



HUTH®

800-558-7808

www.huthbenders.com

The First and Still The Best



- Pipe Benders ●
- Tooling ●
- Accessories ●
- Oil Filter Crushers ●
- Swagers/Expanders ●

Keep all of your end-finishing tooling
within easy reach



25¼" x 5"
18 Slots
7 Trays
(5" Deep)

Ideal for 3"
tooling.

Part No. 91176

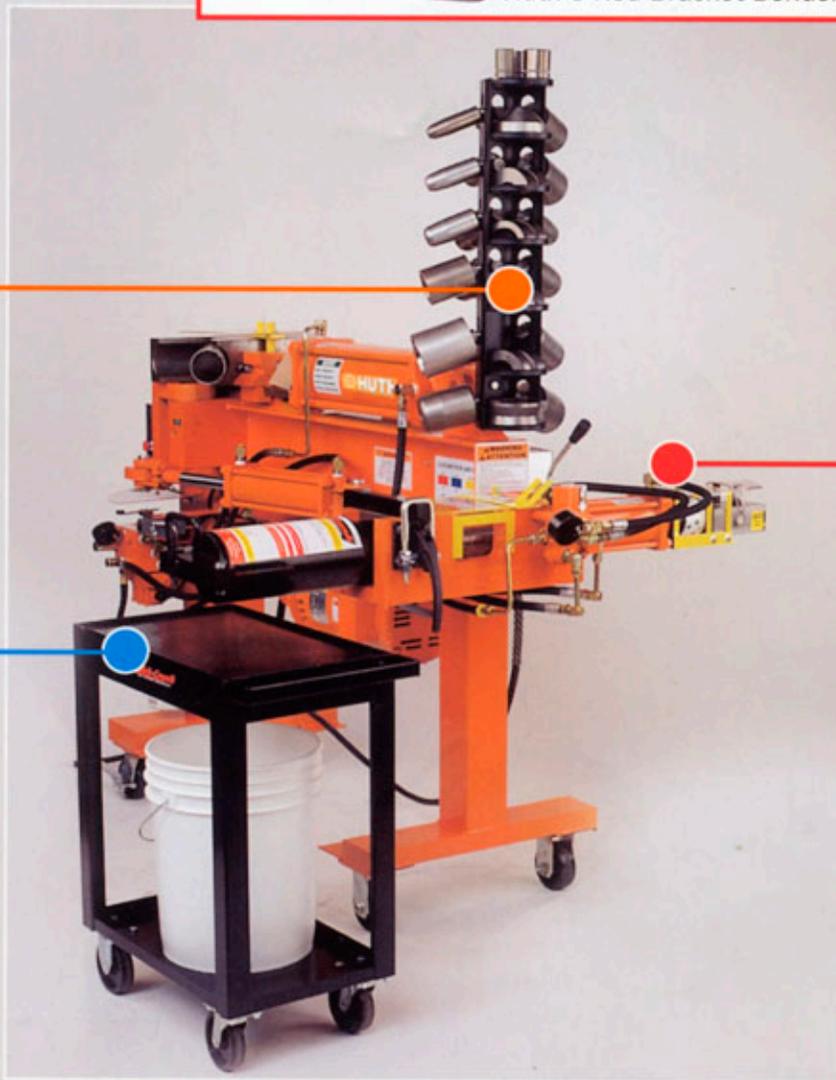
Part No. 985



Huth's Rod Bracket Bender

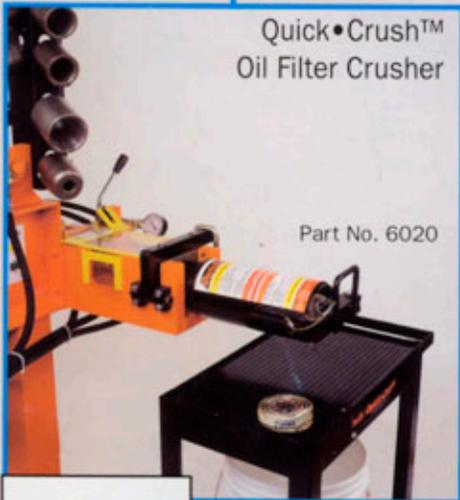
More Than a Bender

- Store Tooling
- Bend Brackets
- Crush Filters



Quick•Crush™
Oil Filter Crusher

Part No. 6020



Huth's Quick•Crush™ Oil
Filter Crusher turns the
swager box on your Huth
Bender into an oil filter
crusher.

Crush oil filters to about
20% of their original size and
squeeze out almost all of
the waste oil.



Accessorize

Of course a Huth Bender still gives you complete pipe bending and end-finishing capabilities. But now you can do it all 25% faster with our new High Speed Option.

Add the Rod Bracket Bender and Quick•Crush Oil Filter Crusher and expand the capabilities of your Huth Bender even further.

The new Ready Rak II will keep all of your most often-used tooling within easy reach. It's ideal for 3" tooling.



HUTH®

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Section I

Huth Pipe Benders

Huth's History

Before Gerry Huth developed the first automotive pipe bender in the 1950s, fitting exhaust pipes was a difficult job that was beyond the means of many shops. Mechanics had to cut and weld pipe sections, making small bends manually. By 1958, Huth had developed the first prototype of the portable pipe bender. Soon, Huth was supplying benders to shops across the country. Huth Benders continue to lead the field more than 45 years later due to ongoing research and development, a strong commitment to quality and a responsiveness to the needs of a changing industry.

Pipe Bending

The value of portable, affordable pipe benders was quickly evident when Huth first introduced them. With the increased number and variety of cars on the road in the last 45 years, that need has increased. With a Huth bender, it's not necessary to keep a variety of pre-bent pipes in inventory. **With a few sizes of straight tubing on hand, you can quickly bend pipes for thousands of applications. You increase your profit margin and your customers don't have to wait for pre-bent pipes to be delivered.**

Huth Program Bending Cards contain more than 7,500 part numbers. Most of these can be bent in a few minutes. Add Huth's Rod Bracket Bender and bend your own brackets, too.

But today's Huth Benders are also used in many non-automotive applications. You will find our benders in a wide variety of manufacturing plants as well as welding and fabrication job shops. Huth products have been used in production and prototype roles for such products as sporting equipment, furniture, car parts, hand railings and many other applications that require pipe bending and end finishing.

Huth Benders

Although some fundamental, time-tested concepts were retained, ongoing research and development has allowed Huth Manufacturing to improve and refine their line of benders. Today Huth offers 4 automotive pipe benders with a variety of options, as well as numerous accessories, such as portable expanders, swager/expanders, oil filter crushers and a wide variety of tooling and tooling packages.

All Huth pipe benders share some important features: Rugged I-beam construction, 58,000 lbs. of bending power and a built-in swager/expander for complete end-finishing. There are some important differences between the benders, though. The chart below highlights some of these differences.

Huth Benders feature:

58,000 lbs. of Bending Power

A High Speed Option for 25% Faster Bending*

Built-In Swager/Expander for Complete End-Finishing

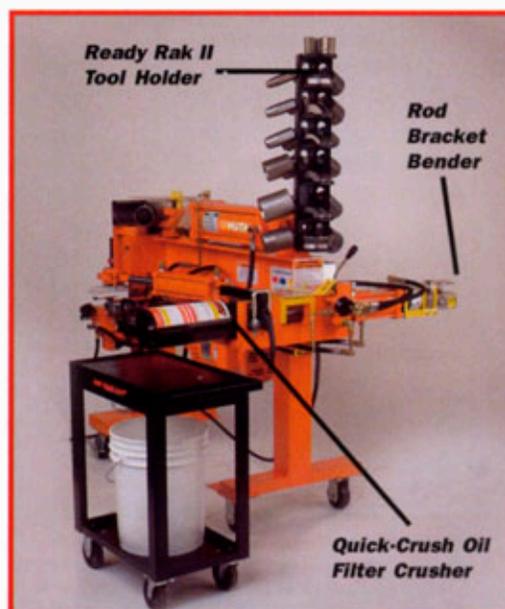
Rugged I-Beam Construction

Comprehensive Huth Bending Video Included

* Except HB-10

Versatile

Huth's 2008 Bender shown with Ready Rak II, Oil Filter Crusher and Rod Bracket Bender.



Huth Pipe Bender Comparison Chart

Bender	High Speed Option	Knee Control	Push Button	Optional Foot Pedal	Comes with Tooling	Swager/Expander	Agricultural Cylinders	Industrial Cylinders	HB Cylinders	Optional 6" Cylinders	Swager Storage Tray	Deluxe Tool Tray	Flat Tool Tray
HB-10		X			X	X			X				X
1600	X	X		X		X			X				X
2008	X	X	X	X		X		X		X	X	X	
2806	X	X	X	X		X	X			X			X

Anatomy of a Huth Bender

Construction:

All Huth benders feature extra heavy-duty I-beam construction of structural quality steel, aircraft quality hydraulic hoses and UL approved components.

Accessories:

Huth offers a variety of accessories to make your job easier. The Quick-Crush Oil Filter Crusher attaches in seconds to the swager end of a Huth bender, allowing you to crush oil filters to about 20% of their original size. The Rod Bracket Bender attaches to the expander end so you can custom-bend brackets, too.

Swager/Expander:

End-finishing is easy with the built-in heavy-duty swager/expander, standard on every Huth bender. Flares, ball joints, flanges and slip joints are easily created. Huth's Accu-Sizer™ automatic bull's-eye expanding system allows you to dial in precise expansions the first time and every

Tool Trays:

Depending on the bender, you receive either a flat tool tray, or, as shown here, a deluxe tool tray and swager storage tray to keep your tooling organized and within easy reach.

Tooling:

Huth tooling is gas-carburized, oil-quenched heat treated and precision machined from steel. Our tooling is case hardened to a minimum hardness of 58 Rockwell ("C" scale). All Huth tooling is manufactured in-house to ensure the

Speed:

A high speed pump/motor option is available on most Huth benders. Increase your bending speed by 25%.

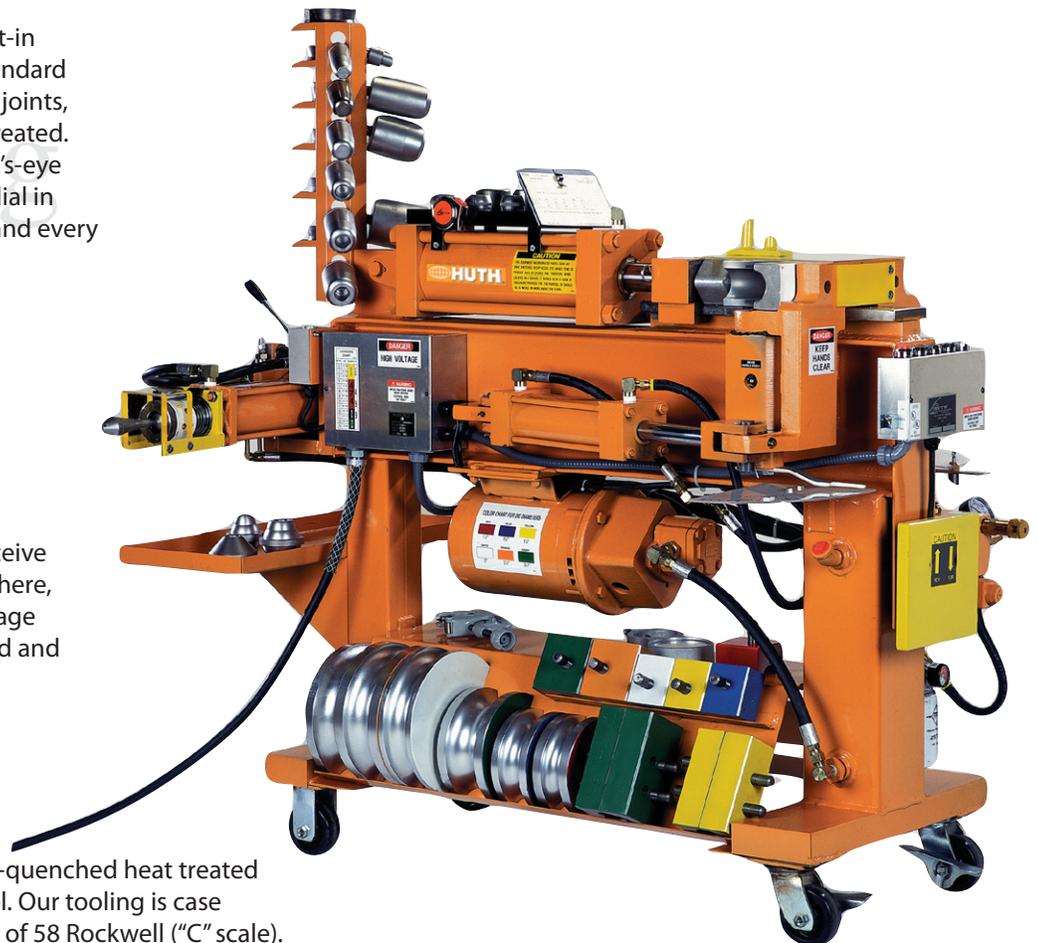
Video:

Huth benders come with a comprehensive instructional video to help you get started quickly and easily.

Activation:

All current Huth Benders come equipped with a Forward/Reverse Knee Pedal Control. The 2008, 2806 and 1600 can be configured with a Foot Pedal in addition to, or instead of, the Knee Pedal Control.

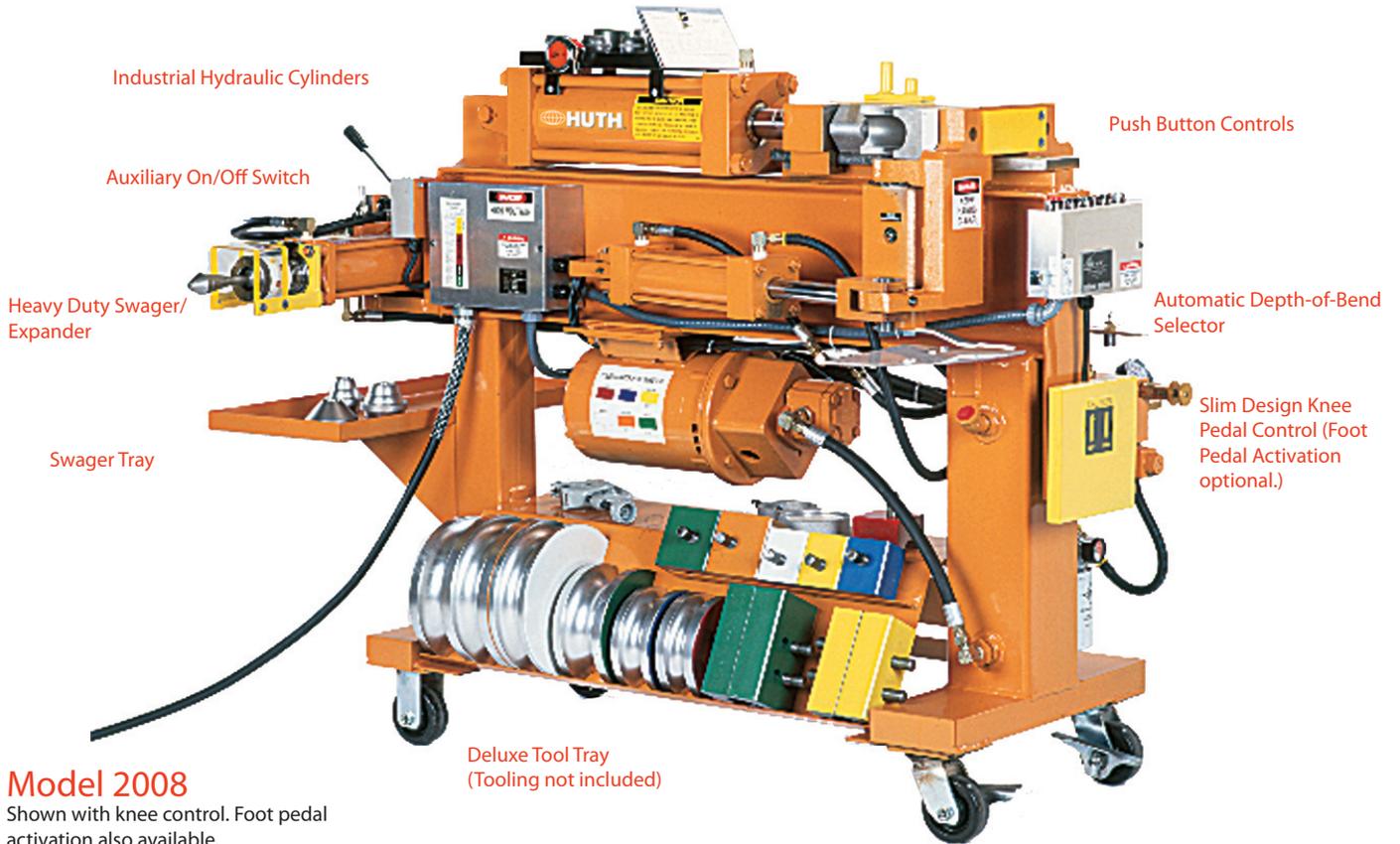
The 2008 and 2806 also have push button controls and Automatic Depth-of-Bend Selector.



Power:

Huth benders feature powerful 5 H.P. motors with a 7½ H.P. option for high speed bending on all models except for the HB-10. You have 58,000 lbs. of bending force at

Section I



Model 2008

Shown with knee control. Foot pedal activation also available. (Tooling not included)



Model 2806

Shown with knee control. Foot pedal activation also available. (Tooling not included)

Models 2008-2806

Quick, Precise Bending

Huth Models 2008 and 2806 are designed for high volume shops that need quick, powerful, precise bending and end-finishing.

These models offer the convenience of knee pedal control and a reduced control panel size, allowing the operator to get closer to the work for more precision and less fatigue.

The Smart Automatic Mode features an adjustable return-to-home position control. This unique, timesaving feature increases efficiency by assuring fast and easy transitions between multiple bends.

Both models provide 58,000 lbs. of bending force with knee-pedal and push button activation. Foot pedal activation is also available.

Both models come with a 5 h.p. motor, but an optional 7½ h.p. motor is available for bending 25% faster.

In automatic mode, the automatic depth-of-bend selector ensures precise bending control through the use of an easy-to-read, easy-to-adjust dial.

The heavy duty swager/expander gives you complete end-finishing capabilities - 1" to 3" tubing on the swager end and 1" to 5½" tubing on the expander end. With Huth's Accu-Sizer™ automatic bull's-eye expanding system, you'll be able to dial in precise expansions every time.

- **Easy-To-Use Knee Pad Control or Foot Pedal Control**
- **Push Button Control**
- **Automatic Depth-of-Bend Selector**
- **Complete Manual Control**
- **Auxiliary On/Off Switch (2008)**
- **High Speed Option available**
- **58,000 lbs Of Bending Power - More than enough for 3" tubing**
- **Industrial Hydraulic Cylinders (2008)**
- **Agricultural Hydraulic Cylinders (2806)**
- **Swager Tray (2008)**
- **Deluxe Tool Tray (2008)**
- **Flat Tool Tray (2806)**
- **Bending Die Retainers**
- **Heavy-Duty Swager/Expander**
- **Rugged I-Beam Construction**
- **Exclusive Safety-Guard Package**
- **Front Swivel Casters With Brakes**
- **220V, 60 Hz Operation. Single-Phase requires 30 amp service. 3-Phase requires 20 amp service. (Other voltages and 50 Hz available.)**



Available with Foot Pedal Activation



Includes Huth Video

Huth People



Joe Takacs wiring a Model 1600 Bender.

HB-10 Complete Bender Package

For one low price you get everything you need to bend up to 3" pipes, including tooling and instructional video.

Huth's HB-10 Complete Bender Package includes Huth's newest Manual Knee Control Bender and comprehensive tooling package - everything you need to create O.E.- fit and custom-bent pipes.

The HB-10 is Huth's entry level bender, designed to introduce you to Huth quality while showing you the incredible profit potential that awaits you.

The HB-10 features knee control activation, manual depth-of-bend control and 58,000 lbs. of bending power - more than enough for 3" tubing.

As with all Huth Benders, the HB-10 features a built-in swager/expander for complete end-finishing capability - 1" to 3"

tubing on the swager end and 1" to 5½" tubing on the expander end.

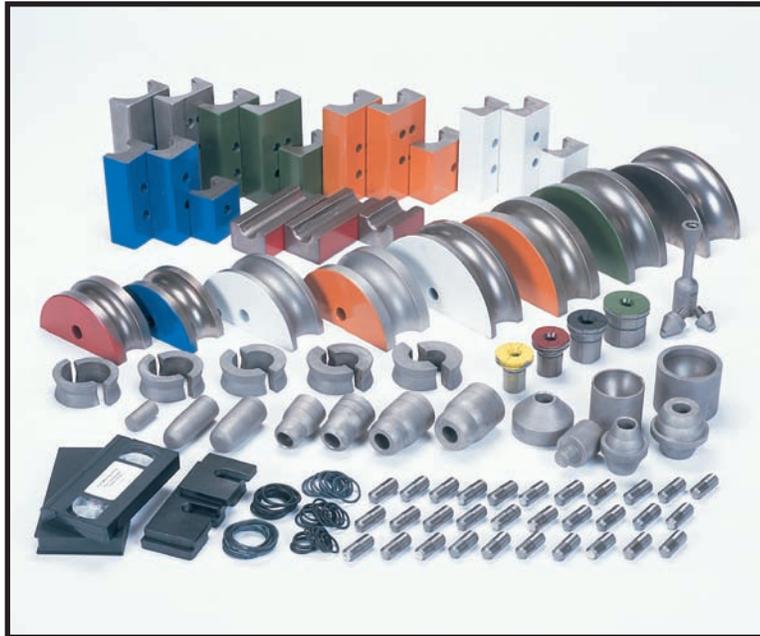
Plus, you receive bending dies, end-finishing tooling and a Huth video - everything you need to start bending pipes for thousands of applications.

The HB-10 Bender package comes as shown. However, the HB-10 accepts all of Huth's standard tooling and accessories such as the Ready-Rak, Rod Bracket Bender and Oil Filter Crusher.



- Comes with comprehensive tooling package and instructional video
- Easy-To-Use Knee Pad Control
- Manual Depth-of-Bend Indicator
- Complete Manual Control
- 58,000 lbs of bending power - More than enough for 3" tubing
- HB Cylinders
- Flat Tool Tray
- Bending Die Retainer
- Heavy-Duty Swager/Expander
- Rugged I-Beam Construction
- Exclusive Safety-Guard Package
- Front Swivel Casters With Brakes
- 220V, 60 Hz Operation. Single-Phase requires 30 amp service. 3-Phase requires 20 amp service.

Complete Package

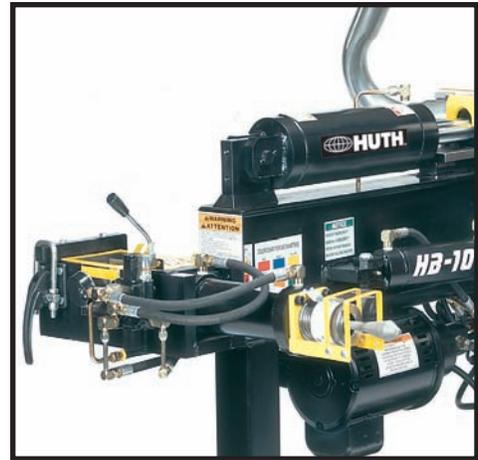


HB-10 Bending Package* Includes:

5530	5" Radius Die 3"	550	Male Ball Die 1 3/4": Swage 2"
5412	5" Radius Die 2 1/2"	552	Male Ball Die 2": Swage 2 1/4"
5414	5" Radius Die 2 1/4"	553	Male Ball Die 2 1/4": Swage 2 1/2"
5200	5" Radius Die 2"	554	Male Ball Die 2 1/2": Swage 2 3/4"
4414	4" Radius Die 2 1/4"	112	Swage Die 1 1/2"
4200	4" Radius Die 2"	134	Swage Die 1 3/4"
3134	3" Radius Die 1 3/4"	508	Arbor
3112	3" Radius Die 1 1/2"	498	Arbor Tip
1350	Full Back Shoes 3" (2)	499	Arbor Tip
4412	Full Back Shoes 2 1/2" (2)	473	Segment 1-3/8"-1-3/4"
4211	Full Back Shoes 2 1/4" (2)	474	Segment 1-3/4"-2-1/8"
1200	Full Back Shoes 2" (2)	475	Segment 2-1/8"-2-1/2"
1134	Full Back Shoes 1 3/4" (2)	476	Segment 2-1/2"-3"
1112	Full Back Shoes 1 1/2" (2)	97050	Die Spring
4410	Half Shoe 2 1/2"	870	O-Ring Kit
4416	Half Shoe 2 1/4"	815	Die Holder (853)
1045	Half Shoe 2"	816	Die Holding Pin
1040	Half Shoe 1 3/4"	855	Die Pins (Qty. 30)
1038	Half Shoe 1 1/2"	1079	Full Shoe Spacers (2)
1750	Collet 2 1/2"	1080	Half Shoe Spacer
1725	Collet 2 1/4"	97302	Huth Instructional Video
1720	Collet 2"		
1734	Collet 1 3/4"		
1712	Collet 1 1/2"		
853	Flare Tool		
557	Domer Die 1 3/4"-2 1/2"		
558	Domer Die 2-5/8"-2 3/4"		
555	Female Ball Die 1 3/4"-2"		
556	Female Ball Die 2 1/4"-2 1/2"		

*HB-10 package comes as listed only. Additional tooling available at extra charge.

End-Finishing



Built-In Swager/Expander

The built-in heavy duty swager/expander gives you complete end-finishing capabilities - 1" to 3" tubing on the swager end and 1" to 5 1/2" tubing on the expander end.

With Huth's Accu-Sizer™ automatic bull's-eye expanding system, you'll be able to dial in precise expansions every time.

Knee Control



Slim Knee Control Activation allows you to get closer to your work for quick, precise bending.

An Easy-to-Read Bend Indicator shows how far into a bend you are.

Section I

Model 1600 Huth's Basic Bender

The Model 1600 Knee Control Bender is Huth's entry level bender. The rugged, versatile 1600 is the same bender as in the HB-10 package. But it comes without the tooling, making it ideal for those who want to put together their own tooling packages or who already have tooling but want to replace or add a bender.

The 1600 delivers 58,000 lbs. of bending power - more than enough for 3" tubing. Bending is activated by a slim-design knee control pedal, allowing the operator to get close to the work for more precision. A foot pedal can be substituted for the knee pedal, if desired, at no charge. For a nominal charge, Huth will install a foot pedal and a knee pedal.

A manual depth-of-bend indicator clearly shows the operator how far into a bend he is at all times.

The 1600 comes with a powerful 5 h.p. motor. An optional 7½ HP motor is available for high speed bending - 25% faster.

As with all Huth Benders, the 1600 features a built-in swager/expander for complete end-finishing - 1" to 3" tubing on the swager end and 1" to 5½" tubing on the expander end. Ball joints, flanges, flares and slip joints are easily created. Huth's Accu-Sizer™ automatic bull's-eye expanding system lets you dial in precise expansions every time.

The 1600 accepts all of Huth's standard tooling and accessories such as the Ready-Rak, Rod Bracket Bender and Oil Filter Crusher.



Built-In Swager/Expander

The built-in heavy duty swager/expander gives you complete end-finishing capabilities - 1" to 3" tubing on the swager end and 1" to 5½" tubing on the expander end.

With Huth's Accu-Sizer™ automatic bull's-eye expanding system, you'll be able to dial in precise expansions every time.



NEW!

