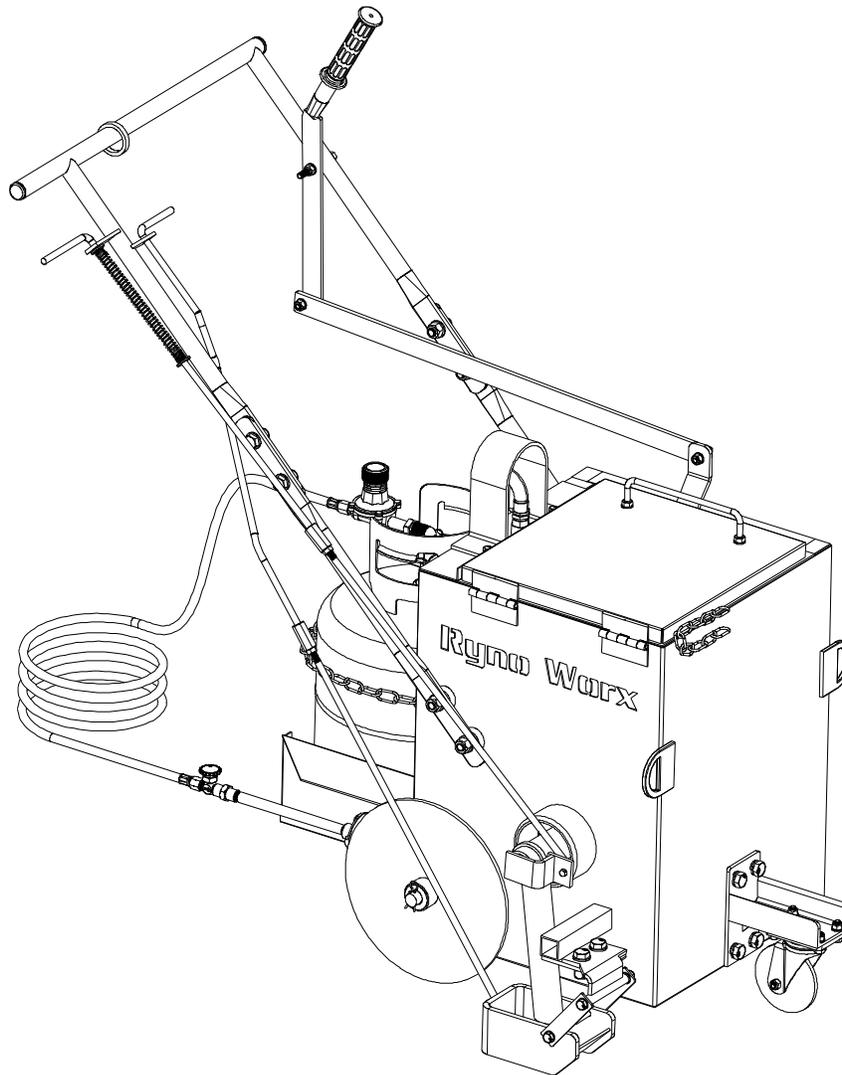


Ryno Worx

Operator's Manual



Model: RY10MA

MPN: RA-MLT-0006

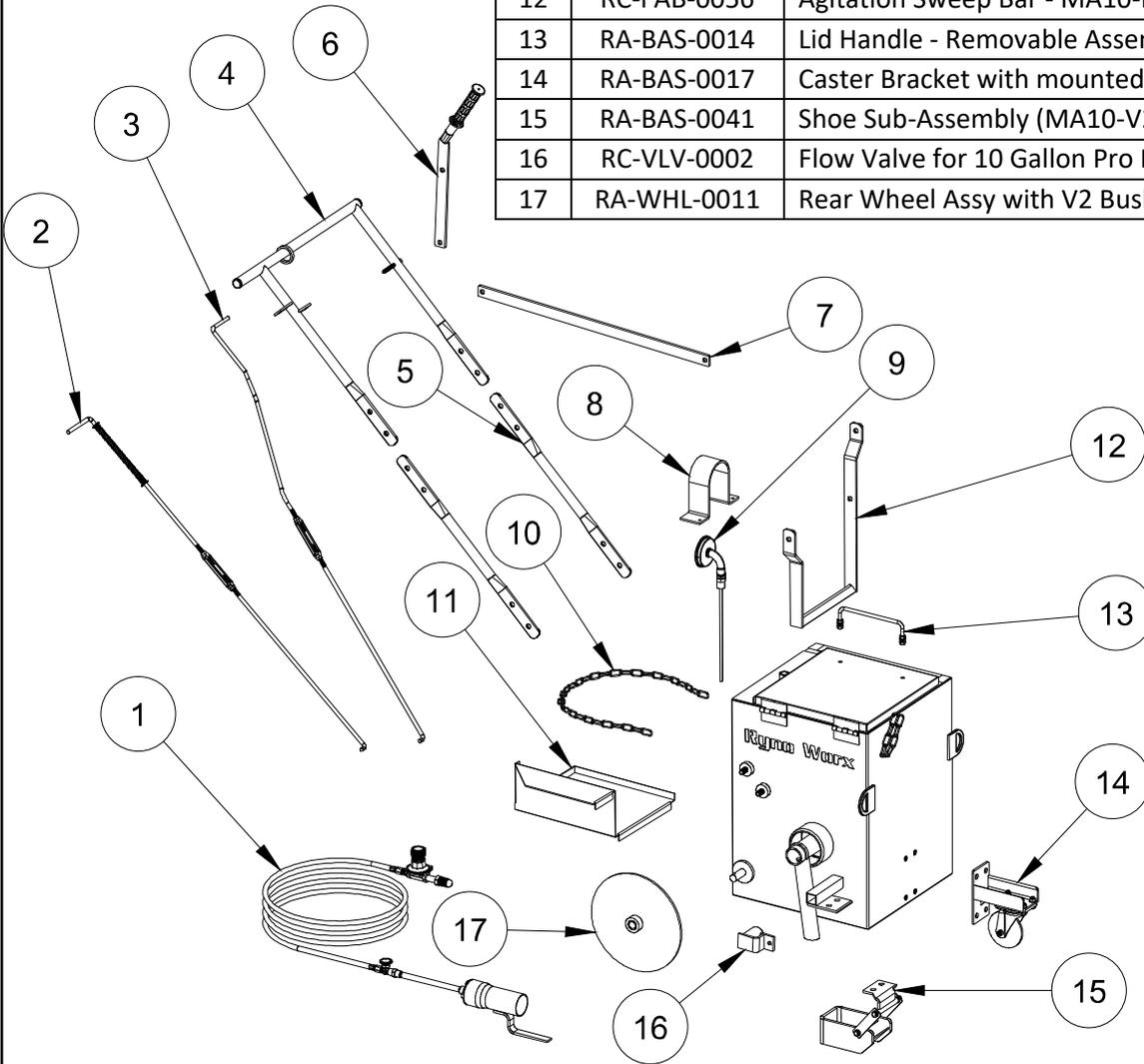
10 Gallon Direct Fire Melter Applicator

Torch Model

WARNING

- ⚠ Read all instructions and warnings in this manual before attempting to operate this equipment.
- ⚠ This equipment is designed for outdoor use only.
- ⚠ Be sure to always wear personal protective equipment when operating this equipment.
- ⚠ Improper assembly may be dangerous. Please follow the assembly instructions in this manual. Make sure all parts are assembled and hardware is fully tightened before using. Make sure that there are no leaks in the liquid propane cylinder connection or lines.
- ⚠ Do not operate the equipment if a gas leak is present. (check for leaks and connections with every use)
- ⚠ Do not attempt to disconnect the gas regulator from the tank or any gas fitting while the equipment is in use.
- ⚠ A dented or rusty liquid propane tank may be hazardous and should be checked by your liquid propane supplier. Do not use a liquid propane tank with a damaged valve.
- ⚠ Ensure that your propane cylinder is within its expiry date for your local jurisdiction. If the tank has expired it must be properly requalified to continue using.
- ⚠ Do not store spare liquid propane cylinders within 10 feet (3m) of this equipment.
- ⚠ Do not store or use gasoline or other flammable liquids or vapors within 25 feet (8m) of this equipment.
- ⚠ Before servicing, make sure the unit is fully cooled and the liquid propane cylinder is disconnected.
- ⚠ Only genuine Ryno Worx replacement parts should be used for any replacements or repairs. Do not attempt to modify or alter this product in any way.
- ⚠ Do not attempt to make any repairs to gas carrying, gas burning, igniter components or structural components. Your actions, if you fail to follow this warning, may cause a fire, an explosion, or structural failure resulting in serious personal injury or death as well as damage to property.
- ⚠ This equipment should only be used with "Direct Fire" hot melt crack sealant.
- ⚠ Failure to follow these instructions could result in fire or explosion which could cause property damage, personal injury or death.

No	P/N	Description
1	RA-GCM-0015	Torch Complete Assembly
2	RA-BAS-0031	Valve Control Arm Assembly (MA10- V2)
3	RA-BAS-0030	Shoe Control Arm Assembly (MA10-V2)
4	RC-FAB-0052	Upper Handle Bar - 10 Gal MA - Drip Guard Version
5	RC-FAB-0003	Lower Handle Bar - 10 Gallon Melter Applicator
6	RA-GCM-0066	On the Fly Agitation - Handle with Grip
7	RC-FAB-0054	On-the-Fly Agitation Horizontal Connection Bar
8	RC-FAB-0010	Thermometer Guard Bracket
9	RC-GCM-0010	Thermometer - 14" Probe - Shock Proof Liquid Filled
10	RC-FAB-0009	Propane Tank Securing Chain
11	RC-FAB-0030	Tank Shelf - 10 Gallon Torch Style Melter Applicator
12	RC-FAB-0056	Agitation Sweep Bar - MA10-Pro-V3
13	RA-BAS-0014	Lid Handle - Removable Assembly (10 Gallon MA)
14	RA-BAS-0017	Caster Bracket with mounted Caster Sub-Asy (Left)
15	RA-BAS-0041	Shoe Sub-Assembly (MA10-V2)
16	RC-VLV-0002	Flow Valve for 10 Gallon Pro Melter - Version 2
17	RA-WHL-0011	Rear Wheel Assy with V2 Bushing - Melter Applicator



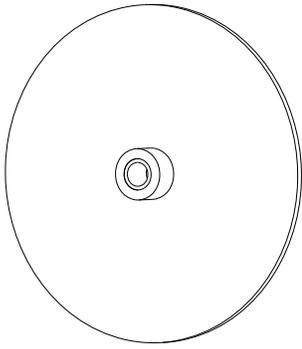
RynoWorx

MPN:
RA-MLT-0006

Model:
RY10MA

Description:
10 Gallon Direct Fire Melter Applicator Torch Model

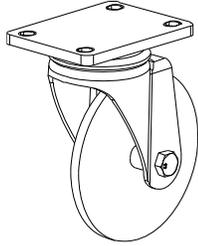
RA-WHL-0011 - Rear Wheel with V2 Bushing



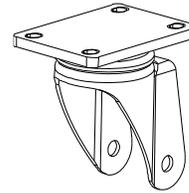
RC-WHL-0010 - Rear Wheel Brass Bushing - V2



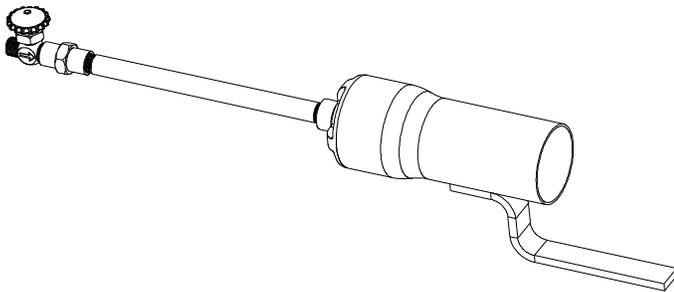
RA-WHL-0005 - Front Caster with Wheel



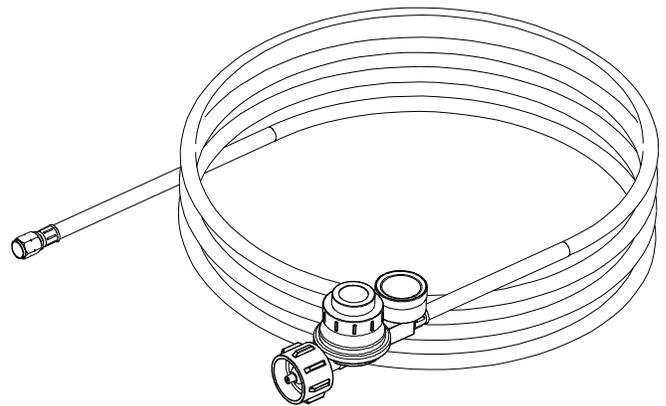
RC-WHL-0014 - 4 Bolt Caster Swivel



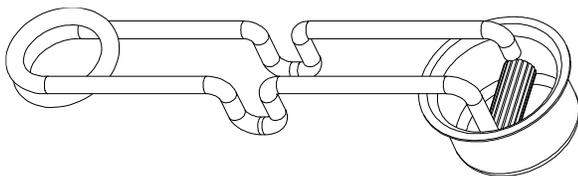
RC-GCM-0016 - Torch for Melter Applicator with Valve



RC-GCM-0068 - Regulator and Hose with Pressure Gauge (10 ft/ 3 m)



RC-STK-0001 - Flint Striker



- **Introduction**

Forward

Thank you very much for purchasing Ryno crack maintenance equipment. We pride ourselves in being different from other equipment manufacturers with a relentless focus on innovation, simplicity, and quality.

RY Series Melter / Applicators are designed to effectively melt and apply direct-fire type crack sealant to joints and cracks found in hard aggregate surfaces. This melter is powered by a liquid propane gas torch, which effectively melts crack sealants within the kettle.

This melter was designed to be used with 'Direct Fire' crack sealants only. Please be sure to purchase the correct material to ensure safe and effective operation.

Within this document are complete instructions for how to assemble, use and care for your equipment. Please make sure you read and follow all instructions provided.

