

Owner's Manual

# Wedge SE & TE Trenchless Service Line Replacement Tools



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DO NOT OPERATE THESE TOOLS UNLESS THESE INSTRUCTIONS HAVE BEEN CAREFULLY READ AND UNDERSTOOD

# SAFETY PRECAUTIONS:



## PERSONAL PROTECTION:

- Wear all required personal protective equipment including but not limited to:
- Approved Safety Goggles
- Gloves
- Do not modify “The Wedge” without the written consent of Footage Tools Inc.



## KEEP TOOL IN GOOD CONDITION

- Be sure the tool is in good operating condition. Inspect the striking surface of the hammer and the flaring tool before each use. If either striking face surface is mushroomed, grind or file the striking surface to its approximate original shape, maintaining a slight crown on the end before use. Use only a soft faced brass hammer. (Do not use a hardened steel hammer!).



**WARNING:** STAY CLEAR OF AREA BEHIND AND AROUND PULLING END OF OPERATION

## PLEASE NOTE:

The Wedge SE is recommended for replacing existing galvanized, copper and lead service lines.  
The Wedge SE3 is recommended for replacing existing PE & PVC service lines.

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# USING THE “THE WEDGE SE” SERVICE LINE REPLACEMENT TOOL

## REQUIRED TOOLS AND EQUIPMENT

1. “The Wedge” Service Line Replacement Tool.
2. 3/8” Cable with ferrule on one end, fused to a point on the other, at least 10 feet longer than pipe to be replaced.
3. Soft faced brass hammer.
4. Deburring tool.
5. Safety goggles and gloves.
6. Cable grip or clamp.
7. Copper or PE adapters.
8. Two adjustable wrenches.

## OPERATING INSTRUCTIONS:

### SERVICE REPLACEMENT PROCEDURE

1. Expose pipe to be replaced at both ends and disconnect.
1. Insert the fused end of the cable into the threaded end of the “The Wedge SE” and out through the pointed end. Pull the entire length of cable through “The Wedge SE” until the ferrule on the cable seats inside “The Wedge SE”.
1. Continue to thread the cable (fused end first) through the pipe to be replaced until at least 24” of cable is exposed at the other end.

### REPLACING SERVICE LINE WITH COPPER PIPE

**Flare the copper pipe as per the following procedure:**

4. Wear safety goggles as per safety regulations and put on gloves.
4. Using a wheel-type tubing cutter with a good blade, cut the copper tubing to the desired length. Be sure that the cut is square.
4. Remove all burrs from both the inside and the outside of the mouth of the tube.

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## OPERATING INSTRUCTIONS:

### REPLACING SERVICE LINE WITH COPPER PIPE

7. Inspect the striking faces of the flaring tool and soft face brass hammer for mushrooming. If either face is mushroomed do not proceed until the deformed material is removed.
7. Slide the flared tube-coupling nut over the end of the tube. If it does not fit, the tube is out of round and must be re-rounded before proceeding with the flaring operation.
7. Lubricate the shank and the flaring surface of the flaring tool with potable grease and insert the tapered end into the tube mouth and tap the tool with a soft face brass hammer while rotating the tool. Frequently slide the flared tube nut up to the flare to check the size of the flare. The flare is correct when the flared end of the tube is large enough to be snug inside the flared tube nut yet it is small enough to allow the flared tube nut to be turned by hand. A good flare should not have any cracks on the edges. If any cracks appear or if the flare is otherwise unsuitable, re-cut the tube and start over until a perfect flare is achieved.



"The Wedge SE" shown ready to install copper pipe using the compression connector provided by Footage.



Cable shown attached to cable grip #K1684-5

10. Connect the replacement pipe to "The Wedge SE" by threading the flare tube nut over the wedge, using two adjustable wrenches.
10. Pull the cable by the attached fused end until tight and attach cable grip or clamp.
10. Attach the cable grip or clamp to a backhoe, truck or winch and pull the tool through the pipe to be replaced while simultaneously installing the replacement pipe. The old pipe may either split or be pulled out, depending on pipe material and condition. If the pipe is pulling out intact, use a tubing cutter to separate it into sections to allow the cable grip to be repositioned after each haul.

