
THE CAGE® IS THE KEY
POSI LOCK®
COMPANY PRESENTATION
APRIL 2019
40 YEARS
1978 2018
ANNIVERSARY


THE CAGE® IS THE KEY
POSI LOCK®
OUR BUSINESS
40 YEARS
1978 2018
ANNIVERSARY

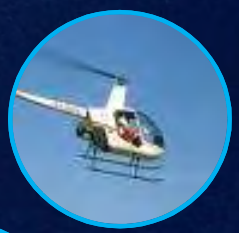
Posi Lock Pullers are used to remove

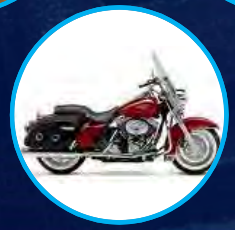


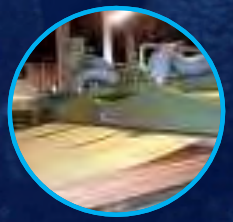

from a wide variety of equipment










Features & Benefits

THE CAGE® IS THE KEY
POSI LOCK®

Nut recessed to avoid mushrooming and disfiguration from impact.

T-handle locks jaws precisely where you set them.

Leverage up front for vise-like power and no slippage.

Cage® guides jaws for fast setup, solid contact and superior safety.

Center bolt threads designed for less effort to apply high torque.

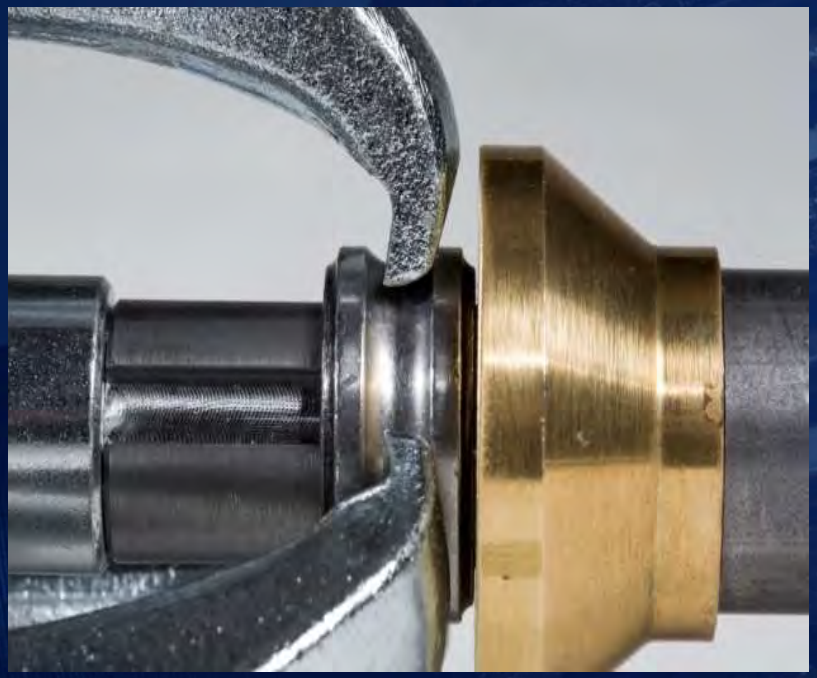
Hardened tip.

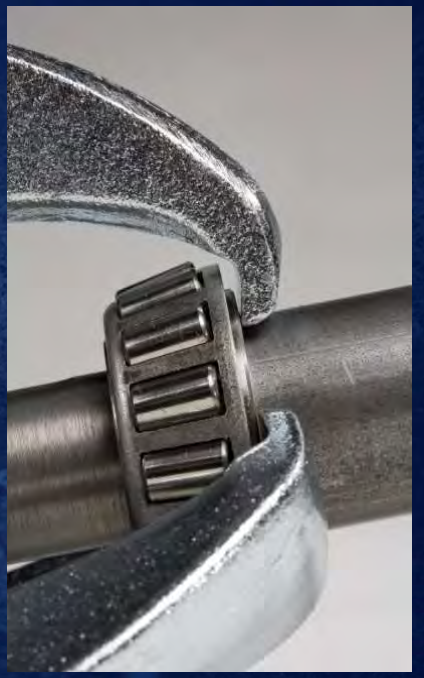
Slim tapered jaws allow for easier gripping and better access to tight spots.

