

RTX100

Trencher

Maintenance

Manual



RTX100_m2_03
Serial No. 1001 -
Order No. 105400BN5



Vermeer

EQUIPPED TO
DO MORE.

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Introduction

This manual explains the proper operation of your machine. Study and understand these instructions thoroughly before operating or maintaining the machine. Failure to do so could result in personal injury or equipment damage. Consult your Vermeer dealer if you do not understand the instructions in this manual, or need additional information.

The instructions, illustrations, and specifications in this manual are based on the latest information available at time of publication. Your machine may have product improvements and features not yet contained in this manual.

The maintenance intervals are based on normal operating conditions. When operating under severe conditions, the maintenance intervals should be shortened.

To provide a better view, some photographs or illustrations in the maintenance sections may show the machine shields removed. **Never operate the machine with the shields removed - keep all shields in place.** If removing a shield is necessary, return it to its operating position before operating the machine.

Vermeer Corporation reserves the right to make changes at any time without notice or obligation.

This manual is supplied with each machine. Refer to it for all lubrication and maintenance procedures. Keep this manual with the machine for ready reference. Store it in a protected location when not in use.

Additional copies of the manuals are available from your dealer. Use the reorder number on the front cover to order additional manuals.

Copies of this manual are available in Spanish from your dealer. Other languages may also be available.

Se dispone de ejemplares de este manual en español.

NOTICE TO OWNER

Replacement manuals are free of charge by registering your **used** Vermeer machine. Your machine's Operator's, Maintenance and Parts Manuals may be available online at www.myvermeer.com. For questions about online or printed manuals, or to register a used machine, contact the Customer Data Department by telephone: 800-829-0051 or 641-628-3141; email: customerdata@vermeer.com; internet: www.vermeer.com or www.myvermeer.com; or, letter: Customer Data Dept., Vermeer Corporation, PO Box 200, Pella IA 50219 USA.

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SERVICE

Service instructions are contained in a separate service manual. Service manuals can be obtained by contacting your Vermeer dealer. If you are considering servicing the machine without the assistance of a Vermeer dealer, remember this is a complex machine which often involves complex service procedures.

There are also many components which are not user-serviceable. Do not attempt any service which you do not fully understand, nor any service that you cannot do accurately and safely with proper tools and equipment. If you encounter a problem that you do not understand or cannot solve, contact your Vermeer dealer.

TRADEMARKS

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Kohler is a trademark of Kohler Co.

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Section 10: Safety Messages

General safety messages appear in this Safety Messages section. Specific safety messages are located in appropriate sections of the manual where a potential hazard may occur if the instructions or procedures are not followed.

A signal word “**DANGER**”, “**WARNING**”, or “**CAUTION**” is used with the safety alert symbol.

Safety signs with signal word “**DANGER**”, “**WARNING**”, or “**CAUTION**” are located near specific hazards.

DANGER	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
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.
NOTICE	Indicates information considered important, but not hazard-related.

SAFETY SYMBOL EXPLANATION



This is the safety alert symbol. This symbol is used in combination with an exclamation mark or other symbols to alert you to the potential for bodily injury or death.



This symbol indicates that at least one part of the machine is not operating correctly. Shutting down the machine may not be necessary, but some maintenance may be required.

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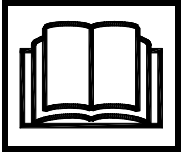
SAFETY SYMBOL EXPLANATION



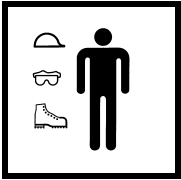
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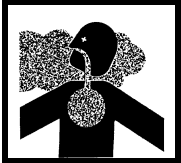
This symbol indicates that at least one part of the machine is not operating correctly. Shutting down the machine may not be necessary, but some maintenance may be required.



WARNING: Read Operator's Manual and safety signs before operating machine.

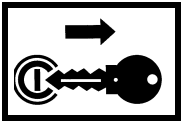


WARNING: Always wear safety glasses and shoes. Some working conditions and regulations may require the use of other appropriate PPE, such as hearing protection, hard hat, gloves, face shield, or any other PPE necessary to provide proper safety protection for the work being performed.

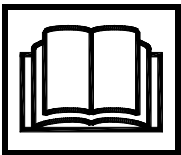


WARNING: Exhaust fumes can be fatal.

If operating in an enclosed area, remove the exhaust fumes with an exhaust pipe extension to the outside.



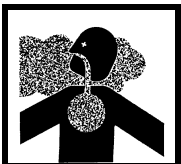
WARNING: Before servicing, cleaning, repairing, inspecting, lubricating, fueling, or transporting the machine, see [Shutdown Procedure](#) for proper instructions. Refer to [page 12-1](#).



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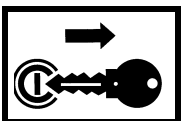


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WARNING: Before servicing, cleaning, repairing, inspecting, lubricating, fueling, or transporting the machine, see [Shutdown Procedure](#) for proper instructions. Refer to [page 12-1](#).



WARNING: Make no modifications to this equipment unless specifically recommended by Vermeer Corporation.



WARNING: Be sure that all safety devices, including shields, are installed and functioning properly after servicing the machine.



WARNING: Failure to follow any of the preceding safety instructions or those that follow within this manual, could result in serious injury or death. This machine is to be used only for those purposes for which it was intended as explained in the Operator's Manual.



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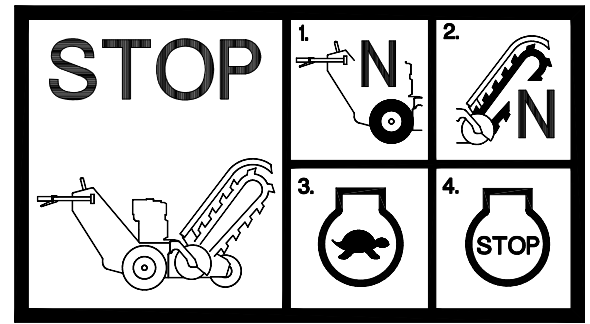
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Section 12: Shutdown Procedure

NOTICE: For your safety and the safety of others, use shutdown procedure before working on the machine for any reason, including servicing, cleaning, or inspecting the machine.

A variation of this procedure may be used if so instructed within this manual or if an emergency requires it.

- Step 1: Place *Propel Lever* in NEUTRAL.
- Step 2: Place *Digging Chain Drive Lever* in NEUTRAL.
- Step 3: Reduce engine speed to idle.
- Step 4: Push *Off/On Switch* to OFF to shut off engine (recoil start). Turn *Keyswitch* to OFF and remove key (electric start option).
- Step 5: Shut off fuel valve to prevent flooding of the carburetor.

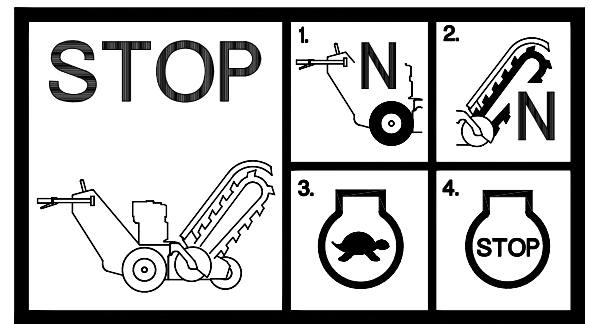


Section 12: Shutdown Procedure

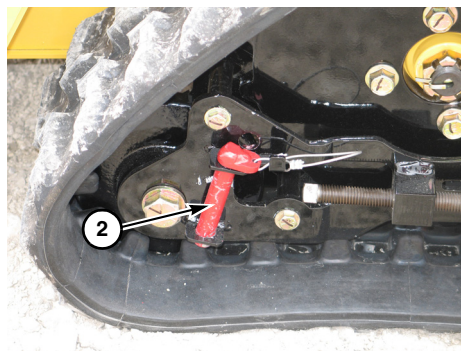
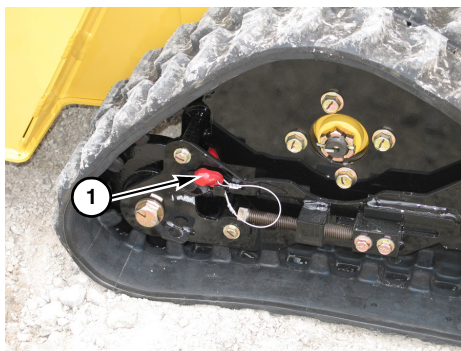
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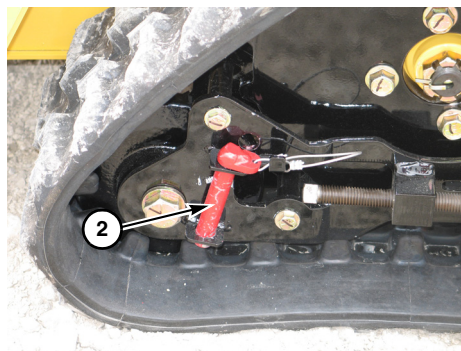
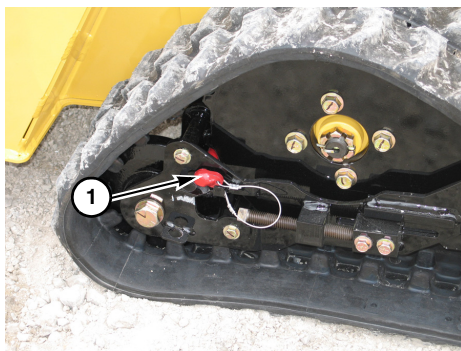


If shutting down on a slope, turn machine to face across the slope to prevent machine from creeping away from the parked position. If this is not possible on the track version due to lack of engine power, install pin (1) on left side track to engage sprocket. If pin does not go all the way through, push the unit forward or backward slightly until pin will fully engage. Remove pin and place in bracket vertically (2) before moving machine.



12-2 Shutdown Procedure

If shutting down on a slope, turn machine to face across the slope to prevent machine from creeping away from the parked position. If this is not possible on the track version due to lack of engine power, install pin (1) on left side track to engage sprocket. If pin does not go all the way through, push the unit forward or backward slightly until pin will fully engage. Remove pin and place in bracket vertically (2) before moving machine.

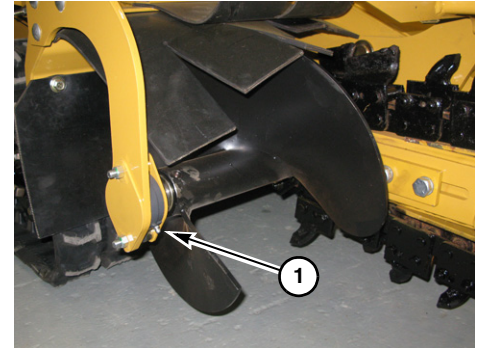


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Section 20: Maintenance - 5 Service Hours or Twice Daily

OUTBOARD BEARING - GREASE

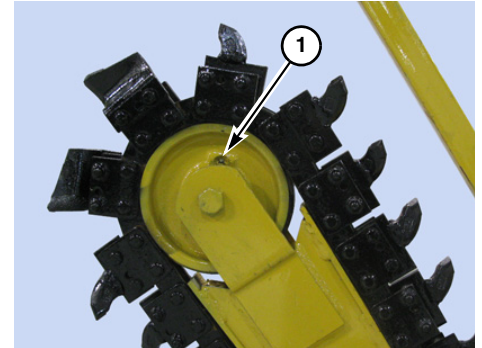
- (1) One fitting purge with grease



END IDLER (GREASEABLE OPTION) - GREASE

Trencher is available with greaseable or greaseless end idlers. Greaseable option is shown; greaseless end idlers require no daily maintenance.

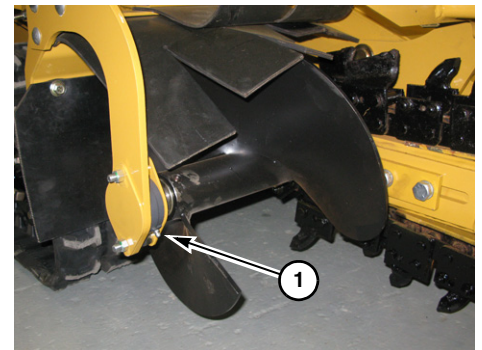
- (1) One fitting purge with grease



Section 20: Maintenance - 5 Service Hours or Twice Daily

OUTBOARD BEARING - GREASE

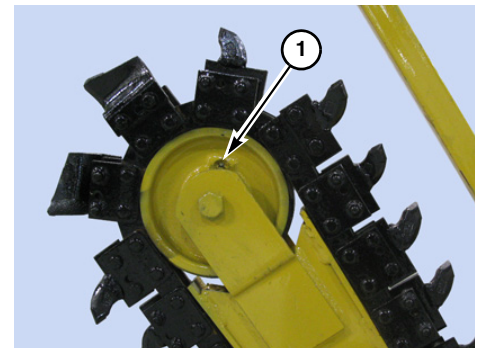
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Section 25: Maintenance - 10 Service Hours or Each Use

ENGINE MAINTENANCE

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Kohler engine: air intake and cooling areas - check and clean as necessary
- Kohler engine: muffler screen - check

Section 25: Maintenance - 10 Service Hours or Each Use

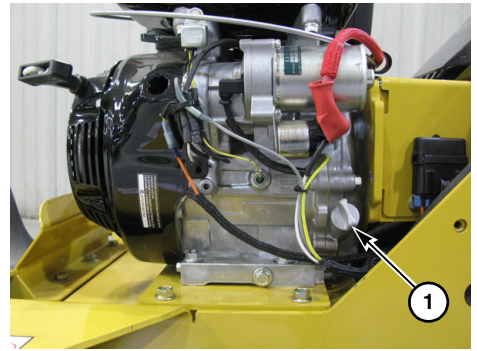
ENGINE MAINTENANCE

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

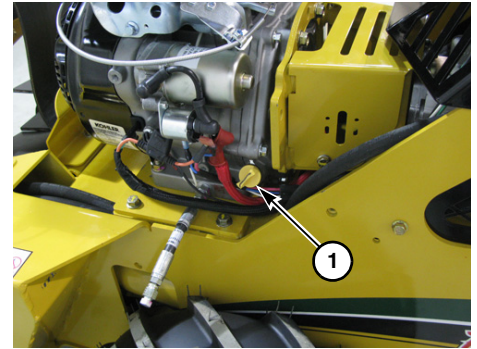
- Kohler engine: air intake and cooling areas - check and clean as necessary
- Kohler engine: muffler screen - check

ENGINE OIL LEVEL - CHECK

- Step 1:** Remove oil fill cap/dipstick (1) and wipe clean.
A fill cap/dipstick is located on each side of machine.
- Step 2:** Insert fill cap/dipstick into oil fill neck but do not screw it in.
- Step 3:** If oil level is low, fill to top of oil fill neck.
- See “Specifications” for fluid capacity. Refer to [page 75-1](#).



Honda



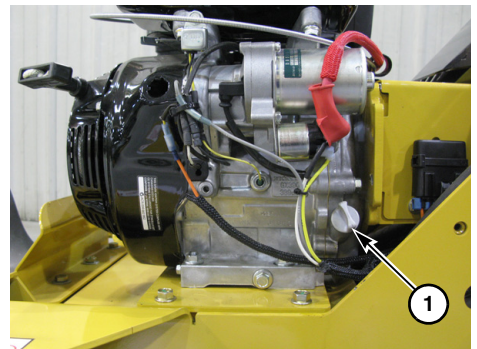
Kohler

25-2 10 Service Hours or Each Use

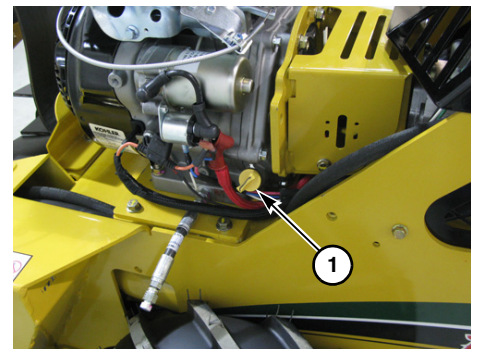
RTX100 Trencher Maintenance

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- Step 3:** If oil level is low, fill to top of oil fill neck.
- See “Specifications” for fluid capacity. Refer to [page 75-1](#).



Honda



Kohler

25-2 10 Service Hours or Each Use

RTX100 Trencher Maintenance

AIR CLEANER ELEMENT - CHECK

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- (1) **Honda Air Cleaner**
- (2) **Kohler Air Cleaner**

NOTICE: Never run engine without the air cleaner element.



RTX100 Trencher Maintenance

10 Service Hours or Each Use 25-3

AIR CLEANER ELEMENT - CHECK

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- (1) **Honda Air Cleaner**
- (2) **Kohler Air Cleaner**

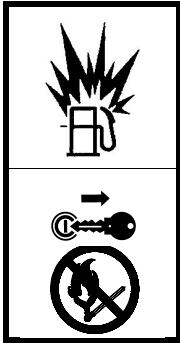
NOTICE: Never run engine without the air cleaner element.