- Easy-To-Use Knee Pad Control
- Manual Depth-of-Bend Indicator
- Includes Huth Instructional Video
- Available with Foot Pedal Activation
- Complete Manual Control
- Built-in swager/expander for complete end-finishing
- 58,000 lbs of bending power - More than enough for 3" tubing
- HB Cylinders
- Flat Tool Tray
- Bending Die Retainer
- Heavy-Duty Swager/Expander
- Rugged I-Beam Construction
- Exclusive Safety-Guard Package
- Front Swivel Casters with Brakes
- 220V, 60 Hz Operation. Single-Phase requires 30 amp service. 3-Phase requires 20 amp service.



Includes Huth Video



Available with Foot Pedal Activation

Model 1673 Portable Swager/Expander



The 1673 Portable Swager/Expander

Swage or Expand Tubing Anywhere

Mounted on its own easy wheeling cart, Huth's Model 1673 portable expander equips you to form standard slip joints, flares and flat flares, ball joints, deep swage expands, and reductions.

The large tray allows you to keep your tooling within easy reach and additional tool storage is available by attaching the 91166 or 91176 Ready Rak (purchased separately, page 16). Just wheel the 1673 to the job and watch it pay for itself.

Features:

- A powerful 5 HP motor, single-phase (30 amp), or 3-phase (20 amp)
 - Runs on 220 volt, 60 Hz supply. 50 Hz and other voltages available
 - The 3½" cylinder produces 25,000 lbs. of expanding power
 - Expanding capacity from 1" to 5½"
- Features Huth's Accu-Sizer™ automatic, preset expanding system for quick, precise expanding each and every time
 - Adjustable Collar for expanding 1" to 3½"
 - Collet Holder for 1" to 2½" O.D. tubing
 - Swaging capacity from 1" to 3"
- "See-through" safety guards for increased protection during all operations
 - Front swivel caster w/brake
- 15' power cord with male and female receptacles
- Includes 41047 Accu - Sizer adjustable collar and 891 collet holder

Section II

Model 1674 Portable Expander

Expand Tubing

Anywhere

Mounted on its own easy wheeling cart, Huth's Model 1674 portable expander equips you to use all existing Huth expanding tooling. Now with the powerful 5" cylinder you can expand tubing from 3" up to, and larger than 6" diameter, 3" deep. The large tray allows you to keep your tooling within easy reach. Just wheel the 1674 to where the work is.



The 1674 Portable Swager/Expand-

er

Features:

- A powerful 5 HP motor, single-phase (30 amp), or 3-phase (20 amp)
- Runs on 220 volt, 60 Hz supply. 50 Hz and other voltages available
- The 3½" cylinder produces 25,000 lbs. of expanding power and the 5" cylinder produces 49,000 lbs. of expanding power
- Expanding capacity from 1" to 6" and greater
- Features Huth's Accu-Sizer™ automatic, preset expanding system for quick, precise expanding each and every time
- Front swivel caster w/brake
- 15' power cord with male and female receptacles
- Includes 41047 Accu - Sizer adjustable collar for the 3-1/2" cylinder, and the 527 adjustable collar with the 528 collar extension for the 5" cylinder

Models 1690 Bench-top and 1691 Portable Expanders

Perfect for auto stores, warehouses, small shops and industrial settings.



Model 1690 Bench-top Expander

The 1690's compact design allows it to fit on your bench-top while the foot pedal gives you hands-free operation. Quickly and easily size muffler end tubes and pipes. The 1690 comes with the tooling shown above for expanding capacity from 1½" to 3½". Additional tooling gives you expanding capacity from 1" to 5½".



Model 1691 Portable Expander

Just wheel the 1691 to the job and put Huth's expanding power to work. Quickly and easily size muffler end tubes and pipes anywhere in your shop. The 1691 comes with the tooling shown above for expanding capacity from 1½" to 3½". Additional tooling gives you expanding capacity from 1" to 5½".

1690 Bench-top and 1691 Portable Expander Features:

- Hands-free operation with Foot Pedal Activation
- Allows you to create custom brackets with Huth's Rod Bracket Bender (optional).
- Standard Expanding Capacity from 1½" to 3½"
- Expanding Capacity from 1" to 5½" with additional tooling
- Powerful 2 HP motor available in 110V, 30 Amp or 220V, 20 Amp. Motor runs on both 50Hz and 60Hz.
- 25,000 lbs of expanding power
- Features Huth's Accu-Sizer™ automatic, preset expanding system for quick, precise expanding each and every time.
- Built-in tool tray for easy access to tooling
- "See-through" safety guards for increased protection during all operations
- Compact 12"x 20"x 24" design (1690)
- Compact 24"x 23"x 39" design (1691)
- Rugged cart for maximum portability (1691)
- Power cord (15' - 1691, 10' - 1690) with male and female receptacles
- Includes: 508 Arbor, 498 Small Arbor Tip, 499 Large Arbor Tip, 473 Segment Set, 474 Segment Set, 475 Segment Set, 476 Segment Set, 477 Segment Set

Portable Expanders: Unmatched Sizing Accuracy, Under the Car or on the Bench

Model 1680 Mitey Mate II™ Portable Expander

Model 1680 Mitey Mate II™



Model 1680

Right-on sizing for flaring*, ball joints**, and slip connections, under the car or on the bench! Huth's Mitey Mate II Portable Expander and Accu-Sizer™ System (Model 1680) is the go-anywhere tool.

The 1680's bulls-eye adjustments allow you to zero-in on the right expansion the first time. Plus, the 1680's segment sets fit the arbor like a glove to give you the expected expansion time after time.

(See End-Finishing Tooling, page 28-29 and Expanding Tool Chart, page 30.)

Set to operate at 3200 psi, The Mitey Mate II requires a 110 Volt (15 Amp) power supply. No compressor is needed. It comes with tooling to expand 1½" to 2½" I.D. mufflers and pipes (3" and 3½" capability with additional tooling) and has up to 17,000 pounds of expanding force available.

The expander features a pistol grip that weighs only 7 pounds. The electric motor sits on large casters, so it's ideal for work under the car.

*Requires use of No. 440 Flaring Segment Tool.

**Requires use of Ball Joint Segment Tools.

Model 1685 Mitey Mate Jr.™ Portable Expander

Runs on shop air



Model 1685

Model 1685 Mitey Mate Jr.™

Huth redefines expanding portability and convenience with this down-sized, air-powered offspring of its popular Mitey Mate II™ expanding unit. Ideal for making flares*, ball joints†, and slip connections under the vehicle or on the bench, Mitey Mate Jr. is not a lesser expander: It delivers both the power and the accuracy you demand.

Set to operate at 3200 psi (shop air pressure between 80 and 120 psi maximum**) this pint-sized powerhouse puts 17,000 pounds of expanding force in your hands. Mitey Mate Jr. also comes with tooling to expand 1½" to 2½" I.D. mufflers and pipes (3" and 3½" capability with additional tooling).

It also comes with Huth's unique Accu-Sizer™ System for right-on expansions, job after job.

The expander itself, with its high-impact pistol grip, removable arbor tips and simple-to-set bulls-eye sizing adjustments, weighs only 7 pounds. All three pieces together weigh only 34 pounds.

The handy storage unit, which holds the expander, the three segment sets and one of the two detachable arbor tips, is 9" high by 10½" square. The power pedal is only 8" high, 10" long and 5" wide, and fits under the storage unit.

*Requires use of No. 440 flaring segment.

**Air regulator included in package.

†Requires use of ball joint segment tools.

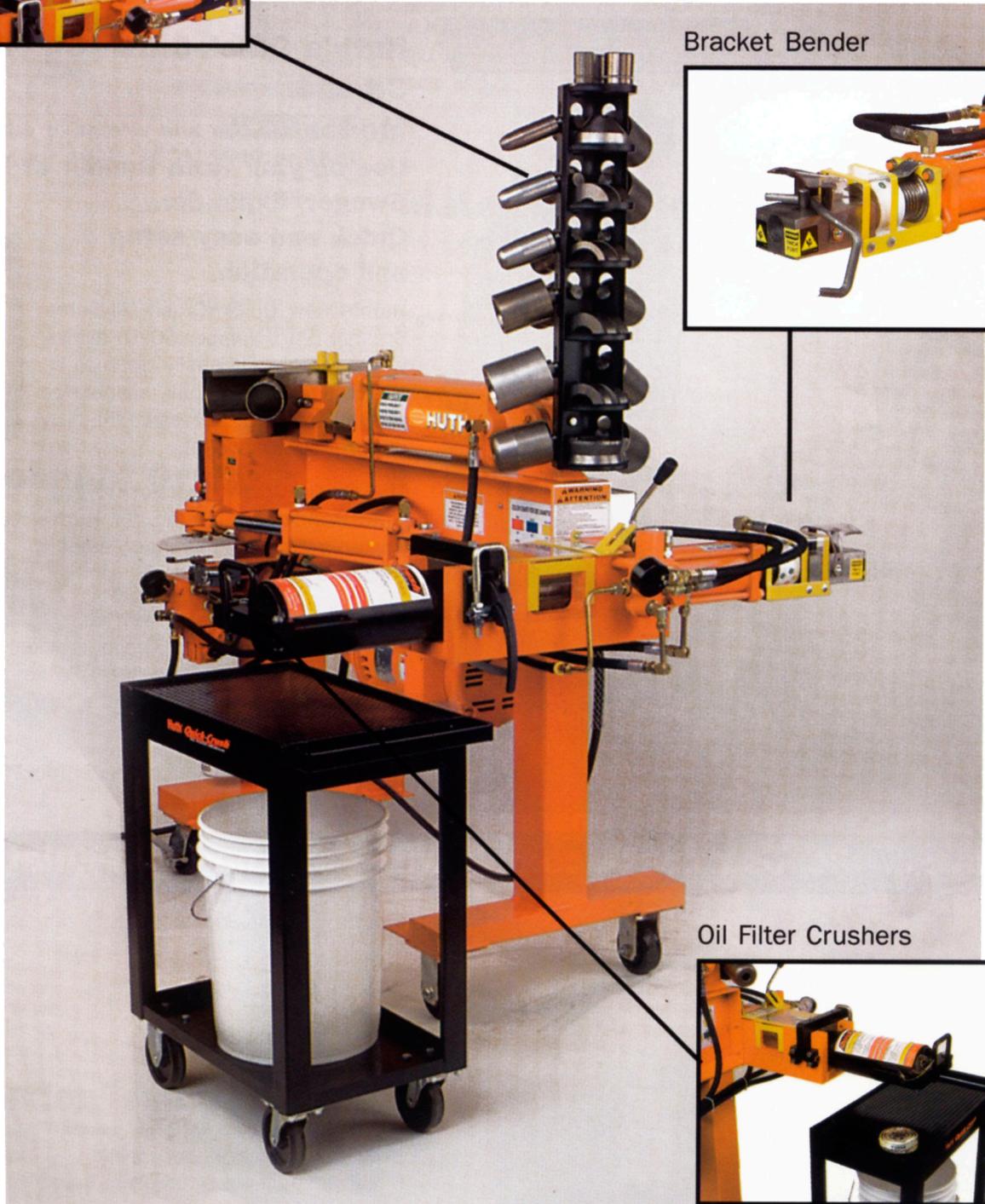
Section III Tools & Equipment



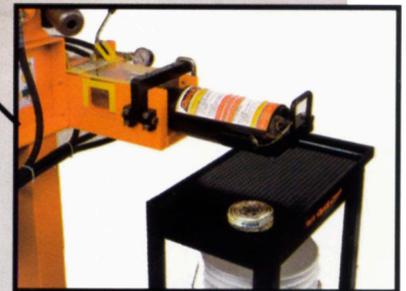
Tooling Storage

- Oil Filter Crushers
- Tooling Organizers
- Labor-Saving Accessories

Bracket Bender



Oil Filter Crushers



Oil Filter Crushers

Huth's Quick•Crush™ turns your Huth Bender into an Oil Filter Crusher.



Huth's Quick-Crush Oil Filter Crusher Model 6020

Use on your Huth Bender or Portable Swager/Expander.

Quick and easy setup and operation.

Huth's new Quick•Crush Oil Filter Crusher (Part Number 6020) allows

you to quickly and easily crush oil filters to a fraction of their original size while allowing you to reclaim the dirty oil for proper disposal.

The Quick-Crush attaches to any Huth Bender swager box or Huth Portable Swager/Expander using 890 or 891 collet holders.

The Quick Crush comes with its own cart that directs the reclaimed oil into your 5-gallon bucket. The cart doubles as a storage rack for the filters. When the Quick Crush is not attached to your bender, the cart makes a handy storage tray.

Requires part number 818 Quick Trick™ holder. (See page 18.)



Save on disposal costs; comply with government regulations

Automotive and Light Truck Oil Filter Crusher

Model 6007

6007 Features:

- Easy Operation
- Operates on compressed air (80 -150 psi)
- Crushes automotive filters to 20% of their original size
- Safe - Unique interlock safety system
- Fast - Complete cycle time: 9 seconds
- All metal construction for durability
- Huth Quality

Model 6007
Oil Filter Crusher



(Floor stand not included.)



Model 6010
Optional Floor Stand



985
Rod Bracket Bender

Attaches to the expander end of your Huth Bender, or to your 1673, 1674, 1690 or 1691 expanders.

Save Money! Bend your own Brackets. 985 - Rod Bracket Bender

If you own a Huth Bender, you already know the profits you can make by bending your own exhaust pipes. But you probably still order prebent pipes for those systems that need brackets.

Don't.

Stop throwing away your profit margin and bend the brackets yourself. It's easy with the Rod Bracket Bender.

Install it on the expander of your Huth Bender and watch it pay for itself.

You can quickly produce muffler hanger brackets from material as large as 1/2" dia. round or 1/4" x 1" flat. Order Part Number 985.

Material for Rod Bender

The following lengths of rod material can be ordered directly from your exhaust distributor:

Part No.	Diameter	Length
F2372	7/16" Round	14" (20 pcs.)
F2373	1/2" Round	14" (20 pcs.)
F2374	1-1/4" x 1/8" Flat	14" (20 pcs.)

987 - Grommet Grabber



987 Grommet Grabber

The Grommet Grabber is designed to remove hanger brackets from their rubber mounting grommets with a squeeze of the handles. To get this time-saving tool, order Part Number 987.

Exhaust Pipe Shapers

The Exhaust Pipe Shaper is designed to repair dented and damaged pipe ends or muffler inlets and outlets.

The Shaper is machined, welded and heat treated for durability.

For use on exhaust pipe up to 3" dia. order part number 984.

For 2" to 5" dia. pipe order part number 982.



982 Exhaust Pipe Shaper (left)
984 Exhaust Pipe Shaper (right)

Huth Bender Training Video

Designed to reduce training time for new technicians, this 42-minute bender training video includes clear visual instruction to reduce mistakes. Order Part Number 97302.



97302
Huth Training Video

Section III

Get Organized and Save Time with Huth's Ready-Rak™ and New Ready Rak II™

Keep your end-finishing tools within easy reach.

With Huth's Ready Rak (part no. 91166) and new Ready Rak II (part no. 91176) you can keep all your most-used end-finishing tools within easy reach of your swager/expander. The Ready Rak is 20-1/8" x 4-3/8" with six 4-3/4" deep trays, making it useful for most standard tooling packages.

But if you have a larger variety of tooling, or use 3" tooling, you'll want the new Ready Rak II. The Ready Rak II is 25-1/4" x 5" and has 5 more slots than the Ready Rak. Its seven large trays are 5" deep for easier access, especially with 3" tooling.



Ready Rak™
Part No. 91166

Ready Rak™

Part No. 91166

Great for standard tooling packages

20-1/8" x 4-3/8"

12 Slots

6 Trays (4-3/4" Deep)



Ready Rak II™
Part No. 91176

Ideal for 3"
tooling

Ready Rak II™

Part No. 91176

Holds 40% more tooling than the Ready Rak

Ideal for 3" tooling

25-1/4" x 5"

17 Slots

7 Trays (5" Deep)

The A-Train Tool and Die Holder



6006 A-Train

Designed to keep tools at eye level for easy access, the A-Train has 8 large shelves (4 on each side) and can hold everything from radius dies to ball joint tools.

The A-Train (Part Number 6006) is 52" high, 38" long and 36" wide at the base.

Made from heavy-duty angle iron, the A-Train also has industrial strength casters, two of which swivel and have brakes. Order part number 6006.

Exhaust Support Stand



986 Exhaust Support Stand

Designed to safely support exhaust components during installation, the Exhaust Support Stand measures 47" and extends to 79". The unit has an oversized support tray and rotates 360°. The spring loaded, quick-release extension mechanism is also self-locking. Order Part Number 986. (70 lb. Maximum Capacity)

Huth People



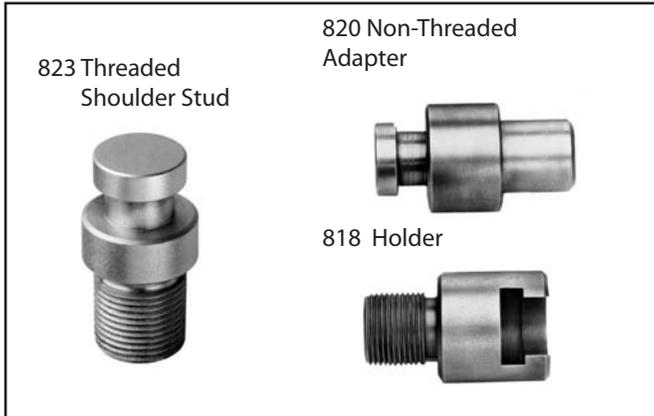
Jerry Geldnich assembling hydraulics on a Huth Model 1600 bender.



Mark Jeffords with the welded heavy-duty I-beam frame for a Huth bender.

Section III

Changing End-Finishing Tools is Fast and Simple With Quick Trick™ By Huth



825 - Quick Trick

Huth's Quick Trick Tooling Change Adaptor Kit (Part Number 825) allows you to quickly change tooling. The holder (Part Number 818) threads into the swager cylinder shaft of the bender, and the 10 threaded shoulder studs (Part Number 823) screw into your end-finishing tools. Non-threaded adapter (Part Number 820) works with all non-threaded tooling.

819 Threaded Stud



819 Threaded Stud for use with Quick Trick Adapter (Old style. Replaced by 823)

1994 Quick-Change Pin Kit for Fast Collet Holder Changes



Designed for faster collet holder changing, the Quick-Change Pin Kit eliminates the need for wrenches and prevents lost and stripped bolts when changing collet holders. Order Part Number 1994.

1994

Bend Square Tubing



Square Dies

No.	Size
5314	1-1/4" (5" Rad.)
5312	1-1/2" (5" Rad.)
4334	3/4" (4" Rad.)
4310	1" (4" Rad.)
4314	1-1/4" (4" Rad.)
3334	3/4" (3" Rad.)
3310	1" (3" Rad.)

Square Tube Back Shoe*
(2 Required)

1000 All Sizes
* (4) #855 Pins Required

Huth People



Tony Kreuser paints back shoes.

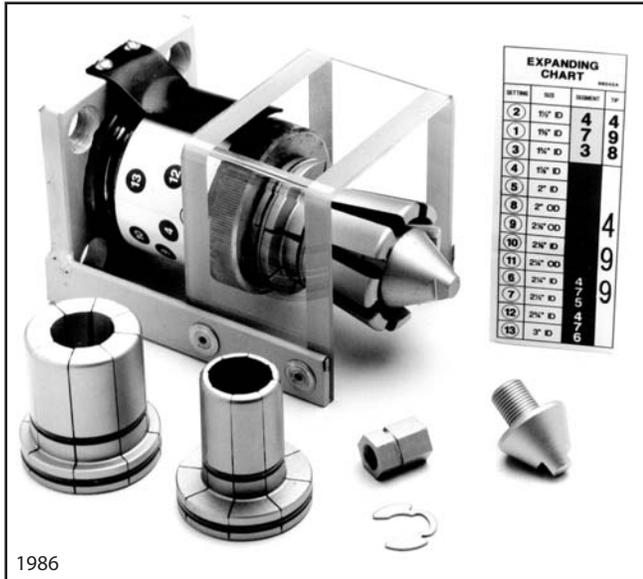
All returned parts are subject to a restocking charge.

More Accurate End-Finishing with Huth's Accu-Sizer™

Huth's Accu-Sizer™ preset expanding system, standard on all new Huth Benders, is available as a retrofit kit for benders built before August of 1988, which have a 3" swager cylinder.

Accu-Sizer features:

- Accurate bull's-eye adjustments for precise expansions time after time
- Form-fitting segment sets
- Two detachable tips for the new arbor



Huth's Accu-Sizer Consists of:

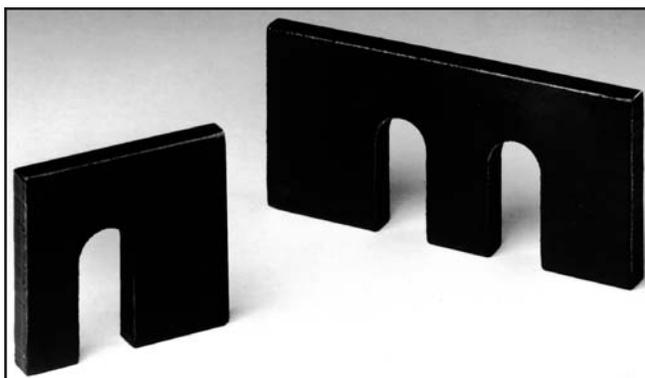
No.	Description
508	Arbor 1-1/2" to 3-1/2"
498	Arbor Tip 1-1/2" to 1-3/4"
499	Arbor Tip 1-3/4" to 3-1/2"
473	Segment 1-1/2" to 1-3/4"
474	Segment 1-3/4" to 2-1/8"
475	Segment 2-1/8" to 2-1/2"
513	Snap Ring Nut
514	Snap Ring
515	Set Screw
522	Adjustable Collar
595	Gun Sight
98042	Sizing Decal
98043	Calibration Decal
41042	Safety Guard
97240	Machine Screw (2)

You will also receive installation and calibration instructions.

Model 1986 - for 3" Swager Cylinders

Model 1990 - for 3 1/2" Swager Cylinders

Huth's Space Makers Give You Room to Make Those Tough, Close Bends Faster, Easier And Better



1080 Half Shoe on Left, 1079 Full Shoe on Right

Those of you who own benders with squared-off swing gates rather than cutout swing gates will really like these simple, slip-in spacers.

They nearly duplicate the action of the cutout gates by moving the back shoes and the pipe farther from the gates during bending operations.

Space Makers help you contend with that second close bend with ease and without any die interference whatsoever (provided that the bending radius doesn't exceed 4"). Nor do they interfere with safety guards.

You can use these spacers with a half shoe and a full shoe in any tube diameter. Plus, you can substitute a three-quarter shoe for the half-shoe. (Bending clearance may not be as great.)

All returned parts are subject to a restocking charge.

Tooling -

All Huth tooling is machined to unmatched tolerances from solid steel. After it is machined, it is gas-carburized and oil quenched to a minimum hardness of 58 Rockwell "C" scale. We do not use cast iron for any of our tooling.

All Huth tooling is available from shelf stock. However, Huth will manufacture tooling to your specifications for sizes not listed in this schedule. Call factory for details. 800-558-7808.

Packages -

Huth has combined the tooling you'll be reaching for most often, into comprehensive, convenient tooling packages. Our Profit Packages, including our new Metric Profit Package - 016, combine the tooling for bending and end-finishing with the accessories you need to get the most from your bender. Some of these packages even include Huth's exclusive Program Card Bending System, containing all the information you need to bend pipes for thousands of applications.

Profit Package 010

Radius Dies			Back Shoes			Collet Sets		473	(1½" to 1¾")
Part	Radius	Size	Part	Pcs.	Size	1712	(1½")	474	(1¾" to 2⅛")
5200*	5"	(2")	1112	(2)	(1½")	1734	(1¾")	475	(2⅛" to 2½")
5414*	5"	(2¼")	1134	(2)	(1¾")	1720	(2")	Accessories	
5412*	5"	(2½")	1200	(2)	(2")	1725	(2¼")	815	Die Holder
4112	4"	(1½")	4211	(2)	(2¼")	1750	(2½")	816	Die Holding Pin
4134	4"	(1¾")	4412	(2)	(2½")	Ball Joint Tooling		835	Tube Cutter
4200	4"	(2")	Half Shoes			555	(1¾", 1⅞", 2")	853	Flaring/ Flanging Tool
4414	4"	(2¼")	1038		(1½")		Female		Die Pins (25)
3200	3"	(2")	1040		(1¾")	556	(2¼", 2½") Female	855	
*Requires 41041 retainer.			1045		(2")	Arbor			
			4416		(2¼")	508	(1½" to 3½")		
			4410		(2½")	498	(Tip: 1½" to 1¾")		
						499	(Tip: 1¾" to 3½")		
						Segment Sets			

Profit Package 011

Radius Dies			Half Shoes		Ball Joint Tooling		Accessories		
Part	Radius	Size	1038	(1½")	555	(1¾", 1⅞", 2")	825	Quick Disconnect Kit	
5530*	5"	(3")	1040	(1¾")		Female			
5200*	5"	(2")	1045	(2")	556	(2¼", 2½") Female	835	Tube Cutter	
5414*	5"	(2¼")	4416	(2¼")			853	Flaring/ Flanging Tool	
5412*	5"	(2½")	4410	(2½")	Ball Joint Segments			Die Pins (36)	
4134	4"	(1¾")	Three-Quarter Shoes			419	(2")	996	Rotation Dial
4200	4"	(2")	1046	(2")	420	(2¼")	97091	Steel Ruler	
4414	4"	(2¼")	4413	(2¼")	421	(2½")	97092	Huth Marking Pen	
4409	4"	(2½")	Swage Dies			Flaring Tool			
3112	3"	(1½")	112	(1½")	518	(2")	950	Program Card System	
3134	3"	(1¾")	134	(1¾")	Arbor				
3200	3"	(2")	178	(1⅞")	508	(1½" to 3½")	OR		
*Requires 41041 retainer.			120	(2")	498	(Tip: 1½" to 1¾")	980	Program Card System in Electronic Format	
Back Shoes			125	(2¼")	499	(Tip: 1¾" to 3½")			
Part	Pcs.	Size	150	(2½")	Segment Sets				
1112	(2)	(1½")	Collet Sets			473	(1½" to 1¾")		
1134	(2)	(1¾")	1712	(1½")	474	(1¾" to 2⅛")			
1200	(2)	(2")	1734	(1¾")	475	(2⅛" to 2½")			
4211	(2)	(2¼")	1720DF	(2")	476	(2½" to 3")			
4412	(2)	(2½")	1725	(2¼")					
1350	(2)	(3")	1750	(2½")					

Section IV

Profit Package 013

Radius Dies			Three-Quarter Shoes					
Part	Radius							
5112*	5"	(1½")	1036	(1¾")	134	(1¾")	474	(1¾" to 2⅛")
5134*	5"	(1¾")	1046	(2")	178	(1⅞")	475	(2⅛" to 2½")
5820*	5"	(2") 180°	4413	(2½")	130	(3")	476	(2½" to 3")
5824*	5"	(2¼") 180°	4415	(2½")	*For 2", 2¼", and 2½" ID's use male ball joint tools 550, 552, 553			
5412*	5"	(2½")	1351	(3")	Accessories			
5530*	5"	(3")	Half Shoes		815 Die Holder			
4112	4"	(1½")	1038	(1½")	816 Die Holding Pin			
4134	4"	(1¾")	1040	(1¾")	825 Quick-Disconnect Kit			
4200	4"	(2")	1045	(2")	835 Tube Cutter			
4414	4"	(2¼")	4416	(2¼")	852 Blank Plate			
4409	4"	(2½")	4410	(2½")	853 Flaring/Flanging Tool			
3112	3"	(1½")	1352	(3")	855 Die Pins (41)			
3134	3"	(1¾")	Reducing Dies		870 O-Rings-Rubber Asst.			
3200	3"	(2")	780	(2" to 1¾")	892 Collet Holder			
3414	3"	(2¼")	781	(2¼" to 2")	996 Rotation Dial			
*Requires 41041 retainer			782	(2½" to 2¼")	1994 Quick Change Pin Kit			
Back Shoes			783	(3" to 2½")	97091 Steel Ruler			
Part	Pcs.		Collet Sets		97092 Huth Marking Pen			
1112	(2)	(1½")	1712	(1½")	950 Program Card System			
1134	(2)	(1¾")	1734	(1¾")	OR			
1200	(2)	(2")	1720	(2")	980 Program Card System in Electronic Format			
4211	(2)	(2¼")	1725	(2¼")				
4412	(2)	(2½")	1750	(2½")				
1350	(2)	(3")	1730	(3")				
			Swage Dies*					
			112	(1½")				

Profit Package 016 - Export

Radius Dies			Back Shoes		Swage Dies		Segment Sets	
Part	Radius							
5040	5"	(40mm)	1340	(2) (40mm)	140	(40mm)	473	(35mm to 45mm ID)
5042	5"	(42mm)	1342	(2) (42mm)	142	(42mm)	474	(45mm to 54mm ID)
5045	5"	(45mm)	1345	(2) (45mm)	145	(45mm)	475	(54mm to 64mm ID)
5048	5"	(48mm)	1348	(2) (48mm)	148	(48mm)	476	(64mm to 76mm ID)
5050	5"	(50mm)	1349	(2) (50mm)	149	(50mm)	Reducing Dies	
5218	5"	(54mm)	1218	(2) (54mm)	128	(54mm)	760	(50mm to 45mm OD)
5060	5"	(60mm)	1360	(2) (60mm)	160	(60mm)	761	(55mm to 50mm OD)
4040	4"	(40mm)	Three-Quarter Shoes		Collet Sets		762	(60mm to 55mm OD)
4042	4"	(42mm)	1540	(40mm)	1740	(40mm)	Accessories	
4045	4"	(45mm)	1542	(42mm)	1742	(42mm)	815	Die Holder
4048	4"	(48mm)	1545	(45mm)	1745	(45mm)	816	Die Holding Pin
4050	4"	(50mm)	1548	(48mm)	1700	(48mm)	825	Quick-Disconnect Kit
4218	4"	(54mm)	1550	(50mm)	1705	(50mm)	835 Tube Cutter	
4060	4"	(60mm)	1053	(54mm)	1728	(54mm)	853 Flaring/Flanging Tool	
3040	3"	(40mm)	1560	(60mm)	1760	(60mm)	855 Die Pins (42)	
3042	3"	(42mm)	Half Shoes		Ball Joint Segments		984 Pipe End Shaper	
3045	3"	(45mm)	1405	(40mm)	419	(50mm)	996 Rotation Dial	
3048	3"	(48mm)	1425	(42mm)	420	(55mm)	91176 Ready Rak II	
3050	3"	(50mm)	1455	(45mm)	421	(60mm)	97091 Steel Ruler	
3218	3"	(54mm)	1448	(48mm)	Arbor		97092 Huth Marking Pen	
			1450	(50mm)	508	(35mm to 89mm ID)		
			1051	(54mm)	498	(Tip: 35mm to 40mm ID)		
			1460	(60mm)	499	(Tip: 40mm to 89mm ID)		

All returned parts are subject to a restocking charge

1992 - 3" Tooling Package

For use on benders with 700 Series or 1700 Series Collets with a clamp style collet holder. (Standard on all Huth Bender models from September 1981 to present.)