40 YEARS
1978 2018
ANNIVERSARY

Posi Lock pullers are the only puller that will lock on the groove of a failed bearing race

THE CAGE® IS THE KEY
POSI LOCK®





40 YEARS
1978
2018
ANNIVERSARY

POSI LOCK PULLERS

PORSCHE 918 SPIDER

THE CAGE® IS THE KEY

POSI LOCK®

40 YEARS

1978 2018

ANNIVERSARY

YUGO

FLOPPY JAW PULLERS

Posi Lock

- Fast Set-Up
- Efficient Operation
- Less Operator Effort
- Safe Operation
- Greater Productivity
- T-Handle Operation of Jaws
- Steel Guided Frame

Floppy Jaw

- Difficult Set-Up
- Difficult Operation
- Outdated Design

THE CAGE® IS THE KEY

POSI LOCK®

OUR CUSTOMERS

40 YEARS
1978 2018
ANNIVERSARY


JOHN DEERE


Ford


Mercedes-Benz


Exxon


Kimberly-Clark


DELTA


AIRFRANCE
SKYTEAM


CAT
CATERPILLAR


BAYER


P&G
Procter&Gamble


BOEING

THE CAGE® IS THE KEY

POSI LOCK®

INDUSTRIES WE SERVE

40 YEARS
1978 2018
ANNIVERSARY

Industries we serve

THE CAGE® IS THE KEY
POSI LOCK®

Agriculture	Automotive	Aviation	Construction
DIY	Fishing Industry	Food Service Equipment	Forest Industry
HVAC	Industrial	Mining Industry	MRO
Oil & Gas	Paper Mills	Plant Maintenance	Power Transmission
Printing Companies	Steel Industry	Wind Power	… and more

40 YEARS
1978 2018
ANNIVERSARY

Businesses we support…

- Logging companies
- Ship building & repair
- Aviation ground maintenance
- Heating/Cooling repair shops
- Electric motor shop repair
- Processing companies
- Railroad repair & mfg.
- Oil industry
- Tool rental companies
- Heavy truck repair centers
- Mechanical, vocational schools
- City, county and state depts.
- Independent repair centers
- Cement, chemical & forest products
- Bus, moving, taxi, fleet companies
- Food industries
- Hotel maintenance
- Lawn/garden repair centers
- Mfg/textile, grain, paper, steel
- Power plants
- Machine shops
- Prisons
- Dairy farms
- Wineries
- Bakeries
- Bowling alleys
- Military
- Grain elevators
- Construction companies
- Mills
- Production equipment
- Golf courses
- Cemeteries
- Implement dealers
- Marinas
- Amusement Parks
- Boat repair centers
- Motorcycle repair centers

THE CAGE® IS THE KEY
POSI LOCK®

40 YEARS
1978 2018
ANNIVERSARY


THE CAGE® IS THE KEY
POSI LOCK®
POSI LOCK APPLICATIONS
40 YEARS
1978 2018
ANNIVERSARY

Manual Puller Applications

Tapered jaw design allows clamping around bearings

Remove tapered roller bearings

Locks on ball grooves and bearing races

Removal of bearings

Removal of bearing races

Manual Puller Applications

Steering arm removal

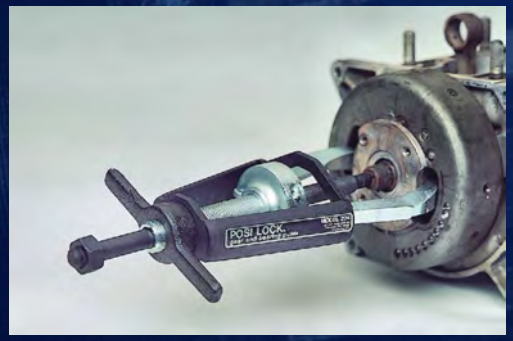
Alternator pulley removal

Steering linkage removal

Manual Puller Applications

Hydraulic pump pulley removal (Model 106)

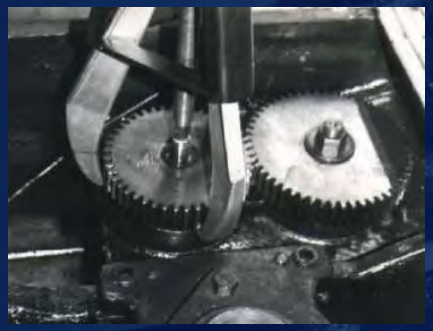
Dozer's bearing removal (Model 116)



