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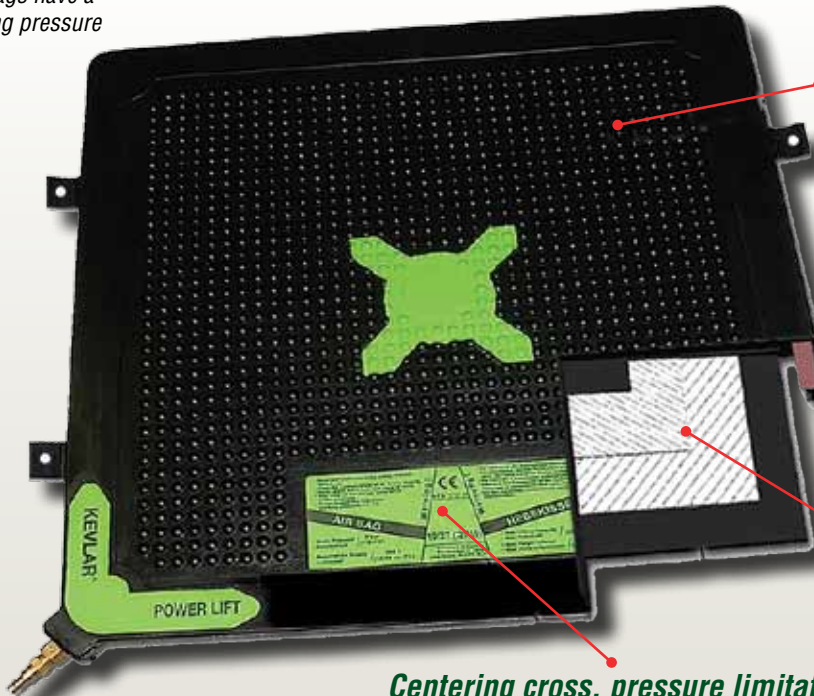
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# INTRODUCTION

# LIFTING JACKS

All Simplex Air Bags have a maximum working pressure of 116 PSI.



Load contact surface (top and bottom) has molded positive gripping, interlocking, convex rubber dimples.

Reinforced edge protects the bag where damage often occurs.

Patented Kevlar® reinforced diagonal crosshatch pattern.

Interchangeable couplers.  
Compatible (or adaptable) with all other air bag types.

Centering cross, pressure limitations, capacities, and important safety warnings are brightly colored and bonded to the rubber for long life.

Heavy Duty Air Bag Shown

## SIMPLEX LIFTING JACK PRODUCT LINE OVERVIEW

### ✓ Something for Every Job

From the thinnest of air lifting bags to the widest assortment of controls, Simplex heavy duty air lifting bags provide a solution to the most unique and specialized application.

### ✓ General Maintenance

From factory maintenance to portable tool chests, Simplex hand jacks are the standard utility tools for all maintenance applications.

### ✓ Self Contained Mobile Force

From structural movers to plant maintenance crews, Simplex Toe Jacks offer high capacities in a broad range of lifting.

### ✓ Specialty Tools

Whether it's a construction site or production fabrication, Simplex single and double acting 35 ton portable punches offer fast and effective solutions.

### ✓ Spreaders

From flange spreading to emergency rescue, Simplex can supply a suitable solution in hydraulic or mechanical spreading.

### ✓ Configured to Meet a Broad Range of Requirements

Whether it's collision repair, general maintenance or specialized spreading, clamping or holding, Simplex maintenance kits come complete with the largest assortment of attachments.



## **HYDRAULIC HAND JACKS**

### **2 Through 100 Ton Hydraulic Hand Jacks**

Simplex 2 through 100 ton capacity all purpose jacks are ideal for use in general industrial applications, and are used extensively in maintenance, construction and material handling. The versatility of the Simplex bottle jack has made it a favorite in shipyards, factories, oil fields, mines & general industries.



## **HYDRAULIC TOE JACKS**

### **2 Through 10 Ton Hydraulic Toe Jacks**

Simplex hydraulic toe jacks are the solution to all of your low clearance lifting problems. Choose from the widest variety of self contained toe jacks in the industry. Capacities range from 2 through 10 tons. The Simplex TJH2 is a 2 ton self-contained toe jack utilizing 5/8" minimum toe height and over 4" of travel.



