



OPERATORS MANUAL

POWER OX 220A



Manufactured by
Tilmor LLC.
Made in the USA
Dalton, Ohio 44618

Original Operator's Manual

12-10003 Rev.02

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INTRODUCTION



Tilmor LLC. is pleased to provide you with your new Tilmor Power Ox 220A!

Please visit our website, www.tilmor.com for a complete list of available Tilmor products, and resources.

Product Description

The Power Ox 220A Two Wheel Tractor Is designed for planting, cultivation, and light hilling. The Power Ox 220A is powered by a Briggs and Stratton 550 series engine with 6:1 gear reduction. It is a well balanced machine with 11" + of ground clearance. The handle bar height is adjustable, making the tractor easy to use and comfortable for the operator. The Power Ox 220A is available in multiple configurations: Narrow frame with skinny tires designed for 15" row crop cultivation. Narrow frame with fat tires designed for more flotation in sandier soils on 18-20" rows. The wide frame configuration gives 36" between the tires and is designed to straddle a 30" bed and bed shoulder.

Why Do I Need an Operator's Manual?

This manual has been created to help you gain the important knowledge of what is needed to safely operate, maintain, and service your machine. It is divided into sections for convenient reference of the appropriate section.

You must read and understand the operator's manual for each piece of Tilmor equipment you own. Reading the operator's manual will help you become familiar with each specific piece of equipment. Understanding the operator's manual will help you, as well as others, avoid personal injury and/or damage to the equipment. Keep this manual with the machine at all times. The manual should remain with the machine even if it is sold. If this manual becomes damaged or unreadable, it should be replaced immediately. This manual is available on our website at www.tilmor.com

When using a Tilmor attachment, be sure to read and follow the safety and operating instructions of both the power unit and the attachment being used to ensure the safest operation possible.

The information in this manual provides the operator with the safest procedures to operate the machine while getting the maximum use out of the unit. Failure to follow the safety precautions listed in this manual may result in personal injury and/or damage to the equipment.

INTRODUCTION

Using Your Manual

Throughout this manual, you will encounter special messages and symbols that identify potential safety concerns to help you as well as others avoid personal injury or damage to the equipment.

SYMBOL DEFINITIONS



ATTENTION

This symbol identifies potential health and safety hazards. It marks safety precautions. Your safety and the safety of others is involved.

There are three signal words that describe the level of safety concern: Danger, Warning, and Caution. Safety should always be the #1 priority when working on or operating equipment. Accidents are more likely to occur when proper operating procedures are not followed or inexperienced operators are involved.

Note: Right-Hand and Left-Hand orientations may be referred to at different places throughout this manual. Right-Hand and Left-Hand is determined as if facing forward from the operator station.

SIGNAL WORD DEFINITIONS

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme cases.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage. It may also be used to alert against unsafe practices.

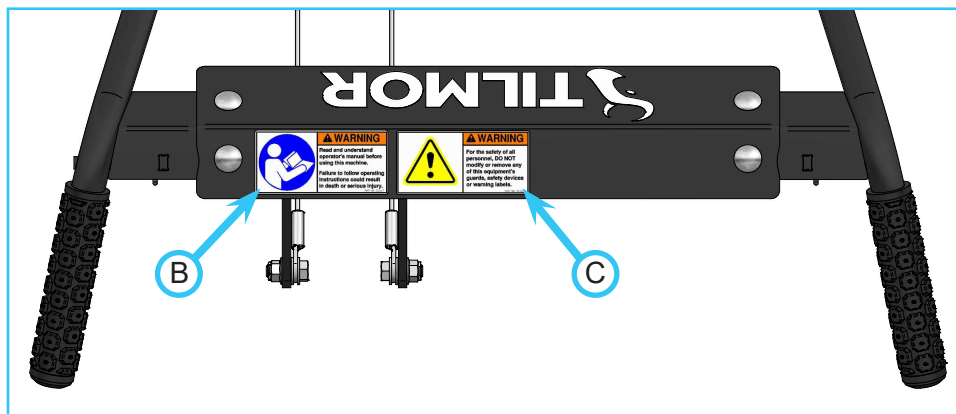
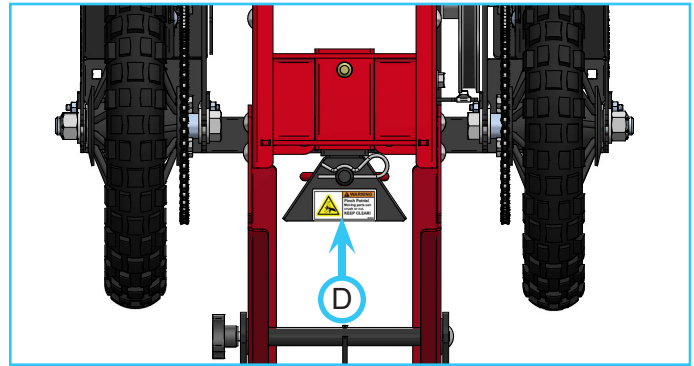
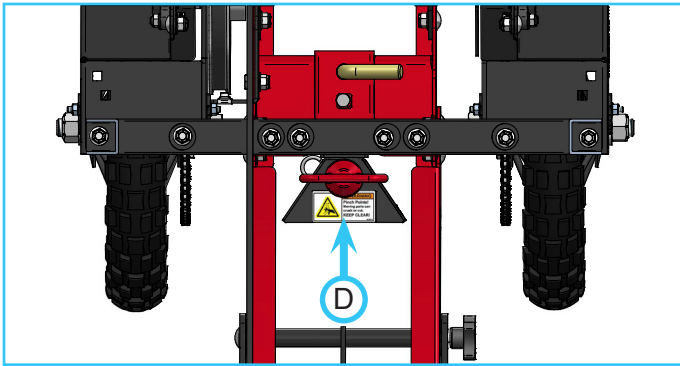
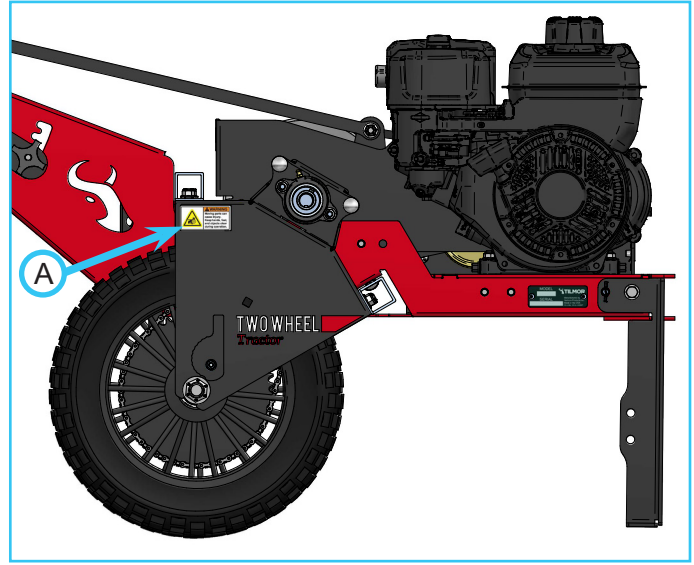
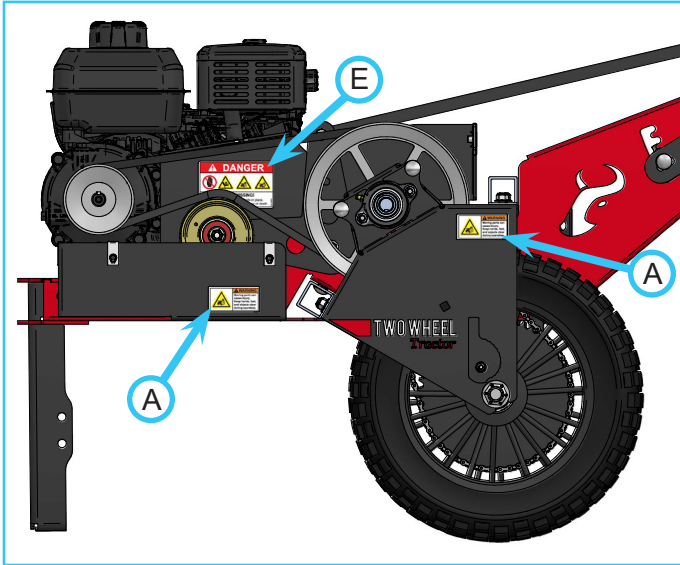
Manual Glossary

Power Unit	A Tilmor tractor or other Tilmor engine powered device that may be operated by itself or with an attachment or accessory.
Implement	A piece of Tilmor equipment that requires a Power Unit for operation.
Accessory	A device that attaches to a Power Unit or Attachment to extend its capabilities.
Machine	Describes any "Attachment" or "Accessory" that is used in conjunction with a power unit.

SAFETY

Safety Decals

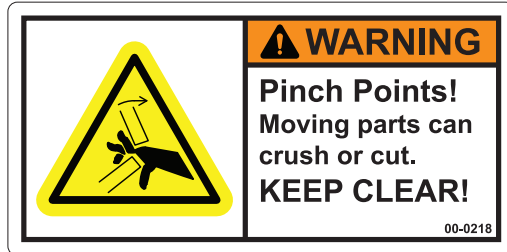
The following safety decals must be maintained on your Tilmor Power Ox 220A. Keep all safety decals legible. Remove all grease, dirt, and debris from safety decals and instructional labels. If any decals are faded, illegible, or missing, visit www.tilmor.com or call 1-844-255-5864 for replacements. When replacement or new components are installed, be sure that current safety decals are affixed to the replacement or new part.



SAFETY

General Safety Procedures for Tilmor Tractors, Attachments, & Accessories

A



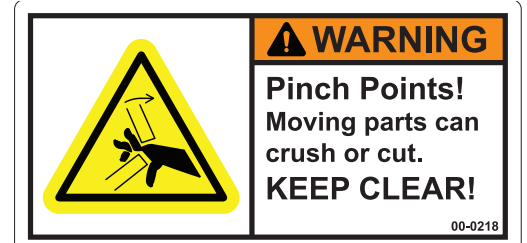
B



C



D



E



Decal	Description	Part Number	Quantity
A	Warning, Moving Parts	00-0216	3
B	Warning - Read Owners Manual	00-0217	1
C	Warning - General Safety	00-0220	1
D	Warning - Pinch Point	00-0218	2
E	Danger Shield Missing	00-0492	1

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Training Required

- The owner of this machine is solely responsible for properly training the operators.
- The owner/operator is solely responsible for the operation of this machine and prevention of accidents or injuries occurring to him/herself, other people, or property.
- Do not allow operation or service by children or untrained personnel. Local regulations may restrict the age of the operator.
- Before operating this machine, read the operator's manual and understand it's contents.
- If the operator of the machine cannot understand this manual, then it is the responsibility of this machine's owner to fully explain the material within this manual to the operator.
- Learn and understand the use of all of the controls.
- Know how to stop the power unit and all attachments quickly in the event of an emergency.



