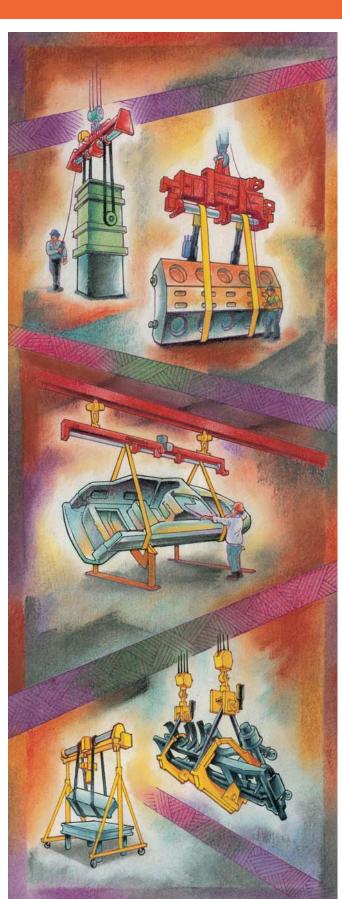
Posi-Turner® Section 2011-2013 Master Catalog

POSI-TURNER®

Load Rotation Equipment



Standard Posi-Turner®

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Independent Drive

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Quality & Engineering



The Posi-Turner® is designed for...

Safety & Ergonomics

- Provides safer working conditions by positioning the work piece at a distance.
- Eliminates tipping or dropping work pieces and the shock load to the crane associated with using two cranes to roll over a heavy object.
- Allows you to stop or start rotations at any point.
- Makes it easier to position a work piece.
- Provides ergonomic benefits to employees performing production and assembly work.
- Meets or exceeds industry standards, including ASME B30.20, ASME BTH-1. AWS D1.1 and ANSI/NFPA 70.

Efficiency

- · Lifts, levels and rotates objects without re-rigging.
- Improves production process efficiency, by keeping an assembly line moving.
- Makes rotation, positioning and precision work easier.
- Requires only one operator for system rotation.
- Saves production time and labor time.

Damage-Free Product Quality

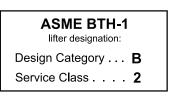
- Eliminates product slipping and dropping.
- Reduces product damage.

Caldwell Service

We provide everything from inspections and training to repairs and rebuilds. We offer solutions that will increase the productivity and effectiveness of your lifter, while ensuring the safety, reliability, and compliance of your equipment. We offer training and maintenance consultation for your new or existing lifter; on-site and factory inspection of your current lifter; repairs and modernizations of your lifting equipment. See page 6 in the front of this catalog for more details.



I.D. Nameplate



BTH-1 Tag







Product Safety Labels



Test Certificate

DISCLAIMER:

All product designs are subject to change without notice. Products pictures here are a representation of a specific design. The product you purchase will be designed for your specific application and may not look exactly as pictured.

Introduction to The Posi-Turner®



SOLUTIONS ARE DESIGNED TO MEET YOUR SPECIFIC REQUIREMENTS.

If you're looking to make your material handling processes more ergonomically efficient, safe, and with less product damage, you're in the right place. The Posi-Turner® is used by companies around the world to lift, suspend, rotate, and position hard-to-handle objects.

First developed in 1972, the Posi-Turner® was the world's first powered sling material handling system. Today, the industrial applications for the Posi-Turner® are practically unlimited.

The Posi-Turner® is a patented, ergonomically designed material handling system for the lifting, suspension, rotation and positioning of objects in light to heavy duty applications. With only one operator using a hand-held pendant or wireless remote control, the Posi-Turner® can lift in excess of 150 tons and handle virtually anything, including odd-shaped objects. Heavy duty slings, powered by a powerful

roller drum or independent drive system, make it easier to work with hard-to-handle materials - safely, efficiently, and with no damage to the work piece.

When you request a Posi-Turner®, we will select a drive and leveler system to create the best solution for you material handling requirements. We have standard Posi-Turner® models that will accommodate a wide range of applications. We can also design a Posi-Turner® system for your specific application, giving you the best solution available.

In this section...