Clutch removal (model 204)

U-joint removal and installation

Manual Puller Applications



Gear removal from machine (Model 110)

Transmission and rear end yoke removal

Clamps an failed bearing surfaces

Removal of a hand wheel from a lathe

Blower fan removal

Manual Puller Applications

Removal of failed bearing by clamping in the ball groove of bearing race (Model 106)

Jaws lock securely around failed bearings

Jaws fit in snap ring grooves as narrow as .070in (1.78cm)

Transmission bearing removal with bolt extender

Transmission bearing removal

Manual Puller Applications

Bearing cup removal from brake rotor

Pilot bearing removal from crankshaft

Needle bearing removal from transmission gear

Oil seal removal from transmission housing

Bushing removal from transmission gear

9/16th in. (14.29mm) minimum spread for small bearing removal (Model 105)

Automotive Transmission Pullers

THE CAGE® IS THE KEY
POSI LOCK®

Jaws clamp in snap-ring grooves as narrow as .070” to allow removal of front input shaft bearings on 1955-present, 3-speed, 4-speed, 5-speed, 3-speed overdrive & 4-speed overdrive manual transmissions on rear wheel drive foreign & domestic cars, trucks & vans. Can also be used on transfer cases on 4-wheel drive vehicles.

Model# TJ-2

Model# TJ-1

Transmission bearing removal takes minutes, not hours when using models TJ-1, TJ-2 or TJ-3

40 YEARS
1978
2018
ANNIVERSARY

Advantages of Posi Lock® Puller Hydraulic Pullers

THE CAGE® IS THE KEY
POSI LOCK®

Lift plate to conveniently transport puller and protect hydraulic components

Hoses are rubber coated with 2 layers of braided steel

Sets available with electric, manual or air pumps

Transport cart included with 25 and 50 ton hydraulic sets

Gauges are glycerin filled to provide shock dampening of all pressure sensing parts

High flow couplers allow oil to flow quickly

Cylinders are single acting with spring return plunger

T-handle to open and close jaws

Patented Safety Cage

Slim tapered jaws for better gripping in tight spots

40 YEARS
1978
2018
ANNIVERSARY

Selecting Proper Size Manual Puller

Selecting Proper Size | Manual Puller

THE CAGE® IS THE KEY
POSI LOCK®

1. **Puller Reach:** Puller reach is the available distance between the pulling surface of the jaw and the jaw head of the puller. This distance varies and decreases as jaws are opened.
2. **Puller Spread**: Puller spread is twice the distance from the center bolt to the pulling surface of the jaw.
3. **Tonnage**: Tonnage is the amount of pulling force that can be safely exerted by the puller. One rule of thumb in choosing a puller is the center bolt diameter must be at least ½ the diameter of the shaft from which the object is being removed.
4. It is impossible to predict the exact force needed for every pulling situation. The amount of press fit and force of removal can vary greatly between jobs. The setup requirements along with the size, shape, and condition of the parts being pulled are variables which must be considered.

40 YEARS
1978 2018
ANNIVERSARY

Selecting Proper Size | Hydraulic Puller

THE CAGE® IS THE KEY POSI LOCK®

TONNAGE: The maximum force exerted in tons should be 7 to 10 times the diameter of the shaft, in inches. For example a 2” shaft would typically require a 14 – 20 ton puller.

100 Ton unit removing locomotive wheels.

A smooth even pull ensures no damage to the drive spindle.

