

BARRETO

MODEL 3107C

CHIPPER

OPERATOR'S MANUAL

3107C INTENDED USE

The BARRETO 3107 Chipper is designed to chip wood limbs and branches and logs up to 7 inches in diameter.

OPERATOR TRAINING / INSTRUCTIONS

Everyone who operates a 3107C or assists the 3107C operator needs to know the following aspects of machine operation before operating the 3107C. They are important and must be a part of operator training.

Rental companies need to understand and be able to explain and demonstrate all of the machine operations to each rental customer including.

- **KNOW AND UNDERSTAND ALL SAFETY POINTS AND CONSIDERATIONS**
- Check that all guards/covers and safety decals are in place
 - If an engine driven component is exposed or accessible a guard is missing.
- Know how to properly connect the 3107C to a towing vehicle
- Know the towing position of the: swivel jack or stand; chipper hopper and rear flap
- Know the operating position of the: swivel jack or stand, chipper hopper and rear flap
- Understand the 3107C capabilities and intended use
- Know how to start and stop the engine
- Know how to engage and disengage the clutch
- Understand how to prevent clogs
- Know how to safely clear clogs from the chipper and mulcher hoppers

3107C OWNER CONTACT INFORMATION

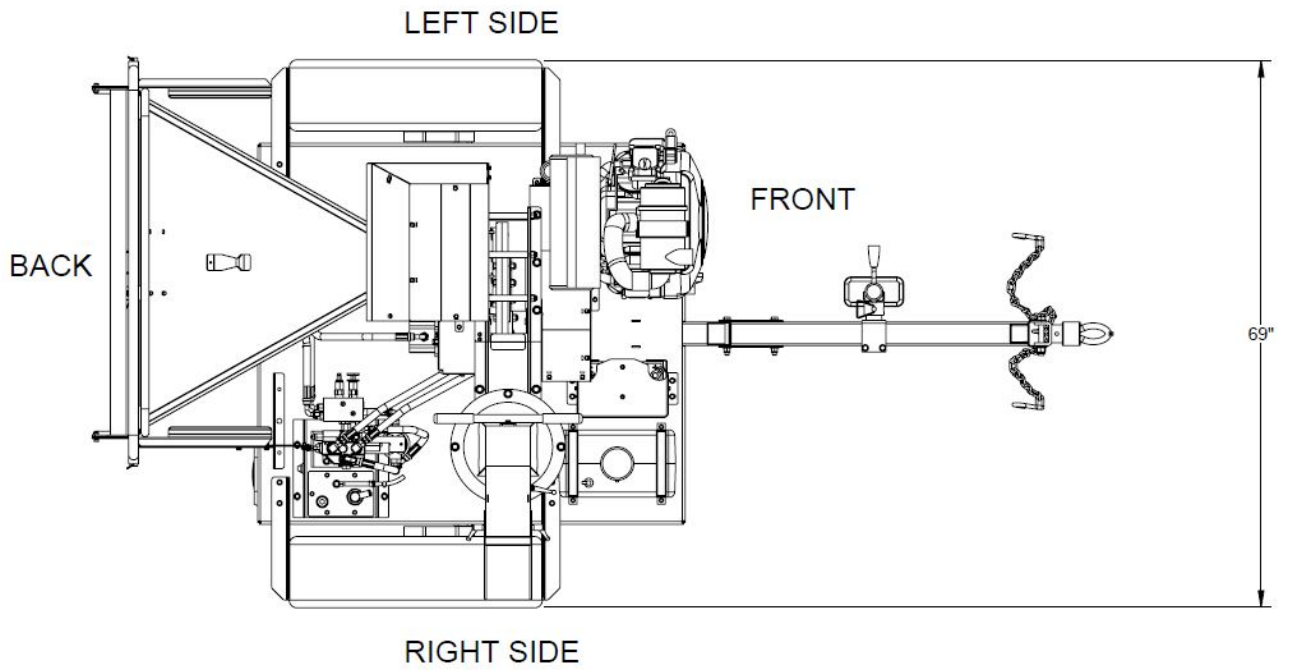
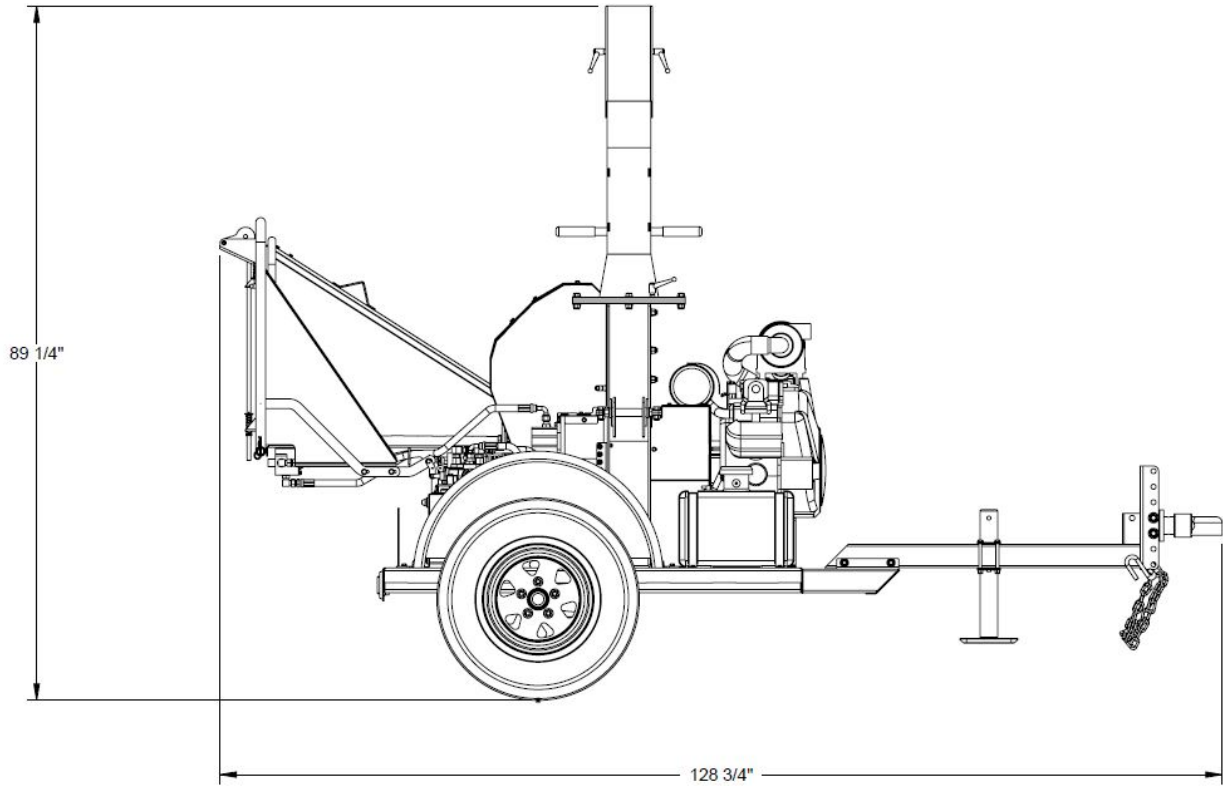
THIS 3107C BELONGS TO: _____