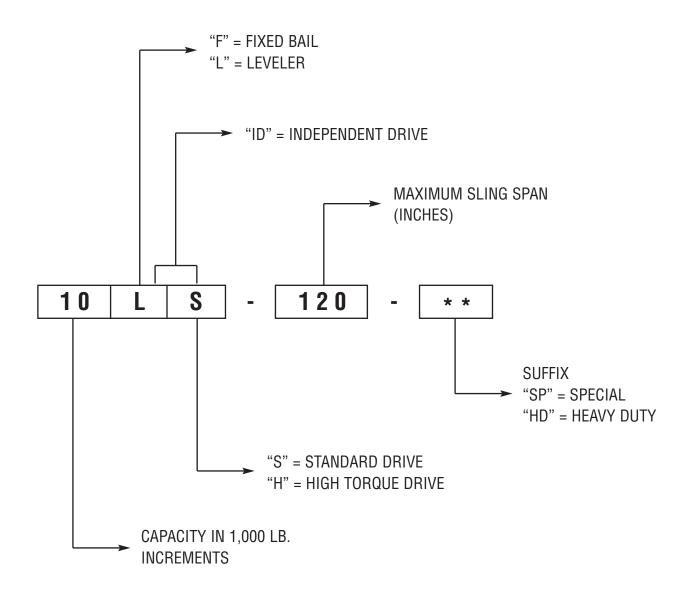
- You'll find information about Posi-Turner® features, applications, and options.
- You can read about how other companies are using the Posi-Turner[®].
- View and fill out the application evaluation form that will get us started on the Posi-Turner[®] solution you need.

Model Information

Breakdown of Model Number

Bail Drive Capacity Max. Sling Suffix Style S = Standard In 1,000 lb. Span SP = Special F = FixedH = High Torque HD = Heavy Duty Increments In Inches L = Leveler

Sample Model Number

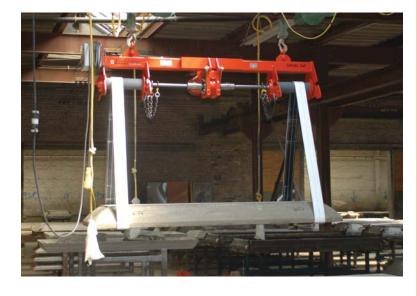


Standard - Fixed Bail

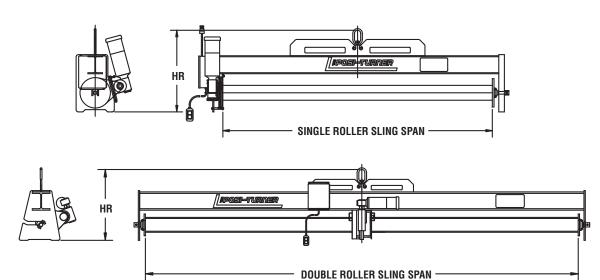
The core feature of the Posi-Turner® is the smooth and controlled rotation. The Posi-Turner® suspends and rotates objects 360 degrees or more with controlled rotation. This series of photos, featuring a twin bail unit, shows how rotation with the Posi-Turner® is efficient and damage free.







Standard - Fixed Bail



SPECIFICATIONS Application evaluation required; consult factory for additional information.

SPECIFICATI	ONO AP	piloation cvalue	tion required; cons	suit lactory for	auditional init	iiiialioii.
Model Rated		Maximum	Roller		HR Headroom	Unit
Number	Capacity (lbs.)	Sling Span (in.)	Single / Double	Dia. (in.)	(in.)	Weight (lbs.)
.5FS-72	500	72	S	2.0	14.5	245
1FS-48	1000	48	S	2.0	14.5	225
1.5FS-72		72	S	4.0	28	365
1.5FS-84		84	S	4.0	28	400
1.5FS-96	1500	96	S	4.0	28	430
1.5FS-108		108	S	4.0	28	455
1.5FS-120		120	S	4.0	28	480
2FS-80		80	S	5.6	32.5	750
2FS-120	2000	120	S	5.6	32.5	1050
2FS-250		250	D	5.6	35	2250
3FS-80		80	S	5.6	32.5	750
3FS-120	3000	120	S	5.6	32.5	1200
3FS-250		250	D	5.6	35	2550
4FS-80		80	S	6.6	36.4	900
4FS-120	4000	120	S	6.6	36.4	1300
4FS-250		250	D	6.6	39	2900
6FS-80		80	S	8.6	36.4	1000
6FS-120	6000	120	S	8.6	36.3	1500
6FS-250		250	D	8.6	39	3200
10FS-80		80	S	8.6	38.8	2200
10FS-120	10000	120	S	8.6	38.8	2300
10FS-250		250	D	8.6	41	4200
16FS-80		80	S	10.8	45	3000
16FS-120	16000	120	S	10.8	45	3600
16FS-250		250	D	6.6	47	4600
22FS-150	22000	150	D	6.6	45	3300
22FS-270	22000	270	D	6.6	51	4900
33FS-150	33000	150	D	8.6	53	3900
33FS-270	00000	270	D	8.6	54	7900
44FS-150	44000	150	D	10.8	60	5700
44FS-270		270	D	10.8	61	9700
55FS-150	55000	150	D	10.8	63	5700
55FS-270		270	D	10.8	70	13200
66FS-150	66000	150	D	10.8	69	8000
66FS-270		270	D	10.8	75	17800
88FS-150	88000	150	D	10.8	75	10800
88FS-270		270	D	10.8	83	23700
110FS-150	110000	150	D	12.8	75	12900
110FS-270	110000	270	D	12.8	86	27900

