TABLE OF CONTENTS

PRODUCT LINES

BELT TONGS (PETOL)	
SURGRIP CASING TONGS	10-11
BREAKOUT UNITS (PETOL)	10
HYDRA-TORK UNITS	
PORTABLE HYDRA-TORK UNITS	
HYDRAULIC FRICTION BREAKOUT	04.00
UNIT	64-68
	00
CHAIN TONGS (PETOL)	
CHAIN TONGS (TITAN)	
BUKUP TONGS	13
BULL TONGS	12
DRILL PIPE TONGS	
FRICTION TONGS, CHAIN STYLE	
MACHINE TONGS	
STABBING TONGS	
VISETONGS	
ELEVATORS	
SUCKEROD ELEVATOR (PETOL)	32
TUBING ELEVATOR (TITAN)	30
FLANGE TOOLS	
FLANGE LIFTER (TITAN)	35
P0P-IT [™] TOOL	40-41
FLANGE ALIGNING TOOL (TITAN)	
FLANGE SPREADER (TITAN)	42
HYDRAULIC FLANGE SPREADER (TITAN) .	43
FLANGE WRENCH (PETOL)	
FLANGE KEY (TITAN)	44
FRICTION TONGS & VISE (PETOL)	50
FRICTION TONGS, CHAIN STYLE HYDRAULIC FRICTION BREAKOUT	56
	64 69
	64-68
SURGRIP FRICTION TONGS	56
SURGRIP FRICTION TONGS	56
SURGRIP FRICTION TONGS	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL)	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES	
SURGRIP FRICTION TONGS	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE	
SURGRIP FRICTION TONGS	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN)	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION TONGS	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION TONGS SURGRIP FRICTION VISE	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION VISE	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE BUSHINGS FRICTION TONGS, CHAIN STYLE	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE BUSHINGS FRICTION TONGS, CHAIN STYLE SURGRIP FRICTION TORQUE WRENCH	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER MISCELLANEOUS ACCESSORIES	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER MISCELLANEOUS ACCESSORIES REFINERY WRENCHES (TITAN)	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP BENCHES PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER MISCELLANEOUS ACCESSORIES REFINERY WRENCHES (TITAN) RIG WRENCHES (PETOL)	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TONGS SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER MISCELLANEOUS ACCESSORIES REFINERY WRENCHES (TITAN) RIG WRENCH DRILL PIPE TONGS	
SURGRIP FRICTION TONGS SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH HERRINGBONE GEARS & PINIONS PIPE TONGS (PETOL) PUMP SHOP EQUIPMENT (PETOL) PUMP SUPPORT TOOL STAND RINSE TANK BENCHRENCH PLATERENCH SOCKETRENCH HANDLE SLIDING SOCKET PLATE SHOPRENCH VALVE CAGE WRENCH (TITAN) VALVE CAGE BENCHRENCH HYDRAULIC FRICTION BREAKOUT UNIT SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION VISE SURGRIP FRICTION TORQUE WRENCH THREAD CUTTER MISCELLANEOUS ACCESSORIES REFINERY WRENCHES (TITAN) RIG WRENCH	

RUN TICKET BOXES (TITAN) .28 SHOTHOLE CASING TONGS (TITAN) .26 SIGHT GLASSES (PETOL) .28 SLIM GRIP TONGS (PETOL) .17
SPINNING/CATHEAD CHAIN
CHAIN (TITAN)
CONNECTING LINK (PETOL)
STRIKING/HAMMER WRENCHES
6 PT. STRAIGHT (PETOL)
12 PT. OFFSET (TITAN)
SUCKER ROD TRANSFERS (PETOL)
SUCKER ROD WRENCHES (PETOL)
SUCEKROD WRENCH
SURGRIP CASING TONGS (PETOL)
TANK SAFETY GAUGES (PETOL)
TORQUE WRENCHES (PETOL)
TUBING TONGS (PETOL)
VALVE WHEEL WRENCHES
STEEL
TITAN
TITAN Surgrip
ALUMINUM
TITAN
PETOL49
"100 Series" (TITAN)
"El-Mac" Surgrip(TITAN)
BRONZE
TITAN
REFINERY WRENCH Steel
TITAN
TITAN Surgrip
Aluminum
TITAN
LATCH WRENCH (TITAN)
VISES (PETOL)
SURGRIP FRICTION VISE
TONGVISE
ADDITIONAL INFORMATION
CHAIN IDENTIFICATION GUIDE
CHAIN SELECTION GUIDE
BUKUP TONGS
BULL TONGS
CHAIN TONGS (Single Jaw & Reversible)75
DRILL PIPE TONGS79-80
MACHINE TONGS
PULLDOWN VISETONGS
PUSHUP VISETONGS
TONGVISE
TORQUE TABLES BUKUP TONG (BA120)72
BULL TONGS 71

DRILL PIPE TONGS
SURGRIP CASING TONGS
SAFE PRACTICES & PROCEDURES
MANUAL
ALL VALVE WHEEL WRENCHES/
REFINERY WRENCH
WARRANTY

SAFE PRACTICES AND PROCEDURES MANUAL

 $\frac{WHAT \ IS \ COVERED}{GEARENCH \ Tools \ are \ expressly \ warranted \ to \ you, \ the \ purchaser, \ to \ be \ free \ of \ defects \ in$ 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 GEAREANCH 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 iniury.

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

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:

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

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.

Form GCAT20 Rev. 04/12

TOOL WARRANTY

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. 0. Box 192 • Clifton, TX 76634

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:

<u>Moisture</u> - corrosion and rust reduce chain strength by causing pitting and cracking.

Temperature - very cold temperatures reduce chain strength by embrittlement.

<u>Chemical Solutions or Vapors</u> - 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.

<u>Abrasives</u> - 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

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

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

PERIODIC INSPECTION LIST FOR PETOL SPECIAL CHAIN (continued)

4

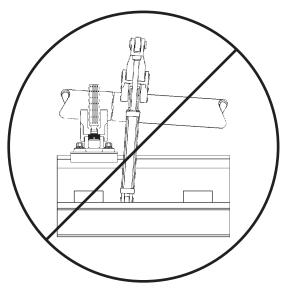
APPEARANCE AND / OR Symptom	PROBABLE CAUSE	CORRECTION
Cracked Plates (Fatigue)	Overloading Side Loading	Replace chain and correct cause of overload Replace chain and correct cause of side load
Arc-Like Cracked Plates (Stress Corrosion)	Severe rusting or exposure to acidic or caustic medium, plus static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

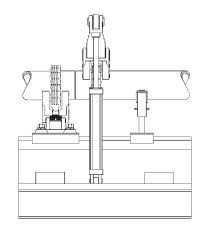
SEE DEFINITIONS AND DIAGRAMS ON PAGES 6 & 7

Safety Precautions

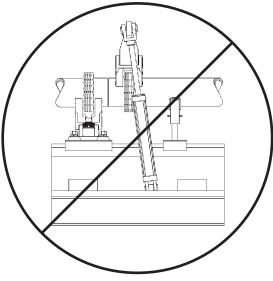
- 1. Always wear safety goggles to protect eyes.
- 2. Select the right tool for the job.
- 3. Keep tools in good condition.
- 4. Use tools correctly.
- 5. Keep tools in a safe place.
- 6. Wear protective clothing, gloves and safety shoes as appropriate.
- 7. Use lengths of assembled chain. Do not build 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.

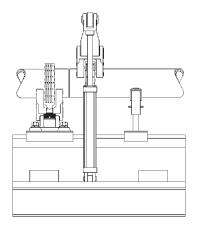
COMMON CAUSES AND CORRECTION OF SIDE LOADING



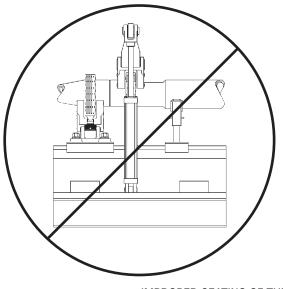


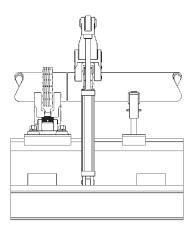
INADEQUATE SUPPORT OF WORKPIECE



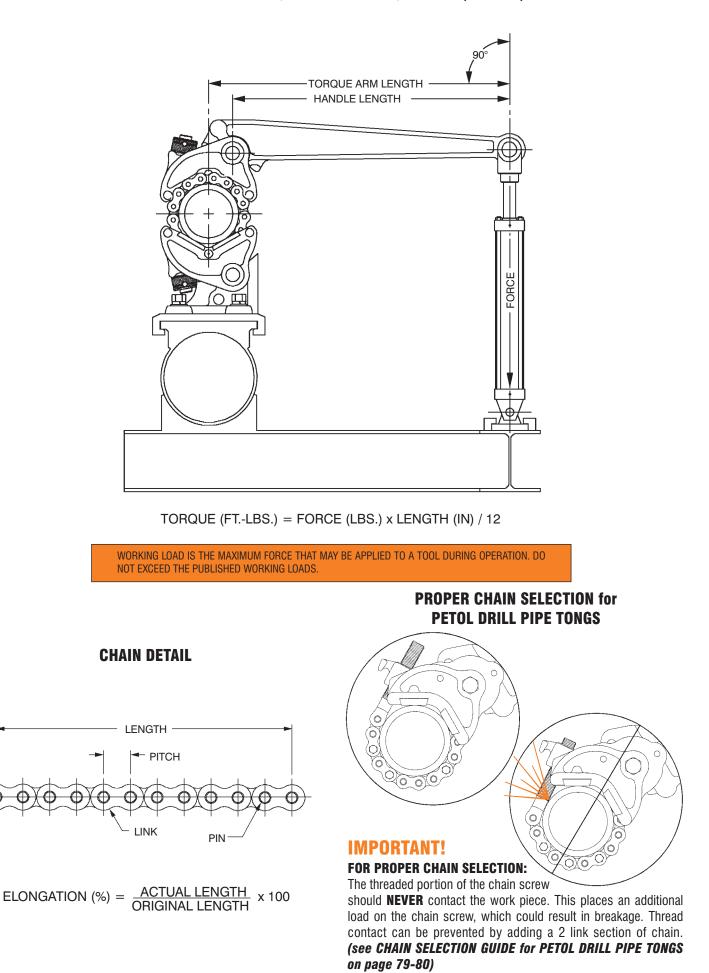


FORCE BEING APPLIED IS NOT IN LINE WITH TONG





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



Form GCAT20 Rev. 04/12

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" 0.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.

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.

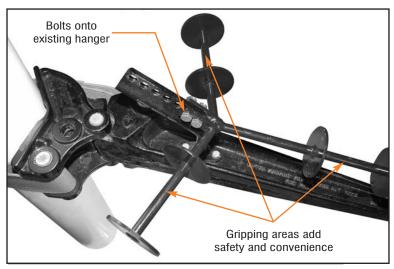
Lightweight belt can deliver up to 163,000 ft.-lbs. of torque.

CATALOG		GRIPPING	HANDLE		MAXIMUM
NO.	0.D.*	WIDTH	LENGTH	WEIGHT**	WORKING LOAD
SCT614H	6" – 14"	13.75"	33"	424 lbs.	Torques vary
SCT1020	9-5/8" - 20"	9.50"	36"	196 lbs.	according to O.D.
SCT1020H	9-5/8" - 20"	13.75"	33"	398 lbs.	See Torque Table
SCT2036	18" – 38"	12.00"	33"	320 lbs.	with Belt Selection
SCT3672	36" – 72"	14.50"	33"	387 lbs.	on page 70
* BELTS MUS	ST BE ORDERED SI	EPARATELY.			

** 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,	17 lbs.
	SCT2036, SCT3672	
SCTG614H	SCT614H	17-1/4 lbs.

Form GCAT20 Rev. 04/12

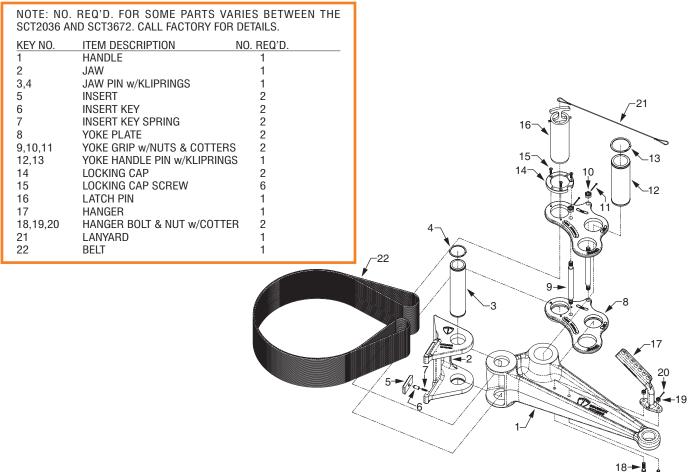
SCT614H / SCT1020 / SCT1020H PARTS BREAKDOWN

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

KEY NO.	TIEM 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/COTTE	R 2
15	LANYARD	1
16	LOCKING CAP	2
17	LOCKING CAP SCREW	4
18	BELT	1

SCT2036 / SCT3672 PARTS BREAKDOWN

18



Form GCAT20 Rev. 04/12

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11

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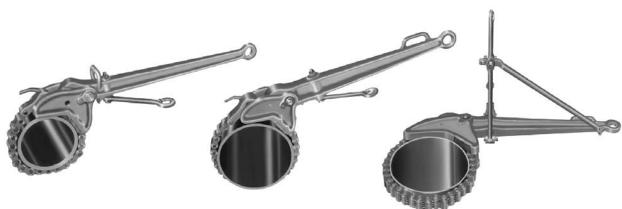
12-

13

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3

PETOL BULL TONGS



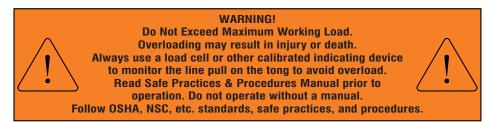
PETOL BULL TONGS are the most versatile tools available for making up or breaking out tool and pipe joints in the shop as well as on the drilling rig. Positive grip, perfect ratcheting, noncrushing and nonjamming features make these tongs the ideal choice for many jobs. This tong grips in the downward 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 0.D. adjustment when working with lower torque requirements. The 2-2 chain is standard on the LA155-16.

CATALOG NO.	0.D.*	GRIPPING WIDTH	HANDLE LENGTH**	WEIGHT***	MAXIMUM WORKING LOAD
LA155-16	3-1/2" – 16"	4.38"	32"	67 lbs.	
LA16H	4" – 16"	6.88"	36"	96 lbs.	Torques vary
LA116-C09	6" – 17"	7.55"	9"	95 lbs.	according
LA116-C18	6" – 17"	7.55"	18"	124 lbs.	to O.D.
LA116-23	6" – 17"	7.55"	23"	118 lbs.	See
LA116-28	6" – 17"	7.55"	28"	126 lbs.	
LA116	5" – 17"	7.55"	36"	133 lbs.	Torque Tables
LA120	6" – 22"	10.00"	72"	376 lbs.	on
LA116H	16" – 40"	7.63"	36"	218 lbs.	page 71
LA116HX	30-1/8" - 65-7/8"	7.56"	36"	238 lbs.	P*****

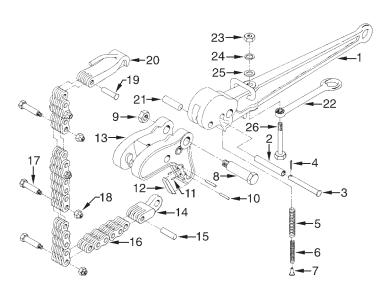
* CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGES 76-78.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.



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. HANDLE 1 1 2 SPRING PIN BUSHING 1 3,4 SPRING PIN W / COTTER 1 SPRING (OUTSIDE) 5 1 6 SPRING (INSIDE) SPRING GUIDE 7 1 8,9 JAW BOLT & NUT 1 **INSERT PIN** 10 4 INSERT KEY 8 11 12 INSERT 4 13 JAW 1 14 MASTER LINK 1 MASTER LINK CHAIN PIN 15 1 SPECIAL CHAIN ONLY 16 1 SPLICE BOLT & NUT 17,18 as reg'd. CHAIN HOOK PIN 19 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

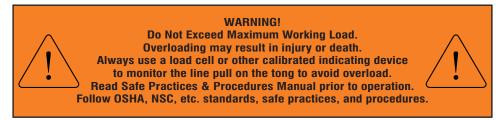


PETOL BUKUP TONGS are designed for use with a pipe machine for "bucking up" and "bucking off" tool joints. Larger sizes may be used for breaking out drill collars, reamers or similar heavy jobs. The wide range of each size of PETOL Bukup Tong reduces to a minimum the tools needed for handling the many 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 0.D. size to another. This tong grips in the upward motion and ratchets in the downward motion.

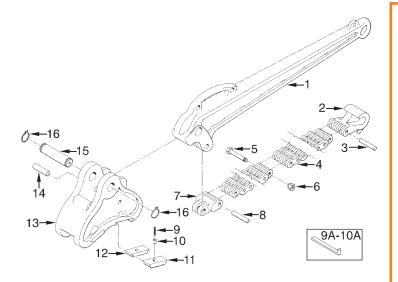
CATALOG		GRIPPING	HANDLE		MAXIMUM
NO.	0.D.*	WIDTH	LENGTH	WEIGHT**	WORKING LOAD
BA115H	2-1/8" – 8"	4.66"	48"	64 lbs.	16,000 ftlbs.
BA116	4" – 10"	6.00"	48"	122 lbs.	42,000 ftlbs.
BA116H	4-1/4" – 10-3/4"	6.06"	48"	147 lbs.	66,000 ftlbs.
BA120	6" – 22"	10.88	72"	546 lbs.	see Torque Table

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

** WEIGHTS DO NOT INCLUDE CHAIN.



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 DESCRIPTIONNO. REQ'D.1HANDLE12CHAIN HOOK1

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



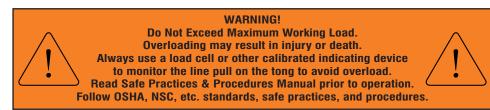
PETOL DRILL PIPE TONGS are designed for making up and breaking out drill pipe, casing, and pneumatic drills on light rigs. These tongs are furnished as original equipment by rig manufacturers because of their ease in handling, quick application, and ability to withstand rugged use.

> CATALOG GRIPPING HANDLE MAXIMUM NO. 0.D.* WIDTH LENGTH** WEIGHT*** WORKING LOAD DA1344 1" - 6" 4" 8" 12 lbs. 5,000 ft.-lbs. 2-1/8" - 5" DA2344-C12 4.44" 12" 27 lbs. 2-1/8" - 5" DA2344-L21 4.44" 21" 31 lbs. Torques vary DA4174-L08 3" - 8-1/4" 5.00" 8" 40 lbs. DA4174-C12 according 3" - 8-1/4" 5.00" 12" 43 lbs. DA4174-L21 3" - 8-1/4" 5.00" 21" 45 lbs. to O.D. 4-1/4" - 10-3/4" DA6184-C10 4.88" 10" 49 lbs. See 4-1/4" - 10-3/4" 36" 74 lbs. DA6184-L36 4.88" **Torque Tables** 4" – 14" 9" 91 lbs. DA8184-C09 7.25" 4" – 14" 18" on 7.25" 120 lbs. DA8184-C18 pages 72-73 DA8184-L23 4" - 14" 7.25" 23" 114 lbs. 4" – 14" DA8184-L28 7.25" 28" 122 lbs. DA8184-L36 4" – 14" <u>7.2</u>5" 36" 129 lbs.

