

PETOL™ Suckerrod Elevator

REA025H

Data Book

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.

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PETOL™ Suckerrod Elevator Description

The REA025H PETOL™ Suckerrod Elevator hangs from the sucker rod hook which is attached to the traveling block of the service or drilling rig. The drawworks of the rig move the elevator up and down the rig's derrick to install and remove sucker rod. The elevator may also be used on or around the rig floor for handling sucker rod.

Removable inserts are screwed into the elevator body to work with specific sucker rod sizes, 5/8" – 3/4", 3/4" – 7/8", 1", and 1 – 1-1/8". The size range is stamped on each insert.

The elevator has a rated capacity of 25 tons for heavy duty use.

The REA025H offers the following features:

- An integrated latch mechanism consisting of front and rear hand-operable retainers and retainer springs to provide simple, fast, and smooth operation.

- Hardened removable inserts to provide adjustability.

- Special heat treated alloy materials to provide long life.

- Fully compliant with API specification 8C PSL level 2.

Warranty

What Is Covered

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

How Long Coverage Lasts

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

How Can You Get Warranty Service

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

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What Will We Do To Correct Problems

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

What Is Not Covered

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

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

Are Personal Injuries Covered

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

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

No Other Express Warranty Applies

This GEARENCH LIMITED WARRANTY is the sole and exclusive warranty, express or implied for GEARENCH products. No employee, agent, dealer or other person is authorized to alter, modify, expand or reduce the terms of this warranty or to make any other warranty on behalf of GEARENCH.

Law Applicable

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

Forum Selection Clause

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

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Safe Practices and Procedures

Responsibility

It is the responsibility of the employer to train the employee in the proper selection and use of tubing elevators, and to ensure that they are selected and used in that manner. A part of the job instruction program should therefore be detailed training in the proper use of tubing elevators.

"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)

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.



WARNING

Improper use of sucker rod elevators may result in injury or death. Follow safe practices listed below. (Source OSHA.gov)

Potential hazards when installing and removing production sucker rods include:

Hazard

1 – Falling from heights.

Possible Solution

1 – Wear appropriate fall protection including a full body harness.

1 – Never disconnect personal fall arrest systems while working in the derrick.

Hazard

2 – Getting fingers or hands pinched in or between rod wrenches, rod elevators, tongs, rod hook, rod transfer, and rod finger.

Possible Solution

2 – Ensure that workers are instructed in proper hand and finger placement when making and breaking rod connections or setting rods on the rod fingers.

Hazard

3 – Being struck by dropped objects.

Possible Solution

3 – Wear proper personal protective equipment.

3 – Use extra caution while people are working overhead.

3 – Avoid carrying tools while climbing the derrick ladder. Raise tools with a line to any worker above the derrick floor.

3 – Ensure that all tools and equipment being used are secured with the proper safety lines.

Periodic Maintenance and Inspection Schedule

Daily

1. Visually inspect elevator for signs of corrosion or damaged components.
2. Inspect for any visual evidence of external cracks. Visible cracks indicate potential failure points, and if they are discovered, the elevator should be immediately removed from service.
3. Examine the elevator bail for deformation on the surface where it contacts the sucker rod hook during operation. If the surface is excessively worn, the elevator needs repair. (See 'Inspection Wear Limits' for maximum allowable wear)
4. Test the operation of the elevator latch mechanism. If the latch appears to be too loose or too restricted, repair may be required.
5. **Do not grind or remove metal from any surface of the elevator. Contact GEARENCH™ for all suspected damage and repair.**
6. The latch pins should be oiled to maintain smooth operation.
7. After use, clean elevator. Remove all external dirt and grease.

Semi-annually

1. Perform Daily Maintenance as required.
2. Inspect the following areas for wear and/or damage (See 'Inspection Wear Limits' for maximum allowable wear):
 - a. Bail Contact Surface
 - b. Trunnions and Trunnion Holes

Annually

1. Perform Daily Maintenance as required.
2. Perform Semi-annual Maintenance as required.
3. Conduct NDT inspection (Magnetic Particle Inspection recommended) of all primary-load-carrying components (Bail and Body) for cracks. If any cracks are discovered, contact GEARENCH™.
4. Load test at full capacity (50,000 lbs) for five minutes. All tests should be logged and filed with original purchase order paperwork.

NOTE: The REA025H is a load bearing tool that is manufactured from alloy steel and heat treated to strict standards. Repairs should only be made by GEARENCH™ or a repair facility authorized by GEARENCH™.