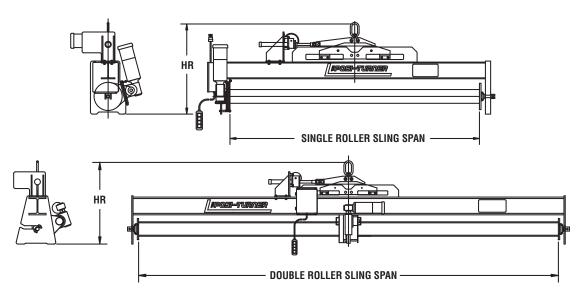
Standard - Leveler Bail

An optional feature to the Posi-Turner®, the "Leveler" adjusts the center-of-gravity under the hook to balance the load with a push of a button. These photos display the benefit of leveling uneven loads in mid-air to save time and promote a safer work environment.





Standard - Leveler Bail



SPECIFICATIONS Application evaluation required; consult factory for additional information.

Model Number (Rated	Maximum				
Number (IVIAXIIIIUIII	Roller		HR Headroom	Unit
Mullingi	Capacity (lbs.)	Sling Span (in.)	Single / Double	Dia. (in.)	(in.)	Weight (lbs.)
.5LS-72	500	72	S	2.0	19.1	295
1LS-48	1000	48	S	2.0	19.1	275
1.5LS-72		72	S	4.0	32.5	420
1.5LS-84		84	S	4.0	32.5	455
1.5LS-96	1500	96	S	4.0	32.5	480
1.5LS-108		108	S	4.0	32.5	510
1.5LS-120		120	S	4.0	32.5	535
2LS-80		80	S	5.6	36.8	800
2LS-120	2000	120	S	5.6	36.8	1200
2LS-250		250	D	5.6	38.8	2400
3LS-80		80	S	5.6	36.8	900
3LS-120	3000	120	S	5.6	36.8	1350
3LS-250		250	D	5.6	38.8	2700
4LS-80		80	S	6.6	43.4	1200
4LS-120	4000	120	S	6.6	43.4	1500
4LS-250		250	D	6.6	46	3100
6LS-80		80	S	8.6	43.4	1300
6LS-120	6000	120	S	8.6	43.4	1700
6LS-250		250	D	8.6	46	3400
10LS-80		80	S	8.6	46.5	2400
10LS-120	10000	120	S	8.6	46.5	2500
10LS-250		250	D	8.6	49	4600
16LS-80		80	S	10.8	60	3600
16LS-120	16000	120	S	10.8	60	4000
16LS-250		250	D	6.6	62	5000
22LS-150	22000	150	D	6.6	59	4000
22LS-270		270	D	6.6	62	5600
33LS-150	33000	150	D	8.6	64	4900
33LS-270		270	D	8.6	65	8900
44LS-150	44000	150	D	10.8	71	6500
44LS-270		270	D	10.8	72	10500
55LS-150	55000	150	D	10.8	73	7500
55LS-270		270	D	10.8	80	15000
66LS-150	66000	150	D	10.8	78	9800
66LS-270		270	D	10.8	85	19600
88LS-150	88000	150	D	10.8	86	12900
88LS-270		270	D	10.8	94	25800
110LS-150	110000	150	D	12.8	90	15000
110LS-270		270	D	12.8	101	30000

Independent Drive

Independent Drive System

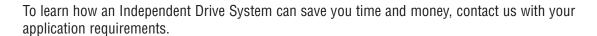


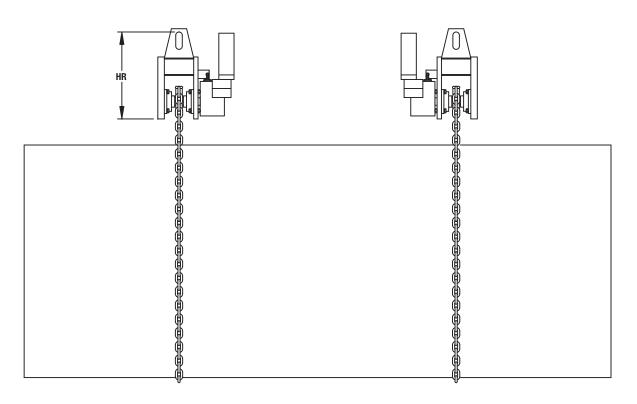
Consists of two powered drive units suspended from two cranes/hoists, with pocketed sheave driving special coil link chain slings that rotate large heavy, bulky items for assembly, welding positioning, and inspection. Drive units can either be operated independently or together, through an operator pendant(s), or remote control.





