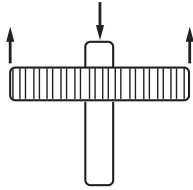
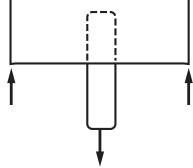


What Type of Puller Do I Want to Use? Will it Be the Combination that Works the Best?

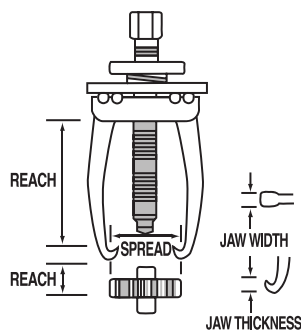
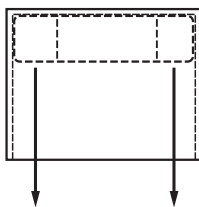
Removing a Gear, Bearing, Pulley, or Other Component from a Shaft



Pulling a Shaft Out of a Housing or Bore



Removing a Bearing or Bushing from a Blind Hole



Tools to Use

Jaw Type Puller. 2 or 3 jaw style, with 3 jaw being the best choice. Manual or hydraulic with outside jaw positions.

Push/Pull Puller. Use male or female adaptors to thread into tapped holes on components.

Slide Hammer Puller. Use on light duty applications. For use with attachments.

Bar Type Puller with Bearing Separator. Bar type with side rods threaded into bearing separator provides knife edge to get behind component or when there is not a good gripping edge.

Tools to Use

Push/Pull Puller. Use male or female adaptors.

Bar Type Puller with Bearing Separator. Use when housing lacks sufficient surface for puller side rods to bear against.

Slide Hammer Puller. Use on light duty applications. For use with attachments.

Slide Hammer Puller. Use with male or female adaptors. See this section for a full listing of compatible adaptors.

Tools to Use

Jaw Type Puller. For inside jaw positions (inside pulls), a manual or hydraulic jaw type puller can be used with pressure screw or slide hammer variations.

Expanded Collet Puller. The inside diameter should range between 1/4" and 7". Pulling can be done with bridge, bar type yokes, or slide hammers. See page 210 for full information.

Bearing Adaptors with Slide Hammer Puller. CJ127A, CJ128A, and CJ137 bearing adaptors with CJ97-3A slide hammer should be used in this application.

Bar Type Puller with Bearing Separator. Bar type with side rods threaded into bearing separator provides knife edge to get behind components or when there is not a good gripping edge.

Determine the "Reach" and "Spread" Needed

The puller's reach must equal or exceed the same distance on the part. The puller's spread is the width of the part.

Estimate the Puller Tonnage

Generally, if you already have the correct reach and spread, you will usually have the proper tonnage. If in doubt, use the next larger size.

General Rule to Choose Pullers

Manual Pullers. Pressure screw should be at least half the diameter of the shaft on the pulling/pushing job.

Hydraulic Pullers. Maximum tonnage capacity (tons) should be 8 to 10 times the diameter (in inches) of the shaft to be pulled or pushed.

Snap-on® Puller Features

Anvil Head: Curved at the top and features a hex design. The curved head provides a striking surface to handle those tough pulling jobs while the hex allows the pressure screw to be easily turned with a standard hex wrench or a socket.

Spring Loaded Locking Mechanism: Snap-on pullers feature a unique spring tension locking mechanism which allows the puller jaws to easily lock onto the work surface for both outside and inside pulling applications.

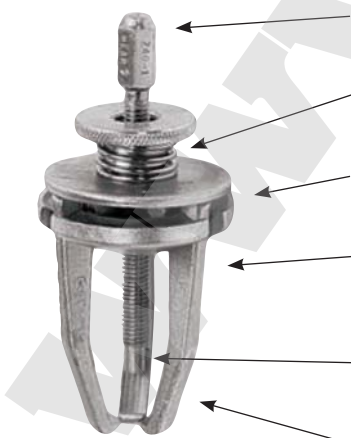
Two Position Yoke: Allows jaws to be easily reversed to accommodate inside or outside pulling situations. Interchangeable yokes accommodate two jaw and three jaw setups. Yokes are heat treated for additional strength and safety.

One Piece Jaw Construction: Provides a stronger, safer jaw. Most competitive puller jaws have holes drilled through them to allow for a bracket attachment. This hole significantly weakens the competitor's puller jaws.

Forged Jaws: Resist breakage, prolong tool life and provide additional strength.

Replaceable Points: Center pulling power to prevent cocking. Provide less friction and minimum drag for easier turning of pressure screw during the pulling process. If damage occurs, simply replace the point and not the entire pressure screw.

Curved Jaws: Provide positive grip on the work surface.



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages 594 to 597

PULLERS

Bar-Type Interchangeable



CJ83C



CJ82B



CJ81D



CJ85A



CJ80A

Interchangeable bar style pullers provide high quality pulling equipment with the versatility needed to handle a wide variety of pulling functions. Standardized pressure screw threading, jaw retention, and design means that new components can be added to an existing puller to change its reach or spread in order to handle new or different applications.

These Snap-on® bar style pullers also feature:

- Replaceable pressure screw points help keep the puller safely centered
- Multi-position yokes help keep the jaws properly aligned with the item being pulled
- Adjustable clamp bolts allow jaws to be snugged up against the job for a safer, more convenient pull
- Spring ball pin retention securely holds jaws while allowing quick jaw changes

CJ83C Pulley and Gear Puller. Ideal for servicing crankshaft pulleys, gears and timing gears on a wide range of gasoline and diesel engines including Cummins accessory drives and water pumps. Includes each 3/8"-16 x 3", 5/16"-18 x 2 1/2", and M10-1.5 x 65mm bolts. Nominal capacity is 3.5 tons.

Includes:

CJ86-1	Yoke	ME5A55	Washer
CJ83-3	Pressure Screw	ME3A45	Studs (2)
CJ66-15-3	Centering Point	ME3A44	Studs (2)
ME5A54	Washer (1 needed)	ME3A75	Studs (2)

CJ82B Pitman Arm Puller. Handles many Pitman arm applications plus a variety of general pulling jobs. Nominal capacity is 6 tons.

CJ86-1	Yoke	CJ86-4A	Clamp Bolt
CJ83-2	Pressure Screw	CJ85-4	Washer (2)
CJ66-15-3	Centering Point	ME4A33	Clamp Nuts (2)
CJ81-2A	Jaws (2)	CJ105-11	Jaw Pins (2)

CJ81D Differential Side Bearing Puller. Narrow jaws slip into housing grooves in back of bearing and let jaws seat and pull along with inner race. Jaws are locked onto bearing by clamp bolt. Four centering plates are included. Nominal capacity is 6 tons.

CJ86-1	Yoke	CJ105-11	Jaw Pins (2)
CJ83-2	Pressure Screw	CJ81B1A	Adaptors (set of 4)
CJ66-15-3	Centering Point	CJ81B2A	Adaptors (set of 4)
CJ81-2A	Jaws (2)	CJ81D1A	Adaptors (set of 4)
CJ86-4A	Clamp Bolt (2)	CJ81D2A	Adaptors (set of 4)
ME4A33	Clamp Nuts (2)		

CJ85A Truck Differential Side Bearing Puller. Similar in appearance to CJ81D but bigger for handling truck applications. Four centering plates included. Nominal capacity is 7.5 tons.

CJ85-1	Yoke	CJ105-11	Jaw Pins (2)
CJ83-2	Pressure Screw	CJ85-5	Adaptors (set of 4)
CJ66-15-3	Centering Point	CJ85-6	Adaptors (set of 4)
CJ85-2	Jaws (2)	CJ85-7	Adaptors (set of 4)
CJ85-3A	Clamp Bolt (2)	CJ85-8	Adaptors (set of 4)
CJ85-4	Washer (2)		
ME4A33	Clamp Nuts (2)		

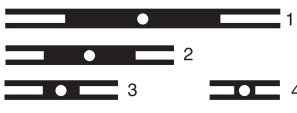



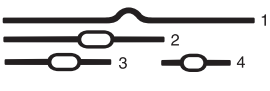




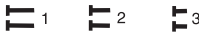
CJ80A A/C Pulley Puller. Also excellent for removal of alternator, generator, power steering and crankshaft pulleys, harmonic balancers and fiber timing gears. Includes an extra pair of jaws for versatility. Nominal capacity is 7.5 tons.

CJ85-1	Yoke	CJ85-3A	Clamp Bolt
CJ83-3	Pressure Screw	CJ85-4	Washer (2)
CJ66-15-3	Centering Point	ME4A33	Clamp Nuts (2)
CJ81-2A	Jaws (2)	CJ105-11	Jaw Pins (2)
CJ87-1	Jaws (2)		

Specifications

Stock No.	Nominal Capacity, tons	Maximum Reach, inches	Maximum Spread, inches	Pressure Screw Size, inches	Pressure Screws	Jaws	Centering Points
CJ83C	3.5	Variable	5	3/4-16 x 3 1/2	B1, B2		C2
CJ81D	6	1 5/8	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
CJ82B	6	2 1/4	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
CJ85A	7.5	1 3/4	5 1/2	3/4-16 x 4 1/4	B1, B3	D1, D2, D3, D5	C2
CJ80A	7.5	D3: 1 5/8, D5: 1 3/8	5	3/4-16 x 3 1/2	B1, B2	D1, D2, D4	C2

CJ Interchangeable Pullers—Major Components

	CJ83C	CJ82B	CJ81D	CT85A	CJ80A	Component	Key No.	Stock No.	Specific Dimensions	
						Yoke	A1	CJ100-1	Usable Range, inches	Pin Holes per Side
						Yoke	A2	CJ118-1	10 1/2-16	4
						Yoke	A3	CJ85-1	6 - 10 1/2	3
						Yoke	A4	CJ86-1	3 - 6 1/2	3
						Pressure Screw	B1	CJ105-3	Thread x Length	Hex Size, inches
						Pressure Screw	B2	CJ83-2	3/4-16 x 10 1/2	7/8
						Pressure Screw	B3	CJ83-3	3/4-16 x 6 11/16	7/8
						Point	C1	CJ66-15-3	Head Diameter inches	Point Type
						Point	C2	CJ84-16	5/8	90° Outward
						Jaws (2 needed)	D1	CJ166-1	Maximum Reach, inches	
						Jaws (2 needed)	D2	CJ282-1	8 1/4	
						Jaws (2 needed)	D3	CJ81-2A	4 3/8	
						Jaws (2 needed)	D4	CJ87-2	1 3/8	
						Jaws (2 needed)	D5	CJ87-1	1 3/4	
						Clamp Bolts	E1	CJ100A2	Maximum Length, inches	
						Clamp Bolts	E2	CJ118-2A	18	
						Clamp Bolts	E3	CJ85-3A	11 1/2	
						Clamp Bolts	E4	CJ86-4A	7 1/2	
						Washer (2 needed)	F1	CJ85-4	Inside Dia., inches	Outside Dia., inches
						Washer (1 needed)	F2	ME5A54	15/32	7/8
						Washer (1 needed)	F3	ME5A55	11/32	3/4
						Clamp Nuts (2 Needed)	G1	ME4A33	Thread Size	
						Clamp Nuts (2 Needed)	G1	ME4A33	7/16 x 20	
						Jaw Pins (2 needed)	H1	CJ105-11	Diameter, inches	Length, inches
						Jaw Pins (2 needed)	H1	CJ105-11	5/16	1 15/32
						Adaptors (Set of 4)	J1	CJ81B1A	Outside Dia., inches	Step Diameter, inches
						Adaptors (Set of 4)	J1	CJ81B2A	1 1/2	1 1/8
						Adaptors (Set of 4)	J1	CJ81D1A	1 5/8	1 1/4
						Adaptors (Set of 4)	J1	CJ81D2A	1 3/4	1 1/8
						Adaptors (Set of 4)	J1	CJ81D2A	1 11/32	15/16
						Adaptors (Set of 4)	J2	CJ85-5	2	1 1/2
						Adaptors (Set of 4)	J2	CJ85-6	2 1/8	1 21/32
						Adaptors (Set of 4)	J2	CJ85-7	2 1/2	1 27/32
						Studs (2 needed)	K1	ME3A44	Thread x Length	
						Studs (2 needed)	K2	ME3A45	3/4-16 x 3	
						Studs (2 needed)	K3	ME3A75	5/16-18 x 2 1/2	
						Studs (2 needed)	K3	ME3A75	M10-1.5 x 65mm	

Letters in chart refer to Key No. in chart below (A3, B1, C1 etc.)

Other Interchangeable Components

CJ Series Major Components

Stock No.	A Yoke	B Pressure Screw	C Point	D Jaws (2)	E Clamp Bolt	F Washers (2)	G Clamp Nuts (2)	H Jaw Pins (2)	J Adaptors	K Studs (2)	Pressure Screws	Jaws	Points
CJ83C	A4	B3	C1			F2, F3				K1, K2, K3	B1, B2		C2
CJ82B	A4	B2	C1	D3	E4	F1	G1	H1			B1, B3	D1, D2, D4, D5	C2
CJ81D	A4	B2	C1	D3	E4	F1	G1	H1	J1		B1, B3	D1, D2, D4, D5	C2
CJ85A	A3	B2	C1	D4	E3	F1	G1	H1	J2		B1, B3	D1, D2, D3, D5	C2
CJ80A	A3	B3	C1	D3, D5	E3	F1	G1	H1			B1, B2	D1, D2, D4	C2



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Interchangeable Puller Sets



CJ2000SB



CJ2002

Gear Puller Set

CJ2002 Gear Puller Set. Use on Pitman arms, timing gears, carrier side bearings and more. Combine to create 10 different pullers. Capacity from 6 to 10 tons depending on yoke and jaws used. Includes:

- | | |
|-----------|----------------------------|
| CJ105-11 | Long Jaw Pin (4) |
| CJ87-1 | 3" Jaw (2) |
| CJ282-1 | 6" Jaw (2) |
| ME4A33 | Hex Nut (4) |
| CJ82B | Puller |
| CJ66-15-3 | Centering Point |
| CJ83-3 | Pressure Screw (9/16" Hex) |
| CJ81-2A | Jaw (2) |
| CJ84-16 | Centering Point |
| CJ83-2 | Pressure Screw |
| CJ85-1 | Yoke (3"-6 1/2") |
| CJ86-4A | Bolt |
| CJ85-3A | Bolt |
| CJ86-1 | Yoke (1 3/4"- 4 1/2") |
| CJ85-4 | Washer (4) |



CJ2004

Interchangeable Puller Set

CJ2004 Interchangeable Puller Set. Use on bearings, bearing races, gears, bushing retainers, etc. Builds any of 12 different pullers. 2 and 3-jaw capability with three sets of jaws. All jaws reverse for inside and outside pulls. Pulling capacity: (short jaws) 4 1/2-ton, (medium jaws) 6 1/2-ton, (large jaws) 8 ton. Includes:

- | | |
|-----------|--------------------------------|
| CJ105A8 | 3-Way Jaw Control |
| CJ105-3 | Pressure Screw (3/4"-16 x 13") |
| CJ105A9 | 2-Way Jaw Control |
| CJ105-1 | Yoke |
| CJ105-5 | Small Jaw (3) |
| CJ105-10 | Short Jaw-to-Control Pin (3) |
| CJ105-6 | Medium Jaw (3) |
| CJ105-11 | Long Jaw Pin (4) |
| CJ105-7 | Large Jaw (3) |
| CJ105-12 | Cross Bar |
| CJ66-15-3 | Centering Point |
| CJ86-1 | Yoke (1 3/4"- 4 1/2") |

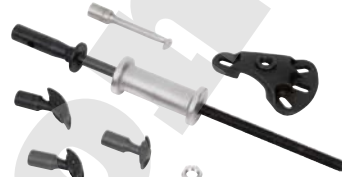
These puller sets are designed to provide the tools you need as your work grows. Start with one or more sets geared to specific tasks and build toward the ultimate set: the CJ2000A with display board and cabinet. No duplication in set contents or jaws. Yokes are interchangeable for added versatility.

