Owner's Manual

C850-A1 Hydraulic Squeeze Off Tool



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

SAFETY WARNING:

DO NOT OPERATE THESE TOOLS UNLESS THESE INSTRUCTIONS HAVE BEEN CAREFULLY READ AND UNDERSTOOD. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DAMAGES, INCLUDING WITHOUT LIMITATION DEFECTS, DETERIORATION, WEAR, ERROR, FAILURE OF THE SQUEEZE OFF TOOL, OR INJURY, INCLUDING WITHOUT LIMITATION DEATH AND INCAPACITATION. FOOTAGE TOOLS INC. EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY FOR DIRECT, INDIRECT, INCIDENTAL, SPECIAL, BODILY, EXEMPLARY OR DAMAGES OF ANY KIND, WHETHER FORESEEABLE OR UNFORESEEABLE, ARISING OUT OR IN CONNECTION WITH THE FAILURE TO COMPLY WITH THIS OWNER'S MANUAL.

WARNING:

- DO NOT EXCEED THE RECOMMENDED SQUEEZE AND RELEASE RATES. TEMPERATURES BELOW 32°F (0°C) REQUIRE SLOWER SQUEEZES AND RELEASES. RELEASES ARE MORE CRITICAL THAN SQUEEZES; THUS, SLOWER RATES ARE REQUIRED. CONSULT YOUR LOCAL UTILITY REGARDING THEIR SPECIFIC RECOMMENDATIONS FOR THIS PROCEDURE.
- WHEN PERFORMING A SQUEEZE, STAY A MINIMUM OF 3 TIMES THE PIPE DIAMETER FROM FITTINGS, FUSIONS, OR PREVIOUSLY SQUEEZED SECTIONS OF PIPE. NEVER SQUEEZE A PIPE IN THE SAME PLACE TWICE OR PIPE DAMAGE MAY RESULT.
- ENSURE THE GROUNDING SYSTEM IS PROPERLY PLANTED IN THE SOIL TO REDUCE THE CHANCES OF STATIC DISCHARGE.
- USE EXTREME CAUTION WHEN OPERATING THE TOOL NEAR LIVE ELECTRICAL WIRES, BURIED UTILITIES, OR OTHER HAZARDS.
- IN CASE OF MALFUNCTION, IMMEDIATELY STOP USING THE TOOL AND CONTACT A QUALIFIED TECHNICIAN FOR INSPECTION AND REPAIR.
- WHEN OPERATING THIS TOOL, SAFETY EQUIPMENT, INCLUDING SAFETY GLASSES ARE REQUIRED.
- BEFORE PERFORMING A SQUEEZE, CLEAN THE POCKETS ON THE UNDERSIDE OF THE LOWER BAR/STATIONARY BAR AND WHERE THE SIDE SHAFTS/CYLINDER RODS WILL CONTACT THE LOWER BAR/STATIONARY BAR. REINSPECT AFTER TOOL IS LOWERED INTO POSITION ON PIPE JUST PRIOR TO SQUEEZE.

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SAFETY WARNING:

WARNING:

- DO NOT MODIFY OR ALTER THE TOOL IN ANY WAY. ONLY USE FOOTAGE TOOLS REPLACEMENT PARTS PROVIDED BY THE MANUFACTURER OR AUTHORIZED DISTRIBUTOR.
- FOR HYDRAULIC SQUEEZE TOOLS: INSPECT HYDRAULIC HOSES FOR SIGNS OF DAMAGE OR CUTS AND REPLACE IF NECESSARY. ENSURE HYDRAULIC FITTINGS ARE FULLY ENGAGED.
- BEFORE PERFORMING A SQUEEZE, ENSURE THE PIPE IS CENTRED BETWEEN SIDE SHAFTS/CYLINDER RODS AND THE TOOL IS IN AN UPRIGHT POSITION.
- FOR HYDRAULIC SQUEEZE TOOLS: BEGIN TO ENGAGE THE SAFETY LOCK DOWN BOLTS WHEN THE UPPER BAR/SLIDING BAR IS APPROXIMATELY ONE INCH FROM TOUCHING THE GAUGE STOP.
- FOR HYDRAULIC SQUEEZE TOOLS: ENSURE YOU READ AND UNDERSTAND HOW TO OPERATE THE NEEDLE VALVE IF INSTALLED ON HYDRAULIC PUMP.
- WHEN SQUEEZING HDPE PIPE, DUE TO THE NATURE OF THE MATERIAL, IT MAY BE NECESSARY TO DOUBLE SQUEEZE AND VENT TO ATMOSPHERE BETWEEN THE SQUEEZED SECTIONS IN ORDER TO ACHIEVE FLOW CONTROL.
- KEEP AWAY FROM ANY HIGH-PRESSURE HYDRAULIC LEAKS. A HIGH-PRESSURE JET OIL CAN CAUSE SERIOUS INJURY. REPAIR IMMEDIATELY.

