

GEARENCH[®]

2012 Products Catalog



Manufacturing Quality Products Since 1927



*...manufacturing
quality products
since 1927...*

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Form GCAT20 Rev. 04/12

For the latest and most complete engineering data and specifications
for all currently available GEARENCH products,
please visit our website at www.gearench.com.



TABLE OF CONTENTS

PRODUCT LINES

| | |
|--|-------|
| BELT TONGS (PETOL) | |
| SURGRIP CASING TONGS | 10-11 |
| BREAKOUT UNITS (PETOL) | |
| HYDRA-TORK UNITS | 19 |
| PORTABLE HYDRA-TORK UNITS | 19 |
| HYDRAULIC FRICTION BREAKOUT UNIT | 64-68 |
| CHAIN TONGS | |
| CHAIN TONGS (PETOL) | 22 |
| CHAIN TONGS (TITAN) | 23 |
| REVERSIBLE CHAIN TONGS (TITAN) | 24 |
| CHAIN WRENCHES (PETOL) | |
| BUKUP TONGS | 13 |
| BULL TONGS | 12 |
| DRILL PIPE TONGS | 14 |
| FRICTION TONGS, CHAIN STYLE | 56 |
| MACHINE TONGS | 16 |
| STABBING TONGS | 18 |
| VISETONGS | 20 |
| ELEVATORS | |
| SUCKEROD ELEVATOR (PETOL) | 32 |
| TUBING ELEVATOR (TITAN) | 30 |
| FLANGE TOOLS | |
| FLANGE LIFTER (TITAN) | 35 |
| POP-IT™ TOOL | 40-41 |
| FLANGE ALIGNING TOOL (TITAN) | 36-38 |
| FLANGE SPREADER (TITAN) | 42 |
| HYDRAULIC FLANGE SPREADER (TITAN) | 43 |
| FLANGE WRENCH (PETOL) | 39 |
| FLANGE KEY (TITAN) | 44 |
| FRICTION TONGS & VISE (PETOL) | |
| FRICTION TONGS, CHAIN STYLE | 56 |
| HYDRAULIC FRICTION BREAKOUT UNIT | 64-68 |
| SURGRIP FRICTION TONGS | 56 |
| SURGRIP FRICTION VISE | 58 |
| SURGRIP FRICTION TORQUE WRENCH | 57 |
| HERRINGBONE GEARS & PINIONS | 51 |
| PIPE TONGS (PETOL) | 26 |
| PUMP SHOP EQUIPMENT (PETOL) | |
| PUMP BENCHES | 54 |
| PUMP SUPPORT | 54 |
| TOOL STAND | 54 |
| RINSE TANK | 54 |
| BENCHRENCH | 55 |
| PLATERENCH | 55 |
| SOCKETRENCH HANDLE | 55 |
| SLIDING SOCKET PLATE | 60 |
| SHOPRENCH | 55 |
| VALVE CAGE WRENCH (TITAN) | 59 |
| VALVE CAGE BENCHRENCH | 55 |
| HYDRAULIC FRICTION BREAKOUT UNIT | 64-68 |
| SURGRIP FRICTION TONGS | 56 |
| SURGRIP FRICTION VISE | 58 |
| SURGRIP FRICTION VISE BUSHINGS | 59 |
| FRICTION TONGS, CHAIN STYLE | 56 |
| SURGRIP FRICTION TORQUE WRENCH | 57 |
| THREAD CUTTER | 59 |
| MISCELLANEOUS ACCESSORIES | 59-61 |
| REFINERY WRENCHES (TITAN) | 45 |
| RIG WRENCHES (PETOL) | |
| RIG WRENCH | 15 |
| DRILL PIPE TONGS | 14 |
| BULL TONGS | 12 |
| RUN TICKET BOXES (TITAN) | 28 |
| SHOTHOLE CASING TONGS (TITAN) | 26 |
| SIGHT GLASSES (PETOL) | 28 |
| SLIM GRIP TONGS (PETOL) | 17 |
| SPINNING/CATHEAD CHAIN | |
| CHAIN (TITAN) | 25 |
| CONNECTING LINK (PETOL) | 25 |
| STRIKING/HAMMER WRENCHES | |
| 6 PT. STRAIGHT (PETOL) | 27 |
| 12 PT. OFFSET (TITAN) | 27 |
| SUCKER ROD TRANSFERS (PETOL) | 33 |
| SUCKER ROD WRENCHES (PETOL) | |
| SUCEKROD WRENCH | 34 |
| SUCKEROD SPIN WRENCH | 34 |
| SURGRIP CASING TONGS (PETOL) | 10-11 |
| TANK SAFETY GAUGES (PETOL) | 29 |
| TORQUE WRENCHES (PETOL) | 57 |
| TUBING TONGS (PETOL) | 31 |
| VALVE WHEEL WRENCHES | |
| STEEL | |
| TITAN | 46 |
| TITAN Surgrip | 47 |
| ALUMINUM | |
| TITAN | 46 |
| PETOL | 49 |
| “100 Series”(TITAN) | 48 |
| “Ei-Mac” Surgrip(TITAN) | 48 |
| BRONZE | |
| TITAN | 46 |
| REFINERY WRENCH | |
| Steel | |
| TITAN | 45 |
| TITAN Surgrip | 45 |
| Aluminum | |
| TITAN | 45 |
| LATCH WRENCH (TITAN) | 50 |
| VISES (PETOL) | |
| SURGRIP FRICTION VISE | 58 |
| TONGVISE | 21 |
| ADDITIONAL INFORMATION | |
| CHAIN IDENTIFICATION GUIDE | 74 |
| CHAIN SELECTION GUIDE | |
| BUKUP TONGS | 75-76 |
| BULL TONGS | 76-78 |
| CHAIN TONGS (Single Jaw & Reversible) | 75 |
| DRILL PIPE TONGS | 79-80 |
| MACHINE TONGS | 78-79 |
| PULLDOWN VISETONGS | 80 |
| PUSHUP VISETONGS | 80 |
| TONGVISE | 80 |
| TORQUE TABLES | |
| BUKUP TONG (BA120) | 72 |
| BULL TONGS | 71 |
| DRILL PIPE TONGS | 72-73 |
| SURGRIP CASING TONGS | 70 |
| SAFE PRACTICES & PROCEDURES | |
| MANUAL | 1-7 |
| ALL VALVE WHEEL WRENCHES/ REFINERY WRENCH | 8 |
| WARRANTY | 2 |

**SAFE PRACTICES
AND
PROCEDURES
MANUAL**

GEARENCH TOOL WARRANTY

WHAT IS COVERED

GEARENCH Tools are expressly warranted to you, the purchaser, to be free of defects in material and workmanship.

HOW LONG COVERAGE LASTS

This express warranty lasts for the lifetime of the GEARENCH tool. Warranty coverage ends when the tool becomes unusable for reasons other than defects in workmanship or material.

HOW CAN YOU GET WARRANTY SERVICE

To obtain the benefit of this warranty, contact a GEARENCH sales representative in Clifton, Texas.

GEARENCH • 4450 South Hwy. 6 • P.O. Box 192 • Clifton, TX 76634

WHAT WILL WE DO TO CORRECT PROBLEMS

Warranted products will be repaired or replaced, at GEARENCH's option, and returned at no charge to you, the original purchaser; or, if after three attempts at repair or replacement during the warranty period, the product defect in material or workmanship persists, you can elect to receive a full refund of your original purchase price for the product.

WHAT IS NOT COVERED

Defects, failures or conditions that are due to normal wear and tear, abuse or misuse, are not covered by this limited warranty. In addition, this limited warranty is in lieu of all other warranties, express or implied, verbal or written. To the maximum extent allowed by law GEARENCH disclaims all implied warranties, including implied warranties of merchantability and/or fitness for a particular purpose. GEARENCH also specifically denies any liability for any incidental damages and/or consequential damages, including but not limited to property damage to property other than the product itself, loss of sales, profits, down time, costs or any other damages measurable in money, whether or not included in the foregoing enumeration.

Please be advised that some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary, from state to state, province to province, or country to country.

ARE PERSONAL INJURIES COVERED

In the event you, someone working for you, or any other person sustain a personal injury as a result of using the GEARENCH tool, GEARENCH limits its potential liability for such a claim or injury to the fullest extent allowed by law, and disclaims and denies any liability for such personal injury.

Please be advised that some states do not allow the exclusion or limitation of liability for personal injuries, so the above limitation or exclusion may not apply to you, or the individual claiming injury.

NO OTHER EXPRESS WARRANTY APPLIES

This GEARENCH LIMITED WARRANTY is the sole and exclusive warranty, express or implied

for GEARENCH products. No employee, agent, dealer or other person is authorized to alter, modify, expand or reduce the terms of this warranty or to make any other warranty on behalf of GEARENCH.

LAW APPLICABLE

All matters related to the sale and/or use of the GEARENCH tool that is the subject of this limited warranty, along with the construction and enforcement of the terms of this limited warranty itself, shall be subject to the substantive and procedural laws of the state of Texas, not the conflicts of laws provisions of Texas, but rather the laws of Texas themselves.

FORUM SELECTION CLAUSE

Any dispute arising out of the sale and/or use of the GEARENCH tool that is the subject of this limited warranty shall be presented in the form of a claim or lawsuit to the offices of GEARENCH in Clifton, Bosque County, Texas. No claim or suit may be brought against GEARENCH, arising out of the sale and/or use of the tool, or arising out of the terms of this warranty, except in such forum. Purchase and/or use of the GEARENCH tool makes you subject to the benefits and limitations of this limited warranty. Accordingly, any writ, judgment or other enforcement, obtained from a jurisdiction, county, parish, state or federal court or other country, other than from the forum identified above, shall be void and unenforceable against GEARENCH.

ARBITRATION CLAUSE

In the event of dispute or claim arises out of the sale and/or use of the GEARENCH tool that is the subject of this limited warranty, or arises out of the interpretation or enforcement of the terms and conditions of this limited warranty, such dispute shall be submitted to binding arbitration pursuant to the rules of the American Arbitration Association. If required to accomplish the purpose of this Arbitration clause, the purchaser hereby expressly waives any right to demand trial by jury.

COMPLETE AGREEMENT

This express limited warranty contains the entire agreement regarding express or implied warranties related to the GEARENCH tool that is the subject of it. No writing or language contained in the purchase order or any other document of the purchaser, or invoice of GEARENCH or any intermediate seller, shall be construed as modifying, in any way, the rights and liabilities contained in this limited warranty. GEARENCH expressly disclaims any obligations expressed in any customer purchase order or document that are contrary to the terms and limitations of this warranty.

SEVERABILITY

If any term or limitation contained in this limited warranty is deemed unenforceable by law, then that term shall be severed from the remaining portions of the limited warranty which shall remain enforceable.

All communications to GEARENCH regarding the use of the tool and any aspect of the sale of the tool or this limited warranty should be addressed to GEARENCH.

GEARENCH • 4450 South Hwy. 6 • P.O. Box 192 • Clifton, TX 76634

RESPONSIBILITY, REPLACEMENT PARTS, SAFETY & SAFE PRACTICES

RESPONSIBILITY

"It is the responsibility of the employer to train the employee in the proper selection and usage of tools, chains, etc., and to ensure that they are selected and used in that manner. In many instances, injury results because it is assumed that anybody knows how to use common hand tools. Observations and the record show that this is not the case. A part of every job instruction program should therefore be detailed training in the proper use of hand tools (and of all other special tools and equipment needed to accomplish the job)." (Source – NATIONAL SAFETY COUNCIL)

"Employers are responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees." (Source – OSHA 1910.242A)

REPLACEMENT PARTS

Use only PETOL & TITAN replacement parts – no other parts are of comparable strength, quality and interchangeability.

SAFETY

While we pride ourselves on the quality and dependability we build into GEARENCH tools and products, we caution users that it is only prudent to know and follow the simple rules of safety when using our products, or anyone else's.

Always follow safe practices and procedures in accordance with the recommendations of OSHA, The National Safety Council (NSC), The Hand Tools Institute (HTI), The National Association of Chain Manufacturers (NACM), The International Association of Drilling Contractors (IADC), etc. All applicable Governmental rules, regulations or restrictions, now in effect or which may be promulgated, take precedence over the suggestions in this publication. The information in this publication is designed to supplement standard safe practices and procedures, not in lieu of, or replacement thereof.

SAFE PRACTICES (Source – The National Safety Council)

Failure to observe one or more of the following five safe practices accounts for most hand and powered tool accidents:

1. ALWAYS WEAR SAFETY GOGGLES TO PROTECT EYES
2. SELECT THE RIGHT TOOL FOR THE JOB
3. KEEP TOOLS IN GOOD CONDITION
4. USE TOOLS CORRECTLY
5. KEEP TOOLS IN A SAFE PLACE

Safety Goggles must always be worn by persons in any area where hand and powered tools are being used.

Never apply excess leverage to a wrench or tool by means of a "Cheater Bar." Never strike wrenches and tools with hammers or other objects.

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All tools should be kept clean, inspected on a regular basis, and replaced when they show signs of wear.

Be especially careful not to place yourself in a position that could result in bodily injury in the event of a failure. Brace yourself firmly and pull rather than push when wrenching. (If necessary to push, do so with the flat of the hand rather than gripping around the wrench.)

Never stand under or near loads being hoisted off the ground.

READ SAFE PRACTICES AND PROCEDURES MANUAL, CATALOG INFORMATION AND PRODUCT LABELING PRIOR TO OPERATION.

Spinning and drill pipe chain, cathead chain, and the PETOL Connecting Link attachment are designed for the specific purpose for which the name indicates. Chains and attachments that are to be used for any other purpose should be selected in accordance with the recommendations of ASTM, NACM, Rigger's Handbook, and the commercial chain manufacturer's technical manuals.

NOTE: In view of the fact that the actual use determines whether Safety requirements have been met, the ultimate responsibility to comply rests with the end user.

SAFETY SOURCES AND PUBLICATIONS

In the interest of safety GEARENCH recommends the following sources of safety related information:

HTI - The Hand Tools Institute
25 North Broadway • Tarrytown, New York 10591
(914)332-0040 • fax (914)332-1541 • www.hti.org

The National Safety Council (NSC)
1121 Spring Lake Drive • Itasca, Illinois 60143-3201
(630)285-1121 • fax (630)285-1315 • www.nsc.org

International Safety Council
1121 Spring Lake Drive • Itasca, Illinois 60143-3201
(630)285-1121 • fax (630)285-0797

RESPONSIBILITY OF DISTRIBUTORS

IT IS THE RESPONSIBILITY OF THE PURCHASERS OF GEARENCH PRODUCTS TO CONVEY THE INFORMATION IN THIS PUBLICATION, AND ANY OTHER INFORMATION RELATING TO THE INDIVIDUAL PRODUCT, THROUGH THE CHANNELS OF DISTRIBUTION, DOWN TO AND INCLUDING THE INDIVIDUAL USING THE PRODUCT.

TONG AND VISE CHAIN INSPECTION

The service life of leaf chains can be altered by a variety of adverse operating conditions. The following information discusses the most important of these conditions for consideration when operating or scheduling replacement of leaf chain systems.

OVERLOADING / SHOCK LOAD / SIDE LOADING

- Attempting to “inch” loads which are beyond the rated capacity of the tool.
- Striking the tool with a hammer or other object while force is being exerted in an attempt to loosen a frozen joint.
- Side pull on the chain. Side pull can be caused by pulling or pushing on the tong in a direction that is not along a perpendicular plane, unlevel mounting of the vise, inadequate support of the part being broken out, and improper seating of the part being broken out in the tong or vise. Improper seating will occur when the O.D. of the part is not consistent within the width of the tong or vise jaw.

ENVIRONMENTAL CONDITIONS

Wrench and vise chains operate in widely varying environments, from wet outdoor conditions to mildly or highly corrosive industrial atmospheres. They can also be exposed to abrasives such as sand and grit.

The possible effects include:

Moisture - corrosion and rust reduce chain strength by causing pitting and cracking.

Temperature - very cold temperatures reduce chain strength by embrittlement.

Chemical Solutions or Vapors - Corrosive attack of the chain components grain structure and / or the mechanical connections between the chain components (crevice corrosion) may occur. Cracking often is microscopic. Propagation to complete failure can be eventual or sudden.

Abrasives - Accelerated wearing and scoring of the articulating chain members (pins and plates) may occur, with a corresponding reduction in chain strength. Due to inaccessibility of the bearing surfaces (pin surfaces and plate apertures), wear and scoring are not readily noticeable.

These conditions, when coupled with normal chain wear and inherent residual stress (normally in the chain as constructed), can result in environmentally assisted failure.

It is impossible to predict chain life under complex conditions, as the degree of

hostility and its effects are dependent on many variables such as temperature, time of exposure, concentration of corrosive atmosphere or medium, degree of abrasive wear, etc...Establishing the degree and frequency of unpredictable dynamic loading is also difficult.

NORMAL LIFE EXPECTANCY

A leaf chain's normal life expectancy can be expressed as a maximum percent of elongation. This is generally between 2% to 3% of pitch. As the chain flexes back and forth, the bearing joints (pins and inside link plates) gradually wear from articulation.

As with all steel bearing surfaces, the precision, hardened steel joints of leaf chain require a constant film of oil between mating parts to prevent wear and to resist corrosion.

LUBRICATION

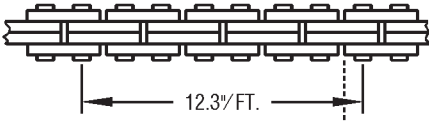
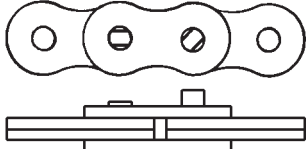
One of the most important but often overlooked factors is adequate lubrication. In addition to reducing internal friction, maintaining a film of oil on all chain surfaces will inhibit rusting and corrosion. This is important as corrosion of highly stressed hardened steel chain components can cause a major reduction in the load capacity of leaf chain and result in link plate cracking.

Protection from corrosion is important in storage as well as in service. The factory lubricant applied to PETOL CHAIN is a “Fingerprint Neutralizing Water Displacing Corrosion Preventive.” This is an excellent rust and corrosion inhibitor for chains in storage. When installing these chains new, do not attempt to steam clean or degrease this lubricant. A grade of SAE30 or 40 weight, nondetergent motor oil should be used as supplemental lubricant and a film of this oil should be maintained on all surfaces and internal bearing joints. Also, do not attempt to paint new chains. Though painting may help inhibit corrosion, it will seal off critical clearances and restricts oil from reaching the pin surfaces where it is needed for good joint lubrication.


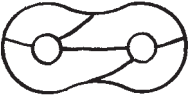




When operating in dusty environments, lubricated chains will accumulate a pastelike buildup of grime. At periodic intervals, this buildup should be removed by cleaning and the chain should be immediately relubricated. Do not use caustic or acid type cleaners; use a stiff brush and a certified safe petroleum base solvent.

PERIODIC INSPECTION LIST FOR PETOL SPECIAL CHAIN

1. PRIOR TO EACH USE, LEAF CHAIN AND TOOLS SHOULD BE INSPECTED FOR SERVICEABILITY AND LUBRICATION.
2. USE ONLY PETOL & TITAN REPLACEMENT PARTS – NO OTHER PARTS ARE OF COMPARABLE STRENGTH, QUALITY, AND INTERCHANGEABILITY.

| APPEARANCE AND / OR SYMPTOM | PROBABLE CAUSE | CORRECTION |
|--|---|---|
| <p>Excessive Length (Elongation)</p>  | <p>Normal Wear</p> <p>Permanent deformation (stretch) from overload</p> | <p>Replace chain</p> <p>Replace chain and correct cause of overload</p> |
| <p>Abnormal Protrusion of Pins</p>  | <p>Overloading</p> <p>Inadequate lubrication</p> <p>Side Loading</p> | <p>Replace chain and correct cause of overload</p> <p>Replace chain and improve lubrication</p> <p>Replace chain and correct cause of side load</p> |

PERIODIC INSPECTION LIST FOR PETOL SPECIAL CHAIN (continued)

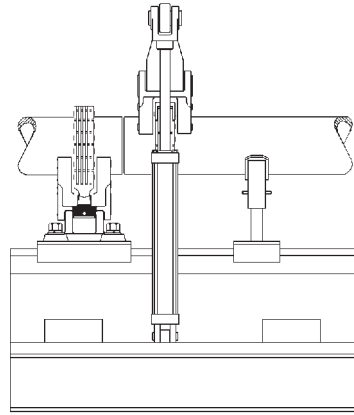
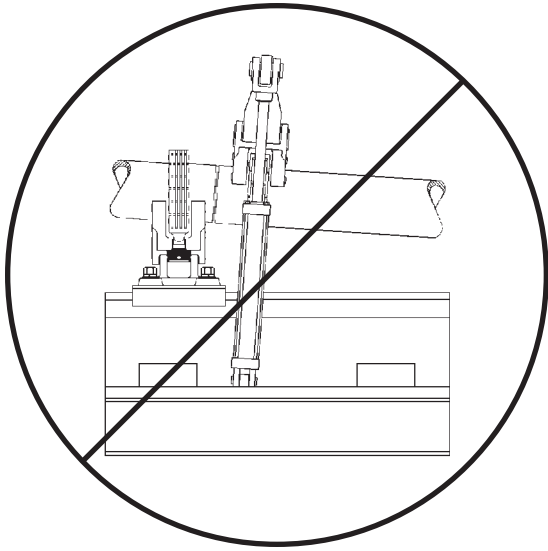
| APPEARANCE AND / OR SYMPTOM | PROBABLE CAUSE | CORRECTION |
|--|---|---|
| <p>Cracked Plates (Fatigue)</p>  | <p>Overloading Side Loading</p> | <p>Replace chain and correct cause of overload Replace chain and correct cause of side load</p> |
| <p>Arc-Like Cracked Plates (Stress Corrosion)</p>  | <p>Severe rusting or exposure to acidic or caustic medium, plus static stress at press fit between pin and plate.</p> | <p>Replace chain and protect from hostile environment</p> |
| <p>Enlarged Holes</p>  | <p>Overloading</p> | <p>Replace chain and correct cause of overload</p> |
| <p>Cracked Plates (Corrosion Fatigue) Perpendicular to Pitch Line, plus rust or other evidence of chemical corrosion</p>  | <p>Corrosive Environment</p> | <p>Replace chain and protect from hostile environment</p> |
| <p>Fractured Plates (Tension Mode)</p>  | <p>Overloading</p> | <p>Replace chain and correct cause of overload</p> |
| <p>Tight Joints</p>  | <p>Dirt or foreign substance packed in joints Corrosion and rust Bent pins</p> | <p>Clean and relube Replace chain and protect from hostile environment Replace chain</p> |

SEE DEFINITIONS AND DIAGRAMS ON PAGES 6 & 7

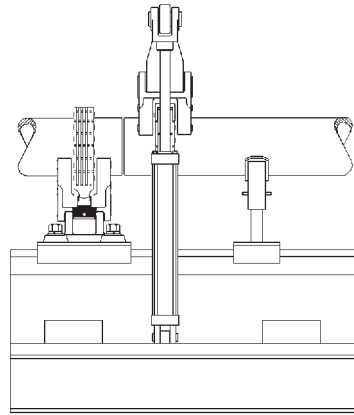
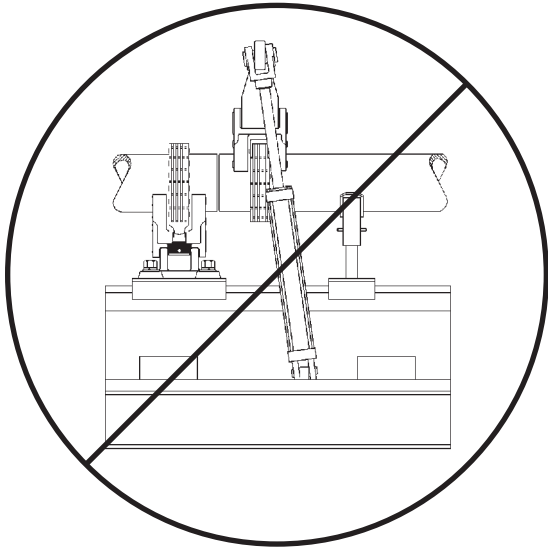
Safety Precautions

1. Always wear safety goggles to protect eyes.
2. Select the right tool for the job.
3. Keep tools in good condition.
4. Use tools correctly.
5. Keep tools in a safe place.
6. Wear protective clothing, gloves and safety shoes as appropriate.
7. Use lengths of assembled chain. Do not build lengths from individual components.
8. Do not attempt to rework damaged chain by replacing only the components obviously faulty. The entire chain may be compromised and should be discarded.
9. Never electroplate assembled leaf chains or components. Plating will result in failure from hydrogen embrittlement.
10. Do not weld any chain or component. Welding spatter should never be allowed to come in contact with chain or components.
11. Leaf chains are manufactured exclusively from heat-treated steels and therefore must not be annealed. If heating a chain with a cutting torch is absolutely necessary for removal, the chain should not be reused.
12. Inspect chains frequently and regularly for link plate cracking, pin turning, pin protrusion and corrosion.
13. Use only PETOL & TITAN replacement parts to ensure proper strength.

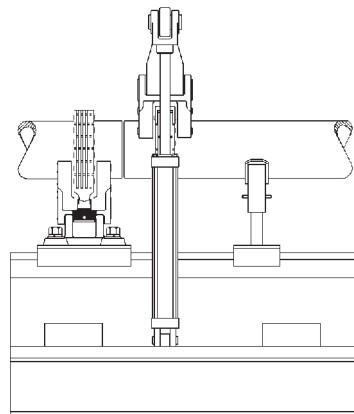
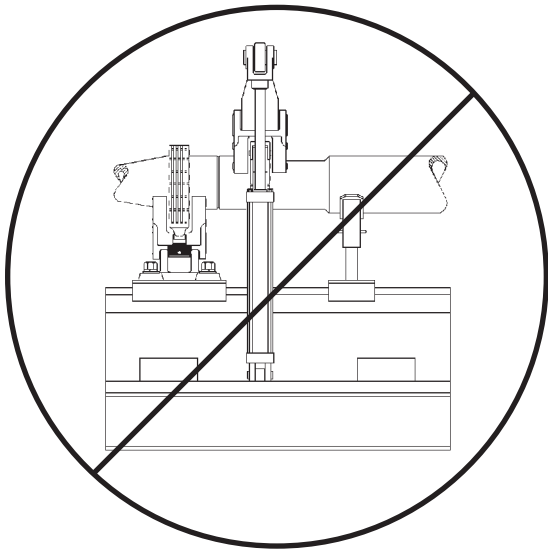
COMMON CAUSES AND CORRECTION OF SIDE LOADING



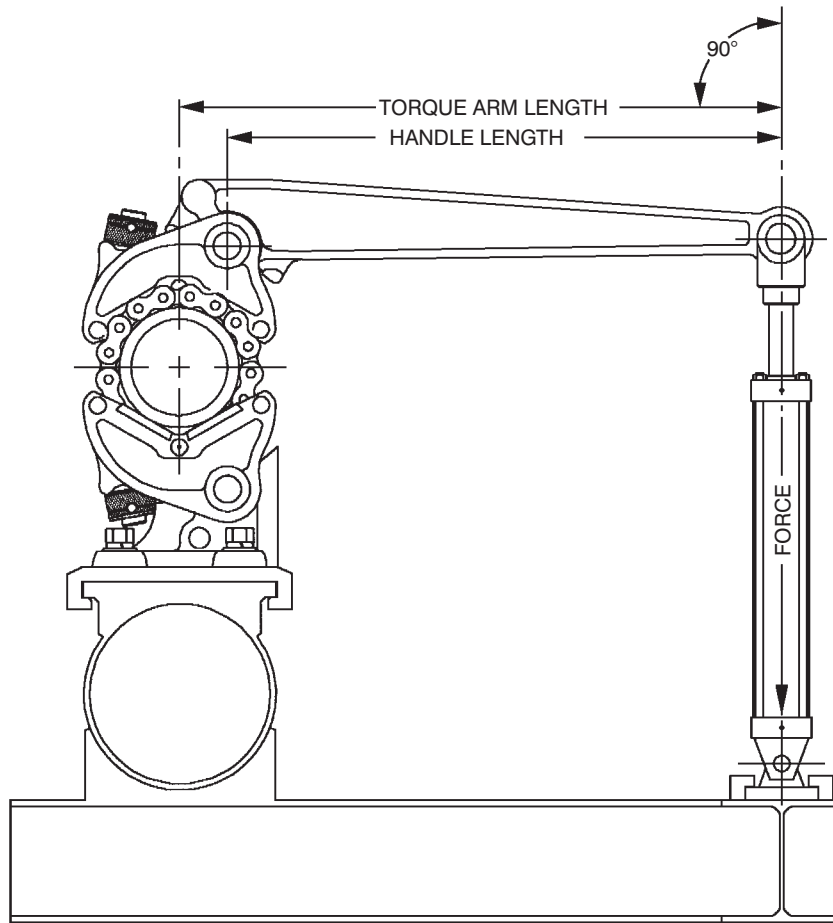
INADEQUATE SUPPORT OF WORKPIECE



FORCE BEING APPLIED IS NOT IN LINE WITH TONG



IMPROPER SEATING OF THE PART DUE TO AN INCONSISTENT O.D.

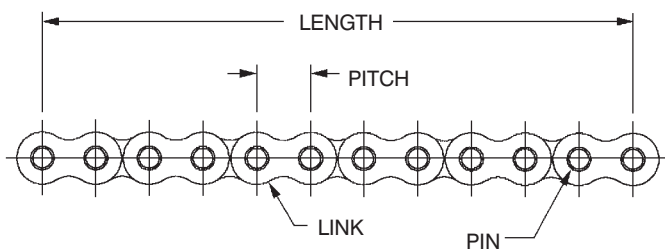


$$\text{TORQUE (FT.-LBS.)} = \text{FORCE (LBS.)} \times \text{LENGTH (IN)} / 12$$

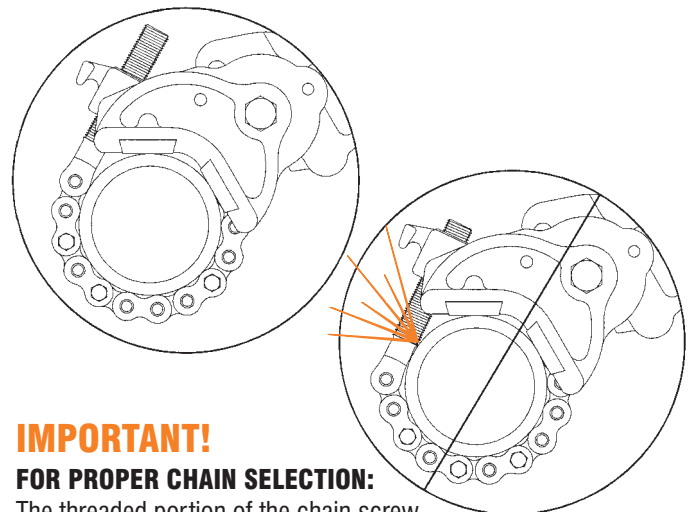
WORKING LOAD IS THE MAXIMUM FORCE THAT MAY BE APPLIED TO A TOOL DURING OPERATION. DO NOT EXCEED THE PUBLISHED WORKING LOADS.

PROPER CHAIN SELECTION for PETOL DRILL PIPE TONGS

CHAIN DETAIL



$$\text{ELONGATION (\%)} = \frac{\text{ACTUAL LENGTH}}{\text{ORIGINAL LENGTH}} \times 100$$



IMPORTANT!

FOR PROPER CHAIN SELECTION:

The threaded portion of the chain screw should **NEVER** contact the work piece. This places an additional load on the chain screw, which could result in breakage. Thread contact can be prevented by adding a 2 link section of chain. *(see CHAIN SELECTION GUIDE for PETOL DRILL PIPE TONGS on page 79-80)*

SAFE PRACTICES & PROCEDURES
for
ALL PETOL & TITAN VALVE WHEEL WRENCHES
and
TITAN REFINERY WRENCHES

1. Valve Wheel Wrenches should fit over the valve wheel rim completely. Make sure that the wheel rim is in contact with the top of the wrench opening when applying force.
2. Brace yourself firmly and pull rather than push when wrenching. (If necessary to push, do so with the flat of the hand rather than gripping around the wrench.)
3. Keep the wrench in the plane of the valve wheel rim when pulling. Pulling at an angle increases the chance of slippage.
4. Never apply excess leverage to a wrench by means of a “cheater bar.”
5. Never strike wrenches with hammers or other objects.
6. Safety Goggles must always be worn by persons in any area where hand and powered tools are being used.

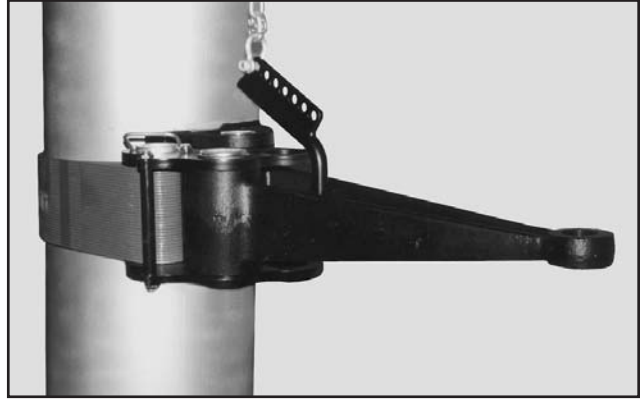
**PETOL & TITAN
TOOLS**

PETOL SURGRIP CASING TONGS *Patent #7,275,463*

The PETOL SURGRIP CASING TONGS' innovative design and utilization of a technologically advanced belt provide features that are truly amazing. This lightweight belt is actually stronger than chain – and you don't have to worry about rust or corrosion. While torque will vary according to diameter, it can deliver up to 163,000 ft.-lbs. of torque on 72" O.D. pipe. One of the most important features of the belt is that it will not come apart, even when it's broken. Although all tongs are safe when used properly, this feature offers added safety in that there are no "flying" parts if the tong is overtorqued.

The PETOL SURGRIP CASING TONGS are available in five sizes with belts to accommodate pipe sizes from 6" to 72" O.D.

PETOL SURGRIP CASING TONGS are extremely easy to use. The light weight of the belt, an adjustable hanger that keeps the tong in perfect balance for easy application and ratcheting, and a pin that quickly latches and unlatches the belt, combine to make operating the tong a snap. In fact, it's so easy only two rig personnel are required.



Lightweight belt can deliver up to 163,000 ft.-lbs. of torque.

Each tong comes equipped with two PETOL Diamond Point Inserts which can be quickly changed out when necessary. The SCT1020, SCT1020H and SCT2036 tongs can be adjusted to grip the main body of the pipe or the pipe upset as needed.

Prior to shipment, every PETOL Surgrip Casing Tong is magnetic particle inspected, load tested, and magnetic particle inspected again.

A product video can be downloaded from www.gearench.com.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT** | MAXIMUM WORKING LOAD |
|-------------|--------------|----------------|---------------|----------|--|
| SCT614H | 6" – 14" | 13.75" | 33" | 424 lbs. | <i>Torques vary according to O.D.</i> |
| SCT1020 | 9-5/8" – 20" | 9.50" | 36" | 196 lbs. | <i>See Torque Table with Belt Selection on page 70</i> |
| SCT1020H | 9-5/8" – 20" | 13.75" | 33" | 398 lbs. | |
| SCT2036 | 18" – 38" | 12.00" | 33" | 320 lbs. | |
| SCT3672 | 36" – 72" | 14.50" | 33" | 387 lbs. | |

* BELTS MUST BE ORDERED SEPARATELY.

** WEIGHTS DO NOT INCLUDE BELT.

NOTE: SAFE PRACTICES & PROCEDURES AND TORQUE ARM LENGTHS ARE INCLUDED IN THE DATA BOOK FURNISHED WITH EACH PETOL SURGRIP CASING TONG. TO REQUEST A COPY CALL: (254)675-8651

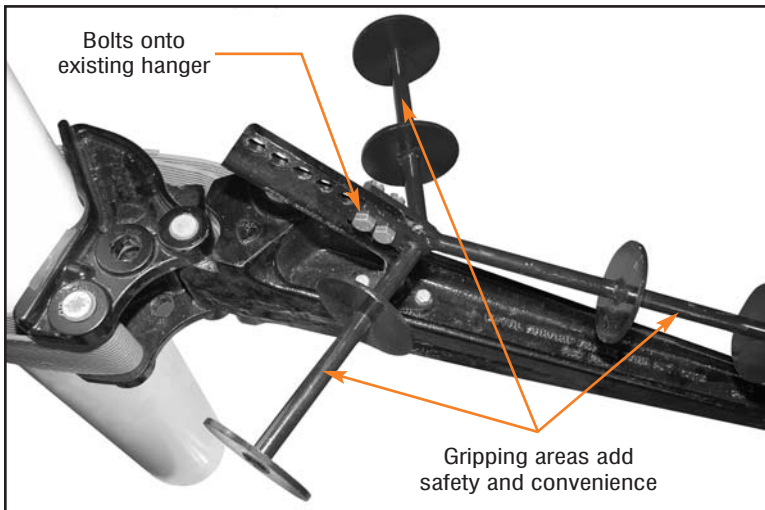
WARNING!

Do Not Exceed Maximum Working Load. Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read safe practices & procedures in Data Book prior to operation. Do not operate without a Data Book.

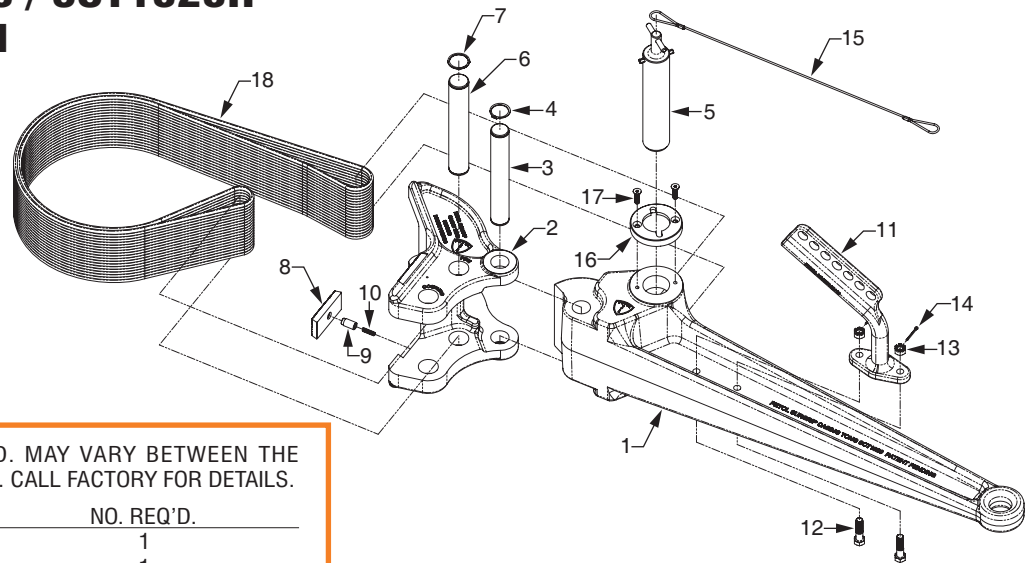
Follow OSHA, NSC, etc. standards, safe practices, & procedures.



"Handy Grip" Handles are available as an accessory to the PETOL Surgrip Casing Tongs. Using the handle provides the crew with added safety and convenience when operating the tong. "Handy Grip" Handles must be ordered separately and include bolts and nuts for attachment to the tong.

| CATALOG NO. | FITS TONG SIZES | WEIGHT |
|-------------|-------------------------------------|-------------|
| SCTG | SCT1020, SCT1020H, SCT2036, SCT3672 | 17 lbs. |
| SCTG614H | SCT614H | 17-1/4 lbs. |

SCT614H / SCT1020 / SCT1020H PARTS BREAKDOWN



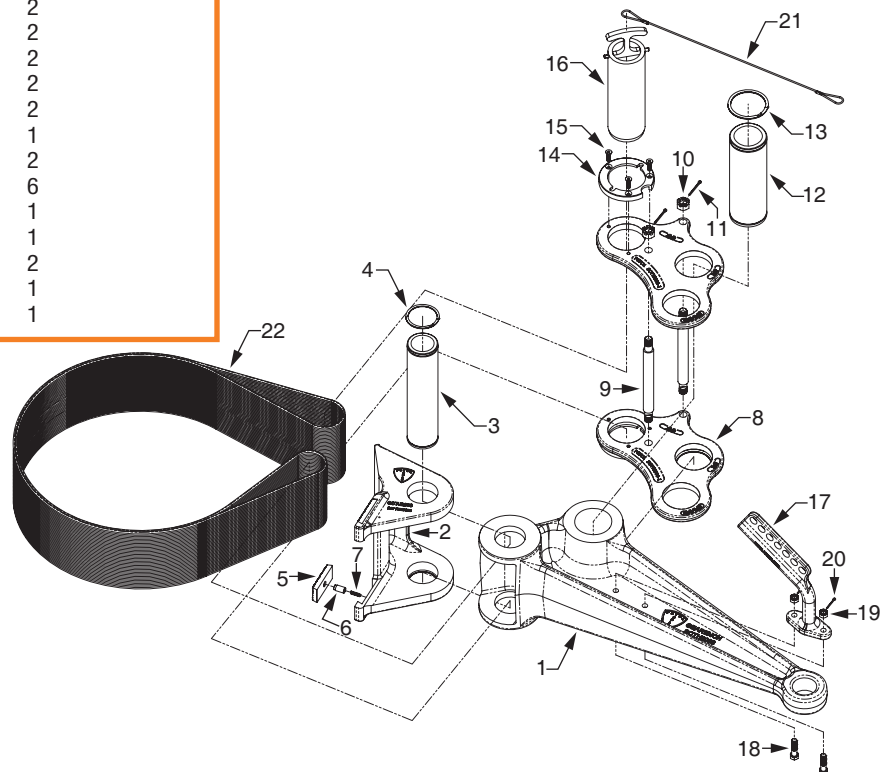
NOTE: PARTS AND/OR NO. REQ'D. MAY VARY BETWEEN THE SCT614H, SCT1020 AND SCT1020H. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|----------|----------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | JAW | 1 |
| 3,4 | JAW PIN w/KLIPRINGS | 1 |
| 5 | LATCH PIN | 1 |
| 6,7 | MASTER PIN w/KLIPRINGS | 1 |
| 8 | INSERT | 2 |
| 9 | INSERT KEY | 2 |
| 10 | INSERT KEY SPRING | 2 |
| 11 | HANGER | 1 |
| 12,13,14 | HANGER BOLT & NUT w/COTTER | 2 |
| 15 | LANYARD | 1 |
| 16 | LOCKING CAP | 2 |
| 17 | LOCKING CAP SCREW | 4 |
| 18 | BELT | 1 |

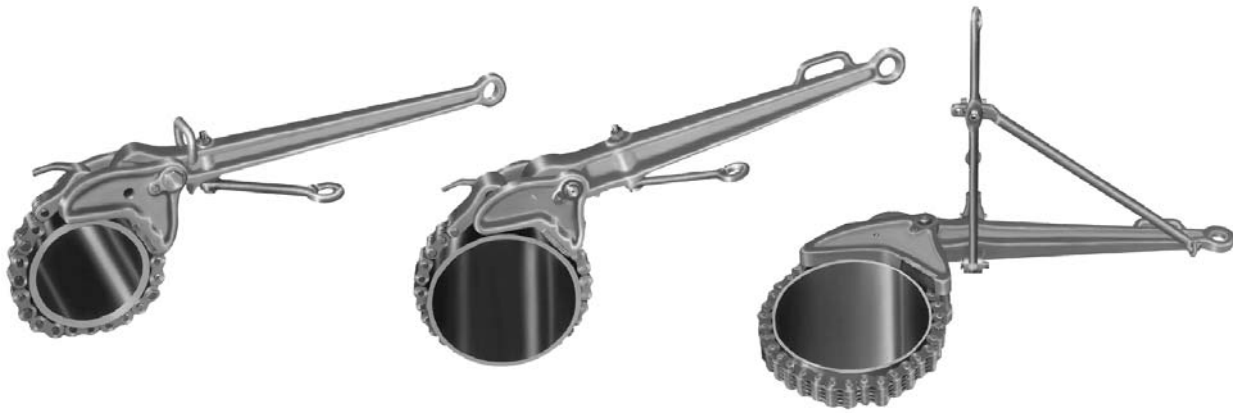
SCT2036 / SCT3672 PARTS BREAKDOWN

NOTE: NO. REQ'D. FOR SOME PARTS VARIES BETWEEN THE SCT2036 AND SCT3672. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|----------|-----------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | JAW | 1 |
| 3,4 | JAW PIN w/KLIPRINGS | 1 |
| 5 | INSERT | 2 |
| 6 | INSERT KEY | 2 |
| 7 | INSERT KEY SPRING | 2 |
| 8 | YOKE PLATE | 2 |
| 9,10,11 | YOKE GRIP w/NUTS & COTTERS | 2 |
| 12,13 | YOKE HANDLE PIN w/KLIPRINGS | 1 |
| 14 | LOCKING CAP | 2 |
| 15 | LOCKING CAP SCREW | 6 |
| 16 | LATCH PIN | 1 |
| 17 | HANGER | 1 |
| 18,19,20 | HANGER BOLT & NUT w/COTTER | 2 |
| 21 | LANYARD | 1 |
| 22 | BELT | 1 |



PETOL BULL TONGS



PETOL BULL TONGS are the most versatile tools available for making up or breaking out tool and pipe joints in the shop as well as on the drilling rig. Positive grip, perfect ratcheting, noncrushing and nonjamming features make these tongs the ideal choice for many jobs. This tong grips in the downward motion and ratchets

in the upward motion. The LA16H can be furnished with a 2-2 chain combination for added speed in latching, unlatching, and O.D. adjustment when working with lower torque requirements. The 2-2 chain is standard on the LA155-16.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH** | WEIGHT*** | MAXIMUM WORKING LOAD |
|-------------|-------------------|----------------|-----------------|-----------|--|
| LA155-16 | 3-1/2" – 16" | 4.38" | 32" | 67 lbs. | <i>Torques vary according to O.D. See Torque Tables on page 71</i> |
| LA16H | 4" – 16" | 6.88" | 36" | 96 lbs. | |
| LA116-C09 | 6" – 17" | 7.55" | 9" | 95 lbs. | |
| LA116-C18 | 6" – 17" | 7.55" | 18" | 124 lbs. | |
| LA116-23 | 6" – 17" | 7.55" | 23" | 118 lbs. | |
| LA116-28 | 6" – 17" | 7.55" | 28" | 126 lbs. | |
| LA116 | 5" – 17" | 7.55" | 36" | 133 lbs. | |
| LA120 | 6" – 22" | 10.00" | 72" | 376 lbs. | |
| LA116H | 16" – 40" | 7.63" | 36" | 218 lbs. | |
| LA116HX | 30-1/8" – 65-7/8" | 7.56" | 36" | 238 lbs. | |

* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGES 76-78.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.