## AIR LIFTING BAGS

### 1.1 Through 74.1 Tons Air Lifting Bags

Thin, powerful & light weight, the Simplex Air Bags are the answer to the toughest industrial applications. Starting with a minimum height of 1.1", Simplex lifting bags offer high capacity for clearances too small for most conventional jacks. They are ideal for use in railroads, construction, mining, shipyards and industrial applications that require safe, reliable lifting, spreading, bending or pushing. Simplex air lifting bags are manufactured with neoprene & Kevlar reinforced construction and are safer, stronger and more reliable than other bags on the market.

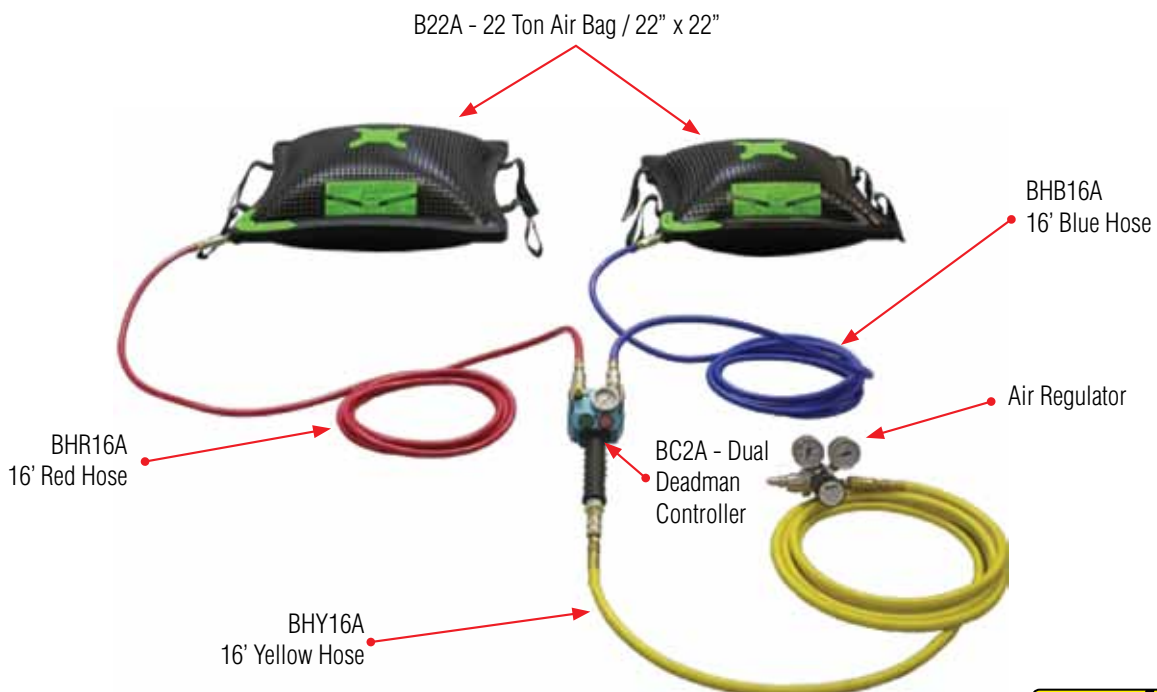


### Lifting Capacity and Height Guidelines

When selecting the proper air bag arrangement, proper size and selection is critical. The amount of contact surface is a direct relationship to force output. It's important to consider the lifting height when sizing the proper air bag. As an air lifting bag inflates (increasing convexity), contact surface is reduced, which lowers the lifting capacity.

Air bags stacked on top of each other will increase the lifting height, but not the overall air bag capacity. Lifting capacity depends on the size of the air bag surface in contact with the lower surface of the object to be lifted. In order to choose the proper size air bag, reference the performance graph on page 104.

Example below demonstrates a typical 44 ton two air bag system arrangement.



# LIFTING JACKS

## Hand Jacks



"We needed a jack of all trades." Applications ranged from spreading, leveling, lifting and holding. "Simplex Jacks are the best utility tool for the wide variety of jobs that come up day after day."