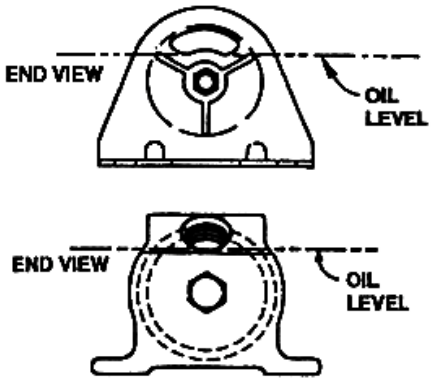
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This tool is sold in one basic configuration; fine controlled release. The fine controlled unit has a needle valve with a built-in orifice in the high-pressure pump line. The hand pump contains a three-position control valve. When the control valve is placed in the squeeze position, oil is pumped through the lower hose, passes through the needle valve, and to the squeeze operation of the tool. Similarly, moving the control valve lever to the release position allows oil to be pumped through the upper hose and to the release (open) operation of the tool. The neutral (centered) position will not hold any pressure in the tool.

The hand pump is a two-stage pump that provides high oil volume at low pressure for rapid cylinder advancement. At approximately 1400 PSI, the pump will automatically switch to low-volume flow for high-pressure applications. A bypass valve, set at 10,000 PSI, is built into the pump to prevent over-pressurization.

PRELIMINARY ASSEMBLY:

1. Ensure the hand pump is filled with good quality, ISO 32, hydraulic oil. To check or refill, connect the pump to the tool, retract the cylinder, and release system pressure. (Failure to follow this instruction may result in overfilling the reservoir – this could result in reservoir failure due to excessive pressure and possible injury.) Remove the cap and fill to the indicated level with the pump level and resting horizontally on the base and recap. Cleanliness is critical while checking and refilling. Use a funnel with a filter. Do not allow any dirt to enter the reservoir.



2. If the tool operates with jerky or uneven motion, bleeding air from the system may be necessary. To do this, connect the two hoses, eliminating the tool as shown in the photo. Ensure the reservoir is topped to the proper level. Set the pump control valve to the "squeeze" position and pump for 2 minutes. Then set the pump control valve to the "Release" position and pump for 1 minute. Return the valve to the "Neutral" position. Disconnect the hoses and assemble them to the tool. Pressurize the tool in the "squeeze" position for 5 minutes. Cycle the tool fully open to fully closed a few times. Ensure that the needle valve is fully open. Repeat the procedure if necessary.



BLEEDING OF THE HYDRAULIC SYSTEM

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PRELIMINARY ASSEMBLY:

3. To connect the C615HD-B110 static grounding kits, mount the grounding tool lead to the squeeze-off tool in the ¼" X 20 tapped hole on the left side of the upper bar using the supplied ¼" hardware. This hole is located in the upper bar, below and to the left of the "Footage Tools" name plate as shown in photo at right.

4. The C850 is equipped with folding handles for improved transportation of the tool. This feature will still allow the tool to be used in a trench as narrow as 24" wide. To stow or extend the handles, pull the ring on each handle's plunger upwards while rotating the handle to the desired position. Ensure the plunger enter the provided detents, thereby locking the handles in the selected position.