Inspection Wear Limits

Bail Contact Surface

- Nominal Thickness – 1.500” (from contact area to top of bail)
- Minimum Thickness after wear – 1.420”

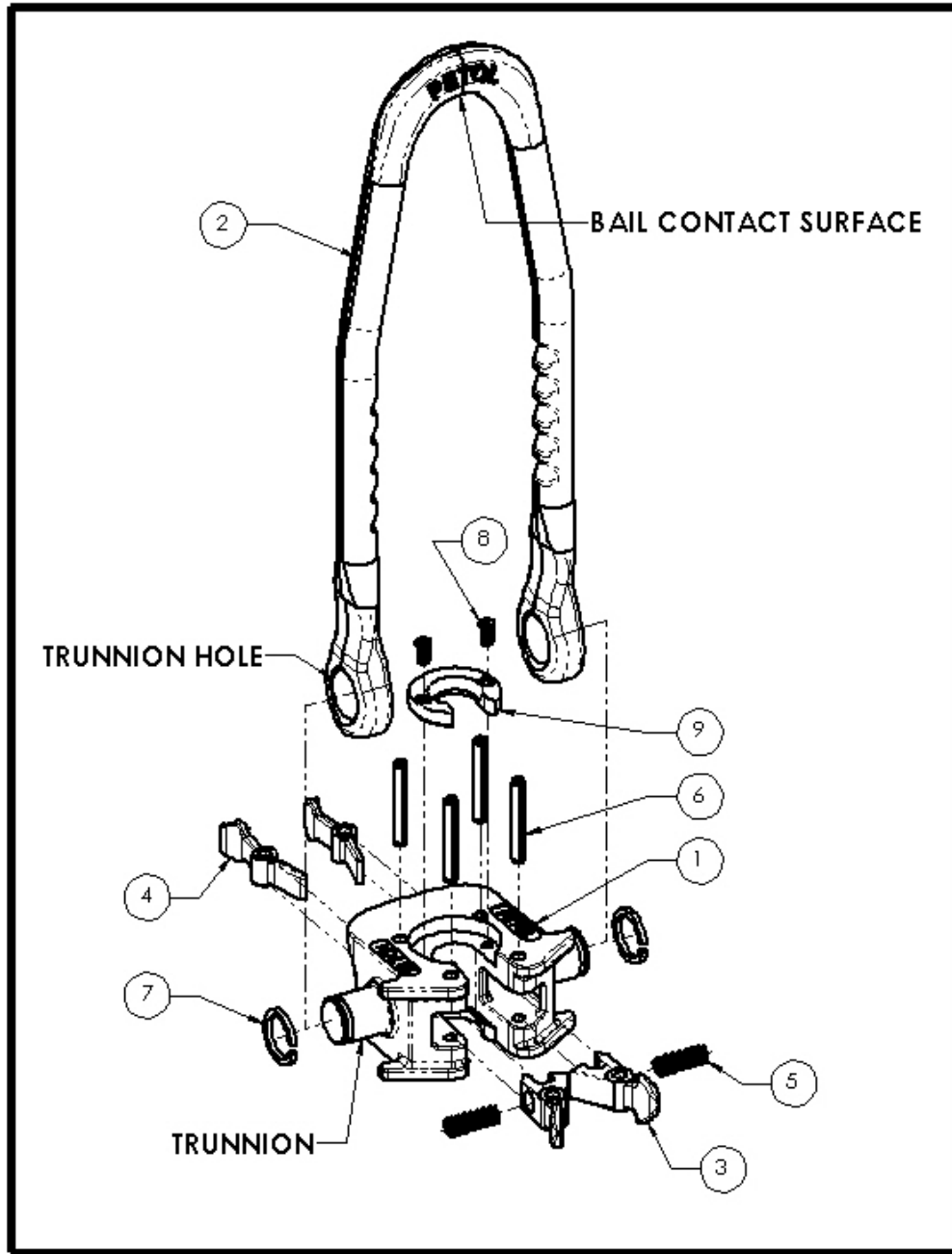
Trunnions

- Nominal Diameter – 1.438”
- Minimum Diameter after wear – 1.428”

Trunnion Holes

- Nominal Diameter – 1.500”
- Maximum Diameter after wear – 1.510”