PHONE NUMBER: _____

TABLE OF CONTENTS

UNIT OVERVIEW	3
SAFETY MESSAGES	4
BATTERY & ELECTRIC STARTER SAFETY INSTRUCTIONS	6
TOWING INSTRUCTIONS	7
OPERATOR WORKING AREA	8
SETTING UP	9
ENGINE START UP / SHUTDOWN PROCEDUR	9
CLUTCH ENGAGEMENT	10
FEEDING MATERIAL	10
CLEARING DEBRIS	10
LUBRICATION REQUIREMENTS	12
MACHINE SPECS	13

DIMENSIONS



SAFETY INSTRUCTIONS OVERVIEW

READ ALL SAFETY AND OPERATING INSTRUCTIONS BEFORE OPERATING!
ANYONE ASSISTING 3107C OPERATION IS ALSO CONSIDERED AN OPERATOR.
FOLLOW ALL SAFETY INSTRUCTIONS WHILE OPERATING!
MAKE SURE OTHERS FOLLOW THEM TOO!



DANGER: Stay clear of moving parts. Belts, chipper blades and other moving parts can cut off fingers, arms, legs and other body parts. Contact with moving parts while the machine is operating will cause death or serious injury.



DANGER: Never reach into the 3107C, while running or capable of running. Reaching into the 3107C will result in death or serious injury.



DANGER: Only operate outdoors and avoid breathing engine exhaust fumes. Engine exhaust contains carbon monoxide gas which is toxic. Breathing it can cause unconsciousness and death.



DANGER: Never permit anyone to ride on the 3107C while towing. The 3107C is NOT intended to carry passengers; carrying passengers on the 3107C will result in death or serious injury.



DANGER: Never operate the 3107C with any guards, flaps or screens removed. If a moving part is readily accessible a guard is not present and must be installed before operating.