Independent Drive





PRODUCT FEATURES:

- Two powered drive units for precise control.
- Chain slings have disconnect hardware allowing them to be positioned underneath the load.
- Over travel limit switches prevent chain disconnect hardware from running over chain sprocket.
- Standard models include operator pendant on each unit for independent operation, optional remote control allows for simultaneous operation.

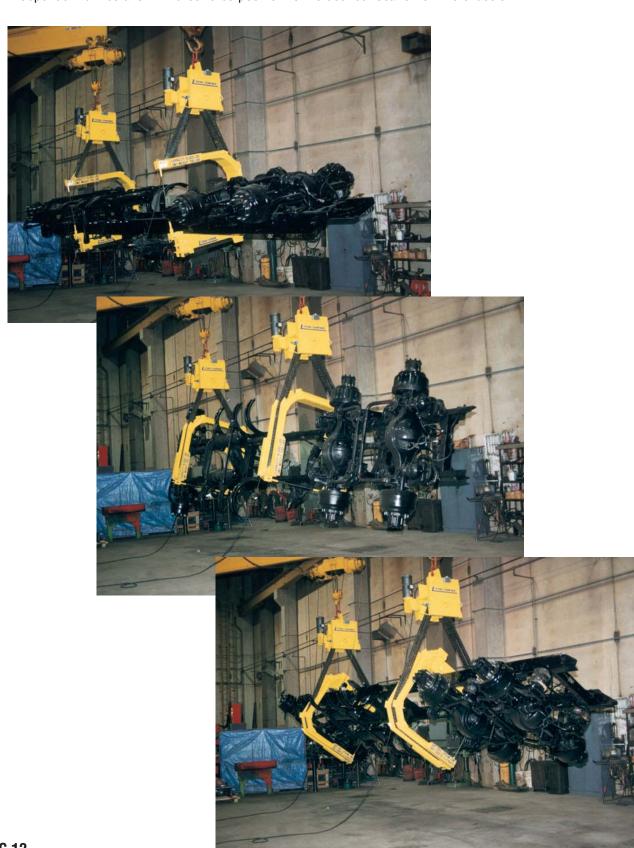
SPECIFICATIONS - Independent Drive

Model	Capacity	HR Headroom	Chain	Weight
Number	(lbs.)	(in.)	(in.)	Each (lbs.)
2-10ID-0	10000	30	3/8	800
2-20ID-0	20000	40	5/8	1250
2-30ID-0	30000	40	7/8	1600
2-40ID-0	40000	40	7/8	1700
2-60ID-0	60000	40	7/8	1700
2-80ID-0	80000	42	7/8	2000
2-120ID-0	120000	42	1	4000
2-160ID-0	160000	60	1 1/4	5000

Chassis Master™

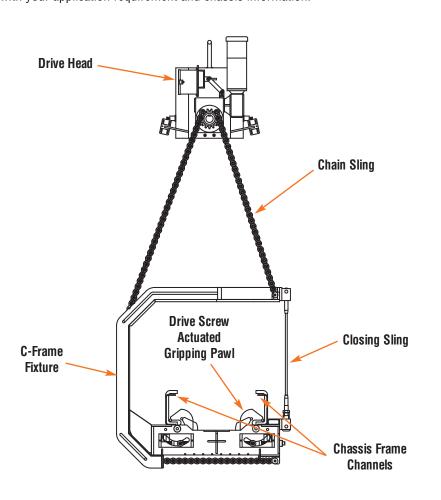
Chassis Master™

The ideal system for inverting truck/bus chassis after suspension installation. Custom designed fixtures clamp to chassis "C-Rails" and contain center of gravity within the turning radius, thus creating a smooth transition. Independent drives allow fixtures to be position to the desired location on the chassis.



Chassis Master™

To learn how a Chassis Master™ can save you time and money, contact us with your application requirement and chassis information.







Products pictures here are a representation of a specific design. The Chassis Master™ we design for you will be specific to your application and may not look exactly as pictured.

Posi-Gantri™

Posi-Gantri™

Material handling system suspends and rotates objects 360 degrees or more with controlled rotation.