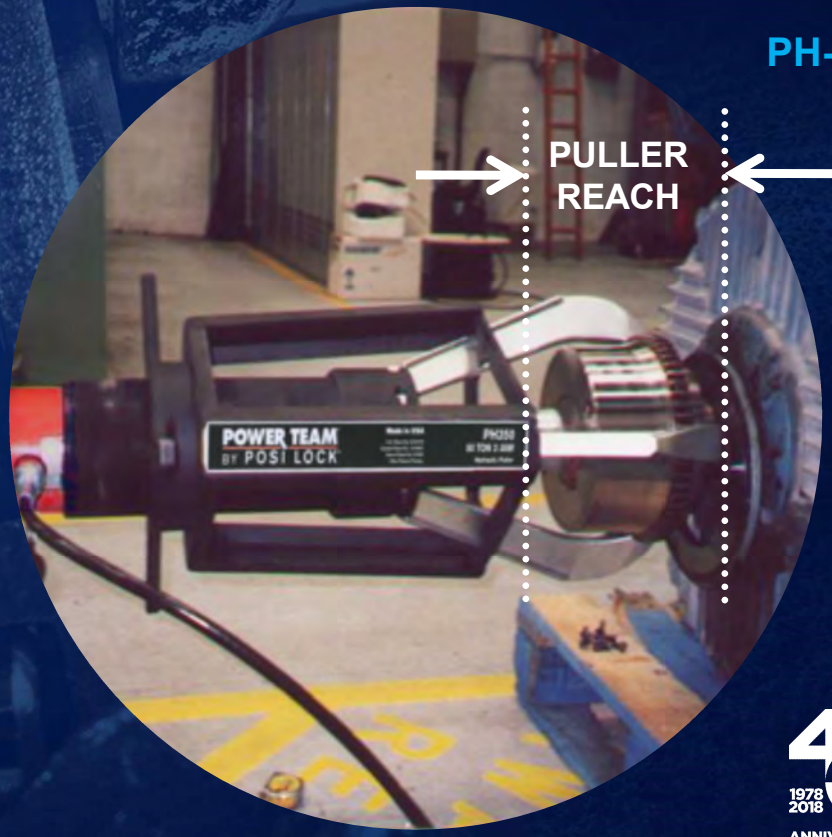
40 YEARS 1978 2018 ANNIVERSARY

Selecting Proper Size | Hydraulic Puller

THE CAGE® IS THE KEY
POSI LOCK®

REACH: This is the distance from the cage base to the pulling surface of the jaws. This distance decreases as the jaw spread increases.

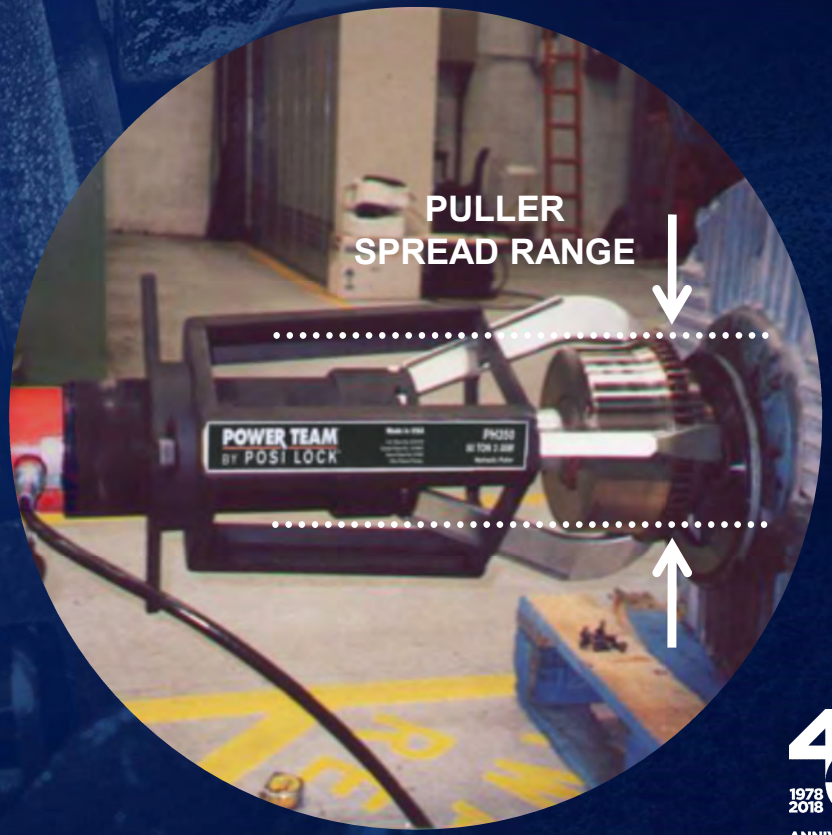
PH-116



40 YEARS
1978
2018
ANNIVERSARY

Selecting Proper Size | Hydraulic Puller

SPREAD RANGE: The spread range is twice the distance from the cylinder to the pulling surface of the jaw. Spread range will increase as the cage moves back and decrease as the cages moves forward. Puller reach decreases as spread increases.