Master Interchangeable Puller Set

CJ2000SB Master Interchangeable Puller Set. Includes all components for the CJ2001, CJ2002, CJ2003A, CJ2004, and CJ2005 puller sets on VE200A tool control board and KRA276D locking wall storage cabinet.

CJ2000S Master Interchangeable Puller Set. Same as CJ2000SB without the wall cabinet.

CJ2000A Master Interchangeable Puller Set. Same as CJ2000SB without the wall cabinet or the tool control board.



CJ2003A

Rear Axle Puller Set

CJ2003A Rear Axle Puller Set. Slide hammer power pulls many flange type rear axles as well as axle bearings. Includes:

- | | |
|----------|--------------------------------|
| CJ105-4B | Slide Screw, 3/4"-16 x 22-1/2" |
| CJ137 | Bearing Adaptor |
| CJ97-3A | Slide Hammer, 3 3/4 lb. |
| CJ123-1 | Axle Yoke |
| ME4A8 | Lock Nut (3/4") |
| CJ127A | Bearing Adaptor |
| CJ66-19 | Bearing Hook |
| CJ128A | Bearing Adaptor |

CJ Series Bearing Adaptors

Stock No.	Swivel Head Width, inches	Swivel Head Length, inches	Overall Length, inches
CJ127A	1.2	2.03	3.02
CJ128A	1.2	2.31	3.15
CJ137	1.2	2.9	3.24



CJ2005

Accessory Set

CJ2005 Accessory Set. Boost the versatility of the CJ2000A components with a bearing separator, a variety of centering adaptors, and a 12" yoke and clamp bolt to add spread to your bar type set. Includes:

- | | |
|----------|----------------------------------|
| CJ81B1A | Adaptor (1 1/8"-1 1/2" Dia.) |
| CJ85-6 | Adaptor (1 21/32"-2 1/8" Dia.) |
| CJ81B2A | Adaptor (1 1/4"-1 5/8" Dia.) |
| CJ85-7 | Adaptor (1 27/32"-2 1/2" Dia.) |
| CJ81D1A | Adaptor (1 1/8"-1 5/8" Dia.) |
| CJ85-8 | Adaptor (2 3/8"-3 1/16" Dia.) |
| CJ81D2A | Adaptor (13/16" - 1 11/32" Dia.) |
| CJ118-1 | Yoke (6"-10 1/2") |
| CJ118-2A | Bolt |
| CJ85-2 | Jaw (1 3/4" Max. Reach) |
| CJ950 | Bearing Separator |
| CJ85-5 | Adaptor (1 1/2"-2" Dia.) |

Pressure Screws

CJ83-9 Pressure Screw. Optional pressure screw for bar style interchangeable pullers. Applications include heavy duty truck transmissions like Eaton transmissions found on Kenworth heavy duty trucks. Can also be used with: CJ2000A, CJ2000S, CJ2000SB, CJ2002 and CJ2004. Thread: 3/4" - 16. Length: 8 3/4".

Special Purpose



CJ2001P

Bolt Grip Puller Set

CJ2001P Bolt Grip Puller Set. Services steering wheels, flywheels, pulleys and gears with tapped holes. Includes a four-position 2 and 3 way yoke, 3 different pressure screw tips and an assortment of fractional and metric bolts. Approximate spread to bolt is 1 1/4" to 3 13/16". Includes PB54B storage case.

CJ2001FBK Bolt and Washer Set. Replaces all fractional bolts and washers in CJ2001P bolt grip puller set.

CJ2001MBK Bolt and Washer Set. Replaces all metric bolts and washers in CJ2001P bolt grip puller set.



CG60GB

Tapped Hole Puller Set

CG60GB Tapped Hole Puller Set. Use on steering wheels with tapped holes. Includes 2 and 3-way yoke, pressure screw, and adaptor plus 4 sets of studs.

- | | |
|-----------|-----------------------------------|
| CG60-17 | Stud (M8-1.25) (2) |
| CG60R1 | Yoke Pressure Screw (5/8"-18) (1) |
| CG60-7-4A | Stud (5/16"-24) (2) |
| CG60-7-6 | Stud (5/16"-18) (3) |
| CG60R2 | Four-Arm Yoke (1) |
| CG60M2 | Stud (3/8"-16) (3) |
| CG60R3 | Pressure Screw Adaptor (1) |



CJ93B

Small Slide Hammer Puller Set

CJ93B Small Slide Hammer Puller Set. Remove bushings, seals, sleeves, bearings, bearing races, bronze and oilite bushings, and pressed in studs. Includes 2 sets of jaws, grease retainer adaptor, bearing hook, body dent puller, stud pulling head and 2 lb. slide hammer. Thread size is 3/8"-16.



A78



SP2031

Small/Pilot Bearing Pullers

A78 Small Bearing Puller. For bearings and bushings typically found in small electric motors. Includes large jaw set for bronze and oilite bushings and small jaw set for smaller bearings and bushings. Up to 3 tons of pulling power.

SP2031 Pilot Bearing Puller Blu e-Point®. Attaches to slide hammer shafts with 3/4"-16 or 5/8"-18 threads. Pressure screw adaptor is made of stress-resistant steel. Industrial finish.

Rear Axle Bearing Puller

CJ9180 Rear Axle Bearing Puller

No slide hammer required. Removes axle bearing on free floating axle designs. Use with impact gun or by hand. Uniquely designed to brace against axle housing for complete removal of bearing assembly. Smooth, steady operation. Kit contains interchangeable feet to allow pulling of bearings with an I.D. from 1" to 2-7/8"



CJ9180

Automotive

Steering Wheel Pullers



CJ134

CJ134 Tilt Steering Pivot Pin Puller. Allows efficient removal of the two pivot pins on all tilt steering columns used on Chrysler, Ford, and GM vehicles.

CG95B Steering Wheel Lock Plate Remover

Designed for airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde, and Eagle Vision), some Toyota and Saab. Includes one narrow bridge, one wide bridge, two pressure screws: one has 9/16"-18 threads, the other has M14-1.5 threads. The puller is zinc plated. Overall length is 4 7/8".



CG95B



CG6095A

CG6095A Master Steering Wheel Puller Set. Combines the CG60GB Tapped Hole Puller and CG95B Lock Plate Remover. Lock Plate Remover is designed for servicing airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde and Eagle Vision), some Toyota and Saab.

CJ145 GM Steering Wheel Puller. Use on new GM steering wheels with air bags including tilting and telescoping styles. Handle attachment facilitates puller set up and can be removed when working in confined areas. Applications include Buick (1997 and later Park Avenue/Regal), Cadillac (1997 and later Catera), Chevrolet/GMC (1997 and later Corvette/Malibu, 1998 C & K series trucks, 1998 full size vans, 1998 Astro/Safari vans), Oldsmobile (1997 and later Cutlass) and Pontiac (1988 to 1993 LeMans, 1997 and later Grand Prix/Trans Sport van).



CJ131P



CJ145

CJ131P Steering Wheel Puller and Lock Plate

Depressor Set. Includes a selection of bolts and a handle in PB72 storage case for servicing GM, Ford, Chrysler, and AMC cars. Adaptors are included for servicing lock plates on all GM and AMC vehicles with tilt wheel. Detachable handle helps hold puller when turning force is applied to pressure screw. Industrial finish.



WARNING



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages 594 to 597

PULLERS

Automotive



YA6490



CJ146

Harmonic Damper Pulley Pullers

YA6490 Harmonic Damper Pulley Puller. Use on many Chrysler, Mitsubishi and GM engines. In most applications this compact tool eliminates the need to remove the radiator prior to removing the pulley. Includes short push rod for use on crankshafts that are not drilled full depth plus two other push rods. Applications: GM: 4.2L Straight 6 cylinder: Chevy Trailblazer, GMC Envoy, Olds Bravada (2003 and later), Buick Rainier (2004 and later), 3.5L Straight 5 cylinder: Chevy Colorado, GMC Canyon (2004 and later), Hummer H3 (2006 and later), 2.8L Straight 4 cylinder: Chevy Colorado, GMC Canyon (2005 and later), 5.7L V8 (Gen III): Camaro, Corvette, Firebird and Trans-Am (1997 and later), Gen III trucks and SUVs with 4.8L V8, 5.3L V8, 6.0L V8 and 8.1L V8 (2000 and later) CHRYSLER: 3.3L V6: (1990 and later vans), 3.3L and 3.5L V6 (1993-1997 automobiles), 3.8L V6 (1994 and later vans), 8.0L V10 (1994 and later pickups), 2.0L 4 Cylinder, 2.4L 4 Cylinder and 2.5L V6 (1995 and later automobiles), 2.7L DOHC V6, 3.2L SOHC V6 and 3.5L SOHC V6 (1998 and later automobiles), 4.7L V8 (1998 and later) CADILLAC: 4.5L V8: (1988-1992), 4.9L V8: (1991-1995), 4.6L V8: (1993 and later), 6.0L V8: Escalade, MITSUBISHI: 2.0L DOHC non-turbo: Eclipse (1995-1999), OLDSMOBILE: 4.0L V8: (1995 and later)

YA6491 Harmonic Damper Pulley Puller Update Kit.

Updates earlier YA9740 Pullers to the same applications as the new YA6490. Kit will also update other pulley pullers that are similar to the YA9740 Series of pullers. Add YA6491 Update Kit to existing YA9740 Series Pullers to add these new applications: GM: 4.2L Straight 6 cylinder: Chevy Trailblazer, GMC Envoy, Olds Bravada (2003 and later), Buick Rainier (2004 and later), 3.5L Straight 5 cylinder: Chevy Colorado, GMC Canyon (2004 and later), Hummer H3 (2006 and later), 2.8L Straight 4 cylinder: Chevy Colorado, GMC Canyon (2005 and later)

CJ146 GM Crankshaft Harmonic Balancer Kit.

Remove the crankshaft harmonic balancer on 1990 and later 3.3L and 3.8 GM engines. Shoulder bolt adaptors provide correct installation depth, preventing damage to the crank sensor and interrupter rings. Includes (3) CJ146-1 Adaptors and (1) CJ146-2 extension plus vinyl storage pouch. Requires Snap-on® CJ98-1 yoke and CJ83-3 pressure screw for use (not included). Which are separate purchases and not included with kit.

Power Steering and Alternator Pullers



CJ122

CJ122 Power Steering Pulley Installer Set. Includes CJ113B installer and CJ113C4 pulley installer shaft. Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).



CJ138

CJ138 Pulley Installer. 8mm pulley installer features a black industrial finish and a thrust bearing for easier installation. Applications include power steering pulley on Ford 4.6L V8 (1991 and later), Ford 2.5L V6 (1995 and later) plus the installation of water pump drive pulleys on GM 4.6L (1992 and later Oldsmobile Aurora).



CJ113B

CJ113B Power Steering/Alternator Pulley Installer. Designed for domestic cars. 1" pulley driver hex, 7/16" pressure screw hex, thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end). 4 5/8" long.

CJ113B3 Bushing. Included with CJ113B.
CJ113C4 Pulley Installer Shaft. (Optional). Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).



CJ117C



CJ124A



CJ3PSA



CJ147A

CJ117C Power Steering and Alternator Pulley Puller.

Includes short adaptor to remove small flange type pulley; use long adaptor on GM200/Platform vehicles. Can also remove Chrysler alternator pulleys that have double grooves. Replace pulleys with CJ113B Installer. Long adaptor included to handle pulleys on GM minivans. Nickel/chrome finish, industrial finish screw. Designed for most domestic cars (replace pulley with CJ122 sets). Long adaptor included to handle pulleys on GM minivans. Nickel/chrome finish, industrial finish screw.

CJ124A Power Steering/Alternator Pulley Puller. Larger version of CJ117C. Designed for Chrysler, Ford and earlier GM vehicles.

CJ3PSA Power Steering and Alternator Pulley Puller/Installer Set. Set includes CJ113B, CJ117C, and CJ124A pullers.

CJ147A Power Steering Gear Lower Pinion Bearing Puller. Required tool to comply with GM Recall Bulletins #02049 and #03062 regarding power steering gear lower pinion bearing separation. To correct the problem, inspect the condition of the lower pinion bearing and replace the lower pinion bearing. In a few cases, replacement of the rack and pinion steering gear assembly may be necessary. Instructions included.

Applications:

- | | | |
|-------------------------|-----------------------------|-------------------------|
| Buick | Oldsmobile | Pontiac |
| • Regal 1996-1998 | • Cutlass 1997-1998 | • Grand Prix 1996-1998 |
| | • Cutlass Supreme 1996-1998 | • Sunfire 1996-1998 |
| Chevrolet | • Silhouette 1996-1998 | • Trans Sport 1996-1998 |
| • Cavalier 1996-1998 | • Lumina 1997-1998 | |
| • Lumina 1997-1998 | • Lumina APV 1996 | |
| • Lumina 1997-1998 | • Monte Carlo 1997-1998 | |
| • Lumina APV 1996 | • Venture 1997-1998 | |
| • Monte Carlo 1997-1998 | | |
| • Venture 1997-1998 | | |



CJ132A

CJ132A Master Power Steering Pump/Alternator Puller/Installer Set.

GM Quad 4, GM 3.1L and Ford 4.6L applications. Removes/installs press on, belt driven accessory pulleys. Removal housing for grooved hub diameters of 1 1/8", 1 5/16", and 1 3/8". Includes components for 3/8"-16 threaded shaft. Housing holding bar prevents main housing from spinning during use with an impact wrench. Quad 4 installation nut simplifies usage with 4 cylinder GM vehicles. Includes instructions and carrying case.

