
KALC2	19 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>15</sup> / <sub>16</sub>	10 <sup>11</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	1
KALC1SR	21 <sup>3</sup> / <sub>8</sub>									
KALC3	23 <sup>3</sup> / <sub>4</sub>	5 <sup>13</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>	3	3 <sup>3</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	3	1 <sup>1</sup> / <sub>4</sub>
KALC2SR	25									

## SPARK RESISTANT MODELS

Spark resistant hoists offer greater protection in hazardous environments. Components for spark resistance includes bronze alloy hooks with stainless steel hook latches, lower blocks of stainless steel on single part chain and aluminum on 2 and 3 part chain, chrome nickel non-magnetic stainless steel alloy load chain, bronze limit stop with aluminum limit actuators and modified sprocket and guide. A spark resistant chain container is recommended on 10 foot lift spark resistant hoists and must be furnished on hoists over 10 foot lift. Spark resistant chain containers are stainless steel.

The spark resistant KALC air hoists have lower speeds and are derated due to the use of stainless steel load chain. The lower wear life of stainless steel chain limits applications to medium duty service.

When specifying lug suspended spark resistant hoists, care must be taken in the trolley selection to assure that the trolley fits the derated hoist lug. If this is your first purchase, consult the factory for assistance.

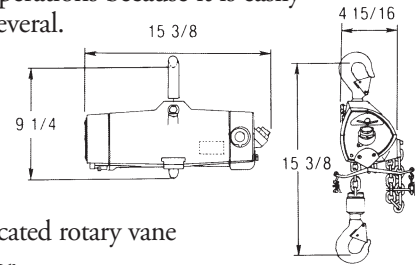
# Yale® ACL Air Chain Hoist



## Rated Loads: 1/4, 1/2, 1, 3, and 6 Tons

The Yale ACL air chain hoist is light and portable enough to be carried (the 1/2 ton unit weighs only 37 lbs.). This makes it ideally suited for maintenance type operations because it is easily moved from one job to another—one hoist can do the work of several.

Small external dimensions allow the ACL to work in cramped places. More available floor space can be utilized because the compact design allows close approach to walls and other fixtures.



## Features

- Capacities – 1/4 to 6 tons.
- Lightweight and portable
- Economical
- Compact dimensions
- Disc type motor brake
- Efficient planetary gearing
- Choose from – standard pull cord or optional twist rod or lever pendant controls
- Lifetime lubricated gears
- Variable speed control
- Axially located rotary vane type motor
- Twin high ratio planetary gear assembly
- Disc type motor brake
- Top and bottom hooks are drop forged with safety latches.
- A convenient pull control is standard
- An optional lever pendant control is available for the Yale ACL and offers excellent control for load inching. Pendants are available in lengths of 6.6 feet, 12 feet, 17 feet, 23 feet, and 32 feet.

## BASIC HOIST DATA

Rated Loads: 1/4, 1/2, 1, 3, and 6 ton.  
 Air Pressure Recommended: 90 PSI  
 Lift: 10 foot lifts are standard.

Trolley Dimensions: All given for min. I-beam.  
 Pull Cord Drop: 7 foot drop is standard.

## OPTIONAL CHAIN CONTAINERS FOR ACL

Optional Yale ACL chain containers are made of tough reinforced PVC sheeting for long life. The containers are available for a variety of chain lengths.

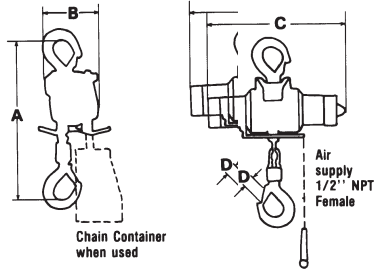
For maximum economy and efficiency, a rugged Yale trolley may be the best way to suspend your ACL. Yale makes plain and geared trolleys in capacities all the way to 40 tons. Dimensions for Yale plain trolleys are shown with the ACL for your convenience.

For more frequent load handling over greater distances, the air motorized ACT trolley may be the answer. Available in 3 and 6 ton capacities, the Yale ACT air motorized trolleys are equipped with self-locking worm gears which act as trolley brakes. Yale ACL motorized trolleys are standard with pull cord control or you can specify optional pendant lever control.