THE CAGE® IS THE KEY
POSI LOCK®

40 YEARS
1978
2018
ANNIVERSARY

THE CAGE® IS THE KEY
POSI LOCK®

The PHA Series

What components are in the PHA Series?
This is your “iron only” puller set, for customers who already have their own cylinders and power source.

PHA Series contains:

- Puller Iron
- Ram Points
- Lift Plate

Posi Lock offers 2 or 3-jaw model pullers

40 YEARS
1978
2018
ANNIVERSARY

THE CAGE® IS THE KEY
POSI LOCK®

The PHB Series

What components are in the PHB Series?
This is your puller set, for customers who already have their own hoses, gauges, couplers and power source.

PHB Series contains:

- Puller Iron
- Ram Points
- Lift Plate
- Hydraulic Cylinder

Posi Lock offers 2 or 3-jaw model pullers

40 YEARS
1978 2018
ANNIVERSARY

THE CAGE® IS THE KEY

POSI LOCK®

The PHMS Series

Puller Iron, Ram Points, Lift Plate, Hydraulic Cylinder, Manual Pump, Gauge Adapter, 10,000 PSI Gauge, Male Coupler with dust cap, 10 Foot Heavy-duty Hose.

Manual pumps are operated by moving the handle up and down. The pressure built from pumping the handle moves the cylinder ram forward.

Posi Lock offers 2 or 3-jaw model pullers

40 YEARS 1978 2018 ANNIVERSARY

THE CAGE® IS THE KEY
POSI LOCK®

The PHES Series

Puller Iron, Ram Points, Lift Plate, Hydraulic Cylinder, Electric Pump, Gauge Adapter, 10,000 PSI Gauge, Male Coupler with dust cap, 10 Foot Heavy-duty Hose.

2 stage electric pumps are very quick, once they meet with resistance they start to slow down.

Electric pumps have a safety shut off and do not exceed 20,000 PSI (burst rate).

All electric pumps come with a 10 ft. remote jog switch.

Posi Lock offers 2 or 3-jaw model pullers

40 YEARS
1978 2018
ANNIVERSARY

THE CAGE® IS THE KEY
POSI LOCK®

Self-Contained Hydraulic Series

Self-contained 12-ton hydraulic puller

The PHS-108 and PHS-208 Self Contained Manual Hydraulic pullers have many applications for all industries.

It is the ease of a manual puller with the power of hydraulics.

Posi Lock offers 2 or 3-jaw model pullers

40 YEARS
1978 2018
ANNIVERSARY

POWER TEAM'S "ENFORCER 100"
100-TON PULLER

Spread: 15"- 48”
Reach: 34” - 42”
Height: 36°

- Manual jaw operation
- Manual lift
- Chain restraint for jaw slippage

POSI LOCK'S SAFETY CAGE
100-TON HYDRAULIC PULLER

Spread: 7.5” – 70” (191 - 1778mm)
Reach: 40"- 50. (1016 - 1270mm)
Height: 60"

- Hydraulic jaw operation
- Hydraulic lift
- Safety Cage
- Restraint for jaw slippage
- 3 jaws spread the stress more evenly, increasing safety and reducing damage to objects being pulled.