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10 Service Hours or Each Use 25-3

FUEL TANK - FILL

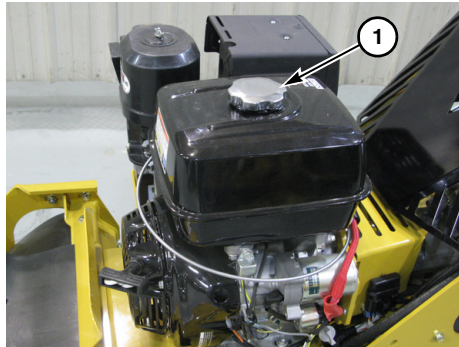


WARNING: Fuel and fumes can explode and burn.

Shut off engine before refueling. No flame. No smoking.

Fill fuel tank at the end of each day to prevent condensation. Do not fill tank to the very top, leave room for expansion.

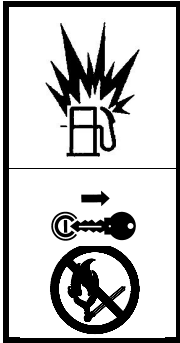
- (1) **Honda Fill Cap**
- (2) **Kohler Fill Cap**



25-4 10 Service Hours or Each Use

RTX100 Trencher Maintenance

FUEL TANK - FILL

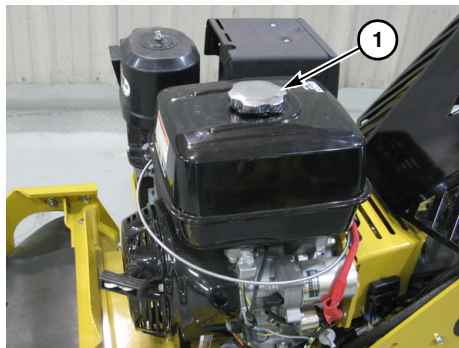


WARNING: Fuel and fumes can explode and burn.

Shut off engine before refueling. No flame. No smoking.

Fill fuel tank at the end of each day to prevent condensation. Do not fill tank to the very top, leave room for expansion.

- (1) **Honda Fill Cap**
- (2) **Kohler Fill Cap**



25-4 10 Service Hours or Each Use

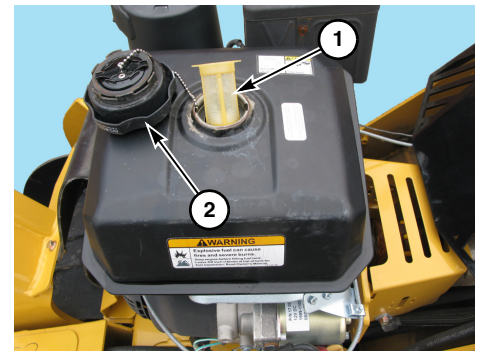
RTX100 Trencher Maintenance

FUEL TANK FILTER (KOHLER) - CLEAN

A removable fuel tank filter (1) is located in the fuel tank filler neck.

To clean filter of debris:

- Step 1:** Remove fuel tank cap (2) and filter (1).
- Step 2:** Clean filter with solvent or replace filter if damaged.
- Step 3:** Wipe solvent from filter and insert in fuel tank filler neck.
- Step 4:** Replace fuel tank cap and tighten securely.



HYDRAULIC FLUID LEVEL - CHECK

NOTICE: Clean hydraulic fluid is very important. Do not spill dirt or other contaminants into the tank. Filter all hydraulic fluid through a 10-micron filter before adding it to the tank.

Machine must be level with boom fully lowered. Oil in hydraulic tank must be cold.

Machines equipped with a dipstick: Check hydraulic fluid level with dipstick. Hydraulic fluid must be between bottom and top lines on dipstick.

Machines equipped with a sight gauge: Check hydraulic fluid level using sight gauge. Fluid level must fall between bottom and top lines on sight gauge.

Add fluid if level is low. Refer to “Hydraulic Fluid Tank - Fill,” [page 60-3](#).

RTX100 Trencher Maintenance

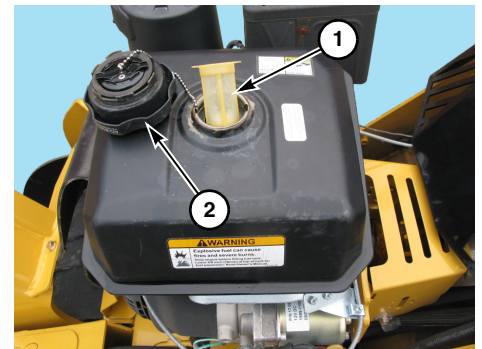
10 Service Hours or Each Use 25-5

FUEL TANK FILTER (KOHLER) - CLEAN

A removable fuel tank filter (1) is located in the fuel tank filler neck.

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Add fluid if level is low. Refer to “Hydraulic Fluid Tank - Fill,” [page 60-3](#).

RTX100 Trencher Maintenance

10 Service Hours or Each Use 25-5

UNDERCARRIAGE - INSPECT

Inspect undercarriage daily and clean off any mud, gravel, debris or other abrasive materials that accumulates around the drive motors/sprockets and the front idlers. Use a pressure washer if possible; otherwise use a bar or shovel.

- If working in scrap or debris, inspect more often and remove foreign objects that may wrap around or lodge themselves between components causing premature wear and damage.
- Materials that are particularly sticky or abrasive like clay, mud, or gravel should be cleaned from the undercarriages more often to minimize component wear.
- Operating in loamy sand or on turf or other finished surfaces may require less frequent cleaning, but daily inspection is still advised.

TRACK TENSION - CHECK

Proper track tension must be maintained for optimal performance and track/undercarriage life.

- Loose tracks may result in sprocket slip, possibly damaging the track and or undercarriage components.
- Overly tight tracks may cause track stretch, premature bearing failure, or other preventable damage to the machine.
- Ensure front of track does not contact trencher frame. If track contacts trencher frame, it is not adjusted properly or it is too tight.

Refer to “Track Tension - Adjust,” [page 65-14](#).

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- Ensure front of track does not contact trencher frame. If track contacts trencher frame, it is not adjusted properly or it is too tight.

Refer to “Track Tension - Adjust,” [page 65-14](#).

TRACK CONDITION - CHECK

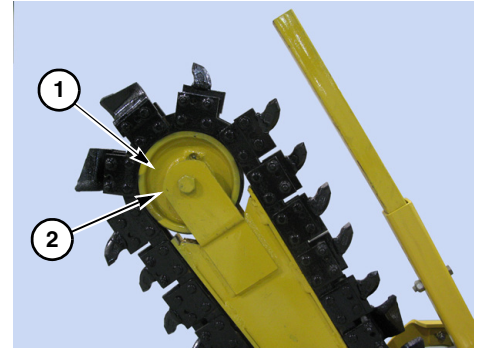
Inspect tracks daily for rips, tears, or signs of wear. Replace as needed. Refer to “Tracks - Replace,” [page 65-15](#).

TRENCHER END IDLER SIDE PLAY - CHECK

Check end idler assembly for side play. There should be 1/16" (1.6 mm) or less end idler sideways movement when a pry bar is used to apply pressure between end idler (1) and boom side plate (2).

If excessive side play is detected, end idler bearings must be replaced. Refer to the [Service Manual](#) or contact your Vermeer dealer.

Digging chain must be removed for end idler repair. Refer to “Digging Chain - Remove/Install,” [page 65-8](#).



RTX100 Trencher Maintenance

10 Service Hours or Each Use 25-7

TRACK CONDITION - CHECK

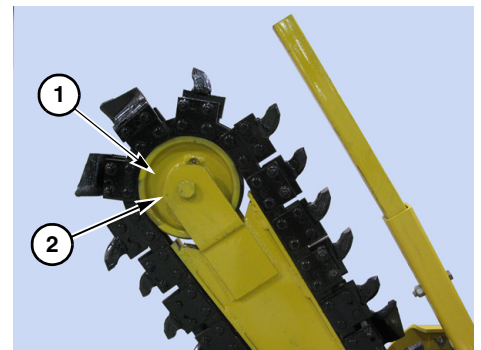
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Digging chain must be removed for end idler repair. Refer to “Digging Chain - Remove/Install,” [page 65-8](#).



RTX100 Trencher Maintenance

10 Service Hours or Each Use 25-7

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Section 30: Maintenance - 20 Service Hours or One Month

ENGINE OIL (HONDA) - INITIAL CHANGE

Change engine oil on a new machine after the first 20 service hours of operation and every 100 service hours after that. Refer to “Engine Oil - Change,” [page 40-2](#).

Section 30: Maintenance - 20 Service Hours or One Month

ENGINE OIL (HONDA) - INITIAL CHANGE

Change engine oil on a new machine after the first 20 service hours of operation and every 100 service hours after that. Refer to “Engine Oil - Change,” [page 40-2](#).

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Section 35: Maintenance - 50 Service Hours

AIR CLEANER ELEMENT - CLEAN

- (1) Honda Air Cleaner
- (2) Kohler Air Cleaner

Remove air cleaner housing and inspect foam and paper elements. Clean foam element if needed. Do not clean paper element; replace paper element if needed. Always replace damaged air cleaner elements.

Refer to “Air Cleaner Element (Honda) - Replace,” [page 55-2](#).

Refer to “Air Cleaner Element (Kohler) - Replace,” [page 45-2](#).

NOTICE: Never run engine without the air cleaner element.



Section 35: Maintenance - 50 Service Hours

AIR CLEANER ELEMENT - CLEAN

- (1) Honda Air Cleaner
- (2) Kohler Air Cleaner

Remove air cleaner housing and inspect foam and paper elements. Clean foam element if needed. Do not clean paper element; replace paper element if needed. Always replace damaged air cleaner elements.

Refer to “Air Cleaner Element (Honda) - Replace,” [page 55-2](#).

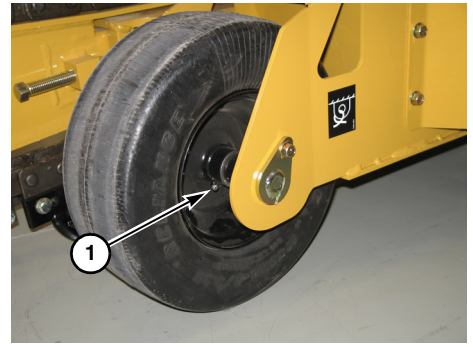
Refer to “Air Cleaner Element (Kohler) - Replace,” [page 45-2](#).

NOTICE: Never run engine without the air cleaner element.



NOSE WHEEL BEARING - GREASE

(1) One fittingtwo shots

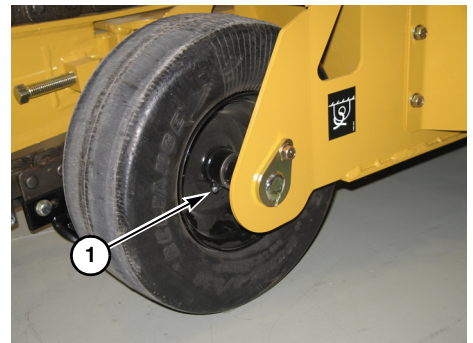


35-2 50 Service Hours

RTX100 Trencher Maintenance

NOSE WHEEL BEARING - GREASE

(1) One fittingtwo shots



35-2 50 Service Hours

RTX100 Trencher Maintenance

CONTROL LEVERS LINKAGE - OIL

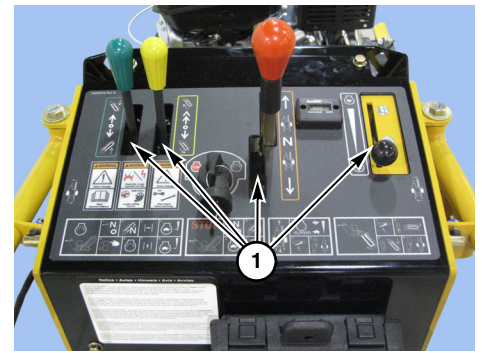
- (1) Place a light coating of oil on linkage attachment points.

HYDRAULIC FLUID FILTER - INITIAL REPLACEMENT

Replace hydraulic fluid filter element on a new machine after the first 50 service hours and every 250 service hours thereafter. Refer to “Hydraulic Fluid Filter - Replace,” [page 50-1](#).

TRACK TENSION - INITIAL ADJUSTMENT

Adjust track tension after first 50 hours of service. Refer to “Track Tension - Adjust,” [page 65-14](#).



RTX100 Trencher Maintenance

50 Service Hours 35-3

CONTROL LEVERS LINKAGE - OIL

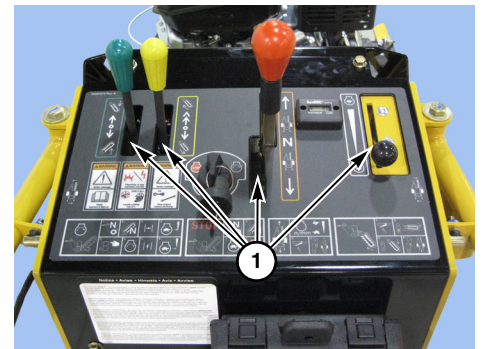
- (1) Place a light coating of oil on linkage attachment points.

HYDRAULIC FLUID FILTER - INITIAL REPLACEMENT

Replace hydraulic fluid filter element on a new machine after the first 50 service hours and every 250 service hours thereafter. Refer to “Hydraulic Fluid Filter - Replace,” [page 50-1](#).

TRACK TENSION - INITIAL ADJUSTMENT

Adjust track tension after first 50 hours of service. Refer to “Track Tension - Adjust,” [page 65-14](#).



RTX100 Trencher Maintenance

50 Service Hours 35-3

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Section 40: Maintenance - 100 Service Hours

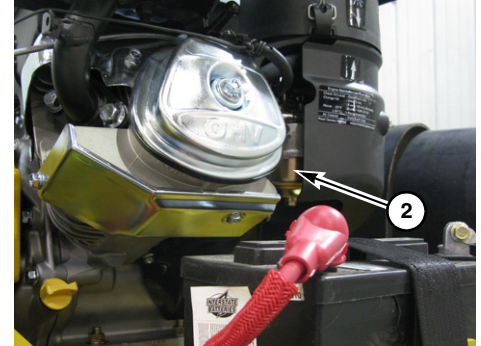
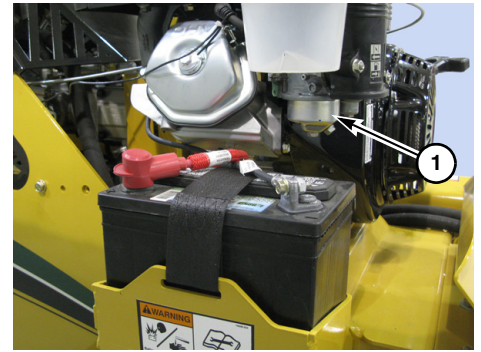
ENGINE MAINTENANCE

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Spark plug - check/adjust
- Honda engine: spark arrester - clean
- Honda engine: fuel sediment cup - clean
- Honda engine: fuel tank and filter - clean
- Kohler engine: cooling areas - clean
- Kohler engine - muffler screen - clean

(1) **Honda Fuel Sediment Cup**

(2) **Kohler Fuel Sediment Cup**



RTX100 Trencher Maintenance

100 Service Hours 40-1

Section 40: Maintenance - 100 Service Hours

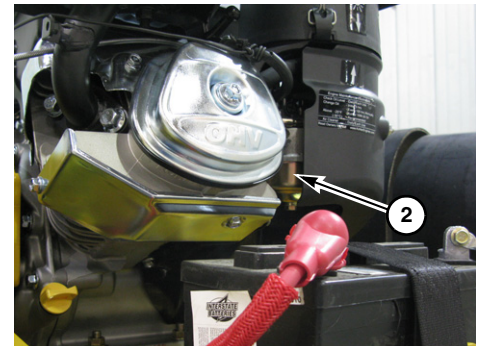
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(1) **Honda Fuel Sediment Cup**

(2) **Kohler Fuel Sediment Cup**



RTX100 Trencher Maintenance

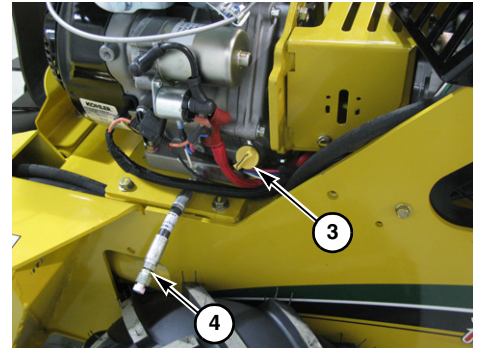
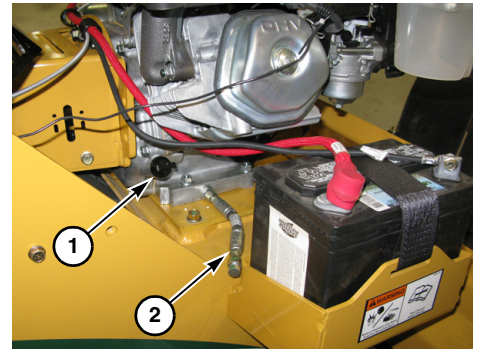
100 Service Hours 40-1

ENGINE OIL - CHANGE

An Engine Operation Manual is supplied with each machine. Refer to the manual for engine service requirements.

