

PULLERS



PULLERS



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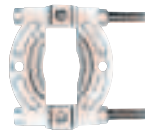
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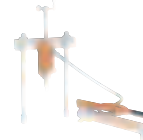
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PULLER

SELECTION BASICS

3 Basic Puller Scenarios

CONSIDERATIONS:

Determine the type of puller or puller combination. Which puller type is best suited for gripping the part?

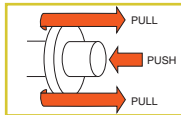
Is a combination of puller types required?

Determine the reach needed for your particular pulling problem. The puller you select must have a reach equal or greater than the corresponding sizes of the part to be pulled.

Determine the spread need. The spread is determined by the width of the part

being pulled. The puller's spread should be greater than the width of the part to be pulled.

Estimate the force needed to solve your pulling problem. A puller with the proper reach and spread will usually have enough capacity to remove the corresponding part. When in doubt, always use a puller with a larger capacity than what may be needed. Rusted parts or parts with a large area of resistance may need more pulling force.



1

PULLING A GEAR, BEARING, WHEEL, PULLEY, ETC., FROM A SHAFT

In order to perform a proper pull, be certain that you firmly grip the gear, bearing, wheel, pulley, etc., and apply force to the shaft. Use a 3-jaw puller, instead of a 2-jaw, whenever possible for better gripping power and a more uniform displacement of pulling force.

RECOMMENDED TOOLS:



Jaw-type pullers: Either manual or hydraulic. For extra force and convenience, use a hydraulic puller. Both are available in 2 or 3 jaw configurations and are used to grip the outer circumference of a part or can be used with a pulling attachment, such as a bearing/pulley attachment. **(pages 196-197, 210-213, 222-223)**



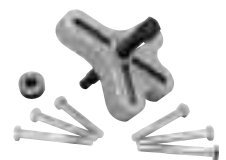
Push-Pullers can thread directly into a threaded part for easy and secure removal. Push-Pullers can be used in conjunction with bearing/pulley attachments which grip the part from behind. A wide assortment of male and female threaded adapters are available as well as metric adapters. **(pages 198-199, 214-215)**



Slide hammers are best suited for light-duty tasks. Slide hammers can be used for multiple- with pulling problems when combined pulling attachments. **(pages 202-203)**



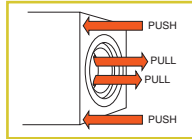
Bearing/pulley attachments provide a "knife-like" edge to get behind parts for added versatility and secure removal of parts. Great for parts that don't offer adequate grip with jaw-type pullers. **(page 201)**



Adapters Whether you need an adapter compatible with any number of threaded hole sizes, protection of part to be pulled or for assisting the installation of a component; Power Team offers a variety of adapters to assist in the removal or installation of parts. **(pages 206-207)**



2



PULLING INTERNAL BEARING RACES, RETAINER, SEALS, ETC.

By extending the narrow jaws of an internal pulling attachment through the center of the part to be pulled, a straight pull is insured, and damage to the housing is avoided. While parts within a "blind hole" in a housing do present a problem, Power Team has the internal pulling attachment or a combination of an internal pulling attachment and puller to handle the situation.

RECOMMENDED TOOLS:



Internal pulling attachments have narrow jaws which extend through the center of the part to be pulled. They provide a straight pull and avoid damaging housings. Internal attachments feature adjustable jaws to fit various diameter parts. (page 200)

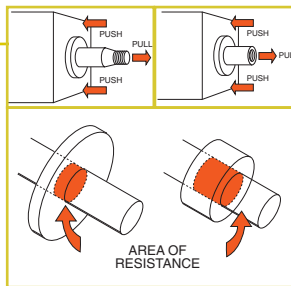
Slide hammer with internal attachment is ideal for removing parts from blind holes, especially where there is no housing to brace puller legs against. (pages 202-203)



Push-puller with internal attachment. Push-puller is available in both manual and hydraulic versions. (pages 198-199)



3



PULLING A PRESS-FITTED SHAFT FROM A HOUSING

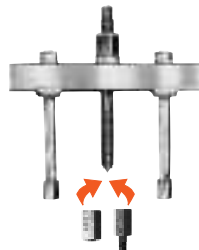
Note: Manual pullers require that the shaft being pulled is no more than twice the diameter of the puller's forcing screw. To determine the recommended tonnage for hydraulic pullers, multiply the diameter of the shaft to be pulled by ten. Example: For a 1" shaft, we recommend 10 tons of pulling force.

A shaft with a threaded end can be removed without damage by using one of our slide hammer, manual Push-puller or hydraulic Push-pullers, in conjunction with the proper threaded adapter. Removal is easy! If the shaft to be removed has external threads, simply choose one of our female threaded adapters of proper size/thread. If the shaft has internal threads, simply choose the correct size male threaded adapter.

RECOMMENDED TOOLS:



Slide hammer puller matched with a set of threaded adapters is a perfect tool for light duty pulling needs. (pages 202-203, 206-207)



Push-pullers matched with a set of threaded adapters make for an extra versatile pulling tool. (pages 198-199, 206-207, 214-215)



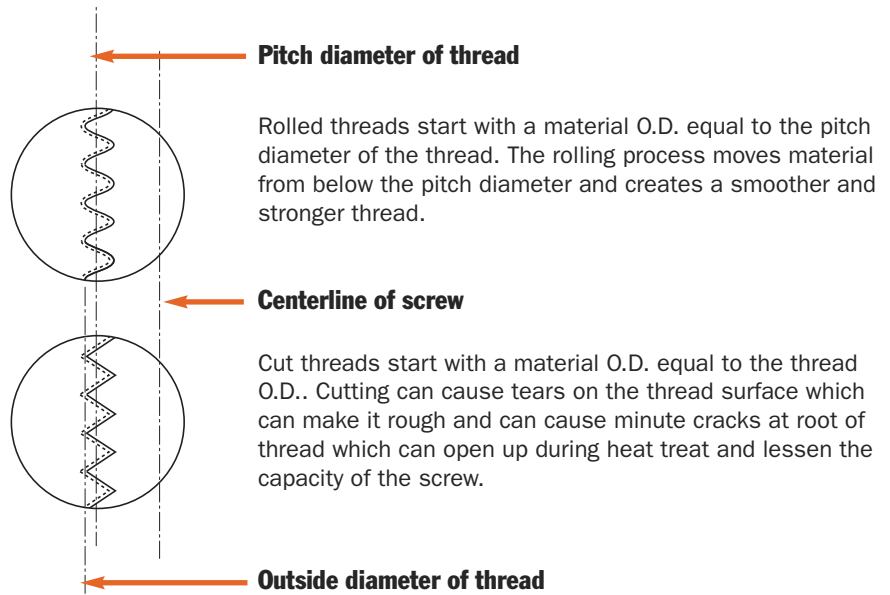
PULLER SELECTION BASICS

Choosing the Right Puller



Puller with a bearing pulling attachment was used to take a bearing off a utilities well pump motor.

WHY OUR ROLLED PULLER THREADS ARE SUPERIOR:



Features

Benefits



- Grip-O-Matic® feature on jaw type pullers
- 2-way, 3-way and 2/3-way combination pullers
- 1 to 37 ton mechanical pullers
- 5 to 50 ton hydraulic pullers
- 2¹/₈" (54 mm) to 27⁵/₈" (702 mm) reach
- 3¹/₄" (83 mm) to 44" (1,118 mm) of spread
- Forged alloy steel jaws
- Machined puller jaw toes
- Alloy steel heads (forged or flame cut)
- Rolled "V" threads
- Special coating on threads
- Heat treated alloy steel cross bolts
- Standard hydraulic cylinders on Grip-O-Matic® series
- Adjusting nut on Super Grip-O-Matic® series

- The harder the pulling force, the tighter the jaws grip
- A wide variety of pullers; select a specific puller for a specific application or select one or more pullers for general applications
- Strongest possible part; the grain of the material follows the contour of the part.
- Larger and stronger pulling toe than most competitors
- Heat treated and designed for maximum strength
- Stronger and smoother than cut threads
- Resists corrosion, traps lubrication better than black oxide
- Designed for max. shear strength
- Cylinder can be removed from puller and used in other hydraulic applications
- Allows for controlled jaw spread adjustment

NOTE: The puller application photos shown in this catalog are shown without protective blankets for clarity of photos. Power Team strongly recommends you always make your pull with a protective device in place.



Operator safety comes first!

Tons of force are being exerted with your Pulling System. You must respect this force, and observe safety precautions at all times

⚠ CAUTION

It is impossible to predict the exact force required for every pulling job: setup requirements and the size, shape and condition of the parts being pulled vary a great deal. In addition, the Power Team Pulling System is so versatile, it is possible that components in a pulling setup may have different tonnage ratings.

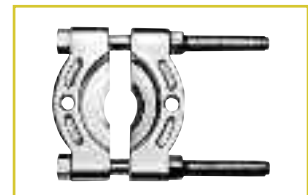
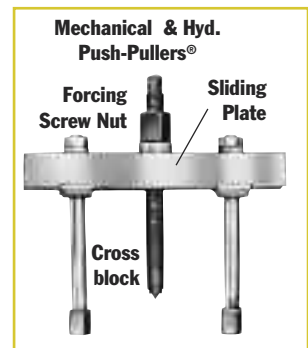
The lowest "capacity" component, then, determines the capacity of the setup. For example: When an accessory with a 1 ton capacity is used with a 10 ton capacity puller, the setup can be used only at a force of one ton.

These tools should be used only by trained personnel familiar with them.

Always wear eye protection during a job since work parts, or the pulling tool itself, may break and parts may fly. It is recommended to cover the work with a Power Team Protective Blanket or use a shield while force is being applied. If you are at all unsure which tool or attachment to select, contact the Power Team factory.

A few easy tips to remember:

- 1. Wear safety glasses at all times!** You have only one pair of eyes, so protect them from possible flying parts.
- 2. Keep your pulling tools in shape!** Clean and lubricate the puller's forcing screw frequently, from threads to tip, to assure long service life and proper operation.
- 3. Cover work with a protective blanket!** With high forces being exerted on the part being pulled, breakage may sometimes result. By covering the work with a protective blanket, the mechanic reduces the danger of flying parts.
- 4. Apply force gradually!** The component should give a little at a time. Do not try speed removal by using an impact wrench on the puller screw.
- 5. Use the right size puller!** If you have applied maximum force and the part has not moved, go to a larger capacity puller. Resist sledging.
- 6. Align puller legs and jaws!** Be sure the setup is rigid and that the puller is square with the work.
- 7. Mount puller so grip is tight!** Tighten the adjusting strap-bolts when using a jaw type puller. Always use a 3-jaw puller whenever possible. A 3-jaw puller gives a more secure grip, more even pulling power. Apply force gradually. — Never use an extension on a wrench. — Never use an impact wrench. — Never strike the end of the forcing screw.
- 8. Do not couple puller legs!** The tonnage capacity of a Push-Puller® is reduced when longer than standard legs are used, or when legs are in compression. The chance of breaking, bending or misaligning legs increases. Keep reach to a minimum. Use shortest legs possible to reach workpiece. Thread legs into workpiece, pulling attachment or adapters evenly. Uneven legs will cause greater pull or push on one side, creating a bending action which could cause damage to work piece or cause a leg to break. The sliding plates must always be on the opposite side of the cross block from the forcing screw nut or hydraulic cylinder. Always cover work with a protective blanket.



Always cover work with a protective blanket.

Bearing pulling attachments:

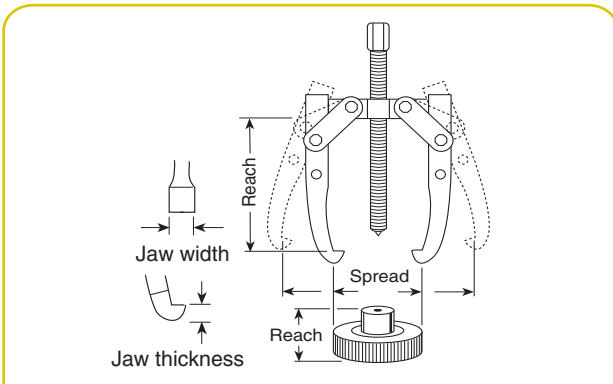
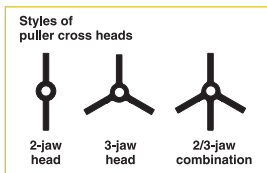
JAW PULLERS

Mechanical

2 & 3 Jaw Pullers

Choosing the right size puller:

Compare the “reach” and “spread” of the pulling job with that of the pullers listed. The puller selected must have dimensions greater than those of the job.

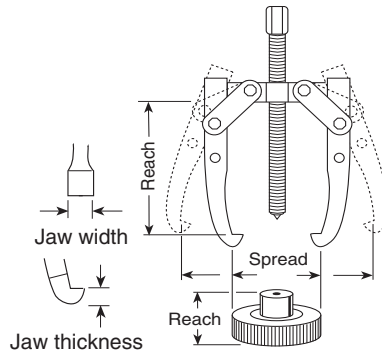














- Grip-O-Matic® feature on all pullers. The harder the pull, the tighter the grip for removing gears, bearings and countless other press fitted parts.
- 2-way, 3-way and 2/3 way combination pullers make it easy to select a specific puller for a specific application.
- Forged from high quality steel, heat treated and subjected to rigorous tests which exceed rated puller capacity.
- Meets Fed. Spec.: GGG-P-00781-D

Order No.	Max.		Screw Size (in.)	Jaw		Capacity, Style and Weight
	Reach (in.)	Spread (in.)		Thickness (in.)	Width (in.)	
1020	2 ¹ / ₈	3 ¹ / ₄	5 ⁵ / ₁₆ -24 x 3 ⁷ / ₈	9 ⁹ / ₆₄	1 ¹ / ₄	1-Ton, 2-Jaw; 5 oz.
1021	2 ¹ / ₈	3 ¹ / ₄				
1022	3 ³ / ₈	4	3 ³ / ₈ -24 x 4 ⁷ / ₈	Upper 3 ³ / ₁₆ Lower 1 ¹ / ₈	Upper 1 ¹ / ₄ Lower 1 ¹ / ₂	2-ton, 2-Jaw; 14 oz. (Reversible Jaws)
1023	3 ³ / ₈	4 ³ / ₄				
1024	3 ¹ / ₄	6	9 ⁹ / ₁₆ -20 x 6 ¹⁵ / ₁₆	Upper 1 ⁵ / ₁₆ Lower 1 ¹ / ₄	Upper 3 ³ / ₈ Lower 3 ³ / ₄	5-Ton, 2-Jaw; 1 lb., 12 oz. (Reversible Jaws)
1026	3 ¹ / ₄	7				



- Alloy steel heads are forged for maximum strength.
- Forcing screw threads are rolled, not cut. This process creates a smoother and stronger thread.
- Heat treated alloy steel cross bolts for maximum shear strength.
- Machined puller jaw toes produce larger and stronger pulling toes.



