

## INSTRUCTION MANUAL

### MODEL TR270 TOPREACH CLAMP

**TOPREACH**  
TOP • REACH • CLAMP



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For your personal safety  
READ and UNDERSTAND  
instructions before using tools.



SAVE these instructions  
for future reference.

**SPECIFICATIONS**

*Table 1 : Squeeze-off Tool for 1/2" to 2" (15mm - 63mm) PE Pipe \**



**NOTE**

Length:	6.5 ft **	2.0 m **
Width:	10.4 in	26.4 cm
Weight:	19.0 lb	8.62 kg

*Table 2 : Rate of Closure*

Pipe Size	# of Revolutions to Close	Maximum # of Revolutions per minute to Close per ASTM Specifications	Maximum Revolutions per second
1/4" CTS	13.0	52.0	1.2
1/2" CTS	15.5	31.0	2.0
1/2" IPS	17.0	34.0	1.8
1/2" SIDR	17.0	34.0	1.8
3/4" CTS	17.0	22.0	2.8
3/4" IPS	19.0	25.0	2.8
3/4" SIDR	19.0	25.0	2.8
1" CTS	19.0	19.0	3.2
1" IPS	20.5	20.5	3.0
1" SIDR	20.5	20.5	3.0
1-1/4" CTS	20.5	16.0	3.8
1-1/4" IPS	22.5	18.0	3.4
1-1/4" SIDR	24.0	19.0	3.2
1-1/2" CTS	22.5	15.0	4.0
1-1/2" IPS	23.0	15.0	4.0
1-1/2" SIDR	26.5	13.0	4.7
2" CTS	26.5	13.0	4.7
2" IPS	26.5	13.0	4.7
2" SIDR	26.5	13.0	4.7

\* Manufacturer reserves the right to change specifications without notice.

**TIMBERLINE LIMITED WARRANTY**

*Warranty Policy*

Every product manufactured by Timberline Tool is thoroughly inspected and tested before leaving the factory. Our products are warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop with our tools, handles, or accessories during this one-year period please call 800.735.6845 to obtain return authorization for repair. If inspection shows the trouble is caused by defective workmanship or material, Timberline Tool will repair or, at our option, replace the product without charge.

This Warranty does not apply where:

- Repairs have been made or attempted by others.
- Repairs are required because of normal wear and tear.
- The tool has been abused, misused, or improperly maintained.
- Alterations have been made to the tool.

IN NO EVENT SHALL TIMBERLINE TOOL BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

TIMBERLINE TOOL DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

## SERVICE

After every 10 uses:

1. Apply a small amount of grease to the ACME thread. (Fig 14)
2. Lubricate the pins and bushings with light oil. (Fig 15)
3. Use a small amount of light oil in the ball nose spring plungers. (Fig 16)
4. The bearing house is sealed and addition lubrication is not necessary. (Fig 17)



Fig 14



Fig 15



Fig 16



Fig 17



NOTE

If you have questions, please feel free to contact our customer service representatives at 1-800-735-6845 or by email at [service@timberlinetool.com](mailto:service@timberlinetool.com).

## ACCESSORIES



WARNING

Any accessories or attachments recommended for use with your Timberline Tool are specified in this manual. The use of any other accessories or attachments might present the risk of injury. Only use accessories or attachments for their stated purpose.

## INTRODUCTION

Timberline squeeze-off tools are designed to temporarily stop the pressurized flow of liquid or gas in polyethylene (PE) pipe.

Squeeze-off is a technique used to control the flow of gas or liquid in polyethylene pipe by compressing the pipe between parallel bars until the inside surfaces make contact. The flexibility and toughness of most polyethylene pipes allow the pipe to recover from a properly made squeeze-off without a measurable loss in service life. Squeeze-off is useful for making installation tie-ins and emergency repairs.

