R300

Kohler CH750

Operator's Manual



CMW®

Issue 1.0
Original Instruction

053-10169

Overview

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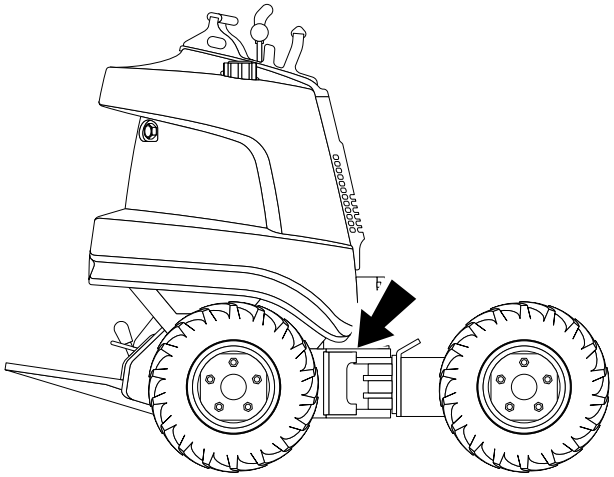
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California Proposition 65

⚠ WARNING The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm. www.P65warnings.ca.gov.

Serial Number Location

Record serial numbers and date of purchase in spaces provided. Serial number is located as shown.



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Item	
Date of manufacture	
Date of purchase	
Machine serial number	
Front end serial number	

Intended Use

The R300 is a platform, rubber tire or quad track compact tool carrier machine designed for construction work. The machine has an InterChange connection that allows use of a variety of front ends. Available interchangeable front ends include a trencher, vibratory plow, tool carrier, and concrete mover. Contact your Ditch Witch® dealer for a complete list of available front ends.

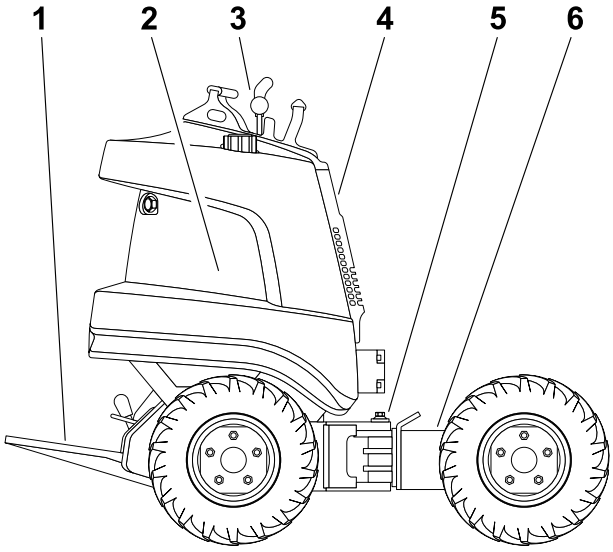
These machines are intended for operation only according to the instructions in this manual. Operate machine in ambient temperatures from 15° to 115°F (-9° to 46°C). Contact your Ditch Witch dealer for provisions required for operating in extreme temperatures. Use in any other way is considered contrary to the intended use.

These machines should be used with genuine Ditch Witch front ends, attachments, and components. They should be operated, serviced, and repaired only by professionals familiar with their particular characteristics and acquainted with the relevant safety procedures.

Equipment Modification

This equipment was designed and built in accordance with applicable standards and regulations. Modification of equipment could mean that it will no longer meet regulations and may not function properly or in accordance with the operating instructions. Modification of equipment should only be made by competent personnel possessing knowledge of applicable standards, regulations, equipment design functionality/requirements and any required specialized training.

Machine Components



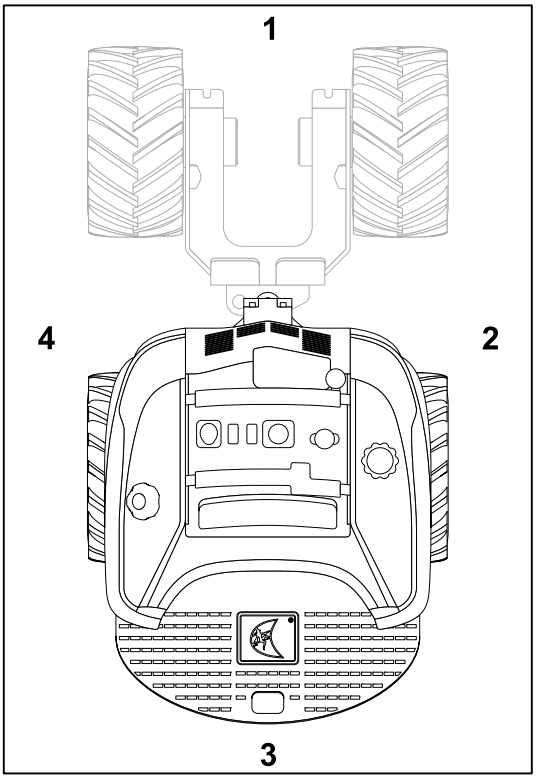
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1. Operator platform
2. Engine compartment
3. Control console
4. Front end mainfold
5. Articulation joint
6. InterChange connection

Operator Orientation

IMPORTANT: Top view of machine is shown.

1. Front
2. Right side
3. Rear
4. Left side

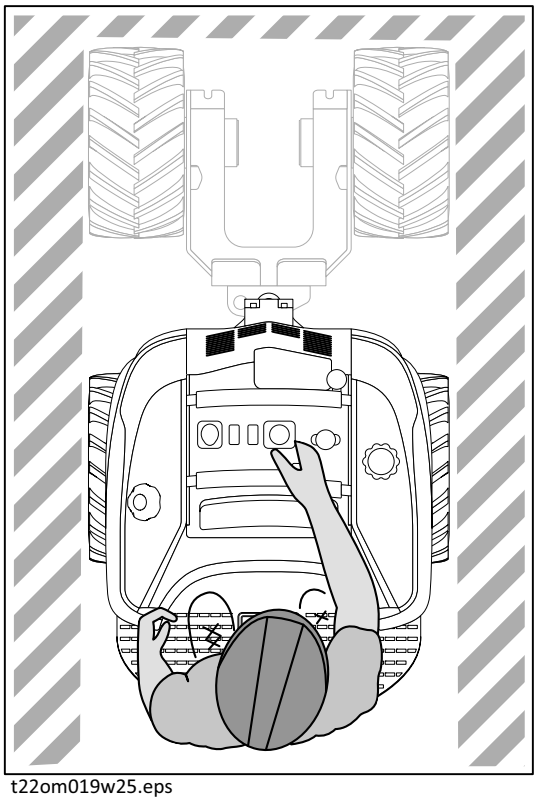


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Operating Area

IMPORTANT: Top view of machine is shown.

Operator should stand only in the location shown.



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About This Manual

This manual contains information for the proper use of this machine. Cross references such as "See page 50" will direct you to detailed procedures.

Bulleted Lists

Bulleted lists provide helpful or important information or contain procedures that do not have to be performed in a specific order.

Numbered Lists

Numbered lists contain illustration callouts or list steps that must be performed in order.

Foreword

This manual is an important part of your equipment. It provides safety information and operation instructions to help maintain your Ditch Witch equipment.

Read this manual before using your equipment. Keep it with the equipment at all times for future reference. If you sell your equipment, be sure to give this manual to the new owner.

If you need a replacement copy, contact your Ditch Witch dealer. If you need assistance in locating a dealer, visit our website at www.ditchwitch.com or write to the following address:

The Charles Machine Works, Inc.
ATTN: Marketing Department
PO Box 66
Perry, OK 73077-0066
USA

The descriptions and specifications in this manual are subject to change without notice. The Charles Machine Works, Inc. reserves the right to improve equipment. Some product improvements may have taken place after this manual was published. For the latest information on Ditch Witch equipment, see your Ditch Witch dealer.

Thank you for buying and using Ditch Witch equipment.

R300
Operator's Manual

Kohler CH750

Issue number 1.0/OM-08/25
Part number 053-10169

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Safety

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Safety Alert Classifications

These classifications and the icons defined on the following pages work together to alert you to situations which could be harmful to you, jobsite bystanders or your equipment. When you see these words and icons in the book or on the machine, carefully read and follow all instructions. YOUR SAFETY IS AT STAKE.

Watch for the three safety alert levels: **DANGER**, **WARNING** and **CAUTION**. Learn what each level means.

⚠ DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

⚠ WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

Watch for two other words: ***NOTICE*** and **IMPORTANT**.

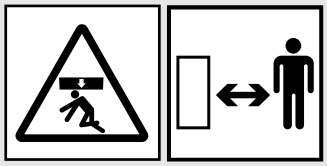
NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

IMPORTANT can help you do a better job or make your job easier in some way.

Guidelines



WARNING Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.



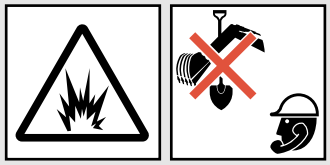
WARNING Raised component. Crushing can cause death or serious injury. Stay away. Use correct equipment and procedures.

Follow these guidelines before operating any jobsite equipment:

- Complete proper training.
- Read and understand operator's manual before using equipment.
- Wear personal protective equipment including long pants, hard hat, eye protection, hearing protection, and protective footwear.
- Do not wear jewelry or loose clothing.
- Mark proposed path with white paint and have underground utilities located before working. In the US or Canada, call 811 (US) or 888-258-0808 (US and Canada). Also contact any local utilities that do not participate in the One-Call service. In countries that do not have a One-Call service, contact all local utility companies to have underground utilities located.
- Classify jobsite based on its hazards and use correct tools and machinery, safety equipment, and work methods for jobsite.
- Mark jobsite clearly and keep spectators away.
- Review jobsite hazards, safety and emergency procedures, and individual responsibilities with all personnel before work begins. Safety videos are available from your Ditch Witch dealer or at www.ditchwitch.com/safety. Safety Data Sheets (SDS) are available at www.ditchwitch.com/support.
- Ensure jobsite is adequately lit. Arrange for secondary light sources as needed.
- Complete the equipment checklist located at www.ditchwitch.com/safety.
- Fully inspect equipment before operating. Repair or replace any worn or damaged parts. Replace missing or damaged safety shields and safety alert signs. Contact your Ditch Witch dealer for assistance.
- Follow instructions on all safety alert signs on machine.
- Keep access steps and platforms clean and free of obstacles and debris.
- Use equipment carefully per the instructions in this manual. Stop operation and investigate anything that does not look or feel right.
- Do not operate machine where flammable gas may be present.

- Only operate equipment in well ventilated areas.
- Always tie down equipment and properly stow accessories, even if traveling short distances.
- Contact your Ditch Witch dealer if you have any questions about operation, maintenance, or equipment use.

Emergency Procedures



WARNING Underground utilities. Contact can cause death or serious injury. Locate and verify underground utilities before digging or drilling.

Before operating any equipment, review emergency procedures and check that all safety precautions have been taken.

EMERGENCY SHUTDOWN: Shut off machine or press remote engine stop button or emergency stop button (if equipped).

Electric Strike Description

When working near electric cables, remember the following:

- Electricity follows all paths to ground, not just path of least resistance.
- Pipes, hoses, and cables will conduct electricity back to all equipment.
- Low voltage current can injure or kill. Many work-related electrocutions result from contact with less than 440 volts.

Most electric strikes are not noticeable, but indications of a strike include:

- power outage
- smoke
- explosion
- popping noises
- arcing electricity

If any of these occur, assume an electric strike has occurred.

If an Electric Line is Damaged

If you suspect an electric line has been damaged, DO NOT MOVE. Take the following actions. The order and degree of action will depend on the situation.

- If you are **on the machine,** REMAIN ON MACHINE. Raise attachments and drive from immediate area.
- If you are **off the machine**,
  - DO NOT TOUCH ANY EQUIPMENT.
  - If you must leave the area, take small steps with feet close together to reduce the hazard of being shocked from one foot to the other.
- Warn people nearby that an electric strike has occurred. Instruct them to leave the area.
- Have someone contact electric company to shut off power.
- If you leave the area, do not return to jobsite or allow anyone into area until given permission by utility company.

If a Gas Line is Damaged

If you suspect a gas line has been damaged, take the following actions. The order and degree of action will depend on the situation.

- Immediately shut off engine(s), if this can be done safely and quickly.
- Remove any ignition source(s), if this can be done safely and quickly.
- Warn others that a gas line has been cut and that they should leave the area.
- After warning others to leave the area, leave jobsite as quickly as possible.
- Immediately call your local emergency phone number and utility company.
- If jobsite is along street, stop traffic from driving near jobsite.
- Do not return to jobsite until given permission by emergency personnel and utility company.