Personal Protective Equipment Requirements

It is the responsibility of the owner to be sure that the operators use the proper personal protective equipment while operating the machine. Required personal protective equipment includes but is not limited to the following list.



- Wear a certified ear protection device to prevent the loss of hearing.
- Prevent eye injury by wearing safety glasses while operating the machine.
- Closed toe shoes must be worn at all times.
- Long pants must be worn at all times.
- When operating in dusty conditions, it is recommended that a dust mask be worn.

Operation Safety

- Inspect all equipment before operation. Repair or replace any damaged, worn, or missing parts. Be sure all guards and shields are in proper working condition and are secured in place. Make all of the necessary adjustments before operating the machine.
- Some pictures in this manual may show shields or covers opened or removed in order to clearly illustrate any instructions. Under no circumstance should the machine be operated without these devices in place.
- Alterations or modifications to this machine can reduce safety and could cause damage to the machine. Do not alter safety devices or operate with shields or covers removed.
- Before each use, verify that all controls function properly and inspect all safety devices. Do not operate if controls or safety devices are not in proper working condition.
- Observe and follow all safety decals.
- Ensure all attachments or accessories are locked or fastened securely before operation.
- Ensure that all bystanders are clear of the machine before operation. Stop the machine if someone enters your work area.
- Always be alert to what is happening around you, but do not lose focus to the task you are performing. Always look in the direction the machine is moving.
- If you hit an object, stop and inspect the machine. Make all necessary repairs before continuing operation of the machine.
- Stop operation immediately at any sign of equipment failure. An unusual noise can be a warning of equipment failure or a sign that maintenance may be required. Make all necessary repairs before continuing operation of the machine again.
- Do not leave the machine unattended while it is running.
- Always park the machine on level ground.
- Always shut off the engine when connecting the attachments to the power unit.

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Operation Safety (continued)

- Never leave equipment unattended without shutting off the engine.
- Only operate in well-lit conditions.
- Do not operate when there is a risk of lightning.
- Do not run the engine in a building without adequate ventilation.
- Do not touch the engine or the muffler while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Do not change the engine governor settings or over-speed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- To reduce the hazard of fire, keep the engine, and muffler areas free of grass, leaves, excessive grease, and other flammable materials.

Preventing Accidents



- Clear working area of objects that might be hit or thrown from the machine.
- Keep people and pets out of working areas.
- Know the work area well before operation. Do not operate where traction or stability is questionable.
- Reduce speed when you are operating over rough ground.
- Equipment can cause serious injury and or death when improperly used.
- Before operating understand the operation and safety of the power unit and attachment being used.
- Do not operate the machine if you are not in good physical and mental health, if you will be distracted by personal devices, or are under the influence of any substance that may impair decision, dexterity, or judgement.
- Children are attracted to machine activity. Be aware of children and do not allow them in the working area. Turn off the machine if a child enters the work area.



Keep Riders Off

- The tractor is not designed to have riders of any kind on the tractor, attachments, or attached tools.

Truck or Trailer Transport

- Use full width ramps for loading the machine into a truck or trailer.
- Always secure the power unit and/or attachment to the transporting vehicle securely using straps, chains, cable, or ropes.
- Both front and rear straps should be directed down and outward from the machine.
- Shut off fuel supply to the power unit during transport on a truck or trailer.

Maintenance

- Keep all safety decals legible. Remove all grease dirt, and debris from safety decals and instructional labels.
- If any decals are faded, illegible, or missing, visit www.tilmor.com.
- When new components are installed, be sure that current safety decals are affixed to the replacement components.
- If any component requires replacement use only original Tilmor replacement parts.
- Keep all bolts, nuts screws and other fasteners properly tightened.
- Always ensure the kickstand is lowered or the power unit is supported, and shut off engine. Make sure all moving parts have come to a complete stop before cleaning, inspecting, adjusting, or repairing.

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Maintenance (continued)

- Never perform maintenance on the power unit and/or implement if someone is in the operator's station.
- To reduce the hazard of fire, keep the engine and muffler areas free of grass, leaves and excessive grease.
- Do not touch the engine, the muffler, or other exhaust components while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Allow the engine to cool before storing and do not store near an open flame.
- Do not change the engine governor settings or over-speed the engine. Operating engine at excessive speed may increase the hazard of personal injury.
- Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring loaded components.
- An obstruction or blockage in a drive system or moving/rotating parts may cause a build up of stored energy. When the obstruction or blockage is removed, the drive system or moving/rotating parts may move suddenly. Do not attempt to remove an obstruction or blockage with your hands. Keep hands, feet, and clothing away from all power driven parts.
- Dispose of all fluids in accordance with local laws.

Fuel Safety

- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Do not refuel the machine while smoking or at a location near flames or sparks.
- Always refuel the machine outdoors.
- Do not store the machine or fuel container indoors where the fuel or fumes can reach an open flame, spark, or pilot light.
- Only store fuel in an approved container. Keep out of reach of children.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove the machine from the truck or trailer and refuel it on the ground. If this is not possible, refuel the machine using a portable container, rather than from a fuel dispenser nozzle.
- Never remove the fuel cap or add fuel with the engine running. Allow the engine to cool before refueling.
- Never remove the fuel cap while on a slope. Only remove when parked on a level surface.
- Replace all fuel tank and container caps securely.
- Do not overfill the fuel tank. Overfilling of the fuel tank could result in engine flooding, fuel leakage from the tank, or damage to the emissions control system.
- If fuel is spilled, do not attempt to start the engine. Move the power unit away from the fuel spill and avoid creating any source of ignition until fuel vapors have dissipated.
- If the fuel tank must be drained, it should be drained outdoors into an approved container.
- Dispose of all fluids in accordance with local laws.
- The fuel system is equipped with a shut-off valve. Shut off the fuel when transporting the machine to and from the job, when parking the machine indoors, or when servicing the fuel system.

SAFETY



Power Ox 220A Tractor Safety Procedures



- Do not remove any safety guards.
- Do not operate the Power Ox 220A without all shields properly installed.
- Do not operate the Power Ox 220A without a tool installed in the receiver hitch.
- Moving parts can cause injuries. Keep hands and feet clear of moving parts.
- Pinch points: some parts can pinch or crush. Keep clear of pinch points and use caution during operation of the Power Ox 220A.
- Clear the area of all obstacles, hazards, and personnel before operating the Power Ox 220A.
- Do not modify the Power Ox 220A in any way. Modifying the Power Ox 220A could cause injury or damage to equipment. Any modification made to the Power Ox 220A will void any warranty.



WARNING

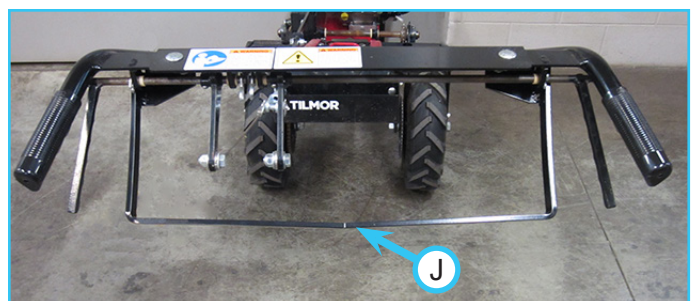
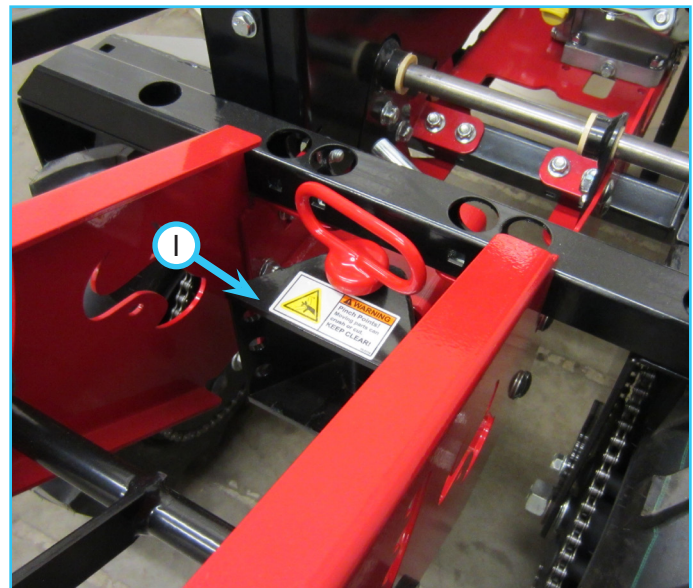
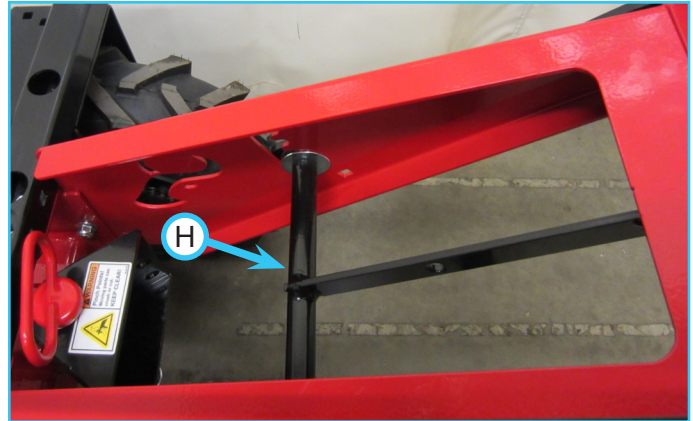
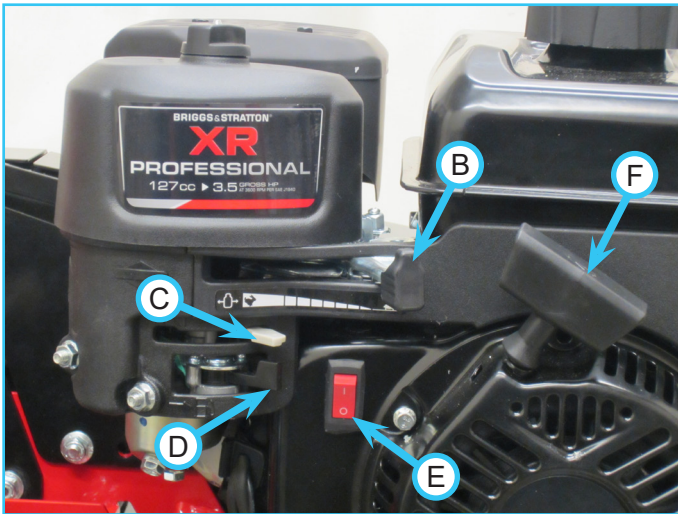
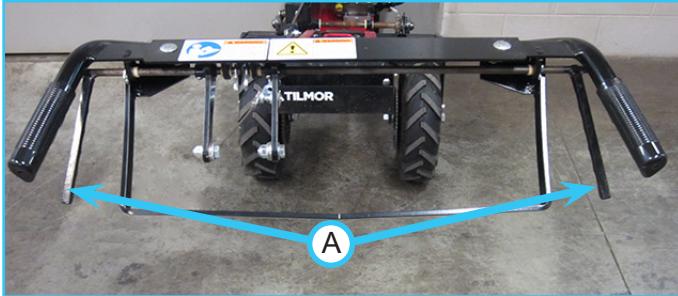
Operating, servicing and maintaining off-road equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing equipment.