Order No.	Max.		Screw Size (in.)	Jaw		Capacity, Style and Weight	
	Reach (in.)	Spread (in.)		Thickness (in.)	Width (in.)		
1025  1027 	1025	5 1/2	6	9/16-20 x 6 15/16	Upper 5/16 Lower 1/4	Upper 3/8 Lower 3/4	5-Ton, Long 2-Jaw; 2 lbs. (Reversible Jaws)
	1027	5 1/2	7	9/16-20 x 6 15/16	Upper 5/16 Lower 1/4	Upper 3/8 Lower 3/4	5-Ton, Long 2/3-Jaw; 3 lbs., 10 oz. (Rev. Jaws)
1035  1037 	1035	5	9	11/16-18 x 9	Upper 5/16 Lower 11/32	Upper 1 Lower 1	7-Ton, 2-Jaw; 4 lbs., 8 oz. (Reversible Jaws)
	1037	5	10 1/2	11/16-18 x 9	Upper 5/16 Lower 11/32	Upper 1 Lower 1	7-Ton, 2/3-Jaw; 6 lbs., 2 oz. (Rev. Jaws)
1036  1038 	1036	8 3/4	9 1/2	11/16-18 x 9	11/32	1	7-Ton, Long 2-Jaw; 5 lbs., 6 oz.
	1038	8 3/4	11	11/16-18 x 9	11/32	1	7-Ton, Long 2/3-Jaw; 8 lbs., 2 oz.
1039/1040  1041/1042 	1039	11	12	13/16-16 x 12	9/16	1	13-Ton, 2-Jaw; 10 lbs., 13 oz.
	1040	15 1/4	15 1/2	13/16-16 x 12	9/16	1	13-Ton, Long 2-Jaw; 13 lbs.
	1041	11	12	13/16-16 x 12	9/16	1	13-Ton, 2/3-Jaw; 16 lbs., 4 oz.
	1042	15 1/4	17	13/16-16 x 12	9/16	1	13-Ton, Long 2/3-Jaw; 18 lbs., 12 oz.
1043/1044  1045/1046 	1043	14 1/2	14	1"6 x 12	9/16	1	17 1/2-Ton, Long 2/3-Jaw; 18 lbs., 12 oz.
	1044	18 3/4	16	1-14 x 13 1/2" lg.	13/16	1 9/32	17 1/2-Ton, Long 2-Jaw; 23 lbs.
	1045	14 1/2	14	1-14 x 13 1/2	13/16	1 9/32	17 1/2-Ton, 3-Jaw; 33 lbs.
	1046	18 3/4	16	1-14 x 13 1/2	13/16	1 9/32	17 1/2-Ton, Long 3-Jaw; 37 lbs.
1048  1050 	1048	22 1/4	20	1 1/4-12 x 16 5/8	1 1/16	1 1/2	25-Ton, Long 2-Jaw; 42 lbs., 12 oz.
	1050	22 1/4	20	1 1/4-12 x 16 5/8	1 1/16	1 1/2	25-Ton, Long 3-Jaw; 60 lbs.



For puller piece part identification, order Power Team parts catalog PC97

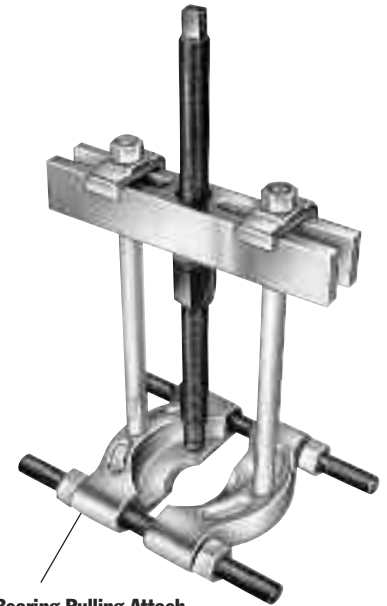
PUSH PULLERS

Mechanical

10, 17^{1/2}, & 30 Ton Cap.

Selection and capacity rating – Each Push-Puller's specified tonnage "capacity" is determined using its standard legs in tension. Using longer legs, or a setup in which the legs are in compression, will reduce the "capacity". Always select the largest "capacity" puller and the shortest legs that will fit the job.

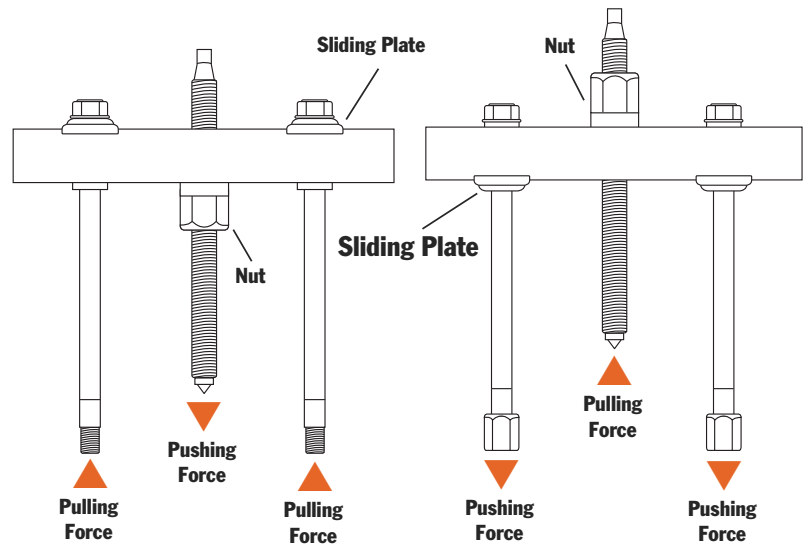
- Can apply a pushing or pulling force, depending on how the puller is set up.
- Optional leg kits adapt your Push-Puller® to extra long or extra short reach.
- A wide variety of threaded adapters, bearing pulling attachments and internal pulling attachments can be used in combination with our Push-Pullers.®
- Meets Fed. Spec.: GGG-P-00781-D



Bearing Pulling Attachment

ASSEMBLING THE TOOL TO APPLY PUSHING OR PULLING FORCE:

1. Determine if you want the tool's forcing screw to push or pull.
2. To exert pushing force, the forcing nut is installed beneath the cross block, as shown on left.
3. To cause the forcing screw to pull, the forcing nut is placed on top of the cross block.
4. The sliding plates must always be placed on the opposite side of the cross block from the forcing nut.



Available Adapters (page 206-207)



Male/Female



Step Plate

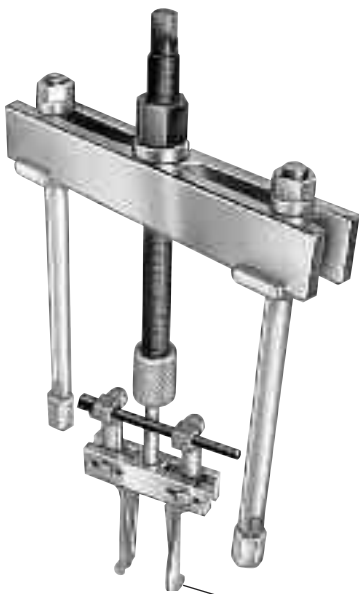


Shaft Protector



Female





Internal Pulling Attachment

No. 927 – 10-Ton Capacity can be used with No. 1123 bearing pulling attachment or No. 679 pulley pulling attachment. May also be used with Nos. 1150, 1151, 1152, or 1153 internal pulling attachments.

No. 938 – 17½-Ton Capacity can be used with Nos. 1124 and 1130 bearing pulling attachments or Nos. 679 and 680 pulley pulling attachments. May also be used with Nos. 1150, 1151, 1153, 1165, or 1166 internal pulling attachments.

No. 939 – 30-Ton Capacity can be used with Nos. 1126 and 1127 bearing pulling attachments or No. 680 pulley pulling attachment (two 8012 adapters are required to connect 680 to puller). Can be used with No. 1165 internal pulling attachment.

927		Max.				
Reach	Spread	Screw	Size	Notes / Weight		
8¼"	2⅝" – 7¼"	¾"–16 x 12"		½" of forcing screw tip end is threaded ⅝"-18. No. 1100 legs and No. 24827 leg ends included. Wt., 7 lbs.		
Order No.	Leg Length & Wt.		Order No.	Leg Length & Wt.		
1103	4¾" 1 lb.		1102	11¾" 2 lbs., 4 oz.		
1100	6¾" 1 lb., 8 oz.		1101	15¾" 3 lbs., 4 oz.		
		Extra Legs (pair) for No. 927 Push-Puller (Reach equals leg length plus 1½" with leg end caps.)				

938		Max.				
Reach	Spread	Screw	Size	Notes / Weight		
11⅝"	3⅞"–11¾"	1"–14 x 13¼"		Leg ends threaded ⅝"-18. No. Spread 1106 legs and No. 24827 leg ends included. Wt., 20 lbs., 12 oz.		
Order No.	Leg Length & Wt.		Order No.	Leg Length & Wt.		
1107	4.5" 2 lbs., 8 oz.		1105	22½" 9 lbs.		
1106	9½" 4 lbs., 8 oz.		1108	30" 11½ lbs.		
1104	16½" 6 lbs., 8 oz.					
		Extra Legs (pair) for No. 938 Push-Puller (Reach equals leg length plus 2" with leg end caps.)				

939		Max.				
Reach	Spread	Screw	Size	Notes / Weight		
10½"	7"–16¼"	1½"–12 x 17¼"		Leg ends threaded 1"-14. No. 1109 legs and No. 28390 leg ends included. Wt., 44 lbs.		
Order No.	Leg Length & Wt.		Order No.	Leg Length & Wt.		
1109	8" 8 lbs.		1111	28" 22 lbs.		
1110	18" 15 lbs.					
		Extra Legs (pair) for No. 939 Push-Puller (Reach equals leg length plus 2⅝" with leg end caps.)				

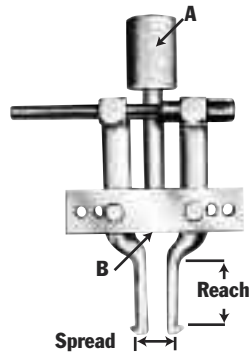


PULLER ATTACHMENTS

1 1/2" - 9" Jaw Spreads

RECOMMENDED FOR THE REMOVAL OF BEARINGS, BEARING CUPS, BUSHINGS AND OIL SEALS.

- Handles internal pulling jobs, such as, bearing/bearing cup removal, bushing removal, oil seals, etc.
- Remove hard to get at parts easily and without damage!
- Use with corresponding Power Team Slide Hammer or Push-Puller.®
- Adjustable jaws fit various diameters
- Meets Fed. Spec.: GGG-P-00781-D



CAUTION – These attachments may not withstand the full tonnage of the pullers they are used with. The shape and condition of the part being pulled affects the tonnage at which the jaws may slip off. Always select the largest attachment which will fit behind the part being pulled.

Order No.	Jaw		A (in. - thd.)	B (in. - thd.)	Wt. (lbs.)	Application
	Spread (in.)	Reach (in.)				
1153	1 1/2-5	2 1/8	1-14	5/8-18	4 lbs., 4 oz.	Use with Nos. 927 and 938 Push-Pullers,
1150	1 1/2-6	4	1-14	5/8-18	4 lbs., 4 oz.	
1151	1 1/2-7	5 1/4	1-14	5/8-18	4 lbs., 8 oz.	
1152	1 1/2-6	4	-	5/8-18	3 lbs., 8 oz.	Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 and 24833 puller screw.
1154	1 1/2-6	4	1-8	5/8-18	4 lbs., 8 oz.	Use with No. PPH17.
1165	3-9	5 7/8	1 1/2-12	1-14	13 lbs., 8 oz.	Use with No. 939 Push-Puller.
1166	3-9	5 7/8	1 1/4-7	1-14	13 lbs., 8 oz.	Use with No. PPH30.
Puller Screws						
24832	13 3/4 long		5/8-18	1 lb.	Use with Nos. 1150, 1151, 1152, and 1153. Acts as a regular forcing screw when threaded directly into block of pulling attachment.	
24833	5 1/2 long		5/8-18	6 oz.	Use with Nos. 1150, 1152, and 1153. Acts as a regular forcing screw when threaded directly into block of pulling attachment.	



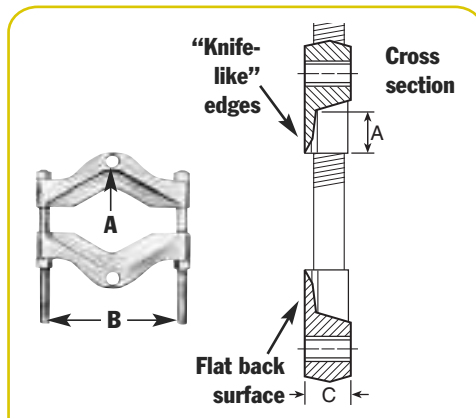
PULLER ATTACHMENTS

Bearing & Pulley



USED WHERE SPACE DOES NOT PERMIT HOOKING PULLER JAWS DIRECTLY ON PART TO BE PULLED.

- “Knife-like” edges fit behind bearings and other hard-to-grip parts for easy removal, even where clearance is limited.
- Usable with both Grip-O-Matic® jaw type pullers and Push-Pullers®.
- All puller blocks are made from forged alloy steel
- Meets Fed. Spec.: GGG-P-00781-D



Attachment clamps down into V-groove to distribute load.
Use with Grip-O-Matic® pullers or Push-Pullers.



X = Thread of tapped hole in adapter.
Y = Distance between adjusting screws.

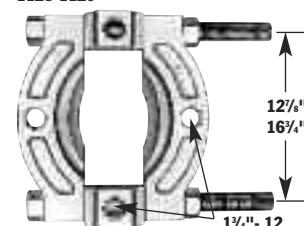
Order No.	Max. Spread (in.)	Min. Spread (in.)	A (in.)	B (in.)	Wt.	Application - (Use with Puller Nos.)
1121	1 ⁵ / ₁₆ "	1/4"	5/16"-18	1 ¹¹ / ₁₆ "	12 oz.	1020, 1022, and 1023.
1122	2"	1/8"	3/8"-16	2 ⁷ / ₁₆ "	1 lb., 4 oz.	1024, 1025, 1026, 1027, 7392 and 7393.
1123	4 ⁵ / ₈ "	1/2"	5/8"-18	4 ³ / ₈ "	5 lbs.	1035, 1036, 1037, 1038, and 927.
1124	5 ³ / ₄ "	1/2"	5/8"-18	6"	12 lbs.	1035, 1040, 1041, 1042, PH172, PPH17, and 938.
1126	8"	5/8"	1"-14	7 ¹ / ₂ "	19 lbs., 12 oz.	1047, 1043, and 939.
1127	13 ³ / ₈ "	3/4"	1"-14	10 ¹ / ₄ "	41 lbs., 12 oz.	1047, 1073, and 939.
1128	12 ⁷ / ₈ "	5"	1 ³ / ₄ -12	13"	100 lbs.	PH302*, PH502*, PH553C, and PPH50. (When using 1128 with PPH50, two 8024 adapter are required to connect PPH50 to the puller tees.)
1130	9"	1/2"	5/8-18	6"	12 lbs., 9 oz.	1035, 1040, 1041, 1042, PH172, PPH17, and 938.
V-belt pulley pulling attachments						
679	5 ⁷ / ₈ "	1 ³ / ₄	5/8-18	6	4 lbs., 4 oz.	1035, 1036, 1037, 1038, and 927.
680	10"	1 ⁵ / ₈	5/8-18	10 ¹ / ₁₆	22 lbs., 4 oz.	1039, 1040, 1041, 1042, 1047, PH172, PPH30* and 938. (When using 680 with PPH30, two 8012 adapters are required.)

Pulling attachment accessory – “Knife-like” edges of attachment fit behind bearings or other parts for easy removal with “Enforcer 55”, even if space does not permit hooking puller jaws directly to part being pulled.

No. 1128 – Spread: 5" to 12⁷/₈". Wt., 100 lbs.

* Indicates discontinued puller model.

1128-1129



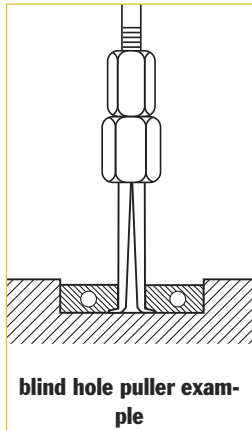
SLIDE HAMMER PULLERS



Set No. 981

Blind hole puller set – Removal of bearings, bushings, sleeves and other friction-fitted parts from blind holes can now be accomplished with ease. Set provides selection of expanding collets $\frac{5}{16}$ " to $1\frac{3}{4}$ " I.D. Collet is placed through bore of part to be removed, then expanded with actuator pin so that lips of collet secure a positive grip for pulling. Pulling force is exerted by means of a forcing screw and bridge assembly or with a slide hammer.