LOCATION OF GROUND SPIKE HOLE



LOCATION OF HANDLE LOCK PIN

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OPERATING INSTRUCTIONS:

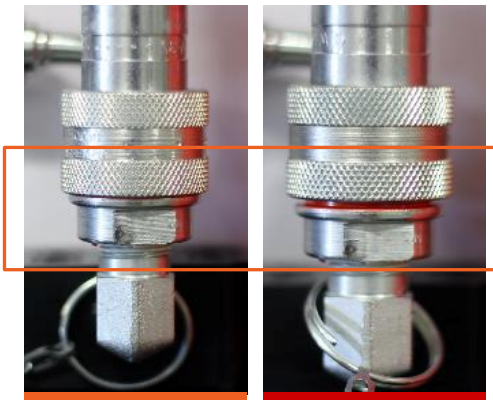
A. Installation of Pipe

WARNING: Inspect the tool to ensure that it is clean and free from any dirt that may hinder proper operation. Pay particular attention to the two lower bar pockets where the rod nuts on the cylinder rods engage. These pockets must be clean and free of debris. Clean if necessary.



LOWER BAR POCKET

1. Fully install the grounding spike in firm soil near the tool and work area. Moist soil is required to ensure good contact with the ground. Soak the area where the spike will be inserted, if necessary. This step is critical as the grounding system should dissipate any static electric charge generated when the gas flow is cut-off during the squeeze operation, thereby reducing the risk of sparks being created.



CORRECT | INCORRECT

2. Carefully inspect the hydraulic hoses to ensure there are no cuts or leaks. Ensure the hydraulic couplings are clean and connect the two hoses from the hand pump to the squeeze-off tool. Notice the hoses have a male and female half of the couplings attached to them that go to the mating parts on the squeeze-off tool, so the hoses cannot be hooked up backwards. To eliminate any possibility of accidental disconnection, the threaded collar must be fully threaded on, to enable pressure to reach the tool.

WARNING: To eliminate any possibility of accidental disconnection, the threaded collar must be fully threaded on. To enable pressure to reach the tool, tighten fittings until you can no longer see ORANGE paint on the inside collar.



ATTACHMENT OF HYDRAULIC COUPLING

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OPERATING INSTRUCTIONS:

A. Installation of Pipe

⚠ **WARNING:** Open the tool by placing the pump control valve into the release position. **CAUTION:** Ensure the needle valve is fully open counter-clockwise, see section on fine controlled release below. Pump until the squeeze bars are sufficiently open to allow the pipe to be inserted. Once the tool is fully open, do not continue to pump, as the pressure relief valve in the handle will dump oil to protect the tool from damage.



PRESSURE RELIEF VALVE

3. Lift and swing the lower bar out and place the squeeze-off tool over the pipe. Swing back the lower bar and lock into position over the rod nuts of the cylinder rod. Full engagement is critical, or tool damage may result. The operator should visually check to see that the cutout in the lower bar has fully rested against the cylinder rod to ensure the bar has swung fully shut. It should look closed. The operator should then feel along the underside of the lower bar to confirm that the lowers of the rod nuts are flush with the lower face of the lower bar and are fully seated in the pockets on the underside of the lower bar. This is important so the tool cannot open accidentally and also ensure there is equal load on both sides. Failure to comply with this step may result in tool damage.



ROD NUT INSIDE LOWER BAR POCKET

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OPERATING INSTRUCTIONS:

B. Squeezing the Pipe

1. Set the gauge plate stops on either side of the unit to the proper pipe size and SDR setting. Ensure both sides are identical or tool damage may result. The required stop should be shown upward such that they face the upper bar.

   NOTE: TOOL MAY NOT GIVE ADEQUATE FLOW CONTROL, ON 8" IPS 9 HIGH DENSITY PIPE, IN COLD CONDITIONS.

2. Close the needle valve clockwise and move the control lever on the hand pump to the squeeze position.

3. Close the tool with the pump until the bars start to touch the pipe. Position the tool centrally on the pipe, and perpendicular to the pipe when viewed from the top. The arrow on the upper bar indicates the central position. If this is not done, satisfactory flow control may not be achieved.

4. The rate of squeeze is very important in preventing pipe damage. Do not exceed 2" per minute squeeze rate. Advance the squeeze bars until 50% of the pipe's original diameter has been squeezed. At this time, it is important to wait a few minutes so that the pipe material has a chance to relax (5 minutes is recommended). Increase this time in colder weather, below 32°F (0°C). Consult your local utility for their specific recommendations regarding the prescribed squeeze rate.

5. Continue squeezing the pipe slowly until a further 25% of the pipe's diameter has been squeezed. Again, pause to let the pipe have time to relax. (5 minutes).

6. Continue slowly squeezing until the gauge plate stops comes into contact with the lower bar. Slower rates should be used below 32°F.