- 5530 Radius Die
- 1350 Back Shoe (2)
- 1351 Three-Quarter Shoe
- 1352 Half Shoe
- 855 Die Pins (6)
- 892 Collet Holder
- 1730 Collet
- 853 Flaring/Flanging Tool
- 783 Reducer (3" to 2½")
- 130 Swage Die
- *476 Segment Set (2½" to 3")

*Requires Arbor 508 and Arbor Tip 499

1993 - 3" Tooling Package

For use on benders with 200 Series Collets with either a cam action or spin close collet holder. (Standard on all Huth Bender models from 1955 to September 1981.)

- 5530 Radius Die
- 1350 Back Shoe (2)
- 1351 Three-Quarter Shoe
- 1352 Half Shoe
- 855 Die Pins (6)
- 508 Arbor, 1-1/2" to 3-1/2"
- 499 Arbor Tip
- 476 Segment Set (2½" to 3")

1995 - 2¾" Tooling Package

For use on benders with 700 Series or 1700 Series Collets with a clamp style collet holder. (Standard on all Huth Bender models from September 1981 to present.)

- 5534 5" Radius Die
- 1234 Back Shoe (2)
- 1235 Three-Quarter Shoe
- 1236 Half Shoe
- 855 Die Pins (6)
- 1729* Collet
- 790 Reducer (3" to 2¾")
- 129 Swage Die

*Requires 892 Collet Closer

1996 - 3" Short Tooling Package

- 5530 5" Radius Die
 - 1350 Back Shoe (2)
 - 855 Die Pins (4)
- One of the following:
- 1351 Three-Quarter Shoe
 - 1352 Half Shoe
 - *476 Segment Set (2½" to 3")

*Requires Arbor 508 and Arbor Tip 499

1997 - 2¾" Short Tooling Package

- 5534 5" Radius Die
 - 1234 Back Shoe (2)
 - 855 Die Pins (4)
- One of the following:
- 1235 Three-Quarter Shoe
 - 1236 Half Shoe
 - *476 Segment Set (2½" to 3")

*Requires Arbor 508 and Arbor Tip 499

1988 - 3" End-Finishing Package

Designed for benders which utilize 700 or 1700 series collets to perform 3" swaging. 1988 package includes:

- 892 Collet Holder
- 1730 Collet
- 130 Swage Die
- 783 Reducer (3" to 2½")
- 853 Flaring/Flanging Tool

1989 - 1⅞" Optional Package

- 4178 Radius Die (4")
- 178 Swage Die
- 1178 Back Shoe (2 pcs)
- 1043 Half Shoe
- 1778 Collet Set
- 855 Die Pins (5 pcs)

1994 Quick-Change Pin Kit



Designed for faster collet holder changing, the Quick-Change Pin Kit eliminates the need for wrenches and prevents lost and stripped bolts when changing collet holders. Order Part Number 1994.

All returned parts are subject to a restocking charge.

Huth People



Scott Metternich loading back shoes into the lathe.

Bending Dies

Full 5" Radius Dies*



No.	Size
5812	1-1/2"
5834	1-3/4"
5878	1-7/8"
5820	2"
5824	2-1/4"***
5825	2-1/2"***
	** 4" Thick

* Requires 41041 Retainers

Full 4" Radius Dies



No.	Size
4858	1-5/8"
4834	1-3/4"
4820	2"

5" Radius Dies



English No.	Size
5034	3/4"
5100	1"
5118	1-1/8"
5114	1-1/4"
5056	1-5/16"
5138	1-3/8"
5112	1-1/2"
5158	1-5/8"
5134	1-3/4"
5178	1-7/8"
5200	2"
5218	2-1/8"***
5414	2-1/4"***
5438	2-3/8"***
5412	2-1/2"***
5534	2-3/4"***
5530	3"***
	** 4" Thick

Metric No.	Size
5040	40mm
5042	42mm
5045	45mm
5048	48mm
5050	50mm
5218	54mm***
5055	55mm
5060	60mm

***2-1/8"= 54mm

All returned parts are subject to a restocking charge

4" Radius Dies



Metric No.	Size
4040	40mm
4042	42mm
4045	45mm
4048	48mm
4050	50mm
4218	54mm***
4055	55mm
4060	60mm

***2-1/8"= 54mm

English No.	Size
4012	1/2"
4058	5/8"
4034	3/4"
4078	7/8"
4100	1"
4118	1-1/8"
4114	1-1/4"
4056	1-5/16"
4138	1-3/8"
4112	1-1/2"
4158	1-5/8"
4134	1-3/4"
4178	1-7/8"
4200	2"
4218	2-1/8"***
4414	2-1/4"***
4438	2-3/8"***
4409	2-1/2"***
	** 4" Thick

3" Radius Dies



Metric No.	Size
3040	40mm
3042	42mm
3045	45mm
3048	48mm
3050	50mm
3218	54mm***
3055	55mm

***2-1/8"= 54mm

English No.	Size
3012	1/2"
3058	5/8"
3034	3/4"
3078	7/8"
3100	1"
3118	1-1/8"
3114	1-1/4"
3056	1-5/16"
3138	1-3/8"
3112	1-1/2"
3158	1-5/8"
3134	1-3/4"
3178	1-7/8"
3200	2"
3218	2-1/8"***
3414	2-1/4"***
3438	2-3/8"***
	** 4" Thick

Square Dies



No.	Size
5314	1-1/4" (5" Rad.)
5312	1-1/2" (5" Rad.)
4334	3/4" (4" Rad.)
4310	1" (4" Rad.)
4314	1-1/4" (4" Rad.)
3334	3/4" (3" Rad.)
3310	1" (3" Rad.)

Square Tube Back Shoe*
(2 Required)

1000 All Sizes

* (4) #855 Pins Required

Shoes

Back Shoes* (2 Required)



* (2) #855 pins required

English No	Size
1012	1/2"
1058	5/8"
1034	3/4"
1078	7/8"
1100	1"
1118	1-1/8"
1114	1-1/4"
1256	1-5/16"
1138	1-3/8"
1112	1-1/2"
1158	1-5/8"
1134	1-3/4"
1178	1-7/8"
1200	2"
1218	2-1/8"***
4211	2-1/4"***
4237	2-3/8"***
4412	2-1/2"***
1234	2-3/4"***
1350	3"***

Metric No.	Size
1340	40mm
1342	42mm
1345	45mm
1348	48mm
1349	50mm
1218	54mm***
1355	55mm
1360	60mm

***2-1/8"= 54mm

Half Shoes* (1 Required)



* (1) #855 pin required

Metric No.	Size
1405	40mm
1425	42mm
1455	45mm
1448	48mm
1450	50mm
1051	54mm***
1445	55mm
1460	60mm

***2-1/8"= 54mm

No.	Size
1027	1/2"
1029	5/8"
1035	3/4"
1031	7/8"
1037	1"
1033	1-1/8"
1039	1-1/4"
1356	1-5/16"
1041	1-3/8"
1038	1-1/2"
1042	1-5/8"
1040	1-3/4"
1043	1-7/8"
1045	2"
1051	2-1/8"***
4416	2-1/4"***
4437	2-3/8"***
4410	2-1/2"***
1236	2-3/4"***
1352	3"***

** 4" Thick

Three-Quarter Shoes* (1 Required)



* (1) #855 pin required

No.	Size
1036	1-3/4"
1044	1-7/8"
1046	2"
1053	2-1/8"***
4413	2-1/4"***
4415	2-1/2"***
1235	2-3/4"***
1351	3"***

** 4" Thick

Metric No.	Size
1540	40mm
1542	42mm
1545	45mm
1548	48mm
1550	50mm
1053	54mm***
1555	55mm
1560	60mm

***2-1/8"= 54mm

Quarter Shoes* (1 Required)



* (1) #855 pin required

No.	Size
1084	1-1/4"
1083	1-3/8"
1082	1-1/2"
1081	1-5/8"



Huth People

Bob Lechner loading a segment into the lathe.

End Finishing Tools - Swager

Swage Dies



Metric No.	Size
140	40mm
142	42mm
145	45mm
148	48mm
149	50mm
128	54mm***
155	55mm
160	60mm

English No.	Size
110	1"
118	1-1/8"
114	1-1/4"
138	1-3/8"
112	1-1/2"
158	1-5/8"
134	1-3/4"
178	1-7/8"
120	2"
128	2-1/8"***
125	2-1/4"
123	2-3/8"
150	2-1/2"
129	2-3/4"
130	3"

***2-1/8"= 54mm

Reducing Dies*



* Requires clamp collet 890 or 891

No.	Size
780	2" to 1-3/4"
781	2-1/4" to 2"
782	2-1/2" to 2-1/4"
783	3" to 2-1/2"
784	2" to 1-7/8"
785	1-3/4" to 1-5/8"
786	1-5/8" to 1-1/2"
787	1-1/2" to 1-3/8"
788	1-3/8" to 1-1/4"
789	1-1/4" to 1-1/8"
790	3" to 2-3/4"

Metric No.	Size
760	(50mm to 45mm OD)
761	(55mm to 50mm OD)
762	(60mm to 55mm OD)

Ball Joint Tools



550



555

No.	Size
550	1-3/4" (Male)
551	1-7/8" (Male)
552	2" (Male)
553	2-1/4" (Male)
554	2-1/2" (Male)
557	1-3/4" to 2-1/2" (Domer)
558	2-5/8" to 2-3/4" (Domer)
555	1-3/4", 1-7/8", 2" (Female)
556	2-1/4" to 2-1/2" (Female)
564	2-3/4" to 3" (Female)



557

Flaring/Flanging Tools



518



519



853

No.	Description
518	Flare Tool 1-1/2", 2" (2" requires 1720DF)
519	Flare Tool 1-3/4", 1-5/8"
853	Pipe Flanger 1-1/2" to 3" (Replaces Pipe Flangers 848, 849, 850, 851)

Header Collector Tool



No.	Size
101	3"
102	3-1/2"

Clamp Collets (All Models After Jan '85)



Metric No.	Size
1740	40mm
1742	42mm
1745	45mm
1700	48mm
1705	50mm
1728	54mm***
1755	55mm
1760	60mm

English No.	Size
1710	1"
1718	1-1/8"
1714	1-1/4"
1756	1-5/16"
1738	1-3/8"
1712	1-1/2"
1758	1-5/8"
1734	1-3/4"
1778	1-7/8"
1720	2"
1720DF	2"
1728	2-1/8"***
1725	2-1/4"
1723	2-3/8"
1750	2-1/2"
1729	2-3/4"*
1730	3"*

*Requires 892 Collet Holder

***2-1/8"= 54mm

End Finishing Tools - Swager

Clamp Collets

(All Models From Sept. '81 to Jan. '85)



No.	Size
710	1"
718	1-1/8"
714	1-1/4"
738	1-3/8"
712	1-1/2"
758	1-5/8"
734	1-3/4"
778	1-7/8"
720	2"
728	2-1/8"
725	2-1/4"
723	2-3/8"
750	2-1/2"

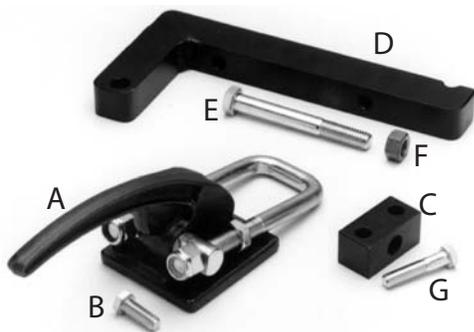
Clamp Collets

(All Models 1955-Sept. '81)



No.	Size
210	1"
218	1-1/8"
214	1-1/4"
238	1-3/8"
212	1-1/2"
258	1-5/8"
234	1-3/4"
278	1-7/8"
220	2"
228	2-1/8"
225	2-1/4"
223	2-3/8"
250	2-1/2"

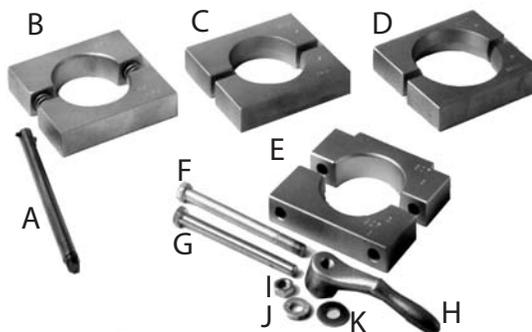
Clamp Collet System



A. 97176	Collet Closer Clamp
B. 97267	Bolt 3/8"-16 x 1" (qty. 4)
C. 91061	Collet Hinge Block (qty. 2)
D. 91060	Collet Closer Arm
E. 97232	Bolt for 91060, 1/2"-13 x 4"
F. 97208	Nut-1/2"-13
G. 97231	Bolt 3/8"-16 x 1-3/4" (qty. 6)

Collet Closers

Clamp Closer



A. 808	Long Handle-9"
B. 884	Collet Holder (Uses 200 Series Collets)
C. 890	Collet Holder (Uses 700 Series Collets)
D. 891	Collet Holder (After 2-85 Uses 1700 Series Collets)
E. 807*	Collet Holder (Uses 200 Series Collets)
F. 809	Bolt, 6"
G. 810	Bolt 5-1/2"
H. 804	Handle
I. 812	Nut
J. 811	Washer
K. 813	Washer, Brass
817	Handle, 12" (not shown)
892	Collet Holder (not shown), 2-3/4", 3" for 1729, 1730 Collets
1985	Collet/Closer Kit with 1712, 1720, 1725, 1734, 1778, 1750, 891 (not shown)

*Complete Kit includes F through K

All returned parts are subject to a re-stocking charge

End-Finishing Tools - Expander

Accu-Sizer™ System



498, 499 508 477, 476,
475, 474, 473

No.	Size
508	Arbor, 1-3/8" to 3-1/2"
498	Tip: 1-1/2" to 1-3/4"
499	Tip: 1-3/4" to 3-1/2"
473	Segment 1-3/8" to 1-3/4" (YELLOW)
474	Segment 1-3/4" to 2-1/8" (RED)
475	Segment 2-1/8" to 2-1/2" (BLACK)
476	Segment 2-1/2" to 3" (GREEN)
477	Segment 3" to 3-1/2"
	All sizes are I.D.

45° Flaring



441, 440, 405

405	Flaring Segment Set* 1-1/8" to 1-1/2" Tube
440	Flaring Segment Set 1-1/2" to 2-1/2" Tube
441	Flaring Segment Set 2-1/2" to 3-1/2" Tube
	*Requires 575 Arbor 570 Spacer

Pre Accu-Sizer™ System



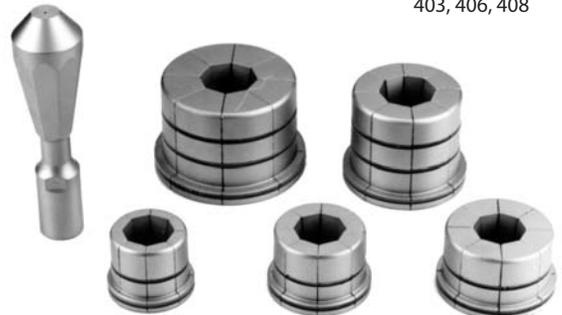
502, 501, 425,
422, 423, 424



500, 400



575, 570, 470, 404



No.	Size
575*	Arbor 15/16" to 1-1/4"
500	Arbor 1-1/4" to 1-1/2"
501	Arbor 1-1/2" to 1-3/4"
502	Arbor 1-3/4" to 2-3/4"
503	Arbor 2-3/4" to 5-1/2"
470	Segment 1-5/16" to 1-3/32"
404	Segment 1-3/32" to 1-1/4"
400	Segment 1-3/16" to 1-1/2"
422	Segment 1-1/2" to 1-3/4"
423	Segment 1-3/4" to 2-1/8"
424	Segment 2-1/8" to 2-1/2"
425	Segment 2-1/2" to 2-3/4"
403	Segment 2-3/4" to 3-1/8"
406	Segment 3-1/8" to 3-1/2"
408	Segment 3-1/2" to 4"
450	Segment 4" to 4-7/8"
451	Segment 4-7/8" to 5-1/2"

All sizes are I.D.

*570 Spacer Required

503, 451, 450,
403, 406, 408

End-Finishing Tools - Expander

5" Cylinder Tooling



574, 484, 485, 486,
481, 482, 483

No.	Size
574*	Arbor 2-7/8" to 6"
481	Segment 2-7/8" to 3-1/2"
482	Segment 3-3/8" to 4"
483	Segment 3-7/8" to 4-1/2"
484	Segment 4-3/8" to 5"
485	Segment 4-7/8" to 5-1/2"
486	Segment 5-3/8" to 6"

All sizes are I.D.

Flanges



411



413

No.	Size
411	Segment 2", 2-1/4"
413	Flange Ring 2"
414	Flange Ring 2-1/4"
412	Segment 2-1/2"
418	Flange Ring 2-1/2"

Ball Joints



419

No.	Size
410	Segment 1-3/4"
419	Segment 2"
420	Segment 2-1/4"
421	Segment 2-1/2"
452	Segment 3"

O-Rings, Rubber



No.	Size
870	Assortment of 50 (10 each size) for Segment Sets: 400, 403, 404, 405, 406, 408, 410, 411, 412, 419, 420, 421, 422, 423, 424, 425, 440, 441, 452, 470, 473, 474, 475, 476, 477, 570 Spacer for Arbor 575

No.	Size
871	Assortment of 10 (2 each size) for Segment Sets: 400, 403, 404, 405, 406, 408, 410, 411, 412, 419, 420, 421, 422, 423, 424, 425, 440, 441, 452, 470, 473, 474, 475, 476, 477, 570 Spacer for Arbor 575

O-Rings, Steel



No.	Size
859	Assortment of 25 (5 each size) for Segment Sets: 400, 403, 406, 408, 410, 411, 412, 419, 420, 421, 422, 423, 424, 425, 440, 450, 451, 452, 470, 473, 474, 475, 570 Spacer for Arbor 575

O-Rings, Urethane



No.	For Segments
872	481
873	482
875	483
877	408, 450
878	450, 481, 482
879	451, 483, 485
880	451, 484, 486
881	484
882	485, 486

Huth Expanding Tool Chart

A Ready Reference For Matching Tools to Their Arbors

For The Accu-Sizer™

Size	Arbor	Tip	Seg. Set	Collar
1-3/8" to 1-3/4"	508	498	473	41047
1-3/4" to 2-1/8"	508	499	474	41047
2-1/8" to 2-1/2"	508	499	475	41047
2-1/2" to 3"	508	499	476	41047
3" to 3-1/2"	508	499	477	41047

All sizes are I.D.

For 45° Flaring Work*

Size	Arbor	Tip	Seg. Set	Collar
1-1/8" to 1-1/2"	575*		405	41047
1-1/2" to 2-1/2"	508	499	440	41047
2-1/2" to 3-1/2"	508	499	441	41047

*Requires 570 Spacer

For Making Ball Joints*

Size	Arbor	Tip	Ball Joint	
			Tool	Collar
1-3/4"	508	499	410	41047
2"	508	499	419	41047
2-1/4"	508	499	420	41047
2-1/2"	508	499	421	41047
3"	508	499	452	41047

5" Cylinder Tooling for Model 1674

Size	Arbor	Seg. Set	Collar
2-7/8" - 3-1/2"	574	481	527
3-3/8" - 4"	574	482	527
3-7/8" - 4-1/2"	574	483	527
4-3/8" - 5"	574	484	527
4-7/8" - 5-1/2"	574	485	527
5-3/8" - 6"	574	488	527

For Expansion Work

Size	Arbor	Seg. Set	Collar
15/16" to 1-3/32"	575**	470	41047***
1-3/32" to 1-1/4"	575**	404	41047***
1-3/16" to 1-1/2"	500	400	41047***
1-1/2" to 1-3/4"	501	422	41047***
1-3/4" to 2-1/8"	502	423	41047***
2-1/8" to 2-1/2"	502	424	41047***
2-1/2" to 2-3/4"	502	425	41047***
2-3/4" to 3-1/8"	503	403	523*
3-1/8" to 3-1/2"	503	406	523
3-1/2" to 4"	503	408	523
4" to 4-7/8"	503	450	523
4-7/8" to 5-1/2"	503	451	523

*512 Adjustable Collar is for a 3" Swager Cylinder

** Requires a 570 Spacer

*** 41046 - Adjustable Collar is for a 3" Swager Cylinder

41047 - Adjustable Collar is for 3-1/2" Swager Cylinder

All sizes are I.D.

For Flanges*

Size	Tip	Arbor	Seg. Set	Flange	Collar
2"	499	508	411 W/413	Flange Ring	41047
2-1/4"	499	508	411 W/414	Flange Ring	41047
2-1/2"		499		508412 W/418	Flange
Ring	41047				

Huth People



Tom McKinley cutting material to length.



Keith Lucht preparing a part for machining center.

Silhouette Chart - Segment Set Teeth

These silhouettes are full scale. To identify the tooth you need, simply match it up with its mate on these pages. You'll get its part number, the part of the segment it belongs to, plus the part numbers and quantity of stainless steel, urethane and/or rubber O-Rings to use.