- (1) **Honda Oil Fill Cap/Dipstick**
- (2) **Honda Drain Plug**
- (3) **Kohler Oil Fill Cap/Dipstick**
- (4) **Kohler Drain Plug**

A fill cap/dipstick is located on each side of machine.



40-2 100 Service Hours

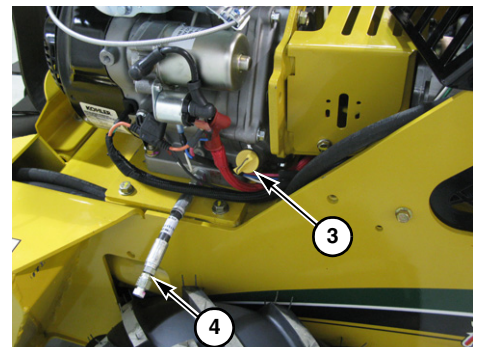
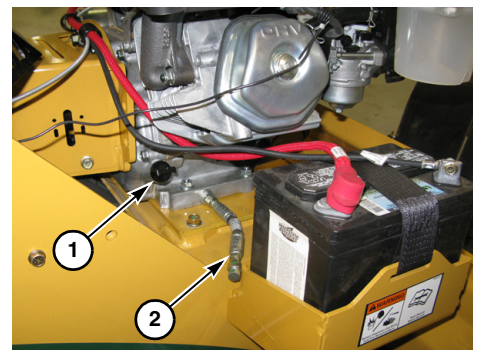
RTX100 Trencher Maintenance

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A fill cap/dipstick is located on each side of machine.



40-2 100 Service Hours

RTX100 Trencher Maintenance

CONTROL LEVERS - CHECK

- Check control levers for freedom of movement.
- Check control valve levers spring-return to NEUTRAL when released from detented position.
- Check that *Propel Lever* and two control valve levers have electrically insulated sleeves installed and are kept clean.

Check condition of knobs, covers, and grips on control levers, *Operator Presence Lever*, and handlebars. Replace if worn or damaged.

TRENCH COMPONENTS - CHECK

Check presence, condition, and adjustment of the trench cleaner assembly or restraint bar. Refer to “Trench Cleaner/Restraint Bar - Adjust,” [page 65-12](#).

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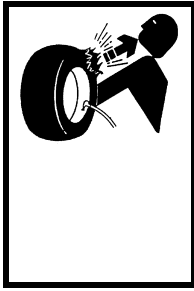
Check presence, condition, and adjustment of the trench cleaner assembly or restraint bar. Refer to “Trench Cleaner/Restraint Bar - Adjust,” [page 65-12](#).

DIGGING CHAIN - CHECK

Check condition of the cutters. Keep cutters tight. Replace broken, bent, or missing teeth.

Check condition and tension of the digging chain. Refer to “Digging Chain - Adjust,” [page 65-7](#).

TIRES AND RIMS - CHECK



WARNING: Tire explosion can result if the following procedures are not followed:

- Maintain correct tire pressure. Do not inflate tire above recommended pressure.
- Low tire pressure can cause internal tire damage. Inflate to recommended pressure.
- Replace any tire with cuts or bubbles. Replace any damaged rims.
- Do not weld or heat wheel assembly. Heating will increase tire pressure.

Check tires and rims for damage.

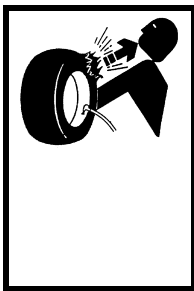
Check tire pressure and lug bolts torque. Refer to “Machine Specifications,” [page 75-2](#).

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Check tires and rims for damage.

Check tire pressure and lug bolts torque. Refer to “Machine Specifications,” [page 75-2](#).

MACHINE - OVERALL CHECK

Shields and Guards - Check that all shields and guards are installed and securely fastened to the machine. Replace or repair any shields or guards that are damaged or have missing parts.

Hardware - Check machine for loose, worn, or missing parts and hardware. Tighten any loose parts and replace any worn or missing parts. Refer to the [Parts Manual](#) for replacement parts.

Frame - Check frame and contact dealer immediately if you notice any bends, cracks, or breaks.

OPERATOR PRESENCE SYSTEM - CHECK

The machine is equipped with an Operator Presence system. This system is intended for your safety and must be maintained in good functional condition. The engine must stop if the *Operator Presence Lever* is released while the *Propel Lever* or *Digging Chain Drive Lever* is engaged. Starting the ground drive or digging chain drive without engaging the *Operator Presence Lever* must also stop the engine. Contact your authorized independent Vermeer dealer if system requires repair or adjustment.

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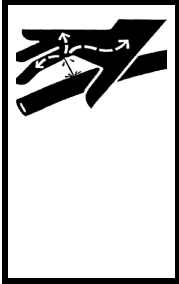
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HYDRAULIC SYSTEM - CHECK



WARNING: Pressurized fluid can penetrate body tissue and result in serious injury or death. Leaks can be invisible. Keep away from any suspected leak. Relieve pressure in the hydraulic system before searching for leaks, disconnecting hoses, or performing any other work on the system. If you must pressurize the system to find a suspected leak, use an object such as a piece of wood or cardboard rather than your hands. When loosening a fitting where some residual pressure may exist, slowly loosen the fitting until oil begins to leak. Wait for leaking to stop before disconnecting the fitting. Fluid injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

- Ensure all connections are tight and hoses are in good condition before applying hydraulic pressure to the system.
- Check for leaking hoses, kinked hoses, and for hoses that rub against each other or other parts of the machine. Replace all deteriorated or damaged hoses. When a hose with a protective sleeve is replaced, always install a new protective sleeve over the new hose.
- Check hydraulic cylinders for leaks and damage. Repair or replace as required.

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- Check hydraulic cylinders for leaks and damage. Repair or replace as required.

NEUTRAL START INTERLOCKS - CHECK

Neutral start interlock system must operate correctly for safety. Contact Vermeer dealer if system requires repair or adjustment.

With the red lever at the left handlebar grip released, check that engine will not start unless the *Digging Chain Drive* and *Propel Lever* are both in NEUTRAL. Contact Vermeer dealer if engine will start under these conditions.

SAFETY SIGNS MAINTENANCE

Safety signs located on your machine contain important and useful information that will help you operate your equipment safely and correctly. Refer to the [Parts Manual](#) for identification and location of safety signs.

To assure that all safety signs remain in place and in good condition, follow the instructions given below:

- Keep safety signs clean. Use soap and water - not mineral spirits, abrasive cleaners, or other similar cleaners that will damage the sign.
- Replace any damaged or missing safety signs. When attaching safety signs, the temperature of the mounting surface must be at least 40°F (5°C). The mounting surface must be clean and dry.
- When replacing a machine component with a safety sign attached, replace the safety sign also.

Replacement safety signs can be purchased from your Vermeer equipment dealer.

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- When replacing a machine component with a safety sign attached, replace the safety sign also.

Replacement safety signs can be purchased from your Vermeer equipment dealer.

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Section 45: Maintenance - 200 Service Hours

ENGINE MAINTENANCE (KOHLER)

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Fuel filter - replace
- Valve clearance - check/adjust
- Starter motor drive (if equipped) - service
- Combustion chamber - decarbonize

Section 45: Maintenance - 200 Service Hours

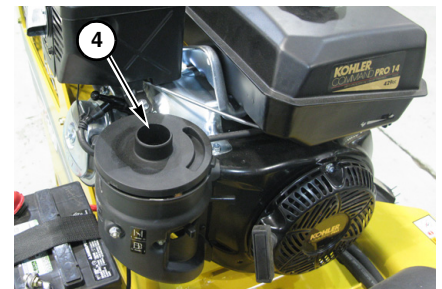
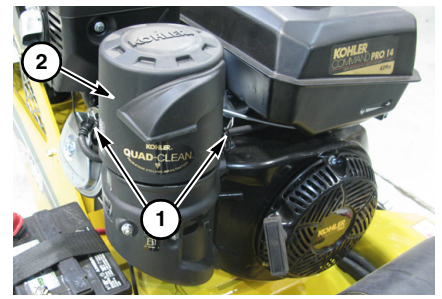
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- Fuel filter - replace
- Valve clearance - check/adjust
- Starter motor drive (if equipped) - service
- Combustion chamber - decarbonize

AIR CLEANER ELEMENT (KOHLER) - REPLACE

- Step 1:** Loosen clips (1) on each side of air cleaner assembly. Remove air cleaner housing (2).
- Step 2:** Remove dirty element (3).
- Step 3:** Remove foam filter from paper element.
- Step 4:** Foam element can be cleaned and reused. Clean foam in warm, soapy water, rinse, and allow to dry thoroughly, or clean in non-flammable solvent and allow to dry. Dip foam element in clean engine oil, then squeeze out excess oil. Engine will smoke when started if too much oil is left on foam element. Replace foam element if damaged.
- Step 5:** Wipe dirt from inside of air cleaner housing (2) with a clean, damp cloth, being careful to prevent dirt from entering the air duct (4) that leads to the carburetor.
- Step 6:** Place foam element over **new** paper element and install assembled air cleaner element on air cleaner intake.
- Step 7:** Install air cleaner housing (2) in proper orientation and secure with clips (1). Refer to "Air Cleaner Housing Orientation," [page 45-3](#).

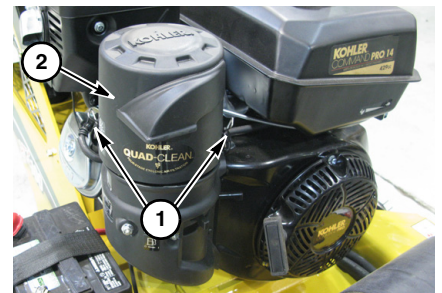


45-2 200 Service Hours

RTX100 Trencher Maintenance

AIR CLEANER ELEMENT (KOHLER) - REPLACE

- Step 1:** Loosen clips (1) on each side of air cleaner assembly. Remove air cleaner housing (2).
- Step 2:** Remove dirty element (3).
- Step 3:** Remove foam filter from paper element.
- Step 4:** Foam element can be cleaned and reused. Clean foam in warm, soapy water, rinse, and allow to dry thoroughly, or clean in non-flammable solvent and allow to dry. Dip foam element in clean engine oil, then squeeze out excess oil. Engine will smoke when started if too much oil is left on foam element. Replace foam element if damaged.
- Step 5:** Wipe dirt from inside of air cleaner housing (2) with a clean, damp cloth, being careful to prevent dirt from entering the air duct (4) that leads to the carburetor.
- Step 6:** Place foam element over **new** paper element and install assembled air cleaner element on air cleaner intake.
- Step 7:** Install air cleaner housing (2) in proper orientation and secure with clips (1). Refer to "Air Cleaner Housing Orientation," [page 45-3](#).



45-2 200 Service Hours

RTX100 Trencher Maintenance

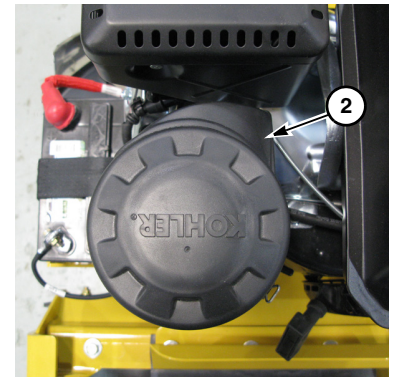
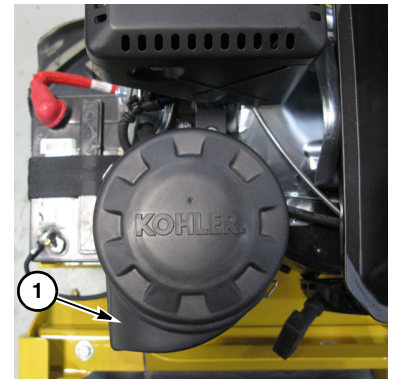
Air Cleaner Housing Orientation

The air cleaner housing can be rotated to draw warmer air from the muffler side of the engine during cold weather. This reduces the likelihood of carburetor icing which causes rough running at idle or low speed as well as black smoke.

- (1) **Housing Orientation for normal operation**
- (2) **Housing Orientation for cold weather operation**

NOTICE: Do not run the engine with air cleaner housing in cold weather orientation (2) in normal weather conditions. Engine damage can result.

Refer to Engine Operation Manual for more detail.



RTX100 Trencher Maintenance

200 Service Hours 45-3

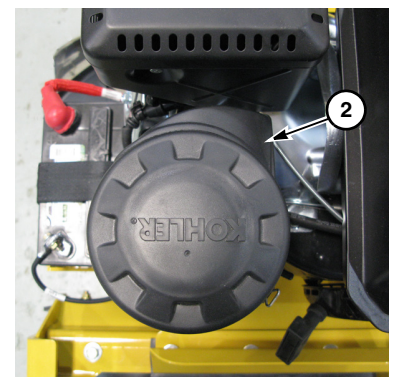
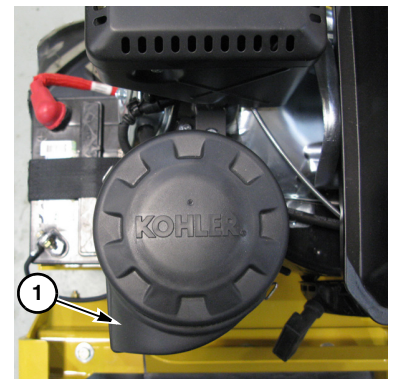
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The air cleaner housing can be rotated to draw warmer air from the muffler side of the engine during cold weather. This reduces the likelihood of carburetor icing which causes rough running at idle or low speed as well as black smoke.

- (1) **Housing Orientation for normal operation**
- (2) **Housing Orientation for cold weather operation**

NOTICE: Do not run the engine with air cleaner housing in cold weather orientation (2) in normal weather conditions. Engine damage can result.

Refer to Engine Operation Manual for more detail.



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Section 50: Maintenance - 250 Service Hours

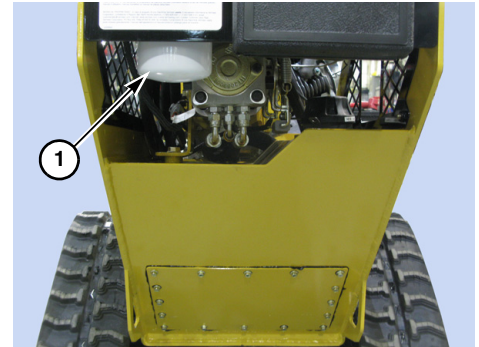
HYDRAULIC FLUID FILTER - REPLACE

Replace hydraulic fluid filter (1) earlier if the machine is in storage for a long period of time, such as through the winter.

NOTICE: If the filter is not replaced regularly, the filter could prevent the pump from obtaining an adequate supply of oil.

To replace fluid filter:

- Step 1:** Use a filter wrench to turn filter (1) counterclockwise to remove.
- Step 2:** Clean filter head surface.
- Step 3:** Apply a thin film of oil to gasket of new filter.
- Step 4:** Install filter, by hand, clockwise onto the filter head until it contacts filter head surface.
- Step 5:** Tighten 3/4 to 1 turn after gasket contacts filter head.
- Step 6:** Start engine, and increase engine speed to pressurize hydraulic system.
- Step 7:** Stop engine. Check hydraulic fluid level. Refer to “Hydraulic Fluid Level - Check,” [page 25-5](#). Check for leaks around filter. Tighten filter only enough to stop leak.



Section 50: Maintenance - 250 Service Hours

HYDRAULIC FLUID FILTER - REPLACE

Replace hydraulic fluid filter (1) earlier if the machine is in storage for a long period of time, such as through the winter.

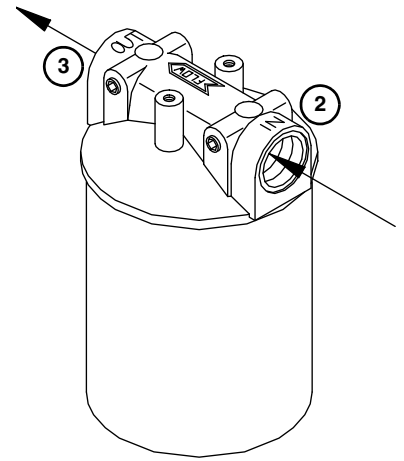
NOTICE: If the filter is not replaced regularly, the filter could prevent the pump from obtaining an adequate supply of oil.