Pitman Arm Pullers

CJ119B Pitman Arm Puller. Designed for most domestic cars and light trucks. Pressure screw size: 3/4"-16 x 6 7/8". Industrial finish.

CJ115 Pitman Arm Puller. Similar in design to CJ119B except it is designed for compact and intermediate size cars.

PAS110 Pitman Arm Puller. Pitman Arm Remover for 2-ton and heavier trucks. Quickly and easily remove stuck Pitman arms. The tool wedge opens the Pitman arm slots for removal. Can also be used with impact wrench.



CJ119B



PAS110

PULLERS

General Purpose Interchangeable



Light Duty

Builds These Pullers:

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG240	2-Jaw	2 1/2	0-3	7/8-3 1/4
CG240H	2-Jaw	2 1/2	0-3	7/8-3 1/4
CG243	3-Jaw	2 1/2	3	7/8-3 1/4
CG243H	3-Jaw	2 1/2	3	7/8-3 1/4

CG2400B Light Duty Puller Set. This versatile set provides 2 or 3-jaw pulling with pressure screw or slide hammer options. Interchange parts to build any of the 5 puller combinations.

- Up to 2 1/2 tons of pulling power
- 3" diameter capacity for outside pulls



Heavy Duty

Builds These Pullers:

CG2510BSHY

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG654HY	Hydraulic, 2-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG655HY	Hydraulic, 3-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG270	2-Jaw	5 1/2	8 1/2	2 1/2-7
CG270H	2-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG270S	Special Grip, 2-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273	3-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273H	3-Jaw	5 1/2	8 1/2	2 1/2-7
CG280	Long Jaw, 2-Jaw	8	0-10	3-8
CG283	Long Jaw, 3-Jaw	8	0-10	3-8
CG274HY	Hydraulic, 2-Jaw	8 3/4	10	3-8
CG275HY	Hydraulic, 3-Jaw	8 3/4	0-10	3-8

The CG2510 and CG2500 Series delivers:

- Up to 12 1/2 tons of pulling power
- 10" diameter capacity for outside pulls
- From 3/4" to 8" diameter capacity for inside pulls

CG2510BSBHY Heavy Duty Manual/Hydraulic Puller Set. Includes 40 interchangeable components, including the CG1224

10 ton hydraulic power kit. All components are displayed on a VE213 tool control board, which is mounted inside a KRA276D wall cabinet.

CG1224 Hydraulic Conversion Kit. 10 ton. Converts CG270, CG273, CG280, and CG283 manual pullers (on Tool Control Panel "A") and CG1700/CG2500B Puller Sets to hydraulic power.

VE213 Tool Control Board. Tool control board for the CG2500BSBHY manual/hydraulic puller set.

Medium Duty Pullers deliver up to 7 1/2 tons of pulling power, 4 1/2" diameter capacity for outside pulls and from 3/4" to 8" diameter capacity for inside pulls. CG6223 hydraulic conversion set converts CG250 and CG253 manual pullers to hydraulic power. The manual components of the indicated medium duty pullers are included in the heavy duty (CG2500 / CG2510 Series) sets.



Medium Duty

Builds These Pullers:

CG250

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG250	2-Jaw	3	4 1/2	1 1/2-3 1/2
CG250H	2-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG250HL	Long Jaw, 2-Jaw	6	0-8 1/2	3/4-8
CG253	3-Jaw	3	4 1/2	1 1/2-3 1/2
CG253H	3-Jaw	3	4 1/2	1 1/2-3 1/2
CG253L	3-Jaw	6		3/4-8



CG2500BSB

The big CG2510BSBHY set builds 45 different pullers with dozens of pulling variations from the included 40 components and 10 ton hydraulic set. Without hydraulics (CG2500BS Manual Set), 32 separate pullers are still possible. Add the Snap-on® CG6223 6 ton hydraulic power kit and add 7 puller combinations to each set.

CG2510BSHY Heavy Duty Manual/Hydraulic Set. Same as CG2510BSBHY set mounted on a VE213 tool control board. Does not include the wall cabinet.

CG2510BHY Heavy Duty Manual/Hydraulic Puller Set. Same as CG2510BSBHY Set except it doesn't include either the tool control board or the wall cabinet.

CG2500BSB Heavy Duty Manual Puller Set. This is the CG2510BSBHY set less the 10 ton hydraulic power kit components. Tool control board for this set is VE113B; wall cabinet is KRA276D.

VE113B Tool Control Board. Panel "A" is designed to hold the components for CG2500BS interchangeable puller set (6, 7 1/2, 10, and 12 1/2 ton capacity). Also used as the tool control board for the CG2500BSB manual puller set.

CG2500BS Heavy Duty Manual Puller Set. Same as CG2500BSB set mounted on a VE113B tool control board. Does not include the KRA276D wall cabinet.

CG2500B Heavy Duty Manual Puller Set. Same as CG2500BSB set, except it doesn't include either the tool control board or the wall cabinet.

CG270SETX Long Puller Jaw Set. Adds extra reach capability to any CG270 or CG280 series puller, the CG1700 set and any CG2500B series set. Includes (3) CG270-12 extra long jaws and (1) CG270-13 pressure screw adaptor.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

2-Jaw Pressure Screw



CG240



CG250



CG270A



CG280



CG305

2 ton Capacity (1.8 t), 2-Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG240L	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t), 2-Jaw

CG250A*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
CG250	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)

10 ton Capacity (9.1 t), 2-Jaw

CG270	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG270A*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG272	5 1/2 (140), 8 3/4 (222)	2 1/2-7 1/2 (64-178), 3-8 (76-203)	8 1/2 (216), 10 (254)	3/4-16 x 9 13/16 3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG270S	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG280	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG284**	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

*Includes CG1 pulling plate. **Includes pressure screw extension.

20 ton Capacity (18.1 t), 2-Jaw

CG300	9 1/2 (241)	3 1/2-10 (89-254)	12 (305)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG305	14 3/8 (365)	5-13 (127-330)	16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)

3-Jaw Pressure Screw



CG243



CG253L



CG253

2 1/2 ton Capacity (2.3 t), 3-Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG243L	3 1/2 (89)	7/8-3 3/4 (22-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t), 3-Jaw

CG253L	6 (152)	3/4-8 (19-203)	5/8-18 x 6 7/8	7/32 (5)	5/16 (8)	3/8 (10)
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7 1/2 ton Capacity (6.8 t) 3-Jaw

CG253	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
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12 1/2 ton Capacity (11.3 t), 3-Jaw

CG273	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG273A	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG283	8 (203)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG285	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (254)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

20 ton Capacity (18.1 t) Combination 2 and 3-Jaw

CG343	9 1/2 (241)		13 (330)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG348	14 3/8 (365)		16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)
CG325	19 (482)		20 (508)	1 3/8-8 x 21 11/16	1 1/8 (29)	1 1/2 (38)

Pulling Plate

CG1 Pulling Plate.

Ideal where there is no gripping surface for the puller alone. Attach plate to item being pulled – puller clamps behind the plate. Includes 4 each of the following screws: 1/4"-20 x 3/4" and 1/4"-28 x 1". Plate has a 3 5/8" diameter.



CG1

Flat Points

CG250-21 Flat Point. Fits CG250 series pullers.

CG270-21 Flat Point. Fits CG270 and CG280 series pullers.

CG300-21 Flat Point. Fits CG300 and CG305 series pullers.

CG325-21 Flat Point. Fits CG325 series pullers.

CG70 Flat Point Set. Includes CG270-21, CG300-21 and CG325-21 flat points.

2-Jaw Slide Hammer



CG240H



CG250C



CG250HL



CG270C

2 ton Capacity (1.8 t) - 1 1/16 lb. Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240H	2 1/2 (63)	7/8-3 1/4 (22-82)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG240HL	3 1/2 (88)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t) - 2 1/8 lb. Hammer

CG250C*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250HL	6 (152)	3/4-8 (19-203)		5/8-18 x 18 9/16	7/32 (5)	5/16 (8)

*Includes CG250H puller, CG1 pulling plate and pressure screw.

10 ton Capacity (9.1 t) - 3 1/2 lb. Hammer

CG270C**	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG270H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

**Includes CG1 pulling plate and pressure screw.

3-Jaw Slide Hammer



CG243H



CG253H



CG273C

2 1/2 ton Capacity (2.3 t) - 1 1/16 lb. Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243H	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG243HL	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

7 1/2 ton Capacity (6.8 t) - 2 1/8 lb. Hammer

CG253H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
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12 1/2 ton Capacity (11.3 t) - 3 1/2 lb. Hammer

CG273C*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG273H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

*Includes CG273H puller, CG1 pulling plate and pressure screw.

CG270-3S Special Grip Jaw.

Engineered for twice the gripping surface area of standard jaws. Can be used with any of the CG270 and CG273 series pressure screw and slide hammer pullers.



CG270-3S



WARNING

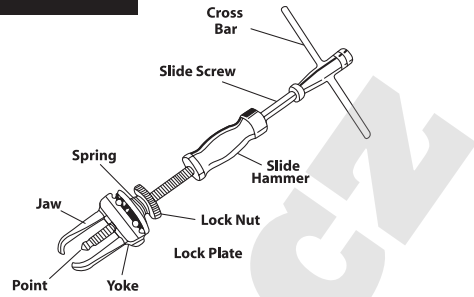


- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Quick Reference Charts

2 ton and 2 1/2 ton Puller Group (CG240 Series): 1 1/16 lb. Hammer (CG240H Series)



Stock No.	2-Jaw Yoke CG240-2	3-Jaw Yoke CG243-2	Std. Pres. Screw CG240-1	Long Pres. Screw CG240-11	Slide Screw CG240-8	Slide Hammer CG240-9	2-Jaw Lock Plate CG240-5	3-Jaw Lock Plate CG243-5	Spring CG240-6	Adj. Nut CG240-7	Std. Jaw CG240-3	Long Jaw CG240-10
CG240	1		1				1		1	1	2	
CG240L	1			1			1		1	1		2
CG240H	1				1	1	1		1	1	2	
CG240HL	1				1	1	1		1	1		2
CG243		1	1				1	1	1	1	3	
CG243L		1		1			1	1	1	1		3
CG243H		1			1	1	1	1	1	1	3	
CG243HL		1			1	1	1	1	1	1		3

6 ton and 7 1/2 ton Puller Group (CG250 Series): 2 1/8 lb. Hammer (CG250H Series)

Stock No.	2-Jaw Yoke CG250-2	3-Jaw Yoke CG253-2	Pressure* Screw CG250-1A	Slide* Screw CG250-8A	Slide Hammer CG250-9	Cross Bar CG10F	Lock Plate CG250-5	Spring CG250-6	Adj. Nut CG250-7	Std. Jaw CG250-3	Long Jaw CG250-10	Pulling Plate CG1
CG250	1		1				1	1	1	2		
CG250A	1		1				1	1	1	2		1
CG250C	1		1	1		1	1	1	1	2		1
CG250H	1			1	1	1	1	1	1	2		
CG250HL	1			1	1	1	1	1	1		2	
CG253		1	1				1	1	1	3		
CG253H		1		1	1	1	1	1	1	3		
CG253L		1	1				1	1	1		3	
CG2500B**	1	1	1	1	1	1	2	2	2	3	3	

*CG250-20 replacement point and CG250-21 flat point for CG250 series. CG250-8A has 5/8" UNF threads.

**CG2500B continued in next chart

10 ton and 12 1/2 ton Puller Group (CG270, CG280 Series): 3 1/2 lb. Hammer (CG270H Series)

Stock No.	2-Jaw Yoke CG270-2	3-Jaw Yoke CG273-2	Std. Pres.* Screw CG270-1A	Long Pres.* Screw CG270-11A	Man. Adaptor CG270-13	Slide* Screw CG270-8A	Slide Hammer CG66-2	2-Jaw Lock Plate CG270-5	3-Jaw Lock Plate CG273-5	Spring CG270-6	Lock Nut CG270-7	Std. Jaw CG270-3	Long Jaw CG270-10	Special Jaw CG270-3S	Extra Long Jaw CG270-12
CG270	1		1					1		1	1	2			
CG270A	1		1					1		1	1	2			
CG270C	1		1					1	1	1	1	2			
CG270H	1					1	1	1	1	1	1	2			
CG270S	1		1					1		1	1			2	
CG272	1			1				1		1	1		2		
CG273A		1	1						1	1	1	3			
CG273C		1	1					1	1	1	1	3			
CG273H		1						1	1	1	1	3			
CG280	1			1				1		1	1		2		
CG283		1		1					1	1	1		3		
CG284	1			1	1			1		1	1				2
CG285		1		1	1					1	1				3
CG2500B	1	1	1	1		1	1	1	1	2	2	3	3	3	

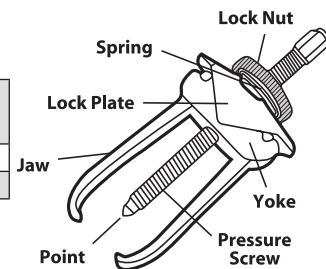
*CG270-20 replacement point for CG270/CG280 series pullers. CG270-8A has 3/4"-16 UNF threads.

CG270-21 flat point for CG270/CG280 series pullers.

20 ton Pullers (CG300 Series)

Stock No.	2-Jaw Yoke CG300-2	Pressure Screw CG300-1	Pressure Screw CG305-8	Lock Plate CG300-5	Spring CG300-6	Lock Nut CG300-7	Std. Jaw CG300-3	Long Jaw CG305-9
CG300	1	1		1	1	1	2	
CG305	1		1	1	1	1		2

*CG300-20 replacement point and CG300-21 flat point for CG300 and CG305 series pullers.



VE113B
Panel A

VE138-3B
Panel B



VE138-2B
Panel C

VE138-1B
Panel D



Industrial Puller Sets

CG1038KA Industrial Puller Set. Includes more than 35 basic pullers that will assemble into more than 165 puller combinations. Standard pullers in this set have a range from 2 to 20 tons. The hydraulic power components provide up to 20 tons of easy pulling power. Optional 10 ton and 50 ton hydraulic accessories are available. Components are mounted on four 24" x 32" x 3/4" tool control panels (labeled A, B, C, and D below) with white silhouettes. The panels are mounted on KRA213E A-frame.

CG1038K Industrial Puller Set. This is the CG1038KA set but does not include the KRA213E A-frame.

CG1050KA Expanded Industrial Puller Set. Includes CG1038KA set plus the CG1224 power kit for converting 10 ton manual pullers to hydraulic power; CG300-1, CG305-8, and CG350-1 pressure screws; CG343-1 4" plug; CG350-2 manual yoke for converting the 20 ton hydraulic pullers to manual power; and CG555 basic hydraulic set for building a 50 ton hydraulic bar type puller. Also includes CG420-5C pressure gauge, CG420-6 gauge mounting adaptor, 10 CG250-20 small centering adaptors and 10 CG270-20 large centering adaptors.