For more information go to
www.P65Warnings.ca.gov.

OPERATIONAL CONTROLS

Standard Operational Controls

Use the following images to help identify the locations of operational controls. The letter next to each control can be referenced to the list that follows these images.



- A. Drive Control Handles
- B. Throttle Control
- C. Choke
- D. Fuel Shutoff
- E. Stop Switch
- F. Starter Cord Handle
- G. Handle Height Adjustment Knob
- H. Handle Height Adjustment Mechanism
- I. Receiver Hitch
- J. Drive Control Handle Guard

GENERAL OPERATION

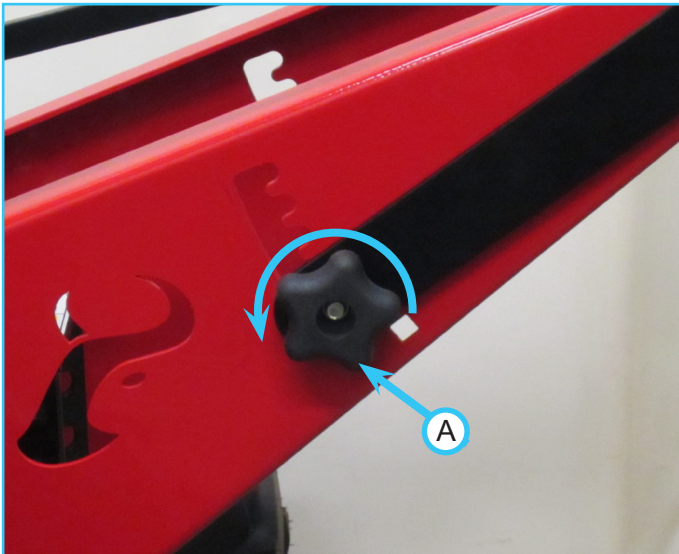
Handlebar Adjustment

The Power Ox 220A has a height adjustable handlebar to increase operator control and comfort. The following steps describe how to adjust the handlebars.

⚠ CAUTION

After adjusting the handlebars it may be necessary to adjust the drive control linkage. Failure to adjust the drive control linkage could result in over tightening of the drive control linkage will prevent the belt tensioner from disengaging, resulting in tractor movement on startup. Bodily injury or damage to equipment may occur.

1. Loosen the handlebar adjustment knob (A).

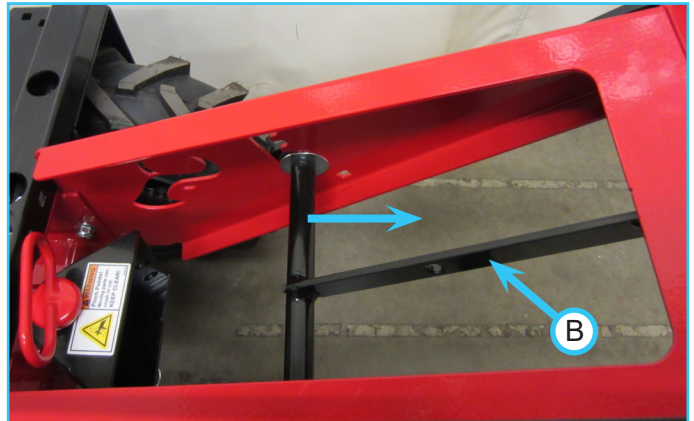


2. Pull the adjustment mechanism (B) toward the engine to disengage the mechanism from the notches.

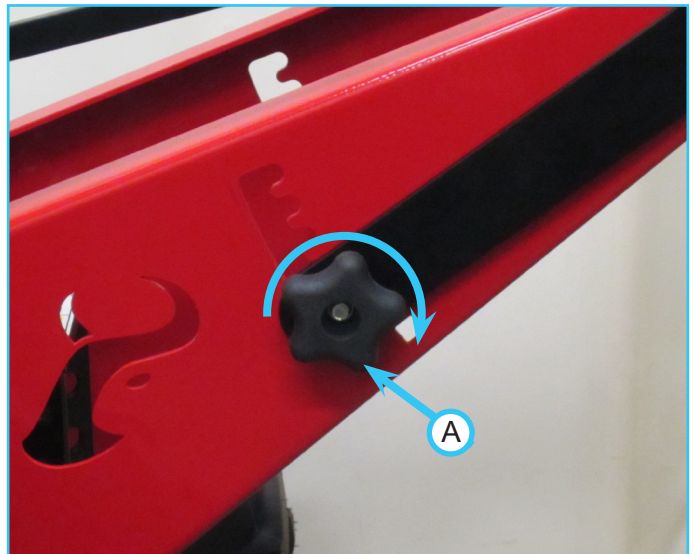


3. Raise or lower the handlebars to the desired height.

4. Push the adjustment mechanism (B) away from the engine to engage the notches. Ensure that the mechanism is fully seated in the notches.



5. Tighten the adjustment knob (A) to secure the handle bars and adjustment mechanism in place.



6. Adjust the drive control linkage as required, in accordance with the drive control linkage adjustment procedure in this manual.

GENERAL OPERATION

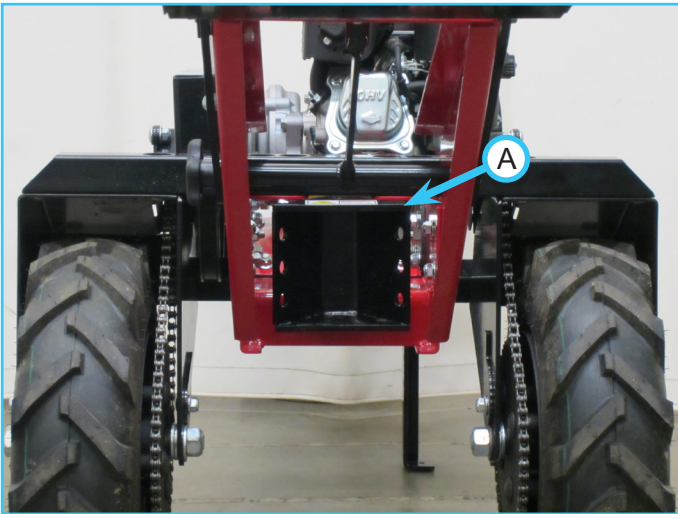
Receiver Hitch Use

The Power Ox 220A has an adjustable receiver hitch to easily connect and disconnect tools. The following steps describe how the receiver hitch can be installed based on the height of the tool or increased ground clearance.

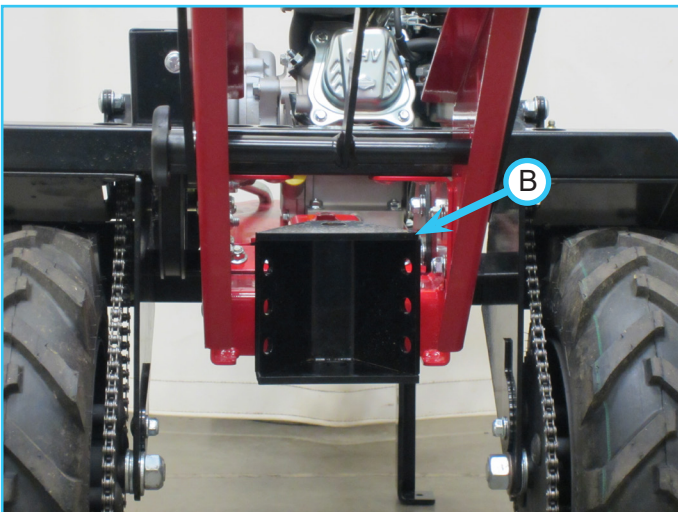
⚠ WARNING

Always shut off power unit engine, and ensure all moving parts have come to a complete stop before adjusting the hitch, installing, or removing an implement.

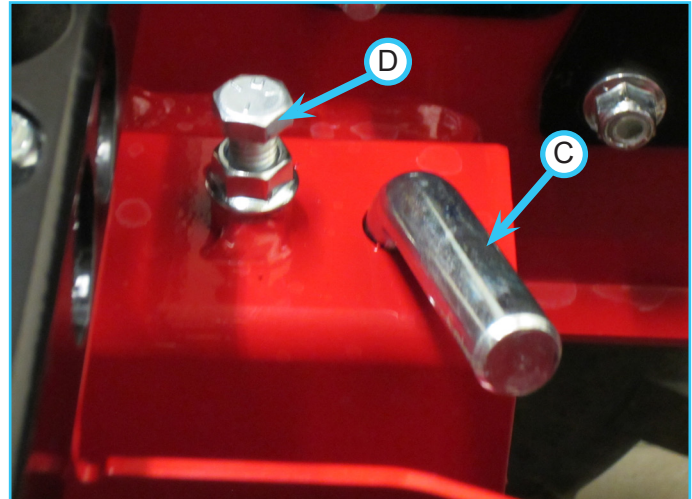
1. Install the hitch in the standard elevated position (A) for increased ground clearance.



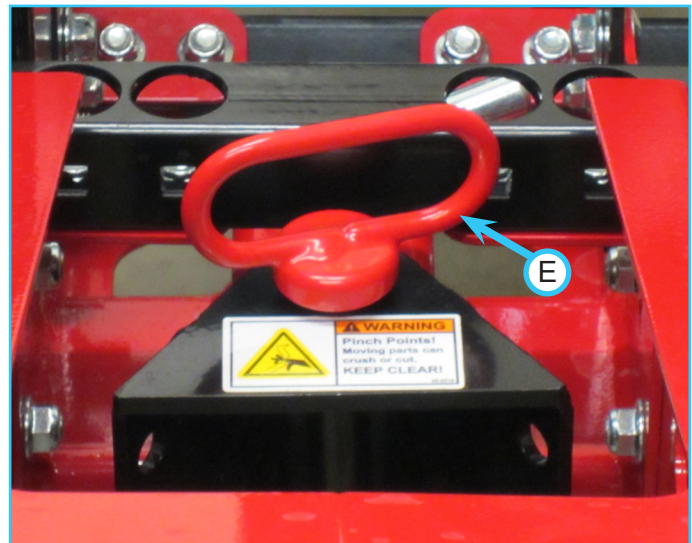
2. The hitch can be installed in the lower position (B) if needed by simply flipping the receiver over.