   NOTE: KEEP IN MIND, IT MAY NOT BE NECESSARY TO SQUEEZE THE PIPE ALL THE WAY TO THE GAUGE STOPS TO OBTAIN SATISFACTORY FLOW CONTROL.



GAUGE PLATE



PLACE TOOL CENTRALLY ON PIPE & AT 90° TO PIPE

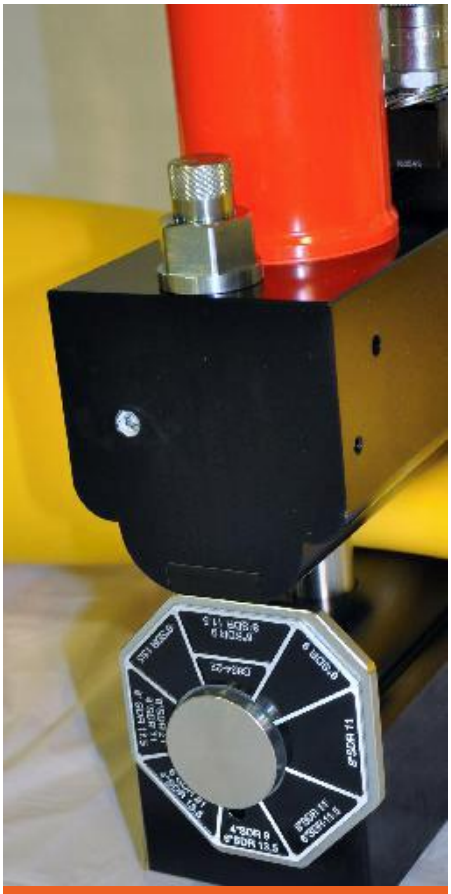
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OPERATING INSTRUCTIONS:

B. Squeezing the Pipe

WARNING: SAFETY LOCKS

These hydraulic squeeze-off tools are equipped with a steel lock-down bolt on each end of the upper bar, allowing the tool to be securely locked in a squeezed position when the hydraulics are detached or if hydraulic pressure is lost. To engage the lock down bolts, screw the rods into the lower bar. The rods need only be tightened by hand, not with a wrench. They are not intended to assist in squeezing the pipe. The squeeze off tool has more than enough power available to satisfactorily squeeze the pipe. Start threading the bolts into the lower bars as the squeeze nears completion (approx. 1" before reaching the stops) to assist with alignment with the steel barrel nuts in the lower bar. Thread the bolts as the tool continues to squeeze the pipe. Once the tool has reached the stops on both sides, the lockdown bolts should be completely threaded until the hex end is flush with the upper bar.



ENGAGEMENT OF LOCK-DOWN BOLTS

WARNING: PUMP DISCONNECTION WHILE TOOL IS IN SQUEEZED POSITION ON A PIPE

After engaging the lock-down bolts, move the control lever on the hand pump to the “release” position and open the needle valve to relieve hydraulic pressure. Do not disconnect hoses while under residual pressure, as this may lead to connector seal failure. Once pressure is fully released, unscrew the locking collars on both hydraulic connectors to allow safe disconnection.

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OPERATING INSTRUCTIONS:

C. RELEASING THE PIPE

1. Unscrew the lockdown bolts located on each end of the squeeze bars. To relieve the upwards tension caused by the pipe's tendency to rebound, It may be necessary to place the pump control valve into the "squeeze" position and apply additional pressure to the tool. If the lockdown bolts are difficult to loosen by hand, a wrench may be used to assist in removal.

⚠ **WARNING:** To prevent damage to the plastic pipe, it is critical to achieve a slow and controlled release rate. A release rate of ½" per minute is recommended, as this allows the plastic material to "flow" gradually, minimizing the risk of pipe damage. In temperatures below 32°F (0°C), an even slower release rate should be used. Always consult your local utility for their specific guidelines and prescribed release rate recommendations.

2. Determine the type of release mechanism supplied on the tool: fine controlled release or manually controlled release. Note: The manual release mechanism (no needle valve) is no longer supplied with this tool.