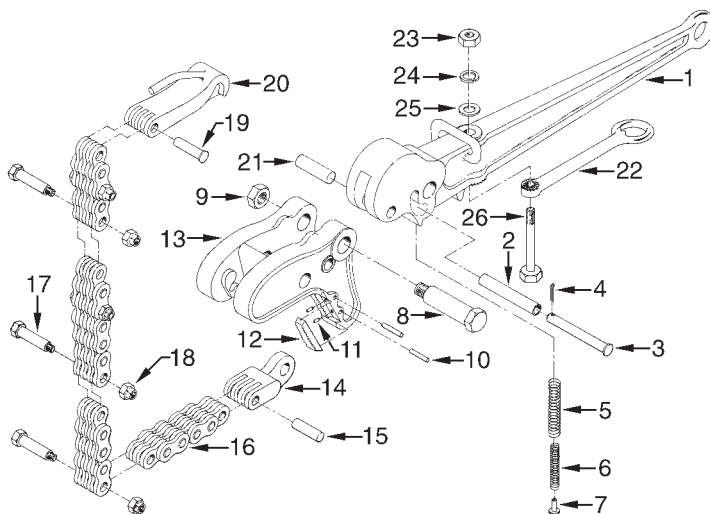
WARNING!

Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload. Read Safe Practices & Procedures Manual prior to operation. Do not operate without a manual.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

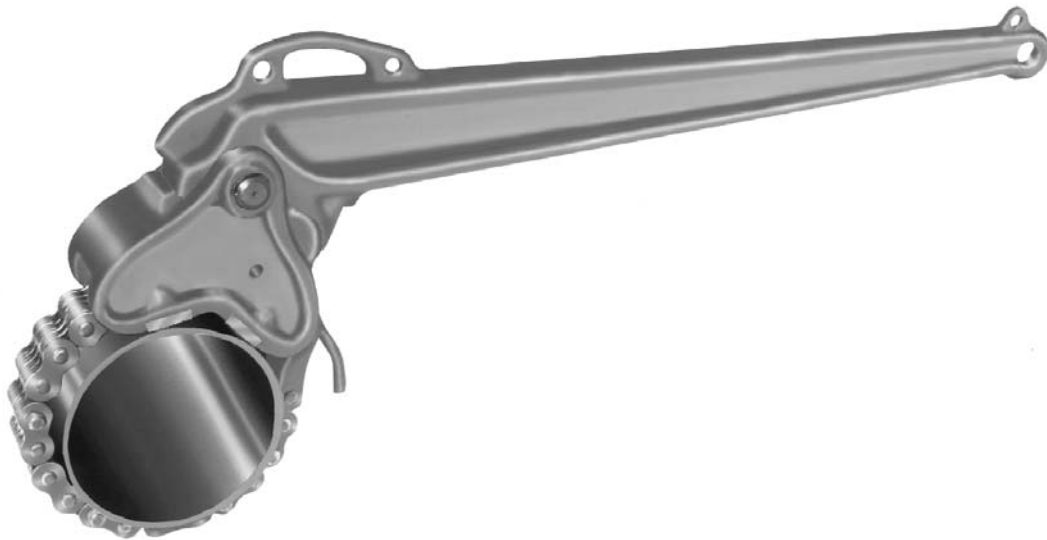
NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS AND / OR NO. REQ'D. MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|-------------|----------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | SPRING PIN BUSHING | 1 |
| 3,4 | SPRING PIN W / COTTER | 1 |
| 5 | SPRING (OUTSIDE) | 1 |
| 6 | SPRING (INSIDE) | 1 |
| 7 | SPRING GUIDE | 1 |
| 8,9 | JAW BOLT & NUT | 1 |
| 10 | INSERT PIN | 4 |
| 11 | INSERT KEY | 8 |
| 12 | INSERT | 4 |
| 13 | JAW | 1 |
| 14 | MASTER LINK | 1 |
| 15 | MASTER LINK CHAIN PIN | 1 |
| 16 | SPECIAL CHAIN ONLY | 1 |
| 17,18 | SPLICE BOLT & NUT | as req'd. |
| 19 | CHAIN HOOK PIN | 1 |
| 20 | CHAIN HOOK | 1 |
| 21 | MASTER LINK HANDLE PIN | 1 |
| 22 | HANGER | 1 |
| 23,24,25,26 | HANGER BOLT & NUT ASSEMBLY | 1 |

PETOL BUKUP TONGS



PETOL BUKUP TONGS are designed for use with a pipe machine for “bucking up” and “bucking off” tool joints. Larger sizes may be used for breaking out drill collars, reamers or similar heavy jobs. The wide range of each size of PETOL Bukup Tong reduces to a minimum the tools needed for handling the many sizes of tool

joints. The PETOL Special Chain combinations used with this tong come complete with heavy-duty bolts, which make it possible to change quickly from one O.D. size to another. This tong grips in the upward motion and ratchets in the downward motion.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT** | MAXIMUM WORKING LOAD |
|-------------|------------------|----------------|---------------|----------|------------------------------------|
| BA115H | 2-1/8" – 8" | 4.66" | 48" | 64 lbs. | 16,000 ft.-lbs. |
| BA116 | 4" – 10" | 6.00" | 48" | 122 lbs. | 42,000 ft.-lbs. |
| BA116H | 4-1/4" – 10-3/4" | 6.06" | 48" | 147 lbs. | 66,000 ft.-lbs. |
| BA120 | 6" – 22" | 10.88" | 72" | 546 lbs. | <i>see Torque Table on page 72</i> |

*ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGE 75-76.

**WEIGHTS DO NOT INCLUDE CHAIN.

WARNING!

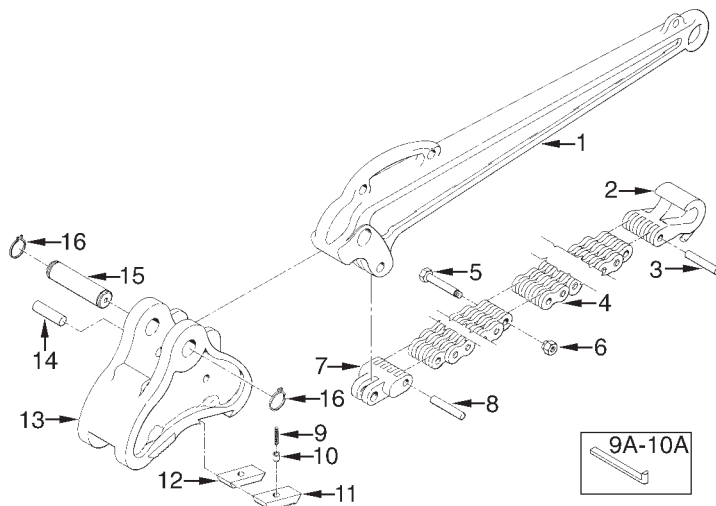
Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read Safe Practices & Procedures Manual prior to operation.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | CHAIN HOOK | 1 |
| 3 | CHAIN HOOK PIN | 1 |
| 4 | SPECIAL CHAIN ONLY | 1 |
| 5,6 | SPLICE BOLT & NUT | as req'd. |
| 7 | MASTER LINK | 1 |
| 8 | MASTER LINK CHAIN PIN | 1 |
| 9 | INSERT KEY SPRING* | 4 |
| 10 | INSERT KEY* | 4 |
| 11 | INSERT | 4 |
| 12 | BLANK INSERT | 2 |
| 13 | JAW | 1 |
| 14 | MASTER LINK HANDLE PIN | 1 |
| 15,16 | JAW PIN W / KLIPRINGS | 1 |

*OLDER MODEL TONGS REQUIRE INSERT PIN (9A-10A) IN PLACE OF INSERT KEY SPRING (9) and INSERT KEY (10).

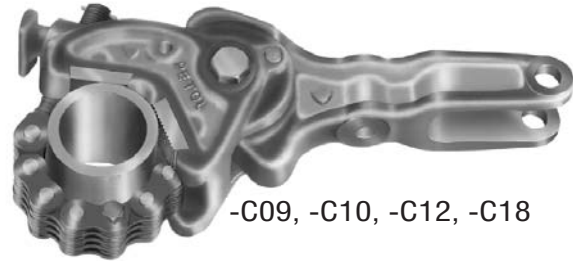
PETOL DRILL PIPE TONGS



DA4174-L08



-L21, -L23, -L28, -L36



-C09, -C10, -C12, -C18

PETOL DRILL PIPE TONGS are designed for making up and breaking out drill pipe, casing, and pneumatic drills on light rigs. These tongs are furnished as original equipment by rig manufacturers because of their ease in handling, quick application, and ability to withstand rugged use.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH** | WEIGHT*** | MAXIMUM WORKING LOAD |
|-------------|------------------|----------------|-----------------|-----------|--|
| DA1344 | 1" – 6" | 4" | 8" | 12 lbs. | 5,000 ft.-lbs. |
| DA2344-C12 | 2-1/8" – 5" | 4.44" | 12" | 27 lbs. | <i>Torques vary according to O.D. See Torque Tables on pages 72-73</i> |
| DA2344-L21 | 2-1/8" – 5" | 4.44" | 21" | 31 lbs. | |
| DA4174-L08 | 3" – 8-1/4" | 5.00" | 8" | 40 lbs. | |
| DA4174-C12 | 3" – 8-1/4" | 5.00" | 12" | 43 lbs. | |
| DA4174-L21 | 3" – 8-1/4" | 5.00" | 21" | 45 lbs. | |
| DA6184-C10 | 4-1/4" – 10-3/4" | 4.88" | 10" | 49 lbs. | |
| DA6184-L36 | 4-1/4" – 10-3/4" | 4.88" | 36" | 74 lbs. | |
| DA8184-C09 | 4" – 14" | 7.25" | 9" | 91 lbs. | |
| DA8184-C18 | 4" – 14" | 7.25" | 18" | 120 lbs. | |
| DA8184-L23 | 4" – 14" | 7.25" | 23" | 114 lbs. | |
| DA8184-L28 | 4" – 14" | 7.25" | 28" | 122 lbs. | |
| DA8184-L36 | 4" – 14" | 7.25" | 36" | 129 lbs. | |

* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGE 79-80.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.

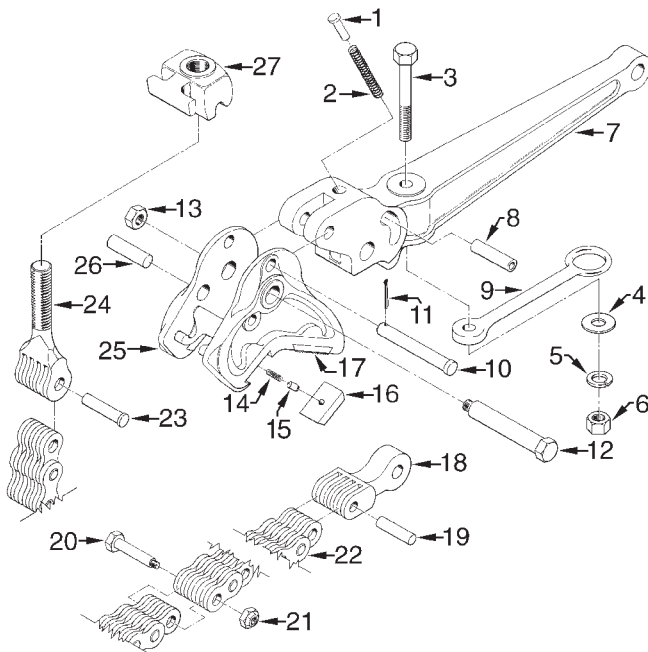
WARNING!

Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read Safe Practices & Procedures Manual prior to operation.
Follow OSHA, NSC, etc. standards, safe practices, and procedures.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS AND / OR NO. REQ'D. MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|----------------------------|------------|
| 1 | SPRING GUIDE | 1 |
| 2 | SPRING | 1 |
| 3,4,5,6 | HANGER BOLT & NUT ASSEMBLY | 1 |
| 7 | HANDLE | 1 |
| 8 | SPRING PIN BUSHING | 1 |
| 9 | HANGER | 1 |
| 10,11 | SPRING PIN W / COTTER | 1 |
| 12,13 | JAW BOLT & NUT | 1 |
| 14 | INSERT KEY SPRING | 4 |
| 15 | INSERT KEY | 4 |
| 16 | BLANK INSERT | 2 |
| 17 | INSERT | 2 |
| 18 | MASTER LINK | 1 |
| 19 | MASTER LINK CHAIN PIN | 1 |
| 20,21 | SPLICE BOLT & NUT | as req'd. |
| 22 | SPECIAL CHAIN ONLY | 1 |
| 23 | CHAIN SCREW PIN | 1 |
| 24 | CHAIN SCREW | 1 |
| 25 | JAW | 1 |
| 26 | MASTER LINK HANDLE PIN | 1 |
| 27 | CHAIN SCREW NUT | 1 |

PETOL RIG WRENCH



The PETOL RIG WRENCH provides a faster and safer method of making up or breaking out drill pipe on water well and blast hole drilling rigs.

The added expense of hook jaw and insert breakage is greatly reduced through the PETOL Rig Wrench's nonjamming feature and rugged design. Because PETOL Inserts are seated in dovetail slots, they will not shear from the wrench during use.

The wrench is self-adjusting and has perfect ratcheting action. Specially designed hand grips enable the operator to apply and remove the wrench with ease.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | TORQUE ARM LENGTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|-------------|----------------|-------------------|---------|----------------------|
| PRWA01 | 3-1/2" – 5" | 2.25" | approx. 18"*** | 53 lbs. | 16,000 ft.-lbs. |
| PRWA01-D | 3-1/2" – 5" | 2.25" | approx. 22"*** | 55 lbs. | 16,000 ft.-lbs. |

* USE T-7 INSERTS FOR 3-1/2" O.D. ONLY.

** TORQUE ARM LENGTH WILL VARY FROM 17.38" to 19.38" DEPENDING ON O.D. BEING WORKED.

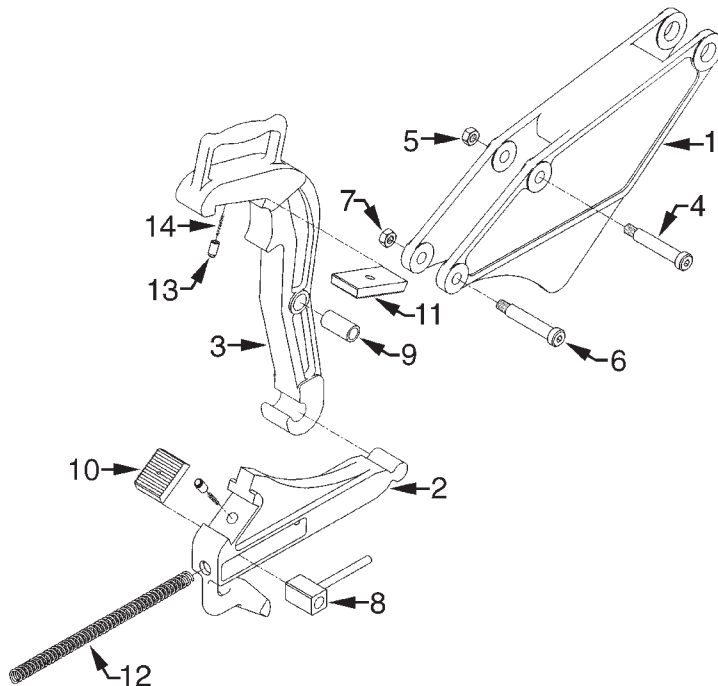
*** TORQUE ARM LENGTH WILL VARY FROM 21.25" to 22.63" DEPENDING ON O.D. BEING WORKED.

WARNING!

**Protect yourself and others from
SERIOUS INJURY OR DEATH!**

Do Not Exceed Maximum Working Load!

**Follow OSHA, NSC, etc. standards, safe practices,
and procedures.**



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|----------------------|------------|
| 1 | HANDLE | 1 |
| 2 | LOWER JAW | 1 |
| 3 | UPPER JAW | 1 |
| 4,5 | UPPER JAW BOLT & NUT | 1 |
| 6,7 | LOWER JAW BOLT & NUT | 1 |
| 8 | LOWER JAW BUSHING | 1 |
| 9 | UPPER JAW BUSHING | 1 |
| 10 | LOWER JAW INSERT | 1 |
| 11 | UPPER JAW INSERT | 1 |
| 12 | SPRING | 1 |
| 13 | INSERT KEY | 2 |
| 14 | INSERT KEY SPRING | 2 |

PETOL MACHINE TONGS



PETOL MACHINE TONGS provide positive grip in the upward motion and perfect ratcheting in the downward motion. Noncrushing and nonjamming action are features that make this tong outstanding. The MA16HS can be furnished with a 3-4 chain combination for higher torque requirements.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH** | WEIGHT*** | MAXIMUM WORKING LOAD |
|-----------------------------------|----------|----------------|-----------------|-----------|----------------------|
| MA15S | 2" – 10" | 4.00" | 28" | 37 lbs. | 5,000 ft.-lbs. |
| MA155-16S | 3" – 16" | 5.00" | 32" | 54 lbs. | 8,950 ft.-lbs. |
| MA16HS (2-2 CHAIN COMBINATION) | 4" – 16" | 5.25" | 35" | 85 lbs. | 11,500 ft.-lbs. |
| MA16HS (3-4 CHAIN COMBINATION) | 4" – 16" | 5.25" | 35" | 85 lbs. | 17,500 ft.-lbs. |

* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGES 78-79.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.

WARNING!

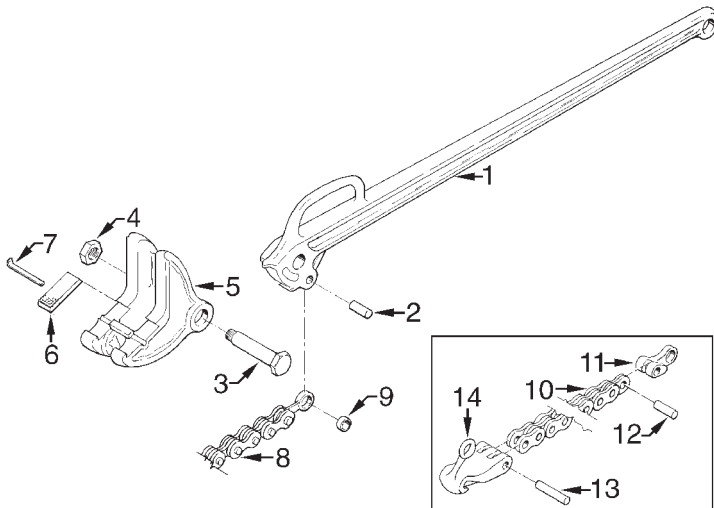
Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read Safe Practices & Procedures Manual prior to operation.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

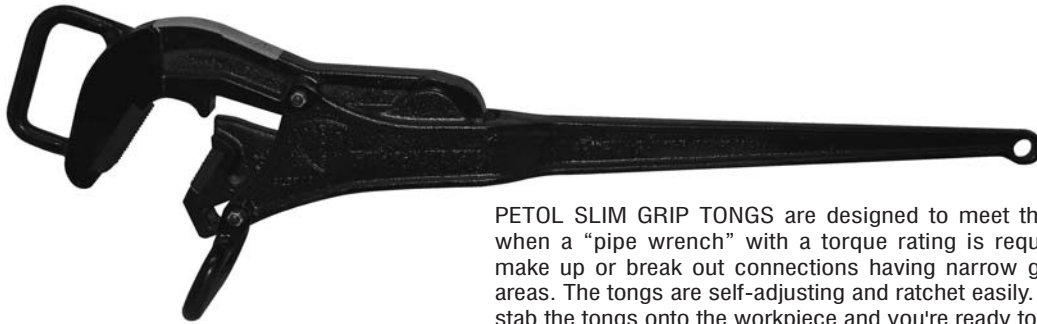
NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

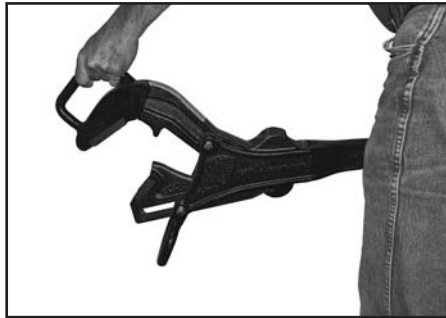
| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|-------------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | MASTER LINK HANDLE PIN | 1 |
| 3,4 | JAW BOLT & NUT | 1 |
| 5 | JAW | 1 |
| 6 | INSERT | 2 |
| 7 | INSERT PIN | 1 |
| 8 | PETOL SPECIAL CHAIN W / MASTER LINK | 1 |
| 9 | MASTER LINK BUSHING | 1 |
| 10 | SPECIAL CHAIN ONLY | 1 |
| 11 | MASTER LINK | 1 |
| 12 | MASTER LINK CHAIN PIN | 1 |
| 13 | CHAIN HOOK PIN | 1 |
| 14 | CHAIN HOOK | 1 |

PETOL SLIM GRIP TONGS



PETOL SLIM GRIP TONGS are designed to meet the need when a “pipe wrench” with a torque rating is required to make up or break out connections having narrow gripping areas. The tongs are self-adjusting and ratchet easily. Simply stab the tongs onto the workpiece and you’re ready to go.

Equipped with hand grips for ease in placing the tongs on top of or underneath the workpiece.



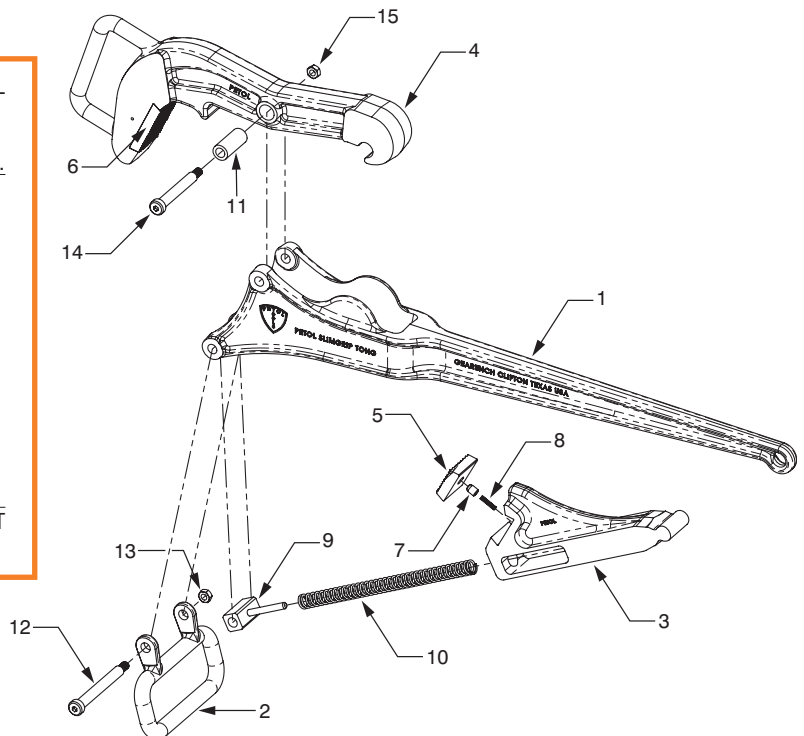
| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|-----------------|----------------|---------------|-------------|----------------------|
| SLG10 | 1" – 2-1/4" | 1.19" | 16" | 9 lbs. | 1,500 ft.-lbs. |
| SLG13 | 2-3/8" – 4" | 1.75" | 28" | 44-1/2 lbs. | 5,000 ft.-lbs. |
| SLG15 | 3-3/4" – 6-1/2" | 1.25" | 33" | 55 lbs. | 7,500 ft.-lbs. |

WARNING!
 Protect yourself and others from **SERIOUS INJURY OR DEATH!**
Do Not Exceed Maximum Working Load!
 Follow OSHA, NSC, etc. standards, safe practices, and procedures.

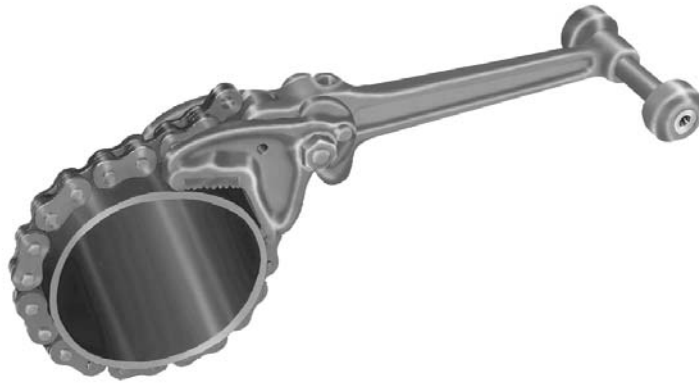
NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|----------------------|------------|
| 1 | HANDLE | 1 |
| 2 | HANGER | 1 |
| 3 | LOWER JAW | 1 |
| 4 | UPPER JAW | 1 |
| 5 | LOWER JAW INSERT | 1 |
| 6 | UPPER JAW INSERT | 1 |
| 7 | INSERT KEY* | 2 |
| 8 | INSERT KEY SPRING* | 2 |
| 9 | LOWER JAW BUSHING | 1 |
| 10 | SPRING | 1 |
| 11 | UPPER JAW BUSHING | 1 |
| 12,13 | LOWER JAW BOLT & NUT | 1 |
| 14,15 | UPPER JAW BOLT & NUT | 1 |

*SLG10 TONG REQUIRES A CAP SCREW IN PLACE OF INSERT KEY(7) AND INSERT KEY SPRING(8).



PETOL STABBING TONGS

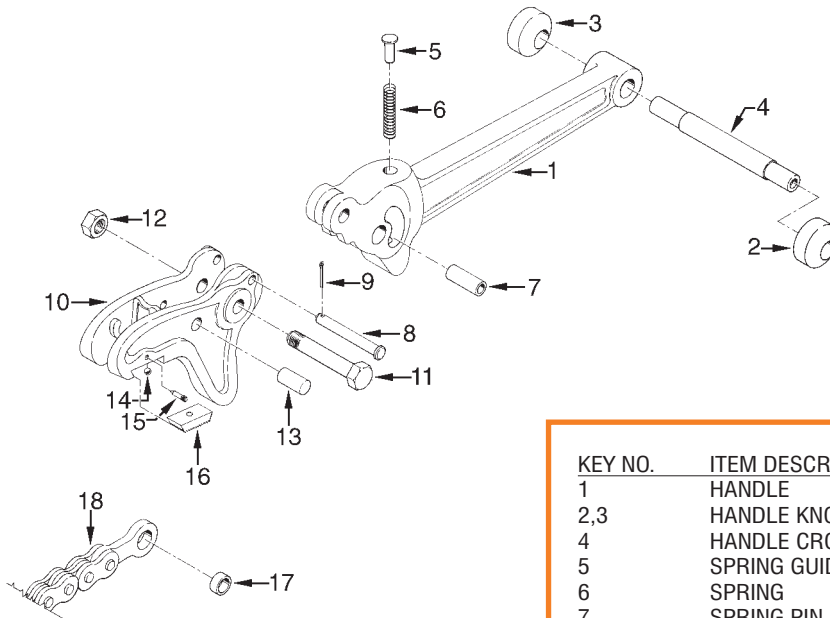


PETOL STABBING TONGS are light, durable tongs used to quickly spin-up pipe or couplings. The tongs are easily applied and removed, and are made in two sizes, providing proper leverage for your job.

| CATALOG NO. | O.D. | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT | CHAIN TENSILE STRENGTH |
|-------------|-------------|----------------|---------------|---------|------------------------|
| SSA1 | 1-1/4" – 4" | 2.13" | 13" | 9 lbs. | 13,800 lbs. |
| SSA2 | 2" – 4" | 2.25" | 16" | 10 lbs. | 13,800 lbs. |

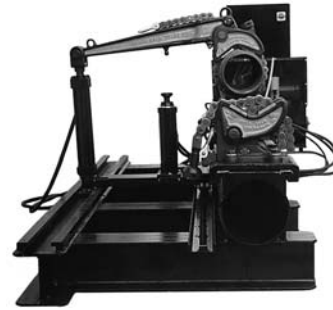
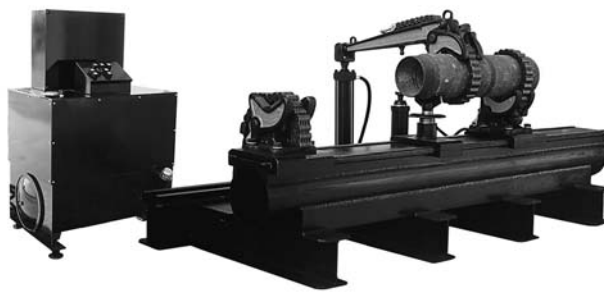
WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|-------------------------------|------------|
| 1 | HANDLE | 1 |
| 2,3 | HANDLE KNOB | 2 |
| 4 | HANDLE CROSSBAR | 1 |
| 5 | SPRING GUIDE | 1 |
| 6 | SPRING | 1 |
| 7 | SPRING PIN BUSHING | 1 |
| 8,9 | SPRING PIN W / COTTER | 1 |
| 10 | JAW | 1 |
| 11,12 | JAW BOLT & NUT | 1 |
| 13 | MASTER LINK HANDLE PIN | 1 |
| 14 | INSERT KEY | 2 |
| 15 | INSERT PIN | 2 |
| 16 | INSERT | 2 |
| 17 | MASTER LINK BUSHING | 1 |
| 18 | SPECIAL CHAIN W / MASTER LINK | 1 |

PETOL HYDRA-TORK UNITS

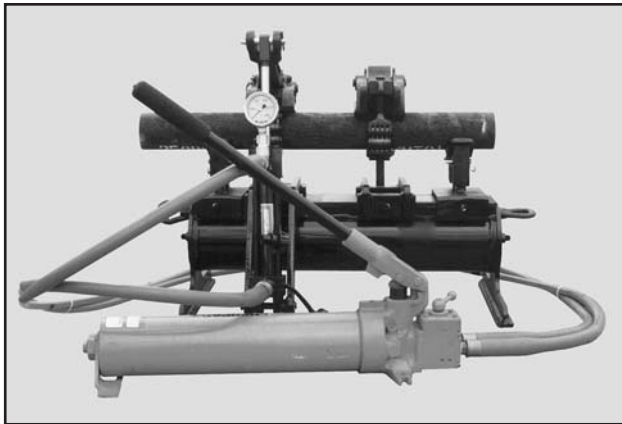


PETOL HYDRA-TORK UNITS are designed for fast and easy operation when making up or breaking out pipe and tool joints. The units are equipped with PETOL Pulldown Visetongs and Tongvises to provide the greatest strength while minimizing marks on pipe surfaces. The heat-treated PETOL Special Chains on these tools are easily adjusted without disassembling the chain sections. The remote control console for the hydraulic system provides pressure gauges with exact read-out in ft.-lbs. of torque, as well as PSI. For added safety, a controlled pressure relief valve allows the operator to adjust the working pressure for each job. When the set pressure is accomplished the system stops torquing.

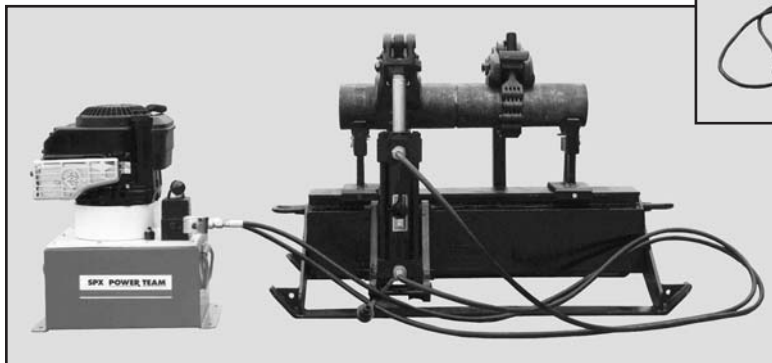
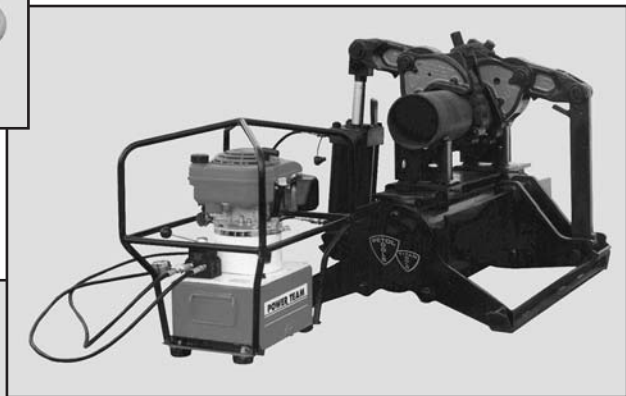
PETOL HYDRA-TORK UNITS are designed in a manner that enable them to be adapted to meet the many different requirements of each downhole tool manufacturer and service shop. Please call our factory for any custom design requirements needed.

| CATALOG NO. | O.D. | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|----------|------------|----------------------|
| U115H | 2" – 8" | 1,255 lbs. | 14,000 ft.-lbs. |
| U116H | 4" – 14" | 2,860 lbs. | 50,000 ft.-lbs. |
| U118 | 4" – 24" | 3,380 lbs. | 90,000 ft.-lbs. |
| U120 | 6" – 24" | 5,500 lbs. | 235,000 ft.-lbs. |

A product video can be downloaded from www.gearench.com.



PETOL PORTABLE HYDRA-TORK UNITS get the job done right by providing added safety, convenience, and speed in breaking out drill stem and drilling tools, as well as exactness in measuring torque. A controlled pressure relief valve on electric and gas power consoles allows the operator to adjust the working pressure for each job. When the set pressure is accomplished the system stops torquing. These portable units cover a wide range of diameters and torque requirements. The PETOL Special Chains used with the U1344, U4174, and U8184 units are equipped with heavy duty bolts which make it possible to quickly change from one O.D. size to another.



| CATALOG NO. | O.D. | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|-------------|-----------|----------------------|
| U1344 | 1" – 6" | 180 lbs. | 5,000 ft.-lbs. |
| U4174 | 3" – 8-1/4" | 510 lbs. | * |
| U8184 | 4" – 14" | 1400 lbs. | ** |

*TORQUES VARY ACCORDING TO O.D. SEE TORQUE TABLE FOR DA4174-L08 ON PAGE 72.

**TORQUES VARY ACCORDING TO O.D. SEE TORQUE TABLE FOR DA8184-C09 ON PAGE 72.



WARNING!

Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

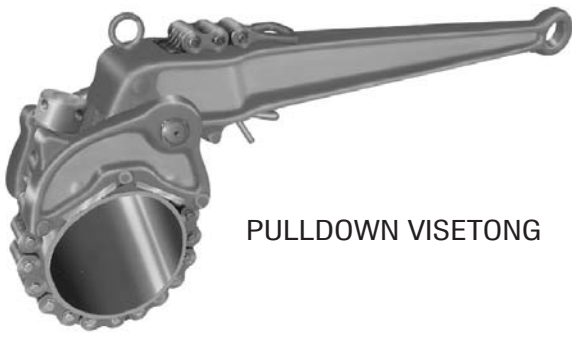
Read Safe Practices & Procedures Manual prior to operation. Do not operate without a manual.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

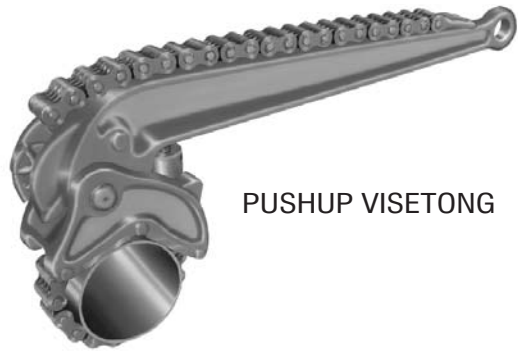



NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.

PETOL VISETONGS



PULLDOWN VISETONG



PUSHUP VISETONG

PETOL VISETONGS are designed to operate best when large makeup torques are required and when heavy loads are needed to breakout tool joints, drill collars, reamers, and similar heavy jobs. A hydraulic cylinder can be attached to the end of the tong handle.

locking cam lever. Regardless of the load on the handle, these tongs will not jam.

PETOL Visetongs have the unique feature of being easily adjusted to various pipe sizes by simply sliding the heat-treated PETOL Special Chain through the jaw of the tong and engaging the

PETOL Visetongs have minimum crushing effect, and great strength for their weight. Made of high-quality steel, these tongs are equipped with replaceable high-speed steel PETOL Diamond Point Inserts, which minimize marring of pipe surfaces. PETOL Visetongs come in both pushup and pulldown designs.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT** | MAXIMUM WORKING LOAD |
|---------------------------|----------|----------------|---------------|----------|----------------------|
| PULLDOWN VISETONGS | | | | | |
| VTDA115H | 2" – 8" | 5.25" | 24" | 79 lbs. | 14,000 ft.-lbs. |
| VTDA116H | 4" – 14" | 7.25" | 36" | 176 lbs. | 50,000 ft.-lbs. |
| VTDA118 | 4" – 24" | 9.00" | 46" | 317 lbs. | 90,000 ft.-lbs. |
| VTDA120 | 6" – 24" | 12.63" | 36" | 575 lbs. | 235,000 ft.-lbs. |
| PUSHUP VISETONGS | | | | | |
| VTUA118 | 4" – 24" | 9.00" | 54" | 328 lbs. | 75,000 ft.-lbs. |
| VTUA118-L36 | 4" – 24" | 9.00" | 36" | 294 lbs. | 72,000 ft.-lbs. |
| VTUA120 | 6" – 24" | 12.63" | 42" | 559 lbs. | 182,500 ft. lbs. |

* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGES 80.
 ** WEIGHTS DO NOT INCLUDE CHAIN.

WARNING!

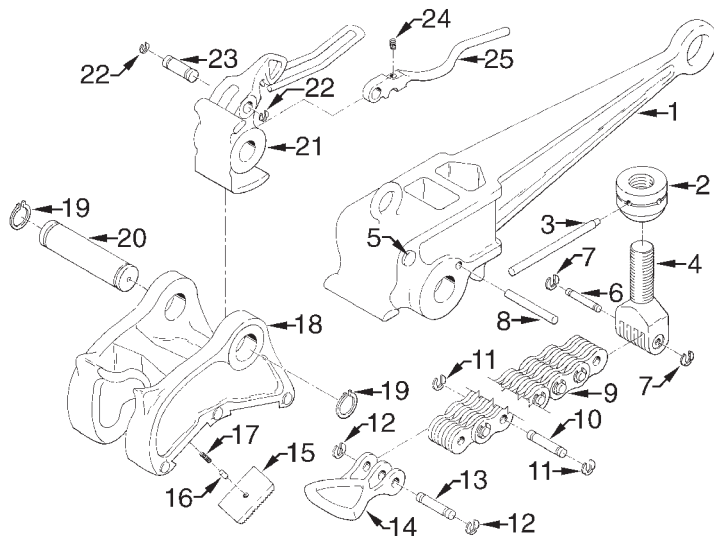
Do Not Exceed Maximum Working Load.
 Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read Safe Practices & Procedures Manual prior to operation.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

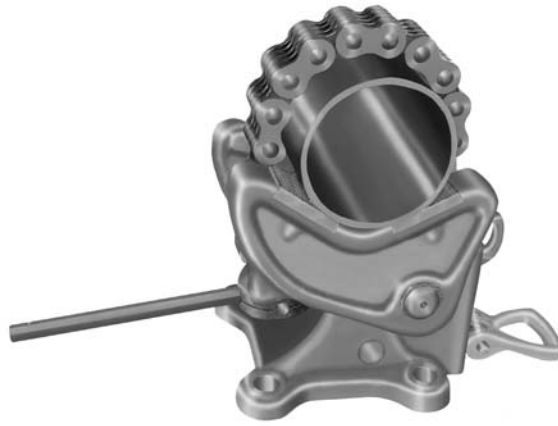
NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|--------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | CHAIN SCREW NUT | 1 |
| 3 | CHAIN SCREW NUT LEVER | 1 |
| 4 | CHAIN SCREW | 1 |
| 5 | HANDLE PIN | 1 |
| 6,7 | CHAIN SCREW PIN W / KLIPRINGS | 1 |
| 8 | LATCH PIN | 1 |
| 9 | SPECIAL CHAIN ONLY | 1 |
| 10 | CHAIN PIN | as req'd. |
| 11 | CHAIN PIN KLIPRING ONLY | as req'd. |
| 12,13 | CHAIN HANDLE PIN W / KLIPRINGS | 1 |
| 14 | CHAIN HANDLE | 1 |
| 15 | INSERT | 4 |
| 16 | INSERT KEY | 4 |
| 17 | INSERT KEY SPRING | 4 |
| 18 | JAW | 1 |
| 19,20 | JAW PIN W / KLIPRINGS | 1 |
| 21 | PAWL | 1 |
| 22,23 | PAWL LATCH RIVET W / KLIPRINGS | 1 |
| 24 | LATCH SPRING | 1 |
| 25 | PAWL LATCH | 1 |

PETOL TONGVISE



PETOL TONGVISES are designed for heavy-duty breakout or makeup operations. The Tongviser takes the place of several vises used in pipe yards, machine shops, downhole tool shops and on offshore drilling platforms.

PETOL Tongvises have the unique feature of being easily adjusted to various pipe sizes by simply sliding the heat-treated PETOL Special chain through the jaw of the vise and engaging the locking

cam lever. Regardless of the load being applied these vises will not jam.

The vise is quickly adjusted to fit any O.D. within its capacity, and incorporates a self-tightening feature which increases the grip as the torque increases. The Tongviser is equipped with replaceable high-speed steel PETOL Diamond Point Inserts for minimum marring of pipe surfaces.

| CATALOG NO. | O.D.* | GRIPPING WIDTH | WEIGHT** | MAXIMUM WORKING LOAD |
|-------------|----------|----------------|----------|----------------------|
| TVA115H | 2" – 8" | 5.25" | 44 lbs. | 14,000 ft.-lbs. |
| TVA116 | 4" – 14" | 7.00" | 110 lbs. | 38,500 ft.-lbs. |
| TVA116H | 4" – 14" | 7.25" | 134 lbs. | 50,000 ft.-lbs. |
| TVA118 | 4" – 24" | 9.00" | 241 lbs. | 90,000 ft.-lbs. |
| TVA120 | 6" – 24" | 12.63" | 500 lbs. | 235,000 ft.-lbs. |

* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGE 80.

** WEIGHTS DO NOT INCLUDE CHAIN.

WARNING!