If a Fiber Optic Cable is Damaged

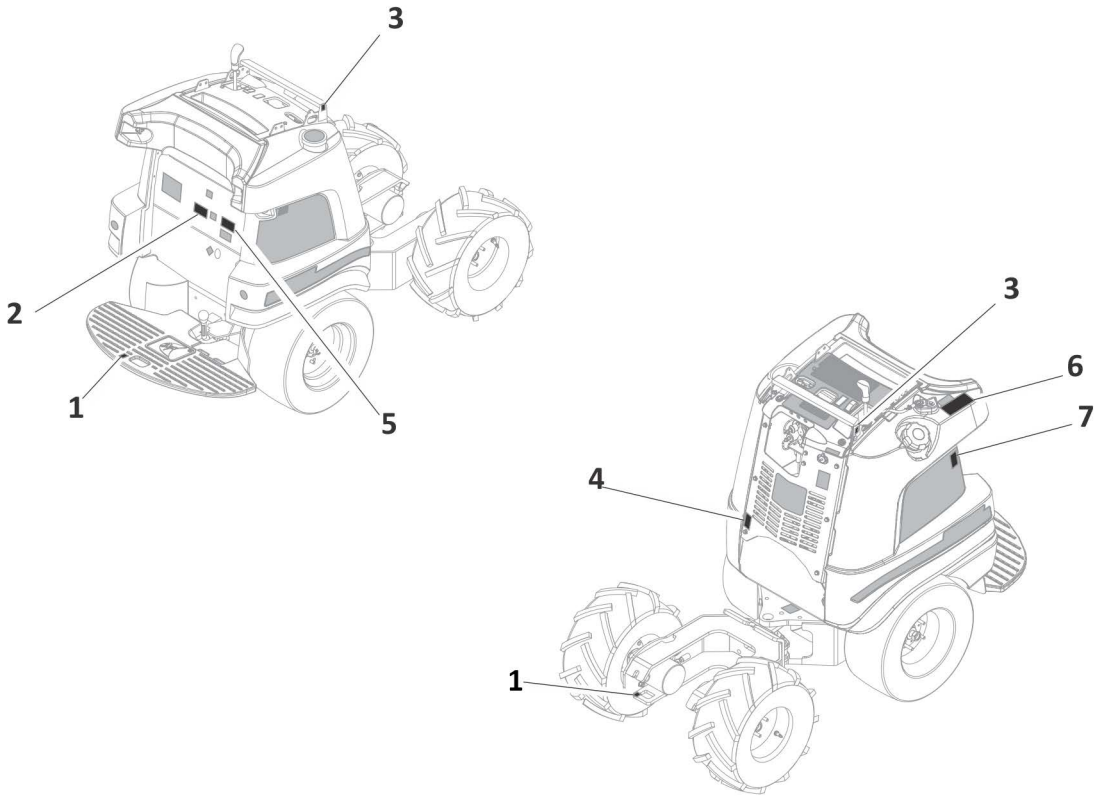
Do not look into cut ends of fiber optic or unidentified cable. Vision damage can occur. Contact utility company.

If Machine Catches on Fire

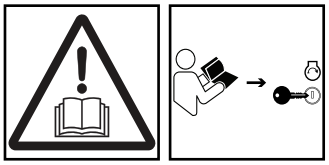
Perform emergency shutdown procedure and then take the following actions. The order and degree of action will depend on the situation.

- Immediately move battery disconnect switch (if equipped and accessible) to disconnect position.
- If fire is small and fire extinguisher is available, attempt to extinguish fire.
- If fire cannot be extinguished, leave area as quickly as possible and contact emergency personnel.

Machine Safety Alerts



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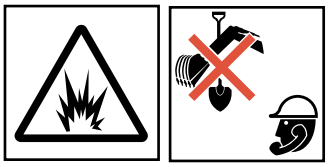
1.		Tiedown location. See Transport chapter for more information.
2.		**⚠WARNING** Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.
3.		Lift point. See Transport chapter for more information.

4.



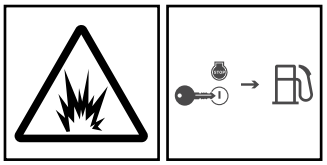
CAUTION Hot parts. Contact can cause burns. Only touch when cool or wear gloves.

5.



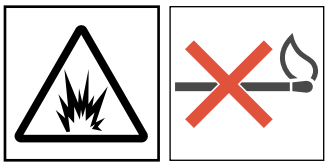
WARNING Underground utilities. Contact can cause death or serious injury. Locate and verify underground utilities before digging or drilling.

6.



DANGER Gasoline. Fire or explosion will cause death or serious injury. Shut down engine before fueling.

7.



WARNING Gasoline. Fire or explosion can cause death or serious injury. Keep heat, flames, sparks and other ignition sources away.

Prepare

Chapter Contents



For additional precautions, see "Safety" chapter.

Wear proper personal protective equipment.

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- Select Start and End Points 20
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Prepare Jobsite



WARNING Underground utilities. Contact can cause death or serious injury. Locate and verify underground utilities before digging or drilling.

To help avoid injury:

- Expose lines by careful hand digging or soft excavation before operating equipment. Use appropriate equipment and procedures for exposing utility lines.
- Classify jobsite and follow precautions based on classification.
- Follow local regulations for digging near utilities.

A successful job begins before working. The first step in planning is reviewing information already available about the job and jobsite.

Review Job Plan

Review blueprints or other plans. Check for information about existing or planned structures, elevations, or proposed work that may be taking place at the same time.

Select Start and End Points

Select one end to use as a starting point. Consider the following when selecting a starting point:

Slope

Equipment should be parked on a level site. Consider how slope will affect setup and operation. Assess the risks on each slope to determine if factors affecting risks create an unsafe condition for working. See "Slope Guidelines" on page 44.

Space

Check that starting and ending points allow enough space for working.

Comfort

Consider shade, wind, fumes, and other site features.

Identify Hazards

Inspect jobsite before transporting equipment. Check for the following:

- overall grade or slope
- changes in elevation such as hills or open trenches
- obstacles such as buildings, railroad crossings, or streams
- signs of utilities
  - "buried utility" notices
  - gas or water meters
  - drop boxes
  - manhole covers
  - utility facilities without overhead lines
  - junction boxes
  - light poles
  - sunken ground
- traffic
- access
- soil type and condition
- loose material such as fencing or cable

Identify safety hazards and classify jobsite if attachment will penetrate ground. See "Classify Jobsite" on page 23.

Locate Utilities

Notify One-Call Services

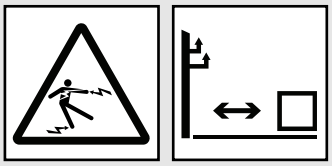
Mark proposed path with white paint and have underground utilities located before working.

- In the US or Canada, call 811 (US) or 888-258-0808 (US and Canada). Also contact any local utilities that do not participate in the One-Call service.
- In countries that do not have a One-Call service, contact all local utility companies to have underground utilities located.

Verify Underground Utilities

Have an experienced locating equipment operator sweep area within 20ft (6 m) to each side of proposed excavation to verify previously marked line and cable locations. Mark location of all buried utilities and obstructions.

Locate Overhead Lines



DANGER Overhead electrical lines. Contact will cause death or serious injury. Know location of lines. Stay away.

Note location and height of all overhead lines in jobsite and ensure that equipment maintains proper distance from live lines.

Classify Jobsite

Select a Classification

Jobsites are classified according to underground hazards present, not by line being installed. Jobsite may have more than one classification.

If working . . .	then classify jobsite as . . .
within 10 ft (3 m) of a buried electric line	electric
within 10 ft (3 m) of a natural gas line	natural gas
in concrete, sand, or granite which is capable of producing crystalline silica dust	crystalline silica dust
within 10 ft (3 m) of any other hazard	other

Classify jobsite as electric if jobsite is in question or if the possibility of unmarked electric utilities exists.

Apply Precautions



⚠ WARNING Underground utilities. Contact can cause death or serious injury. Locate and verify underground utilities before digging or drilling.

Once classified, precautions appropriate for jobsite must be taken. Follow US Department of Labor regulations on excavating and trenching (Part 1926, Subpart P) and other similar regulations.

Electric Jobsite Precautions

Use one or both of these methods:

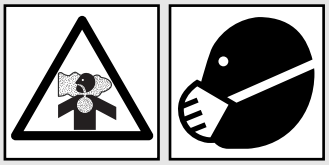
- Expose line by careful hand digging or soft excavation.
- Have service shut down while work is in progress. Have electric company test lines before returning them to service.

Natural Gas Jobsite Precautions

Position equipment upwind from gas lines and use one or both of these methods:

- Expose line by careful hand digging or soft excavation.
- Have service shut down while work is in progress. Have gas company test lines before returning them to service.

Crystalline Dust Jobsite Precautions



WARNING Silica dust. Exposure can cause lung disease or cancer. Use breathing protection.

Crystalline silica dust is a naturally occurring substance found in soil, sand, concrete, granite, and quartz.

To reduce exposure when cutting, drilling, or working these materials:

- Use water spray or other means to control dust.
- Refer to US Occupational Safety and Health Administration (OSHA) guidelines or other applicable regulating guidelines for appropriate breathing protection or dust control methods.

Other Jobsite Precautions

You may need to use different methods to safely avoid other underground hazards. Talk with those knowledgeable about hazards present at each site to determine which precautions should be taken or if job should be attempted.

Clear objects such as landscaping fabric, cable, and wire from the work area. These objects may be underground or partially buried.

Arrange for Traffic Control

Vehicle and pedestrian traffic must be a safe distance from equipment. Evaluate jobsite and allow an appropriate buffer zone around equipment. If working near a road or other traffic area, contact local authorities about safety procedures and regulations.

Prepare Operator



⚠ WARNING Jobsite hazards. Exposure can cause death or serious injury. Use correct equipment and work methods. Use and maintain appropriate safety equipment.

To help avoid injury:

- Wear personal protective equipment including hard hat, safety eye wear, foot protection, hearing protection, and gloves (except when near rotating equipment).
- Remove jewelry.
- Wear close-fitting, high visibility clothing.
- Have other personal protective equipment, such as insulated boots and gloves, breathing protection, and face shield, etc. available for use depending on jobsite hazards or requirements.

Follow these guidelines before operating any jobsite equipment:

- Complete proper training and read operator's manual before using equipment.
- Plan for emergency services. Have the telephone numbers for local emergency and medical facilities on hand. Check that you will have access to a telephone.
- Review jobsite hazards, safety and emergency procedures, and individual responsibilities with all personnel before work begins. Safety videos are available from your Ditch Witch dealer or at www.ditchwitch.com/safe. Safety Data Sheets (SDS) are available at www.ditchwitch.com/support.
- Use equipment carefully. Stop operation and investigate anything that does not look or feel right.

Prepare Equipment

Check Supplies

- fuel
- keys
- lubricants

Check Equipment

Fluid Levels

- fuel
- engine oil
- diesel exhaust fluid (DEF), if needed
- hydraulic fluid

Condition and Function

- all controls



WARNING Improper control function. Use can cause death or serious injury. If control does not work as described in instructions, stop machine and have it serviced.

- battery
- hoses and valves
- pumps and motors
- tires or tracks
- signs, guards, and shields
- filters (air, oil, hydraulic)
- belts

Assemble Accessories

If required, mount fire extinguisher near the power unit but away from possible points of ignition. The fire extinguisher should always be classified for both oil and electric fires. It should meet legal and regulatory requirements.

Attach Front End to InterChange Connection

IMPORTANT: Use only Ditch Witch-approved front ends and attachments. Other front ends and attachments will change the stability and operating characteristics of the machine.

See front end operator's manual for instructions to connect/disconnect front ends.