Capacity	Lift	Part Number
1/4 & 1/2	10 ft. lift	645022174
1/4 & 1/2	23 ft. lift	645022175
1/4 & 1/2	40 ft. lift	645022176
1/4 & 1/2	60 ft. lift	645022177
1	11 1/2 ft. lift	645022175
1	20 ft. lift	645022176
1	30 ft. lift	645022177
3	20 ft. lift	645970300
3	39 ft. lift	636241200
6	10 ft. lift	645970300
6	19 ft. lift	646352300

# Yale® ACL Air Chain Hoist

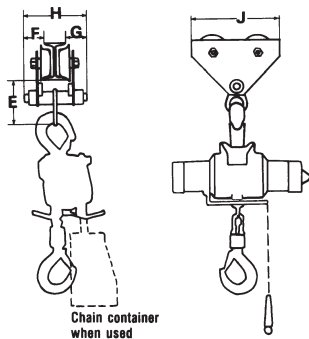
## ACL HOOK TYPE



## OUTLINE DIMENSIONS (IN)

Capacity (tons)	Model No.	Lifting Spd. fpm	A	B	C	D	Net Wt. (lbs.)	Ship Wt. (lbs.)
1/4	ACL1/4	61	14 <sup>13</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	15 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	37	42
1/2	ACL1/2	41	14 <sup>13</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	15 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	37	42
1	ACL1	21 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>2</sub>	4 <sup>5</sup> / <sub>8</sub>	15 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	46	51
3	ACL3	10 <sup>1</sup> / <sub>2</sub>	22 <sup>5</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>2</sub>	2	109	119
6	ACL6	5 <sup>1</sup> / <sub>4</sub>	30 <sup>7</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	175	185

## ACL WITH PLAIN TROLLEY\*



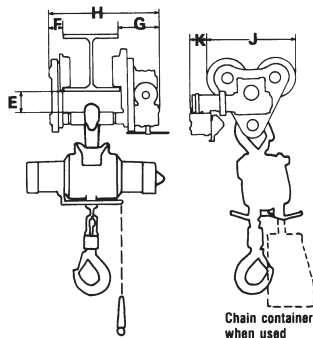
## OUTLINE DIMENSIONS (IN)

Capacity (tons)	E	F	G	H	J	Fits Flange Width		Min. Rad. Curve	Net Wt. (lbs.)†	Ship Wt. (lbs.)†
						Min.	Max.			
1/4 & 1/2	4 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	2.66	5.00	21	18	20
1	4 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	10	11 <sup>3</sup> / <sub>4</sub>	3.00	5.25	30	25	28
3	6 <sup>15</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	12	13 <sup>1</sup> / <sub>2</sub>	3.33	6.00	36	60	64
6	9 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>16</sub>	19 <sup>1</sup> / <sub>2</sub>	4.00	7.00	60	140	145

†Trolley only.

\*1/4 through 3 ton shown with Yale FWA trolley. 6 ton shown with Yale FTP trolley. Many other fine Yale trolleys are available.

## 3 & 6 TON ACL WITH ACT MOTORIZED TROLLEY



## OUTLINE DIMENSIONS (IN)

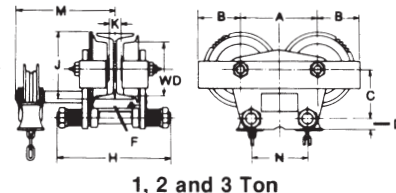
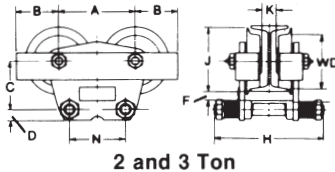
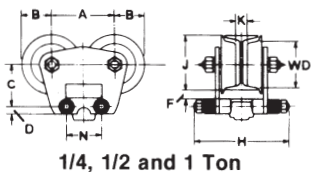
Capacity (tons)	E	F	G	H	J	K	Fits Flange Width		Min. Rad. Curve	Net Wt. (lbs.)†	Ship Wt. (lbs.)†
							Min.	Max.			
3	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>16</sub>	13	12 <sup>15</sup> / <sub>16</sub>	5	5.20	10.30	55	91	99
6	4 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>	5.70	10.30	70	201	212

NOTE: Motorized trolley speed at full rated load is 60 fpm at 90 psi and 89 cfm.