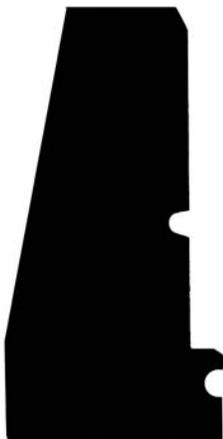
Expanding Segment Teeth



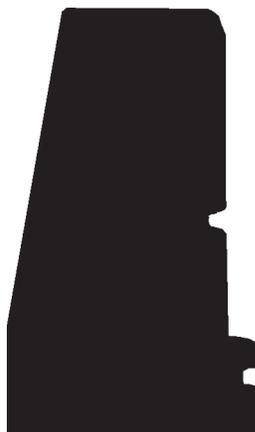
Tooth	600
Segment	400
O-Rings:	
Steel	1-867
Rubber	1-862



Tooth	603
Segment	403
O-Rings:	
Steel	1-868
	1-869
Rubber	1-863
	1-864



Tooth	606
Segment	406
O-Rings:	
Steel	2-869
Rubber	2-864



Tooth	608
Segment	408
O-Rings:	
Rubber	1-864
Urethane	1-877



Tooth	622
Segment	422
O-Rings:	
Steel	1-865
	1-867
Rubber	1-860
	1-862



Tooth	623
Segment	423
O-Rings:	
Steel	1-866
	1-868
Rubber	1-861
	1-863

All returned parts are subject to a restocking charge

Silhouette Chart - Segment Set Teeth



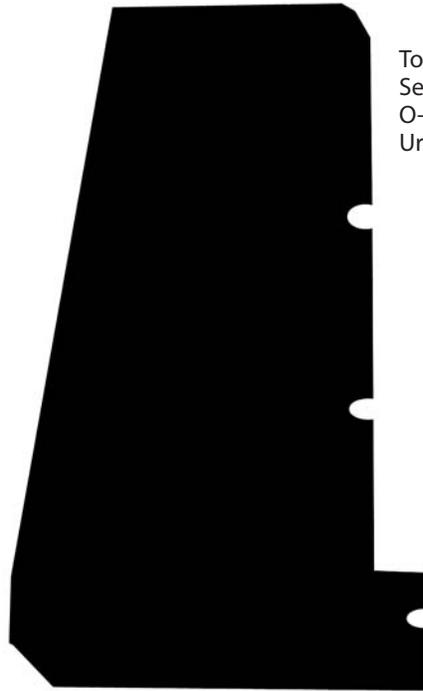
Tooth Segment 624
 O-Rings: Steel 1-867
 Rubber 1-868
 1-862
 1-863



Tooth Segment 625
 O-Rings: Steel 1-868
 Rubber 1-869
 1-863
 1-864



Tooth Segment 650
 O-Rings: Urethane 1-878
 2-877



Tooth Segment 651
 O-Rings: Urethane 1-880
 2-879



Tooth Segment 670
 O-Rings: Steel 1-867
 Rubber 1-862



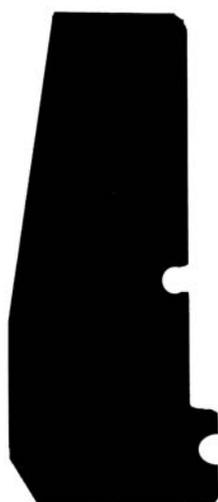
Tooth Segment 604
 O-Rings: Steel 1-867
 Rubber 1-862

All returned parts are subject to a restocking charge

Silhouette Chart - Segment Set Teeth



Tooth Segment 673
 O-Rings: 473
 Steel 1-874
 1-867
 Rubber 1-860
 1-862



Tooth Segment 676
 O-Rings: 476
 Steel 1-868, 1-869
 Rubber 1-863, 1-864



Tooth Segment 674
 O-Rings: 474
 Steel 1-866
 1-868
 Rubber 1-861
 1-863



Tooth Segment 677
 O-Rings: 477
 Steel 2-869
 Rubber 2-864



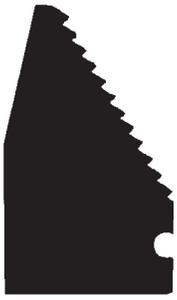
Tooth Segment 675
 O-Rings: 475
 Steel 1-867
 1-868
 Rubber 1-862
 1-863

Flaring Segment Teeth



Tooth Segment 640
 O-Rings: 440
 Steel 1-868
 1-869
 Rubber 1-863
 1-864

Silhouette Chart - Segment Set Teeth

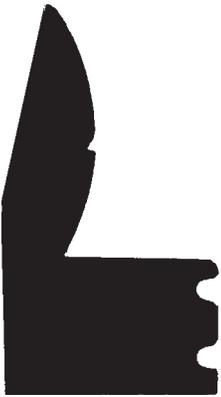


Tooth 605
 Segment 405
 O-Rings:
 Steel 1-867
 Rubber 1-862



Tooth 620
 Segment 420
 O-Rings:
 Steel 2-869
 Rubber 2-864

Ball-Joint Segment Teeth



Tooth 610
 Segment 410
 O-Rings:
 Steel 2-869
 Rubber 2-864



Tooth 621
 Segment 421
 O-Rings:
 Steel 2-869
 Rubber 2-864

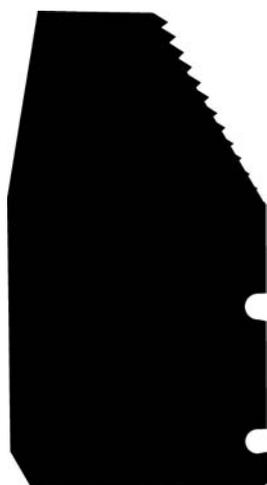


Tooth 619
 Segment 419
 O-Rings:
 Steel 2-869
 Rubber 2-864

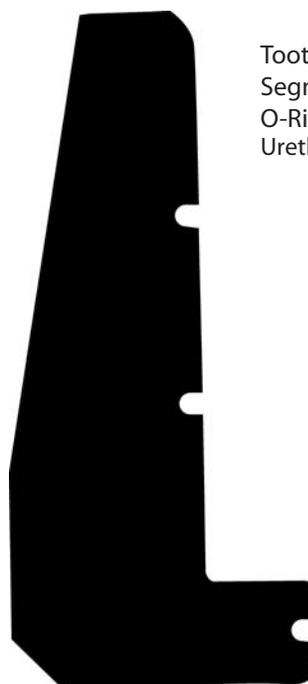


Tooth 652
 Segment 452
 O-Rings:
 Steel 3-869
 Rubber 3-864

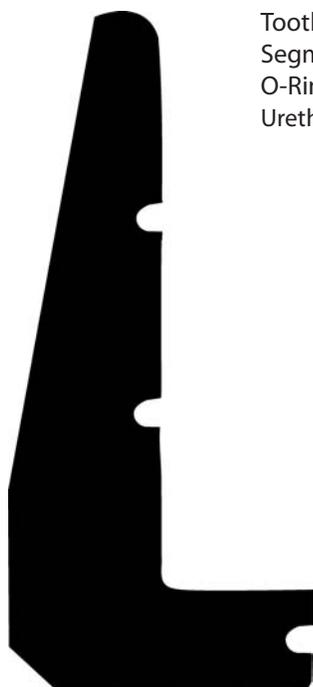
Silhouette Chart - Segment Set Teeth



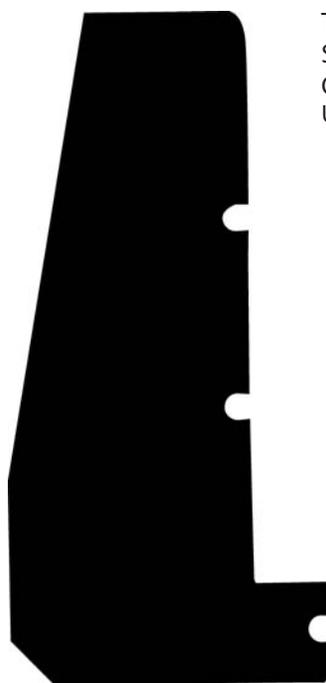
Tooth	641
Segment	441
O-Rings:	
Steel	869
Rubber	864



Tooth	682
Segment	482
O-Rings:	
Urethane	1-878 2-873

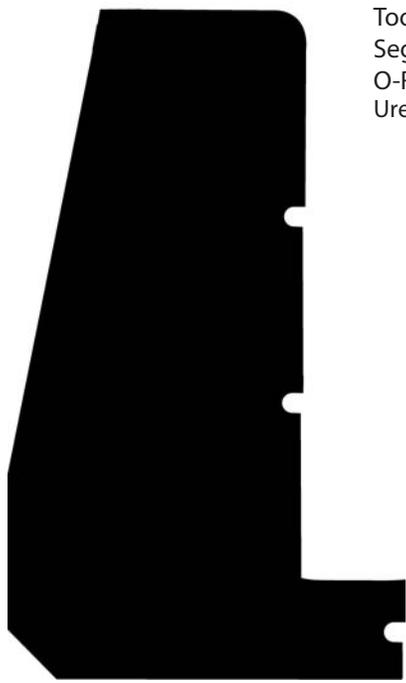


Tooth	681
Segment	481
O-Rings:	
Urethane	1-878 2-872



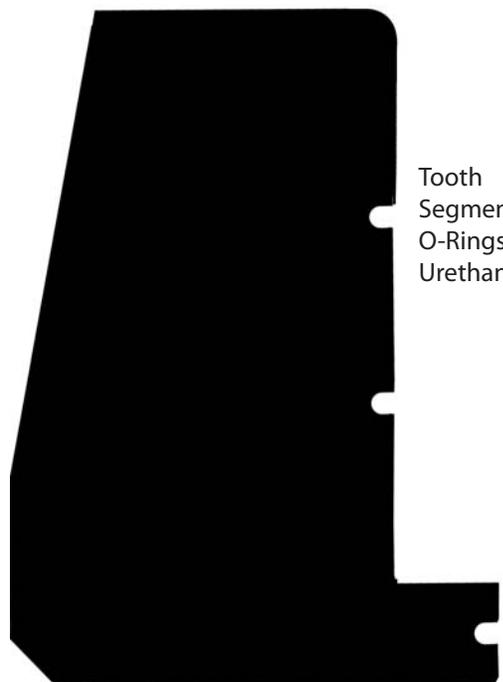
Tooth	683
Segment	483
O-Rings:	
Urethane	1-879 2-875

Silhouette Chart - Segment Set Teeth

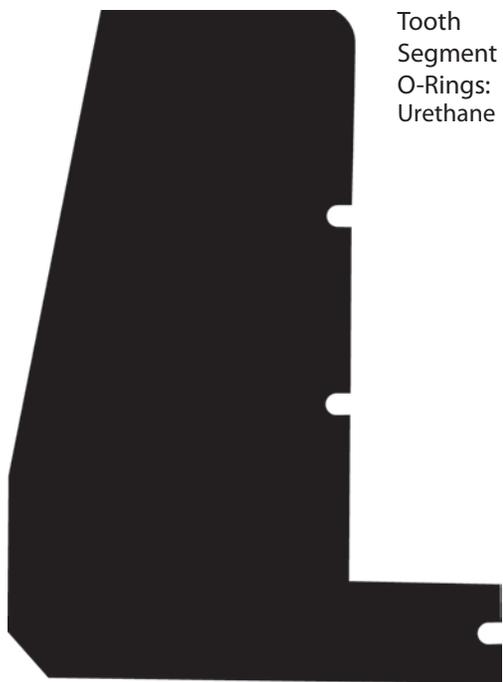


Tooth Segment
O-Rings:
Urethane

684
484
1-880
2-881



Tooth Segment	686
O-Rings:	486
Urethane	1-882
	2-880



Tooth Segment	685
O-Rings:	485
Urethane	1-882
	2-879

Silhouette Chart - Segment Set - O-Rings

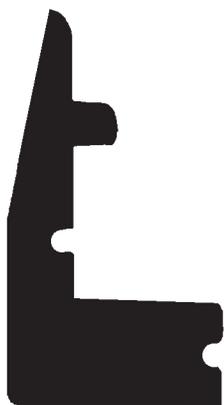
Spacer for Arbor 575

Segment 570
 O-Rings:
 Steel 1-865
 Rubber 1-860



Flanging Segment Teeth

Tooth 611
 Segment 411
 O-Rings:
 Steel 1-865
 1-869
 Rubber 1-860
 1-864

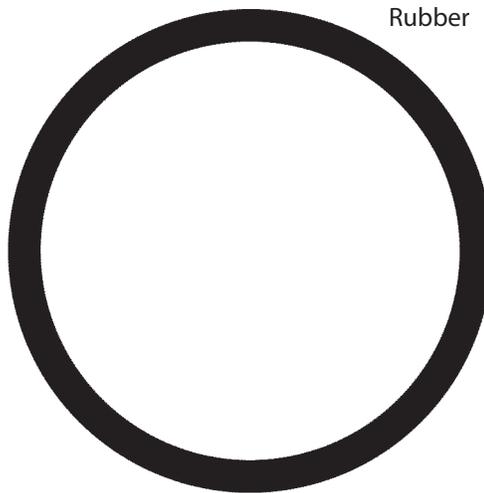


Tooth 612
 Segment 412
 O-Rings:
 Steel 1-867
 1-869
 Rubber 1-862
 1-864

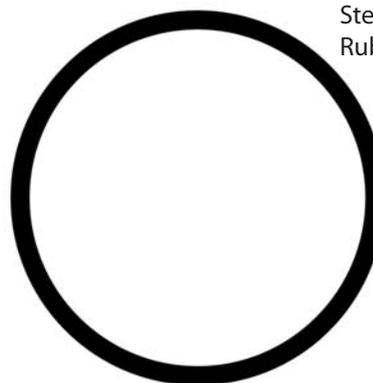


O-Rings

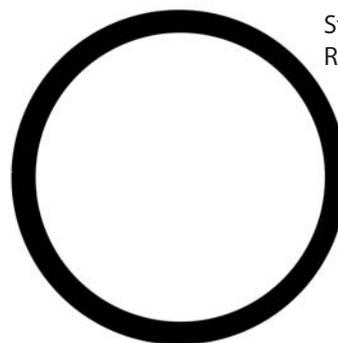
Steel 869
 Rubber 864



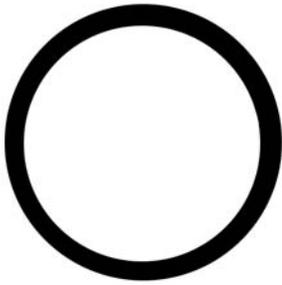
Steel 868
 Rubber 863



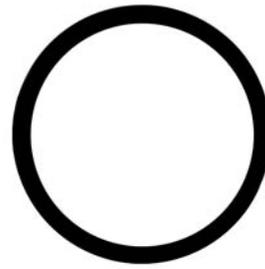
Steel 867
 Rubber 862



Silhouette Chart - O-Rings



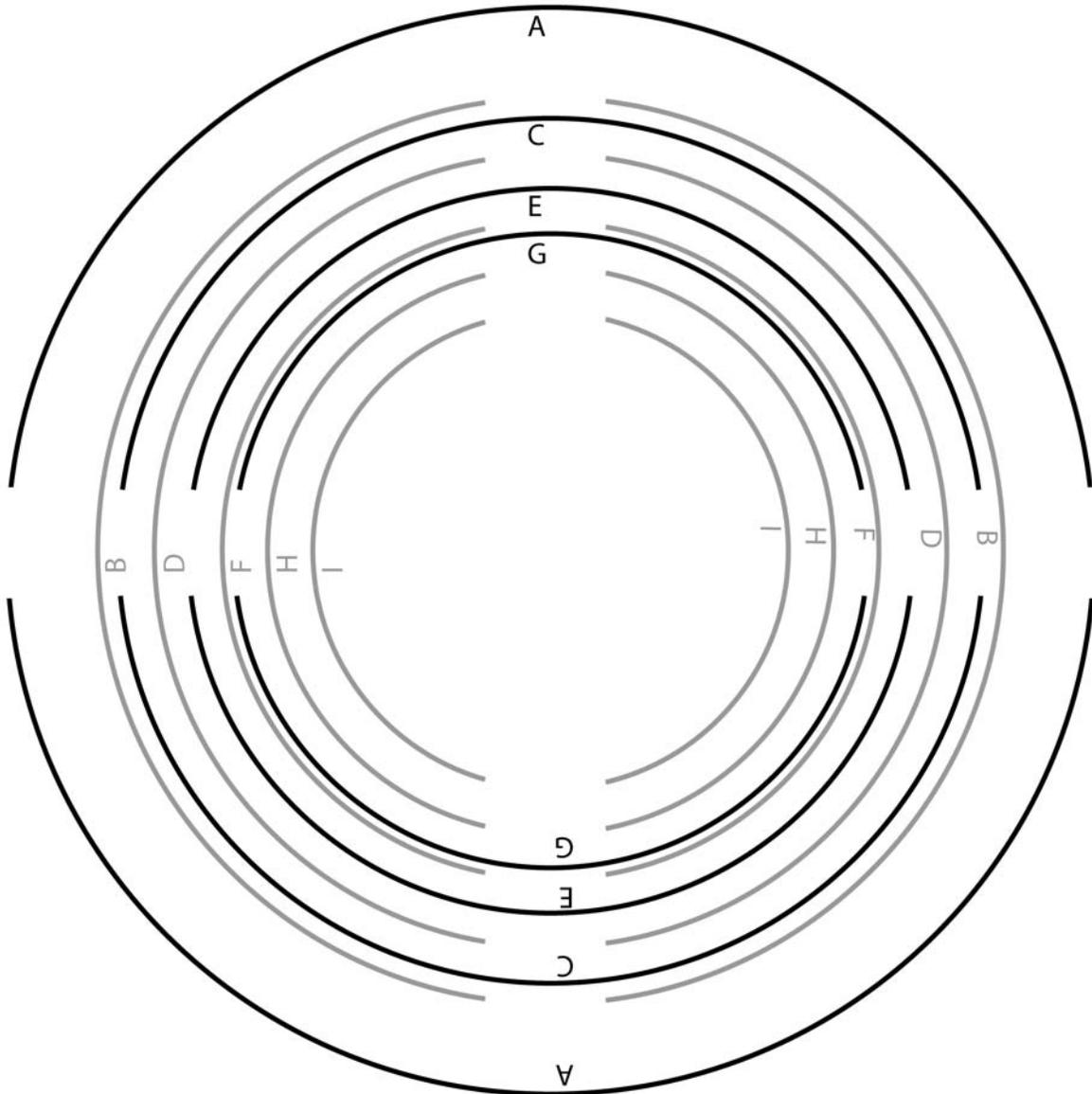
Steel Rubber 866
Rubber 861



Steel 865
Rubber 860

Urethane O-Rings

- A. 882
- B. 880
- C. 879
- D. 878
- E. 881
- F. 877
- G. 875
- H. 873
- I. 872



- Maintenance Accessories
- Bending Accessories
- Forming Accessories
- Tooling Adapters

Bending Accessories



800 Pusher Block



852 Blank Plate



854 Ram Die Pin Clip

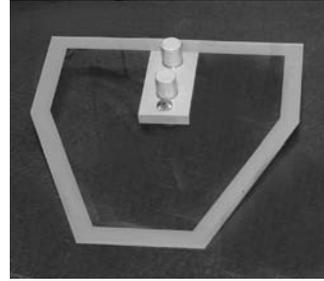


97233 Cap Screw for Radius Dies



855 Die Pin

No.	Description
800	Pusher Block
852	Blank Plate
854	Radius Die Pin Clip
855	Die Pin
856	Radius Die Hex Pin
1079	Full Shoe Spacer
1080	Half Shoe Spacer
41040	Retainer w/Guard
41041	5" Retainer w/Guard for benders with pusher block
92100	Gauge, Hydraulic
97050	Pusher Block Spring
97233	Cap Screw for Radius Dies
99002	Tune-Up Kit (50 Assorted O-Rings, 2 Pressure Gauges, Huth Marking Pen, Tape Measure, Operator's Manual)



41040 Retainer w/Guard



41041 5" Retainer w/Guard for benders with pusher block



92100 Gauge, Hydraulic



97050 Pusher Block Spring



856 Radius Die Hex Pin



1079 Full Shoe Spacer



1080 Half Shoe Spacer



99002 Tune-Up Kit (50 Assorted O-Rings, 2 Pressure Gauges, Huth Marking Pen, Tape Measure, Operator's Manual)

Bending Accessories

Program Card Accessories



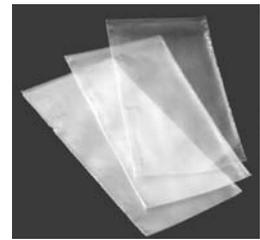
988 Card Cabinet



995 Program Card Tray



996 Rotation Dial



998 Card Sleeves (pkg. 1000)

No.	Description
950*	Program Card System
951*	Program Card Subscription (Paper)
981*	Program Card Subscription (Electronic Format)
952*	Program Card (blank)
980*	Program Card System in Electronic Format for IBM Computers
988	Card Cabinet
991	Rotation Dial Knob
992	Rotation Dial Face
993	Rotation Dial Lens
994	Rotation Dial Spring
995	Program Card Tray
996	Rotation Dial
998	Card Sleeves (pkg. 1000)
97091	Steel Ruler-10'
97092	Marking Pen
99006	Accessory Package
*Not Shown	



97091 Steel Ruler-10'



97092 Marking Pen



992 Rotation Dial Face



993 Rotation Dial Lens



994 Rotation Dial Spring



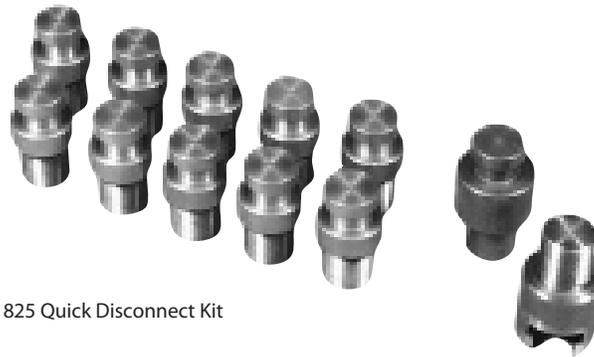
991 Rotation Dial Knob



99006 Accessory Package
Includes: 97092 Marking Pen, 97091 Steel Ruler-10', 996 Rotation Dial

Forming Accessories

No.	Description
815	Die Holder
816	Die Holding Pin
818	Quick Disconnect Holder
820	Non-Threaded Adapter
823	Quick Disconnect Shoulder Stud
825	Quick Disconnect Kit
1987	Auto-Flange™ Kit
1988	3" End Finishing Tool Kit
97051	Threaded Stud
97100	Knurled Nut



825 Quick Disconnect Kit



820 Non-Threaded Adapter



818 Quick Disconnect Holder



823 Quick Disconnect Shoulder Stud



815 Die Holder



816 Die Holding Pin



1988 3" End Finishing Tool Kit



97051 Threaded Stud



97100 Knurled Nut



1987 Auto-Flange™ Kit

Maintenance Accessories



835 Tube Cutter #30 for 3"

- No. Description
- 829 Cutter Blade #50
- 830 Axle for #50
- 833 Cutter Blades #30-133
- 835 Tube Cutter #30 for 3"
- 836 Axle #30
- 839 Vent Breather Cap
- 844 Axle Assembly #133
- 97301 Operator's Manual (English)
- 97302 Training Video
- 98000 Decal Kit
- 98042 Sizing Chart Decal (Accu-Sizer™)
- 98043 Calibration Decal (Accu-Sizer™)



839 Vent Breather Cap

EXPANDING CHART			
SETTING	SIZE	SEGMENT	TP
2	1 1/2" ID	4	4 9 8
1	1 1/2" ID	7	
3	1 1/2" ID	3	
4	1 1/2" ID	4	
5	2" ID	7	4
8	2" OD	4	9 8
9	2 1/4" OD	4	
10	2 1/4" ID	7	
11	2 1/4" OD	4	9 8
6	2 1/4" ID	7	5
7	2 1/4" ID	4	7 6
12	2 1/4" ID	4	7 6
13	3" ID	6	

98042 Sizing Chart Decal (Accu-Sizer™)



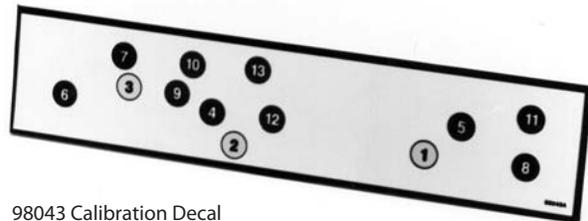
833 Cutter Blades #30-133



829 Cutter Blade #50



830 Axle for #50



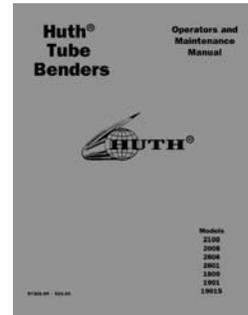
98043 Calibration Decal (Accu-Sizer™)



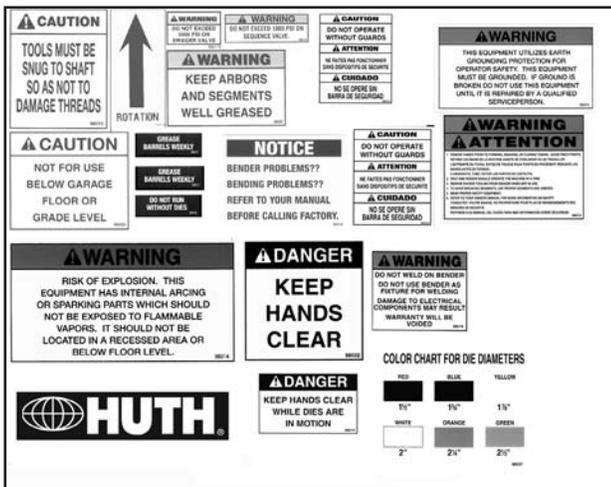
836 Axle #30



844 Axle Assembly #133



97301 Operator's Manual (English)



98000 Decal Kit



97302 Training Video

Tooling Adapters

Bring Huth Quality to your Bend-Pak®, Eze Bend® and Ben Pearson® Benders.

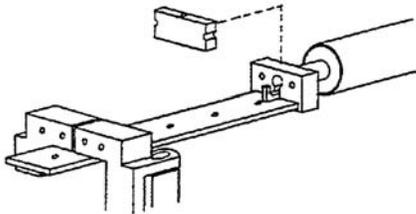
Now all Huth tooling (except collets) is adaptable to Bend-Pak, Eze Bend and Ben Pearson benders.

On the Bend-Pak and Eze Bend benders, all Huth arbors, segments and swage tooling will attach to the 1" 14-thread shaft without modification.

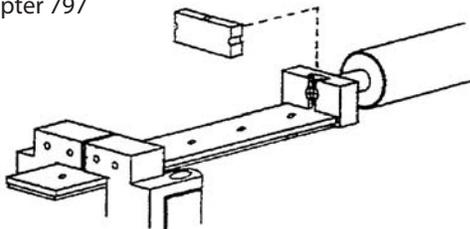
Huth back shoes and dies also mount on the swing gates without modification.

Use the Die Adapter 798 to adapt Huth bending dies to the sled of a Bend-Pak Bender. Use Die Adapter 797 to adapt Huth bending dies to the sled of an Eze Bend Bender.

Bend-Pak Bender
Die Adapter 798

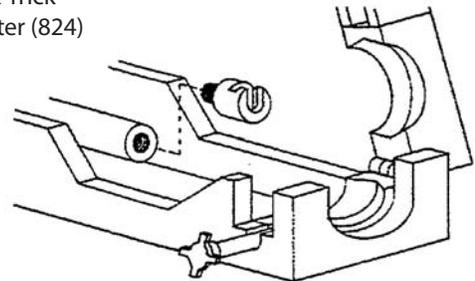


Eze Bend Bender
Die Adapter 797

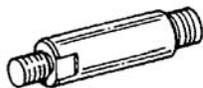
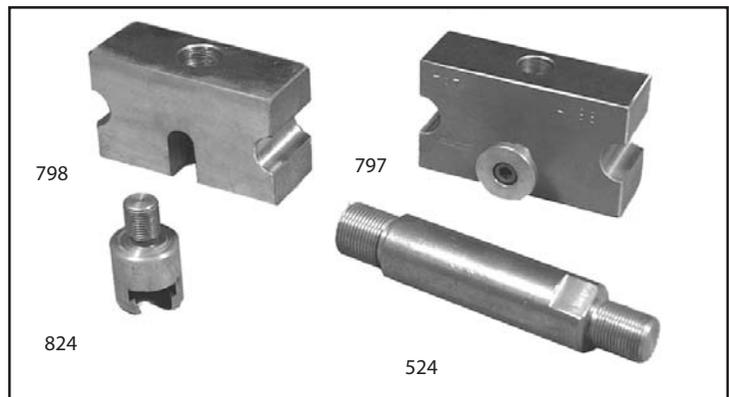


Ben Pearson Bender

Quick-Trick Adapter (824)

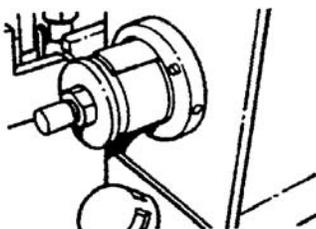


On the Ben Pearson Bender you can adapt Huth swager tooling to the swager cylinder shaft with Huth's Quick-Trick™ Adapter 824. Using Arbor Adapter 524, you can adapt Huth arbors and segments to the expander cylinder shaft and the Huth Rod Benders.

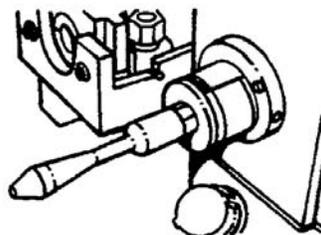


Arbor Adapter
(Part number 524)

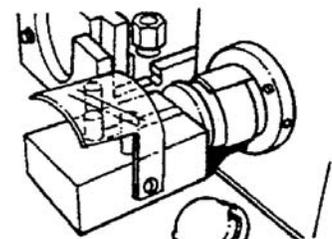
524 Installed



524 with Arbor



524 with Rod Bracket Bender
(Part number 985)



Huth's End-Finishing Upgrade Kit

for Huth Benders built before 1981

Get the most out of your pre-1981 Huth Bender with Huth's End-Finishing Upgrade Kit (part no. 1962). This kit includes a swager frame with 3½" cylinder (part no. 1960), Sure-Grip™ Collet Closer Kit (part no. 1985), Huth's Accu-Sizer™ preset expanding system upgrade (part no. 1990) and Huth's Quick Trick™ tooling change adapter kit (part no. 825).

Speed up end-finishing

- 30% more power than pre-1981 3" cylinders
- Eliminate the need for peel plates
- End-finish closer to a bend
- Use swager and reducer dies on tubing up to 3"
- Quickly change and store tooling
- Get quick and accurate expansions
- Crush oil filters with the addition of Huth's Quick-Crush™ Oil Filter Crusher
- Bend brackets with the addition of Huth's Rod Bracket Bender

Speed up swaging/reducing

Open the clamp, position the pipe, snap the clamp closed and you're ready to go. A few seconds is all it takes.