Controls

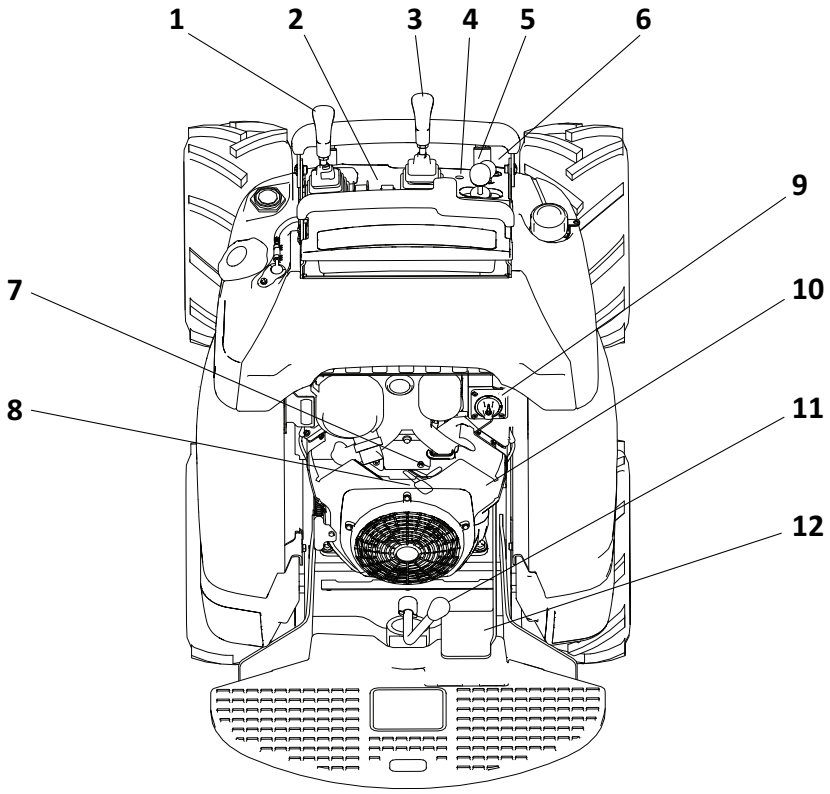
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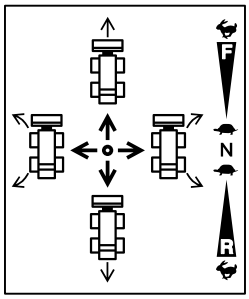
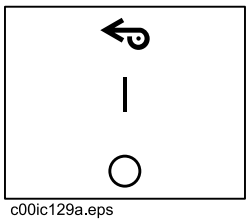
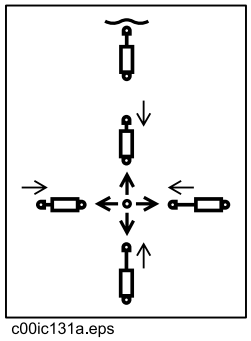
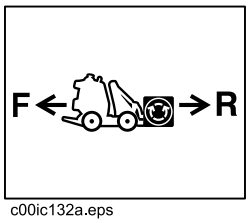
InterChange Connection 35

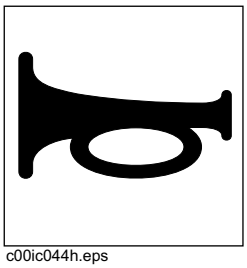
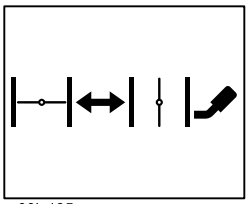
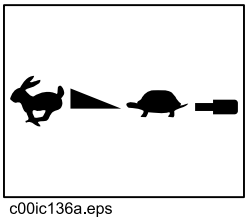
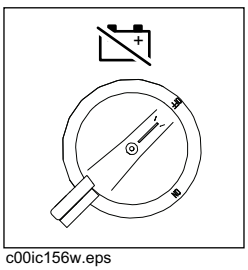
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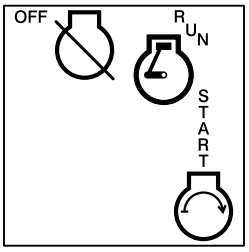
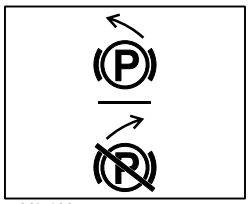


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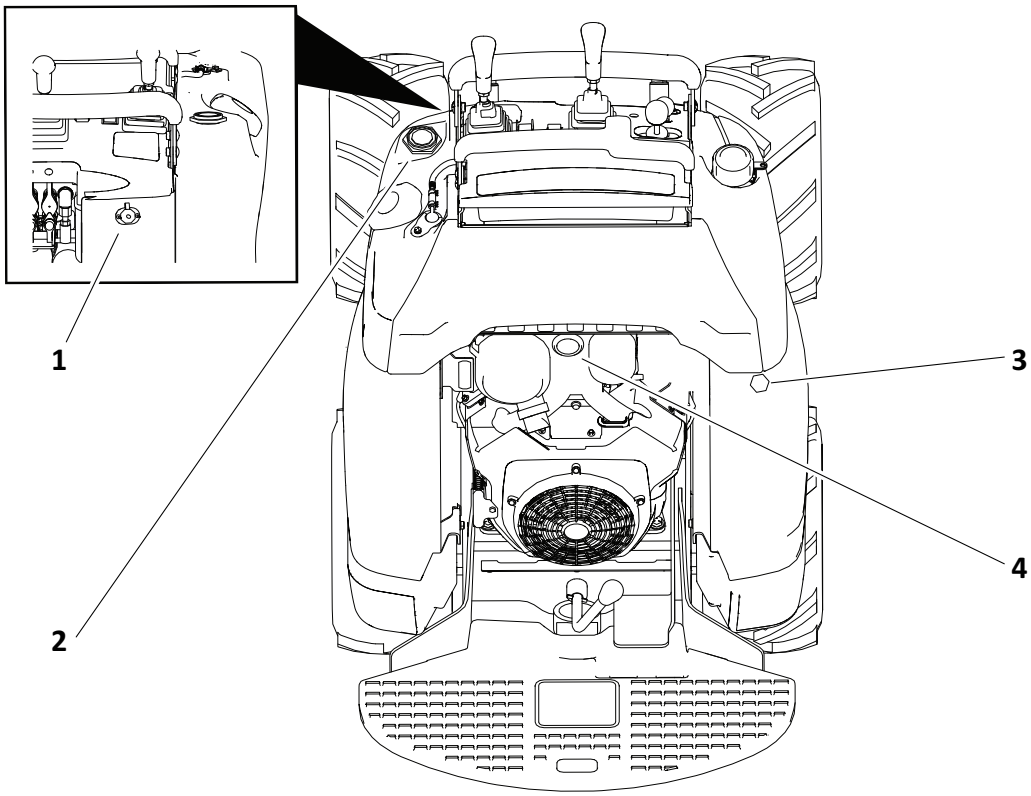
1. Ground drive control
2. Traction assist switch
3. Front end lift control
4. Front end drive control
5. Horn button
6. Remote throttle control, if equipped
7. Choke
8. Throttle
9. Battery disconnect switch
10. Ignition switch
11. Parking brake
12. Cruise control pedal

Item	Description	IMPORTANT
1. Ground drive control  c00ic128a.eps	To move forward, push. To move backward, pull. To turn right, move right. To turn left, move left. To go faster in any direction, move control farther away from neutral position. To stop, release.	To make a gradual turn, move control halfway between desired directions and return to center. Machine will remain articulated until it is returned to center. As long is control is moved to right or left, machine is articulating and turning is tightened.
2. Traction assist switch  c00ic129a.eps	To allow maximum power to tires, press top. To return to normal operation, press bottom.	Use when working on a slope to lessen undesired track movement.
3. Front end lift control  c00ic131a.eps	To retract primary cylinder, push. To float, push forward to detent. To extend primary cylinder, pull. To retract secondary cylinder, move to left. Tore extend, move to right.	Front end will drop when machine is put in float position.
4. Front end drive control  c00ic132a.eps	To engage front end drive in reverse, lift lever release and move to right. To engage in forward, lift lever release and move to left.	

Item	Description	IMPORTANT
5. Horn button  c00ic044h.eps	To sound horn, press.	
6. Remote throttle control  c00ic133a.eps	To increase engine speed, push. To decrease, pull.	***NOTICE:*** Shut down machine at full throttle to prevent backfiring.
7. Choke  c00ic135a.eps	To help start cold engine, move to left. Move to right after engine has warmed.	This valve regulates air/fuel mixture.
8. Throttle  c00ic136a.eps	To increase engine speed, move to left. To decrease, move to right.	This throttle is disengaged if remote throttle is installed. ***NOTICE:*** Shut down machine at full throttle to prevent backfiring.
9. Battery disconnect switch  c00ic156w.eps	To disconnect, move left. To connect, move right.	***NOTICE:*** • Do not disconnect with engine running. • To avoid equipment damage, wait two minutes after turning engine off before disconnecting battery.

Item	Description	IMPORTANT
10. Ignition switch  c00ic138a.eps	To start engine, insert key and turn clockwise. To stop engine, turn key counterclockwise.	***NOTICE:*** Shut down machine at full throttle to prevent backfiring. • If engine does not start, turn key to OFF and then restart. • Do not allow starter motor to run continuously for more than 20 seconds.
11. Parking brake lever  c00ic139a.eps	To engage, move handle to left. To disengage, move to right.	• Move machine slightly to ensure parking brake pins are engaged. • It might be necessary to move machine slightly to disengage parking brake. • If equipped, engage parking brake to lock lift arm control lever in neutral position. Disengage parking brake to unlock lift arm control lever.
12. Cruise control pedal	To maintain ground drive and front end drive settings, press pedal and release handles. To adjust settings, grab drive handles, step off pedal, adjust drive settings, press pedal and release handles.	***NOTICE:*** Pedal must return to neutral when released. Never tie down or use anything other than foot to hold pedal down.

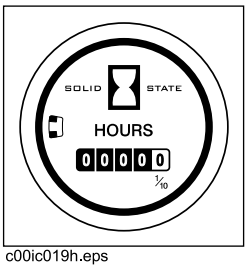
Gauges and Indicators



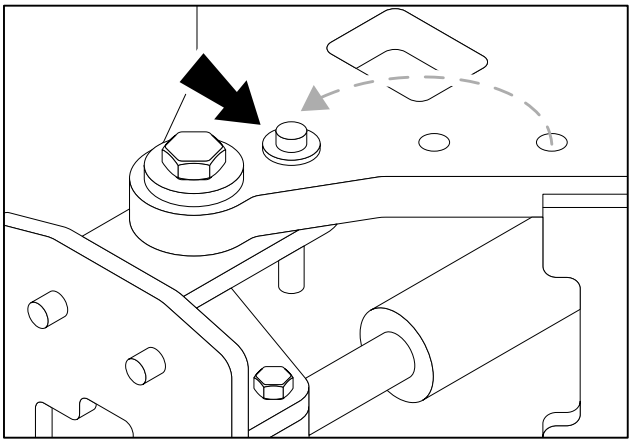
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1. Auxiliary power outlet
2. Fuel gauge
3. Hydraulic fluid sight glass
4. Hourmeter, if equipped

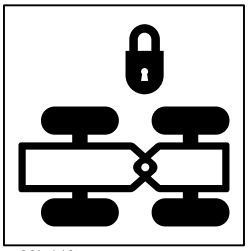
Item	Description	IMPORTANT
1. Auxiliary power outlet	To operate work lights or other 12V devices, plug into outlet	
2. Fuel gauge	Shows level of fuel in tank.	
3. Hydraulic fluid sight glass	Shows level of hydraulic fluid in tank. Maintain fluid at halfway point on glass.	

Item	Description	IMPORTANT
4. Hourmeter)  c00ic019h.eps	Displays engine operating time.	Use engine operating times to schedule service.

InterChange Connection



t22om032a.eps

Item	Description	IMPORTANT
1. Articulation lock  c00ic140a.eps	To lock articulation joint, align top and bottom holes and put pin in hole as shown above. To unlock, return pin to storage hole.	Lock for transport and lifting.

Drive

Chapter Contents



For additional precautions, see "Safety" and "Prepare" chapters.

IMPORTANT: For more information on how to operate controls, see "Controls" chapter.

Start 38

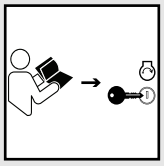
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- Slope Guidelines 40

Shut Down 41

Start

EMERGENCY SHUTDOWN: Release all controls (including cruise control pedal) and stop engine.

WARNING Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.

To help avoid injury:

- Allow hydraulic fluid time to warm before operating in cold weather. Cold hydraulic fluid can lengthen ground drive stopping time.
- Operate machine only while standing on platform.
- For starting in extreme temperatures, contact your Ditch Witch dealer.

NOTICE: If engine turns but does not start within 5 seconds, allow starter to cool. Wait at least one minute and try again.

1. Ensure all controls are in neutral and parking brake is engaged.
2. Move throttle to half open.
3. Choke engine, if necessary.
4. Turn ignition switch to start position and release when engine starts.

Operate



WARNING Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.

To help avoid injury:

- Operate machine only while standing on platform.
- Survey field of vision when operating machine.

1. Disengage parking brake.
2. Raise front end off the ground.
3. Start forward or reverse movement.
4. Adjust throttle as needed.
5. Steer as needed.
6. For continuous ground drive and front end operation, use cruise control pedal.

Slope Guidelines



WARNING Tipover. Crushing can cause death or serious injury. Follow procedure in operator's manual. Drive cautiously.

To help avoid injury:

- Operate at slow speed when on rough terrain.
- Avoid driving across slopes.
- Never jerk control levers. Use a steady, even motion.
- Always operate from the uphill side of the machine.
- Always drive with attachment low to the ground.
- If tipover occurs, shut engine off if possible.

Operating safely on a slope depends upon many factors including:

- distribution of machine weight (can change due to configuration)
- height of load
- even or rough ground conditions
- potential for ground giving way causing unplanned tilt forward, backward or sideways
- nearness of ditches, ruts, stumps or other obstructions and sudden changes in slope
- speed
- turning
- operator skill

These varying factors make it impractical to specify a maximum safe operating angle in this manual. It is therefore important for the operator to be aware of these conditions and adjust operation accordingly. Maximum engine angle is an absolute limits which must never be exceeded. This maximum is stated below since it is a design limit. **These design limits usually exceed the operating limits and must never be used alone to establish safe operating angle for variable conditions**.

Maximum engine lubrication angle: 20°

Shut Down

1. When job is complete, move machine to level ground.
2. Stop machine movement.
3. Lower front end.
4. Return all controls to neutral.
5. Engage parking brake.
6. Open throttle fully.
7. Shut off machine.
8. Remove key,.