DANGER: Do not leave the 3107C unattended with the engine running or the key accessible. Always turn off the engine and remove the key when not using the 3107C.



DANGER: Do not operate the 3107C under the influence of: alcohol; illicit drugs; prescription drugs that warn against driving or operating machinery, or any substance that will impair judgment or physical coordination.



DANGER: Never permit a minor (under 18) to operate the 3107C. Never permit anyone with a mental or physical impairment that will adversely affect safe 3107C operation to operate the 3107C.



WARNING: Wear appropriate personal protective equipment, safety glasses, full face shield, ear plugs, hard hat, gloves, and boots. DO NOT wear loose clothing, jewelry, long hair or anything that may get caught in a moving part.



WARNING: Do not stand or step on the 3107C. There is no place on the 3107C for someone to stand or step. Standing or stepping on the 3107C will put you in close proximity to dangerous moving parts and extremely hot engine components.



WARNING: Stay clear of the chute on the 3107C while in operation. High speed debris exits the chute of the 3107C.

SAFETY INSTRUCTIONS OVERVIEW CONTINUED



WARNING: Operate the 3107C on level ground and use tire chocks. If operating on a grade is unavoidable, connect the 3107C to a towing vehicle, chock the 3107C and towing vehicle tires, engage the towing vehicle parking brake and position the towing vehicle to prevent a runaway. Do not leave the 3107C unattended with the engine running.



WARNING: Park and store the 3107C on level ground, use tire chocks to prevent the 3107C from rolling. The 3107C is not equipped with brakes and may roll on an incline.

We recommend having a fire extinguisher capable of extinguishing class A, B & C fires in the operating area.



WARNING: Do not operate the 3107C near flames or sparks. Fuel, fuel fumes and plant debris can catch fire.



WARNING: Do not operate the 3107C near any source of flammable dust or vapor. Sparks from the engine can cause a fire or explosion in a flammable atmosphere.



WARNING: Shut off engine and allow it to cool before refueling. Sparks and heat from the engine may ignite fuel.

Keep others away from the 3107C while operating. Select job sites free from bystanders. If the job site is near a road or a pedestrian pathway and cannot be moved, warn and divert both motorized and pedestrian traffic. As appropriate and legal, use traffic flag personnel, signs, cones and lighting devices to ensure safety. Diverting traffic and working in congested public areas may require permits or other such legal considerations. It is your responsibility to know and follow all laws applicable to where you are working.

IF AT ANY POINT AND FOR ANY REASON, YOU DO NOT FEEL CONFIDENT ABOUT OPERATING THE 3107C OR RECOGNIZE THAT YOU CANNOT SAFELY OPERATE THE 3107C, STOP IMMEDIATELY. IF CONFIDENT TO DO SO, DISENGAGE THE CLUTCH AND TURN OFF THE ENGINE. CONTACT THE 3107C OWNER.

Emergency & Medical Contacts:

USA & CANADA: Emergency dial: **911**

USA & CANADA: American Association of Poison Control Centers: **1-800-222-1222**

Outside the USA & Canada (Please fill in the appropriate number)

National Emergency number: _____

Poison Control Center: _____

Other: _____

BATTERY SAFETY INSTRUCTIONS

Only trained and qualified personnel should perform maintenance or repairs of the 3107C or the battery. With the exception of following the greasing/lubrication requirements and checking/adding engine oil, maintenance is the responsibility of the owner and should not be performed by the operator.



WARNING: The battery contains sulfuric acid that can cause blindness and severe burns. Avoid contact with eyes, skin and clothing.



WARNING: Battery fumes are flammable and explosive. Avoid exposing the battery to sparks and flames. Sparks can be created near the battery when handling battery cables or jumper cables.



WARNING: The battery, posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.



WARNING: Wear appropriate personal protective equipment when handling the battery. Shield entire face, especially your eyes, wear rubber gloves and a rubber apron to reduce the risk of acid burns. Battery caps must be tightly in place if the battery has removable caps.

First Aid Measures from Material Safety Data Sheet, for sulfuric acid: ScienceLab.com

- **Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
- **Skin Contact:** Immediately flush skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. Cover irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- **Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
- **Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- **Serious Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt, or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention



WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive.

- **Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- **Serious ingestion:** Not available. Get medical attention immediately.