Expanded end-finishing capabilities

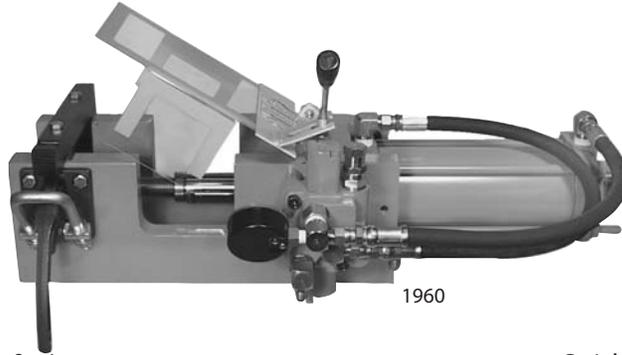
With this upgrade kit you can take advantage of Huth's full line of swaging and reducing dies, including 2¾" and 3". (Additional tooling may be required.)

Accurate, easy expansions

Huth's Accu-Sizer™ preset expanding system (1990) gives you accurate, dial in bull's-eye adjustments for precise expansions each and every time.



1985



1960



1990

Close-to-a-bend end-finishing, no-slip grip

Huth's Sure-Grip™ collet closer kit, 1985, firmly holds pipes in a "no-slip" grip. Tooling retracts smoothly without the need for messy peel plates. The collets are slimmer, so you can perform end-finishing much closer to a bend than before. Comes with one collet holder and six collets: 1-1/2", 1-3/4", 1-7/8", 2", 2-1/4", and 2-1/2".



825

Quickly switch, store tooling

The Quick-Trick™ tooling change adapter kit (825) allows you to quickly change tooling. The holder threads into the swager and the studs screw into your tooling. This time-saver also allows you to store your dies within easy reach on Huth's Ready-Rak or Ready Rak II tool caddies. The Quick-Trick comes with 10 threaded studs, one non-threaded adapter and one tool holder.

Huth's End-Finishing Upgrade Kit (Part no. 1962)

Huth People

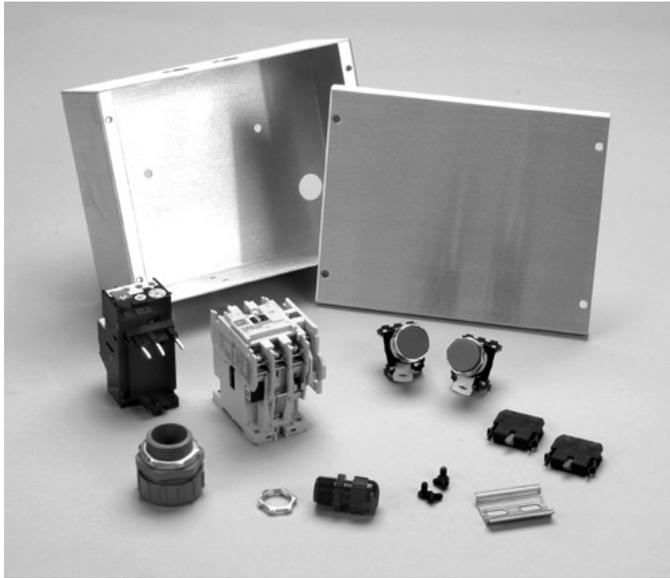


Joe Becker testing a new Huth Bender.



Gregg Ulik loading a new Huth Bender for shipment.

Control For Models HB-10, 1600



- A. 95107 HB-10, 1600 Enclosure
- B. 95108 Cover
- C. 95512 Green Button
- D. 95511 Red Button
- E. 95514 Closed Contact
- F. 95515 Open Contact
- G. 95510 DIN Rail (Sold by the inch)
- H. 97282 10-32 x 3/8 Allen Screw
- I. 95449 Power Cord Grip
- J. 95429 Locknut
- K. 95457 Power Cord Grip
- L. 95502 Contactor, Single-phase
95519 Contactor, 3-phase
- M. 95503 Overload, Single-phase
95518 Overload, 3-phase



- A. 95148 HB-10, 1600 Control, Complete, Includes cord and pedal, Single-phase.
- 95149 HB-10, 1600 Control, Complete, Includes cord and pedal, 3-phase.

Huth People



Mary Rusch, Office Manager



Deb Daley, Accounting

Section VI

For Model 2100



- | | | | |
|------------|-----------------------------|----------|--------------------------|
| A. 95503 | Single-phase Heater | G. 95403 | Transformer, 12V |
| 95518 | 3-phase Heater | H. 95408 | Bridge Rectifier |
| B. 95530 | Single-phase Starter | I. 95420 | Limit Switch |
| 95529 | 3-phase Starter | J. 95413 | Diode |
| C. 95532 | Surge Suppressor | K. 95445 | Fuse |
| D. 95533 | Auxiliary Contact | L. 95428 | Encoder Connector |
| E. 95390RB | Reconditioned Control Board | M. 95417 | Shaft Encoder |
| F. 95402 | Transformer, 24V | N. 95407 | 2200 UF Filter Capacitor |
| | | O. 95409 | Relay, 24V |
| | | P. 95410 | Relay Socket |

For Model 2007 (Before 6-15-90)



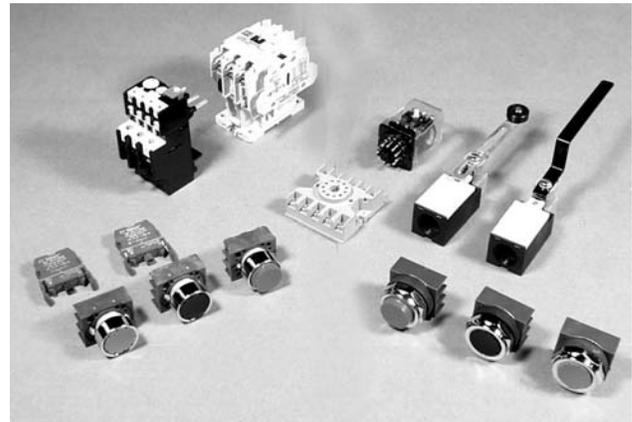
- | | | | |
|----------|-------------------------|----------|--------------------------------|
| A. 95038 | Single-phase Starter | E. 95087 | Toggle Switch |
| 95036 | 3-phase Starter | F. 95083 | Black Push Button |
| B. 95135 | Relay | G. 95085 | Red, Stop-extended Push Button |
| C. 95096 | Reset Button | H. 95082 | Green Push Button |
| D. 95097 | Heater Element-509 W-58 | | |

For Models 2007, 2008, 2806



- | | |
|----------|--|
| A. 95522 | Limit Switch (Cutler Hammer) |
| B. 95509 | Auxiliary Start-Stop Switch |
| C. 95523 | Limit Switch Roller (for Cutler Hammer) |
| D. 95524 | Limit Switch Rod Lever (for Cutler Hammer) |
| E. 95093 | Limit Switch Roller (for Allen Bradley) |
| F. 95094 | Limit Switch Lever Rod (for Allen Bradley) |

For Models 2801, 2007 (After 6-15-90)



- | | | |
|----------|--------------------------------------|----|
| A. 95502 | Single-phase Starter | |
| 95519 | 3-phase Starter (not shown) | |
| B. 95503 | Single-phase Heater | |
| 95518 | 3-phase Heater (not shown) | |
| C. 95437 | Rod Limit Switch (For Model 2801) | |
| D. 95436 | Roller Limit Switch (For Model 2801) | |
| E. 95410 | Relay Socket | |
| F. 95435 | Relay 230 Volts | |
| G. 95439 | Red Push Button (For Model 2801) | |
| H. 95440 | Black Push Button (For Model 2801) | |
| I. 95438 | Green Push Button (For Model 2801) | |
| J. 95441 | Contact Block Open | |
| K. 95442 | Contact Block Closed | |
| L. 95453 | Red Push Button (For Model 2007) | |
| M. 95454 | Black Push Button (For Model 2007) | N. |
| 95452 | Green Push Button (For Model 2007) | |
| 95455 | 3-phase Heater 550V (not shown) | |

For Models 1800, 1901, 1901-S



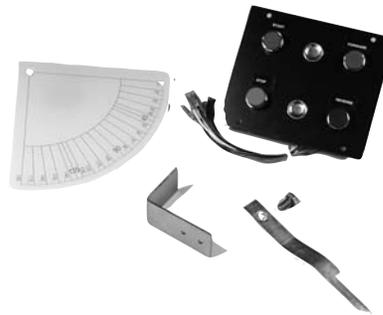
- A. 95035 Starter Enclosure
- B. 95502 Single-phase Contactor
- 95034 3-phase Contactor
- C. 95503 Single-phase Overload
- 95515 3-phase Overload

For Model 2010



- A. 97322 Operator's Manual (2010)
- B. 95115RB Reconditioned Board
- C. 95112 Encoder Wheel
- D. 95114 Light Sensor Assembly (new)
- E. 95116 Light Sensor Assembly (earlier)
- F. 95113 Light Sensor Bracket
- G. 95115 Single-phase Heater
- 95117 3 phase Heater (not shown)

For Model 2010

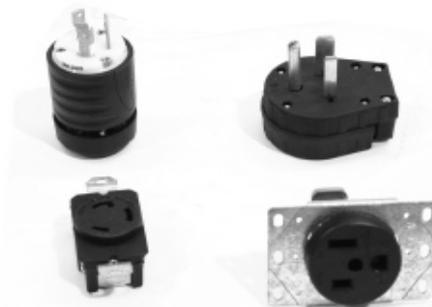


95111 Conversion kit for 2010

Plugs, Cords



- A. 95208 3-phase Plug, 250V, 20 Amp
- B. 95203 3-phase Plug, 250V, 50 Amp
- C. 95214 3-phase Plug, 30 Amp
- D. 95205 3-phase Plug, 480V
- E. 95209 3-phase Receptacle, 250V, 20 Amp
- F. 95202 3-phase Receptacle, 250V, 50 Amp
- G. 95215 3-phase Receptacle, 30 Amp
- H. 95204 3-phase Receptacle, 480V (not shown)
- 95371 3-phase Cord, 250V (recommend length 15')(not shown)
- 95218 3-phase Receptacle, 415V, Export (not shown)
- 95219 3-phase Plug, 415V, Export (not shown)

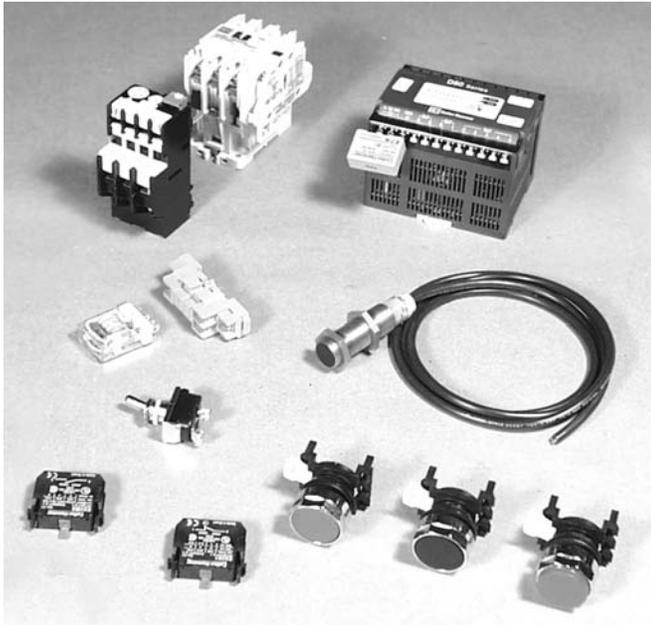


- A. 95206 Single-phase Plug, 250V
- B. 95201 Single-phase Plug, 250V
- C. 95207 Single-phase Receptacle, 250V
- D. 95200 Single-phase Receptacle, 250V
- 95370 Single-phase Cord (Rec. Length 15')(not shown)
- 95217 Single-phase Receptacle, 250V, Export (not shown)
- 95216 Single-phase Plug, 250V, Export (not shown)

All returned parts are subject to a restocking charge

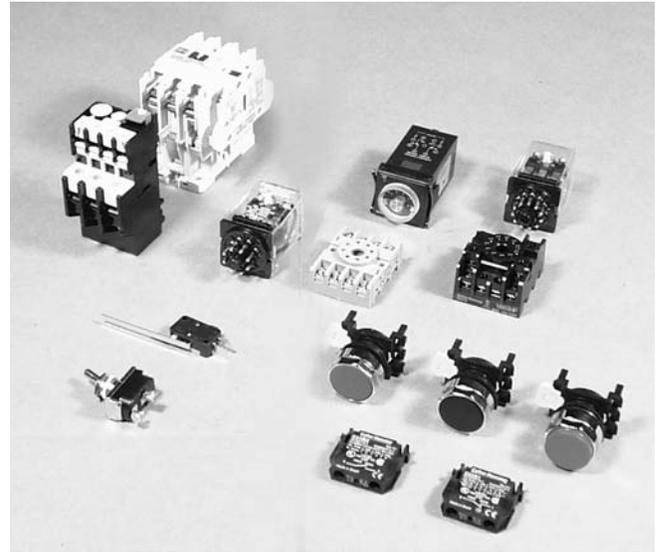
Section VI

For Models 2008-2806 (Before
1-1-00)



- A. 95502 Single-phase Starter
95519 3-phase Starter
- B. 95503 Single-phase Heater
95518 3-phase Heater
- C. 95501 D50 Programmable Controller
- D. 95504 24 Volt Relay
- E. 95505 Relay Socket
- F. 95506 Proximity Sensor
- G. 95511 Red Push Button
- H. 95512 Green Push Button
- I. 95513 Black Push Button
- J. 95514 Closed Contact Block
- K. 95515 Open Contact Block
- L. 95087 Toggle Switch

For Models 2008-2806 (After
1-1-00)



- A. 95502 Single-phase Starter
95519 3-phase Starter
- B. 95503 Single-phase Heater
95518 3-phase Heater
- C. 95462 Eight Pin Relay Socket
- D. 95463 Eleven Pin Relay Socket
- E. 95435 Eleven Pin Relay
- F. 95460 Eight Pin Relay
- G. 95461 Eight Pin Timer Relay
- H. 95511 Red Push Button
- I. 95512 Green Push Button
- J. 95513 Black Push Button
- K. 95514 Closed Contact Block
- L. 95515 Open Contact Block
- M. 95420 Limit Switch
- N. 95087 Toggle Switch

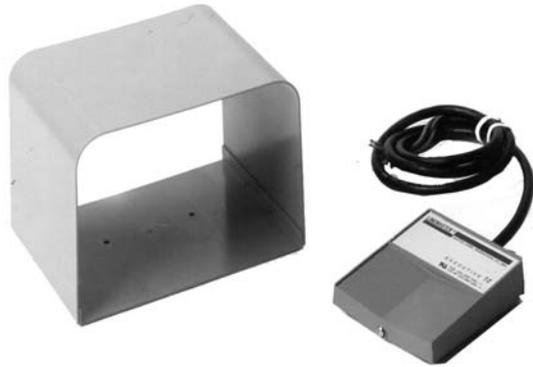
For Models 1673-1674



- A. 95025 Contactor, Single Phase
95026 Contactor, 3-phase
- B. 95024 Electrical Enclosure

All returned parts are subject to a restocking charge

Foot Pedals



- A. 95102 Foot Pedal Guard
- B. 95418 Foot Pedal Switch-2100, 24V
- C. 95419 Foot Pedal Switch-2007, 230V



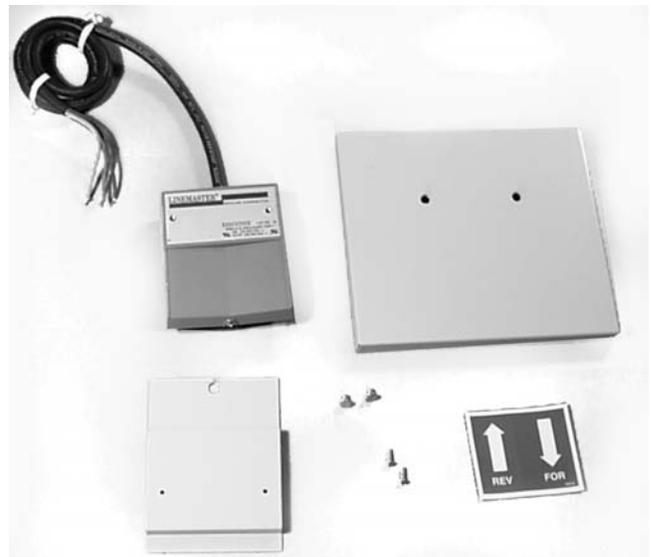
A. 95444 Foot Pedal Option Kit, Bender Model 2801



A. 95458 Foot Pedal Kit, Model 1600, HB-10

All returned parts are subject to a restocking charge

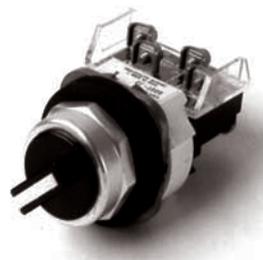
Knee Pedal



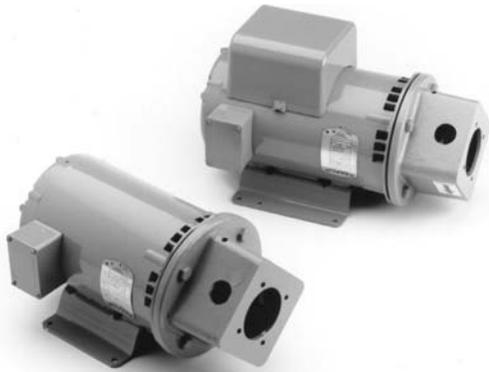
- A. 97447 Knee Pedal Mount, 2008-2806
- 97469 Knee Pedal Mount, HB-10 - 1600
- B. 97448 Knee Pedal Pad
- C. 98036 Direction Label
- D. 95419DT Knee Pedal Switch
- E. 97244 Screw, 12-24 x 3/8
- F. 97283 Screw, 6-32 x 1/2

Auto-Manual Bending (Older Models)

- 95081 Three-Way Selector Switch



Section VI



- A. 95015 Motor, Baldor, 5-HP, Single-phase
- 95011 Motor, Baldor, 7-1/2-HP, Single-phase (not shown)
- 95019 Motor, HB-10, 1600 5-HP Single-phase (not shown)
- 95007 Motor, Baldor, 3-HP, Single Phase (not shown)
- B. 95016 Motor, Baldor, 5-HP, 3-phase
- 95012 Motor, Baldor, 5 HP, 550V 3-phase (Not Shown)
- 95020 Motor, HB-10, 1600 5-HP 3-phase (not shown)
- 95010 Motor, Baldor 7-1/2-HP, 3-phase (not shown)



- A. 92116 Hydraulic Pump (for 5HP motor)
- 92117 Hydraulic Pump (for 7½HP motor) (not shown)



- A. 92114 Hydraulic Pump, HB-10, 1600
- B. 95021 Motor/Pump Mount, HB-10, 1600

All returned parts are subject to a restocking charge



- A. 92361 Coupler with SpyderBorg-warner Sunstrand Pump 5/8" x 1-1/8" Shaft (Replaced by 92357)
- 92360 Coupling, Throne For HB-10, 1600 1/2"x 1-1/8" (not shown)
- (Replaced by 92356)



- B. 92363 Rubber Spyder (replacement for 92360, 92361, 92362 Couplings)

- 92362 Coupling, Tektro 3/4" x 1-1/8" (not shown)



- A. 92358 Rubber Spyder for 92357, 92356
- B. 92357 Coupler with Spyder-5/8" x 1-1/8" Motor Shaft (Replaces 92361)
- 92356 Coupler with spyder 1/2" x 1-1/8" Motor Shaft



- A. 92340 Rubber Spyder-Newman Motor
- B. 92341 Coupler with Spyder-Newman Motor, .625 to .875



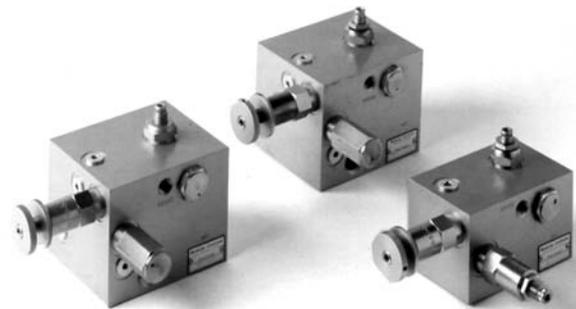
A. 92045 Easy Flow Filter



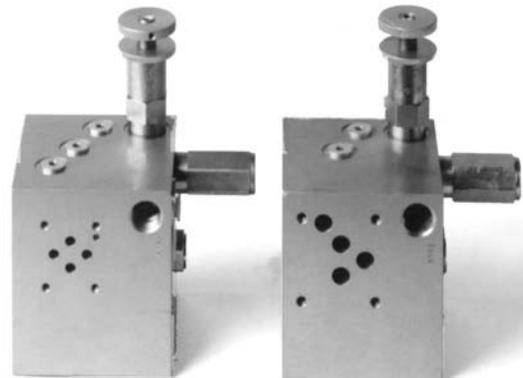
A. 92292 Filter Gauge
 B. 92290 Filter
 92289 Filter Assy. Complete



A. 92121 Adaptor Plate for 92054 Valves
 B. 92168 24V, Directional Valve (models 2100, 2010)
 C. 92164 220V, DO3 Directional Valve



A. 92165 Sequence Valve DO3 (for Bender Models 2100, 2007, 2801, 2008, 2806)
 B. 92054 Sequence Valve DO2 (for Bender Models 2100, 2010, 2007, 2801)
 C. 92051 Sequence Valve (for Bender Models 1800, 1901, 1901-S and older models with the directional valve mounted separately)
 92111 Sequence Valve Knob (not shown)



A. 92165 Bottom View of Sequence Valve DO3 Showing Hole Pattern
 B. 92054 Bottom View of Sequence Valve DO2 Showing Hole Pattern

All returned parts are subject to a restocking charge

Section VI



92105 Valve for Swager with fittings (shown)
 92103 Valve for Swager w/o fittings
 92103P Valve for 1673



92101 Valve for Bending Control - 1800, 1900 Bender Series



92112 Valve for 1674 (includes handles, nuts and lockwashers)



92382 Main Cylinder, 6" (Special Applications Only)

92172 Main Cylinder, HB-10, 1600 (not shown)
 92174 DE Cylinder, HB-10, 1600 (not shown)
 92173 Side Cylinder, HB-10, 1600 (not shown)

All returned parts are subject to a restocking charge



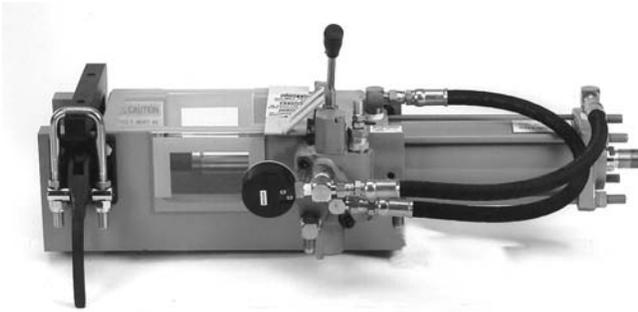
- A. 92169 Main Cylinder*
- 92048 Gland for Main Cylinder
- B. 92161 Tie Rod, Main Cylinder
- C. 92203 Top Cylinder Pin
- D. 92235 O-Ring Seal Kit for Main Cylinder
- E. 92355 DE Cylinder, 3"*
- F. 92205 O-Ring Seal Kit for 92355
- 92204 Gland for Double End Cylinder, 1" Shaft
- 92201 Gland for Double End Cylinder, 1½" Shaft
- G. 92160 Tie Rod, DE or Side Cylinder
- H. 97330 Nut for 92355
- I. 92231 O-Ring Seal Kit for DE Cylinder - 1½" shaft on both ends
- J. 92150 Side Cylinder*
- K. 92236 O-Ring Seal Kit for 92150
- 92229 Gland, Side Cylinder
- L. 92202 Side Cylinder Pin

*Industrial



- A. 92158 Agricultural Main Cylinder, 5" x 14"
- B. 92208 Seal Kit for 92158*
- C. 92159 Agricultural Side Cylinder, 3" x 8"
- D. 92207 Seal Kit for 92159*
- E. 92256 Agricultural DE Cylinder, 3-1/2" x 7"
- F. 92209 Seal Kit for 92256*
- G. 97208 Jam Nut 1/2"-13
- H. 97383 Lock Washer 1/2"

*(For benders built after 3/1/91)



A. 1960 Swager Frame with Hydraulics; 3-1/2" Cylinder



A. 1959 Swager Frame w/o Hydraulics, for 3" Cylinder
1961 Swager Frame w/o Hydraulics, for 3-1/2" Cylinder (not shown)



A. Model 1985 Collet Closer Kit (1-1/2" - 2-1/2")



A. 92109 Handle for Swager Valve 92103, 92112
B. 41032 Link Handle Ball Swager Guard
C. 92115 Valve Control Handle
D. 92047 Chain Link Kit (goes with either handle 41032 or 92115)



- A. 808 Long Handle-9"
- B. 884 Collet Holder (Uses 200 Series Collets)
- C. 890 Collet Holder (Uses 700 Series Collets)
- D. 891 Collet Holder (After 2-85-Uses 1700 Series Collets)
- E. 807 Collet Holder (Uses 200 Series Collets)
- F. 809 Bolt, 6"
- G. 810 Bolt, 5-1/2"
- H. 804 Handle
- I. 812 Nut
- J. 811 Washer
- K. 813 Washer, Brass
- 817 Handle, 12"
- 892 Collet Holder, 2-3/4", 3" (For 1729 and 1730 Collets)

*Not shown



- A. 97176 Collet Closer Clamp
- B. 97267 Bolt 3/8"-16 x 1 (qty. 4)
- C. 91061 Collet Hinge Block (qty. 2)
- D. 91060 Collet Closer Arm
- E. 97232 Bolt for 91060, 1/2-13 x 4
- F. 97208 Nut-1/2-13
- G. 97231 Bolt 3/8-16 x 1-3/4 (qty. 6)

Section VI



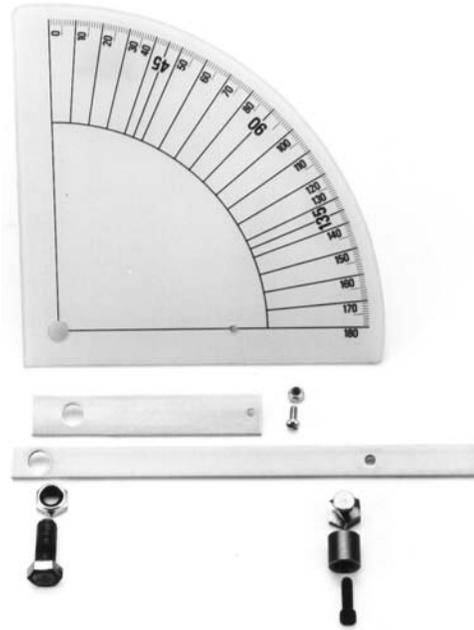
- A. 41047 Adjustable Collar
Assembly-Accu-Sizer for 3-1/2" Cylinder
- 41046 Same as A for 3" cylinder (Not Shown)
- 513 Snap Ring Nut for 41046
- 514 Snap Ring for 41046



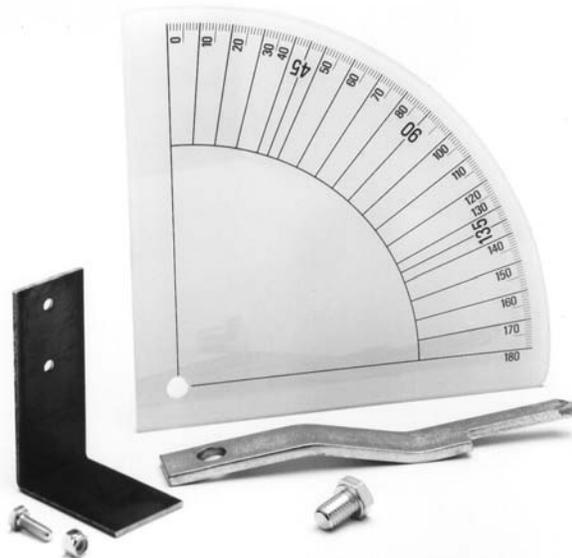
- A. 522 Adjustable Collar for 1" through 3-1/2" Expansions (Replacement Collar for 41046, 41047)
- B. 512 Adjustable Collar for 2-3/4" through 5-1/2" Expansions for 3" Cylinder
- 523 Adjustable Collar for 2-3/4" through 5-1/2" Expansions for 3-1/2" Cylinder (not shown)
- C. 527 Adjustable Collar Assembly, 5" Cylinder, H-1674
- D. 528 Extension, 527 Adjustable Collar