40 YEARS
1978
2018
ANNIVERSARY

100-ton hydraulic puller

Adjustable Jaw guides

Adjustable Jaw tips

Lifting eyes to lift puller off cart

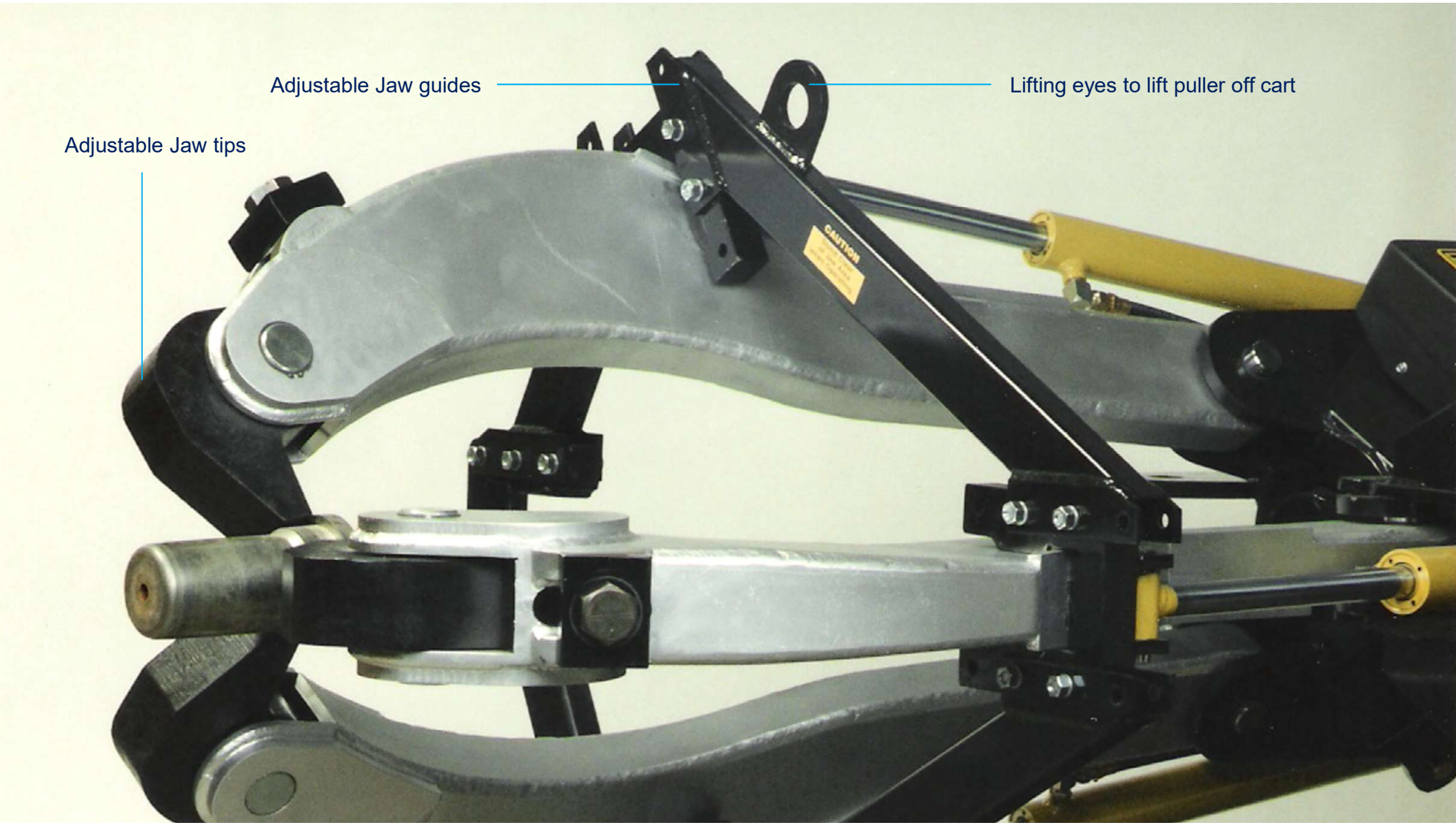
Hydraulic actuated lift cylinder on a cart lifts puller to a height of 5ft

Posi Lock's hydraulic puller systems are used on large equipment and machines used in:

- Steel Mills
- Oil fields
- Mining Operations
- Utility Projects
- Construction Sites
- Ship Yards
- Railroad Yards
- Paper Mills
- Airline Shops
- Electric Motor Repair Shops

THE CAGE® IS THE KEY
POSI LOCK®

40 YEARS
1978 2018
ANNIVERSARY


Adjustable Jaw guides
Lifting eyes to lift puller off cart
Adjustable Jaw tips

THE CAGE® IS THE KEY
POSI LOCK®

100-Ton Hydraulic Puller

Posi Lock's 100 ton hydraulic puller will provide maximum pulling force in applications requiring high-force removal of large gears, pulleys, wheels, sleeves and other press-fit parts.

Reach 50" (1219 mm)
Spread 7.5" to 70" (191 to 1778 mm)

40 YEARS
1978 2018
ANNIVERSARY

THE CAGE® IS THE KEY
POSI LOCK®

200-Ton Hydraulic Puller

- Four jaws hydraulically guided by Safety Cage®.
- Hydraulic powered dual mast moves puller from ground to 5’.
- Tips manually adjust for optimal contact with pulling surface.
- Can be used vertically or horizontally.