Emergency & Medical Contacts:

USA & CANADA: Emergency dial **911**

USA & CANADA: American Association of Poison Control Centers: **1-800-222-1222**

Outside the USA & Canada (Please fill in the appropriate number)

National Emergency number: _____

Poison Control Center: _____

Other: _____

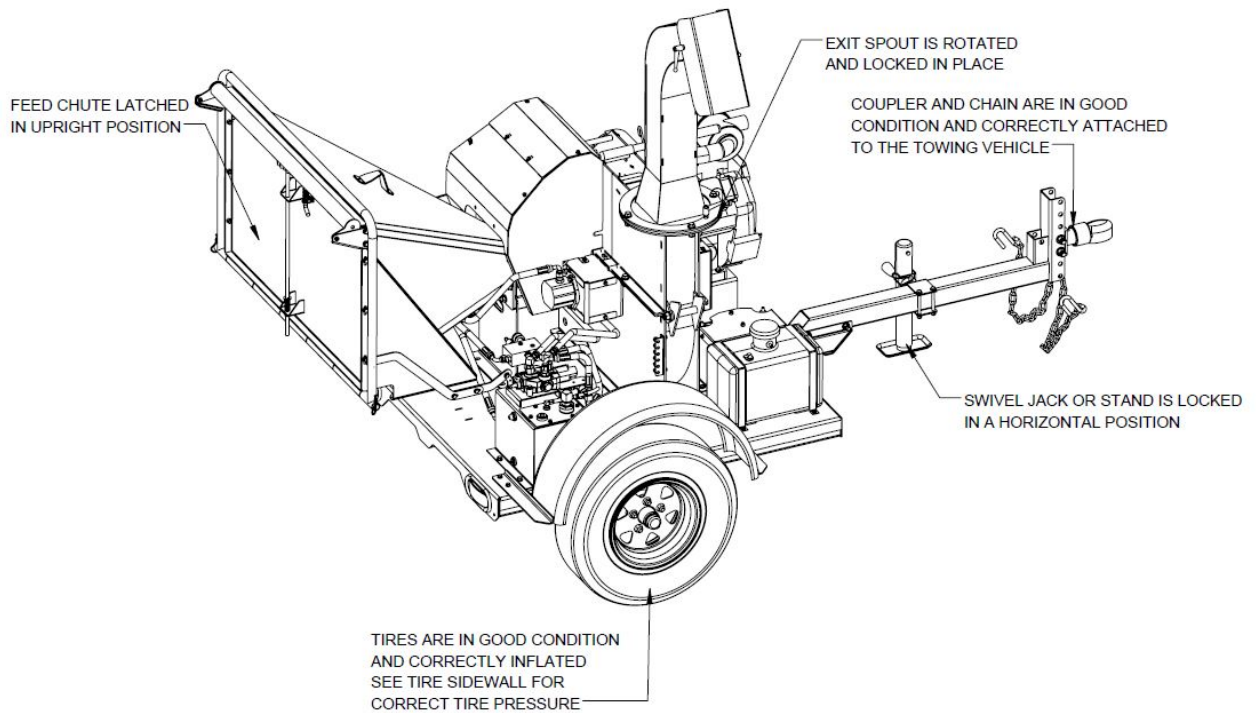
TOWING INSTRUCTIONS

While towing the 3107C obey all traffic laws and never exceed 45mph (75km/h). The towing vehicle and the 3107C must be in legal, road worthy condition which may include registration. Refer to and check the following list before towing.

NOTICE: Move the fuel shutoff lever to the closed position after stopping the engine, especially before towing. Failure to do so could cause fuel to leak into the cylinder and crankcase. Resulting damage will not be covered under warranty.

- Inspect all towing points: hitch/coupler; hitch ball; safety chains and safety chain attachment points on towing vehicle and 3107C tongue. Replace any damaged components before towing.
- Inspect 3107C tires for damage and check tire pressure. See tire side wall for correct tire pressure.
- The towing vehicle must be rated to tow trailers in excess of 1500 pounds with a tongue weight in excess of 180 pounds.
- The towing vehicle must be equipped with a 2” hitch ball. The hitch ball must be in good condition and be securely fastened to the towing vehicle.
- The towing vehicle must have 2 points, one on either side of the hitch ball to attach the safety chain.
- The safety chain must be securely fastened to the 3107C tongue.
- If equipped with lights, connect the wiring adapter on the 3107C to the plug on the towing vehicle. Make sure that all lights, on both vehicles work. If NOT equipped with lights do not tow at night or other low light conditions.
- Securely fasten the coupler to the hitch ball by tightening the coupler nut.
- Cross the safety chains under the tongue and secure them to the towing vehicle in such a way as to prevent accidentally coming off. Crossing the safety chain helps prevent the tongue from dropping to the ground should the hitch come off.
- DO NOT LET THE CHAINS TOUCH THE GROUND OR BE DRAWN TOO TIGHT. Allow only enough slack to permit proper turning of the towing vehicle. Slack in the safety chain should be reduced until the tongue cannot hit the ground should the coupler come loose.
- The swivel jack or stand must be parallel with the tongue and pinned in place.
- The rear flap must be locked in the upright position.
- After towing for a few blocks stop and check that all connection points are securely connected.
- While towing exercise extreme caution, allow extra space between vehicles and expect longer stopping distance.
- Local laws vary. It is your responsibility to know and obey all laws on the road.