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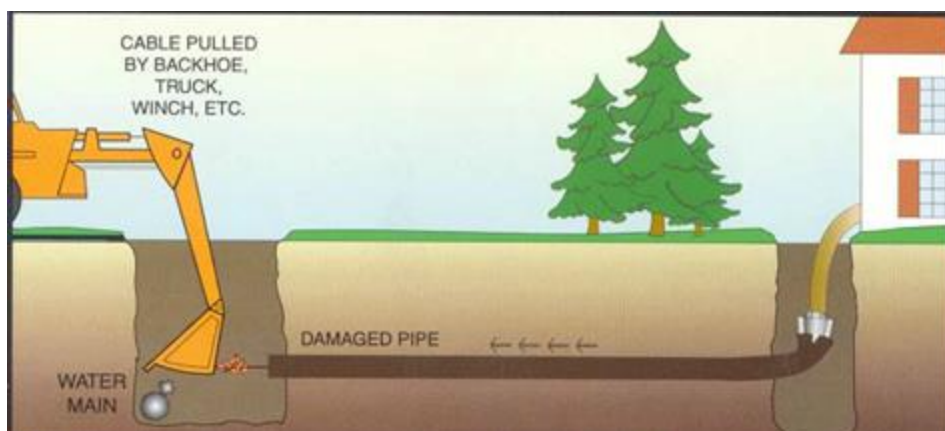
## OPERATING INSTRUCTIONS:

### REPLACING SERVICE LINE WITH PE PIPE

7. Cut the PE pipe to the desired length. Be sure the cut is straight.
7. Remove all burrs from both the inside and the outside of the mouth of the pipe.
7. Using an adjustable wrench, thread the appropriate PE pipe puller into the pipe required to be installed, up to the end of the thread, or until it becomes too difficult to thread.
8. Connect the replacement pipe to "The Wedge SE" by threading the wedge into the puller, using another adjustable wrench.



10. Pull the cable by the attached fused end until tight and attach cable grip or clamp.
10. Attach the cable grip or clamp to a backhoe, truck or winch and pull the tool through the pipe to be replaced while simultaneously installing the replacement pipe. The old pipe may either split or be pulled out, depending on pipe material and condition. If the pipe is pulling out intact, use a tubing cutter to separate it into sections to allow the cable grip to be repositioned after each haul.



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## AIRCRAFT CABLE AND K1684-5 CABLE GRIP MAXIMUM LOAD CAPACITIES

- K1684-5 Cable Grip rated at 8,000 lbs. Maximum load
- 1/4" diameter aircraft cable – breaking strength 7,000 lbs.
- 5/16" diameter aircraft cable – breaking strength 9,800 lbs.
- 3/8" diameter aircraft cable – breaking strength 14,400 lbs.

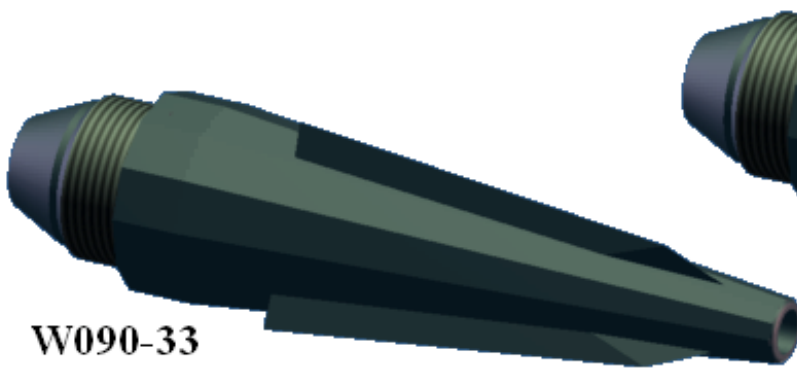
### **WARNING:**

**IF THE WEDGE DOES NOT START TO SPLIT THE OLD SERVICE AND  
ADVANCE TOWARDS THE MAIN AFTER APPLYING THE PULLING FORCE  
LISTED ABOVE TO THE AIRCRAFT CABLE...**