KRA213E A-Frame. Mobile unit features 23,220 cu. in., 1,260 sq. in. of storage for convenient access and orderly storage. Measures 26 1/2" W, 52 3/8" H, and 32 3/8" D.

Tool Control Boards

VE113B Tool Control Board. Panel A is designed to hold the components for CG2500BS interchangeable puller set (6, 7 1/2, 10, and 12 1/2 ton capacity). Also used as the tool control board for the CG2500BSB manual puller set.

CG250	Screw Type Puller	CG270H	Large Slide Hammer
CG250H	Medium Slide Hammer	CG270S	Screw Type, Special Grip Puller
CG250HL	Medium Slide Hammer	CG273	Screw Type Puller
CG253	Screw Type Puller	CG273H	Large Slide Hammer
CG253H	Medium Slide Hammer	CG280	Screw Type Puller
CG270	Screw Type Puller	CG283	Screw Type Puller

VE138-3B Tool Control Board. Panel B is designed to hold CG2400 light duty puller set, CJ840C tapped hole puller set, CJ949 bearing separator and CJ9500 bearing separator set components.

CG240	Screw Type Puller	CJ840C	Bar Type Tapped Hole Puller
CG240H	Small Slide Hammer	CJ949	Bearing Separator
CG243	Screw Type Puller	CJ950	Bearing Separator
CG243H	Small Slide Hammer	CJ951	Bearing Separator
CJ93B	Small Slide Hammer	CJ952	Bearing Separator

VE138-2B Tool Control Board. Panel C is designed to hold CG450HYA 20 ton hydraulic bar type puller components and the components of CG2545AB blind hole bearing puller set.

CG40C	Blind Hole Bearing Set	CG450	Bar Type Puller
CG45	Blind Hole Bearing Set	CG450HYA	Hydraulic Bar Type Puller

VE138-1B Tool Control Board. Panel D is designed to hold components of CG400 20 ton jaw type puller, three CG305-9 long jaws, CG455 and CG455A threaded adaptor sets, plus CG455-18 and CG455-19 pressure screw adaptors. The adaptors are for use with the bar type pullers on tool control panel C.

CG400	Jaw Type Puller
CG400HYA	Hydraulic Jaw Type Puller
CG405	Jaw Type Puller
CG450HYA	Hydraulic Bar Type Puller



WARNING



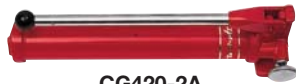
- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages 594 to 597

PULLERS

Hydraulic Power Units

Features of 2 Stage Hydraulic Pumps

- 2 stage design will advance 20 to 50 ton rams in the low pressure stage in less than 1/3 the strokes required on other models
- CG520 Ram extends in 60 to 70 strokes
- CG420 Ram extends in 17 to 19 strokes
- When high pressure is required, the low pressure stage automatically kicks out to leave the high pressure stage to do the work



CG420-2A

One Stage 20, 35, 50 ton Pump
24 fl. oz. capacity.



CG420-2S

Two Stage 20, 35, 50 ton Pump
24 fl. oz. capacity.



CG4-2A

4 to 10 ton Pump
5 fl. oz. capacity.



CG520 50 ton Ram



CG420-1A 20 ton Ram



CG650 6 ton Ram



CG720 35 ton Ram

Ram (Cylinder) Specifications

Capacity, tons	Stock No.	Stroke, inches	Collapsed Height, inches	Extended Height, inches	Effective Area (piston)	Oil Capacity, cu. in.	Pressure Screw Size, inches
4	CG220	2 1/4	6	8 1/4	.966	2,174	1/2-13 x 14 1/4
6	CG650	1 1/2	4 11/16	6 3/16	1.473	2,210	5/8-11 x 13 1/4
10	CG120	1	4 3/4	5 3/4	2.440	2,440	3/4-10 x 16 1/4
20	CG420-1A	2	6	8	4.418	8,836	1 1/8-8 x 20 1/2
35	CG720	2 1/2	7	9 1/2	7.903	19,758	1 3/8-8 x 25
50	CG520	3	8 1/8	11 1/8	11.066	33,198	1 5/8-5 1/2 x 30

CG222 4 Ton Set

Includes:
CG120-3-1 Hose
CG120-4 Coupler Set
CG220 4 Ton Ram
CG220-13 Pressure Screw
CG4-2A 4 to 10 Ton Hyd. Pump

CG652 6 Ton Set

Includes:
CG120-3-1 Hose
CG120-4 Coupler Set
CG250-20 Replacement Point
CG4-2A 4 to 10 Ton Hyd. Pump
CG650 6-Ton Ram

CG122 10 Ton Set

Includes:
CG120 10 Ton Ram
CG120-13 Pressure Screw
CG120-3-1 Hose
CG120-4 Coupler Set
CG270-20 Replacement Point
CG4-2A 4 to 10 Ton Hyd. Pump

CG420A 20 Ton Set

Includes:
CG420-1-14 Centering Adaptor
CG420-1A 20 Ton Ram
CG420-2A 1 Stage Pump
CG420-3-1 Hose
CG420-4 Coupler Set
CG420A2S 20 Ton Set
 Same as CG420A with the CG420-2S two stage pump.

Hydraulic Accessories

Both conversion kits provide hydraulic power for the pullers, which are included in the CG2500B puller sets.



CG1224

CG6223 6 Ton Power Kit.

Converts CG250 and CG253 manual pullers to hydraulic power.

Includes:

CG652 6 Ton Pump and Ram Set
CG250-15 2-Jaw Yoke
CG250-16 Hand Wheel Adaptor
CG253-15 3-Jaw Yoke

CG1224 10 Ton Power Kit.

Converts CG270, CG273, CG280, and CG283 manual pullers (on tool control panel "A") and CG1700/CG2500B puller sets to hydraulic power. Includes:

CG122 10 Ton Pump and Ram Set
CG270-15 2-Jaw Yoke
CG270-16 Hand Wheel Adaptor
CG273-15 3-Jaw Yoke



CG420-5C

CG420-5C Pressure Gauge.

Can be used with 6 ton, 10 ton, 20 ton, 35 ton, and 50 ton hydraulic equipment. Use CG4-2A, CG420-2A, or CG420A-2S pumps. Indicates hydraulic pressure in tons of pressure as well as psi. Adaptor CG420-6 is required to attach gauge to pumps.



CG420-6

CG420-6 Gauge Mounting Adaptor.

Mounts CG420-5C pressure gauge to 6 ton, 10 ton, 20 ton, 35 ton, and 50 ton hydraulic systems.

PULLERS

2- and 3-Jaw Hydraulic

6 ton Capacity (5.4 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG654HY Hydraulic, 2-Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)
CG655HY* Hydraulic, 3-Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)

Included with hydraulic ram.

*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG250 or CG253 Pullers.



CG654HY



CG655HY

10 ton Capacity (9.1 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG274HY 2-Jaw Model	8 3/4 (222)	3-8 (76-203)	3-8 (76-203), 10 1/2 (266)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
CG275HY 3-Jaw Model	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
CG276HY 2-Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)
CG277HY* 3-Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)

Included with hydraulic ram.

*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG270 or CG273 Pullers.



CG274HY



CG277HY

20 ton Capacity (18.1 t) - Combination 2- and 3- Jaw

Stock No.	Maximum Reach, inches	Max. Spread, in. (mm) outside	Pressure Screw Size, inches	Jaw Thickness, in. (mm)	Jaw Width, inches (mm)
CG400HYA*	9 1/2 (241)	13 (330)	1 1/8-8 x 20 1/2	7/16 (11)	1 1/4 (32)
CG400HYA2S	CG400HYA with two stage pump.				
CG400	CG400HYA less hydraulic ram and pump.				
CG343	Manual version of CG400HYA. Includes CG343-1 4" Plug and CG300-1 1"-14 Pressure Screw in place of ram and pump.				
CG343-1	4" Plug				
CG300-1	1"-14 Pressure Screw		1 x 14 x 14 5/8		
CG405HYA*	14 (355)	15 (381)	1 1/8-8 x 20 1/2	9/16 (14)	1 1/4 (32)
CG405HYA2S	CG405HYA with two stage pump.				
CG405	CG405HYA less hydraulic ram and pump.				
CG348	Manual version of CG405HYA. Includes CG343-1 4" Plug and CG305-8 1"-14 Pressure Screw in place of ram and pump.				
CG425HYA*	19 (482)	20 (508)	1 1/8-8 x 20 1/2	1 1/8 (29)	1 1/2 (38)
CG425HYA2S	CG425HYA with two stage pump.				
CG425	CG425HYA less hydraulic ram and pump.				
CG325	Manual version of CG425HYA. Includes 1 3/8"-8 x 20 11/16" pressure screw in place of pump, ram, washer adaptor, ram adaptor, and cap screws.				

*Included with hydraulic ram.



CG400HYA



CG343



CG405HYA



CG425HYA



CG560HY

50 ton Capacity (45.36 t) - Combination 2- and 3- Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG560HY*	28 (711)	44 (1,118)	1 5/8-5 1/2 x 30	1 7/16 (36)	2 (51)
CG560HY2S	CG560HY w/ 2 stage pump.				

*Included with hydraulic ram.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Bar-Type Manual Tapped Hole Sets



6 ton Capacity (5.4 t), Tapped Hole

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Side Rods	Side Rod Adaptors (2 each), inches
CJ840C	33 (838)	2 5/8 -11 5/8 (67-295)	1-14 x 33	5/8 -18	1/2 -20, 1/2 -13, 3/4 -16, 3/4 -10,
Complete Puller Set	Side rods in set are provided 2 each in 5 (CJ85-5), 10 (CJ854-2), and 20 (CJ84-3) lengths.				3/8 -24, 3/8 -16, 5/16 -24, 5/16 -18, 7/16 -20, 5/8 -18, 5/8 -11, 7/16 -14
CJ84C	CJ840C less all adaptors and side rods except 5/8 -18 x 10.				
Basic Puller Set					1/2 -20, 1/2 -13, 5/8 -18, 5/8 -11, 3/4 -16, 3/4 -10

Bar Type Manual Push/Pull Sets



6 ton Capacity (5.4 t), Push/Pull

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptors	Side Rods, inches	Side Rod Adaptors, inches
CG706 Push/Pull Set	14 1/8 (358)	2 5/8 -7 1/2 (67-191)	5/8 -18 x 10		7/16 -14 x 8 (4 each)	7/16 -14f x 5/8 -18m



10 ton Capacity (9.1 t), Push/Pull

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches
CG710 Push/Pull Set	17 5/8 (448)	3 9/16 -9 3/8 (90-238)	3/4 -16 x 12	CG710-3	(2) 5/8 -18 x 8, (2) 5/8 -18 x 12

Bar Type Hydraulic/Manual Sets



6 ton Capacity (5.4 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
CG656HY* Hydraulic Set	14 1/8 (358)	2 5/8 -7 1/2 (67-191)	5/8 -11 x 13 3/4	5/8 -11f x 5/8 -18m	7/16 -14 x 8	7/16 -14f x 5/8 -18m
CG656	CG656HY Set less the hydraulic components.					

*Included with hydraulic ram.

CG150HY

10 ton Capacity (9.1 t), Hydraulic

CG150HY* Hydraulic Set	17 5/8 (448)	3 9/16 -9 3/8 (90-238)	3/4 -10 x 16 1/4	3/4 -10f x 5/8 -18m 3/4 -10f x 3/4 -16m	5/8 -18 x 8, 5/8 -18 x 12	
CG150	CG656HY Set less the hydraulic components.					

*Included with hydraulic ram.

20 ton Capacity (18.1 t), Hydraulic

CG450HYA* Hydraulic Set	24 (610)	6-15 (152-381)	1 1/8 -8 x 20 1/2		7/8 -14 x 20, 7/8 -14 x 10	7/8 -14f x 7/8 -14m, 7/8 -14f x 5/8 -18m
CG450HYA2S*	CG450HY Set with two stage pump.					
CG450	CG450HY Set less the hydraulic components.					
CG350*	manually operated version of the CG450.					

*Included with hydraulic ram.

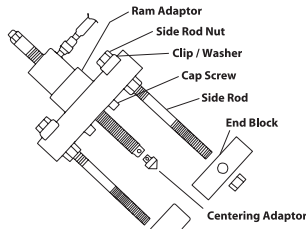
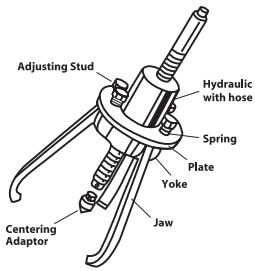


CG450HYA

35 ton Capacity (31.7 t), Hydraulic

CG750HY* Hydraulic Set	26 (660)	8 1/2 -17 (216-432)	1 3/8 -8 x 25	1 3/8 -8f x 7/8 -14m	1-14 x 20, 1-14 x 10	1-14f x 7/8 -14m, 7/8 -14f x 3/4 -16m
CG750HY2S	CG750HY Set with two stage pump.					
CG750	CG750HY Set less the hydraulic components.					

*Included with hydraulic ram.