Fine controlled release (needle valve with orifice in line)

Ensure the needle valve is fully closed.
Move the pump control valve handle from "squeeze" to "neutral". Slowly move the valve handle to the "release" position. As this is done, immediately the tool will start to open. Should the operator want to stop the release, return the pump control valve handle to the neutral position. The orifice in the needle valve controls the release rate. A release rate of 1/2 inches per minute should be followed, slowing this release rate down in temperatures below 32°F (0°C). As the pipe opens, the pressure in the tool will decrease and the release rate will slow down. Once the pipe is sufficiently relaxed, the operator can then open the needle valve fully to raise the bars more rapidly for a complete release. Continue to open the tool until it can be removed from the pipe.

Manual release (no needle valve in line)

Move the pump lever quickly from the squeeze position to the neutral position. Allow approximately 5 seconds for the pressure in the hydraulic lines to relax. Now, gently move the pump lever from the neutral position to the release position, while carefully watching for movement of the squeeze bars. Once the bars have opened to the desired release (1/2" per minute), quickly return pump lever to the neutral position to stop. Repeat this procedure until the pipe is sufficiently relaxed. Once the bars are no longer able to move with lever in reverse position, you can begin to pump the handle keeping the lever in the reverse position. The 1/2" per minute release rate should be followed until the bars are no longer compressing the pipe. Once the bars are free of the pipe, you can pump the handle more rapidly, while leaving the pump lever in reverse position to prepare for removal of squeeze tool from pipe.

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OPERATING INSTRUCTIONS:

C. RELEASING THE PIPE

⚠ WARNING: Pumping too quickly will cause the oil to eject out of the relief port in the handle. This is a safety feature which prevents the operator from releasing the pipe too quickly.

3. To remove the tool from the pipe, let the tool rest by the upper bar on the pipe. Slide the lower bar upwards, (towards the pipe) about 1 inch, then rotate the lower bar clear of the pipe. The tool may now be lifted clear of the pipe.

4. If re-rounding of pipe is not to be performed, the grounding spike may now be removed, and the tool repacked in it's shipping container.