**STOP PULLING AND CALL FOOTAGE  
TOOLS CUSTOMER SERVICE AT  
1-888-737-3668**

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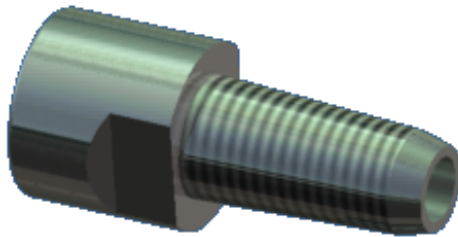
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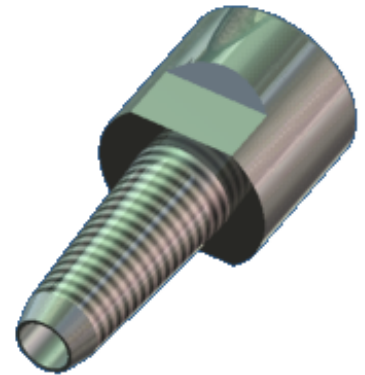
**W090-33**  
WEDGE SE 3



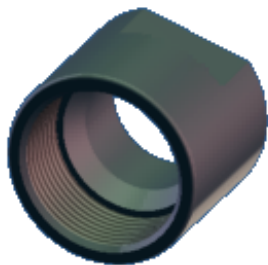
**W090-03**  
WEDGE SE



**W095-09**  
P.E. PIPE PULLER  
1" IPS



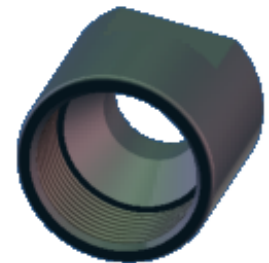
**W095-08**  
P.E. PIPE PULLER  
3/4" IPS



**W090-15**  
LOCKING NUT  
1" COPPER PIPE



**W090-04**  
FLARING TOOL



**W090-14**  
LOCKING NUT  
3/4" COPPER PIPE



**K1684-5**  
CABLE GRIP

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## FOOTAGE TOOLS INC. LIMITED LIFETIME WARRANTY

**FOOTAGE TOOLS INC.**, hereinafter sometimes referred to as “Manufacturer” warrants each new industrial product of its own manufacture to be free from defects in material and workmanship, under normal use and service for the life of the tool. **Warranty is void unless warranty registration form is completed either online or manually and returned to FOOTAGE TOOLS INC. within thirty (30) days from the date of purchase.** This warranty and any possible liability of **FOOTAGE TOOLS INC.** hereunder are in lieu of all other warranties, expressed, implied, or statutory, including, but not limited to, any warranties of merchantability or fitness for a particular purpose.

The parties agree that the Buyers **SOLE AND EXCLUSIVE REMEDY** against Manufacturer, whether in contract or arising out of warranties, representations, instructions, or defects shall be for the replacement or repair of defective parts as provided herein. In no event shall Manufacturers liability exceed the purchase price of the product. The Buyer agrees that no other remedy (including, but not limited to, in incidental or consequential loss) shall be available to him. If during the warranty period, any product becomes defective by reason of material or workmanship and Buyer immediately notifies Manufacturer of such defect, Manufacturer shall, at its option, supply a replacement part or request return of the product to its plant in Toronto, Canada. No parts shall be returned without prior written authorization and a return goods authorization number from Manufacturer, and this Warranty does not obligate the Manufacturer to bear any transportation charges in connection with the repair or replacement of defective parts. The Manufacturer will **not** accept any charges for labor and/or parts incidental to the removal or remounting of parts repaired or replaced under this Warranty.

This Warranty shall not apply to any part or product which shall have been installed or operated in a manner not recommended by **FOOTAGE TOOLS INC.**, nor to any part or product which shall have been neglected, or used in any way which, in the manufacturers opinion, adversely affects its performance; nor negligence of proper maintenance or other negligence, fire, or other accident: nor if the unit has been altered or repaired outside of a **FOOTAGE TOOLS INC.** authorized dealership in a manner of which, in the sole judgement of **FOOTAGE TOOLS INC.** affects its performance stability or reliability: nor to any product in which parts not manufactured or approved by **FOOTAGE TOOLS INC.** have been used, nor to normal maintenance services or replacement of normal service items. Equipment and accessories not of our manufacture are warranted only to the extent of the original Manufacturers Warranty and subject to their allowance to us, if found to be defective by them.

The original purchaser, user is responsible for “downtime” expenses and all business costs and losses resulting from a warrantable failure. **FOOTAGE TOOLS INC.** specifically disclaims any responsibility for any damages of any kind or description, whether to property or person, in any way connected with or arising out of the use of **FOOTAGE TOOLS INC.** products. The Buyer expressly acknowledges that this Limited Lifetime Warranty does not apply to any part or product not directly purchased from the Manufacturer