†Trolley only.

# Yale® Push & Hand Geared Trolleys

## RIGID MOUNT TROLLEYS FOR LUG MOUNTED HOISTS



**PUSH TYPE TROLLEYS**

**HAND GEARED TROLLEYS**

### CATALOG NUMBERS AND SPECIFICATIONS

Capacity (tons)	Push Trolley		Hand Geared Trolley*		Min. Beam Depth**	Adjustable For Flange Widths (ins.)	Min. Rad. Curve Trolley Will Negotiate
	Catalog No.	Net Wt. (lbs.)	Catalog No.	Net Wt. (lbs.)			
<b>STANDARD MODELS</b>							
1/2	905401	15	—	—	4"	2 5/8 to 4 5/8†	2'-6"
1	905402	23	905411	40	5"	3 to 5	3'-6"
	905405	24	905413	41	5"	5 1/4 to 7 3/8	
2	905403	43	905412	57	6"	3 3/8 to 6	4'-0"
	905406	44	905414	58	6"	6 1/4 to 8 7/8	
3	905404	50	905417	65	6"	3 3/8 to 6	4'-0"
	905407	52	905418	67	6"	6 1/8 to 8 7/8	
	905408	54	905419	69	6"	9 to 11	
<b>SPARK RESISTANT MODELS</b>							
3/8	905461	15	—	—	4"	2 5/8 to 4 5/8	2'-6"
1/2, 3/4	905462	23	905471	40	5"	3 to 5	3'-6"
1	905463	45	905472	57	6"	3 3/8 to 6	4'-0"

### OUTLINE DIMENSIONS

Capacity (tons)	Catalog No.	A	B	C	D	WD	Min. F*	H	Max. J	Min. K**	Max. M	N
1/2	905401	4 3/8	2 1/8	3 3/16	1 1/16	3 1/8	5/8	8 1/8	3 15/16	5/8	—	3 1/8
1	905402	6 1/8	2 1 1/16	3 27/32	1 1/16	4	5/8	8 7/8	4 7/8	1 1/4	—	3 1/8
	11 1/8		3 1/2					—				
	8 7/8		7/8					9 3/4				
	11 1/8		3 1/2					11 1/16				
2	905403	6 7/8	3 13/16	4 7/16	4 15/16	4	5/8	10 1/8	6	1 1/4	—	5
	13							4 1/4		—		
	10 1/8							1 1/16		10 1/4		
	13							6 5/16		4 1/4	11 13/16	
3	905404	6 7/8	4 3/8	5 3/4	1 3/8	4 15/16	1 1/4	12 3/4	6	1 1/4	—	6
	15 3/4							4 1/4		—		
	17 7/8							7		—		
	12 3/4							1 1/4		18 5/16		
	15 3/4							6 5/16		4 1/4	19 13/16	
	17 7/8							7		21 3/16		

## HOOK SUSPENSION TROLLEYS FOR HOOK MOUNTED HOISTS



### CATALOG NUMBERS AND SPECIFICATIONS

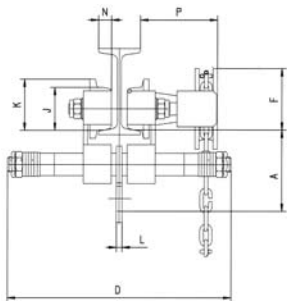
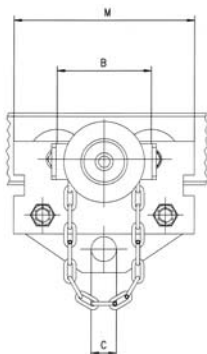
Capacity (tons) *	Model Number **	Standard Beam Height (in.)	I-Beam Width (in.)	Min. Radius Curve (in.)	Wheel Tread Diameter (in.)	Wt. (lb.)
1/4	CBTP-0025	4 - 24	2.0 - 8.7	27	2.36	19
1/2	CBTP-0050	4 - 24	2.0 - 8.7	27	2.36	19
1	CBTP(G)-0100	5 - 24	2.3 - 8.7	36	2.36	26
1 1/2	CBTP(G)-0150	6 - 24	2.3 - 8.7	45	3.15	46
2	CBTP(G)-0200	6 - 24	2.3 - 8.7	45	3.15	46
3	CBTP(G)-0300	8 - 24	3.0 - 8.7	55	4.41	86
5	CBTP(G)-0500	10 - 24	3.5 - 8.7	70	4.92	130