## SIMPLEX ADVANTAGES

- ✓ Drop forged base and rugged welded housing construction.
- ✓ Operates in horizontal position with handle down.
- ✓ All models include over travel protection.
- ✓ Grooved saddles help prevent load slippage.
- ✓ Super low profile versions available in 12 & 22 ton capacities.
- ✓ Piston rods are chrome plated to resist corrosion.



**HJ Family Shown**  
See table for additional models



All Hand Jacks come equipped with a 3 piece Lever Bar set to accommodate space limitations.



**SCREW EXTENSIONS**  
2 through 22 ton models include screw extensions for quick setup.



**CARRYING HANDLE**  
Conveniently located handle at the top of high tonnage jacks makes positioning quick and easy.

## Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Min. Ht. (in)	Ext. Screw Ht. (in)	Max. Ht. (in)	Base Area (in)	Piston Dia. (in)	Max. Handle Effort (lbs)	Weight (lbs)
HJ2	2	4 1/2	7 1/8	2	13 5/8	4.33 x 2.56	3/4	64	5.3
HJ3	3	4 1/2	7 1/2	2 3/8	14 3/8	4.53 x 2.83	7/8	64	7.3
HJ5	5	4 3/4	7 7/8	2 3/4	15 3/8	5.59 x 3.22	1 1/4	48	8.2
HJ8	8	4 3/4	7 7/8	2 3/4	15 3/8	5.94 x 3.54	1 3/8	69	12.8
HJ12	12	5 7/8	9 1/2	3 1/8	18 1/2	6.53 x 4.17	1 5/8	73	19.7
HJ12/LP	12	3 3/4	6 3/4	3	13 1/2	6.53 x 4.17	1 5/8	73	15
HJ22	22	6 3/8	10 5/8	----	17	7.17 x 5.03	2 1/8	73	29.8
HJ22/LP	22	3 3/8	7 1/8	1 5/8	12 1/8	7.17 x 5.03	2 1/8	73	24.3
HJ35	35	6 3/8	11	----	17 3/8	7.56 x 5.59	2 1/2	69	45.2
HJ55	55	6 11/16	12	----	18 3/4	9.33 x 7.40	3 1/4	73	97
HJ100	100	5 3/4	12	----	17 23/32	12.52 x 10.43	4 29/32	93	194







# LIFTING JACKS

## Heavy Duty Toe Jacks

Its small footprint and ease of mobility make the TJH10 perfect for lifting a variety of equipment when space and clearance are at a premium.

### SIMPLEX ADVANTAGES

- ✓ Self-contained models for maximum versatility.
- ✓ Low toe heights fit in tight clearances.
- ✓ The lowest handle effort for easy operation.
- ✓ The lowest weights for reduced back injuries.
- ✓ Swivel sockets for access in close quarters. (TJH5 & TJH10 only).



**PISTOL GRIP**  
TJH109LS comes equipped with an ergonomic pistol grip for rapid advancement to load.



**TOE LIFTS**  
Toe Lifts are rated at maximum capacity on all models.



**TJH SERIES JACKS**  
Our Toe Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



**TJH Family Shown**  
See table for additional models



TJH2, TJH5 and TJH10 Toe Jacks come equipped with a 3 piece Lever Bar set to accommodate space limitations.

TJH109LS Toe Jack comes equipped with a solid one piece Lever Bar.

*Note: Lever Bars are included with all models.*

### Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Minimum Ht. (in)		Base Area (in)	Max. Handle Effort (lbs)	Method Of Return	Weight (lbs)
			Toe (in)	Cap (in)				
TJH2	2	4 7/16	5/8	9 1/4	4 59/64 x 7	51	Load	18
TJH5	5	4 5/8	1	11 3/4	7 1/4 x 10 5/8	33	Spring	53
TJH10	10	5 7/8	1 1/4	13 1/8	9 1/2 x 11 1/4	38	Spring	85
TJH109	10	9	2 1/4	22	6 1/2 x 10	80	Spring	56
TJH109LS	10	9	2 11/64	16 1/8	6 x 9	73	Spring	41

# LIFTING JACKS

Air Lifting Bags



Durability and strength makes Simplex Air Lifting Bags the perfect solution to raise these collapsed concrete slabs for repair. They are ideal for use in quarries, demolition and light construction.