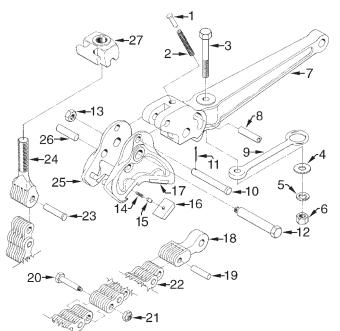
> * CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGE 79-80.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.



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



Form GCAT20 Rev. 04/12

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

-C09, -C10, -C12, -C18

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 reg'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.

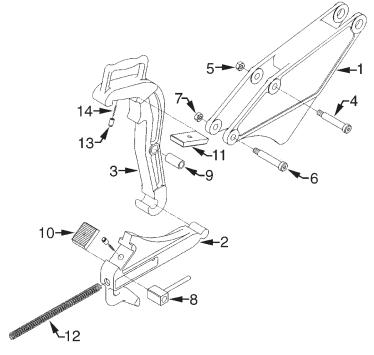
CATALOG	00*	GRIPPING	TORQUE ARM	WEIGHT	MAXIMUM
NO.	0.D.*	WIDTH	LENGTH	WEIGHT	WORKING LOAD
PRWA01	3-1/2" – 5"	2.25"	approx. 18"**	53 lbs.	16,000 ftlbs.
PRWA01-D	3-1/2" – 5"	2.25"	approx. 22"***	55 lbs.	16,000 ftlbs.

* 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.







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



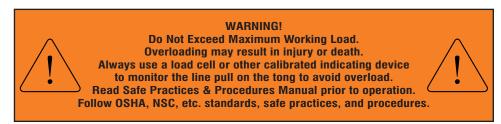
PETOL MACHINE TONGS provide positive grip in the upward motion and perfect ratcheting in the downward motion. Noncrushing and nonjamming action are features that make this tong outstanding. The MA16HS can be furnished with a 3-4 chain combination for higher torque requirements.

CATALOG		GRIPPING	HANDLE		MAXIMUM
NO.	0.D.*	WIDTH	LENGTH**	WEIGHT***	WORKING LOAD
MA15S	2" – 10"	4.00"	28"	37 lbs.	5,000 ftlbs.
MA155-16S	3" – 16"	5.00"	32"	54 lbs.	8,950 ftlbs.
MA16HS	4" – 16"	5.25"	35"	85 lbs.	11,500 ftlbs.
(2-2 CHAIN	COMBINATION)				
MA16HS	4" – 16"	5.25"	35"	85 lbs.	17,500 ftlbs.

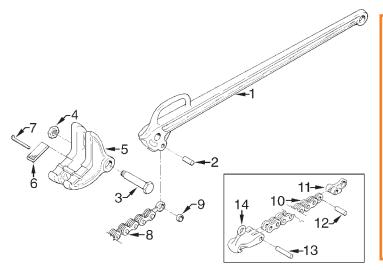
(3-4 CHAIN COMBINATION) * CHAIN ASSEMBLIES MUST BE ORDERED SEPARATELY. SEE CHAIN SELECTION GUIDE ON PAGES 78-79.

** CALL FACTORY FOR TORQUE ARM LENGTHS.

*** WEIGHTS DO NOT INCLUDE CHAIN.



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 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.

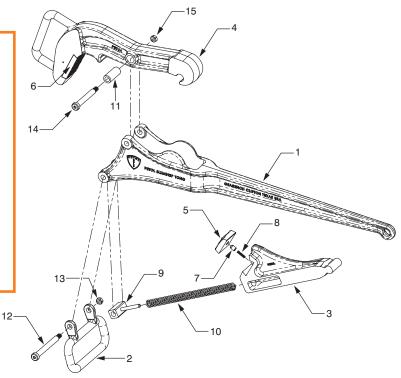




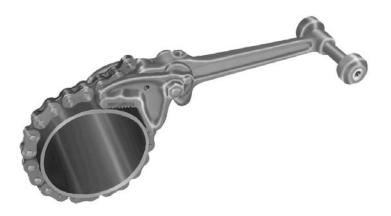
CATALOG NO.	0.D.*	GRIPPING WIDTH	HANDLE LENGTH	WEIGHT	MAXIMUM WORKING LOAD
SLG10	1" – 2-1/4"	1.19"	16"	9 lbs.	1,500 ftlbs.
SLG13	2-3/8" - 4"	1.75"	28"	44-1/2 lbs.	5,000 ftlbs.
SLG15	3-3/4" - 6-1/2"	1.25"	33"	55 lbs.	7,500 ftlbs.



	RTS MAY VARY SLIGHTLY AMON FOR DETAILS.	IG SIZES. CALL		
KEY NO. 1 2 3 4 5 6 7 8 9 10 11	ITEM DESCRIPTION HANDLE HANGER LOWER JAW UPPER JAW LOWER JAW INSERT UPPER JAW INSERT INSERT KEY* INSERT KEY* INSERT KEY SPRING* LOWER JAW BUSHING SPRING UPPER JAW BUSHING	NO. REQ'D. 1 1 1 1 1 2 2 1 1 1 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				
	DING REQUIRES A CAP SCREW IN P D INSERT KEY SPRING(8).	LAGE OF INSERT		



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		GRIPPING	HANDLE		CHAIN TENSILE
NO.	0.D.	WIDTH	LENGTH	WEIGHT	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.



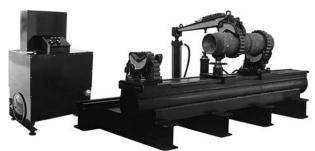
WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.



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

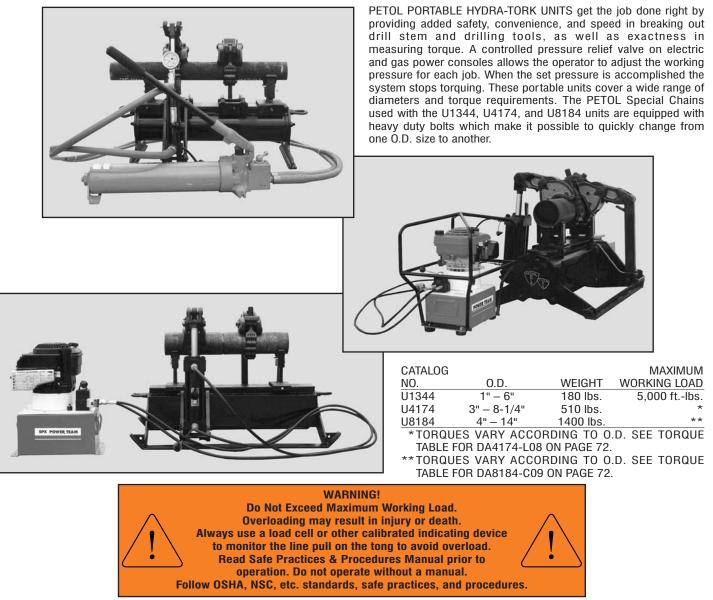
PETOL HYDRA-TORK UNITS



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.

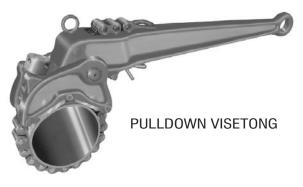
CATALOG NO.	0.D.	WEIGHT	MAXIMUM WORKING LOAD
U115H	2" - 8"	1,255 lbs.	14,000 ftlbs.
U116H	4" – 14"	2,860 lbs.	50,000 ftlbs.
U118	4" – 24"	3,380 lbs.	90,000 ftlbs.
U120	6" – 24"	5,500 lbs.	235,000 ftlbs.

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



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

PETOL VISETONGS



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.

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



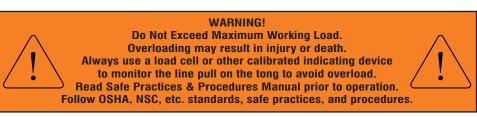
locking cam lever. Regardless of the load on the handle, these tongs will not jam.

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.

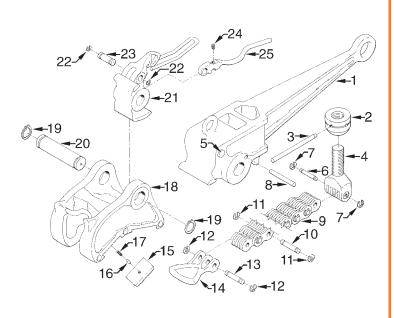
CATALOG NO.	0.D.*	GRIPPING WIDTH	HANDLE LENGTH	WEIGHT**	MAXIMUM WORKING LOAD
PULLDOWN VIS	SETONGS				
VTDA115H	2" – 8"	5.25"	24"	79 lbs.	14,000 ftlbs.
VTDA116H	4" – 14"	7.25"	36"	176 lbs.	50,000 ftlbs.
VTDA118	4" – 24"	9.00"	46"	317 lbs.	90,000 ftlbs.
VTDA120	6" – 24"	12.63"	36"	575 lbs.	235,000 ftlbs.
PUSHUP VISET	ONGS				
VTUA118	4" – 24"	9.00"	54"	328 lbs.	75,000 ftlbs.
VTUA118-L36	4" – 24"	9.00"	36"	294 lbs.	72,000 ftlbs.
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.



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

 1
 HANDLE

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 Tongvise takes the place of several vises used in pipe yards, machine shops, downhole tool shops and on offshore drilling platforms.

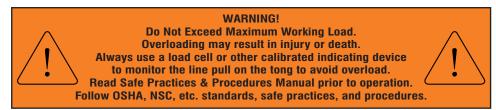
PETOL Tongvises have the unique feature of being easily adjusted to various pipe sizes by simply sliding the heat-treated PETOL Special chain through the jaw of the vise and engaging the locking cam lever. Regardless of the load being applied these vises will not jam.

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 Tongvise is equipped with replaceable high-speed steel PETOL Diamond Point Inserts for minimum marring of pipe surfaces.

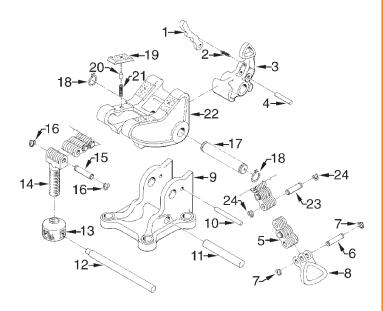
CATALOG		GRIPPING		MAXIMUM
NO.	0.D.*	WIDTH	WEIGHT**	WORKING LOAD
TVA115H	2" – 8"	5.25"	44 lbs.	14,000 ftlbs.
TVA116	4" – 14"	7.00"	110 lbs.	38,500 ftlbs.
TVA116H	4" – 14"	7.25"	134 lbs.	50,000 ftlbs.
TVA118	4" – 24"	9.00"	241 lbs.	90,000 ftlbs.
TVA120	6" – 24"	12.63"	500 lbs.	235,000 ftlbs.

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

** WEIGHTS DO NOT INCLUDE CHAIN.



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 reg'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		GRIPPING	HANDLE		CHAIN TENSILE
NO.	0.D.	WIDTH	LENGTH	WEIGHT	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.

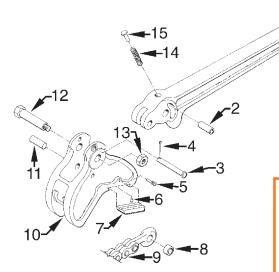


WARNING! Use as a hand tool only. Do Not Strike, use a "cheater" or extend handle. SERIOUS INJURY may result if used improperly.



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

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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		GRIPPING	TONG		CHAIN TENSILE
NO.	PIPE SIZE	WIDTH	LENGTH	WEIGHT	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.
<u>C16-P</u>	4" – 18"	4.63"	87"	139 lbs.	56,000 lbs.
NOTE. OTANI		A OFNAENIT OLIAINI			

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

TITAN CHAIN TONGS WITH EXTRA LONG CHAIN

CATALOG			CATALOG			CATALOG		
NO.	0.D.	WEIGHT	NO.	0.D.	WEIGHT	NO.	0.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-F	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-F	9 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.



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

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	<u>KEY N</u> 1 2 3,4 5

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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.

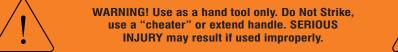
CATALOG		GRIPPING	TONG		CHAIN TENSILE
NO.	PIPE SIZE	WIDTH	LENGTH	WEIGHT	STRENGTH
C27-P	1/4" – 2-1/2"	2.19"	27"	11 lbs.	13,800 lbs.
C37-P	3/4" – 4"	2.69"	37"	19 lbs.	17,600 lbs.
C47-P	1" – 6"	3.00"	47"	27 lbs.	20,100 lbs.
C57-P	1-1/2" — 8"	3.38"	57"	40 lbs.	22,000 lbs.
<u>C67-P</u>	2" – 12"	3.69"	67"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

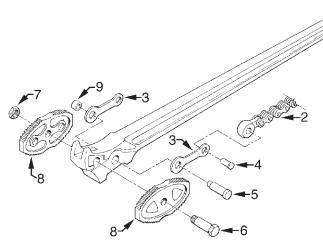
CATALOG			CATALOG		
NO.	0.D.	WEIGHT	NO.	0.D.	WEIGHT
C27-34-P	1/2" — 7-1/4"	11-1/4 lbs.	C47-46-P	1-3/8" — 11-3/4"	27-3/4 lbs.
C27-44-P	1/2" – 9"	12-1/4 lbs.	C47-60-P	1-3/8" — 15"	31-1/2 lbs.
C27-56-P	1/2" — 11-3/4"	13-1/4 lbs.	C47-76-P	1-3/8" – 22"	35-1/4 lbs.
C27-66-P	1/2" – 14"	14-1/4 lbs.	C47-90-P	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.





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

Form GCAT20 Rev. 04/12

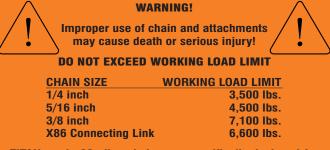
TITAN CATHEAD & SPINNING CHAIN



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.



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. X86	FOR USE WITH CHAIN SIZES 1/4" - 3/8"	WEIGHT 6 1/2 ozs.	WORKING LOAD LIMIT 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.







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

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



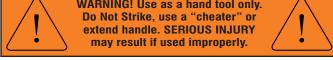
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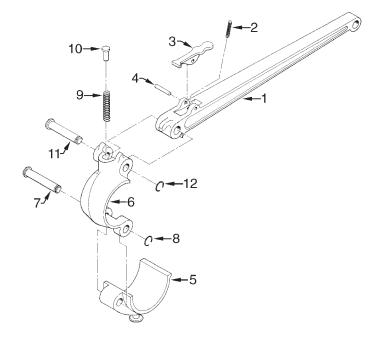
TITAN SHOTHOLE CASING TONGS



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.

\land	WARNING! Use a	as a hand tool only.	\wedge
SHA3	3.000"	26"	8 lbs.
CATALOG NO.	0.D.	HANDLE LENGTH	WEIGHT





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



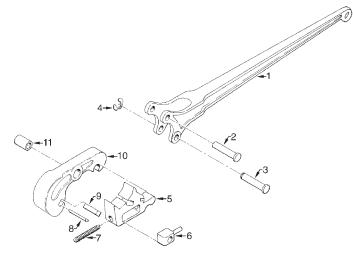
PETOL PIPE TONGS are highly engineered tongs which are light and safe. These tongs are a radical departure in design from the old style "scissor-type" tongs. When applied to the pipe they grip instantly and permit perfect ratcheting action. The tongs are easily snapped on and off and provide a positive, 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		HANDLE	
NO.	0.D.	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

2-3/8"

2-9/16"

2-3/4"

2-15/16"

3-1/8"

3-1/2"

3-7/8"

3-7/16"

3-11/16"

3-7/8"

4-1/4"

4-3/8"

4-7/8"

5-1/4"

necessary when working with flange connections.

1-1/2"

1-5/8"

1-3/4"

1-7/8"

2"

2-1/4"

2-1/2"

SW08

SW09

SW10

SW11

SW12

SW13

SW14





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.

The large smooth striking surface reduces the hazard of glancing blows and lessens the chance of a rope slipping from the handle					CATALOG NO.	OPENING / NUT SIZE	LENGTH
when maintaining tension on the wrench.				SWT20	1-1/16"	10-1/2"	
	Striking Wr	anches are fo	orged from allo	hac leats w	SWT21	1-1/8"	10-1/2"
	•		cific Rockwell	-	SWT22	1-1/4"	11"
	d maximum t	• •		naruness ior	SWT23	1-5/16"	11"
Silengin and		oor me.			SWT24	1-7/16"	11-3/4"
The Cooren	ah nart num	hor stud size	and DETOL tr	adomark ara	SWT25	1-1/2"	11-3/4"
		,	, and PETOL transfer	auemark are	SWT26	1-5/8"	12"
Clearly mark	leu on the na	Indle of each v	viencii.		SWT27	1-11/16"	12"
					SWT28	1-3/4"	12-1/2"
					SWT29	1-13/16"	12-1/2"
CATALOG	STUD	NUT	HEAD		SWT30	1-7/8"	12-1/2"
NO.	SIZE	SIZE	DIAMETER	WEIGHT	SWT31	1-15/16"	13-1/4"
SW01	5/8"	1-1/16"	1-11/16"	1-7/8 lbs.	SWT32	2"	13-1/4"
SW02	3/4"	1-1/4"	1-15/16"	2 lbs.	SWT33	2-1/8"	13-1/2"
SW03	7/8"	1-7/16"	2-1/4"	3-1/4 lbs.	SWT34	2-3/16"	13-1/2"
SW04	1"	1-5/8"	2-1/2"	4-5/8 lbs.	SWT35	2-1/4"	13-1/2"
SW05	1-1/8"	1-13/16"	2-11/16"	4-3/4 lbs.	SWT36	2-5/16"	14"
SW06	1-1/4"	2"	2-15/16"	5-5/8 lbs.	SWT37	2-3/8"	14"
SW07	1-3/8"	2-3/16"	3-3/16"	6-7/8 lbs.	SWT38	2-1/2"	14-3/4"