3. In both configurations the hitch receiver is secured in position using a 5/8" hitch pin (C) placed through the frame secured in place with a hair pin placed through the bottom of the hitch pin. Tighten the 3/8" bolt (D) to hold the hitch receiver steady.



4. The connected tool is held in place using a 3/4" hitch pin (E) secured in place with a hair pin placed through the bottom of the hitch pin.



GENERAL OPERATION

Daily Inspection

WARNING

Always shut off power unit engine, and ensure all moving parts have come to a complete stop before inspecting components, or attempting any repair or adjustment.

1. Park the power unit on a level surface, with the engine shut off and all fluids cold.
2. Refer to the power unit engine operator's manual. Check the power unit's engine oil level, clean the area around the muffler and controls, and clean the finger guard. Add fluid or service as required.
3. Perform a visual inspection of the tractor and any attachments. Look for loose or missing hardware, damaged components, or signs of wear.
4. Grease the two drive axle flange bearings before each use.
5. Apply a penetrating lubricant to the chain and upper sprockets.

NOTE: The sprocket guards may need to be removed to properly lubricate the sprockets. Re-install the sprocket guards before operating the tractor.

6. Check the tire pressure. Ensure that each tire is inflated to the pressure marked on the tire.
7. Apply a rust preventative lubricant to the exposed section of the drive shaft as needed.
8. Check the drive chain tension on both wheels.

Operating Procedure

Before operating the power unit for the first time, please review the Safety and Operational Controls sections in this manual.

WARNING

Before Operating the Power Ox 220A for the first time, ensure that the engine has had oil added in accordance with the Briggs and Stratton operators manual. Failure to do so could result in damage to the engine.

1. Perform the daily inspection procedure to confirm that the power unit is in good operating condition.
2. Adjust the handlebars to the desired height. Ensure that the handle bar adjustment mechanism is locked in position and the adjustment knob is tightened securely.



Attention

Do not operate the tractor without a tool installed in the receiver hitch.

3. Install the desired tool to the tractor hitch. Ensure that the hitch pin is fully installed and secured in place with the hair pin.
4. Start the engine in accordance with the starting the engine procedure in this manual.
5. Engage the drive system and begin forward movement. Firmly grasp the handle bar with one hand. Using the other hand slowly apply upward pressure to the drive control handle towards the handlebar grip.
6. To stop forward movement release the drive control handle.

GENERAL OPERATION

Starting the Engine

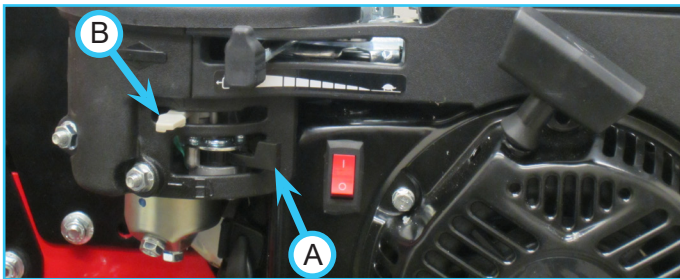
⚠ WARNING

Before Starting the Power Ox 220A for the first time, ensure that the engine has had oil added in accordance with the Briggs and Stratton operators manual. Failure to do so could result in damage to the engine.

⚠ CAUTION

Do not use ether or starting fluids. Use of starting fluids in the air intake system may be potentially explosive or cause a runaway engine condition. Use of starting fluids could result in engine damage and/or personal injury.

1. Ensure that the power unit is parked on a level surface.
2. Ensure that a tool or implement is installed in the hitch receiver.
3. Ensure that the drive control handles are disengaged.
4. Move the fuel shutoff lever (A) to the on position.



5. Move the choke control lever (B) to the choke position.
- NOTE:** Choke is usually unnecessary when restarting a warm engine.
6. Move the throttle control lever to the fast position.
 7. Move the stop switch to the 'ON' position.

⚠ WARNING

Rapid retraction of the starter cord (kickback) will pull your hand and arm toward the engine causing injury to the operator. When starting the engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.

8. Firmly hold the starter cord handle. Pull the starter cord handle slowly until resistance is felt, then pull rapidly.
9. Move the choke to the off position.

Stopping the Engine

1. Move the stop switch to the stop position, or move the throttle control lever to the slow position and the stop switch to the stop position.
2. Move the fuel shutoff lever to the off position.

Storage

Preparing the Power Ox for Storage

⚠ CAUTION

Do not use high pressure water to clean the tractor. High pressure water can force its way into bearings and other components causing damage to equipment.

1. Clean or wash the power ox to remove any accumulated dirt and debris.
2. Apply a rust preventative lubricant to the exposed section of the drive shaft. The drive shaft is bare steel and if exposed to moisture could rust.



Attention

Fuel can become stale when stored over 30 days. Stale fuel causes acid and gum deposits to form in the fuel system or on essential carburetor parts.

3. Use a fuel stabilizer. The recommended fuel stabilizer is Briggs & Stratton FRESH START fuel stabilizer.
4. Change the oil in accordance with the Briggs & Stratton operators manual.

Removing the Power Ox from Storage

1. Perform a visual inspection of the power ox. Look for loose or missing hardware, damaged components, or signs of wear.



Attention

If any component requires replacement, use only original Tilmor replacement parts.

2. Grease and lubricate the lubrication locations identified in the service section of this manual.
3. Check the tire pressure. Ensure that each tire is inflated to the pressure marked on the tire.

SERVICE

WARNING

Always shut off power unit engine, and ensure all moving parts have come to a complete stop before inspecting components or attempting any repair or adjustment.



Attention

If any component requires replacement, use only original Tilmor replacement parts.

Service and General Maintenance

Proper and timely service of the Power Ox 220A is critical to keep the tractor in safe and reliable operating condition.

Cleaning and Appearance Care

For best results, and to maintain the finish of the power unit, clean or wash the power unit.



Attention

To maintain the finish of the Power Ox 220A, thoroughly wash the equipment after each use to remove any corrosive agents. Failure to clean the equipment may result in corrosion of (including but not limited to) steel, and aluminium.

CAUTION

If the engine has been running, it must be allowed to cool in order to prevent damage to the block and exhaust manifold.

Do not use high pressure water to clean the tractor. High pressure water can force its way into bearings and other components causing damage to equipment.

Allow the power unit and all components to cool before washing. Refer to the specific service section for proper cleaning techniques for the engine and engine compartment. Use mild soap and water to clean the power unit. Harsh chemical cleaners could cause damage to the finish or the components.

Engine Servicing

All engine servicing is to be completed in accordance with the Briggs & Stratton operators manual. The engine service intervals are listed below.

First 5 Hours

- Change engine oil.

Every 8 Hours or Daily

- Check engine oil level.
- Clean area around muffler and controls.
- Clean finger guard.

Every 25 Hours or Annually

- Clean air filter*.
- Clean pre-cleaner*.

Every 50 Hours or Annually

- Change engine oil.
- Inspect the muffler and spark arrester.

Every 100 Hours

- Change gear reduction oil (if equipped).

Annually

- Replace air filter.
- Replace pre-cleaner.
- Replace spark plug.
- Clean air cooling system*.

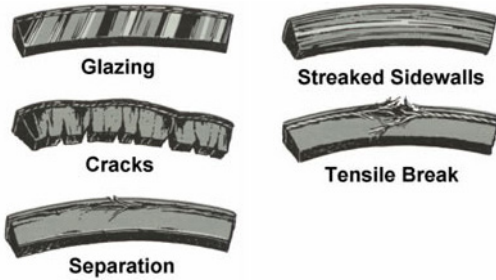
* In dusty conditions or when airborne debris is present, clean more often.

SERVICE

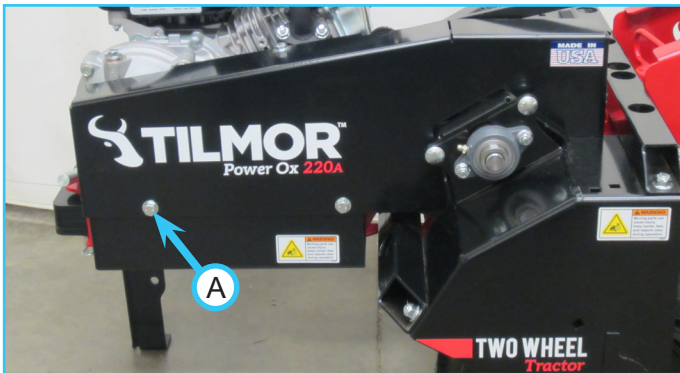
Belt Inspection

Inspecting the drive belt of the Power Ox 220A can prevent sudden belt failure by finding problems before they can cause a belt to break.

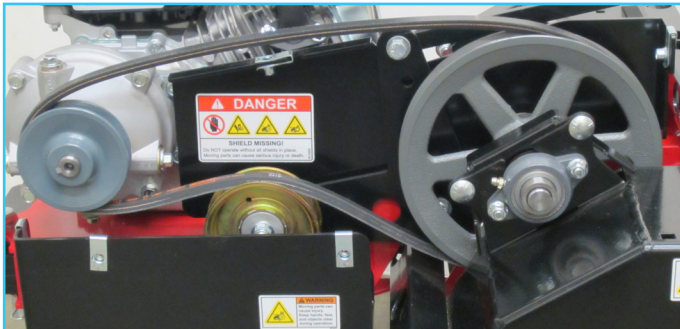
Typical wear on a drive belt may result in the conditions shown in the diagram. If any of these conditions occur, the drive belt will require replacement. To perform the belt inspection the following steps are provided.



1. Remove the belt and pulley cover by removing the five 5/16" hex bolts and washers (A) that secure the cover to the upper and lower cover mounts.



2. The belt can then be freely rotated by hand over the pulleys.
3. After the belt has been thoroughly inspected ensure that the belt is positioned over the pulleys as shown below.



4. Position the belt and pulley cover over the belt and pulleys and align the mounting holes.
5. Install the five 5/16" hex bolts and washers (A).
6. Torque the five bolts to 210 in-lbs (24 Nm).