Jaw Style Pullers (Hydraulic and Manual)

Stock No.	Hydraulic Unit	Ram Adaptor	Hydraulic Adaptor	Yoke	Pressure Screw	4" Dia. Plug	Plate	Spring	Adj. Stud	Jaws	Side Arms/Side Plate	Arm Bolts Arm Nuts	Washers/Cap Screws
CG654HY	CG652	CG250-16		CG250-15	*		CG250-5	CG250-6		CG250-3 (2)			
CG655HY	CG652	CG250-16		CG253-15	*		CG250-5	CG250-6		CG250-3 (3)			
CG274HY	CG122	CG270-16		CG270-15	*		CG270-5	CG270-6		CG270-3 (2)			
CG275HY	CG122	CG270-16		CG273-15	*		CG273-5	CG270-6		CG270-10 (3) CG270-3 (3)			
CG276HY	CG122	CG270-16	CG270-14	CG270-15	*		CG270-5	CG270-6 (4)		CG270-12 (2)			
CG277HY	CG122	CG270-16	CG270-14	CG273-15	*		CG273-5	CG270-6 (4)		CG270-12 (3)			
CG400HYA	CG420A			CG400-2	*		CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)			
CG343				CG400-2	CG300-1	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)			
CG405HYA	CG420A			CG400-2	*		CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)			
CG348				CG400-2	CG305-8	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)			
CG425HYA	CG420A	CG425-9		CG325-2	*					CG325-3 (3)	CG325-4 (3)	CG325-5 (3)	CG425-8
CG325				CG325-2	CG325-1					CG325-3 (3)	CG325-4 (3)	CG325-6 (3)	
CG560HY	See Hyd. Unit Chart			CG560-2	*					CG560-3 (3)	CG560-4 (6)	CG560-6 (9) CG560-5 (9)	

Bar Style Pullers (Hydraulic and Manual)

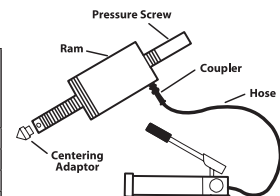
Set Stock No.	Hyd. Unit Ram Adapt.	Yoke	Pressure Screw	Centering Adaptor	Pressure Screw Adaptor	Thrust Nut Thrust Washer	Side Rods (2)	Side Rod Hex Nuts (6)	Clip/Washer	Side Rod Conn. Nuts (2)	End Blocks (2)	Side Rod Adaptors (2)	Cap Screw (2 Each)
CJ84C		CJ84-1B	CJ84-4	CJ84-16			CJ84A2 (10")		ME5A16 (2)				
CG706		CG656-2	CG706-1	CG250-20		CG325-6 CG706-2	CG656-3 (4) (8")	CG656-7	CG656-8 (4)	CG656-6	CG656-6	CG656-12	
CG710		CG150-2	CG710-1	CG270-20	CG710-3	CG45-2 CG710-2	CG150-3 (12") CG150-4 (8")				CG150-6		
CG656HY	CG652 CG656-9	CG656-2	*		CG656-13		CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG656		CG656-2			CG656-13		CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG150HY	CG122 CG150-9	CG150-2	*	*	CG150-12 (9/8") CG150-13 (3/4")		CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6		CG150-11 CG150-10
CG150		CG150-2			CG150-12 (9/8") CG150-13 (3/4")		CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6		CG150-11 CG150-10
CG450HYA	CG420A CG425-9	CG450-10	*	*			CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG450		CG450-10					CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG350	CG420A CG425-9	CG350-2	CG350-1				CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG750HY	See Hyd. Unit Chart	CG750-2	*	*	CG750-11 (7/8") CG750-13 (7/8")		CG750-3 (20") CG750-4 (10")	CG750-7	CG750-8 (2)	CG750-5	CG750-6	CG750-9	CG750-11 CG750-12
CG750		CG750-2			CG750-14 (1 1/8")		CG750-3 (20") CG550-3	CG750-7	CG750-8 (2)	CG350-5	CG750-6	CG750-9	CG750-11 CG550-10
	CG720-9	CG550-2					CG750-4 (10")	CG550-7				CG750-10	CG750-12

*Included with hydraulic ram (see chart below).

Hydraulic Power Units

Stock No.	Capacity, tons	Ram	Included with Ram Pressure Screw	Included with Ram Centering Adaptor	Hose	Coupler	Pump	Optional Pressure Gauge	Items* Gauge Adaptor
CG222	4	CG220	CG220-13		CG120-3-1	CG120-4	CG4-2A		
CG652	6	CG650	CG650-13	CG250-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG122	10	CG120	CG120-13	CG270-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG420A	20	CG420-1A	CG420-1-13A	CG420-1-14	CG420-3-1	CG420-4	CG420-2A	CG420-5C	CG420-6

*Standard with CG559 Bar Style Puller Set.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

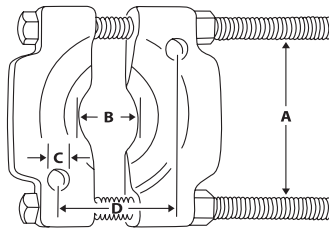
PULLERS

Bearing Separators

Bearing separators. For separating and pulling double bearings and close fitting gears. Use with tapped hole, 2-jaw pullers or floor presses.



CJ952



CJ950

Bearing Separators

Stock No.	A	B	B	C	D
CJ949	1 11/16	1 1/8	1/4	5/16-18	2 5/8
CJ950	2 3/8	2 3/8	3/8	3/8-16	3 3/4
CJ951	4 3/8	4 1/2	5/8	5/8-18	7 1/4
CJ952	5 7/8	6 1/8	1 1/2	5/8-18	9 5/16
CJ953	8 3/8	8 3/4	1 1/4	3/4-16	14 7/16

CJ9500 Bearing Separator Set. Includes CJ950, CJ951, and CJ952 (3 pcs).

Bar Type Puller Adaptors

Male Adaptors

Stock No.	Female Thread	Male Thread
CG656-12	7/16-14	5/8-18
CG656-13	5/8-11	5/8-18
CJ84-6	5/8-18	5/16-24
CJ84-15	5/8-18	5/16-18
CJ84-7	5/8-18	3/8-24
CJ84-10	5/8-18	3/8-16
CJ84-8	5/8-18	7/16-20
CJ84-18	5/8-18	7/16-14
CJ84-9	5/8-18	1/2-20
CJ84-11	5/8-18	1/2-13
CJ84-17	5/8-18	5/8-18
CJ84-12	5/8-18	5/8-11
CJ84-13	5/8-18	3/4-16
CJ84-14	5/8-18	3/4-10
CG710-3	3/4-16	5/8-18
CG150-12	3/4-10	5/8-18
CG150-13	3/4-10	3/4-16
CG46-7*	3/4-10	1-14
CG46-8**	3/4-16	1-14
CG750-9	1-14	3/4-16
CG750-10	1-14	7/8-14
CG455-18	1 1/8-8	5/8-18
CG455-19	1 1/8-8	7/8-14
CG47-420	1 1/8-8	1 1/4-12
CG550-9	1 3/8-6	1 3/4-12
CG455-1	7/8-14	5/8-18
CG455-2	7/8-14	5/8-11
CG455-3	7/8-14	3/4-16
CG455-4	7/8-14	3/4-10
CG455-5	7/8-14	7/8-9
CG455-6	7/8-14	1-14
CG455-7	7/8-14	1-8
CG455-8	7/8-14	1 1/8-12

*For attaching CG46 Series Pullers to CG105HY Hydraulic Bar Style Puller.

**For attaching CG46 Series Pullers to CG710 Push/Pull Set.

***For attaching CG47 Series Pullers to CG450HYA Hydraulic Bar Style Puller.

CG455 Male Adaptor Set. Includes two each of the male adaptors CG455-1 through CG455-8 (16 pcs).



CG455

- Male and female adaptors add versatility to the pulling and pushing capabilities of bar style pullers
- Adaptors change the diameter and/or thread pitch of pressure screws and side rods to accommodate item being pushed or pulled. Unthreaded male ends of bull nose adaptors perform many pushing operations



CG455A

Female Adaptors

Stock No.	Female Thread
CG455-9	7/8-14 and 5/8-18
CG455-10	7/8-14 and 3/4-16
CG455-11	7/8-14 and 1-14
CG455-12	7/8-14 and 1 1/8-8
CG455-13	7/8-14 and 1 1/8-12
CG455-14	7/8-14 and 1 1/4-8
CG455-15	7/8-14 and 1 1/4-12
CG455-17	7/8-14 and 1 1/2-12
CG455-16	7/8-14 and 1 1/2-8

CG455A Female Adaptor Set. Includes two each of the female adaptors (18 pcs).

Blind Hole Bearing

Set Components

Stock No.	Description	Internal Thread Size	External Thread Size
CG40-11	Collet, 43/64"-53/64"		
CG40-12	Collet, 15-18mm		
CG40-4-1	Collet Extension, 4" long		
CG46-8	Manual Adaptor		
CG46-7	Hydraulic Adaptor		
CG47-420	Hydraulic Adaptor		
CG250-8A	Slide Screw, 5/8"-18 x 18 9/16"		
CG250-9	Slide Hammer, 2 lb.		
CG40-1	Pressure Screw, 5/8"-18 x 7 3/4"		
CG40-2	Nut, 15/16" Wrench Size		
CG40-3	Yoke, 3 1/4" Spread		
CG41-11	Expanding Rod	5/8"-18	3/8"-24
CG41-14	Collet, 1/4"-5/16"		
CG41-12	Collet, 5/16"-3/8"		
CG41-13	Collet, 3/8"-7/16"		
CG40-4	Expanding Rod	5/8"-18	1/2"-20
CG40-9	Collet, 7/16"-1/2"		
CG40-15	Collet, 1/2"-5/8"		
CG40A6	Collet, 5/8"-3/4"		
CG40-7	Collet, 3/4"-7/8"		
CG40-8	Collet, 7/8"-1"		
CG40A10	Collet, 1"-1 1/8"		
CJ105-4B	Slide Screw, 3/4"-16 x 22 1/2"		
CJ97-3A	Slide Hammer, 3 3/4 lb.		
CG270-1A	Pressure Screw, 3/4"-16 x 9 1/2"		
CG45-2	Nut, 1 1/8" Wrench Size		
CG45-3	Yoke, 5 3/4" Spread		
CG45-4	Expanding Rod for:	3/4"-16	5/8"-18
CG45-15	Collet, 1"-1 1/4"		
CG45-6	Collet, 1 1/4"-1 1/2"		
CG45-7	Collet, 1 1/2"-1 3/4"		
CG46-1	Slide Screw, 1"-14 x 18"		
CG46-2	Slide Hammer, 6 lb.		
CG46-3	Expanding Rod	1"-14	1 1/8"-12
CG46-4	Collet, 1 5/8"-2"		
CG46-5	Collet, 2"-2 1/2"		
CG46-6	Collet, 2 1/2"-3"		
CG4567N	Slide Screw, 1 1/4"-12 x 24"		
CG4567O	Slide Hammer, 10 lb.		
CG47-201	Expanding Rod for:	1 1/4"-12	1 1/8"-12
CG47-202	Master Collet		
CG47-203	Collet Pad, 3"-3 1/2" (3)		
CG47-204	Collet Pad, 3 1/2"-4" (3)		
CG47-205	Collet Pad, 4"-4 1/2" (3)		
CG47-206	Collet Pad, 3 1/2"-5" (3)		
CG47-207	Collet Pad, 5"-5 1/2" (3)		
CG47-208	Collet Pad, 5 1/2"-6" (3)		
CG47-209	Collet Pad, 6"-6 1/2" (3)		
CG47-210	Collet Pad, 6 1/2"-7" (3)		
CG47-211	Screw, 3/4" (3 sets of 2)		
CG47-212	Screw, 1 3/4" (3 sets of 2)		

Accessories

CG40-11 (43/64"-53/64") Collet.

For needle bearings on Leece-Neville alternators. Use with CG40-4 expanding rod.

CG40-12 (15-18mm) Collet.

For pilot bearings on late model Ford transmissions. Use with CG40-4 expanding rod.

CG40-4-1 (4" long) Collet Extension.

For CG40 series collets.

CG46-8 Manual Adaptor.

For attaching CG46 series pullers to CG710 push/pull set.

CG46-7 Hydraulic Adaptor.

For attaching CG46 series pullers to CG105HY hydraulic bar style puller.

CG47-420 Hydraulic Adaptor.

For attaching CG47 series pullers to CG450HYA hydraulic bar style puller.

CG46-3 Expanding Rod.

CG2545AB Blind Hole Bearing Puller.

Includes CG40C and CG45 sets plus slide screw and hammers in storage box.

- Includes:
- | | |
|---------|----------|
| CG40-1 | CG40-9 |
| CG40-2 | CG40-15 |
| CG40-3 | CG270-8A |
| CG40-3 | CG45-2 |
| CG41-11 | CG45-15 |
| CG41-14 | CG45-3 |
| CG41-12 | CG45-4 |
| CG41-13 | CG45-6 |
| CG40-4 | CG45-7 |
| | CG66-2 |
| | CG250-8A |
| | CG250-9 |
| | CG270-1A |



CG47

These special pullers will pull blind hole bearings, bushings and sleeves with inside diameters ranging from 1/4" to 7" where regular pullers won't reach. The operation is simple. After the special collet is inserted through the bearing or sleeve, a matched expanding rod is threaded into the collet and secured. Pulling can be done through bridge of bar type yokes or with side hammers.



CG40CB

CG40CB Blind Hole Bearing Puller.

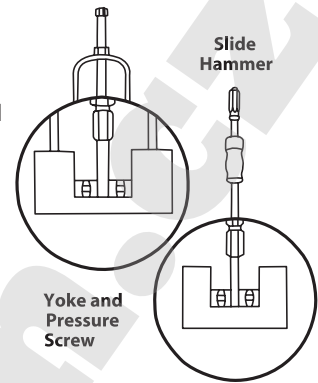
Includes 9 collets and yoke. Uses CG250-8A slide screw and CG250-9 slide hammer.

Includes:

- | | |
|---------|---------|
| CG40-1 | CG40-9 |
| CG40-3 | CG40-15 |
| CG41-11 | CG40A6 |
| CG41-14 | CG41-10 |
| CG41-12 | CG40-7 |
| CG41-13 | CG40-8 |
| CG40-4 | CG40-2 |



CG2545AB



Yoke and Pressure Screw



CG45

CG45 (1"-1 3/4") Puller Set.

3 collets and yoke. Uses CJ105-4B slide screw and CJ97-3A slide hammer.

Includes:

- | | | |
|----------|---------|--------|
| CG270-1A | CG45-4 | CG45-6 |
| CG45-2 | CG45-15 | CG45-7 |
| CG45-3 | | |



CG46

CG46 (1 5/8"-3") Puller Set.

3 collets, slide screw, and hammer. For large size blind hole bearings, Torrington needle bearings, heavy duty bearings on live center lathes, conveyor belts, and rollers.

Includes:

- | | | |
|--------|--------|--------|
| CG46-1 | CG46-3 | CG46-5 |
| CG46-2 | CG46-4 | CG46-6 |

CG47 (3"-7") Puller Set.

Master collet and pads plus slide screw and hammer. Pulling size is changed by changing pads.

Includes:

- | | | |
|----------|----------|----------|
| CG4567N | CG47-204 | CG47-209 |
| CG4567O | CG47-205 | CG47-210 |
| CG47-201 | CG47-206 | CG47-211 |
| CG47-202 | CG47-207 | CG47-212 |
| CG47-203 | CG47-208 | |



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

Diesel Service Sets/Diesel Fuel Service



KRW200A



CUMDS12V



CUMDS24V

Tools Required for Cummins B and C Series Service Kits

Stock No.	Description	Applications				Set Contents	
		12 Valve	24 Valve			CUMDS12V	CUMDS24V
		pre 1994	1994 to 1998.5	1999 to 2002	2003	12 Valve	24 Valve
FB300A	Bent Blade Feeler Gauge	•	•	•	•	•	
MT33C	Compression Gauge	•	•	•	•	•	
MB5B	Bronze Injector Brush	•	•	•	•	•	
MB6BT	Stainless Steel Injector Brush	•	•	•	•	•	
YA9565A	Engine Turn Over Tool	•	•	•	•	•	
CJ140-1	Injector Slide Hammer Puller	•	•	•	•	•	
CJ141	12mm Injector Adaptor	•			•		
CJ142	14mm Injector Adaptor	•			•		
FRHM17	17mm 6-Point Crowfoot	•			•		
FRXM17	17mm 6-Point Flare Nut Socket	•			•		
M3584	Compression Adaptor	•			•		
SP144	Injection Pump Wrench	•			•		
SP145	Idle Wrench (10mm)	•			•		
TSM24	24mm 6-Point Deep Socket	•			•		
YA8331	Timing Indicator Gauge	•			•		
FRHM19	19mm 6-Point Crowfoot		•	•		•	
FRXM19	19mm 6-Point Flare Nut Socket		•	•		•	
EEPV313A	Compression Adaptor		•	•		•	
CJ143	Adaptor		•	•		•	
CJ144	Adaptor		•	•		•	
SP504	Gear Puller		•	•		•	
CJ148	Fuel Line Plug			•		•	
CJ149	Adaptor			•		•	
KRW200A	Storage Case				•	•	

Optional Tools

MTTACH1	Digital Tachometer to measure engine RPM	•	•	•	•		
TWM14A	14mm 1/2" dr Shallow Socket use with V22A to adjust valves	•					
SP346	Fan Wrench (36mm)	•					

CUMDS12V Cummins B and C Series 12-Valve Diesel Set. Services Cummins B and C Series 12-valve engines from pre-1994. Additional applications include Dodge Ram 250 and 350 pickups, Ford pickups with 3.9L, 5.9L and 8.3L diesel engines, J.I. Case tractors and off-road equipment. 15 tools in storage case.