To replace fluid filter:

- Step 1:** Use a filter wrench to turn filter (1) counterclockwise to remove.
- Step 2:** Clean filter head surface.
- Step 3:** Apply a thin film of oil to gasket of new filter.
- Step 4:** Install filter, by hand, clockwise onto the filter head until it contacts filter head surface.
- Step 5:** Tighten 3/4 to 1 turn after gasket contacts filter head.
- Step 6:** Start engine, and increase engine speed to pressurize hydraulic system.
- Step 7:** Stop engine. Check hydraulic fluid level. Refer to “Hydraulic Fluid Level - Check,” [page 25-5](#). Check for leaks around filter. Tighten filter only enough to stop leak.



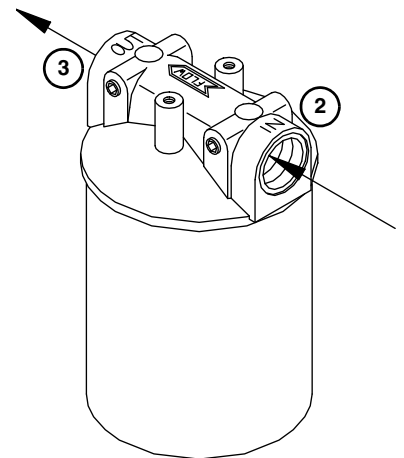
The filter head has an arrow, or “IN” (2) and “OUT” (3) stamped on the head to indicate direction of oil flow. If the filter head needs to be replaced, be sure the arrow on the new filter head is positioned the same as the one that was removed.



50-2 250 Service Hours

RTX100 Trencher Maintenance

The filter head has an arrow, or “IN” (2) and “OUT” (3) stamped on the head to indicate direction of oil flow. If the filter head needs to be replaced, be sure the arrow on the new filter head is positioned the same as the one that was removed.



50-2 250 Service Hours

RTX100 Trencher Maintenance

Section 55: Maintenance - 300 Service Hours

ENGINE MAINTENANCE (HONDA)

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Spark plug - replace
- Idle speed - check/adjust
- Valve clearance - check/adjust

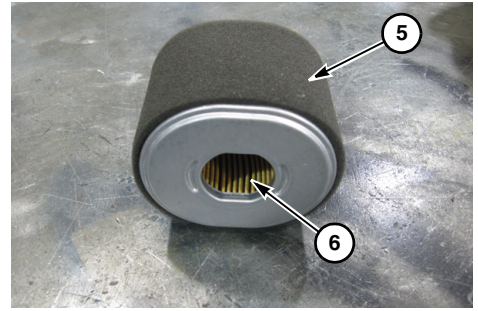
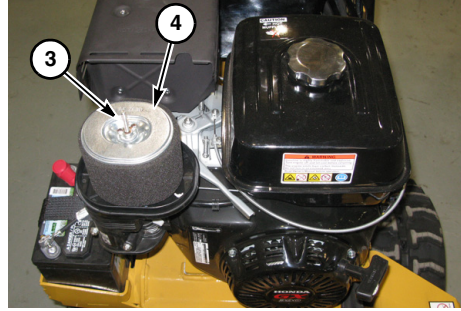
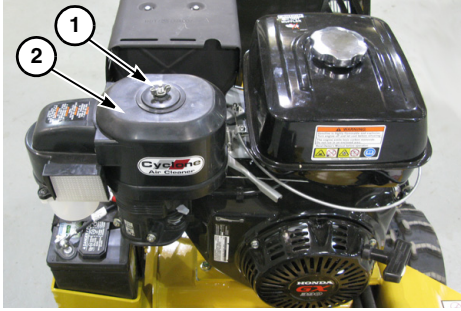
Section 55: Maintenance - 300 Service Hours

ENGINE MAINTENANCE (HONDA)

An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Spark plug - replace
- Idle speed - check/adjust
- Valve clearance - check/adjust

AIR CLEANER ELEMENT (HONDA) - REPLACE



Step 1: Remove wing nut (1) on top of air cleaner assembly. Remove air cleaner assembly housing (2).

Step 2: Remove wing nut (3) on top of air cleaner element. Slide dirty element (4) straight off threaded rod.

Step 3: Remove foam filter (5) from paper element (6).

Step 4: Foam element can be cleaned and reused. Clean foam in warm, soapy water, rinse, and allow to dry thoroughly, or clean in non-flammable solvent and allow to dry. Dip foam element in clean engine oil, then squeeze out excess oil.

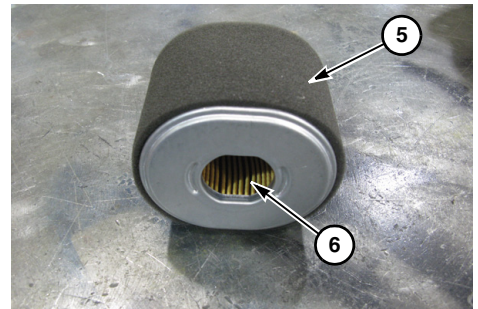
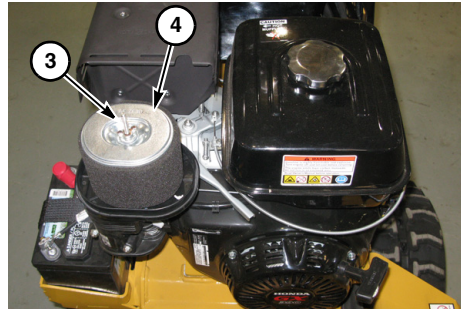
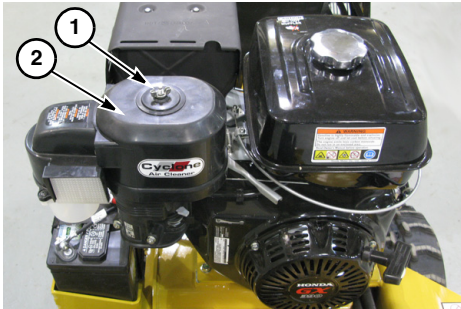
Engine will smoke when started if too much oil is left on the foam element.

Replace foam element if damaged.

55-2 300 Service Hours

RTX100 Trencher Maintenance

AIR CLEANER ELEMENT (HONDA) - REPLACE



Step 1: Remove wing nut (1) on top of air cleaner assembly. Remove air cleaner assembly housing (2).

Step 2: Remove wing nut (3) on top of air cleaner element. Slide dirty element (4) straight off threaded rod.

Step 3: Remove foam filter (5) from paper element (6).

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Replace foam element if damaged.

55-2 300 Service Hours

RTX100 Trencher Maintenance

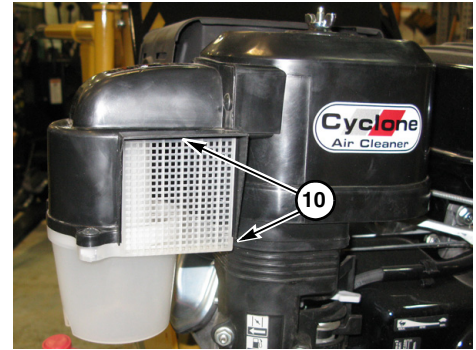
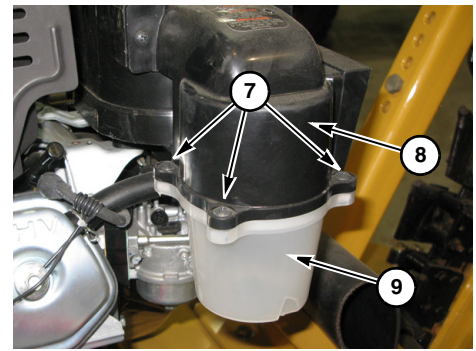
Step 5: Remove three screws (7) from precleaner cap (8). Remove cyclone housing (9) and air guide (located inside precleaner cap). Wash the parts with water, dry thoroughly, and reassemble.

Ensure that tabs (10) fit into grooves when installing cyclone housing.

Step 6: Wipe dirt from inside of air cleaner housing with a clean, damp cloth, being careful to prevent dirt from entering the air duct that leads to the carburetor.

Step 7: Place foam element over **new** paper element and install assembled air cleaner element on threaded rod. Ensure gasket under air filter is in place. Install wing nut on top of air cleaner element and tighten securely.

Step 8: Install air cleaner housing. Install wing nut on top of air cleaner assembly and tighten securely.



RTX100 Trencher Maintenance

300 Service Hours 55-3

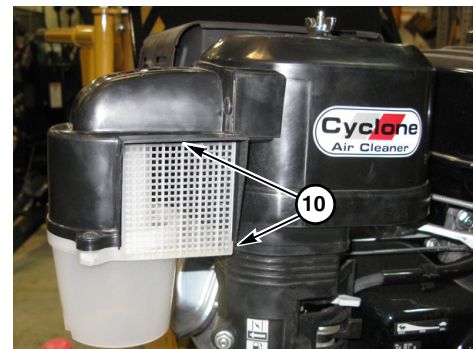
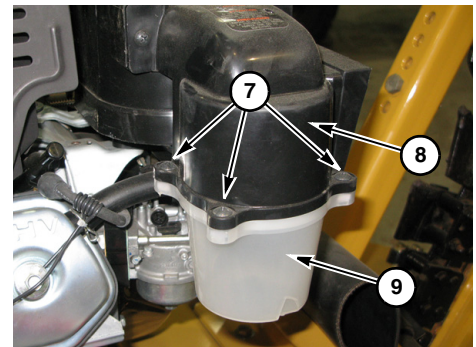
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Step 8: Install air cleaner housing. Install wing nut on top of air cleaner assembly and tighten securely.



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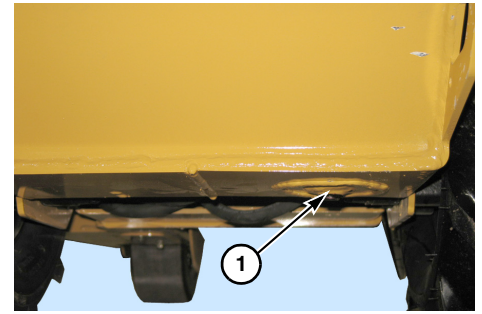
Section 60: Maintenance - 500 Service Hours or Yearly

HYDRAULIC FLUID - CHANGE

Change hydraulic fluid earlier if fluid smells burnt, appears contaminated, or after major repair.

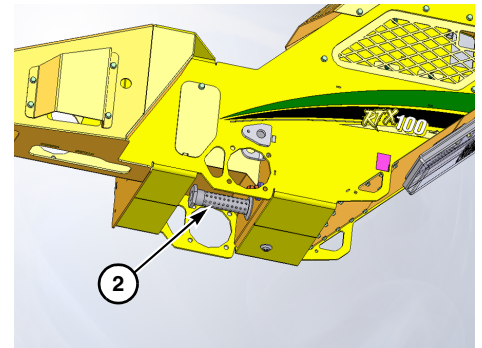
Hydraulic Fluid Tank - Drain

- Step 1:** Remove plug (1) under tank to drain oil. Drain into a suitable container, 13 gal (49 L) minimum.
- Step 2:** Replace hydraulic filter. Refer to “Hydraulic Fluid Filter - Replace,” [page 50-1](#).
- Step 3:** Clean, inspect, and install drain plug.



Hydraulic Fluid Strainer - Inspect and Clean

- Step 1:** Remove implement suction hose from strainer fitting. Unscrew tube fittings and strainer (2).
- Step 2:** Clean strainer with a petroleum-base paint thinner or other good cleaning solvent. Scrub strainer with a soft-bristled brush.



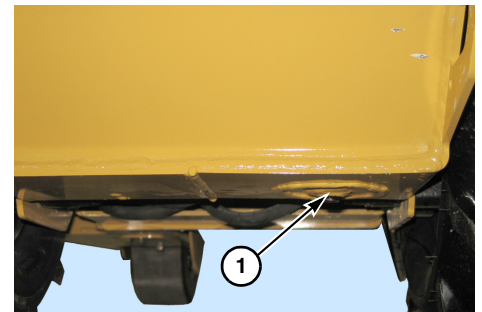
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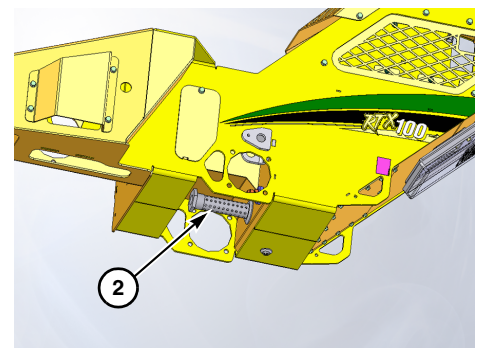
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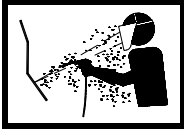
Hydraulic Fluid Strainer - Inspect and Clean

- Step 1:** Remove implement suction hose from strainer fitting. Unscrew tube fittings and strainer (2).
- Step 2:** Clean strainer with a petroleum-base paint thinner or other good cleaning solvent. Scrub strainer with a soft-bristled brush.



Step 3: Inspect strainer. Consult Vermeer dealer for service recommendations if you find any of the following:

- lacquers which may have formed as a result of hot spots in the hydraulic system
- an extremely dirty strainer that will not come clean
- metallic particles on screen mesh
- any evidence of hydraulic system failure
- any evidence of holes or other damage that would allow unfiltered oil to circulate in hydraulic system



WARNING: Eye injury possible. Wear a face shield when using compressed air to clean or dry solvent-coated parts.

Step 4: Rinse strainer with clean solvent or thinner. Use compressed air to blow it clean.

Step 5: Apply a suitable paste-type thread sealant to fitting and strainer. **Do not use tape-type sealer.**

Hydraulic Fluid Strainer - Install

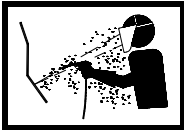
Step 1: Install and tighten the hydraulic fluid strainers and fittings.

Step 2: Connect and tighten hose.

NOTICE: Clean hydraulic fluid is very important for longer life and good operation of hydraulic components. Take care not to spill dirt or other contaminants into the tank when checking or adding hydraulic fluid. Filter all hydraulic fluid through a 10-micron filter before adding it to the tank.

Step 3: Inspect strainer. Consult Vermeer dealer for service recommendations if you find any of the following:

- lacquers which may have formed as a result of hot spots in the hydraulic system
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Hydraulic Fluid Tank - Fill

NOTICE: Clean hydraulic fluid is very important. Do not spill dirt or other contaminants into the tank. Filter all hydraulic fluid through a 10-micron filter before adding it to the tank.

Machine must be level with boom fully lowered. Oil in hydraulic tank must be cold. See “Lubricants” for fluid requirements. Refer to [page 75-1](#).

Machines equipped with a dipstick: Check hydraulic fluid level with dipstick (1). Hydraulic fluid must be between bottom and top lines on dipstick.

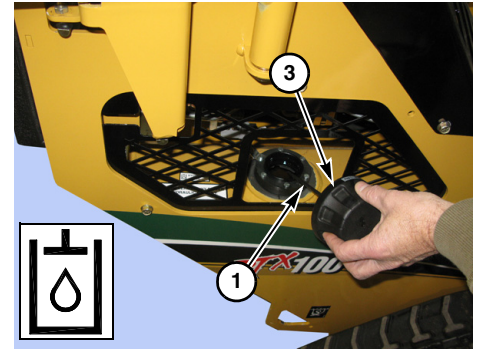
Machines equipped with a sight gauge: Check hydraulic fluid level using sight gauge (2). Fluid level must fall between bottom and top lines on sight gauge.

Step 1: Remove fill cap (3).

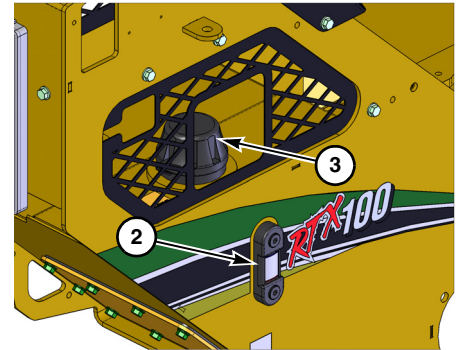
Step 2: Check fluid level. Add fluid if level is low.

Step 3: Install fill cap.

NOTICE: The hydraulic fluid must be free of bubbles. Bubbles are trapped air that is entering the hydraulic system.