Transport

Chapter Contents



For additional precautions, see "Safety" and "Prepare" chapters.

IMPORTANT: For more information on how to operate controls, see "Controls" chapter.

Lift 44

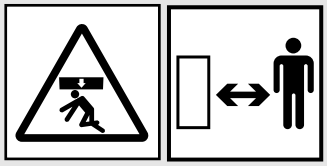
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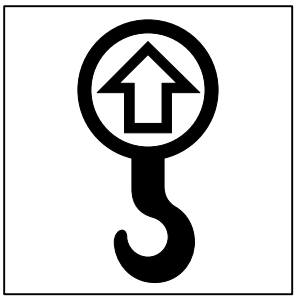
Lift



WARNING Lifted load. Crushing weight can cause death or serious injury. Stay away from lifted load and its range of movement.

Points

Lifting points are identified by lifting decals. Lifting at other points is unsafe and can damage machinery.



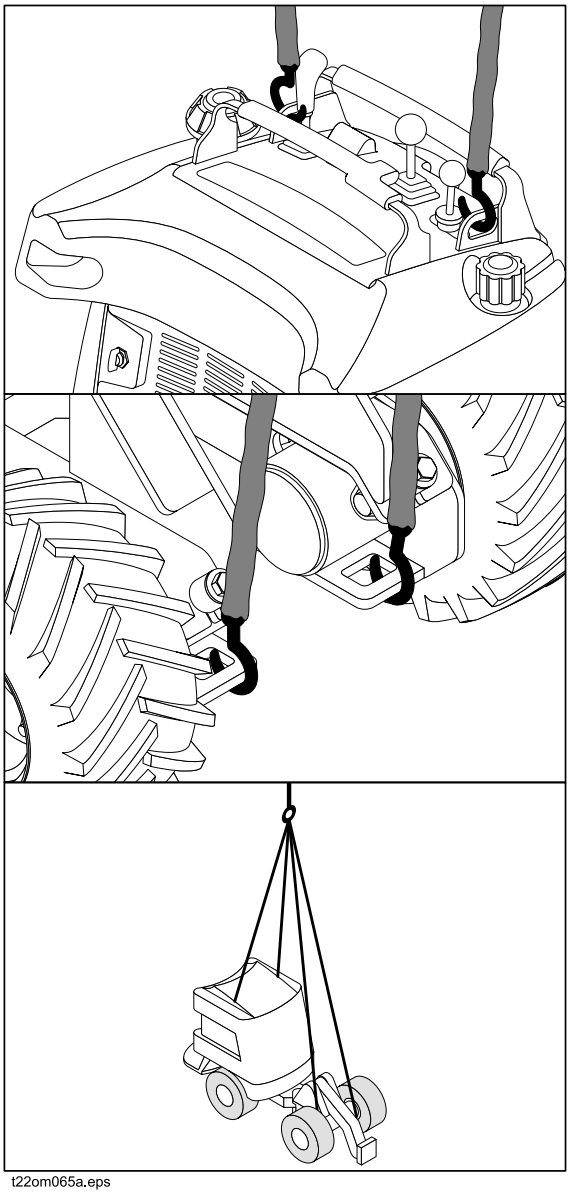
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Procedure

Use equipment capable of supporting machine's size and weight. See "Specifications" on page 91 or measure and weigh equipment before lifting.

R300 with 4-Wheel Drive Unit Only

Lock articulation joint and use four lift points as shown.


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R300 with 4-Wheel Drive Unit and Front End

To lift machine with 4-wheel drive unit and front end, lock articulation joint and follow instructions in appropriate front end operator's manual.

Haul



WARNING Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.

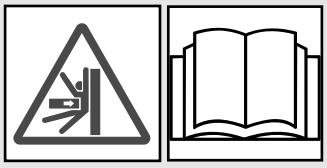
To help avoid injury:

- Read trailer operator's manual before loading or transporting machine.
- Ensure tow vehicle has proper tow capacity rating.
- Attach trailer to vehicle before loading or unloading.
- Load and unload trailer on level ground.
- To help prevent trailer sway, load trailer so that 10-15 percent of total vehicle weight (equipment plus trailer) is on tongue.
- If loading onto tilt-bed trailer, be prepared for trailer to tilt.

Inspect Trailer

- Check hitch for wear and cracks.
- Check battery for 12V charge.
- Inspect lights for cleanliness and correct operation.
- Inspect reflectors and replace if needed.
- Check tire pressure.
- Check lug nut torque.
- Ensure trailer brakes are adjusted to come on with tow vehicle brakes.
- Check trailer bed for cracks.

Load



WARNING Horizontal movement. Crushing can cause death or serious injury. Read and understand operator's manual and all safety instructions before use.



WARNING Crushing can cause death or serious injury. When loading/unloading, run at low throttle and drive cautiously. Keep attachments low.

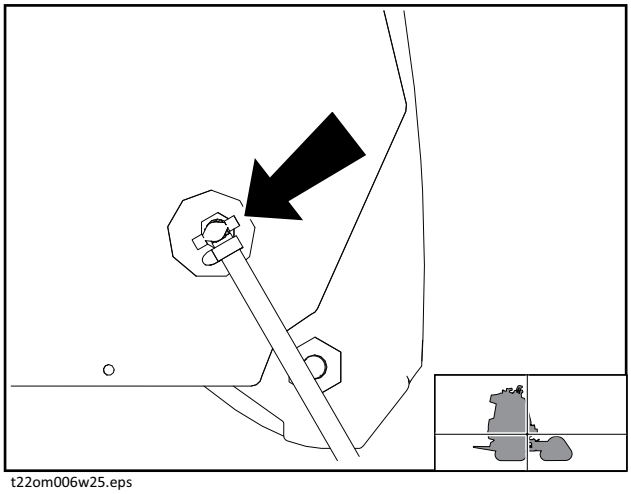
To help avoid injury:

- Always operate with load end uphill.
- Lock articulation joint when transporting.
- Never remove front end from InterChange connection before loading or unloading machine.

1. Disengage parking brake.
2. Start engine and set to low throttle.
3. Raise front end clear of trailer, but keep it low.
4. Move machine to rear of trailer and align with ramps.
5. Drive forward slowly to move machine onto trailer until tiedown position is reached.

NOTICE: If loading onto tilt-bed trailer, be prepared for trailer to tilt. Load machine as far to the front of trailer as possible.

6. Lower front end to trailer bed.
7. Ensure all controls are in neutral position.
8. Set parking brake.
9. Lock articulation joint.
10. Shut off machine.
11. Close fuel tank shutoff valve (shown).
12. Tie down machine.

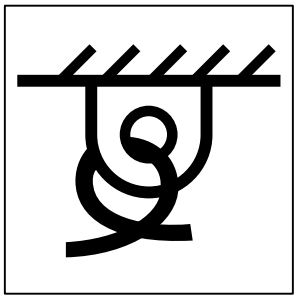


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Tie Down

Points

Tiedown points are identified by tiedown decals. Securing to truck or trailer at other points is unsafe and can damage machinery.


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Procedure

IMPORTANT:

- Never remove front end from InterChange connection before loading or unloading machine.
- Use a crane or hoist if loading additional front ends onto trailer.

To tie down machine with any front end, see appropriate front end operator's manual.

Unload



WARNING Crushing can cause death or serious injury. When loading/unloading, run at low throttle and drive cautiously. Keep attachments low.

To help avoid injury: Never remove front end from InterChange connection before loading or unloading machine.

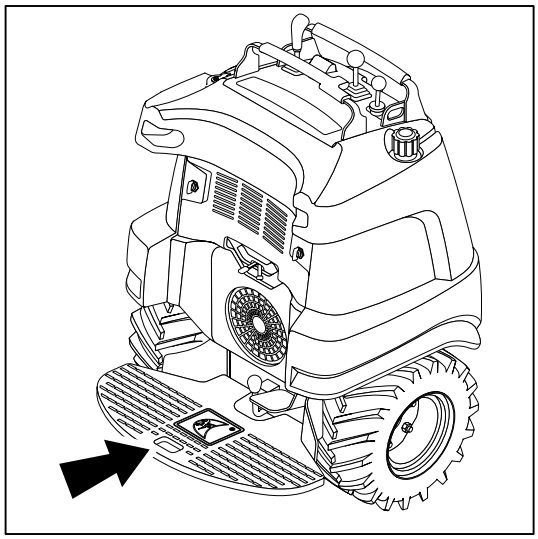
1. Prepare trailer and ramps for unloading.
2. Remove tiedowns.
3. Unlock articulation joint.
4. Open fuel shutoff valve.
5. Release parking brake.
6. Start engine.
7. Raise front end clear of trailer, but keep it low.
8. Slow to low throttle.
9. Slowly back machine down trailer or ramps.

NOTICE: If unloading from tilt-bed trailer, be prepared for trailer to tilt.

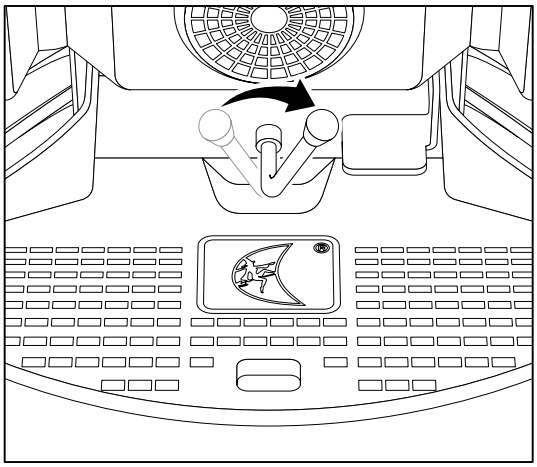
Retrieve

Under normal conditions, machine should not be towed. If machine becomes disabled and retrieval is necessary:

- Tow for no more than 200 yd (180 m) at less than 1 mph (1.6 km/hr).
- Use towing chains appropriately rated for maximum towing force.
- Attach tow line to all available tiedown points (shown) facing towing vehicle.
- Steering will be difficult.
- Disengage parking brake, as shown.



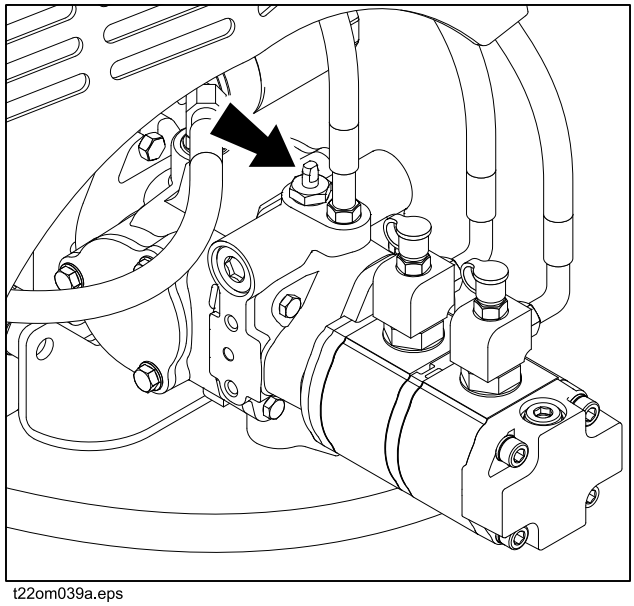
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Prepare Machine for Towing

1. Ensure parking brake is engaged.
2. Block wheels.
3. Connect to tow point.
4. Turn tow valve (shown) counterclockwise 1/4 turn.
5. Disengage parking brake.
6. Unblock wheels.



t22om039a.eps

Return Machine to Normal Operation

1. Engage parking brake.
2. Block wheels.
3. Disconnect from tow point.
4. Turn tow valve clockwise 1/4 turn.
5. Remove wheel blocks.
6. Disengage parking brake.

Complete the Job

Chapter Contents



For additional precautions, see "Safety" and "Prepare" chapters.

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Rinse Equipment 52

Stow Tools 52

Store Machine 52

- Short Term 52
- Long Term 52

Decommission Machine 52

Restore Jobsite

After product is installed, return spoils to the trench with shovels or small earth-moving equipment.

Rinse Equipment

NOTICE: Do not spray water onto operator console. Water can damage electrical components. Wipe down instead.

Spray water onto equipment to remove dirt and mud.

Stow Tools

Ensure all tools and accessories are loaded and properly secured on trailer.

Store Machine

Short Term

Before storing, ensure machine is rinsed, equipment is stowed, and all fluids are filled. For more information on filling fluids, see Maintenance chapter or contact your Ditch Witch dealer.

Long Term

To store machine for periods of time exceeding two months:

- Ensure exposed parts are treated with anti-rust agent.
- Touch up paint as needed to prevent rusting.
- Lubricate machine and apply grease to unpainted surfaces.
- Inflate tires to recommended tire pressure. See "Tire Pressure" on page 67.
- Drain fuel or treat fuel with stabilizer.

Decommission Machine

Before decommissioning machine, follow local regulations for disposing of hazardous substances. For more information on draining fluids, see Maintenance chapter or contact your Ditch Witch dealer.