CUMDS24V Cummins B and C Series 24-Valve Diesel Set. Services Cummins B and C Series 12 and 24-valve engines 1994 and later. Additional uses include Dodge heavy duty pickups and all applications with ISB and ISC diesel engines. 14 tools in storage case.

Diesel Timing Gauge Set

SP500 Diesel Timing Gauge Set. The SP500 diesel gauge set will update existing 2017DSP diesel service sets to handle 1994 to 1998 Cummins B engines used in Dodge Ram 250/350 pickup trucks and some Fords. Updated 2017DSP set will also service J.I. Case tractors and off road equipment.



SP500

SP5001 Dial Indicator. Features rack and pinion construction. Refer to the pump manufacturer's service manual when using this gauge. Gauge diameter is 2 1/4 inches. Range is 30mm. Gauge is marked in .01mm increments.



SP503

SP503 Spline Socket Blue-Point®. Used to remove and replace the delivery valve on most Bosch fuel injection pumps. Wrench size is 34-tooth. 1/2" drive size.



SP504

SP504 Gear Puller Blue-Point. Used to remove the injection pump gear. Bolt thread is M8 x 1.25. Bolt length is 44mm.



SP5002

SP5002 Gauge Holder Blue-Point. Used in fuel injection pump in place of the #1 delivery valve to locate the base circle of the injection pump cam. Male thread is M22 x 1.5.



SP7882

Injector Height Gauges—Blue-Point®

Use height gauges to set injectors during installation and at set service intervals. Knurled handle screws into gauge at 90° angle for work in close quarters.

Stock No.	Size	Series	Engine	Year
SP78	78.2mm	60	DDECI	1986-1993
		60 and 50	DDECII	1986-1993
SP80	78.8mm	60 and 50	DDECIII	1994-1997
SP79	80.3mm	60	DDECIII	Late 1997
		60 and 50	DDECIV	1997-1998
SP81	81.0mm	60 and 50	DDECIV Marine	1998-1999 2000-2003
SP82	82.1mm	60	See service manual	

SP7882 Diesel Injector Height Gauge Set. Five-in-one gauge set covers all applications for Detroit Diesel 50 and 60 series engines. Includes SP78, SP79, SP80, SP81 and SP82 injector gauges plus handle in vinyl storage pouch.



M3530



M3531

Governor Gap Wrenches

M3530 Governor Gap Adjusting Wrench. 3/8" open ends, 4" long. Special thin design with 30° and 60° angle heads.

M3531 Governor Gap Lock Nut Wrench. Similar to M3530 but has 7/16" open ends and is 4 1/4" long.



FCT706

Fan Clutch Wrench—Blue-Point.

FCT706 Fan Clutch Wrench. Fan clutch wrench for heavy duty truck engines. Hole pattern on tool aligns with fasteners on fan hub. Use with open end wrench to remove fan clutch. 24 1/2" length for maximum leverage. Applications include International (VT365, T444E, DT466, DT350 and HT530), Ford Power Stroke (7.6L and 6.0L), Detroit Diesel (Series 40) and John Deere.



BDD1

Injector Brush

BDD1 Injector Brush. Stainless steel wire brush is for cleaning carbon buildup in the injector cup.



SIMDM120A



M3525A



M3503B

Special Application Sockets

SIMDM120A Engine Bearing Cap Bolt Socket. Easily remove/replace engine bearing cap bolts on Detroit 60 diesel engines with Jake Brake® engine retarders. 12-point Flank Drive® Wrenching System provides superior turning power. Cold formed and heat-treated from a special alloy steel for maximum strength and durability. Industrial black finish helps prevent corrosion. 12 pt., 12mm, 1/2" square drive impact socket.

M3525A Spanner Socket. 1/2" drive, 3 7/32" long. Includes 1 1/8" internal hex for use on Fuel Squeezer series of engines.

M3503B Fuel Line Nut Socket. 1/2" wrench opening. 6-point, 3/8" drive. Shaped for access to fuel line nuts. 3 1/4" long. Additional applications on the head temperature sensor found on Buell Motorcycles.



S6200

S6200 Engine Bearing Cap Bolt Socket. Use to service engine cam bearing cap bolts on both older and newer generation Detroit Diesel engines. Newer generation Detroit Diesel engines use longer cam bolts than earlier generation engines. The S6200 is specially designed to work on both engine generations. 12mm wrench size. 1/2" drive. 4 3/8" overall length. S6200 is similar to Snap-on® SIMDM120A socket but is longer.



MFIMMD10

MFIMMD10 12-Point Metric Shallow Magnetic Socket.

For use on Detroit Diesel 60 series, the MFIMMD10 is used on the three camshaft gear thrust plate bolts located inside the camshaft gear cover within the front gear case on the engine. The mechanic has to go through the cover to start the bolts. If one is dropped, it is very labor intensive and time consuming to retrieve. Applies to 2002 and later 60 series Detroit engines with the compact gear case. PLEASE NOTE: Earlier engines with the tall gear case have 13mm six point bolts. Please use MFIMM13 for this application.

Stock No.	Size, mm	Finish	Style	A	B	D	E
MFIMMD10	10	Industrial Finish	12-point	15.1	17.2	28.6	7.1



WARNING



• Read safety precautions on pages 594 to 597

Detroit



FB325A

Feeler Gauges—Blue-Point®

FB325A U.S./Metric Feeler Gauge Set. For adjusting governor gap. Includes (25) 1/2" x 3" blades in sizes .0015" plus .002" through .025" in .001" increments.



FB308D

FB308D Step Feeler Gauge Set and Holder

Blue-Point. For adjusting valves. Includes 12 step blades in sizes .008"/.010" through .028"/.030".



FB328A

FB328A Step Feeler Gauge Set and Holder. For adjusting valves. Includes two step blades: .011"/.013" and .013"/.015".



M3518

M3517B

Push Rod Wrenches

M3517B Push Rod Lock Nut Wrench. 1/2" open end, 102° offset handle.

M3518 Push Rod Adjusting Wrench. 5/16" open end, 102° offset handle.



AWM4D

Metric Hex Wrenches

AWM4D Metric L-Shape Hex Wrench. For adjusting governor gap. 4mm hex.

AWM5D Metric L-Shape Hex Wrench. For adjusting governor gap. 5mm hex.



YA9340

Belt Tensioning Tool—Blue-Point.

YA9340 Serpentine Belt Wrench. Use to release any serpentine belt tensioner with 1/2" square drive opening. Ratcheting action allows better positioning of the tool, which allows more swing angle than a solid type serpentine belt wrench. Reversible ratchet head is only 1" thick so it will fit between tensioner face and fan blades on s Series 60 Detroit Diesel and some Caterpillar engines. Also great for working on buses and delivery vans where the doghouse or engine shrouding restrict access. Compact overall length keeps handle from coming in contact with radiator hoses, charged air cooler pipes, hydraulic lines or frame rails. 13" overall length.



SRD6

SRD6 Belt Tensioner Release Tool. 6" long adaptor with 1/2" male square. The female triple square drive allows the user more flexibility to work around obstacles by coming in at different angles with a 1/2" breaker bar. Similar to Snap-on® 6" torque adaptors but with a male square. If using with a torque wrench, please refer to Snap-on part # SS306G Torque Chart for formula to obtain the correct applied torque.

Heavy Duty Applications.

For serpentine belt tensioners with a 1/2" square drive opening found on Series 60 Detroit Diesel and Caterpillar engines. Other heavy duty applications include buses and delivery vans where the doghouse or engine shrouding can get in the way and make the work area very tight.

Automotive Applications.

1/2" serpentine belt tensioners on Dodge/Chrysler (2.0L and 3.0L engines), Ford, Lincoln and Mercury (2.3L, 3.0L, 4.2L, 4.6L engines) plus GM (2.5L, 4.7L, 5.0L, 5.7L engines).

Ford/Navistar/Automotive Diesel



SP60

Fan Wrench

SP60 Fan Wrench. 1 7/8" (48mm) wrench services the cooling fan hub retaining nut. Has a 1/2" drive hole for torquing of the fan nut. 15 3/4" long.

Pulley Puller

SP448 Pulley Puller. For removing the air pump pulley. Fits over pulley flange.



SP448

Compression Adaptor

M3545B Glow Plug Compression Adaptor. For GM 4.3L and 5.7L plus Navistar 6.9L and 7.3L diesel engines. Replacement valve core is M3545A4. Must be used in conjunction with MT33C Compression Gauge and M3569 or M3570 Quick Couplers.



M3545B

M3545A4 Replacement Valve Core. Replaces valve core on M3545B.

Ford ICP Sensor Socket

S6196KR Ford ICP Sensor Socket. Easily remove and install the ICP Sensor on 2002 and 2003 Ford 6.0L diesel truck engines. Spring retention securely holds sensor during use. Flank Drive® wrenching system provides greater torque for less effort. Chrome finish for quick cleanup and corrosion resistance. 6-point configuration. Wrench Size: 1 1/16". Drive Size: 3/8". Outer Diameter: 1 7/16" (36.2mm). Length: 2 9/16" (64.8mm).



S6196KR

Diesel Turbo Wrench

PSWT10K Ford Power Stroke Diesel Turbo Wrench. 10mm wrench is ideal for accessing the turbo mounting bolts located between the firewall and the turbo with exhaust intake in the way. Designed for use on 2003 and later 6L diesel Powerstroke engines used on Ford F250, F350, E250 and E350. Additional applications on Navistar VT365 engines and some International 4000 series of medium duty trucks. Wrench has a zero degree offset 6 point head. Designed to remove excessively tight fasteners off the intake when removing turbocharger where a conventional 15° offset wrench will not work. 5 1/2" long.



PSWT10K



YA998A



FFW4

Fuel Filter Wrenches – Blue-Point®

YA998A Ford Fuel Filter Wrench. Service 1994 and later Ford 7.3L diesel engines with old style caps (1994 to 1998) and newer style caps (1998 and later). 3/8" square drive. Overall dimensions of 3 5/8" x 7/8" x 1". Chrome finish.

FFW4 Ford Fuel Filter Wrench. Easily remove and install Ford power stroke diesel fuel caps and other diesel filter systems using the same configuration such as International and Navistar engines. Allows access to both fuel filter housing lids in the V of the Ford power stroke diesel engine. Designed to spread the force of removal over six contact points, preventing breakage.

Diesel Pulse Adaptor

MT257B Diesel Pulse Adaptor. Test injector timing or engine RPM on diesel engines equipped with 1/4" or 6mm external steel fuel injector lines. Enables use with inductive pick-up timing light to test engine timing. The MT257B is not for use on diesels with common rail fuel systems.



MT257B

Quick Couplers

M3569 Quick Coupler. 45° offset.
M3570 Quick Coupler. 90° offset.



M3570



M3569



MB5B



MB73

Injector Brushes

MB5B Injector Brush. Bronze, non-abrasive brush cleans carbon from injector tips.

MB73 Injector Brush. Combination 5/16" and 13/16" diameter stainless steel wire brush to clean the injector bore and injector tip hole in the cylinder head.

Automotive Diesel Service Tools

Sensor and Filter Sockets

S3624 Filter Flip Socket. One tool will remove/install all three filter caps on Ford 6.0L Power Stroke diesel powered vehicles such as Super Duty Series Pickups, Econoline Vans and Excursions. Use for removal and installation of the Oil Filter cap plus Primary and Secondary Fuel filter caps on these vehicles. Not for impact use. Requires optional 3/8" drive extension (FX1 or FXWP1 1-1/2" long). See additional applications on pg 506.

Mercedes-Benz: diesel engines

S3624 Specifications

- Square drive size: 3/8"
- Wrench sizes: 24 and 35/36mm
- Wrenching Configuration: Flank Drive
- OD Major: 1.80" (45.7mm)
- OD Minor: 1.38" (34.9mm)
- Length: 1.73" (43.9mm)
- Finish: Nickel-Chrome



S3624



A129

A129 Diesel Fuel Filter Socket. Use for removing and installing fuel filter housings found on 2002 and later Dodge Ram trucks with the 24-valve Cummins diesel engine. 1 1/8" wrench size. 3/8" drive.

SWR3 Water Sensor Socket

Easily remove/replace water sensor without damage when changing the fuel filter on 2001 to present GM 6.6L DuraMax diesel engines. The water sensor is attached to the fuel filter and can be damaged during fuel filter replacement. This damage is due to the use of water pump pliers and the lack of a special tool. GM 6.6L DuraMax diesel engine applications include 2001 to present Chevy/GMC pickups and Chevy/GMC medium duty trucks. Manufactured from high strength, chemical resistant glass filled nylon. 3/8" square drive. NOTE: Due to possible sensor distortion from previous incorrect removal/installation methods, the sensor may slip in the SWR3 during removal. The SWR3 can be used to reinstall the sensor, when proper hand tightening is used.



SWR3

OFSKIT Oil/Fuel Filter Socket Set

Includes A127 and A106 oil filter sockets, S3624 filter flip socket and A129 cummins diesel fuel filter socket (4 pcs) in storage tray. Applications for A127, A106 and S3624 are listed on pg 506. Applications for A129 are listed on this page.



OFSKIT



WARNING



- Do not use chrome or industrial finish hand tools with impact drive
- Read safety precautions on pages 594 to 597

Automotive Diesel



YA8331

Timing Indicator Gauge

YA8331 Timing Indicator Gauge. For VW and Audi. Use to set Bosch diesel fuel injection pump timing. Gives a dial indicator reading to allow accurate pump timing setting. Dial indicator reads in graduations of .01mm. Also use on 1981 to 1986 Volvo 2.4L V6 and 1989-1994 Dodge 5.9L V6.