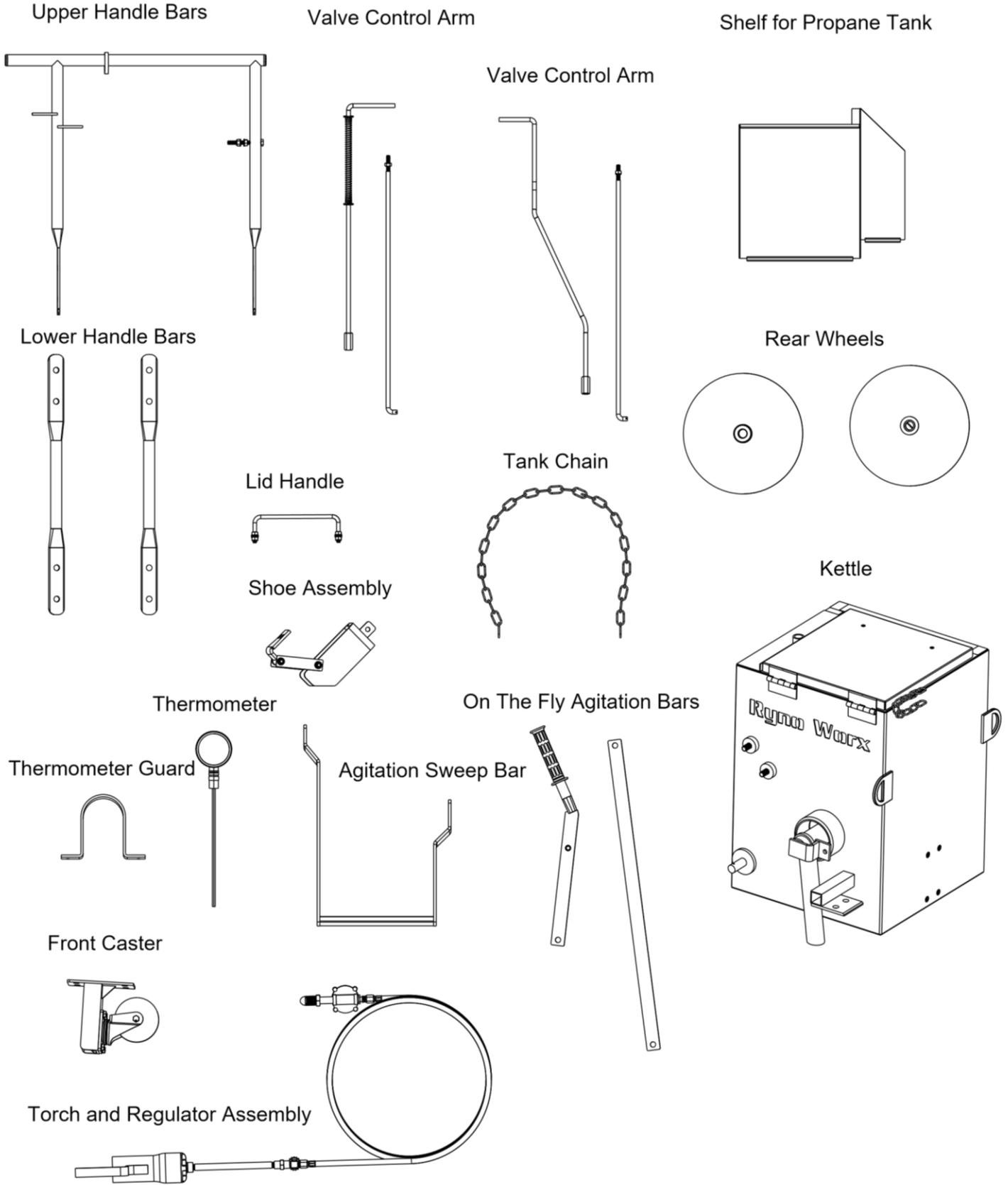
Within this document you will find the following resources:

- **Assembly Instructions** – These instructions will assist you in assembling and preparing your melter for first time use.
- **Operation Guide** – This guide will explain the controls and functions of the melter and how to use them.
- **Maintenance Guide** – This guide will provide you with suggested maintenance tips and techniques to ensure proper function and optimal performance.
- **Troubleshooting Guide** – This guide will provide you with the most commonly reported problems, possible causes, and known solutions.

• **Assembly Instructions**

Part 1 – Remove Parts and Packaging and Verify Contents

Carefully remove all parts from their packaging and layout on a flat working surface. You should have all the required parts as illustrated on the drawing below as well as the required hardware to complete assembly:

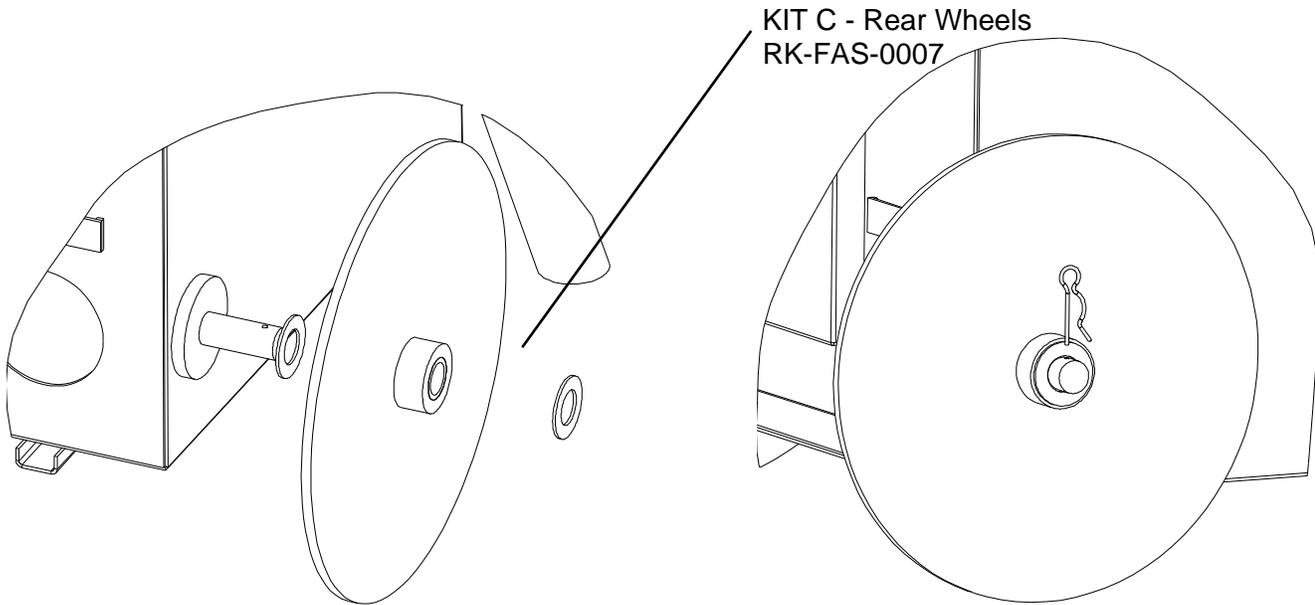


- **Assembly Instructions**

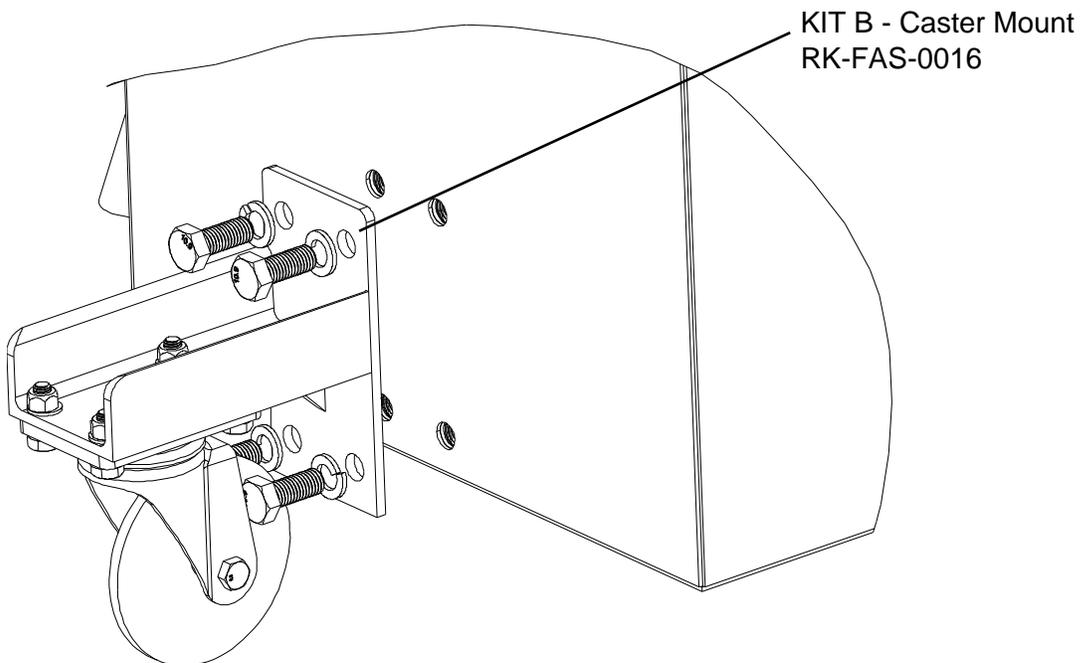
Part 2 – Assemble Melter According to the Illustrations and Instructions

With all the parts laid out on a flat working surface, follow the assembly illustrations below to complete the assembly of the melter. A socket set, rubber mallet, needle nose pliers and open-ended wrench set are required in order to complete the assembly.