Maintenance

Chapter Contents



For additional precautions, see "Safety" and "Prepare" chapters.

IMPORTANT: For more information on how to operate controls, see "Controls" chapter.

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- Consumables Disposal Precaution 54
- Refueling Precaution 55
- Welding Precaution 55
- Washing Precaution 55

Recommended Lubricants 56

- Engine Oil Temperature Chart 57
- Approved Fuel 57

Maintenance Interval Chart 58

Procedures 59

Maintenance Precautions



WARNING Jobsite hazards. Exposure can cause death or serious injury. Use correct equipment and work methods. Use and maintain appropriate safety equipment.

To help avoid injury:

- Wear personal protective equipment including hard hat, safety eye wear, foot protection, hearing protection, and gloves (except when near rotating equipment).
- Remove jewelry.
- Wear close-fitting, high visibility clothing.
- Have other personal protective equipment, such as insulated boots and gloves, breathing protection, and face shield, etc. available for use depending on jobsite hazards or requirements.



WARNING Misuse of machine can cause death or serious injury. Read and understand operator's manual and all other safety instructions before use. Know how to use all controls.

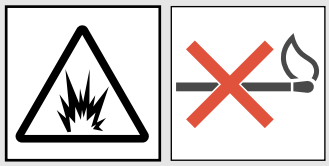
To help avoid injury:

- Unless otherwise instructed, all maintenance should be performed with the engine off and cool.
- Lower unsecured, raised components before servicing equipment.
- Unless otherwise instructed, all maintenance should be performed with machine parked on level surface.
- Refer to US Occupational Safety and Health Administration (OSHA) guidelines for appropriate lockout-tagout procedures.

Consumables Disposal Precaution

Properly dispose of all maintenance consumables (filters, fluids, batteries, etc.) in accordance with state and local regulations.

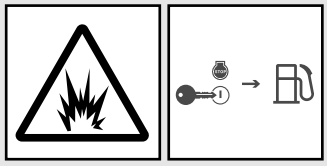
Refueling Precaution



WARNING Gasoline. Fire or explosion can cause death or serious injury. Keep heat, flames, sparks and other ignition sources away.

To help avoid injury:

- Touch a metal surface away from fuel tank to discharge any static electricity.
- Ensure anyone near open fuel tank has discharged any static electricity.



DANGER Gasoline. Fire or explosion can cause death or serious injury. Shut down engine before refueling.

To help avoid injury:

- Ensure engine has completely cooled before removing fuel cap.
- Always hold grips on fuel tank cap and loosen slowly to relieve any pressure in tank.
- Ensure fuel nozzle is inserted securely into filler neck before refueling.

NOTICE: Clean spilled fuel immediately.

Washing Precaution

NOTICE: Water can damage electronics. When cleaning equipment, do not spray electrical components with water.

Welding Precaution

NOTICE: Welding can damage electronics.

- Welding currents can damage electronic components. Always disconnect the ECU ground connection from the frame, harness connections to the ECU, and other electronic components prior to welding on machine or attachments.
- Connect welder ground close to welding point and make sure no electronic components are in the ground path.
- Failure to disconnect battery will cause damage to battery.

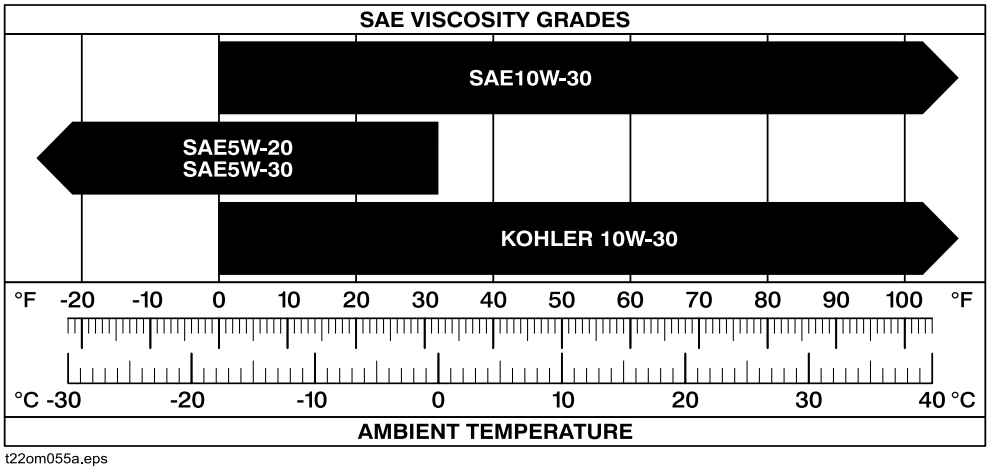
Recommended Lubricants

Item	Description
GEO	Gasoline engine oil meeting or exceeding API SJ See oil temperature chart for recommended viscosity grade .
MPG	Multipurpose grease meeting ASTM D217 and NLGI 3
THF	Tractor hydraulic fluid, Phillips 66® PowerTran Fluid, Mobilfluid® 432, Chevron® Tractor Hydraulic Fluid, Texaco® TDH Oil, or equivalent

Proper lubrication and maintenance protects Ditch Witch equipment from damage and failure. Maintenance intervals listed are for minimum requirements. In extreme conditions, service machine more frequently. Use only genuine Ditch Witch parts, filters, approved lubricants, TJC, and approved coolants to maintain warranty. Fill to capacities listed in "Specifications" on page 91.

For more information on engine lubrication and maintenance, see your engine manual.

Engine Oil Temperature Charts



Temperature range anticipated before next oil change

Approved Fuel

NOTICE: Incorrect fuel will damage the engine. Use only approved fuel.

This engine is designed to run on unleaded gasoline. Use only high quality fuel meeting ASTM D4814, EN228, or equivalent. Ethanol blends up to 10% (E10) are approved for use in this machine.

Minimum octane rating:

- 87 pump octane number [(R+M)/2]
- 91 research octane number (RON)

At altitudes above 5000 ft (1524 m), lower octane fuels may be acceptable. Carburetors may also require adjustment. Consult engine operator's manual, your Ditch Witch dealer, or authorized engine servicing dealer for more information.

Maintenance Interval Chart

IMPORTANT: Chart indicates first instance of repeated maintenance procedures. See detailed information below.

▽	Adjust, service, or test	□	Change, initial	○	Lube, initial
▲	Check	■	Change	●	Lube

Service	Startup	10 Hours	20 Hours	100 Hours	200 Hours	250 Hours	500 Hours	As Needed
Battery		▲						▽
Cooler, hydraulic fluid								▽
Cruise control brake								▽
Filter, air				■				
Filter, engine oil (see Oil, engine)								
Filter, fuel					■			
Filter, hydraulic fluid (see Fluid, hydraulic)								
Fluid, hydraulic	▲					■		
Fuses								▽
Ground drive pump							▽	▽
Hydraulic hoses	▲	▲						
Oil, engine	▲		□	■				
Parking brake	▲							
Tires	▲							
Wheel tracks		●						

Procedures

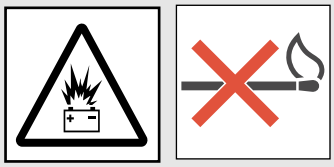
Battery



WARNING Corrosive fluid. Contact can cause death or serious injury. Avoid contact. Wear appropriate gloves. See Safety Data Sheet (SDS) for more information.

To help avoid injury:

- Never attempt to charge a battery that is leaking, bulging, heavily corroded, frozen, or otherwise damaged.
- Refer to Safety Data Sheet (SDS) for additional information regarding battery.



WARNING Explosive hydrogen gas. Fire or explosion can cause death or serious injury. Keep heat flames, sparks, and other sources of ignition away.

To help avoid injury:

- Use a single 12V maximum source for charging. Never connect to rapid chargers or dual batteries.
- Never lean over battery when making connections.
- Never allow vehicles to touch when charging.
- Never short-circuit battery terminals for any reason or strike battery posts or cable terminals.
- Refer to Safety Data Sheet (SDS) for additional information regarding battery.

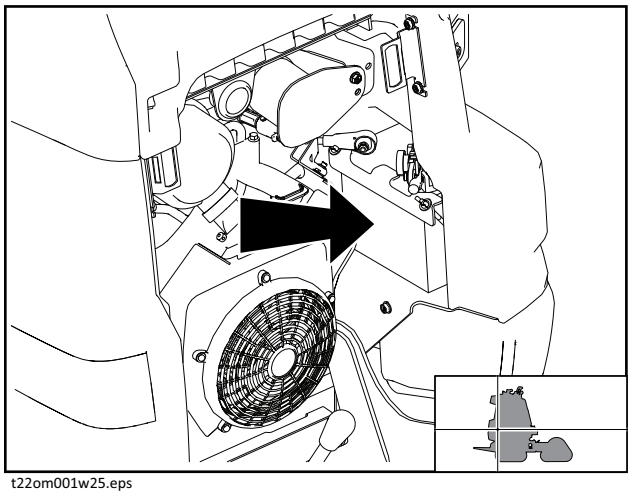
NOTICE:

- Electronic components can be easily damaged by electrical surges. Jump starting can damage electronics and electrical systems, and is not recommended. Try to charge the battery instead. Use quality large diameter jumper cables capable of carrying high currents (400 amps or more). Low quality cables may not allow enough current flow to charge a dead/discharged battery.
- Read all steps thoroughly and review illustration before performing procedure.

Check battery every 10 hours. Charge as needed.

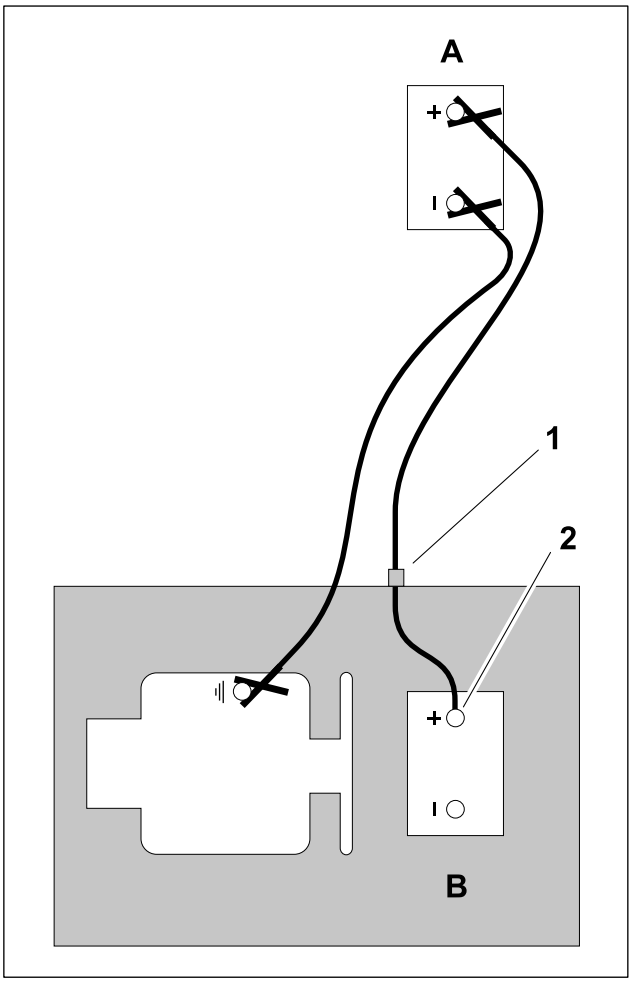
Check

1. Disconnect battery at battery disconnect switch, if equipped.
2. Ensure no ignition sources are near battery.
3. Remove bolts to remove battery hold-down.
4. Loosen and remove battery cable clamps carefully, negative (-) cable first.
5. Clean cable clamps and terminals to remove dull glaze.
6. Check for signs of internal corrosion in cables.
7. Connect battery cable clamps, positive (+) cable first.
8. Tighten any loose connections.
9. Install battery hold-down.
10. Loosely tighten bolts.
11. Turn battery disconnect, if equipped, on.



t22om001w25.eps

Charge



Battery_Jumpstart_B.eps

1. Park service vehicle close to disabled equipment but do not allow vehicles to touch.
2. Set parking brake in both, if equipped.
3. Turn both off.
4. Disconnect machine controller, if equipped.
5. Inspect battery in disabled machine (B) for signs of cracking, bulging, leaking, or other damage.
6. Connect red positive (+) jumper cable clamp to positive (+) post of battery (2) in disabled machine.

   IMPORTANT: Some equipment may have a positive jumper cable terminal (1) located externally. If so equipped, connect red positive (+) jumper cable clamp to terminal.