No. 981 – Blind-hole puller set with slide hammer, forcing screw, bridge, actuator pins, collets, and storage box. Wt., 21 lbs.



Order No.	Description	Order No.	Description
24835	Forcing Screw	28253	Actuator Pin ($\frac{3}{16}$ " dia.)
24836	Forcing Screw Nut	28256	Actuator Pin ($\frac{1}{2}$ " dia.)
22185	Hammer 2 $\frac{1}{2}$ lbs.	41331	Bridge
208627	Shank & Tee Bar Assembly	28323GY8	Metal Box
28250	Actuator Pin ($\frac{1}{8}$ " dia.)	10419	Metal Box

Order No.	Inch Range	MM Range	Order No.	Inc Range	MM Range
33856*	$\frac{5}{16}$ " to $\frac{3}{8}$ "	8 to 9.5	33861**	$\frac{3}{4}$ " to $\frac{7}{8}$ "	19.1 to 22.2
33857*	$\frac{3}{8}$ " to $\frac{7}{16}$ "	9.5 to 11.1	33862**	$\frac{7}{8}$ " to 1"	22.2 to 25.4
33858**	$\frac{7}{16}$ " to $\frac{1}{2}$ "	11.1 to 12.7	33863***	1" to $1\frac{1}{4}$ "	25.4 to 31.7
33859**	$\frac{1}{2}$ " to $\frac{5}{8}$ "	12.7 to 15.9	33864***	$1\frac{1}{4}$ " to $1\frac{1}{2}$ "	31.7 to 38.1
33860**	$\frac{5}{8}$ " to $\frac{3}{4}$ "	15.9 to 19.1	33865***	$1\frac{1}{2}$ " to $1\frac{3}{4}$ "	38.1 to 44.4

*Use with $\frac{1}{8}$ " actuator pin. **Use with $\frac{3}{16}$ " actuator pin. ***Use with $\frac{1}{2}$ " actuator pin

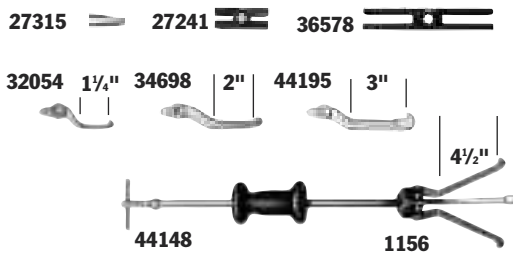
Slide hammer puller set – This very handy set is ideal for those close-quarter, inside pulling jobs. Very practical for pulling motor, generator, and magneto bearings. Also good for removing small-bore bushings, bearings, and oil seals.

No. SS2 – Slide hammer puller set. Wt., 5.8 lbs.

Jaw Set	Inside Spread	
	Min. (in.)	Max. (in.)
1172	$\frac{1}{2}$	2
1174	$\frac{1}{2}$	$1\frac{3}{8}$

Slide hammer puller set – This useful set contains a reversible-jaw slide hammer puller with a 2.5 lb. sliding hammer plus an assortment of special jaws (3 of each size) and adapters. In this set, you get all the versatility you demand of a slide hammer puller.

No. 1178 – Slide hammer puller set with 2.5-lb. sliding hammer. Wt., 13.8 lbs.

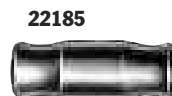


Jaw	2-Jaw Spread				3-Jaw Spread			
	Inside		Outside		Inside		Outside	
	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)
44195	$1\frac{1}{2}$	$4\frac{1}{2}$	$\frac{3}{4}$	5	$1\frac{1}{2}$	$4\frac{3}{4}$	1	$4\frac{1}{2}$
32054	$\frac{3}{4}$	$2\frac{3}{8}$	—	—	1	$2\frac{3}{4}$	—	—
44148	$2\frac{3}{4}$	$5\frac{1}{2}$	$\frac{3}{4}$	$7\frac{1}{2}$	$\frac{3}{4}$	$6\frac{1}{4}$	1"	$6\frac{1}{2}$
34698	$1\frac{1}{4}$	$3\frac{1}{2}$	1	$4\frac{1}{2}$	$1\frac{1}{2}$	$4\frac{1}{4}$	$1\frac{1}{2}$ "	$4\frac{1}{2}$

Sliding hammers only -

No. 22185 – 2.5 lb. sliding hammer.

No. 34331 – 5 lb. sliding hammer.



Bearing cup remover – The 7136 is perfect for pulling internal bearing cups, seals, bushings, etc. Jaw spread - $1\frac{5}{16}$ " to $3\frac{1}{4}$ ", reach to $3\frac{1}{2}$ ". Use with any slide hammer having $\frac{5}{8}$ "-18 thread (Power Team 1155, 1156 or 927 Push-Puller®).

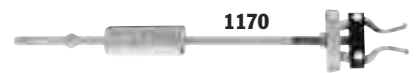


No. 7136 – Universal bearing cup remover. Wt., 1.5 lbs.

Pilot bearing pullers -These very versatile pullers are built especially for inside pulling jobs, and particularly for removing flywheel pilot bearings on machines and construction vehicles. Also very practical for pulling motor, generator and magneto bearings.

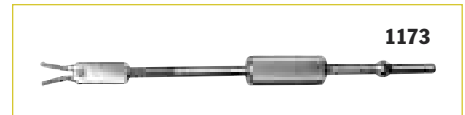
Special slide hammer puller – Ideal for pulling jobs in very close quarters, as in removal of small-bore bushings, bearings, oil seals, etc. Internal pulling attachment has jaw spread of $1\frac{1}{2}$ " to $1\frac{3}{8}$ ". Handle end has a $1\frac{1}{2}$ "- 20 thread.

Order No.	Reach (in.)	I.D. Spread		Wt. (lbs.)
		Min. (in.)	Max. (in.)	
1170	$\frac{3}{4}$	$\frac{1}{2}$	$1\frac{1}{2}$	4.9
1171	1	$\frac{7}{8}$	$2\frac{1}{8}$	4.9
1172	$1\frac{3}{4}$	$\frac{1}{2}$	2	4.9



No. 1173 – Slide hammer puller. Wt., 3.5 lbs.

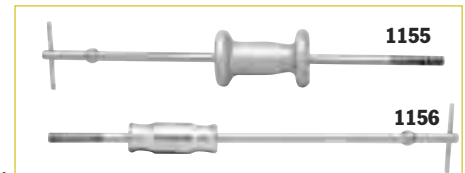
No. 1174 – Puller head, less slide hammer.



Basic slide hammer units – Compatible with internal pulling attachment (see page 208). Compatible with threaded adapters (see page 206-207). 24" in length, $\frac{5}{8}$ "-18 threaded end.

No. 1155 – Basic slide hammer unit with 5 lb. hammer. Wt., 7.3 lbs.

No. 1156 – Basic slide hammer unit with 2.5 lb. hammer. Wt., 4.8 lbs.



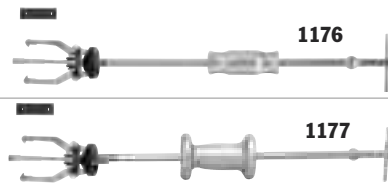
Reversible-jaw slide hammer pullers – Ideal for pulling gears, bearings, outer races, grease retainers, oil seals, etc. Two or three jaws may be used and positioned for "inside" or "outside" pulling jobs. Both have $\frac{5}{8}$ "- 18 threaded end so attachments and adapters may be used.

No. 1176 – Slide hammer puller with 2.5 lb. hammer, 27241 two-way head and 34698 jaws.

No. 1177 – Same as 1176 but with 5 lb. hammer.



Order No.	2 Jaw Spread				3 Jaw Spread				Prod. Wt. (lbs.)	Overall Length
	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)		
1176	$1\frac{1}{4}$	$3\frac{1}{2}$	1	$4\frac{1}{2}$	$1\frac{1}{2}$	$4\frac{1}{2}$	$1\frac{1}{2}$	$4\frac{1}{2}$	8	27
1177	$1\frac{1}{4}$	$3\frac{1}{2}$	1	$4\frac{1}{2}$	$1\frac{1}{2}$	$4\frac{1}{2}$	$1\frac{1}{2}$	$4\frac{1}{2}$	10.5	27



Slide hammer pullers with cup pulling attachments – These combine a basic slide hammer with No. 1152 internal pulling attachment for removing oil seals, outer races, and bearing cups from blind holes.

No. 1157 – Slide hammer puller consisting of 1156 slide hammer and 1152 internal pulling attachment.

No. 1158 – Same as 1157 but with 1155 slide hammer.

Order No.	Reach Max. (in.)	Spread Min. (in.)	Spread Max. (in.)	Prod. Wt. (lbs.)	Overall Length (in.)
1157	4	$1\frac{1}{2}$	6	9.8	28
1158	4	$1\frac{1}{2}$	6	12.3	28



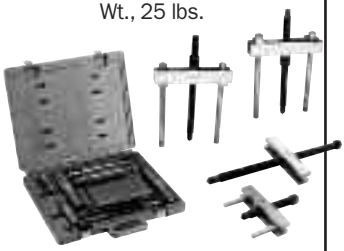

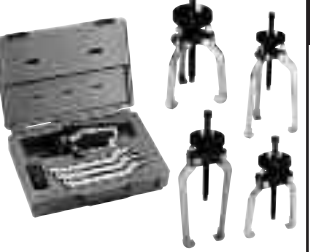
PULLER SETS



10 ton capacity Push-Puller® set – Contains three popular Power Team bar-type pullers in one versatile set, packed in a handy plastic storage case. Tools included permit damage-free pulling of gears, bearings, harmonic balancers, and other parts having tapped holes. Ideal for servicing off-road construction equipment and machinery.

Multi-purpose puller set – This new assortment of pulling tools gives you a wide range of job versatility. You get a 5 lb. slide hammer puller, hub puller, two sizes of Power Team Grip-O-Matic® jaw-type pullers, a bearing pulling attachment plus a cross-bar gear and pulley puller, all contained in a handy plastic storage case.

Lock-on, jaw-type puller set – Components can be assembled to create several versatile puller versions. The puller head is turned to securely lock the jaws onto the part being removed. Both a 2-way and 3-way puller head are included, plus three long-reach and three short-reach puller jaws in a plastic storage box. Easily removes gears, bearings and other press-fitted parts.

Order No.	Set Contents	Description																																		
1180 10 ton Push-Puller® set, in plastic storage case. Wt., 25 lbs. 	927	10 Ton Push-Puller®; 8 ³ / ₈ " reach, 2 ¹ / ₄ " to 7 ¹ / ₄ " spread. Comes with 6 ³ / ₄ " puller legs, other leg sizes are available separately (See page 199).																																		
	522	Gear and pulley puller; spread range when used with 1/2" cap screws: 2" to 7 ³ / ₄ ". Cap screws not included.																																		
	7393	Gear and pulley puller with standard 5 ¹ / ₂ " forcing screw, plus special 13" forcing screw. Includes two hex head cap screws, 3/8"-16 x 3" long. Spread range: 1 ¹ / ₂ " to 4 ¹ / ₄ ".																																		
1181 Multi-purpose puller set. Wt., 25 lbs. 	1177	Slide hammer puller with 5 lb. hammer, 2-way and 3-way heads. Reversible: either two or three jaws may be used to handle both "inside" and "outside" pulling jobs.																																		
	7208	Hub puller. Includes a spare locknut which permits use with No. 1177 slide hammer.																																		
	1023	2 ton combination 2- or 3-jaw Grip-O-Matic® puller. Has 3 ³ / ₈ " max. reach, 4 ³ / ₄ " max. spread.																																		
	1027	5 ton combination 2- or 3-jaw Grip-O-Matic® puller. Has 5 ¹ / ₂ " max. reach, 7" max. spread.																																		
	7393	Bar-type gear and pulley puller with 5 ¹ / ₂ " long screw. Includes two hex head cap screws, 3/8"-16 x 3" long. Spread range: 1 ¹ / ₂ " to 4 ¹ / ₄ ".																																		
1182 Jaw-type puller set. Wt., 6.8 lbs. 	<table border="1"> <thead> <tr> <th rowspan="2">Puller Jaws Order</th> <th rowspan="2">Inside* Min. (in.)</th> <th colspan="2">2-Jaw</th> <th colspan="3">3-Jaw Spread</th> <th colspan="2">Outside</th> </tr> <tr> <th>Max. (in.)</th> <th>Outside Min. (in.)</th> <th>Max. (in.)</th> <th>Inside* Min. (in.)</th> <th>Max. (in.)</th> <th>Min. (in.)</th> <th>Max. (in.)</th> </tr> </thead> <tbody> <tr> <td>44195</td> <td>1¹/₂</td> <td>4¹/₂</td> <td>3/4</td> <td>5</td> <td>1¹/₂</td> <td>4³/₄</td> <td>1</td> <td>4¹/₂</td> </tr> <tr> <td>44148</td> <td>2³/₄</td> <td>5¹/₂</td> <td>3/4</td> <td>7¹/₂</td> <td>3¹/₄</td> <td>6¹/₄</td> <td>1</td> <td>6¹/₄</td> </tr> </tbody> </table>		Puller Jaws Order	Inside* Min. (in.)	2-Jaw		3-Jaw Spread			Outside		Max. (in.)	Outside Min. (in.)	Max. (in.)	Inside* Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)	44195	1 ¹ / ₂	4 ¹ / ₂	3/4	5	1 ¹ / ₂	4 ³ / ₄	1	4 ¹ / ₂	44148	2 ³ / ₄	5 ¹ / ₂	3/4	7 ¹ / ₂	3 ¹ / ₄	6 ¹ / ₄	1	6 ¹ / ₄
	Puller Jaws Order	Inside* Min. (in.)			2-Jaw		3-Jaw Spread			Outside																										
			Max. (in.)	Outside Min. (in.)	Max. (in.)	Inside* Min. (in.)	Max. (in.)	Min. (in.)	Max. (in.)																											
44195	1 ¹ / ₂	4 ¹ / ₂	3/4	5	1 ¹ / ₂	4 ³ / ₄	1	4 ¹ / ₂																												
44148	2 ³ / ₄	5 ¹ / ₂	3/4	7 ¹ / ₂	3 ¹ / ₄	6 ¹ / ₄	1	6 ¹ / ₄																												

* Can be used for internal pulling tasks when used with a slide hammer.



STRONG BOX

Puller Sets

10 Ton Cap Push-Pullers® ,
2 & 3 Jaw Pullers & Specialty
Pullers



IPS10B

10 ton capacity Strong Box puller set –

Here's a set of pullers that gives you almost unheard of versatility. This rugged, lockable metal storage cabinet contains pullers, attachments and extra puller jaws good for a variety of applications. Cabinet may be mounted on a wall, stand, or workbench.



IPS10HB

10 ton capacity hydraulic/manual puller set in Strong Box –

This lockable metal Strong Box contains both hydraulic and manual pullers, plus attachments. The rugged storage cabinet keeps the tools organized and secure from unauthorized borrowers!

- Have the puller you need on hand, when you need it, protected from unauthorized or casual borrowers.
- Almost unheard of versatility
- Rugged, lockable storage cabinet.
- Wall, stand or workbench mountable.