- A. 91047 Guide Plate
- B. 91033 Sled for Bender



- A. 91160 Depth-of-Bend Plate
- B. 91151 Depth-of-Bend Support
- C. 97222 Lock Nut 1/2"-13
- D. 91152 Handle
- E. 97211 Bolt 1/2" - 13 x 1-1/2"
- F. 91150 Pointer (Brass)
- G. 97000 Cam
- H. 97226 Cap Screw 1/4" - 20 x 7/8"



- A. 91153 Pointer (Metal)
- B. 97400 Bolt 1/2" - 13 x 3/4"
- C. 91160 Depth-of-Bend Plate
- D. 97260 Bolt 1/4"-20 x 3/4" (2 Required)
- E. 97210 Lock Nut 1/4"-20 (2 Required)
- F. 91027 Depth-of-Bend Bracket



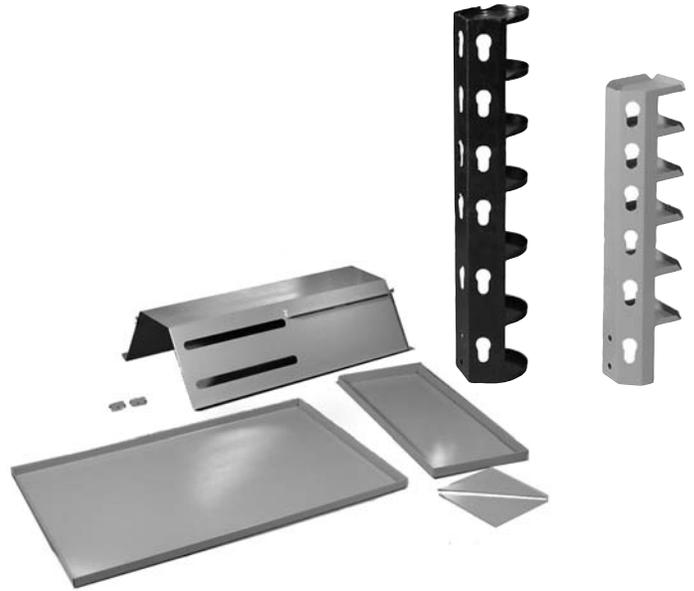
- A. 91034 Left Gate
- B. 91042 Gate Pin
- C. 91035 Right Gate
- D. 90093 Inside Snap Ring
- E. 90094 Outside Snap Ring
- F. 91050 Head Block Bushing
- G. 90092 Keyway, 5/16" x 5/16"
- H. 91052 Gate Bushing



- A. 97378 Foot Control Bracket
- B. 97380 Foot Control Pedal
- C. 97379 Connecting Rod
- D. 97381 Complete Kit (All for 1901-S)



- A. 97061 Caster, Swivel, with Brake
- B. 97062 Caster, Rigid
- C. 97060 Phenolic Wheel



- A. 91096 Deluxe Tool Tray
- B. 91092 Bracket for 91096 (2 Required)
- C. 91025 Flat Tool Tray
- D. 91075 Swager Tray
- E. 91076 Support for Tray 91075 (2 Required)
- 91078 Swager Tray Assy. Complete (includes D and E)
- F. 91166 Ready-Rak™
- G. 91176 Ready-Rak II™

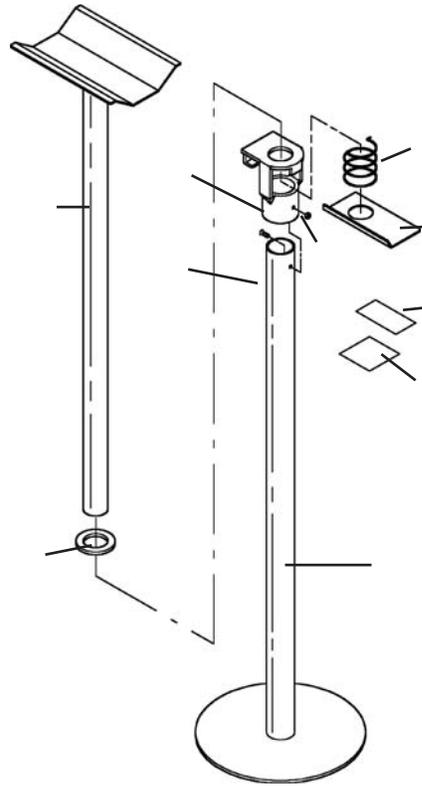


- 41050 Safety Guard Kit Complete for 3" Cylinder (Includes components shown above)
- 41051 Safety Guard Kit Complete for 3-1/2" Cylinder (Includes components shown above)
- A. 41042 Expander Guard for 3" Cylinder
- 41045 Expander Guard for 3-1/2" Cylinder (not shown)
- B. 41043 Swager Box Guard Assembly (Includes handle 41032)
- C. 41040 Die Guard w/ Die Retainer
- D. 41020 Swage Box Hinge Bracket
- E. 41044 Gate Guard w/Rivets
- F. 41041 Die Guard w/Die Retainer for 5" Radius

Section VI

986 Muffler Stand Replacement Parts

Key	Part No.	Description
1.	97466	Top Assembly
2.	97422	Casting
3.	97429	Spring, Catch
4.	97427	Catch
5.	98072	Decal, Exhaust Work Only
6.	98073	Decal, Maximum 70 lbs.
7.	97467	Base Assembly
8.	97430	Washer, Rubber
9.	97246	1/4" Nut
10.	97426	1/4" x 1/2" Bolt, Stove



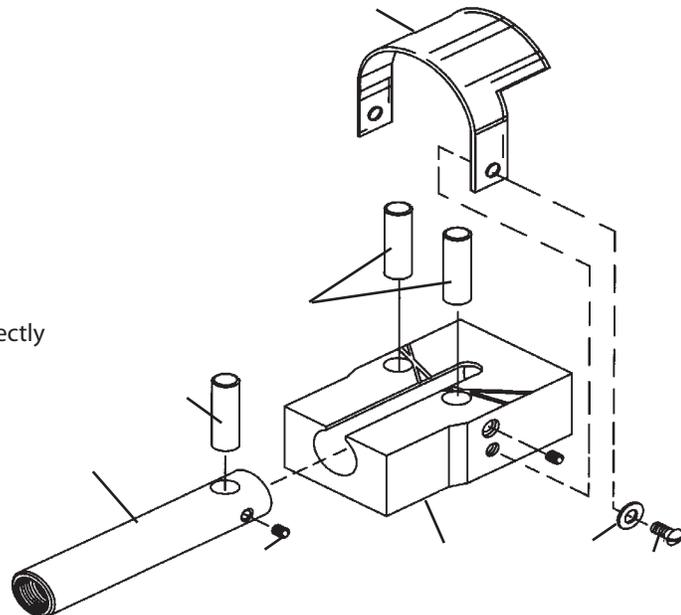
985 Rod Bracket Bender Replacement Parts

Key	Part No.	Description
1.	97432	Arbor
2.	97433	Pin
3.	97431	Block
4.	97434	Guard, Vinyl
	98071	Label, Pinch Point (Not Shown)
5.	515	Set Screw, 1/4" NC x 5/8"
6.	97395	Washer, Flat, 1/4"
7.	97393	Machine Screw, 1/4" NC x 5/8"

Material for Rod Bender

The following lengths of rod material can be ordered directly from your exhaust distributor:

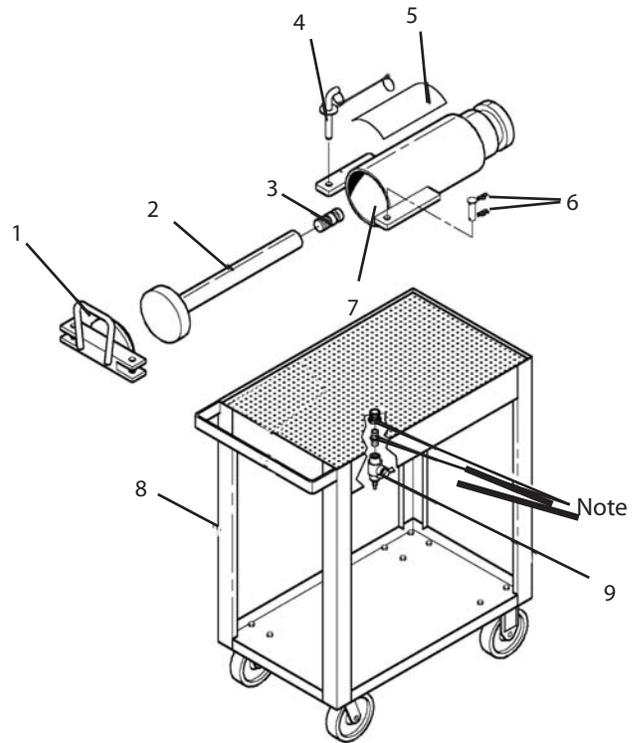
Part No.	Dia.	Length
F2372	7/16" Round	14" (20 pcs.)
F2373	1/2" Round	14" (20 pcs.)
F2374	1-1/4" Flat	14" (20 pcs.)



Model 6020 Quick•Crush™ Replacement Parts

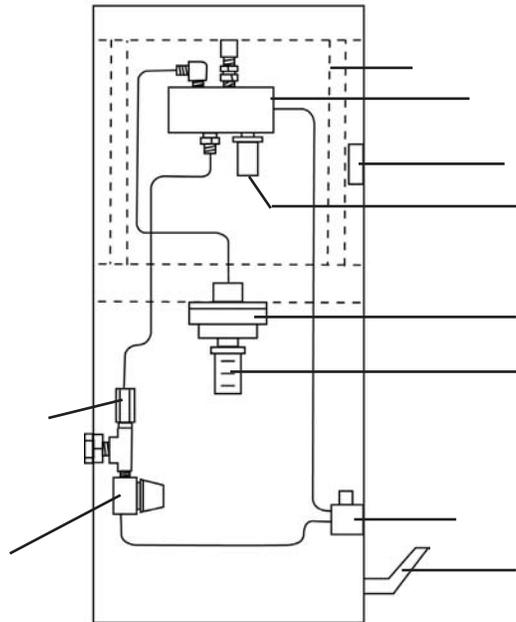
KEY	PART NO.	DESCRIPTION
1.	91127	Crusher Door Assembly
2.	91129	Ram Plate Assembly
3.	823	Quick Disconnect Threaded Shoulder Stud
4.	97465	Locking Pin
5.	98078	Decal, Quick•Crush
6.	97464	Hinge Pin
7.	91128	Crusher Body
8.	6021	Drain Cart
9.	97468	Spigot

Note: Drain parts not serviceable



Huth Oil Filter Crusher Model HFC6007 Automotive and Light Truck Replacement Parts

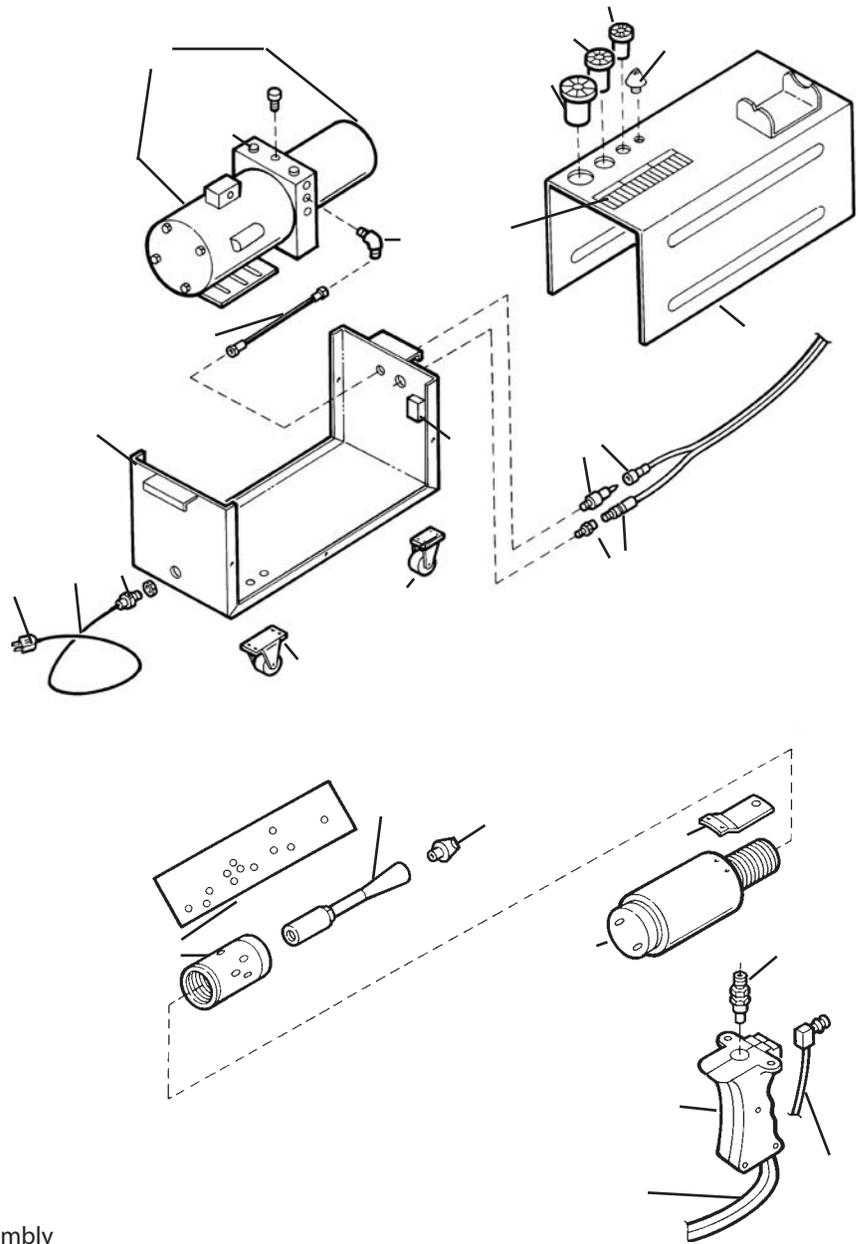
KEY	PART NO.	DESCRIPTION
1.	92152	8 x 7 Air Cylinder
2.	92367	Air Directional Valve
3.	92381	Air Switch
4.	92369	Air Silencer
5.	92370	Air Muffler
6.	92372	Exhaust Valve
7.	97406	Catch
8.	97407	Chrome Handle
9.	92374	Check Valve
10.	92162	Regulator
	92371	Fitting Kit (13 pcs.)



Section VI

Model 1680 Mighty Mate II Replacement Parts

KEY	PART NO.	DESCRIPTION
1.	97001	Housing
2.	97064	Caster Assembly Rigid
3.	97065	Caster Assembly Swivel
4.	95191	Male Plug Power Cord
5.	95192	Cord 10' Max. (sold per ft.)
6.	95197	Electrical Power Cord Grip
7.	95426	Relay
8.		Quick Disconnect Elec. Plug
		Assembly
A.	95393	Receptacle
B.	95394	Plug
C.	95395	Cable Clamp
D.	95396	Pins
E.	95397	Sockets
9.	92364	Quick Disconnect Hydraulic Assembly
10.	92261	Pump to Quick Disconnect Hose
11.	92004	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC
12.	1611	Power Unit
13.	92365	Filter Element
14.	475	Expanding Segment (Black) 2-1/8" - 2-1/2"
15.	474	Expanding Segment (Red) 1-3/4" - 2-1/8"
16.	473	Expanding Segment (Yellow) 1-1/2" - 1-3/4"
17.	498	Arbor Tip Small, 1 1/2" - 1 3/4"
18.	98025	Sizing Decal
19.	92156	Cylinder Body Assembly
	92167	Seal Kit for 92156
20.	595	Selector Position Sight
21.	98024	Calibration Decal
22.	497	Arbor, 1 1/2" - 3 1/2"
23.	499	Arbor Tip (Large 1 3/4" - 3 1/2")
24.	97177	Pistol Grip Handle
25.	95177	Trigger Switch
26.	92296	Hydraulic Hose Assembly



P/N 1681 Hose Assembly

Includes Keys:

8A.	95394	Plug
8B.	95395	Cable Clamp
8C.	95396	Pins
	95398	Wire
9.	92364	Quick Disconnect Hydraulic Assembly
25.	95177	Trigger Switch
26.	92296	Hydraulic Hose Assembly

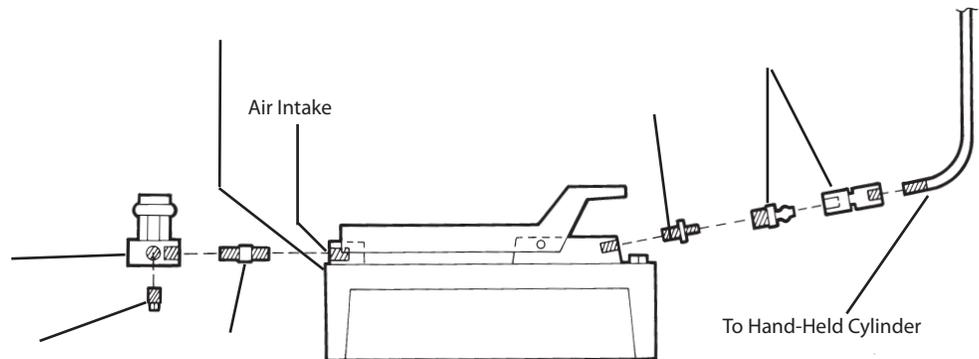
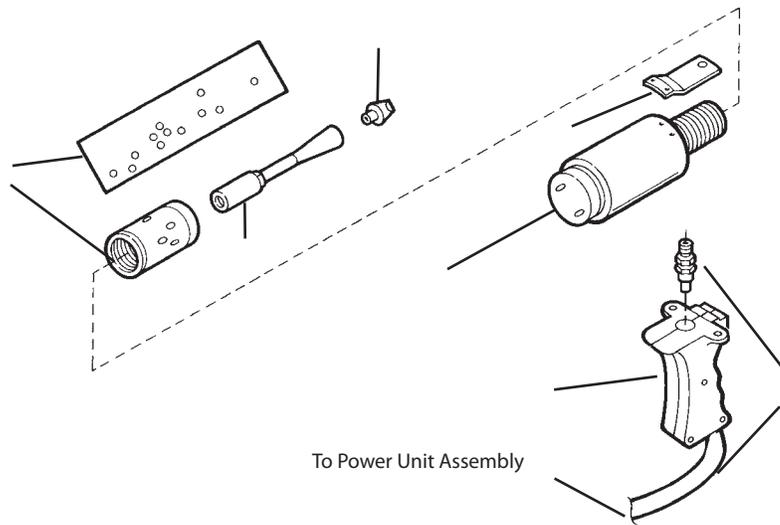
P/N 1682 Gun-Hose Assembly

Includes Keys:

19.	92156	Cylinder Body Assembly
20.	595	Selector Position Sight
21.	98024	Calibration Decal
24.	97177	Pistol Grip Handle
	1681	Hose Assembly Kit

Model 1685 Mitey Mate Jr. Replacement Parts

KEY	PART NO.	DESCRIPTION
1.	98024	Calibration Decal
2.	497	Arbor, 1-1/2" - 3-1/2"
3.	499	Tip, Large 1-3/4" - 3-1/2"
	498	Tip, Small 1-1/2" - 1-3/4"
4.	595	Selector Position Sight
5.	92156	Cylinder (Complete)
	92167	Seal Kit for 92156
6.	97177	Pistol Grip Handle
7.	92258	Hose Assembly, Single Line
8.	1612	Air/Oil Pump
9.	92072	3/8 NPT x 1/4 NPT Hex Nipple
10.	92364	Quick Disconnect Coupling
11.	97264	1/4" Pipe Nipple
12.	92162	Air Regulator
13.	92163	1/8" Pipe Plug
	475	Segment(Black) 2-1/8" - 2-1/2"
	474	Segment (Red) 1-3/4" - 2-1/8"
	473	Segment (Yellow) 1-1/2" - 1-3/4"



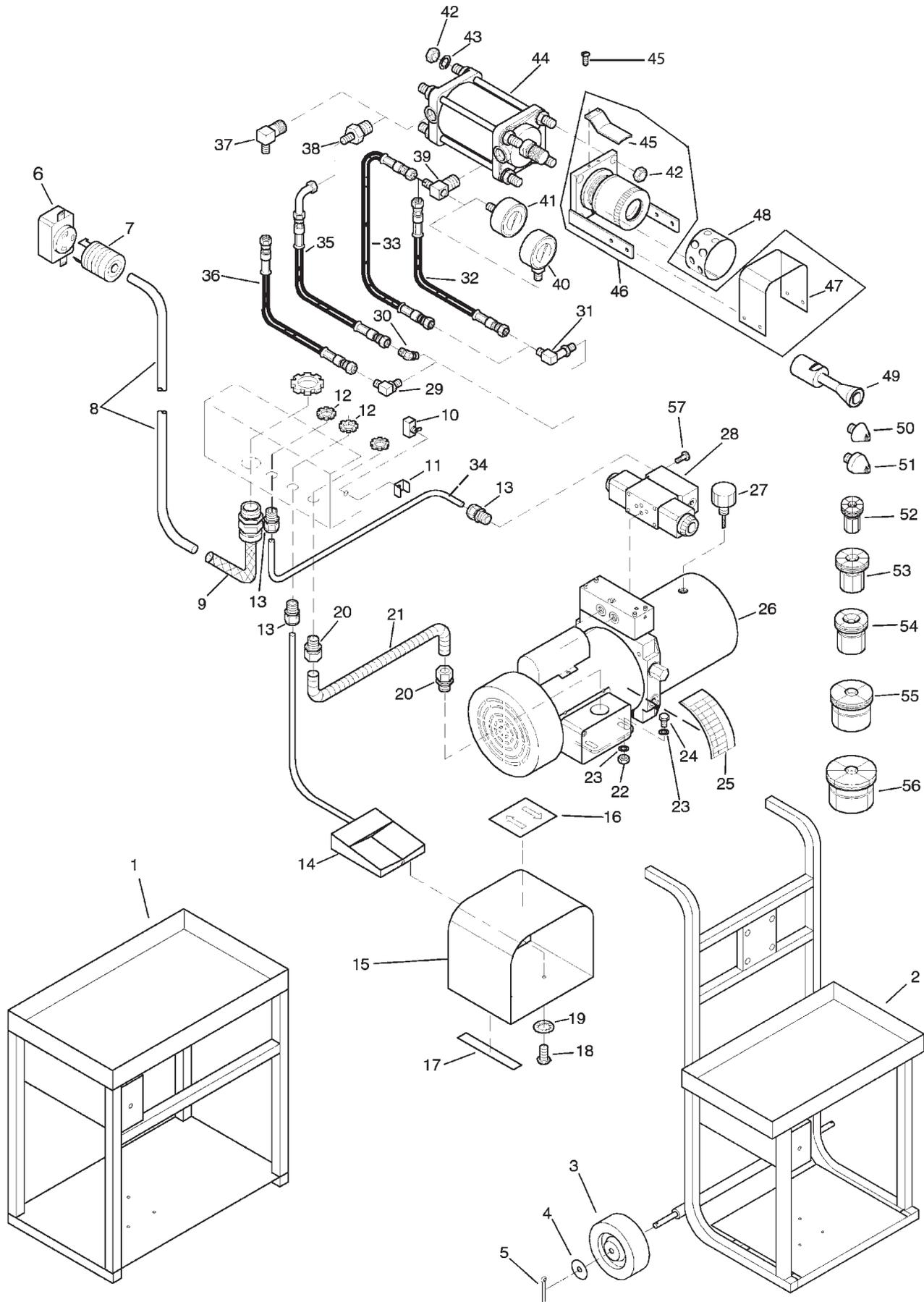
Model 1686 Gun-Hose Assembly

Includes Keys:

1.	98024	Calibration Decal
4.	595	Selector Position Sight
5.	92156	Cylinder (Complete)
6.	97177	Pistol Grip Handle
7.	92258	Hose Assembly
10.	92364	Quick Disconnect Coupling