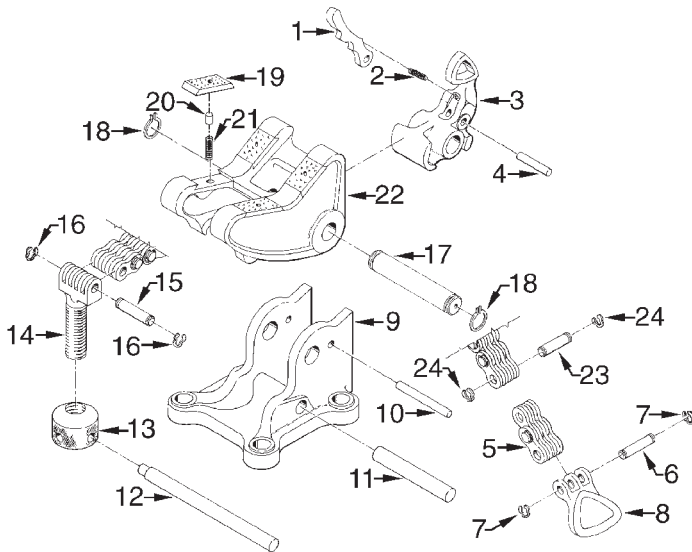
Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Read Safe Practices & Procedures Manual prior to operation.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|--------------------------------|------------|
| 1 | PAWL LATCH | 1 |
| 2 | LATCH SPRING | 1 |
| 3 | PAWL | 1 |
| 4 | PAWL LATCH RIVET | 1 |
| 5 | SPECIAL CHAIN ONLY | 1 |
| 6,7 | CHAIN HANDLE PIN W / KLIPRINGS | 1 |
| 8 | CHAIN HANDLE | 1 |
| 9 | BASE | 1 |
| 10 | LATCH PIN | 1 |
| 11 | BASE PIN | 1 |
| 12 | CHAIN SCREW NUT LEVER | 1 |
| 13 | CHAIN SCREW NUT | 1 |
| 14 | CHAIN SCREW | 1 |
| 15,16 | CHAIN SCREW PIN W / KLIPRINGS | 1 |
| 17,18 | JAW PIN W / KLIPRINGS | 1 |
| 19 | INSERT | 4 |
| 20 | INSERT KEY | 4 |
| 21 | INSERT KEY SPRING | 4 |
| 22 | JAW | 1 |
| 23 | CHAIN PIN | as req'd. |
| 24 | CHAIN PIN KLIPRING | as req'd. |

PETOL CHAIN TONGS

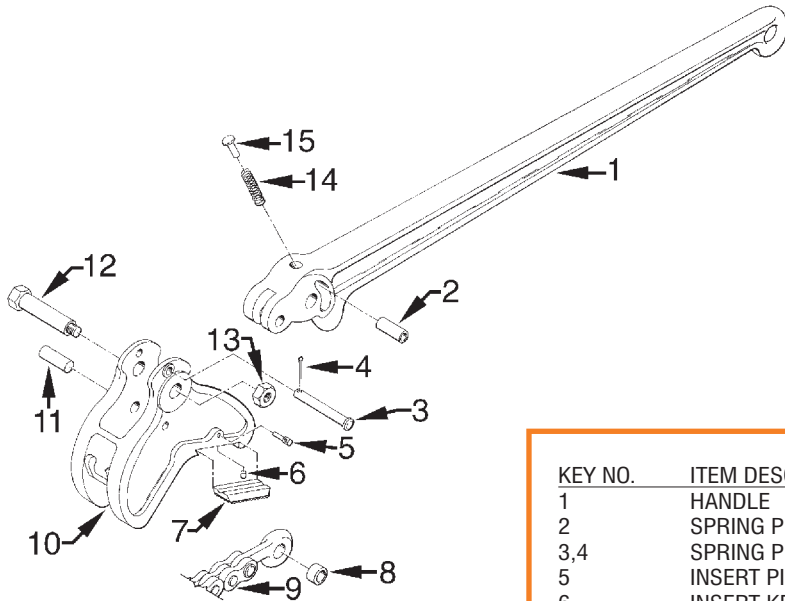


PETOL CHAIN TONGS were designed to eliminate the crushing effect on pipe and tool joints that is sometimes associated with conventional style chain tongs and pipe wrenches. The tongs rest on the pipe and release instantly to make the job easier on the operator.

| CATALOG NO. | O.D. | GRIPPING WIDTH | HANDLE LENGTH | WEIGHT | CHAIN TENSILE STRENGTH |
|-------------|-------------|----------------|---------------|---------|------------------------|
| CPA13 | 1-1/2" – 6" | 2.62" | 30" | 18 lbs. | 17,600 lbs. |
| CPA14 | 2" – 10" | 3.13" | 44" | 35 lbs. | 22,000 lbs. |

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|-------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | SPRING PIN BUSHING | 1 |
| 3,4 | SPRING PIN W / COTTER | 1 |
| 5 | INSERT PIN | 4 |
| 6 | INSERT KEY | 4 |
| 7 | INSERT | 2 |
| 8 | MASTER LINK BUSHING | 1 |
| 9 | SPECIAL CHAIN W / MASTER LINK | 1 |
| 10 | JAW | 1 |
| 11 | MASTER LINK HANDLE PIN | 1 |
| 12,13 | JAW BOLT & NUT | 1 |
| 14 | SPRING | 1 |
| 15 | SPRING GUIDE | 1 |

TITAN CHAIN TONGS



TITAN CHAIN TONGS' exceptional quality ensures they will give better service in the field. The jaws are drop-forged from high-quality steel and properly hardened and tempered to stand the severe service expected of them. All sizes are equipped with

heat-treated PETOL Special Chains. Replacement parts are interchangeable with other standard brands of "single jaw" chain tongs and are packaged and labeled for the customer's convenience in getting correct and genuine PETOL & TITAN parts.

| CATALOG NO. | PIPE SIZE | GRIPPING WIDTH | TONG LENGTH | WEIGHT | CHAIN TENSILE STRENGTH |
|-------------|---------------|----------------|-------------|----------|------------------------|
| C11-P | 1/8" – 1-1/2" | 1.75" | 20" | 6 lbs. | 9,400 lbs. |
| C12-P | 1/4" – 2-1/2" | 2.25" | 27" | 10 lbs. | 13,800 lbs. |
| C13-P | 3/4" – 4" | 2.63" | 37" | 17 lbs. | 17,600 lbs. |
| C135-P | 1" – 6" | 2.88" | 45" | 25 lbs. | 20,100 lbs. |
| C14-P | 1-1/2" – 8" | 3.06" | 51" | 31 lbs. | 22,000 lbs. |
| C15-P | 2" – 12" | 3.25" | 65" | 54 lbs. | 31,000 lbs. |
| C16-P | 4" – 18" | 4.63" | 87" | 139 lbs. | 56,000 lbs. |

NOTE: STANDARD LENGTH REPLACEMENT CHAINS CAN BE FOUND IN THE CHAIN SELECTION GUIDE ON PAGE 75.

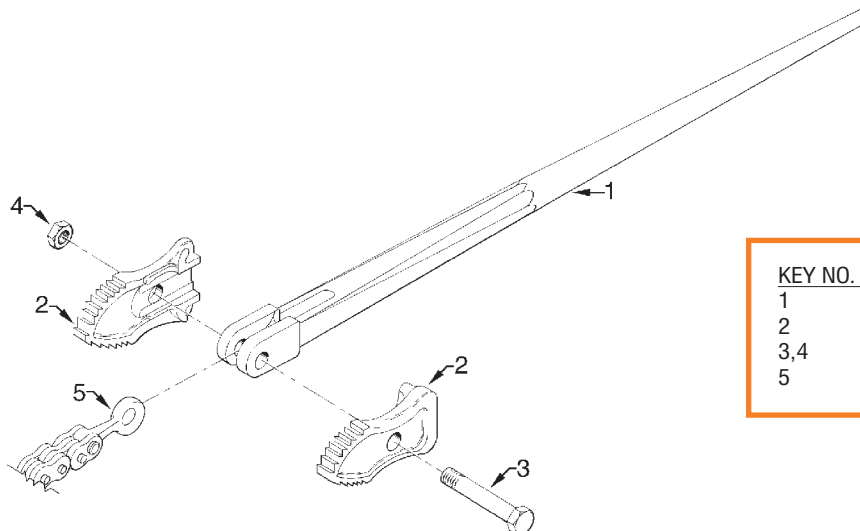
TITAN CHAIN TONGS WITH EXTRA LONG CHAIN

| CATALOG NO. | O.D. | WEIGHT | CATALOG NO. | O.D. | WEIGHT | CATALOG NO. | O.D. | WEIGHT |
|-------------|----------------|-------------|-------------|------------------|-------------|-------------|--------------------|-------------|
| C11-28-P | 3/8" – 4-1/2" | 6-1/4 lbs. | C12-66-P | 1/2" – 14" | 13 lbs. | C135-76-P | 1-3/8" – 22" | 31-7/8 lbs. |
| C11-36-P | 3/8" – 6-1/4" | 6-3/4 lbs. | C12-78-P | 1/2" – 17-1/2" | 14-1/4 lbs. | C135-90-P | 1-3/8" – 27" | 34-1/8 lbs. |
| C11-46-P | 3/8" – 8-1/2" | 7-1/4 lbs. | C12-100-P | 1/2" – 24" | 15-1/2 lbs. | C135-106-P | 1-3/8" – 32-1/2" | 38-1/2 lbs. |
| C11-54-P | 3/8" – 10-3/4" | 7-1/2 lbs. | C13-36-P | 1" – 7-1/4" | 18-3/4 lbs. | C135-150-P | 1-3/8" – 46-1/4" | 45 lbs. |
| C11-64-P | 3/8" – 12-3/4" | 8 lbs. | C13-48-P | 1" – 11" | 20-1/4 lbs. | C14-54-P | 1-15/16" – 15-1/2" | 34 lbs. |
| C11-72-P | 3/8" – 15" | 8-3/4 lbs. | C13-60-P | 1" – 15" | 22 lbs. | C14-72-P | 1-15/16" – 21-1/4" | 36-3/4 lbs. |
| C11-86-P | 3/8" – 18-1/4" | 9-1/4 lbs. | C13-72-P | 1" – 18" | 23-1/2 lbs. | C15-52-P | 2-3/8" – 18-3/4" | 55-1/2 lbs. |
| C11-108-P | 3/8" – 23-1/2" | 10 lbs. | C13-84-P | 1" – 22" | 25-1/4 lbs. | C15-64-P | 2-3/8" – 23-5/8" | 59 lbs. |
| C12-34-P | 1/2" – 7-1/4" | 10-7/8 lbs. | C13-92-P | 1" – 24-1/2" | 26 lbs. | C15-84-P | 2-3/8" – 31-3/4" | 66-1/2 lbs. |
| C12-44-P | 1/2" – 9" | 11-1/2 lbs. | C135-46-P | 1-3/8" – 11-3/4" | 27-3/8 lbs. | C16-84-P | 4-1/2" – 42-3/4" | 174 lbs. |
| C12-56-P | 1/2" – 11-3/4" | 12-1/4 lbs. | C135-60-P | 1-3/8" – 15" | 29-5/8 lbs. | | | |

NOTE: EXTRA LONG REPLACEMENT CHAINS CAN BE FOUND IN THE CHAIN SELECTION GUIDE ON PAGE 75.

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|-------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | JAWS (PAIR) | 1 (PR.) |
| 3,4 | JAW BOLT & NUT | 1 |
| 5 | SPECIAL CHAIN W / MASTER LINK | 1 |

TITAN REVERSIBLE CHAIN TONGS



TITAN REVERSIBLE CHAIN TONGS allow the operator to turn the pipe in either direction without removing the tong or unhooking the chain. The handles are drop-forged steel and have a heavy-duty I-beam design. Jaws are forged from special high-quality steel and heat-treated to stand rugged service. All sizes are equipped

with heat-treated PETOL Special Chains. Replacement parts are interchangeable with other standard brands of reversible chain tongs and are packaged and labeled for the customer's convenience in getting correct and genuine PETOL & TITAN parts.

| CATALOG NO. | PIPE SIZE | GRIPPING WIDTH | TONG LENGTH | WEIGHT | CHAIN TENSILE STRENGTH |
|-------------|---------------|----------------|-------------|---------|------------------------|
| C27-P | 1/4" – 2-1/2" | 2.19" | 27" | 11 lbs. | 13,800 lbs. |
| C37-P | 3/4" – 4" | 2.69" | 37" | 19 lbs. | 17,600 lbs. |
| C47-P | 1" – 6" | 3.00" | 47" | 27 lbs. | 20,100 lbs. |
| C57-P | 1-1/2" – 8" | 3.38" | 57" | 40 lbs. | 22,000 lbs. |
| C67-P | 2" – 12" | 3.69" | 67" | 59 lbs. | 31,000 lbs. |

NOTE: STANDARD LENGTH REPLACEMENT CHAINS CAN BE FOUND IN THE CHAIN SELECTION GUIDE ON PAGE 75.

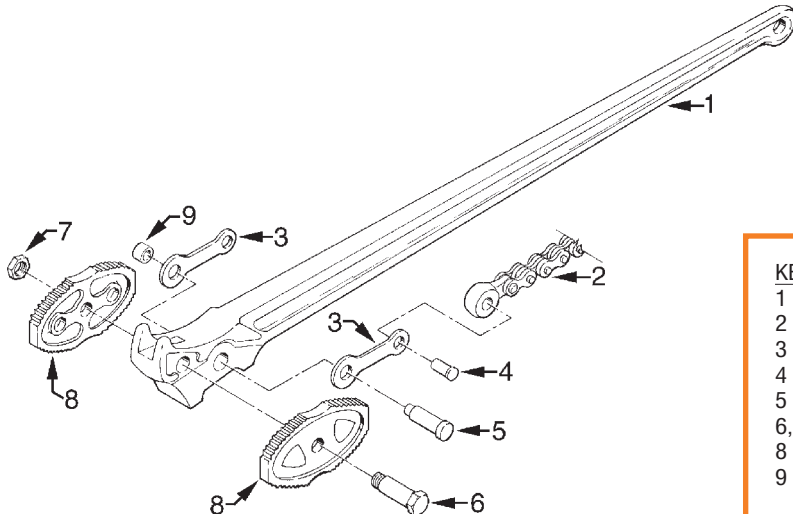
TITAN REVERSIBLE CHAIN TONGS WITH EXTRA LONG CHAIN

| CATALOG NO. | O.D. | WEIGHT | CATALOG NO. | O.D. | WEIGHT |
|-------------|----------------|-------------|-------------|--------------------|-------------|
| C27-34-P | 1/2" – 7-1/4" | 11-1/4 lbs. | C47-46-P | 1-3/8" – 11-3/4" | 27-3/4 lbs. |
| C27-44-P | 1/2" – 9" | 12-1/4 lbs. | C47-60-P | 1-3/8" – 15" | 31-1/2 lbs. |
| C27-56-P | 1/2" – 11-3/4" | 13-1/4 lbs. | C47-76-P | 1-3/8" – 22" | 35-1/4 lbs. |
| C27-66-P | 1/2" – 14" | 14-1/4 lbs. | C47-90-P | 1-3/8" – 27" | 38 lbs. |
| C27-78-P | 1/2" – 17-1/2" | 15-3/8 lbs. | C47-106-P | 1-3/8" – 32-1/2" | 40-3/4 lbs. |
| C27-100-P | 1/2" – 24" | 17-3/8 lbs. | C57-54-P | 1-15/16" – 15-1/2" | 42-3/4 lbs. |
| C37-36-P | 1" – 7-1/4" | 19-3/4 lbs. | C57-72-P | 1-15/16" – 21-1/4" | 47-1/2 lbs. |
| C37-48-P | 1" – 11" | 22-1/4 lbs. | C67-54-P | 2-3/8" – 19-1/2" | 60 lbs. |
| C37-60-P | 1" – 15" | 23-1/4 lbs. | C67-84-P | 2-3/8" – 31-3/4" | 72 lbs. |
| C37-72-P | 1" – 18" | 25 lbs. | | | |
| C37-84-P | 1" – 22" | 26-3/4 lbs. | | | |

NOTE: TONGS EQUIPPED WITH EXTRA LONG CHAINS ARE NOT REVERSIBLE. EXTRA LONG REPLACEMENT CHAINS CAN BE FOUND IN THE CHAIN SELECTION GUIDE ON PAGE 75.

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|-------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | SPECIAL CHAIN W / MASTER LINK | 1 |
| 3 | STIRRUP LINK | 2 |
| 4 | MASTER LINK STIRRUP PIN | 1 |
| 5 | STIRRUP LINK HANDLE PIN | 1 |
| 6,7 | JAW BOLT & NUT | 1 |
| 8 | JAWS (PAIR) | 1 (PR.) |
| 9 | STIRRUP LINK BUSHING | 1 |

TITAN CATHEAD & SPINNING CHAIN



TITAN CATHEAD AND SPINNING CHAINS are grade 80 alloy steel chains. Each chain is equipped with a PETOL X86 Connecting Link and is ready for immediate delivery.

| CATALOG NO. | SIZE | LENGTH | WEIGHT |
|-----------------|-------|--------|-------------|
| CATHEAD | | | |
| XT9686-30 | 3/8" | 30 ft. | 42-1/3 lbs. |
| XT9686-33 | 3/8" | 33 ft. | 46-1/3 lbs. |
| XT9686-35 | 3/8" | 35 ft. | 49-1/3 lbs. |
| XT9686-38 | 3/8" | 38 ft. | 54-1/3 lbs. |
| XT9686-40 | 3/8" | 40 ft. | 56-1/3 lbs. |
| XT9686-45 | 3/8" | 45 ft. | 63-1/2 lbs. |
| XT9686-46 | 3/8" | 46 ft. | 64-7/8 lbs. |
| XT9686-47 | 3/8" | 47 ft. | 66-1/4 lbs. |
| XT9686-48 | 3/8" | 48 ft. | 67-5/8 lbs. |
| SPINNING | | | |
| XT8486-14 | 1/4" | 14 ft. | 11-3/4 lbs. |
| XT8486-16 | 1/4" | 16 ft. | 13-1/2 lbs. |
| XT8486-18 | 1/4" | 18 ft. | 15 lbs. |
| XT8486-20 | 1/4" | 20 ft. | 16-1/4 lbs. |
| XT8486-22 | 1/4" | 22 ft. | 17-5/8 lbs. |
| XT8486-24 | 1/4" | 24 ft. | 19-1/4 lbs. |
| XT8486-33 | 1/4" | 33 ft. | 27-1/4 lbs. |
| XT8586-10 | 5/16" | 10 ft. | 10 lbs. |
| XT8586-14 | 5/16" | 14 ft. | 13-3/4 lbs. |
| XT8586-16 | 5/16" | 16 ft. | 15-1/4 lbs. |
| XT8586-18 | 5/16" | 18 ft. | 17-1/2 lbs. |
| XT8586-20 | 5/16" | 20 ft. | 19 lbs. |
| XT8586-22 | 5/16" | 22 ft. | 19-5/8 lbs. |
| XT8586-24 | 5/16" | 24 ft. | 21-3/4 lbs. |
| XT8586-25 | 5/16" | 25 ft. | 24-3/8 lbs. |
| XT8586-30 | 5/16" | 30 ft. | 29-1/8 lbs. |
| XT8586-33 | 5/16" | 33 ft. | 31 lbs. |
| XT8586-35 | 5/16" | 35 ft. | 33-7/8 lbs. |
| XT8586-38 | 5/16" | 38 ft. | 36-3/4 lbs. |
| XT8586-40 | 5/16" | 40 ft. | 38-5/8 lbs. |

NOTE: SPECIAL LENGTHS OF CHAIN AVAILABLE UPON REQUEST.

WARNING!

Improper use of chain and attachments may cause death or serious injury!

DO NOT EXCEED WORKING LOAD LIMIT

| CHAIN SIZE | WORKING LOAD LIMIT |
|---------------------|--------------------|
| 1/4 inch | 3,500 lbs. |
| 5/16 inch | 4,500 lbs. |
| 3/8 inch | 7,100 lbs. |
| X86 Connecting Link | 6,600 lbs. |

TITAN grade 80 alloy chains are specifically designed for Spinning and Cathead chain applications only. **DO NOT USE FOR OVERHEAD LIFTING. NEVER LIFT PEOPLE OR LOADS OVER PEOPLE.**

Always follow established industry safe practices and procedures for alloy chain and attachments, as recommended by OSHA, NSC, IADC, AND NACM.

PETOL X86 CONNECTING LINK



PETOL X86 CONNECTING LINKS are forged from high-quality alloy steel, heat-treated, and 100% proof tested to ensure proper strength for spinning chain and cathead chain applications.

| CATALOG NO. | FOR USE WITH CHAIN SIZES | WEIGHT | WORKING LOAD LIMIT |
|-------------|--------------------------|------------|--------------------|
| X86 | 1/4" – 3/8" | 6 1/2 ozs. | 6,600 lbs. |

WARNING!

DO NOT EXCEED 6,600 LBS. WORKING LOAD LIMIT

Serious injury or death could occur if use improperly!

The PETOL X86 Connecting Link is for spinning and cathead chain applications only and is **NOT TO BE USE FOR OVERHEAD LIFTING.**

Do not reuse the PETOL X86 Connecting Link after disassembly.

Always follow established industry safe practices and procedures for alloy chain and attachments, as recommended by OSHA, NSC, IADC, AND NACM.

PETOL X86 CONNECTING LINK ASSEMBLY INSTRUCTIONS



1. Slip the PETOL X86 halves through the chain to be connected.



2. Couple the PETOL X86 halves.



3. With the PETOL X86 positioned as shown, drive in the spacer.



4. Turn the PETOL X86 over and peen the projecting spacer prongs.

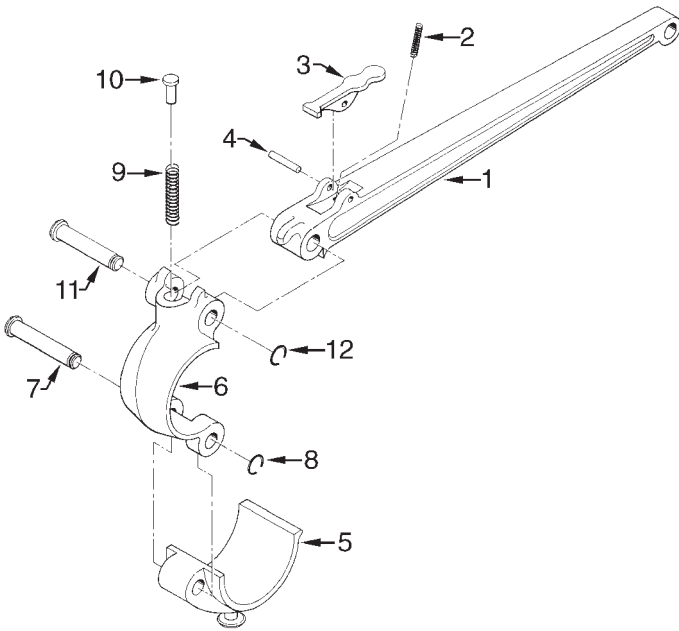
TITAN SHOTHOLE CASING TONGS



TITAN SHOTHOLE CASING TONGS are lightweight and feature friction jaws that will not crush or mar the casing. The tongs are full opening for easy and rapid application, and have perfect ratcheting action.

| CATALOG NO. | O.D. | HANDLE LENGTH | WEIGHT |
|-------------|--------|---------------|--------|
| SHA3 | 3.000" | 26" | 8 lbs. |

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|---------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | LATCH SPRING | 1 |
| 3 | LATCH | 1 |
| 4 | LATCH RIVET | 1 |
| 5 | LOWER JAW | 1 |
| 6 | UPPER JAW | 1 |
| 7,8 | JAW RIVET W / KLIPRING | 1 |
| 9 | SPRING | 1 |
| 10 | SPRING GUIDE | 1 |
| 11,12 | HANDLE RIVET W / KLIPRING | 1 |

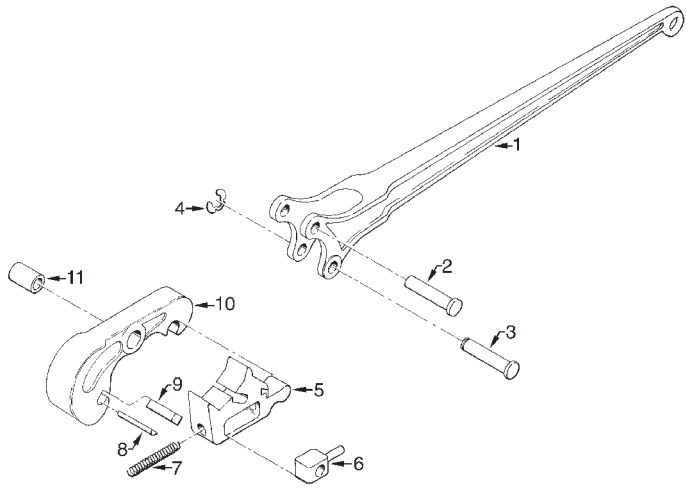
PETOL PIPE TONGS



PETOL PIPE TONGS are highly engineered tongs which are light and safe. These tongs are a radical departure in design from the old style "scissor-type" tongs. When applied to the pipe they grip instantly and permit perfect ratcheting action. The tongs are easily snapped on and off and provide a positive, noncrushing grip. The single handle not only makes the tongs lighter than the scissor type tong, but also eliminates the danger of mashing fingers. The tongs are made from high quality alloy steel to withstand rugged service.

| CATALOG NO. | O.D. | HANDLE LENGTH | WEIGHT |
|-------------|--------|---------------|---------|
| PA2 | 2.375" | 42" | 19 lbs. |
| PA25 | 2.875" | 49" | 24 lbs. |
| PA3 | 3.500" | 56" | 32 lbs. |
| PA4 | 4.500" | 63" | 40 lbs. |

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|------------------------------|------------|
| 1 | HANDLE | 1 |
| 2 | UPPER JAW RIVET | 1 |
| 3,4 | LOWER JAW RIVET W / KLIPRING | 1 |
| 5 | LOWER JAW | 1 |
| 6 | LOWER JAW BUSHING | 1 |
| 7 | SPRING | 1 |
| 8 | STEEL WEDGE | 2 |
| 9 | HI-SPEED STEEL BIT | 2 |
| 10 | UPPER JAW | 1 |
| 11 | UPPER JAW BUSHING | 1 |

PETOL STRIKING WRENCH (6-pt. Straight)



PETOL I-beam designed STRIKING WRENCHES feature greater handle strength and the clearance in overall head diameter that is necessary when working with flange connections.

The large smooth striking surface reduces the hazard of glancing blows and lessens the chance of a rope slipping from the handle when maintaining tension on the wrench.

All PETOL Striking Wrenches are forged from alloy steel and properly heat-treated to guarantee specific Rockwell hardness for strength and maximum tool life.

The Gearench part number, stud size, and PETOL trademark are clearly marked on the handle of each wrench.

| CATALOG NO. | STUD SIZE | NUT SIZE | HEAD DIAMETER | WEIGHT |
|-------------|-----------|----------|---------------|-------------|
| SW01 | 5/8" | 1-1/16" | 1-11/16" | 1-7/8 lbs. |
| SW02 | 3/4" | 1-1/4" | 1-15/16" | 2 lbs. |
| SW03 | 7/8" | 1-7/16" | 2-1/4" | 3-1/4 lbs. |
| SW04 | 1" | 1-5/8" | 2-1/2" | 4-5/8 lbs. |
| SW05 | 1-1/8" | 1-13/16" | 2-11/16" | 4-3/4 lbs. |
| SW06 | 1-1/4" | 2" | 2-15/16" | 5-5/8 lbs. |
| SW07 | 1-3/8" | 2-3/16" | 3-3/16" | 6-7/8 lbs. |
| SW08 | 1-1/2" | 2-3/8" | 3-7/16" | 7-5/8 lbs. |
| SW09 | 1-5/8" | 2-9/16" | 3-11/16" | 8-1/2 lbs. |
| SW10 | 1-3/4" | 2-3/4" | 3-7/8" | 8-3/4 lbs. |
| SW11 | 1-7/8" | 2-15/16" | 4-1/4" | 9-7/8 lbs. |
| SW12 | 2" | 3-1/8" | 4-3/8" | 10-1/4 lbs. |
| SW13 | 2-1/4" | 3-1/2" | 4-7/8" | 11-3/8 lbs. |
| SW14 | 2-1/2" | 3-7/8" | 5-1/4" | 13-1/4 lbs. |

TITAN STRIKING FACE BOX WRENCH (12-pt. Offset)



Gearench TITAN STRIKING FACE BOX WRENCHES are drop-forged alloy steel with a 45° offset head and a 12 point opening.

The TITAN name, part number and opening size are clearly marked on each wrench.

| CATALOG NO. | OPENING / NUT SIZE | LENGTH | WEIGHT |
|-------------|--------------------|---------|-------------|
| SWT20 | 1-1/16" | 10-1/2" | 2-1/4 lbs. |
| SWT21 | 1-1/8" | 10-1/2" | 2-1/4 lbs. |
| SWT22 | 1-1/4" | 11" | 2-3/4 lbs. |
| SWT23 | 1-5/16" | 11" | 2-3/4 lbs. |
| SWT24 | 1-7/16" | 11-3/4" | 3-3/8 lbs. |
| SWT25 | 1-1/2" | 11-3/4" | 3-1/4 lbs. |
| SWT26 | 1-5/8" | 12" | 4 lbs. |
| SWT27 | 1-11/16" | 12" | 4 lbs. |
| SWT28 | 1-3/4" | 12-1/2" | 5-7/8 lbs. |
| SWT29 | 1-13/16" | 12-1/2" | 5-7/8 lbs. |
| SWT30 | 1-7/8" | 12-1/2" | 5-3/4 lbs. |
| SWT31 | 1-15/16" | 13-1/4" | 6-3/4 lbs. |
| SWT32 | 2" | 13-1/4" | 6-1/2 lbs. |
| SWT33 | 2-1/8" | 13-1/2" | 6-3/4 lbs. |
| SWT34 | 2-3/16" | 13-1/2" | 6-5/8 lbs. |
| SWT35 | 2-1/4" | 13-1/2" | 6-5/8 lbs. |
| SWT36 | 2-5/16" | 14" | 9-1/8 lbs. |
| SWT37 | 2-3/8" | 14" | 9 lbs. |
| SWT38 | 2-1/2" | 14-3/4" | 9-1/4 lbs. |
| SWT39 | 2-9/16" | 14-3/4" | 9-1/4 lbs. |
| SWT40 | 2-5/8" | 14-3/4" | 9-1/8 lbs. |
| SWT41 | 2-3/4" | 16" | 13 lbs. |
| SWT42 | 2-7/8" | 16" | 12-5/8 lbs. |
| SWT43 | 2-15/16" | 16" | 12-3/4 lbs. |
| SWT44 | 3" | 16-1/2" | 15-1/4 lbs. |
| SWT45 | 3-1/8" | 16-1/2" | 15-1/8 lbs. |



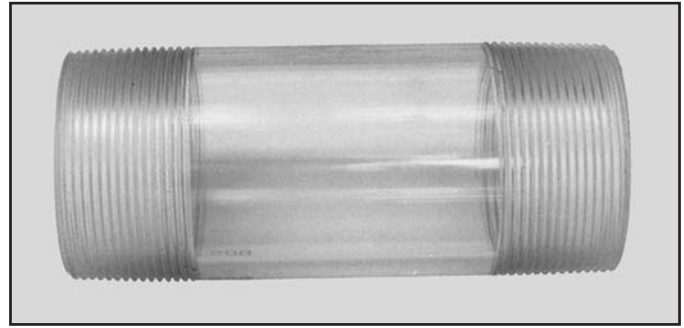
TITAN RUN TICKET BOX



The TITAN RUN TICKET BOX eliminates the expense of tracking down lost or unreadable run tickets by keeping the tickets safe, clean and dry at a constant location on the well site. The box is constructed from durable polyethylene and has a plastic see through window for run ticket visibility. The **RTB1** features a **spring loaded** hinged lid which helps keep the lid **closed** during **windy conditions**. The **RTB2** has the clipboard mounted to the lid. This design insures that the clipboard remains with the Run Ticket Box. Each TITAN Run Ticket Box contains a clipboard as well as all the components and instructions for easy installation.

| CATALOG NO. | DESCRIPTION | WEIGHT |
|-------------|--------------------------|------------|
| RTB1 | Spring Loaded Hinged Lid | 1-1/2 lbs. |
| RTB2 | Clipboard Mounted Lid | 1-1/2 lbs. |

PETOL SIGHT GLASS



The PETOL SIGHT GLASS allows the pumper and water hauler to see what is flowing through drain lines at all times.

The clear view nipple is made from a tough, shatter-resistant polycarbonate. This type of plastic has more than 30 times the impact resistance of safety glass, withstands prolonged exposure to ultraviolet rays, and can be used in temperatures ranging from -150° to 165°F.

| CATALOG NO. | SIZE (O.D. x L) | WALL THICKNESS | CONNECTION | WEIGHT |
|-------------|-----------------|----------------|------------------|-------------|
| SG0500 | 2" x 8" | .406 | Threaded | 11-1/4 ozs. |
| SG0500V | 2" x 8" | .406 | Victaulic Groove | 11-1/4 ozs. |
| SG1000* | 2" x 8" | .500 | Threaded | 1-1/8 lbs. |
| SG1000V* | 2" x 8" | .500 | Victaulic Groove | 1-1/8 lbs. |
| SG0500-3 | 3" x 8" | .312 | Threaded | 1-1/8 lbs. |
| SG0500V-3 | 3" x 8" | .312 | Victaulic Groove | 1-1/8 lbs. |
| SG0500-4 | 4" x 8" | .500 | Threaded | 1-3/8 lbs. |
| SG0500V-4 | 4" x 8" | .500 | Victaulic Groove | 1-3/8 lbs. |

*SPECIAL LENGTHS AVAILABLE UPON REQUEST.

Designed for angled

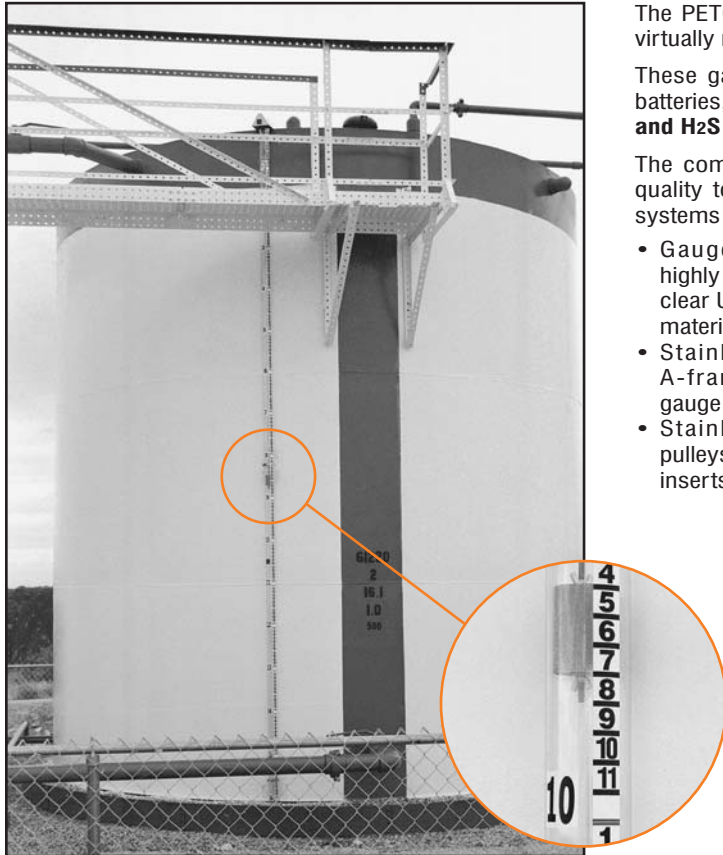


or horizontal mounting.



PETOL TANK SAFETY GAUGE

(for Vertical Storage Tanks)

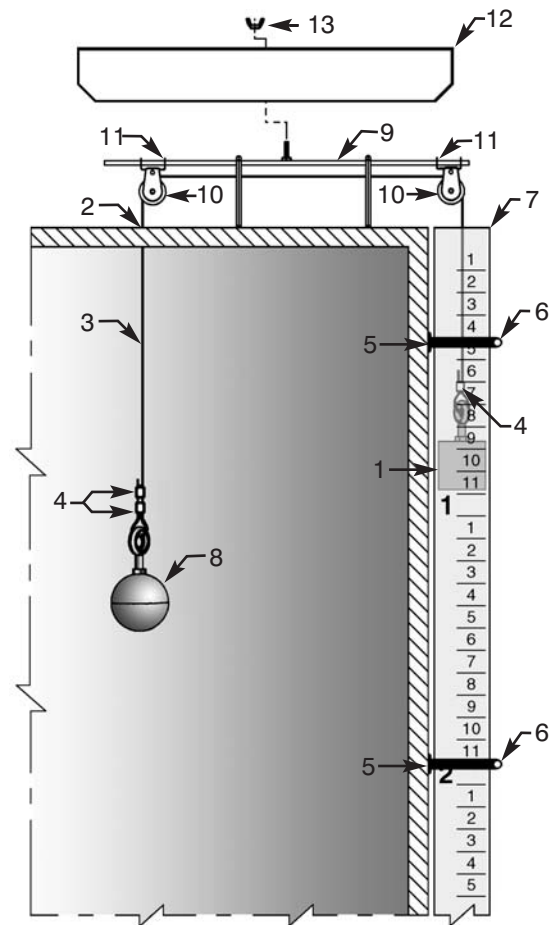


The PETOL TANK SAFETY GAUGE is a quality, accurate, easy to install and virtually maintenance free gauging system.

These gauges greatly **reduce risk** by keeping lease operators off of tank batteries, thus helping to **prevent injuries and accidental deaths due to falls and H₂S exposure** when checking tank fluid levels.

The components used in the patented gauging system are of the highest quality to ensure years of dependable service. PETOL Tank Safety Gauge systems include the following:

- Gauge body produced from highly durable, weather resistant, clear UV protected polycarbonate material
- Stainless steel, low-profile A-frame with coated heavy gauge metal hut
- Stainless steel seal-bearing pulleys with deep grooved nylon inserts
- Nylon coated, stainless steel cable
- Tank attachments for welded, bolted, or fiberglass tanks
- Custom stainless steel floats
- Reflective vinyl measurement decals
- Nylon tank plug with minimal clearance for cable



| CATALOG NO. | TANK HEIGHT |
|------------------------------|-------------|
| TSG6 | 6' |
| TSG8 | 8' |
| TSG10 | 10' |
| TSG11 | 11' |
| TSG12 | 12' |
| TSG1212 | 12-1/2' |
| TSG15 | 15' |
| TSG16 | 16' |
| TSG18 | 18' |
| TSG20 | 20' |
| TSG24 | 24' |
| TSG25 | 25' |
| TSG28 | 28' |
| TSG30 | 30' |
| ENCLOSED HUT SYSTEMS* | |
| TSG6-EH | 6' |
| TSG8-EH | 8' |
| TSG10-EH | 10' |
| TSG11-EH | 11' |
| TSG12-EH | 12' |
| TSG1212-EH | 12-1/2' |
| TSG15-EH | 15' |
| TSG16-EH | 16' |
| TSG18-EH | 18' |
| TSG20-EH | 20' |
| TSG24-EH | 24' |
| TSG25-EH | 25' |
| TSG28-EH | 28' |
| TSG30-EH | 30' |

NOTE: LARGER SYSTEMS AVAILABLE UPON REQUEST.

*ENCLOSED HUT SYSTEMS ARE RECOMMENDED FOR WINTER CLIMATES WITH BLOWING SNOW CONDITIONS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|------------------------------|--------------------|------------|
| TANK SAFETY GAUGE KIT | | |
| 1 | INDICATOR | 1 |
| 2 | TANK PLUG | 1 |
| 3 | CABLE | 1 |
| 4 | CABLE SLEEVE | 3 |
| 5 | STRAP BRACKET | * |
| 6 | CLAMP | * |
| 7 | GAUGE BODY TUBE | 1 |
| 8 | FLOAT W/BOLT & NUT | 1 |
| 9 | A-FRAME | 1 |
| 10 | PULLEY | 2 |
| 11 | PULLEY KEEPER | 2 |
| 12 | HUT | 1 |
| 13 | WING NUT | 1 |

* NO. REQ'D. WILL VARY BETWEEN SYSTEM SIZES.

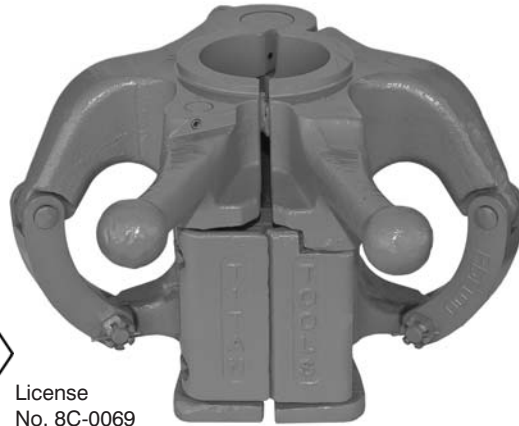
TITAN TUBING ELEVATOR

TITAN TUBING ELEVATORS are constructed of high-quality alloy steel and heat-treated for maximum strength and durability. Each elevator is manufactured and tested to API 8C. In addition, the load collar is flame hardened for increased abrasion resistance.

All TITAN Tubing Elevators are equipped with a double locking retainer assembly for maximum safety.



License
No. 8C-0069



| CATALOG NO. | TUBING SIZE | WEIGHT | RATED LOAD |
|-------------|-----------------------|----------|------------|
| TEA035-238N | 2-3/8" Non-Upset | 53 lbs. | 35 tons |
| TEA035-238U | 2-3/8" External Upset | 53 lbs. | 35 tons |
| TEA035-278N | 2-7/8" Non-Upset | 52 lbs. | 35 tons |
| TEA035-278U | 2-7/8" External Upset | 52 lbs. | 35 tons |
| TEA100-238N | 2-3/8" Non-Upset | 116 lbs. | 100 tons |
| TEA100-238U | 2-3/8" External Upset | 116 lbs. | 100 tons |
| TEA100-278N | 2-7/8" Non-Upset | 114 lbs. | 100 tons |
| TEA100-278U | 2-7/8" External Upset | 114 lbs. | 100 tons |
| TEA100-312N | 3-1/2" Non-Upset | 112 lbs. | 100 tons |
| TEA100-312U | 3-1/2" External Upset | 112 lbs. | 100 tons |

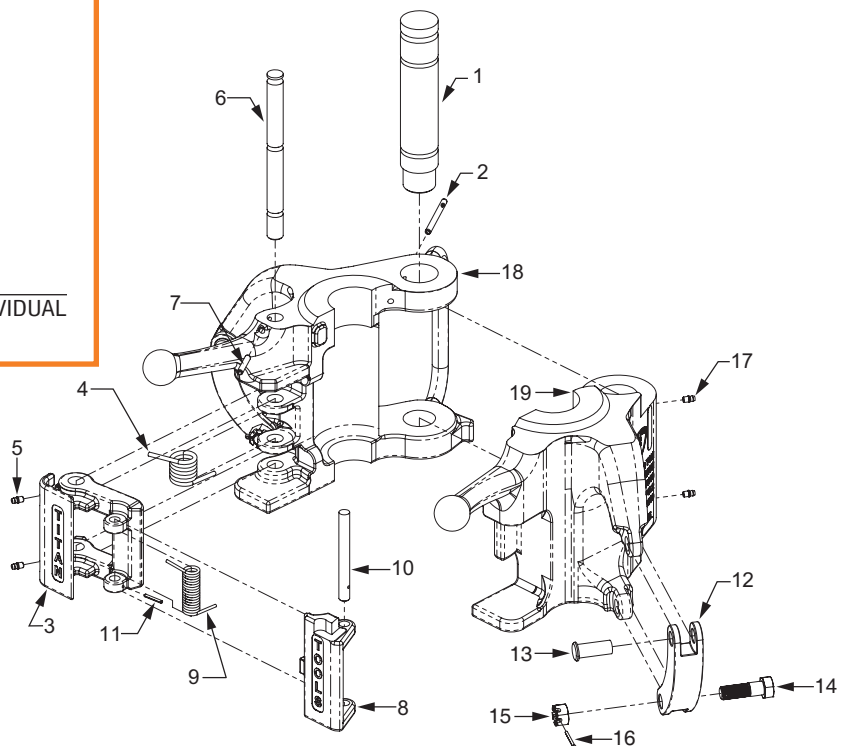


WARNING! Improper use of tubing elevators may result in INJURY OR DEATH!
Do Not Exceed Rated Load!
Follow safe practices listed in Data Book.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|----------|-----------------------------|------------|
| 1,2 | HINGE PIN W / SPRING PIN | 1 |
| 3 | RETAINER | 1 |
| 4 | RETAINER SPRING | 1 |
| 5 | RETAINER GREASE FITTING | 2 |
| 6,7 | RETAINER PIN W / SPRING PIN | 1 |
| 8 | LOCK | 1 |
| 9 | LOCK SPRING | 1 |
| 10,11 | LOCK PIN W / SPRING PIN | 1 |
| 12 | TIE BAR | 2 |
| 13 | TIE BAR RIVET | 2 |
| 14,15,16 | TIE BAR BOLT, NUT & COTTER | 2 |
| 17 | RIGHT BODY GREASE FITTING | 2 |
| 18 | LEFT BODY* | 1 |
| 19 | RIGHT BODY* | 1 |

*KEY NOS. 18 AND 19 ARE NOT AVAILABLE AS INDIVIDUAL COMPONENTS.