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	y steel and	OTTL	1 1/0	10 1/2	L 1/ 1 100.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	SWT22	1-1/4"	11"	2-3/4 lbs.
ademark areSWT25 $1-1/2"$ $11-3/4"$ $3-1/4$ 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.WEIGHTSWT31 $1-15/16"$ $13-1/4"$ $6-3/4$ lbs. $1-7/8$ lbs.SWT32 $2"$ $13-1/4"$ $6-3/4$ lbs. 2 lbs.SWT33 $2-1/8"$ $13-1/2"$ $6-5/8$ lbs. $3-1/4$ lbs.SWT34 $2-3/16"$ $13-1/2"$ $6-5/8$ lbs. $4-5/8$ lbs.SWT35 $2-1/4"$ $13-1/2"$ $6-5/8$ lbs. $4-3/4$ lbs.SWT36 $2-5/16"$ $14"$ $9-1/8$ lbs. $5-5/8$ lbs.SWT37 $2-3/8"$ $14"$ $9-1/4$ lbs. $7-5/8$ lbs.SWT39 $2-9/16"$ $14-3/4"$ $9-1/4$ lbs. $8-3/4$ lbs.SWT40 $2-5/8"$ $14-3/4"$ $9-1/8$ lbs. $8-3/4$ lbs.SWT41 $2-3/4"$ $16"$ 13 lbs. $9-7/8$ lbs.SWT42 $2-7/8"$ $16"$ $12-5/8$ lbs. $10-1/4$ lbs.SWT43 $2-15/16"$ $16"$ $12-3/4$ lbs. $11-3/8$ lbs.SWT44 $3"$ $16-1/2"$ $15-1/4$ lbs.	Ialuliess Iul	SWT23	1-5/16"	11"	2-3/4 lbs.
Addentative 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" 5-7/8 lbs. SWT30 1-7/8" 12-1/2" 5-3/4 lbs. WEIGHT SWT31 1-15/16" 13-1/4" 6-3/4 lbs. 1-7/8 lbs. SWT32 2" 13-1/4" 6-3/4 lbs. 2 lbs. SWT33 2-1/8" 13-1/2" 6-3/4 lbs. 3-1/4 lbs. SWT34 2-3/16" 13-1/2" 6-5/8 lbs. 4-5/8 lbs. SWT35 2-1/4" 13-1/2" 6-5/8 lbs. 4-3/4 lbs. SWT36 2-5/16" 14" 9-1/8 lbs. 5-5/8 lbs. SWT38 2-1/2" 14-3/4" 9-1/4 lbs. 7-5/8 lbs. SWT39 2-9/16" 14-3/4" 9-1/4 lbs. 8-1/2 lbs. SWT40 2-5/8" 14-3/4" 9-1/8 lbs.		SWT24	1-7/16"	11-3/4"	3-3/8 lbs.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	adomark aro	SWT25	1-1/2"	11-3/4"	3-1/4 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	auemaik ale	SWT26	1-5/8"	12"	4 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SWT27	1-11/16"	12"	4 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SWT28	1-3/4"	12-1/2"	5-7/8 lbs.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		SWT29	1-13/16"	12-1/2"	5-7/8 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SWT30	1-7/8"	12-1/2"	5-3/4 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	WEIGHT	SWT31	1-15/16"	13-1/4"	6-3/4 lbs.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1-7/8 lbs.	SWT32	2"	13-1/4"	6-1/2 lbs.
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2 lbs.	SWT33	2-1/8"	13-1/2"	6-3/4 lbs.
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3-1/4 lbs.	SWT34	2-3/16"	13-1/2"	6-5/8 lbs.
	4-5/8 lbs.	SWT35	2-1/4"	13-1/2"	6-5/8 lbs.
	4-3/4 lbs.	SWT36	2-5/16"	14"	9-1/8 lbs.
7-5/8 lbs. SWT39 2-9/16" 14-3/4" 9-1/4 lbs. 8-1/2 lbs. SWT40 2-5/8" 14-3/4" 9-1/4 lbs. 8-3/4 lbs. SWT41 2-3/4" 16" 13 lbs. 9-7/8 lbs. SWT42 2-7/8" 16" 12-5/8 lbs. 10-1/4 lbs. SWT43 2-15/16" 16" 12-3/4 lbs. 11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.	5-5/8 lbs.	SWT37	2-3/8"	14"	9 lbs.
8-1/2 lbs. SWT40 2-5/8" 14-3/4" 9-1/8 lbs. 8-3/4 lbs. SWT41 2-3/4" 16" 13 lbs. 9-7/8 lbs. SWT42 2-7/8" 16" 12-5/8 lbs. 10-1/4 lbs. SWT43 2-15/16" 16" 12-3/4 lbs. 11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.	6-7/8 lbs.	SWT38	2-1/2"	14-3/4"	9-1/4 lbs.
8-3/4 lbs. SWT41 2-3/4" 16" 13 lbs. 9-7/8 lbs. SWT42 2-7/8" 16" 12-5/8 lbs. 10-1/4 lbs. SWT43 2-15/16" 16" 12-3/4 lbs. 11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.	7-5/8 lbs.	SWT39	2-9/16"	14-3/4"	9-1/4 lbs.
9-7/8 lbs. SWT42 2-7/8" 16" 12-5/8 lbs. 10-1/4 lbs. SWT43 2-15/16" 16" 12-3/4 lbs. 11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.		SWT40	2-5/8"	14-3/4"	9-1/8 lbs.
10-1/4 lbs. SWT43 2-15/16" 16" 12-3/4 lbs. 11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.	8-3/4 lbs.	SWT41	2-3/4"	16"	13 lbs.
11-3/8 lbs. SWT44 3" 16-1/2" 15-1/4 lbs.	9-7/8 lbs.	SWT42	2-7/8"	16"	12-5/8 lbs.
	10-1/4 lbs.	SWT43	2-15/16"	16"	12-3/4 lbs.
<u>13-1/4 lbs.</u> <u>SWT45</u> <u>3-1/8"</u> <u>16-1/2"</u> <u>15-1/8 lbs.</u>		SWT44	3"	16-1/2"	15-1/4 lbs.
	13-1/4 lbs.	SWT45	3-1/8"	16-1/2"	15-1/8 lbs.



WEIGHT

2-1/4 lbs. 2-1/4 lbs.

TITAN RUN TICKET BOX

RTB1 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.

Designed for angled

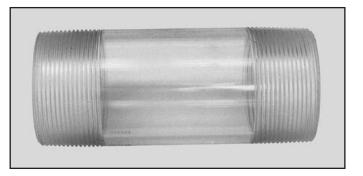


or horizontal mounting.



Form GCAT20 Rev. 04/12





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	SIZE	WALL		
NO.	(0.D. x L)	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.				



28

PETOL TANK SAFETY GAUGE

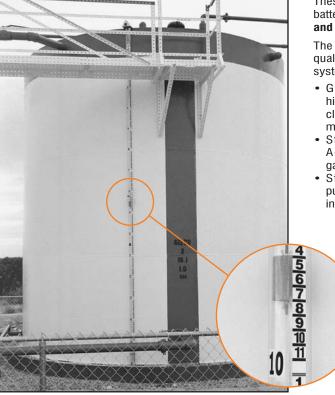
(for Vertical Storage Tanks)

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



0.4741.00	TANK
CATALOG	TANK
NO.	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 AVAIL	ABLE UPON.
REQUEST.	
*ENCLOSED HUT SYSTEMS ARE RE	• • • • • • • • • • =
FOR WINTER CLIMATES WITH BLC	WING SNOW
CONDITIONS.	

3	¥ ≺ 13	⊮ ¹²
	5	-9 -11 10 - 7 1 - 7 1 - 2 3 - 4 1 - 1 1 - 2 3 - 4 1 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -
	5	$ \frac{ }{ } = \frac{ }{ } - 6 $
KEY NO. ITEM DE	SCRIPTION	NO. REQ'D
TANK SAFETY GAUGE KIT	00	
1 INDICAT		1
2 TANK PL 3 CABLE	.06	1
3 CABLE		1

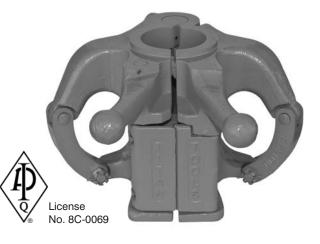
TANK SAFETY GAUGE KIT				
1 INDICATOR	1			
2 TANK PLUG	1			
3 CABLE	1			
4 CABLE SLEEVE	3			
5 STRAP BRACKET	*			
6 CLAMP	*			
7 GAUGE BODY TUBE	1			
8 FLOAT W/BOLT & NUT	1			
9 A-FRAME	1			
10 PULLEY	2			
11 PULLEY KEEPER	2			
12 HUT	1			
13 WING NUT	1			
* NO. REQ'D. WILL VARY BETWEEN SYSTEM SIZES.				

Form GCAT20 Rev. 04/12

TITAN TUBING ELEVATOR

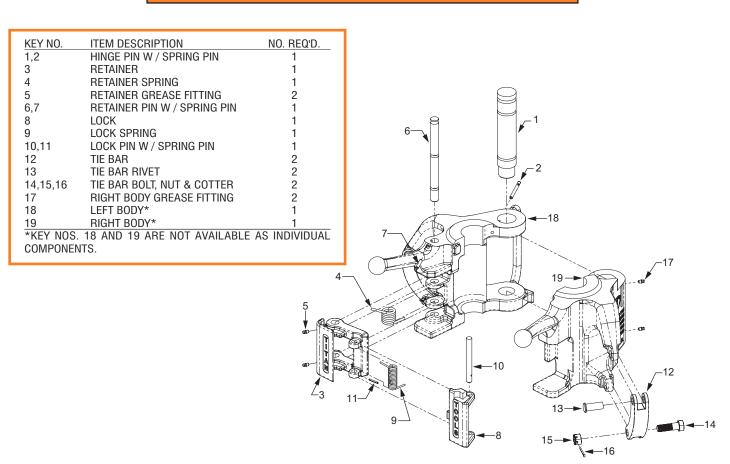
TITAN TUBING ELEVATORS are constructed of high-quality alloy steel and heat-treated for maximum strength and durability. Each elevator is manufactured and tested to API 8C. In addition, the load collar is flame hardened for increased abrasion resistance.

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



CATALOG			RATED
NO.	TUBING SIZE	WEIGHT	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.



30

PETOL TUBING TONGS

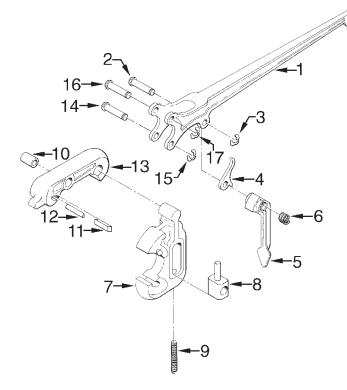


PETOL TUBING TONGS were the first "snap-on" tubing tongs on the market and their outstanding features make them a leader throughout the oil, mining and water well drilling industries.

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		HANDLE	
NO.	0.D.	LENGTH	WEIGHT
MEDIUM HEAVY DUT	Y		
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

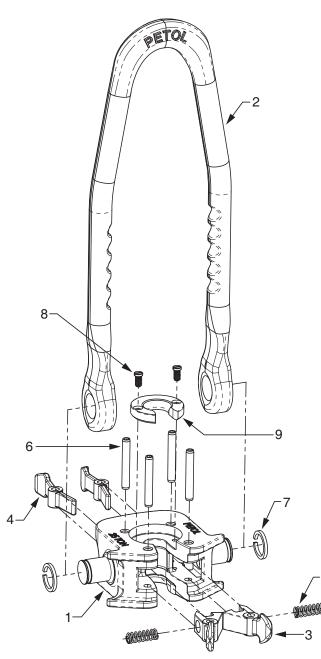
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PETOL SUCKEROD ELEVATORS are manufactured to the highest standards of quality. These plate-type elevators are made from heat-treated alloy steel for strength and durability and are rated for 25 tons.

CATALOG			RATED	
NO.	ROD SIZE	WEIGHT	LOAD	
REA025	(see plates below)	30 lbs.	25 tons	
PLATE INSER	ſS			
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 senarate from Bod Elevator				

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



Form GCAT20 Rev. 04/12

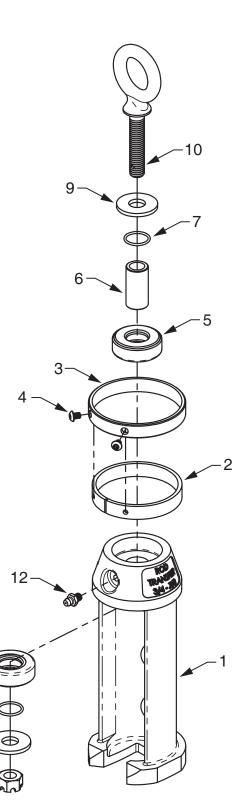
PETOL SUCKEROD TRANSFER

PETOL SUCKEROD TRANFERS 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			RATED
NO.	ROD SIZE	WEIGHT	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 tranfers 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
REPLACEN	MENT KIT	
5	THRUST BEARING	2
6	BUSHING	1
7	0-RING	2
8	SLOTTED NUT	1
9	FLAT WASHER	2
10	LIFTING EYEBOLT	1
11	SLOTTED SPRING PIN	1
12	GREASE FITTING	1





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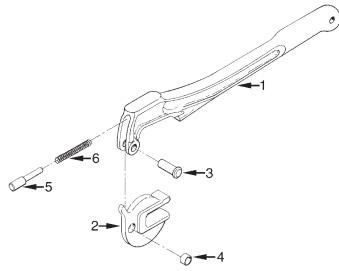
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PETOL SUCKEROD WRENCH



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 TY	PE			
CATALOG	SIZE OF	SIZE OF		
NO.	SQUARE	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 1	ГҮРЕ			
CATALOG	SIZE OF	SIZE OF		
NO.	COUPLING	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	SIZE OF	SIZE OF		
NO.	SQUARE	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!



TITAN FLANGE LIFTER Patent Pending

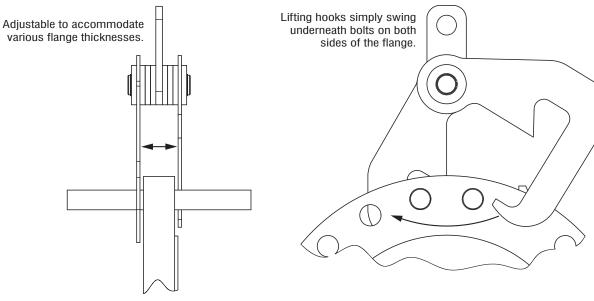


The TITAN FLANGE LIFTER provides a safe and easy method of installing and removing blind flanges. By eliminating the need to hire a welder to attach a lifting eye to the flange, the tool is both time and cost effective. Each flange lifter is load tested and magnetic particle inspected to ensure safety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

Product videos can be downloaded from www.gearencb.com

CATALOG	FITS	FITS FLANGE		RATED
NO.	BOLT SIZE	THICKNESS	WEIGHT	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.

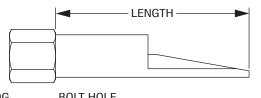






TITAN FLANGE ALIGNING TOOLS are safe, fast, and effective. The tool's tapered shaft is a patented feature that eliminates the need for hammering and prying when lining up flange bolt holes.

TITAN Flange Aligning Tools are sold individually and in sets.



CATALOG	BOLT HOLE		
NO.	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	BOLT HOLE		
NO.	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	SET INCL	UDES	
NO.	2 EAC	H:	WEIGHT
FTS24	FT02, FT03	3, FT04	8 lbs.
FTS26	FT02, FT03, F	T04, FT06	11 lbs.
FTS28	FT02, FT03	3, FT04,	15 lbs.
	FT06,F	T08	
FTS212 (shown)	FT02, FT03	3, FT04,	21 lbs.
	FT06, FT08,	FT1012	

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.

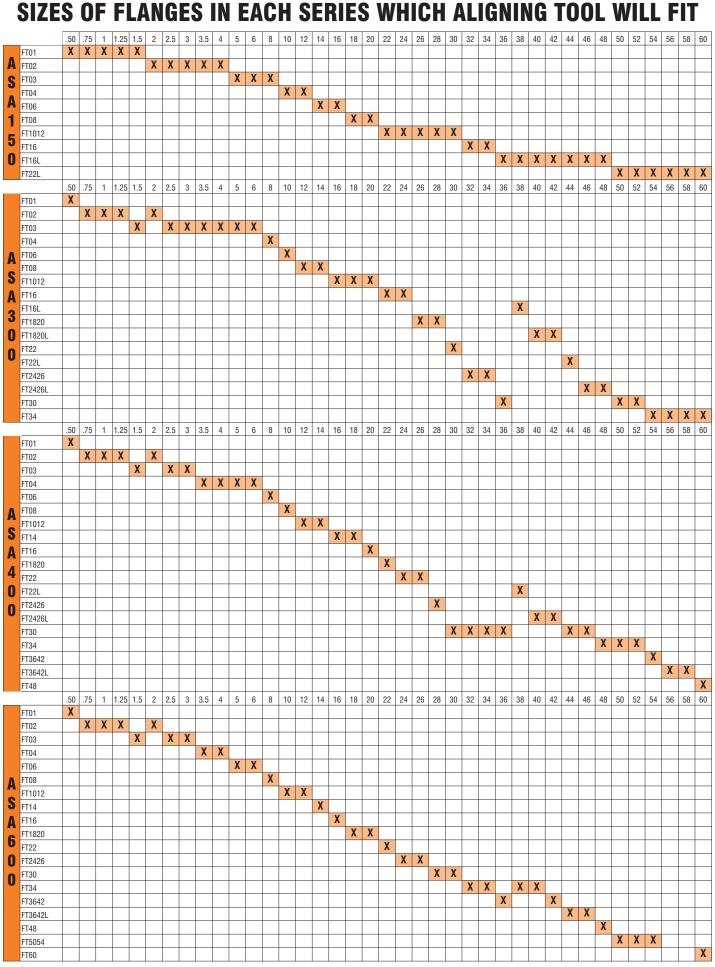
If necessary, use a second tool and turn until the bolt holes are in alignment and insert flange bolts.

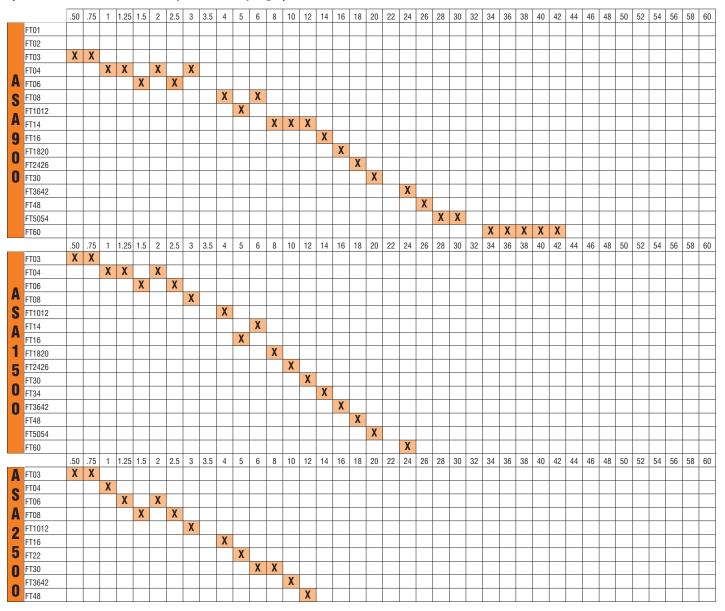


A product video can be downloaded from www.gearencb.com.

