

PDX40

Power Drive
Heavy-Duty
Straddle Trucks


BIGJOE


BIGJOE®

Big Joe PDX40 The Walkie That Works Like a Rider

This series has many of the capabilities of a rider. Long duty cycles over multi-shift operations, capacity for heavy loads—up to 4,000 pounds — the ability to operate in narrow aisles and other congested areas not normally accessible to riders. And because it is a Walkie, it costs significantly less.

The PDX40 is effective for special applications requiring hydraulic attachments. These include devices like sideshifters, roll clamps, carton clamps, and die pullers. The design and construction of this series makes it ideal for use in industrial environments.

The Big Joe PDX40 is the appropriate series for those with special needs or requirements. It is a heavy-duty performer at a cost efficient price.



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TECHNICAL DATA

ELECTRICAL SYSTEM

All power is routed via "SB" type connector (standard) to primary fuse protection, where power then is separated to drive and lift system subcircuits.

Modular drive control panel has premium, industrial-grade contactors.

All cables and wiring are color-coded and/or numbered for easy service tracing.

High-torque, class H insulated drive motor has copper-graphitic brushes for peak electrical efficiency and long life.

Hydraulic pump motor(s) is specially selected for peak electrical efficiency at specific torque and rpm lift pump requirements.

Drive-control-module circuits are routed to the control head via multiple conductor cable.

PDX40: include steel-clad 510 amp. hour at 6 hr. rate battery (11.844 kWh) and 75 amp. fully automatic charger.

STRUCTURAL SYSTEM

Mast construction is interlocked channel and I-beam, rolled of premium steel specifically for lift truck use.

Fully rolled inner mast and carriage.

Forged forks with undertaper and full upset heel are standard.

Rigid, low profile chassis is continuous welded and distortion-free.

Hook-mounted forks for maximum safety and easy adjustment. Permits easy interchangeability of Big Joe attachments.

DRIVE SYSTEM

Direct drive, full oil bath transmission, operates through 22:1 gear reduction in ductile-iron transmission case with heat-treated gears and premium industrial bearings.

Disc brake is mounted to drive motor armature. This arrangement multiplies the braking force by the 22:1 transmission ratio, providing powerful stopping action.

The entire drive train steers the truck via a bearing-mounted pivot tube. Pivot tube is mounted to internal structural member for maximum protection.

HYDRAULIC SYSTEM

Infinitely variable ball-type lowering valve provides full-range operator control and no-drift, positive system check in neutral.

Lift cylinder is manufactured by Big Joe to suit specific payload capacities.

Gear pumps are mated to lift cylinders to provide top lift performance at relatively low power-draw levels.

Full system filtration is provided on the intake side of the pump which prevents foreign matter from entering any part of the system.

Built-in relief valve protects system from overload.

Pressure-compensating flow control valve at base of lift cylinder regulates lowering speed.

Reservoir is removable, and comes equipped with foam-filter cap and dipstick.

SAFETY FEATURES

Automatic high-speed cut-off limits travel speed when forks are elevated above 18".

Large direction reversing "Belly-button" impact switch provides operator protection when traveling. Upon body contact, switch activates low speed away from the operator.

Slip-resistant handgrips provide firm control of steering arm.

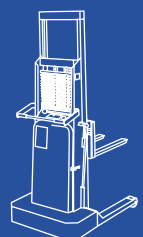
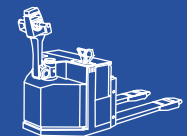
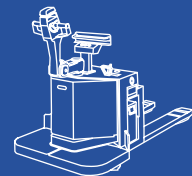
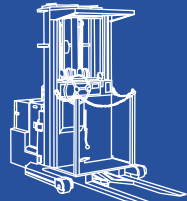
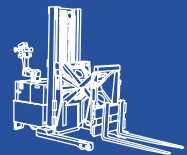
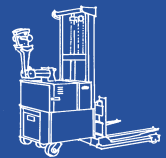
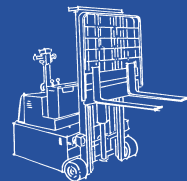
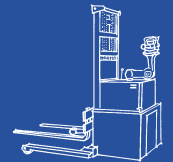
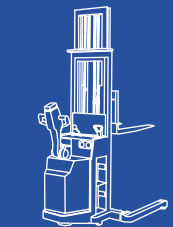
"Dead-man" mechanical braking action occurs when spring loaded control handle is released, turning off electrical power and applying disc brake.

Externally mounted battery disconnect is accessible to the operator for emergency power interrupt.

All power and control circuits are fuse-protected.

CERTIFICATION

Designed and tested to ANSI B56 standards



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Big Lift LLC will not assume liability for injuries or damage arising from, or caused by, the removal of any safety devices from their vehicles by user. Because of the Big Joe policy of continuing product improvements, specifications are subject to change without notice.