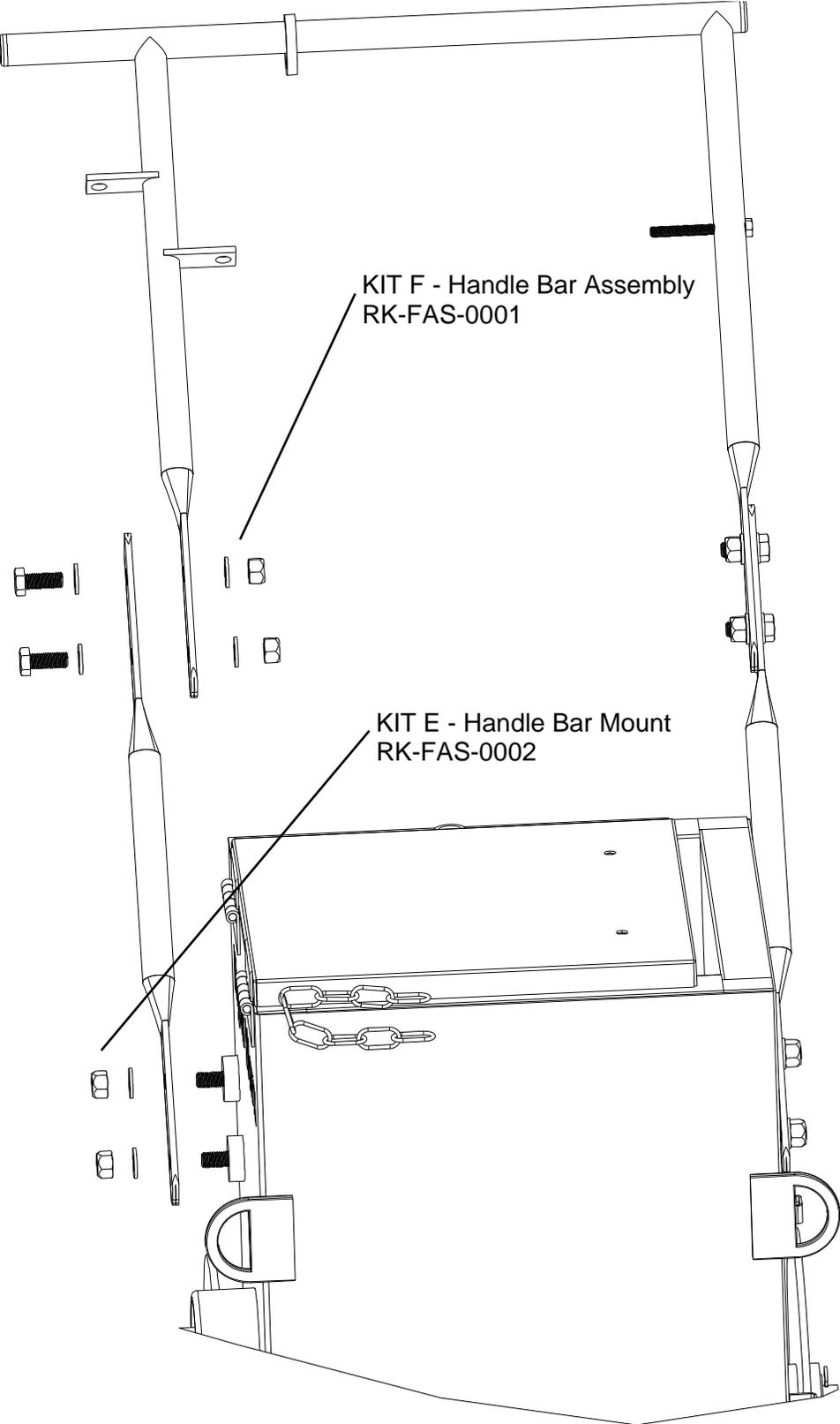
1. Rear Wheel Assembly



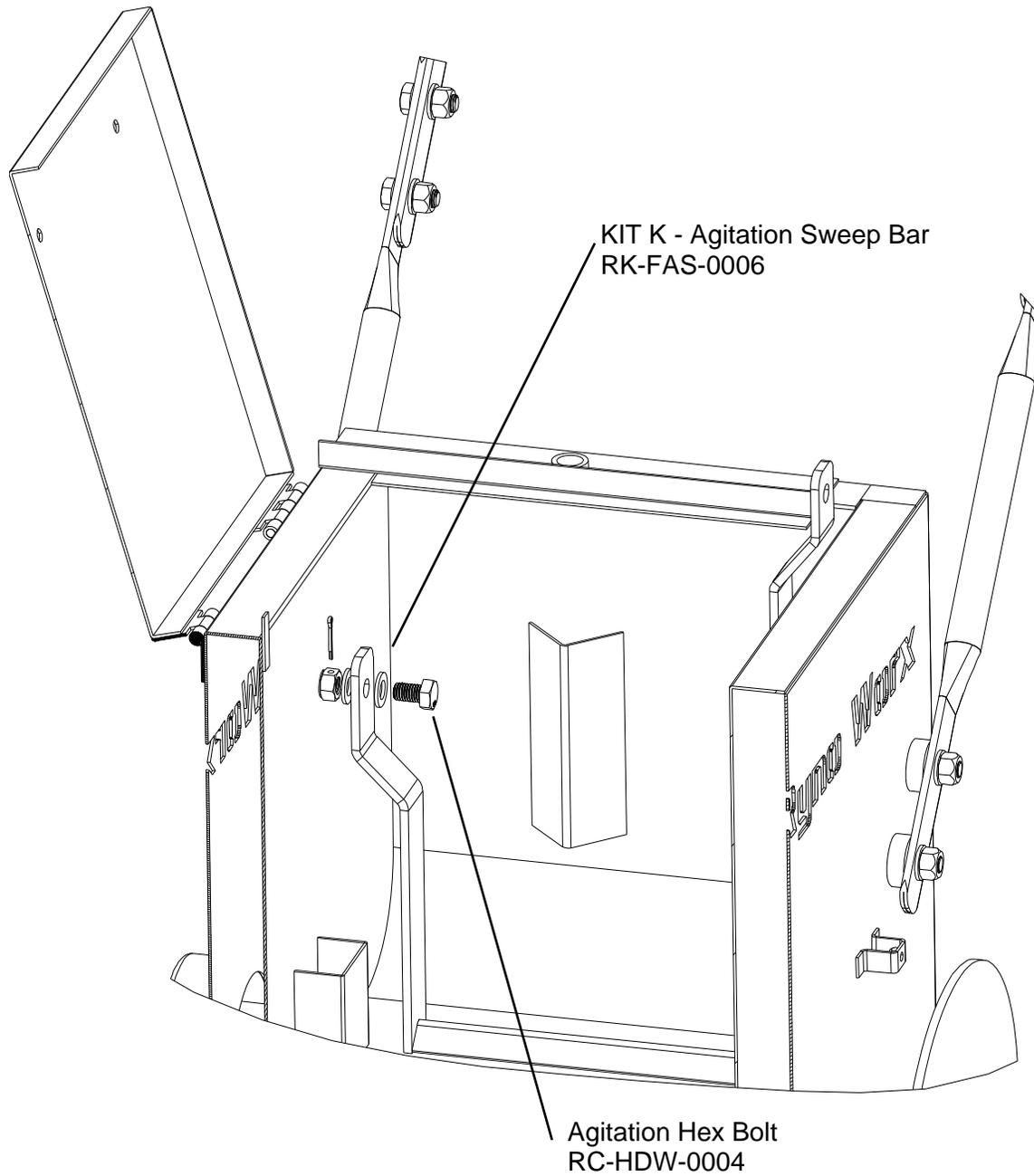
2. Front Caster Mount



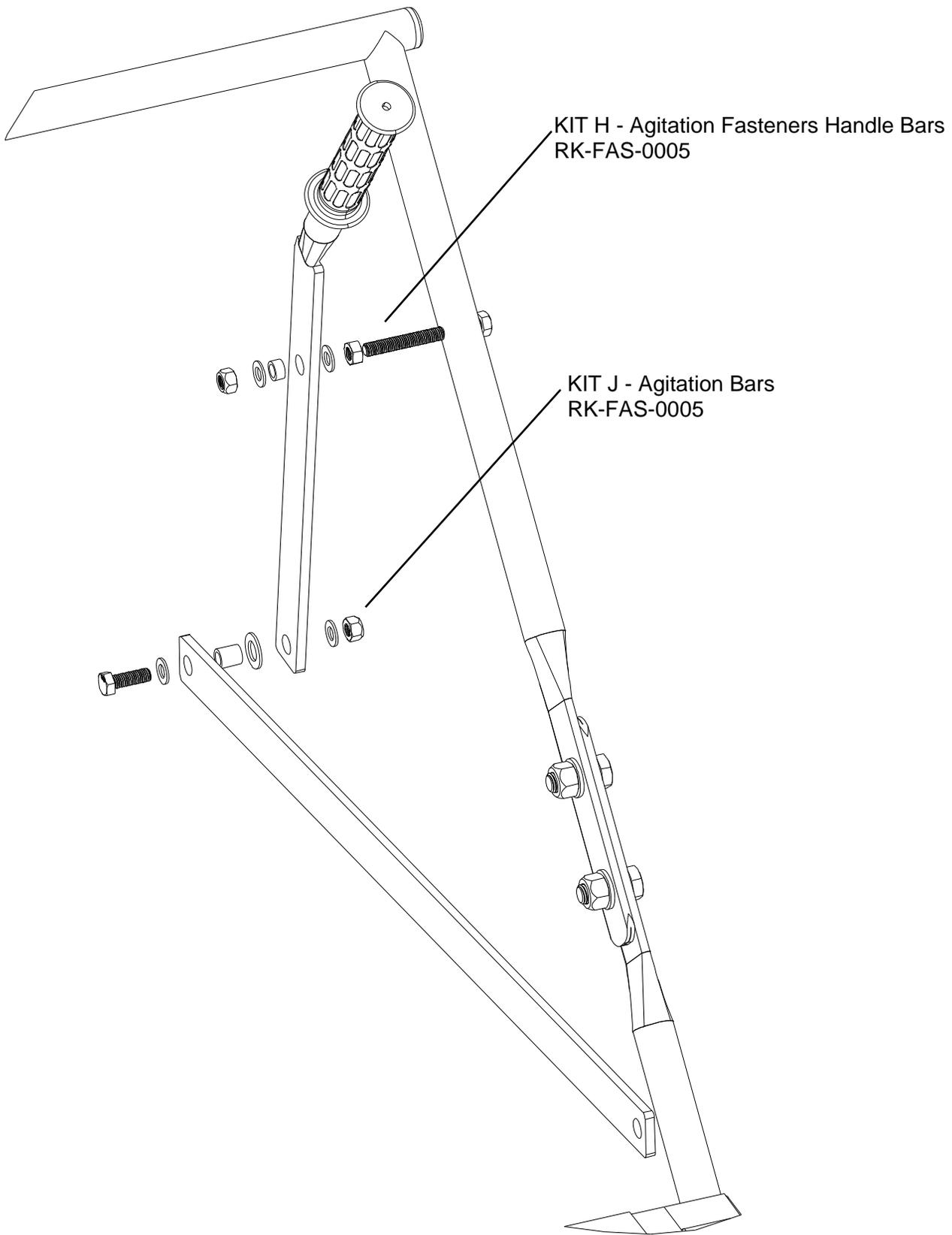
3. Handle Bar Assembly



4. Agitation Sweep Bar Installation

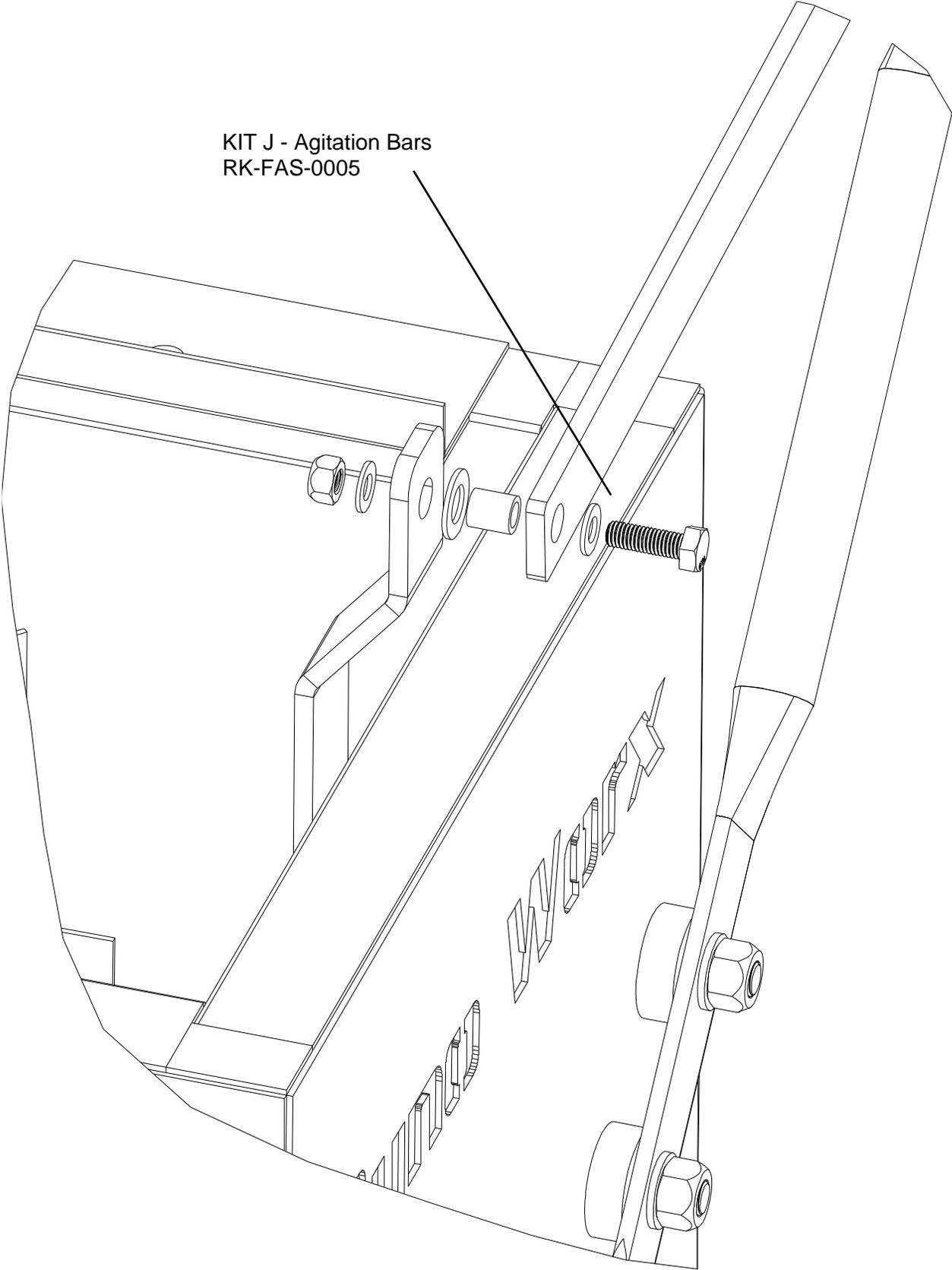


5. On the Fly Agitation Installation

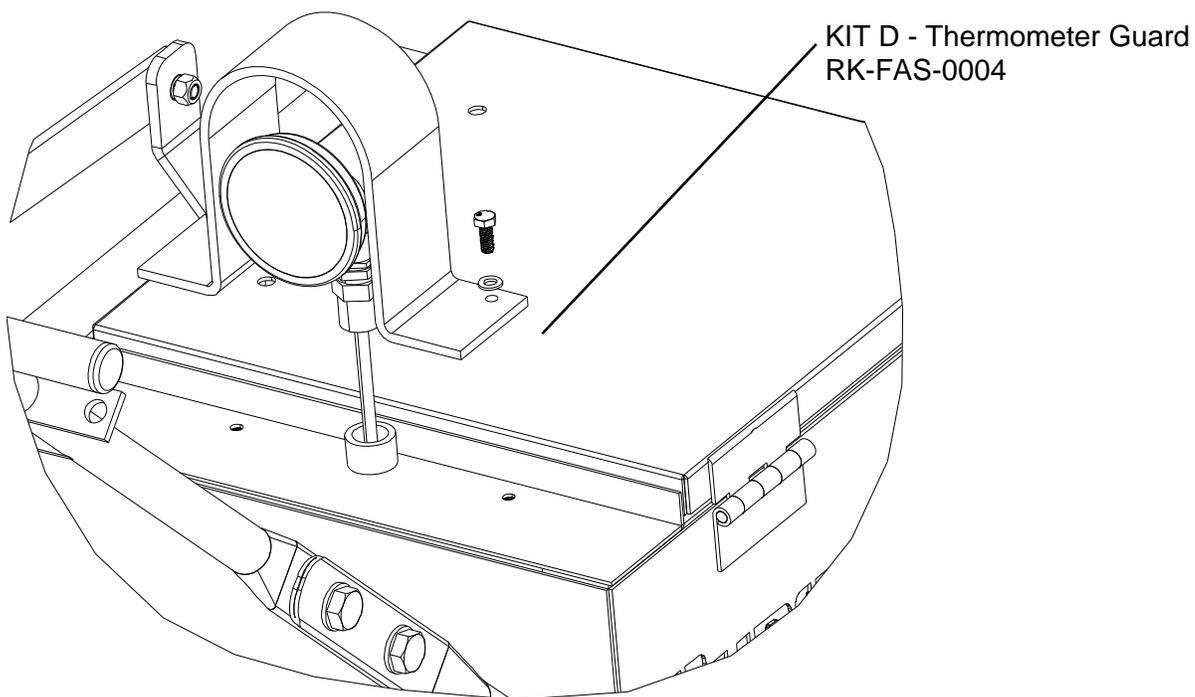


6. On the Fly Agitation Installation

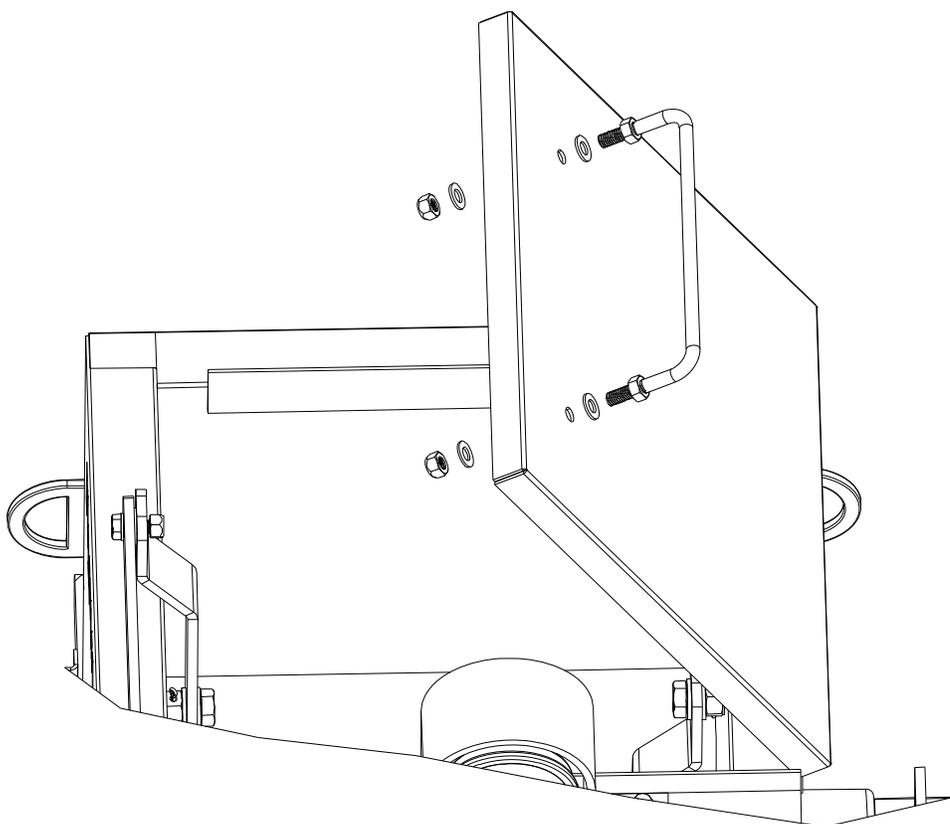
KIT J - Agitation Bars
RK-FAS-0005



7. Thermometer and Thermometer Guard Installation

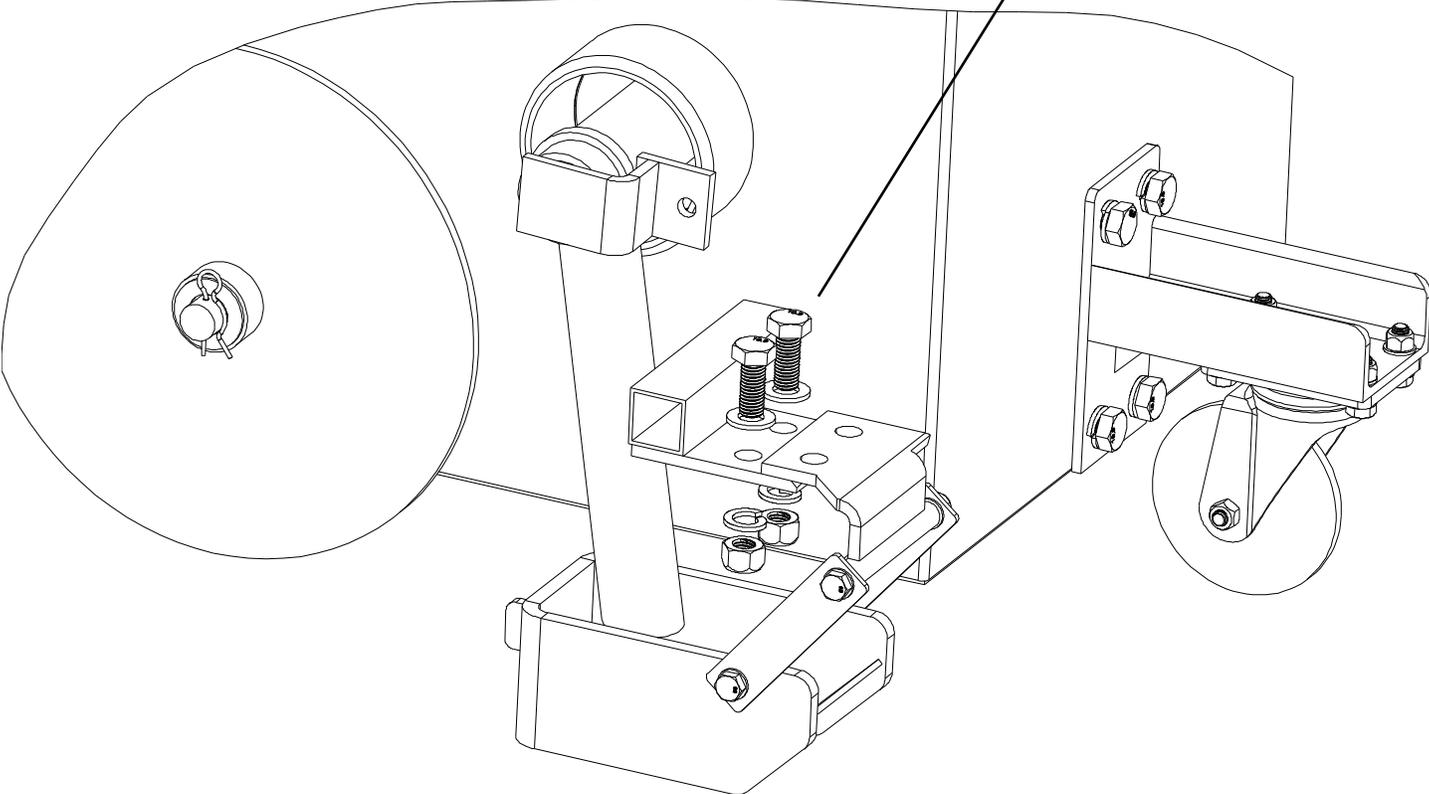


8. Lid Handle Installation