Section VI

Models 1690 and 1691 Expanders Replacement Parts

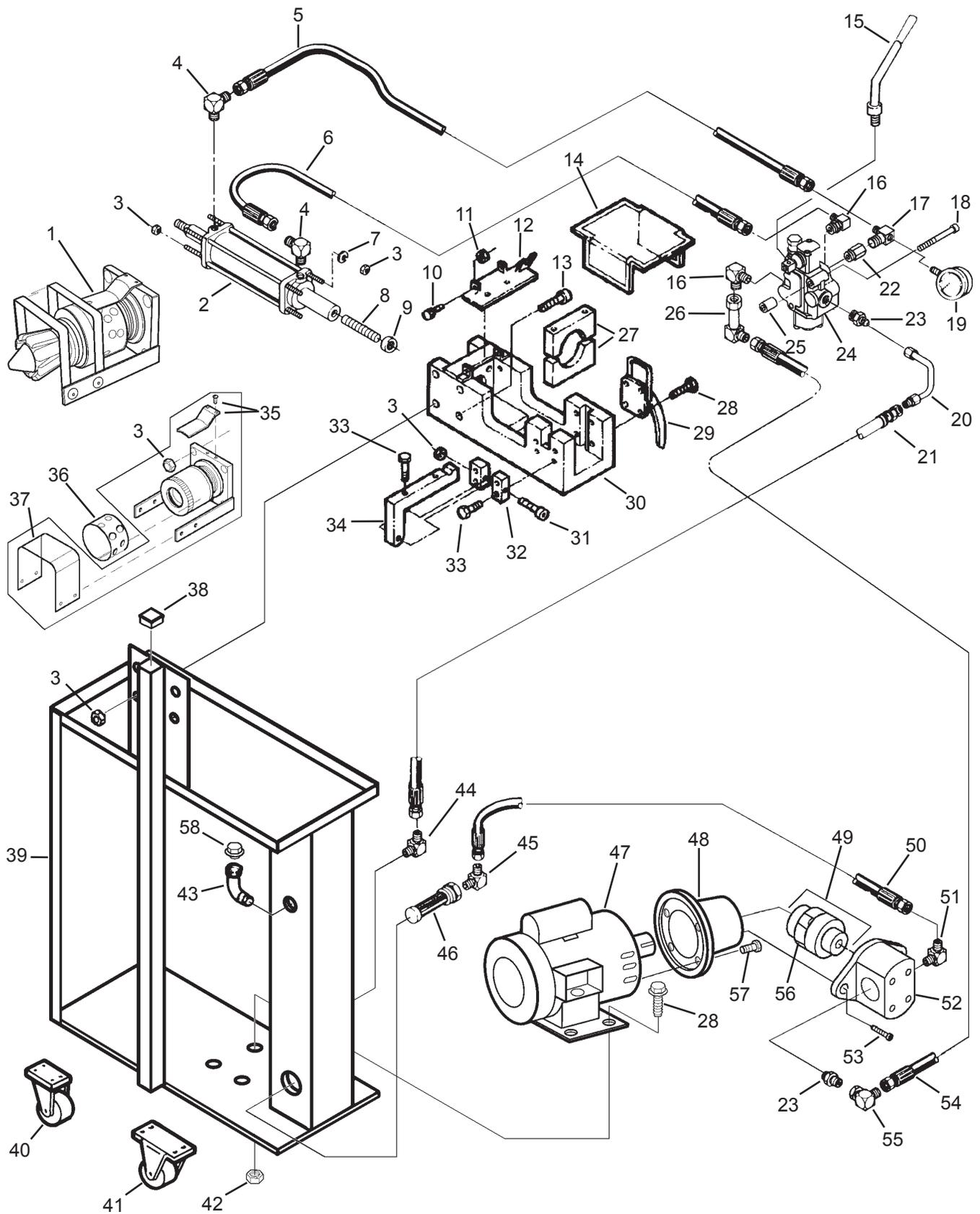


Models 1690 and 1691 Expanders Replacement Parts

KEY	PART NO.	DESCRIPTION
1	97010	Benchtop Frame Model 1690
2	97011	Cart Frame Model 1691
3	97059	Wheel
4	97333	1/2" Flat Washer
5	97334	1/2" x 2" Cotter Pin
6	95190	Receptacle - 110V, 30A
	95188	Receptacle - 220V, 20A
7	95189	Plug - 110V, 30A
	95187	Plug - 220V, 20A
8	95370	10-3 Cord - Sold by the foot. 10' - 1690; 15' - 1691
9	95172	Kellum
10	95087	Toggle Switch
11	95091	Toggle Switch Cover
12	95429	Lock Nut
13	95449	Cord Grip
14	95419	Foot Pedal
15	95102	Foot Pedal Guard
16	98036	Direction Label
17	50058	Rubber Foot
18	97283	6 - 32 x 1/2" Screw
19	97285	6 - 32 Star Washer
20	95229	1/2" Straight Conduit Connector
21	95230	1/2" x 8" Conduit
22	97210	1/4" - 20 Locknut
23	97395	1/4" Flat Washer
24	97260	1/4" - 20 x 3/4" Hex Bolt
25	98042	Sizing Chart
26	1617	Power Unit
27	838	Breather Cap
28	92171	Directional Valve, 110V
	92164	Directional Valve, 220V
29	92071	90° O-Ring Fitting, 3/8" St. Thread x 3/8" JIC Model 1691
30	92066	45° O-Ring Fitting, 3/8" St. Thread x 3/8" JIC Model 1690
31	92065	90° O-Ring Fitting, 3/8" St. Thread x 3/8" JIC Extra Long
32	92265	1/4" 2-Wire, 5,000 PSI 3/8" Female Swivel Hose 16" Long Model 1690
33	92271	1/4" 2-Wire, 5,000 PSI 3/8" Female Swivel Hose 30" Long Model 1691
34	95508	16-3 Cord, 30" (Sold by the inch)
35	92298	1/4" 2-Wire, 5,000 PSI 3/8" Female Swivel- 3/8" Female 90° Swivel Hose, 13", Model 1690
92270	1/4" 2-Wire, 5,000 PSI 3/8" Female Swivel Hose 24" Long Model 1691	36
37	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC Model 1691
38	92002	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC Model 1690
39	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT
40	92100	Pressure Gauge, Model 1691
41	92099	Pressure Gauge, Model 1690
42	97208	1/2" - 13 Jam Nut
43	97383	1/2" Lock Washer
44	92375	3-1/2" x 3" Expanding Cylinder
45	595	Sight
46	41047	Adjustable Collar (Includes sight and guard, but not decal)
47	41010	Guard Material
48	98043	Calibration Decal
49	508	Arbor, 1-1/2" - 3-1/2"
50	498	Small Arbor Tip, 1-1/2" - 1-3/4"
51	499	Large Arbor Tip, 1-3/4" - 3-1/2"
52	473	Segment Set (Yellow) 1-1/2" - 1-3/4"
53	474	Segment Set (Red) 1-3/4" - 2-1/8"
54	475	Segment Set (Black) 2-1/8" - 2-1/2"
55	476	Segment Set (Green) 2-1/2" - 3"
56	477	Segment Set, 3" - 3-1/2"
57	97268	10 - 24 x 1 1/4" Allen Head Cap Screw

Section VI

Frame And Hydraulic Components - 1673

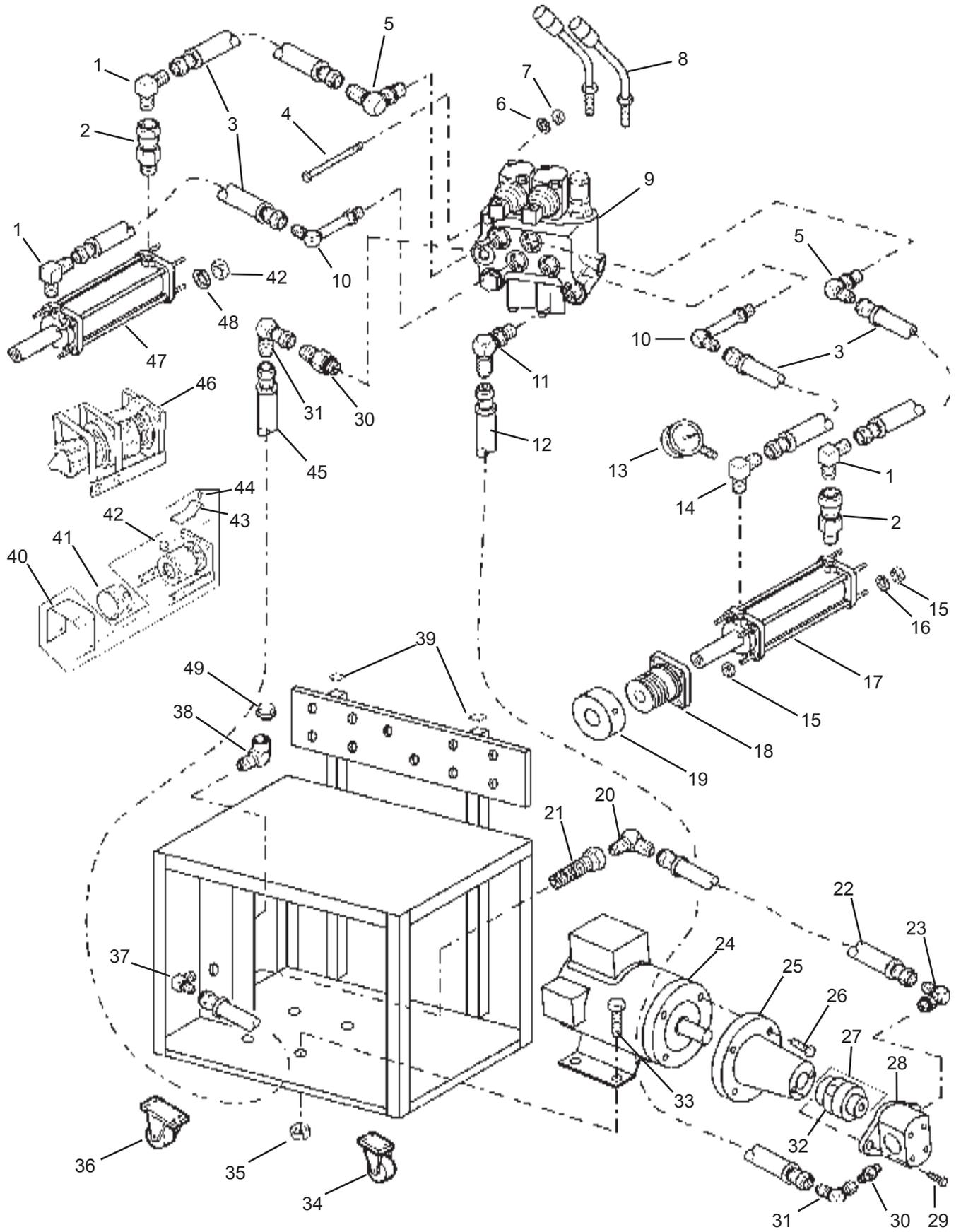


Frame And Hydraulic Components - 1673

KEY	PART NO.	DESCRIPTION	QUANTITY
1	41047	Adjustable Collar and Guard Assembly (includes #3, #35, and #37)	1
2	92256	Swager Cylinder 3-1/2"	1
3	97208	Jam Nut, 1/2"-13	5
4	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC	2
5	92263	Hose, 3/8" Double Braid 5000 psi. 19" Long	1
6	92264	Hose, 3/8" Double Braid 5000 psi. 23-1/2" Long	1
7	97383	Lockwasher, 1/2"	4
8	97051	Stud, Threaded 1-14	1
9	97100	Nut, Knurled	1
10	97260	Hex Bolt, 1/4"-20x3/4"	1
11	97210	Locknut, 1/4"-20	1
12		Guard Assemble, Swager Box (Order 1 each 41019 and 41017, Assembled at factory)	
13	97217	Screw, Socket Head Cap, 1/2"-13x1-1/2"	4
14	41011	Swager Box Cover Material	1
15	92109	Handle, Swage Valve	1
16	92004	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC	2
17	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT	1
18	97206	Screw, Socket Head Cap, 3/8"-16x3-1/4"	2
19	92100	Pressure Gauge	1
20	92313	Tube Assembly, 3/8"	1
21	92248	Hose, 3/8" Low Pressure Return 36-1/2" Long	1
22	92008	Str Ftg, 1/2ML SAE O'R x 1/2 FM NPT	1
23	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	2
24	92103P	Swage Valve with Handle - Plugged	1
25	70045	Bushing, Steel	2
26	92023	90 Lg Elb, 3/8 ML JIC x 3/8FM JIC	1
27	891	Collet Holder	1
28	97267	Hex Bolt, 3/8"-16 x 1"	8
29	97176	Clamp, Swager Arm	1
30	34012	Frame, Swager	1
31	97232	Hex Bolt, 1/2"-13x4"	1
32	91061	Hinge Block	2
33	97231	Hex Bolt, 3/8"-16x1-3/4"	2
34	91060	Swager Arm	1
35	595	Sight	1
36	98043	Calibration Decal	1
37	41010	Guard Material	1
38	97472	End Cap	1
39		Frame	1
40	97072	Swivel Caster	2
41	97073	Rigid Caster	2
42	97225	Locknut, 3/8"-16	4
43	92042	Fitting, Elbow, 45 Degree	1
44	92020	Fitting, Elbow, 90 Degree	1
45	92010	90 Ftg, 1/2M NPT x 1/2ML JIC	1
46	92045	Filter, Easy Flow	1
47	95019	Motor, 5 H.P., 60 Hz, Single Phase	1
	95020	Motor, 5 H.P., 60 Hz, Three Phase	1
48	95021	Mount, Motor-Pump	1
49	92356	Coupler, with Spyder	1
50	92246	Hose, 1/2" Suction 29"	1
51	92078	Fitting, Elbow, 90 Degree	1
52	92114	Pump	1
53	97267	Hex Bolt, 3/8"-16 x 1"	2
54	92247	Hose, 3/8" Double Braid 5000 psi. 36-1/2"	1
55	92021	90 Elb, 3/8ML JIC x 3/8FM JIC SVL	1
56	92358	Spyder	1
57	97400	Hex Bolt, 1/2"-13x3/4"	4
58	839	Vent Cap	1

Section VI

Frame And Hydraulic Components - 1674

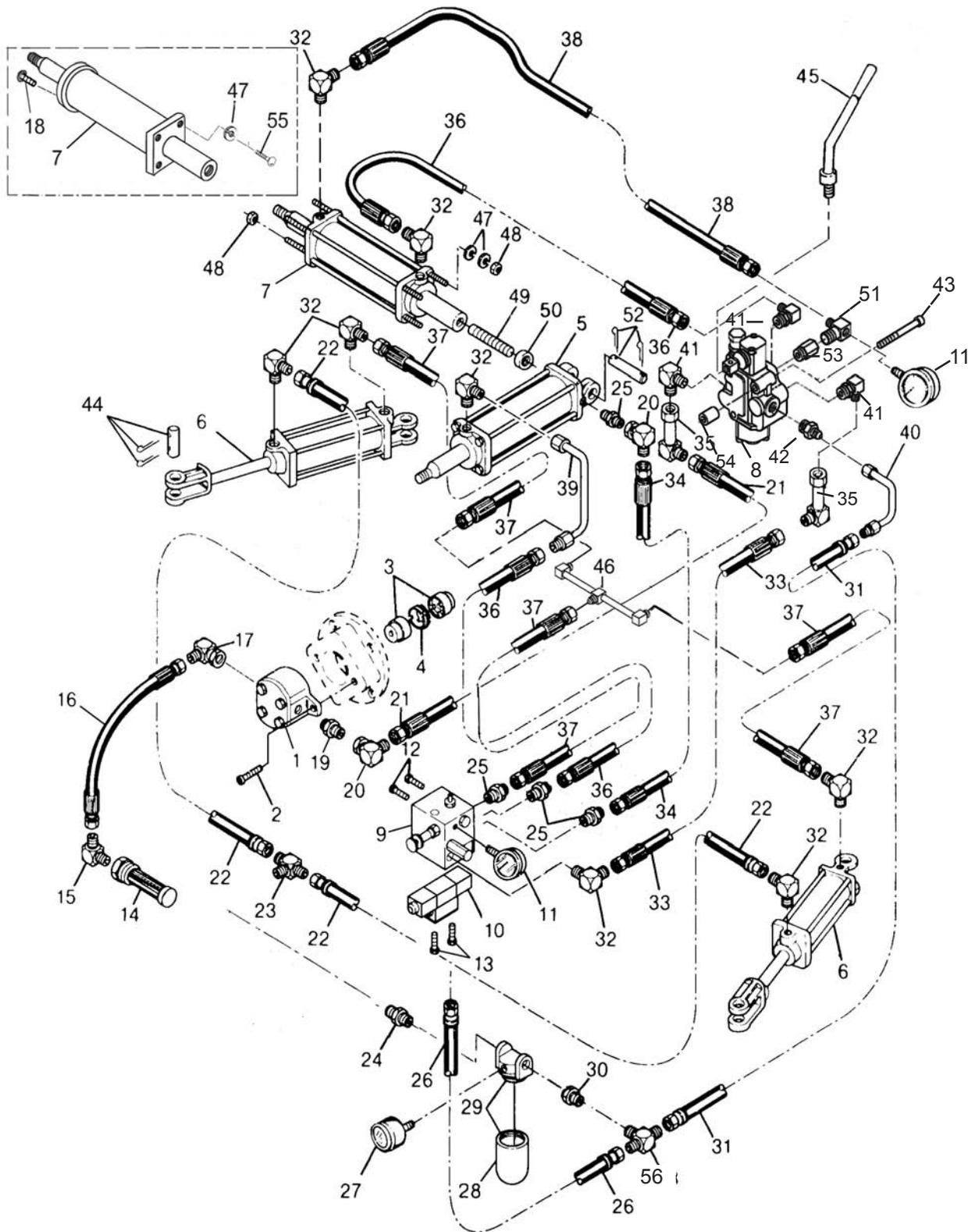


Frame And Hydraulic Components - 1674

REF.	PART NO.	DESCRIPTION	QUANTITY
1	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC	3
2	92079	Fitting, Straight Swivel	2
3	92263	Hose, 3/8" Double Braid 5000 psi. 19" Long	4
4	97294	Hex Bolt, 5/16"-18x2-1/2"	2
5	92071	Fitting, Elbow, 90 Degree O-Ring	2
6	97296	Lockwasher, 5/16"	2
7	97295	Jam Nut, 5/16"-18	2
8	92109	Handle, Swage Valve	2
9	92112	Swage Valve, 2 Section with Handles	1
10	92065	Fitting, Elbow, 90 Degree O-Ring (long)	2
11	92004	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC	1
12	92273	Hose, 3/8" Double Braid 5000 psi. 41" Long	1
13	92100	Pressure Gauge	1
14	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT	1
15	97292	Jam Nut, 3/4"	6
16	97293	Lockwasher, 3/4"	4
17	92389	Cylinder 5"	1
18	527	Adjustable Collar, 2-7/8" I.D. - 6" I.D.	1
19	528	Adjustable Collar Extension (for 527)	1
20	92010	90 Ftg, 1/2ML NPT x 3/8ML JIC	1
21	92045	Filter, Easy Flow	1
22	92246	Hose, 1/2" Suction 29" Long	1
23	92078	Fitting, Elbow, 90 Degree O-Ring	1
24	95019	Motor, 5 H.P., 60 Hz, Single-phase	1
	95020	Motor, 5 H.P., 60 Hz, 3-phase	1
25	95021	Mount, Motor-Pump	1
26	97400	Hex Bolt, 1/2"-13 x 3/4"	4
27	92356	Coupler, with Spyder	1
28	92114	Pump	1
29	97267	Hex Bolt, 3/8"-16 x 1	2
30	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	2
31	92021	90 Elb, 3/8ML JIC x 3/8FM JIC SVL	2
32	92358	Spyder	1
33	97267	Hex Bolt, 3/8"-16 x 1"	4
34	97072	Swivel Caster	2
35	97225	Locknut, 3/8"-16	4
36	97073	Rigid Caster	2
37	92020	Fitting, Elbow, 90 Degree	1
38	92042	Fitting, Elbow, 45 Degree	1
39	97472	End Cap	2
40	41010	Guard Material	1
41	98043	Calibration Decal	1
42	97208	Jam Nut, 1/2"-13	6
43	595	Sight	1
44	97240	Cap Screw, 10-32x3/8"	2
45	92248	Hose, 3/8" Low Pressure Return 36-1/2" Long	1
46	41047	Adjustable Collar and Guard Assembly (includes #40, #42, #43, and #44)	1
47	92375	Cylinder 3-1/2"	1
48	97383	Lockwasher, 1/2"	4
49	839	Vent Cap	1

Section VI

Hydraulic Replacement Parts - 2008, 2806, 2100, 2007, 2801, HB-10, 1600



Hydraulic Replacement Parts - 2008, 2806, 2100, 2007, 2801, HB-10, 1600

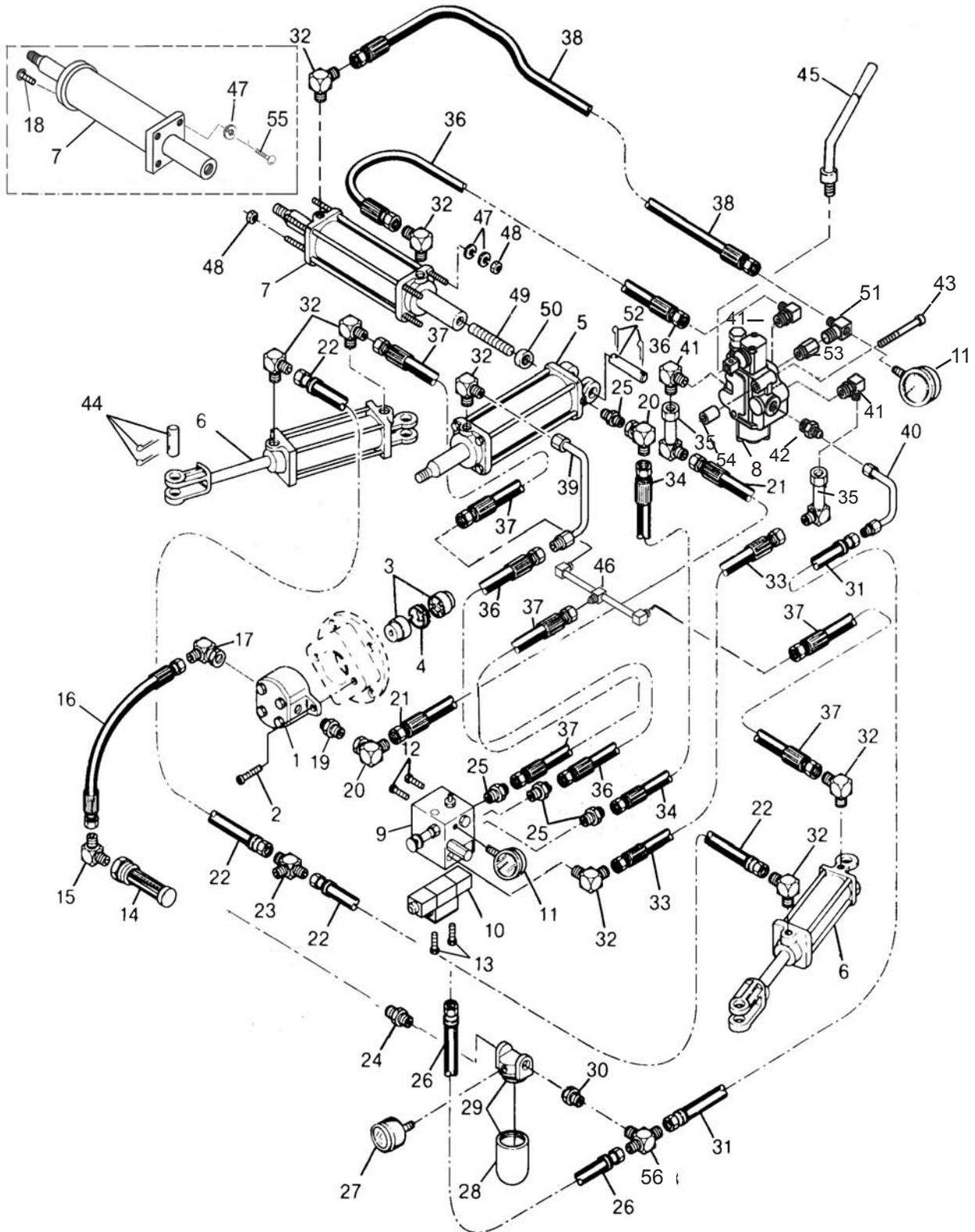
KEY	PART NO.	DESCRIPTION	QUANTITY				REMARKS
			2100	2008 2007	2806 2801	HB-10 1600	
1	92116	Pump, Hydraulic	1	1	1	-	
	92117	Pump, Hydraulic (High Speed)	1	1	1	1	For 7½ HP motor. Not available for HB-10
	92114	Pump, Hydraulic	-	-	-	1	
2	97267	Bolt, Hex Hd. 3/8"-16 x 1"	2	2	2	2	
3	92357	Coupler	1	1	1	-	Includes P/N 92358 Spyder
	92356	Coupler	--	-	-	1	
4	92358	Spyder, Rubber	1	1	1	1	
5	92169	Cylinder, Main Industrial	1	1	-	-	Includes Pin
	92235	Seal Kit	1	1	-	-	Includes All Seals for P/N 92169
	92161	Rod, Tie	4	4	-	-	For P/N 92169
	92048	Cartridge, Packing Gland	1	1	-	-	Sold without Seals for P/N 92169
	92158	Cylinder, Main Agricultural	-	-	1	-	Includes Pin
	92208	Seal Kit for 92158	-	-	1	-	For Benders Built After 3/1/91
	92172	Cylinder, Main Welded	-	-	-	1	Includes Pin
6	92150	Cylinder, Side Industrial	2	2	-	-	Includes Pins
	92236	Seal Kit for 92150	1	1	-	-	Includes All Seals for P/N 92150
	92159	Cylinder, Side Agricultural	-	-	2	-	Includes Pins
	92207	Seal Kit for 92159	-	-	1	-	For Benders Built After 3/1/91
	92173	Cylinder, Side Welded	-	-	-	2	Includes Pins
7	92256	Cylinder, Double End, Ag.3½"	1	1	1	1	
	92355	Cylinder, Double End, Ind. 3"	1	1	-	-	For Benders Built Before 5/90
	92209	Seal Kit for 92256	1	1	1	-	For Benders Built After 3/1/91
	92205	Seal Kit for 92355	1	1	-	-	
	92174	Cylinder, Double End	-	-	-	1	Sold as Assembly Only
8	92103	Valve, Swager	1	1	1	1	
9	92165	Valve, Sequence	1	1	1	1	
10	92168	Valve, Directional	1	-	-	-	24 Volt
	92164	Valve, Directional	-	1	1	1	220 Volt
11	92100	Gauge, Pressure	2	2	2	2	
12	97221	Bolt, Hex 3/8"-16 x 1/2"	2	2	2	2	
13	97377	Screw, Sk. Hd. Cap 10-24 x 7/8"	4	4	4	4	
14	92045	Filter, Easy Flow	1	1	1	1	
15	92010	90 Ftg, 1/2ML NPT x 3/8ML JIC	1	1	1	1	
16	92272	Hose, #8, 18" Lg.	1	1	1	1	
17	92077	Elbow, 90 Degrees, 1/2-3/4	1	1	1	-	
	92078	Elbow, 90 Degrees, 1/2-5/8	-	-	-	1	
	92075	Elbow, 90 Degrees, 3/4-3/4	1	1	1	1	(For high speed pump, not avail. on HB-10)
18	97256	Bolt, Hex 1/2" - 13 x 1	-	-	-	2	
19	92026	Str Ftg, 5/8 SAE O'R x 3/8ML JIC	1	1	1	-	
	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	-	-	-	1	
20	92021	90 Elb, 3/8ML JIC x 3/8FM JIC SVL	2	2	1	1	For rear of Main Cyl.-Use Ref. #32 (Mdl. 2801)
21	92273	Hose, #6, 41" Lg.	1	1	1	1	
22	92277	Hose, Return, #6, 24" Lg.	2	2	2	2	
23	92015	Branch, T Ftg, 3/8 x 3/8 x 1/4	2	2	2	2	
24	92028	Str Ftg, 1/2ML NPT x 3/8ML NPT	1	1	1	-	
25	92002	Str. Ftg., ½" ML NPT x ¾" ML JIC	5	5	4	5	
26	92280	Hose, Return, #6, 13" Lg.	1	1	1	1	
27	92292	Gauge, Filter	1	1	1	-	
28	92290	Filter	1	1	1	-	
29	92289	Filter Assembly	1	1	1	-	Includes Filter, Head & Gauge
30	92027	Str Ftg, 1/2ML NPT x 1/4FM NPT	1	1	1	-	
31	92279	Hose, Return, #6, 56" Lg.	1	1	1	1	
32	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC	9	9	10	9	
33	92275	Hose, #6, 58" Lg.	1	1	1	1	
34	92274	Hose, #6, 50" Lg.	1	1	1	1	
35	92023	90 Lg Elb, 3/8 ML JIC x 3/8FM JIC	2	2	2	2	
36	92264	Hose, #6, 23-1/2" Lg.	2	2	2	2	
37	92261	Hose, #6, 15-1/2" Lg.	3	3	3	3	
38	92263	Hose, #6, 19" Lg.	1	1	1	1	
39	92312	Tube, 6-6	1	1	1	1	Cylinder

(Continued on next page)

Section VI

Hydraulic Replacement Parts - 2008, 2806, 2100, 2007, 2801, HB-10, 1600

(Continued from previous page)



Replacement Parts

— Hydraulic Replacement Parts - 2008, 2806, 2100, 2007, 2801, HB-10, 1600

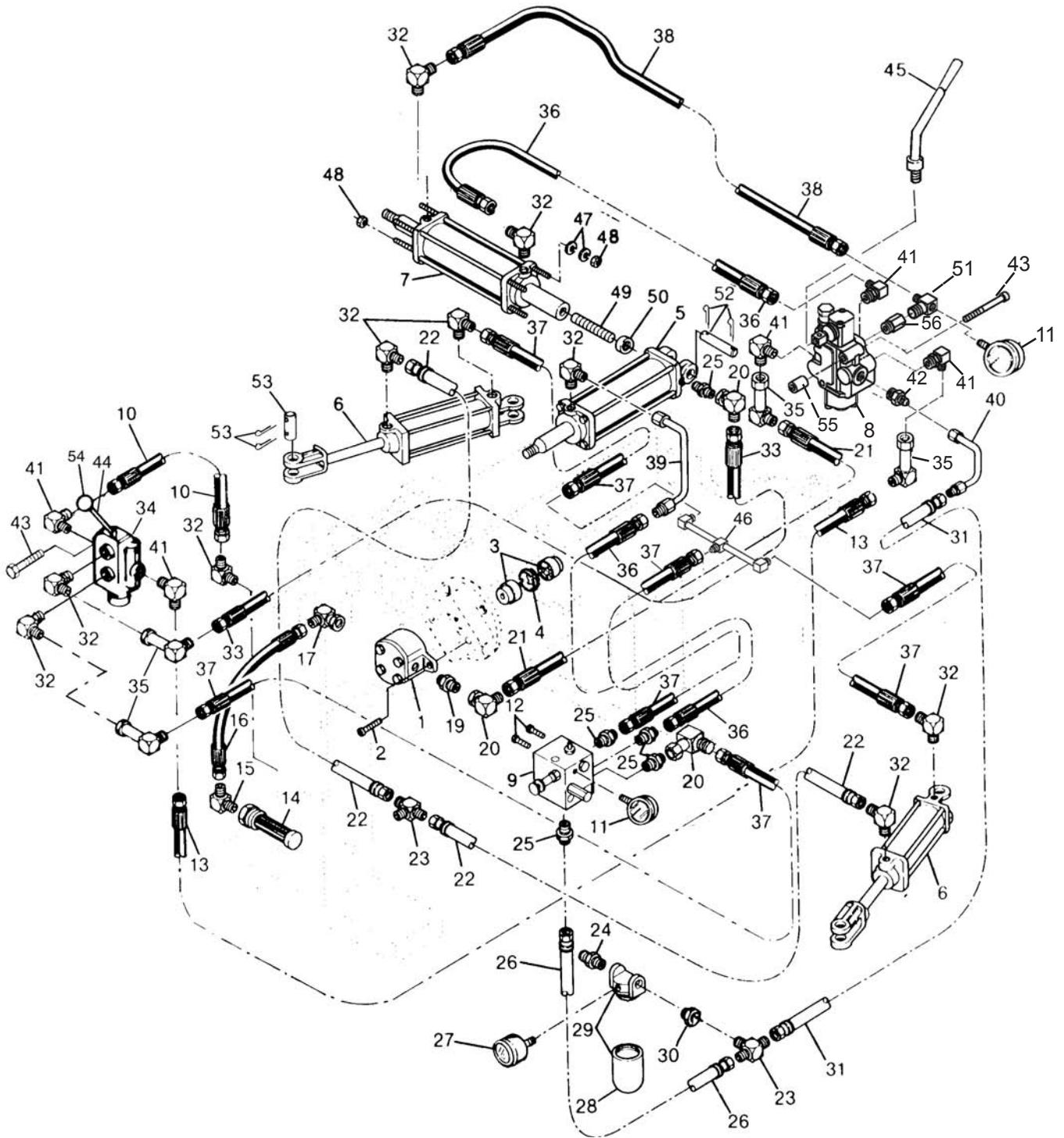
KEY	PART NO.	DESCRIPTION	QUANTITY				REMARKS
			2100	2008 2007	2806 2801	HB-10 1600	
							(Continued from previous page)
40	92313	Tube, 6-6	1	1	1	1	Valve
41	92004	90 Elb, 1/2ML SAE O'R 3x8ML JIC	3	3	3	3	
42	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	1	1	1	-	
43	97206	Socket Head Cap Screw, 3/8"-16 x 3-1/4"	2	2	2	2	
44	92202	Pin, Side Cylinder	4	4	4	4	Industrial & Agricultural
45	92109	Handle, Swager	1	1	1	1	
46	92314	Fitting, 3-Way	1	1	1	1	
47	97383	Washer, Lock 1/2"	8	8	8	4	
48	97208	Nut, Jam 1/2"-13	6	6	6	-	
49	97051	Stud, Thread 1-14	1	1	1	1	
50	97100	Nut, Knurl	1	1	1	1	
51	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT	1	1	1	1	For Pressure Gauge
52	92203	Pin, Main Cylinder	1	1	1	1	Industrial & Agricultural
53	92008	Str Ftg, 1/2ML SAE O'R x 1/2 FM NPT	1	1	1	1	Industrial & Agricultural
54	70045	Bushing, Steel	2	2	2	2	Industrial & Agricultural



Mark Purman checking a welded assembly after it comes from Huth's robotic welder.