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Power Drive Heavy-Duty Straddle Trucks

STANDARD EQUIPMENT

- **Interlocked I-beam Mast.** The premium steel mast construction features interlocked steel channel and I-beam design with roller-bearing surfaces for long mast life. Interlock channel and I-beam mast accommodates high lifting stresses and maintains load stability.
- **Large Direction Reversing “Belly-button” Impact Switch.** Provides operator protection when traveling. Upon body contact, switch activates low speed away from the operator.
- **Versatile Braking Systems.** Two-way mechanical linkage actuates an automotive-type disc brake when the handle is positioned in the top or bottom of its arc. “Dead-man” feature returns the handle to its upright position, cuts out travel power and auto-mechanically engages the brake if the handle is inadvertently released.
- **Industrial Rated Batteries.** Built to withstand deep-discharge and recharging, industrial rated batteries contain heavy plates and separators. Hinged battery compartment covers provide easy access to batteries for maintenance.
- **Fully Protected Electrical System.** Fully fuse protected, heavy-duty industrial contactors are standard. All wiring is coded and has quick-disconnect terminals for easy servicing.
- **High Strength Construction.** Unitized continuous welded steel in every Big Joe frame minimizes structural deterioration.
- **Emergency Power Disconnect.** Externally mounted, quick-release battery disconnect is readily accessible to remove all power from truck circuits in the event of an emergency.
- **Special Alloy Forks.** Heavy-duty I.T.A. forks are heat-treated alloy steel and formed to preserve full strength at the fork heel. Bottom taper of 14 inches and beveled fork tips allow easy pallet entry and exit.
- **I.T.A. Class II Carriage.** I.T.A. Class II Carriage makes changing from forks to attachments simple. No tools or pin removal are required. Changing outside fork dimension is equally easy.
- **Chrome Plated Lift Cylinder.** For long life and low ram maintenance.
- **Pressure-Compensated Flow Control Valve** at base of lift cylinder regulates lowering speed.
- **V-Boxed Load Wheels on Straddle Legs.** This straddle leg design not only protects load wheels, but its angular shape aids in positioning.
- **Wheels.** 4” polyurethane load wheels standard on all models. 3”, 6” and tandem wheels are optional. 4” tandem standard on 4000 lb. trucks. Standard drive tire is 10-1/2” x 5” solid rubber, lug-type cushion tires. Drive wheel traction force and steering effort remain constant regardless of payload.
- **Stepless Speed Control.** Infinitely variable speed control is available.

OPTIONS

- **Adjustable Straddle Option*.** Available for the straddle I.D. range of 38” to 50”. Adjusts in 4” increments. Will allow the truck to work with a variety of pallet sizes. Ideal if future pallet requirements change.

Consult factory for other options and special configurations.



SPECIFICATIONS

Lifting Capacity:	4,000 lbs. at 24" load center
Lift Range:	60" - 194"
Power System:	24V
Turning Radius:	From 62"
Travel:	Infinitely variable

Travel speeds (in MPH)	Loaded	Empty
24V	3.0	3.5
Lift speeds (fpm) up to		
24V	19	36

Lower speed (fpm) 33
Gradeability 10%
Grade Clearance 10-15% (consult factory)

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Power Drive Heavy-Duty Straddle Trucks

FEATURES

■ Advanced Handle Control.

Big Joe Power Drive Heavy-Duty Straddle models come equipped with the industry's most versatile control handle. Forward and reverse speed may be controlled with detent action twist grip or thumb control. Horn and dynamic brake controlled with thumb. Large direction reversing "Belly-button" impact switch, at end of handle provides operator protection when traveling. Upon body contact, switch activates low speed away from the operator.

■ Exclusive Power Train Design.

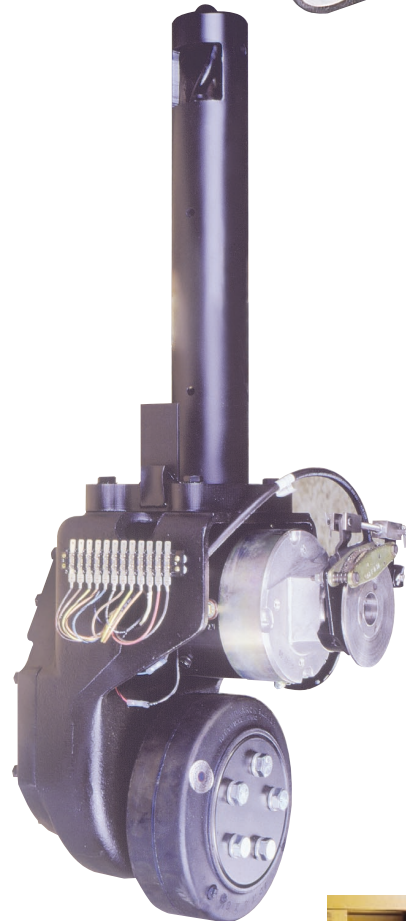
Engineered for smooth, dependable performance.