40 YEARS
1978 2018
ANNIVERSARY

Bearing Removal – Professional & Safe

THE CAGE® IS THE KEY
POSI LOCK®

Posi Lock Guidelines

- Carefully examine the part to be pulled prior to beginning the pull.
- Select the proper size puller for the application. A rule of thumb is to select a center bolt with at least ½ the diameter of the shaft from which the object is being pulled.
- If possible, drive the gear or bearing on slightly before beginning the pull. This will often times loosen the part and thus make the pull easier.
- Remove all rust, burrs, scale, etc. from the shaft before attempting the pull.
- Lubricate the shaft from which the part is being pulled. This will make the pull quicker and easier. Always lubricate the center bolt of the puller with high pressure gear grease before use.
- Apply the puller to the object. Always support both the puller and the object being pulled.
- Do not exceed recommended torque limitations provided by the puller manufacturer.
- After completing the pull, always clean and lubricate your puller so it is ready for the next application.

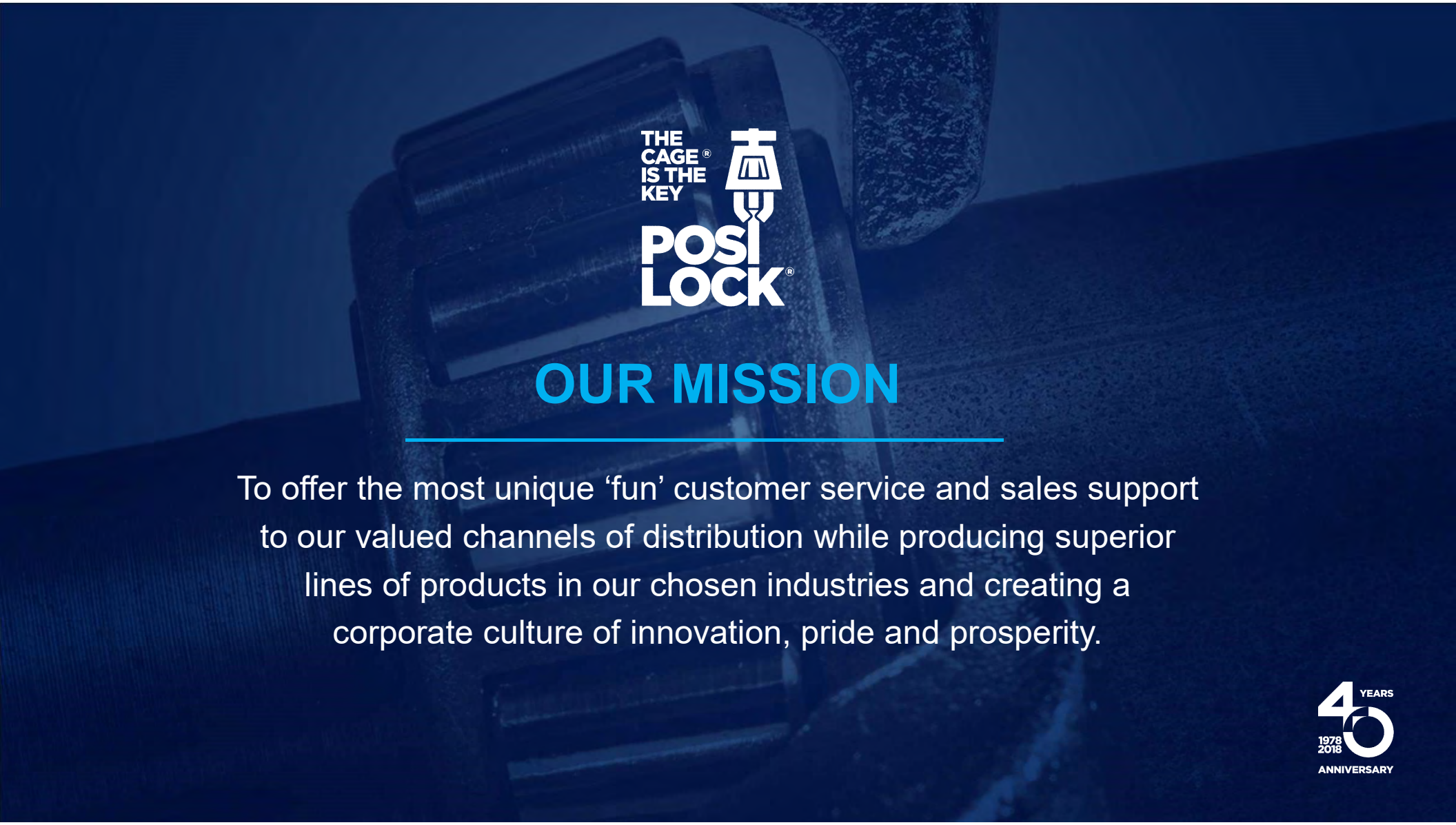
40 YEARS
1978 2018
ANNIVERSARY

THE CAGE® IS THE KEY

POSI LOCK®

OUR HERITAGE

40 YEARS
1978 2018
ANNIVERSARY



OUR MISSION

To offer the most unique ‘fun’ customer service and sales support to our valued channels of distribution while producing superior lines of products in our chosen industries and creating a corporate culture of innovation, pride and prosperity.