YA6180

Fan Clutch Wrench-Blue-Point®

YA6180 Fan Clutch Wrench. Use on GM and Ford diesel and gas engines with a 48mm fan clutch nut. Provides the extra leverage needed to remove the fan clutch nut. Overall length of 20 1/8". Head width of 4 1/8". Head thickness of 3/8".



S6105A

Glow Plug Tool

S6105A Glow Plug Socket. For GM 4.3L, 5.7L, 6.2L and 6.5L diesel engines. 3/8", 12-point socket holds the glow plug while servicing. Special deep clearance to hold glow plugs and Lumy probe. 2 1/8" long.



S6104B

Metric Injector Sockets

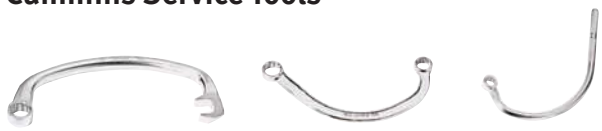
S6104B Metric Injector Socket. For VW and Mercedes diesel engines. 27mm, 12-point. Clearance bored to fit over fuel injector. 1/2" drive. 3 1/4" long.



S6128

S6128 Metric Injector Socket. For Bosch type injectors on GM 6.2L 6.5L diesel engines. 30mm, 6-point. 2 1/16". 2 1/16" bolt clearance. 7/16" opening depth, 2 11/16" long. 7/8" external hex on drive end.

Cummins Service Tools



M1328A

M1321

M1329

Air Compressor/Fuel Pump Wrenches

M1328A Air Compressor/Fuel Pump Wrench. Includes 5/8", 12-point box wrench on one end for servicing fuel pumps and a specially designed 11/16" open end for access to air compressor bolts.

M1321 Air Compressor/Fuel Pump Wrench. Similar to M1328A but has a 12-point box wrench on both ends. One is 5/8"; the other is 11/16". Accommodates air compressor and fuel pump flange bolts on NH Series In-line 6 cylinder engines.

M1329 Fuel Pump Wrench. Includes 7/16", 12-point box end for servicing fuel pump bolts on NH Series engines equipped with Cummins air compressors. 6 5/8" long.



M1322

Valve Adjusting Wrenches

M1322 Valve Adjusting Wrench. 3/4", 12-point box wrench to tighten lock nuts on rocker arms. Designed to clear the aftercooler. 14 3/4" long.

M1319 Valve Adjusting Wrench. 7/8", 12-point box wrench to tighten lock nuts on rocker arms. Designed to clear the aftercooler. 12" long.



SP346

Fan Wrench-Blue-Point

SP346 Fan Wrench. 36mm open end wrench services fan clutch attaching bolts on B Series Cummins Engines. Can also be used on fan clutch bolts on Navistar 6.9L and 7.3L engines. Wrench is 15" long and has a blue, vinyl covered handle.



CJ125A

CJ140-1

CJ144

Injector Pullers

CJ125A Injector Puller. Slide hammer puller services D, T op Stop, and small V8 injectors. 10 1/2" long.

CJ140 Diesel Injector Puller Set. Use on fuel injectors in Cummins B and C Series 3.9L, 5.9L and 8.3L engines used in Dodge pickups and Case tractors/off-road equipment. Will service all 1994 to 1998-1/2 standard injectors as well as fuel inlet tubes.

CJ140-1 Slide Hammer (8mm). Use to pull injectors from heads on 1998-1/2 to 2002 Dodge/Cummins. 8mm thread. Use CJ144 Puller to put the fuel inlet tube prior to removing the injector.

CJ141 Diesel Injector Puller Adaptor (12mm). Use on Cummins diesel injectors prior to 1994.

CJ142 Diesel Injector Puller Adaptor. Use on Cummins diesel injectors from 1994 to 1998-1/2. M14 X 1.5 threads.

CJ143 Diesel Injector Puller (8mm). Use on 1998-1/2 Cummins diesel injectors in tight access areas.

CJ144 Diesel Injector Puller (15mm). Use on 1998-1/2 to 2002 Cummins diesel fuel inlet tubes.



SP144



SP145

Injector Pump/Idle Lock Nut Wrench-Blue-Point®

SP144 Injection Pump Wrench. 13mm, 12-point box wrench is used to service the injection pump mounting bolts found on 5.9L Cummins engines.

SP145 Idle Lock Nut Wrench. 10mm, 12-point wrench with 90° angle is designed to remove or install mounting bolts on the diesel injection pump. For Cummins B Series 5.9L Engines.



YA9565A

Engine Turning Tool

YA9565A Engine Turning Tool. Used to rotate the engine for making valve and injection pump adjustments on Cummins and J.I. Case 3.9L, 5.9L and 8.3L B and C Series engines. 3/8" female square drive.

Cummins Service Tools



Wet Sleeve Pullers

CG80HYA Hydraulic Wet Sleeve Puller. Provides hydraulic pressure for removing wet sleeves on Cummins diesels, trucks, and heavy construction and farm equipment with a cylinder diameter of 3" to 6". Reach is 7" to 12". Adjustable bridge fits around studs in block. Includes a 6 ton hydraulic power pack. Contains 1 set each of CG80-11 and CG80-22.

CG80A Wet Sleeve Puller. Manual version of CG80HYA.
CG80-11 Insert (1/4"). 1/4" insert for CG80A/CG80HYA Wet Sleeve Pullers.

CG80-22 Insert (5/16"). 5/16" insert for CG80A/CG80HYA Wet Sleeve Pullers.



Engine Sockets

PPM516A Drain Plug Socket. 1/2" square male end with 1/2" drive. Extra strength to remove drain plugs. 1 7/16" long.

SIML200 6-Point Extra Deep Impact Socket. 5/8" single hex for the stud used for the rocker box on engines equipped with Jacobs engine brake. 1/2" drive, 5" long.

FTXEL45E Extra Long TORX® Socket Driver. Quickly and easily access intake bolts on Cummins N14 diesel engines without removing the air pump. Can also be used on older Cummins NH Big Cam 4 diesel engines. 3/8" square drive.



Timing Gauge Injectors

GA3711 Injector Timing Gauge Set.

Range is 0" to 1" in .001" increments. Time injectors on Cummins NH, NT, L-10, and V-model engines in or out of the chassis. Set includes two dial indicators, mounting hardware, instructions and CM6543350 storage case.

GA3707 Injector Adjustment Gauge Set. Indicator Range is 0" - 1" in .0005" increments. Adjust injector travel on NH, NT, L-10 and V model engines except those with Top Stop Injectors. Do not use this tool for engines with Top Stop Injectors. Obtain accurate plunger travel and uniform fuel delivery for top performance and maximum fuel economy. Comes in fitted storage case (CM6546950). Always refer to the appropriate shop manual and follow the recommended procedures when using this tool. The directions included with this tool are not meant to take the place of the appropriate shop manual.

Compression Adaptors

These compression adaptors are for use with the MT33C compression gauge on page 421.

M3540A Compression Adaptor. For Cummins 855 cu. in. NH and 903 V8 and L10 diesel engines.

M3584 Compression Adaptor. For Case/Cummins series B 2.9L, 3.9L, and 5.9L diesel engines.

M3585 Compression Adaptor. For Case/Cummins series C 8.3L engines.



WARNING



- Do not use chrome or industrial finish sockets with impact driver.
- Read safety precautions on pages 594 to 597

Pulley Installers and Pullers

CJ83C Pulley and Gear Puller. Ideal for servicing crankshaft pulleys and gears and timing gears on a wide range of gasoline and diesel engines including Cummins accessory drives and water pumps. Nominal capacity is 3.5 tons. Use to remove accessory drive pulley (replace with M1324). Includes yoke; two each 3/8"-16 x 3", 5/16"-18 x 2 1/2", and M10-1.5 x 65mm studs; and 3/4"-16 x 5" pressure screw.

M1324 Pulley Installer. For installing the accessory drive pulley on the shaft. Includes 7/8"-14 NC threaded adaptor, washer-type bearing, and installer housing.



Torque Adaptor Set-Blue-Point®

ST669 Torque Adaptor Set.

Use to loosen and adjust lock nuts to manufacturing specifications.

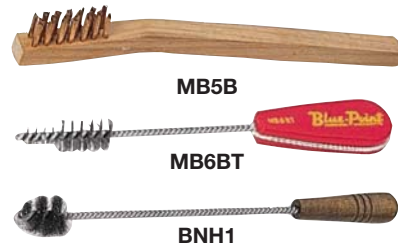
ST669-1 Handle Assembly. Handle assembly.

M1302B18 12-point Deep Socket. 9/16" deep, 12-point socket.

M1302B24 12-point Deep Socket. 3/4" deep, 12-point socket.

M1302A5 Screwdriver. 1/2" x .062 screwdriver.

TM82 Flat Tip Socket Driver. 1/4" x .036 flat tip driver.



Injector Brushes-Blue-Point

MB5B Injector Brush. Bronze, non-abrasive brush cleans carbon from injector tips.

MB6BT Injector Brush. Stainless steel wire brush cleans the injector cavity in the cylinder head. For Cummins B series engines and J.I. Case equipment. 9" long.

BNH1 Injector Brush. For Cummins NH series engines.

Fuel Line Tools

CJ148 Fuel Line Plug.

For plugging fuel lines.

CJ149 Fuel Tube Remover.

For fuel inlet tubes on later model vehicles.

YA6615 Flare Nut Wrench Blue-Point.

Use on Dodge trucks with 5.9L engines (2003 and later) and 6.7L engines (2007 and later). Easily slides into the confined area of the cylinder head. Wrench is required to hold the 24mm flare nut while the 19mm fuel line coupler is loosened. Helps prevent costly damage to the fuel lines.



HEAVY DUTY TRUCK TOOLS



Special Application

S6197 Heavy Duty Driveline Socket. Use on Kenworth/Peterbilt heavy duty drivelines that use 1/2" fasteners. Many other heavy duty 1/2" applications as well. Example: Socket will clear the weld yoke, when removing the cap screws holding the wing bushings to the end yoke. 1/2" wrench size, 12 point, 1/2" drive.

S6199 U-bolt Impact Socket. Most semitrucks use many 5/8" diameter U-bolts for springs and other suspension components. The S6199 will save you time as you do not need to cut off the excess thread compared to using a standard 1-1/8" deep socket that is 3/4" drive. The S6199 is up to 2" longer than a standard deep socket to easily accommodate the excess thread length. 1 1/8" wrench size, 6-point, 3/4" drive.

S6217 Head Bolt Impact Socket.

- For head bolts on heavy duty trucks and buses with Mercedes engine MBE900
 - Clearance on certain Detroit Diesel head bolts with the Mercedes engine MBE900 require a thin walled socket
 - Nothing can be removed to access more room because the head is cast
 - Height of socket helps the technician when using a torque wrench due to the length of torque wrench handle for clearance
- S6160 Extra Long Head Bolt Socket.** Use on 1986 and later Nissan engines with 12mm head bolts. 8" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications include removal and installation of universal joint flange bolts on Ford/Mercury cars such as Mustang, Crown Victoria, and Lincoln plus Ford Explorer, Ranger and F150/F250 trucks. 8" long. 12-point, industrial finish. 1/2" sq. drive.

S6194 Head Bolt Socket. Use on Toyota and Nissan cars and pickups plus Honda cars with 12mm head bolts. 4" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications include removal and installation of universal joint flange bolts on Ford Explorer, Ranger and F150/F250 trucks. 4" long. 12-point, industrial finish. 1/2" sq. drive.

IMFDL242 Deep Thin Wall Impact Socket. Designed to remove the head bolts on Caterpillar C12, C15, C16 and 3406Es where the front 2 and back 2 head bolts are positioned under the valve covers. Clearance on certain Caterpillar head bolts requires a thin walled socket that needs to be a certain length. Nothing can be removed to access more room as the head is cast. Additional applications include Detroit Diesel main bearing cap bolts and 19mm head bolts on Mercedes Benz MBE904/MBE906 EGR engines (2007 and later). 3/4" wrench size, 3/4" drive.

SIMDM212 12-Point Metric Deep Impact Socket.

Applications: Use on flywheel bolts on Cummins ISX engines.

BSA916 Slack Adjuster Wrench. For brake service and slack adjuster installation on heavy-duty trucks equipped with Bendix® automatic slack adjusters. Use to turn the manual adjuster hex. Extra deep 9/16" hex allows reach to recessed adjusters. 14 1/2" overall length helps to overcome the anti-reverse mechanism. Turn over to reverse. Protective vinyl boot helps to keep contaminants out of the ratchet mechanism for extended tool life.

SRD35 Diesel Head Bolt Torque Adaptor. Special tool for use on Ford F250/F350 trucks and Excursions (2003-2007) plus Ford E-Series vans (2004-2009) including ambulance, law enforcement and shuttle bus conversions using the 6.0L Power Stroke diesel engine. When coupled with an SM18, 18mm socket, the SRD35 can access all of the head bolts eliminating the need to change tools or remove the adaptor during the job. Use of 3/4" drive ratchet/torque wrench transmits the high torque necessary to loosen and tighten head bolts, with less strain on the technician. Eliminates the need to remove the truck/van cab from the chassis to access the rear head bolts, saving time and preventing damage to the rear heat shield. Eliminates the need to remove the evaporator housing, saving time and the additional cost of refrigerant added during A/C recharging.

S6216 Detroit Diesel Head Bolt Impact Socket.

- Tight clearances between some head bolts and the cylinder head casting require a thin walled socket; these engines are found in truck, bus, motor home, marine and heavy equipment
- The increased height of the socket allows for clearance between the drive tool (ratchet, breaker bar or torque wrench) and installed valve train components, allowing technicians access to head bolts from either side of the engine

DW402C Dayton Lug Nut Impact Socket.

- 3/4" square drive with a 1 1/4", 6-point wrench opening
- Use with socket retainers

HSA716 Slack Adjuster Wrench.

- For brake service and slack adjuster installation on heavy-duty trucks equipped with Haldex® automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 7/16" hex allows reach to recessed adjusters
- 14 5/8" overall length helps to overcome the anti-reverse mechanism
- Turn over to reverse
- Protective vinyl boot helps to keep contaminants out of the ratchet mechanism for extended tool life

S6205 Valve Adjuster Socket. See through window in its 14mm socket to see the position of the 5mm hex blade. Faster valve adjustment time. Sized for low clearance. Made from heat treated steel. Soft grip handle.

Applications: 2002 and later Mercedes 900 series diesel engines. 2002 and later trucks and busses.

S6206 Valve Adjuster Socket. See through window in its 17mm socket to see the position of the 6mm hex blade. Faster valve adjustment time. Sized for low clearance. Made from heat treated steel. Soft grip handle.

Applications: 2002 and later Mercedes 4000 series diesel engines. 2002 and later trucks and busses.