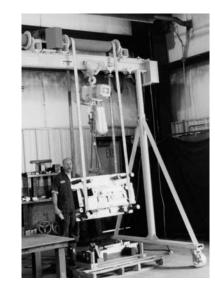
The Posi-Gantri™ is a versatile tool used to turn loads in areas where using an overhead crane is not feasible. The Posi-Gantri™ can span a workbench or area where loads need to be turned during fabrication, assembly, or maintenance. The optional chain hoist can be used to place the load into the rotation slings, or a fork lift can

perform this function when bringing the load to the area. Posi-Gantri™ heights can be fixed or adjustable and equipped with or without casters. Rotation slings can be polyester or wire mesh. Specials can be designed to fit your specific requirements.



PRODUCT FEATURES:

- Complete material handling system.
- Heavy duty non-slip drum surface.
- Heavy duty worm gear reducer with chain and sprocket final drive.
- · Electric brake motor.
- · Bolted assembly to head beam.
- Push button pendant control.
- Posi-Gantri™ can be ordered either with fixed or adjustable heights. Please refer to our Krane-King® section for additional gantry crane information.
- Can also be added to existing gantry cranes, please contact factory for details.



The Caldwell Group • 800-628-4263 • www.caldwellinc.com

Posi-Gantri™ - Application Evaluation

PRODUCT:	
Product to be handled:	
Maximum: Weight Length	
Minimum: Weight Length	Width Height
Does product have:	
Type of slings preferred: Polyester Decision time frame and expected delivery:	
WORK AREA: Floor space available: Length Width_ Ceiling height:	
Is product lifted from: \square Floor \square Wor	
Size of worktable: Length Width Will product be rotated over worktable:	res No
Amount of rotation: 90° 180 Describe any hazardous conditions:	
POWER REQUIREMENTS: ☐ Electrical: ☐ DC ☐ AC Voltage ☐ Pneumatic: Pressure Flow	Phase Cycle Line Size
OTHER OPTIONS: ☐ Chain Hoist: ☐ Manual ☐ Electric ☐ Power Cord Tag Line	Contact:
☐ Wheel Locks	
Swivel Locks	Company:
☐ Combined Pendant With Hoist	Address:
MAX. SPAN BEAM LENGTH MINUS 12"	City, State Zip:
36" TYP. MIN. SPAN 25"	Phone: Fax:
HEIGHT I I FLANGE WIDTH	Email:
HEIGHT UNDER BEAM	For a price quote on your specific application,
INSIDE SPAN	please complete the above application form and fax this along with a photo, sketch, or drawing of the product being rotated to The Caldwell Group at 815-229-5686 or you can complete this form online at
SUPPORT WIDTH	ununu aalduuallina aana/anniisatia = =

www.caldwellinc.com/applications.

Posi-Turner® Sling Styles

Sling Styles

The Posi-Turner® can utilize several types and configurations of slings to suit every application. Certain parameters should be considered in the sling type selection such as: heat, sharp edges, welding applications, environment, etc. In most cases, a disconnect link is used so that one end of the sling can be inserted under a load.

Style	Use/Application
Polyester Slings	Soft, pliable slings are ideal for most applications, especially when the object being turned must be handled gently.
Polyester Slings with PVC Protective Surface	MOST POPULAR SLING: Tough PVC surface is stitched onto inner surface of the polyester sling. Gentle to the product, but minimizes damage to the sling from sharp edges and abrasion.
Metal Mesh Slings	Requires rubber belt lagged drum on Posi-Turner®. Heavy duty (10 GA) fabricated wire mesh sling. Not damaged by sparks if product is welded while in slings. Used when polyester slings are not suitable.
Ladder Sling	Two eye-to-eye slings are connected at intervals with sling "rungs" to form a ladder shape. Used to cradle and turn cylindrical objects end-over-end.
Sling Links	Heavy duty fabricated steel links. Used to connect the ends of eye-to-eye polyester slings. Eye-to-eye slings are often easier and faster to position than endless slings.
Sling Link Covers	Cordura fabric covers with velcro fasteners. Wrapped around sling links to prevent direct contact between links and object being turned.
Sling Protective Devices PVC Pads Metal Pads	Prevents damage to slings from sharp edges and corners. Used in addition to PVC pad usually sewn on slings. PVC pads are stripped onto the slings and slid into position over the sharp edges. Metal pads are placed between the sling and the sharp edge as the object is turned. These pads may be attached to the object being turned with magnets.
Additional Sling Eyes (single ply slings only)	Extra sling eyes are sewn on sling at specific location. The operator adjusts the length of the sling to the product. Used when headroom is limited and product size varies.