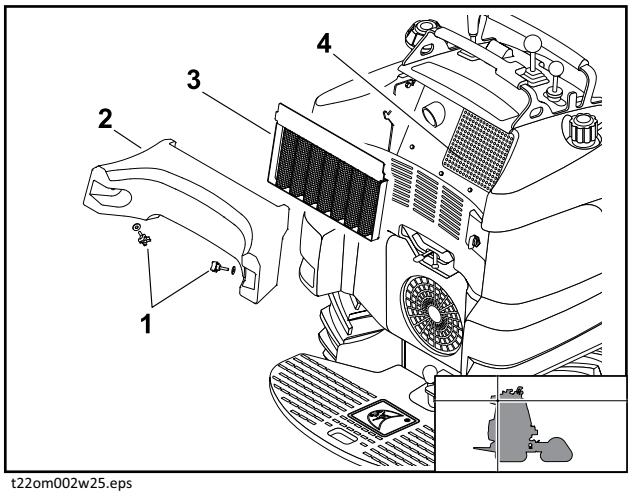
7. Connect the other red positive (+) jumper cable clamp to positive (+) post of battery in service vehicle (A).
8. Connect black negative (-) cable clamp to negative (-) post of battery in service vehicle.
9. Connect the other black negative (-) cable clamp to engine or frame ground on disabled machine, at least 12 in (305 mm) from failed battery, as shown.
10. Operate service vehicle engine at 1500-2000 rpm for a few minutes to build an electrical charge in failed battery.
11. Stop engine in service vehicle.
12. Remove jumper cables from service vehicle, black negative (-) clamp first. Do not allow clamps to touch.
13. Remove black negative (-) cable clamp from disabled engine or frame ground.
14. Remove red positive (+) cable clamp from disabled machine.
15. Reconnect machine controller, if equipped.
16. Start disabled machine.

Cooler, Hydraulic Fluid

NOTICE: Do not use high-pressure air or water.

Clean hydraulic fluid cooler fins and screen as needed.

1. Remove bolts (1) and rear cushion (2.)
2. Pop out screen (3) and clean.
3. Clean cooler fins (4) with compressed air or spray wash, if required. Be careful not to damage fins with high-pressure air or water.
4. Install screen and rear cushion and secure with bolts.



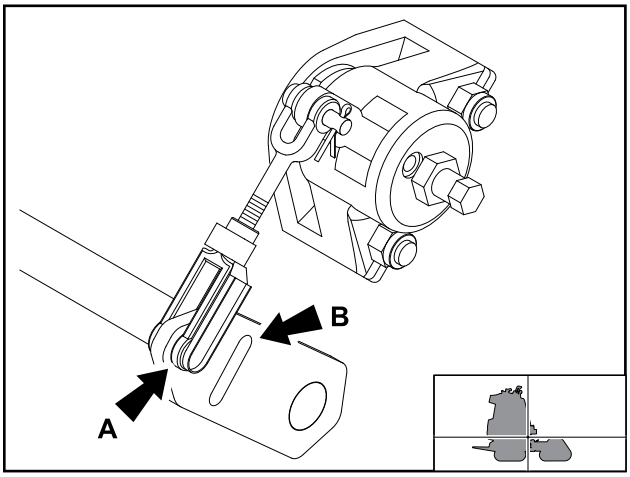
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Cruise Control Brake

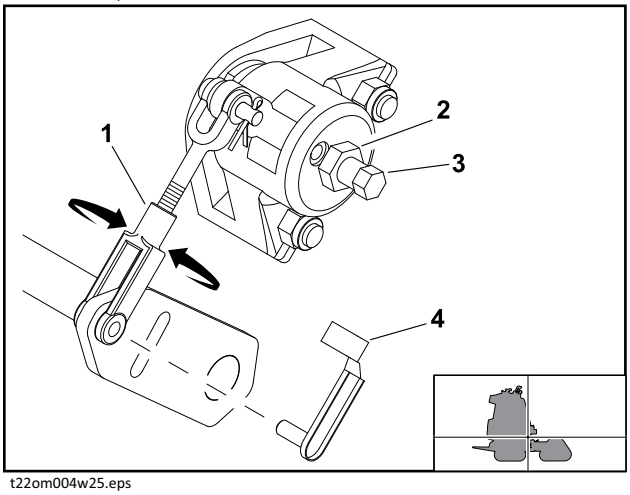
Engage (A) or disengage (B) cruise control brake as desired.

Adjust cruise control brake as desired. A loose brake allows more override while a tight brake allows less override.

1. Open arm (4) and remove pin.
2. Rotate linkage (1) counterclockwise to tighten or clockwise to loosen.
3. If brake is still loose, loosen jam nut (2) and turn screw (3) clockwise to tighten and counterclockwise to loosen brake.
4. Rotate linkage as needed to adjust.
5. Reinstall arm.



t22om003w25.eps

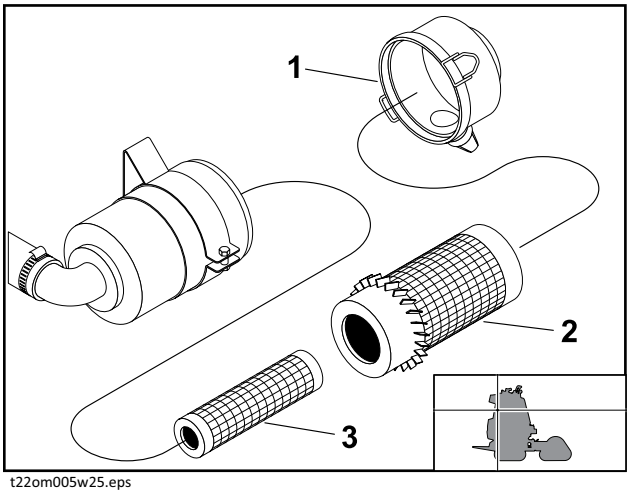


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Filter, Air

Change every 100 hours.

1. Unlatch and remove air filter cover (1).
2. Remove element (2,3).
3. Wipe inside of housing and wash cover.
4. Inspect elements. Replace if needed.
5. Insert elements and ensure they are seated correctly.
6. Replace cover with dust ejector facing down.

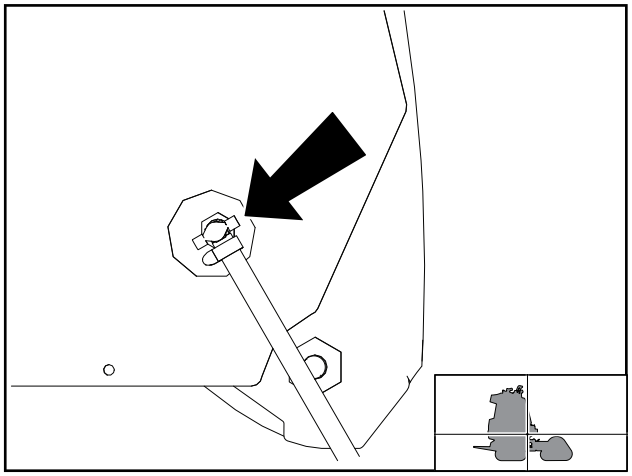


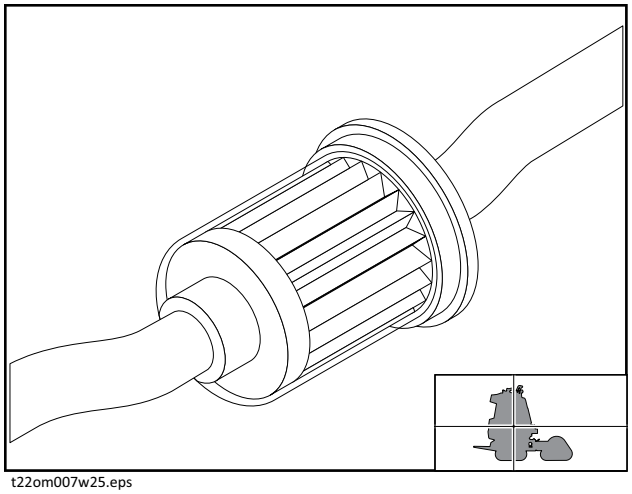
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Filter, Fuel

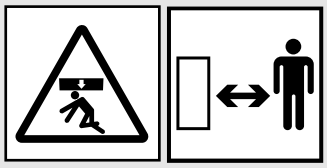
Change every 200 hours.

1. Close fuel tank shutoff valve (top illustration).
2. Change fuel filter (bottom illustration).
3. Open fuel tank shutoff valve.


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t22om007w25.eps

Fluid, Hydraulic

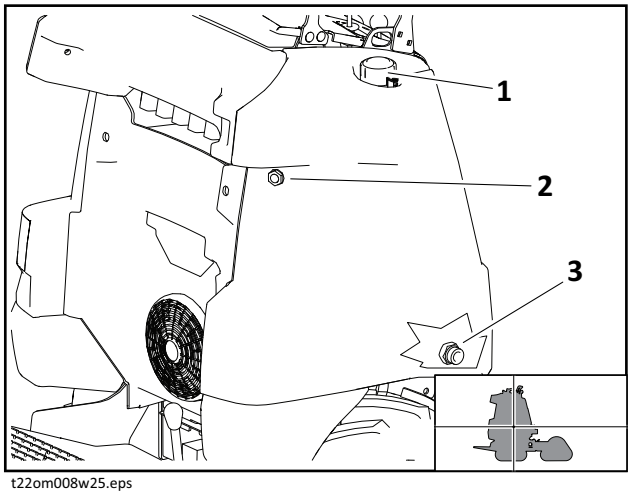


WARNING Lifted load. Crushing weight can cause death or serious injury. Stay away from lifted load and its range of movement.

Check before startup. Change every 250 hours.

Check

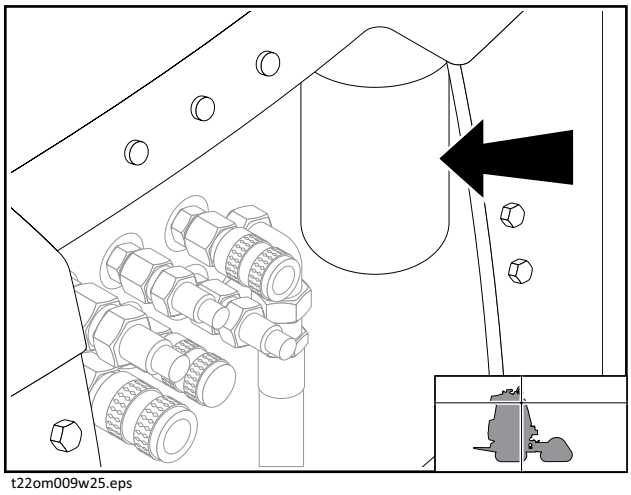
1. Check level at sight glass (1).
2. Add THF at fill (2) as needed to keep level at halfway point on sight glass.



t22om008w25.eps

Change

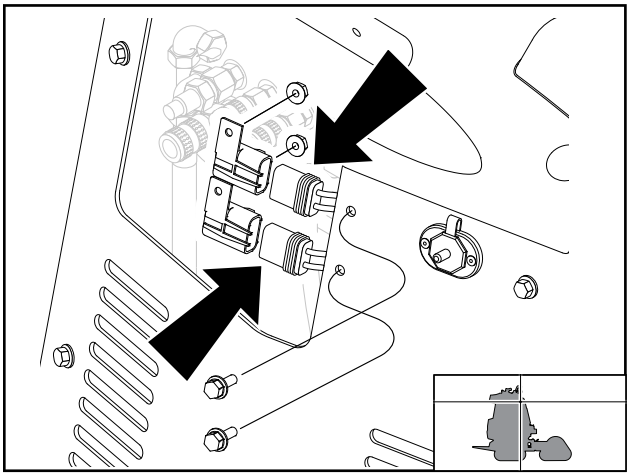
1. Remove plug (3) to drain.
2. Install plug.
3. Change filter (shown).
4. Add THF at fill until level is at halfway point on sight glass.


t22om009w25.eps

Fuses

Change as needed.

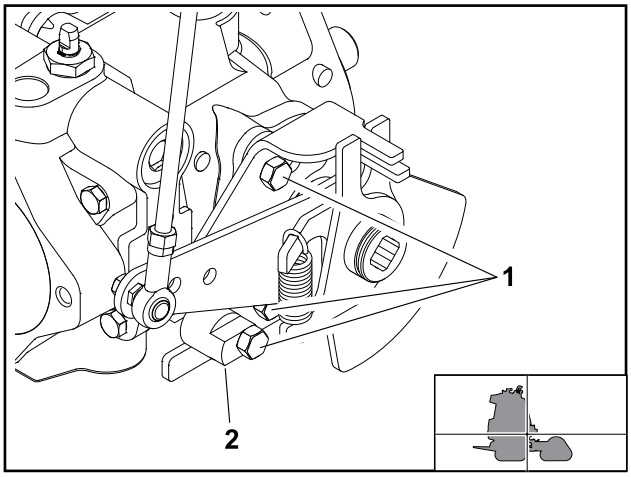
- Blue with red stripe wire is 15A
- Orange with blue stripe wire is 30A


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Ground Drive Pump

Adjust Neutral

Adjust ground drive pump neutral every 500 hours or when spring is rusted or worn.