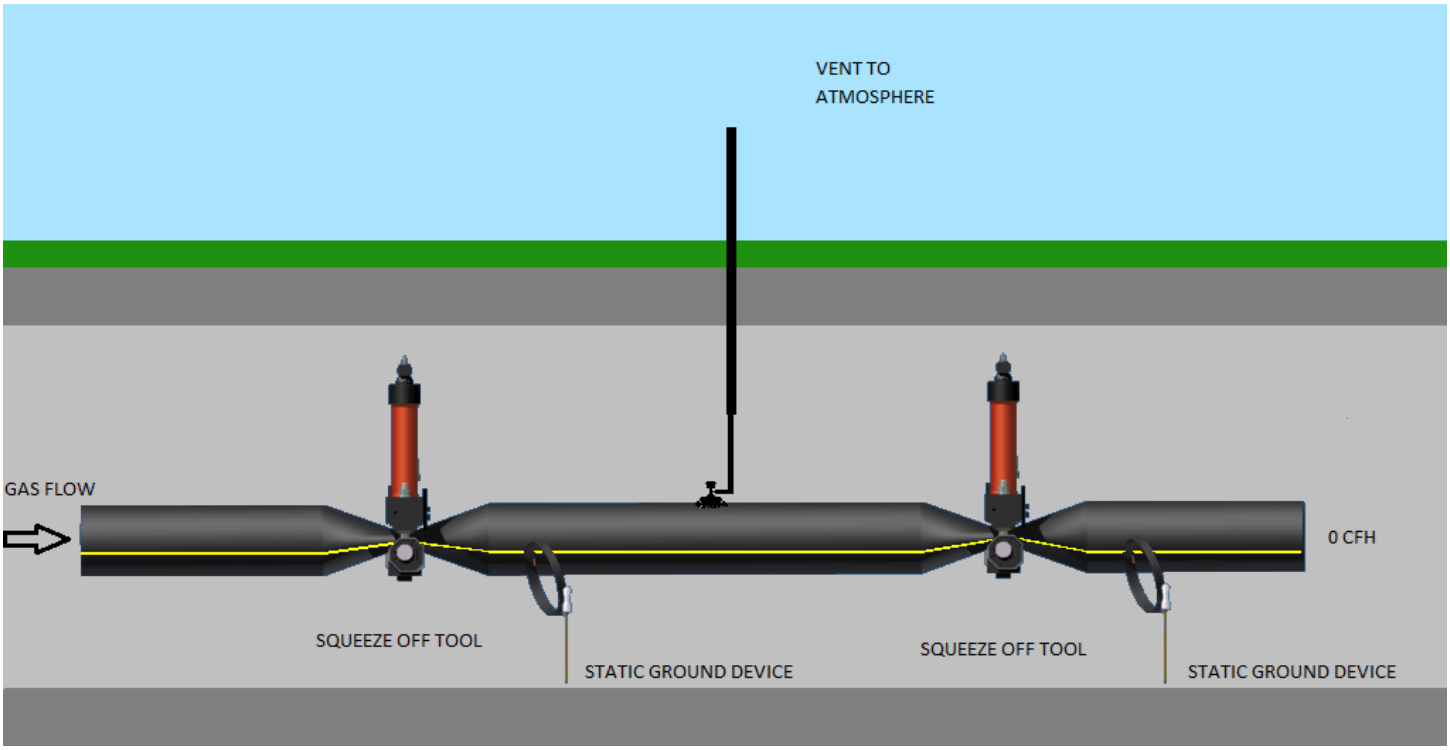
D. RE-ROUNDING THE PIPE IF REQUIRED

Once the tool is fully open, reposition the tool 90° from the original squeeze, on top of the peaks of the squeeze. Squeeze the pipe back to its original shape as outlined in "Installation on Pipe" and "Squeezing the Pipe" detailed above. Consult your local utility for their specific recommendations regarding this procedure. The grounding spike may now be removed, and the tool repacked in it's shipping container.

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IMPORTANT NOTICE

If you experience difficulty obtaining flow control when squeezing HDPE pipe, we recommend you perform a double squeeze and vent to atmosphere. Please consult your local utility for their specific operating procedure.



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MAINTENANCE

This section contains maintenance instructions for the tool. Do not attempt any maintenance which you do not fully understand, nor that you cannot do accurately and safely with the tools and equipment available to you. If you encounter a problem that you do not understand or cannot solve, contact your Footage Tools dealer.

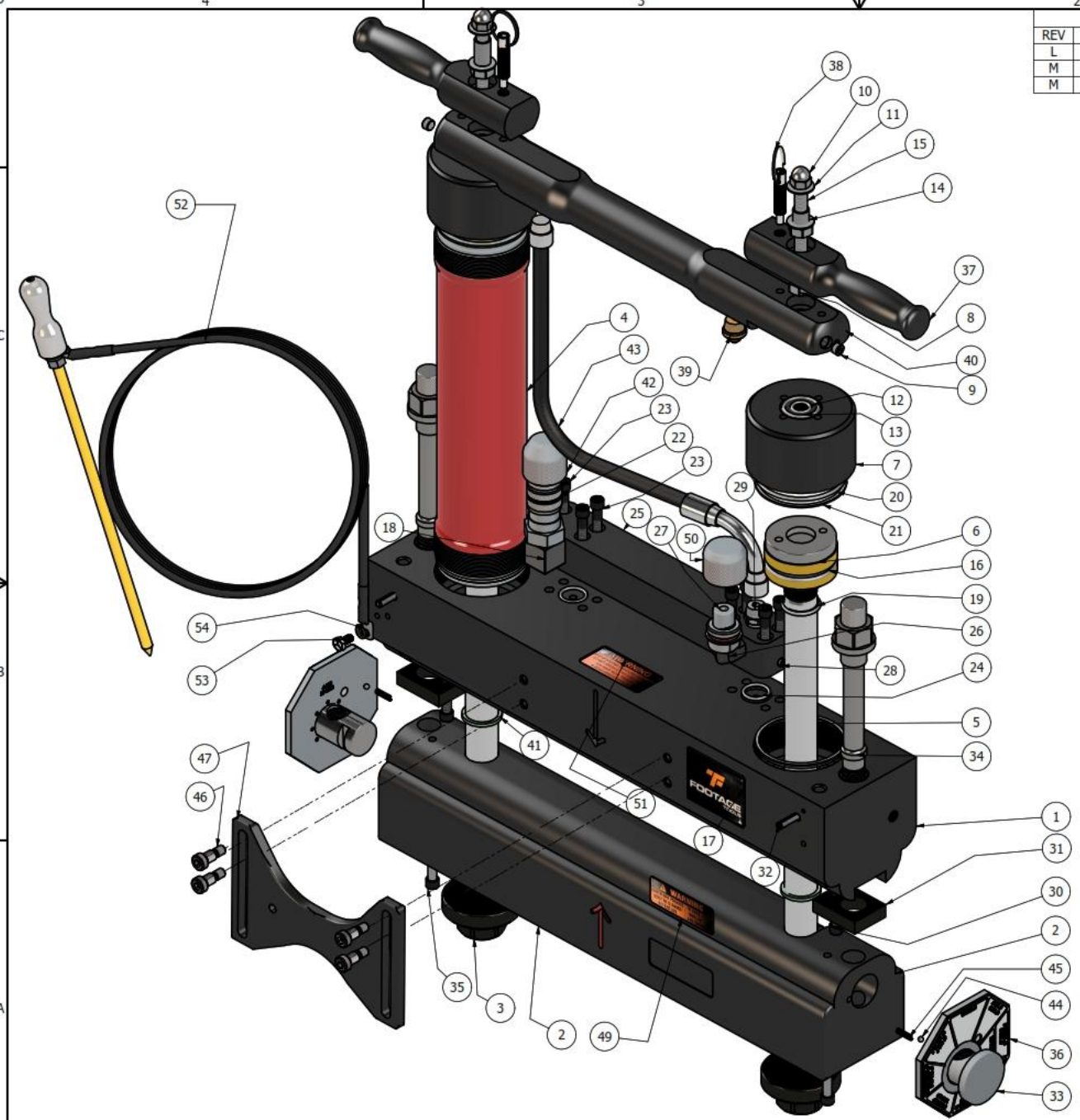
Ensure the tool is in good operating order by routinely:

Inspect pump fluid level (See Preliminary Assembly)	*Top up as needed*
Lubricate pump pivot and rubbing points	*Use #10 motor oil or grease. Do not use dry lubricants.*
Bleed air from hydraulic system.	*Position tool lower than the pump. Without squeezing a pipe, open and close the tool several times to release any air into the reservoir. Top up the pump fluid level.*
Drain, flush and fill pump reservoir.	*Remove filler cap, drain fluid. (Removing filter will result in breakage.) Re-fill and re-cap.*
Inspect cylinder rods for dirt and damage.	*Replace and clean as needed*
Inspect tool, pump, valves and hoses for oil leakage.	*Tighten, repair or replace as required*
Inspect the squeeze bars for surface damage.	*Replace if needed*
Inspect lock down bolts for damage.	*Replace if needed*
Inspect the lower squeeze bar pockets (2) for debris.	*Clean before each use.*
Inspect the rod nut for dirt and/or damage	*Clean, repair or replace as needed*

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SPECIFICATIONS

GENERAL	*C850*
Max Pipe Diameter:	*8”*
Weight:	*123 lbs.*
Operating Pressure (max):	*10,000 psig*
OPTIONAL ACCESSORIES	
Grounding Spike Kit (5 or 10 foot)	*C615HD-B110*
Pump, 8’ Hose, with Needle Valve (c/w 0.009” orifice)	*C148-352*
Pump, 8’ Hose, with Needle Valve & Gauge	*C148-355*



REVISION HISTORY					
REV	DESCRIPTION	ECN	DATE	BY	REVIEWED BY
L	ITEM #17 LABEL -011 WAS LABEL-003	1876	2013-03-20	NN	
M	ADDED GROUNDING TOOL KIT - HD	1916	2014-08-23	NN	
M	ADDED PLUNGER (#55) FOR GROUNDING TOOL KIT -HD	D2361	2015-04-09	NN	