PETOL TUBING TONGS

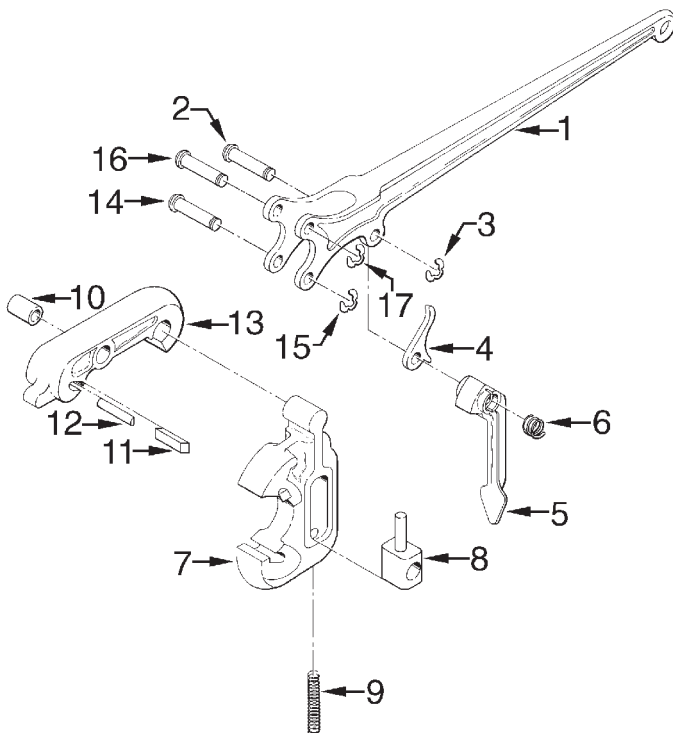


PETOL TUBING TONGS were the first “snap-on” tubing tongs on the market and their outstanding features make them a leader throughout the oil, mining and water well drilling industries.

These tongs have a cam lever which can be used to open the jaw and to lock them on the tubing to assure positive grip.

| CATALOG NO. | O.D. | HANDLE LENGTH | WEIGHT |
|--------------------------|--------|---------------|---------|
| MEDIUM HEAVY DUTY | | | |
| TMA2002375 | 2.375" | 28" | 17 lbs. |
| TMA2502875 | 2.875" | 30" | 19 lbs. |
| TMA2503063 | 3.063" | 30" | 19 lbs. |
| TMA3003500 | 3.500" | 31" | 25 lbs. |
| TMA3003668 | 3.668" | 31" | 26 lbs. |
| TMA3504000 | 4.000" | 31" | 28 lbs. |
| TMA3504250 | 4.250" | 31" | 29 lbs. |
| TMA4004500 | 4.500" | 35" | 32 lbs. |
| HEAVY DUTY | | | |
| THA2002375 | 2.375" | 36" | 27 lbs. |
| THA2502875 | 2.875" | 40" | 30 lbs. |
| THA2503063 | 3.063" | 40" | 30 lbs. |
| THA3003500 | 3.500" | 36" | 35 lbs. |
| THA3003668 | 3.668" | 36" | 36 lbs. |
| THA3504000 | 4.000" | 36" | 36 lbs. |
| THA4004500 | 4.500" | 40" | 51 lbs. |

WARNING! Use as a hand tool only. Do Not Strike, use a “cheater” or extend handle. SERIOUS INJURY may result if used improperly.



NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|----------------------------|------------|
| 1 | HANDLE | 1 |
| 2,3 | CAM LEVER RIVET w/KLIPRING | 1 |
| 4 | CAM PAWL | 1 |
| 5 | CAM LEVER | 1 |
| 6 | CAM LEVER SPRING | 1 |
| 7 | LOWER JAW | 1 |
| 8 | LOWER JAW BUSHING | 1 |
| 9 | SPRING | 1 |
| 10 | UPPER JAW BUSHING | 1 |
| 11 | HI-SPEED STEEL BIT | 3 |
| 12 | STEEL LOCK WEDGE | 3 |
| 13 | UPPER JAW | 1 |
| 14,15 | LOWER JAW RIVET w/KLIPRING | 1 |
| 16,17 | UPPER JAW RIVET w/KLIPRING | 1 |

PETOL SUCKEROD ELEVATOR

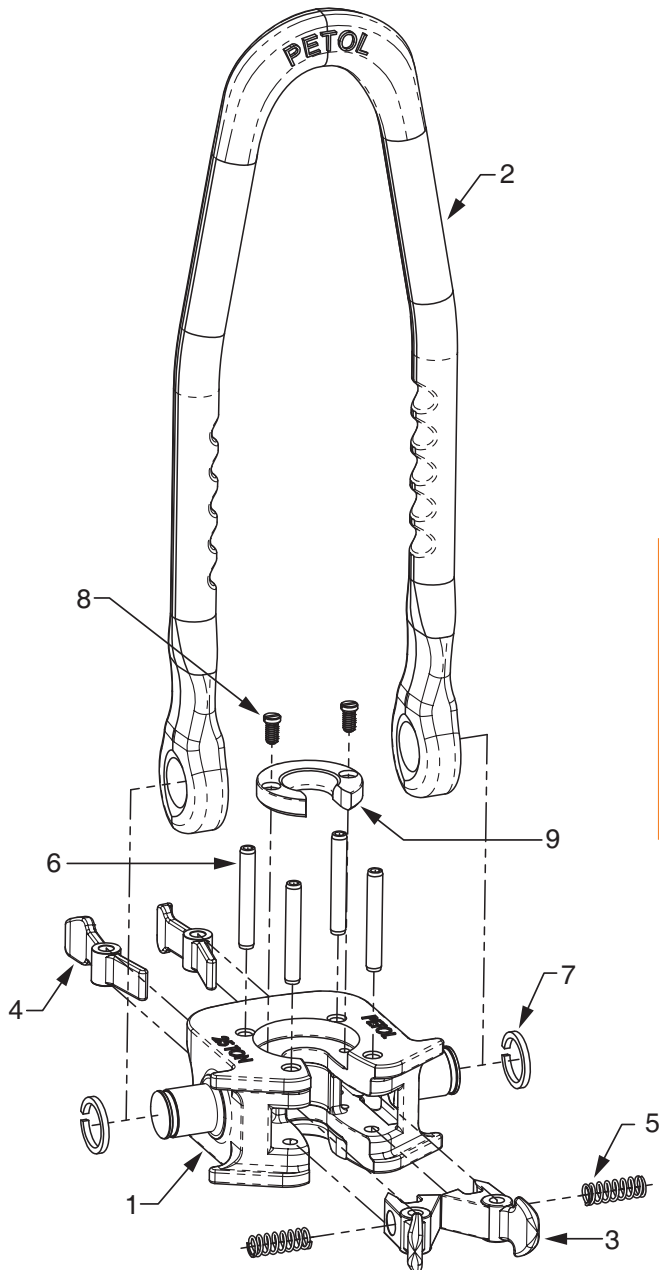
PETOL SUCKEROD ELEVATORS are manufactured to the highest standards of quality. These plate-type elevators are made from heat-treated alloy steel for strength and durability and are rated for 25 tons.

| CATALOG NO. | ROD SIZE | WEIGHT | RATED LOAD |
|----------------------|--------------------|---------|------------|
| REA025 | (see plates below) | 30 lbs. | 25 tons |
| PLATE INSERTS | | | |
| REI025-058 | 5/8", 3/4" | 8 ozs. | --- |
| REI025-034 | 3/4", 7/8" | 8 ozs. | --- |
| REI025-100 | 1" | 8 ozs. | --- |

Note: Plate Inserts are sold separate from Rod Elevator.



WARNING! Improper use of sucker rod elevators may result in INJURY OR DEATH!
Do Not Exceed Rated Load of 25 Tons!
Follow safe practices listed in Data Book.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|------------------|------------|
| 1 | BODY | 1 |
| 2 | HANDLE | 1 |
| 3 | FRONT LATCH | 2 |
| 4 | REAR LATCH | 2 |
| 5 | SPRING | 2 |
| 6 | LATCH PIN | 4 |
| 7 | RETAINING COLLAR | 2 |
| 8 | INSERT SCREW | 4 |
| 9 | PLATE INSERT | 2 |

PETOL SUCKEROD TRANSFER

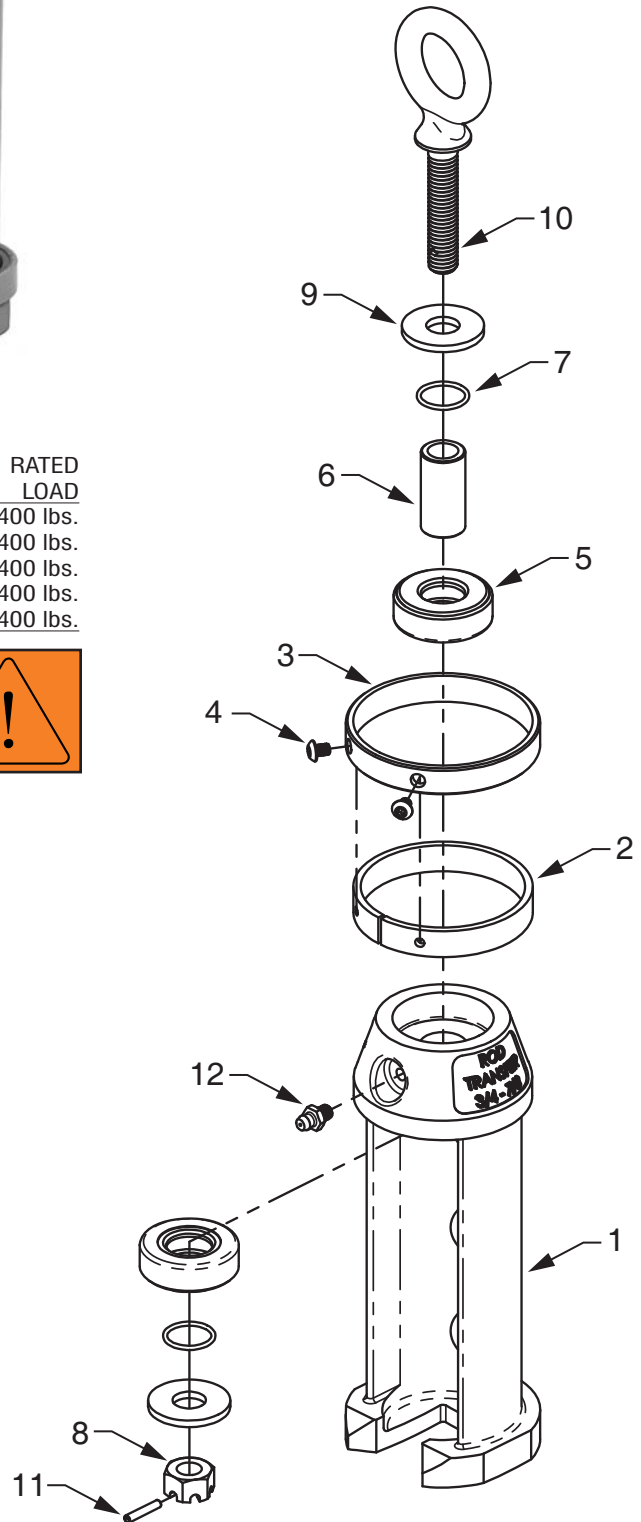
PETOL SUCKEROD TRANSFERS enable rig workers to easily transfer pulled sucker rods to and from the racking platform. These sucker rod transfers are made from alloy steel for strength and durability.



| CATALOG NO. | ROD SIZE | WEIGHT | RATED LOAD |
|-------------------|------------|------------|------------|
| QT1 | 5/8" | 5-3/4 lbs. | 400 lbs. |
| QT2 | 3/4", 7/8" | 5-3/4 lbs. | 400 lbs. |
| QT2R(for EL Rods) | 3/4", 7/8" | 5-3/4 lbs. | 400 lbs. |
| QT4 | 1" | 5-3/4 lbs. | 400 lbs. |
| QT5 | 1-1/8" | 6-1/2 lbs. | 400 lbs. |

WARNING! Improper use of sucker rod transfers may result in INJURY OR DEATH!
Do Not Exceed Rated Load of 400 pounds!

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|------------------------|--------------------|------------|
| 1 | BODY | 1 |
| RING KIT | | |
| 2 | INNER SAFETY RING | 1 |
| 3 | OUTER SAFETY RING | 1 |
| 4 | SAFETY RING SCREW | 2 |
| REPLACEMENT KIT | | |
| 5 | THRUST BEARING | 2 |
| 6 | BUSHING | 1 |
| 7 | O-RING | 2 |
| 8 | SLOTTED NUT | 1 |
| 9 | FLAT WASHER | 2 |
| 10 | LIFTING EYEBOLT | 1 |
| 11 | SLOTTED SPRING PIN | 1 |
| 12 | GREASE FITTING | 1 |



PETOL SUCKEROD WRENCH



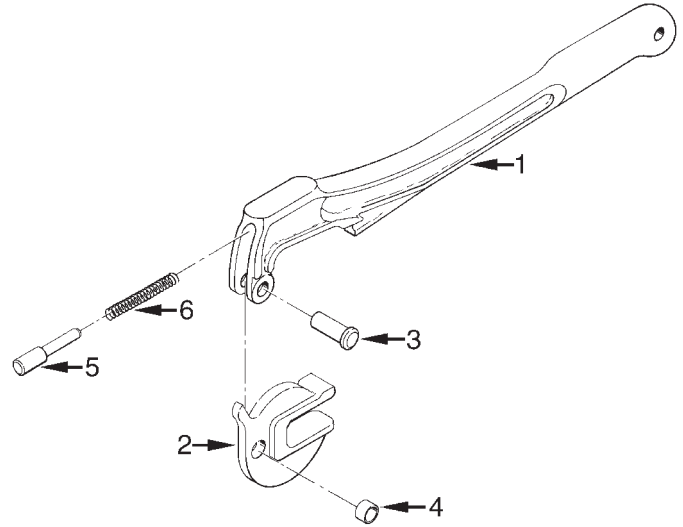
PETOL SUCKEROD WRENCHES are made of high-quality, heat-treated alloy steel and feature a smooth “snap-up” hammer-action to quickly break the toughest rod or coupling joint.

SQUARE TYPE

| CATALOG NO. | SIZE OF SQUARE | SIZE OF ROD | LENGTH | WEIGHT |
|-------------|----------------|-------------|--------|--------|
| QA0-14 | 5/8" | 1/2" | 14" | 4 lbs. |
| QA1-16 | 7/8" | 5/8" | 16" | 6 lbs. |
| QA1-19 | 7/8" | 5/8" | 19" | 6 lbs. |
| QA1-24 | 7/8" | 5/8" | 24" | 8 lbs. |
| QA2-16 | 1" | 3/4", 7/8" | 16" | 6 lbs. |
| QA2-19 | 1" | 3/4", 7/8" | 19" | 7 lbs. |
| QA2-19R | 1-1/8" | 3/4", 7/8" | 19" | 6 lbs. |
| QA2-24 | 1" | 3/4", 7/8" | 24" | 8 lbs. |
| QA4-19 | 1-5/16" | 1" | 19" | 7 lbs. |
| QA4-24 | 1-5/16" | 1" | 24" | 9 lbs. |
| QA5-19 | 1-1/2" | 1-1/8" | 19" | 7 lbs. |
| QA5-24 | 1-1/2" | 1-1/8" | 24" | 9 lbs. |

COUPLING TYPE

| CATALOG NO. | SIZE OF COUPLING | SIZE OF ROD | LENGTH | WEIGHT |
|-------------|------------------|-------------|--------|---------|
| QA1-19C | 1-3/8" | 5/8" | 19" | 7 lbs. |
| QA5-19 | 1-1/2" | 3/4" | 19" | 7 lbs. |
| QA5-24 | 1-1/2" | 3/4" | 24" | 9 lbs. |
| QA3-19C | 1-5/8" | 7/8" | 19" | 7 lbs. |
| QA4-19C | 1-7/8" | 1" | 19" | 10 lbs. |



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|-------------------|------------------|------------|
| 1 | HANDLE | 1 |
| 2 | JAW | 1 |
| REPAIR KIT | | |
| 3 | RIVET | 1 |
| 4 | BUSHING | 1 |
| 5 | PLUNGER | 1 |
| 6 | SPRING | 1 |

WARNING! Protect yourself and others from SERIOUS INJURY!
 Never use a “cheater” or other means to extend handle!
 If wrench slips you can be hurt or injure other workers!

PETOL SUCKEROD SPIN WRENCH



PETOL SUCKEROD SPIN WRENCHES are used for making up rods when a “snap-up” type wrench is not necessary. They come in two sizes, are made of alloy steel, and are heat-treated to withstand rugged use.

| CATALOG NO. | SIZE OF SQUARE | SIZE OF ROD | LENGTH | WEIGHT |
|-------------|----------------|-------------|--------|------------|
| QS1-16 | 7/8" | 5/8" | 16" | 4-7/8 lbs. |
| QS2-16 | 1" | 3/4", 7/8" | 16" | 4-3/4 lbs. |


WARNING! Protect yourself and others from SERIOUS INJURY!
 Never use a “cheater” or other means to extend handle!
 If wrench slips you can be hurt or injure other workers!



The TITAN FLANGE LIFTER provides a safe and easy method of installing and removing blind flanges. By eliminating the need to hire a welder to attach a lifting eye to the flange, the tool is both time and cost effective. Each flange lifter is load tested and magnetic particle inspected to ensure safety and quality.


Product videos can be downloaded from www.gearench.com

| CATALOG NO. | FITS BOLT SIZE | FITS FLANGE THICKNESS | WEIGHT | RATED LOAD |
|-------------|-----------------|-----------------------|-------------|------------|
| FLA112 | 3/4" – 1-1/2" | 1/2" – 3-3/4" | 21 lbs. | 1000 lbs. |
| FLA212 | 1-1/2" – 2-1/2" | 1/2" – 7" | 37-1/4 lbs. | 2000 lbs. |

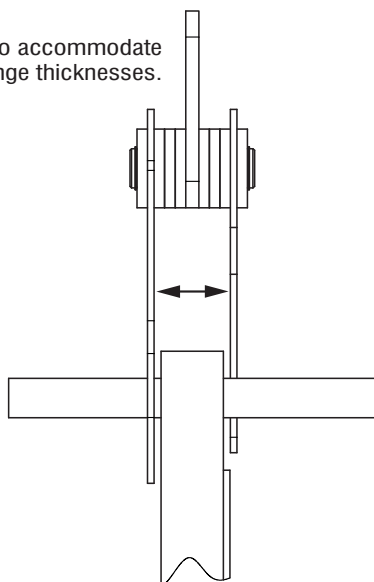


WARNING!

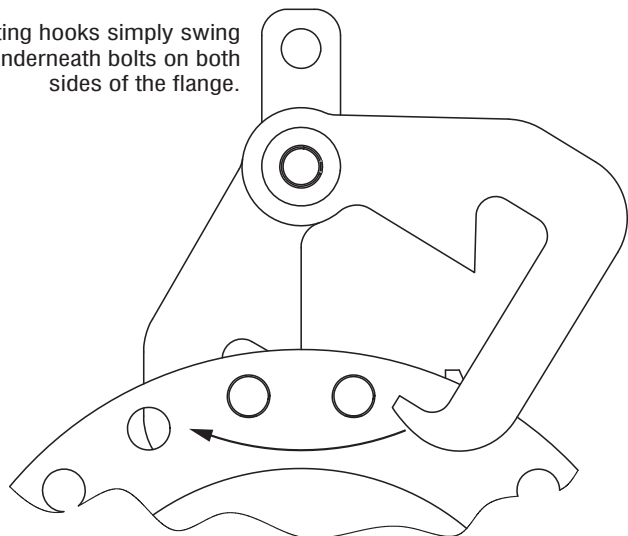
A falling load may cause SERIOUS INJURY or DEATH! Do Not Exceed Rated Load! Read Operating Instruction prior to operation. Before using, inspect the lifter daily to ensure it is in proper operating condition. Follow OSHA, NSC, etc. standards, safe practices, and procedures.



Adjustable to accommodate various flange thicknesses.



Lifting hooks simply swing underneath bolts on both sides of the flange.

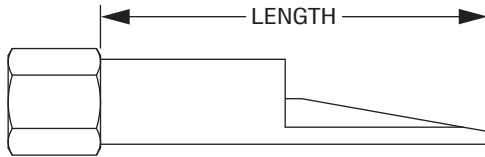


TITAN FLANGE ALIGNING TOOL *Patent #5,799,408*



TITAN FLANGE ALIGNING TOOLS are safe, fast, and effective. The tool's tapered shaft is a patented feature that eliminates the need for hammering and prying when lining up flange bolt holes.

TITAN Flange Aligning Tools are sold individually and in sets.



| CATALOG NO. | BOLT HOLE SIZE | LENGTH | WEIGHT |
|-------------|----------------|--------|-------------|
| FT00 | 3/8" | 2-1/8" | 1-1/4 ozs. |
| FT0 | 1/2" | 2-3/8" | 2-1/4 ozs. |
| FT01 | 5/8" | 2-3/4" | 4 ozs. |
| FT02 | 3/4" | 3-1/4" | 7 ozs. |
| FT03 | 7/8" | 3-1/2" | 11 ozs. |
| FT04 | 1" | 4" | 1 lb. |
| FT06 | 1-1/8" | 5" | 1-1/2 lbs. |
| FT08 | 1-1/4" | 5-1/2" | 2 lbs. |
| FT1012 | 1-3/8" | 6-1/4" | 2-7/8 lbs. |
| FT14 | 1-1/2" | 6-1/2" | 3-1/4 lbs. |
| FT16 | 1-5/8" | 7-1/4" | 4-1/8 lbs. |
| FT1820 | 1-3/4" | 7-7/8" | 4-3/4 lbs. |
| FT22 | 1-7/8" | 8-3/8" | 7 lbs. |
| FT2426 | 2" | 9" | 6-5/8 lbs. |
| FT30 | 2-1/8" | 12" | 10-3/8 lbs. |

| CATALOG NO. | BOLT HOLE SIZE | LENGTH | WEIGHT |
|-------------|----------------|---------|-------------|
| FT34 | 2-3/8" | 13-1/4" | 13-1/8 lbs. |
| FT3642 | 2-5/8" | 14" | 16-7/8 lbs. |
| FT48 | 2-7/8" | 13-5/8" | 24-3/8 lbs. |
| FT5054 | 3-1/8" | 18" | 35-7/8 lbs. |
| FT60 | 3-5/8" | 20" | 54-7/8 lbs. |

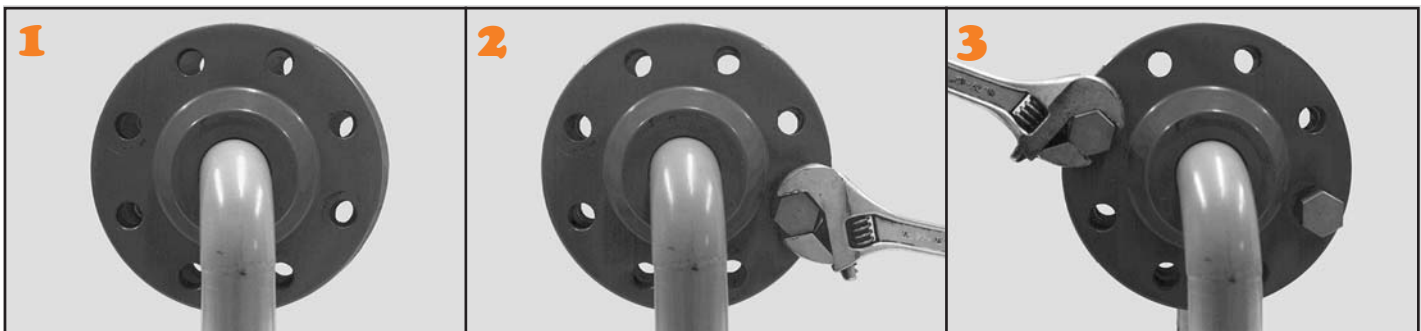
SETS

| CATALOG NO. | SET INCLUDES | WEIGHT |
|----------------|--|---------|
| FTS24 | 2 EACH: FT02, FT03, FT04 | 8 lbs. |
| FTS26 | 2 EACH: FT02, FT03, FT04, FT06 | 11 lbs. |
| FTS28 | 2 EACH: FT02, FT03, FT04, FT06, FT08 | 15 lbs. |
| FTS212 (shown) | 2 EACH: FT02, FT03, FT04, FT06, FT08, FT1012 | 21 lbs. |

To determine which TITAN Flange Aligning Tool to use to work a certain flange/series, see table beginning on page 37.

Simply find a bolt hole that is aligned enough for the tapered shaft to fit through and turn.

If necessary, use a second tool and turn until the bolt holes are in alignment and insert flange bolts.



A product video can be downloaded from www.gearench.com.

“EXTRA LONG” FLANGE ALIGNING TOOLS

| CATALOG NO. | BOLT HOLE SIZE | LENGTH | WEIGHT |
|-------------|----------------|---------|------------|
| FT0L | 1/2" | 5-3/8" | 10 ozs. |
| FT01L | 5/8" | 5-3/4" | 12 ozs. |
| FT02L | 3/4" | 6-1/4" | 14 ozs. |
| FT03L | 7/8" | 6-1/2" | 1-1/8 lbs. |
| FT04L | 1" | 7" | 1-1/2 lb. |
| FT06L | 1-1/8" | 8" | 2-1/4 lbs. |
| FT08L | 1-1/4" | 8-1/2" | 3 lbs. |
| FT1012L | 1-3/8" | 9-1/4" | 4 lbs. |
| FT14L | 1-1/2" | 9-1/2" | 4-1/2 lbs. |
| FT16L | 1-5/8" | 10-1/4" | 5-3/4 lbs. |
| FT1820L | 1-3/4" | 10-7/8" | 6-1/4 lbs. |
| FT2426L | 2" | 12" | 7-1/2 lbs. |

| CATALOG NO. | BOLT HOLE SIZE | LENGTH | WEIGHT |
|-------------|----------------|---------|---------|
| FT30L | 2-1/8" | 15" | 13 lbs. |
| FT34L | 2-3/8" | 16-1/4" | 15 lbs. |
| FT3642L | 2-5/8" | 17" | 18 lbs. |

SETS

| CATALOG NO. | SET INCLUDES | WEIGHT |
|-------------|--|---------|
| FTS24L | 2 EACH: FT02L, FT03L, FT04L | 17 lbs. |
| FTS26L | 2 EACH: FT02L, FT03L, FT04L, FT06L | 21 lbs. |
| FTS28L | 2 EACH: FT02L, FT03L, FT04L, FT06L, FT08L | 26 lbs. |
| FTS212L | 2 EACH: FT02L, FT03L, FT04L, FT06L, FT08L, FT1012L | 34 lbs. |

(table continued from previous page) TITAN FLANGE ALIGNING TOOL

| | .50 | .75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | |
|----------|--------|-----|---|------|-----|---|-----|---|-----|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| A | FT01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | FT02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | FT03 | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FT04 | | | X | X | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT06 | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT08 | | | | | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT1012 | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT14 | | | | | | | | | | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT16 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT1820 | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT2426 | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | FT30 | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| | FT3642 | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| | FT48 | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| | FT5054 | | | | | | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | |
| | FT60 | | | | | | | | | | | | | | | | | | | | | | | | | X | X | X | X | X | | | | | | | | | | |
| | .50 | .75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | |
| A | FT03 | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | FT04 | | | X | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | FT06 | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | FT08 | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FT1012 | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT14 | | | | | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT16 | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT1820 | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT2426 | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT30 | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT34 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT3642 | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT48 | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| | FT5054 | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| | FT60 | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| | .50 | .75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | |
| A | FT03 | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | FT04 | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FT06 | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | FT08 | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FT1012 | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT16 | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT22 | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT30 | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT3642 | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FT48 | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |

PETOL FLANGE WRENCH

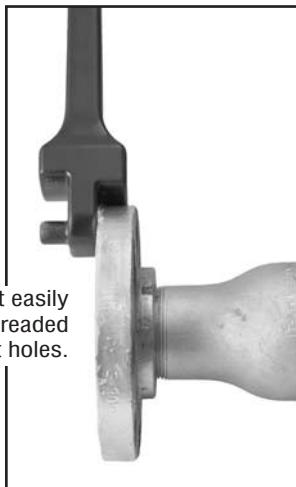


The PETOL FLANGE WRENCH was specifically designed for working on threaded flanges. Its unique features allow the operator to quickly and easily tighten and loosen 1" to 12" threaded flanges.



Unique design significantly reduces the risk of injuries associated with methods currently being used in the field.

| CATALOG NO. | THREADED FLANGE SIZES | PIN DIAMETERS | LENGTH (END TO END) | WEIGHT |
|-------------|-----------------------|---------------|---------------------|------------|
| FW1 | 1" – 12" | 1/2", 5/8" | 18" | 4-1/2 lbs. |



Pins fit easily into the threaded flange bolt holes.



1/2" pin works 1" to 3" threaded flanges

5/8" pin works 4" to 12" threaded flanges



WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.



POP-IT™ TOOLS Patent #4,896,862



PHD0535



P95-525

The POP-IT™ TOOL is the most versatile **flange spreading** and **prying** tool on the market. This unique product is rapidly gaining popularity in a wide range of industries including petrochemical, refining, pipeline, power generating, as well as emergency rescue.

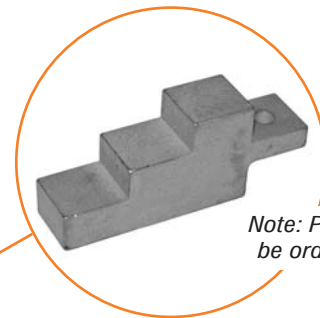
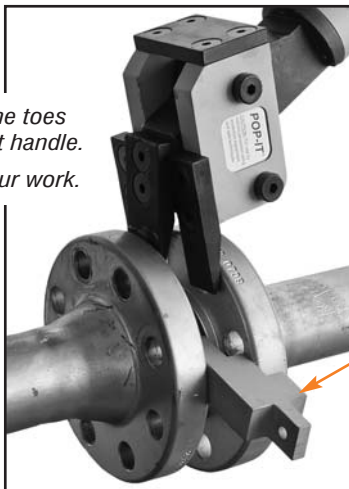
The POP-IT™ is lightweight, easy to use, durable, and delivers an incredible amount of force.

| CATALOG NO. | MINIMUM SPREAD | MAXIMUM SPREAD | CAPACITY | WEIGHT |
|-------------|----------------|------------------|----------------------------|--------------------|
| P95-525 | 1/16" | 5-1/4" | 10,000 lbs. | 11 lbs. |
| PHD0535 | 1/2" 3" | 5-1/2" 8-1/2" | 30,000 lbs. 20,000 lbs. | 33 lbs. 33 lbs. |

CHECK FOR P95-525/PHD0535

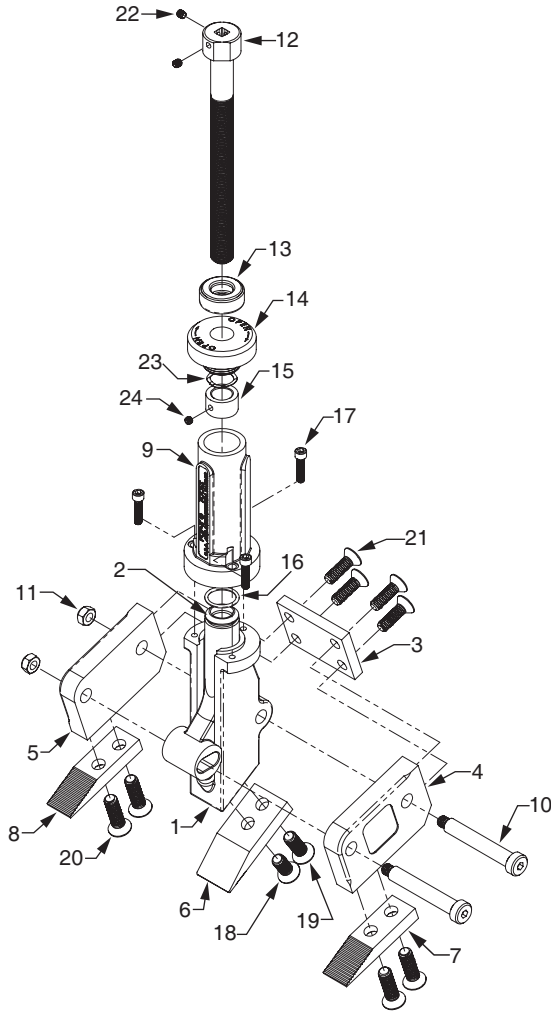
| CATALOG NO. | WEIGHT |
|-------------|--------|
| PCH1 | 6 ozs. |

Simply insert the toes & turn the ratchet handle. Always chock your work.

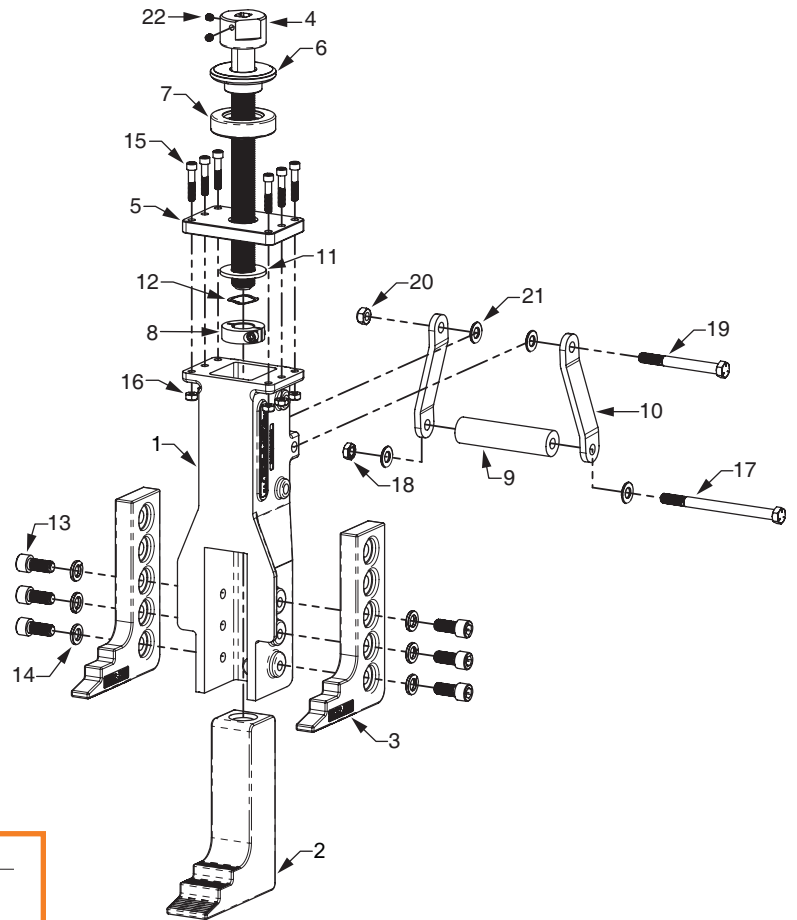


Note: PCH1 chock must be ordered separately.

WARNING!
 Improper use of POP-IT™ Tools may result in injury or death.
 Do Not Exceed Rated Load. Always Chock Your Work.
 Never use "cheaters." Follow operating procedures.



PHD0535 PARTS BREAKDOWN



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|----------------------|--------------------------------------|------------|
| 1 | Body | 1 |
| 2 | Riser | 1 |
| 3 | Stiker Plate | 1 |
| 4 | Left Side Plate | 1 |
| 5 | Right Side Plate | 1 |
| 6 | Inside Toe | 1 |
| 7 | Left Outside Toe | 1 |
| 8 | Right Outside Toe | 1 |
| 9 | Handle | 1 |
| 10 | Shoulder Screw | 2 |
| 11 | Shoulder Screw Lock Nut | 2 |
| 12 | Drive Screw | 1 |
| 13 | Thrust Bearing | 1 |
| 14 | End Cap | 1 |
| 15 | Locking Sleeve | 1 |
| HARDWARE KIT* | | |
| 16 | O-Ring | 1 |
| 17 | Handle Cap Screw | 3 |
| 18 | Inside Toe Cap Screw(1") | 1 |
| 19 | Inside Toe Cap Screw (1-1/4") | 1 |
| 20 | Outside Toe Cap Screw (Right & Left) | 4 |
| 21 | Striker Plate Cap Screw | 4 |
| 22 | Ratchet Set Screw | 2 |
| 23 | Wave Disc Spring | 1 |
| 24 | Locking Sleeve Set Screw | 1 |
| (not shown) | Ratchet | 1 |

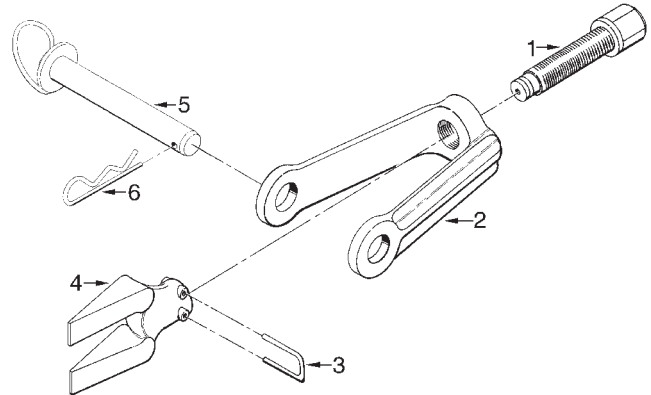
* COMPONENTS OF HARDWARE KIT ARE ALSO SOLD INDIVIDUALLY.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|----------------------|------------------------------|------------|
| 1 | Body | 1 |
| 2 | Riser | 1 |
| 3 | Outside Toe | 2 |
| 4 | Drive Screw | 1 |
| 5 | Top Plate | 1 |
| 6 | Bearing Flange | 1 |
| 7 | Thrust Bearing | 1 |
| 8 | Shaft Collar | 1 |
| 9 | Handle | 1 |
| 10 | Handle Side | 2 |
| HARDWARE KIT* | | |
| 11 | Flat Washer | 1 |
| 12 | Wave Disc Spring | 1 |
| 13 | Outside Toe Cap Screw | 6 |
| 14 | Spring Lockwasher | 6 |
| 15 | Top Plate Cap Screw | 6 |
| 16 | Top Plate Cap Screw Lock Nut | 6 |
| 17 | Handle Grip Bolt | 1 |
| 18 | Handle Grip Bolt Nut | 1 |
| 19 | Handle Body Bolt | 1 |
| 20 | Handle Body Bolt Nut | 1 |
| 21 | Handle Washer | 4 |
| 22 | Ratchet Set Screw | 2 |
| (not shown) | Ratchet | 1 |

* COMPONENTS OF HARDWARE KIT ARE ALSO SOLD INDIVIDUALLY.

TITAN FLANGE SPREADER

TITAN FLANGE SPREADERS have been carefully designed for safety in separating pipe and ring-type-joint flanges used in refineries, petrochemical, agrichemical and chemical plants, electrical and gas utility stations, pipe lines, oil fields, and various industrial facilities.



| CATALOG NO. | INSIDE FRAME WIDTH | PIN DIAMETER* | WEIGHT |
|-------------|--------------------|---------------|---------|
| N14 | 2-3/4" | 5/8" | 8 lbs. |
| N48 | 3-3/4" | 3/4" | 9 lbs. |
| N812 | 4-7/8" | 7/8" | 10 lbs. |
| N1216 | 6-1/8" | 1" | 15 lbs. |
| N1620 | 7-1/2" | 1-1/8" | 18 lbs. |
| N2024 | 9-1/8" | 1-1/4" | 20 lbs. |

*SMALLER PINS AVAILABLE UPON REQUEST.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|------------------|------------|
| 1 | SCREW | 1 |
| 2 | FRAME | 1 |
| 3 | U-CLIP | 1 |
| 4 | WEDGE | 1 |
| 5 | FLANGE PIN | 1 |
| 6 | HITCH PIN CLIP | 1 |

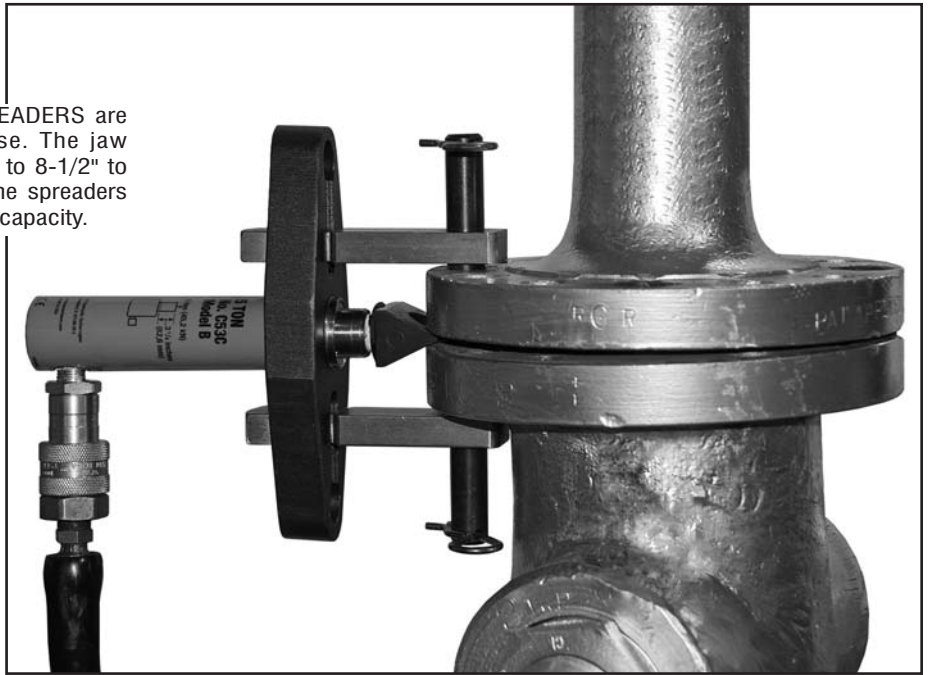
SIZES OF FLANGES IN EACH SERIES WHICH SPREADERS WILL FIT

| | | .50 | .75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 42 | |
|----------------|-------|-----|-----|---|------|-----|---|-----|---|-----|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| ASA150 | N14 | | | | | | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | |
| | N48 | | | | | | | | | | | X | X | X | | | | | | | | | | | | | | | | |
| | N812 | | | | | | | | | | | | | | X | X | X | X | X | X | X | | X | X | X | | | | | |
| | N1216 | | | | | | | | | | | | | | | X | X | X | X | X | X | | X | X | X | X | X | X | X | X |
| | N1620 | | | | | | | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X |
| | N2024 | | | | | | | | | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X |
| ASA300 | N14 | | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | | | | | | | X | X | X | X | X | X | | | | | | | | | | | | | | | | | |
| | N812 | | | | | | | | | | | | | X | X | X | | | | | | | | | | | | | | |
| | N1216 | | | | | | | | | | | | | | X | X | X | X | X | X | X | | | | | | | | | |
| | N1620 | | | | | | | | | | | | | | | X | X | X | X | X | X | | X | X | X | | | | | |
| | N2024 | | | | | | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X |
| ASA400 | N14 | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | | | | | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | N812 | | | | | | X | | | X | X | X | X | | | | | | | | | | | | | | | | | |
| | N1216 | | | | | | | | | | | | | X | X | X | X | | | | | | | | | | | | | |
| | N1620 | | | | | | | | | | | | | | X | X | X | X | X | X | X | | X | | | | | | | |
| | N2024 | | | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ASA600 | N14 | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | | | | | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | N812 | | | | | | X | | | X | X | X | | | | | | | | | | | | | | | | | | |
| | N1216 | | | | | | | | | | | | X | X | X | X | | | | | | | | | | | | | | |
| | N1620 | | | | | | | | | | | | | | X | X | X | X | X | X | X | | X | | | | | | | |
| | N2024 | | | | | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ASA900 | N14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | N812 | | | X | X | X | X | X | X | | X | | | | | | | | | | | | | | | | | | | |
| | N1216 | | | | | X | | X | | | X | X | X | X | | | | | | | | | | | | | | | | |
| | N1620 | | | | | | | | | | X | X | X | X | X | X | | | | | | | | | | | | | | |
| | N2024 | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ASA1500 | N14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| | N812 | | | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | N1216 | | | | | X | | X | X | | X | | | | | | | | | | | | | | | | | | | |
| | N1620 | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | |
| | N2024 | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ASA2500 | N14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N48 | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | N812 | | | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| | N1216 | | | | | X | | X | X | | X | | | | | | | | | | | | | | | | | | | |
| | N1620 | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | |
| | N2024 | | | | | | | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

X SPECIAL FLANGE PINS REQUIRED. CALL FACTORY FOR INFORMATION.

TITAN HYDRAULIC FLANGE SPREADER

TITAN HYDRAULIC FLANGE SPREADERS are fast, lightweight and easy to use. The jaw widths are adjustable from 2-3/4" to 8-1/2" to cover a wide range of flanges. The spreaders are available in 5 and 10 ton force capacity.



| CATALOG NO. | STUD SIZE | SPREAD | | CAPACITY | WEIGHT | MAXIMUM OPERATING PRESSURE |
|-------------|---------------|--------|-------|----------|-------------|----------------------------|
| | | MIN. | MAX. | | | |
| NH56 | .75" – 1.13" | 2.75" | 6.10" | 5 tons | 10-1/2 lbs. | 10,000 PSI |
| NH109 | 1.25" – 1.63" | 4.10" | 8.50" | 10 tons | 24-1/4 lbs. | 10,000 PSI |

POWER OPTIONS

| CATALOG NO. | INCLUDES: |
|-------------|-----------------------------|
| UHCH-P16 | Hand Pump, Hose, Gauge |
| UHCH-P19 | Pneumatic Pump, Hose, Gauge |

WARNING!