\* Metric Rated

\*\* When ordering specify "P" for plain trolley or "G" for geared trolley

### OUTLINE DIMENSIONS

Capacity (tons)	A	B	C	D	CBTG F	J	K	CBTG K	L	M	N	CBTG P
1/4	3.94	3.54	1.18	11.81	-	2.36	2.83	-	.31	7.56	.71	-
1/2	3.94	3.54	1.18	11.81	-	2.36	2.83	-	.31	7.56	.71	-
1	4.33	5.12	1.38	12.20	3.60	2.36	2.83	3.03	.31	9.84	.71	4.33
1 1/2	5.12	5.91	1.89	12.60	3.56	3.15	3.78	3.86	.47	11.81	.79	4.33
2	5.12	5.91	1.89	12.60	3.56	3.15	3.78	3.86	.47	11.81	.79	4.33
3	6.18	7.09	2.36	13.39	4.23	4.41	5.20	5.24	.55	14.57	1.14	4.33
5	7.09	8.23	2.76	13.78	5.89	4.92	5.63	5.87	.79	17.32	1.26	4.33



# Yale® Air Motor Driven Trolleys

## Rated Loads: 1/4 to 1, 2 and 3 Tons

Yale Motor Driven Trolleys are designed to operate with Yale Air Chain Hoists\*...attaching directly to the hoist suspension lug forming an integral hoist/trolley combination. Hoists are purchased separately.

These Yale air motor-driven trolleys provide power traverse for the lug-suspended Yale Air Hoist to free the operator from pushing and pulling on the load. Pendant throttle control is offered for full throttling from bare creep to a full 75 FPM traverse speed. By using a motor driven trolley with a hoist, speed and efficiency of load handling is greatly increased.

## Features

- Steel frame sideplates extend beyond wheels for end stop contact. Sideplates have tapped holes suitable for bracket attachment.
- Wheels are forged heat-treated steel, with contoured tread for use on American Standard tapered or wide flange flat flange beams.
- Wheel bearings are sealed lifetime-lubricated precision ball bearings.
- Traverse gear reducer is rugged right angle drive reducer with output pinion meshing with machine cut wheel gears. The drive units are shipped with high-grade synthesized hydrocarbon oil for excellent gear protection and wide temperature range capabilities.
- Eight vane air motor provides high torque, smooth starting and excellent control.
- Pendant throttle control provides precise, controlled spotting and efficient load handling.
- Spark resistant models are available for those areas where protection is needed in a hazardous environment. They contain all the same features except for the introduction of a spark resistant bronze wheel.

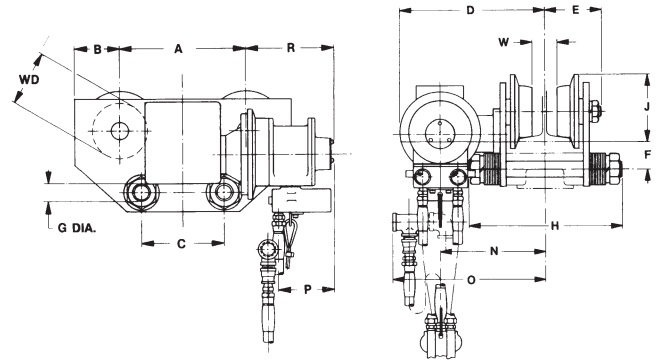


## CATALOG NUMBERS AND SPECIFICATIONS\*

Capacity (tons)	Hoist Catalog No.	Net Wt. (lbs.)	Flange Width Adjustment (ins.)	Traverse Speed (FPM)
<b>STANDARD MODELS</b>				
1/4, 1/2 & 1	FADT01	95	3 - 5	50
2	FADT02	105	3 <sup>5</sup> / <sub>8</sub> - 6	60
3	FADT03	150	4 - 6 <sup>1</sup> / <sub>4</sub>	60
<b>SPARK RESISTANT MODELS</b>				
3/8, 1/2 & 3/4	FADT01SR	95	3 - 5	50
1	FADT02SR	105	3 <sup>5</sup> / <sub>8</sub> - 6	60
2	FADT03SR	150	4 - 6 <sup>1</sup> / <sub>4</sub>	60