Order No.	Set Contents	Description
IPS10B Cabinet (25 ³ / ₄ " x 29 ¹ / ₂ " x 10") with tool board, adapter board, and tool set. Wt., 98 lbs.	927	10 ton capacity Push-Puller® with 6 ³ / ₄ " legs
	1027	5 ton combination 2/3-jaw puller
	1037	7 ton combination 2/3-jaw puller
	1101	15 ³ / ₄ " puller legs (pair)
	1122	Bearing pulling attachment
	1123	Bearing pulling attachment
	1152	Internal pulling attachment
	7393	Gear and pulley puller
	8005, 8006, 8007, 8010	Male/female threaded
	8013, 8015, 8019	Adapters (2 ea.)
	8035, 8037, 8038, 8039, 8040	Female threaded adapters
	8050 thru 8053	Shaft protectors
	8057 thru 8062	Step plate adapters
	43892	Long jaws for 1037 (3)
	212867	Cabinet, tool board and adapter board
IPS10HB Cabinet (25 ³ / ₄ " x 29 ¹ / ₂ " x 10") with tool board, pullers, and hydraulics. Wt., 119 lbs.	*PH103C	10 ton combination 2/3-jaw hydraulic puller
	1027	5 ton combination 2/3-jaw puller
	1042	13 ton combination 2/3-jaw puller
	1177	Slide hammer puller
	44148	3 jaws for slide hammer puller (4 ¹ / ₂ ")
	44195	3 jaws for slide hammer puller (3")
	36578	Slotted cross head for slide hammer puller
	27315	Seal hook for slide hammer puller
	1152	Internal pulling attachment (1 ¹ / ₂ " to 6" spread)
	24832	Forcing screw for 1152
	215315	Cabinet and tool board

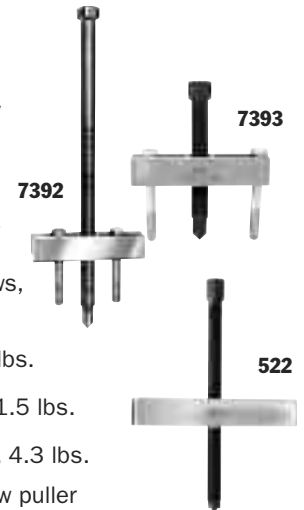


* See page 220.

PULLER ADAPTERS

Specialty Metric

Gear and pulley pullers – Ideal for pulling many small parts having tapped holes. The Nos. 7392 and 7393 may be used with the No. 1122 pulling attachment to remove bearings, etc. Pullers include two hex head cap screws, $\frac{3}{8}$ " – 16 NC x 3" long. Spread: $1\frac{1}{2}$ "– $4\frac{1}{4}$ ". Width of puller block is $4\frac{7}{8}$ ". Cap screws are not included with the No. 522, but any cap screws up to $\frac{1}{2}$ " diameter may be used. No. 522 spread, when used with $\frac{1}{2}$ " dia. cap screws, is 2"– $7\frac{3}{4}$ ". Width of the No. 522 puller block is $8\frac{1}{4}$ ".



No. 7392 – Puller with $\frac{5}{8}$ "-18 x 13" long screw. Wt., 2 lbs.

No. 7393 – Puller with $\frac{5}{8}$ "-18 x $5\frac{1}{2}$ " long screw. Wt., 1.5 lbs.

No. 522 – Puller with $\frac{3}{4}$ "-16 x $11\frac{5}{8}$ " long screw. Wt., 4.3 lbs.

4-in-1 puller set – You can quickly assemble a 2- or 3-jaw puller with standard or long reach jaws.

No. PA7 – Four-In-One puller set, 7 ton capacity. Standard jaw max. reach is 5". Maximum spread is $10\frac{1}{2}$ ". Long jaw maximum reach is $8\frac{3}{4}$ ". Maximum spread is 11". Wt., 10.8 lbs.

Flange type puller – Slotted holes in puller body permit cap screws to be positioned to handle bolt-circle diameters from $1\frac{1}{2}$ " to $4\frac{5}{8}$ ".

No. 518 – Flange type puller. Includes 3 cap screws, $\frac{3}{8}$ " – 24 NF x 3" long and 3 cap screws $\frac{3}{8}$ " – 16 NC x 3" long. Forcing screw is $\frac{5}{8}$ "-18 x 5" long. Wt., 3.4 lbs.

Metric adapters – Add metric capability to your Push-Puller® legs or forcing screws! Four separate metric kits available with a variety of sizes for your Push-Puller® legs or forcing screws! Each packaged in a convenient plastic organizer case.



Order No.	Kit Contents	Female End	Male End	Length	Order No.	Kit Contents	Female End	Male End	Length
No. 8110 Male Metric Wt., 3 lbs.	8111	$\frac{5}{8}$ "-18	M6 x 1.0	$2\frac{1}{4}$ "	No. 8120 Male Metric Wt., 3 lbs.	8121	$\frac{5}{8}$ "-18	M14 x 1.5	$2\frac{1}{4}$ "
	8112	$\frac{5}{8}$ "-18	M8 x 1.0	$2\frac{1}{4}$ "		8122	$\frac{5}{8}$ "-18	M14 x 2.0	$2\frac{1}{4}$ "
	8113	$\frac{5}{8}$ "-18	M8 x 1.25	$2\frac{1}{4}$ "		8123	$\frac{5}{8}$ "-18	M16 x 1.5	$2\frac{3}{4}$ "
	8114	$\frac{5}{8}$ "-18	M10 x 1.25	$2\frac{1}{4}$ "		8124	$\frac{5}{8}$ "-18	M16 x 2.0	$2\frac{3}{4}$ "
	8115	$\frac{5}{8}$ "-18	M10 x 1.50	$2\frac{1}{4}$ "		8125	$\frac{5}{8}$ "-18	M20 x 1.5	$2\frac{3}{4}$ "
	8116	$\frac{5}{8}$ "-18	M12 x 1.25	$2\frac{1}{4}$ "		8126	$\frac{5}{8}$ "-18	M20 x 2.5	$2\frac{3}{4}$ "
	8117	$\frac{5}{8}$ "-18	M12 x 1.75	2"					

Note: The adapters in each of these sets are also available separately.

Female threaded adapters - Use these adapters on the ends of Push-Puller® forcing screws, legs, or slide hammers in the removal and installation of shafts, axles, and housings.

Set No. 8044 – consists of a set of 6 adapters (Nos. 8037-8042)



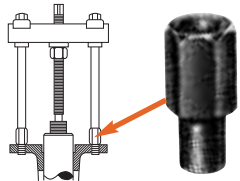
Order No.	Female End "A"	Female End "B"	Order No.	Female End "A"	Female End "B"
8035*	$\frac{1}{2}$ "-20	$\frac{5}{8}$ "-18	8040	$\frac{5}{8}$ "-18	1"-14
8036*	1"-14	1"-14	8041	$\frac{5}{8}$ "-18	$1\frac{1}{8}$ "-12
8037	$\frac{5}{8}$ "-18	$\frac{5}{8}$ "-18	8042	$\frac{5}{8}$ "-18	$1\frac{1}{4}$ "-12
8038	$\frac{5}{8}$ "-18	$\frac{3}{4}$ "-16	8043*	$\frac{5}{8}$ "-18	$1\frac{1}{2}$ "-12
8039	$\frac{5}{8}$ "-18	$\frac{7}{8}$ "-14			

Note: All adapters available separately.

*Not included in set No. 8044. Order separately.

Male-female threaded adapters – These adapters are used on ends of Push-Puller® legs, with forcing screws or slide hammers to assist in pulling shafts, bearing caps, pinions, and many other parts.

Order No.	Female End	Male End	Length	Order No.	Female End	Male End	Length
8000	5/8"-18	1/4"-20	2 1/4"	8015	5/8"-18	3/4"-10	2 1/4"
8001	5/8"-18	5/16"-18	2 1/4"	8016	1"-14	3/4"-10	2 1/2"
8002	5/8"-18	7/16"-14	2 1/4"	8017	5/8"-18	7/8"-14	2 1/4"
8003	5/8"-18	7/16"-20	2 1/4"	8018	5/8"-18	7/8"-9	2 1/4"
8004	5/8"-18	3/8"-24	2 1/4"	8019	5/8"-18	1"-14	2 1/4"
8005	5/8"-18	3/8"-16	2 1/4"	8020	1"-8	5/8"-18	3"
8006	5/8"-18	1/2"-20	2 1/4"	8021	1"-8	1"-14	3"
8007	5/8"-18	1/2"-13	2 1/4"	8022	5/8"-18	1/8" pipe	2 1/4"
8008	5/8"-18	9/16"-18	2 1/4"	8023	1 1/4"-12	1"-14	4 1/2"
8009	5/8"-18	9/16"-12	2 1/4"	8024	1 1/4"-12	1 3/4"-12	4 1/2"
8010	5/8"-18	5/8"-11	2 1/4"	8025	1 1/4"-7	5/8"-18	4"
8011	1"-14	5/16"-11	2 1/2"	8027	1 1/4"-7	1"-14	4"
8012	1"-14	5/8"-18	3 3/16"	8028	1 5/8"-5 1/2	1"-8	4"
8013	5/8"-18	3/4"-16	2 1/4"	8029	1 5/8"-5 1/2	1"-14	4"
8014	1"-14	3/4"-16	2 1/2"				



Fed. Spec.: GGG-P-00781-D

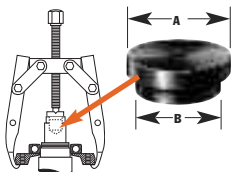
Note: Nos. 8000–8029 – each sold individually.

Step plate adapter sets – Power Team step plate adapters are necessary for pulling and installing bearings, gears, or other parts on hollow shafts or housings. Puller screw forces against step plate adapter, as shown at right. May be used with Power Team jaw-type pullers, Push-Pullers® and shop presses.

Set No. 8075 – set of 11 adapters (Nos. 8057-8067).

Set No. 8076 – set of 6 adapters (Nos. 8068-8073).

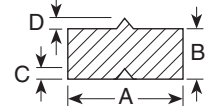
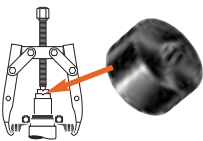
Order No.	Set No. 8075		Order No.	Set No. 8075		Order No.	Set No. 8076	
	Dia. "A" (in.)	Dia. "B" (in.)		Dia. "A" (in.)	Dia. "B" (in.)		Dia. "A" (in.)	Dia. "B" (in.)
8057	1	3/4	8063	1 7/8	1 5/8	8068	2 5/8	2 1/8
8058	1 1/8	7/8	8064	2	1 5/8	8069	2 3/4	2 1/4
8059	1 1/4	1	8065	2 1/8	1 3/4	8070	2 7/8	2 3/8
8060	1 3/8	1 1/8	8066	2 3/8	1 7/8	8071	3	2 1/2
8061	1 5/8	1 1/4	8067	2 1/2	2	8072	3 1/4	2 3/4
8062	1 3/4	1 3/8				8073	3 1/2	3



Shaft protector set -- Power Team shaft protectors are designed to protect shaft centers from distortion when extreme pressures are applied with jaw-type pullers or Push-Pullers®. Shaft protectors are inserted between the end of the puller screw and the shaft.

Set No. 8056 – Set of 6 shaft protectors (Nos. 8050 thru 8055).

Order No.	"A" (in.)	"B" (in.)	"C" (60°) (in.)	"D" (60°) (in.)	Order No.	"A" (in.)	"B" (in.)	"C" (60°) (in.)	"D" (60°) (in.)
8050	1 1/2	3/4	3/8	7/16	8053	3/4	3/4	1/4	1/4
8051	1 1/4	3/4	3/8	3/8	8054	5/8	5/8	3/4	1/4
8052	1	3/4	3/8	5/16	8055	5/8	5/8	3/16	3/16



CAUTION: All the items shown may not withstand the full tonnage of the pullers they may be used with. Refer to page 195.

PULLER SETS

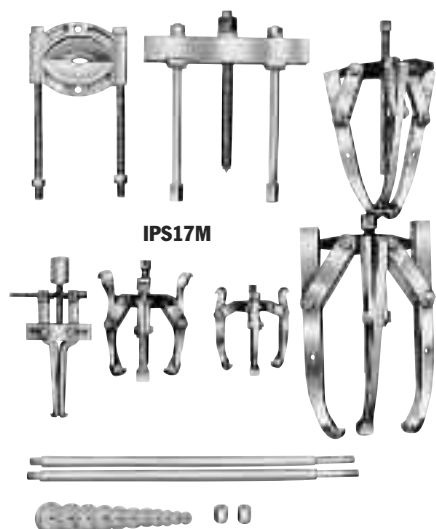
Manual

10 & 17¹/₂ Ton

10 ton manual puller set – This puller set is just what you need for removing gears, bearings, etc. Includes pullers, attachments, and many accessories.



IPS10M



IPS17M

17¹/₂ ton manual puller set – The pullers and accessories in this set can be used for hundreds of applications including quick and easy maintenance involving removal and replacement of press-fit parts.



Manual Puller Set No. Order No.	Set Contents		Set Accessories	
	Contents	Pullers	Contents	Accessories
IPS10M 10 ton capacity Wt., 53 lbs.	927	10 ton capacity Push-Puller® with 6 ³ / ₄ " legs	8075	Step plate adapter set
	1023	2 ton combination 2/3-jaw puller	8044	Female threaded adapter set
	1026	5 ton combination 2/3-jaw puller	8035	Female threaded adapter: ½"-20 x ¾"-18
	1027	5 ton combination 2/3-jaw puller	1151	Bearing cup pulling attachment
	1037	7 ton combination 2/3-jaw puller	1121	Bearing pulling attachment
	1178	Slide hammer set	1122	Bearing pulling attachment
IPS17M 17 ¹ / ₂ ton capacity Wt., 116 lbs.	938	17 ¹ / ₂ ton capacity Push-Puller® with 9 ¹ / ₂ " legs	1123	Bearing pulling attachment
	1027	5 ton combo 2/3-jaw puller, with long jaws	1101	15 ¹ / ₂ " long puller legs for 927 (pr.)
	1037	7 ton combination 2/3-jaw puller	8075	Step plate adapter set
	1041	13 ton combination 2/3 jaw puller	1105	22 ¹ / ₂ " legs for 938
	1045	17 ¹ / ₂ ton 3-jaw puller	1130	Bearing pulling attachment
		1151	Bearing cup pulling attachment	
		8038	Female adapter: 5/8"-18 F. x 3/4"-16 F. (2)	

PROTECTIVE BLANKETS

and Security Chests

PB1230C



Power Team protective blanket – Our blankets are designed to contain broken or flying parts from the most extreme forces, thus resulting in a much safer work environment.

Testing results – In our lab, this style of blanket held the parts of a necked-down grade 8 bolt, which shattered in a 100 ton center-hole hydraulic cylinder. The blanket sustained no visible damage when shot with a force and impact that shattered safety glasses!

- Made of see-through, high-tensile, tear resistant material.
- Effectively contain broken or flying parts from the most extreme pulling, pressing, pushing or stressing forces.
- Ideal for use with pullers and forcing presses.

PROTECT YOURSELF AND YOUR EQUIPMENT.

- Unlike rigid, fixed guards, these blankets can be wrapped and strapped around a job.
- The clear protective blankets allow you to visually monitor the job from start to finish.
- Protective blankets come in a carrying/storage pouch to reduce aging caused by prolonged exposure to light.

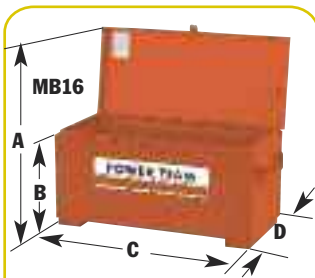
Order No.	Size (in.)	Number of Straps	Wt. (lbs.)
PB1230C	12 x 30	2	2.8
PB2036C	20 x 36	2	4.2
PB2860C	28 x 60	3	9.3
PB3372C	33 x 72	3	11.7
PB44120C	44 x 120	4	24.2
PB51156C	51 x 156	4	34.4





Note: Custom sizes are available on a special order basis. Please consult factory.

Job-site and maintenance security chests – Protect your valuable tools and equipment from theft and weather. When the day's work is finished, you want to rest assured that your tools

and equipment will be present the next day. In these times, security is a real concern. These rugged, lockable chests are the answer that many of our customers have been asking for.



- Rugged, 16 gauge steel construction with fully arc welded seams for extra strength and weather protection.
- Full length piano hinges, mating cover to body, protect against weather and theft.
- Single or double latch security tabs for padlocks.
- Mechanical cover supports, two 2¹/₄" high skids.
- Fold-down 3/4" pipe handles on each end of chest.
- Pre-drilled for optional casters, which enhance mobility.
- Durable baked enamel finish.