"EXTRA LONG" FLANGE ALIGNING TOOLS

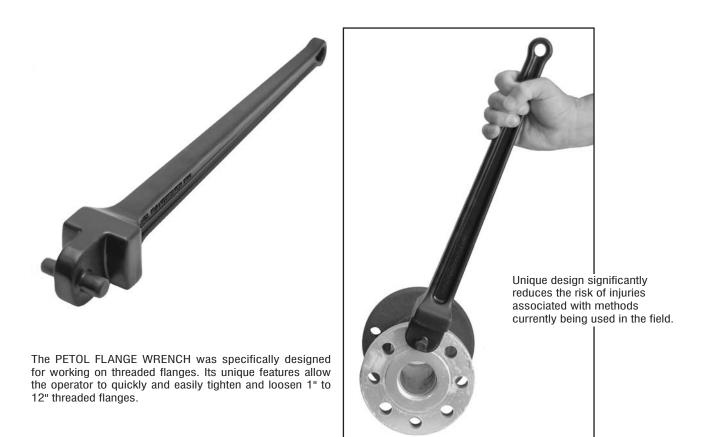
CATALOG NO.	BOLT HOLE SIZE	LENGTH	WEIGHT	CATALOG NO.	BOLT HOLE SIZE	LENGTH	WEIGHT
FT0L	1/2"	5-3/8"	10 ozs.	FT30L	2-1/8"	15"	13 lbs.
FIUL	1/2	5-5/6	10 025.	FISUL	2-1/0	15	13 105.
FT01L	5/8"	5-3/4"	12 ozs.	FT34L	2-3/8"	16-1/4"	15 lbs.
FT02L	3/4"	6-1/4"	14 ozs.	FT3642L	2-5/8"	17"	18 lbs.
FT03L	7/8"	6-1/2"	1-1/8 lbs.	SETS			
FT04L	1"	7"	1-1/2 lb.				
	1 1/01	01		CATALOG	SET INCL	LUDES	
FT06L	1-1/8"	8"	2-1/4 lbs.	NO.	2 EA0	CH:	WEIGHT
FT08L	1-1/4"	8-1/2"	3 lbs.	FTS24L	FT02L, FT03		17 lbs.
FT1012L	1-3/8"	9-1/4"	4 lbs.	FTS26L	FT02L, FT03L, F	, -	21 lbs.
FT14L	1-1/2"	9-1/2"	4-1/2 lbs.	FTS28L	FT02L, FT03	L, FT04L,	26 lbs.
FT16L	1-5/8"	10-1/4"	5-3/4 lbs.		FT06L,F	T08L	
FT1820L	1-3/4"	10-7/8"	6-1/4 lbs.	FTS212L	FT02L, FT03	L, FT04L,	34 lbs.
FT2426L	2"	12"	7-1/2 lbs.		FT06L, FT08L	., FT1012L	



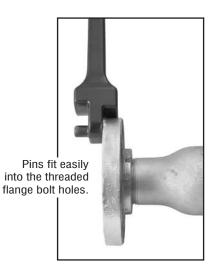


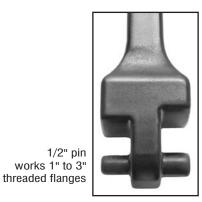
(table continued from previous page) TITAN FLANGE ALIGNING TOOL

PETOL FLANGE WRENCH



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



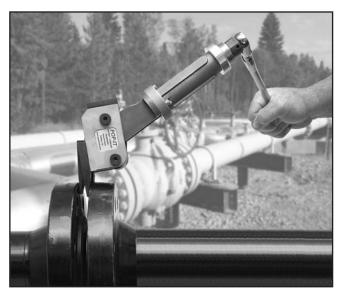


5/8" pin works 4" to 12" threaded flanges

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*



The POP-IT[™] TOOL is the most versatile **flange spread**ing 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.

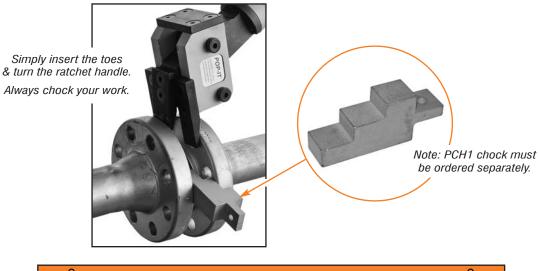
The POP-IT $^{\rm M}$ is lightweight, easy to use, durable, and delivers an incredible amount of force.



P95-525

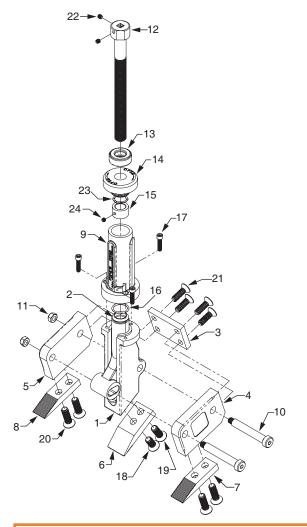
	MINIMUM	MAXIMUM		
CATALOG NO.	SPREAD	SPREAD	CAPACITY	WEIGHT
P95-525	1/16"	5-1/4"	10,000 lbs.	11 lbs.
PHD0535	1/2"	5-1/2"	30,000 lbs.	33 lbs.
	3"	8-1/2"	20,000 lbs.	33 lbs.

CHOCK FOR P95-525/PHD0535	
CATALOG	
NO.	WEIGHT
PCH1	6 ozs.

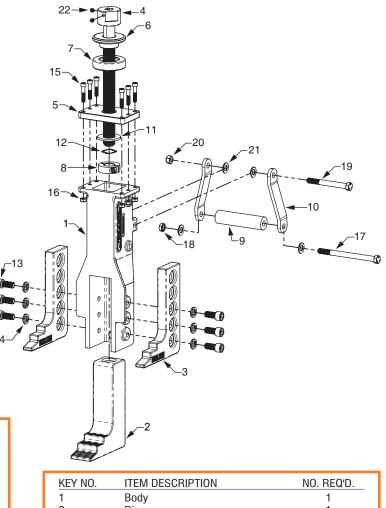




PHD0535



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	0-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)		1
	NTS OF HARDWARE KIT ARE ALSO SO	LD
INDIVIDUA	LLY.	

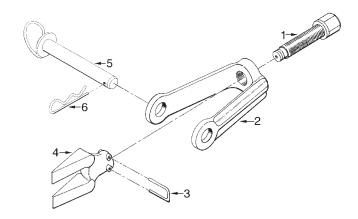
KEY NO.	ITEM DESCRIPTION	NO. REQ'D.
1	Body	1
2	Riser	1
3	Outside Toe	2
4	Drive Screw	1
5	Top Plate	1
6	Bearing Flange	1
7	Thrust Bearing	1
8	Shaft Collar	1
9	Handle Grip	1
10	Handle Side	2
HARDWARE	KIT*	
11	Flat Washer	1
12	Wave Disc Spring	1
13	Outside Toe Cap Screw	6
14	Spring Lockwasher	6
15	Top Plate 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
<u>(not shown)</u>		1
	NTS OF HARDWARE KIT ARE ALSO SOL	.D
INDIVIDUAL	LY.	

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	INSIDE	PIN	
NO.	FRAME WIDTH	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 P	INS AVAILABLE UPC	N 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

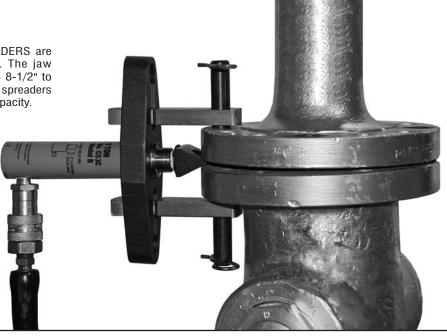
SIZES OF FLANGES IN EACH SERIES WHICH SPREADERS WILL FIT

																<u> </u>							_						
		.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
	N14						Х	Х	Х	Х	Х	Х	Х																
2	N48											Х	Х	Х	Х	Х	X	Х											
Ť	N812														Х	Х	X	Х	Х	Х	Х	Х	Х	Х					
ASA150	N1216																X	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х
S	N1620																		Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х
R	N2024																				Х	Х	Х	Х	Х	Х	Х	Х	Х
	N14		Х	Х	Х	Х	Х	Х																					
	N48							Х	Х	Х	Х	Х	Х																
SA300	N812													Х	Х	Х													
A	N1216														Х	Х	X	Х	Х	Х	Х								
AS	N1620															Х	Х	Х	Х	Х	Х	Х	Х	Х					
H	N2024																	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
	N14		Х	Х	Х																								
	N48					Х	Х	Х	Х																				
SA400	N812						Х			Х	Х	Х	Х	Х															
A	N1216													Х	Х	Х	X	Х											
AS	N1620														Х	Х	Х	Х	Х	Х	Х	Х							
-	N2024															Х	Х	Х	Х	Х	Х	Х	Х	Х	Х				
	N14		Х	Х	Х																								
	N48					Х	Х	Х	Х																				
9	N812						Х			Х	Х	Х	Х																
ASA600	N1216											Х	Х	Х	Х														
SI	N1620													Х	Х	Х	Х	Х											
1	N2024														Х	Х	X	Х	Х	Х	X	Х							
	N14																												
ASA900	N48	Х	Х	Х	Х	Х																							
9	N812			Х	Х	Х	Х	Х	Х		Х																		
A	N1216					Х		Х			Х	Х	Х	Х															
IS	N1620										Х	Х	Х	Х	Х	Х													
1	N2024											Х		Х	Х	Х	Х	Х	Х										
0	N14																												
SA1500	N48	Х	Х	Х	Х	Х																							
15	N812			Х	Х	Х	Х	Х	Х																				
A	N1216					Х		Х	Х		Х																		
S	N1620								Х		Х	Х																	
A	N2024										Х	Х	Х	Х															
0	N14																												
SA2500	N48	Х	X																										
22	N812			Х	Х	Х	Х	Х	Х																				
A	N1216					Х		Х	Х		Х																		
S	N1620								Х		Х	Х																	
A	N2024										Х	Х	Х	Х															

X SPECIAL FLANGE PINS REQUIRED. CALL FACTORY FOR INFORMATION. Form GCAT20 Rev. 04/12

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		SPR	EAD			MAXIMUM OPERATING
NO.	STUD SIZE	MIN.	MAX.	CAPACITY	WEIGHT	PRESSURE
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





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	FITS FLANGE SIZES		
(PSI)	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	

<u>KEY NO.</u>	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

pr capacity! INJURY! Follow OSHA, Deedures.

TITAN FLANGE KEY



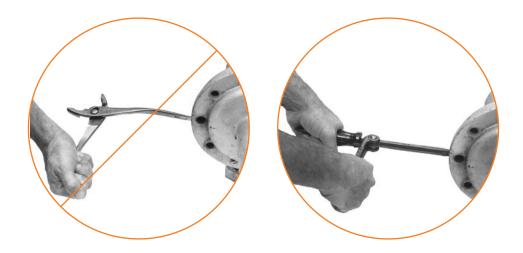
Use the TITAN FLANGE KEY to separate flanges instead of risking an injury because of the improper use of hand tools.

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 <u>NO.</u> <u>LENGTH</u> <u>WEIGHT</u> FK100 11" 1-1/4 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!



TITAN REFINERY WRENCH



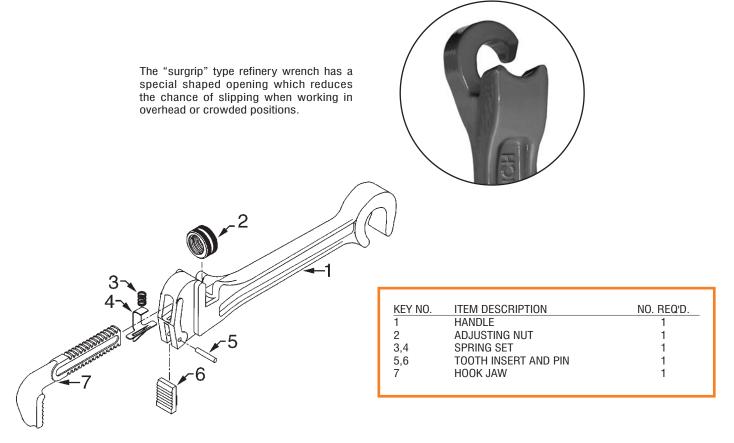
The TITAN REFINERY WRENCH is a combination pipe wrench/valve wheel wrench designed for multiple uses in the refining, petrochemical, and gas processing industries.

CATALOG	PIPE	WHEEL WRENCH	LENGTH	
NO.	CAPACITY	OPENING	(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-DUT)	(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!



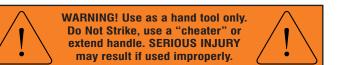
NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



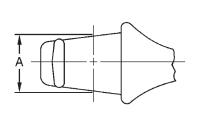


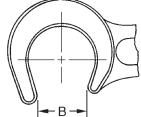
TITAN VALVE WHEEL WRENCHES are used to provide leverage on hand operated valve wheels. This series of wrenches permits a smooth snap "hammer-action" to make opening and closing stubborn valves easy. Each wrench will fit a variety of sizes and shapes of valve wheels. The special shaped opening in the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

				T 11	
CATALOG	DATTERN	CAST OR	OVERALL LENG		
<u>NO.</u>	PATTERN	FORGED	(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					



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

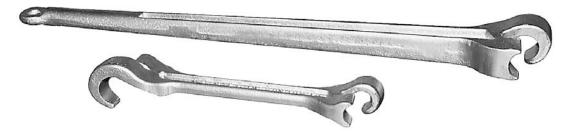




DIMENSIONS

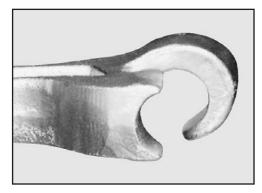
		4		В
SIZE	SMALL	LARGE	SMALL	LARGE
0	11/16"	7/8"	1/2"	21/32"
0CPTC	7/16"	7/16"	1/2"	21/32"
10	7/8"	1-3/16"	11/16"	1"
1	1-3/	/16"		1"
12	1-1/2"	1-7/8"	1"	1-5/16"
12BR	1-1	/2"	1-	-3/8"
2	1-7	/8"	1-	5/16"
3	2-1	/2"		2"
3L	2-3	8/4"		2"
4	2-11	/16"	2-	-1/4"
5	2-3		2-	1/2"
6	2-7			3/4"

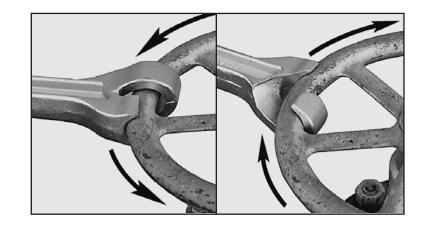
TITAN SURGRIP VALVE WHEEL WRENCH



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.



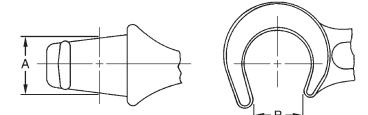


CATALOG		OVERALL LENGTH	
NO.	PATTERN	(approx.)	WEIGHT
VW0SG	Double-end	8"	14 ozs.
VW0LSG	Double-end	15"	1-3/8 lbs.
VW10SG	Double-end	10"	1-1/2 lbs.
VW12SG	Double-end	22"	4-5/8 lbs.
VW1SG	Single-end	22"	4 lbs.
VW2SG	Single-end	27"	5-5/8 lbs.
VW3SG	Single-end	27"	12 lbs.

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

D

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



DIMENSIONS

		A			D
SIZE	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"
-					

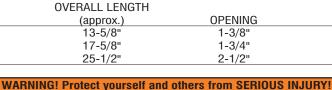
TITAN "100 SERIES" **ALUMINUM VALVE WHEEL WRENCH**



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. VW101AL VW102AL VW103AL





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.

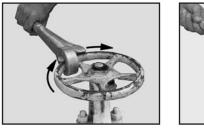


WEIGHT 2-1/8 lbs.

3-1/2 lbs.

7-3/4 lbs.

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





OPENING

1-3/8"

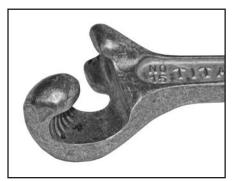
1-3/4"

2-1/2"

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.



OVERALL LENGTH		
(approx.)	OPENING	WEIGHT
9"	7/8"	13 ozs.
11"	1"	1-1/4 lbs.
15"	1-3/8"	2-1/4 lbs.
19"	1-3/4"	3-3/8 lbs.
28"	2"	7 lbs.
	(approx.) 9" 11" 15" 19"	(approx.) OPENING 9" 7/8" 11" 1" 15" 1-3/8" 19" 1-3/4"

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.

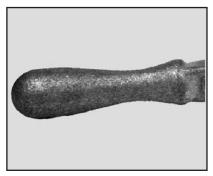
Finally, the handle has been designed to provide the worker with a safer, more comfortable gripping area.

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

CATALOG	OVERALL LENGTH		
NO.	(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.

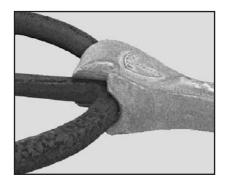
NOTE: SAFE PRACTICES & PROCEDURES CAN BE FOUND ON PAGE 8 OF THIS CATALOG.



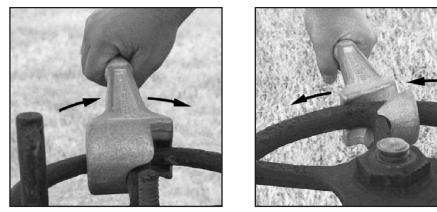
SAFER, MORE COMFORTABLE GRIP



UNIQUE SPOKE GRIP



IMPROVED BASE PAD DESIGN



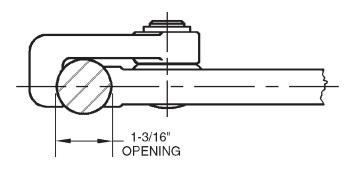
TITAN VALVE WHEEL LATCH WRENCH



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

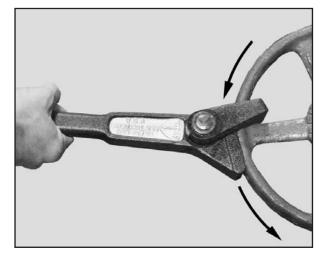
The patented latching mechanism pivots freely around a bushing and rivet allowing the wrench to be placed on and taken off the valve wheel with ease.

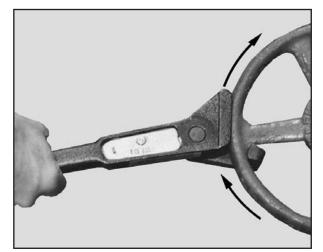
The TITAN Valve Wheel Latch Wrench is made from alloy steel for strength and durability.



CATALOG NO.	OPENING	LENGTH	WEIGHT
VWL1	1-3/16"	11-1/4"	3-1/2 lbs.
SE	WARNING! Protect yo RIOUS INJURY! Never means to extend hand can be hurt or inj	r use a "cheater" or	other /

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





HERRINGBONE GEARS AND PINIONS

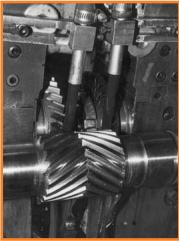




Gearench manufactures HERRINGBONE GEARS AND PINIONS for pumping units, mud pumps, and other oil field and industrial applications.

These gears and pinions meet the standard of high quality that has been expected of all Gearench 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.

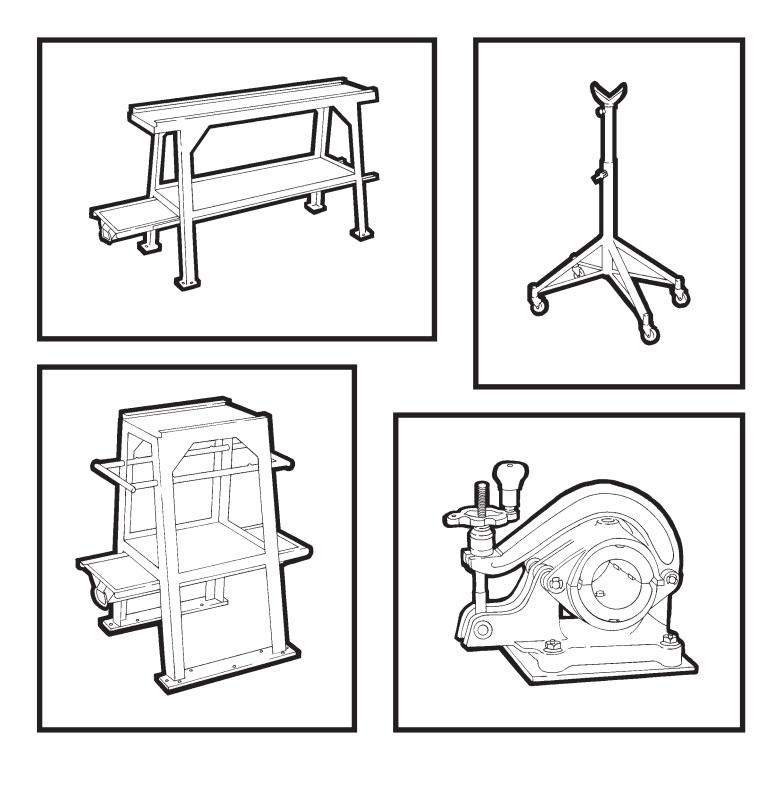
MAXIMUM CAPAB	LITIES
PITCH DIAMETER	72"
FACE WIDTH	18"
DIAMETRAL PITCH	2-1/2



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 BENCHRENCH



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

CATALOG	WRENCH	
NO.	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.