Polyester Slings with PVC Protective Surface



Rubber Belt Lagged Drum for use with Metal Mesh Slings



Sling Links & Cover

Posi-Turner® Options

Options

Many different options allow your Posi-Turner® to be configured to your specific environment and application. If you don't see a desired option listed, please contact our application specialist to discuss your needs.

Option	Features
Power Cord Reel	The standard Posi-Turner® is provided with a pig-tail power cord with both male and female connectors. The Optional Power Cord Reel allows the Posi-Turner® to be connected to the power supply to keep cords controlled while moving the lifter up and down.
Pendant Cord Reel	Keeps the Push-Button Pendant cable contained.
Remote Control Push-Button	A cable-free, hand held option for controlling your Posi-Turner®.
Alternative Voltage	Different voltage power supply required alternative voltage designed into your Posi-Turner®. Let us know what your requirements and we will design your lifter to correspond.
Alternative Power Supply	No Electricity? We can design your Posi-Turner® to run on pneumatic or hydraulic power.
Rubber Belt Lagged Drum	Required for all Posi-Turner® units with that utilize metal mesh lifting slings.
Sling Guide	Controls the location of the sling on the drum to help prevent sling from moving up and down the load or drum during the rotation process.
Additional Lifting Eyes	For multiple lifting points.
Caster Wheels	This option allows the unloaded Posi-Turner® to be rolled from one location to another.



Cord Reel



Remote Control Push-Button



Custom Sling Guide





Posi-Turner® Application Evaluation

PRODUCT:							
Product to be h	nandled:						
	Weight		_				
Minimum:	Weight		Length		Width_		_ Height
Does product has temperature. Type of slings product because of the type of type of the type of type o	nave: of product preferred:	Sharp Edge at time of ha Poly	andling over 15 ester 🔲	Protru 60° F? Steel Mesh	usions No C	☐ Yes ☐ hain	Iding Application Femperature:
	vailable:	☐ Crane	☐ Gantry	☐ Fork L	_ift	Lifting Ca	pacity:
If two cranes/h			-				· <u>-</u>
If yes, what is t	the crane ho	ook spacing:	: Minim	um		Maximun	1
Do you prefer t	to supply po	wer for Pos	si-Turner® from	: 🖵 Cra	ne 🖵	Floor Lev	el
Headroom clea	d from:	☐ Floor	☐ Convey	or 🖵 W	orktable/		er
Will product be	-	•	nes): /worktable:			•	
						360°	
Work Area Con	ditions:	Outside	☐ Inside	☐ Wel	ding Area	☐ Co	orrosive
Describe any ha	azardous co	onditions:					
POWER REQUI ☐ Electrical: ☐ Pneumatic: ☐ Hydraulic: ☐ Other:	DC Pressure_ Pressure_		Flow	Li LI	ne Size		
					adio 🗆	l Infrared	Remote P.B.
OTHER OPTION ☐ Pendant Cor ☐ Sling Guides ☐ Castor Whe	NS: rd Reel s	☐ Power C	ord Reel nk Covers		RANE HOC		
Contact:					<u> </u>	(ir	ncluding safety latch)
Company: Address: City, State, Zip: Phone: Email		Fax:					(H)Height
_							P. P. C. 1

For a price quote on your specific application, please complete the above application form and fax this along with a photo, sketch, or drawing of the product being rotated, to **815-229-5686** or you can complete this form online at www.caldwellinc.com/applications.

Industry/Usage Cross Reference

The industrial applications for the Posi-Turner® are nearly unlimited. With a powerful roller drum system and the optional "Leveler", combined with heavy duty slings, the Posi-Turner® gently rotates virtually any object - even those weighing more than 100 tons. Designed to improve production capabilities for a variety of industries, a rotated object can be stopped or started in any desired position.



Typical Products Rotated (by Industry)	Fabrication Assembly	Machining M. Forning M.	Die did Maintenance	Molded Process	Handling Stora	Cleaning ection and Repair	in ing
TRANSPORTATION Auto: frames, engines, dies, molds, etc. Truck: chassis, trailers, tanks, etc. Rail: undercarriages, bogeys, cars, wheels, etc. Aircraft-Aerospace: panels, tooling, etc. Shipping: container, trailer, etc.	X X	X X X X	X X X X	x x x	X X	X X X X	X X X X
INDUSTRIAL EQUIPMENT machine bases, panels, enclosures, frames, engine blocks, weldments, etc.	X X	X X	X X	X X		X X	X X
HEAVY EQUIPMENT Agricultural, Construction, Mining, Military: chassis, axles, assemblies, buckets, transmissions, frames, booms, etc.	X X	X X	X X	X X		X X	X X
CONCRETE Precast Molds and Products: vaults, pipes, basins, barriers, construction girders, panels, decks, etc.	X X			X X	X X	X	X X
MARINE decks, hulls, panels, molds, etc.	Х	Х		X	Х	Х	х
PLASTICS AND COMPOSITES injection molds, fiberglass products, etc.		Х		Х	Х	Х	Х
METAL FORMING tooling, dies, coils, castings, sheets, etc.	Х	Х	Х	Х	Х	Х	Х
MATERIAL PRODUCTION blocks, slabs, ingots, plates, bundles, stone, steel, aluminum, stainless, ceramic, copper, graphite, refractory, paper, wood, etc.	X X X	X X X	X X X		X X X	X X X	X X X
SPECIALTY PRODUCTS	Х	Х	Х	Х	Х	Х	Х