Equipped with 7 foot pendant control hose. Always specify the hoist catalog number that will operate with the trolley. Models for patented track with narrow flat tread steel wheels are available. Models with Extended Beam Flange Adjustment are available.

\*Not designed to operate with Yale ACL hoists.



## OUTLINE DIMENSIONS (IN)

Catalog No.	A	B	C	Max. D	Max. E	Min. F	Dia. G	H	Max. J	Max. K	Max. L	Min. M	Max. N	O	P	R	Min. W	WD	Min. Rad.	Min. Beam Depth	Flange Adjustment		
																					Standard	1st Extension	2nd Extension
FADT01 FADT01SR	7 <sup>5</sup> / <sub>8</sub>	3	3 <sup>1</sup> / <sub>8</sub>	11 <sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	4 <sup>11</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>16</sub>	11 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	1/2	4	3'-0"	6	3 - 5	5 <sup>1</sup> / <sub>8</sub> - 7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub> - 9 <sup>1</sup> / <sub>8</sub>
FADT02 FADT02SR	9 <sup>1</sup> / <sub>8</sub>	3	5	12 <sup>1</sup> / <sub>16</sub>	5	1 <sup>5</sup> / <sub>8</sub>	1	9 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	6	8 <sup>13</sup> / <sub>16</sub>	11 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	4	4'-0"	7	3 <sup>5</sup> / <sub>8</sub> - 6	6 <sup>1</sup> / <sub>4</sub> - 8 <sup>5</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub> - 11 <sup>1</sup> / <sub>4</sub>
FADT03 FADT03SR	9 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	6	12 <sup>1</sup> / <sub>2</sub>	5	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	12	5 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	4	4'-0"	8	4 - 6 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>8</sub> - 8 <sup>5</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub> - 11

## FILTER-LUBRICATOR UNITS

Air hoists must have a supply of clean, lubricated air for their operation. A filter and lubricator must be installed in the air supply line, as close as practical to the hoist. The recommended operating air pressure for all capacities of Yale air hoists is 90 psi. When air line pressure exceeds 115 psi, it is required that a pressure regulator be provided in the supply line to maintain proper pressure.

### FILTER-LUBRICATOR UNITS

Catalog No.	Inlet/Outlet Size in Inches	Bowl Size	Shipping Wt. in Lbs.
902960	3/8	11 oz.	8
902961	1/2	11 oz.	8
902962	3/4	24 oz.	12
902963	1	24 oz.	12

### FILTER-REGULATOR-LUBRICATOR UNITS

Catalog No.	Inlet/Outlet Size in Inches	Bowl Size	Shipping Wt. in Lbs.
902966	3/8	11 oz.	14
902967	1/2	11 oz.	14
902968	3/4	24 oz.	18
902969	1	24 oz.	18

## BULLARD HOOKS

All hoists are furnished as standard with hooks equipped with hook latches. Bullard Hooks with a rugged cast swing gate locking member that provides greater assurance of load containment are available at additional cost.

## PENDANT THROTTLE CONVERSION KIT

Kit for converting the pull cord YAL Air Hoist to pendant throttle operation has a standard 6-foot pendant hose assembly. Longer hose assemblies available. Order Catalog No. 2269. Shipping weight is 8 pounds.

## AIR HOSE ASSEMBLY

Assembly Requires Catalog No. for both Hose and Fittings

### AIR SUPPLY HOSE

Catalog No.	ID (in.)	OD (in.)	Braid	Max. PSI	Width (ft.)
901610	1/2	15/16	1	200	0.33
901611	3/4	1 1/4	2	225	0.52
901612	1	1 1/2	3	200	0.65

### FITTINGS\*

Male Swivel at One End- Standard Male at Opposite End

Catalog No.	ID (in.)	OD (in.)
901614	1/2	3/8
901615	3/4	3/4
901616	1	3/4

\*Fittings installed on above hose.