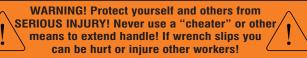
CATALOG		
NO.	SIZE OF CAGE	WEIGHT
ZWC01	1-1/16" to 1-1/2"	2 lbs.
ZWC23	1-1/2" to 1-3/4"	2-3/8 lbs.

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 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	WRENCH	
NO.	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	WRENCH	
NO.	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.



PETOL SURGRIP FRICTION TONGS

PETOL SURGRIP FRICTION TONGS are designed to makeup 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		GRIPPING		MAXIMUM	CATALOG		GRIPPING		MAXIMUM
NO.	0.D.	WIDTH	WEIGHT	WORKING LOAD	NO.	0.D.	WIDTH	WEIGHT	WORKING LOAD
ZT1:0.625	0.625"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.125	2.125"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.688	0.688"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.188	2.188"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.750	0.750"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.228	2.228"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.812	0.812"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.250	2.250"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.875	0.875"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.302	2.302"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.938	0.938"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.312	2.312"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:0.969	0.969"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.340	2.340"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:1.000	1.000"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT3:2.375	2.375"	2.50"	11-1/2 lbs.	2,300 ftlbs.
ZT1:1.031	1.031"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.375	2.375"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.062	1.062"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.500	2.500"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.125	1.125"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.562	2.562"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.125H	1.250"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.625	2.625"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.138	1.138"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.688	2.688"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.144	1.144"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.750	2.750"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.188	1.188"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.812	2.812"	3.00"	20 lbs.	3,000 ftlbs.
ZT1:1.250	1.250"	2.25"	6-1/2 lbs.	500 ftlbs.	ZT4:2.875	2.875"	3.00"	20 lbs.	3,000 ftlbs.
ZT2:1.312	1.312"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.000	3.000"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.375	1.375"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.062	3.062"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.438	1.438"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.125	3.125"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.500	1.500"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.200	3.200"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.625	1.625"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.250	3.250"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.688	1.688"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.375	3.375"	3.50"	45 lbs.	4,500 ftlbs.
ZT2:1.750	1.750"	2.50"	10-1/2 lbs.	1,200 ftlbs.	ZT5:3.500	3.500"	3.50"	45 lbs.	4,500 ftlbs.
ZT3:1.625	1.625"	2.50"	11-1/2 lbs.	2,300 ftlbs.	ZT5:3.625	3.625"	3.50"	45 lbs.	4,500 ftlbs.
(for rod co	uplings)				ZT5:3.688	3.688"	3.50"	45 lbs.	4,500 ftlbs.
ZT3:1.750	1.750"	2.50"	11-1/2 lbs.	2,300 ftlbs.	ZT5:3.750	3.750"	3.50"	45 lbs.	4,500 ftlbs.
ZT3:1.812	1.812"	2.50"	11-1/2 lbs.	2,300 ftlbs.	ZT5:3.875	3.875"	3.50"	45 lbs.	4,500 ftlbs.
ZT3:1.875	1.875"	2.50"	11-1/2 lbs.	2,300 ftlbs.	ZT5:4.000*	4.000"	3.50"	45 lbs.	4,500 ftlbs.
ZT3:1.938	1.938"	2.50"	11-1/2 lbs.	2,300 ftlbs.	SPECIAL 0.D.	. SIZES AVA	ALABLE UPON	REQUEST. SP	ECIAL SIZES ARE
ZT3:1.960	1.960"	2.50"	11-1/2 lbs.	2,300 ftlbs.	NON-RETURI	NABLE.			
ZT3:2.000	2.000"	2.50"	11-1/2 lbs.	2,300 ftlbs.		LARGER	THAN 4.000",	SEE PETOL F	RICTION TONGS
ZT3:2.062	2.062"	2.50"	11-1/2 lbs.	2,300 ftlbs.	W / CHAIN.				

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!





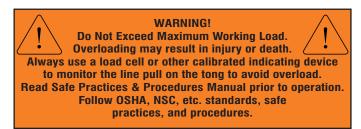
PETOL FRICTION TONGS W / CHAIN were designed especially for holding and turning pipe that must be carefully protected. The tongs have no bits or teeth inserts to mar the surface and therefore must turn the pipe by <u>friction alone</u>. The tongs are easily applied and removed and cannot jam or bind. 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		HANDLE	GRIPPING		MAXIMUM
NO.	0.D.	LENGTH	WIDTH	WEIGHT	WORKING LOAD
FA3:3.000	3.000"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:3.125	3.125"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:3.250	3.250"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:3.500	3.500"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:3.625	3.625"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:3.750	3.750"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA3:4.000	4.000"	51"	4.31"	50 lbs.	10,000 ftlbs.
FA4:4.000	4.000"	46"	4.31"	54 lbs.	12,500 ftlbs.
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 ftlbs.
FA4:4.500	4.500"	46"	4.31"	54 lbs.	12,500 ftlbs.
FA4:4.750	4.750"	46"	4.31"	54 lbs.	12,500 ftlbs.

CATALOG HANDLE GRIPPING MAXIMUM 0.D. WIDTH WEIGHT WORKING LOAD NO. LENGTH FA4:5.000 5.000" 46" 4.31" 54 lbs. 12,500 ft.-lbs. 46" FA4:5.375 5.375" 4.31" 54 lbs. 12,500 ft.-lbs. FAS4:4.000 4.000" 28" 4.31" 45 lbs. 12,500 ft.-lbs. 4.31" 12,500 ft.-lbs. FAS4:4.125 4.125" 45 lbs. 28" 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. 12,500 ft.-lbs. FAS4:4.750 4.750" 28" 4.31" 45 lbs. FAS4:5.000 5.000" 4.31" 45 lbs. 12,500 ft.-lbs. 28" 28" <u>4.3</u>1" 12,500 ft.-lbs. FAS4:5.375 5.375" 45 lbs. SPECIAL O.D. SIZES AVAILABLE UPON REQUEST. SPECIAL SIZES

ARE NON-RETURNABLE.



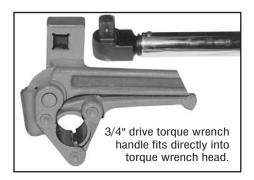
NOTE: SAFE PRACTICES & PROCEDURES MANUAL CAN BE FOUND ON PAGES 1-7 OF THIS CATALOG.

PETOL SURGRIP TORQUE WRENCH



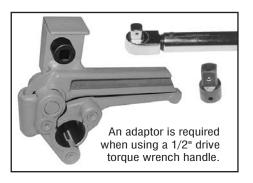
PETOL Surgrip Wrench Head with adaptor and 1/2" torque wrench handle.

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



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.



CATALOG NO.	ITEM DESCRIPTION	I FNGTH	WEIGHT	MAXIMUM WORKING LOAD	
ZT250M	Torque Wrench Handle	23-3/16"	3-1/2 lbs.	250 ftlbs.	
ZT600M	Torque Wrench Handle	40-3/4"	11-1/2 lbs.	600 ftlbs.	
ZT50A	1/2" Drive Adaptor	n/a	6 ozs.	n/a	
NOTE: If using 7T600M Torque Handle with 7T1 Wrench Heads DO NOT EXCEED 500 ft -lbs					

OTE: If using ZT600M Torque Handle with ZT1 Wrench Heads, DO NOT EXCEED 5

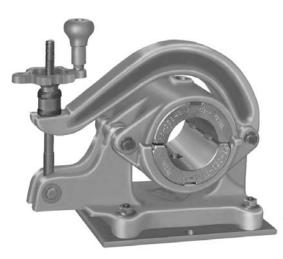
CATALOG		GRIPPING		CATALOG		GRIPPING	
NO.	0.D.	WIDTH	WEIGHT	NO.	0.D.	WIDTH	WEIGHT
ZT1:0.625T	0.625"	2.25"	6-1/2 lbs.	ZT3:2.125T	2.125"	2.50"	10-1/2 lbs.
ZT1:0.688T	0.688"	2.25"	6-1/2 lbs.	ZT3:2.188T	2.188"	2.50"	10-1/2 lbs.
ZT1:0.750T	0.750"	2.25"	6-1/2 lbs.	ZT3:2.228T	2.228"	2.50"	10-1/2 lbs.
ZT1:0.812T	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	s is 500 ftlbs.	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 AVAILAB	LE UPON REQUE	ST. SPECIAL
ZT3:2.000T	2.000"	2.50"	10-1/2 lbs.	SIZES ARE NON	-RETURNABLE.		
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.

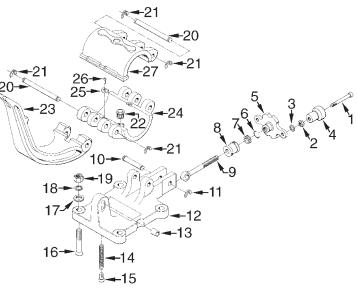
Surgrip Friction Vises come in two sizes, ZV35-52 and ZV55-54. Interchangeable aluminum bushings are available to meet specific O.D. requirements. See list of bushing sizes on page 59.

The ZV55-54 PETOL Surgrip Friction Vise can be fitted with special adaptor bushings enabling it to handle all the smaller 0.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: PART FACTORY FOF	S MAY VARY SLIGHTLY AMONG TETAILS.	SIZES. CALL	
KEY NO.	ITEM DESCRIPTION	NO. REQ'D.	
VISE BALL B	EARING NUT ASSEMBLY		
1,2,3	VISE NUT HANDLE BOLT , NUT, & LOCK WASHER	1	(
4	VISE NUT HANDLE GRIP	1	
5	VISE NUT HANDLE	1	<u>≫</u> -21 aa
6	VISE NUT CLIP RING	1	20-21-26
7	VISE NUT BEARING COMPLETE	1	25-
-		1	-23
<u>8</u> 9	VISE NUT SLEEVE	1	-23
U U	VISE NUT CLAMPING SCREW		
10,11	VISE BASE CLAMPING SCREW RIV		
10	W / KLIPRING	4	
12	VISE BASE		
13	VISE BASE BUSHING	1	19-
14	VISE BASE SPRING	1	10
	VISE BASE SET SCREW	1	17.4
	PLATE BOLT & NUT ASSEMBLY	4	
,	VISE JAW RIVET W / KLIPRINGS	2	<u> </u>
22	VISE BUSHING PLUNGER ASSEMBI	LY 2	16-
23	VISE CLAMPING ARM	1	108
24	VISE LOWER JAW	1	
25	VISE BUSHING KEY	4	
26	VISE BUSHING KEY SCREW	4	
27	VISE UPPER JAW	1	



PETOL SURGRIP FRICTION VISE BUSHINGS

		_
CATALOG NO.	0.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.
ZUV35:1.750 ZUV35:1.812	1.812"	4 lbs.
ZUV35:1.875	1.875"	3-7/8 lbs.
ZUV35:2.000		3-5/8 lbs.
ZUV35:2.000 ZUV35:2.062	2.000"	,
	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 E		
ZUV55-35A (ada	ptor 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.
	SIZES AVAILABLE UPON REQUES	

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

TITAN VALVE CAGE WRENCH

T		TITAN VALVE CAGE WREN a safe and effective r making up or breaking cages.	nethod of
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



Gearench 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	1-3/4 lbs.
	Steel Dies to cut Modified API Line	
	Pipe Thread on 11/16" O.D. Rods	
ZD500	1/2" Die Head Complete w / Hi-Speed	3 lbs.
	Steel Dies to cut Modified API Line	
	Pipe Thread on 7/8" O.D. Rods	
ZD750	3/4" Die Head Complete w / Hi-Speed	2-7/8 lbs.
	Steel Dies to cut Modified API Line	
	Pipe Thread on 1-1/16" O.D. Rods	
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	5 ozs.
	(Set of 4)	
ZD750-1*	3/4" Hi-Speed Steel Dies ONLY	5 ozs.
	(Set of 4)	
ZD00-R	RIDGID Ratchet Handle Complete	3-5/8 lbs.
	(22" long)	
*Dies fit 00R A	PI Die Head.	

Dies fit OOR <u>API</u> Die Head.



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	4-3/8 lbs.
	Vee Saddle - Heavy Duty - Bronze	
ZSV60-3A-AL	PETOL Adjustable Vee Saddle -	1 lb.
	Aluminum	
ZSV60-3A-BR	PETOL Adjustable Vee Saddle -	2 lbs.
	Bronze	

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

UAIALUU		
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 –	13-1/4 lbs.
	Right - Center - Left	
ZNP6060-24RCL	1-1/2" Holes – Right - Center - Left	9-5/8 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 -	2-3/4 lbs.
	Swivel Type	

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" 0.D. – 2-1/4" 0.D.	2 lbs.
ZSA234	1" 0.D. – 2-3/4" 0.D.	3 lbs.
ZSA334	1-1/4" 0.D 3-3/4" 0.D.	5 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 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
ZN01218-90F	PETOL Oil Can Holder -	11 ozs.
	w / Bolt & Nut	
ZN01626-91	PETOL Lubricant Holder -	1-1/8 lbs.
	w / Bolt & Nut	

61

PETOL FRICTION BREAKOUT UNITS

PETOL HYDRAULIC FRICTION BREAKOUT UNIT



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.



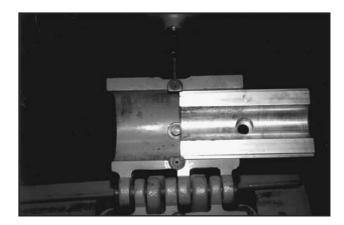
The PETOL HYDRAULIC FRICTION TONGS have perfect ratcheting action. A quick release pin enables the operator to quickly change out sizes.



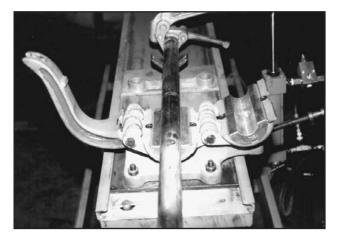
PETOL HYDRAULIC FRICTION BREAKOUT UNIT

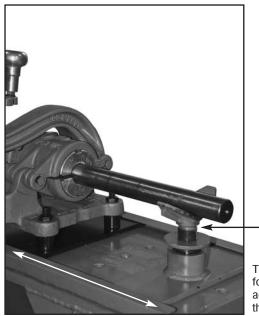


Units are furnished with a pressure gauge that reads out in ft.-lbs. of torque and PSI.



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





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

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.

66 **PETOL HYDRAULIC FRICTION BREAKOUT UNIT** — Tools & Parts

PETOL HYDRAULIC SURGRIP FRICTION TONGS

CATALOG

ZT3:2.062U

NO. ZT3:2.000U GRIPPING

WIDTH

2.50"

2.50"

.

WEIGHT

10-1/2 lbs.

10-1/2 lbs.

0.D.

2.000"

2.062"

MAXIMUM

WORKING LOAD

2,300 ft.-lbs.

2,300 ft.-lbs.



					213:2.0620	2.062"	2.50"	10-1/2 lbs.	2,300 ftlbs.
			263		ZT3:2.125U	2.125"	2.50"	10-1/2 lbs.	2,300 ftlbs.
					ZT3:2.188U	2.188"	2.50"	10-1/2 lbs.	2,300 ftlbs.
					ZT3:2.200U	2.200"	2.50"	10-1/2 lbs.	2,300 ftlbs.
					ZT3:2.250U	2.250"	2.50"	10-1/2 lbs.	2,300 ftlbs.
CATALOG		GRIPPING		MAXIMUM	ZT3:2.302U	2.302"	2.50"	10-1/2 lbs.	2,300 ftlbs.
NO.	0.D.	WIDTH	WEIGHT	WORKING LOAD	ZT3:2.312U	2.312"	2.50"	10-1/2 lbs.	2,300 ftlbs.
ZT1:0.625U	0.625"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT3:2.375U	2.375"	2.50"	10-1/2 lbs.	2,300 ftlbs.
ZT1:0.688U	0.688"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.375U	2.375"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:0.750U	0.750"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.500U	2.500"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:0.812U	0.812"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.562U	2.562"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:0.875U	0.875"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.688U	2.688"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:0.938U	0.938"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.750U	2.750"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:0.969U	0.969"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.812U	2.812"	3.00"	15-1/4 lbs.	3,000 ft. lbs.
ZT1:1.000U	1.000"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT4:2.875U	2.875"	3.00"	15-1/4 lbs.	3,000 ftlbs.
ZT1:1.031U	1.031"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.000U	3.000"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT1:1.062U	1.062"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.062U	3.062"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT1:1.125U	1.125"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.125U	3.125"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT1:1.138U	1.138"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.193U	3.193"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT1:1.188U	1.188"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.200U	3.200"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT1:1.250U	1.250"	2.25"	6-3/8 lbs.	500 ftlbs.	ZT5:3.250U	3.250"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.312U	1.312"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.375U	3.375"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.438U	1.438"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.500U	3.500"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.500U	1.500"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.625U	3.625"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.625U	1.625"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.688U	3.688"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.688U	1.688"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.715U	3.715"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT2:1.750U	1.750"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.750U	3.750"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT3:1.625U	1.625"	2.50"	9 lbs.	1,200 ftlbs.	ZT5:3.875U	3.875"	3.50"	37-1/2 lbs.	4,500 ftlbs.
(for rod co	1 0 /				ZT5:4.000U*	4.000"	3.50"	37-1/2 lbs.	4,500 ftlbs.
ZT3:1.750U	1.750"	2.50"	9 lbs.	1,200 ftlbs.			LABLE UPON	I REQUEST. Spec	IAL SIZES ARE
ZT3:1.812U	1.812"	2.50"	10-1/2 lbs.	2,300 ftlbs.	NON-RETURN				
ZT3:1.875U	1.875"	2.50"	10-1/2 lbs.	2,300 ftlbs.				DO", SEE PETO	L HYDRAULIC
ZT3:1.938U	1.938"	2.50"	10-1/2 lbs.	2,300 ftlbs.	FRICTION TO	DNGS W / C	HAIN.		

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.

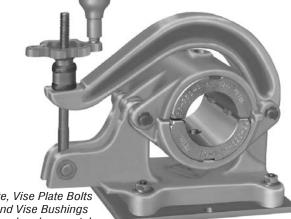
Follow OSHA, NSC, etc. standards, safe practices, and procedures.