SRDM624

Torque Adaptor

SRDM624 Torque Adaptor. Services the rear brake caliper mounting bracket assembly on 2007 Ford F450/550 trucks. Tool fits between the bracket bolt and frame to allow the use of a torque wrench to properly torque the bracket bolts. 24mm. 6" long. 12-point wrench design. 1/2" square drive.

Motorcycle Service Tools



HD6529



HXD22



HXD24



TSP813



KAC1224TCA



CYCLESET



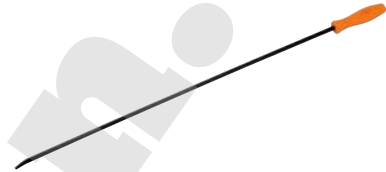
S9724RHS



S9704RHS



SAM12LE



NBATI

Special Application

HD6529 Ratcheting Hex Wrench. Ratcheting hex wrench (1/4" hex dr., 3/16" hex bit) for Harley-Davidson® Evolution motor rocker box cover bolts. Reversible ratchet lever conveniently located for one hand operation. 3/16" hex bit is easily replaced if damaged. Low profile design for extra clearance between frame and engine. Comfortable rubber grip will not scratch chrome. 9 3/4" overall length for additional reach.

HXD22 Motorcycle Wheel Socket. Essential for removing motorcycle front wheels. Use torque wrench for axle torque specs. Use breaker bar to remove difficult fasteners. Applications: 2002 Kawasaki (ZX7R, ZRX1200, ZX12R, ZX6 models); 2002 Honda (CBR954RR model); 2002 Triumph (955i RS model).

HXD24 Motorcycle Wheel Socket. Essential for removing motorcycle front wheels. Use torque wrench for axle torque specs. Use breaker bar to remove difficult fasteners. Applications: Suzuki (1300GSXR, 1000GSXR); Hayabusa (various models).

TSP813 Motorcycle Tire Spreader. Permits one person installation of tubed tires on motorcycles, ATVs, small farm equipment and industrial equipment. Easily access valve stem hole when installing difficult 90° valve stems on tubed tires. Hard screwdriver style handle for comfort and control. All metal, heavy duty construction. Industrial black finish helps resist corrosion. Overall length is 23".

KAC1224TCA Motorcycle Gas Tank Cover. Fits Harley-Davidson Dyna®, Softail and Touring models. Also fits various models of Yamaha, Victory, Triumph and Kawasaki plus many more. Protects the finish while you perform routine maintenance. Keeps dust and dirt off the gas tank. Non-marring cover uses a non-abrasive inner liner that won't slide off. Use on the tank any time, on or off the motorcycle.

Stock No.	Drive Size, inches	External Hex, (mm)	Outer Dia., inches (mm)	Hex Depth, inches (mm)	Length, inches (mm)
HXD22	1/2	22	0.94 (23.8)	0.70 (17.8)	1.50 (38.1)
HXD24	1/2	24	1.03 (26.2)	0.70 (17.8)	1.50 (38.1)

General Service Tools

Stock No.	Description	See Catalog Page
CPT110A	Motorcycle Wheel Socket	474
A15A	Drag Link Socket	39
GF22	Drag Link Socket	30
YA243A	Dial Type Pressure Gauge	458
YA173A	Clip On Style Angled Air Chuck	459
VT1A	Valve Stem Insertor	460
GA599A	Tread Depth Gauge	460
SGSR104	Seal Remover Set	146
MT125A	Self Powered Timing Light	418
TA358	Torque Angle Gauge - 3/8" Drive	235
AWHDBK	Hex/Torx® Folding Wrench Set	117

CYCLESET Motorcycle Tool Set. This 33 pc. kit services most American manufactured motorcycles. From battery service, cable and clutch adjustments, to gas tank and seat removal, this set covers roadside maintenance and emergency repairs. Set is conveniently organized and stored in a gas tank shape bag measuring 10" long, 5 1/2" wide, and 2 1/4" high and is small enough to fit almost anywhere. Optional CT2 circuit tester and KERA100C multi-tool enhance set capabilities even further. Please visit www.snapon.com for full list of set components and applications.

S9724RHS Low Profile Spark Plug Socket. Low profile socket easily reaches 5/8" (16mm) spark plugs on muscle cars, ATVs, motorcycles and boats without interference from custom exhausts or chassis. Applications include Harley-Davidson motorcycles with large gas tanks (1986 and later Sportster® and 1999 and later twin cam models) plus small block Chevy, Ford, Mopar and other engines with 5/8" (16mm) spark plugs and racing exhaust headers. Spark plug extends through the socket for access in tight quarters. Patented tapered hex design retains spark plug securely without rubber insert or magnet. Spark plug is easily disengaged from socket by applying side pressure. Use ratcheting box wrench on 5/8" external hex drive. Length is 1 1/16".

S9704RHS Low Profile Spark Plug Socket. Low profile socket reaches 13/16" spark plugs on muscle cars, ATVs, motorcycles, RVs and boats without interference from custom exhausts or chassis. Applications include small or big block Chevy, Ford, Mopar and other engines with 13/16" spark plugs and racing exhaust headers. Spark plug extends through the socket for access in tight quarters. Patented tapered hex design retains spark plug securely without rubber insert or magnet. Spark plug is easily disengaged from socket by applying side pressure. Use with open end or ratcheting box wrench on 13/16" external hex drive. Length is 1 1/4".

SAM12LE Long Hex Socket Driver. Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson Dyna series. Used when servicing the internal parts of the fork. 12mm. Length 98.0 mm.

NBATI Neck Bearing Adjustment Tool. The perfect tool for neck-bearing adjustment on Harley-Davidson motorcycles.

Motorcycle Service Equipment

Stock No.	Description	See Catalog Page
MTPV100	Motorcycle/ATV Peak Voltage Meter	226
EEPV303B	Motorcycle Compression Gauge Set	421
EEPV305A	Motorcycle Compression Gauge Adaptor	421
EEWB308B	Motorcycle Wheel Balancer	454
EEWH310A	Motorcycle Tire Changer	456
YA1715	Motorcycle Jack	477



WARNING



- Do not use chrome or industrial finish sockets with impact drivers.
- Read safety precautions on pages 594 to 597

MOTORCYCLE/AVIATION

Motorcycle Special Application



MTPV1000

Optional Accessories

- 0 - 400 AC/DC Amp clamp-on probe (EETA501C)
- 0 - 1,000 AC/DC Amp clamp-on probe (EETA502C)
- Boot Hook Hanger (EEDM503B1)
- K-Type temperature adapter (EEDM506B)
- Heavy duty surface probe for EEDM506B (EETH502B)
- Heavy duty gas probe for EEDM506B (EETH503B)

Applications

- Peak voltage measurement of secondary ignition systems on all types of vehicles and pleasure craft
- CDI ignition diagnosis on motorcycles, ATVs, and snowmobiles
- Digital multimeter functions to measure battery, sensor and circuit voltage
- Check continuity of wiring and resistance of ignition wires

Features

- Tester automatically selects the best range for taking a measurement on DCV, ACV and ohms
- Use AC/DC voltage ranges to check ignition coil primary, ignition pulse generator, exciter coil and battery
- Add adapters to measure temperature, RPM, pressure and amps
- Measure ohms to determine resistance of a coil or spark plug
- Use the continuity buzzer for finding breaks or shorts in wires
- Large, easy to read, 4,000 count LCD and bar graph to easily view rapidly changing input signals
- Lock readings on display with data hold
- View + or - spark readings with the push of a button
- Measure peak voltage of ignition coil and secondary spark
- Input connector for kV probe
- Auto power off to conserve battery power when not in use
- Includes Test Instrument, test lead set with alligator clips, protective rubber boot, kV probe, soft carrying case, 9V battery and instruction manual

Aviation Specialty Service Tools



NYZ7006MG



NYZ7025H50



NYZ701510

NYZ700110

NYZ700510



NYZ701410

NYZ701810

NYZ701110



NYZ701210

NYZ7010FSB



NYZ7000MDKIT



NYZ7007HD

Guns and Hoses

NYZ7025H50 Air Hose (Anti-Static). NONSTAT® anti-static 1/4" hose is fully grounded to prevent static discharge. Hose is ideal for environments and projects where static control is essential. 50' long.

NYZ7024H100 Air Hose (Anti-Static). Same as NYZ7025H50 except 100' long.

NYZ7006MG Vibro Gun Kit. Kit includes medium duty Vibro gun, 1", 1/2" and 1/4" NYROC® blades (1 each) plus blade locks in black kit bag. Medium duty Vibro gun adds pneumatic power to all scraping jobs using standard NYROC blades.

Complete Kits

NYZ7000MDKIT Master Mastic Removal Kit.

- Saves most of the time and labor involved to remove PRC and other mastics from every area of an aircraft without damage to the substrate
- Speed controllable vibration gun permits infinitely variable job performance
- The included pneumatic blade sharpener rapidly puts an edge on all NYROC blades up to 1" width right at the job site
- Completely portable system is fully grounded and anti-static. Kit includes medium duty Vibro gun, pneumatic blade sharpener, (1) anti-static vacuum bag, (1) sharpening disc, (1) manual handle, (2) 1" NYROC blades, (2) 1/2" NYROC blades, (2) 1/4" NYROC blades, blade locks and connecting hoses in padded storage case

NYZ7007HD Manual Mastic Removal Kit.

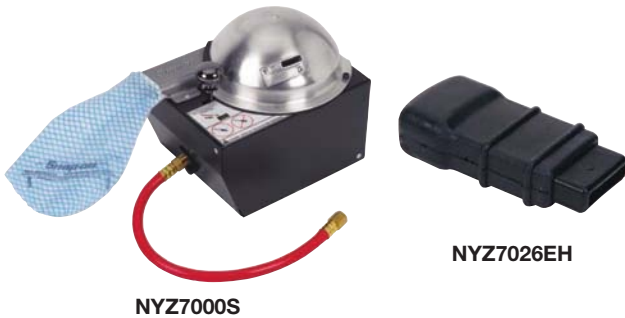
- The hand kit is ideal for aviation, automotive and industrial use especially for delicate jobs and limited access scraping applications
- The NYROC blades are sharpened with sandpaper, small stone or optional pneumatic sharpener
- Kit includes (6) 1" NYROC blades, (6) 1/2" NYROC blades, (3) 1/4" NYROC blades and ergonomic rubber handle

NYROC™ Blades

Blade Size, inches	Description	Pack of 10	Pack of 200
1/8 wide	General Use	NYZ701810	NYZ7018200
1/4 wide	General Use	NYZ701410	NYZ7014200
1/2 wide	General Use	NYZ700510	NYZ7005200
3/4 wide	General Use	NYZ703410	NYZ7034200
1 wide	General Use	NYZ700110	NYZ7001200
1 wide	Button Head Rivet	NYZ701110	NYZ7011200
1 1/2 wide	General Use	NYZ701510	NYZ7015200
1 1/2 wide	Highlock for 3/8 high locks	NYZ701210	NYZ7012200

Blades available in 10 pack and 200 pack quantities only.

NYZ7010FSB Flexible Steel Blade. Use with NYZ7026EH Rubber Handle.



NYZ7000S

NYZ7026EH

Accessories

NYZ7004VB Anti-Static Vacuum Bags. Anti-static vacuum bags for NYZ7000S blade sharpener. Pack of 10.

NYZ700AD Abrasive Sharpening Discs. Abrasive sharpening discs for NYZ7000S blade sharpener. Pack of 10.

NYZ7000S Pneumatic Blade Sharpener. Pneumatic powered sharpener quickly sharpens all NYROC™ blades up to 1" in width. Consistently sharpens blades to the optimal 51° angle. Operates with single push button. Connects directly to shop air. Removed material is collected in disposable anti-static vacuum bag attached directly to the discharge chute.

NYZ7026EH NYROC Blade Holder. The vulcanized rubber padded blade holder, works exclusively with NYROC blades. Fits comfortably in the users hand, reduces operator fatigue and helps to prevent injury.



AVPW716

AFPW38

AOFW2

Aircraft Vacuum/Fuel Pump Wrenches

AVPW716 Aircraft Vacuum Pump Wrench. Removes and replaces vacuum pump flange nuts on aviation and experimental aircraft. Use with any 1/4" drive extension. Easily fits into tight areas between the pump and nearby accessories. The cut-down head design adds greater flexibility than a wrench with a bent shank.

Applications Include:

Cessna: Skyhawk, Skylane, Stationair
Piper: Cub, Warrior, Archer, Seminole, Aztec, Navaho, Chieftain
Mooney: M20 series, M200 series, Ovation, Acclaim
Beechcraft: Bonanza, Duchess, Baron
Cirrus: SR20 and SR22

AFPW38 Aircraft Fuel Pump Wrench. The AFPW38 is a small crowfoot which will remove and install the fuel primer/injector line on Continental and Lycoming engines. Can be used with a 1/4" drive extension and will easily fit into tight areas.

Aircraft Oil Filter Wrench

AOFW2 Aviation Oil Filter Wrench. Oil filter wrench can be used for installing and removing oil filters on all standard general aviation aircraft with 1" hex oil filters. Compact size allows for reach in restricted areas. 3/8" drive torque wrench. Please refer to Snap-on® SS306G Torque Chart for formula to obtain the correct applied torque.

Safety Wiring – Blue-Point®



GA311C

PR311

WT11B

WTR1A

WTRW6A



Wire Twisters

Cushion throat wire twisters feature a polyurethane filler that is bonded into the tool's cutter head to help prevent flying wire bits. A special undercut design helps maintain cutting edges and increases tool durability. Ideal for assembly line applications.



WT105-2004



WT105-2516

Wire Twister/Cutters

Stock No.	Description/Features	Wire Capacity, inches	Overall Length, inches	Wire Retainer
GA311C	Wide range of applications.	.060	10 1/2	No
PR311	Similar to GA311C, but not spring loaded. Right hand only with manual return.	.060	10 1/2	No
WT11B	Small size for use in tight quarters.	.041	8 1/2	No
WTR1A	Reversible wire twisters let you perform right and left hand twist with the same tool. Spring return and control knob.	.041	8 3/4	No
WTRW6A	Reversible wire twister lets you perform right and left hand twist with the same tool. Spring return and control knob. Oval cushioned throat captures and holds wire firmly.	.041	6	Yes

Safety Wire

Stock No.	Wire Size, inches	Container
WT105-2004	.020	1/4 lb. Spool
WT105-3204	.032	1/4 lb. Spool
WT105-4204	.041	1/4 lb. Spool
WT105-2016	.020	1 lb. Canister
WT105-2516	.025	1 lb. Canister
WT105-3216	.032	1 lb. Canister
WT105-4116	.041	1 lb. Canister
WT105-5116	.051	1 lb. Canister



WARNING



• Read safety precautions on pages 594 to 597