Machine with Dipstick



Machine with Sight Gauge

RTX100 Trencher Maintenance

500 Service Hours 60-3

Hydraulic Fluid Tank - Fill

NOTICE: Clean hydraulic fluid is very important. Do not spill dirt or other contaminants into the tank. Filter all hydraulic fluid through a 10-micron filter before adding it to the tank.

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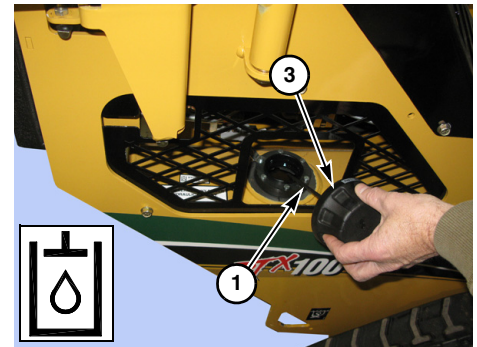
Machines equipped with a sight gauge: Check hydraulic fluid level using sight gauge (2). Fluid level must fall between bottom and top lines on sight gauge.

Step 1: Remove fill cap (3).

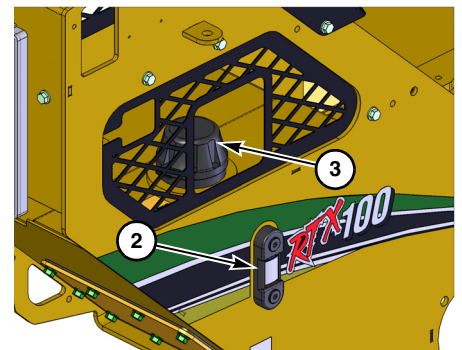
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Machine with Dipstick



Machine with Sight Gauge

RTX100 Trencher Maintenance

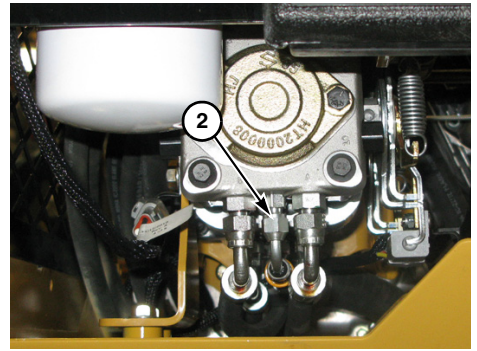
500 Service Hours 60-3

Hydraulic System - Restore

Step 1: After changing fluid, connect a low pressure gauge to the charge pressure line (2). Start engine, and idle for 15 seconds.

If pressure does not register 50–90 psi (345–620 kPa) within 15 seconds, shut down engine and contact Vermeer dealer. If pressure does register, let idle for a minimum of two minutes before increasing throttle or operating any functions. After two minutes, operate all hydraulic system functions.

Step 2: Shut off engine and check fluid level. Refer to “Hydraulic Fluid Level - Check,” [page 25-5](#).



60-4 500 Service Hours

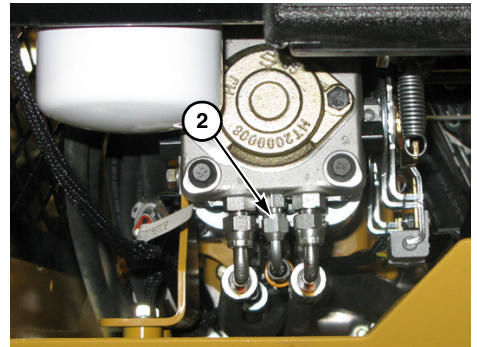
RTX100 Trencher Maintenance

Hydraulic System - Restore

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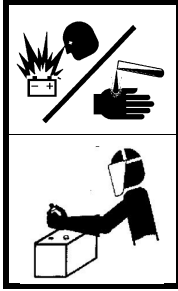
Step 2: Shut off engine and check fluid level. Refer to “Hydraulic Fluid Level - Check,” [page 25-5](#).



60-4 500 Service Hours

RTX100 Trencher Maintenance

BATTERY ELECTROLYTE LEVELS AND TERMINALS - CHECK/CLEAN (ELECTRIC START OPTION)



WARNING: Battery fumes are flammable and can explode. Keep all burning materials away from battery. Battery explosion can blind. Acid can blind and burn. Tools and cable clamps can make sparks.

Do not smoke. Shield eyes and face. Read instructions.

- Use a flashlight to check electrolyte level.
- Work in a well-ventilated area.
- Avoid breathing fumes from battery.
- Avoid contact with skin, eyes, or clothing.
- Keep flame and sparks away, and do not smoke.
- Keep out of reach of children.
- Do not short across battery terminals or allow tools to short from battery terminals to frame.
- Do not jump-start or charge a battery with frozen electrolyte.

In case of acid contact:

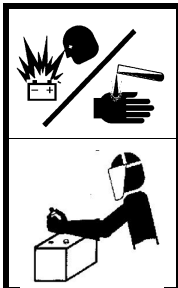
External: Flush with plenty of water. If eyes have been exposed, flush with water for 15 minutes and get prompt medical attention.

Internal: Drink large quantities of water or milk, follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.

RTX100 Trencher Maintenance

500 Service Hours 60-5

BATTERY ELECTROLYTE LEVELS AND TERMINALS - CHECK/CLEAN (ELECTRIC START OPTION)



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- Avoid contact with skin, eyes, or clothing.
- Keep flame and sparks away, and do not smoke.
- Keep out of reach of children.
- Do not short across battery terminals or allow tools to short from battery terminals to frame.
- Do not jump-start or charge a battery with frozen electrolyte.

In case of acid contact:

External: Flush with plenty of water. If eyes have been exposed, flush with water for 15 minutes and get prompt medical attention.

Internal: Drink large quantities of water or milk, follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.

RTX100 Trencher Maintenance

500 Service Hours 60-5

Electrolyte Level - Check

Step 1: Remove nut (1). Remove hold-down strap (2).

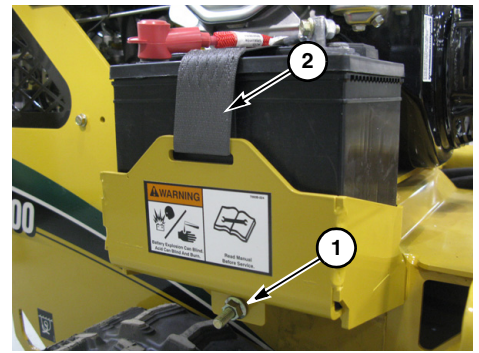
Step 2: If equipped, carefully remove cell caps (3). Ensure battery is level.

Step 3: Fill each cell with distilled water if fluid level is low.

NOTICE: If battery is underfilled, the electrolyte will be too concentrated, making plates deteriorate more rapidly and become chemically inactive. Do not overfill. In freezing weather, run engine for a few minutes immediately after filling battery to allow proper mixing of water and electrolyte. If battery uses too much water, check it for overcharging.

Step 4: Install cell caps (3).

Step 5: Install hold-down strap (2).



60-6 500 Service Hours

Electrolyte Level - Check

Step 1: Remove nut (1). Remove hold-down strap (2).

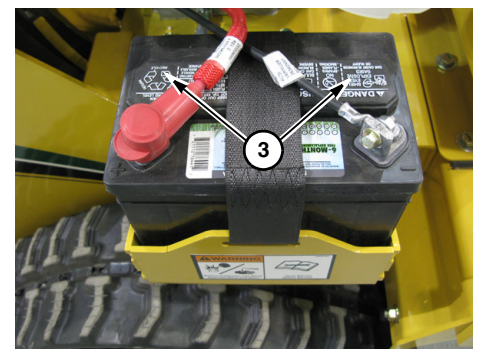
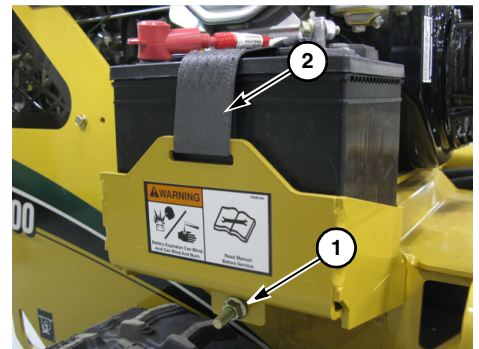
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Step 4: Install cell caps (3).

Step 5: Install hold-down strap (2).



60-6 500 Service Hours

RTX100 Trencher Maintenance

RTX100 Trencher Maintenance

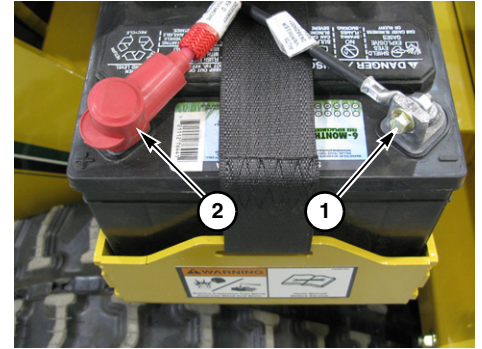
Battery Terminals - Clean



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

Wash hands after handling.

- Step 1: Remove negative (-) cable (1), and positive (+) cable (2).
 - Step 2: Clean battery terminals and cable terminals with a stiff wire brush.
 - Step 3: Apply a light coating of petroleum jelly around base of each terminal.
 - Step 4: Install cables. Install rubber boot over positive cable clamp.
- Keep top of battery clean. If necessary, wash it with a baking soda solution, then rinse with clean water. Do not let any baking soda solution enter battery.



RTX100 Trencher Maintenance

500 Service Hours 60-7

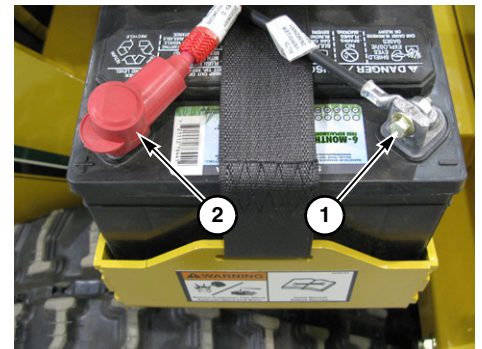
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- Keep top of battery clean. If necessary, wash it with a baking soda solution, then rinse with clean water. Do not let any baking soda solution enter battery.



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Section 65: Maintenance As Required

ENGINE SYSTEM - CHECK

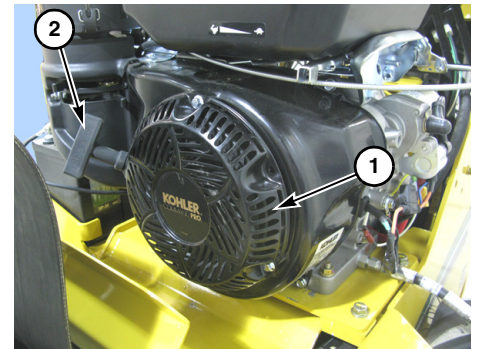
An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Check air intake screen (1) and shrouding for debris.
- If equipped, pull rope (2) out and check for wear.
- Check air cleaner.
- Air cleaner mounting bolts and clamps must be tight.
- Check for dents or other damage to the air cleaner which could allow unfiltered air to enter the engine.

NOTICE: Never run engine without the air cleaner element.



Honda



Kohler

RTX100 Trencher Maintenance

As Required 65-1

Section 65: Maintenance As Required

ENGINE SYSTEM - CHECK

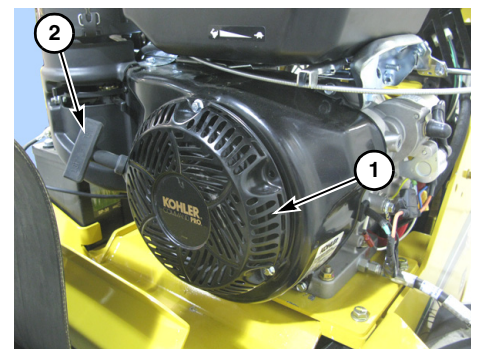
An Engine Operation Manual is supplied with each machine. Refer to the manual for service requirements.

- Check air intake screen (1) and shrouding for debris.
- If equipped, pull rope (2) out and check for wear.
- Check air cleaner.
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NOTICE: Never run engine without the air cleaner element.



Honda

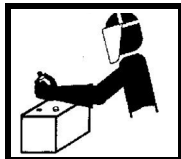


Kohler

RTX100 Trencher Maintenance

As Required 65-1

BATTERY - REPLACE (ELECTRIC START OPTION)



WARNING: Tools and cable clamps can make sparks.

Shield eyes and face.



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

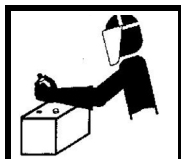
Wash hands after handling.

The machine has a 12-volt battery. Replacement battery must meet standard battery specifications. Refer to “Machine Specifications,” [page 75-2](#).

65-2 As Required

RTX100 Trencher Maintenance

BATTERY - REPLACE (ELECTRIC START OPTION)



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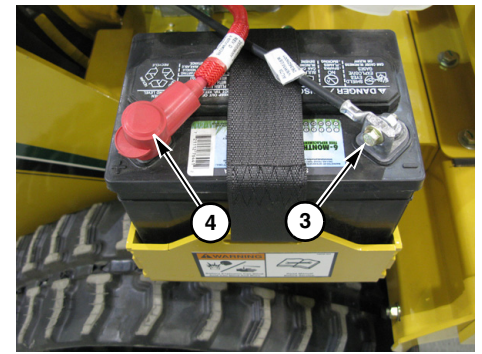
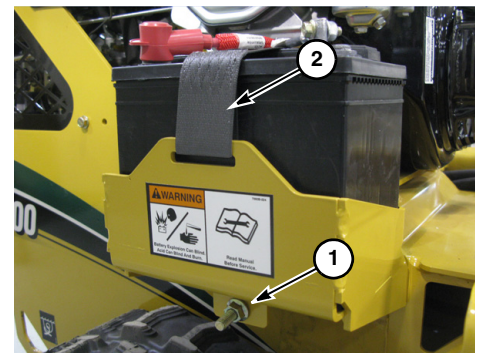
The machine has a 12-volt battery. Replacement battery must meet standard battery specifications. Refer to “Machine Specifications,” [page 75-2](#).

65-2 As Required

RTX100 Trencher Maintenance

To replace battery:

- Step 1:** Remove nut (1) and hold-down strap (2).
- Step 2:** Remove negative (-) cable (3) first. Then remove positive (+) cable (4).
- Step 3:** Remove battery.
- Step 4:** Install new battery.
- Step 5:** Apply a light coating of petroleum jelly around base of each terminal.
- Step 6:** Install positive (+) cable (4) first. Then install negative (-) cable (3). Install rubber boot over positive cable terminal.
- Step 7:** Install hold-down strap (2) and nut (1).

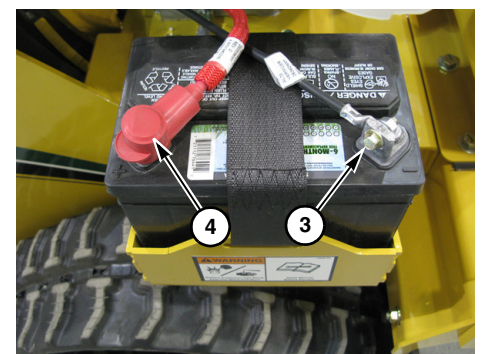
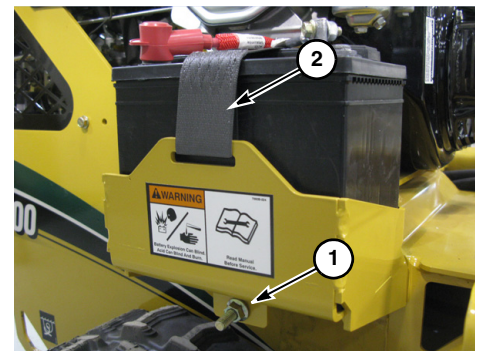


RTX100 Trencher Maintenance

As Required 65-3

To replace battery:

- Step 1:** Remove nut (1) and hold-down strap (2).
- Step 2:** Remove negative (-) cable (3) first. Then remove positive (+) cable (4).
- Step 3:** Remove battery.
- Step 4:** Install new battery.
- Step 5:** Apply a light coating of petroleum jelly around base of each terminal.
- Step 6:** Install positive (+) cable (4) first. Then install negative (-) cable (3). Install rubber boot over positive cable terminal.
- Step 7:** Install hold-down strap (2) and nut (1).