Assembly Line

Use to rotate product during line processes to allow components to be added at various stages along the line.



PRODUCT HANDLED:

Drive components are rotated during assembly to aid in component installation.



PRODUCT HANDLED:

Truck chassis are rotated after the drive components have been installed on the bottom.

Fabrication & Assembly

Rotates bulky and hard to handle objects during welding and other assembly processes.



PRODUCT HANDLED:

Nose and ski landing assemblies for polar expedition airplanes up to 21' long and 2,200 pounds.



- Hydraulic crane components.
- Boom sections 34' long.
- Weight 5,000 pounds.

Machining & Metal Forming

Safely and efficiently rotates large or unbalanced loads for placement during forming and machining.



PRODUCT HANDLED:

Landing gear beams and flap tracks 17' long, 2'-4' wide machined steel, titanium or aluminum weighing up to 5,300 pounds.



PRODUCT HANDLED:

Large engine blocks requiring rotation during the machining process.

Die & Mold Maintenance

Easily rotates dies and molds to allow for product removal, maintenance, or tooling changes.



PRODUCT HANDLED:

Rotating large concrete castings to an upright position after removal from the mold.



Dies and molds are easily separated and then reassembled after maintenance.



Molded Product Removal

Rotates and/or separates molds for safe and damage free product removal.





PRODUCT HANDLED:

- Precast drycast concrete molds for manholes and catch basins.
- Jacket with and without product.
- · Rectangular or cylindrical forms.
- Full weight up to 15,000 lbs.
- Up to 6' long and 4' 0.D.

PRODUCT HANDLED:

Vacuum mold with special turning fixtures to compensate for close clearance that prevents slings from being placed between the mold halves.





- Molded fiberglass boat decks.
- Up to 27' long and 10' wide.
- Weight 800 lbs.

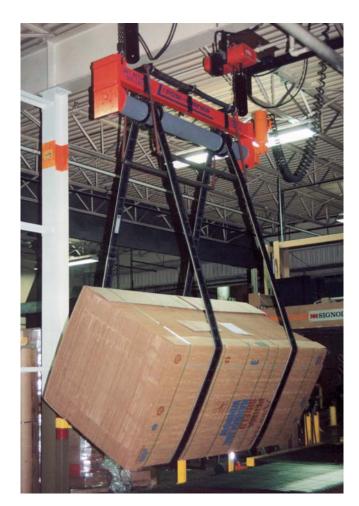
Material Handling, Storage, and Shipping

Safely picks and tilts loads to the exact angle required for shipping and storage applications.



PRODUCT HANDLED:

Cylindrical segments that need to be rotated for the fabrication and shipping process.



PRODUCT HANDLED:

Banded stacks of corrugated cardboard boxes up to 2,000 pounds that need to be rotated 180° for shipment.



- Jet skis weighing 800 lbs.
- · Position to a precise angle for packaging and shipment.



Inspection, Cleaning, Painting & Repair

Precise controlled rotation will allow load rotation to be stopped at any angle for load inspection, cleaning, plating, painting, and repair.



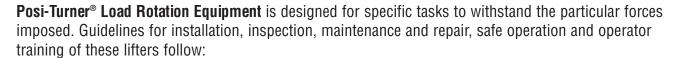
PRODUCT HANDLED:

- Condenser coils.
- Typical piece: 5' long x 4' wide x 1' high.
- Weight 1,000 pounds.
- Coils are rotated to allow fluid from testing tank to easily drain out.

- Absorption chillers for large air conditioning systems.
- Fabricated steel shells with copper tubing.
- Weight up to 4,000 lbs.
- Up to 25' long.