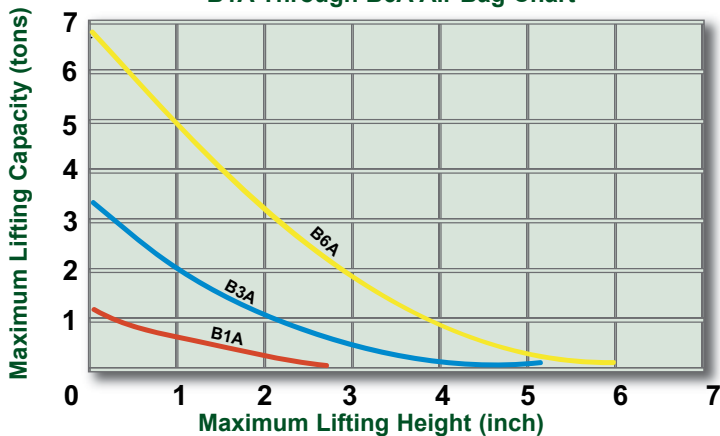
## SIMPLEX ADVANTAGES

- ✓ 11 models with capacities ranging from 1.1 through 74.1 tons.
- ✓ Simplex air bags operate on standard shop air up to 116 psi.
- ✓ All models include 2 ply Kevlar with neoprene.
- ✓ Serrated lifting surface on each side of the air bag helps prevent load slippage.
- ✓ Wide variety of safety controllers for single & multiple bag systems.
- ✓ Light weight makes the Simplex air bags easy to set up.
- ✓ B22A through B74A bags come with side holes for attaching bags together.

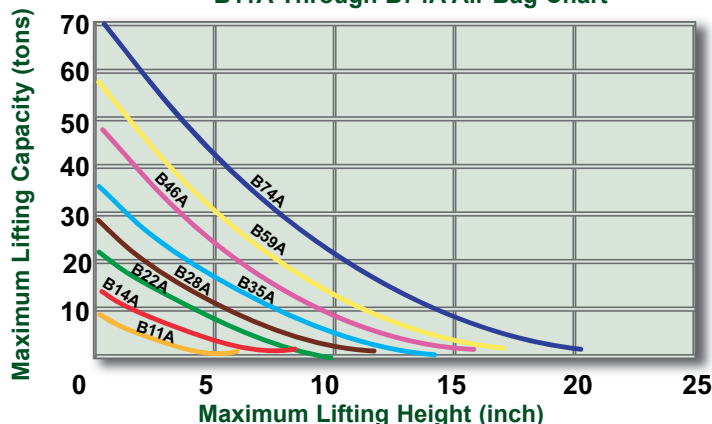


### Lifting Bag Performance

B1A Through B6A Air Bag Chart



B11A Through B74A Air Bag Chart



### DUAL DEADMAN CONTROLLER

Control two bags from one air source with the dual deadman controller. Ideal for extreme temperature change.

- Pg. 106



### HOSES

Industrial duty, color coded supply hoses offers the user the ability to coordinate the lift properly and safely.