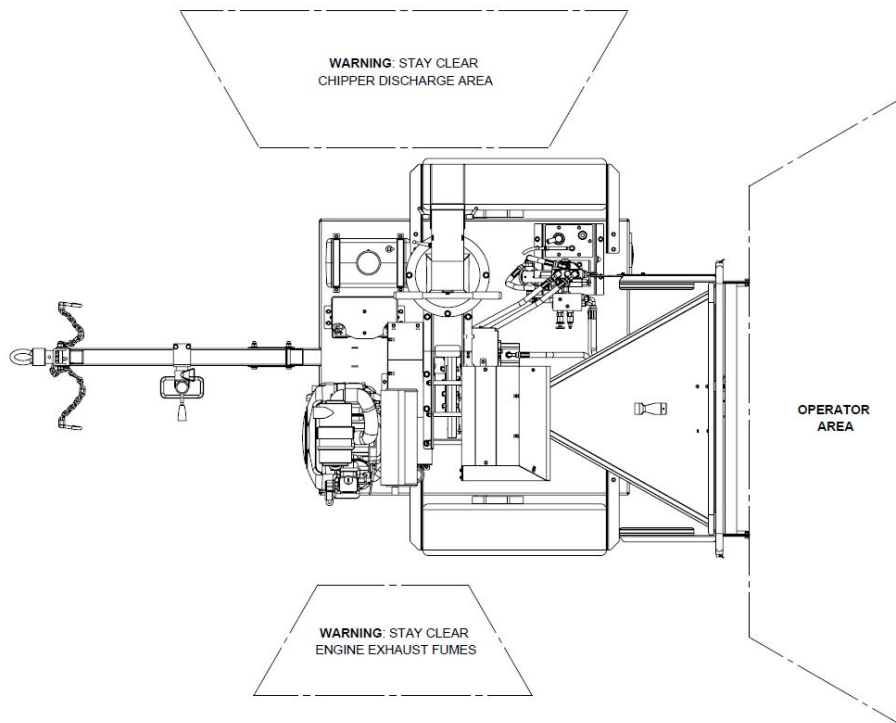
SEE FIGURE: TOWING SETUP on the next page.



OPERATORS WORKING AREA



WARNING: Stay clear of the areas, marked **STAY CLEAR** on the diagram below, while the 3107C is running. Death or serious injury may occur.



SETTING UP THE 3107C

Unlatch the rear feed chute and allow it to lower slowly until horizontal.



WARNING: Do not operate the 3107C with the chipper hopper in its upright / transport position.



WARNING: Do not put your fingers between the chipper hopper and the interior funnel while lowering the chipper hopper. They will get pinched.

Unlock and rotate the exit chute to the desired direction, then tighten the lock handles.

If operating the 3107C free standing without a towing vehicle, use the swivel jack to support the tongue and hold the 3107C level. Use tire chocks to prevent the 3107C from rolling.

If operating on a grade, chock the tires to prevent the 3107C from rolling. The 3107C may be left connected to a towing vehicle or operated free standing.

SEE FIGURE: 3107C MAJOR OPERATING COMPONENTS on the previous page.

STARTING AND STOPPING THE ENGINE

Check engine oil:

The engine manufacturer, Vanguard™, recommends that the engine oil be checked daily, prior to use and after every 8 hours of use. Keep the engine oil level at FULL. Do not overfill.

Use the ENGINE OIL DIPSTICK shown in the diagram above to check the engine oil level.

1. Engine must be off and on level surface, clean around oil fill and dipstick.
2. Remove dipstick and wipe clean with a cloth.
3. Push dipstick all the way back in and remove to check oil level.
4. If oil is needed add slowly, using full synthetic 5w30 or 10w30 motor oil. Please notify the owner what kind of oil was added and how much when the 3107C is returned.
5. Fill to FULL line on dipstick.(If needed)
6. Replace dipstick firmly.

Starting the engine:

1. Open fuel shut-off valve
2. Move choke control to CHOKE or START (if EFI, there is no Choke)
3. Place throttle in slow or at low idle speed
4. Push Rocker switch to ON or RUN (IF EQUIPPED)
5. Insert key and turn to START
6. Allow engine to warm up
7. Slowly adjust the choke toward RUN position. Wait until engine runs smoothly before each choke adjustment.