Includes:

- *Drive Motor.*
Ball bearings and *Class H* insulation provide maximum performance with long life. Disc brake on armature shaft multiplies braking force through the gear reduction to drive wheel.
- *Steering.*
The entire drive train pivots on a thrust bearing to ensure longer service life and low steering effort. Power is delivered to the floor through a large, solid rubber, lug-type cushion tire for more positive traction and long life.
- *Transmission.*
Heavy-weight ductile iron housing protects wide-faced, heat-treated spur gears; premium ball and tapered roller-bearings, fully oil bathed in a ductile iron housing.

■ Easy Access Service Panel.

Full-access design makes maintenance fast and easy. Hinged doors and removable panels permit quick access to battery, electrical circuitry, drive train and hydraulic components for all normal maintenance. Most major components can be serviced without special tools.



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Specifications For All PDX Models

Straddle I.D. and O.D.:

Straddles are built to order. Consult chart for minimums. Consult factory for O.D. greater than 58".

Battery

Compartment Sizes: 11¹/₈" x 31⁵/₈"
13¹/₈" x 30⁷/₈"

Fork Length x Width x Thickness:

Choice of 36", 42", 48" x 4" x 1³/₄"

Fork Lowered Height (min.):

2³/₄" Standard; 2" for Tri-Mast®, non-telescopic and full free lift masts

Fork O.D. Range: 8" (min), 32" (max)

Wheel Diameter: Tandem Load Wheels 4"
Caster Wheels 6"
Drive Wheel 10¹/₂"

Model Number	Capacity @ 24" Load Center	Lift Ht.	Col. Ht. †	Ext. Ht.	Free Lift Ht.	Straddle Length **	Overall Width	Power Head Length ***		Overall Length		Turn Radius		Approx. Shipping Weight W/O Battery	Stand. Battery (Wt. Lbs.)	Stand. Charger (Wt. Lbs.)
								12V	24V ****	12V	24V ****	12V	24V ****			
								F		G		H				
		A	B	C			D	E							24V	24V
PDX40 SERIES																
PDX40-60	4000	60	77.5	80	57	27.4	32	36.7	41.3	68.1	72.8	62.3	66.9	1885		
PDX40-106	4000	106	71.5	123	12	26.6	32	37.5	42.3	68.1	72.8	62.3	66.9	2328	510A.H. (1042)	75AMP. (90)
PDX40-130	4000	130	83.5	147	12	26.6	32	37.5	42.3	68.1	72.8	62.3	66.9	2410		
PDX40-154	4000	154	95.5	171	12	26.6	32	37.5	42.3	68.1	72.8	62.3	66.9	2520		
PDX40 TRI-MAST®																
PDX40-158	4000	158	77	184	51	26.6	32	N/A	46.1	N/A	75.8	N/A	72.5	3224	510A.H. (1042)	75AMP. (90)
PDX40-194	4000*	194	89	220	63	26.6	32	N/A	46.1	N/A	75.8	N/A	72.5	3340		

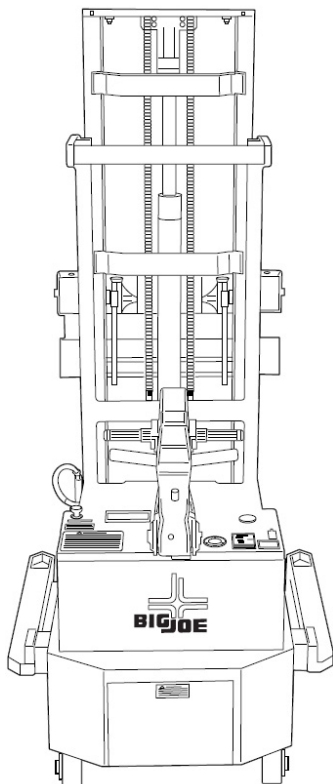
*Derate capacity 500 lbs. above 158"

**Face of fork to center of load wheels

***To face of fork

****Add 6.3" when 13" batt. comp. is used

†Add 4.5" with adjustable straddle (Adjustable straddle not available on PDX40 or Tri-Mast®)