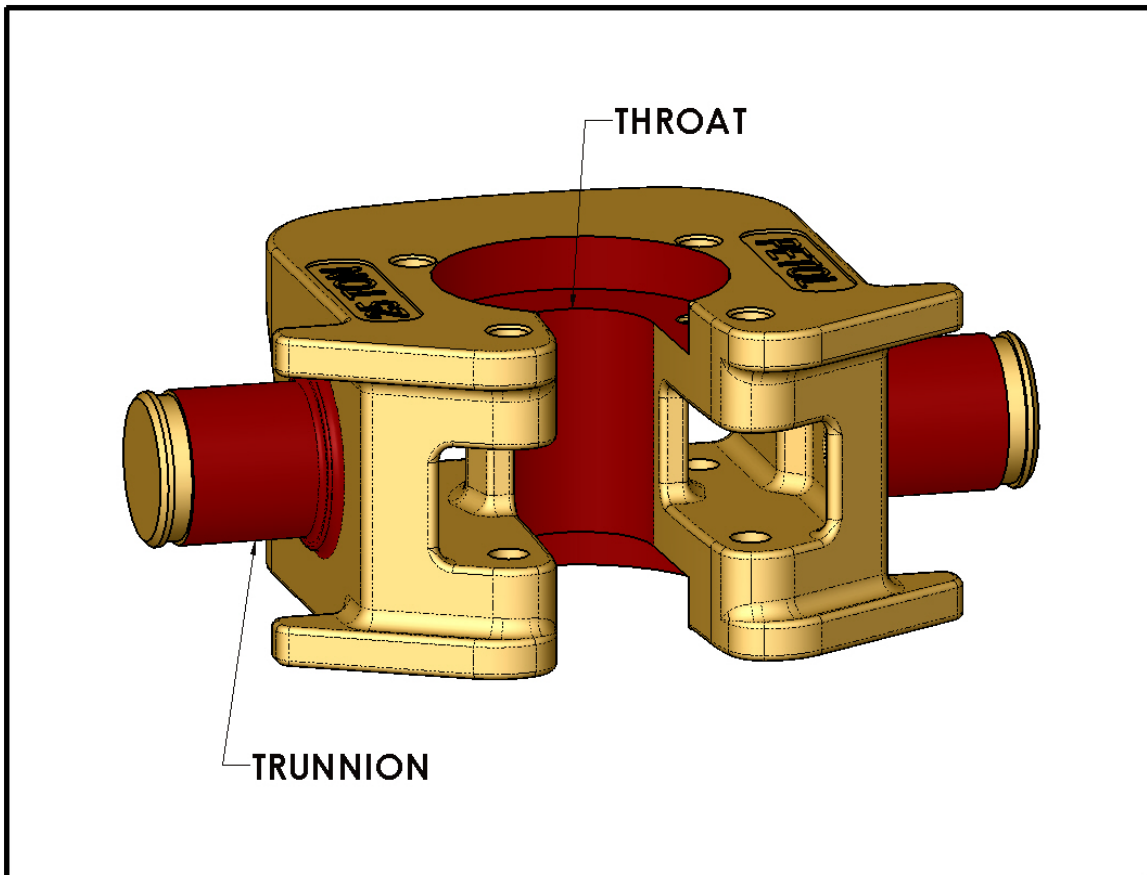
Assembly Drawing



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	REB025H	BODY
2	1	REH025H	BAIL
3	2	REF025	FRONT LATCH
4	2	RER025	REAR LATCH
5	2	HS32	LATCH SPRING
6	4	HXP003	LATCH PIN
7	2	HXRC144	RETAINING COLLAR
8	4	HXS043	INSERT SCREW
9A	2	REI025-058	INSERT 5/8 – 3/4” ROD
9B	2	REI025-034	INSERT 3/4 – 7/8” ROD
9C	2	REI025-100	INSERT 1” ROD
9D	2	REI025H-118	INSERT 1 – 1-1/8” ROD

Critical Area Drawing

The following drawing depicts the critical areas in the Body. The first critical areas are located on the Trunnions where they blend into the main body and along their tangent surfaces. The other critical area is located along the Throat and on its tangent surfaces. The Bail is not shown, but its entire surface shall be considered a critical area.



Operation

To attach the elevator to the sucker rod, the elevator operator stands on one side of the sucker rod with the elevator on the opposite side. The operator reaches around the sucker rod with one hand on either side of the rod. The elevator is gripped by the bail, and the operator pulls the elevator to the sucker rod, so that the sucker rod is automatically latched in the center of the elevator. **It is important for the elevator operator to visually verify that the sucker rod is completely inside the elevator and that the latch retainers are in place, or premature release of the sucker rod could occur resulting in bodily injury and/or dropping the sucker rod down the well requiring fishing of the dropped sucker rod string.**

To remove the elevator from the sucker rod, the sucker rod is secured and the elevator is lowered a few inches below the swollen sucker rod neck. The elevator operator holds the bail with one hand and unlatches the elevator with the other hand. The elevator operator then pulls or pushes the elevator body from the sucker rod.

It is wise to practice connecting and disconnecting the elevator to and from the sucker rod to observe the latching operation and to develop and become familiar with a routine to ensure the elevator latch is set.

WARNING:

Under no circumstances should the maximum working load of 25 Tons be exceeded.

This tool should not be used under heavy impact load conditions including but not limited to catching dropped sucker rod or running up against stuck sucker rod to break it loose.

This tool should only be used on sucker rod in a vertical direction. This tool should not be used on sucker rod in a horizontal direction including but not limited to lifting sucker rod off the ground.

Replacement Parts

Repairs should only be made by GEARENCH™ or a repair facility authorized by GEARENCH™.

Responsibility of Distributors

GEARENCH DISTRIBUTORS ARE RESPONSIBLE FOR FORWARDING THIS DATA BOOK AND OTHER GEARENCH PRODUCT INFORMATION RELATING TO THE INDIVIDUAL PRODUCT, THROUGH THE CHANNELS OF DISTRIBUTION, DOWN TO AND INCLUDING THE INDIVIDUAL USING THE PRODUCT.

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.

Certificates