9. Shoe Installation

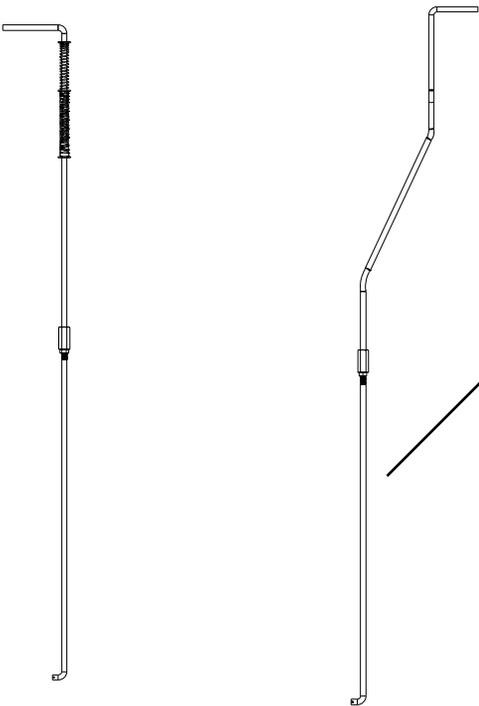
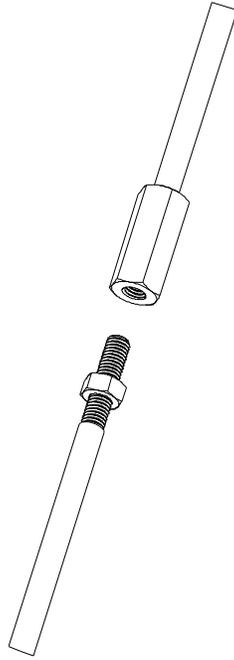
KIT I - Shoe Mount
RK-FAS-0027



10. Control Arm Assembly

There are 2 types of control arm sets that could have been included with your machine. Please follow the instructions for the type that was shipped with your machine.

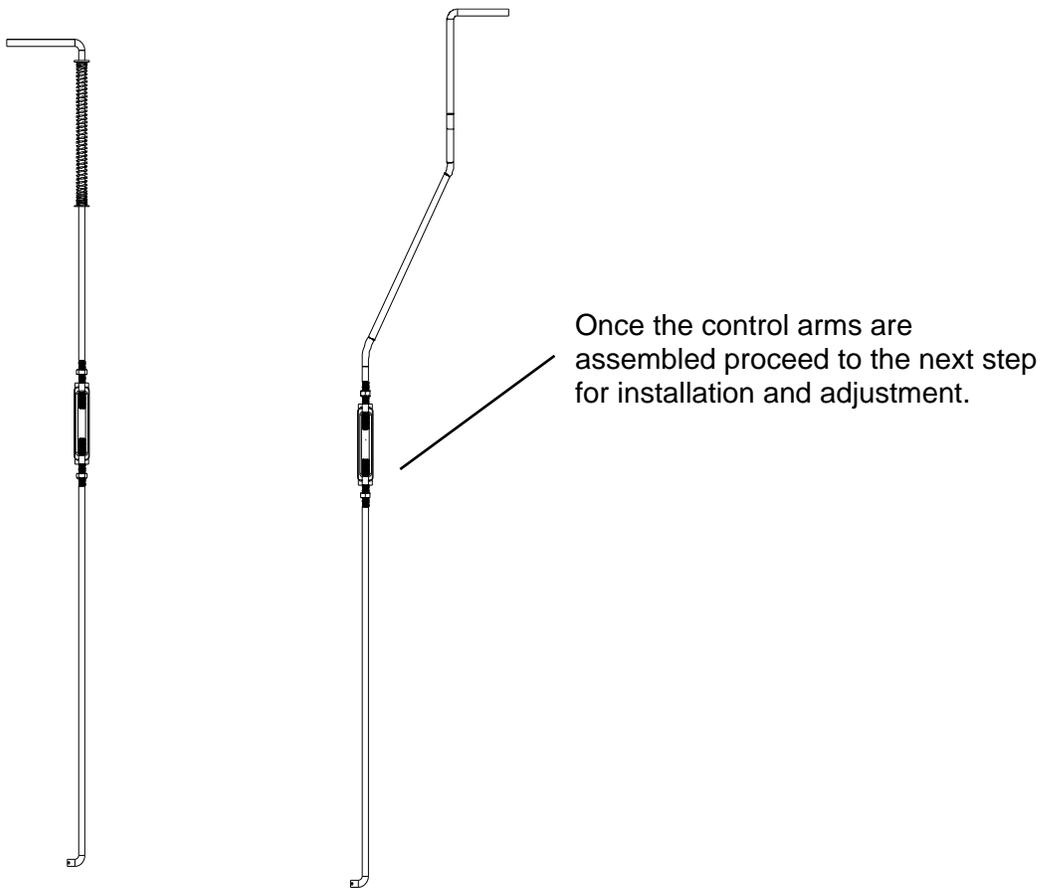
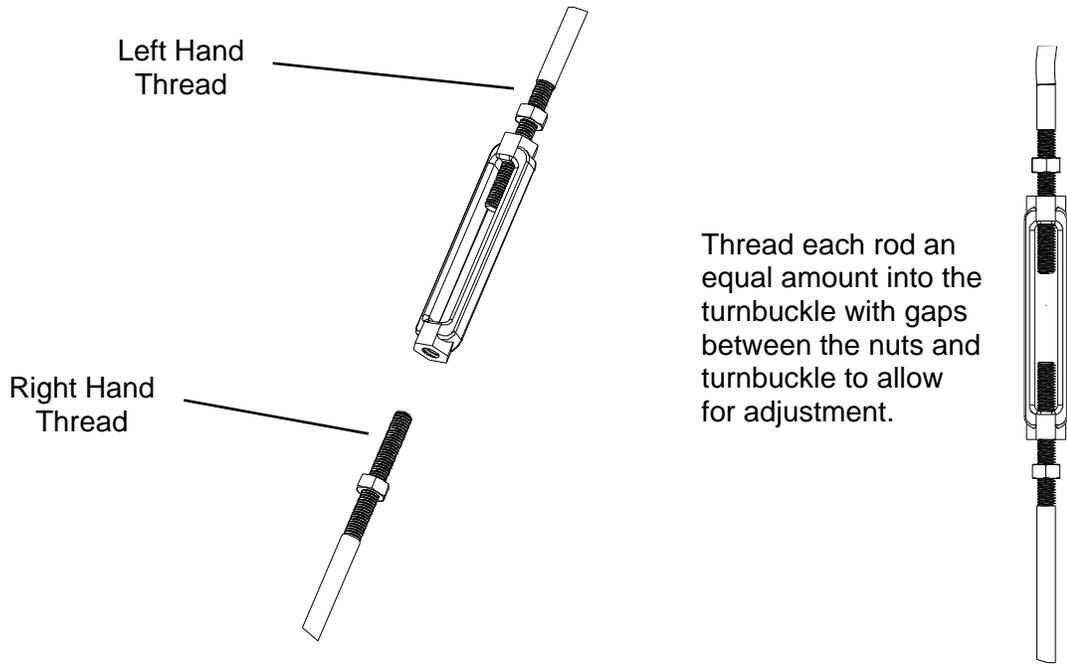
Type 1 - with one threaded end, goes together as shown:



Each set of control arms is shipped as a pair of upper and lower halves. Be careful not to switch the valve and shoe lower half of the control arm.