PETOL HYDRAULIC FRICTION TONGS W/CHAIN

			an teanalan	0	CATALOG NO.	0.D.	GRIPPING WIDTH	WEIGHT	*MAXIMUM WORKING LOAD
	Alter		-		FA3:3.500U FA3:3.625U	3.500" 3.625"	4.31" 4.31"	30-1/2 lbs. 30-1/2 lbs.	10,000 ftlbs. 10,000 ftlbs.
	المعادي ال				FA3:3.750U	3.750"	4.31	30-1/2 lbs. 30-1/2 lbs.	10,000 ftlbs.
	10		(O)		FA3:4.000U	4.000"	4.31"	30-1/2 lbs.	10,000 ftlbs.
	· A				FA4:4.000U	4.000"	4.31"	40 lbs.	12,500 ftlbs.
					FA4:4.250U	4.250"	4.31"	40 lbs.	12,500 ftlbs.
			2		FA4:4.500U	4.500"	4.31"	40 lbs.	12,500 ftlbs.
					FA4:4.750U	4.750"	4.31"	40 lbs.	12,500 ftlbs.
					FA4:5.000U	5.000"	4.31"	40 lbs.	12,500 ftlbs.
CATALOG		GRIPPING		*MAXIMUM	FA4:5.375U	5.375"	4.31"	40 lbs.	12,500 ftlbs.
NO.	0.D.	WIDTH	WEIGHT	WORKING LOAD			ILABLE UPON	REQUEST. SPI	ECIAL SIZES ARE
FA3:3.000U	3.000"	4.31"	30-1/2 lbs.	10,000 ftlbs.	NON-RETURN				
FA3:3.062U	3.062"	4.31"	30-1/2 lbs.	10,000 ft. lbs.					BREAKOUT UNIT
FA3:3.250U	3.250"	4.31"	30-1/2 lbs.	10,000 ftlbs.	HYDRAULIC	SYSTEM IS	5,000 FTLB	S.	
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 HYDRAULIC FRICTION BREAKOUT UNIT — Tools & Parts 67 **PETOL SURGRIP FRICTION VISE**



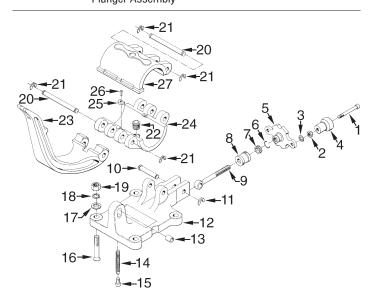
Note: Vise Plate, Vise Plate Bolts & Nuts and Vise Bushings must be ordered separately.

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

KEY NO.	NO. REQ'D.	
VISE BALL B	EARING NUT ASSEMBLY	
1,2,3	VISE NUT HANDLE BOLT , NUT,	1
	& LOCK WASHER	
4	VISE NUT HANDLE GRIP	1
5	VISE NUT HANDLE	1
6	VISE NUT CLIP RING	1
7	VISE NUT BEARING COMPLETE	1
8	VISE NUT SLEEVE	1
9	VISE NUT CLAMPING SCREW	1
10,11	VISE BASE CLAMPING SCREW RIVE	T 1
	W / KLIPRING	
12	VISE BASE	1
13	VISE BASE BUSHING	1
14	VISE BASE SPRING	1
15	VISE BASE SET SCREW	1
16,17,18,19	PLATE BOLT & NUT ASSEMBLY	4
20,21	VISE JAW RIVET W / KLIPRINGS	2
22	VISE BUSHING PLUNGER ASSEMBL	Y 2
23	VISE CLAMPING ARM	1
24	VISE LOWER JAW	1
25	VISE BUSHING KEY	4
26	VISE BUSHING KEY SCREW	4
27	VISE UPPER JAW	1

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	2 ozs.
	Assembly (4 req'd. per vise)	
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	2 ozs.
	Assembly (4 req'd. per vise)	
HP302	PETOL Surgrip Friction Vise Plate Lock Pin	4 ozs.
ZUV55-35A	PETOL Surgrip Friction Vise Adaptor Bushings	8-1/8 lbs.
	(includes 2 ea. ZUV55-35B-8)	
ZUV55-35B-8	PETOL Surgrip Friction Vise Adaptor Bushing	1-3/4 ozs.
	Plunger Assembly	



PETOL SURGRIP FRICTION VISE BUSHINGS

CATALOG NO.	0.D.	WEIGHT						
ZV35-52/ZV35-54 VI	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.						

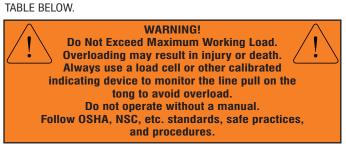
0.D.	WEIGHT
2.500"	2-3/4 lbs.
2.625"	2-3/8 lbs.
2.750"	2-1/8 lbs.
2.875"	1-7/8 lbs.
3.000"	1-1/2 lbs.
3.125"	1 lb.
3.250"	3/4 lb.
s) N/A	8-1/8 lbs.
3.000"	8-3/4 lbs.
3.125"	8-1/2 lbs.
3.250"	8-1/8 lbs.
3.500"	7-3/8 lbs.
3.625"	7-1/8 lbs.
3.750"	6-3/4 lbs.
4.000"	6 lbs.
4.250"	5-1/8 lbs.
4.500"	4-1/4 lbs.
5.000"	2-1/4 lbs.
5.250"	1-1/4 lbs.
ABLE UPON RE	QUEST. SPECIAL SIZES
	2.500" 2.625" 2.750" 2.875" 3.000" 3.125" 3.250" 5) N/A 3.000" 3.125" 3.250" 3.500" 3.625" 3.625" 3.750" 4.000" 4.250" 4.500" 5.000" 5.250"

PETOL HYDRAULIC FRICTION BREAKOUT UNIT — Tools & Parts 68

PETOL **HYDRAULIC SOCKETRENCH HANDLE**



CATALOG SOCKET NO. 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



PETOL PLATERENCH



CATALOG	STEM	WRENCH		MAXIMUM
NO.	SIZE	SIZE*	WEIGHT	WORKING LOAD
ZWP1320	1-1/4"	13/16"	1-5/8 lbs.	700 ftlbs.
ZWP1420	1-1/4"	7/8"	1-5/8 lbs.	700 ftlbs.
ZWP1620	1-1/4"	1"	1-1/2 lbs.	700 ftlbs.
ZWP1720	1-1/4"	1-1/16"	1-1/2 lbs.	700 ftlbs.
ZWP1920	1-1/4"	1-3/16"	1-1/2 lbs.	700 ftlbs.
ZWP2020	1-1/4"	1-1/4"	1-1/2 lbs.	700 ftlbs.
ZWP2120	1-1/4"	1-5/16"	1-1/2 lbs.	1,000 ftlbs.
ZWP2220	1-1/4"	1-3/8"	1-1/2 lbs.	1,000 ftlbs.
ZWP2420	1-1/4"	1-1/2"	2-1/4 lbs.	1,000 ftlbs.
ZWP2620	1-1/4"	1-5/8"	2-1/8 lbs.	1,000 ftlbs.
ZWP2720	1-1/4"	1-11/16"	2-1/8 lbs.	1,000 ftlbs.
ZWP2820	1-1/4"	1-3/4"	2-1/8 lbs.	1,000 ftlbs.
ZWP3020	1-1/4"	1-7/8"	2 lbs.	1,000 ftlbs.
ZWP3220	1-1/4"	2"	2-1/2 lbs.	1,000 ftlbs.
ZWP3520	1-1/4"	2-3/16"	3-1/8 lbs.	1,500 ftlbs.
ZWP3620	1-1/4"	2-1/4"	3-1/8 lbs.	1,500 ftlbs.
ZWP3820	1-1/4"	2-3/8"	4-5/8 lbs.	2,000 ftlbs.
*SPECIAL	SIZES AVAIL	ABLE UPON R	EQUEST. SPE	CIAL SIZES ARE
NON_RET	TIRNARIE			

NON-RETURNABLE.

PETOL BENCH SADDLE



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

TORQUE TABLES & CHAIN SELECTION GUIDES

70 SCT614H PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

IUNQUE	IADLE - DELI	SELECTION
CATALOG		MAXIMUM
NO.	0.D.	WORKING LOAD
MEDIUM-DUTY		
SCTB614H-0600M	6"	83,500 ftlbs.
SCTB614H-0612M	6-1/2"	84,000 ftlbs.
SCTB614H-0658M	6-5/8"	84,100 ftlbs.
SCTB614H-0700M	7"	84,500 ftlbs.
SCTB614H-0758M	7-5/8"	85,100 ftlbs.
SCTB614H-0734M	7-3/4"	85,300 ftlbs.
SCTB614H-0800M	8"	85,500 ftlbs.
SCTB614H-0858M	8-5/8"	86,100 ftlbs.
SCTB614H-0900M	9"	86,500 ftlbs
SCTB614H-0912M	9-1/2"	87,000 ftlbs.
SCTB614H-0958M	9-5/8"	87,100 ftlbs.
SCTB614H-0978M	9-7/8"	87,400 ftlbs
SCTB614H-1034M	10-3/4"	88,300 ftlbs
SCTB614H-1134M	11-3/4"	89,300 ftlbs
SCTB614H-1338M	13-3/8"	90,900 ftlbs
SCTB614H-1358M	13-5/8"	91,100 ftlbs
SCTB614H-1400M	14"	91,500 ftlbs
SCTB614H-1438M	14-3/8"	91,900 ftlbs.
HEAVY-DUTY		
SCTB614H-0600	6"	179,500 ftlbs.
SCTB614H-0612	6-1/2"	180,600 ftlbs.
SCTB614H-0700	7"	181,700 ftlbs.
SCTB614H-0758	7-5/8"	183,000 ftlbs.
SCTB614H-0734	7-3/4"	183,300 ftlbs.
SCTB614H-0800	8"	183,800 ftlbs.
SCTB614H-0858	8-5/8"	185,200 ftlbs.
SCTB614H-0900	9"	186,000 ftlbs.
SCTB614H-0912	9-1/2"	187,100 ftlbs.
SCTB614H-0958	9-5/8"	187,300 ftlbs.
SCTB614H-0978	9-7/8"	187,900 ftlbs.
SCTB614H-1034	10-3/4"	189,700 ftlbs
SCTB614H-1118	11-1/8"	190,500 ftlbs.
SCTB614H-1134	11-3/4"	191,900 ftlbs.
SCTB614H-1338	13-3/8"	195,400 ftlbs
SCTB614H-1358	13-5/8"	195,900 ftlbs.
SCTB614H-1400	14"	196,700 ftlbs.
SCTB614H-1438	14-3/8"	197,500 ftlbs.

SCT1020 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

CATALOG		MAXIMUM
NO.	0.D.	WORKING LOAD
SCTB1020-0958	9-5/8"	49,400 ftlbs.
SCTB1020-0978	9-7/8"	49,500 ftlbs.
SCTB1020-1000	10"	49,600 ftlbs.
SCTB1020-1034	10-3/4"	50,000 ftlbs.
SCTB1020-1134	11-3/4"	50,500 ftlbs.
SCTB1020-1178	11-7/8"	50,600 ftlbs.
SCTB1020-1234	12-3/4"	51,100 ftlbs.
SCTB1020-1338	13-3/8"	51,400 ftlbs.
SCTB1020-1358	13-5/8"	51,500 ftlbs.
SCTB1020-1400	14"	51,700 ftlbs.
SCTB1020-1600	16"	52,800 ftlbs.
SCTB1020-1634	16-3/4"	53,200 ftlbs.
SCTB1020-1700	17"	53,300 ftlbs.
SCTB1020-1800	18"	53,900 ftlbs.
SCTB1020-1838	18-3/8"	54,100 ftlbs.
SCTB1020-1858	18-5/8"	54,200 ftlbs.
SCTB1020-2000	20"	54,900 ftlbs.

SCT1020H PETOL SURGRIP CASING TONG TOROUE TABLE - BELT SELECTION

CATALOG		MAXIMUM
NO.	0.D.	WORKING LOAD
SCTB1020H-0958	9-5/8"	70,000 ftlbs.
SCTB1020H-0978	9-7/8"	70,600 ftlbs.
SCTB1020H-1000	10"	70,900 ftlbs.
SCTB1020H-1034	10-3/4"	72,800 ftlbs.

Continued SCT1020H PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

CATALOG		MAXIMUM
NO.	0.D.	WORKING LOAD
SCTB1020H-1134	11-3/4"	75,300 ftlbs.
SCTB1020H-1214	12-1/4"	76,600 ftlbs.
SCTB1020H-1338	13-3/8"	79,400 ftlbs.
SCTB1020H-1358	13-5/8"	80,100 ftlbs.
SCTB1020H-1400	14"	81,000 ftlbs.
SCTB1020H-1500	15"	83,500 ftlbs.
SCTB1020H-1600	16"	86,000 ftlbs.
SCTB1020H-1800	18"	91,100 ftlbs.
SCTB1020H-1838	18-3/8"	92,000 ftlbs.
SCTB1020H-1858	18-5/8"	92,600 ftlbs.
SCTB1020H-2000	20"	96,100 ftlbs.

SCT2036 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

IONQUE	INDEE	- DEEI	OLLEOHION
CATALOG			MAXIMUM
NO.		0.D.	WORKING LOAD
STANDARD-DUTY			
SCTB2036-18		18"*	69,200 ftlbs
SCTB2036-1838		18-3/8"*	69,900 ftlbs
SCTB2036-1858		18-5/8"*	70,500 ftlbs
SCTB2036-1834		18-3/4"*	70,900 ftlbs
SCTB2036-20		20"	73,400 ftlbs
SCTB2036-22		22"	77,700 ftlbs
SCTB2036-2314		23-1/4"	79,900 ftlbs
SCTB2036-24		24"	81,300 ftlbs
SCTB2036-26		26"	85,000 ftlbs
SCTB2036-28		28"	88,800 ftlbs
SCTB2036-29		29"	90,500 ftlbs
SCTB2036-30		30"	92,200 ftlbs
SCTB2036-32		32"	95,700 ftlbs
SCTB2036-3214		32-1/4"	96,000 ftlbs
SCTB2036-3212		32-1/2"	96,200 ftlbs
SCTB2036-34		34"	98,800 ftlbs
SCTB2036-3412		34-1/2"	99,700 ftlbs
SCTB2036-36		36"	102,000 ftlbs
SCTB2036-38		38"*	105,200 ftlbs
HEAVY-DUTY			
SCTB2036-18H		18"*	105,400 ftlbs
SCTB2036-1838H		18-3/8"*	106,600 ftlbs
SCTB2036-1858H		18-5/8"*	107,600 ftlbs
SCTB2036-20H		20"	111,900 ftlbs
SCTB2036-22H		22"	118,200 ftlbs
SCTB2036-24H		24"	123,800 ftlbs
SCTB2036-26H		26"	129,600 ftlbs
SCTB2036-28H		28"	135,100 ftlbs
SCTB2036-30H		30"	140,300 ftlbs
SCTB2036-32H		32"	145,600 ftlbs
SCTB2036-3214H		32-1/4"	145,900 ftlbs
SCTB2036-3212H		32-1/2"	146,700 ftlbs
SCTB2036-36H		36"	155,000 ftlbs
SCTB2036-38H		38"*	159,700 ftlbs
*PETOL Diamond	Point Ins	serts are	required to grip these
diameters.			

SCT3672 PETOL SURGRIP CASING TONG TORQUE TABLE - BELT SELECTION

•		
CATALOG		MAXIMUM
NO.	0.D.	WORKING LOAD
SCTB3672-36	36"	111,600 ftlbs.
SCTB3672-38	38"	115,000 ftlbs.
SCTB3672-40	40"	117,900 ftlbs.
SCTB3672-42	42"	120,900 ftlbs.
SCTB3672-46	46"	126,900 ftlbs.
SCTB3672-48	48"	130,000 ftlbs.
SCTB3672-56	56"	141,500 ftlbs.
SCTB3672-60	60"	146,700 ftlbs.
SCTB3672-72	72"	163,000 ftlbs.

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

	TOL BULL TONG
0.D.	MAXIMUM WORKING LOAD
3-1/2" – 3-7/8" 4" – 4-3/8"	11,600 ftlbs. 12,500 ftlbs.
4-1/2" - 4-7/8"	13,300 ftlbs.
5" - 8-3/8"	13,800 ftlbs.
8-1/2" - 13-7/8"	14,000 ftlbs.
14" - 16"	14,300 ftlbs.
LA16H PET	OL BULL TONG
(2-2 Chain	Combination)
0.D.	MAXIMUM WORKING LOAD
4" - 4-3/8"	13,500 ftlbs.
4-1/2" - 4-7/8"	14,500 ftlbs.
5" - 5-3/8"	15,400 ftlbs.
5-1/2" – 5-7/8" 6" – 12-7/8"	16,300 ftlbs. 16,900 ftlbs.
13" – 16"	17,300 ftlbs.
	OL BULL TONG
	Combination)
0.D.	MAXIMUM WORKING LOAD
4" - 4-1/8"	32,700 ftlbs.
4-1/4" - 4-3/8"	33,800 ftlbs.
4-1/2" - 4-5/8"	35,000 ftlbs.
4-3/4" - 4-7/8"	36,000 ftlbs.
5" - 5-1/8"	37,300 ftlbs.
5-1/4" – 5-3/8" 5-1/2" – 5-5/8"	38,200 ftlbs. 39,400 ftlbs.
5-3/4" – 5-7/8"	40,400 ftlbs.
6" - 10-7/8"	41,000 ftlbs.
11" - 14-3/8"	41,500 ftlbs.
14-1/2" - 16"	42,000 ftlbs.
LA116-C09 P	ETOL BULL TONG
<u> </u>	MAXIMUM WORKING LOAD
6" - 6-1/8"	71,000 ftlbs.
6-1/4" - 6-3/8" 6-1/2" - 6-5/8"	73,000 ftlbs.
6-3/4" - 6-7/8"	75,300 ftlbs. 77,500 ftlbs.
7" - 7-1/8"	78,700 ftlbs.
7-1/4" - 7-3/8"	79,000 ftlbs.
7-1/2" - 7-5/8"	79,300 ftlbs.
7-3/4" - 7-7/8"	79,500 ftlbs.
8" - 8-3/8" 8-1/2" - 8-7/8"	79,900 ftlbs. 80,400 ftlbs.
9" - 9-3/8"	81,000 ftlbs.
9-1/2" - 9-7/8"	81,600 ftlbs.
10" - 10-3/8"	82,200 ftlbs.
10-1/2" - 10-7/8"	82,700 ftlbs.
11" – 11-3/8"	83,300 ftlbs.
11-1/2" – 11-7/8" 12" – 12-3/8"	83,900 ftlbs.
12 - 12-3/8	84,500 ftlbs. 85,000 ftlbs.
13" – 13-3/8"	85,700 ftlbs.
13-1/2" - 13-7/8"	86,300 ftlbs.
14" - 14-3/8"	86,900 ftlbs.
14-1/2" – 14-7/8"	87,500 ftlbs.
15" - 15-3/8"	88,100 ftlbs.
15-1/2" – 15-7/8" 16" – 16-3/8"	88,800 ftlbs. 89,400 ftlbs.
16-1/2" – 16-7/8"	90,000 ftlbs.
17"	90,600 ftlbs.
LA116-C18 P	ETOL BULL TONG
0.D.	MAXIMUM WORKING LOAD
6"-6-7/8"	61,800 ftlbs.
7" – 7-7/8"	62,200 ftlbs.
8" - 8-7/8"	62,700 ftlbs.
9" – 9-7/8" 10" – 10-7/8"	63,100 ftlbs. 63,600 ftlbs.
11" – 11-7/8"	64,200 ftlbs.
12" – 12-7/8"	64,700 ftlbs.
13" – 13-7/8"	65,200 ftlbs.
14" – 14-7/8"	65,800 ftlbs.
15" – 15-7/8"	66,300 ftlbs.
16" – 16-7/8" 17"	66,900 ftlbs.
	67,500 ftlbs.