Section VI

Hydraulic Replacement Parts - 1800 & 1901

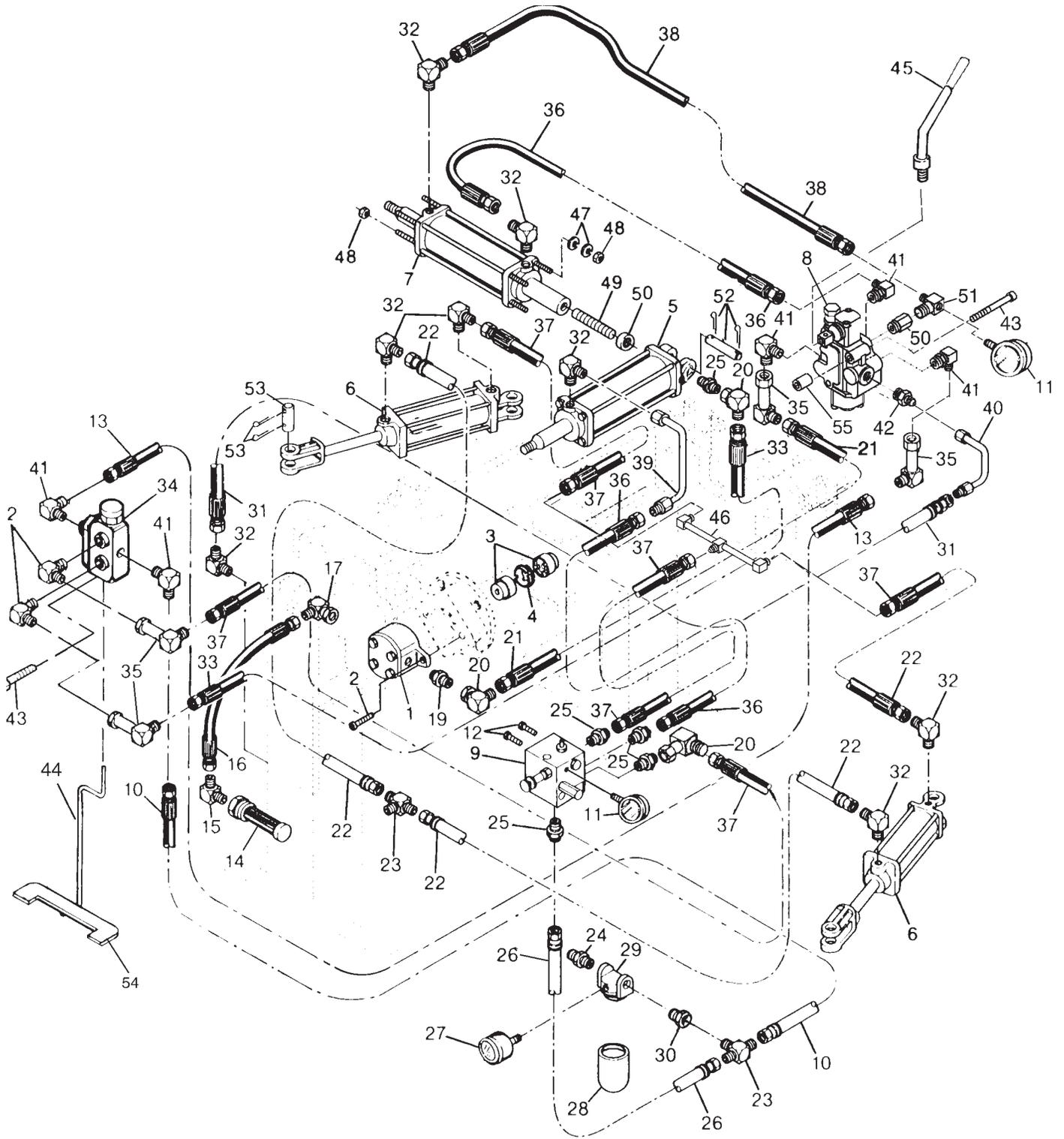


Hydraulic Replacement Parts - 1800 & 1901

KEY	PART NO.	DESCRIPTION	QUANTITY		REMARKS
			1800	1901	
1	92116	Pump, Hydraulic	1	1	
	92117	Pump, Hydraulic (High Speed)	1	1	High Speed Option for 7½ H.P Motor
2	97267	Bolt, Hex Hd. 3/8"-16 x 1"	2	2	
3	92357	Coupler	1	1	Includes P/N 92358 Spyder
4	92358	Spyder, Rubber	1	1	
5	92169	Cylinder, Main Industrial	1	-	Includes Pins
	92235	Seal Kit	1	-	Includes All Seals For P/N 92169
	92161	Rod, Tie	4	-	For P/N 92169
	92048	Cartridge, Packing Gland	1	-	Sold Without Seals For P/N 92169
	92158	Cylinder, Main Agricultural	-	1	Sold As Assembly Only
	92208	Seal Kit for 92158	-	1	For Benders Built After 3/1/91
6	92150	Cylinder, Side Industrial	2	-	Includes Pins
	92236	Seal Kit for 92150	-	1	Includes All Seals For P/N 92150
	92159	Cylinder, Side Agricultural	-	2	Sold as Assembly Only
	92207	Seal Kit for 92159	-	2	
7	92256	Cylinder, Double End, Ag.	-	1	Sold as Assembly Only
	92209	Seal Kit for 92256	1	1	For Benders Built After 3/1/91
	92355	Cylinder, Double End, Ind. 3"	1	1	
	92205	Seal Kit for 92355	1	1	
8	92103	Valve, Swager	1	1	
9	92051	Valve, Sequence	1	1	
10	92278	Hose, Return #6, 15" Lg.	1	1	
11	92100	Gauge, Pressure	2	2	
12	97221	Bolt, Hex 3/8"-16 x 1/2"	2	2	
13	92276	Hose, #6, 62" Lg.	1	1	
14	92045	Filter, Easy Flow	1	1	
15	92010	90 Ftg, 1/2ML NPT x 3/8ML JIC	1	1	
16	92272	Hose, #8, 18" Lg.	1	1	
17	92077	Elbow, 90 Degrees, 8-8	1	1	
19	92026	Str Ftg, 5/8 SAE O'R x 3/8ML JIC	1	1	
20	92021	90 Elb, 3/8ML JIC x 3/8FM JIC SVL	3	2	For rear of Main Cyl.-Use Ref. #32 (Model 2801)
21	92273	Hose, #6, 41" Lg.	1	1	
22	92277	Hose, Return, #6, 24" Lg.	2	2	
23	92015	Branch, T Ftg, 3/8 x 3/8 x 1/4	2	2	
24	92028	Str Ftg, 1/2ML NPT x 3/8ML NPT	1	1	
25	92002	Str. Ftg., ½" ML NPT x ¾" ML JIC	5	4	
26	92280	Hose, Return, #6, 13" Lg.	1	1	
27	92292	Gauge, Filter	1	1	
28	92290	Filter	1	1	
29	92289	Filter Assembly	1	1	Includes Filter, Head & Gauge
30	92027	Str Ftg, 1/2ML NPT x 1/4FM NPT	1	1	
31	92279	Hose, Return, #6, 56" Lg.	1	1	
32	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC	11	12	
33	92275	Hose, #6, 58" Lg.	1	1	
34	92101	Valve, Bending Control	1	1	
35	92023	90 Lg Elb, 3/8 ML JIC x 3/8FM JIC	6	6	
36	92264	Hose, #6, 23-1/2" Lg.	2	2	
37	92261	Hose, #6, 15-1/2" Lg.	4	4	
38	92263	Hose, #6, 19" Lg.	1	1	
39	92312	Tube, 6-6	1	1	Cylinder
40	92313	Tube, 6-6	1	1	Valve
41	92004	Str. Ftg., ½" ML NPT x ¾" ML JIC	3	3	
42	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	1	1	
43	97206	Socket Head Cap Screw, 3/8"-16 x 3-1/4"	4	4	
44	92047	Chain Link Kit	1	1	
45	92109	Handle, Swager	1	1	
46	92314	Fitting, 3-Way, 6-6	1	1	
47	97383	Washer, Lock 1/2"	8	8	
48	97208	Nut, Jam 1/2"-13	6	6	
49	97051	Stud, Thread 1-14	1	1	
50	97100	Nut, Knurl	1	1	
51	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT	1	1	For Pressure Gauge
52	92203	Pin, Main Cylinder	1	1	Industrial & Agricultural
53	92202	Pin, Side Cylinder	4	4	Industrial & Agricultural
54	92115	Handle, Valve Control	1	1	
55	70045	Bushing, Steel	2	2	Industrial & Agricultural
56	92008	Str Ftg, 1/2ML SAE O'R x 1/2 FM NPT	1	1	Industrial & Agricultural

Section VI

Hydraulic Replacement Parts - 1901S



Hydraulic Replacement Parts - 1901S

KEY	PART NO.	DESCRIPTION	QUANTITY 1901S	REMARKS
1	92116	Pump, Hydraulic	1	Standard
	92117	Pump, Hydraulic (High Speed)	1	High Speed Option for 7½ H.P Motor
2	97267	Bolt, Hex Hd. 3/8"-16 x 1"	2	
3	92357	Coupler	1	
4	92358	Spyder, Rubber	1	
5	92158	Cylinder, Main Agricultural	1	Sold As Assembly Only
	92208	Seal Kit for 92158	1	For Benders Built After 3/1/91
6	92159	Cylinder, Side Agricultural	2	Sold As Assembly Only
	92207	Seal Kit for 92159	1	For Benders Built After 3/1/91
7	92256	Cylinder, Double End, Ag.	1	Sold As Assembly Only
	92209	Seal Kit for 92256	1	For Benders Built After 3/1/91
8	92103	Valve, Swager	1	
9	92051	Valve, Sequence	1	
10	92278	Hose, Return #6, 15" Lg.	1	
11	92100	Gauge, Pressure	2	
12	97221	Bolt, Hex 3/8"-16 x 1/2"	2	
13	92276	Hose, #6, 62" Lg.	1	
14	92045	Filter, Easy Flow	1	
15	92010	90 Ftg, 1/2ML NPT x 3/8ML JIC	1	
16	92272	Hose, #8, 18" Lg.	1	
17	92077	Elbow, 90 Degrees, 8-8	1	
19	92026	Str Ftg, 5/8 SAE O'R x 3/8ML JIC	1	
20	92021	90 Elb, 3/8ML JIC x 3/8FM JIC SVL	2	
21	92273	Hose, #6, 41" Lg.	1	
22	92277	Hose, Return, #6, 24" Lg.	2	
23	92015	Branch, T Ftg, 3/8 x 3/8 x 1/4	2	
24	92028	Str Ftg, 1/2ML NPT x 3/8ML NPT	1	
25	92002	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC	4	
26	92280	Hose, Return, #6, 13" Lg.	1	
27	92292	Gauge, Filter	1	
28	92290	Filter	1	
29	92289	Filter Assembly	1	Includes Filter, Head & Gauge
30	92027	Str Ftg, 1/2ML NPT x 1/4FM NPT	1	
31	92279	Hose, Return, #6, 56" Lg.	1	
32	92009	90 Ftg, 1/2ML NPT x 3/8ML JIC	12	
33	92275	Hose, #6, 58" Lg.	1	
34	92101	Valve, Bending Control	1	
35	92023	90 Lg Elb, 3/8 ML JIC x 3/8FM JIC	6	
36	92264	Hose, #6, 23-1/2" Lg.	2	
37	92261	Hose, #6, 15-1/2" Lg.	4	
38	92263	Hose, #6, 19" Lg.	1	
39	92312	Tube, 6-6	1	Cylinder
40	92313	Tube, 6-6	1	Valve
41	92004	Str. Ftg., 1/2" ML NPT x 3/8" ML JIC	3	
42	92006	Str, 3/8ML JIC x 1/2ML SAE O'R	1	
43	97206	Socket Head Cap Screw, 3/8"-16 x 3-1/4"	4	
44	97379	Rod, Connecting	1	
45	92109	Handle, Swager	1	
46	92314	Fitting, 3-Way, 6-6	1	
47	97383	Washer, Lock 1/2"	8	
48	97208	Nut, Jam 1/2"-13	6	
49	97051	Stud, Thread 1-14	1	
50	97100	Nut, Knurl	1	
51	92009DT	90 Ftg, 1/2ML NPT x 3/8ML JIC, DT	1	For Pressure Gauge
52	92203	Pin, Main Cylinder	1	
53	92202	Pin, Side Cylinder	4	
54	97380	Pedal, Foot Control	1	
55	70045	Bushing, Steel	2	
56	92008	Str Ftg, 1/2ML SAE O'R x 1/2 FM NPT	1	

Section VII

Part No.	Description	Page	Part No.	Description	Page	Part No.	Description	Page
HB-10	Bender Package	6				676	Tooth	33
010	Profit Package	21	481	Segment 2-7/8" to 3-1/2"	29	677	Tooth	33, 35, 36
011	Profit Package	21	482	Segment 3-3/8" to 4"	29	681	Tooth	35
013	Profit Package	22	483	Segment 3-7/8" to 4-1/2"	29	682	Tooth	35
016	Profit Package - Export	22	484	Segment 4-3/8" to 5"	29	683	Tooth	35
101	3" Header Collector	26	485	Segment 4-7/8" to 5-1/2"	29	684	Tooth	36
102	3-1/2" Header Collector	26	486	Segment 5-3/8" to 6"	29	685	Tooth	36
110	1" Swage Die	26	497	Arbor, 11/2" - 31/2"	58, 59	686	Tooth	36
112	1-1/2" Swage Die	26	498	Arbor Tip Small, 1-1/2" - 1-3/4"	11, 19, 28, 58, 59, 61	710	1" Clamp Collets	27
114	1-1/4" Swage Die	26	499	Large Arbor Tip, 1-3/4" - 3-1/2"	11, 19, 28, 58, 59, 61	712	1-1/2" Clamp Collets	27
118	1-1/8" Swage Die	26	500	Tip: 1-3/4" to 3-1/2"	28	714	1-1/4" Clamp Collets	27
120	2" Swage Die	26	501	Arbor 1-1/4" to 1-1/2"	28	718	1-1/8" Clamp Collets	27
123	2-3/8" Swage Die	26	502	Arbor 1-1/2" to 1-3/4"	28	720	2" Clamp Collets	27
125	2-1/4" Swage Die	26	503	Arbor 1-3/4" to 2-3/4"	28	723	2-3/8" Clamp Collets	27
128	2-1/8"(54mm) Swage Die	26	508	Arbor 2-3/4" to 5-1/2"	28	725	2-1/4" Clamp Collets	27
129	2-3/4" Swage Die	26	512	Arbor	11, 19, 28, 61	728	2-1/8" Clamp Collets	27
130	3" Swage Die	26	513	Adjustable Collar for 2-3/4"	54	734	1-3/4" Clamp Collets	27
134	1-3/4" Swage Die	26	515	through 5-1/2"	54	738	1-3/8" Clamp Collets	27
138	1-3/8" Swage Die	26	518	Snap Ring Nut	19, 54	750	2-1/2" Clamp Collets	27
140	40mm Swage Die	26	519	Set Screw	19, 56	758	1-5/8" Clamp Collets	27
142	42mm Swage Die	26	522	Flare Tool 1-1/2", 2"	26	760	50mm to 45mm Reducing Die	26
145	45mm Swage Die	26	523	Flare Tool 1-3/4", 1-5/8"	26	761	55mm to 50mm Reducing Die	26
148	48mm Swage Die	26	524	Ball Joint Tool	26	762	60mm to 55mm Reducing Die	26
149	50mm Swage Die	26	527	Adjustable Collar	19, 54	778	1-7/8" Clamp Collets	27
150	2-1/2" Swage Die	26	528	Adjustable collar for 2-3/4"	54	780	2" to 1-3/4" Reducing Die	26
155	55mm Swage Die	26	529	Arbor Adapter	43	781	2-1/4" to 2" Reducing Die	26
158	1-5/8" Swage Die	26	550	Adjustable Collar Assembly	54, 65	782	2-1/2" to 2-1/4" Reducing Die	26
160	60mm Swage Die	26	551	Extension, 527 Adjustable Collar	54, 65	783	3" to 2-1/2" Reducing Die	26
178	1-7/8" Swage Die	26	552	1-3/4" (M) Ball Joint Tool	26	784	2" to 1-7/8" Reducing Die	26
210	1" Clamp Collets	27	553	1-7/8" (M) Ball Joint Tool	26	785	1-3/4" to 1-5/8" Reducing Die	26
212	1-1/2" Clamp Collets	27	554	2" (M) Ball Joint Tool	26	786	1-5/8" to 1-1/2" Reducing Die	26
214	1-1/4" Clamp Collets	27	555	2-1/4" (M) Ball Joint Tool	26	787	1-1/2" to 1-3/8" Reducing Die	26
218	1-1/8" Clamp Collets	27	556	2-1/2" (M) Ball Joint Tool	26	788	1-3/8" to 1-1/4" Reducing Die	26
220	2" Clamp Collets	27	557	1-3/4", 1-7/8", 2" (F) Ball Joint Tool	26	789	1-1/4" to 1-1/8" Reducing Die	26
223	2-3/8" Clamp Collets	27	558	2-1/4" to 2-1/2" (F) Ball Joint Tool	26	790	3" to 2-3/4" Reducing Die	26
225	2-1/4" Clamp Collets	27	564	2-3/4" to 3-1/2" (F) Ball Joint Tool	26	797	Die Adapter	43
228	2-1/8" Clamp Collets	27	570	Segment	37	798	Die Adapter	43
234	1-3/4" Clamp Collets	27	574	Arbor 2-7/8" to 6"	29	800	Pusher Block	39
238	1-3/8" Clamp Collets	27	575	Arbor 15/16" to 1/14"	28	804	Handle	27, 53
250	2-1/2" Clamp Collets	27	595	Sight	58, 59, 61	807	Collet Holder	27
258	1-5/8" Clamp Collets	27	595	Gun Sight	19	807	Collet Holder (Uses 200 Series Collets)	53
278	1-7/8" Clamp Collets	27	600	Tooth	31	808	Long Handle-9"	27, 53
400	Segment 1-1/4" to 1-1/2"	28	603	Tooth	31	809	Bolt, 6"	27, 53
403	Segment 2-3/4" to 3-1/8"	28	604	Tooth	32	810	Bolt 5-1/2"	27
404	Segment 1-1/8"	28	605	Tooth	34	810	Bolt, 5-1/2"	53
405	Flaring Segment Set* 1" I.D. to 1-1/2"	28	606	Tooth	31	811	Washer	27, 53
406	Segment 3-1/8" to 3-1/2"	28	608	Tooth	31	812	Nut	27, 53
408	Segment 3-1/2" to 4"	28	610	Tooth	34	813	Washer, Brass	27, 53
410	Segment 1-3/4"	29	611	Tooth	37	815	Die Holder	41
411	Segment 2", 2-1/4"	29	612	Tooth	37	816	Die Holding Pin	41
412	Segment 2-1/2"	29	619	Tooth	34	817	Handle, 12"	27, 53
413	Flange Ring 2"	29	620	Tooth	34	818	Holder	18, 41
414	Flange Ring 2-1/4"	29	621	Tooth	34	819	Threaded Stud	18
418	Flange Ring 2-1/2"	29	622	Tooth	31	820	Quick Disconnect Tool Holder	41
419	Segment 2"	29	623	Tooth	31	820	Non-Threaded Adapter	18, 41
420	Segment 2-1/4"	29	624	Tooth	32	823	Threaded Shoulder Stud	18, 41, 57
421	Segment 2-1/2"	29	625	Tooth	32	824	Quick-Trick Adapter	43
422	Segment 1-1/2" to 1-3/4"	28	640	Tooth	33	825	Quick Trick	18, 41
423	Segment 1-3/4" to 2-1/8"	28	641	Tooth	35	829	Cutter Blade #50	42
424	Segment 2-1/8" to 2-1/2"	28	650	Tooth	32	830	Axle for #50	42
425	Segment 2-1/2" to 2-3/4"	28	651	Tooth	32	833	Cutter Blades #30-133	42
440	Flaring SegmentSet (1-1/2" I.D. to 2-1/2"	28	652	Tooth	34	835	Tube Cutter #30for 3"	42
441	Flaring SegmentSet (2-1/2" I.D. to 3-1/2"	28	670	Tooth	32	836	Axle #30	42
450	Segment 4" to 4-7/8"	28	673	Tooth	33	838	Breather Cap	61
451	Segment 4-7/8" to 5-1/2"	28	674	Tooth	33	839	Vent Cap	63, 65
452	Segment 3"	29	675	Tooth	33	839	Vent Breather Cap	42
470	Segment 1"	28				844	Axle Assembly #133	42
473	Segment Set, 1-1/2" - 1-3/4"	11, 19, 28, 58, 59, 61				852	Blank Plate	39
474	Segment Set, 1-3/4" - 2-1/8"	11, 19, 28, 58, 59, 61				853	Pipe Flanger 1-1/2" to 3-1/2"	26
475	Segment Set, 2-1/8" - 2-1/2"	11, 19, 28, 58, 59, 61				854	Ram Die Pin Clip	39
476	Segment Set, 2-1/2" - 3"	11, 61, 28				855	Die Pin-DP200	39
477	Segment Set, 3"-3-1/2"					856	Bumper Die Hex Pin	39
						859	Asst. of 25 O-Rings	29
						860	Rubber O-Ring	38

Part No.	Description	Page	Part No.	Description	Page	Part No.	Description	Page
861	Rubber O-Ring	38	1040	1-3/4" Half Shoe	25	1725	2-1/4" Clamp Collets	26
862	Rubber O-Ring	37	1041	1-3/8" Half Shoe	25	1728	2-1/8" (54mm) Clamp Collets ..	26
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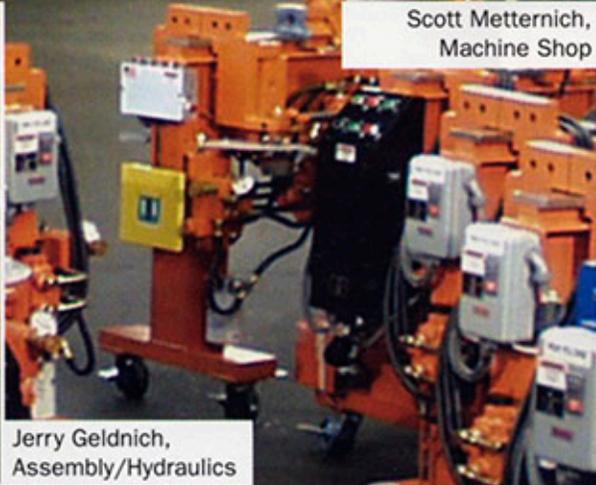
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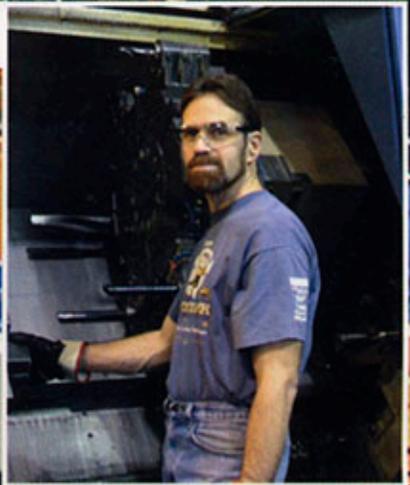
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CENTER LINE MARKS	0	271	253			191	83	152	195	18	228	
ROTATION IN DEGREES	31	92	145 130 90			46	66	18	12	17	28	
DEPTH IN DEGREES	USE 3" RADIUS EXCEPT AS NOTED IN BOXED AREA REVERSE PIPE & USE 3/4 SHOE BOXED AREA : • USE 5" RADIUS FOR 145 DEGREE BEND USE 4" RADIUS FOR 130 DEGREE BEND USE 3" RADIUS FOR 90 DEGREE BEND CUT 2" OFF "F" & SIZE TO 2" O.D. X 2" LONG ANGLE CUT "R" TO SUIT APPEARANCE REUSE BRACKET OR USE F2002											

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