Timberline squeeze-off tools are made from high strength aluminum for superior durability and will not bend or break under normal use. However, care must be taken to ensure that the pipe is free of foreign material and the slap on jaw matches the diameter and wall thickness / SDR of the pipe to be squeezed. \*

Please read the following suggested procedure for squeezing off polyethylene plastic pipe using Timberline Squeeze-off Tools.

## GENERAL SAFETY RULES

### For all Tools

READ and UNDERSTAND all instructions. Failure to follow all instructions listed below may result in serious personal injury and/or damage to the tool.

The following ASTM standards provide guidance and requirements for squeeze-off tools, operating procedures, and qualification procedures.

- ASTM F1041, "Standard Guide for Squeeze-off of Polyolefin Gas Pressure Pipe and Tubing"
- ASTM F1563, "Standard Specification for Tools to Squeeze-Off Polyethylene (PE) Gas Pipe or Tubing"
- ASTM F1734, "Standard Practice for Qualification of a Combination of Squeeze Tool, Pipe, and Squeeze-Off Procedures to Avoid Long-Term Damage in Polyethylene (PE) Gas Pipe"

\* The SDR is the ratio of pipe diameter to wall thickness. SDR can be expressed as  $SDR = D/s$  where  $D$  = pipe outside diameter and  $s$  = pipe wall thickness.

## SAFETY INSTRUCTIONS

SAVE THESE FOR FUTURE REFERENCE

### Static Electricity Safety



#### WARNING

Use a proper grounding rod at all times to insure personal safety.

PE pipe is a relatively low conductor of electricity. As a result PE pipe does build up a static charge when it is in gas service due to the gas flow on the inside of the pipe. During squeeze-off a larger amount of static charge builds up.

In addition to the potential for pipe damage due to static discharge, the build up of a static charge represents an ignition source. Timberline Tool recommends that you follow all of your company grounding techniques and that all personnel involved in squeeze-off operations receive training on those grounding procedures so that they understand the hazards involved.

### Workplace Safety



#### CAUTION

Prior to using any squeeze-off tool, consult ASTM Standards F1041-02, F1563-01 and F1734-03.

Always follow applicable company and OSHA safety procedures.

Observe pipe manufacturers' recommendations and precautions for squeeze-off of polyethylene pipe, exercising particular caution when leaking gas is present.

Safety first. Timberline squeeze-off tools must be used by qualified, trained personnel only and must never be left on the pipe unattended. Refer to pipe manufacturers' recommendations for locating squeeze-off distances from fittings and joints.

### Personal Safety



#### WARNING

Stay Alert, watch what you are doing, and do not use tools while tired or under the influence of narcotics, alcohol, or medication.

Use proper clothing, eye protection, and safety equipment when using squeeze-tools.

A moment of inattention while operating squeeze-off tools may result in personal injury.

Store idle tools out of reach of children and other untrained persons.

- Turn the **Handle** (A1) clockwise to squeeze-off the pipe. Refer to Table 2 on Page 2 for the suggested rate of closure per ASTM specifications. (Fig 10)



Fig 10



#### NOTE

Squeeze-off is **not** complete until the tool hits its' mechanical stop. (Fig 11)



Fig 11

- During service operations remove the **Handle** to prevent accidental release of the tool. Use a padlock for lock-out/tag-out. (Fig 12)



Fig 12

- When removing the tool from the pipe turn the **Handle** counter clockwise at half the closing rate, per ASTM specifications. (Fig 13)



Fig 13

3. Attach the **Slap-On Jaw** (B8) to **Slap-On Jaw Post** (B6).  
(Fig 4)



**NOTE**

4. Attach both cables to the **Fixed Jaw** (B7).  
(Fig 5)

The tool may be operated with the **Handle** only.  
(Fig 6)

5. If you need more length add **Extension Handles**. (Fig 7)



Fig 4



Fig 5



Fig 6



Fig 7

### Specific Tool Safety



If you have used other Timberline products please be aware that the operation of this tool may differ from others and that you may need to follow different rules. Always consult the manual to insure you are following the correct safety instructions to avoid personal injury.