Order No.	Dimensions				Storage		Optional Caster Wheels
	A (in.)	B (in.)	C (in.)	D (in.)	Cap. (cu. ft.)	Wt. (lbs.)	
MB5	34 ³ / ₄	14	32	19	5	66	No. 251646 – Set of four 4" casters (two swivel and two rigid). Furnished with mounting screws. Wt., 12.5 lbs. 
MB8	39 ³ / ₄	19	42	19	8.8	90	
MB16	49 ³ / ₄	24	48	24	16	126	No. 251647 – Set of four 6" casters (two swivel and two rigid). Furnished with mounting screws. Wt., 15.3 lbs. 

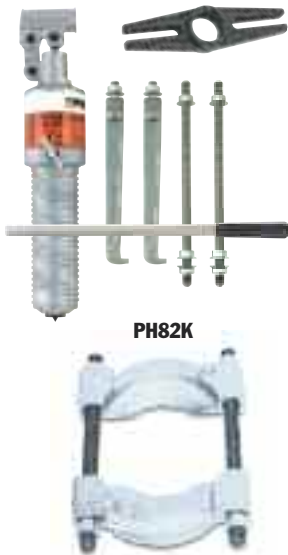


HYDRA GRIP-O-MATIC®

Use with

2 & 3 Jaw Pullers

6, 8, 11 & 30 Ton



PH82K



PH303C

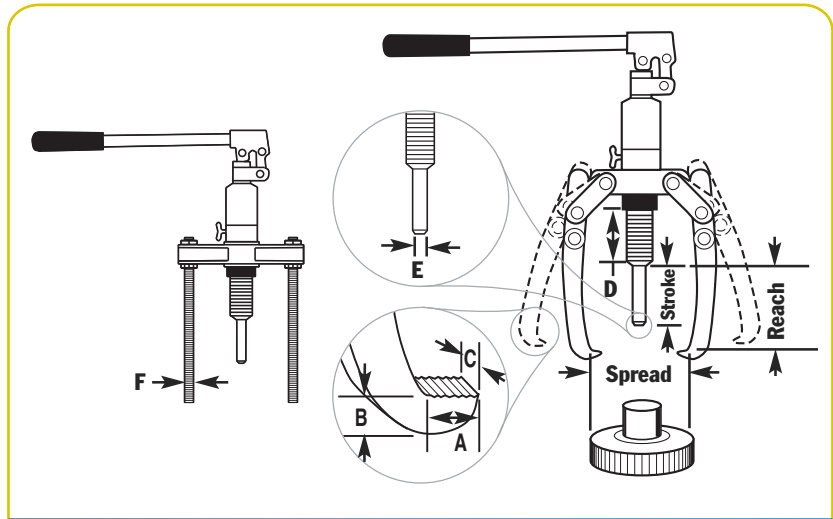
PH63C

- You get the world's most copied puller design; the harder the pulling force, the tighter the jaws grip for secure holding force.
- Power Team pullers are tested for top performance and reliability at maximum capacity and jaw spread.
- Removing a wide variety of gears, bearings, bushings, pulleys and other press-fitted parts becomes a routine task.
- Easily metered release valve control knob.
- Spring loaded live centering cone.
- Bladder type oil reservoir.
- Rapid adjustment.
- Use with 2 or 3 jaws.
- Supplied with a sturdy storage/ carrying case.
- Features Power Team's exclusive Marathon Limited Lifetime Warranty

Hydra Grip-O-Matic® pulling system - These pullers are ideal for pulling a wide variety of press-fitted parts including bushings, bearings, wheels, gears and pulleys. Grip-O-Matic® pullers have been rigorously tested for top performance and reliability. PH82K is a complete pulling system which includes a hydraulic power module, 2-way puller head, jaws, legs and bearing splitter attachment; all contained in a convenient carrying case.



HST11S



Cyl. Cap. (tons)	Order No.	Reach		Min. Reach (in.)	Max. Studs (in.)	Spread Jaws (in.)	Stroke (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Wt. (lbs.)
		Studs (in.)	Jaws (in.)											
6	PH63C	—	6	—	—	7 ⁷ / ₈	3 ¹ / ₈	7 ⁷ / ₁₆	1 ¹ / ₄	7 ⁷ / ₈	3 ¹ / ₄	7 ⁷ / ₈	—	10.8
8	PH83C	—	7 ¹ / ₂	—	—	9 ¹³ / ₁₆	3 ¹ / ₈	7 ⁷ / ₁₆	3 ³ / ₈	1	3 ¹ / ₄	1 ¹ / ₈	—	14.5
11	PH113C	—	9	—	—	11	3 ¹ / ₈	9 ⁹ / ₁₆	3 ³ / ₈	1 ¹ / ₈	3 ¹ / ₄	1 ¹ / ₈	—	17.6
30	PH303C	10 ¹ / ₂	14 ³ / ₄	—	—	21 ¹ / ₄	4 ¹ / ₄	1 ¹ / ₁₆	1 ⁷ / ₁₆	1 ¹ / ₂	6 ¹¹ / ₁₆	2 ¹ / ₈	5 ⁵ / ₈ -18 UNF	71.2
8	PH82K	10 ¹ / ₂	8 ⁵ / ₃₂	4 ²⁹ / ₃₂	11 ⁵¹ / ₆₄	9 ²¹ / ₃₂	3 ¹ / ₈	2 ³ / ₆₄	1	5 ⁵ / ₈	3 ¹ / ₄	7 ⁷ / ₈	5 ⁵ / ₈ -18 UNF	35
11	HST11S*	—	5 ²⁹ / ₃₂	—	—	16 ¹ / ₈	3 ¹ / ₈	—	—	—	3 ¹ / ₄	7 ⁷ / ₈	—	32

* (Max bar size 2.3622" or 60 mm)



K82



Hydra Grip-O-Matic® puller accessory kits

K82 accessory kit for the Hydra-Grip-O-Matic® puller No. PH83C. Includes 2-way puller head, 2 jaws, 2 threaded legs and sturdy carrying/storage case.

No. K83 – Accessory kit for PH83C Grip-O-Matic® hydraulic puller. K83 2/3 way head accessories kit for a Hydra Grip-O-Matic® puller No. PH83C. Includes 2/3 way puller head, 3 jaws, 3 threaded legs (5/8-18 thread) and sturdy carrying/ storage case. Also can be used with 1123, 1124, 1130 pulling attachments.



K83



Puller Accessory converts PH113C into a Hydraulic Straightening Tool –

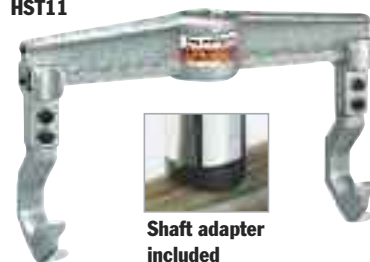
Portable...Good for straightening mechanical shafts, round bars, etc. Simply remove pump and cylinder from puller head and insert them into the straightening tool accessory. This product is widely used in steel mills, wire roll companies, wire extruding companies, textile industry, and any straightening situation where portability and power are required. Contoured heat-treated shaft adapter included.

No. HST11 – Spread: 3¹/₂" to 16¹/₈", Reach: 5²⁹/₃₂". Wt., 21 lbs.

Long jaw set for PH83C and PH113C Grip-O-Matic® pullers – This long jaw set is the perfect addition to the PH83C or PH113C Grip-O-Matic® hydraulic pullers. The extra long jaws give you the added capability of pulling a wider variety of parts. Jaw capacity is 8 tons when used with the PH83C puller; 15 tons when used with the PH113C puller.

No. 1188 – Spread: 11" to 12¹/₂", Reach: 12¹/₂".

HST11



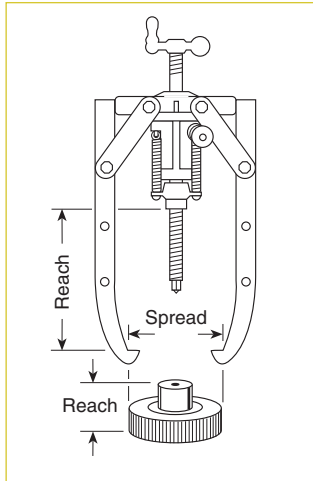
Shaft adapter included



PULLERS

Hydraulic

5, 10, 17 1/2, 30 & 50 Ton



5 ton capacity, 2/3 jaw puller –

No. PH53C – Combination 2-jaw/3-jaw puller set. Includes 1057 5 ton puller, RPS55 hydraulic set (C55C cylinder, P12 10,000 psi hand pump, fittings, coupler, and 6 ft. hose), and 309874 pushing adapter. Wt., 20 lbs.

No. PH53CR – Combination 2-jaw/3-jaw puller set. Includes 1057 5 ton puller, C55C cylinder, and 309874 pushing adapter. Wt., 12 lbs.

No. 1057 – 5 ton cap. 2-jaw/3-jaw puller only. Wt., 7.8 lbs.

- Remove gears, bearings, and other press-fitted parts with speed and ease.
- Broad capacity range of 5, 10, 17 1/2, 30 and 50 tons.
- 5 and 10 ton sets include: single-acting, spring return hydraulic cylinder with hose, coupler and dust cap; single-speed hydraulic hand pump; puller.
- 17 1/2, 30 and 50 tons sets include: Power-Twin® single acting, spring return hydraulic cylinder with hose, coupler and dust cap; single-speed hydraulic hand pump; puller, adjusting screw and crank.
- Hydraulic cylinder of all models is readily removable from puller for use with pump in other hydraulic applications. You get maximum maintenance versatility for your investment.

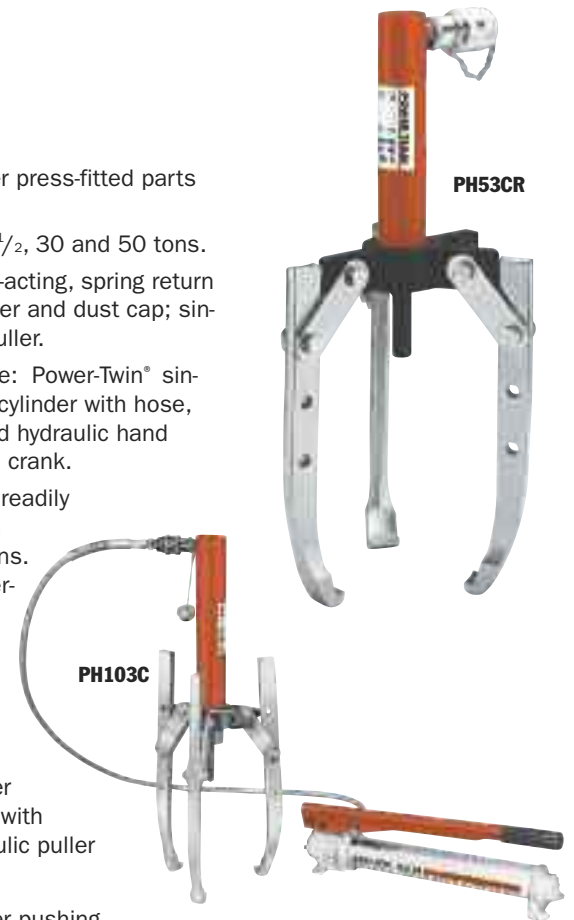
Fed. Spec.: GGG-P-00781-D

Available components -

No. 309874 – 5/8" diameter pushing adapter. (Included with PH53C and PH53CR hydraulic puller sets.) Wt., 3 lb.

No. 309875 – 7/8" diameter pushing adapter. Wt., .8 lb.

No. 47997 – 2-way/3-way puller head. (Can be used to convert No. 1038 7 ton manual puller into a 5 ton hydraulic puller.) Wt., 2.3 lbs.



10 ton capacity, 2/3 jaw puller -

No. PH103C – Combination 2-jaw/3-jaw puller; 10 ton capacity. Set includes 1060 10 ton puller, RPS1010 cylinder and pump set, 202179 threaded adapter, and 34602 pushing adapter. Wt., 52 lbs.

No. PH103CR – Combination 2-jaw/3-jaw puller, 10 ton capacity. Set includes 1060 10 ton puller, 202179 threaded adapter, 34602 pushing adapter, and C1010C cylinder only. (Pump and hose not included.) Wt., 32 lbs.

No. 1060 – Combination 2-jaw/3-jaw puller only; 10 ton capacity. (Cylinder and pump set, hose, coupler, and adapter No. 202179 not included.) Wt., 17 lbs.

NOTE: This puller may be used with any 10 ton single-acting cylinder having a 2 1/4"-14 straight collar thread.





17½ ton capacity, 2-jaw puller –

No. PH172 – 2-jaw puller with RT172 center-hole Power-Twin® cylinder, cylinder half coupler, P55 pump, 6-ft. hose, hose half coupler, 1"– 8 x 20" long adjusting screw, and adjusting crank. Wt., 61 lbs.

No. 1064 – Puller only. (Cylinder, pump, hose, coupler, screw, and crank not included). Wt., 22 lbs.

17½ ton capacity, 3-jaw puller –

No. PH173 – 3-jaw puller with RT172 center-hole Power-Twin® cylinder, cylinder half coupler, P55 pump, 6-ft. hose, hose half coupler, 1"– 8 x 20" long adjusting screw, and adjusting crank. Wt., 75 lbs.

No. PH173R – 3-jaw puller with screw and crank, and RT172 center-hole twin cylinder. Wt., 56 lbs.

No. 1066 – Puller only. (Cylinder, pump, hose, coupler, screw, and crank not included). Wt., 36 lbs.

30 ton capacity, 3-jaw puller –

No. PH303 – 3-jaw puller with RT302 center-hole Power-Twin® cylinder, cylinder half coupler, P55 pump, 6-ft. hose, hose half coupler, 1¼"– 7 x 24" lg. adjusting screw, and adjusting crank. Wt., 149 lbs.

No. PH303R – 3-jaw puller with screw and crank, and RT302 center-hole twin cylinder. Wt., 130 lbs.

No. 1074 – Puller only. (Cylinder, pump, hose, coupler, screw, and crank not included). Wt., 90 lbs.

50 ton capacity, 3-jaw puller –

No. PH503 – 3-jaw puller with RT503 center-hole Power-Twin® cylinder, cylinder half coupler, P55 pump, 6-ft. hose, hose half coupler, 1⅝"– 5½ x 30⅜" long adjusting screw, and adjusting crank. Wt., 286 lbs.

No. 1080 – 3-jaw puller only. (Cylinder, pump, hose, coupler, screw, and crank not included). Wt., 191 lbs.

PULLER ONLY

Order No.	Cap. (Tons)	Jaws	Jaw Reach (in.)	Jaw Spread (in.)	Jaw Thickness (in.)	Jaw Width (in.)	Wt. (lbs.)
1057	5	2/3	8¾	11½	11/32	63/64	7.8
1060	10	2/3	15	17	9/16	63/64	17
1064	17½	2	11½	16	13/16	19/32	22
1066	17½	3	11½	20	13/16	19/32	36
1074	30	3	19⅞	34	1⅛	1⅝	90
1080	50	3	27⅝	44	1⅜	1⅞	191

CAUTION: Always use a 3-jaw puller where clearance permits in order to provide a more stable setup and a more even pulling force.



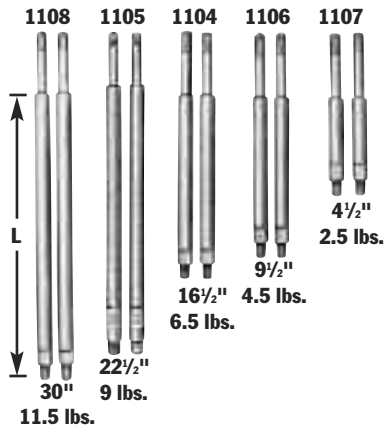
PUSH-PULLERS®

Hydraulic

17½, 30-50 Ton

The power to make impossible jobs become routine.