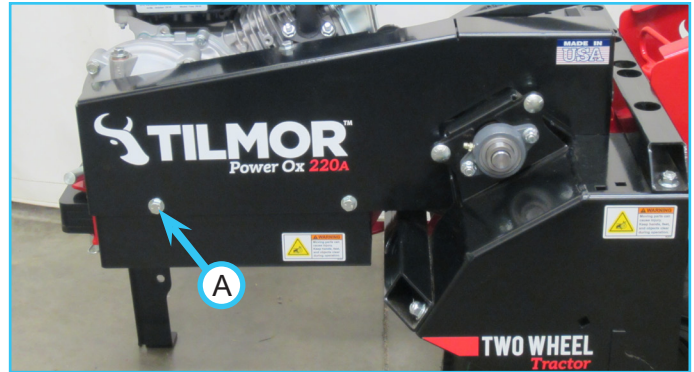
Belt Replacement Narrow Frame Unit

At some point it will be necessary to replace a worn belt. The following steps describe the process.

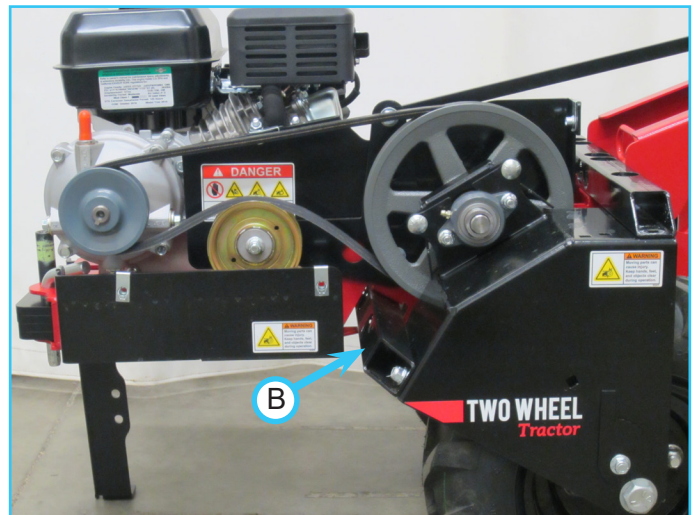
⚠ CAUTION

Ensure that the Power Ox 220A is securely supported. Failure to properly support the unit could result in damage to equipment or injury.

1. Support the unit with jack stands or another secure method, so that the left side wheel is off the ground.
2. With the unit securely supported, remove the belt and pulley cover by removing the five 5/16" bolts and washers (A).

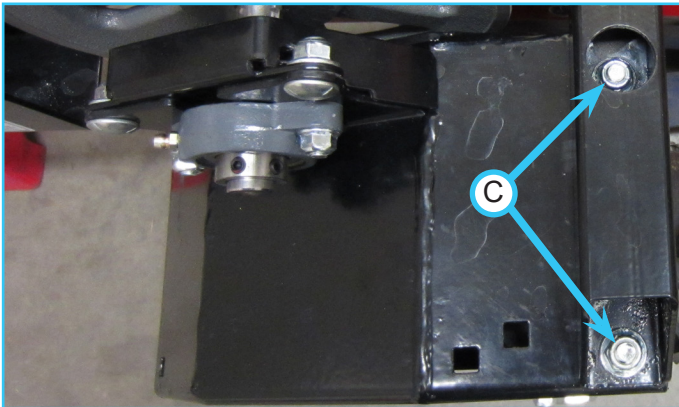


3. Remove the lower frame tube (B) by removing the eight 3/8" carriage bolts and lock nuts that secure it to the frame and fenders.

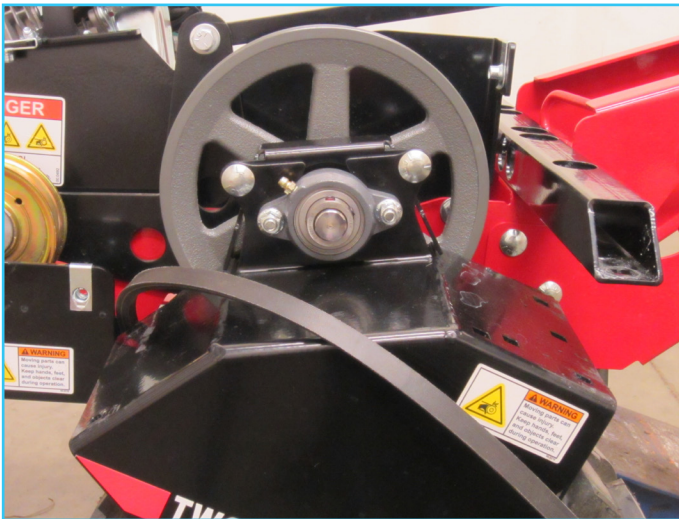


SERVICE

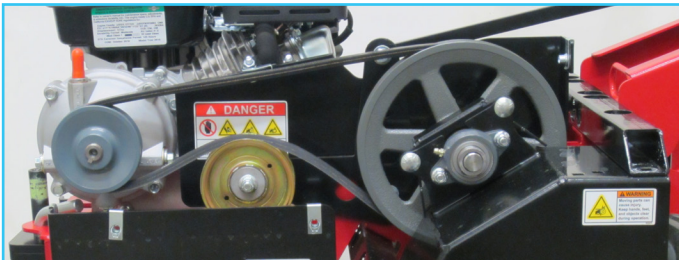
4. Remove the two 3/8" carriage bolts and locknuts (C) that secure the left fender assembly to the upper frame tube. Removing the bolts allows the fender assembly to rotate freely on the axle.



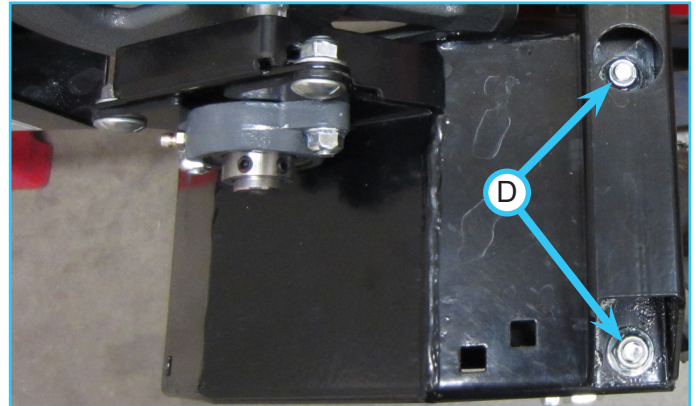
5. The belt can now be removed from the pulleys and routed over the fender assembly as shown below.



6. Route the new belt under the tire and over the fender assembly.
7. Install the new belt over the pulleys as shown.



8. Install the two 3/8" carriage bolts and locknuts (D) through the upper frame tube and fender.



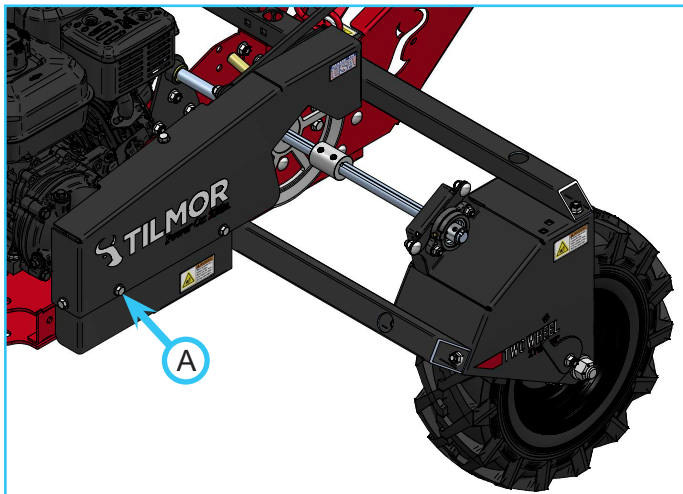
9. Torque the bolts to 31 ft-lbs (42 Nm).
10. Install the lower front frame tube. Install all eight 3/8" carriage bolts and lock nuts hand tight.
11. Torque the bolts to 31 ft-lbs (42 Nm) alternating between all of the bolts until the torque is reached.
12. Install the belt and pulley cover using the five 5/16" bolts and washers (E). Torque the bolts to 210 in-lbs (24Nm).



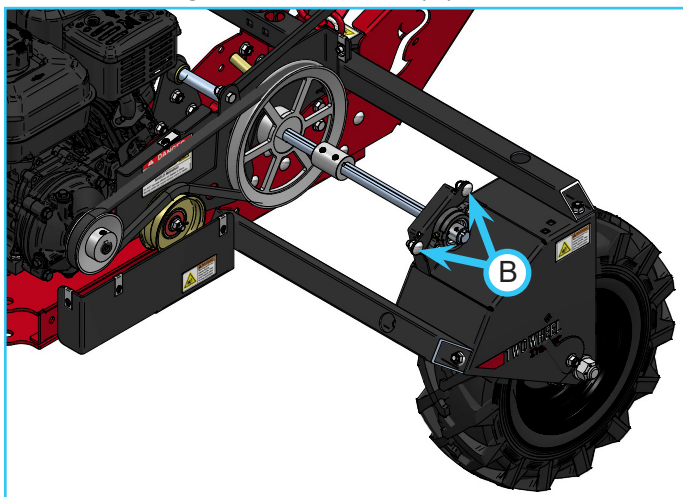
SERVICE

Belt Replacement Wide Frame Unit

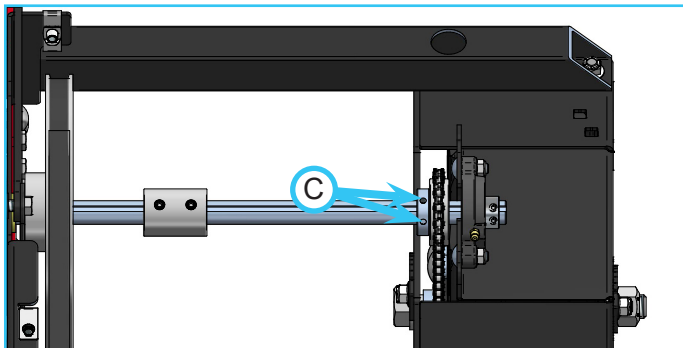
1. Remove the belt and pulley cover by removing the five 5/16" bolts and washers (A).