- Pg. 106



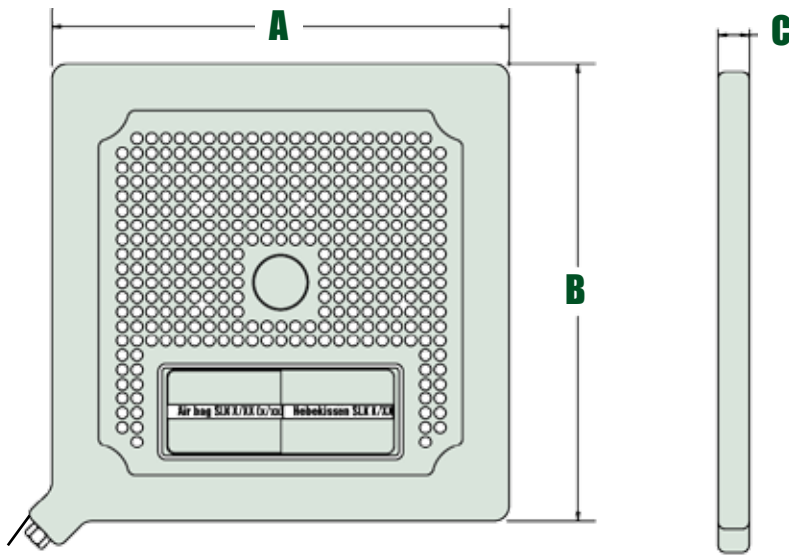
### SAFETY CONTROLLER

Safety controller has a single stage regulator designed for high pressure air tank compatibility.

- Pg. 107

# LIFTING JACKS

## Air Lifting Bags



1/4" - 18 NPTF



B22A - 22 Ton Air Bag  
22" x 22"

BC3A - Single Deadman  
Controller

Air Regulator





BHY16A  
16' Yellow Hose


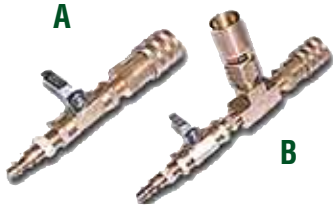



BHB16A  
16' Blue Hose

### Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Max Lifting Hts. (in)	A	B	C	Air Req. @116 PSI (cu.ft.)	Max. Burst Pres. (PSI)	Weight (lbs)
			Length (in)	Width (in)	Thick (in)			
B1A	1.1	2.7	6	6	1.1	.18	464	1.32
B3A	3.1	5.1	9	9	1.1	.53	464	2.8
B6A	6.4	5.9	12	12	1.1	1.48	464	5.3
B11A	10.8	7.0	15	15	1.1	3.04	464	8.8
B14A	14.2	8.6	18	18	1.1	5.37	464	11.6
B22A	22.7	10.6	22	22	1.1	10.45	464	17.8
B28A	27.7	11.8	24	24	1.2	14.7	464	24.6
B35A	35.3	14.1	27	27	1.2	21.9	464	29.9
B46A	46.4	16.5	31	31	1.2	32.5	464	40.1
B59A	58.8	17.7	35	35	1.2	46.8	464	49.6
B74A	74.1	20	36	36	1.2	53.1	348	55.8



Model		Description
	<p> <b>BHR16A - 16' Red Hose</b>  <b>BHR32A - 32' Red Hose</b>  <b>BHB16A - 16' Blue Hose</b>  <b>BHB32A - 32' Blue Hose</b>  <b>BHY16A - 16' Yellow Hose</b>  <b>BHY32A - 32' Yellow Hose</b> </p>	<p>Industrial duty, color coded <b>Supply Hoses</b> allows the user to coordinate the lift properly and safely.</p>
	<p><b>BC12</b></p>	<p><b>Deluxe Dual Deadman Controller</b> used for precise inflation and deflation control. Built in safety relief valves prevent over inflation with the pressure sensitive toggles.</p>
	<p><b>BC2A</b></p>	<p><b>Dual Deadman Controller</b> with pressure gauge and pressure relief valves. Control two bags from one air source. Reliable over extreme temperature range.</p>
	<p><b>BC3A</b></p>	<p><b>Single Deadman Controller</b> with pressure gauge and pressure relief valves. Reliable over extreme temperature range.</p>

Model	Description
	<b>BC9A</b> <i><b>Y Connector</b></i> allows control of 2 bags from one single fitting controller.
	<b>A - BC8A</b> <b>B - BC6A</b> <i><b>In-Line Control Shut Off and Relief Valves</b></i> enable the user to disconnect a hose without deflating the bag.
	<b>BC11</b> <i><b>Dual Safety Controller</b></i> with pressure gauge and pressure relief valve. Cost effective and reliable over a wide range of control applications.
	<b>BC1A</b> <i><b>Pressure Regulator Controller</b></i> is a diaphragm type single stage regulator with high pressure air tank compatibility.
	<b>BC4A</b> <i><b>Single Safety Controller</b></i> with pressure gauge and pressure relief valve. Cost effective and easy to use.