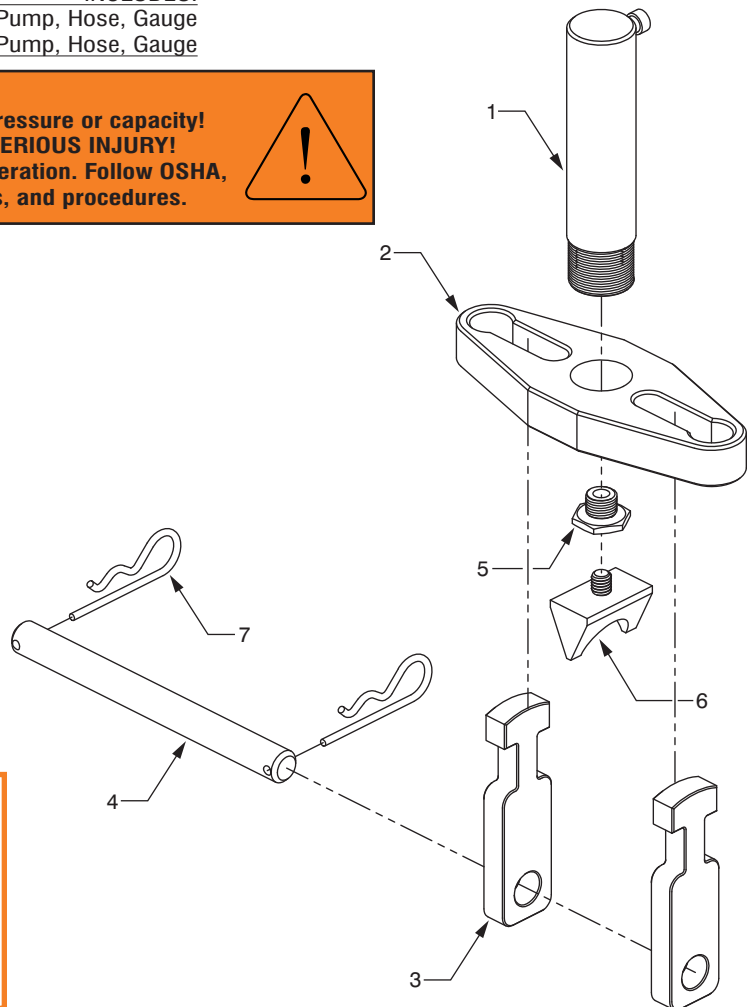
Do not exceed maximum operating pressure or capacity!

Protect yourself and others from SERIOUS INJURY!

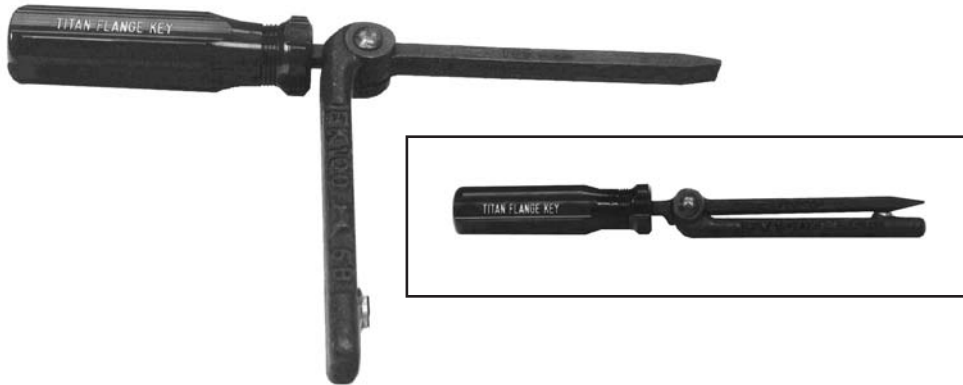
Read Operating Instructions prior to operation. Follow OSHA, NSC, etc., standards, safe practices, and procedures.

| ASA RATING (PSI) | FITS FLANGE SIZES | |
|------------------|-------------------|---------|
| | NH56 | NH109 |
| 150 | 5 - 20 | 22 - 42 |
| 300 | 2.50 - 14 | 16 - 28 |
| 400 | 2.50 - 12 | 14 - 24 |
| 600 | 2.50 - 10 | 12 - 20 |
| 900 | .50 - 6 | 8 - 16 |
| 1500 | .50 - 3.50 | 4 - 8 |
| 2500 | .50 - 2.50 | 3 - 4 |

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|------------------|------------|
| 1 | CYLINDER | 1 |
| 2 | CROSSBAR | 1 |
| 3 | SIDE PLATE | 2 |
| 4 | FLANGE PIN | 1 |
| 5 | ADAPTOR | 1 |
| 6 | WEDGE | 1 |
| 7 | HITCH PIN CLIP | 2 |



TITAN FLANGE KEY

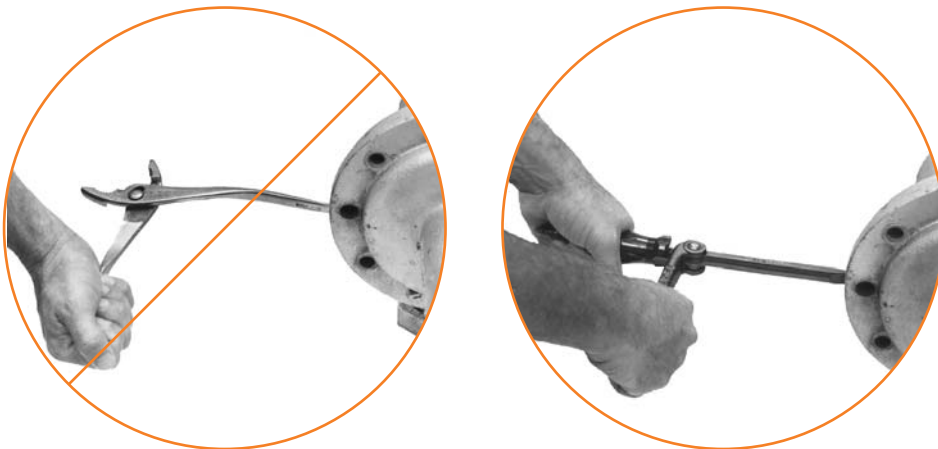
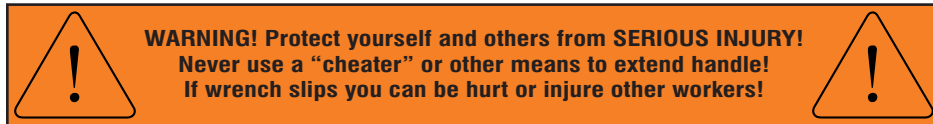


Use the TITAN FLANGE KEY to separate flanges instead of risking an injury because of the improper use of hand tools.

The TITAN Flange Key has a blade made of heat-treated 5160 steel with the point sharpened to 3/32 of an inch. This, coupled with a hard plastic handle, allows the point of the blade to be easily driven between two flanges.

The handle lever will not exceed 90° when opened, and a magnet holds it in place when closed to prevent the tool from opening while in a pocket or tool box.

| CATALOG NO. | LENGTH | WEIGHT |
|-------------|--------|------------|
| FK100 | 11" | 1-1/4 lbs. |



TITAN REFINERY WRENCH



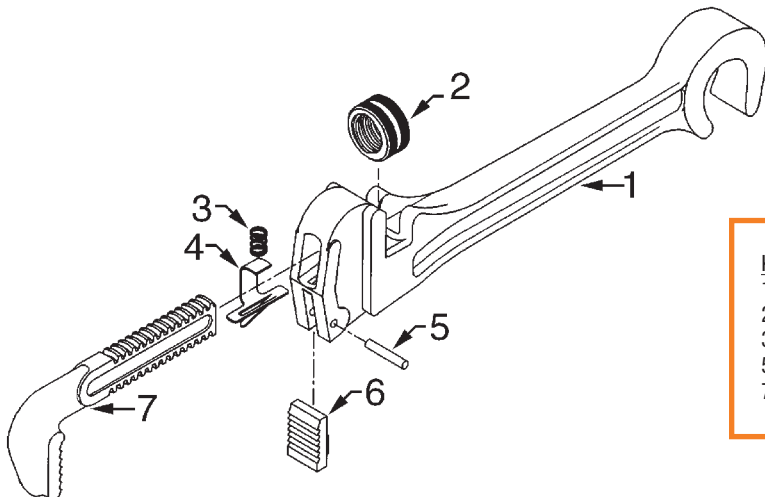
The TITAN REFINERY WRENCH is a combination pipe wrench/valve wheel wrench designed for multiple uses in the refining, petrochemical, and gas processing industries.

| CATALOG NO. | PIPE CAPACITY | WHEEL WRENCH OPENING | LENGTH (CLOSED) | WEIGHT |
|--|---------------|----------------------|-----------------|------------|
| STEEL | | | | |
| RW1 | 1/8" – 1" | 3/4" | 10" | 1-1/2 lbs. |
| RW2 | 1/8" – 1-1/2" | 1/2" | 10" | 1-3/4 lbs. |
| RW1SG | 1/8" – 1" | 3/4" | 10" | 1-5/8 lbs. |
| RW2SG | 1/8" – 1-1/2" | 1/2" | 10" | 2-1/4 lbs. |
| ALUMINUM (FOR LIGHT-DUTY APPLICATIONS ONLY) | | | | |
| RW1AL | 1/8" – 1" | 3/4" | 10" | 3/4 lb. |
| RW2AL | 1/8" – 1-1/2" | 1/2" | 10" | 1 lb. |

WARNING! Protect yourself and others from SERIOUS INJURY!
Never use a "cheater" or other means to extend handle!
If wrench slips you can be hurt or injure other workers!

NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.

The "surgrip" type refinery wrench has a special shaped opening which reduces the chance of slipping when working in overhead or crowded positions.



| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------|----------------------|------------|
| 1 | HANDLE | 1 |
| 2 | ADJUSTING NUT | 1 |
| 3,4 | SPRING SET | 1 |
| 5,6 | TOOTH INSERT AND PIN | 1 |
| 7 | HOOK JAW | 1 |

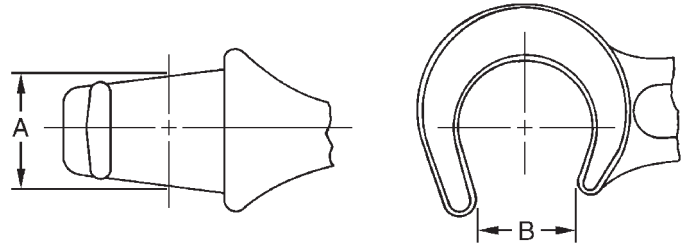
TITAN VALVE WHEEL WRENCH



TITAN VALVE WHEEL WRENCHES are used to provide leverage on hand operated valve wheels. This series of wrenches permits a smooth snap "hammer-action" to make opening and closing stubborn valves easy. Each wrench will fit a variety of sizes and shapes of valve wheels. The special shaped opening in the wrench reduces the chance of slippage when working in overhead or crowded positions.

| CATALOG NO. | PATTERN | CAST OR FORGED | OVERALL LENGTH (approx.) | WEIGHT |
|-----------------|------------|----------------|--------------------------|-------------|
| STEEL | | | | |
| VW0 | Double-end | Forged | 8" | 14 ozs. |
| VW0CPTC* | Double-end | Forged | 8" | 12 ozs. |
| VW10 | Double-end | Forged | 10" | 1-3/4 lbs. |
| VW1 | Single-end | Forged | 15" | 2-3/8 lbs. |
| VW12 | Double-end | Forged | 18" | 4-1/4 lbs. |
| VW2 | Single-end | Forged | 22" | 4-3/4 lbs. |
| VW3 | Single-end | Forged | 27" | 11-3/8 lbs. |
| VW3L | Single-end | Cast | 48" | 15-1/4 lbs. |
| VW4 | Single-end | Forged | 48" | 16-1/4 lbs. |
| VW5 | Single-end | Cast | 48" | 15-3/4 lbs. |
| VW6 | Single-end | Cast | 48" | 15-3/4 lbs. |
| BRONZE | | | | |
| VW0BR | Double-end | Cast | 8" | 15-1/4 ozs. |
| VW10BR | Double-end | Cast | 10" | 1-7/8 lbs. |
| VW1BR | Single-end | Cast | 15" | 2-3/8 lbs. |
| VW12BR | Single-end | Cast | 15-1/2" | 2-7/8 lbs. |
| VW2BR | Single-end | Cast | 22" | 5-1/2 lbs. |
| VW3BR | Single-end | Cast | 30" | 9-1/8 lbs. |
| ALUMINUM | | | | |
| VW0AL | Double-end | Cast | 8" | 5 ozs. |
| VW10AL | Double-end | Cast | 10" | 10-1/2 ozs. |

*CADMIUM PLATED, TEFLON COATED



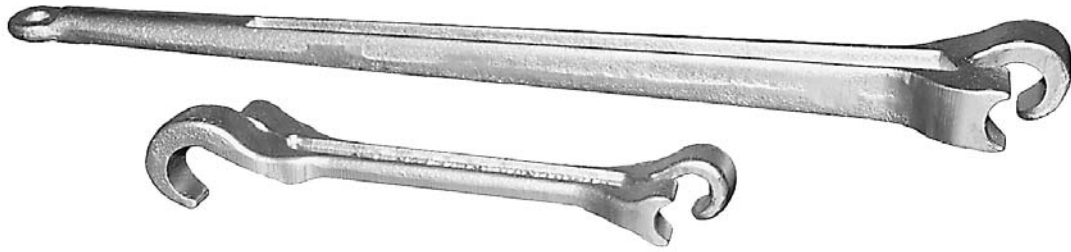
DIMENSIONS

| SIZE | A | | B | |
|-------|--------|----------|--------|---------|
| | SMALL | LARGE | SMALL | LARGE |
| 0 | 11/16" | 7/8" | 1/2" | 21/32" |
| 0CPTC | 7/16" | 7/16" | 1/2" | 21/32" |
| 10 | 7/8" | 1-3/16" | 11/16" | 1" |
| 1 | | 1-3/16" | | 1" |
| 12 | 1-1/2" | 1-7/8" | 1" | 1-5/16" |
| 12BR | | 1-1/2" | | 1-3/8" |
| 2 | | 1-7/8" | | 1-5/16" |
| 3 | | 2-1/2" | | 2" |
| 3L | | 2-3/4" | | 2" |
| 4 | | 2-11/16" | | 2-1/4" |
| 5 | | 2-3/4" | | 2-1/2" |
| 6 | | 2-7/8" | | 2-3/4" |

WARNING! Use as a hand tool only.
Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

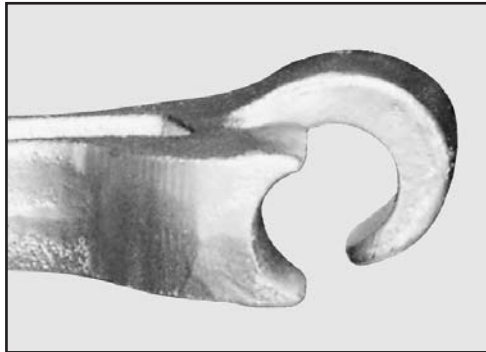
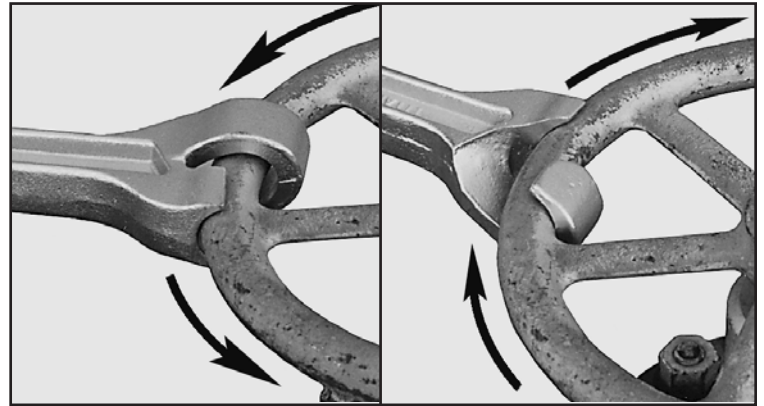
NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.

TITAN SURGRIP VALVE WHEEL WRENCH



TITAN SURGRIP VALVE WHEEL WRENCHES significantly reduce the chance of injury due to wrench slippage when opening and closing valves.

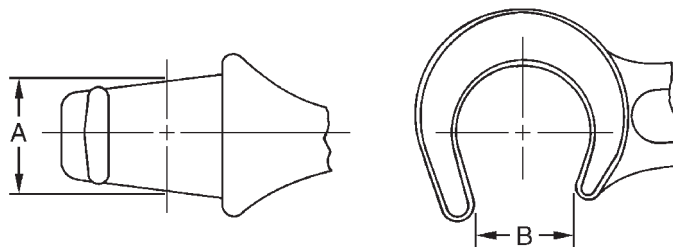
These durable, ductile iron wrenches are **safer** and **easier** to use because the head design provides a **better grip** and allows the operator to rest the wrench on top of the wheel when opening stubborn valves. This, along with **longer handle** lengths for **more leverage**, make the TITAN Surgrip the best valve wheel wrench on the market.



| CATALOG NO. | PATTERN | OVERALL LENGTH (approx.) | WEIGHT |
|-------------|------------|--------------------------|------------|
| VW0SG | Double-end | 8" | 14 ozs. |
| VW0LSG | Double-end | 15" | 1-3/8 lbs. |
| VW10SG | Double-end | 10" | 1-1/2 lbs. |
| VW12SG | Double-end | 22" | 4-5/8 lbs. |
| VW1SG | Single-end | 22" | 4 lbs. |
| VW2SG | Single-end | 27" | 5-5/8 lbs. |
| VW3SG | Single-end | 27" | 12 lbs. |

WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.

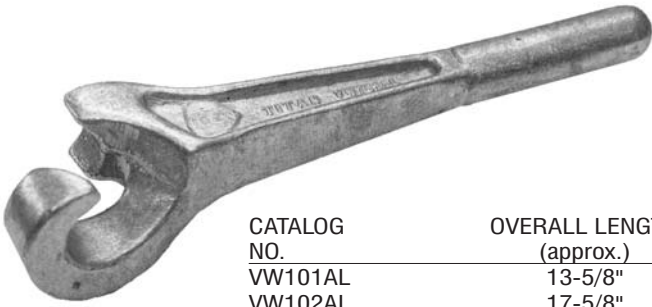
NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



DIMENSIONS

| SIZE | A | | B | |
|--------|-------|--------|--------|---------|
| | SMALL | LARGE | SMALL | LARGE |
| VW0SG | 3/8" | 7/16" | 1/2" | 21/32" |
| VW0LSG | 3/8" | 7/16" | 1/2" | 21/32" |
| VW10SG | 1/2" | 9/16" | 11/16" | 1" |
| VW12SG | 9/16" | 5/8" | 1" | 1-5/16" |
| VW1SG | | 9/16" | | 1" |
| VW2SG | | 5/8" | | 1-5/16" |
| VW3SG | | 1-1/8" | | 2" |

TITAN "100 SERIES" ALUMINUM VALVE WHEEL WRENCH



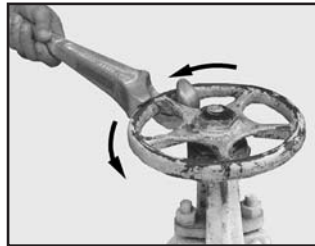
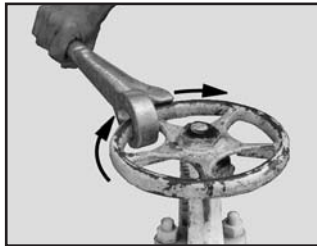
TITAN "100 SERIES" VALVE WHEEL WRENCHES are made from aluminum-magnesium to reduce the chance of sparks when opening stubborn valves.

An improved base pad design, a comfortable rounded gripping area, and the overall smooth finish of the wrench are features that add to the high standard of quality expected in all Gearench products.

| CATALOG NO. | OVERALL LENGTH (approx.) | OPENING | WEIGHT |
|-------------|--------------------------|---------|------------|
| VW101AL | 13-5/8" | 1-3/8" | 2-1/8 lbs. |
| VW102AL | 17-5/8" | 1-3/4" | 3-1/2 lbs. |
| VW103AL | 25-1/2" | 2-1/2" | 7-3/4 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY!
Use only as a hand tool for gripping – NOT FOR STRIKING!
Never use a "cheater" or other means to extend handle!
Always pull toward base pad! If wrench slips you can be hurt or injure others.

NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



TITAN "EL-MAC" SURGRIP VALVE WHEEL WRENCH



TITAN "EL-MAC" SURGRIP VALVE WHEEL WRENCHES are made from aluminum-magnesium to minimize sparking and have a "fist-like" head to reduce slipping even on stubborn valves. The wrenches are designed for use in the petroleum, petrochemical, pulp/paper, mining, marine and power generating industries.



| CATALOG NO. | OVERALL LENGTH (approx.) | OPENING | WEIGHT |
|-------------|--------------------------|---------|------------|
| EM9 | 9" | 7/8" | 13 ozs. |
| EM11 | 11" | 1" | 1-1/4 lbs. |
| EM15 | 15" | 1-3/8" | 2-1/4 lbs. |
| EM19 | 19" | 1-3/4" | 3-3/8 lbs. |
| EM28 | 28" | 2" | 7 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY!
Use only as a hand tool for gripping – NOT FOR STRIKING!
Never use a "cheater" or other means to extend handle!
Always pull toward base pad! If wrench slips you can be hurt or injure others.

NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.

PETOL VALVE WHEEL WRENCH



The PETOL VALVE WHEEL WRENCH was designed for added safety when opening and closing stubborn valves.

The wrench has a unique feature which fits over a spoke of the valve wheel to minimize the chance of the wrench slipping off the wheel when force is being applied.

In addition to this, the base pad has been improved by a deeper, more rounded design for a better fit on the valve wheel rim. This

also reduces the chance of the wrench slipping.

Finally, the handle has been designed to provide the worker with a safer, more comfortable gripping area.

PETOL Valve Wheel Wrenches are made from aluminum-magnesium and come in three sizes to fit a wide range of valve wheel diameters.

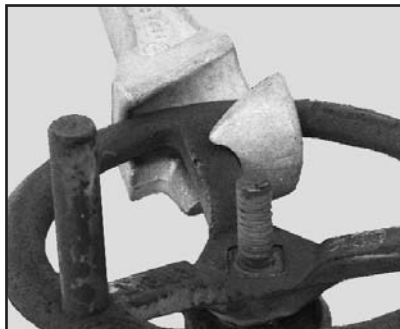
| CATALOG NO. | OVERALL LENGTH (approx.) | OPENING | WEIGHT |
|-------------|--------------------------|---------|------------|
| VWP1 | 13-5/8" | 1-3/8" | 2-1/4 lbs. |
| VWP2 | 17-5/8" | 1-3/4" | 3-7/8 lbs. |
| VWP3 | 25-1/2" | 2-1/2" | 7-5/8 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY!
Use only as a hand tool for gripping – NOT FOR STRIKING!
Never use a “cheater” or other means to extend handle!
Always pull toward base pad! If wrench slips you can be hurt or injure others.

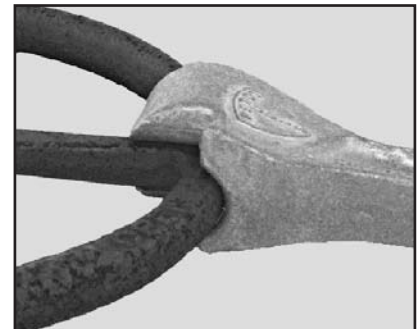
NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



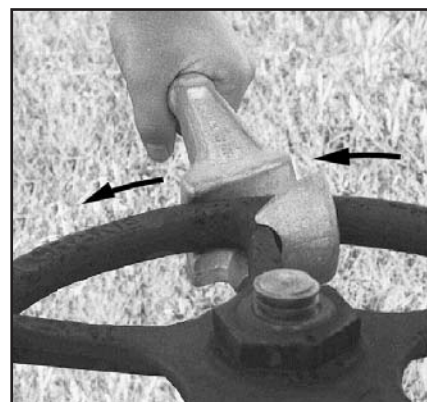
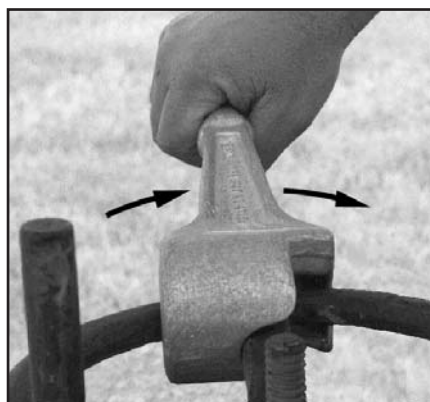
SAFER, MORE COMFORTABLE GRIP



UNIQUE SPOKE GRIP



IMPROVED BASE PAD DESIGN



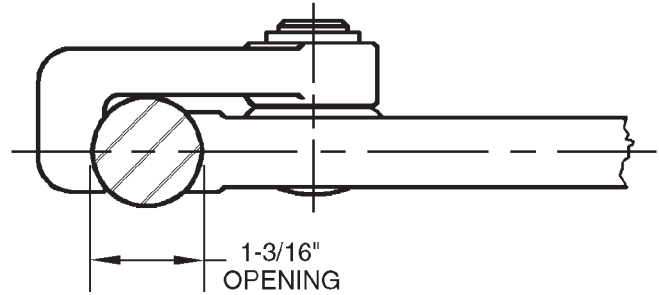
TITAN VALVE WHEEL LATCH WRENCH



The TITAN VALVE WHEEL LATCH WRENCH actually grips the rim of the wheel to prevent the wrench from slipping when opening and closing valves.

The patented latching mechanism pivots freely around a bushing and rivet allowing the wrench to be placed on and taken off the valve wheel with ease.

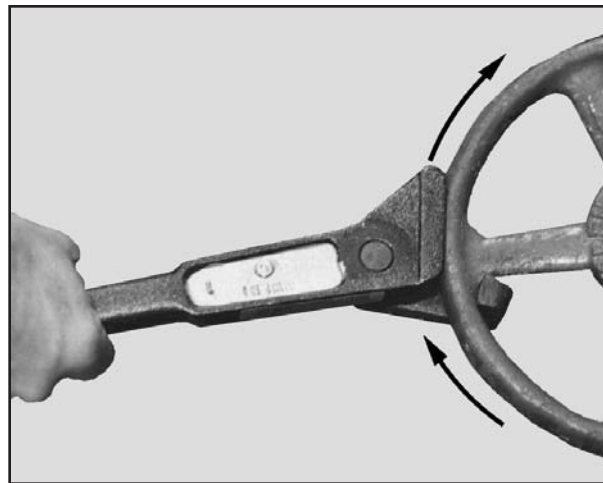
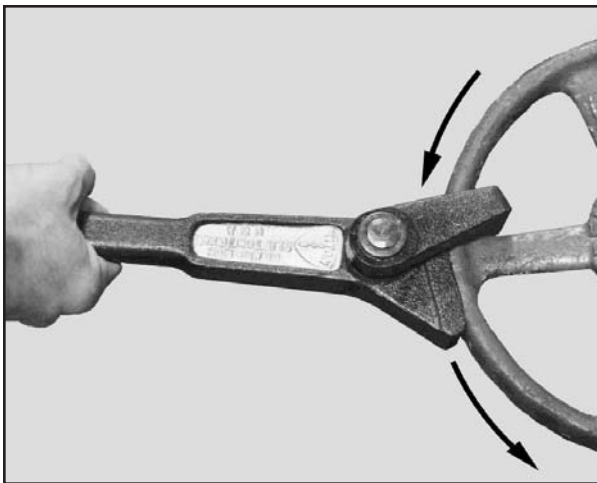
The TITAN Valve Wheel Latch Wrench is made from alloy steel for strength and durability.

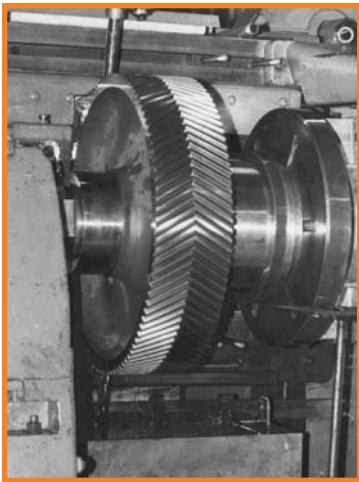


| CATALOG NO. | OPENING | LENGTH | WEIGHT |
|-------------|---------|---------|------------|
| VWL1 | 1-3/16" | 11-1/4" | 3-1/2 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY! Never use a "cheater" or other means to extend handle! If wrench slips you can be hurt or injure other workers!

NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



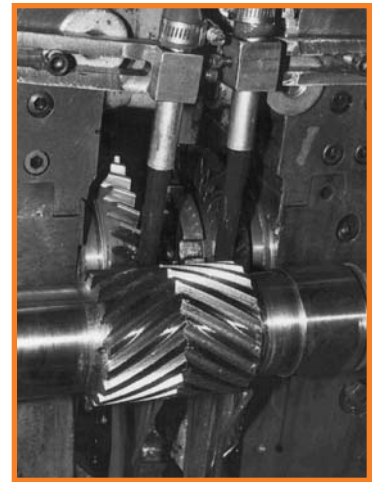


Gearenc manufactures HERRINGBONE GEARS AND PINIONS for pumping units, mud pumps, and other oil field and industrial applications.

These gears and pinions meet the standard of high quality that has been expected of all Gearenc products since 1927. Unlike some gear manufacturers, our pinions are specially heat-treated to ensure that the proper hardness required for long life is attained.

MAXIMUM CAPABILITIES

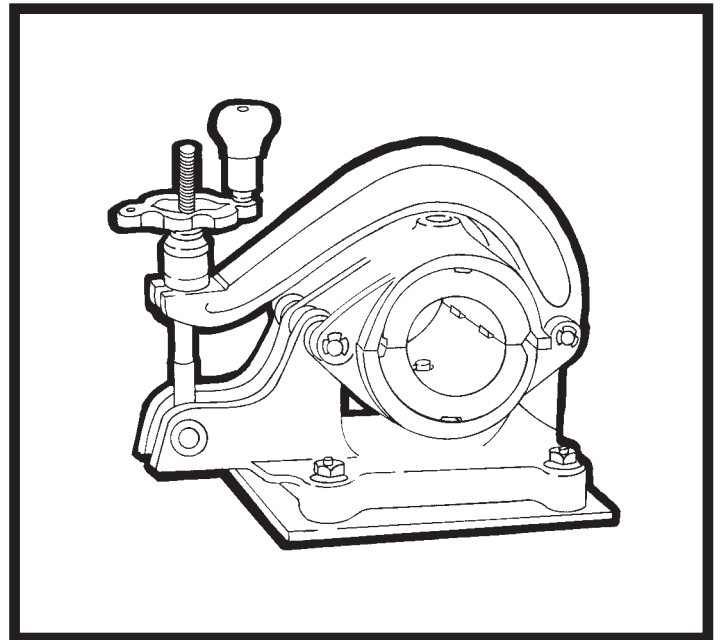
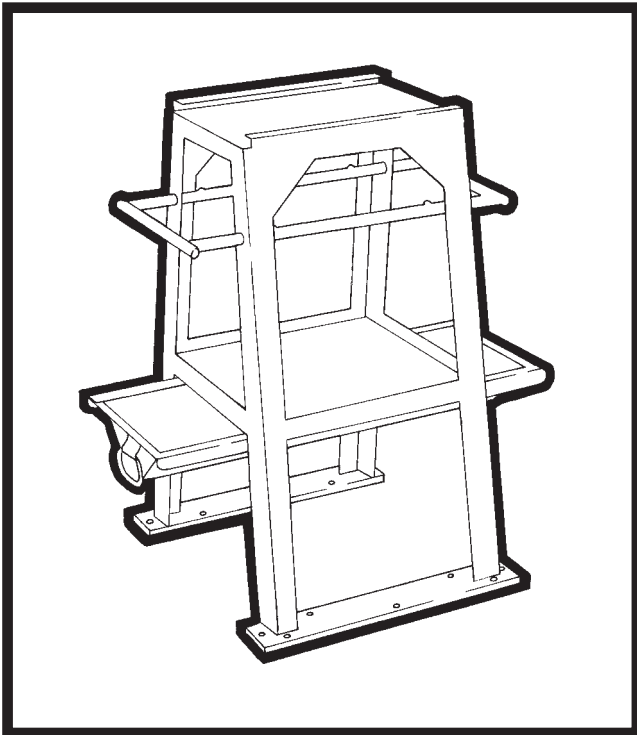
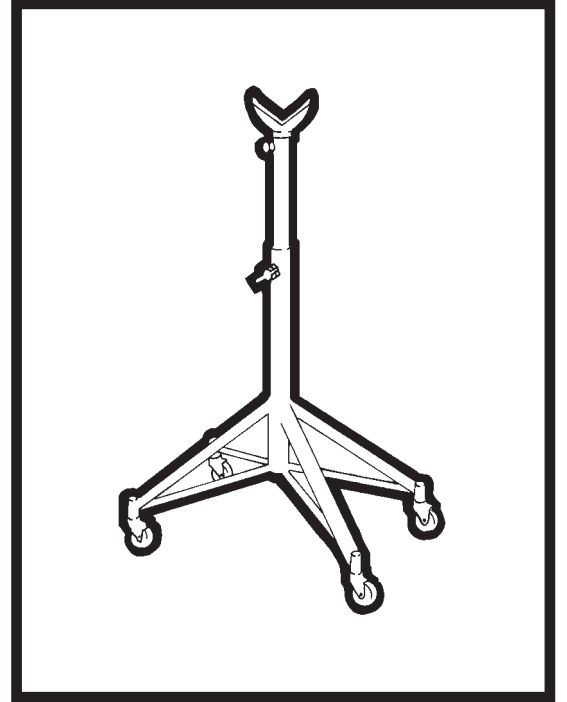
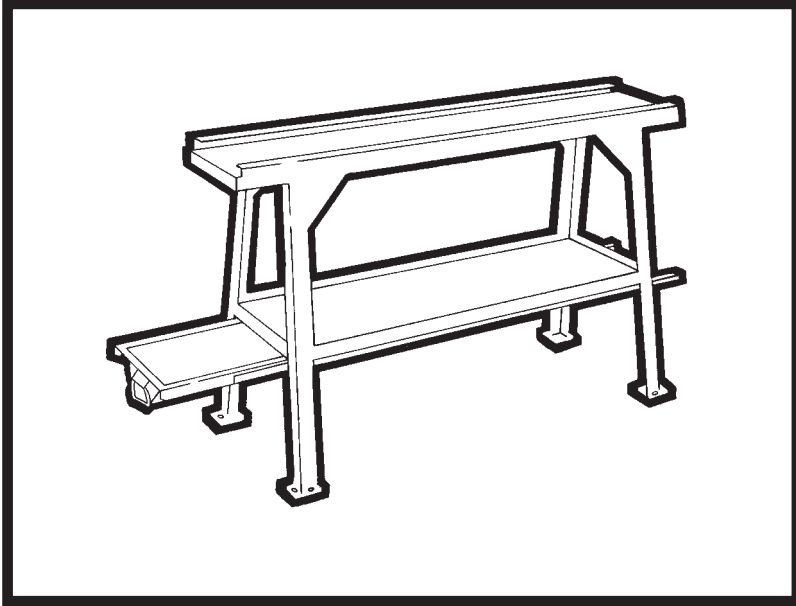
| | |
|-----------------|-------|
| PITCH DIAMETER | 72" |
| FACE WIDTH | 18" |
| DIAMETRAL PITCH | 2-1/2 |



Replacement gears and pinions for most name brand pumping units and mud pumps are kept in stock for immediate delivery.



PETOL PUMP SHOP EQUIPMENT



GEARENCH[®]

PETOL PUMP BENCHES



Note:
Drip Pans for
ALL Pump Benches
must be ordered
separately.

Note: Roller Assembly &
Base Plates must be ordered
separately.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|---------------|---|-----------------|
| ZB2460 | PETOL Pump Bench - 32" High | 261 lbs. |
| ZB2460-58-24 | PETOL Bench Drip Pan - 8"D x 24"L | 18-3/8 lbs. |
| ZI2460 | PETOL Bench Installation Kit | 1 lb. |
| ZNB12 | PETOL Bench Back-up Bar - 12" L | 4-5/8 lbs. |
| ZB1260 | PETOL Pump Bench - 32" High | 167 lbs. |
| ZB1260-56-30 | PETOL Bench Drip Pan - 6"D x 30"L | 15-1/8 lbs. |
| ZI1260-7 | PETOL Bench Installation Kit | 1 lb. |
| ZB1260-10 | PETOL Barhook Rack - 48"L | 8 lbs. |
| ZB1260-16 | PETOL Barrelrack - Steel | 11 lbs. |
| ZB1219 | PETOL Pump Bench - 32" High | 115 lbs. |
| ZE1218-54-30 | PETOL Bench Drip Pan - 4"D x 30"L | 13 lbs. |
| ZI1219 | PETOL Bench Installation Kit | 13 ozs. |
| ZE1218 | PETOL Pump Bench Extension Stand - 32" High | 107 lbs. |
| ZE1218-BTC | PETOL Pump Bench Extension Stand w / Base Tread Clamp | 117 lbs. |
| ZE1218-1 | PETOL Extension Stand Roller Assembly | 14-1/4 lbs. |
| ZE1218-1H | PETOL Extension Stand Roller Assembly - Heavy Duty | 17 lbs. |
| ZE1218-54-30 | PETOL Extension Stand Drip Pan - 4"D x 30"L | 13 lbs. |
| ZI1218 | PETOL Extension Stand Installation Kit | 1-1/4 lbs. |
| ZE1218-8 | PETOL Extension Stand Base Plate | 164 lbs. |
| ZE1218-8M | PETOL Extension Stand Base Plate w / Milled Edges | 158 lbs. |
| ZE1218-18 | PETOL Extension Stand Oil Deflector | 1 lb. |

PETOL TOOL STAND



Note:
Paper Rack and Paper Cutter
must be ordered separately.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|---------------------------------------|------------|
| ZF1626-SC-5-23 | PETOL Tool Stand w /5" Casters - 38"H | 41 lbs. |
| ZF1626-4 | PETOL Tool Stand Paper Rack | 3-5/8 lbs. |
| ZF1626-6 | PETOL Tool Stand Paper Cutter | 3 lbs. |
| ZNC5 | PETOL Tool Stand Caster - 5" | 1-7/8 lbs. |

RINSE TANK



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|------------------|----------|
| ZM1832-01-41D5 | Rinse Tank | 129 lbs. |

PETOL PUMP SUPPORT



Note:
ZSV2422-3AH-BR vee-saddle
must be ordered separately.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|--|-------------|
| ZP2422D4 | PETOL Pump Support w / 4" Casters | 38 lbs. |
| ZP2422-2-10A | PETOL Pump Support Shaft Assembly | 10-1/4 lbs. |
| ZP2422-2-10 | PETOL Pump Support Shaft | 9-3/4 lbs. |
| ZP2422-2-13 | PETOL Pump Support Shaft Spiralox Ring (2 req'd.) | 1/8 oz. |
| ZP2422-2-14 | PETOL Pump Support Shaft Steel Ball Bearings (4 req'd.) | 1/8 oz. |
| ZP2422-0-1 | PETOL Pump Support Tube | 9-3/4 lbs. |
| ZP2422-0-3 | PETOL Pump Support Tube Spiralox Ring (2 req'd.) | 1/8 oz. |
| ZP2422-0-4 | PETOL Pump Support Tube Steel Ball Bearings (8 req'd.) | 1/8 oz. |
| ZSV2422-3AH-BR | PETOL Pump Support Adj. Vee Saddle - Heavy Duty - Bronze | 4-3/8 lbs. |
| ZSV2422-8A-BR | PETOL Pump Support Adj. Roller Saddle - Bronze | 6-1/8 lbs. |
| ZNC4 | PETOL Pump Support Swivel Caster - 4" | 1-1/2 lbs. |
| ZP2422-7 | PETOL Pump Support Susan | 1-1/4 lbs. |

PETOL BENCHRENCH



PETOL BENCHRENCHES fit into PETOL Pump Benches and provide a strong and stable hold for makeup and breakout of pump sections.

| CATALOG NO. | WRENCH SIZE | WEIGHT |
|-------------|-------------|------------|
| ZWB1320 | 13/16" | 2 lbs. |
| ZWB1420 | 7/8" | 2-3/8 lbs. |
| ZWB1620 | 1" | 2-1/4 lbs. |
| ZWB1720 | 1-1/16" | 2-1/4 lbs. |
| ZWB2020 | 1-1/4" | 2-1/4 lbs. |
| ZWB2120 | 1-5/16" | 2-1/4 lbs. |
| ZWB2220 | 1-3/8" | 2-1/4 lbs. |
| ZWB2420 | 1-1/2" | 2-7/8 lbs. |
| ZWB2620 | 1-5/8" | 2-7/8 lbs. |
| ZWB2720 | 1-11/16" | 2-7/8 lbs. |
| ZWB2820 | 1-3/4" | 2-3/4 lbs. |
| ZWB3020 | 1-7/8" | 2-3/4 lbs. |
| ZWB3220 | 2" | 3-1/4 lbs. |
| ZWB3520 | 2-3/16" | 3-7/8 lbs. |
| ZWB3620 | 2-1/4" | 3-3/4 lbs. |
| ZWB3820 | 2-3/8" | 5-1/8 lbs. |

PETOL VALVE CAGE BENCHRENCH



PETOL VALVE CAGE BENCHRENCHES are specifically designed to fit in PETOL Pump Benches, Sliding Socket Plates, Pump Supports, and Socketrench Handles.

| CATALOG NO. | SIZE OF CAGE | WEIGHT |
|-------------|-------------------|------------|
| ZWC01 | 1-1/16" to 1-1/2" | 2 lbs. |
| ZWC23 | 1-1/2" to 1-3/4" | 2-3/8 lbs. |

PETOL SOCKETRENCH HANDLE



PETOL SOCKETRENCH HANDLES add versatility to the entire line of PETOL Platerenches. An operator can attach a Platerench to the handle and use it like a Shoprench. The PETOL Valve Cage Benchrench can also be attached to the Socketrench Handle. The Socketrench Handles are available to fit Platerench stem diameters 1-1/4" and 1-1/2", and can be ordered with a 45° handle bend if desired. All Socketrench Handles are heat-treated for years of dependable service.

| CATALOG NO. | SOCKET SIZE | WEIGHT |
|-------------|-------------|------------|
| ZWH2026-00 | 1-1/4" | 6-1/4 lbs. |
| ZWH2026-45 | 1-1/4" | 6 lbs. |
| ZWH2426-00 | 1-1/2" | 6-1/8 lbs. |

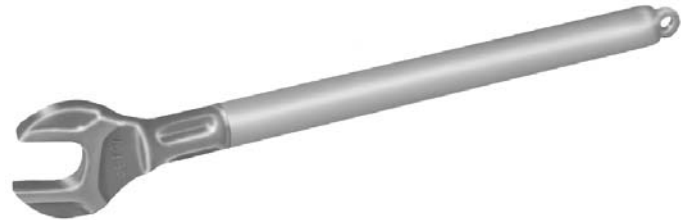
PETOL PLATERENCH



PETOL PLATERENCHES are specifically designed to fit into the PETOL Sliding Socket Plate and Socketrench Handle. The Platerench fits on the pump flats and provides a strong and stable hold for makeup and breakout of pump sections.

| CATALOG NO. | WRENCH SIZE | WEIGHT |
|-------------|-------------|------------|
| ZWP1320 | 13/16" | 1-5/8 lbs. |
| ZWP1420 | 7/8" | 1-5/8 lbs. |
| ZWP1620 | 1" | 1-1/2 lbs. |
| ZWP1720 | 1-1/16" | 1-1/2 lbs. |
| ZWP1920 | 1-3/16" | 1-1/2 lbs. |
| ZWP2020 | 1-1/4" | 1-1/2 lbs. |
| ZWP2120 | 1-5/16" | 1-1/2 lbs. |
| ZWP2220 | 1-3/8" | 1-1/2 lbs. |
| ZWP2420 | 1-1/2" | 2-1/4 lbs. |
| ZWP2620 | 1-5/8" | 2-1/8 lbs. |
| ZWP2720 | 1-11/16" | 2-1/8 lbs. |
| ZWP2820 | 1-3/4" | 2-1/8 lbs. |
| ZWP3020 | 1-7/8" | 2 lbs. |
| ZWP3220 | 2" | 2-1/2 lbs. |
| ZWP3520 | 2-3/16" | 3-1/8 lbs. |
| ZWP3620 | 2-1/4" | 3-1/8 lbs. |
| ZWP3820 | 2-3/8" | 4-5/8 lbs. |
| ZWP3224 | 2" | 2-3/4 lbs. |
| ZWP3524 | 2-3/16" | 5 lbs. |
| ZWP3824 | 2-3/8" | 4-5/8 lbs. |

PETOL SHOPRENCH



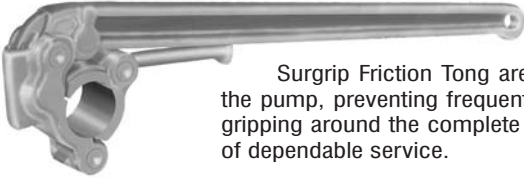
PETOL SHOPRENCHES, sometimes called end wrenches, are extremely strong and can handle tough makeup and breakout jobs.

| CATALOG NO. | WRENCH SIZE | WEIGHT |
|-------------|-------------|------------|
| ZWS13 | 13/16" | 4-1/4 lbs. |
| ZWS14 | 7/8" | 4-3/8 lbs. |
| ZWS16 | 1" | 4-1/4 lbs. |
| ZWS17 | 1-1/16" | 4-3/8 lbs. |
| ZWS20 | 1-1/4" | 4-3/8 lbs. |
| ZWS21 | 1-5/16" | 4-1/4 lbs. |
| ZWS22 | 1-3/8" | 4 lbs. |
| ZWS24 | 1-1/2" | 5 lbs. |
| ZWS26 | 1-5/8" | 4-3/4 lbs. |
| ZWS27 | 1-11/16" | 5 lbs. |
| ZWS28 | 1-3/4" | 4-7/8 lbs. |
| ZWS30 | 1-7/8" | 4-1/8 lbs. |
| ZWS32 | 2" | 5-1/4 lbs. |
| ZWS35 | 2-3/16" | 5-3/4 lbs. |
| ZWS38 | 2-3/8" | 7-1/4 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY! Never use a "cheater" or other means to extend handle! If wrench slips you can be hurt or injure other workers!