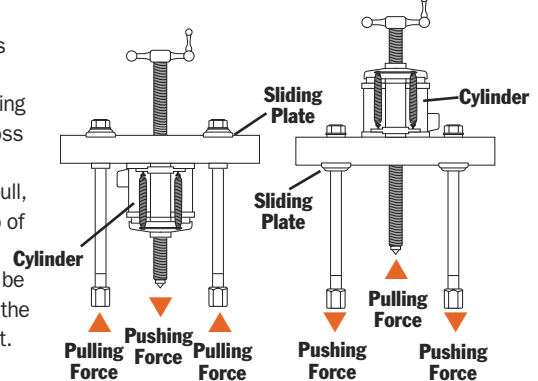
- Can apply a hydraulic pushing or pulling force, depending on how the puller is set up.
- Each unit includes perfectly matched hydraulic components that can be detached from the Push-Puller® for other tasks requiring dependable Power Team power; assuring maximum return on your investment.
- Optional leg kits adapt your Push-Puller® to extra long or extra short reach.
- A wide variety of threaded adapters, bearing pulling attachments and internal pulling attachments can be used in combination with our Push-Pullers®.



NOTE: L = leg length: 4½", 9½", 16½", 22½", 30"; subtract 4⅞" from leg length to determine reach when using leg end caps.

ASSEMBLING THE TOOL TO APPLY PUSHING OR PULLING FORCE:

1. Determine if you want the tool's forcing screw to push or pull.
2. To exert pushing force, the forcing nut is installed beneath the cross block, as shown on left.
3. To cause the forcing screw to pull, the forcing nut is placed on top of the cross block.
4. The sliding plates must always be placed on the opposite side of the cross block from the forcing nut.



Selection and capacity rating – Each Push-Puller's specified tonnage "capacity" is determined using its standard legs in tension. Using longer legs, or a setup in which the legs are in compression, will reduce the "capacity". Always select the largest "capacity" puller and the shortest legs that will fit the job.

Power Twin® cylinder – This unique center-hole cylinder powers each Push-Puller®. Puller screw runs right between the twin spring cylinder. A basic head allows you to change from a tapped hole to a plain hole by merely changing the head insert.

17½ ton capacity Push-Puller® –

No. PPH17 – Push-Puller® with RT172 center-hole Power Twin® cylinder, cylinder half coupler, P55 pump, 9767 6-ft. hose, 9798 hose half coupler, 16½" legs, 24827 leg ends, 1"-8 x 20" lg. adjusting screw and adjusting crank. Wt., 59 lbs.

No. PPH17R – Same as above, but without P55 pump, 9767 6-ft. hose and 9798 hose half coupler. Wt., 40 lbs.

No. 1062 – Puller only. (Cylinder, pump, hose, coupler, screw and crank not included.) Wt., 20 lbs.

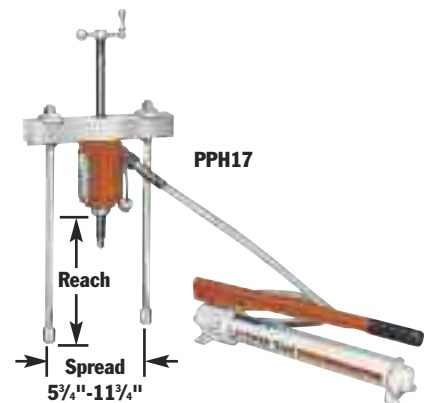
USE WITH:

Bearing pulling attachments: **Nos. 1124 and 1130.**

Pulley pulling attachment: **No. 679.**

Internal pulling attachment: **No. 1154.**

Legs: **Nos. 1104, 1105, 1106, 1107 and 1108** - Pair of legs for 17½-ton "capacity" Push-Puller®.



Leg Ends – Upper leg ends are threaded ¾"-16. Lower leg ends are threaded ⅝"-18" lg.

30 ton capacity Push-Puller® -

No. PPH30 – Push-Puller® with RT302 center-hole Power Twin® cylinder, cylinder half coupler, P55 pump, 9767 6-ft. hose, 9798 hose half coupler, 18" legs, 28390 leg ends, 1¹/₄"-7 x 24" lg. adjusting screw and adjusting crank. Wt., 102 lbs.

No. PPH30R – Same as above, but without P55 pump, 9767 6-ft. hose and 9798 hose half coupler. Wt., 82 lbs.

No. 1070 – Puller only. (Cylinder, pump, hose, coupler, screw and crank not included.) Wt., 42 lbs.

USE WITH:

Bearing pulling attachments. **No. 680** (Use two 8012 adapters to connect to puller.)

Pulley pulling attachment: **No. 679.**

Internal pulling attachment: **No. 1166.**

Legs: **Nos. 1109, 1110 and 1111** - Pair of legs for 30 ton "capacity" Push-Puller®.

50 ton capacity Push-Puller® -

No. PPH50 – Push-Puller® with RT503 center-hole Power Twin® cylinder, cylinder half coupler, P55 pump, 9767 6-ft. hose, 9798 hose half coupler, 24" legs, 1⁵/₈"-5¹/₂ x 30³/₈" lg. adjusting screw and adjusting crank. Wt., 201 lbs.

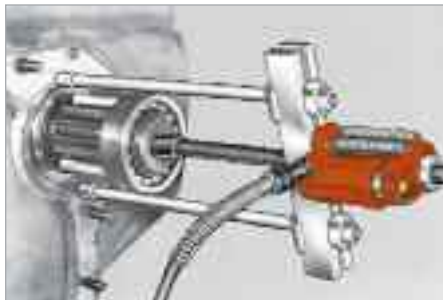
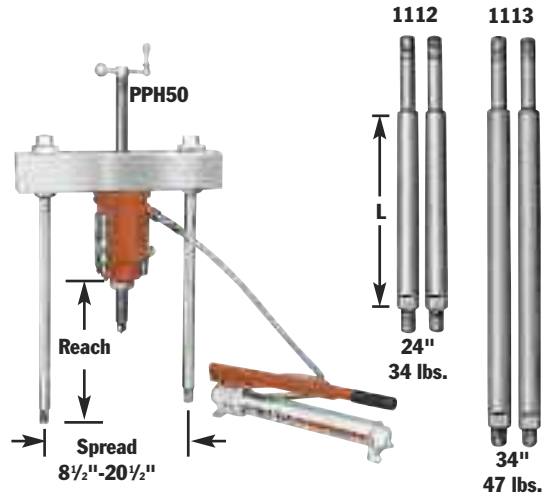
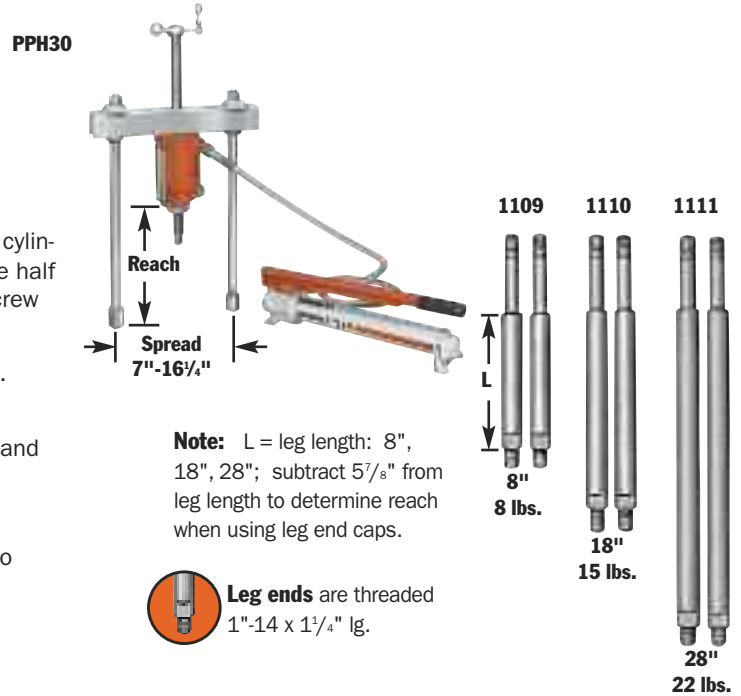
No. PPH50R – Same as above, but without P55 pump, 9767 6-ft. hose and 9798 hose half coupler. Wt., 181 lbs.

No. 1076 – Puller only. (Cylinder, pump, hose, coupler, screw and crank not included.) Wt., 106 lbs.

USE WITH:

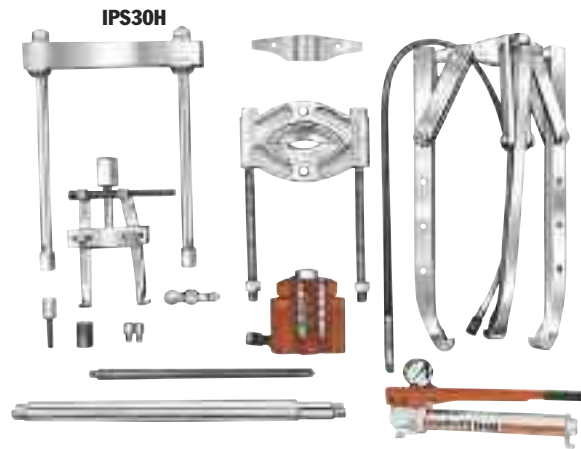
Bearing pulling attachments: **Nos. 1128 and 1129.**

Legs: **Nos. 1112 and 1113** - Pair of legs for 50 ton "capacity" Push-Puller®.



30 ton capacity puller set – Just what you need for those big jobs. Not only do you get a 30 ton hydraulic Push-Puller®, you also get a 2-jaw and 3-jaw hydraulic puller. Plus, many popular accessories and the hardware to tackle the big jobs right away.

No. IPS30H – 30 ton capacity hydraulic maintenance puller set. Includes hydraulics, pullers, wooden storage box and accessories listed below. Wt., 330 lbs.

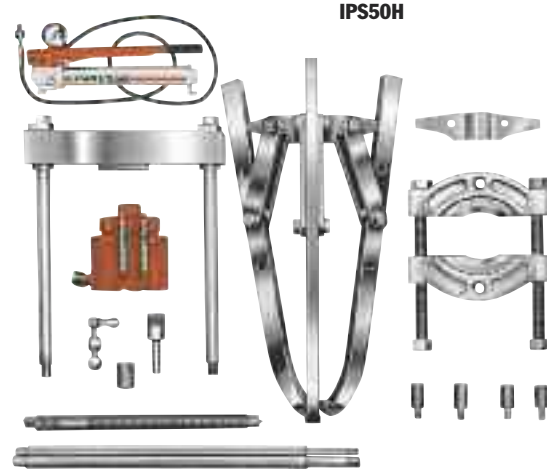


Note: Wooden storage box No. 3084380R9 is provided with the sets listed on this page. 40"L x 16"H x 16"D Metal storage boxes also available (see page 209).

Set Contents	Hydraulics	Set Contents	Pullers
P55	Single-stage hydraulic hand pump assembly	1074	30 ton, 3-jaw hyd. puller
RT302	30 ton cylinder with threaded insert	41226	2-way head for 1074
9798	Hose half coupler	1070	30 ton cap. hydraulic Push-Puller® with 18" legs
9767	Hydraulic hose – 6'	1111	28" legs for 1070
9670	Tee adapter	27198	Speed crank
9059	Pressure gauge	28229	Screw cap
Accessories		34510	Pushing adapter
8036	Female threaded adapters 1" – 14F. x 1" – 14F. (2)	34758	Adjusting screw
1166	Bearing cup pulling attach.		
1127	Bearing pulling attachment		

50 ton capacity puller set - For those really big jobs, this 50 ton puller set is what you need. Just think of the jobs you can do with a 50 ton hydraulic Push-Puller®, a 2-jaw and a 3-jaw puller, both with a 50 ton capacity. Of course, you also get many versatile accessories and attachments.

No. IPS50H – 50 ton capacity hydraulic maintenance puller set. Includes hydraulics, pullers, wooden storage box and accessories listed below. Wt., 576 lbs.



CAUTION: All the items shown may not withstand the full tonnage specified. Example: When an accessory with a 1 ton capacity is used with a 7 ton puller, the setup can be used only at a force of 1 ton.

Order No.	Hydraulics	Order No.	Pullers
P55	Single-stage hydraulic hand pump assembly	1080	50 ton, 3-jaw hyd. puller
RT503	50 ton cylinder with threaded insert	50449	2-way head for 1080
9798	Hose half coupler	1076	50 ton cap. hydraulic Push-Puller® with 24" legs
9767	Hydraulic hose – 6'	1113	34" legs for 1076
9670	Tee adapter	29595	Speed crank
9059	Pressure gauge	28230	Screw cap
Threaded Adapters		34755	Pushing adapter
8024	1 1/4" – 12F. x 1 3/4" – 12M. (2)	32698	Adjusting screw
Accessories			
8028	1 5/8" – 5 1/2 F. x 1" – 8M.	1128	Bearing pulling attachment
8029	1 5/8" – 5 1/2 F. x 1" – 14M.		



PULLER SETS

Hydraulic

17 1/2 & 30 Ton
17 1/2 & 50 Ton



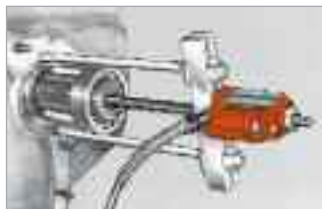
Note: Wooden storage box No. 3084360R9 is provided with this set.
40"L x 17"H x 24"D
Metal storage boxes also available (see page 209).



2-jaw puller reaches through spokes of gear to grip hub. Hand pump supplies hydraulic power.



Flexible coupler is removed from electric motor shaft with 2-jaw puller.



Typical setup for removing sprocket drive pinion shaft. Puller screw is attached to shaft by threaded adapter. Shaft is now ready to be pulled out hydraulically.



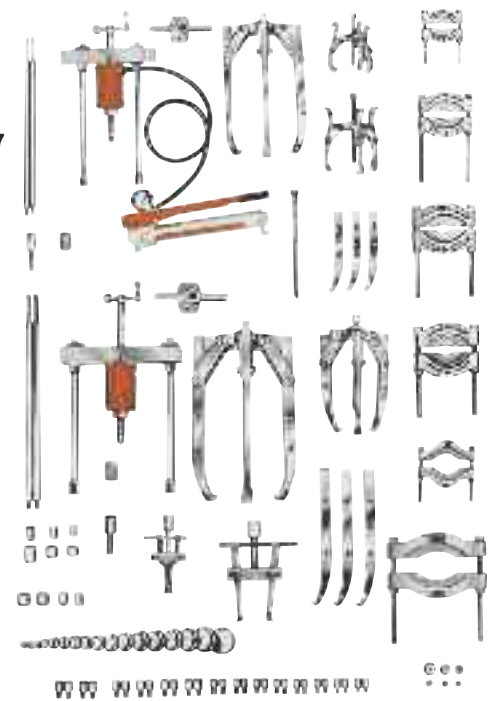
IPS3017

17 1/2 and 30 ton capacity puller sets

– These heavy-duty maintenance sets will more than pay for themselves, especially in saving you costly damage to parts. This set lets you tackle hundreds of applications where pushing and pulling are required.

No. IPS3017 – 17 1/2 and 30 ton capacity manual and hydraulic puller set. Includes hydraulics, pullers, and accessories listed below. Wt., 537 lbs.

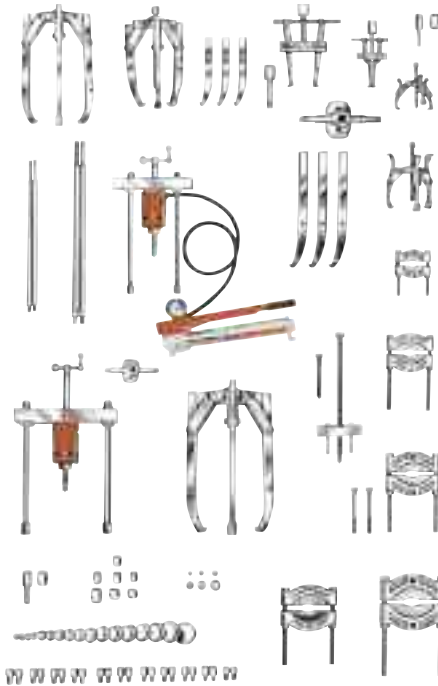
No. IPS3017B – Puller set with MB8 metal box. Wt., 563 lbs.