### Tool Usage Safety

Do not force the tool to perform a squeeze-off. The tool will operate safer and better if the rate of squeeze in these instructions is followed.

Maintain the tool with care. A properly maintained tool will be less likely to cause damage and is easier to control.

Check for misalignment, binding of parts, breakage of parts, and other conditions that might affect the operation of the tool. Accidents may be caused by improperly maintained tools.

Always use the Timberline TR270 with the grounding rod inserted in the ground when working with natural gas, or any other flammable substance.

Use only the accessories, slap-on jaws, or extension handles that correspond to your product. Accessories specific for one tool may be hazardous if used on a different tool.

Failure to use the TR270 in the manner specified in this manual may result in injury and/or permanent damage to the tool.

This tool complies with ASTM F1563-01.



Always make sure to use the slap-on jaw that corresponds to the pipe size and SDR or wall thickness of the pipe to be squeezed-off. Use of the correct slap on jaw ensures that the pipe will not be damaged during squeeze-off.

### Tool Service Safety



Tool service must only be performed by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

## OPERATING PROCEDURE



**WARNING**

Remember this is only a recommended procedure for a safe and effective squeeze-off. Always follow your specific company safety rules when working around natural gas.

1. Ground the tool with the **Grounding Rod**.
2. Open the TR270 just enough to slide over pipe.  
(Fig 8)



Fig 8



**CAUTION**

- If the cables are tight and the clamp is dropped on the pipe the cables will break.
- Make sure the pipe is clear of any debris, rock, dirt, etc.



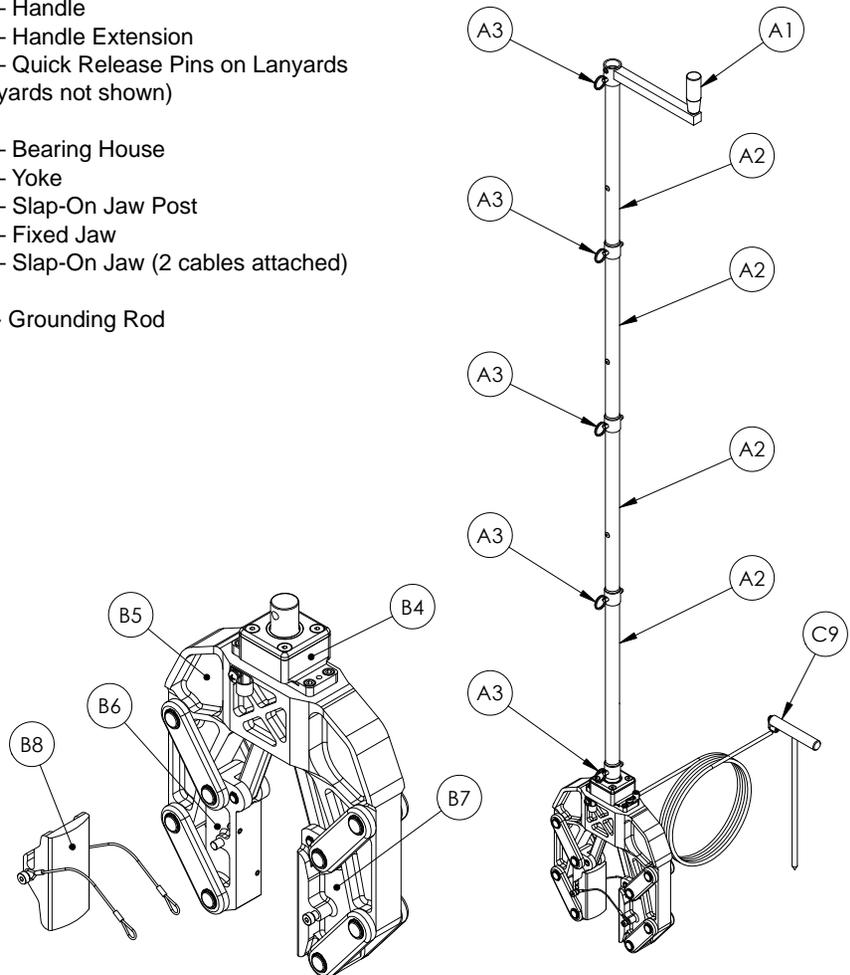
3. Put the TR270 onto the pipe until both cables are resting on the pipe. The cables keep the pipe centered in the jaws. It is best if the tool is perpendicular. (Fig 9)