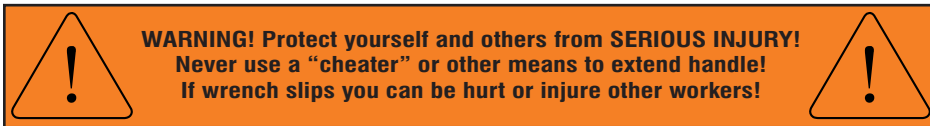
WARNING! Protect yourself and others from SERIOUS INJURY! Never use a "cheater" or other means to extend handle! If wrench slips you can be hurt or injure other workers!

PETOL SURGRIP FRICTION TONGS

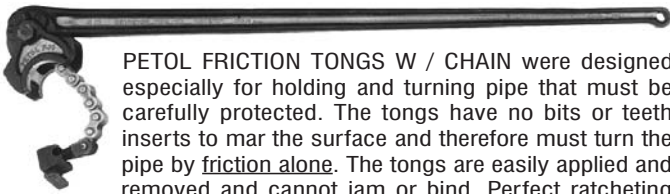


PETOL SURGRIP FRICTION TONGS are designed to make up and breakout pump sections without marring the pump barrel or rod surfaces. Features of the Surgrip Friction Tong are its high quality steel construction, and the ability to ratchet after being applied to the pump, preventing frequent wrench adjustments and removal. Three precision machined jaws provide friction gripping around the complete circumference of the pump. Every piece of the tong is heat-treated to assure years of dependable service.

| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD | CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD |
|---------------------|--------|----------------|-------------|----------------------|-------------|--------|----------------|-------------|----------------------|
| ZT1:0.625 | 0.625" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.125 | 2.125" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.688 | 0.688" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.188 | 2.188" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.750 | 0.750" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.228 | 2.228" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.812 | 0.812" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.250 | 2.250" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.875 | 0.875" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.302 | 2.302" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.938 | 0.938" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.312 | 2.312" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:0.969 | 0.969" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.340 | 2.340" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:1.000 | 1.000" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT3:2.375 | 2.375" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. |
| ZT1:1.031 | 1.031" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.375 | 2.375" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.062 | 1.062" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.500 | 2.500" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.125 | 1.125" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.562 | 2.562" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.125H | 1.250" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.625 | 2.625" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.138 | 1.138" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.688 | 2.688" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.144 | 1.144" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.750 | 2.750" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.188 | 1.188" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.812 | 2.812" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT1:1.250 | 1.250" | 2.25" | 6-1/2 lbs. | 500 ft.-lbs. | ZT4:2.875 | 2.875" | 3.00" | 20 lbs. | 3,000 ft.-lbs. |
| ZT2:1.312 | 1.312" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.000 | 3.000" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.375 | 1.375" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.062 | 3.062" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.438 | 1.438" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.125 | 3.125" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.500 | 1.500" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.200 | 3.200" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.625 | 1.625" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.250 | 3.250" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.688 | 1.688" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.375 | 3.375" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT2:1.750 | 1.750" | 2.50" | 10-1/2 lbs. | 1,200 ft.-lbs. | ZT5:3.500 | 3.500" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT3:1.625 | 1.625" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | ZT5:3.625 | 3.625" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| (for rod couplings) | | | | | ZT5:3.688 | 3.688" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT3:1.750 | 1.750" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | ZT5:3.750 | 3.750" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT3:1.812 | 1.812" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | ZT5:3.875 | 3.875" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT3:1.875 | 1.875" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | ZT5:4.000* | 4.000" | 3.50" | 45 lbs. | 4,500 ft.-lbs. |
| ZT3:1.938 | 1.938" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | | | | | |
| ZT3:1.960 | 1.960" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | | | | | |
| ZT3:2.000 | 2.000" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | | | | | |
| ZT3:2.062 | 2.062" | 2.50" | 11-1/2 lbs. | 2,300 ft.-lbs. | | | | | |



PETOL FRICTION TONGS W / CHAIN

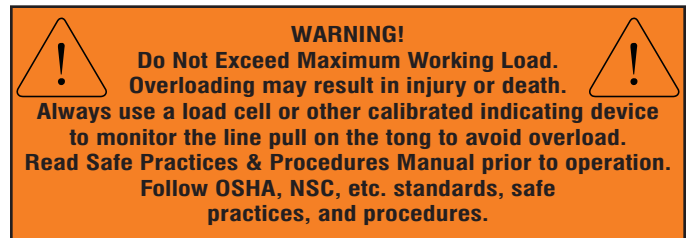


PETOL FRICTION TONGS W / CHAIN were designed especially for holding and turning pipe that must be carefully protected. The tongs have no bits or teeth inserts to mar the surface and therefore must turn the pipe by friction alone. The tongs are easily applied and removed and cannot jam or bind. Perfect ratcheting action and efficient performance are assured. When ordering, make sure to specify the exact O.D. on which the tongs are to be used.

| CATALOG NO. | O.D. | HANDLE LENGTH | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|--------|---------------|----------------|---------|----------------------|
| FA3:3.000 | 3.000" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:3.125 | 3.125" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:3.250 | 3.250" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:3.500 | 3.500" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:3.625 | 3.625" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:3.750 | 3.750" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA3:4.000 | 4.000" | 51" | 4.31" | 50 lbs. | 10,000 ft.-lbs. |
| FA4:4.000 | 4.000" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FA4:4.125 | 4.125" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FA4:4.250 | 4.250" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FA4:4.500 | 4.500" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FA4:4.750 | 4.750" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |

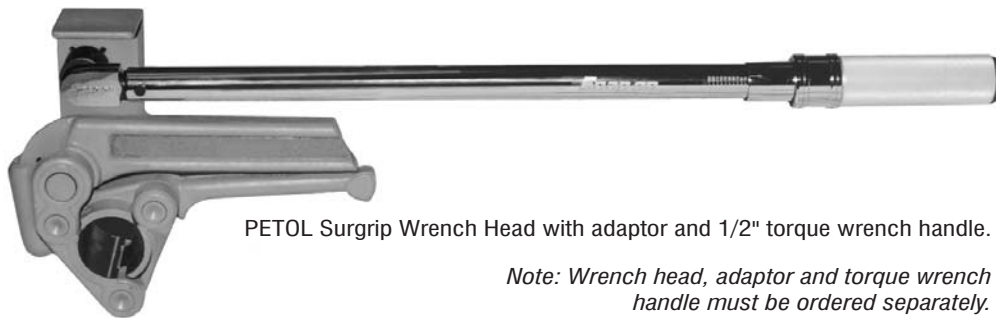
| CATALOG NO. | O.D. | HANDLE LENGTH | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|--------|---------------|----------------|---------|----------------------|
| FA4:5.000 | 5.000" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FA4:5.375 | 5.375" | 46" | 4.31" | 54 lbs. | 12,500 ft.-lbs. |
| FAS4:4.000 | 4.000" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:4.125 | 4.125" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:4.250 | 4.250" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:4.500 | 4.500" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:4.750 | 4.750" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:5.000 | 5.000" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |
| FAS4:5.375 | 5.375" | 28" | 4.31" | 45 lbs. | 12,500 ft.-lbs. |

SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**



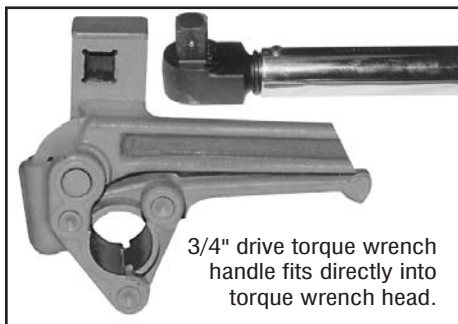
NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.

PETOL SURGRIP TORQUE WRENCH



PETOL Surgrip Wrench Head with adaptor and 1/2" torque wrench handle.

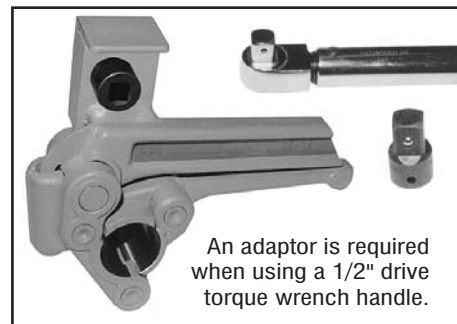
Note: Wrench head, adaptor and torque wrench handle must be ordered separately.



3/4" drive torque wrench handle fits directly into torque wrench head.

PETOL SURGRIP TORQUE WRENCHES offer exact measurement in ft.-lbs. of torque when making up pump parts. Each wrench is bored to grip a specific O.D. by friction alone and will not mar the surface of the parts.

These wrenches offer the features of the PETOL Surgrip Friction Tong and can be used with any 1/2" or 3/4" drive "click-type" torque wrench handle.



An adaptor is required when using a 1/2" drive torque wrench handle.

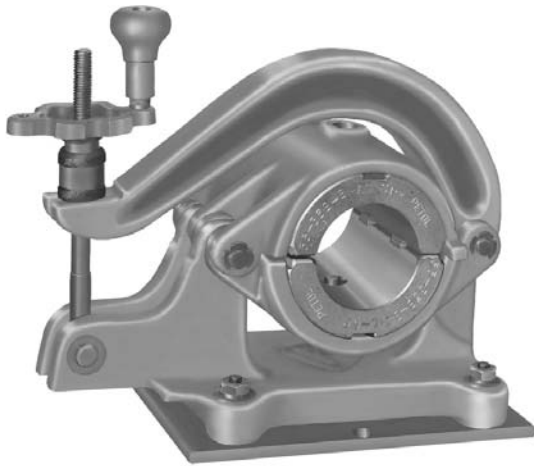
| CATALOG NO. | ITEM DESCRIPTION | LENGTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|----------------------|----------|-------------|----------------------|
| ZT250M | Torque Wrench Handle | 23-3/16" | 3-1/2 lbs. | 250 ft.-lbs. |
| ZT600M | Torque Wrench Handle | 40-3/4" | 11-1/2 lbs. | 600 ft.-lbs. |
| ZT50A | 1/2" Drive Adaptor | n/a | 6 ozs. | n/a |

NOTE: If using ZT600M Torque Handle with ZT1 Wrench Heads, DO NOT EXCEED 500 ft.-lbs.

| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT |
|--|--------|----------------|-------------|---|--------|----------------|-------------|
| ZT1:0.625T | 0.625" | 2.25" | 6-1/2 lbs. | ZT3:2.125T | 2.125" | 2.50" | 10-1/2 lbs. |
| ZT1:0.688T | 0.688" | 2.25" | 6-1/2 lbs. | ZT3:2.188T | 2.188" | 2.50" | 10-1/2 lbs. |
| ZT1:0.750T | 0.750" | 2.25" | 6-1/2 lbs. | ZT3:2.228T | 2.228" | 2.50" | 10-1/2 lbs. |
| ZT1:0.812T | 0.812" | 2.25" | 6-1/2 lbs. | ZT3:2.250T | 2.250" | 2.50" | 10-1/2 lbs. |
| ZT1:0.875T | 0.875" | 2.25" | 6-1/2 lbs. | ZT3:2.302T | 2.302" | 2.50" | 10-1/2 lbs. |
| ZT1:0.938T | 0.938" | 2.25" | 6-1/2 lbs. | ZT3:2.312T | 2.312" | 2.50" | 10-1/2 lbs. |
| ZT1:0.969T | 0.969" | 2.25" | 6-1/2 lbs. | ZT3:2.340T | 2.340" | 2.50" | 10-1/2 lbs. |
| ZT1:1.000T | 1.000" | 2.25" | 6-1/2 lbs. | ZT3:2.375T | 2.375" | 2.50" | 10-1/2 lbs. |
| ZT1:1.031T | 1.031" | 2.25" | 6-1/2 lbs. | ZT4:2.375T | 2.375" | 3.00" | 15-3/4 lbs. |
| ZT1:1.062T | 1.062" | 2.25" | 6-1/2 lbs. | ZT4:2.500T | 2.500" | 3.00" | 15-3/4 lbs. |
| ZT1:1.125T | 1.125" | 2.25" | 6-1/2 lbs. | ZT4:2.562T | 2.562" | 3.00" | 15-3/4 lbs. |
| ZT1:1.138T | 1.138" | 2.25" | 6-1/2 lbs. | ZT4:2.625T | 2.625" | 3.00" | 15-3/4 lbs. |
| ZT1:1.144T | 1.144" | 2.25" | 6-1/2 lbs. | ZT4:2.688T | 2.688" | 3.00" | 15-3/4 lbs. |
| ZT1:1.188T | 1.188" | 2.25" | 6-1/2 lbs. | ZT4:2.750T | 2.750" | 3.00" | 15-3/4 lbs. |
| ZT1:1.250T | 1.250" | 2.25" | 6-1/2 lbs. | ZT4:2.812T | 2.812" | 3.00" | 15-3/4 lbs. |
| NOTE: Maximum Working Load for ZT1 Wrench Heads is 500 ft.-lbs. | | | | ZT4:2.875T | 2.875" | 3.00" | 15-3/4 lbs. |
| ZT2:1.312T | 1.312" | 2.50" | 9 lbs. | ZT5:3.000T | 3.000" | 3.50" | 24 lbs. |
| ZT2:1.375T | 1.375" | 2.50" | 9 lbs. | ZT5:3.062T | 3.062" | 3.50" | 24 lbs. |
| ZT2:1.438T | 1.438" | 2.50" | 9 lbs. | ZT5:3.125T | 3.125" | 3.50" | 24 lbs. |
| ZT2:1.500T | 1.500" | 2.50" | 9 lbs. | ZT5:3.200T | 3.200" | 3.50" | 24 lbs. |
| ZT2:1.625T | 1.625" | 2.50" | 9 lbs. | ZT5:3.250T | 3.250" | 3.50" | 24 lbs. |
| ZT2:1.688T | 1.688" | 2.50" | 9 lbs. | ZT5:3.375T | 3.375" | 3.50" | 24 lbs. |
| ZT2:1.750T | 1.750" | 2.50" | 9 lbs. | ZT5:3.500T | 3.500" | 3.50" | 24 lbs. |
| ZT3:1.625T | 1.625" | 2.50" | 10-1/2 lbs. | ZT5:3.625T | 3.625" | 3.50" | 24 lbs. |
| ZT3:1.750T | 1.750" | 2.50" | 10-1/2 lbs. | ZT5:3.688T | 3.688" | 3.50" | 24 lbs. |
| ZT3:1.812T | 1.812" | 2.50" | 10-1/2 lbs. | ZT5:3.750T | 3.750" | 3.50" | 24 lbs. |
| ZT3:1.875T | 1.875" | 2.50" | 10-1/2 lbs. | ZT5:3.875T | 3.875" | 3.50" | 24 lbs. |
| ZT3:1.938T | 1.938" | 2.50" | 10-1/2 lbs. | ZT5:4.000T | 4.000" | 3.50" | 24 lbs. |
| ZT3:1.960T | 1.960" | 2.50" | 10-1/2 lbs. | SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. SPECIAL SIZES ARE NON-RETURNABLE. | | | |
| ZT3:2.000T | 2.000" | 2.50" | 10-1/2 lbs. | | | | |
| ZT3:2.062T | 2.062" | 2.50" | 10-1/2 lbs. | | | | |

WARNING!
 Protect yourself and others from **SERIOUS INJURY!**
 Do Not Exceed Maximum Working Load!
 Follow OSHA, NSC, etc. standards, safe practices
 and procedures.

PETOL SURGRIP FRICTION VISE



PETOL SURGRIP FRICTION VISES provide oil field pump manufacturers and pump repair shops with a friction vise having superior noncrushing and nonmarring features for use in final assembly or repair of sub-surface pumps.

Surgrip Friction Vises come in two sizes, ZV35-52 and ZV55-54. Interchangeable aluminum bushings are available to meet specific O.D. requirements. See list of bushing sizes on page 59.

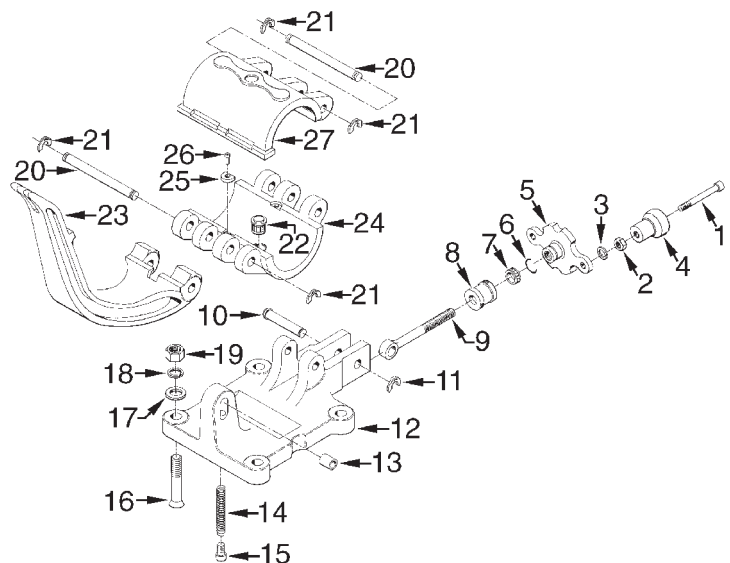
The ZV55-54 PETOL Surgrip Friction Vise can be fitted with special adaptor bushings enabling it to handle all the smaller O.D.'s of the ZV35-52.

Note:
Vise Plate, Vise Plate Bolts & Nuts and Vise Bushings must be ordered separately.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|---|----------------|
| ZV35-52 | PETOL Surgrip Friction Vise w / 2" Nut | 43 lbs. |
| ZV35-54 | PETOL Surgrip Friction Vise w / 4" Nut | 44 lbs. |
| ZV35-1 | PETOL Surgrip Friction Vise Plate | 9-1/4 lbs. |
| HB38 | PETOL Surgrip Friction Vise Plate Bolt & Nut Assembly (4 req'd. per vise) | 2 ozs. |
| HP302 | PETOL Surgrip Friction Vise Plate Lock Pin | 4 ozs. |
| ZV55-54 | PETOL Surgrip Friction Vise w / 4" Nut | 68 lbs. |
| ZV55-1 | PETOL Surgrip Friction Vise Plate | 10-1/4 lbs. |
| HB39 | PETOL Surgrip Friction Vise Plate Bolt & Nut Assembly (4 req'd. per vise) | 2 ozs. |
| HP302 | PETOL Surgrip Friction Vise Plate Lock Pin | 4 ozs. |
| ZUV55-35A | PETOL Surgrip Friction Vise Adaptor Bushings (includes 2 ea. ZUV55-35B-8) | 8-1/8 lbs. |
| ZUV55-35B-8 | PETOL Surgrip Friction Vise Adaptor Bushing Plunger Assembly | 1-3/4 ozs. |

NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------------------------------------|---|------------|
| WISE BALL BEARING NUT ASSEMBLY | | |
| 1,2,3 | WISE NUT HANDLE BOLT , NUT, & LOCK WASHER | 1 |
| 4 | WISE NUT HANDLE GRIP | 1 |
| 5 | WISE NUT HANDLE | 1 |
| 6 | WISE NUT CLIP RING | 1 |
| 7 | WISE NUT BEARING COMPLETE | 1 |
| 8 | WISE NUT SLEEVE | 1 |
| 9 | WISE NUT CLAMPING SCREW | 1 |
| 10,11 | WISE BASE CLAMPING SCREW RIVET W / KLIPRING | 1 |
| 12 | WISE BASE | 1 |
| 13 | WISE BASE BUSHING | 1 |
| 14 | WISE BASE SPRING | 1 |
| 15 | WISE BASE SET SCREW | 1 |
| 16,17,18,19 | PLATE BOLT & NUT ASSEMBLY | 4 |
| 20,21 | WISE JAW RIVET W / KLIPRINGS | 2 |
| 22 | WISE BUSHING PLUNGER ASSEMBLY | 2 |
| 23 | WISE CLAMPING ARM | 1 |
| 24 | WISE LOWER JAW | 1 |
| 25 | WISE BUSHING KEY | 4 |
| 26 | WISE BUSHING KEY SCREW | 4 |
| 27 | WISE UPPER JAW | 1 |



PETOL SURGRIP FRICTION VISE BUSHINGS

| CATALOG NO. | O.D. | WEIGHT |
|--------------------------------------|--------|------------|
| ZV35-52/ZV35-54 VISE BUSHINGS | | |
| ZUV35:0.625 | 0.625" | 5-1/4 lbs. |
| ZUV35:0.688 | 0.688" | 5-1/8 lbs. |
| ZUV35:0.875 | 0.875" | 5 lbs. |
| ZUV35:1.000 | 1.000" | 5 lbs. |
| ZUV35:1.062 | 1.062" | 4-7/8 lbs. |
| ZUV35:1.125 | 1.125" | 4-7/8 lbs. |
| ZUV35:1.250 | 1.250" | 4-3/4 lbs. |
| ZUV35:1.312 | 1.312" | 4-5/8 lbs. |
| ZUV35:1.375 | 1.375" | 4-1/2 lbs. |
| ZUV35:1.438 | 1.438" | 4-1/2 lbs. |
| ZUV35:1.500 | 1.500" | 4-3/8 lbs. |
| ZUV35:1.625 | 1.625" | 4-1/4 lbs. |
| ZUV35:1.688 | 1.688" | 4-1/8 lbs. |
| ZUV35:1.750 | 1.750" | 4 lbs. |
| ZUV35:1.812 | 1.812" | 4 lbs. |
| ZUV35:1.875 | 1.875" | 3-7/8 lbs. |
| ZUV35:2.000 | 2.000" | 3-5/8 lbs. |
| ZUV35:2.062 | 2.062" | 3-5/8 lbs. |
| ZUV35:2.125 | 2.125" | 3-1/2 lbs. |
| ZUV35:2.250 | 2.250" | 3-1/4 lbs. |
| ZUV35:2.312 | 2.312" | 3 lbs. |
| ZUV35:2.375 | 2.375" | 3 lbs. |
| ZUV35:2.500 | 2.500" | 2-3/4 lbs. |
| ZUV35:2.625 | 2.625" | 2-3/8 lbs. |
| ZUV35:2.750 | 2.750" | 2-1/8 lbs. |
| ZUV35:2.875 | 2.875" | 1-7/8 lbs. |
| ZUV35:3.000 | 3.000" | 1-1/2 lbs. |
| ZUV35:3.125 | 3.125" | 1 lb. |
| ZUV35:3.250 | 3.250" | 3/4 lb. |
| ZV55-54 VISE BUSHINGS | | |
| ZUV55-35A (adaptor bushings) | N/A | 8-1/8 lbs. |
| ZUV55:3.000 | 3.000" | 8-3/4 lbs. |
| ZUV55:3.125 | 3.125" | 8-1/2 lbs. |
| ZUV55:3.250 | 3.250" | 8-1/8 lbs. |
| ZUV55:3.375 | 3.375" | 7-3/4 lbs. |
| ZUV55:3.500 | 3.500" | 7-3/8 lbs. |
| ZUV55:3.625 | 3.625" | 7-1/8 lbs. |
| ZUV55:3.750 | 3.750" | 6-3/4 lbs. |
| ZUV55:4.000 | 4.000" | 6 lbs. |
| ZUV55:4.125 | 4.125" | 5-5/8 lbs. |
| ZUV55:4.250 | 4.250" | 5-1/8 lbs. |
| ZUV55:4.500 | 4.500" | 4-1/4 lbs. |
| ZUV55:4.750 | 4.750" | 3-1/4 lbs. |
| ZUV55:4.775 | 4.775" | 2-3/4 lbs. |
| ZUV55:5.000 | 5.000" | 2-1/4 lbs. |
| ZUV55:5.250 | 5.250" | 1-1/4 lbs. |

SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**

TITAN VALVE CAGE WRENCH



TITAN VALVE CAGE WRENCHES offer a safe and effective method of making up or breaking out valve cages.

| CATALOG NO. | LENGTH | SIZE OF CAGE | WEIGHT |
|-------------|--------|----------------------------|------------|
| ZWV1 | 14" | 1-1/16", 1-1/4", 1-1/2" | 2-1/8 lbs. |
| ZWV2 | 17" | 1-1/2", 1-3/4" | 2-7/8 lbs. |
| ZWV3 | 23" | 2", 2-1/4", 2-1/2", 2-3/4" | 4-1/2 lbs. |
| ZWV4 | 29" | over 2-3/4" | 8-3/8 lbs. |

WARNING! Protect yourself and others from SERIOUS INJURY! Never use a "cheater" or other means to extend handle! If wrench slips you can be hurt or injure other workers!

THREAD CUTTER



Gearech handles the Ridgid line of special API hand threading die heads, replacement dies and Ridgid ratchet handles for cutting modified API line pipe threads on pump valve rods.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|--|------------|
| ZD375 | 3/8" Die Head Complete w / Hi-Speed Steel Dies to cut Modified API Line Pipe Thread on 11/16" O.D. Rods | 1-3/4 lbs. |
| ZD500 | 1/2" Die Head Complete w / Hi-Speed Steel Dies to cut Modified API Line Pipe Thread on 7/8" O.D. Rods | 3 lbs. |
| ZD750 | 3/4" Die Head Complete w / Hi-Speed Steel Dies to cut Modified API Line Pipe Thread on 1-1/16" O.D. Rods | 2-7/8 lbs. |
| ZD375-1* | 3/8" Hi-Speed Steel Dies ONLY (Set of 4) | 2-1/2 ozs. |
| ZD500-1* | 1/2" Hi-Speed Steel Dies ONLY (Set of 4) | 5 ozs. |
| ZD750-1* | 3/4" Hi-Speed Steel Dies ONLY (Set of 4) | 5 ozs. |
| ZD00-R | RIDGID Ratchet Handle Complete (22" long) | 3-5/8 lbs. |

*Dies fit 00R API Die Head.

PETOL SWAB TUBE



The PETOL SWAB TUBE is made of quality aluminum and is available in 5 foot lengths which can be joined together to achieve desired lengths. There is a choice of either a swab tube knob handle or a swab tube tee handle, both of which are aluminum and 3/8" NPT.

PETOL SWAB TUBE HEADS are made from bronze which reduces the hazard of sparking and helps prevent the pump barrel from being marred.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|---|------------|
| ZZ71-1612 | PETOL Swab Tube Head - Bronze - 1" x 12" Long | 1-1/8 lbs. |
| ZZ71-2412 | PETOL Swab Tube Head - Bronze - 1-1/2" x 12" Long | 1-5/8 lbs. |
| ZZ71-3212 | PETOL Swab Tube Head - Bronze - 2" x 12" Long | 2 lbs. |
| ZZ71-4412 | PETOL Swab Tube Head - Bronze - 2-3/4" x 12" Long | 2 lbs. |
| ZZ71-6012 | PETOL Swab Tube Head - Bronze - 3-3/4" x 12" Long | 2-1/2 lbs. |
| ZZ73-K38NPT | PETOL Swab Tube Knob Handle - Aluminum - 3/8" NPT | 8 ozs. |
| ZZ73-T38NPT | PETOL Swab Tube Tee Handle - Aluminum - 3/8" NPT | 8 ozs. |
| ZZ70-1405 | PETOL Swab Tube - Aluminum - 5 ft. Long | 1-1/2 lbs. |

PETOL VEE SADDLE



PETOL VEE SADDLES are available for Pump Bench, Sliding Socket Plate, Extension Stand and Pump Support applications.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|--|------------|
| ZSV2422-3AH-BR | PETOL Pump Support Adjustable Vee Saddle - Heavy Duty - Bronze | 4-3/8 lbs. |
| ZSV60-3A-AL | PETOL Adjustable Vee Saddle - Aluminum | 1 lb. |
| ZSV60-3A-BR | PETOL Adjustable Vee Saddle - Bronze | 2 lbs. |

PETOL SLIDING SOCKET PLATE



ZNP6060-20RCL

PETOL SLIDING SOCKET PLATES are used with all PETOL Pump Shop Benches. They enable the worker to place PETOL Platerenches up and down the pump, adding stability and ease in making up or breaking out particular pump sections. The PETOL Sliding Socket Plate is available with either 1-1/4" or 1-1/2" sockets.

| CATALOG NO. | SOCKET SIZE & PLACEMENT | WEIGHT |
|----------------|---|-------------|
| ZNP6060-20C | 1-1/4" Holes – Center ONLY | 6-1/4 lbs. |
| ZNP6060-20RCL | 1-1/4" Holes – Right - Center - Left | 9-1/8 lbs. |
| ZNP60602024RCL | 1-1/4" & 1-1/2" Holes – Right - Center - Left | 13-1/4 lbs. |
| ZNP6060-24RCL | 1-1/2" Holes – Right - Center - Left | 9-5/8 lbs. |

PUMP SUPPORT VISE



PUMP SUPPORT VISES are an open front vise with a special attachment so the vise can be affixed to the PETOL Pump Support.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|---------------|--|-------------|
| ZR2422-15-21 | Pump Support Vise - #21 Ridgid - 1/8" – 2" | 8 lbs. |
| ZR2422-15-22 | Pump Support Vise - #22 Ridgid - 1/8" – 2-1/2" | 12-1/8 lbs. |
| ZR2422-15-121 | Pump Support Vise Plate ONLY for #21 Ridgid | 3-1/2 lbs. |
| ZR2422-15-122 | Pump Support Vise Plate ONLY for #22 Ridgid | 3-3/4 lbs. |

PETOL BENCH SADDLE CLAMP



The PETOL BENCH SADDLE CLAMP is designed to assure that the plunger will remain seated in the bench Vee Saddle while sections or valve cages are being made up or broken out.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|--|------------|
| ZSC42S | PETOL Bench Saddle Clamp - Swivel Type | 2-3/4 lbs. |

PETOL ALIGNING CLAMP



PETOL ALIGNING CLAMPS are designed so that plunger sections can be aligned to precise tolerances to make the job of fitting the plunger tube much quicker and easier.

| CATALOG NO. | CAPACITY | WEIGHT |
|-------------|---------------------------|--------|
| ZSA214 | 7/8" O.D. – 2-1/4" O.D. | 2 lbs. |
| ZSA234 | 1" O.D. – 2-3/4" O.D. | 3 lbs. |
| ZSA334 | 1-1/4" O.D. – 3-3/4" O.D. | 5 lbs. |

PETOL WRENCH RACK



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|---|--------|
| ZNW100-20 | PETOL Wrench Rack w / Screws - 1-1/4" Holes | 3 lbs. |
| ZNW100-24 | PETOL Wrench Rack w / Screws - 1-1/2" Holes | 3 lbs. |

PETOL BUSHING RACK



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|--|------------|
| ZNU35-18-3 | PETOL Surgrip Friction Vise Bushing Rack | 12 ozs. |
| ZNU55-18-4 | PETOL Surgrip Friction Vise Bushing Rack | 1-7/8 lbs. |

PETOL PUMP SUPPORT SUSAN



The PETOL PUMP SUPPORT SUSAN is mounted on the PETOL Pump Support as a tool holder.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|--------------------------|------------|
| ZP2422-7 | PETOL Pump Support Susan | 1-1/4 lbs. |

PETOL OIL CAN HOLDER



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|---|------------|
| ZNO1218-90F | PETOL Oil Can Holder - w / Bolt & Nut | 11 ozs. |
| ZNO1626-91 | PETOL Lubricant Holder - w / Bolt & Nut | 1-1/8 lbs. |

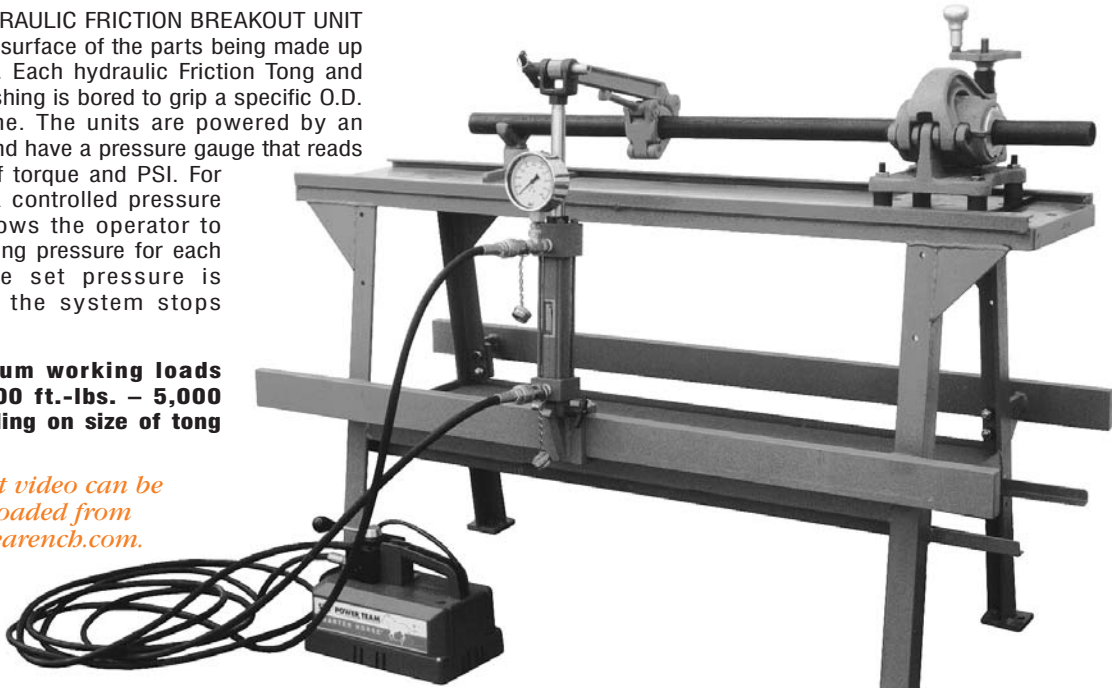
**PETOL
FRICTION BREAKOUT
UNITS**

PETOL HYDRAULIC FRICTION BREAKOUT UNIT

The PETOL HYDRAULIC FRICTION BREAKOUT UNIT will not mar the surface of the parts being made up and broken out. Each hydraulic Friction Tong and Surgrip Vise Bushing is bored to grip a specific O.D. by friction alone. The units are powered by an electric motor and have a pressure gauge that reads out in ft.-lbs. of torque and PSI. For added safety, a controlled pressure relief valve allows the operator to adjust the working pressure for each job. When the set pressure is accomplished the system stops torquing.

NOTE: Maximum working loads range from 500 ft.-lbs. – 5,000 ft.-lbs. depending on size of tong being used.

A product video can be downloaded from www.gearench.com.



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|---------------------------------------|----------|
| ZB1260U* | PETOL Hydraulic Pump Bench - 32" High | 300 lbs. |
| UHCN-ZB-E** | Hydraulic Console for Pump Bench | 33 lbs. |
| ZI1260-7 | PETOL Bench Installation Kit | 1 lb. |

* INCLUDES CYLINDER ASSEMBLY.
** INCLUDES ELECTRIC MOTOR AND HOSE ASSEMBLIES.

WARNING!

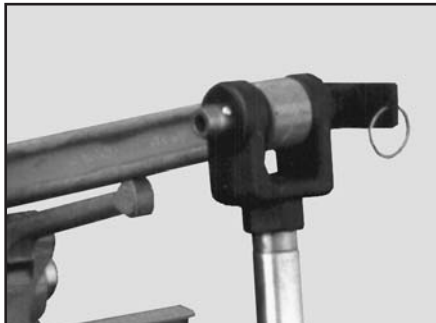
Do Not Exceed Maximum Working Load.
Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

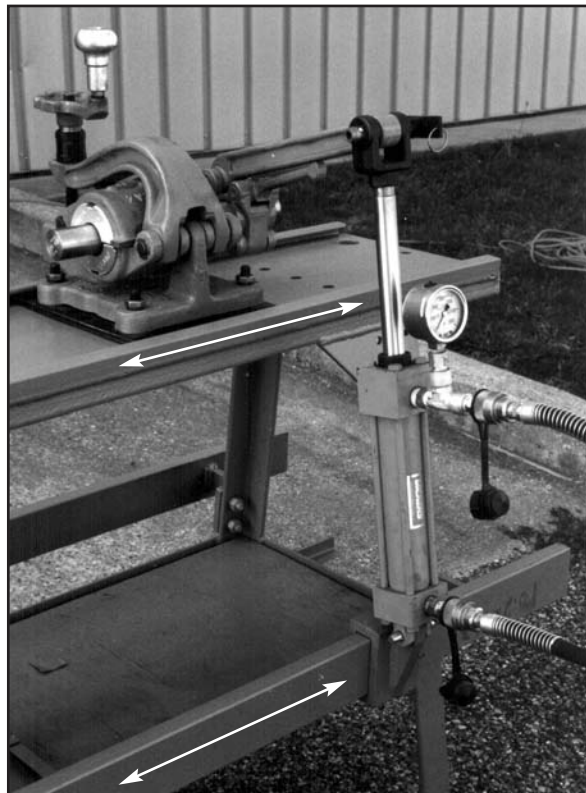
Do not operate without a manual.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

The PETOL SURGRIP FRICTION VISE and hydraulic cylinder will slide the entire length of the PETOL Hydraulic Pump Bench to grip different areas on the workpiece and change from the makeup to breakout position.



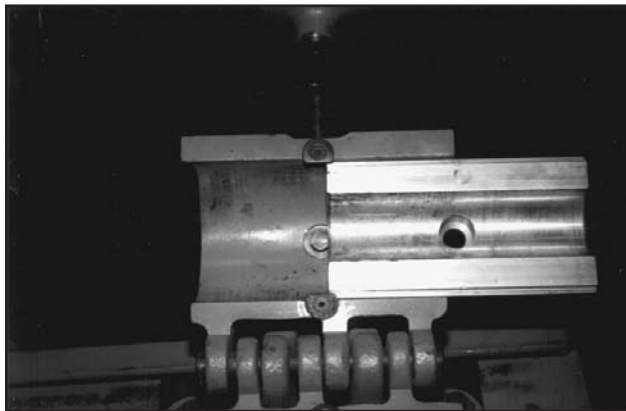
The PETOL HYDRAULIC FRICTION TONGS have perfect ratcheting action. A quick release pin enables the operator to quickly change out sizes.



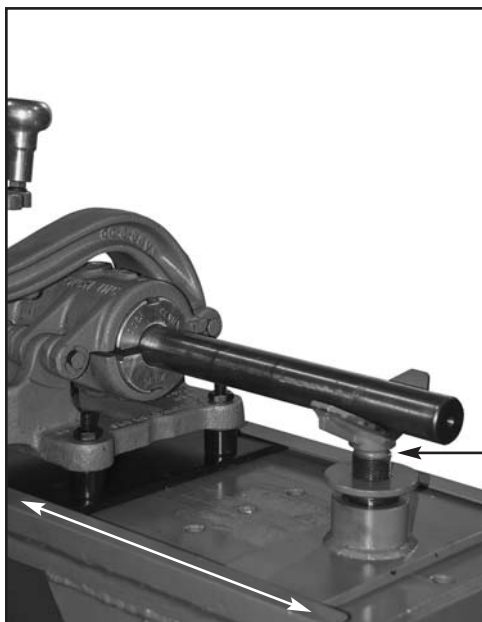
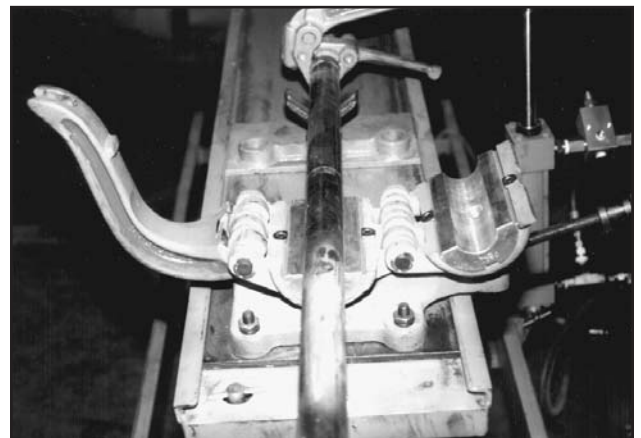
PETOL HYDRAULIC FRICTION BREAKOUT UNIT



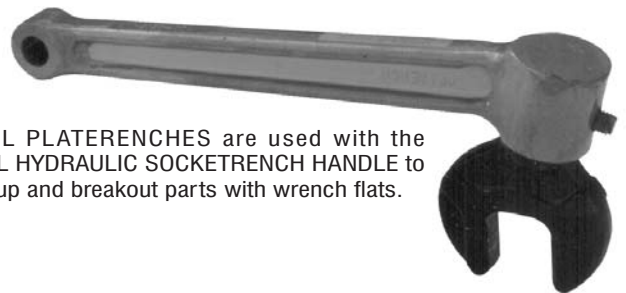
Units are furnished with a pressure gauge that reads out in ft.-lbs. of torque and PSI.



PETOL SURGRIP VISE BUSHINGS are held in place by a spring loaded plunger for quick change out.



The PETOL BENCH SADDLE offers additional support for the work piece. The height of the bench saddle is adjustable, and it can be moved the entire length of the bench.



PETOL PLATERENCHES are used with the PETOL HYDRAULIC SOCKETRENCH HANDLE to make up and breakout parts with wrench flats.

PETOL HYDRAULIC FRICTION BREAKOUT UNIT — Tools & Parts

PETOL HYDRAULIC SURGRIP FRICTION TONGS



| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD |
|---------------------|--------|----------------|-------------|----------------------|
| ZT1:0.625U | 0.625" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.688U | 0.688" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.750U | 0.750" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.812U | 0.812" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.875U | 0.875" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.938U | 0.938" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:0.969U | 0.969" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.000U | 1.000" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.031U | 1.031" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.062U | 1.062" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.125U | 1.125" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.138U | 1.138" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.188U | 1.188" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT1:1.250U | 1.250" | 2.25" | 6-3/8 lbs. | 500 ft.-lbs. |
| ZT2:1.312U | 1.312" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT2:1.438U | 1.438" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT2:1.500U | 1.500" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT2:1.625U | 1.625" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT2:1.688U | 1.688" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT2:1.750U | 1.750" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT3:1.625U | 1.625" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| (for rod couplings) | | | | |
| ZT3:1.750U | 1.750" | 2.50" | 9 lbs. | 1,200 ft.-lbs. |
| ZT3:1.812U | 1.812" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:1.875U | 1.875" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:1.938U | 1.938" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |

| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|--------|----------------|-------------|----------------------|
| ZT3:2.000U | 2.000" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.062U | 2.062" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.125U | 2.125" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.188U | 2.188" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.200U | 2.200" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.250U | 2.250" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.302U | 2.302" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.312U | 2.312" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT3:2.375U | 2.375" | 2.50" | 10-1/2 lbs. | 2,300 ft.-lbs. |
| ZT4:2.375U | 2.375" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.500U | 2.500" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.562U | 2.562" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.688U | 2.688" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.750U | 2.750" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.812U | 2.812" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT4:2.875U | 2.875" | 3.00" | 15-1/4 lbs. | 3,000 ft.-lbs. |
| ZT5:3.000U | 3.000" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.062U | 3.062" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.125U | 3.125" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.193U | 3.193" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.200U | 3.200" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.250U | 3.250" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.375U | 3.375" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.500U | 3.500" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.625U | 3.625" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.688U | 3.688" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.715U | 3.715" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.750U | 3.750" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:3.875U | 3.875" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |
| ZT5:4.000U* | 4.000" | 3.50" | 37-1/2 lbs. | 4,500 ft.-lbs. |

SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**
 *FOR SIZES LARGER THAN 4.000", SEE PETOL HYDRAULIC FRICTION TONGS W / CHAIN.

WARNING!

Do Not Exceed Maximum Working Load.
 Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Do not operate without a manual.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

PETOL HYDRAULIC FRICTION TONGS W/CHAIN



| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | *MAXIMUM WORKING LOAD |
|-------------|--------|----------------|-------------|-----------------------|
| FA3:3.000U | 3.000" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA3:3.062U | 3.062" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA3:3.250U | 3.250" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |

| CATALOG NO. | O.D. | GRIPPING WIDTH | WEIGHT | *MAXIMUM WORKING LOAD |
|-------------|--------|----------------|-------------|-----------------------|
| FA3:3.500U | 3.500" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA3:3.625U | 3.625" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA3:3.750U | 3.750" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA3:4.000U | 4.000" | 4.31" | 30-1/2 lbs. | 10,000 ft.-lbs. |
| FA4:4.000U | 4.000" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |
| FA4:4.250U | 4.250" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |
| FA4:4.500U | 4.500" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |
| FA4:4.750U | 4.750" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |
| FA4:5.000U | 5.000" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |
| FA4:5.375U | 5.375" | 4.31" | 40 lbs. | 12,500 ft.-lbs. |

SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**
 * MAXIMUM WORKING LOAD OF THE FRICTION BREAKOUT UNIT HYDRAULIC SYSTEM IS 5,000 FT.-LBS.