Order No.	Hydraulics	Order No.	Accessories
P55	Single-stage hyd. hand pump assembly	24832	Special puller forcing screw
RT172	17 1/2 ton center-hole twin cylinder w/ threaded insert	8075	Step plate adapter set
RT302	30 ton center-hole twin cylinder w/ threaded insert	8076	Step plate adapter set
9798	Hose half coupler	8056	Shaft protector set
9767	Hydraulic hose – 6'	679	Pulley pulling attachment
9670	Tee adapter	680	Pulley pulling attachment
9059	Pressure gauge	1154	Bearing cup pulling attach.
Pullers		1166	Bearing cup pulling attach.
1062	17 1/2 ton cap. hydraulic Push-Puller® w/ 16 1/2" legs	1122	Bearing pulling attachment
1070	30 ton cap. hydraulic Push-Puller® w/ 18" legs	1123	Bearing pulling attachment
1066	17 1/2 ton 3-jaw hyd. puller	1126	Bearing pulling attachment
1074	30 ton 3-jaw hyd. puller	1130	Bearing pulling attachment
41224	17 1/2 ton 2-jaw puller head	Threaded Adapters	
41226	30 ton 2-jaw puller head	8005	5/8" – 18 F. x 3/8" – 16 M. (2)
1027	Combination 2/3-jaw puller	8006	5/8" – 18 F. x 1/2" – 20 M. (2)
1037	Combination 2/3-jaw puller	8007	5/8" – 18 F. x 1/2" – 13 M. (2)
1041	Combination 2/3-jaw puller	8010	5/8" – 18 F. x 5/8" – 11 M. (2)
43892	Long jaws (3) for 1037	8012	1" – 14 F. x 5/8" – 18 M. (2)
30902	Long jaws (3) for 1041	8013	5/8" – 18 F. x 3/4" – 16 M. (2)
1105	22 1/2" legs for 1062	8015	5/8" – 18 F. x 3/4" – 10 M. (2)
1111	28" legs for 1070	8017	5/8" – 18 F. x 7/8" – 14 M. (2)
24814	Speed crank	8018	5/8" – 18 F. x 7/8" – 9 M. (2)
27198	Speed crank	8019	5/8" – 18 F. x 1" – 14 M. (2)
28229	Screw cap	8020	1" – 8 F. x 5/8" – 18 M. (1)
28228	Cylinder cap	8021	1" – 8 F. x 1" – 14 M. (1)
32118	Adjusting screw	8025	1 1/4" – 7 F. x 5/8" – 18 M. (2)
34758	Adjusting screw	8027	1 1/4" – 7 F. x 1" – 14 M. (2)
34510	Pushing adapter	8036	1" – 14 F. x 1" – 14 F. (2)
201923	Pushing adapter	8038	5/8" – 18 F. x 3/4" – 16 F. (2)
		8044	Female threaded adapter set

CAUTION: All the items shown may not withstand the full tonnage specified. Example: When an accessory with a 1 ton capacity is used with a 7 ton puller, the setup can be used only at a force of 1 ton.

IPS5017



17½ and 50 ton capacity puller sets – If your looking for a maintenance puller set that will handle a wide variety of applications, this is the one for you. The mechanical and hydraulic pullers and attachments are designed to handle most removing and installing jobs with a minimal amount of effort.

No. IPS5017 – 17½ and 50 ton capacity manual and hydraulic puller set. Includes hydraulics, pullers, wooden storage box and accessories listed below. Wt., 892 lbs.

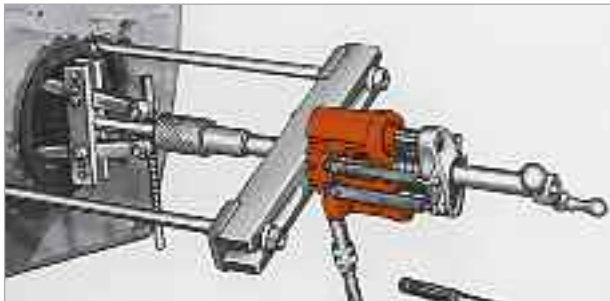
No. IPS5017B – Puller set with MB16 metal box. Wt., 915 lbs.

Order No.	Hydraulics	Order No.	Accessories
P55	Single-stage hyd. hand pump assembly	8075	Step plate adapter set
RT172	17½ ton center-hole twin cylinder w/ threaded insert	8076	Step plate adapter set
RT503	50 ton center-hole twin cylinder w/ threaded insert	8056	Shaft protector set
9798	Hose half coupler	1154	Bearing cup pulling attach.
9767	Hydraulic hose – 6'	1166	Bearing cup pulling attach.
9670	Tee adapter	1122	Bearing pulling attachment
9059	Pressure gauge	1123	Bearing pulling attachment
	Pullers	1126	Bearing pulling attachment
1062	17½ ton cap. hydraulic Push-Puller® w/ 16½" legs	1127	Bearing pulling attachment
1076	50 ton cap. hydraulic Push-Puller® w/ 24" legs	1130	Bearing pulling attachment
1066	17½ ton 3-jaw hyd. puller	34479	Reducing adapter for 1166
1080	50 ton 3-jaw hyd. puller	10215	Hex nut; ¾" – 16 (2)
41224	17½ ton 2-jaw puller head	24829	Short bolt
50449	50 ton 2-jaw puller head		Threaded Adapters
1027	Combination 2/3-jaw puller	8005	⅝" – 18 F. x ⅜" – 16 M. (2)
1037	Combination 2/3-jaw puller	8006	⅝" – 18 F. x ½" – 20 M. (2)
1041	Combination 2/3-jaw puller	8007	⅝" – 18 F. x ½" – 13 M. (2)
43892	Long jaws (3) for 1037	8010	⅝" – 18 F. x ⅝" – 11 M. (2)
30902	Long jaws (3) for 1041	8013	⅝" – 18 F. x ¾" – 16 M. (2)
1105	22½" legs for 1062	8015	⅝" – 18 F. x ¾" – 10 M. (2)
1113	34" legs for 1076	8019	⅝" – 18 F. x 1" – 14 M. (2)
24814	Speed crank	8020	1" – 8 F. x ⅝" – 18 M. (1)
29595	Speed crank	8021	1" – 8 F. x 1" – 14 M. (1)
28228	Screw cap	8023	1¼" – 12 F. x 1" – 14 M. (2)
28230	Cylinder cap	8028	1⅝" – 5½ F. x 1" – 8 M. (1)
32118	Adjusting screw	8029	1⅝" – 5½ F. x 1" – 14 M. (1)
32698	Adjusting screw	8038	⅝" – 18 F. x ¾" – 16 F. (1)
34755	Pushing adapter	8044	Female threaded adapter set
201923	Pushing adapter		
7392	Gear and pulley puller		
24833	Forcing screw for 7392		

CAUTION: All the items shown may not withstand the full tonnage specified. Example: When an accessory with a 1 ton capacity is used with a 7 ton puller, the setup can be used only at a force of 1 ton.



Note: Wooden storage box No. 3084360R9 is provided with this set. 45"L x 22½"H x 30"D
Metal storage boxes also available (see page 209).



Combination of 50 ton capacity Push-Puller and cup pulling attachment simplifies the removal of a final drive axle seal.



Hydraulically powered Push-Puller removes drive wheel. Pulling attachment is used to provide gripping surface.



3-jaw puller provides grip while hydraulic hand pump provides power to push shaft from housing. Shaft protector is used on end of puller screw.



BEARING PUSHERS

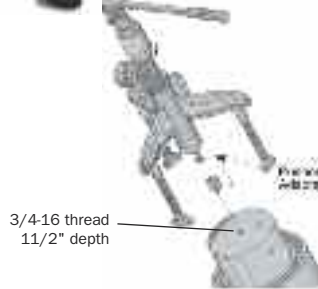
8 Ton

These pushers are ideal for installing a wide variety of press-fit parts, including bushings, wheels, bearings, gears, and pulleys. Applications for the pushers will be found in motor repair shops, steel mills, mines, quarries, shipyards, utilities, maintenance shops, agricultural machinery repair, and the list goes on.

- Power Team, a leader in hydraulic tools for over 80 years, now adds patented, pushing systems to the world's most complete line of innovative equipment.
- Power Team pushers have been rigorously tested for top performance and reliability at maximum capacity.
- These pushing systems are covered by Power Team's exclusive Lifetime Marathon Warranty — assuring you of the highest quality and reliability.



PHP8H



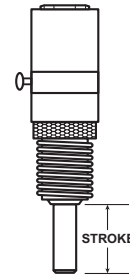
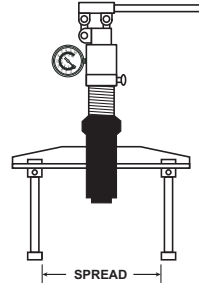
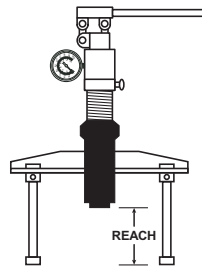
3/4-16 thread
1 1/2" depth



PHP8R

BEARING PUSHER KITS

- Portable pushing kits include an external Grip-O-Matic puller, an internal puller, hydraulic cylinder, and a tri-section pulling attachment, all in one compact, light-weight unit complete with carrying case.



Order No.	Description	Cylinder Capacity	Reach in/mm	Spread in/mm	Stroke	Weight with Case lb/kg
PHP8H	Manual-Hydraulic Pusher	8 tons	2.16-15.16/ 55-385	2.28-10.62/ 58-270	3.23/82	74/33.5
PHP8R	Remote Hydraulic Pusher	8 tons	2.16-15.16/ 55-385	2.28-10.62/ 58-270	3.23/82	77.3/33
PHP8H-1	Manual-Hydraulic Pusher/Puller Kit	8 tons	2.16-15.16/ 55-385	2.28-10.62/ 58-270	3.23/82	117/53
PHP8R-1	Remote Hydraulic Pusher/Puller Kit	8 tons	2.16-15.16/ 55-385	2.28-10.62/ 58-270	3.23/82	114/52

IMPORTANT SAFETY INFORMATION: Power Team recommends the use of protective blankets for all pushing operations. For ease of visual clarity, we have shown the pusher application photos without these safeguards.



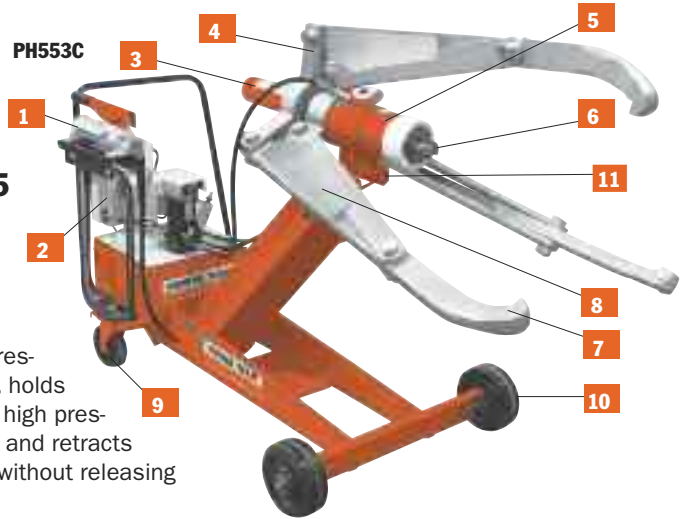
UNIVERSAL

PULLERS

55 Ton & 100 TON



Note: Four cylinder extensions (not pictured) are included. The included lifting eyes (not pictured) permit use of an overhead crane to raise entire assembly.



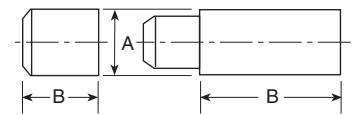
ENFORCER 55

- 1** Hydraulic lift system for easy, precise position of puller.
- 2** Unique dual pump arrangement: Low pressure pump positions, holds and opens jaws. The high pressure pump advances and retracts the pushing cylinder without releasing clamped jaws.
- 3** Hydraulically-actuated jaws. Cylinder moves in or out to provide a safe, secure grip on workpiece.
- 4** Puller can be assembled in 2 or 3 jaw configurations.
- 5** Choice of cylinder with a 6¹/₄" or 13¹/₄" stroke.
- 6** Self-centering: Center cylinder on work; puller jaws will automatically grip work evenly.
- 7** Super Grip-O-Matic® feature means the harder the pull, the tighter the puller jaws grip. No chains or cages required to keep puller jaws from slipping or springing off the part being pulled.
- 8** Guards at pinch points protect operator.
- 9** Cart's swivel casters give ease of mobility.
- 10** Large wheels make movement of cart easy.
- 11** Puller can be mounted on cart 90 degrees to right or left of puller cart centerline, permitting use in tight quarters, such as between machinery.

Conversion kit No. 251468 – Kit converts PH553C series to PH5532CL series. Jaws are 12" longer. Kit contains three jaws and six straps with guards. Wt., 250 lbs.

Pushing Adapters

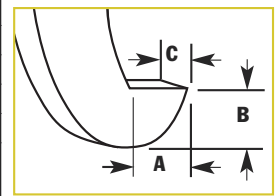
Order No.	A (in.)	B (in.)	Qty.*
251002	2 ³ / ₄	2 ³ / ₄	1
350593	2 ³ / ₄	6	2
350594	2 ³ / ₄	3	1
350637	2 ³ / ₄	10	1



*Number of adapters supplied with each Enforcer.

(251002)

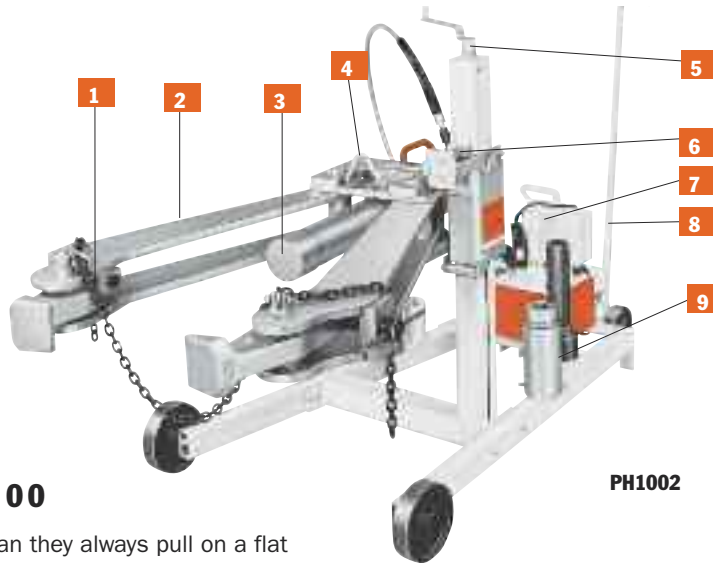
Order No.	Min. Spread (in.)	Reach		Overall Length* (in.)	Cyl. Stroke (in.)	Power Source Requirements	Prod. Wt. (lbs.)	Puller Jaw Tip Dimensions		
		Min. Spread (in.)	Max. Spread (in.)					A (in.)	B (in.)	C (in.)
PH553C	4	22	48	14	90	6 ¹ / ₄	115 V, 60Hz, 25 Amp Cap.	7 ⁷ / ₈	1 ¹ / ₄	1 ⁷ / ₈
PH553C13	4	15	48	7	90	13 ³ / ₄	115V, 60Hz, 25 Amp Cap.			
PH553CL13	2 ¹ / ₂	25 ⁵ / ₈	45 ¹ / ₄	22	102	13 ³ / ₄	115V, 60Hz, 25 Amp Cap.			
PH553C-230	4	22	48	14	90	6 ¹ / ₄	230V, 50/60Hz, 15 Amp Cap.			
PH553C13-230	4	15	48	7	90	13 ³ / ₄	230V, 50/60Hz, 15 Amp Cap.			
PH553CL-230	2 ¹ / ₂	32 ⁵ / ₈	45 ¹ / ₄	29	102	6 ¹ / ₄	230V, 50/60Hz, 15 Amp Cap.			
PH553CL13-230	2 ¹ / ₂	25 ⁵ / ₈	45 ¹ / ₄	22	102	13 ³ / ₄	230V, 50/60Hz, 15 Amp Cap.			