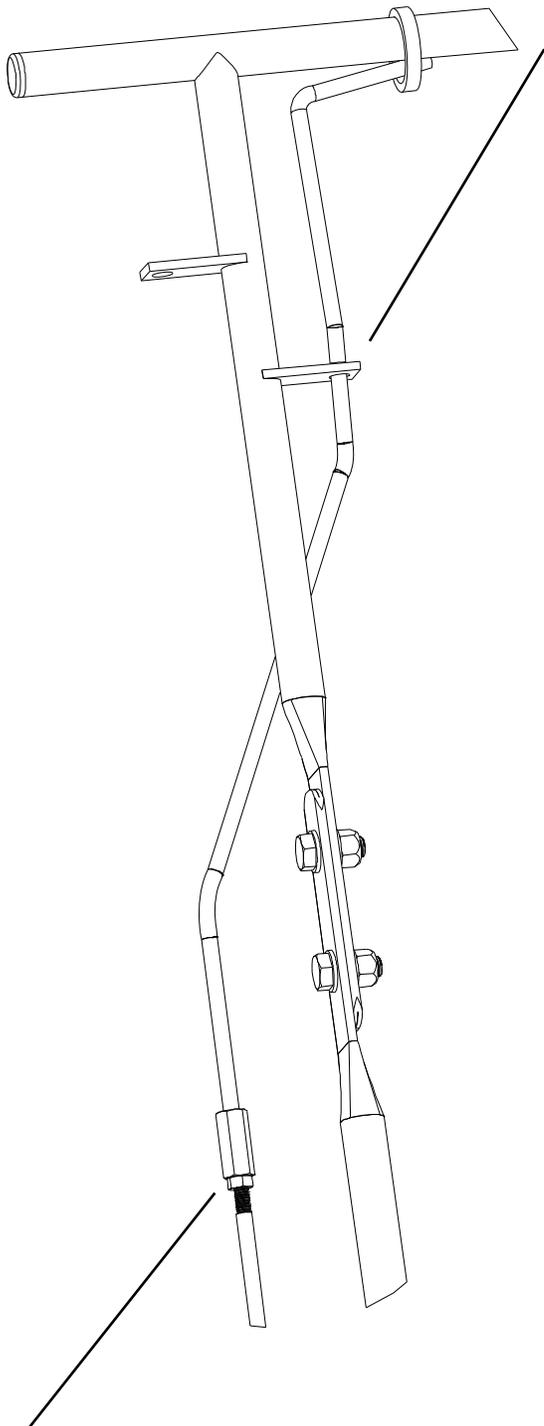
If the lower halves of the control arms are mixed up, the shorter of the two is for the shoe control arm.

Type 2 - has 2 threaded ends with a turnbuckle connecting them and goes together as shown below:

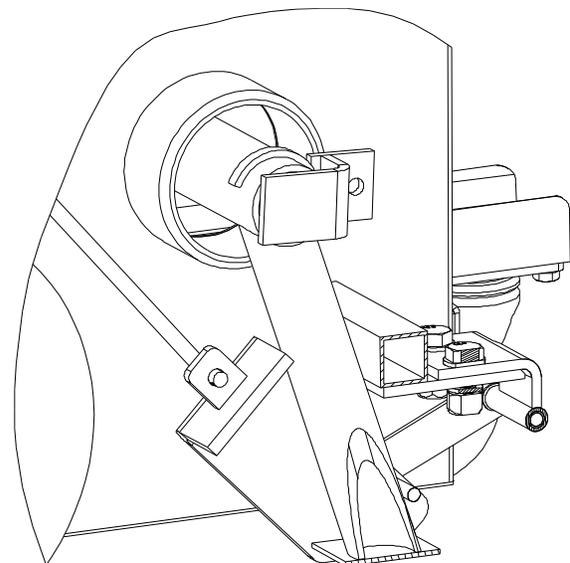
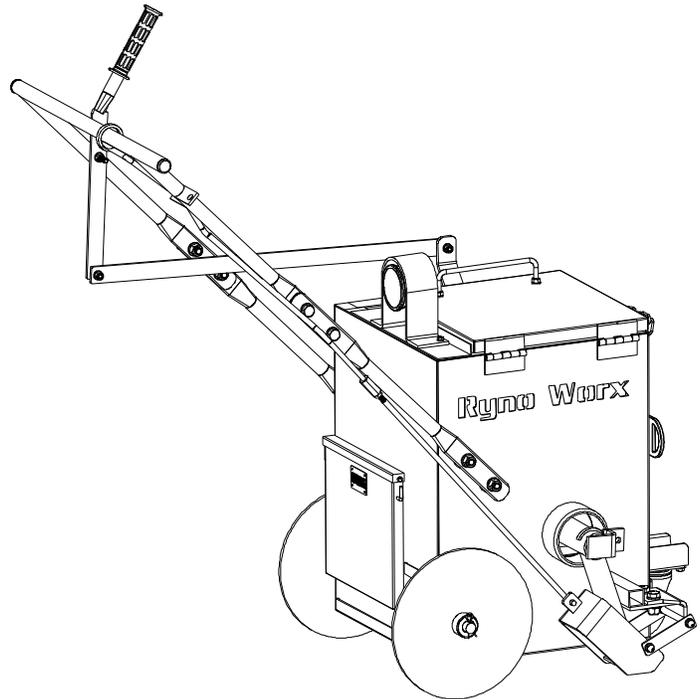


11. Shoe Control Arm Installation and Adjustment

Type 1:

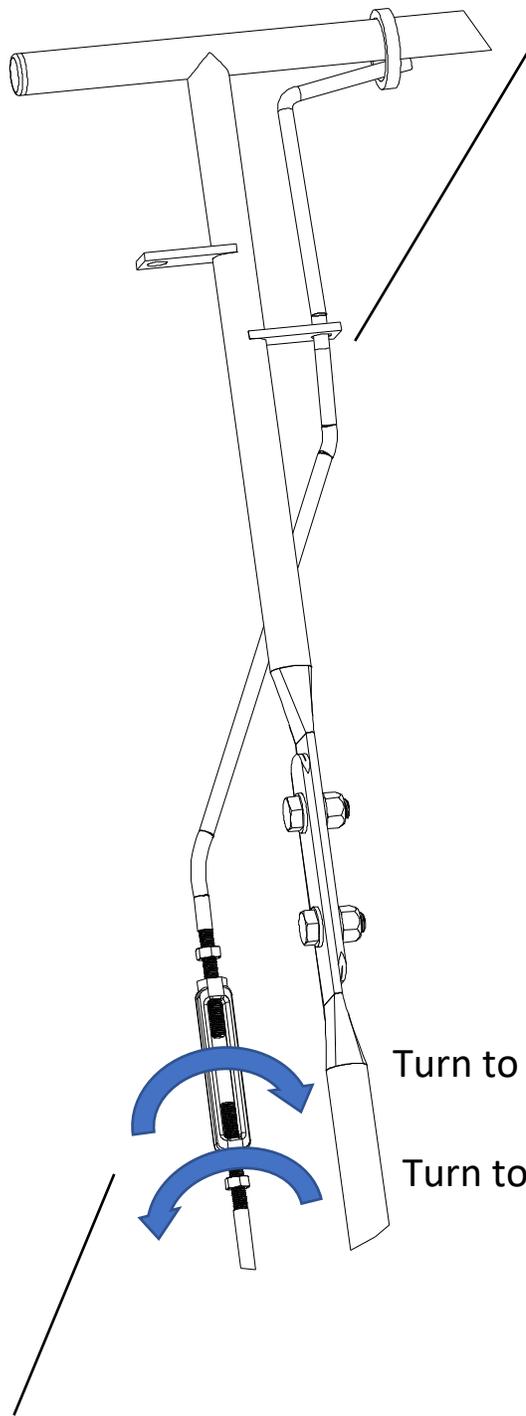


Install the shoe control arm through the guide hole (handle end first)

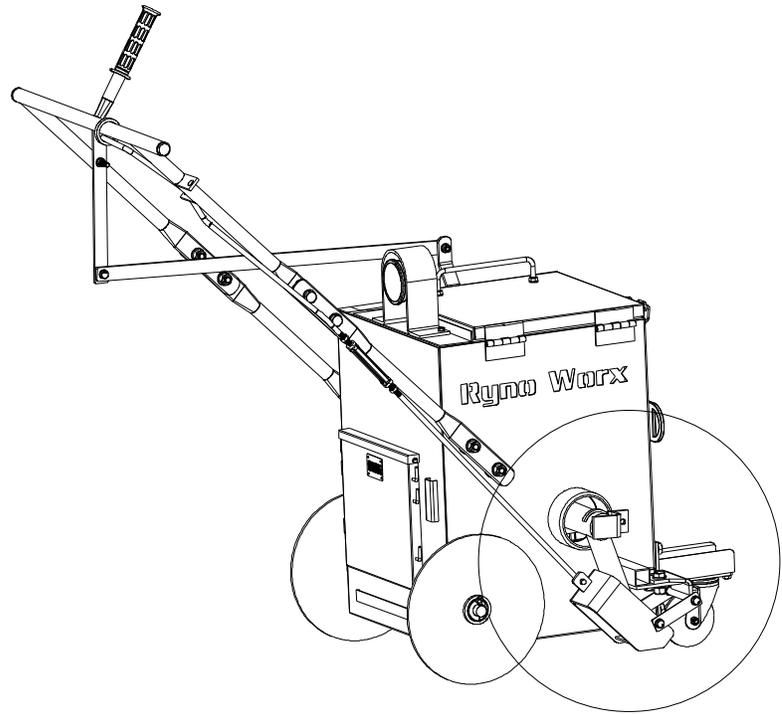


Adjust the length of the control arm by threading the lower half of the arm into the upper half. The final length of the arm should allow the drip guard to fully cover the bottom of the transfer tube when the shoe is in the raised position (shown to the right). Once the final length is set tighten the adjustment nut.

Type 2:



Install the shoe control arm through the guide hole (handle end first)

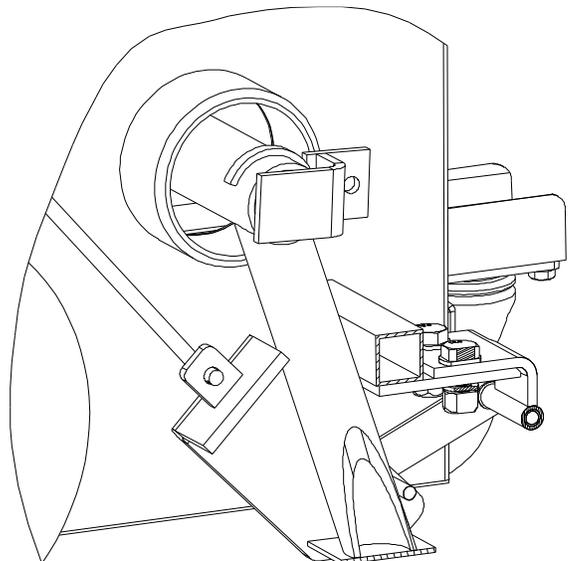


Turn to Make Arm Longer

Turn to Make Arm Shorter

Adjust the length of the control arm by turning the turnbuckle in the appropriate direction (shown above).

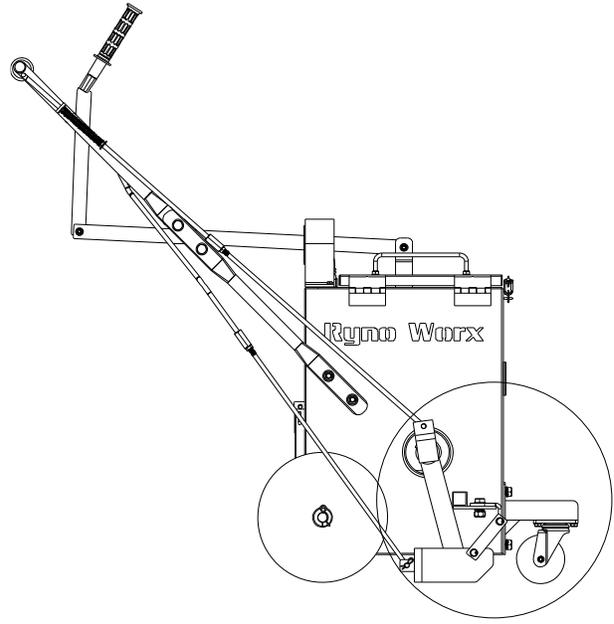
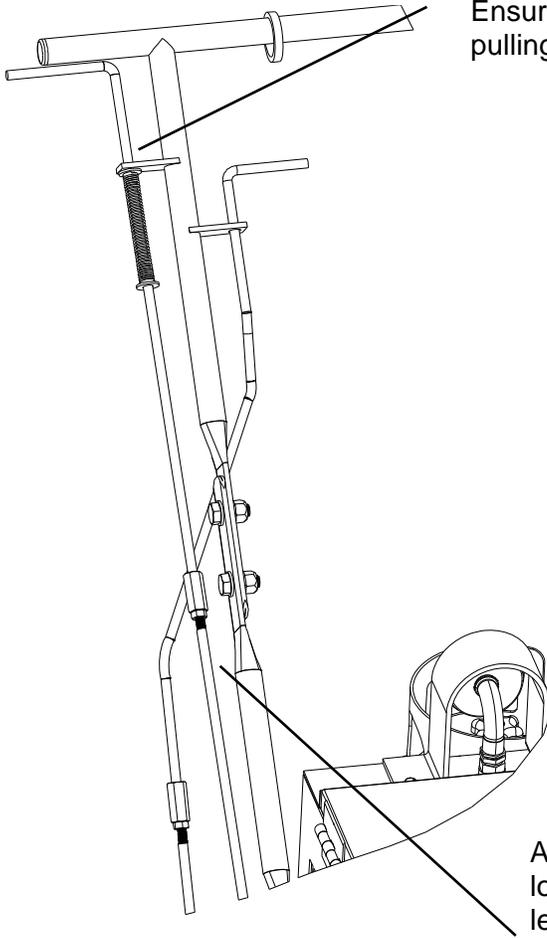
The final length of the arm should allow the drip guard to fully cover the bottom of the transfer tube when the shoe is in the raised position (shown to the right). Once the final length is set, hold the turnbuckle in position with an adjustable wrench and tighten both nuts against the turnbuckle.



12. Valve Control Arm Installation and Adjustment

Type 1:

Install the valve control arm through the guide hole (handle end first). Ensure that the retainer washer is in place to prevent the spring from pulling through the guide hole.



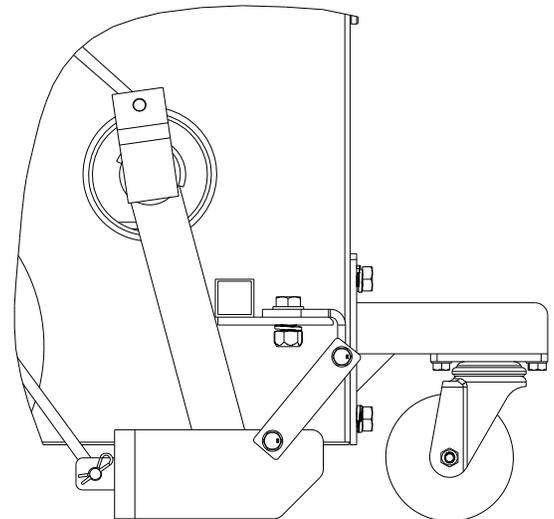
Adjust the length of the control arm by threading the lower half of the arm into the upper half. The final length of the arm should result in the valve being fully open (fully open valve position below) when the arm is fully retracted (shown above/left).