WARNING!

Do Not Exceed Maximum Working Load.
 Overloading may result in injury or death.

Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

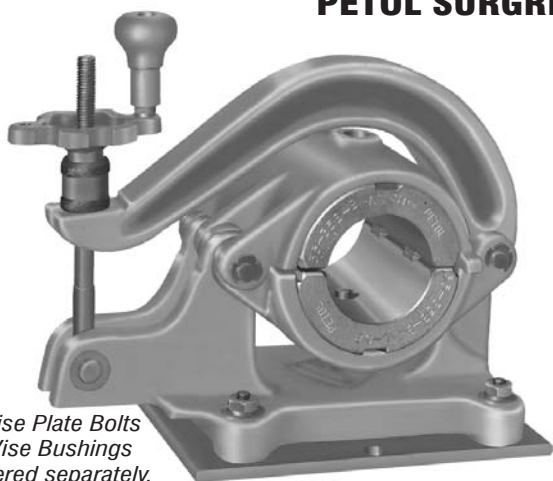
Read Safe Practices & Procedures Manual prior to operation.

Do not operate without a manual.

Follow OSHA, NSC, etc. standards, safe practices, and procedures.

PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.

PETOL SURGRIP FRICTION VISE



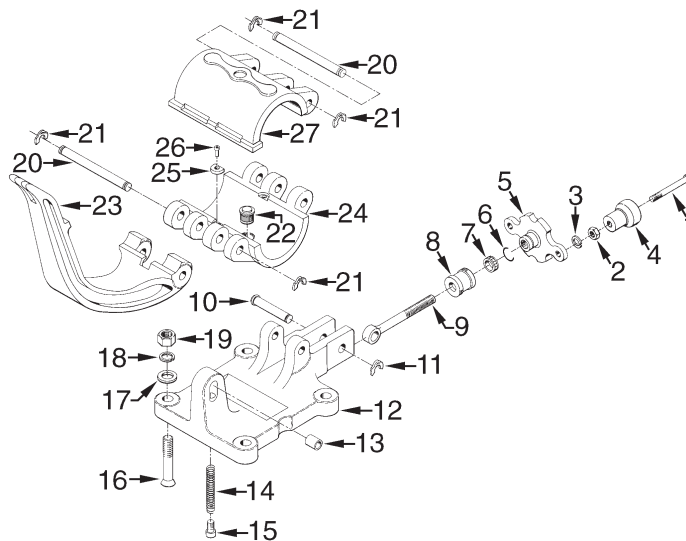
Note:
Vise Plate, Vise Plate Bolts
& Nuts and Vise Bushings
must be ordered separately.

The ZV55-54 PETOL Surgrip Friction Vise can be fitted with special adaptor bushings enabling it to handle all the smaller O.D.'s of the ZV35-52.

| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|----------------|---|-------------|
| ZV35-52 | PETOL Surgrip Friction Vise w / 2" Nut | 43 lbs. |
| ZV35-54 | PETOL Surgrip Friction Vise w / 4" Nut | 44 lbs. |
| ZV35-1 | PETOL Surgrip Friction Vise Plate | 9-1/4 lbs. |
| HB64 | PETOL Surgrip Friction Vise Plate Bolt & Nut Assembly (4 req'd. per vise) | 2 ozs. |
| ZV35-1-1 | Spacer (4 req'd. per vise) | 2 ozs. |
| HP302 | PETOL Surgrip Friction Vise Plate Lock Pin | 4 ozs. |
| ZV55-54 | PETOL Surgrip Friction Vise w / 4" Nut | 68 lbs. |
| ZV55-1 | PETOL Surgrip Friction Vise Plate | 10-1/4 lbs. |
| HB39 | PETOL Surgrip Friction Vise Plate Bolt & Nut Assembly (4 req'd. per vise) | 2 ozs. |
| HP302 | PETOL Surgrip Friction Vise Plate Lock Pin | 4 ozs. |
| ZUV55-35A | PETOL Surgrip Friction Vise Adaptor Bushings (includes 2 ea. ZUV55-35B-8) | 8-1/8 lbs. |
| ZUV55-35B-8 | PETOL Surgrip Friction Vise Adaptor Bushing Plunger Assembly | 1-3/4 ozs. |

NOTE: PARTS MAY VARY SLIGHTLY AMONG SIZES. CALL FACTORY FOR DETAILS.

| KEY NO. | ITEM DESCRIPTION | NO. REQ'D. |
|---------------------------------------|---|------------|
| WISE BALL BEARING NUT ASSEMBLY | | |
| 1,2,3 | WISE NUT HANDLE BOLT , NUT, & LOCK WASHER | 1 |
| 4 | WISE NUT HANDLE GRIP | 1 |
| 5 | WISE NUT HANDLE | 1 |
| 6 | WISE NUT CLIP RING | 1 |
| 7 | WISE NUT BEARING COMPLETE | 1 |
| 8 | WISE NUT SLEEVE | 1 |
| 9 | WISE NUT CLAMPING SCREW | 1 |
| 10,11 | WISE BASE CLAMPING SCREW RIVET W / KLIPRING | 1 |
| 12 | WISE BASE | 1 |
| 13 | WISE BASE BUSHING | 1 |
| 14 | WISE BASE SPRING | 1 |
| 15 | WISE BASE SET SCREW | 1 |
| 16,17,18,19 | PLATE BOLT & NUT ASSEMBLY | 4 |
| 20,21 | WISE JAW RIVET W / KLIPRINGS | 2 |
| 22 | WISE BUSHING PLUNGER ASSEMBLY | 2 |
| 23 | WISE CLAMPING ARM | 1 |
| 24 | WISE LOWER JAW | 1 |
| 25 | WISE BUSHING KEY | 4 |
| 26 | WISE BUSHING KEY SCREW | 4 |
| 27 | WISE UPPER JAW | 1 |



PETOL SURGRIP FRICTION VISE BUSHINGS

| CATALOG NO. | O.D. | WEIGHT |
|--------------------------------------|--------|------------|
| ZV35-52/ZV35-54 VISE BUSHINGS | | |
| ZUV35:0.625 | 0.625" | 5-1/4 lbs. |
| ZUV35:0.688 | 0.688" | 5-1/8 lbs. |
| ZUV35:0.875 | 0.875" | 5 lbs. |
| ZUV35:1.000 | 1.000" | 5 lbs. |
| ZUV35:1.062 | 1.062" | 4-7/8 lbs. |
| ZUV35:1.125 | 1.125" | 4-7/8 lbs. |
| ZUV35:1.250 | 1.250" | 4-3/4 lbs. |
| ZUV35:1.312 | 1.312" | 4-5/8 lbs. |
| ZUV35:1.438 | 1.438" | 4-1/2 lbs. |
| ZUV35:1.500 | 1.500" | 4-3/8 lbs. |
| ZUV35:1.625 | 1.625" | 4-1/4 lbs. |
| ZUV35:1.688 | 1.688" | 4-1/8 lbs. |
| ZUV35:1.750 | 1.750" | 4 lbs. |
| ZUV35:1.812 | 1.812" | 4 lbs. |
| ZUV35:1.875 | 1.875" | 3-7/8 lbs. |
| ZUV35:2.000 | 2.000" | 3-5/8 lbs. |
| ZUV35:2.062 | 2.062" | 3-5/8 lbs. |
| ZUV35:2.125 | 2.125" | 3-1/2 lbs. |
| ZUV35:2.250 | 2.250" | 3-1/4 lbs. |
| ZUV35:2.312 | 2.312" | 3 lbs. |
| ZUV35:2.375 | 2.375" | 3 lbs. |

| CATALOG NO. | O.D. | WEIGHT |
|------------------------------|--------|------------|
| ZUV35:2.500 | 2.500" | 2-3/4 lbs. |
| ZUV35:2.625 | 2.625" | 2-3/8 lbs. |
| ZUV35:2.750 | 2.750" | 2-1/8 lbs. |
| ZUV35:2.875 | 2.875" | 1-7/8 lbs. |
| ZUV35:3.000 | 3.000" | 1-1/2 lbs. |
| ZUV35:3.125 | 3.125" | 1 lb. |
| ZUV35:3.250 | 3.250" | 3/4 lb. |
| ZV55-54 VISE BUSHINGS | | |
| ZUV55-35A (adaptor bushings) | N/A | 8-1/8 lbs. |
| ZUV55:3.000 | 3.000" | 8-3/4 lbs. |
| ZUV55:3.125 | 3.125" | 8-1/2 lbs. |
| ZUV55:3.250 | 3.250" | 8-1/8 lbs. |
| ZUV55:3.500 | 3.500" | 7-3/8 lbs. |
| ZUV55:3.625 | 3.625" | 7-1/8 lbs. |
| ZUV55:3.750 | 3.750" | 6-3/4 lbs. |
| ZUV55:4.000 | 4.000" | 6 lbs. |
| ZUV55:4.250 | 4.250" | 5-1/8 lbs. |
| ZUV55:4.500 | 4.500" | 4-1/4 lbs. |
| ZUV55:5.000 | 5.000" | 2-1/4 lbs. |
| ZUV55:5.250 | 5.250" | 1-1/4 lbs. |

SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**

**PETOL
HYDRAULIC SOCKETRENCH HANDLE**



| CATALOG NO. | SOCKET SIZE | WEIGHT |
|-------------|-------------|------------|
| ZWH2026-00U | 1-1/4" | 6-1/8 lbs. |

NOTE: MAXIMUM WORKING LOADS RANGE FROM 700 FT.-LBS. TO 2000 FT.-LBS. DEPENDING ON WRENCH HEAD BEING USED. SEE TABLE BELOW.

WARNING!

Do Not Exceed Maximum Working Load. Overloading may result in injury or death. Always use a load cell or other calibrated indicating device to monitor the line pull on the tong to avoid overload.

Do not operate without a manual. Follow OSHA, NSC, etc. standards, safe practices, and procedures.

PETOL BENCH SADDLE



| CATALOG NO. | ITEM DESCRIPTION | WEIGHT |
|-------------|--------------------|------------|
| ZSV55 | PETOL Bench Saddle | 8-5/8 lbs. |

PETOL PLATERENCH



| CATALOG NO. | STEM SIZE | WRENCH SIZE* | WEIGHT | MAXIMUM WORKING LOAD |
|-------------|-----------|--------------|------------|----------------------|
| ZWP1320 | 1-1/4" | 13/16" | 1-5/8 lbs. | 700 ft.-lbs. |
| ZWP1420 | 1-1/4" | 7/8" | 1-5/8 lbs. | 700 ft.-lbs. |
| ZWP1620 | 1-1/4" | 1" | 1-1/2 lbs. | 700 ft.-lbs. |
| ZWP1720 | 1-1/4" | 1-1/16" | 1-1/2 lbs. | 700 ft.-lbs. |
| ZWP1920 | 1-1/4" | 1-3/16" | 1-1/2 lbs. | 700 ft.-lbs. |
| ZWP2020 | 1-1/4" | 1-1/4" | 1-1/2 lbs. | 700 ft.-lbs. |
| ZWP2120 | 1-1/4" | 1-5/16" | 1-1/2 lbs. | 1,000 ft.-lbs. |
| ZWP2220 | 1-1/4" | 1-3/8" | 1-1/2 lbs. | 1,000 ft.-lbs. |
| ZWP2420 | 1-1/4" | 1-1/2" | 2-1/4 lbs. | 1,000 ft.-lbs. |
| ZWP2620 | 1-1/4" | 1-5/8" | 2-1/8 lbs. | 1,000 ft.-lbs. |
| ZWP2720 | 1-1/4" | 1-11/16" | 2-1/8 lbs. | 1,000 ft.-lbs. |
| ZWP2820 | 1-1/4" | 1-3/4" | 2-1/8 lbs. | 1,000 ft.-lbs. |
| ZWP3020 | 1-1/4" | 1-7/8" | 2 lbs. | 1,000 ft.-lbs. |
| ZWP3220 | 1-1/4" | 2" | 2-1/2 lbs. | 1,000 ft.-lbs. |
| ZWP3520 | 1-1/4" | 2-3/16" | 3-1/8 lbs. | 1,500 ft.-lbs. |
| ZWP3620 | 1-1/4" | 2-1/4" | 3-1/8 lbs. | 1,500 ft.-lbs. |
| ZWP3820 | 1-1/4" | 2-3/8" | 4-5/8 lbs. | 2,000 ft.-lbs. |

*SPECIAL SIZES AVAILABLE UPON REQUEST. **SPECIAL SIZES ARE NON-RETURNABLE.**

**TORQUE TABLES
&
CHAIN SELECTION GUIDES**

SCT614H PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|--------------------|---------|----------------------|
| MEDIUM-DUTY | | |
| SCTB614H-0600M | 6" | 83,500 ft.-lbs. |
| SCTB614H-0612M | 6-1/2" | 84,000 ft.-lbs. |
| SCTB614H-0658M | 6-5/8" | 84,100 ft.-lbs. |
| SCTB614H-0700M | 7" | 84,500 ft.-lbs. |
| SCTB614H-0758M | 7-5/8" | 85,100 ft.-lbs. |
| SCTB614H-0734M | 7-3/4" | 85,300 ft.-lbs. |
| SCTB614H-0800M | 8" | 85,500 ft.-lbs. |
| SCTB614H-0858M | 8-5/8" | 86,100 ft.-lbs. |
| SCTB614H-0900M | 9" | 86,500 ft.-lbs. |
| SCTB614H-0912M | 9-1/2" | 87,000 ft.-lbs. |
| SCTB614H-0958M | 9-5/8" | 87,100 ft.-lbs. |
| SCTB614H-0978M | 9-7/8" | 87,400 ft.-lbs. |
| SCTB614H-1034M | 10-3/4" | 88,300 ft.-lbs. |
| SCTB614H-1134M | 11-3/4" | 89,300 ft.-lbs. |
| SCTB614H-1338M | 13-3/8" | 90,900 ft.-lbs. |
| SCTB614H-1358M | 13-5/8" | 91,100 ft.-lbs. |
| SCTB614H-1400M | 14" | 91,500 ft.-lbs. |
| SCTB614H-1438M | 14-3/8" | 91,900 ft.-lbs. |

HEAVY-DUTY

| | | |
|---------------|---------|------------------|
| SCTB614H-0600 | 6" | 179,500 ft.-lbs. |
| SCTB614H-0612 | 6-1/2" | 180,600 ft.-lbs. |
| SCTB614H-0700 | 7" | 181,700 ft.-lbs. |
| SCTB614H-0758 | 7-5/8" | 183,000 ft.-lbs. |
| SCTB614H-0734 | 7-3/4" | 183,300 ft.-lbs. |
| SCTB614H-0800 | 8" | 183,800 ft.-lbs. |
| SCTB614H-0858 | 8-5/8" | 185,200 ft.-lbs. |
| SCTB614H-0900 | 9" | 186,000 ft.-lbs. |
| SCTB614H-0912 | 9-1/2" | 187,100 ft.-lbs. |
| SCTB614H-0958 | 9-5/8" | 187,300 ft.-lbs. |
| SCTB614H-0978 | 9-7/8" | 187,900 ft.-lbs. |
| SCTB614H-1034 | 10-3/4" | 189,700 ft.-lbs. |
| SCTB614H-1118 | 11-1/8" | 190,500 ft.-lbs. |
| SCTB614H-1134 | 11-3/4" | 191,900 ft.-lbs. |
| SCTB614H-1338 | 13-3/8" | 195,400 ft.-lbs. |
| SCTB614H-1358 | 13-5/8" | 195,900 ft.-lbs. |
| SCTB614H-1400 | 14" | 196,700 ft.-lbs. |
| SCTB614H-1438 | 14-3/8" | 197,500 ft.-lbs. |

SCT1020 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|---------------|---------|----------------------|
| SCTB1020-0958 | 9-5/8" | 49,400 ft.-lbs. |
| SCTB1020-0978 | 9-7/8" | 49,500 ft.-lbs. |
| SCTB1020-1000 | 10" | 49,600 ft.-lbs. |
| SCTB1020-1034 | 10-3/4" | 50,000 ft.-lbs. |
| SCTB1020-1134 | 11-3/4" | 50,500 ft.-lbs. |
| SCTB1020-1178 | 11-7/8" | 50,600 ft.-lbs. |
| SCTB1020-1234 | 12-3/4" | 51,100 ft.-lbs. |
| SCTB1020-1338 | 13-3/8" | 51,400 ft.-lbs. |
| SCTB1020-1358 | 13-5/8" | 51,500 ft.-lbs. |
| SCTB1020-1400 | 14" | 51,700 ft.-lbs. |
| SCTB1020-1600 | 16" | 52,800 ft.-lbs. |
| SCTB1020-1634 | 16-3/4" | 53,200 ft.-lbs. |
| SCTB1020-1700 | 17" | 53,300 ft.-lbs. |
| SCTB1020-1800 | 18" | 53,900 ft.-lbs. |
| SCTB1020-1838 | 18-3/8" | 54,100 ft.-lbs. |
| SCTB1020-1858 | 18-5/8" | 54,200 ft.-lbs. |
| SCTB1020-2000 | 20" | 54,900 ft.-lbs. |

SCT1020H PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|----------------|---------|----------------------|
| SCTB1020H-0958 | 9-5/8" | 70,000 ft.-lbs. |
| SCTB1020H-0978 | 9-7/8" | 70,600 ft.-lbs. |
| SCTB1020H-1000 | 10" | 70,900 ft.-lbs. |
| SCTB1020H-1034 | 10-3/4" | 72,800 ft.-lbs. |

continued

SCT1020H PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|----------------|---------|----------------------|
| SCTB1020H-1134 | 11-3/4" | 75,300 ft.-lbs. |
| SCTB1020H-1214 | 12-1/4" | 76,600 ft.-lbs. |
| SCTB1020H-1338 | 13-3/8" | 79,400 ft.-lbs. |
| SCTB1020H-1358 | 13-5/8" | 80,100 ft.-lbs. |
| SCTB1020H-1400 | 14" | 81,000 ft.-lbs. |
| SCTB1020H-1500 | 15" | 83,500 ft.-lbs. |
| SCTB1020H-1600 | 16" | 86,000 ft.-lbs. |
| SCTB1020H-1800 | 18" | 91,100 ft.-lbs. |
| SCTB1020H-1838 | 18-3/8" | 92,000 ft.-lbs. |
| SCTB1020H-1858 | 18-5/8" | 92,600 ft.-lbs. |
| SCTB1020H-2000 | 20" | 96,100 ft.-lbs. |

SCT2036 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|----------------------|----------|----------------------|
| STANDARD-DUTY | | |
| SCTB2036-18 | 18"* | 69,200 ft.-lbs. |
| SCTB2036-1838 | 18-3/8"* | 69,900 ft.-lbs. |
| SCTB2036-1858 | 18-5/8"* | 70,500 ft.-lbs. |
| SCTB2036-1834 | 18-3/4"* | 70,900 ft.-lbs. |
| SCTB2036-20 | 20" | 73,400 ft.-lbs. |
| SCTB2036-22 | 22" | 77,700 ft.-lbs. |
| SCTB2036-2314 | 23-1/4" | 79,900 ft.-lbs. |
| SCTB2036-24 | 24" | 81,300 ft.-lbs. |
| SCTB2036-26 | 26" | 85,000 ft.-lbs. |
| SCTB2036-28 | 28" | 88,800 ft.-lbs. |
| SCTB2036-29 | 29" | 90,500 ft.-lbs. |
| SCTB2036-30 | 30" | 92,200 ft.-lbs. |
| SCTB2036-32 | 32" | 95,700 ft.-lbs. |
| SCTB2036-3214 | 32-1/4" | 96,000 ft.-lbs. |
| SCTB2036-3212 | 32-1/2" | 96,200 ft.-lbs. |
| SCTB2036-34 | 34" | 98,800 ft.-lbs. |
| SCTB2036-3412 | 34-1/2" | 99,700 ft.-lbs. |
| SCTB2036-36 | 36" | 102,000 ft.-lbs. |
| SCTB2036-38 | 38"* | 105,200 ft.-lbs. |

HEAVY-DUTY

| | | |
|----------------|----------|------------------|
| SCTB2036-18H | 18"* | 105,400 ft.-lbs. |
| SCTB2036-1838H | 18-3/8"* | 106,600 ft.-lbs. |
| SCTB2036-1858H | 18-5/8"* | 107,600 ft.-lbs. |
| SCTB2036-20H | 20" | 111,900 ft.-lbs. |
| SCTB2036-22H | 22" | 118,200 ft.-lbs. |
| SCTB2036-24H | 24" | 123,800 ft.-lbs. |
| SCTB2036-26H | 26" | 129,600 ft.-lbs. |
| SCTB2036-28H | 28" | 135,100 ft.-lbs. |
| SCTB2036-30H | 30" | 140,300 ft.-lbs. |
| SCTB2036-32H | 32" | 145,600 ft.-lbs. |
| SCTB2036-3214H | 32-1/4" | 145,900 ft.-lbs. |
| SCTB2036-3212H | 32-1/2" | 146,700 ft.-lbs. |
| SCTB2036-36H | 36" | 155,000 ft.-lbs. |
| SCTB2036-38H | 38"* | 159,700 ft.-lbs. |

*PETOL Diamond Point Inserts are required to grip these diameters.

SCT3672 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

| CATALOG NO. | O.D. | MAXIMUM WORKING LOAD |
|-------------|------|----------------------|
| SCTB3672-36 | 36" | 111,600 ft.-lbs. |
| SCTB3672-38 | 38" | 115,000 ft.-lbs. |
| SCTB3672-40 | 40" | 117,900 ft.-lbs. |
| SCTB3672-42 | 42" | 120,900 ft.-lbs. |
| SCTB3672-46 | 46" | 126,900 ft.-lbs. |
| SCTB3672-48 | 48" | 130,000 ft.-lbs. |
| SCTB3672-56 | 56" | 141,500 ft.-lbs. |
| SCTB3672-60 | 60" | 146,700 ft.-lbs. |
| SCTB3672-72 | 72" | 163,000 ft.-lbs. |

NOTE: Recommended Operating Temperature for Belts is -94° to 176° F (-70° to 80° C).

LA155-16 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|------------------|----------------------|
| 3-1/2" - 3-7/8" | 11,600 ft.-lbs. |
| 4" - 4-3/8" | 12,500 ft.-lbs. |
| 4-1/2" - 4-7/8" | 13,300 ft.-lbs. |
| 5" - 8-3/8" | 13,800 ft.-lbs. |
| 8-1/2" - 13-7/8" | 14,000 ft.-lbs. |
| 14" - 16" | 14,300 ft.-lbs. |

**LA16H PETOL BULL TONG
(2-2 Chain Combination)**

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 4" - 4-3/8" | 13,500 ft.-lbs. |
| 4-1/2" - 4-7/8" | 14,500 ft.-lbs. |
| 5" - 5-3/8" | 15,400 ft.-lbs. |
| 5-1/2" - 5-7/8" | 16,300 ft.-lbs. |
| 6" - 12-7/8" | 16,900 ft.-lbs. |
| 13" - 16" | 17,300 ft.-lbs. |

**LA16H PETOL BULL TONG
(3-4 Chain Combination)**

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 4" - 4-1/8" | 32,700 ft.-lbs. |
| 4-1/4" - 4-3/8" | 33,800 ft.-lbs. |
| 4-1/2" - 4-5/8" | 35,000 ft.-lbs. |
| 4-3/4" - 4-7/8" | 36,000 ft.-lbs. |
| 5" - 5-1/8" | 37,300 ft.-lbs. |
| 5-1/4" - 5-3/8" | 38,200 ft.-lbs. |
| 5-1/2" - 5-5/8" | 39,400 ft.-lbs. |
| 5-3/4" - 5-7/8" | 40,400 ft.-lbs. |
| 6" - 10-7/8" | 41,000 ft.-lbs. |
| 11" - 14-3/8" | 41,500 ft.-lbs. |
| 14-1/2" - 16" | 42,000 ft.-lbs. |

LA116-C09 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 6" - 6-1/8" | 71,000 ft.-lbs. |
| 6-1/4" - 6-3/8" | 73,000 ft.-lbs. |
| 6-1/2" - 6-5/8" | 75,300 ft.-lbs. |
| 6-3/4" - 6-7/8" | 77,500 ft.-lbs. |
| 7" - 7-1/8" | 78,700 ft.-lbs. |
| 7-1/4" - 7-3/8" | 79,000 ft.-lbs. |
| 7-1/2" - 7-5/8" | 79,300 ft.-lbs. |
| 7-3/4" - 7-7/8" | 79,500 ft.-lbs. |
| 8" - 8-3/8" | 79,900 ft.-lbs. |
| 8-1/2" - 8-7/8" | 80,400 ft.-lbs. |
| 9" - 9-3/8" | 81,000 ft.-lbs. |
| 9-1/2" - 9-7/8" | 81,600 ft.-lbs. |
| 10" - 10-3/8" | 82,200 ft.-lbs. |
| 10-1/2" - 10-7/8" | 82,700 ft.-lbs. |
| 11" - 11-3/8" | 83,300 ft.-lbs. |
| 11-1/2" - 11-7/8" | 83,900 ft.-lbs. |
| 12" - 12-3/8" | 84,500 ft.-lbs. |
| 12-1/2" - 12-7/8" | 85,000 ft.-lbs. |
| 13" - 13-3/8" | 85,700 ft.-lbs. |
| 13-1/2" - 13-7/8" | 86,300 ft.-lbs. |
| 14" - 14-3/8" | 86,900 ft.-lbs. |
| 14-1/2" - 14-7/8" | 87,500 ft.-lbs. |
| 15" - 15-3/8" | 88,100 ft.-lbs. |
| 15-1/2" - 15-7/8" | 88,800 ft.-lbs. |
| 16" - 16-3/8" | 89,400 ft.-lbs. |
| 16-1/2" - 16-7/8" | 90,000 ft.-lbs. |
| 17" | 90,600 ft.-lbs. |

LA116-C18 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|---------------|----------------------|
| 6" - 6-7/8" | 61,800 ft.-lbs. |
| 7" - 7-7/8" | 62,200 ft.-lbs. |
| 8" - 8-7/8" | 62,700 ft.-lbs. |
| 9" - 9-7/8" | 63,100 ft.-lbs. |
| 10" - 10-7/8" | 63,600 ft.-lbs. |
| 11" - 11-7/8" | 64,200 ft.-lbs. |
| 12" - 12-7/8" | 64,700 ft.-lbs. |
| 13" - 13-7/8" | 65,200 ft.-lbs. |
| 14" - 14-7/8" | 65,800 ft.-lbs. |
| 15" - 15-7/8" | 66,300 ft.-lbs. |
| 16" - 16-7/8" | 66,900 ft.-lbs. |
| 17" | 67,500 ft.-lbs. |

LA116-C18 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|---------------|----------------------|
| 6" - 6-7/8" | 61,800 ft.-lbs. |
| 7" - 7-7/8" | 62,200 ft.-lbs. |
| 8" - 8-7/8" | 62,700 ft.-lbs. |
| 9" - 9-7/8" | 63,100 ft.-lbs. |
| 10" - 10-7/8" | 63,600 ft.-lbs. |
| 11" - 11-7/8" | 64,200 ft.-lbs. |
| 12" - 12-7/8" | 64,700 ft.-lbs. |
| 13" - 13-7/8" | 65,200 ft.-lbs. |
| 14" - 14-7/8" | 65,800 ft.-lbs. |
| 15" - 15-7/8" | 66,300 ft.-lbs. |
| 16" - 16-7/8" | 66,900 ft.-lbs. |
| 17" | 67,500 ft.-lbs. |

LA116-23 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 6" - 7-3/8" | 58,300 ft.-lbs. |
| 7-1/2" - 8-7/8" | 58,800 ft.-lbs. |
| 9" - 10-3/8" | 59,300 ft.-lbs. |
| 10-1/2" - 11-3/8" | 59,800 ft.-lbs. |
| 11-1/2" - 12-3/8" | 60,200 ft.-lbs. |
| 12-1/2" - 13-3/8" | 60,600 ft.-lbs. |
| 13-1/2" - 14-3/8" | 61,000 ft.-lbs. |
| 14-1/2" - 15-3/8" | 61,400 ft.-lbs. |
| 15-1/2" - 16-3/8" | 61,800 ft.-lbs. |
| 16-1/2" - 17" | 62,200 ft.-lbs. |

LA116-28 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 6" - 7-7/8" | 56,100 ft.-lbs. |
| 8" - 9-3/8" | 56,500 ft.-lbs. |
| 9-1/2" - 11-3/8" | 56,900 ft.-lbs. |
| 11-1/2" - 12-7/8" | 57,400 ft.-lbs. |
| 13" - 14-3/8" | 57,900 ft.-lbs. |
| 14-1/2" - 15-7/8" | 58,400 ft.-lbs. |
| 16" - 17" | 58,800 ft.-lbs. |

LA116 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 5" - 7-7/8" | 53,700 ft.-lbs. |
| 8" - 10-3/8" | 54,100 ft.-lbs. |
| 10-1/2" - 12-7/8" | 54,500 ft.-lbs. |
| 13" - 14-7/8" | 55,000 ft.-lbs. |
| 15" - 16-3/8" | 55,400 ft.-lbs. |
| 16-1/2" - 17" | 55,800 ft.-lbs. |

LA120 PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|------|----------------------|
|------|----------------------|

SHORT TORQUE ARM CONNECTION

| | |
|-------------|------------------|
| 6" - 6-7/8" | 135,600 ft.-lbs. |
| 7" - 7-7/8" | 151,500 ft.-lbs. |
| 8" - 22" | 155,900 ft.-lbs. |

LONG TORQUE ARM CONNECTION

| | |
|-------------|------------------|
| 6" - 6-7/8" | 131,200 ft.-lbs. |
| 7" - 7-7/8" | 143,900 ft.-lbs. |
| 8" - 22" | 144,800 ft.-lbs. |

LA116H PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|---------------|----------------------|
| 16" - 20-7/8" | 78,500 ft.-lbs. |
| 21" - 24-7/8" | 78,900 ft.-lbs. |
| 25" - 28-7/8" | 79,400 ft.-lbs. |
| 29" - 31-7/8" | 79,900 ft.-lbs. |
| 32" - 34-7/8" | 80,400 ft.-lbs. |
| 35" - 37-7/8" | 80,900 ft.-lbs. |
| 38" - 40" | 81,500 ft.-lbs. |

LA116HX PETOL BULL TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 30-1/8" - 34" | 82,300 ft.-lbs. |
| 34-1/8" - 38" | 81,700 ft.-lbs. |
| 38-1/8" - 42" | 81,100 ft.-lbs. |
| 42-1/8" - 46" | 80,700 ft.-lbs. |
| 46-1/8" - 50" | 80,300 ft.-lbs. |
| 50-1/8" - 56" | 80,000 ft.-lbs. |
| 56-1/8" - 65-7/8" | 79,600 ft.-lbs. |

BA120 PETOL BUKUP TONG

| O.D. | MAXIMUM WORKING LOAD |
|------------------------------------|----------------------|
| SHORT TORQUE ARM CONNECTION | |
| 6" - 6-7/8" | 136,900 ft.-lbs. |
| 7" - 7-7/8" | 139,000 ft.-lbs. |
| 8" - 22" | 140,500 ft.-lbs. |
| LONG TORQUE ARM CONNECTION | |
| 6" - 6-7/8" | 148,000 ft.-lbs. |
| 7" - 7-7/8" | 150,200 ft.-lbs. |
| 8" - 22" | 151,900 ft.-lbs. |

DA1344 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|---------|----------------------|
| 1" - 6" | 5,000 ft.-lbs. |

DA2344-C12 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 2-1/8" - 2-1/4" | 12,400 ft.-lbs. |
| 2-3/8" - 2-5/8" | 12,800 ft.-lbs. |
| 2-3/4" - 3-1/8" | 13,000 ft.-lbs. |
| 3-1/4" - 3-1/2" | 13,200 ft.-lbs. |
| 3-5/8" - 4" | 13,400 ft.-lbs. |
| 4-1/8" - 4-1/2" | 13,600 ft.-lbs. |
| 4-5/8" - 5" | 13,800 ft.-lbs. |

DA2344-L21 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 2-1/8" - 2-3/8" | 11,400 ft.-lbs. |
| 2-1/2" - 3-1/8" | 11,600 ft.-lbs. |
| 3-1/4" - 3-7/8" | 11,800 ft.-lbs. |
| 4" - 5" | 12,000 ft.-lbs. |

DA4174-L08 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 3" - 4-5/8" | 16,900 ft.-lbs. |
| 4-3/4" - 5-7/8" | 17,100 ft.-lbs. |
| 6" - 6-7/8" | 17,300 ft.-lbs. |
| 7" - 8-1/4" | 17,500 ft.-lbs. |

DA4174-C12 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 3" | 18,700 ft.-lbs. |
| 3-3/8" | 19,200 ft.-lbs. |
| 3-1/2" | 19,800 ft.-lbs. |
| 3-5/8" - 3-7/8" | 20,200 ft.-lbs. |
| 4" - 4-3/8" | 20,500 ft.-lbs. |
| 4-1/2" - 4-7/8" | 20,800 ft.-lbs. |
| 5" - 5-3/8" | 21,200 ft.-lbs. |
| 5-1/2" - 5-7/8" | 21,600 ft.-lbs. |
| 6" - 6-3/8" | 21,900 ft.-lbs. |
| 6-1/2" - 6-7/8" | 22,300 ft.-lbs. |
| 7" - 7-3/8" | 22,600 ft.-lbs. |
| 7-1/2" - 7-7/8" | 23,000 ft.-lbs. |
| 8" - 8-1/4" | 23,300 ft.-lbs. |

DA4174-L21 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 3" - 3-3/8" | 9,400 ft.-lbs. |
| 3-1/2" - 3-5/8" | 9,700 ft.-lbs. |
| 3-3/4" - 3-7/8" | 10,100 ft.-lbs. |
| 4" - 4-1/8" | 10,400 ft.-lbs. |
| 4-1/4" - 4-3/8" | 10,600 ft.-lbs. |
| 4-1/2" - 4-7/8" | 10,900 ft.-lbs. |
| 5" - 5-3/8" | 11,300 ft.-lbs. |
| 5-1/2" - 5-7/8" | 11,700 ft.-lbs. |
| 6" - 6-3/8" | 12,100 ft.-lbs. |
| 6-1/2" - 6-7/8" | 12,400 ft.-lbs. |
| 7" - 7-3/8" | 12,700 ft.-lbs. |
| 7-1/2" - 7-7/8" | 13,000 ft.-lbs. |
| 8" - 8-1/4" | 13,200 ft.-lbs. |

DA6184-C10 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 4-1/4" | 26,500 ft.-lbs. |
| 4-5/8" | 27,000 ft.-lbs. |
| 4-3/4" | 27,600 ft.-lbs. |
| 4-7/8" | 28,200 ft.-lbs. |
| 5" | 28,600 ft.-lbs. |
| 5-1/8" | 29,200 ft.-lbs. |
| 5-1/4" | 29,700 ft.-lbs. |
| 5-3/8" | 30,200 ft.-lbs. |
| 5-1/2" | 30,600 ft.-lbs. |
| 5-5/8" | 31,200 ft.-lbs. |
| 5-3/4" | 31,600 ft.-lbs. |
| 5-7/8" | 32,000 ft.-lbs. |
| 6" - 6-1/8" | 32,500 ft.-lbs. |
| 6-1/4" - 6-5/8" | 32,900 ft.-lbs. |
| 6-3/4" - 7-1/8" | 33,400 ft.-lbs. |
| 7-1/4" - 7-5/8" | 33,900 ft.-lbs. |
| 7-3/4" - 8-1/8" | 34,400 ft.-lbs. |
| 8-1/4" - 8-5/8" | 34,900 ft.-lbs. |
| 8-3/4" - 9-1/8" | 35,400 ft.-lbs. |
| 9-1/4" - 9-5/8" | 35,800 ft.-lbs. |
| 9-3/4" - 10-1/8" | 36,300 ft.-lbs. |
| 10-1/4" - 10-5/8" | 36,800 ft.-lbs. |
| 10-3/4" | 37,300 ft.-lbs. |

DA6184-L36 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 4-1/4" - 5-3/8" | 23,700 ft.-lbs. |
| 5-1/2" - 6-3/8" | 24,000 ft.-lbs. |
| 6-1/2" - 7-3/8" | 24,300 ft.-lbs. |
| 7-1/2" - 8-3/8" | 24,600 ft.-lbs. |
| 8-1/2" - 9-3/8" | 24,900 ft.-lbs. |
| 9-1/2" - 10-3/8" | 25,100 ft.-lbs. |
| 10-1/2" - 10-3/4" | 25,400 ft.-lbs. |

DA8184-C09 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 4" - 4-1/8" | 49,300 ft.-lbs. |
| 4-1/4" - 4-3/8" | 52,000 ft.-lbs. |
| 4-1/2" - 4-5/8" | 54,000 ft.-lbs. |
| 4-3/4" - 4-7/8" | 56,000 ft.-lbs. |
| 5" - 5-1/8" | 58,800 ft.-lbs. |
| 5-1/4" - 5-3/8" | 61,000 ft.-lbs. |
| 5-1/2" - 5-5/8" | 63,500 ft.-lbs. |
| 5-3/4" - 5-7/8" | 65,800 ft.-lbs. |
| 6" - 6-1/8" | 68,000 ft.-lbs. |
| 6-1/4" - 6-3/8" | 70,000 ft.-lbs. |
| 6-1/2" - 6-5/8" | 72,600 ft.-lbs. |
| 6-3/4" - 6-7/8" | 75,000 ft.-lbs. |
| 7" - 7-1/8" | 77,000 ft.-lbs. |
| 7-1/4" - 7-3/8" | 79,000 ft.-lbs. |
| 7-1/2" - 7-5/8" | 81,600 ft.-lbs. |
| 7-3/4" - 7-7/8" | 83,500 ft.-lbs. |
| 8" - 8-1/8" | 86,000 ft.-lbs. |
| 8-1/4" - 8-7/8" | 88,500 ft.-lbs. |
| 9" - 9-7/8" | 89,500 ft.-lbs. |
| 10" - 10-7/8" | 90,500 ft.-lbs. |
| 11" - 11-7/8" | 91,800 ft.-lbs. |
| 12" - 12-7/8" | 93,000 ft.-lbs. |
| 13" - 13-7/8" | 94,000 ft.-lbs. |
| 14" | 95,000 ft.-lbs. |

DA8184-C18 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 4" - 4-1/8" | 45,800 ft.-lbs. |
| 4-1/4" - 4-3/8" | 47,000 ft.-lbs. |
| 4-1/2" - 4-5/8" | 49,900 ft.-lbs. |
| 4-3/4" - 4-7/8" | 53,000 ft.-lbs. |
| 5" - 5-1/8" | 54,000 ft.-lbs. |
| 5-1/4" - 5-3/8" | 55,000 ft.-lbs. |
| 5-1/2" - 5-5/8" | 57,900 ft.-lbs. |
| 5-3/4" - 5-7/8" | 59,500 ft.-lbs. |
| 6" - 6-1/8" | 61,800 ft.-lbs. |
| 6-1/4" - 6-3/8" | 63,500 ft.-lbs. |
| 6-1/2" - 6-5/8" | 65,600 ft.-lbs. |
| 6-3/4" - 7-7/8" | 67,000 ft.-lbs. |
| 8" - 8-7/8" | 67,800 ft.-lbs. |
| 9" - 9-7/8" | 68,300 ft.-lbs. |
| 10" - 10-7/8" | 68,800 ft.-lbs. |
| 11" - 11-7/8" | 69,300 ft.-lbs. |
| 12" - 12-7/8" | 69,900 ft.-lbs. |
| 13" - 13-7/8" | 70,400 ft.-lbs. |
| 14" | 70,900 ft.-lbs. |

DA8184-L23 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|------------------|----------------------|
| 4" - 4-1/8" | 44,800 ft.-lbs. |
| 4-1/4" - 4-3/8" | 46,500 ft.-lbs. |
| 4-1/2" - 4-5/8" | 48,800 ft.-lbs. |
| 4-3/4" - 4-7/8" | 50,500 ft.-lbs. |
| 5" - 5-1/8" | 52,700 ft.-lbs. |
| 5-1/4" - 5-3/8" | 54,500 ft.-lbs. |
| 5-1/2" - 5-5/8" | 56,500 ft.-lbs. |
| 5-3/4" - 5-7/8" | 58,300 ft.-lbs. |
| 6" - 6-1/8" | 60,200 ft.-lbs. |
| 6-1/4" - 6-3/8" | 61,700 ft.-lbs. |
| 6-1/2" - 7-7/8" | 62,900 ft.-lbs. |
| 8" - 9-3/8" | 63,400 ft.-lbs. |
| 9-1/2" - 10-7/8" | 63,900 ft.-lbs. |
| 11" - 12-3/8" | 64,500 ft.-lbs. |
| 12-1/2" - 14" | 65,000 ft.-lbs. |

DA8184-L28 PETOL DRILL PIPE TONG

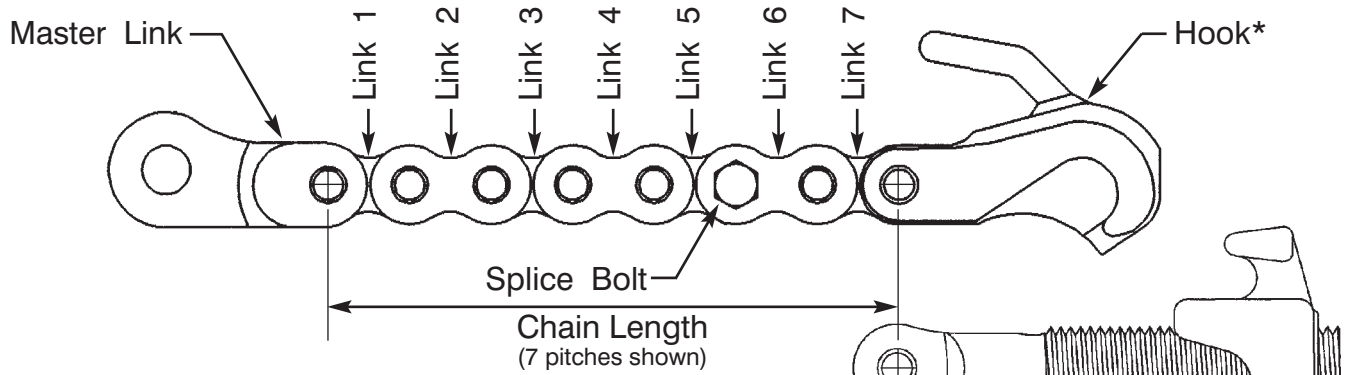
| O.D. | MAXIMUM WORKING LOAD |
|-------------------|----------------------|
| 4" - 4-1/8" | 44,000 ft.-lbs. |
| 4-1/4" - 4-3/8" | 46,000 ft.-lbs. |
| 4-1/2" - 4-5/8" | 48,000 ft.-lbs. |
| 4-3/4" - 4-7/8" | 49,500 ft.-lbs. |
| 5" - 5-1/8" | 51,800 ft.-lbs. |
| 5-1/4" - 5-3/8" | 53,500 ft.-lbs. |
| 5-1/2" - 5-5/8" | 55,500 ft.-lbs. |
| 5-3/4" - 5-7/8" | 57,500 ft.-lbs. |
| 6" - 6-3/8" | 59,000 ft.-lbs. |
| 6-1/2" - 7-7/8" | 60,000 ft.-lbs. |
| 8" - 9-3/8" | 60,500 ft.-lbs. |
| 9-1/2" - 11-3/8" | 60,900 ft.-lbs. |
| 11-1/2" - 12-7/8" | 61,500 ft.-lbs. |
| 13" - 14" | 61,900 ft.-lbs. |

DA8184-L36 PETOL DRILL PIPE TONG

| O.D. | MAXIMUM WORKING LOAD |
|-----------------|----------------------|
| 4" - 4-1/8" | 43,500 ft.-lbs. |
| 4-1/4" - 4-3/8" | 45,200 ft.-lbs. |
| 4-1/2" - 4-5/8" | 47,200 ft.-lbs. |
| 4-3/4" - 4-7/8" | 49,000 ft.-lbs. |
| 5" - 5-1/8" | 50,900 ft.-lbs. |
| 5-1/4" - 5-3/8" | 52,500 ft.-lbs. |
| 5-1/2" - 5-5/8" | 54,400 ft.-lbs. |
| 5-3/4" - 5-7/8" | 56,000 ft.-lbs. |
| 6" - 8-7/8" | 57,300 ft.-lbs. |
| 9" - 12-3/8" | 57,800 ft.-lbs. |
| 12-1/2" - 14" | 58,400 ft.-lbs. |

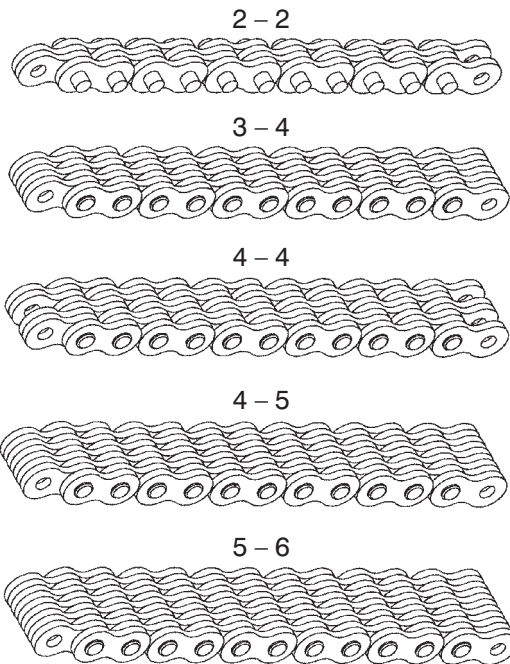
CHAIN IDENTIFICATION GUIDE

CHAIN ASSEMBLY

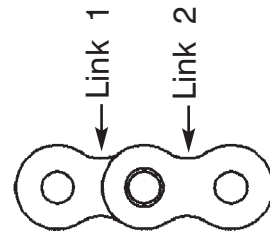


* Chains for Drill Pipe Tong, Friction Tong, Tongvise, and Visetong have a chain screw and nut latching component instead of a chain hook.