	PETOL BULL TONG	71
		.
0.D. 6" – 6-7/8"	MAXIMUM WORKING LOAD 61,800 ftlbs.	
7" – 7-7/8"	62,200 ftlbs.	
8" - 8-7/8"	62,700 ftlbs.	
9" - 9-7/8"	63,100 ftlbs.	
10" – 10-7/8"	63,600 ftlbs.	
11" – 11-7/8"	64,200 ftlbs.	
12" – 12-7/8"	64,700 ftlbs.	
13" – 13-7/8"	65,200 ftlbs.	
14" – 14-7/8"	65,800 ftlbs.	
15" – 15-7/8"	66,300 ftlbs.	
16" — 16-7/8" 17"	66,900 ftlbs. 67,500 ftlbs.	
	PETOL BULL TONG	-
0.D.	MAXIMUM WORKING LOAD	
6" - 7-3/8"	58,300 ftlbs.	
7-1/2" – 8-7/8"	58,800 ftlbs.	
9" - 10-3/8"	59,300 ftlbs.	
10-1/2" – 11-3/8"	59,800 ftlbs.	
11-1/2" – 12-3/8"	60,200 ftlbs.	
12-1/2" – 13-3/8"	60,600 ftlbs.	
13-1/2" – 14-3/8"	61,000 ftlbs.	
14-1/2" – 15-3/8"	61,400 ftlbs.	
15-1/2" - 16-3/8"	61,800 ftlbs.	
16-1/2" - 17"	62,200 ftlbs.	-
	PETOL BULL TONG	
0.D.	MAXIMUM WORKING LOAD	
6" – 7-7/8" 8" – 9-3/8"	56,100 ftlbs. 56,500 ftlbs.	
9-1/2" – 11-3/8"	56,900 ftlbs.	
11-1/2" – 12-7/8"	57,400 ftlbs.	
13" – 14-3/8"	57,900 ftlbs.	
14-1/2" – 15-7/8"	58,400 ftlbs.	
16" – 17"	58,800 ftlbs.	
LA116 PE	TOL BULL TONG	
0.D.	MAXIMUM WORKING LOAD	
5" - 7-7/8"	53,700 ftlbs.	
8" - 10-3/8"	54,100 ftlbs.	
10-1/2" – 12-7/8"	54,500 ftlbs.	
13" – 14-7/8"	55,000 ftlbs.	
15" - 16-3/8"	55,400 ftlbs.	
<u>16-1/2" – 17"</u>	55,800 ftlbs.	-
	TOL BULL TONG	
O.D. Short torque Arm	MAXIMUM WORKING LOAD	
6" – 6-7/8"	135,600 ftlbs.	
7" – 7-7/8"	151,500 ftlbs.	
8" – 22"	155,900 ftlbs.	
<u>Long torque arm c</u>	ONNECTION	
6" - 6-7/8"	131,200 ftlbs.	
7" – 7-7/8"	143,900 ftlbs.	
8" - 22"	144,800 ftlbs.	-
LA116H P	ETOL BULL TONG	
0.D.	MAXIMUM WORKING LOAD	
16" - 20-7/8"	78,500 ftlbs.	
21" - 24-7/8"	78,900 ftlbs.	
25" - 28-7/8"	79,400 ftlbs.	
29" – 31-7/8" 32" – 34-7/8"	79,900 ftlbs. 80,400 ftlbs.	
35" – 37-7/8"	80,900 ftlbs.	
38" - 40"	81,500 ftlbs.	
	ETOL BULL TONG	-
0.D.	MAXIMUM WORKING LOAD	
30-1/8" – 34"	82,300 ftlbs.	
34-1/8" – 38"	81,700 ftlbs.	
38-1/8" – 42"	81,100 ftlbs.	
42-1/8" - 46"	80,700 ftlbs.	
	80,300 ftlbs.	
46-1/8" — 50"	-	
50-1/8" – 56"	80,000 ftlbs.	
	-	

	TOL BUKUP TONG
O.D. SHORT TORQUE ARM	MAXIMUM WORKING LOAD
6" – 6-7/8"	136,900 ftlbs.
7" – 7-7/8"	139,000 ftlbs.
8" – 22"	140,500 ftlbs.
LONG TORQUE ARM	
6" - 6-7/8"	148,000 ftlbs.
7" – 7-7/8"	150,200 ftlbs.
8" – 22"	151,900 ftlbs.
DA1344 PET	OL DRILL PIPE TONG
0.D.	MAXIMUM WORKING LOAD
1" — 6"	5,000 ftlbs.
DA2344-C12 P	ETOL DRILL PIPE TON
0.D.	MAXIMUM WORKING LOAD
2-1/8" - 2-1/4"	12,400 ftlbs.
2-3/8" - 2-5/8"	12,800 ftlbs.
2-3/4" - 3-1/8"	13,000 ftlbs.
3-1/4" – 3-1/2"	13,200 ftlbs.
3-5/8" – 4"	13,400 ftlbs.
4-1/8" - 4-1/2"	13,600 ftlbs.
4-5/8" – 5"	13,800 ftlbs.
DA2344-L21 P	ETOL DRILL PIPE TON
0.D.	MAXIMUM WORKING LOAD
2-1/8" – 2-3/8"	11,400 ftlbs.
2-1/2" – 3-1/8"	11,600 ftlbs.
3-1/4" – 3-7/8"	11,800 ftlbs.
4" – 5"	12,000 ftlbs.
4 - 5	12,000 11105.
DA4174-L08 P	ETOL DRILL PIPE TON
0.D.	MAXIMUM WORKING LOAD
3" - 4-5/8"	16,900 ftlbs.
4-3/4" - 5-7/8"	17,100 ftlbs.
6" - 6-7/8"	17,300 ftlbs.
7" – 8-1/4"	17,500 ftlbs.
DA4174-C12 P	ETOL DRILL PIPE TON
0.D.	MAXIMUM WORKING LOAD
3"	18,700 ftlbs.
3-3/8"	19,200 ftlbs.
3-1/2"	19,800 ftlbs.
3-5/8" – 3-7/8"	20,200 ftlbs.
4" - 4-3/8"	20,500 ftlbs.
4-1/2" – 4-7/8"	20,800 ftlbs.
5" – 5-3/8"	21,200 ftlbs.
5-1/2" - 5-7/8"	21,600 ftlbs.
6" - 6-3/8"	21,900 ftlbs.
-	
6-1/2" - 6-7/8"	22,300 ftlbs.
6-1/2" - 6-7/8" 7" - 7-3/8"	22,600 ftlbs.
6-1/2" - 6-7/8"	
6-1/2" - 6-7/8" 7" - 7-3/8" 7-1/2" - 7-7/8" 8" - 8-1/4"	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs.
6-1/2" - 6-7/8" 7" - 7-3/8" 7-1/2" - 7-7/8" 8" - 8-1/4" DA4174-L21 P	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON
6-1/2" - 6-7/8" 7" - 7-3/8" 7-1/2" - 7-7/8" 8" - 8-1/4" DA4174-L21 P 0.D.	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD
6-1/2" - 6-7/8" 7" - 7-3/8" 7-1/2" - 7-7/8" 8" - 8-1/4" DA4174-L21 P 0.D. 3" - 3-3/8"	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs.
6-1/2" - 6-7/8" 7" - 7-3/8" 7-1/2" - 7-7/8" 8" - 8-1/4" DA4174-L21 P 0.D. 3" - 3-3/8" 3-1/2" - 3-5/8"	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\ 7"-7-3/8"\\ 7-1/2"-7-7/8"\\ 8"-8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,100 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\ 7"-7-3/8"\\ 7-1/2"-7-7/8"\\ 8"-8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAE 9,400 ftlbs. 9,700 ftlbs. 10,100 ftlbs. 10,400 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\ 7"-7-3/8"\\ 7-1/2"-7-7/8"\\ 8"-8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,100 ftlbs. 10,400 ftlbs. 10,600 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\ 7"-7-3/8"\\ 7-1/2"-7-7/8"\\ 8"-8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAE 9,400 ftlbs. 9,700 ftlbs. 10,100 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,900 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\ 7"-7-3/8"\\ 7-1/2"-7-7/8"\\ 8"-8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,900 ftlbs. 11,300 ftlbs.
$\begin{array}{c} 6-1/2"-6-7/8"\\7"-7-3/8"\\7-1/2"-7-7/8"\\8"-8-1/4"\\\\\hline \hline \textbf{DA4174-L21 P}\\\hline \textbf{0.D.}\\3"-3-3/8"\\3-1/2"-3-5/8"\\3-3/4"-3-7/8"\\4"-4-1/8"\\4-1/4"-4-3/8"\\4-1/4"-4-3/8"\\4-1/2"-4-7/8"\\5"-5-3/8"\\5-1/2"-5-7/8"\\ \end{array}$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,900 ftlbs. 11,300 ftlbs. 11,700 ftlbs.
$\begin{array}{c} 6-1/2" - 6-7/8"\\ 7" - 7-3/8"\\ 7-1/2" - 7-7/8"\\ 8" - 8-1/4"\\ \hline \\ \hline$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,900 ftlbs. 11,300 ftlbs. 11,700 ftlbs. 12,100 ftlbs.
$\begin{array}{c} 6-1/2" - 6-7/8"\\ 7" - 7-3/8"\\ 7-1/2" - 7-7/8"\\ 8" - 8-1/4"\\ \hline \end{array}$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,600 ftlbs. 11,300 ftlbs. 11,700 ftlbs. 12,100 ftlbs. 12,400 ftlbs.
$\begin{array}{c} 6-1/2" - 6-7/8"\\ 7" - 7-3/8"\\ 7-1/2" - 7-7/8"\\ 8" - 8-1/4"\\ \hline \end{array}$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,900 ftlbs. 11,300 ftlbs. 11,700 ftlbs. 12,100 ftlbs. 12,400 ftlbs. 12,700 ftlbs.
$\begin{array}{c} 6-1/2" - 6-7/8"\\ 7" - 7-3/8"\\ 7-1/2" - 7-7/8"\\ 8" - 8-1/4"\\ \hline \end{array}$	22,600 ftlbs. 23,000 ftlbs. 23,300 ftlbs. ETOL DRILL PIPE TON MAXIMUM WORKING LOAD 9,400 ftlbs. 9,700 ftlbs. 10,400 ftlbs. 10,600 ftlbs. 10,600 ftlbs. 11,300 ftlbs. 11,700 ftlbs. 12,100 ftlbs. 12,400 ftlbs.

Form GCAT20 Rev. 04/12

DA6184-C10 PETOL DRILL PIPE TONG

DA0104-0101	
0.D.	MAXIMUM WORKING LOAD
4-1/4"	26,500 ftlbs.
4-5/8"	27,000 ftlbs.
4-3/4"	27,600 ftlbs.
4-7/8"	28,200 ftlbs.
5"	28,600 ftlbs.
5-1/8"	29,200 ftlbs.
5-1/4"	29,700 ftlbs.
5-3/8"	30,200 ftlbs.
5-1/2"	30,600 ftlbs.
5-5/8"	31,200 ftlbs.
5-3/4"	31,600 ftlbs.
5-7/8"	32,000 ftlbs.
6" - 6-1/8"	32,500 ftlbs.
6-1/4" - 6-5/8"	32,900 ftlbs.
6-3/4" – 7-1/8"	33,400 ftlbs.
7-1/4" — 7-5/8"	33,900 ftlbs.
7-3/4" – 8-1/8"	34,400 ftlbs.
8-1/4" – 8-5/8"	34,900 ftlbs.
8-3/4" – 9-1/8"	35,400 ftlbs.
9-1/4" – 9-5/8"	35,800 ftlbs.
9-3/4" – 10-1/8"	36,300 ftlbs.
10-1/4" — 10-5/8"	36,800 ftlbs.
10-3/4"	37,300 ftlbs.

DA6184-L36 PETOL DRILL PIPE TONG 0.D. MAXIMUM WORKING LOAD

0.D.	MAXIMUM WORKING
4-1/4" - 5-3/8"	23,700 ftlbs.
5-1/2" — 6-3/8"	24,000 ftlbs.
6-1/2" – 7-3/8"	24,300 ftlbs.
7-1/2" — 8-3/8"	24,600 ftlbs.
8-1/2" — 9-3/8"	24,900 ftlbs.
9-1/2" — 10-3/8"	25,100 ftlbs.
10-1/2" – 10-3/4"	25,400 ftlbs.

DA8184-C09 PETOL DRILL PIPE TONG

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

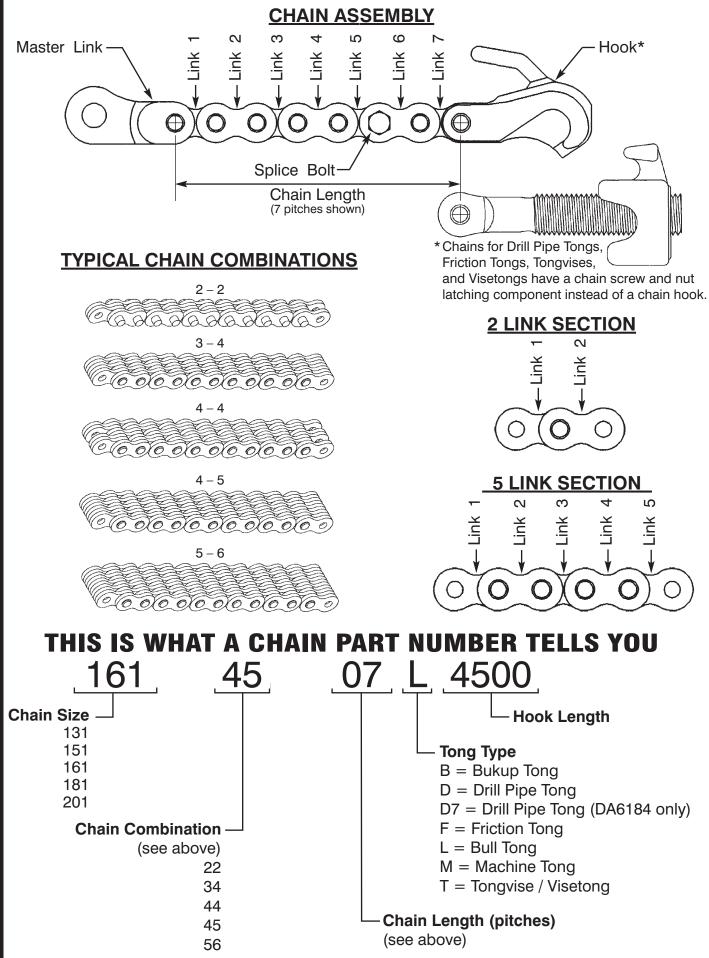
DA8184-C18 P	ETOL DRILL PIPE TONG
0.D.	MAXIMUM WORKING LOAD
4" - 4-1/8"	45,800 ftlbs.
4-1/4" - 4-3/8"	47,000 ftlbs.
4-1/2" - 4-5/8"	49,900 ftlbs.
4-3/4" - 4-7/8"	53,000 ftlbs.
5" – 5-1/8"	54,000 ftlbs.
5-1/4" - 5-3/8"	55,000 ftlbs.
5-1/2" - 5-5/8"	57,900 ftlbs.
5-3/4" - 5-7/8"	59,500 ftlbs.
6" - 6-1/8"	61,800 ftlbs.
6-1/4" - 6-3/8"	63,500 ftlbs.
6-1/2" - 6-5/8"	65,600 ftlbs.
6-3/4" - 7-7/8"	67,000 ftlbs.
8" - 8-7/8"	67,800 ftlbs.
9" – 9-7/8"	68,300 ftlbs.
10" – 10-7/8"	68,800 ftlbs.
11" – 11-7/8"	69,300 ftlbs.
12" – 12-7/8"	69,900 ftlbs.
13" – 13-7/8"	70.400 ftlbs.
14"	70,900 ftlbs.
	-,
DA8184-L23 P	ETOL DRILL PIPE TONG
DA8184-L23 P	
0.D.	MAXIMUM WORKING LOAD
0.D. 4" - 4-1/8"	MAXIMUM WORKING LOAD 44,800 ftlbs.
0.D. 4" - 4-1/8" 4-1/4" - 4-3/8"	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs.
0.D. 4" - 4-1/8" 4-1/4" - 4-3/8" 4-1/2" - 4-5/8"	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs.
0.D. 4" - 4-1/8" 4-1/4" - 4-3/8"	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs.
0.D. 4" - 4-1/8" 4-1/4" - 4-3/8" 4-1/2" - 4-5/8" 4-3/4" - 4-7/8" 5" - 5-1/8"	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs.
$\begin{array}{c} 0.D. \\ 4"-4-1/8" \\ 4-1/4"-4-3/8" \\ 4-1/2"-4-5/8" \\ 4-3/4"-4-7/8" \\ 5"-5-1/8" \\ 5-1/4"-5-3/8" \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs.
$\begin{array}{c} 0.D. \\ 4" - 4 - 1/8" \\ 4 - 1/4" - 4 - 3/8" \\ 4 - 1/2" - 4 - 5/8" \\ 4 - 3/4" - 4 - 7/8" \\ 5" - 5 - 1/8" \\ 5 - 1/4" - 5 - 3/8" \\ 5 - 1/2" - 5 - 5/8" \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs.
$\begin{array}{r} 0.D. \\ 4" - 4 - 1/8" \\ 4 - 1/4" - 4 - 3/8" \\ 4 - 1/2" - 4 - 5/8" \\ 4 - 3/4" - 4 - 7/8" \\ 5" - 5 - 1/8" \\ 5 - 1/4" - 5 - 3/8" \\ 5 - 1/2" - 5 - 5/8" \\ 5 - 3/4" - 5 - 7/8" \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 58,300 ftlbs.
$\begin{array}{c} 0.D. \\ 4" - 4 - 1/8" \\ 4 - 1/4" - 4 - 3/8" \\ 4 - 1/2" - 4 - 5/8" \\ 4 - 3/4" - 4 - 7/8" \\ 5" - 5 - 1/8" \\ 5 - 1/4" - 5 - 3/8" \\ 5 - 1/2" - 5 - 5/8" \\ 5 - 3/4" - 5 - 7/8" \\ 6" - 6 - 1/8" \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/8"\\ 6-1/4"-6-3/8"\\ \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 58,300 ftlbs. 60,200 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/8"\\ 6-1/4"-6-3/8"\\ 6-1/2"-7-7/8"\end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 58,300 ftlbs. 60,200 ftlbs. 61,700 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/8"\\ 6-1/4"-6-3/8"\\ 6-1/2"-7-7/8"\\ 8"-9-3/8"\\ \end{array}$	44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 58,300 ftlbs. 60,200 ftlbs. 61,700 ftlbs. 62,900 ftlbs. 63,400 ftlbs.
$\begin{array}{c} 0.D.\\ 4'' - 4 - 1/8''\\ 4 - 1/4'' - 4 - 3/8''\\ 4 - 1/2'' - 4 - 5/8''\\ 4 - 3/4'' - 4 - 7/8''\\ 5'' - 5 - 1/8''\\ 5 - 1/4'' - 5 - 3/8''\\ 5 - 1/2'' - 5 - 5/8''\\ 5 - 3/4'' - 5 - 7/8''\\ 6'' - 6 - 1/8''\\ 6 - 1/4'' - 6 - 3/8''\\ 6 - 1/2'' - 7 - 7/8''\\ 8'' - 9 - 3/8''\\ 9 - 1/2'' - 10 - 7/8''\end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 60,200 ftlbs. 61,700 ftlbs. 63,400 ftlbs. 63,900 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/8"\\ 6-1/4"-6-3/8"\\ 6-1/2"-7-7/8"\\ 8"-9-3/8"\\ \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 58,300 ftlbs. 60,200 ftlbs. 61,700 ftlbs. 62,900 ftlbs. 63,400 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/4"-6-3/8"\\ 6-1/2"-7-7/8"\\ 8"-9-3/8"\\ 9-1/2"-10-7/8"\\ 11"-12-3/8"\\ 12-1/2"-14"\\ \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 60,200 ftlbs. 61,700 ftlbs. 63,400 ftlbs. 63,900 ftlbs. 64,500 ftlbs. 65,000 ftlbs.
$\begin{array}{c} 0.D.\\ 4"-4-1/8"\\ 4-1/4"-4-3/8"\\ 4-1/2"-4-5/8"\\ 4-3/4"-4-7/8"\\ 5"-5-1/8"\\ 5-1/4"-5-3/8"\\ 5-1/2"-5-5/8"\\ 5-3/4"-5-7/8"\\ 6"-6-1/8"\\ 6-1/4"-6-3/8"\\ 6-1/2"-7-7/8"\\ 8"-9-3/8"\\ 9-1/2"-10-7/8"\\ 11"-12-3/8"\\ 12-1/2"-14"\\ \end{array}$	MAXIMUM WORKING LOAD 44,800 ftlbs. 46,500 ftlbs. 48,800 ftlbs. 50,500 ftlbs. 52,700 ftlbs. 54,500 ftlbs. 56,500 ftlbs. 60,200 ftlbs. 61,700 ftlbs. 63,400 ftlbs. 63,900 ftlbs. 63,900 ftlbs. 64,500 ftlbs.