RTX100 Trencher Maintenance

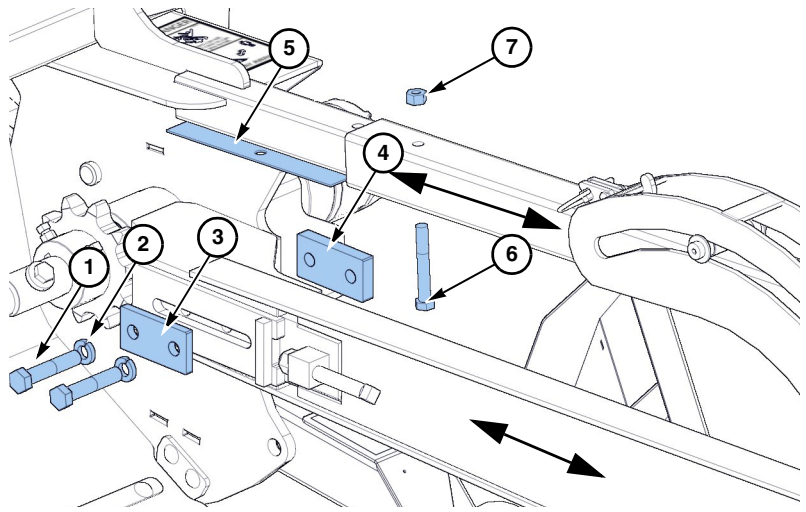
As Required 65-3

TRENCHER BOOM - REMOVE/INSTALL

NOTICE: Use appropriate lifting device. Trencher booms can weigh up to 120 lb (55 kg).

- Boom attaches to boomhead with two 3-1/4" long bolts (1), lock washers (2), clamp (3) and threaded block (4).
- Apply thread locker 243 to 3-1/4" bolts (1). Torque 3-1/4" bolts (1) to 120 ft-lb (165 Nm).
- Remove or install digging chain as necessary. Refer to "Digging Chain - Remove/Install," [page 65-8](#).
- Slide boom on or off boomhead in direction of arrow.

Adjust digging chain to proper tension. Refer to "Digging Chain - Adjust," [page 65-7](#).



TRENCH CLEANER/RESTRAINT BAR - REMOVE/INSTALL

Step 1: Slide shim (5) into trench cleaner/restraint bar and align with mounting holes.

Step 2: Trench cleaner/restraint bar attaches to bridge with one 1-3/4" bolt (6) and nut (7).

Slide trench cleaner/restraint bar on or off in direction of arrow.

65-4 As Required

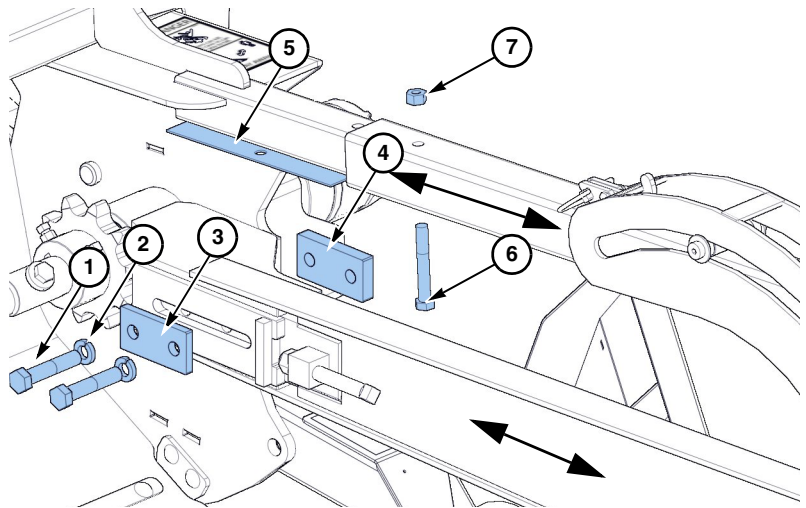
RTX100 Trencher Maintenance

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65-4 As Required

RTX100 Trencher Maintenance

DIGGING CHAIN - MAINTAIN

Maintenance of the digging chain should include the following:

- Proper tension - overtightening digging chain will cause unnecessary wear. Excessive slack will cause poor cutter efficiency. Refer to “Digging Chain - Adjust,” [page 65-7](#).
- Keep digging drive sprocket and end idler in-line.
- Keep cutters in good condition. Broken or badly-worn cutters can shorten chain life.



WARNING: Digging chain cutter can kill. Never oil the digging chain with the machine running.

- Clean and oil digging chain when not in use for an extended period of time. This will prevent the rollers from rusting tight.

DIGGING CHAIN - MAINTAIN

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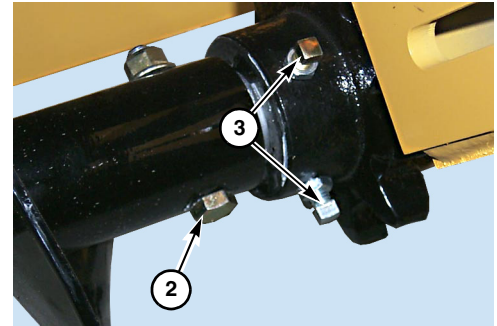
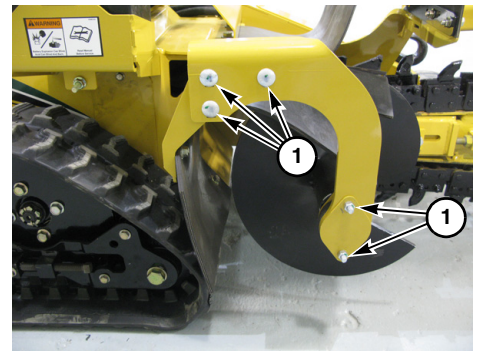
- Clean and oil digging chain when not in use for an extended period of time. This will prevent the rollers from rusting tight.

DIGGING CHAIN DRIVE SPROCKET - REPLACE

Replace sprocket when installing a new digging chain. A new chain will not fit a worn sprocket correctly. The life of the new chain will be shortened if a worn sprocket is used.

To remove digging chain drive sprocket:

- Step 1:** Remove digging chain. Refer to “Digging Chain - Remove/Install,” [page 65-8](#).
- Step 2:** Remove outboard bearing arm assembly bolts (1).
- Step 3:** Remove auger bolt (2). Remove auger.
- Step 4:** Loosen setscrews (3) and remove sprocket.
- Step 5:** Reverse procedure to reinstall using an anti-seize on headshaft.



65-6 As Required

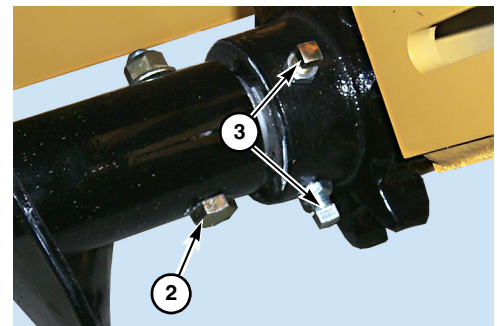
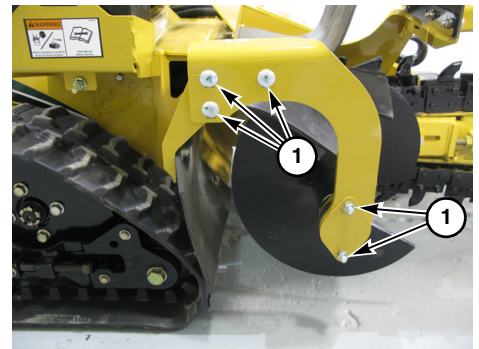
RTX100 Trencher Maintenance

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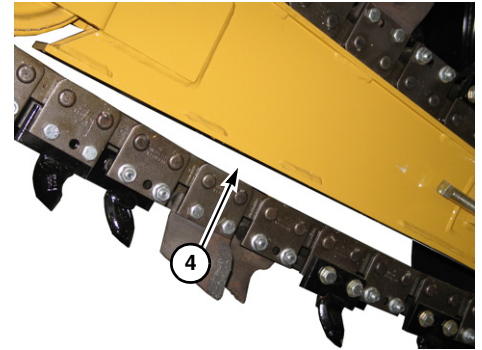
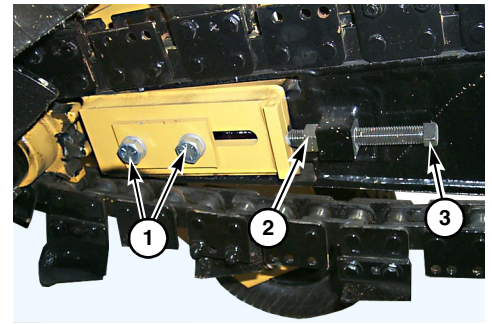


65-6 As Required

RTX100 Trencher Maintenance

DIGGING CHAIN - ADJUST

- Step 1:** Follow [Shutdown Procedure](#), except leave the boom horizontal to the ground. Refer to [page 12-1](#).
- Step 2:** Loosen two bolts (1) on each side of trencher boom.
- Step 3:** Loosen lock nuts (2) on adjustment bolts on either side of trencher boom.
- Step 4:** Turn adjustment bolts (3) on both sides evenly until there is a 1–2" (2.5–5 cm) gap (4) between the bottom of the boom and the digging chain.
- It may be necessary to tap on idler end of boom to slide boom inward.
- Step 5:** Tighten lock nuts (2) on both sides of trencher boom.
- Step 6:** Tighten bolts (1).
- Step 7:** **Trench Cleaner Shoe:** Adjust clearance between the cutter tips and trench cleaner shoe. Refer to "Trench Cleaner Assembly - Adjust," [page 65-13](#).
- Restraint Bar:** Adjust restraint bar. Refer to "Restraint Bar - Adjust," [page 65-13](#).

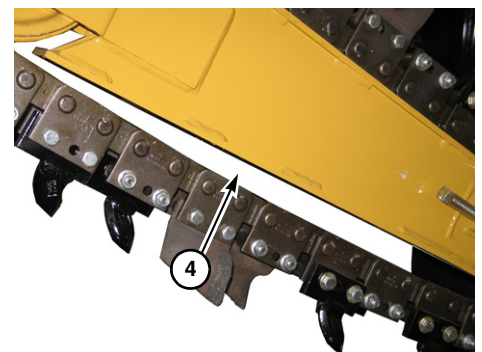
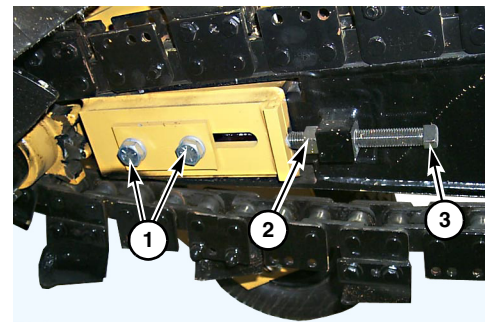


RTX100 Trencher Maintenance

As Required 65-7

DIGGING CHAIN - ADJUST

- Step 1:** Follow [Shutdown Procedure](#), except leave the boom horizontal to the ground. Refer to [page 12-1](#).
- Step 2:** Loosen two bolts (1) on each side of trencher boom.
- Step 3:** Loosen lock nuts (2) on adjustment bolts on either side of trencher boom.
- Step 4:** Turn adjustment bolts (3) on both sides evenly until there is a 1–2" (2.5–5 cm) gap (4) between the bottom of the boom and the digging chain.
- It may be necessary to tap on idler end of boom to slide boom inward.
- Step 5:** Tighten lock nuts (2) on both sides of trencher boom.
- Step 6:** Tighten bolts (1).
- Step 7:** **Trench Cleaner Shoe:** Adjust clearance between the cutter tips and trench cleaner shoe. Refer to "Trench Cleaner Assembly - Adjust," [page 65-13](#).
- Restraint Bar:** Adjust restraint bar. Refer to "Restraint Bar - Adjust," [page 65-13](#).



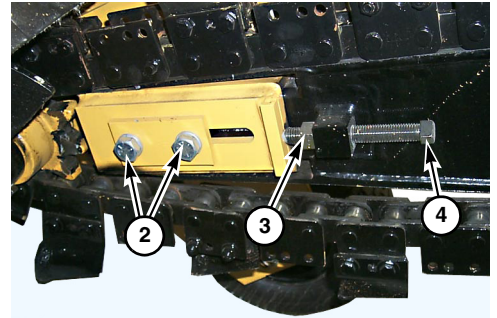
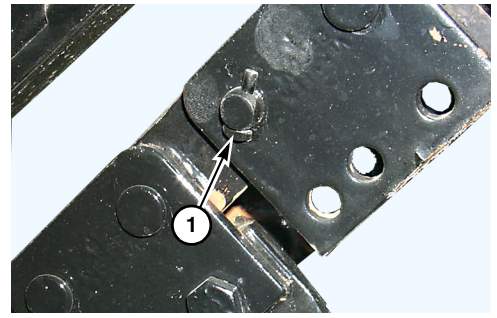
RTX100 Trencher Maintenance

As Required 65-7

DIGGING CHAIN - REMOVE/INSTALL

To remove digging chain:

- Step 1:** Locate master pin (1). The master pin is identified by a stud driven through a hole in the roller pin.
- Step 2:** Position master pin so it is on top of the boom and in the desired location. If the chain is being split to provide access to the end idler, the master pin should be near the end idler. In other situations, the master pin should be near the digging drive sprocket.
- Step 3:** Follow [Shutdown Procedure](#), except leave the boom 6" (15 cm) above the ground. Refer to [page 12-1](#).
- Step 4:** Remove tension from digging chain by retracting the boom as follows:
 - a. Loosen two bolts (2).
 - b. Loosen lock nuts (3) on both adjustment bolts.
 - c. Turn two adjustment bolts (4) on both sides evenly to loosen. Slide boom in. It may be necessary to tap on end idler with a mallet.
- Step 5:** Drive stud out of the master pin. Drive master pin out of the chain.
- Step 6:** Remove digging chain from boom.



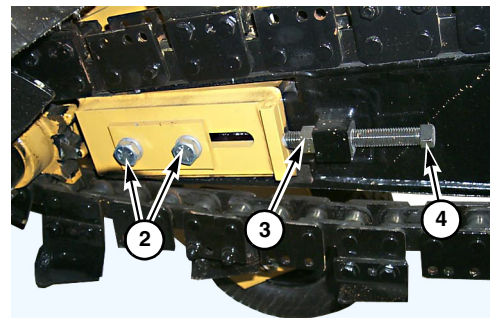
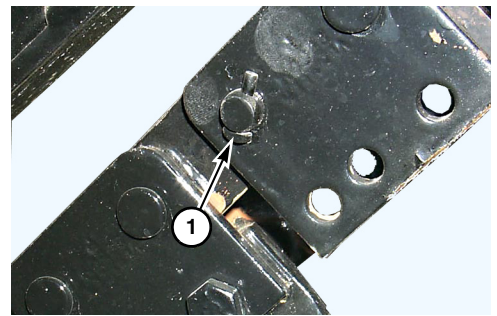
65-8 As Required

RTX100 Trencher Maintenance

DIGGING CHAIN - REMOVE/INSTALL

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- Step 6:** Remove digging chain from boom.



65-8 As Required

RTX100 Trencher Maintenance

To install digging chain:

- Step 1: Retract boom (see Step 4 above).
- Step 2: Wrap digging chain around the boom.
- Step 3: Using a winch or chain, pull the two ends of the digging chain together.
- Step 4: Align holes in the chain and install the master pin. Drive stud through the master pin.
- Step 5: Tighten chain. Refer to “Digging Chain - Adjust,” [page 65-7](#).

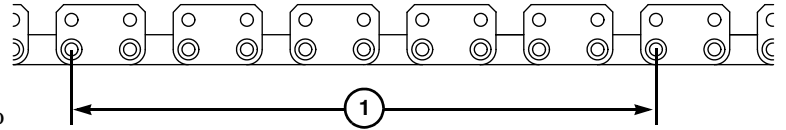
DIGGING CHAIN WEAR - CHECK

As the digging chain is used, it will stretch. This is caused by wear at all of the chain pivot points.

The digging chain is worn out when it has stretched 6%. To check this, count eleven pins.

On a new 2250 digging chain the measurement (1) from the center of the first pin to the center of the eleventh pin is 16.5” (42 cm). If the measurement exceeds 17.5” (44 cm), the chain is worn out.

As the digging chain wears, adjust boom length to maintain proper chain tension. Refer to “Digging Chain - Adjust,” [page 65-7](#). When the boom cannot be extended farther to compensate for chain wear, remove two chain links as directed below, retract boom and reinstall chain.