Fig 9

## TR270 DIAGRAM

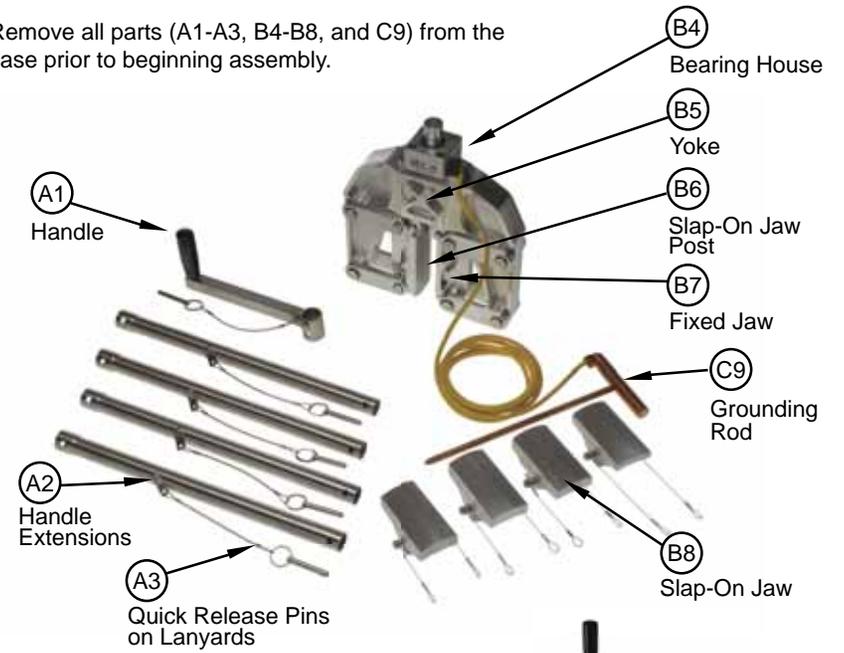
- A1 – Handle
- A2 – Handle Extension
- A3 – Quick Release Pins on Lanyards (lanyards not shown)
- B4 – Bearing House
- B5 – Yoke
- B6 – Slap-On Jaw Post
- B7 – Fixed Jaw
- B8 – Slap-On Jaw (2 cables attached)
- C9 - Grounding Rod



Familiarize yourself with all parts, names, and numbers. Refer to this diagram for the assembly and operation procedures that follow.

## ASSEMBLY PROCEDURE

Remove all parts (A1-A3, B4-B8, and C9) from the case prior to beginning assembly.



1. Attach the **Handle** (A1) with the **Quick Release Pin** (A3). (*Fig 1*)
2. Turn the **Handle** counterclockwise to open the tool approximately two inches. (*Fig 2*)



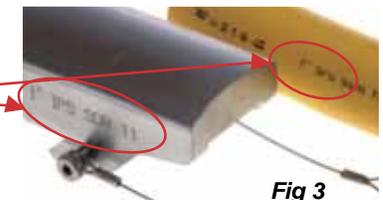
**Fig 1**



**Fig 2**



Make sure the **Slap-on Jaw** (B8) matches the diameter and SDR of the pipe. (*Fig 3*)



**Fig 3**