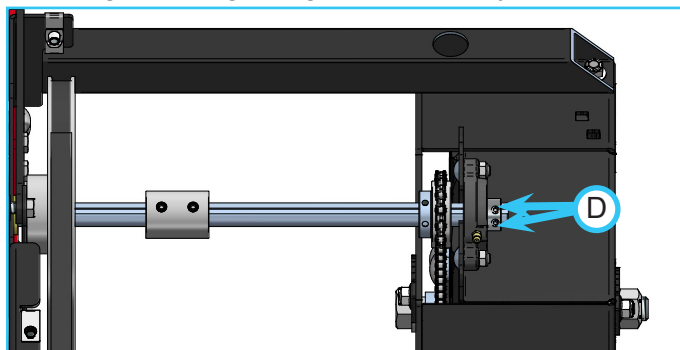
2. Remove the sprocket cover by removing the two 3/8" carriage bolts and nuts (B).



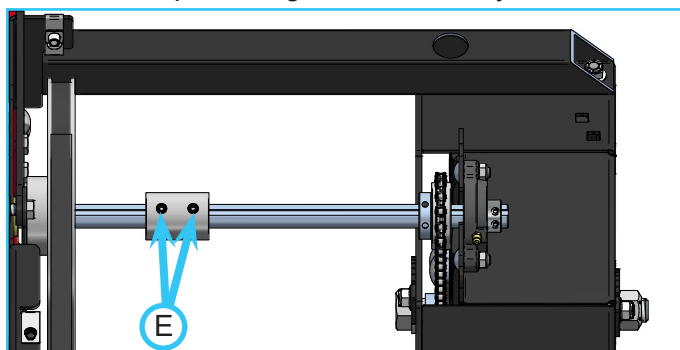
3. Loosen the two set screws (C) in the left shaft free wheel bushing using a 3mm hex key.



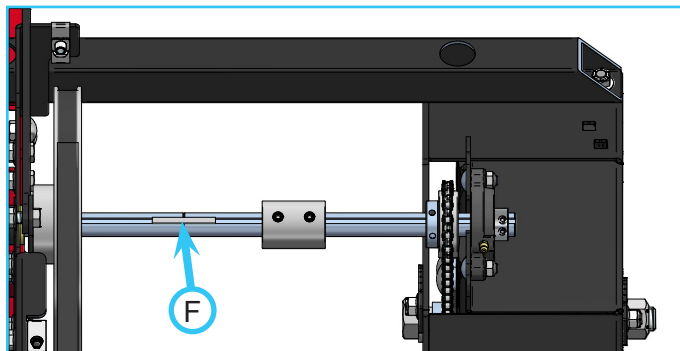
4. Loosen the two set screws (D) in the left outer flange bearing using a 1/8" hex key.



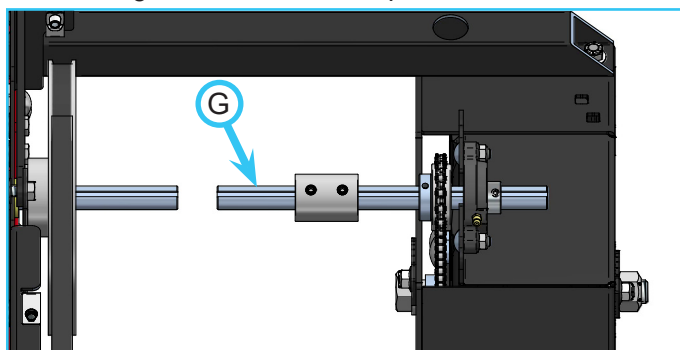
5. Loosen the two set screws (E) from the left axle shaft coupler using a 5/32" hex key.



6. Slide the axle shaft coupler onto the half shaft as shown below and remove the key (F).

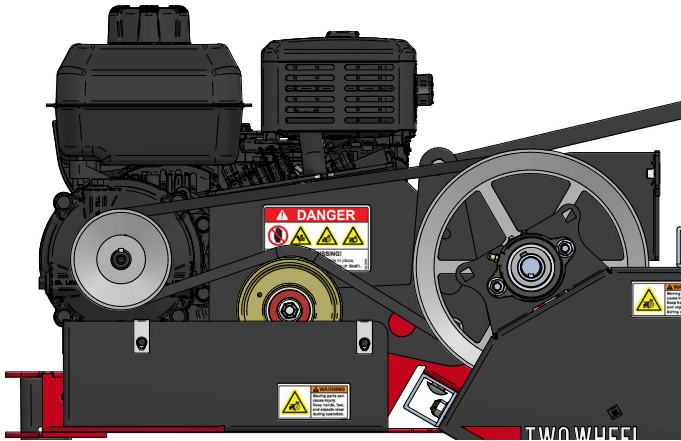


7. Slide the axle half shaft (G) through the flange bearing to allow the belt to pass between the axles.

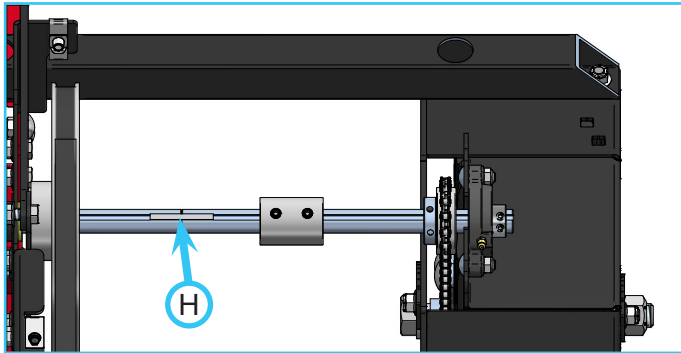


SERVICE

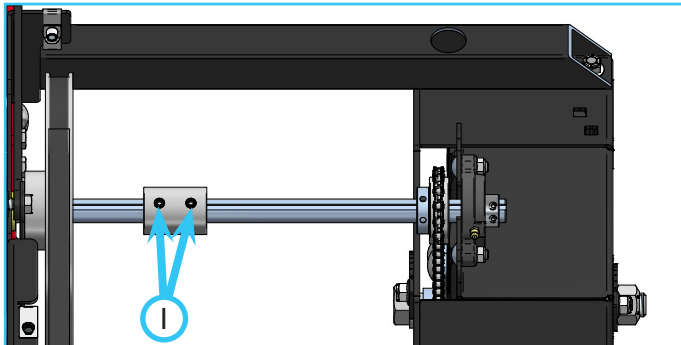
8. Remove the belt from the pulleys and between the axles.
9. Install the new belt by routing it between the axles.
10. Install the belt over the pulleys as shown below.



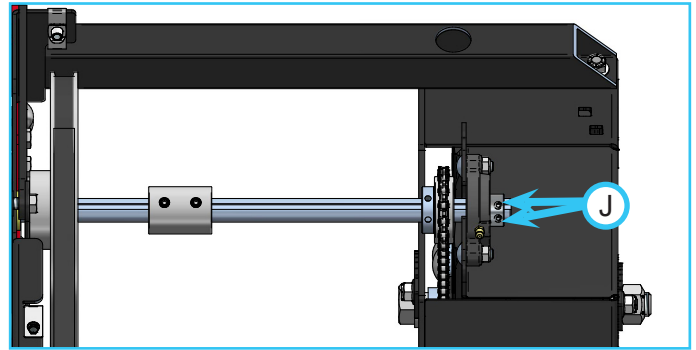
11. Slide the axle half shaft so that it is touching the main axle with the keyways aligned.
12. Place the key (H) in the keyway across both axle shafts as shown below.



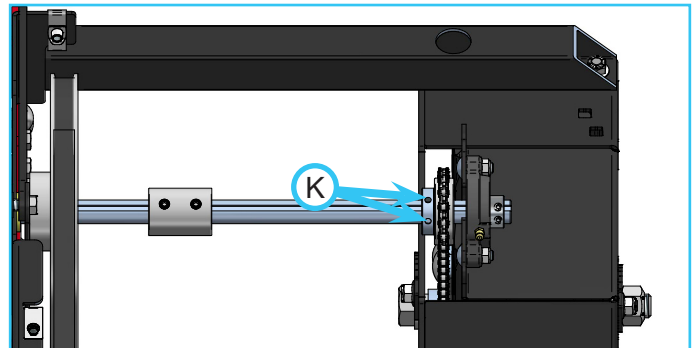
13. Slide the axle shaft coupler over both axles aligning the set screws with the key.
14. Tighten the two set screws (I) using a 5/32" hex key.



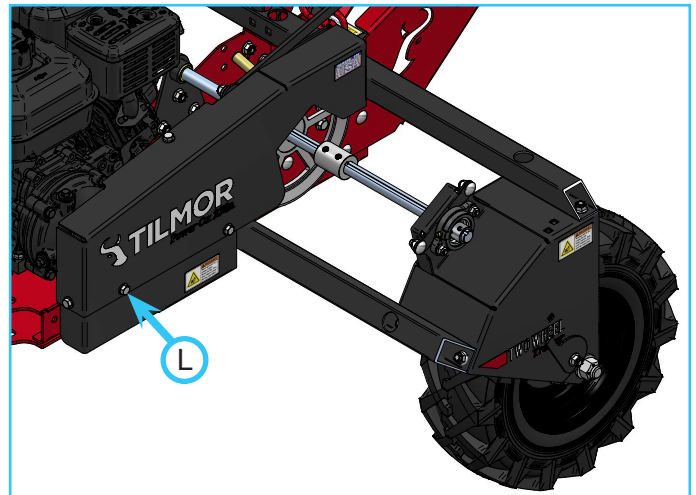
15. Tighten the two set screws (J) in the left outer flange bearing using a 1/8" hex key.