RTX100 Trencher Maintenance

As Required 65-9

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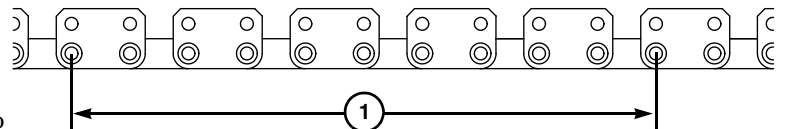
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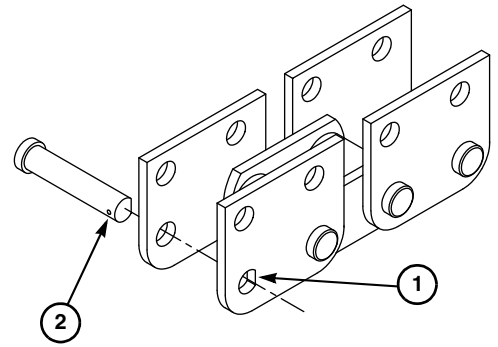
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Digging Chain - Remove Links

- Step 1:** Remove digging chain. Refer to “Digging Chain - Remove/Install,” page 65-8.
- Step 2:** Locate connector pin to be removed. The foot end (1) is on the side of the digging chain where the cotter pin was on the master pin (2).
- Step 3:** Remove foot end of the pin with a grinder. Do not use a cutting torch. A cutting torch may fuse the pin to the chain's sidebar or alter the strength of the sidebar's steel.
- Step 4:** Drive pin out of the digging chain.
Because the holes in the chain side bar are not the same size, the pin can only be driven out of the digging chain from the pin side (1).



CUTTERS - REPLACE

The cutting teeth are cup cutters, shark teeth, or rotary bits.

Keep cutters tight. Check teeth regularly for wear. Broken or missing teeth should be replaced immediately. Broken, missing, or badly worn teeth on one side will cause the machine to pull toward the side with the worn teeth. Broken or badly worn teeth rob power, slow down trenching speed, and may cause the heel of the chain links to wear excessively.

The cup cutters have hard surfacing applied to the main wearing surface. Cup cutters are recommended for digging in sand, dirt, and clay.

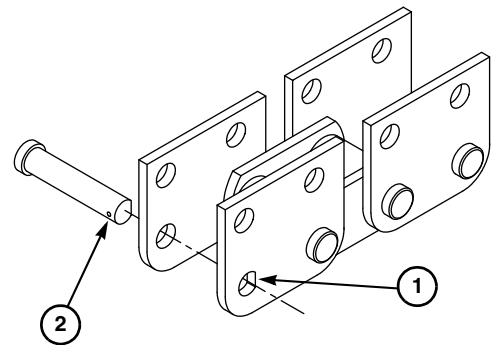
Rotary bits are carbide-tipped for hard and dry or rocky conditions. Your productivity will be significantly reduced if you use rotary bits in wet or sticky digging conditions.

65-10 As Required

RTX100 Trencher Maintenance

Digging Chain - Remove Links

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65-10 As Required

RTX100 Trencher Maintenance

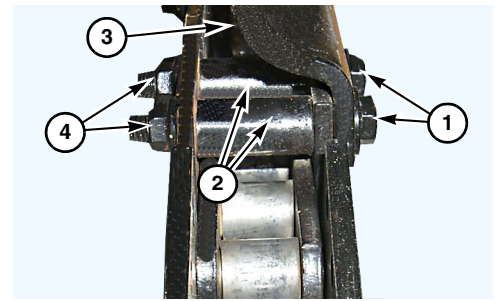
Cup Cutters/Shark Teeth - Replace

The preferred method is to replace one cutter at a time, matching the new cutter to the old cutter as it is removed.

Step 1: Remove 3/8" grade 5 bolts (1) from the digging chain. Keep track of all spacers (2) as the cutter(s) (3) are removed.

Step 2: Place new cutter(s) in position. Install spacers as needed. Install bolts. Install new grade 5 lock nuts (4).

Torque 3/8" nuts to 25 ft-lb (35 Nm).

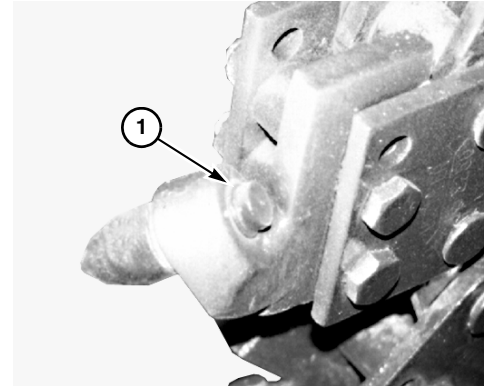


Rotary Bits - Replace

The rotary bits are held in the pockets with a snap ring (1).

To remove a tooth, remove snap ring and slide tooth out of the pocket.

To install a tooth, insert tooth in the pocket and install snap ring.



RTX100 Trencher Maintenance

As Required 65-11

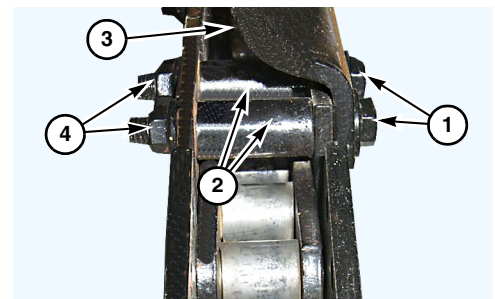
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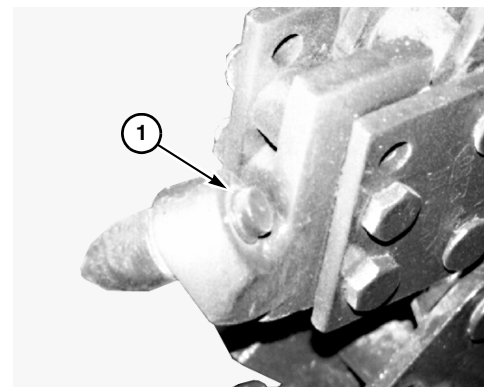


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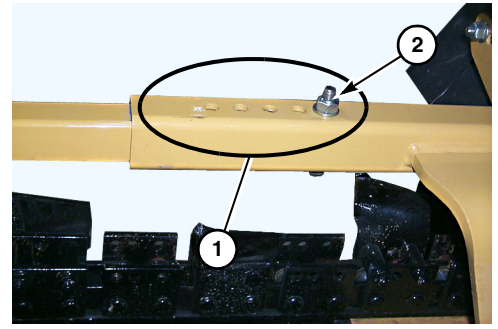


TRENCH CLEANER/RESTRAINT BAR - ADJUST

The trench cleaner/restraint bar helps protect against accidental contact with the digging chain. It must be kept in place and properly adjusted. A series of holes (1) are available to adjust the extension of the bar to compensate for variations in boom length due to chain stretch and chain tension.

Use the following procedure for adjusting either the trench cleaner bridge or restraint bar.

- Step 1:** Remove bolt (2).
- Step 2:** Slide trench cleaner bridge or restraint bar to obtain the proper adjustment. Refer to next page for proper dimensions.
- Step 3:** Install and tighten bolt.



65-12 As Required

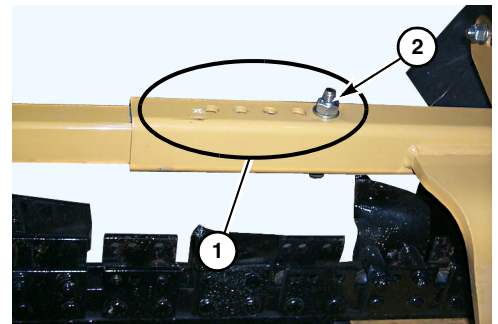
RTX100 Trencher Maintenance

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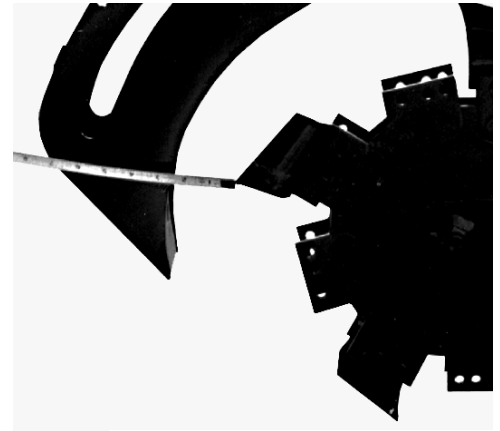
65-12 As Required

RTX100 Trencher Maintenance

Trench Cleaner Assembly - Adjust

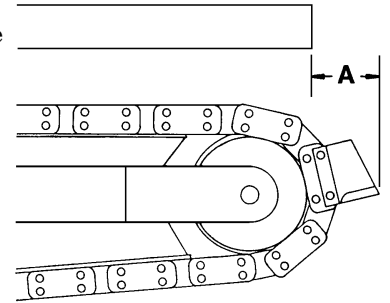
The trench cleaner assembly is designed to clean loose soil from the bottom of the trench. Match trench cleaner assembly extension plate to the width of the cutter setup.

Whenever the digging chain is adjusted, adjust the trench cleaner bar to keep the cutters from hitting the trench cleaner shoe. Proper clearance is approximately 2.5" (6.4 cm) between the trench cleaner shoe and cutter tips when the trench cleaner shoe is rolled down.



Restraint Bar - Adjust

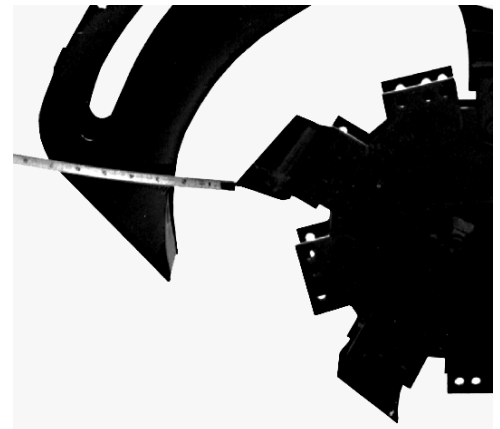
A restraint bar may be used instead of the trench cleaner assembly. The proper position of the restraint bar at (A) is approximately 4" (10 cm) from the rearmost point of the cutters to the end of the restraint bar. Adjust this position whenever the digging chain is adjusted or replaced.



Trench Cleaner Assembly - Adjust

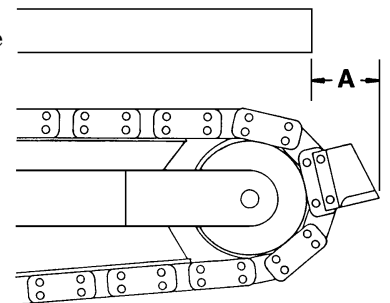
The trench cleaner assembly is designed to clean loose soil from the bottom of the trench. Match trench cleaner assembly extension plate to the width of the cutter setup.

Whenever the digging chain is adjusted, adjust the trench cleaner bar to keep the cutters from hitting the trench cleaner shoe. Proper clearance is approximately 2.5" (6.4 cm) between the trench cleaner shoe and cutter tips when the trench cleaner shoe is rolled down.

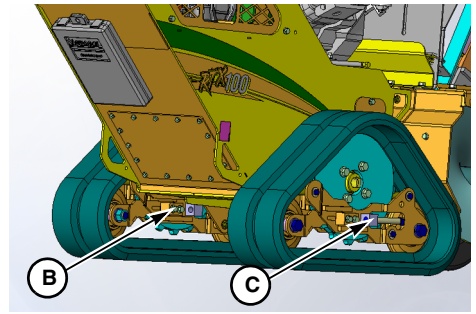
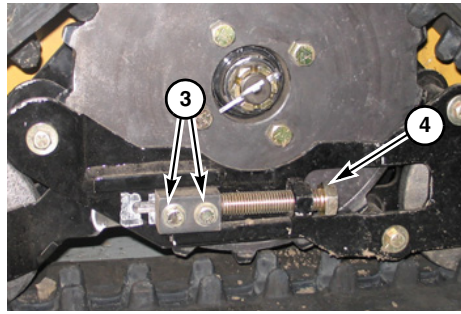
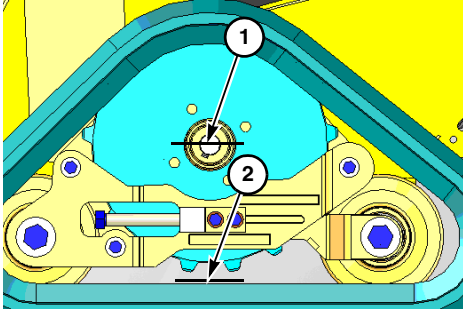


Restraint Bar - Adjust

A restraint bar may be used instead of the trench cleaner assembly. The proper position of the restraint bar at (A) is approximately 4" (10 cm) from the rearmost point of the cutters to the end of the restraint bar. Adjust this position whenever the digging chain is adjusted or replaced.



TRACK TENSION - ADJUST



To measure track tension:

- Step 1: Park machine on a firm, level surface. Follow [Shutdown Procedure](#), page 12-1.
- Step 2: Measure from center of drive sprocket (1) to inside edge of track (2).
- Step 3: Using a suitable lifting device, raise track off the ground.
- Step 4: Take second measurement from center of drive sprocket (1) to inside edge of track (2).
- Step 5: Subtract second measurement from first measurement. The resulting number is used to gauge the actual track tension. It should be 3/8–1/2" (9.5–12.7 mm).

To adjust track tension:

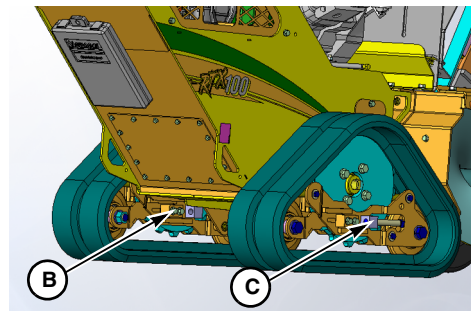
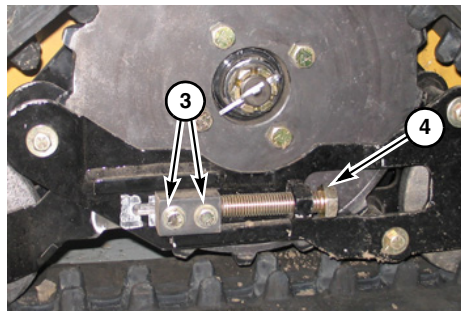
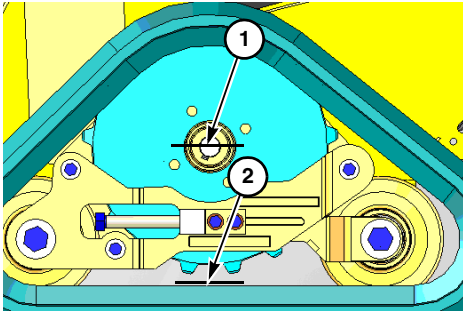
Loosen four tension block bolts (3), **two on inside (B) of track carriage and two on outside (C) of track**. Tighten bolt (4) to increase track tension, and loosen bolt to decrease track tension.

Tighten four tension block bolts.

65-14 As Required

RTX100 Trencher Maintenance

TRACK TENSION - ADJUST



To measure track tension:

- Step 1: Park machine on a firm, level surface. Follow [Shutdown Procedure](#), page 12-1.
- Step 2: Measure from center of drive sprocket (1) to inside edge of track (2).
- Step 3: Using a suitable lifting device, raise track off the ground.
- Step 4: Take second measurement from center of drive sprocket (1) to inside edge of track (2).
- Step 5: Subtract second measurement from first measurement. The resulting number is used to gauge the actual track tension. It should be 3/8–1/2" (9.5–12.7 mm).

To adjust track tension:

Loosen four tension block bolts (3), **two on inside (B) of track carriage and two on outside (C) of track**. Tighten bolt (4) to increase track tension, and loosen bolt to decrease track tension.

Tighten four tension block bolts.

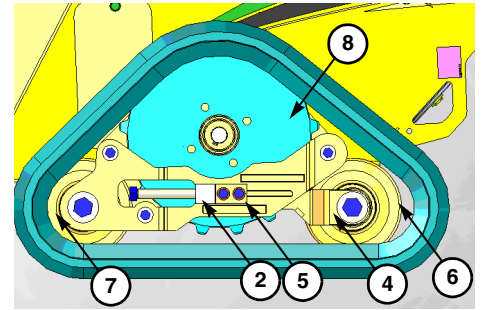
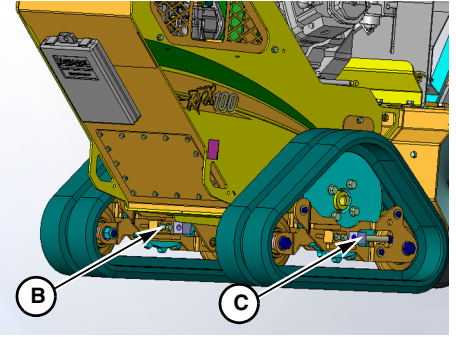
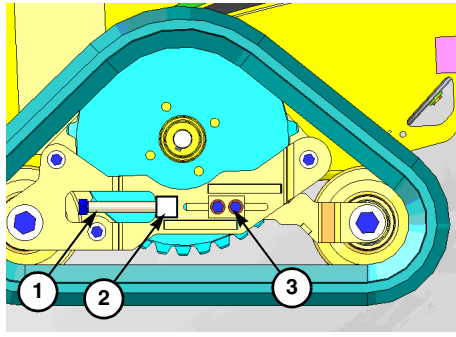
65-14 As Required

RTX100 Trencher Maintenance

TRACKS - REPLACE

Track - Remove

- Step 1:** Ensure machine is on a firm and level surface.
- Step 2:** Place wheel chocks by opposite track, to keep machine from rolling during procedure.
- Step 3:** Raise appropriate rear corner of machine approximately 2" (5 cm), utilizing a suitable lifting device, such as a floor jack capable of lifting and supporting 1,200 lb (545 kg).
- Step 4:** Loosen tensioner bolt (1) until threaded end of bolt is fully retracted inside threaded block (2).
- Step 5:** Loosen, but do not remove, tension block bolts (3) on inside (B) and outside (C) of track assembly.
- Step 6:** Slide idler assembly (4) forward until tension block (5) is touching the threaded block (2). Use rubber mallet if necessary. Remove track from rear idler (6). A pry bar may be required. Remove track from front idler (7) and sprocket (8).