⚠ WARNING

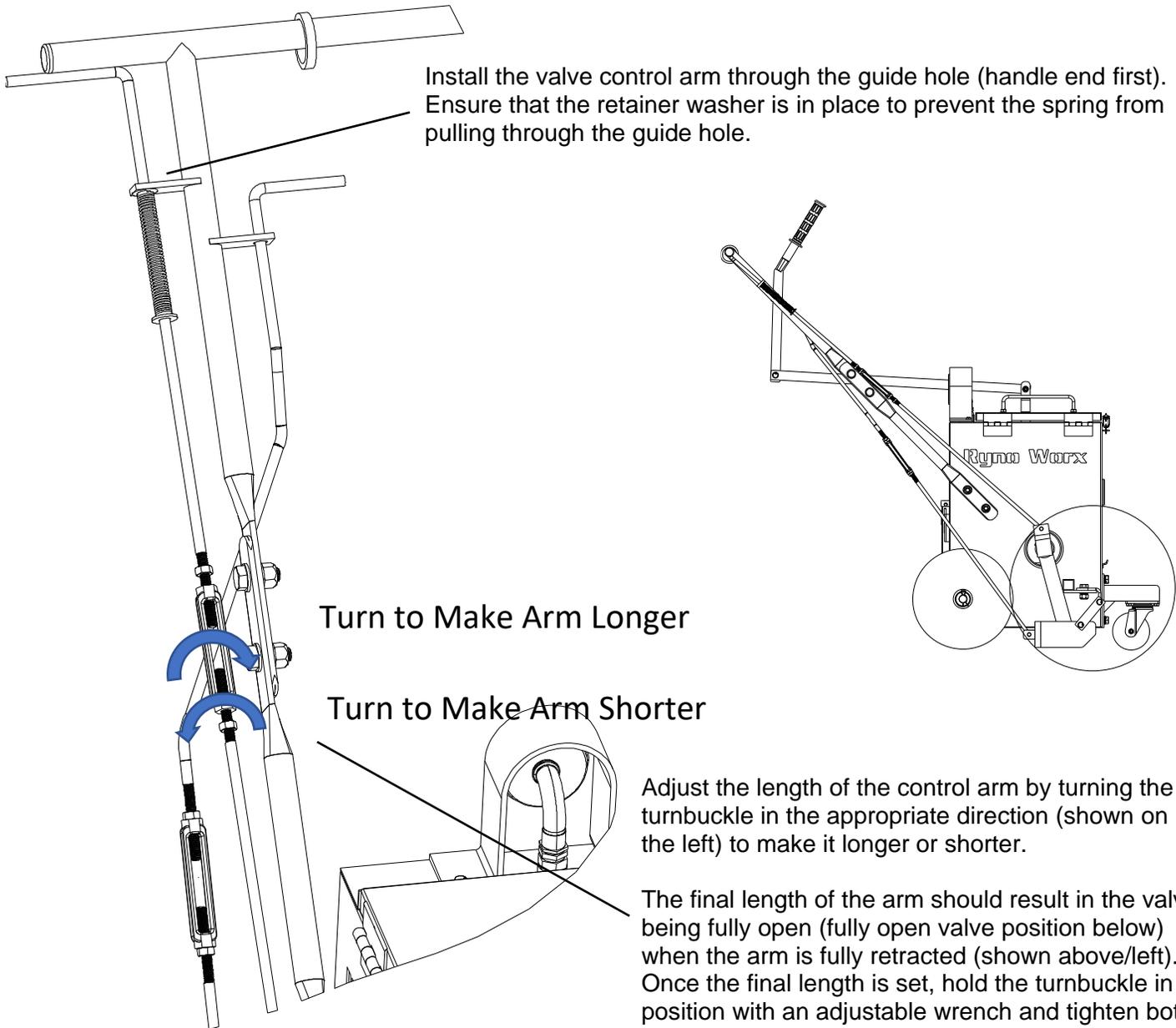
Setting the control arm to a length that is too short will cause over-rotation of the valve which could lead to the valve jamming or falling out.

The valve should NEVER be rotated more than a few degrees past the vertical position. The maximum valve rotation is shown on the right.

Make sure to test and verify that your setup is free from jams and over-rotations before using your machine.



Type 2:

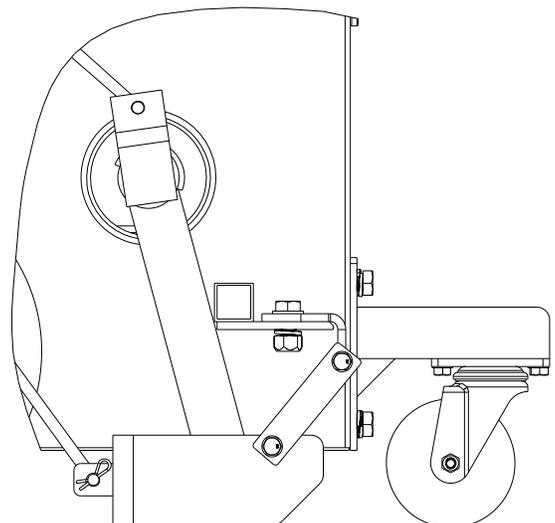


⚠ WARNING

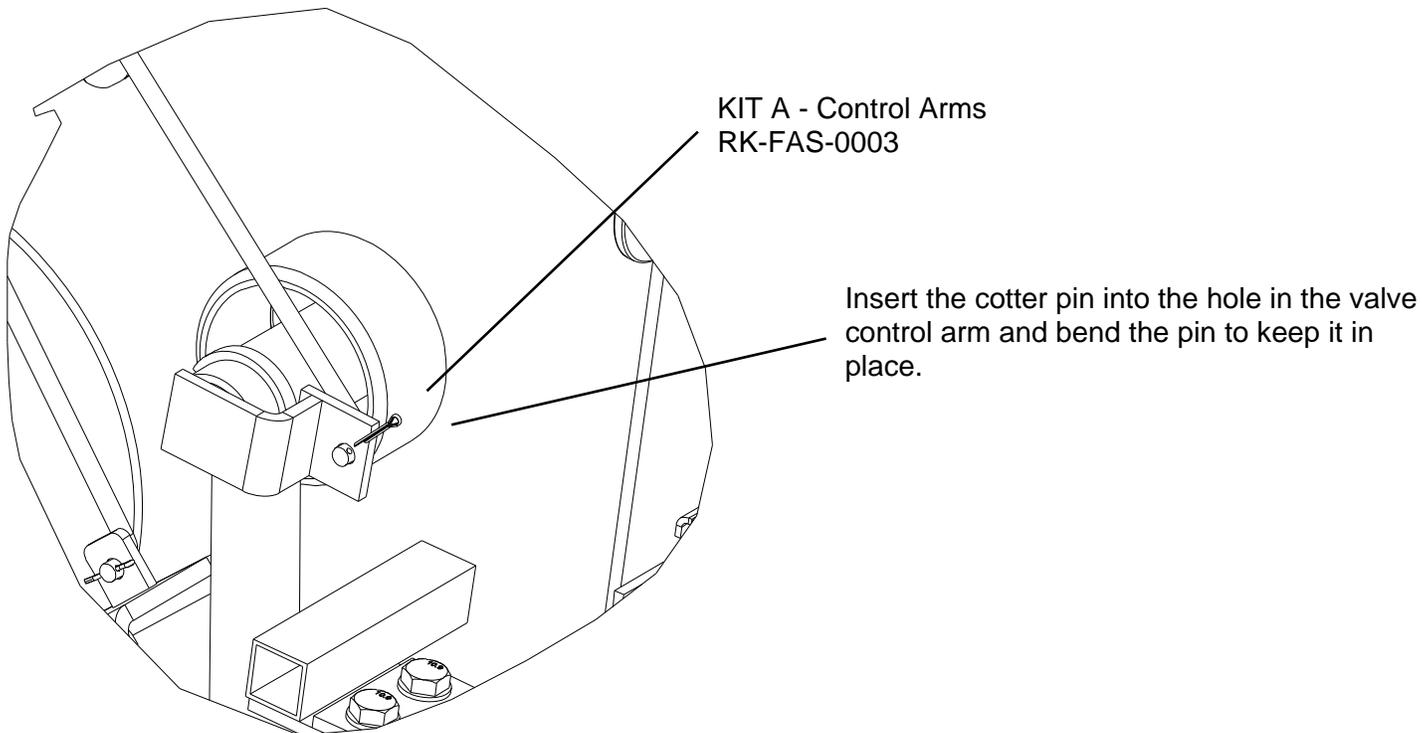
Setting the control arm to a length that is too short will cause over-rotation of the valve which could lead to the valve jamming or falling out.

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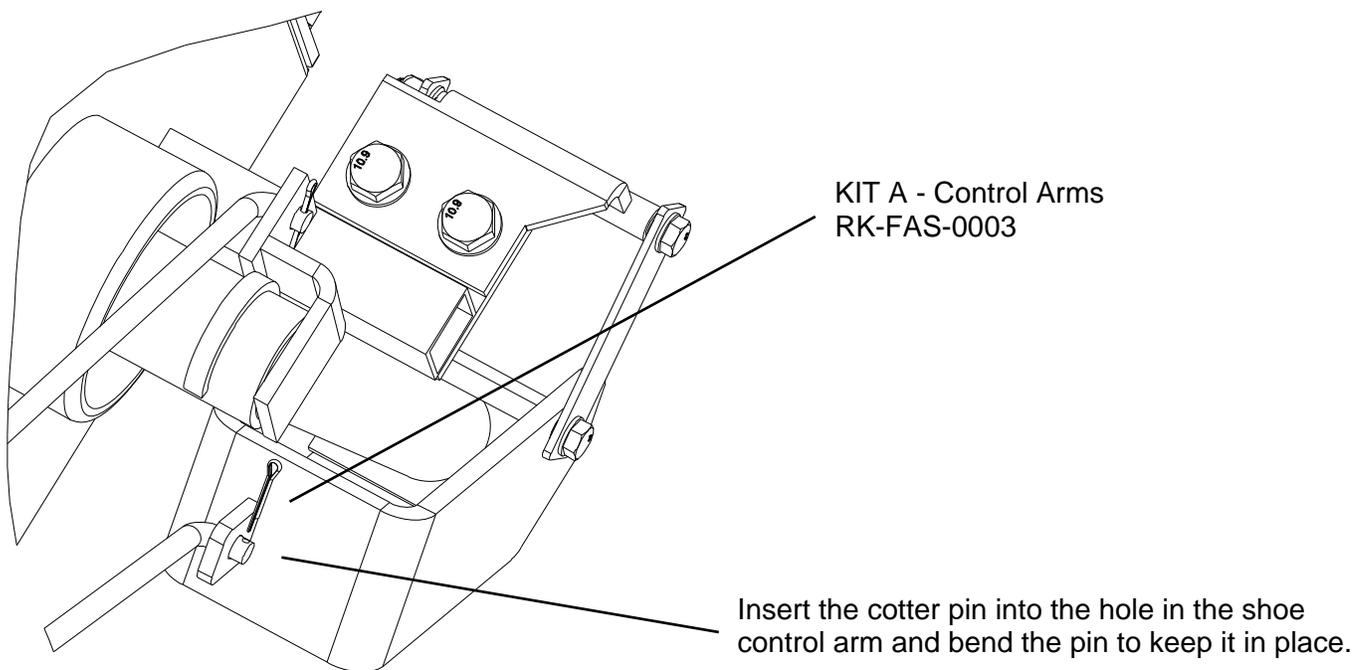
Make sure to test and verify that your setup is free from jams and over-rotations before using your machine.



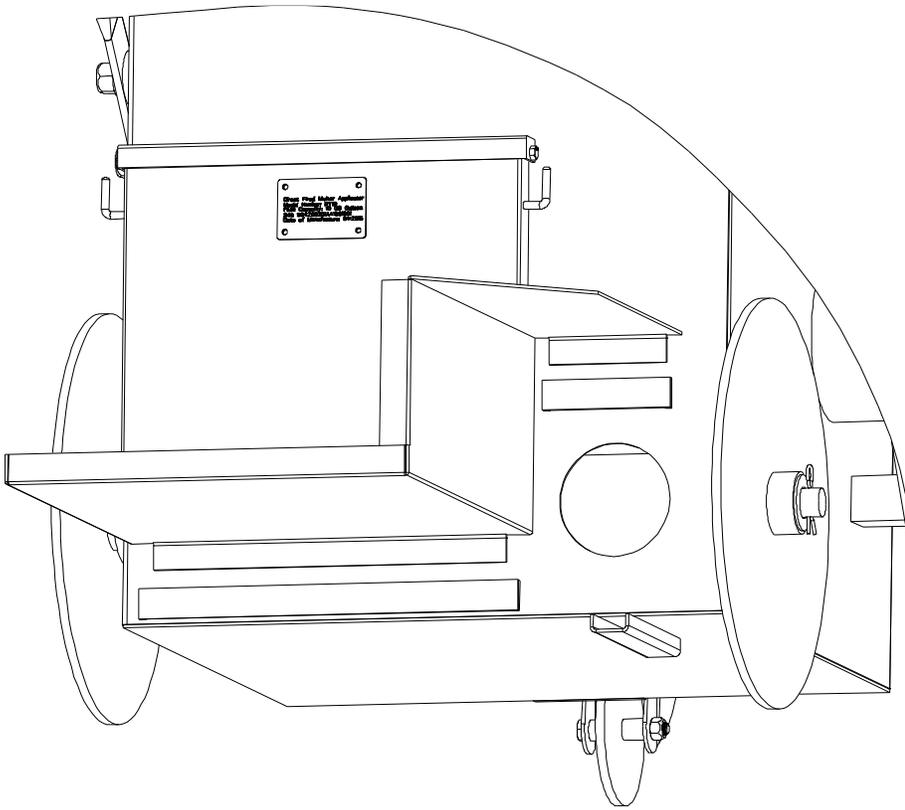
13. Valve Control Arm Cotter Pin Installation