16. Tighten the two set screws (K) in the left free wheel bushing using a 3mm hex key.



17. Install the belt and pulley cover using the five 5/16" bolts and washers (L). Torque the bolts to 210 in-lbs (24Nm).

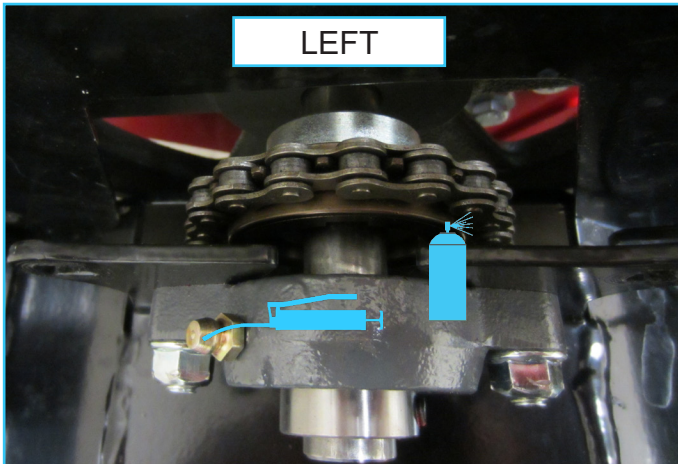
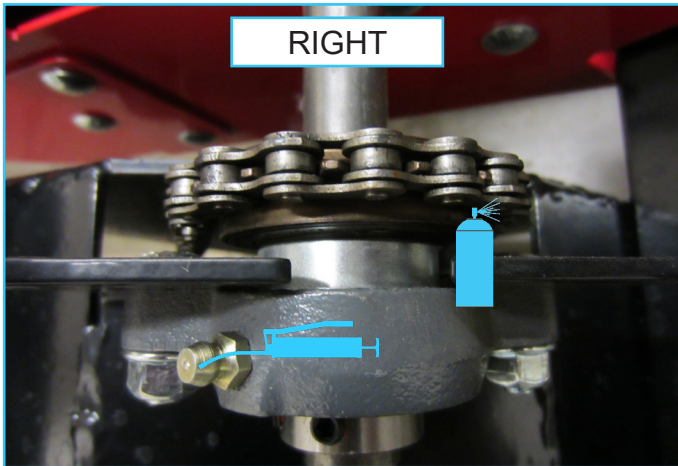


SERVICE

Lubrication Locations

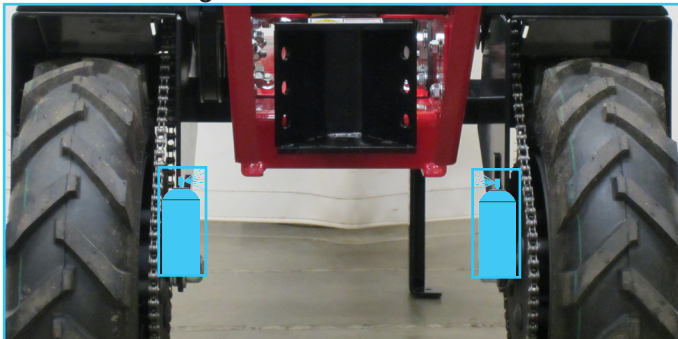
Lubrication is required at the following locations.

Lubricate the right and left drive axle flange bearings with grease.



Lubricate the right and left freewheel sprockets with a penetrating lubricant. For easier access to the sprocket it may be necessary to remove the free wheel sprocket covers.

Lubricate the right and left drive chains.



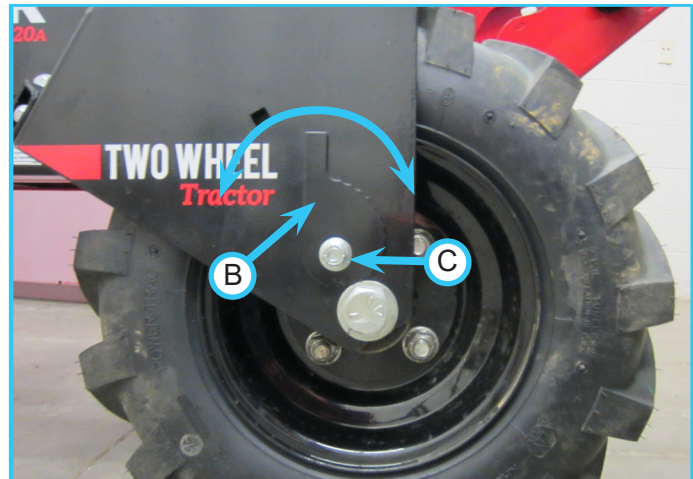
Chain Tension Adjustment

The chain tension can be adjusted using the following steps.

1. Loosen the wheel axle (A) using 1-1/8" wrench.



2. Slightly loosen the adjustment plate mounting bolt (C), on both the inner and outer adjustment plates. Rotate the inner and outer chain adjustment plates (B) evenly to tension the chain. The chain should have 1/8" to 1/4" of deflection.



NOTE: The outer chain adjustment plate is shown.

3. When the desired tension is reached, tension the inner and outer adjustment plates.
4. Tighten the wheel axle so that the wheel is held securely in place and still rotates freely.

SERVICE

Drive Control Linkage Adjustment

Over time the drive control linkage may need to be adjusted to increase the tension on the drive belt. The following steps describe how to adjust the tension.

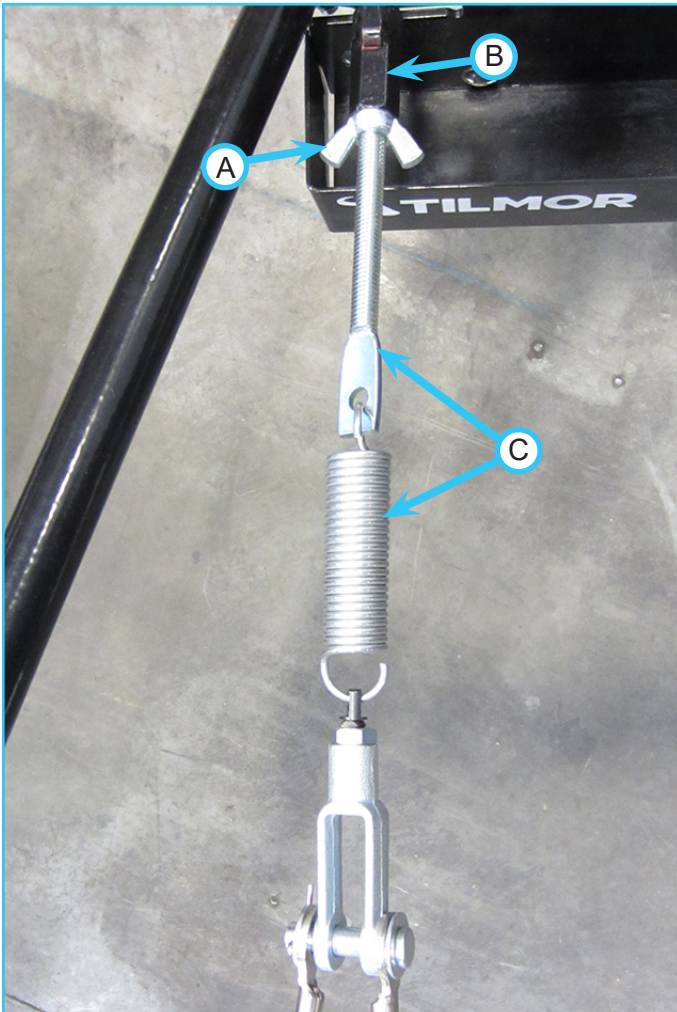
⚠ CAUTION

Over tightening of the drive control linkage will prevent the belt tensioner from disengaging, resulting in tractor movement on startup. Bodily injury or damage to equipment may occur.

⚠ CAUTION

Ensure that the Power Ox is not running before adjusting the drive control linkage. Bodily injury or damage to equipment may occur.

1. Shut down the Power Ox in accordance with the stopping the engine procedure in this manual.
2. Loosen the 3/8" wing nut (A) from the Linkage coupler nut (B).



Attention

It may be necessary to remove the upper belt and pulley cover to see the engagement of the drive belt and pulley.

3. Rotate the spring and hanger bolt (C) clockwise to increase the drive belt tension or counter clockwise to decrease the drive belt tension.
4. With the drive belt tension set to the desired amount tighten the wing nut down against the coupler nut.
5. Before starting the Power Ox ensure that the linkage travels all the way forward, so that there is no tension on the belt.

SPECIFICATIONS

Engine

Manufacturer Briggs & Stratton
Model Number. 550 Series
Type Gasoline
Cylinders. 1
Displacement 127cc
Gross HP @ 3600 rpm 3.5

Belt

Manufacturer Timken
Belt Size A49 Belt

Narrow Tires

Type Knobby
Size. 2.5-10
Directional No
Inner Tube Yes
Inner Tube Size 10-2.5

Wide Tires

Type Bar
Size. 4.80/4.00 - 8
Directional Yes
Inner Tube No

Drive Chains

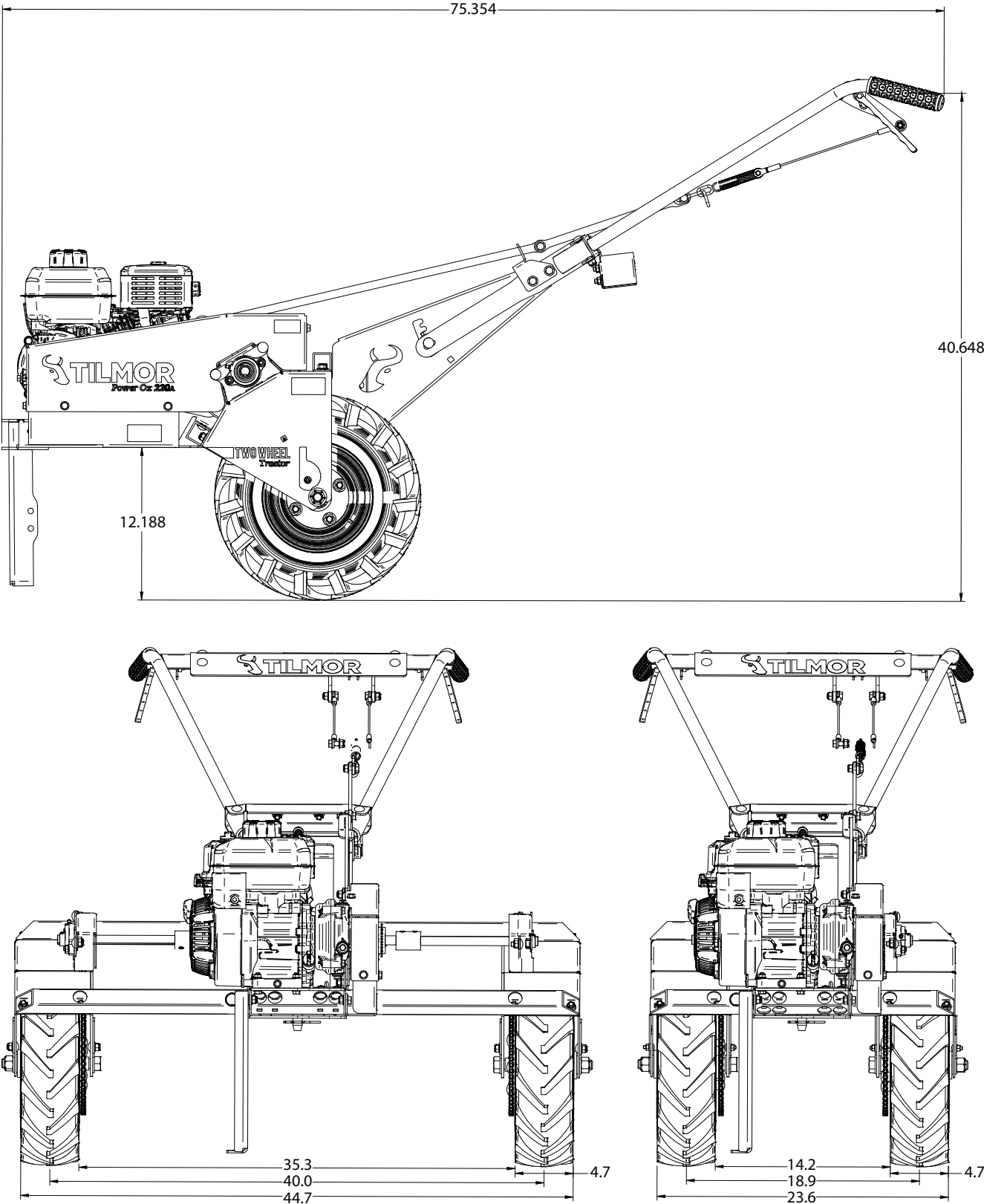
Type 415
Size. 1/2" Pitch, .192" Wide x 80 rollers