### FITTINGS WITH QUICK DISCONNECT\*

Quick Disconnect at One End- Standard Male at Opposite End

Catalog No.	ID (in.)	OD (in.)
901618	1/2	3/8
901619	3/4	3/4
901620	1	3/4

\*Fittings installed on above hose.

\*\*3/4NPT Quick Disconnect is without Check Valve.



## AIR HOSE TROLLEYS CATALOG NO. 254

(For use with YAL and KAL2 Air Hoists)

These trolleys are used to support air hose and are installed on the same track as a hoist. Hose clamp swivels and will fit 5/8 to 1 1/2 inch diameter hoses. Shipped from factory in cartons of six only.

## RECOIL AIR HOSE WITH FITTING

For application where air hose trolleys with looped hose is impractical; coil type self-storing hose is recommended.

## SELF STORING AIR HOSE WITH FITTINGS

Catalog No.	Hose Size (ID in.)	x Working Length (in.)	Fittings Each End
901621	1/2	x 15	3/8 NPTF Male Swivel Fittings
901622	1/2	x 25	3/8 NPTF Male Swivel Fittings
901624	3/4	x 15	3/4 NPTF Male Swivel Fittings
901625	3/4	x 25	3/4 NPTF Male Swivel Fittings
901626	3/4	x 50	3/4 NPTF Male Swivel Fittings

## NYLON COATED CABLE WITH EYEBOLT FITTINGS EACH END FOR SUPPORTING RECOIL AIR HOSE (Supports by Others)

Catalog No.	Length in Feet
901629	25
901630	50

## AIR HOSE REELS

Whichever hose-use problem you may have – on the production line, in the shipping area or in maintenance – these automatic retracting reels can provide the solution. Easy-set mounting lugs and adjustable 4-roller guide allow variable mounting for ceiling, wall, bench or trucks. An instant-action ratchet lock engages when hose travel stops, disengages with a slight pull. Other features include the “Safe-to-Change” spring motor which is self-contained for safe handling and all-steel construction for maximum reliability. Hose and ball stop are included. Pivot Base is optional.

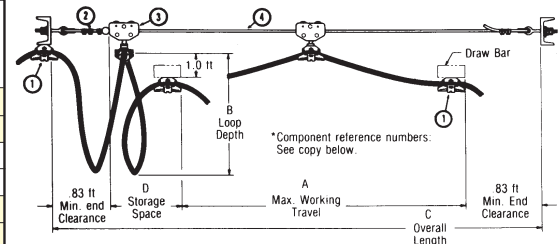
Hose Data			Reel Catalog No.	NPTF Fittings E* & F	Weight Complete Lbs.	340° Base (OPT)
Inch ID	Feet Hose	PSI Max.				
3/8	25	200	913207	0.38 - 18	36	913083
3/8	35	200	913208	0.38 - 18	40	913083
3/8	50	200	913209	0.38 - 18	72	913098
1/2	25	200	913210	0.50 - 14	70	913098
1/2	35	200	913211	0.50 - 14	74	913098
1/2	50	200	913212	0.50 - 14	79	913098
3/4	20	300	913201	0.75 - 0.75	144	913206
3/4	30	300	913202	0.75 - 0.75	149	913206
1	20	300	913203	1.00 - 1.00	148	913206
1	30	300	913204	1.00 - 1.00	159	913206

\*E= 0.125 Female NPTX 0.375 deep

## WIRE ROPE FESTOON SYSTEMS FOR AIR SUPPLY HOSE

Systems include (note numerical key in illustration at right): (1) 2 End Clamp Assemblies; (2) 1 Hardware Kit consisting of 2 eye-bolts, 5 clamps and 1 ball stop; (3) Intermediate Carriers—see specified quantity in last column of chart below; (4) Nylon Covered Wire Rope per required length.