QTY	PART NUMBER	DESCRIPTION	MASS (lb)	ITEM
1	--	THE WRAP	.000	57
1	-	OWNERS MANUAL, C850	.000	56
1	99-140-00-0004	WASHER, HELICAL, SPRING LOCK 1/4"	.002	54
1	99-155-00-0409	PLUNGER, 1/4-20 X 0.56"LG	.004	55
1	99-100-00-0404	SCREW, CAP, HEX, 1/4-20X0.5 LG	.002	53
1	C615HD-B110	GROUNDING TOOL KIT - HD	.724	52
1	LABEL-008	WARNING LABEL	.010	51
1	D-31-300C	METAL MALE DUST CAP	.108	50
1	LABEL-007	LOWER BAR LABEL	.006	49
1	C850-BOX	SHIPPING/TRANSPORT CONTAINER	.000	48
1	C850-22	CENTERING PLATE	.292	47
4	99-114-01-0504	SHOULDER BOLT 3/8 X 1/2"LG	.040	46
2	C100-21	SPRING	.001	45
2	99-157-00-0006	CHROME BALL	.000	44
1	C637-13	HOSE ASSEMBLY 17" LG	.169	43
1	D-30-300C	METAL FEMALE DUST CAP	.129	42
2	C850-18	ROD SEAL #11050, 1.38 X 1.12 X 0.12	.002	41
1	C850-03	HANDLE MANIFOLD	3.695	40
1	C648-50	PRESSURE RELIEF VALVE	.089	39
2	C850-16	PLUNGER 3/8-16 X 1-11/16LG	.006	38
2	C850-10	HANDLE GRIP	.990	37
2	C850-15	GAUGE PLATE	1.004	36
2	99-114-00-0416	SHOULDER BOLT 5/16 X 2" LG	.059	35
2	C604-13	LOCK DOWN BOLT - 8"	1.387	34
2	C605-11	BARREL NUT	.788	33
2	99-163-00-1220	ROLL PIN .1875 X 1.25	.002	32
2	C612-11	GAUGE STOP BLOCK	.303	31
2	99-106-00-0510	SHCS .3125-18 X .625" LG	.003	30
1	99-280-00-0606	NIPPLE .375 TO 6 JIC37	.010	29
2	99-218-00-0001	PIPE PLUG .0625 NPT	.000	28
1	D-31-300	MALE HY. CONNECTOR - THREADED	.247	27
1	99-209-00-0606	90DEG ELBOW .375 MNPT X .375 MNPT	.148	26
1	C641-11	MANIFOLD UPPER BAR	2.382	25
2	99-490-90-0210	O'RING #0210	.001	24
8	99-106-00-0528	SHCS .3125 18 X 1.75	.049	23
1	D-30-300	FEM HYD. CONNECTOR-THREADED	.871	22
4	C850-14	BACK UP RING #0233	.002	21
4	99-490-90-0233	O'RING #0233 90 DURO	.005	20
2	C850-13	ROD SEAL TP016	.002	19
1	99-214-00-0606	90DEG ELBOW 3/8MNPT TO 3/8 FMPT	.248	18
1	LABEL-011-NEW	LABEL, FOOTAGE NAME PLATE	.016	17
2	C850-12	PISTON SEAL TPO28	.008	16
2	99-119-08-0728	STUD ZINC PLATED .4375 X 3.35 LG	.018	15
2	C850-11	BUSHING	.003	14
2	99-490-00-0024	O'RING #024	.002	13
2	99-490-00-0015	O'RING #015	.001	12
4	99-141-00-0007	WASHER .4375 TYPE A NARROW	.001	11
2	99-138-00-0007	7/16-14 ACORN NUT - ZINC	.035	10
2	99-218-00-0002	PIPE PLUG .125 NPT	.007	9
4	99-120-00-0007	HEX NUT .4375 14UNC	.004	8
2	C850-02	END CAP	1.350	7
2	C850-07	PISTON	1.773	6
2	C850-06	CYLINDER ROD	5.802	5
2	C850-08	CYLINDER BODY	10.066	4
2	C850-05	ROD NUT	1.121	3
1	C850-04	LOWER BAR	26.405	2
1	C850-01	UPPER BAR	33.732	1

FOOTAGE PART LIST

DRAWN eng.stu 6/23/2025

MANUFACTURING APPROVAL

TOLERANCES:
TIR 0.004
RMS 63 MAX
.X ± .02
.XX ± .01
.XXX ± 0.005

MASS 119.4 lbmass

SCALE 1 / 2.7

SIZE C

FOOTAGE TOOLS

TITLE

C850-A1 ASSEMBLY DWG 8" HYD. SQUEEZE OFF TOOL

DWG NO C850-A1

REV M

REMOVE ALL SHARP CORNERS UNLESS SPECIFIED OTHERWISE

SHEET 1 OF 1

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

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.

FOOTAGE TOOLS INC reserves the right to modify, alter, and improve any product or parts without incurring any obligation to replace any product or parts previously sold with such modified, altered, or improved product or part.

No person is authorized to give any other Warranty, or to assume any additional obligation on the Manufacturers behalf unless made in writing, and signed by an officer of the Manufacturer.