Fluid Capacities & Specifications

	Fluid Type	Capacity
Engine Oil	Refer to Briggs & Stratton Operators Manual	18-20 oz (0.54-0.59 L)
Gear Reduction	80W-90	4 oz (0.12L)
Fuel System	Minimum 87 octane unleaded gasoline up to 10% ethanol	0.2 gallons (1.8 liters)
Grease	Lithium Complex NLGI #2	Refer to Maintenance Chart

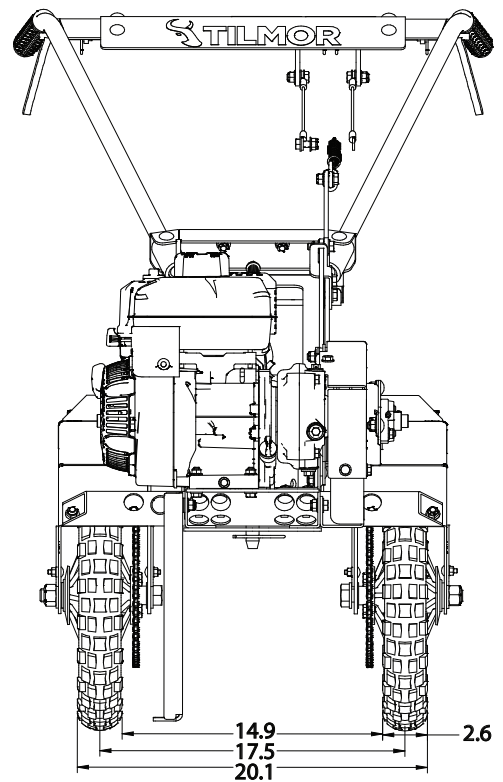
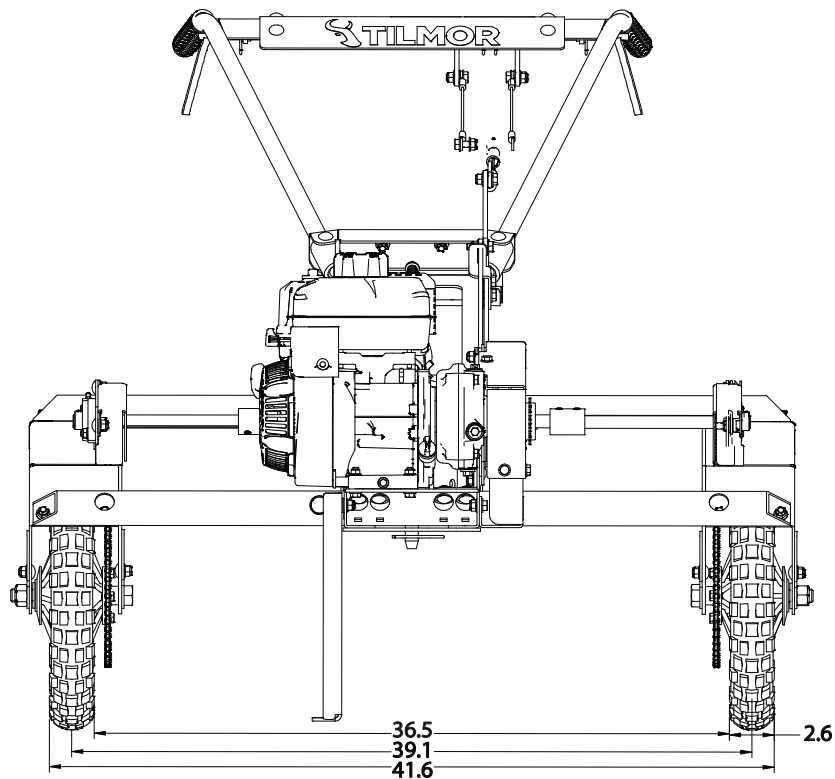
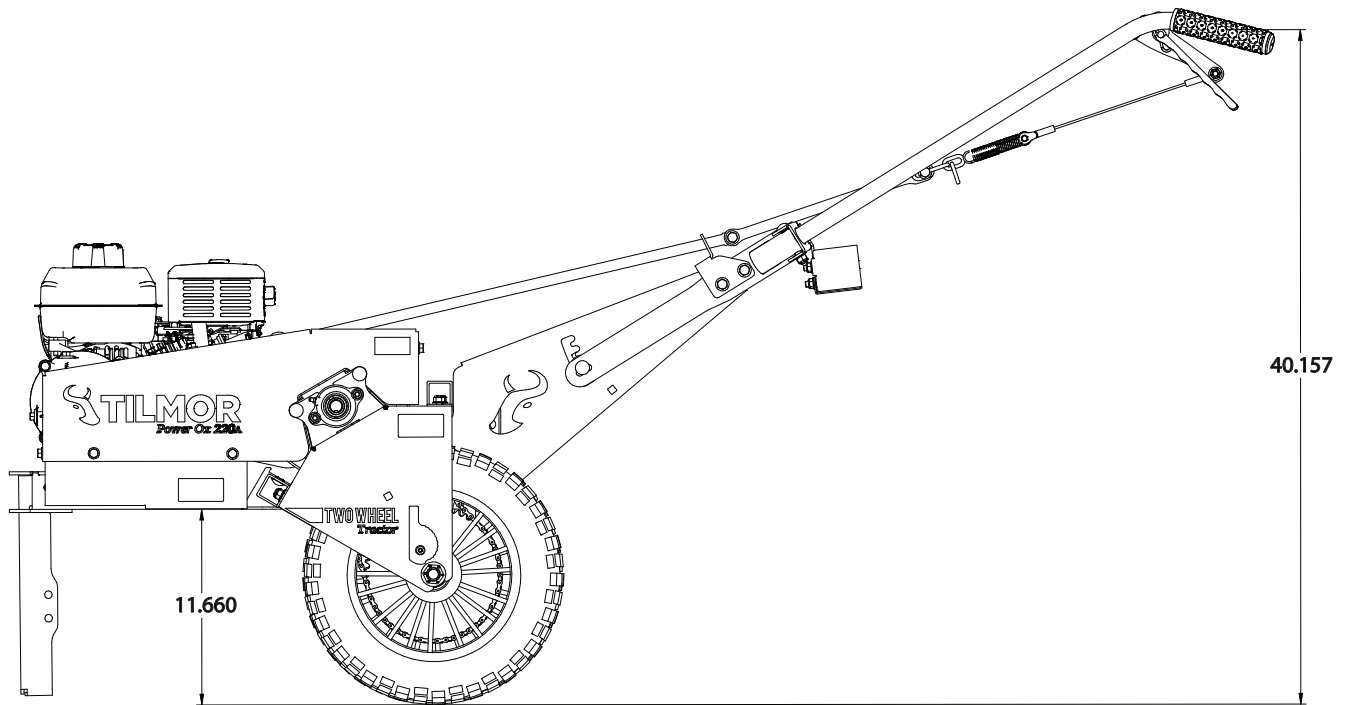
SPECIFICATIONS

Dimensions Wide Tire Configuration



SPECIFICATIONS

Dimensions Narrow Tire Configuration



SPECIFICATIONS

Features

Quick-Adjust handles for optimal operating height for any operator.

11" + of ground clearance.

Integrated drive control handle guard

Integrated kickstand

Integrated toolbox

Engine: Briggs & Stratton 550 Series - 127cc - 5.5 ft/lbs torque - 6:1 gear reduction.

Wheel Weights Kit (optional): Can add up to 25lbs per wheel for additional traction.

Front Weight Kit (optional): Can add up to 20lbs to the front of the tractor when additional traction and counter balance is needed.

WARRANTY



Return Policy & Procedure

All new and unused products may be returned within 30 days of the ship date for a refund. If returning an item, first contact a Tilmor customer support representative at 1-844-255-5864 to obtain a return merchandise authorization (RMA) prior to shipping the item to Tilmor. Shipping costs for returns will be incurred by the customer. Refunds may be subject to a 10% restocking fee.

Warranty

Contact a Tilmor customer support representative at 1-844-255-5864 immediately if a product purchased on tilmor.com should fail during the defined warranty period. Items purchased on tilmor.com may be manufactured by Tilmor LLC or one of our trusted partners. For all products not branded by Tilmor, the original equipment manufacturer's warranty statement will define period, policy and procedure.

Tilmor Warranty Period

Non-serialized Product - 1 Year

Unless otherwise stated, all non-serialized Tilmor products are protected against defects in materials and workmanship, under ordinary and normal use, for a period of one year from the shipping date. Warranties on non-serialized Tilmor products are not transferable.

Serialized Product - 2 Year or 1000 hours

Unless otherwise stated, all serialized Tilmor products are protected against defects in materials and workmanship, under ordinary and normal use, for a period of two years from the shipping date or 1000 hours on tractor hour meter (whichever comes first). Warranties on serialized Tilmor products are transferable.

Tilmor Warranty Policy

Tilmor LLC may opt to repair, replace, or issue a refund for Tilmor products that are defective or have sustained damage in shipping. The following actions and damages are excluded from warranty:

- deterioration due to normal wear and tear,
- damage caused by an act of nature (fire, flood, wind, etc.),
- damage caused by accident, improper usage or negligence.

Tilmor LLC reserves the right to approve warranty repair time, decide whether to send new parts and/or request old parts for review. Our intention is to be fair to all parties (i.e. customer, repair shop and Tilmor).

Tilmor Warranty Procedure

Contact a Tilmor representative immediately if a Tilmor product should fail during the defined warranty period. The representative will initiate a claim and determine the quickest method to resolve the issue. Tilmor does not have local dealerships and will work directly with the customer to resolve the problem. If the customer prefers, we will work with a technician of the customer's choice to perform the repair.