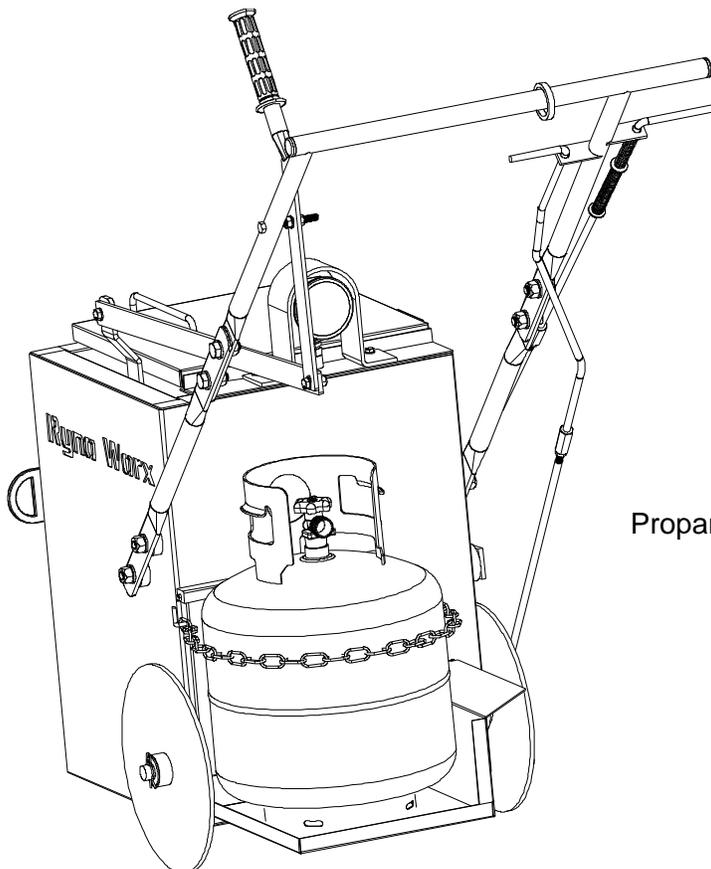
14. Shoe Control Arm Cotter Pin Installation



15. Tank Shelf Installation

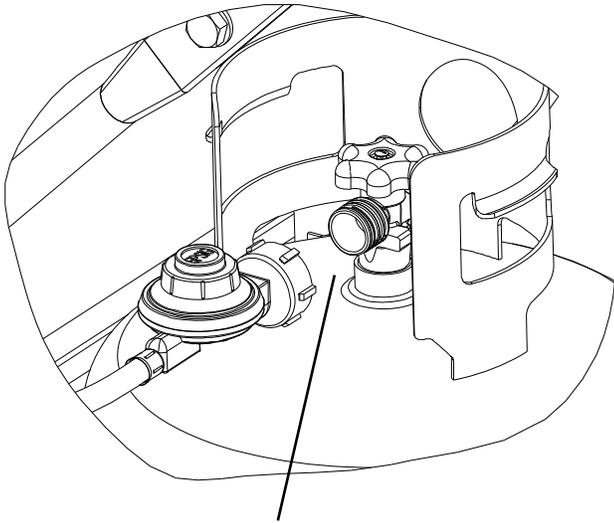


16. Propane Tank and Securing Chain Installation

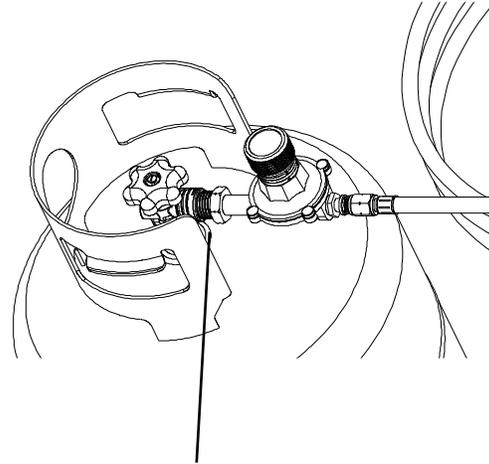


Propane Cylinder Not Included

17. Propane Hose Connection

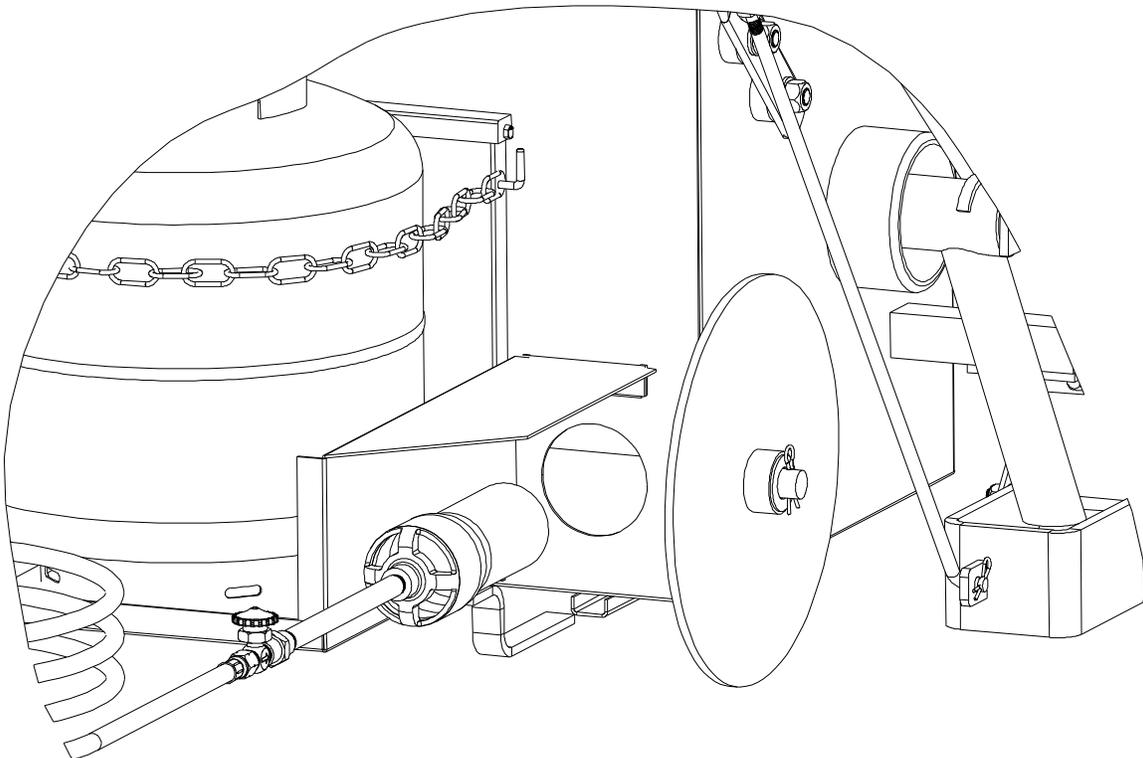


Connect the regulator to the propane cylinder. Hand tighten if it is a plastic connector.



Wrench tighten if it is a brass POL style.

18. Torch Installation



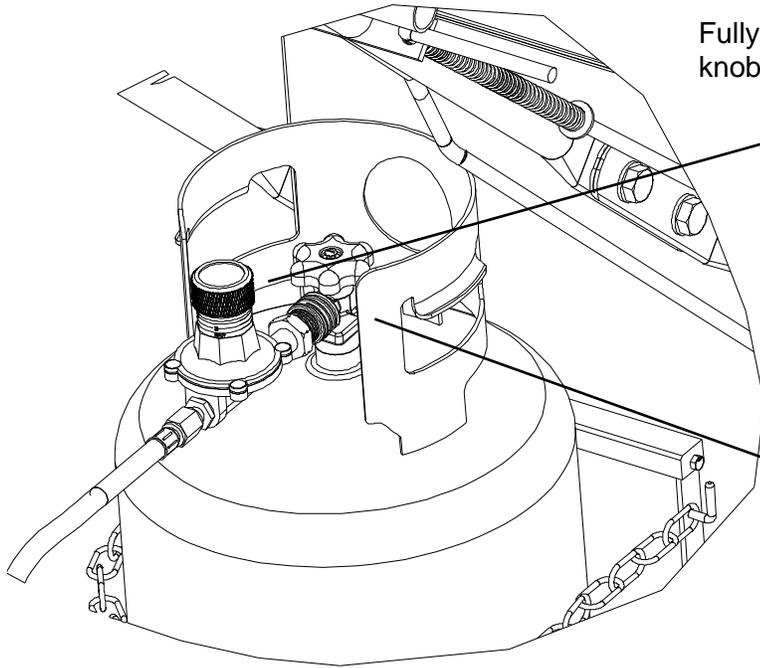
- **Operations Guide**

Before beginning please check the following:

1. You have read and understand all warnings on page 2.
2. You are using a new and full propane cylinder (use of a used cylinder can lead to reduced performance or equipment failure).
3. You have inspected your regulator, hose, and torch assembly and verified there are no leaks or physical damage.
4. You are outdoors in a well ventilated area that is free and clear of any flammable matter.
5. You have completed the assembly of the equipment correctly.
6. You have 'Direct Fire' type crack sealant such as GemSeal, SealMaster, Durafill, Craftco, or Maxwell.
7. There is absolutely NO water in or around the kettle.
8. You are wearing protective eyewear.
9. You are wearing heat and fire resistant protective gloves.
10. You are wearing heat and fire resistant protective clothing which covers all exposed skin.

Part 1 – How to Load and Light your Melter

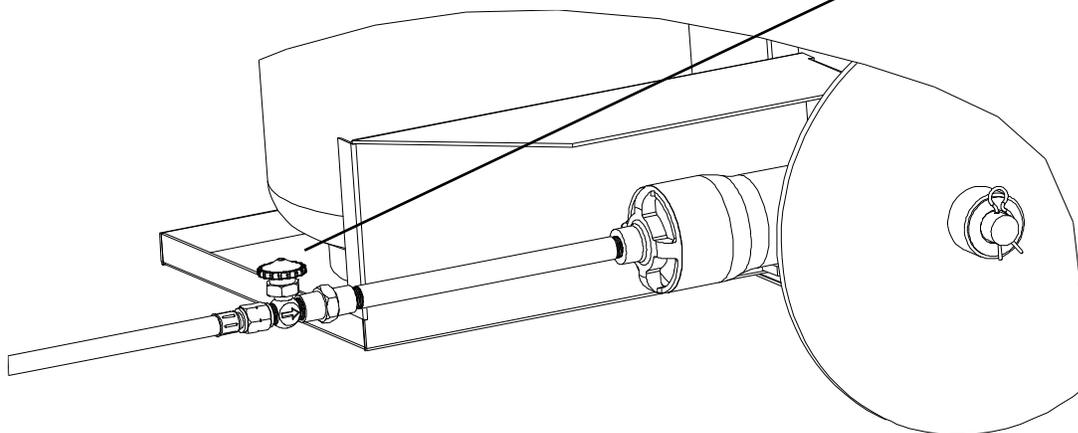
1.



Fully CLOSE the regulator valve by turning the knob on the regulator COUNTERCLOCKWISE

Fully OPEN the propane cylinder by turning the valve COUNTERCLOCKWISE.

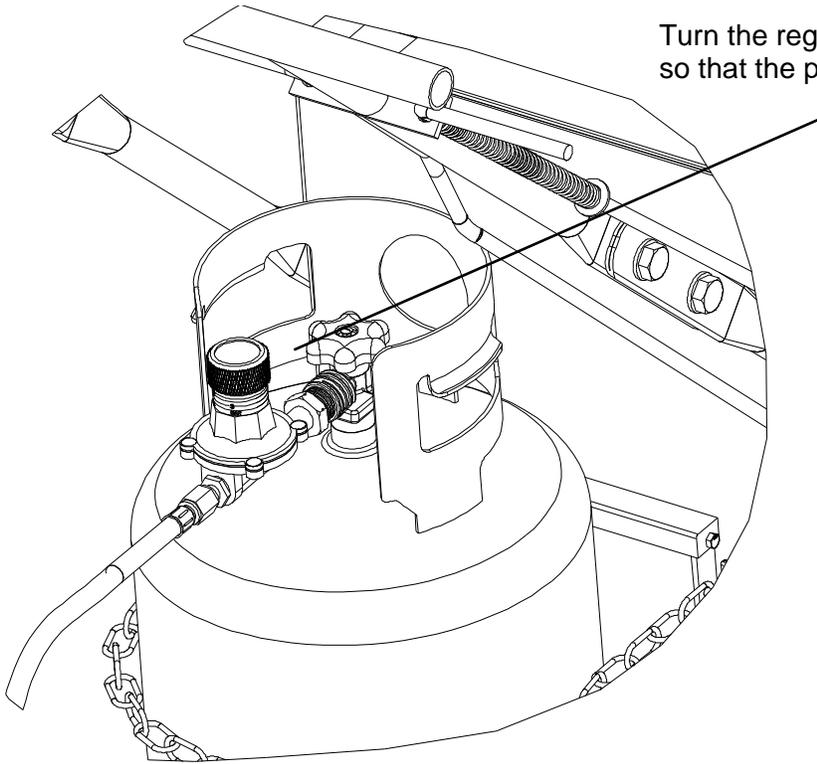
2.



Make sure the valve on the torch handle is fully OPEN by turning it COUNTERCLOCKWISE.