Stopping the engine:

This machine is equipped with a centrifugal clutch which will keep the engine turning until the chipper flywheel RPM is slowed. Do not close throttle on engine until flywheel stops spinning. Engine damage may occur if throttle is closed before flywheel stops spinning.

1. Leave engine speed at FAST or wide open throttle
2. Turn key to OFF position to shut down engine. DO NOT CLOSE THROTTLE
3. Allow the chipper flywheel to come to a complete stop
4. Reduce throttle to slow or idle. Remove key and store out of reach of children.
5. Close fuel shut-off valve.

NOTICE: Failure close the fuel shut-off valve may damage the engine and void the engine warranty.

ENGAGING THE CLUTCH

Engaging the centrifugal clutch:

1. With engine running, slowly increase throttle until centrifugal clutch is engaged
2. Continue increasing throttle until at full Engine and Flywheel RPM.

FEEDING MATERIAL

To prevent the 3107C from clogging:

- DO allow the chipper a moment to get back up to speed between feeding cycles.
- DO run the engine at full throttle.

- DO NOT feed material that is too large for the 3107C into the feed chute

Feeding the chipper:

Pull the feed wheel handle towards the operator to start the feed wheel hydraulic motor. Feed the chipper hopper with tree limbs and branches up to 7 inches thick. Feed large leafy branches so that the leaves will be the last part in the chipper.

If equipped with the Electronic Feed System, the flashing signal light will start when the engine is started. The light will continue to flash until the flywheel is up to full RPM, then it will stop flashing. If the flywheel speed is reduced due to operating load or if the safety bar is leaned into, the feed wheel will stop feeding and the signal light will start flashing again.

The automatic feed system will slow or stop the feed wheel if the Flywheel slows down to a pre-set RPM. Allow the Flywheel and Engine to return to full RPM before feeding additional material.

NOTICE: ONLY PUT WOOD AND PLANT MATERIALS IN THE 3107C, OTHER MATERIALS WILL DAMAGE THE MACHINE.

CLEARING DEBRIS CLOGS FROM THE 3107C



DANGER: Never reach into the 3107C, while running or capable of running. Reaching into the 3107C will result in death or serious injury. The 3107C must be rendered inoperable to reduce the chance of injury before attempting to clear mulcher clogs.

Chipper feed chute clogs: A branch has become stuck in the chipper hopper:

If the branch is extending outside of the chipper hopper:

DO NOT reach into the chipper hopper. Reverse feed wheel by pulling the feed handle away from the machine and towards the operator. Grab the branch and remove or reposition it as necessary.

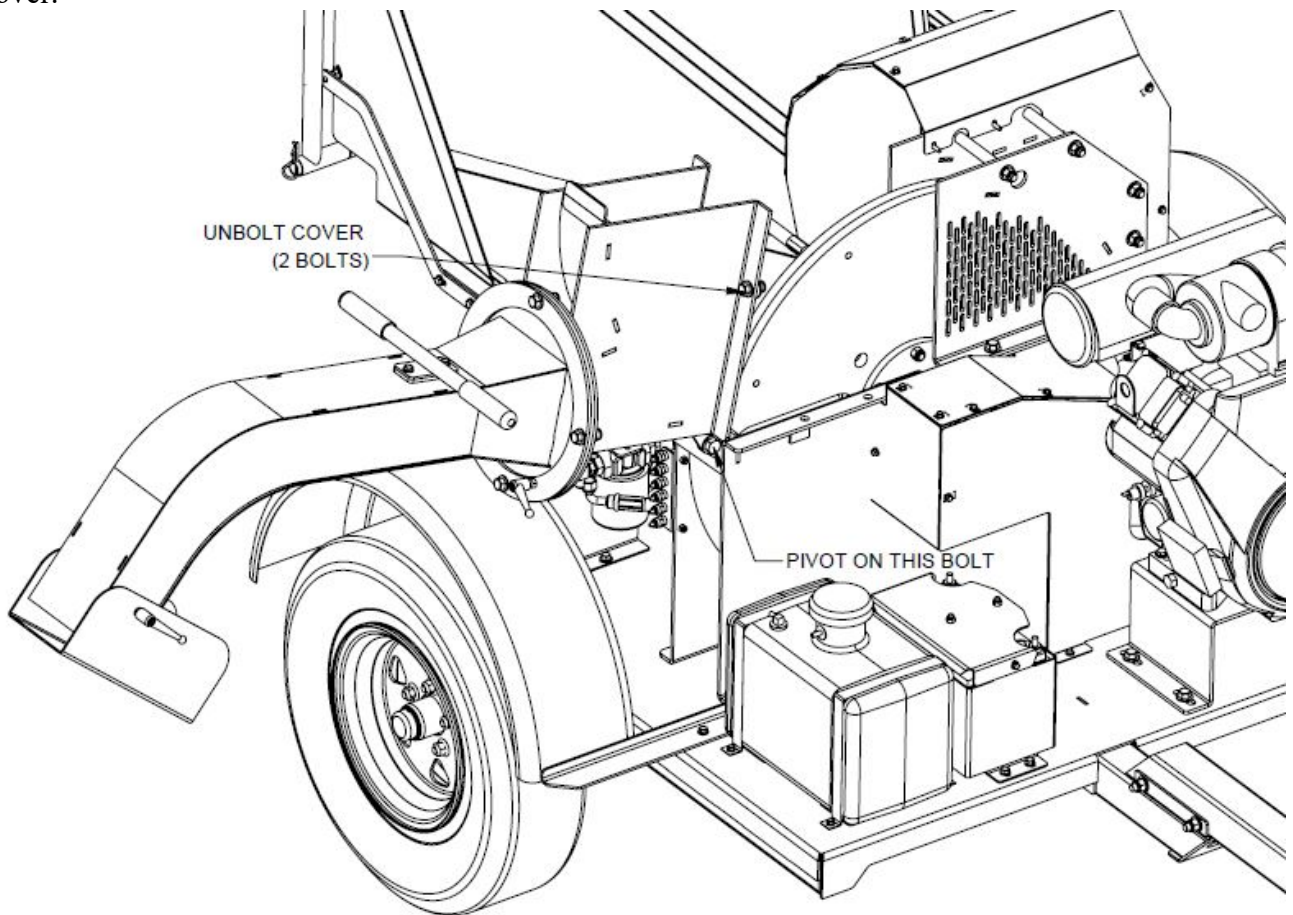
If the branch is inside the chipper hopper:


A longer branch or piece of wood may be used to attempt to remove or reposition the stuck branch.

If unable to remove the stuck branch with a longer branch or piece of wood:

Turn off the engine, remove the key and wait for the rotor to stop.

Remove the two bolts holding the exit spout frame and pivot the exit spout away from the machine on the hinged pivot. Rotate the wheel by hand and remove any clogged material inside the wheel cover.

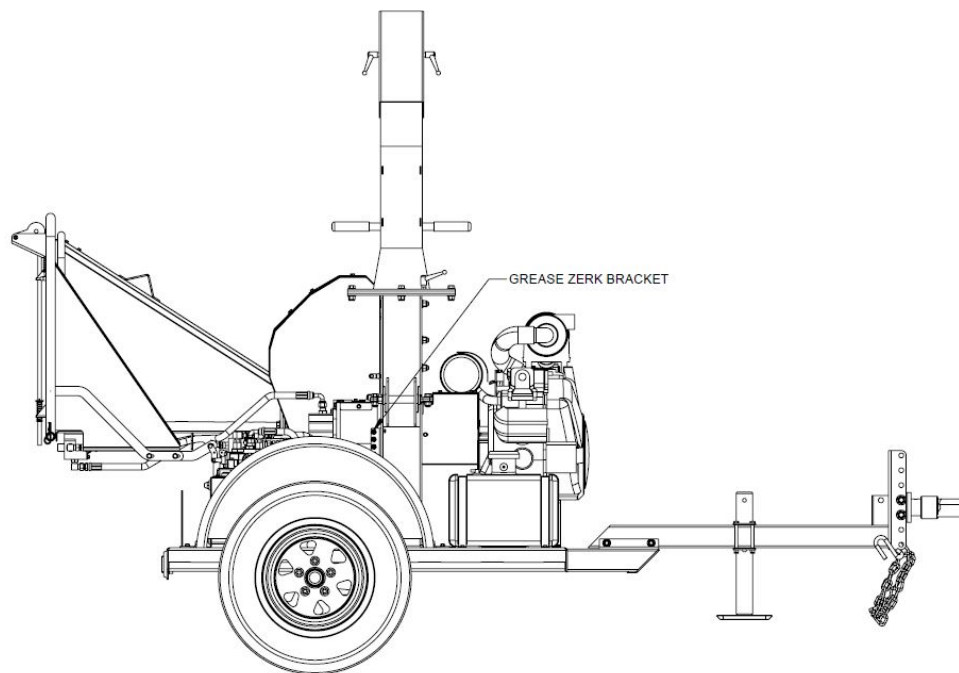


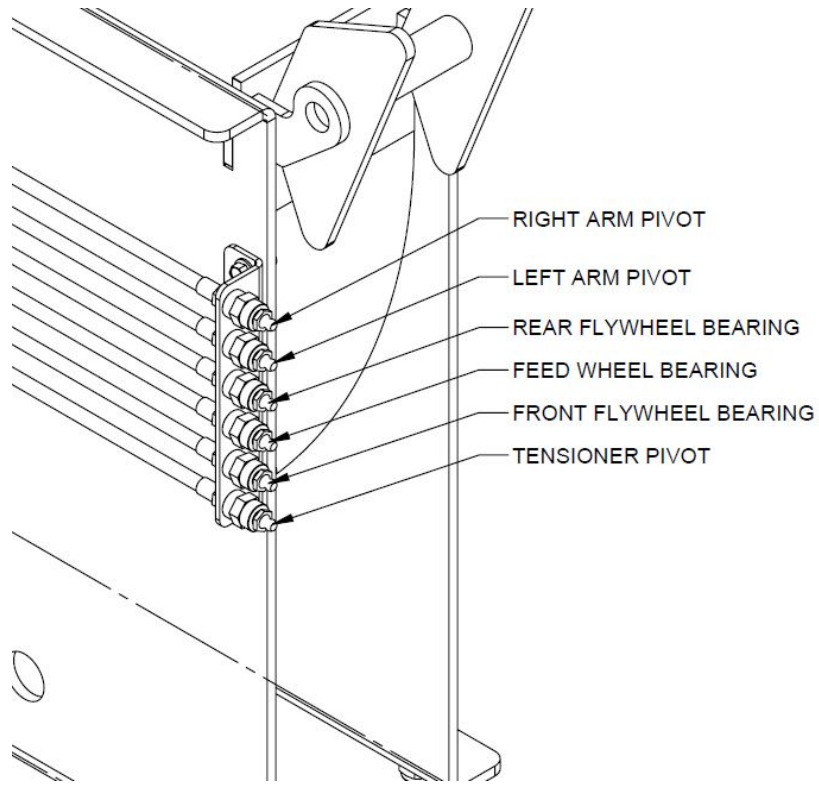
 **WARNING:** DO NOT use your fingers, hands or any other body part to turn the chipper disk. The chipper is heavy and has sharp blades.

LUBRICATION / GREASE REQUIREMENTS

The 3107C has all of the grease zerks in one location on the right side of the machine. The machine should be greased as follows:

1. Arm pivots- Weekly or every 25 hours of use
2. Feed wheel bearing- Daily or every 6 hours of use
3. Flywheel bearings- Daily or every 6 hours of use
4. Tensioner pivot- Weekly or every 25 hours of use





MACHINE SPECS

DIMENSIONS (STD)

Operating length	146 in	3.71 m
Travel length	120 in	3 m
Width	70 in	1.78 m
Height	88"	2.24 m
Weight	1890 lb	857.29 kg

ENGINE

Briggs Vanguard (HP: 31)	31 hp V-Twin	31 hp V-Twin
Fuel	Gas	Gas
Number of cylinders	2	2
Fuel tank capacity	5 gal	5 gal
Recommended oil	10W-30	10W-30

FEED SYSTEM

Feed roller dimension	8.2 in	20.8 cm
Rows of teeth	8	8
Feed speed	123 fpm	403.54 mpm
Infeed table width	41 in	1.04 m
Infeed table height	25 in	.64 m
Infeed throat capacity	7 in x 8 in	17.8 cm x 20.1 cm

SAFETY SYSTEM

Eaton limit switch for cover removal		
--------------------------------------	--	--

ELECTRICAL SYSTEM

System voltage	12 V	12 V
Battery - Group 34	700 CCA	700 CCA

DISCHARGE SYSTEM

Chute height	87 in	2.21 m
Chute rotation angle	360 degrees	360 degrees
Rotation type	manual	manual

CHASSIS

Hitch type	2 in ball	5.1 cm ball
Fender description	steel bolt on	steel bolt on
Axle/suspension	torsion axle	torsion axle
Capacity	2200 lbs	998 kg
Tires	205/75	105/75
Wheels	14 in 5 holes	36.8 cm 5 holes
Trailer light type	Oval	Oval
Tongue	steel bolt on	steel bolt on

CUTTING SYSTEM

Material capacity	7 in	17.8 cm
Width	8 in	20.1 cm
Thickness	1.5 in	3.81 cm
Diameter	30 in	76.2 cm
Speed	2150 rpm	2150 rpm
Number of knives	2	2
Usable edges	2	2
Cutting wheel weight	275 lb	124.7 kg