Care & Use



INSTALLATION

Below Hook Lifters shall be assembled and installed in accordance with the manufacturer's instructions, unless other specific arrangements have been approved in writing by manufacturer. When lifter/auxiliary power supply is required, user inspection shall ensure that the power source complies with ANSI/NFPA 70, National Electrical Code and shall include a power disconnect switch as required in accordance with ANSI/NFPA 70 based on the lifters requirements. If electrical connections are made, the power supply and corresponding power disconnects shall be connected to the line side (power supply side) of the crane disconnect or to an independent circuit as specified in the manufacturer's operating instructions.

Check for correct rotation of all pumps and power units, lubrication of moving parts, and filling of reservoirs, all in accordance with manufacturer's instructions.

OPERATOR TRAINING

Lifters shall be operated in accordance with manufacturer's operating instructions, and by personnel who have received instructions described in the "Operating Practices" section of these guidelines. Training should also include instruction regarding:

- 1. Details of the lifting cycle.
- Application of the lifter to the load including (according to the manufacturer's instructions) adjustments to the lifter, if any, to adapt it to various sizes and kinds of loads.
- 3. Instruction in any special operations or precautions that may be required.
- 4. Recognition of proper load configuration. For example, preferred operation requires an orderly pattern of stacking.
- Before assuming responsibility for using the lifter, an operator shall demonstrate his understanding of the lifting procedure to the instructor. The instructor should record notes of operator's demonstrated ability.

INSPECTION

The lifter shall be visually inspected by or under the direction of an appointed person on a daily or weekly schedule depending on the nature of the lifter and the severity of the service.

Details to look for include but are not limited to:

- 1. Structural deformation.
- 2. Cracks in the structural frame, welds, hoist hook attachment points, mechanically operating parts, any attached slings, clevises and hooks.
- 3. Malfunctions during operation of a mechanically operating lifter.
- 4. Loose covers, fasteners and stops.
- 5. Faulty operation of automatic hold and release mechanisms.
- 6. Wear of hoist hooking points, load supporting clevises, pins, slings, linkages and mechanical parts.
- 7. Missing nameplates and markings. Contact Caldwell for replacements.

MAINTENANCE AND REPAIRS

- A preventive maintenance program should be established for each lifter by a qualified person based on recommendations made by its manufacturer.
- 2. A qualified person should have responsibility for repairs. Dated records and details of repairs and parts replacement should be carefully maintained by a qualified person, and copies kept in your possession.
- 3. Replacement parts shall be at least equivalent to the original manufacturer's specifications.

OPERATING PRACTICES

DO'S

- The operator shall receive, read and understand the manufacturer's instruction manual.
- 2. The operator shall watch carefully that the lifter is performing properly during the lifting procedure.
- 3. The operator shall know the standard crane directing hand signals.
- The operator shall only respond to signals from an appointed person. However, stop signals from anyone shall be obeyed.
- 5. The operator shall notify a designated person when he considers a load to be unsafe.
- 6. The operator shall inspect the lifter before using. Any defect shall be examined by a qualified person to determine if it is a hazard.

סידואחח

- 1. The operator shall not operate a malfunctioning lifter or one with an "out of service" tag attached.
- 2. The operator shall not use the lifter for any purpose(s) other than those designated by the manufacturer's instruction manual.
- The operator shall not use a lifter when the capacity, weight or product safety labels are missing or are no longer legible.
- 4. No one shall make alterations or modifications to lifters without consulting the manufacturer.
- No one shall obscure or paint over the manufacturer's capacity, weight, or safety markings.
- Loads shall not be lifted higher than necessary or be left suspended unattended.
- The lifter shall not lift a load that is not properly balanced for safe lifting.

HANDLING THE LOAD

- 1. The lifter shall not be loaded in excess of its rated load.
- 2. Ensure the load can withstand forces applied by the lifter.
- 3. The combined weight of the lifter and load shall not exceed the rated load of the crane or hoist.
- 4. The lifter shall be applied to the load in accordance with the manufacturer's recommended operating procedure.
- Lifter ropes and chains shall not be kinked, and multiple part lines shall not be twisted about each other.
- 6. The lifter shall not touch obstructions during load movement.
- The lifter shall not be loaded with loose material that might fall during movement.
- 8. The operator or other personnel shall not place themselves or any part of their bodies beneath suspended loads.
- 9. The load or lifter shall not be slid on the floor or other surface.
- 10. The lifter shall not be used for loads for which it is not designed.
- If suspended loads are moved manually, they shall be pushed, not pulled.
- 12. A preliminary lift of a few inches shall be made to establish that the load is stable.
- All loads shall be accelerated and decelerated smoothly and slowly.

Modifications or repairs performed on your lifting equipment without prior written approval from The Caldwell Group, Inc. voids your warranty. Refer to ASME standards for information regarding the liability of repaired or modified lifters.