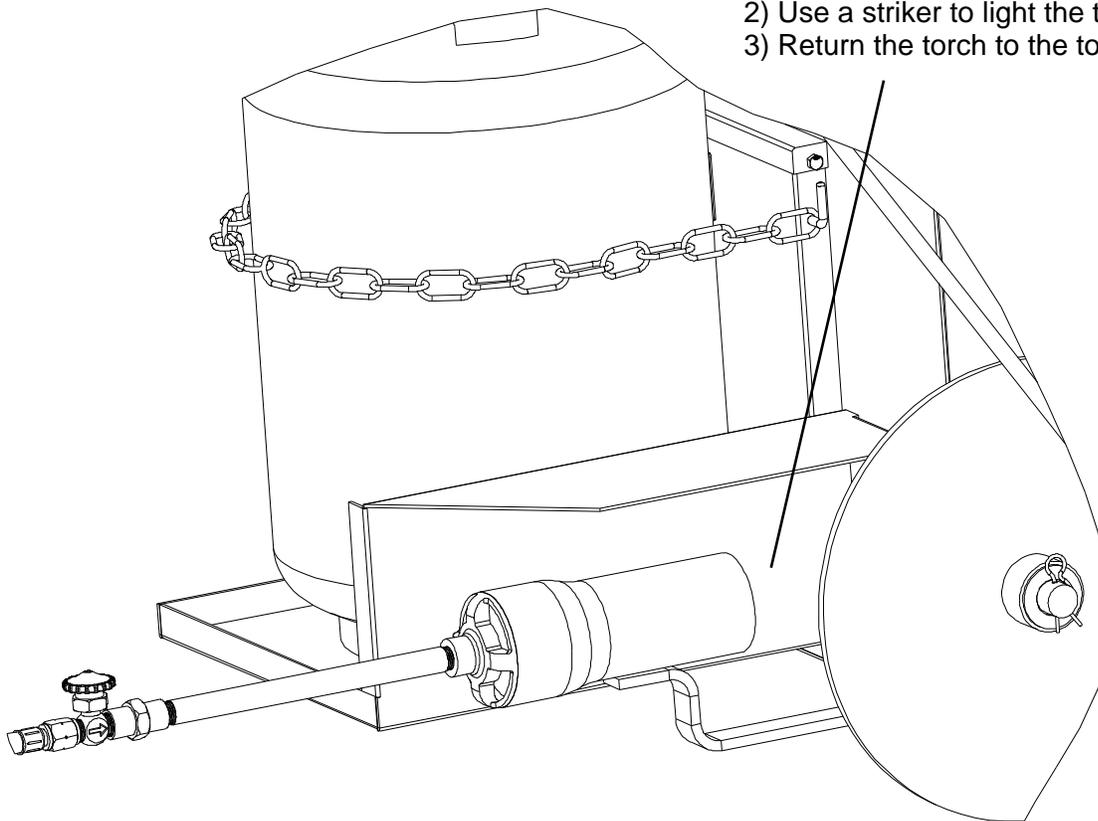
3.

Turn the regulator knob two turns **CLOCKWISE** so that the propane starts to flow.

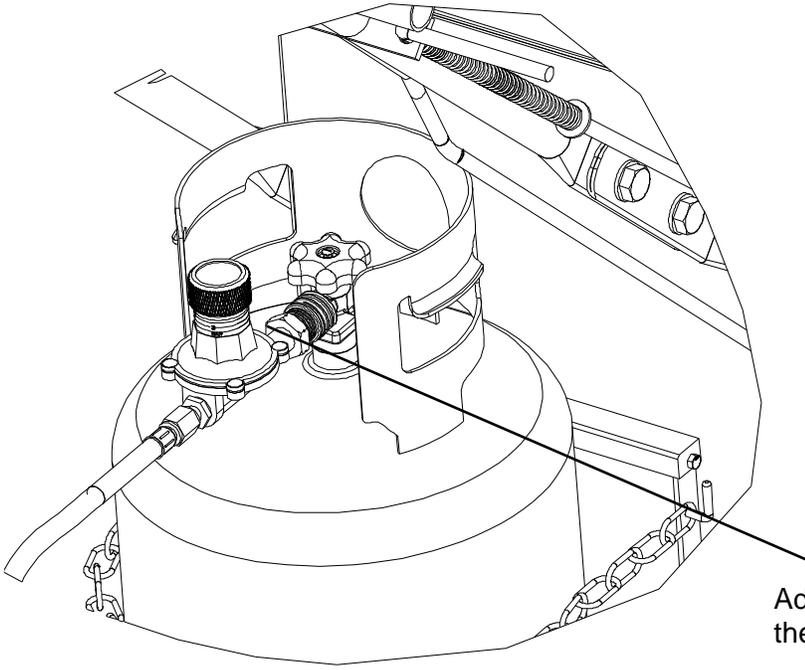


4.

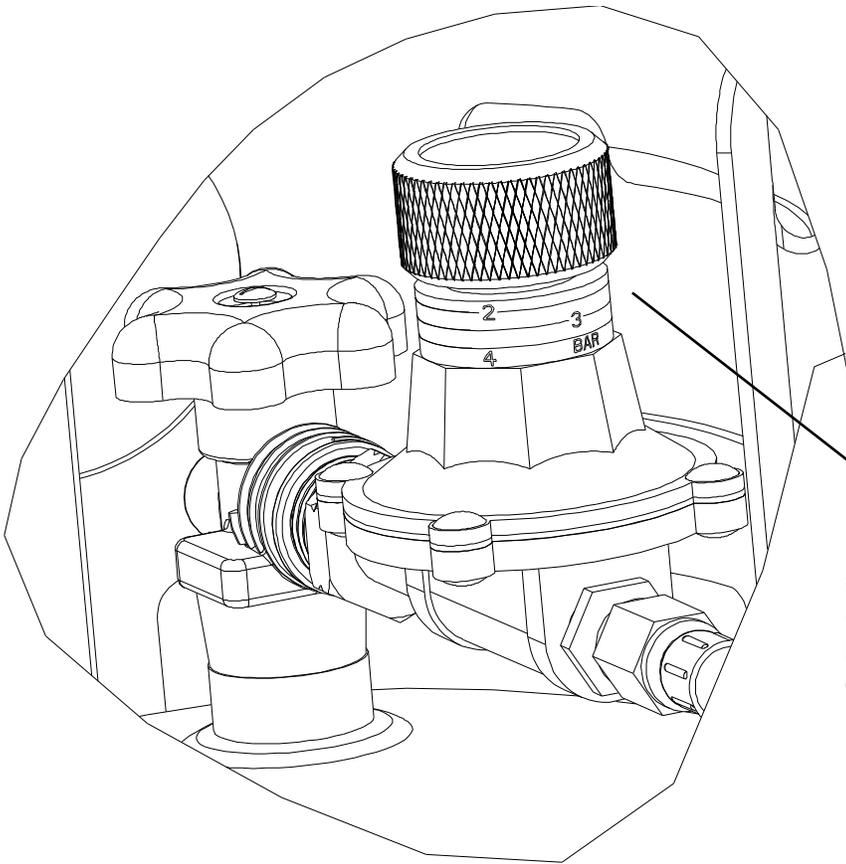
- 1) Pull the torch back from the torch holder.
- 2) Use a striker to light the torch.
- 3) Return the torch to the torch holder.



5.



Adjust the flame by turning the knob on the regulator.



Clockwise - Increase pressure
Counterclockwise - Decrease pressure
Pressure ranges from:
0 - 4 bar (0 - 58 psi)

⚠ Never exceed the manufacturer's recommended material maximum temperature.

- **Operations Guide**

Part 2 – Agitating and Monitoring Temperature

1. Never leave melter unattended when the torch is lit. If flame goes out, promptly turn off the flow of gas; double check that the melter is free and clear of any gas odors before attempting to re-ignite the torch.
 2. While your melter is ignited you should continuously be monitoring the material temperature. Check with crack sealant manufacture for safe melting temperatures and ensure you continually adjust your regulator to maintain the recommended temperature range. If the material becomes too hot, you may need to turn off your torch periodically.
 3. As material begins to melt, it's important to consistently agitate. Agitation moves the solid crack sealant along the bottom and prevents 'hot spots' from forming which can alter the effectiveness of the sealant after applied. Agitation also prevents chunks of over-heated material from forming which will eventually plug or block your flow valve which can slow down the applications process.
-

Part 3 – Dispensing Crack Filler

Once you have effectively liquefied the crack sealant, you may begin applying it. For best results, the surface should be clean and free of dirt, debris and vegetation. Ensure shoe is lowered and resting on the pavement. Push melter into position, aligning the crack you wish to fill with the center of the shoe. Slowly squeeze the valve control arm until crack filler begins to come out of the valve and onto the crack. Slowly push the melter forward, keeping the crack aligned with the center of the shoe. Increase speed of the material flow by squeezing harder on the valve control arm. If material flow slows, check to ensure that you have enough melted material in the kettle and agitate to keep the flow tube clear.

Part 4 – Turning Off and Draining

Once you have finished using the melter, make sure it is fully drained and no crack filler remains inside the kettle or the flow valve. Leaving the flow valve empty after use will prevent the valve from being blocked the next time you use the melter.

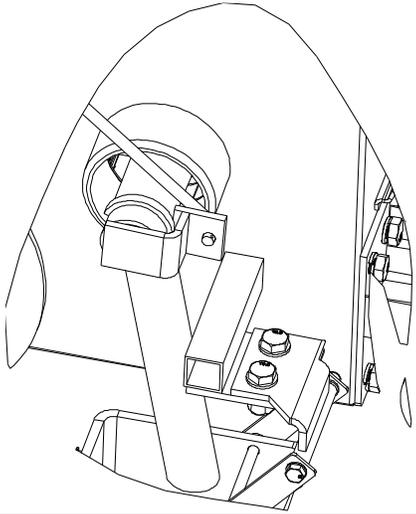
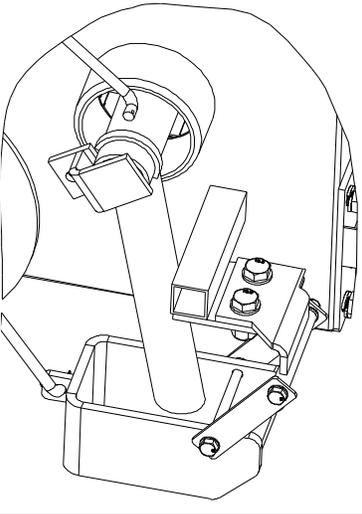
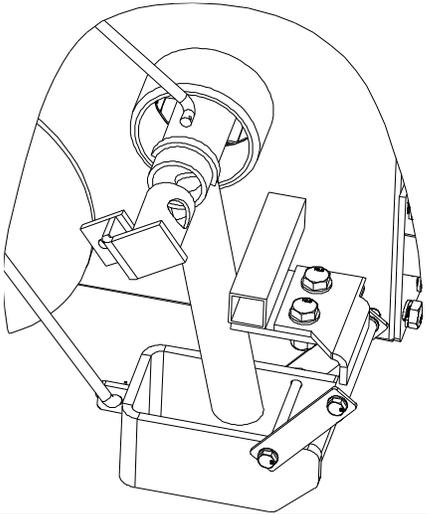
- **Maintenance Guide**

Periodic Maintenance

This melter / applicator requires periodic maintenance before each use and at set intervals in order to ensure it is performing safely and optimally. The table below describes checks and maintenance which are recommended.

Description	Before Each Use	Every 25 Hours	Every 75 Hours
Check Propane Tank fuel level, refill as needed	X		
Inspect regulator and hose for physical damage or leaks	X		
Inspect front caster wheel, apply grease and tighten fasteners as required	X		
Inspect thermometer for physical damage or malfunctions	X		
Remove and thoroughly clean control valve		X	
Remove and replace left and right side wheel bushings as required			X

Procedure for Removing the Flow Valve

1) Remove the cotter pin from the control arm.	2) Remove the control arm from the valve and fully rotate the valve counter-clockwise past the valve collar.	3) Pull the valve out of the tube.
		

• **Troubleshooting Guide**

Below we have provided a common problems and solutions table. Be sure to consult this table should you experience any technical problems.

Description of Problem	Possible Causes	Known Solutions
The torch will not ignite or the torch will not stay lit	1) The fuel level could be too low 2) The propane cylinder valve could be partially or fully closed, which can restrict fuel flow 3) The pressure regulator valve may be in the off position or may not be providing sufficient fuel flow	1) Check and refill your fuel tank 2) Ensure your fuel valve is fully open. You can do this by turning the knob fully counter-clockwise 3) You may increase the pressure from the regulator by turning the knob clockwise
Crack filler is hot, but will not come out of the flow valve	1) Crack filler was left inside the melter from a previous job. This crack filler has solidified inside the flow valve and although the material in the kettle is melted, the material in the transfer tube and flow valve may not be. 2) There is a material blockage in the transfer tube or flow valve preventing crack filler from flowing which can be caused by dirt or debris inside the kettle or by old crack sealant which has lost its ability to melt from being reheated too many times	1) Allow the torch more time to heat up the flow valve until the crack filler inside begins to melt. Alternatively, you may heat up the valve using a propane torch assembly. 2) This is routine maintenance as described in the maintenance guide. Make sure your melter is cool enough to touch with gloves, carefully remove the valve control arm. Rotate the control valve forward (clockwise) about a ¼ turn and pull out of the transfer tube (this may require some force if the material is cold). Using a drill and a long 1" wire wheel, carefully clean all build up on the inside of the flow valve and transfer tube while being careful not to damage the original steel surface. Once clean you may put re-assemble the control valve and control arm.
Torch will not stay lit	1) The fuel level may be too low 2) The fuel tank valve or torch valve may not be fully open and therefore restricting fuel flow, or your regulator may not be providing enough pressure 3) The wind may be blowing out the flame.	1) Refill your fuel tank 2) Ensure your fuel tank valve and torch valves are fully open and use your regulator to increase or decrease flame strength 3) Move equipment to a less windy area or try turning equipment so that the torch is not facing the wind
Crack filler is melting really slowly	1) Incorrect crack sealant being used 2) Torch is not providing enough heat to melt the crack sealant 3) The temperature outside is cooler than normal slowing down the melting process 4) The wind is continuously blowing out your flame, not allowing your machine to build heat quickly	1) Double check that your using an approved crack sealant for use in direct-fire melters 2) Increase the fuel to your torch 3) No solutions, melting takes longer on cooler days 4) Move equipment to a less windy area or try turning equipment so that the torch is not exposed to the wind

<p>The Control valve is occasionally dripping at the transfer tube</p>	<p>The flow valve is designed with tight tolerances and designed to be removable for easy cleaning. It is not uncommon for your flow valve to have an occasional drip where it meets the transfer tube when the melter is warm.</p>	<p>No solutions necessary, the flow valve is designed with tolerances which prevent it from binding from the intense heat of the torch. An occasional drip is perfectly normal when the machine is fully heated.</p>
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