Note: See other pulling attachments on page 201

Note: Cart and Puller (cart width is 32")





ENFORCER 100

PH1002

An ideal puller for steel mills, mines, oil fields, utility projects, paper mills, construction sites, railroads, airline shops, shipyards or anywhere else where large equipment and machinery pose tough maintenance challenges.

- 1** Adjustable jaws mean they always pull on a flat surface. Retaining chain holds jaws in place during positioning.
- 2** Grip-O-Matic® feature means jaws grip progressively tighter as more pulling force is applied.
- 3** 100 ton hydraulic cylinder is single-acting, spring return type with a maximum working pressure of 10,000 psi.
- 4** Lifting bracket allows puller to be lifted if the workpiece center is more than 36" off the floor.
- 5** Adjusting screw allows operator to move vertical position of the puller.
- 6** Spring loaded feature means Enforcer 100 will align itself on uneven pulls.
- 7** Hydraulic pump is a 2-stage, high pressure unit controlled by remote hand switch with 25 foot cord.
- 8** Tow bar provides puller with plenty of mobility.
- 9** Pushing adapters have a diameter of 4¹/₈" and 2¹/₂".

"Enforcer 100" universal puller –

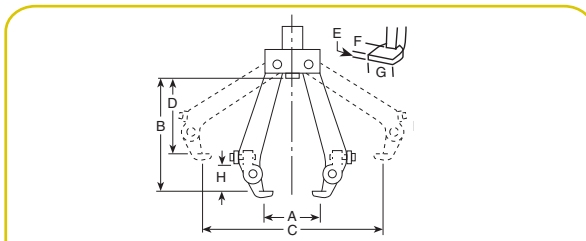
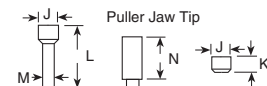
No. PH1002 – 100 ton, 2-jaw universal hydraulic puller. Includes: 2-jaw Grip-O-Matic® puller, PE552S 2-speed electric/hydraulic power unit, C10010C 100 ton hydraulic cylinder with 10¹/₄" stroke and six adapters. Wt., 890 lbs.

No. PH1002J – Same as PH1002, but without hydraulic power unit. Wt., 825 lbs.

PE552S – Pump only. 1¹/₈ hp, 115 volt, 50/60Hz, single phase, draws 25 amps at full load. Also available in 220 volt, 50Hz.

Note: For 220 volt, 50 Hz applications, order Part No. PH1002-220

Ram extensions



Order No.	Adapter Type	Amount included w/puller	J (in.)	K (in.)	L (in.)	M (in.)	N (in.)
44745	Push	1	4 ¹ / ₈	—	13 ³ / ₂	2 ¹ / ₂	—
44766	Ext.	4	4 ¹ / ₈	—	—	—	8
303045	Push	1	4 ¹ / ₈	3 ¹ / ₂	—	—	—

Order No.	Reach			Puller Jaw Tip			Cylinder Height H (in.)	Vertical Stroke Adjust. (in.)	Overall Length (in.)	Max. Thickness Workpiece	Wheel Dia.	Power Source Requirements	
	Min. Spread A (in.)	Min. Spread B (in.)	Max. Spread C (in.)	Min. Spread D (in.)	E (in.)	F (in.)							G (in.)
PH1002	15	42	48	34	1	2 ¹ / ₄	5	10 ¹ / ₄	12-36	94	12	8	115v, 50/60Hz, 25 Amp Cap.
PH1002J	15	42	48	34	1	2 ¹ / ₄	5	10 ¹ / ₄	12-36	94	12	8	—



ROLLER BEARING PULLER/INSTALLER

(Railroad Edition)
100 Ton Pulling Capacity



Our roller bearing pullers are ideal for replacing tough, worn-out bearings on RR freight cars.



The photo above shows the Universal Puller in position on the roller bearing assembly, which is ready for removal.

- Quickly remove or install tapered roller bearings.
- Designed with cooperation of major bearing manufacturers.
- It's a fast, simple, one-man operation with 100-tons of pulling force provided.
- Completely portable for easy, convenient positioning and out-of-the-way storage.
- The standard in most wheel shops.

Universal railroad axle journal roller bearing puller/installer – For years, the standard in most wheel shops. Power Team now has four models to choose for greater flexibility. With both sling and jack models available and two pumps to choose from, you can tailor the unit to match your needs. With the proper equipment and know-how, removal and installation of axle journal roller bearings takes an absolute minimum of time and effort.

Each unit will service a full line of bearings with rotating end caps, from class B thru GG. No other method can match Power Team's simplicity. Removal is very easy. Simply remove the end caps, slip the pulling shoe between the bearings and the wheel, actuate the pump, and in seconds, 100 tons of pulling force removes the bearing. Installation is just as easy! Each unit is CSA certified (LR19814) and comes complete with a heavy-duty 100-ton hydraulic cylinder, 10,000 PS.I. (700 bar) pump with remote control solenoid valve, hydraulic pressure gauge (No. 11543), a pulling shoe and installing tube.

Order No.	Model Type	Cylinder Type	Valve Type	Pump Information		
				H.P	Phase	Voltage
PR2100J	† Jack	Double Acting	Solenoid	2**	1	115 or 230*
PR3100J	† Jack	Double Acting	Solenoid	3	3	230 or 460*
PR2100S	† Sling	Double Acting	Solenoid	2	1	115 or 230*
PR3100S	† Sling	Double Acting	Solenoid	3	3	230 or 460*

* Prewired at factory for this voltage. Other voltages available upon request.

** The 2 H.P., 115 volt requires 30 amp service.

Tooling order information - IMPORTANT..This tooling chart applies only to standard AAR configurations for freight care applications. In order to provide adapters needed to service housing-type locomotive and passenger car bearings, as well as metric bearings, Power Team must be provided with the following information: bearing manufacturer's name and general arrangement drawing number, size of bearing to be serviced, railroad name and location and part numbers of adapters already in your possession if you currently own a Puller/Installer.

Tool Description	Class and size of bearing assembly			
	TBU & SP "Metric Tooling"			
	120	130	140	150
Pulling Shoe Insert Adapter	No. 351830	No. 30512	No. 30521	No. 30520
Guide Tube & Cap Screw Assembly	No. 253341	No. 253342	No. 253343	No. 253344
Cap Screw**	No. 253339	No. 253394	No. 253339	No. 253395
Guide Tube Adapter	No. 21247	No. 21247	No. 21247	No. 21247
Installing Tube Adapter Ring	No. 253335	No. 253336	No. 253337	No. 253338

** Screws are supplied with the guide tube and should be ordered as replacements only.





PR3100J

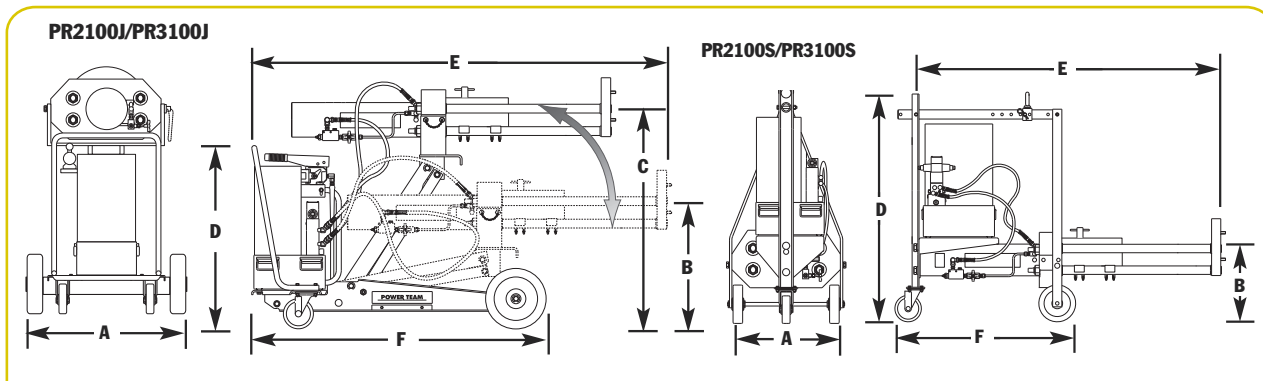


PR3100S

Tool Description	Class and size of bearing assembly to be serviced									
	Class B 4 7/8" x 8" (No.)	Class C 5" x 9" (No.)	Class D 5 1/2" x 10" (No.)	Class E 6" x 11" (No.)	Class EE 5 1/2" Axle (No.)	Class EE 6" Axle (No.)	Class F 6 1/2" x 12" (No.)	Class G 7" x 12" (No.)	Class G 6 1/2" Axle (No.)	Class GG 6 1/2" Axle (No.)
Pulling Shoe	No. 420845 is included as part of basic machine – Do Not Order							420846	420846	420846
Pulling Shoe	30522	30512	30521	30520	30520	30519	30519	—	—	—
Insert Adapter										
Guide Tube & Cap Screw Assembly	253313	253314	253317	253318	253316	253327	253320	253321	253319	253323
Cap Screw**	253156	253349	253308	253155	253307	253308	253310	253326	253309	253309
Guide TubeNo. Adapter	23934	21248	21248	21247	21247	21247	21247	21247	21247	21247
Installing Tube	No. 30416 is included as part of basic machine – Do Not Order							30417	30417	30417
Installing Tube Adapter Ring	21242	21258	21256-1	21255-1	21255-1	21257-1	21257-1	30586	30585	30585

Note: Adapters listed above are for servicing the following roller bearing assemblies: Brenco "Crown-Taper", New Departure-Hyatt "Hy-Roll Taper", SKF "Expediter" and Timken "AP".

** Screws are supplied with the guide tube and should be ordered as replacements only.



Order No.	Stroke (in.)	Capacity			Speed			A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Weight (lbs.)
		Pull (Tons)	Inst. (Tons)	Advance (in./min.)	Pull (in./min.)	Inst. (in./min.)								
PR2100J	15 1/2	100	68	35 7/16	3 3/16	4 7/16	32	15 1/16	41 11/16	36 29/32	78	58 3/4	1,162	
PR3100J	15 1/2	100	68	35 7/16	3 3/16	4 7/16	32	15 1/16	41 11/16	36 29/32	78	58 3/4	1,146	
PR2100S	15 1/2	100	68	35 7/16	3 3/16	4 7/16	24 3/8	11	—	50 1/2	64 1/4	38 3/4	1,003	
PR3100S	15 1/2	100	68	35 7/16	3 3/16	4 7/16	24 3/8	11	—	50 1/2	64 1/4	38 3/4	1,008	



DRIVERS

Bearing, Bushing And Seal



**No. 27793
Starter Set**



7180

**27797 Master Set
(Board not included)**

Patent No. 4,429,447

Universal bearing cup installer

This installer adjusts to fit bearing cups from 3⁵/₈" to 6¹/₂" O.D. Replaces over two dozen plates and drivers. Simply adjust the jaws to fit the cup I.D., lock the jaws, slip the new cup on and drive it home with a hammer. Will not damage new bearings.

No. 7180 – Univ. bearing cup installer. Wt., 10 lbs.

Assemble your own "custom-made" driver tools

These sets include discs and handles for custom seal driver assembly to provide a pilot (to prevent cocking), a spacer (so force is applied on the proper area) and a driver (for even force dist.). Discs range

from 1/2" thru 4 1/2" diameters in 1/16" increments. Each set includes a handy plastic box with pre-cut tool tray.

No. 27793 – Starter Set. Contains handle and discs especially selected to provide the driver sizes most frequently needed. Maximum utility at a modest investment! Wt., 4 lbs.

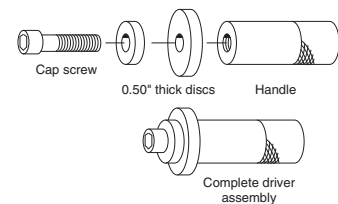
No. 27794 – Basic Set. Wide coverage, low investment! Includes 41 discs and two handles. Size range: 1/2" thru 3" diameter. Wt., 22 lbs.

No. 27795 – Big Job Set. Used for servicing large components. You get coverage of 3 1/16" thru 4 1/2" diameter with the 24 discs and handle provided. Wt., 45 lbs.

No. 27797 – Master Set. For maximum coverage. Three handle sizes and all 65

discs listed in chart at left are included. Range: 1/2" thru 4 1/2" diameter. Wt., 68 lbs.

No. 212377 – Tool organizer board. Will accommodate all components of 27797 Master Set. Tools not included. Wt., 5 lbs.



These sets have the proper-size driver for any seal, bearing or bushing installing job. Select the proper-size discs, attach to handle with cap screws and strike with hammer.

Order No.	DISCS Inch	MM	Order No.	DISCS Inch	MM	Order No.	DISCS Inch	MM
27492	9/16	14.3	27513†	1 7/8	47.6	27535	3 1/4	82.6
27493†	5/8	15.9	27514	1 5/16	49.2	27536	3 5/16	84.1
27494	1 1/16	17.5	27515	2	50.8	27537	3 3/8	85.7
27495†	3/4	19.0	27516	2 1/16	52.4	27538	3 7/16	87.3
27496	13/16	20.6	27517	2 1/8	54.0	27539	3 1/2	88.9
27497†	7/8	22.2	27518	2 3/16	55.6	27540	3 9/16	90.5
27498	15/16	23.8	27519	2 1/4	57.2	27541	3 5/8	92.1
27499†	1	25.4	27520	2 5/16	58.7	27542	3 11/16	93.7
27500	1 1/16	27.0	27521	2 3/8	60.3	27543	3 3/4	95.3
27501†	1 1/8	28.6	27522	2 7/16	61.9	27544	3 13/16	96.8
27502	1 3/16	30.2	27523	2 1/2	63.5	27545	3 7/8	98.4
27503†	1 1/4	31.8	27524	2 9/16	65.1	27546	3 15/16	100.0
27504	1 5/16	33.3	27525	2 5/8	66.7	27547	4	101.6
27505†	1 3/8	34.9	27526	2 11/16	68.3	27548	4 1/16	103.2
27506	1 7/16	36.5	27527	2 3/4	69.8	27549	4 1/8	104.8
27507†	1 1/2	38.1	27528	2 13/16	71.4	27550	4 3/16	106.4
27508	1 9/16	39.7	27529	2 7/8	73.0	27551	4 1/4	108.0
27509†	1 5/8	41.3	27530	2 15/16	74.6	27552	4 5/16	109.5
27510	1 11/16	42.9	27531	3	76.2	27553	4 3/8	111.1
27511†	1 3/4	44.4	27532	3 1/16	77.8	27554	4 7/16	112.7
			27533	3 1/8	79.4	27555	4 1/2	114.3

† = Items contained in 27793 starter set.

SET COMPONENTS

Order No. Description

10012†	1/4"-20 UNC X 7/8"*
10020†	1/4"-20 UNC X 1 1/4"*
10854†	1/4"-20 UNC X 1 3/4"*
10855†	1/4"-20 UNC X 2 3/4"*
12001†	1/4"-20 UNC X 2 1/4"*
27487†	Small Handle 5" X 3/4" Dia.
27488	Med. Handle 6" X 1 1/4" Dia.
27489	Large Handle 6" X 1 5/8" Dia.
27490	Extension Tube
7350†	Allen Wrench