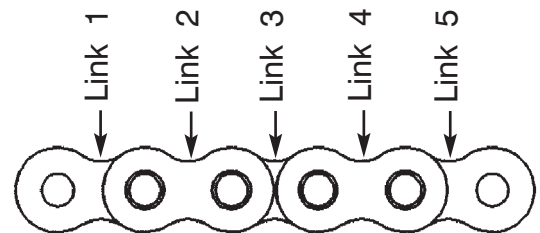
TYPICAL CHAIN COMBINATIONS



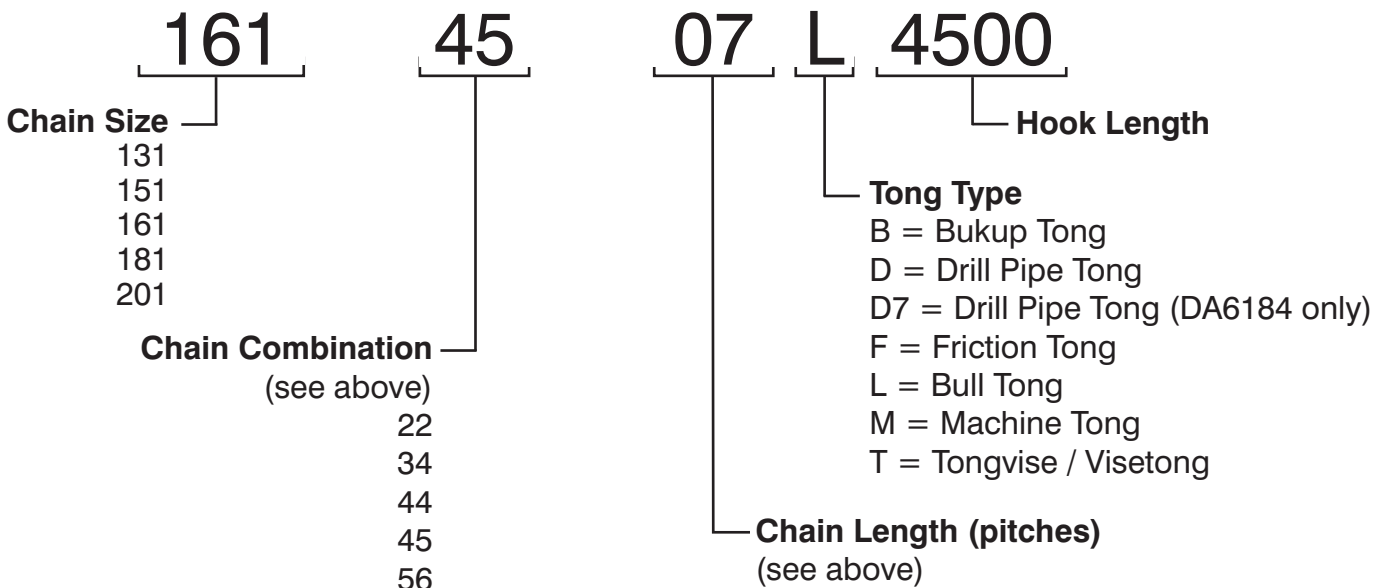
2 LINK SECTION



5 LINK SECTION



THIS IS WHAT A CHAIN PART NUMBER TELLS YOU



TITAN CHAIN TONG (Standard Length Replacement Chain)

| CATALOG NO. | CHAIN LENGTH | PIPE SIZE |
|----------------------|--------------|---------------|
| C112-P (for C11-P) | 15" | 1/8" – 1-1/2" |
| C122-P (for C12-P) | 19" | 1/4" – 2-1/2" |
| C132-P (for C13-P) | 24" | 3/4" – 4" |
| C1352-P (for C135-P) | 32" | 1" – 6" |
| C142-P (for C14-P) | 38" | 1-1/2" – 8" |
| C152-P (for C15-P) | 56" | 2" – 12" |
| C162-P (for C16-P) | 75" | 4" – 18" |

TITAN CHAIN TONGS (Extra Long Replacement Chain)

| CATALOG NO. | CHAIN LENGTH | O.D. |
|-------------------|--------------|--------------------|
| for C11-P | | |
| C112-28-P | 22" | 3/8" – 4-1/2" |
| C112-36-P | 27" | 3/8" – 6-1/4" |
| C112-46-P | 35" | 3/8" – 8-1/2" |
| C112-54-P | 40" | 3/8" – 10-3/4" |
| C112-64-P | 48" | 3/8" – 12-3/4" |
| C112-72-P | 53" | 3/8" – 15" |
| C112-86-P | 63" | 3/8" – 18-1/4" |
| C112-108-P | 79" | 3/8" – 23-1/2" |
| for C12-P | | |
| C122-34-P | 29" | 1/2" – 7-1/4" |
| C122-44-P | 37" | 1/2" – 9" |
| C122-56-P | 47" | 1/2" – 11-3/4" |
| C122-66-P | 55" | 1/2" – 14" |
| C122-78-P | 65" | 1/2" – 17-1/2" |
| C122-100-P | 82" | 1/2" – 24" |
| for C13-P | | |
| C132-36-P | 35" | 1" – 7-1/4" |
| C132-48-P | 47" | 1" – 11" |
| C132-60-P | 58" | 1" – 15" |
| C132-72-P | 69" | 1" – 18" |
| C132-84-P | 80" | 1" – 22" |
| C132-92-P | 88" | 1" – 24-1/2" |
| for C135-P | | |
| C1352-46-P | 48" | 1-3/8" – 11-3/4" |
| C1352-60-P | 62" | 1-3/8" – 15" |
| C1352-76-P | 78" | 1-3/8" – 22" |
| C1352-90-P | 92" | 1-3/8" – 27" |
| C1352-106-P | 108" | 1-3/8" – 32-1/2" |
| C1352-150-P | 152" | 1-3/8" – 46-1/4" |
| for C14-P | | |
| C142-54-P | 56" | 1-15/16" – 15-1/2" |
| C142-72-P | 74" | 1-15/16" – 21-1/4" |
| for C15-P | | |
| C152-52-P | 68" | 2-3/8" – 18-3/4" |
| C152-64-P | 83" | 2-3/8" – 23-5/8" |
| C152-84-P | 108" | 2-3/8" – 31-3/4" |
| for C16-P | | |
| C162-84-P | 146" | 4-1/2" – 42-3/4" |

NOTE: Chain lengths are approximate and include the master link.

TITAN REVERSIBLE CHAIN TONGS (Standard Length Replacement Chain)

| CATALOG NO. | CHAIN LENGTH | PIPE SIZE |
|--------------------|--------------|---------------|
| C276-P (for C27-P) | 19" | 1/4" – 2-1/2" |
| C376-P (for C37-P) | 24" | 3/4" – 4" |
| C476-P (for C47-P) | 31" | 1" – 6" |
| C576-P (for C57-P) | 37" | 1-1/2" – 8" |
| C676-P (for C67-P) | 54" | 2" – 12" |

TITAN REVERSIBLE CHAIN TONGS (Extra Long Replacement Chain)

| CATALOG NO. | CHAIN LENGTH | O.D. |
|------------------|--------------|--------------------|
| for C27-P | | |
| C276-34-P | 28" | 1/2" – 7-1/4" |
| C276-44-P | 37" | 1/2" – 9" |
| C276-56-P | 46" | 1/2" – 11-3/4" |
| C276-66-P | 54" | 1/2" – 14" |
| C276-78-P | 64" | 1/2" – 17-1/2" |
| C276-100-P | 82" | 1/2" – 24" |
| for C37-P | | |
| C376-36-P | 35" | 1" – 7-1/4" |
| C376-48-P | 46" | 1" – 11" |
| C376-60-P | 57" | 1" – 15" |
| C376-72-P | 68" | 1" – 18" |
| C376-84-P | 80" | 1" – 22" |
| for C47-P | | |
| C476-46-P | 47" | 1-3/8" – 11-3/4" |
| C476-60-P | 61" | 1-3/8" – 15" |
| C476-76-P | 77" | 1-3/8" – 22" |
| C476-90-P | 91" | 1-3/8" – 27" |
| C476-106-P | 107" | 1-3/8" – 32-1/2" |
| for C57-P | | |
| C576-54-P | 55" | 1-15/16" – 15-1/2" |
| C576-72-P | 73" | 1-15/16" – 21-1/4" |
| for C67-P | | |
| C676-54-P | 69" | 2-3/8" – 19-1/2" |
| C676-84-P | 107" | 2-3/8" – 31-3/4" |

NOTE: Chain lengths are approximate and include the master link.

BA115H PETOL BUKUP TONG

| CATALOG NO. | O.D. |
|----------------|-----------------|
| 151-45-05B2625 | 2-1/8" – 2-1/2" |
| 151-45-05B3625 | 2-1/2" – 2-7/8" |
| 151-45-05B4250 | 2-3/4" – 3" |
| 151-45-07B2625 | 3" – 3-3/8" |
| 151-45-07B3625 | 3-3/8" – 3-1/2" |
| 151-45-07B4250 | 3-5/8" – 4" |
| 151-45-09B2625 | 4" – 4-1/4" |
| 151-45-09B3625 | 4-3/8" – 4-5/8" |
| 151-45-09B4250 | 4-1/2" – 4-7/8" |
| 151-45-11B2625 | 4-3/4" – 5-1/8" |
| 151-45-11B3625 | 5-1/8" – 5-1/2" |
| 151-45-11B4250 | 5-1/4" – 5-5/8" |
| 151-45-13B2625 | 5-5/8" – 6" |
| 151-45-13B3625 | 6" – 6-1/4" |
| 151-45-13B4250 | 6-1/8" – 6-1/2" |
| 151-45-15B2625 | 6-1/2" – 6-3/4" |
| 151-45-15B3625 | 6-3/4" – 7-1/8" |
| 151-45-15B4250 | 7" – 7-1/4" |
| 151-45-17B2625 | 7-1/4" – 7-5/8" |
| 151-45-17B3625 | 7-5/8" – 8" |

BA116 PETOL BUKUP TONG

| CATALOG NO. | O.D. |
|----------------|-----------------|
| 161-45-07B4500 | 4" – 4-3/8" |
| 161-45-07B5375 | 4" – 4-3/4" |
| 161-45-07B6250 | 4-3/8" – 5-1/8" |
| 161-45-09B4500 | 5" – 5-5/8" |
| 161-45-09B5375 | 5-1/4" – 6" |
| 161-45-09B6250 | 5-5/8" – 6-1/4" |
| 161-45-11B4500 | 6-1/8" – 6-3/4" |
| 161-45-11B5375 | 6-1/2" – 7-1/8" |
| 161-45-11B6250 | 6-3/4" – 7-3/8" |
| 161-45-13B4500 | 7-3/8" – 8" |
| 161-45-13B5375 | 7-5/8" – 8-1/4" |

continued BA116 PETOL BUKUP TONG

| CATALOG NO. | O.D. |
|----------------|-----------------|
| 161-45-13B6250 | 8" - 8-1/2" |
| 161-45-15B4500 | 8-1/2" - 9-1/8" |
| 161-45-15B5375 | 8-3/4" - 9-3/8" |
| 161-45-15B6250 | 9-1/8" - 9-5/8" |
| 161-45-17B4500 | 9-5/8" - 10" |

BA116H PETOL BUKUP TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-07B6250 | 4-1/4" - 5" |
| 161-45-09B4500 | 4-5/8" - 5-5/8" |
| 161-45-09B5375 | 5" - 6" |
| 161-45-09B6250 | 5-1/4" - 6-1/4" |
| 161-45-11B4500 | 5-7/8" - 6-7/8" |
| 161-45-11B5375 | 6-1/4" - 7-1/8" |
| 161-45-11B6250 | 6-5/8" - 7-3/8" |
| 161-45-13B4500 | 7-1/4" - 8" |
| 161-45-13B5375 | 7-1/2" - 8-1/4" |
| 161-45-13B6250 | 7-3/4" - 8-1/2" |
| 161-45-15B4500 | 8-3/8" - 9-1/8" |
| 161-45-15B5375 | 8-5/8" - 9-3/8" |
| 161-45-15B6250 | 9" - 9-5/8" |
| 161-45-17B4500 | 9-1/2" - 10-1/4" |
| 161-45-17B5375 | 9-7/8" - 10-1/2" |
| 161-45-17B6250 | 10-1/8" - 10-3/4" |

BA120 PETOL BUKUP TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 201-56-09B6000 | 6" - 6-7/8" |
| 201-56-09B7750 | 6-5/8" - 7-1/2" |
| 201-56-09B9875 | 7-3/8" - 8-1/4" |
| 201-56-11B6000 | 8" - 8-7/8" |
| 201-56-11B7750 | 8-5/8" - 9-1/2" |
| 201-56-11B9875 | 9-3/8" - 10-1/4" |
| 201-56-13B6000 | 10" - 10-7/8" |
| 201-56-13B7750 | 10-5/8" - 11-1/2" |
| 201-56-13B9875 | 11-3/8" - 12-1/4" |
| 201-56-15B6000 | 12" - 12-7/8" |
| 201-56-15B7750 | 12-5/8" - 13-1/2" |
| 201-56-15B9875 | 13-3/8" - 14-1/8" |
| 201-56-17B6000 | 14" - 14-7/8" |
| 201-56-17B7750 | 14-5/8" - 15-3/8" |
| 201-56-17B9875 | 15-3/8" - 16" |
| 201-56-19B6000 | 16" - 16-3/4" |
| 201-56-19B7750 | 16-1/2" - 17-1/4" |
| 201-56-19B9875 | 17-1/4" - 17-7/8" |
| 201-56-21B6000 | 17-7/8" - 18-5/8" |
| 201-56-21B7750 | 18-1/2" - 19-1/4" |
| 201-56-21B9875 | 19-1/8" - 19-7/8" |
| 201-56-23B6000 | 19-3/4" - 20-1/2" |
| 201-56-23B7750 | 20-3/8" - 21-1/8" |
| 201-56-23B9875 | 21" - 22" |

**LA155-16 PETOL BULL TONG
(2-2 Chain Combination)**

| CATALOG NO. | O.D. |
|-------------|--------------|
| 160-22-33L | 3-1/2" - 16" |

**LA16H PETOL BULL TONG
(2-2 Chain Combination)**

| CATALOG NO. | O.D. |
|-------------|----------|
| 160-22-32L | 4" - 16" |

**LA16H PETOL BULL TONG
(3-4 Chain Combination)**

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-34-05L4500 | 4" - 4-7/8" |
| 161-34-07L4500 | 4-1/8" - 5" |
| 161-34-07L5375 | 4-1/2" - 5-3/8" |
| 161-34-07L6250 | 4-7/8" - 5-3/4" |
| 161-34-09L4500 | 5-3/8" - 6-1/4" |
| 161-34-09L5375 | 5-3/4" - 6-5/8" |
| 161-34-09L6250 | 6-1/8" - 6-3/4" |
| 161-34-11L4500 | 6-5/8" - 7-1/2" |
| 161-34-11L5375 | 7" - 7-7/8" |
| 161-34-11L6250 | 7-1/4" - 8-1/8" |
| 161-34-13L4500 | 7-3/4" - 8-5/8" |
| 161-34-13L5375 | 8-1/8" - 9" |
| 161-34-13L6250 | 8-3/8" - 9-5/8" |
| 161-34-15L4500 | 8-3/4" - 9-5/8" |
| 161-34-15L5375 | 9-1/8" - 10" |
| 161-34-15L6250 | 9-3/8" - 10-1/4" |
| 161-34-17L4500 | 9-7/8" - 10-5/8" |
| 161-34-17L5375 | 10-1/8" - 11" |
| 161-34-17L6250 | 10-5/8" - 11-1/2" |
| 161-34-19L4500 | 11-1/8" - 12" |
| 161-34-19L5375 | 11-3/8" - 12-1/4" |
| 161-34-19L6250 | 11-5/8" - 12-1/2" |
| 161-34-21L4500 | 12-1/8" - 13" |
| 161-34-21L5375 | 12-3/8" - 13-1/4" |
| 161-34-21L6250 | 12-3/4" - 13-5/8" |
| 161-34-23L4500 | 13-1/4" - 14-1/8" |
| 161-34-23L5375 | 13-1/2" - 14-3/8" |
| 161-34-23L6250 | 14" - 14-5/8" |
| 161-34-25L4500 | 14-1/2" - 15-1/8" |
| 161-34-25L5375 | 14-3/4" - 15-3/8" |
| 161-34-25L6250 | 15" - 15-3/4" |
| 161-34-27L4500 | 15-1/4" - 16" |

**LA116 PETOL BULL TONG
(-C09 / -C18 / -23 / -28 Handles)**

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-09L6250 | 6" - 6-1/4" |
| 161-45-11L4500 | 6-1/4" - 6-7/8" |
| 161-45-11L5375 | 6-5/8" - 7-1/8" |
| 161-45-11L6250 | 6-7/8" - 7-3/8" |
| 161-45-13L4500 | 7-3/8" - 8" |
| 161-45-13L5375 | 7-3/4" - 8-1/4" |
| 161-45-13L6250 | 8" - 8-1/2" |
| 161-45-15L4500 | 8-1/2" - 9-1/8" |
| 161-45-15L5375 | 8-7/8" - 9-3/8" |
| 161-45-15L6250 | 9-1/8" - 9-5/8" |
| 161-45-17L4500 | 9-3/4" - 10-1/4" |
| 161-45-17L5375 | 10" - 10-1/2" |
| 161-45-17L6250 | 10-1/4" - 10-3/4" |
| 161-45-19L4500 | 10-7/8" - 11-3/8" |
| 161-45-19L5375 | 11-1/8" - 11-5/8" |
| 161-45-19L6250 | 11-3/8" - 11-7/8" |
| 161-45-21L4500 | 12" - 12-3/8" |
| 161-45-21L5375 | 12-1/4" - 12-5/8" |
| 161-45-21L6250 | 12-1/2" - 13" |
| 161-45-23L4500 | 13-1/8" - 13-1/2" |
| 161-45-23L5375 | 13-3/8" - 13-3/4" |
| 161-45-23L6250 | 13-5/8" - 14" |
| 161-45-25L4500 | 14-1/8" - 14-5/8" |
| 161-45-25L5375 | 14-1/2" - 14-7/8" |
| 161-45-25L6250 | 14-3/4" - 15-1/8" |

**continued LA116 PETOL BULL TONG
(-C09 / -C18 / -23 / -28 Handles)**

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-27L4500 | 15-1/4" - 15-5/8" |
| 161-45-27L5375 | 15-1/2" - 15-7/8" |
| 161-45-27L6250 | 15-7/8" - 16-1/4" |
| 161-45-29L4500 | 16-3/8" - 16-3/4" |
| 161-45-29L5375 | 16-5/8" - 17" |

LA116 PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-09L4500 | 5" - 5-3/4" |
| 161-45-09L5375 | 5-3/8" - 6" |
| 161-45-09L6250 | 5-5/8" - 6-1/4" |
| 161-45-11L4500 | 6-1/4" - 6-7/8" |
| 161-45-11L5375 | 6-5/8" - 7-1/8" |
| 161-45-11L6250 | 6-7/8" - 7-3/8" |
| 161-45-13L4500 | 7-3/8" - 8" |
| 161-45-13L5375 | 7-3/4" - 8-1/4" |
| 161-45-13L6250 | 8" - 8-1/2" |
| 161-45-15L4500 | 8-1/2" - 9-1/8" |
| 161-45-15L5375 | 8-7/8" - 9-3/8" |
| 161-45-15L6250 | 9-1/8" - 9-5/8" |
| 161-45-17L4500 | 9-3/4" - 10-1/4" |
| 161-45-17L5375 | 10" - 10-1/2" |
| 161-45-17L6250 | 10-1/4" - 10-3/4" |
| 161-45-19L4500 | 10-7/8" - 11-3/8" |
| 161-45-19L5375 | 11-1/8" - 11-5/8" |
| 161-45-19L6250 | 11-3/8" - 11-7/8" |
| 161-45-21L4500 | 12" - 12-3/8" |
| 161-45-21L5375 | 12-1/4" - 12-5/8" |
| 161-45-21L6250 | 12-1/2" - 13" |
| 161-45-23L4500 | 13-1/8" - 13-1/2" |
| 161-45-23L5375 | 13-3/8" - 13-3/4" |
| 161-45-23L6250 | 13-5/8" - 14" |
| 161-45-25L4500 | 14-1/8" - 14-5/8" |
| 161-45-25L5375 | 14-1/2" - 14-7/8" |
| 161-45-25L6250 | 14-3/4" - 15-1/8" |
| 161-45-27L4500 | 15-1/4" - 15-5/8" |
| 161-45-27L5375 | 15-1/2" - 15-7/8" |
| 161-45-27L6250 | 15-7/8" - 16-1/4" |
| 161-45-29L4500 | 16-3/8" - 16-3/4" |
| 161-45-29L5375 | 16-5/8" - 17" |

LA120 PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 201-45-07L9875 | 6" - 6-5/8" |
| 201-45-09L5625 | 6-3/8" - 7-1/4" |
| 201-45-09L7500 | 7-1/8" - 8" |
| 201-45-09L9875 | 7-3/4" - 8-5/8" |
| 201-45-11L5625 | 8-3/8" - 9-1/4" |
| 201-45-11L7500 | 9-1/8" - 10" |
| 201-45-11L9875 | 9-3/4" - 10-5/8" |
| 201-45-13L5625 | 10-3/8" - 11-1/4" |
| 201-45-13L7500 | 11" - 11-7/8" |
| 201-45-13L9875 | 11-3/4" - 12-5/8" |
| 201-45-15L5625 | 12-1/4" - 13-1/8" |
| 201-45-15L7500 | 13" - 13-7/8" |
| 201-45-15L9875 | 13-5/8" - 14-1/2" |
| 201-45-17L5625 | 14-1/4" - 15-1/8" |
| 201-45-17L7500 | 14-7/8" - 15-3/4" |
| 201-45-17L9875 | 15-5/8" - 16-3/8" |
| 201-45-19L5625 | 16-1/8" - 17" |
| 201-45-19L7500 | 16-3/4" - 17-5/8" |
| 201-45-19L9875 | 17-1/2" - 18-1/4" |

continued LA120 PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 201-45-21L5625 | 18" - 18-7/8" |
| 201-45-21L7500 | 18-5/8" - 19-1/2" |
| 201-45-21L9875 | 19-3/8" - 20-1/8" |
| 201-45-23L5625 | 19-7/8" - 20-3/4" |
| 201-45-23L7500 | 20-1/2" - 21-3/8" |
| 201-45-23L9875 | 21-1/4" - 22" |

LA116H PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-27L6250 | 16" - 16-5/8" |
| 161-45-29L4500 | 16-1/8" - 17-1/8" |
| 161-45-29L5375 | 16-3/8" - 17-3/8" |
| 161-45-29L6250 | 16-5/8" - 17-5/8" |
| 161-45-31L4500 | 17-1/8" - 18-1/8" |
| 161-45-31L5375 | 17-1/2" - 18-1/2" |
| 161-45-31L6250 | 17-3/4" - 18-3/4" |
| 161-45-33L4500 | 18-1/2" - 19-3/8" |
| 161-45-33L5375 | 18-3/4" - 19-5/8" |
| 161-45-33L6250 | 19" - 19-7/8" |
| 161-45-35L4500 | 19-5/8" - 20-1/2" |
| 161-45-35L5375 | 19-7/8" - 20-3/4" |
| 161-45-35L6250 | 20-1/8" - 21" |
| 161-45-37L4500 | 20-3/4" - 21-1/2" |
| 161-45-37L5375 | 21-1/8" - 21-7/8" |
| 161-45-37L6250 | 21-3/8" - 22-1/8" |
| 161-45-39L4500 | 21-7/8" - 22-5/8" |
| 161-45-39L5375 | 22-1/4" - 23" |
| 161-45-39L6250 | 22-1/2" - 23-1/4" |
| 161-45-41L4500 | 23" - 23-3/4" |
| 161-45-41L5375 | 23-3/8" - 24-1/8" |
| 161-45-41L6250 | 23-1/2" - 24-1/4" |
| 161-45-43L4500 | 24-1/8" - 24-7/8" |
| 161-45-43L5375 | 24-3/8" - 25-1/8" |
| 161-45-43L6250 | 24-5/8" - 25-3/8" |
| 161-45-45L4500 | 25-1/4" - 25-7/8" |
| 161-45-45L5375 | 25-5/8" - 26-1/4" |
| 161-45-45L6250 | 25-7/8" - 26-1/2" |
| 161-45-47L4500 | 26-3/8" - 27" |
| 161-45-47L5375 | 26-5/8" - 27-1/4" |
| 161-45-47L6250 | 27" - 27-5/8" |
| 161-45-49L4500 | 27-5/8" - 28-1/8" |
| 161-45-49L5375 | 27-7/8" - 28-3/8" |
| 161-45-49L6250 | 28-1/8" - 28-5/8" |
| 161-45-51L4500 | 28-3/4" - 29-1/4" |
| 161-45-51L5375 | 29" - 29-1/2" |
| 161-45-51L6250 | 29-1/4" - 29-3/4" |
| 161-45-53L4500 | 29-3/4" - 30-1/4" |
| 161-45-53L5375 | 30" - 30-1/2" |
| 161-45-53L6250 | 30-3/8" - 30-7/8" |
| 161-45-55L4500 | 31" - 31-3/8" |
| 161-45-55L5375 | 31-1/4" - 31-5/8" |
| 161-45-55L6250 | 31-1/2" - 31-7/8" |
| 161-45-57L4500 | 32" - 32-1/2" |
| 161-45-57L5375 | 32-1/2" - 32-3/4" |
| 161-45-57L6250 | 32-3/4" - 33" |
| 161-45-59L4500 | 33-1/8" - 33-1/2" |
| 161-45-59L5375 | 33-1/2" - 33-3/4" |
| 161-45-59L6250 | 33-3/4" - 34-1/8" |
| 161-45-61L4500 | 34-1/4" - 34-5/8" |
| 161-45-61L5375 | 34-5/8" - 34-7/8" |
| 161-45-61L6250 | 34-7/8" - 35-1/8" |
| 161-45-63L4500 | 35-1/4" - 35-5/8" |
| 161-45-63L5375 | 35-5/8" - 36" |
| 161-45-63L6250 | 36" - 36-1/4" |

continued LA116H PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-65L4500 | 36-3/8" – 36-3/4" |
| 161-45-65L5375 | 36-3/4" – 37" |
| 161-45-65L6250 | 37" – 37-1/4" |
| 161-45-67L4500 | 37-3/8" – 37-7/8" |
| 161-45-67L5375 | 37-7/8" – 38-1/8" |
| 161-45-67L6250 | 38-1/8" – 38-3/8" |
| 161-45-69L4500 | 38-1/2" – 38-7/8" |
| 161-45-69L5375 | 38-7/8" – 39-1/8" |
| 161-45-69L6250 | 39-1/8" – 39-1/2" |
| 161-45-71L4500 | 39-5/8" – 40" |

LA116HX PETOL BULL TONG

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-45-51L5375 | 30-1/8" – 30-3/8" |
| 161-45-51L6250 | 30-1/8" – 30-5/8" |
| 161-45-53L4500 | 30-1/2" – 31-5/8" |
| 161-45-53L5375 | 30-7/8" – 31-7/8" |
| 161-45-53L6250 | 31-1/8" – 32-1/8" |
| 161-45-55L4500 | 31-5/8" – 32-5/8" |
| 161-45-55L5375 | 32" – 33" |
| 161-45-55L6250 | 32-1/4" – 33-1/4" |
| 161-45-57L4500 | 32-3/4" – 33-3/4" |
| 161-45-57L5375 | 33-1/8" – 34" |
| 161-45-57L6250 | 33-3/8" – 34-3/8" |
| 161-45-59L4500 | 33-7/8" – 34-7/8" |
| 161-45-59L5375 | 34-1/4" – 35-1/8" |
| 161-45-59L6250 | 34-1/2" – 35-3/8" |
| 161-45-61L4500 | 35" – 36" |
| 161-45-61L5375 | 35-1/4" – 36-1/4" |
| 161-45-61L6250 | 35-5/8" – 36-1/2" |
| 161-45-63L4500 | 36-1/8" – 37" |
| 161-45-63L5375 | 36-3/8" – 37-1/4" |
| 161-45-63L6250 | 36-3/4" – 37-5/8" |
| 161-45-65L4500 | 37-1/4" – 38-1/8" |
| 161-45-65L5375 | 37-1/2" – 38-3/8" |
| 161-45-65L6250 | 37-3/4" – 38-5/8" |
| 161-45-67L4500 | 38-1/4" – 39-1/4" |
| 161-45-67L5375 | 38-5/8" – 39-1/2" |
| 161-45-67L6250 | 38-7/8" – 39-3/4" |
| 161-45-69L4500 | 39-3/8" – 40-1/4" |
| 161-45-69L5375 | 39-3/4" – 40-5/8" |
| 161-45-69L6250 | 40" – 40-7/8" |
| 161-45-71L4500 | 40-1/2" – 41-3/8" |
| 161-45-71L5375 | 40-7/8" – 41-5/8" |
| 161-45-71L6250 | 41-1/8" – 41-7/8" |
| 161-45-73L4500 | 41-5/8" – 42-1/2" |
| 161-45-73L5375 | 41-7/8" – 42-3/4" |
| 161-45-73L6250 | 42-1/4" – 43" |
| 161-45-75L4500 | 42-3/4" – 43-1/2" |
| 161-45-75L5375 | 43" – 43-3/4" |
| 161-45-75L6250 | 43-1/4" – 44-1/8" |
| 161-45-77L4500 | 43-7/8" – 44-5/8" |
| 161-45-77L5375 | 44-1/8" – 44-7/8" |
| 161-45-77L6250 | 44-3/8" – 45-1/8" |
| 161-45-79L4500 | 44-7/8" – 45-3/4" |
| 161-45-79L5375 | 45-1/4" – 46" |
| 161-45-79L6250 | 45-1/2" – 46-1/4" |
| 161-45-81L4500 | 46" – 46-3/4" |
| 161-45-81L5375 | 46-1/4" – 47" |
| 161-45-81L6250 | 46-3/4" – 47-3/8" |
| 161-45-83L4500 | 47-1/8" – 47-7/8" |
| 161-45-83L5375 | 47-3/8" – 48-1/8" |
| 161-45-83L6250 | 47-5/8" – 48-3/8" |

continued LA116HX PETOL BULL TONG

| CATALOG NO. | O.D. |
|-----------------|-------------------|
| 161-45-85L4500 | 48-1/8" – 49" |
| 161-45-85L5375 | 48-1/2" – 49-1/4" |
| 161-45-85L6250 | 48-3/4" – 49-1/2" |
| 161-45-87L4500 | 49-1/4" – 50" |
| 161-45-87L5375 | 49-1/2" – 50-1/4" |
| 161-45-87L6250 | 49-7/8" – 50-5/8" |
| 161-45-89L4500 | 50-3/8" – 51-1/8" |
| 161-45-89L5375 | 50-5/8" – 51-3/8" |
| 161-45-89L6250 | 50-7/8" – 51-5/8" |
| 161-45-91L4500 | 51-3/8" – 52-1/8" |
| 161-45-91L5375 | 51-3/4" – 52-1/2" |
| 161-45-91L6250 | 52" – 52-3/4" |
| 161-45-93L4500 | 52-1/2" – 53-1/4" |
| 161-45-93L5375 | 52-3/4" – 53-1/2" |
| 161-45-93L6250 | 53-1/8" – 53-3/4" |
| 161-45-95L4500 | 53-5/8" – 54-3/8" |
| 161-45-95L5375 | 53-7/8" – 54-5/8" |
| 161-45-95L6250 | 54-1/8" – 54-7/8" |
| 161-45-97L4500 | 54-5/8" – 55-3/8" |
| 161-45-97L5375 | 55" – 55-5/8" |
| 161-45-97L6250 | 55-1/4" – 56" |
| 161-45-99L4500 | 55-3/4" – 56-1/2" |
| 161-45-99L5375 | 56" – 56-3/4" |
| 161-45-99L6250 | 56-3/8" – 57" |
| 161-45-101L4500 | 56-7/8" – 57-5/8" |
| 161-45-101L5375 | 57-1/8" – 57-7/8" |
| 161-45-101L6250 | 57-3/8" – 58-1/8" |
| 161-45-103L4500 | 58" – 58-5/8" |
| 161-45-103L5375 | 58-1/4" – 58-7/8" |
| 161-45-103L6250 | 58-1/2" – 59-1/4" |
| 161-45-105L4500 | 59-1/8" – 59-3/4" |
| 161-45-105L5375 | 59-1/4" – 60" |
| 161-45-105L6250 | 59-3/8" – 60-1/4" |
| 161-45-107L4500 | 60-1/8" – 60-3/4" |
| 161-45-107L5375 | 60-3/8" – 61-1/8" |
| 161-45-107L6250 | 60-5/8" – 61-3/8" |
| 161-45-109L4500 | 61-1/4" – 61-7/8" |
| 161-45-109L5375 | 61-1/2" – 62-1/8" |
| 161-45-109L6250 | 61-3/4" – 62-3/8" |
| 161-45-111L4500 | 62-3/8" – 63" |
| 161-45-111L5375 | 62-1/2" – 63-1/4" |
| 161-45-111L6250 | 62-7/8" – 63-1/2" |
| 161-45-113L4500 | 63-3/8" – 64" |
| 161-45-113L5375 | 63-5/8" – 64-1/4" |
| 161-45-113L6250 | 63-7/8" – 64-5/8" |
| 161-45-115L4500 | 64-3/8" – 65-1/8" |
| 161-45-115L5375 | 64-3/4" – 65-3/8" |
| 161-45-115L6250 | 65" – 65-5/8" |
| 161-45-117L4500 | 65-1/2" – 65-7/8" |

**MA15S PETOL MACHINE TONG
(2-2 Chain Combination)**

| CATALOG NO. | O.D. |
|-------------|----------|
| 150-22-32M | 2" – 10" |

**MA155-16S PETOL MACHINE TONG
(2-2 Chain Combination)**

| CATALOG NO. | O.D. |
|-------------|----------|
| 160-22-33L | 3" – 16" |

**MA16HS PETOL MACHINE TONG
(2-2 Chain Combination)**

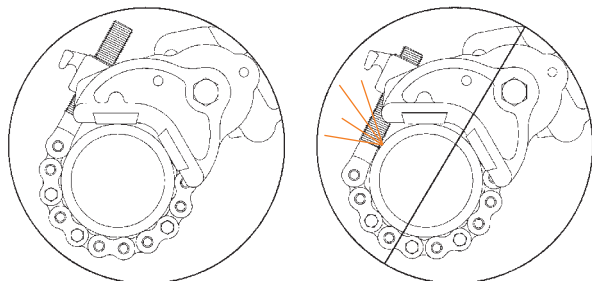
| CATALOG NO. | O.D. |
|-------------|----------|
| 160-22-32L | 4" – 16" |

MA16HS PETOL MACHINE TONG (3-4 Chain Combination)

| CATALOG NO. | O.D. |
|----------------|-------------------|
| 161-34-07M4500 | 4" - 4-3/4" |
| 161-34-07M5375 | 4-1/8" - 5" |
| 161-34-07M6250 | 4-3/8" - 5-1/4" |
| 161-34-09M4500 | 5-1/8" - 6" |
| 161-34-09M5375 | 5-3/8" - 6-1/4" |
| 161-34-09M6250 | 5-5/8" - 6-1/2" |
| 161-34-11M4500 | 6-3/8" - 7-1/4" |
| 161-34-11M5375 | 6-5/8" - 7-1/2" |
| 161-34-11M6250 | 6-7/8" - 7-5/8" |
| 161-34-13M4500 | 7-1/2" - 8-3/8" |
| 161-34-13M5375 | 7-7/8" - 8-3/4" |
| 161-34-13M6250 | 8-1/8" - 9" |
| 161-34-15M4500 | 8-5/8" - 9-3/8" |
| 161-34-15M5375 | 9" - 9-7/8" |
| 161-34-15M6250 | 9-1/4" - 10-1/8" |
| 161-34-17M4500 | 9-7/8" - 10-5/8" |
| 161-34-17M5375 | 10-1/8" - 11" |
| 161-34-17M6250 | 10-3/8" - 11-1/4" |
| 161-34-19M4500 | 11" - 11-7/8" |
| 161-34-19M5375 | 11-1/4" - 12-1/8" |
| 161-34-19M6250 | 11-1/2" - 12-3/8" |
| 161-34-21M4500 | 12" - 12-7/8" |
| 161-34-21M5375 | 12-1/4" - 13-1/8" |
| 161-34-21M6250 | 12-1/2" - 13-3/8" |
| 161-34-23M4500 | 13-1/8" - 13-3/8" |
| 161-34-23M5375 | 13-3/8" - 14-1/4" |
| 161-34-23M6250 | 13-5/8" - 14-1/2" |
| 161-34-25M4500 | 14-1/4" - 15-1/8" |
| 161-34-25M5375 | 14-1/2" - 15-3/8" |
| 161-34-25M6250 | 14-3/4" - 15-5/8" |
| 161-34-27M4500 | 15-3/8" - 16" |
| 161-34-27M5375 | 15-5/8" - 16" |

IMPORTANT!

FOR PROPER CHAIN SELECTION on PETOL DRILL PIPE TONGS: The threaded portion of the chain screw should **NEVER** contact the work piece. This places an additional load on the chain screw, which could result in breakage. Thread contact can be prevented by adding a 2 link section of chain.



DA1344 PETOL DRILL PIPE TONG

| CATALOG NO. | O.D. |
|-------------|-----------------|
| 131-45-05D | 1" - 1-3/4" |
| 131-45-07D | 1-7/8" - 2-1/2" |
| 131-45-09D | 2-5/8" - 3-1/4" |
| 131-45-11D | 3-1/4" - 3-7/8" |
| 131-45-13D | 3-7/8" - 4-1/2" |
| 131-45-15D | 4-1/2" - 5-1/8" |
| 131-45-17D | 5-1/8" - 5-3/4" |
| 131-45-19D | 5-3/4" - 6" |

DA2344 PETOL DRILL PIPE TONG (All Handles)

| CATALOG NO. | O.D. |
|-------------|------------------|
| 151-45-05D | *2-1/8" - 2-1/2" |
| 151-45-07D | *2-5/8" - 3-1/2" |
| 151-45-09D | 3-5/8" - 4-3/8" |
| 151-45-11D | 4-1/2" - 5" |

* 4 Diamond Point or 4 Knurled Inserts are required to grip 2-1/8" - 3-1/2" O.D.

DA4174 PETOL DRILL PIPE TONG (-C12 and -L08 Handles)

| CATALOG NO. | O.D. |
|-------------|------------------|
| 151-45-07D | *3" - 3-3/4" |
| 151-45-09D | 3-3/4" - 4-1/2" |
| 151-45-11D | 4-1/2" - 5-3/8" |
| 151-45-13D | 5-3/8" - 6-1/4" |
| 151-45-15D | 6-1/4" - 7" |
| 151-45-17D | 7-1/16" - 8-1/4" |

* 4 Diamond Point or 4 Knurled Inserts are required to grip 3" - 3-3/4" O.D.

DA4174 PETOL DRILL PIPE TONG (-L21 Handle)

| CATALOG NO. | O.D. |
|-------------|-----------------|
| 151-45-07D | *3" - 3-3/4" |
| 151-45-09D | 3-3/4" - 4-5/8" |
| 151-45-11D | 4-3/4" - 5-1/2" |
| 151-45-13D | 5-5/8" - 6-3/8" |
| 151-45-15D | 6-3/8" - 7-1/4" |
| 151-45-17D | 7-1/4" - 8-1/4" |

* 4 Diamond Point or 4 Knurled Inserts are required to grip 3" - 3-3/4" O.D.

DA6184 PETOL DRILL PIPE TONG (All Handles)

| CATALOG NO. | O.D. |
|-------------|------------------|
| 151-45-09D7 | *4-1/4" - 4-3/4" |
| 151-45-11D7 | 4-3/4" - 5-3/4" |
| 151-45-13D7 | 5-3/4" - 6-5/8" |
| 151-45-15D7 | 6-5/8" - 7-1/2" |
| 151-45-17D7 | 7-1/2" - 8-1/4" |
| 151-45-19D7 | 8-1/4" - 9" |
| 151-45-21D7 | 9" - 9-7/8" |
| 151-45-23D7 | 9-7/8" - 10-3/4" |

* 4 Diamond Point or 4 Knurled Inserts are required to grip 4-1/4" - 4-3/4" O.D.

DA8184 PETOL DRILL PIPE TONG (All Handles / 4-5 Chain Combination)

| CATALOG NO. | O.D. |
|-------------|-------------------|
| 161-45-07D | 4" - 4-1/2" |
| 161-45-09D | 4-5/8" - 5-3/4" |
| 161-45-11D | 5-7/8" - 7" |
| 161-45-13D | 7" - 8-1/8" |
| 161-45-15D | 8-1/8" - 9-1/4" |
| 161-45-17D | 9-1/4" - 10-3/8" |
| 161-45-19D | 10-3/8" - 11-1/2" |
| 161-45-21D | 11-1/2" - 12-5/8" |
| 161-45-23D | 12-5/8" - 13-3/4" |
| 161-45-25D | 13-3/4" - 14" |

**DA8184 PETOL DRILL PIPE TONG
(All Handles / 5-4 Chain Combination)**

| CATALOG NO. | O.D. |
|-------------|-------------------|
| 161-54-08D | 4-1/4" – 5-1/8" |
| 161-54-10D | 5-1/4" – 6-3/8" |
| 161-54-12D | 6-1/2" – 7-5/8" |
| 161-54-14D | 7-1/2" – 8-3/4" |
| 161-54-16D | 8-5/8" – 9-7/8" |
| 161-54-18D | 9-7/8" – 11" |
| 161-54-20D | 10-7/8" – 12-1/8" |
| 161-54-22D | 12" – 13-1/4" |
| 161-54-24D | 13-1/8" – 14" |

**VTDA115H
PETOL PULLDOWN VISETONG**

| CATALOG NO. | O.D. |
|-------------|---------|
| 151-45-25T | 2" – 8" |

**VTDA116H
PETOL PULLDOWN VISETONG**

| CATALOG NO. | O.D. |
|-------------|----------|
| 161-45-25T | 4" – 10" |
| 161-45-33T | 4" – 14" |

**VTDA118
PETOL PULLDOWN VISETONG**

| CATALOG NO. | O.D. |
|-------------|----------|
| 181-45-25T | 4" – 12" |
| 181-45-33T | 4" – 18" |
| 181-45-41T | 4" – 24" |

**VTDA120
PETOL PULLDOWN VISETONG**

| CATALOG NO. | O.D. |
|-------------|----------|
| 201-56-19T | 6" – 14" |
| 201-56-25T | 6" – 18" |
| 201-56-31T | 6" – 24" |

**VTUA118 PETOL PUSHUP VISETONG
(All Handles)**

| CATALOG NO. | O.D. |
|-------------|----------|
| 181-45-25T | 4" – 12" |
| 181-45-33T | 4" – 18" |
| 181-45-41T | 4" – 24" |

VTUA120 PETOL PUSHUP VISETONG

| CATALOG NO. | O.D. |
|-------------|----------|
| 201-56-19T | 6" – 14" |
| 201-56-25T | 6" – 18" |
| 201-56-31T | 6" – 24" |

TVA115H PETOL TONGWISE

| CATALOG NO. | O.D. |
|-------------|---------|
| 151-45-25T | 2" – 8" |

TVA116 PETOL TONGWISE

| CATALOG NO. | O.D. |
|-------------|----------|
| 161-34-25T | 4" – 10" |
| 161-34-33T | 4" – 14" |

TVA116H PETOL TONGWISE

| CATALOG NO. | O.D. |
|-------------|----------|
| 161-45-25T | 4" – 10" |
| 161-45-33T | 4" – 14" |

TVA118 PETOL TONGWISE

| CATALOG NO. | O.D. |
|-------------|----------|
| 181-45-25T | 4" – 12" |
| 181-45-33T | 4" – 18" |
| 181-45-41T | 4" – 24" |

TVA120 PETOL TONGWISE

| CATALOG NO. | O.D. |
|-------------|----------|
| 201-56-19T | 6" – 14" |
| 201-56-25T | 6" – 18" |
| 201-56-31T | 6" – 24" |



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