Catalog System No.	A Working Travel (ft.)	B Loop Depth (ft.)	C Overall Length (ft.)	Max. Combined Cable Wt. (lbs./ft.)	D Storage Space (ft.)	Clamp Distance (ft.)	No. of Carriers (Item 3)
901601	16	3	18.5	1.31	0.84	6.87	2
	21	4	23.5	1.01	0.84	8.87	2
901602	28	3	31.1	1.31	1.40	6.87	4
	37	4	40.1	1.01	1.40	8.87	4
901602	40	3	43.6	1.31	1.97	6.87	6
	52	4	55.6	1.01	1.97	8.87	6



NOTE: Festooning Hose and Connectors are not included in System.

## HOW TO DETERMINE YOUR HOIST REQUIREMENTS

### *Hoist Capacity*

Determine the maximum load to be lifted. YAL Air Hoists are offered in 1/4, 1/2 and 1 ton capacities. KALC Air Hoists are offered in 1, 2, and 3 ton capacities. If the load falls between standard rated capacities, always select the higher capacity (i.e., for 4,300 lb. maximum load, use 6,000 lb. or 3 ton capacity hoist).

### *Hoist Lift*

To determine the total lift required, measure the distance from the bottom of the beam to the lowest point on the floor to be reached and subtract the hoist headroom dimension shown in the specifications. The remaining distance is the lift required on the hoist. Always select a standard lift equal to or greater than the distance required.

### *Duty Cycle*

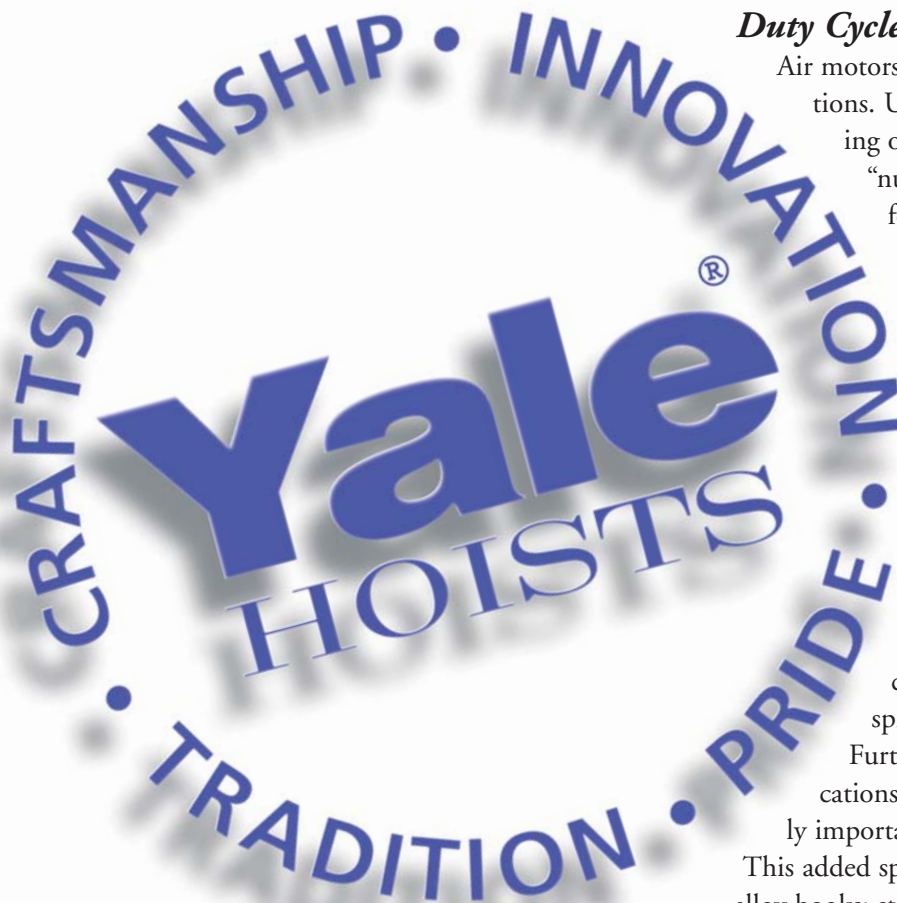
Air motors inherently are self-cooling during operations. Unlike an electric motor which heats during operation (limiting the “on-time” and “number of starts”), air motors are suitable for unlimited “on-time” and unlimited “number of starts”...a requirement for heavy duty applications. Additionally, the self-cooling effect makes air hoists the choice in many high ambient temperature applications. Both YAL and KALC Air Hoists with their vane air motors are desirable for duty cycles demanding 100 percent “on-time.”