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

DA8184-L36 PETOL DRILL PIPE TONG

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

CHAIN IDENTIFICATION GUIDE



CATALOG NO.		ement Chain) PIPE SIZE
C112-P (for C11-P)		1/8" – 1-1/2"
C122-P (for C12-P)		1/4" – 2-1/2"
C132-P (for C13-P		3/4" – 4"
C1352-P (for C135		1" – 6"
C142-P (for C14-P)		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 R		
CATALOG NO.	CHAIN LENGTH	0.D.
<u>for C11-P</u>		
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
<u>for C12-P</u>		
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"
<u>for C13-P</u>		
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
<u>for C14-P</u>		
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
		ate and include the

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 0.D. <u>for C27-P</u> C276-34-P 1/2" - 7-1/4" 28" C276-44-P 37" 1/2" – 9" C276-56-P 46" 1/2" - 11-3/4" 1/2" – 14" 1/2" – 17-1/2" C276-66-P 54" C276-78-P 64" C276-100-P 82" 1/2" – 24" <u>for C37-P</u> C376-36-P 35" 1" - 7-1/4" 1" - 11" C376-48-P 46" C376-60-P 57" 1" – 15" 1" – 18" C376-72-P 68" 1" – 22" C376-84-P 80" 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" 1-3/8" - 27" C476-90-P 91" C476-106-P107" 1-3/8" - 32-1/2" <u>for C57-P</u> C576-54-P 55" 1-15/16" - 15-1/2" 1-15/16" - 21-1/4" C576-72-P 73" <u>for C67-P</u> 2-3/8" - 19-1/2" C676-54-P 69" C676-84-P 107" 2-3/8" - 31-3/4" NOTE: Chain lengths are approximate and include the

75

BA115H PETOL BUKUP TONG

master link.

	Iona
CATALOG NO.	0.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

0.D.
4" - 4-3/8"
4" - 4-3/4"
4-3/8" - 5-1/8"
5" - 5-5/8"
5-1/4" — 6"
5-5/8" - 6-1/4"
6-1/8" - 6-3/4"
6-1/2" - 7-1/8"
6-3/4" - 7-3/8"
7-3/8" - 8"
7-5/8" - 8-1/4"

76	continued	BA116	PETOL	BUKUP	TONG

BA116H PETOL BUKUP TONG

CATALOG NO.	0.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.	0.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 BUL	I TONG
(2-2 Chain Combinat	
CATALOG NO.	0.D.
160-22-33L	3-1/2" – 16"

LA16H PETOL BULL TONG (2-2 Chain Combination)

0.D. 4" – 16"

CATALOG NO.

160-22-32L

LA16H PETOL BULL TONG (3-4 Chain Combination) CATALOG NO. 0.D. 161-34-05L4500 4" - 4-7/8" 161-34-07L4500 4-1/8" - 5" 161-34-07L5375 4-1/2" - 5-3/8" 4-7/8" - 5-3/4" 161-34-07L6250 5-3/8" - 6-1/4" 161-34-09L4500 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" 7-1/4" - 8-1/8" 161-34-11L6250 7-3/4" - 8-5/8" 161-34-13L4500 8-1/8" - 9" 161-34-13L5375 8-3/8" - 9-5/8" 161-34-13L6250 8-3/4" - 9-5/8" 161-34-15L4500 161-34-15L5375 9-1/8" - 10"

9-3/8" - 10-1/4"

9-7/8" - 10-5/8"

10-5/8" - 11-1/2"

11-3/8" - 12-1/4"

11-5/8" - 12-1/2"

12-3/4" - 13-5/8"

13-1/4" - 14-1/8"

13-1/2" - 14-3/8"

14" - 14-5/8"

10-1/8" - 11"

11-1/8" - 12"

12-1/8" - 13" 12-3/8" - 13-1/4"

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

161-34-15L6250

161-34-17L4500 161-34-17L5375

161-34-17L6250

161-34-19L4500

161-34-19L5375

161-34-19L6250

161-34-21L4500

161-34-21L5375

161-34-21L6250

161-34-23L4500

161-34-23L5375 161-34-23L6250

(-C09 / -C18 / -23 / -28 Handles)

$\begin{array}{c crr} CATALOG NO. O.D. \\ \hline 161-45-09L6250 & 6" - 6-1/4" \\ 161-45-11L4500 & 6-1/4" - 6-7/8" \\ 161-45-11L5375 & 6-5/8" - 7-1/8" \\ 161-45-11L6250 & 6-7/8" - 7-3/8" \\ 161-45-13L4500 & 7-3/8" - 8" \\ 161-45-13L6250 & 8" - 8-1/4" \\ 161-45-13L6250 & 8" - 8-1/2" \\ 161-45-15L4500 & 8-1/2" - 9-1/8" \\ 161-45-15L6250 & 9-1/8" - 9-3/8" \\ 161-45-15L6250 & 9-1/8" - 9-5/8" \\ 161-45-15L6250 & 9-1/8" - 9-5/8" \\ 161-45-17L4500 & 9-3/4" - 10-1/4" \\ 161-45-17L6250 & 10-1/4" - 10-3/4" \\ 161-45-17L6250 & 10-7/8" - 11-3/8" \\ 161-45-19L4500 & 10-7/8" - 11-3/8" \\ 161-45-19L6250 & 11-3/8" - 11-5/8" \\ 161-45-21L4500 & 12" - 12-3/8" \\ 161-45-21L6250 & 12-1/2" - 13" \\ 161-45-21L6250 & 12-1/2" - 13" \\ 161-45-23L6250 & 13-5/8" - 13-3/4" \\ 161-45-23L6250 & 13-5/8" - 14" \\ 161-45-25L4500 & 14-1/8" - 14-5/8" \\ 161-45-25L6250 & 14-3/4" - 15-1/8" \\ \end{array}$		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	CATALOG NO.	0.D.
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-09L6250	6" - 6-1/4"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-11L4500	6-1/4" - 6-7/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-11L5375	6-5/8" - 7-1/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-11L6250	6-7/8" - 7-3/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-13L4500	7-3/8" – 8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-13L5375	7-3/4" - 8-1/4"
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	161-45-13L6250	8" - 8-1/2"
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	161-45-15L4500	8-1/2" - 9-1/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-15L5375	8-7/8" - 9-3/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-15L6250	9-1/8" - 9-5/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-17L4500	9-3/4" - 10-1/4"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-17L5375	10" — 10-1/2"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-17L6250	10-1/4" — 10-3/4"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-19L4500	10-7/8" — 11-3/8"
$\begin{array}{cccccc} 161-45-21L4500 & 12"-12-3/8" \\ 161-45-21L5375 & 12-1/4"-12-5/8" \\ 161-45-21L6250 & 12-1/2"-13" \\ 161-45-23L4500 & 13-1/8"-13-1/2" \\ 161-45-23L5375 & 13-3/8"-13-3/4" \\ 161-45-23L6250 & 13-5/8"-14" \\ 161-45-25L4500 & 14-1/8"-14-5/8" \\ 161-45-25L5375 & 14-1/2"-14-7/8" \\ \end{array}$	161-45-19L5375	11-1/8" — 11-5/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-19L6250	11-3/8" — 11-7/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-21L4500	12" — 12-3/8"
$\begin{array}{llllllllllllllllllllllllllllllllllll$	161-45-21L5375	12-1/4" — 12-5/8"
161-45-23L537513-3/8" - 13-3/4"161-45-23L625013-5/8" - 14"161-45-25L450014-1/8" - 14-5/8"161-45-25L537514-1/2" - 14-7/8"	161-45-21L6250	12-1/2" – 13"
161-45-23L625013-5/8" - 14"161-45-25L450014-1/8" - 14-5/8"161-45-25L537514-1/2" - 14-7/8"	161-45-23L4500	13-1/8" — 13-1/2"
161-45-25L450014-1/8" - 14-5/8"161-45-25L537514-1/2" - 14-7/8"	161-45-23L5375	13-3/8" — 13-3/4"
161-45-25L5375 14-1/2" – 14-7/8"	161-45-23L6250	13-5/8" – 14"
	161-45-25L4500	14-1/8" — 14-5/8"
161-45-25L6250 14-3/4" – 15-1/8"	161-45-25L5375	
	161-45-25L6250	14-3/4" — 15-1/8"

ontinued LA116 PE -C09 / -C18 / -23 /		contin
CATALOG NO.	0.D.	2
161-45-27L4500	15-1/4" – 15-5/8"	2
161-45-27L5375	15-1/2" – 15-7/8"	2
161-45-27L6250	15-7/8" – 16-1/4"	20
161-45-29L4500	16-3/8" – 16-3/4"	20
161-45-29L5375	16-5/8" – 17"	20
116 PETOL BULL	TONG	LA110
CATALOG NO.	0.D.	
161-45-09L4500	5" – 5-3/4"	10
161-45-09L5375	5-3/8" – 6"	10
161-45-09L6250	5-5/8" – 6-1/4"	10
161-45-11L4500	6-1/4" – 6-7/8"	10
161-45-11L5375	6-5/8" – 7-1/8"	10
161-45-11L6250	6-7/8" - 7-3/8"	10
161-45-13L4500	7-3/8" – 8"	10
	-/	10
161-45-13L5375	7-3/4" - 8-1/4"	1
161-45-13L6250	8" - 8-1/2"	10
161-45-15L4500	8-1/2" - 9-1/8"	10
161-45-15L5375	8-7/8" - 9-3/8"	10
161-45-15L6250	9-1/8" — 9-5/8"	1
161-45-17L4500	9-3/4" - 10-1/4"	10
161-45-17L5375	10" - 10-1/2"	1
161-45-17L6250	10-1/4" - 10-3/4"	1
161-45-19L4500	10-7/8" — 11-3/8"	1
161-45-19L5375	11-1/8" — 11-5/8"	1
161-45-19L6250	11-3/8" — 11-7/8"	1
161-45-21L4500	12" – 12-3/8"	10
161-45-21L5375	12-1/4" — 12-5/8"	10
161-45-21L6250	12-1/2" – 13"	10
161-45-23L4500	13-1/8" — 13-1/2"	10
161-45-23L5375	13-3/8" — 13-3/4"	16
161-45-23L6250	13-5/8" — 14"	10
161-45-25L4500	14-1/8" — 14-5/8"	
161-45-25L5375	14-1/2" — 14-7/8"	16
161-45-25L6250	14-3/4" — 15-1/8"	16
161-45-27L4500	15-1/4" — 15-5/8"	10
161-45-27L5375	15-1/2" - 15-7/8"	
161-45-27L6250	15-7/8" - 16-1/4"	16
161-45-29L4500	16-3/8" - 16-3/4"	
161-45-29L5375	16-5/8" – 17"	
120 PETOL BULL	TONG	16
CATALOG NO.	0.D.	
201-45-07L9875	6" - 6-5/8"	10
201-45-09L5625	6-3/8" - 7-1/4"	10
201-45-09L7500	7-1/8" – 8"	10
201-45-09L9875	7-3/4" – 8-5/8"	1
201-45-11L5625	8-3/8" - 9-1/4"	1
201-45-11L7500	9-1/8" – 10"	1
201-45-11L9875	9-3/4" – 10-5/8"	1
201-45-13L5625	10-3/8" – 11-1/4"	1
201-45-13L7500	11" – 11-7/8"	1
201-45-13L9875	11-3/4" – 12-5/8"	1
201-45-15L5625	12-1/4" – 13-1/8"	1
201-45-15L7500	13" – 13-7/8"	1
201-45-15L9875	13-5/8" – 14-1/2"	
201-45-17L5625	14-1/4" – 15-1/8"	
201-45-17L5025	14-7/8" – 15-3/4"	
	15-5/8" – 16-3/8"	
201-45-171 0875		
201-45-17L9875 201-45-19L5625		
201-45-17L9875 201-45-19L5625 201-45-19L7500	16-1/8" – 17" 16-3/4" – 17"	

continued LA120 PETOL BULL TONG

77

CATALOG NO.	0.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

ATTOH PETUL BULL	IUNG
CATALOG NO.	0.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"
	17-1/8" – 18-1/8"
161-45-31L4500	
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"
	22-1/4" – 23"
161-45-39L5375	$22 - 1/4^{\circ} - 23^{\circ}$
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 LATTOH P	ETOL BULL TONG
CATALOG NO.	0.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 BU	
CATALOG NO. 161-45-51L5375	0.D. 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"
	36-1/8" – 37"
161-45-63L4500	
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	42-1/4 - 43 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	
161-45-83L6250	47-3/8" – 48-1/8" 47-5/8" – 48-3/8"
	4/-5/8" - 48-3/8"

continued LA116HX I	PFTOL BULL TONG
CATALOG NO.	0.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"
161-45-1131 5375	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 161-45-115L6250	64-3/4" – 65-3/8
	65" - 65-5/8"
161-45-117L4500	65-1/2" — 65-7/8"
MA15S PETOL MACI	HINE TONG
2-2 Chain Combina	tion)
CATALOG NO.	0.D.
150-22-32M	2" – 10"
MA155-16S PETOL	MACHINE TONG
2-2 Chain Combina	ition)
CATALOG NO.	0.D.
160-22-33L	3" – 16"
MAIGUE DETOL MA	

MA16HS PETOL MACHINE TONG (2-2 Chain Combination)

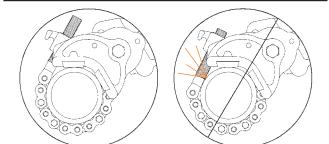
CATALOG NO.	0.D.
160-22-32L	4" – 16"

MA16HS PETOL MACHINE TONG (3-4 Chain Combination)

(3-4 Unain Compina	ation)
CATALOG NO.	0.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 DRI	LL PIPE TONG
CATALOG NO.	0.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.	0.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 Knu	rlad Incarte are required t

* 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.	0.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" 0.D.

DA4174 PETOL DRILL PIPE TONG (-L21 Handle)

CATALOG NO.	0.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" 0.D.

DA6184 PETOL DRILL PIPE TONG (All Handles)

CATALOG NO.	0.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.	0.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"

Form GCAT20 Rev. 04/12

79

DACTON FLICE DAT	LL PIPE TONG	TVA118 PETOL TONGVISI
(All Handles / 5-4 C	hain Combination)	CATALOG NO.
CATALOG NO.	0.D.	181-45-25T
161-54-08D	4-1/4" - 5-1/8"	181-45-33T
161-54-10D	5-1/4" - 6-3/8"	181-45-41T
161-54-12D	6-1/2" - 7-5/8"	TVATOO DETOL TONOVIO
161-54-14D	7-1/2" - 8-3/4"	TVA120 PETOL TONGVISI
161-54-16D	8-5/8" - 9-7/8"	CATALOG NO.
161-54-18D	9-7/8" – 11"	201-56-19T
161-54-20D	10-7/8" – 12-1/8"	201-56-25T
161-54-22D	12" – 13-1/4"	201-56-31T
161-54-24D	13-1/8" — 14"	
/TDA115H		
PETOL PULLDOWN	/ISETONG	
CATALOG NO.	0.D.	
151-45-25T	2" - 8"	
	_	
VTDA116H		
PETOL PULLDOWN	/ISETONG	
CATALOG NO.	0.D.	
161-45-25T	4" – 10"	
161-45-33T	4" – 14"	
VTDA118		
PETOL PULLDOWN	VISETONG	
CATALOG NO. 181-45-25T	0.D. 4" – 12"	
181-45-33T	4" – 12"	
181-45-41T	4" - 24"	
CATALOG NO.	0.D.	
201-56-19T	6" – 14"	
201-56-25T	6" – 18"	
201-56-31T	6" – 24"	
	-	
VTUA118 PETOL PU	-	
VTUA118 PETOL PU (All Handles)	SHUP VISETONG	
VTUA118 PETOL PU (All Handles) CATALOG NO.	O.D.	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T	SHUP VISETONG 0.D. 4" – 12"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T	0.D. 4" – 12" 4" – 18"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T	0.D. 4" - 12" 4" - 18" 4" - 24"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO.	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG 0.D.	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T	0.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG 0.D. 6" - 14"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG 0.D.	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T	0.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG 0.D. 6" - 14" 6" - 18" 6" - 24"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO.	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE O.D.	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE 0.D. 2" - 8"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE 0.D. 2" - 8"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE 0.D. 2" - 8"	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T TVA116 PETOL TON CATALOG NO.	O.D. 4" - 12" 4" - 18" 4" - 24" SHUP VISETONG O.D. 6" - 14" 6" - 18" 6" - 24" NGVISE 0.D. 2" - 8" GVISE 0.D.	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T TVA116 PETOL TON CATALOG NO. 161-34-25T 161-34-33T	SHUP VISETONG $\begin{array}{r} 0.D. \\ 4" - 12" \\ 4" - 18" \\ 4" - 24" \\ \end{array}$ SHUP VISETONG $\begin{array}{r} 0.D. \\ 6" - 14" \\ 6" - 18" \\ 6" - 24" \\ \end{array}$ NGVISE $\begin{array}{r} 0.D. \\ 2" - 8" \\ \end{array}$ GVISE $\begin{array}{r} 0.D. \\ 2" - 8" \\ \end{array}$	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T TVA116 PETOL TON CATALOG NO. 161-34-25T 161-34-33T	SHUP VISETONG $4" - 12"$ $4" - 12"$ $4" - 18"$ $4" - 24"$ SHUP VISETONG O.D. $6" - 14"$ $6" - 18"$ $6" - 24"$ NGVISE O.D. $2" - 8"$ GVISE O.D. $4" - 10"$ $4" - 14"$ NGVISE	
VTUA118 PETOL PU (All Handles) CATALOG NO. 181-45-25T 181-45-33T 181-45-41T VTUA120 PETOL PU CATALOG NO. 201-56-19T 201-56-25T 201-56-31T TVA115H PETOL TO CATALOG NO. 151-45-25T TVA116 PETOL TON CATALOG NO. 161-34-25T	SHUP VISETONG $\begin{array}{r} 0.D. \\ 4" - 12" \\ 4" - 18" \\ 4" - 24" \\ \end{array}$ SHUP VISETONG $\begin{array}{r} 0.D. \\ 6" - 14" \\ 6" - 18" \\ 6" - 24" \\ \end{array}$ NGVISE $\begin{array}{r} 0.D. \\ 2" - 8" \\ \end{array}$ GVISE $\begin{array}{r} 0.D. \\ 2" - 8" \\ \end{array}$	

0.D. 4" – 12" 4" – 18"

4" – 24"

0.D. 6" – 14" 6" – 18"

6" – 24"