Custom Application Options

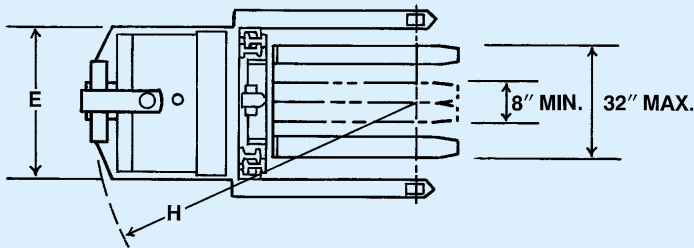
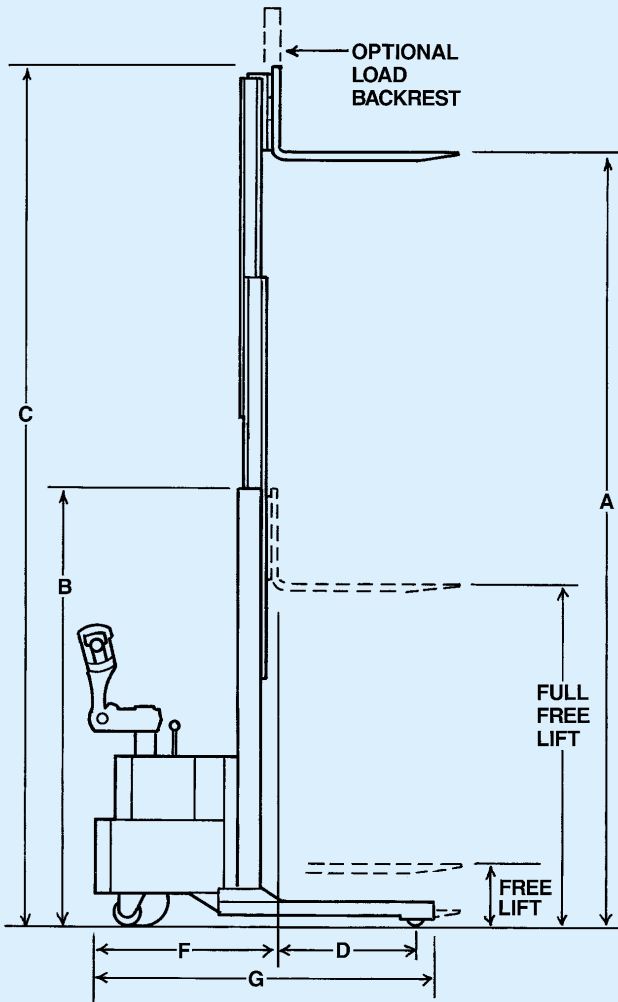
Consult factory for information on a wide range of available X-series custom stacker options including: Furnace loading bar forks, Die handling tables, Specialty attachments, Load platforms, Conveyor and ball type load transfer decks, Coil and roll handling rams, Carpet poles, Booms with lifting hooks, Special hydraulic and speed controls, Wash-down packages, V-groove guidance load wheels, Flow control valves and more.



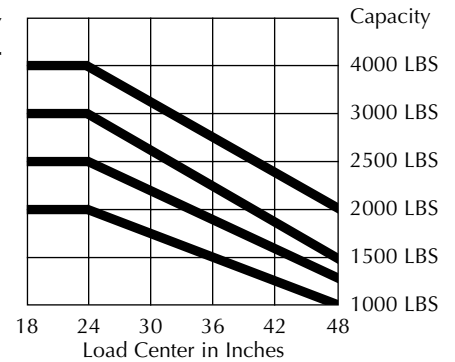
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DIMENSIONS



CAPACITY CHART

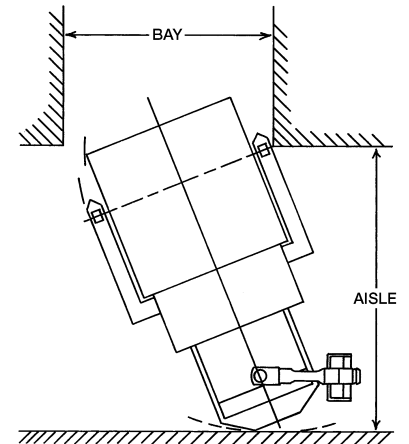


MINIMUM STRADDLE WIDTH CHART

(Inches)

TRUCK MODEL	STRADDLE I.D.	STRADDLE O.D.
PDX40-60	14	22
PDX40-106	22	30
PDX40-130	28	36
PDX40-154	34	42
PDX40-158	38	46
PDX40-194	50	58

MINIMUM AISLE STACKING REQUIREMENTS



6¹¹/₁₆" WIDE BATTERY COMPARTMENT**

Load Length	RIGHT ANGLE STACKING Load Width		
	36	42	48
36	69	70	71
42	70	71	72
48	71	72	73

Aisle dimensions are zero clearance; 12" should be added for ease of operation.

Aisle dimensions assume bay width to be the straddle O.D. plus 2" (1" on each side) where straddle O.D. is the load width plus 10".

**With 11¹/₈" wide battery compartment, aisle dimension should be increased 4.6"

**With 13" wide battery compartment, aisle dimension should be increased 6.3.

**For Tri-Mast® models, aisle dimension should be increased 4".