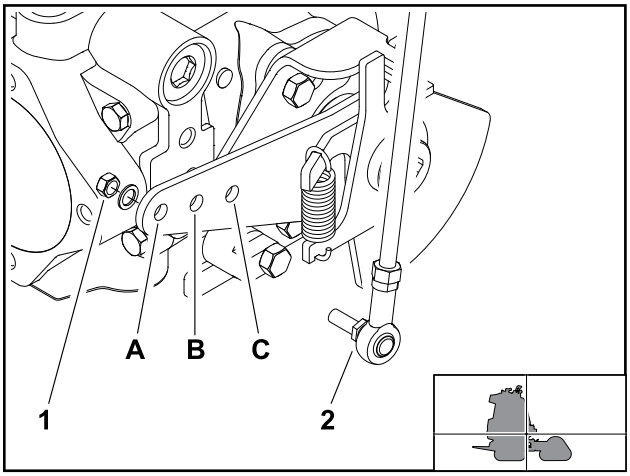
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1. Check adjustment with throttle at low speed and hydraulic fluid at operating temperature. Ensure all neutral components are working properly before adjusting.
2. If adjustment is needed, shut down machine.
3. Use a hoist or jack stands to raise machine until all tires/tracks are off the ground.
4. Loosen bolts (1).
5. Start machine and bring hydraulic fluid to operating temperature.
6. Adjust throttle to full speed.
7. Disengage parking brake. Tires/tracks could turn.
8. Slowly rotate cam (2) until tires/tracks stop. Tires might not come to a complete stop with machine raised. Adjust to the least amount of tire/track movement possible.
9. Tighten bolts.
10. Engage parking brake.
11. Shut down machine.
12. Lower machine to the ground.

Adjust speed

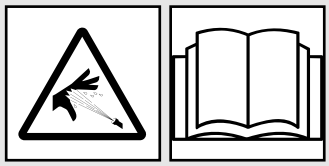
Adjust ground drive speed as desired.

1. Remove nut (1) and lock washer.
2. Move linkage (2) to the hole that corresponds with desired speed range.
   - A is low
   - B is medium
   - C is high
3. Tighten nut.



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Hydraulic Hoses

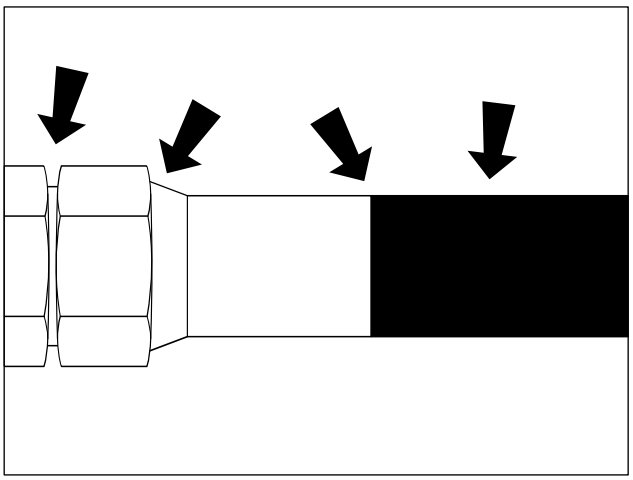


WARNING Pressurized fluid or air. Injection can cause death or serious injury. Refer to operator's manual for correct use.

To help avoid injury:

- Use a piece of cardboard or wood, rather than hands, to check for leaks.
- Before disconnecting a hydraulic line, turn engine off and operate all controls to relieve pressure.
- Contact your Ditch Witch dealer for assistance with relieving trapped pressure.
- Lower, block, or support any raised component with a hoist.
- Cover connection with heavy cloth and loosen connector nut slightly to relieve residual pressure. Catch all fluid in a container.
- Before using system, check that all connections are tight and all lines are undamaged.
- If you are injured, seek immediate medical attention from a doctor familiar with this type of injury.

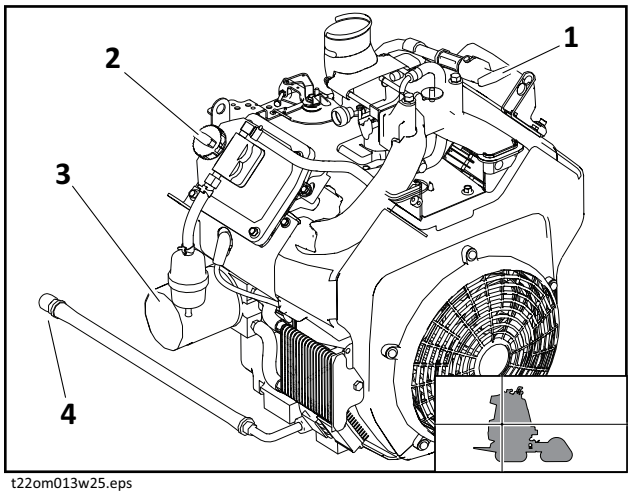
Check for leaks where shown before startup and every 10 hours.



CheckHoses.eps

Oil, Engine

Check level before startup. Change every 100 hours.



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Check

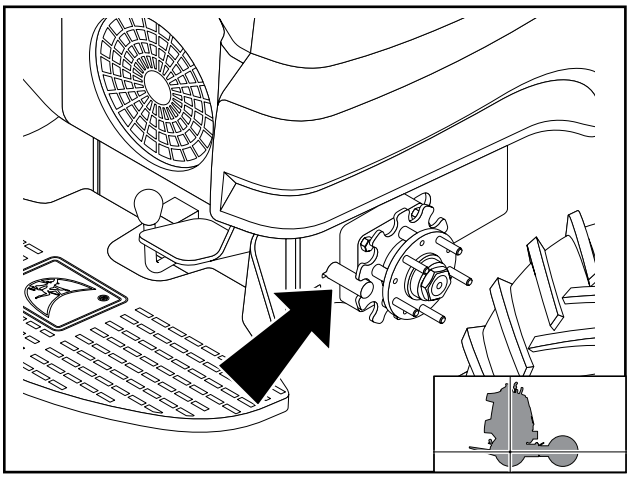
1. Check level at dipstick (1).
2. Add GEO at fill (2) as needed to keep level at highest line on dipstick.

Change

1. While oil is warm, move drain hose (4) to front of machine and drain.
2. Install plug.
3. Replace filter (3) each time oil is changed.
4. Add GEO at fill (2) to keep level at highest line on dipstick.

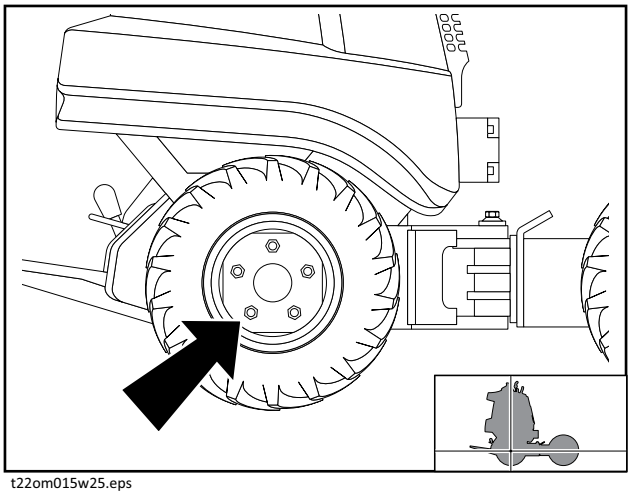
Parking Brake

Verify that parking brake pins engage as shown before each use.


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Tires

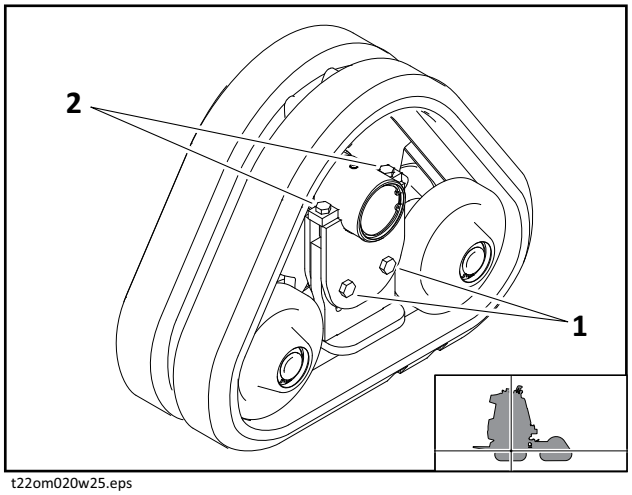
Check lug nuts (shown) before each use. Tighten to 65-70 ft-lb (88-95 N•m) as needed.


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Wheel Track Tension

Adjust wheel track tension, if equipped, when tracks are replaced.

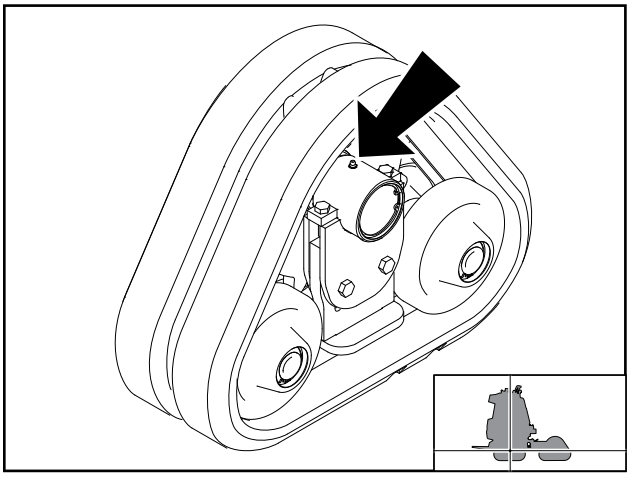
1. Loosen clamp screws (1) and locknuts.
2. Tighten tension screws (2) to 38 ft-lb (52 N•m).
3. Tighten clamp screws and locknuts to 67 ft-lb (90.8 N•m).



t22om020w25.eps

Wheel Tracks

Lube, if equipped, with MPG at zerk every 10 hours.


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Specifications

Specifications are called out according to SAE recommended practices. Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not match that shown.

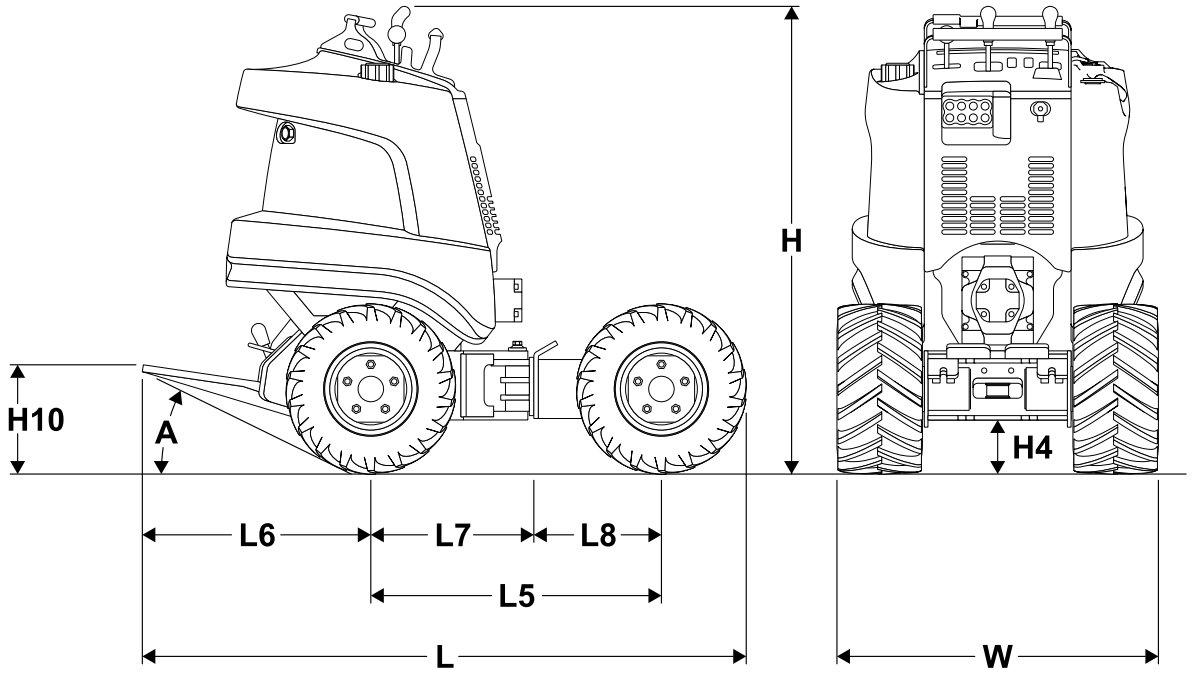
Chapter Contents

R300 72

EU Declaration of Conformity 76

UK Declaration of Conformity 77

R300



t22om001a.eps

Dimensions		US	Metric
A	Angle of departure	25°	25°
H	Height, driving	53.5 in	1.36 m
H4	Ground clearance	5.3 in	135 mm
H10	Height, platform	10.7 in	272 mm
L	Length, driving	70 in	1.8 m
L5	Wheelbase	34.2 in	869 mm
L6	Tractor back to rear axle	26.8 in	681 mm
L7	Rear axle to attachment mounting	19.2 in	488 mm
L8	Attachment mounting to front axle	15 in	381 mm
W2	Width	36 in	914 mm
Weight			
	With tires	1290 lb	585 kg
	With tracks	1629 lb	738 kg
Vehicle clearance circle (SAE), wall-to-wall			

Dimensions		US	Metric
	With 18x9.50x8 tires, left turn	10.5 ft	3.20 m
	With 18x9.50x8 tires, right turn	11.3 ft	3.44 m
	With tracks, left turn	16.7 ft	5.08 m
	With tracks, right turn	15.8 ft	4.80 m

Unless otherwise noted, dimensions are based on 18x9.50x8 tires.