### *Explosive Atmosphere*

Since hoists operate on compressed air, there is no electrical arcing hazard to cause explosions in such areas as paint spraying and petrochemical facilities.

Further, for those hazardous atmosphere applications where resistance to friction sparks is vitally important, spark resistant models are available.

This added spark resistant protection consists of bronze alloy hooks; stainless steel hook latches; non-magnetic, stainless steel load chain; modified load sprocket, guide



and stripper arrangement; and stainless steel or anodized aluminum lower blocks. Since stainless steel load chain is of lower strength than standard, allow for reduced rating of capacities when ordering either YAL or KALC Spark Resistant Air Hoists.

## **Control**

Normally, air hoists lift loads at a faster rate of speed than electric hoists. Additionally, air hoists have a variable speed control to lift a load from bare creep to a fast full speed. Conversely, electric hoists have fixed single or two speed control. Applications requiring variable speed lifting to precisely spot a load should employ an air hoist.

Secondly, in comparing air with electric hoists, it should be understood that electric hoists generally start the lifting action with a “jerking” movement. Air control eliminates a load being lifted with an initial “jerk.” For certain applications, this fact alone merits selecting an air hoist for your lifting requirements.

Third control consideration is whether to select pull cord or pendant throttle control. Pull cord is always lower priced than pendant throttle, yet provides good throttling capability. Pendant throttle offers convenient one-hand operations with adjacent “up” and “down” thumb levers, keeping the operator’s other hand free to assist in spotting loads. YAL Air Hoists are offered with either pull cord or pendant throttle control. KALC Air Hoists are offered with only pendant throttle control. An added advantage of the KALC Air Hoist is the built-in mechanical load brake which contributes to this hoist being one of the most accurate load spotting (lowering) hoists in the marketplace today.

## **Hoist Suspension**

Hook type suspension permits hoist to be hung up almost anywhere and is used when hoist must be readily moved to other locations. Lug type saves headroom and is used with rigid mount trolleys or when hoist is permanently mounted in a fixed location.

## **Trolley Type**

There are three standard trolley types that can be used to suspend Yale Air Hoists.

**Push Trolley** – Recommended for light capacities up to 2 tons and lifts below 20 feet. An economical method for moving loads.

**Hand Geared Trolley** – Offers most precise control for load spotting. Most favorable for higher capacities and short monorails where this control is desired. Also recommended where lifts are above 20 feet.

**Motor Driven Trolley** – Most widely used method of suspension, particularly 2 ton capacity and above. Virtually a necessity where long monorails are used.

## **Special Note**

The installation of every air hoist must always include a filter and lubricator in the air line.

## **OSHA Compliance**

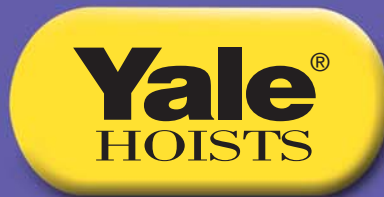
The Yale Air Hoists and Trolleys are built in accordance with the specification herein, and at the time of manufacture comply with our interpretation of applicable sections of ANSI B30.16 “Overhead Hoists,” and Occupational Safety and Health Act, 1970. OSHA places the burden of compliance for hoist installations on the user. The user must install the equipment in accordance with the federal, state, and local regulations which apply to the installation and application in your particular area. For new installations, always check with local government agencies to conform to local regulations.

### **\*⚠ WARNING**

**Overloading and improper use can result in injury**

**To avoid injury:**

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain and attachments for overhead lifting.
- Read and follow all instructions.



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**⚠ WARNING**

**To Avoid Injury:**

- Do not exceed working load limit, load rating, or capacity.
- Do not use to lift people or loads over people.
- Read and follow all instructions.

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