40 YEARS
1978 2018
ANNIVERSARY

OUR FOUNDER

In 1974, Dean Somerville, the founder of Posi Lock, was operating a machinery repair shop and a farming operation in the small North Dakota town of McHenry. With his inventive spirit and mechanical background, Dean saw the need for a self-aligning, universal puller that could remove gears and bearings safely and quickly. His new puller design included a Safety Cage® that would control the opening and closing of the pulling jaws, as well as provide the tool with clamping pressure. The new caged puller was patented in 1978 and given the name “Posi Lock® Puller”, for its unparalleled clamping design.

THE CAGE® IS THE KEY

POSI LOCK®

2015

CEO, Tamara Somerville is named one of Prairie Business Magazine's Top 25 Women in Business

2016

The Manufacturing Institute recognizes Tamara Somerville, Posi Lock CEO, as one of the Top 100 Women in Manufacturing across the USA

OUR CEO

In 1993, after a successful career as a stock broker in Miami, Tamara Somerville – Dean's daughter - returned home to take over the family business and drive the global expansion of her father's innovative creation. The Cage became the Key – and so began the global legends of Posi Lock Pullers. One of the top 100 women in manufacturing across the USA, winner of the North Dakota Exporter of the Year award and several other global recognitions to her belt, Tamara Somerville is a devoted champion and modern-day icon of women in leadership.

THE CAGE® IS THE KEY

POSI LOCK®

Milestones

- **1974 –** Dean Somerville invents the Posi Lock Safety Cage puller
- **1978 –** Recognized as a significant advance in the gear and bearing puller industry
- **1982 –** Posi Lock lands in Canada with its first international sale
- **1984 –** Posi Lock's original facility in McHenry, North Dakota is destroyed by fire
- **1985 –** Posi Lock begins anew at its current Cooperstown, North Dakota facility, which received expansions in 1990 and 1998
- **1987 –** Posi Lock creates its hydraulic division, which today produces hydraulic pullers with up to 200 tons of pulling power
- **1990 –** Posi Lock's hydraulic division meets a significant milestone with the production of a 100-ton puller
- **1993 –** Tamara Somerville, Dean's daughter, returns from Florida to join the family business and drive Posi Lock's global expansion
- **2002 –** Posi Lock Manufacturing, Inc., Posi Lock's precision machining division, achieves ISO 9002 certification
- **2002 –** Posi Lock becomes the first company in North Dakota to receive the Export Achievement Award from the US Department of Commerce
- **2003 –** Posi Lock celebrates its 25th anniversary with a commemorative American flag (Stars & Stripes) puller
- **2013 –** Posi Lock sells its One Millionth puller
- **2013 –** North Dakota SBA recognizes Posi Lock as Small Business Exporter of the Year Award
- **2014 –** Prairie Business Magazine recognizes Posi Lock as Top 25 Businesses to Work For
- **2016 –** Posi Lock wins North Dakota Exporter of the Year Award
- **2019 –** Posi Lock opens European Warehouse & Showroom in Brussels, Belgium

THE CAGE® IS THE KEY
POSI LOCK®

40 YEARS
1978 2018
ANNIVERSARY


2013
North Dakota SBA Small Business Exporter of the Year Award
2014
Prairie Business Magazine Top 25 Businesses to Work For
2016
North Dakota Exporter of the Year Award
40 YEARS
1978 2018
ANNIVERSARY


THE CAGE® IS THE KEY
POSI LOCK®
40 YEARS
1978 2018
ANNIVERSARY
THE GEAR AND BEARING PULLER SO QUICK AND POWERFUL IT NEEDED ITS OWN CAGE


THE CAGE® IS THE KEY
POSI LOCK®
40 YEARS
1978
2018
ANNIVERSARY
MADE IN THE USA