Operation		US	Metric
Ground drive speed, forward with tires			
	High	5 mph	8.0 km/h
	Low	3.5 mph	5.6 km/h
Ground drive speed, forward with tracks			
	High	3.2 mph	5.1 km/h
Ground drive speed, reverse with tires			
	High	5 mph	8.0 km/h
	Low	3.5 mph	5.6 km/h
Ground drive speed, reverse with tracks			
	High	2.5 mph	4 km/h
Ground pressure			
	18x9.5-8 tires	10 psi	0.7 bar
	20x10-8 tires	9 psi	0.6 bar
	Tracks (averaged)	3.11 psi	0.21 bar

Engine		**US**	**Metric**
Kohler CH750S			
	Fuel	Gasoline	
	Cooling medium	Air	
	Number of cylinders	2	
	Displacement	45.6 in^3	747 cm^3
	Bore	3.30 in	83 mm
	Stroke	2.70 in	69 mm
Manufacturer's net power rating (per SAE J1940)		27 hp	20.1 kW
Rated speed		3600 rpm	3600 rpm

Battery
SAE cold crank rating @ 0°F (-18°C): 200 amps; SAE reserve capacity 32 min

Power Train	**US**	**Metric**
Parking brake: mechanical, hand operated		
Service brake: ground drive speed/direction control brakes machine hydraulically when moved to neutral position		
Tires		
Urethane filled 18x9.5-8, 2 ply, bar lug tire assembly weight	36 lb	16.33 kg
Urethane filled 20x10-8, ply, bar lug tire assembly weight	49 lb	22.23 kg

Hydraulic System		US	Metric
Auxiliary: gear pump			
	Flow rate	12 gpm	46 L/min
	Pressure	3000 psi	207 bar
Ground drive: hydrostat			
	Flow rate	19.3 gpm	73 L/min
	Pressure	3500 psi	241 bar

Fluid Capacities	US	Metric
Engine oil, with filter	2 qt	1.9 L
Fuel tank	9 gal	34.1 L
Hydraulic reservoir	7.7	29.1 L
Hydraulic system	8.5 gal	32.2 L

Noise Level	
Operator sound pressure per ISO 6396	90 dBA ±2 dBA
Exterior sound power per ISO 6395	102 dBA ±2 dBA
Actual noise emission in jobsite conditions could be different. Always wear appropriate hearing protection when operating the machine.	

Vibration Levels when Plowing	
Operator hand/arm during normal operation)	up to 18.1 m/sec^2 ±7.22 m/sec^2
Operator body during normal operation	up to 1.04 m/sec^2 ± 0.41 m/sec^2
Vibration levels listed are for typical operation with a plow. Actual jobsite conditions could be different.	

Vibration Levels when Trenching	
Operator hand/arm during normal operation)	up to 13.6 m/sec^2 ±5.45 m/sec^2
Operator body during normal operation	up to 8.55 m/sec^2 ± 3.42 m/sec^2
Vibration levels listed are for typical operation with a trencher. Actual jobsite conditions could be different.	

EU Declaration of Conformity

The Charles Machine Works Inc., PO Box 66, 1959 West Fir Avenue, Perry, Oklahoma, USA, declares that the following unit(s):

Model	Serial Number	Description
XXXXX	XXXXXXXXXXXXXXXX	Compact Tool Carrier

Conform(s) to the following directives:

2006/42/EC (Machinery Directive) and 2014/30/EU (Electromagnetic Compatibility Directive)

Each model listed has been evaluated with the following standards and/or other normative documents:

EN 474-1:2022
EN ISO 13766-1:2018

The Technical Construction File is maintained at the manufacturer's location.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant Union harmonization legislation.

Certified:

Engineering Director
1959 West Fir Avenue
Perry, OK 73077, USA

Date _____

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro Europe NV
Nijverheidsstraat 5
2260 Oevel
Belgium

UK Declaration of Conformity

The Charles Machine Works Inc., PO Box 66, 1959 West Fir Avenue, Perry, Oklahoma, USA, declares that the following unit(s):

Model	Serial Number	Description
XXXXX	XXXXXXXXXXXXXXXX	Compact Tool Carrier

Conform(s) to the following UK national laws:

S.I. 2008 No.1597 (Machinery Safety), and S.I. 2016 No.1091 (EMC).

Each model listed has been evaluated with the following standards and/or other normative documents:

EN 474-1:2022
EN ISO 13766-1:2018

The Technical Construction File is maintained at the manufacturer's location.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant UK legislation.

Certified:

Engineering Director
1959 West Fir Avenue
Perry, OK 73077, USA

Date _____

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro U.K. Limited
Spellbrook Lane West
Bishop's Stortford
CM23 4BU
United Kingdom

Support

Registration

If your equipment was purchased through a Ditch Witch dealer, it is already registered. If you purchased from any other source, please email productsupportwarrantyadmin@ditchwitch.com or fill out the registration card located in the back of the parts manual. Registration enables you to receive updates on this equipment as well as information on new products of interest.

Procedure

Notify your dealer immediately of any malfunction or failure of Ditch Witch equipment.

Always give model, serial number, and approximate date of your equipment purchase. This information should be recorded and placed on file by the owner at the time of purchase.

Return damaged parts to dealer for inspection and warranty consideration if in warranty time frame.

Order genuine Ditch Witch replacement or repair parts from your authorized Ditch Witch dealer. Use of another manufacturer's parts may void warranty consideration.

Resources

Publications

Contact your Ditch Witch dealer for publications and videos covering safety, operation, maintenance, and repair of your equipment.

Ditch Witch Training

For information about on-site individualized training, contact your Ditch Witch dealer.

Warranty

Ditch Witch Equipment and Replacement Parts
Limited Warranty Policy

Subject to the limitation and exclusions herein, free replacement parts will be provided at any authorized Ditch Witch dealership for any Ditch Witch equipment or parts manufactured by the Ditch Witch factory that fail due to a defect in material or workmanship within one (1) year of first commercial use. Free labor will be provided at any authorized Ditch Witch dealership for installation of parts under this warranty during the first year following "initial commercial" use of the serial-numbered Ditch Witch equipment on which it is installed. The customer is responsible for transporting their equipment to an authorized Ditch Witch dealership for all warranty work.

Exclusions from Product Warranty

- All incidental or consequential damages.
- All defects, damages, or injuries caused by misuse (including, but not limited to, rollover), abuse, improper installation, alteration, neglect, or uses other than those for which products were intended.
- All defects, damages, or injuries caused by improper training, operation, or servicing of products in a manner inconsistent with manufacturer's recommendations.
- All engines and engine accessories (these are covered by original manufacturer's warranty).
- Tires, belts, and other parts which may be subject to another manufacturer's warranty (such warranty will be available to purchaser).
- ALL IMPLIED WARRANTIES NOT EXPRESSLY STATED HEREIN, INCLUDING ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY.

IF THE PRODUCTS ARE PURCHASED FOR COMMERCIAL PURPOSES, AS DEFINED BY THE UNIFORM COMMERCIAL CODE, THEN THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF AND THERE ARE NO IMPLIED WARRANTIES OF ANY KIND WHICH EXTEND TO A COMMERCIAL BUYER. ALL OTHER PROVISIONS OF THIS LIMITED WARRANTY APPLY INCLUDING THE DUTIES IMPOSED.

Ditch Witch products have been tested to deliver acceptable performance in most conditions. This does not imply they will deliver acceptable performance in all conditions. Therefore, to assure suitability, products should be operated under anticipated working conditions prior to purchase.

Defects will be determined by an inspection within thirty (30) days of the date of failure of the product or part by Ditch Witch Product Support (DWPS) or its authorized dealer. DWPS will provide the location of its inspection facilities or its nearest authorized dealer upon inquiry. DWPS reserves the right to supply remanufactured replacements parts under this warranty as it deems appropriate.

Extended warranties are available upon request from your local Ditch Witch dealer or the Ditch Witch factory.

Some states do not allow exclusion or limitation of incidental or consequential damages, so above limitation of exclusion may not apply. Further, some states do not allow exclusion of or limitation of how long an implied warranty lasts, so the above limitation may not apply. This limited warranty gives product owner specific legal rights and the product owner may also have other rights which vary from state to state.

For information regarding this limited warranty, contact the DWPS department, P.O. Box 66, Perry, OK 73077-0066, or contact your local dealer.

First version: 1/91; Latest version: 7/19

Evaporative Emission Control

Federal Evaporative Emission Control Warranty Statement
Your Warranty Rights and Obligations

Introduction

The Environmental Protection Agency (EPA) and The Charles Machine Works, Inc. are pleased to explain the evaporative emission control system's warranty on your Ditch Witch® equipment. New equipment that use small/large off-road spark engines must be designed, built, and equipped to meet stringent anti-smog standards. The Charles Machine Works, Inc. must warrant the evaporative emission control system on your equipment for the period listed below provided there has been no abuse, neglect, or improper maintenance of your equipment leading to the failure of the evaporative emission control system.

Your evaporative emission control system may include parts such as: carburetors, fuel tanks, fuel lines (for liquid fuel and fuel vapors), fuel caps, valves, canisters, filters, clamps, connectors, and other associated emission-related components.

Manufacturer's Warranty Coverage

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by The Charles Machine Works, Inc.

Owner's Warranty Responsibilities

As the equipment owner, you are responsible for performance of the required maintenance listed in your operator's manual. The Charles Machine Works, Inc. recommends that you retain all receipts covering maintenance on your equipment, but The Charles Machine Works, Inc. cannot deny warranty solely for the lack of receipts.

As the equipment owner, you should be aware that The Charles Machine Works, Inc. may deny you warranty coverage if your equipment or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for presenting your equipment to a Ditch Witch® service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact your local Ditch Witch Dealer or The Charles Machine Works, Inc. at 1-800-433-6652.

General Evaporative Emission Warranty Coverage

The Charles Machine Works, Inc. warrants to the ultimate purchaser and each subsequent purchaser that the equipment is:

- Designed, built, and certified to conform with all applicable emissions regulations, and
- Free from defects in materials and workmanship that could cause the failure of a warranted part, and
- Identical in all material respects to the parts as described in the application for certification.

The warranty period begins on the date the equipment is delivered to an ultimate purchaser. The warranted period is two years. Subject to certain conditions and exclusions as stated below, the warranty on emission-related parts is as follows:

1. Any warranted part that is not scheduled for replacement as required maintenance in the written instructions supplied, is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by The Charles Machine Works, Inc. Any such part repaired or replaced under warranty will be warranted for the remainder of the warranty period.
2. Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Any such part repaired or replaced under the warranty will not reduce the period of warranty coverage and will be warranted for the remainder of the warranty period.
3. Any warranted part that is scheduled for replacement as required maintenance in the written instructions supplied is warranted for the period of time prior to the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part must be repaired or replaced by The Charles Machine Works, Inc. Any such part repaired or replaced under warranty will be warranted for the remainder of the period up to the first scheduled replacement point for the part.
4. Repair or replacement of any warranted part under the warranty provisions herein must be performed at an Authorized Service Dealer at no charge to the owner.
5. Warranty services or repairs will be provided at all Service Dealers authorized to service the subject equipment.
6. The equipment owner will not be charged for diagnostic labor that is directly associated with diagnosis of a defective, emission-related warranted part, provided that such diagnostic work is performed by an Authorized Service Dealer.
7. The Charles Machine Works, Inc. is liable for damages to other engine or equipment components proximately caused by a failure under warranty of any warranted part.
8. Throughout the evaporative emission control system's warranty period stated above, The Charles Machine Works, Inc. will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
9. Manufacturer approved replacement parts may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of The Charles Machine Works, Inc.
10. Add-on or modified parts that are not approved by The Charles Machine Works, Inc. may not be used. The use of a non-approved, add-on, or modified part by the purchaser will be grounds for disallowing a warranty claim. The Charles Machine Works, Inc. will not be liable to warrant failures of warranted parts caused by the use of non-approved, add-on, or modified parts.

Warranted Parts

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such coverage if The Charles Machine Works, Inc. demonstrates that the equipment has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjust limiting device is still eligible for warranty coverage. The following emission warranty parts are covered.

- **fuel tank**
- **control valves***
- **purge valves**
- **fuel cap**
- **control solenoids***
- **gaskets**
- **fuel lines (for liquid fuel and fuel vapors)**
- **electronic controls***
- **liquid/vapor separator**
- **fuel lines fillings**
- **vacuum control diaphragms***
- **carbon canister**
- **clamps**
- **control cables***
- **canister mounting brackets**
- **pressure relief valves***
- **control linkages***
- **carburetor purge port connection**

* As they relate to the installed equipment evaporative control system.