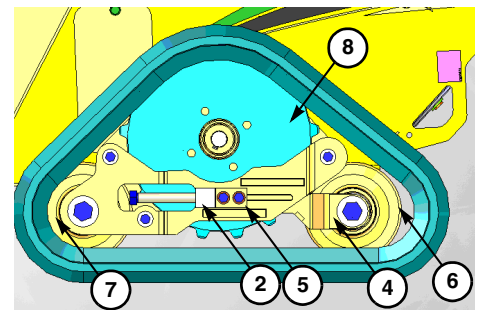
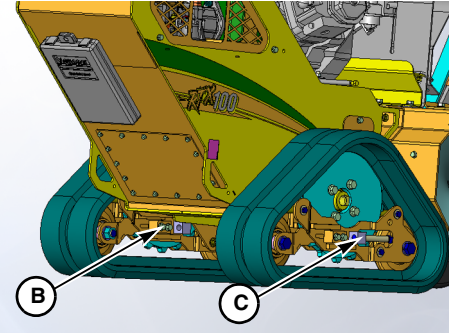
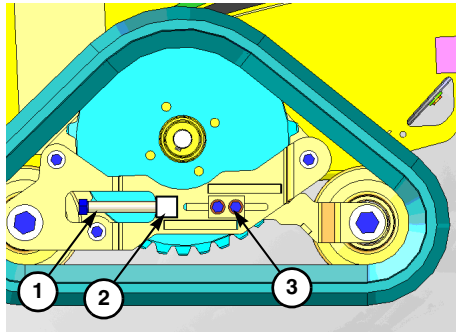
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As Required 65-15

TRACKS - REPLACE

Track - Remove

- Step 1:** Ensure machine is on a firm and level surface.
- Step 2:** Place wheel chocks by opposite track, to keep machine from rolling during procedure.
- Step 3:** Raise appropriate rear corner of machine approximately 2" (5 cm), utilizing a suitable lifting device, such as a floor jack capable of lifting and supporting 1,200 lb (545 kg).
- Step 4:** Loosen tensioner bolt (1) until threaded end of bolt is fully retracted inside threaded block (2).
- Step 5:** Loosen, but do not remove, tension block bolts (3) on inside (B) and outside (C) of track assembly.
- Step 6:** Slide idler assembly (4) forward until tension block (5) is touching the threaded block (2). Use rubber mallet if necessary. Remove track from rear idler (6). A pry bar may be required. Remove track from front idler (7) and sprocket (8).



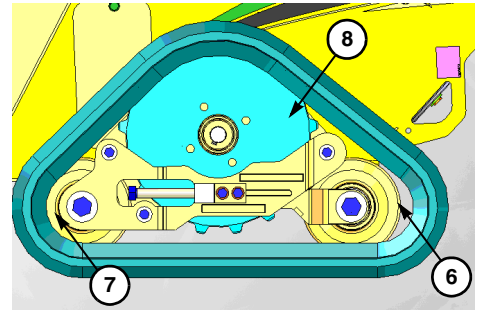
RTX100 Trencher Maintenance

As Required 65-15

Track - Install

Slide new track into position over sprocket (8) and two idlers (6 and 7).

See "Track Tension - Adjust" for proper tensioning procedure. Refer to [page 65-14](#).



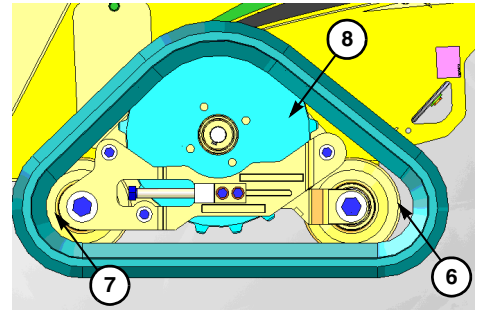
65-16 As Required

RTX100 Trencher Maintenance

Track - Install

Slide new track into position over sprocket (8) and two idlers (6 and 7).

See "Track Tension - Adjust" for proper tensioning procedure. Refer to [page 65-14](#).



65-16 As Required

RTX100 Trencher Maintenance

Section 70: Troubleshooting

POWER SYSTEM		
PROBLEM	CAUSE	SOLUTION
Engine hard to start or will not start	Ground drive creep lever or attachment drive lever not in NEUTRAL	Place control levers in NEUTRAL.
	NEUTRAL interlock switches out of adjustment or need repair	See your Vermeer dealer.
	Defective <i>Keyswitch</i> or <i>Off/On Switch</i>	See your Vermeer dealer.
	Fuel valve closed	Open fuel valve.
	No fuel	Add fuel.
	Wrong fuel	Use correct fuel.
	Leak in fuel line	Check fuel line and connection.
	Dirt or water in fuel system	Remove fuel, clean tank, and replace fuel filter.
	Dirty fuel filter	Replace fuel filter.
	Wrong weight engine oil	Use correct oil.
	Restricted air filter	Clean or replace air filter.
	Spark plugs fouled or gapped wrong	Clean or replace spark plugs. Check gap.
	Carburetor improperly adjusted or dirty	See your Vermeer dealer.
Hydraulic oil is too cold.	Warm hydraulic oil.	

Section 70: Troubleshooting

POWER SYSTEM		
PROBLEM	CAUSE	SOLUTION
Engine hard to start or will not start	Ground drive creep lever or attachment drive lever not in NEUTRAL	Place control levers in NEUTRAL.
	NEUTRAL interlock switches out of adjustment or need repair	See your Vermeer dealer.
	Defective <i>Keyswitch</i> or <i>Off/On Switch</i>	See your Vermeer dealer.
	Fuel valve closed	Open fuel valve.
	No fuel	Add fuel.
	Wrong fuel	Use correct fuel.
	Leak in fuel line	Check fuel line and connection.
	Dirt or water in fuel system	Remove fuel, clean tank, and replace fuel filter.
	Dirty fuel filter	Replace fuel filter.
	Wrong weight engine oil	Use correct oil.
	Restricted air filter	Clean or replace air filter.
	Spark plugs fouled or gapped wrong	Clean or replace spark plugs. Check gap.
	Carburetor improperly adjusted or dirty	See your Vermeer dealer.
Hydraulic oil is too cold.	Warm hydraulic oil.	

POWER SYSTEM (CONTINUED)

PROBLEM	CAUSE	SOLUTION
Lack of engine power	Wrong fuel	Use correct fuel.
	Dirt or water in fuel system	Remove fuel, clean tank, and replace fuel filter.
	Dirty fuel filter	Replace fuel filter.
	Wrong weight engine oil	Use correct oil.
	Restricted air filter	Clean or replace air filter.
	Low engine compression	See your Vermeer dealer.
	Engine too hot	See your Vermeer dealer.
	Spark plugs fouled or gapped wrong	Clean or replace spark plugs. Check gap.
	Carburetor improperly adjusted or dirty	See your Vermeer dealer.
	Hydraulic oil is too cold.	Warm up engine. Gradually increase engine RPM for up to 30 min. to warm up hydraulic oil.

POWER SYSTEM (CONTINUED)

PROBLEM	CAUSE	SOLUTION
Lack of engine power	Wrong fuel	Use correct fuel.
	Dirt or water in fuel system	Remove fuel, clean tank, and replace fuel filter.
	Dirty fuel filter	Replace fuel filter.
	Wrong weight engine oil	Use correct oil.
	Restricted air filter	Clean or replace air filter.
	Low engine compression	See your Vermeer dealer.
	Engine too hot	See your Vermeer dealer.
	Spark plugs fouled or gapped wrong	Clean or replace spark plugs. Check gap.
	Carburetor improperly adjusted or dirty	See your Vermeer dealer.
	Hydraulic oil is too cold.	Warm up engine. Gradually increase engine RPM for up to 30 min. to warm up hydraulic oil.

HYDRAULIC SYSTEM		
PROBLEM	CAUSE	SOLUTION
No hydraulic power	Damaged or worn hydraulic pump(s)	See your Vermeer dealer.
	Damaged relief valves	See your Vermeer dealer.
Slow hydraulic power	Low hydraulic fluid level	Add hydraulic fluid.
	Dirty or plugged hydraulic filter	Replace filter.
	Worn pump(s) or motor(s)	See your Vermeer dealer.
	Cold hydraulic fluid	Warm up machine and operate hydraulic system to warm fluid.
	Engine not tuned properly	See Engine Service Manual.
	Hydraulic oil is too hot due to incorrect oil	Change to correct oil.
Oil foams	Low hydraulic fluid level	Add hydraulic fluid.
	Water in hydraulic fluid	Change fluid.
	Air leaks in pump inlet hoses	Tighten fittings. Check/repair leaky hoses.

HYDRAULIC SYSTEM		
PROBLEM	CAUSE	SOLUTION
No hydraulic power	Damaged or worn hydraulic pump(s)	See your Vermeer dealer.
	Damaged relief valves	See your Vermeer dealer.
Slow hydraulic power	Low hydraulic fluid level	Add hydraulic fluid.
	Dirty or plugged hydraulic filter	Replace filter.
	Worn pump(s) or motor(s)	See your Vermeer dealer.
	Cold hydraulic fluid	Warm up machine and operate hydraulic system to warm fluid.
	Engine not tuned properly	See Engine Service Manual.
	Hydraulic oil is too hot due to incorrect oil	Change to correct oil.
Oil foams	Low hydraulic fluid level	Add hydraulic fluid.
	Water in hydraulic fluid	Change fluid.
	Air leaks in pump inlet hoses	Tighten fittings. Check/repair leaky hoses.

DRIVE SYSTEM		
PROBLEM	CAUSE	SOLUTION
Operator Presence system not functioning properly	<i>Operator Presence Lever</i> needs to be pressed to start machine.	See your Vermeer dealer.
	Engine quits when <i>Digging Chain Drive</i> or <i>Propel Lever</i> is engaged and red operator presence lever is pressed.	Refer to the Service Manual or contact your Vermeer dealer for adjustment or switch replacement information.
Machine pulls to one side	Wrong tire pressure	Inflate tire to correct pressure.
	Worn cup cutters	Replace worn cutters.
	Nose wheel axle is bent.	Replace axle or check alignment.
	Linkage out of adjustment	See your Vermeer dealer.
Machine moves when ground drive control lever is in NEUTRAL	Linkage out of adjustment	See your Vermeer dealer.
	Linkage or switch mounts out of adjustment	See your Vermeer dealer.

DRIVE SYSTEM		
PROBLEM	CAUSE	SOLUTION
Operator Presence system not functioning properly	<i>Operator Presence Lever</i> needs to be pressed to start machine.	See your Vermeer dealer.
	Engine quits when <i>Digging Chain Drive</i> or <i>Propel Lever</i> is engaged and red operator presence lever is pressed.	Refer to the Service Manual or contact your Vermeer dealer for adjustment or switch replacement information.
Machine pulls to one side	Wrong tire pressure	Inflate tire to correct pressure.
	Worn cup cutters	Replace worn cutters.
	Nose wheel axle is bent.	Replace axle or check alignment.
	Linkage out of adjustment	See your Vermeer dealer.
Machine moves when ground drive control lever is in NEUTRAL	Linkage out of adjustment	See your Vermeer dealer.
	Linkage or switch mounts out of adjustment	See your Vermeer dealer.

TRENCHING		
PROBLEM	CAUSE	SOLUTION
Digging chain jumps off boom	Digging chain too loose	Adjust digging chain.
	Loose end idler bearings	Check bearings for wear. Replace if necessary.
	Badly worn chain	Replace chain.
	Drive sprocket not aligned	Contact your Vermeer dealer.
End idler moves sideways	Loose or damaged bearings	Tighten or replace bearings.
Trencher trenches too slowly	Badly worn cutters	Replace cutters.
	Wrong style cutters for ground conditions	Contact your Vermeer dealer.
	Poor engine performance	Refer to "Power System" troubleshooting in this section.
	Chain too loose	Adjust to proper tension.
	Worn or damaged pump or motor	Call Vermeer dealer.
	Chain installed wrong	Check for proper orientation or call Vermeer dealer.

TRENCHING		
PROBLEM	CAUSE	SOLUTION
Digging chain jumps off boom	Digging chain too loose	Adjust digging chain.
	Loose end idler bearings	Check bearings for wear. Replace if necessary.
	Badly worn chain	Replace chain.
	Drive sprocket not aligned	Contact your Vermeer dealer.
End idler moves sideways	Loose or damaged bearings	Tighten or replace bearings.
Trencher trenches too slowly	Badly worn cutters	Replace cutters.
	Wrong style cutters for ground conditions	Contact your Vermeer dealer.
	Poor engine performance	Refer to "Power System" troubleshooting in this section.
	Chain too loose	Adjust to proper tension.
	Worn or damaged pump or motor	Call Vermeer dealer.
	Chain installed wrong	Check for proper orientation or call Vermeer dealer.

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Section 75: Specifications

LUBRICANTS

Lubricant / Recommendation	Capacity	Specification / Notes
Engine Oil (with Filter)	1.2 qt (1.1 L)	An Engine Operation Manual is supplied with each machine. Refer to the manual for engine service requirements. Engine must be level when checking engine oil.
Hydraulic Fluid <i>Vermeer HyPower Hydraulic Fluid</i>	13 gal (49 L)	ISO 68 Oil; -4°F to 104°F; (-20°C to 40°C) ISO 100 Oil; +14°F to 122°F; (-10°C to 40°C) NOTICE: ISO 100 oils are recommended and should be used for most applications. Use of any other hydraulic oil without written factory approval will jeopardize warranty.
Grease <i>Vermeer Ultra LC Grease</i>	As required	EP grease - Vermeer Ultra LC or equivalent
General Lubricating Oil <i>Vermeer Ultra Gold</i>	Coat lightly as required	such as 10W30 Vermeer Ultra Gold

Section 75: Specifications

LUBRICANTS

Lubricant / Recommendation	Capacity	Specification / Notes
Engine Oil (with Filter)	1.2 qt (1.1 L)	An Engine Operation Manual is supplied with each machine. Refer to the manual for engine service requirements. Engine must be level when checking engine oil.
Hydraulic Fluid <i>Vermeer HyPower Hydraulic Fluid</i>	13 gal (49 L)	ISO 68 Oil; -4°F to 104°F; (-20°C to 40°C) ISO 100 Oil; +14°F to 122°F; (-10°C to 40°C) NOTICE: ISO 100 oils are recommended and should be used for most applications. Use of any other hydraulic oil without written factory approval will jeopardize warranty.
Grease <i>Vermeer Ultra LC Grease</i>	As required	EP grease - Vermeer Ultra LC or equivalent
General Lubricating Oil <i>Vermeer Ultra Gold</i>	Coat lightly as required	such as 10W30 Vermeer Ultra Gold

MACHINE SPECIFICATIONS

Engine	Honda	Kohler
Model	Honda GX390	Kohler CH440
Maximum power	13 hp (10 kW) @ 3,600 rpm	14 hp (10.5 kW) @ 3,600 rpm
Fuel capacity and type	1.6 gal (6.1 L) unleaded gasoline	2 gal (7.6 L) unleaded gasoline
Oil capacity	1.2 qt (1.1 L)	1.2 qt (1.1 L)
Maximum engine inclination	20° all directions NOTICE: Engine operating angles do not indicate safe machine operating angles.	
Battery (electric start option)	12-volt, negative ground 230 CCA @ 0°F, 290 CA @ 32°F 30 min. reserve capacity (25 amp @ 80°F)	
Hydraulic system		
Hydraulic system relief setting	Main: 2500 psi (17.2 MPa); Lift: 1000 psi (6.9 MPa)	
Hydraulic tank capacity	13 gal (49 L)	
General		
Weight, equipped with tires	1050 lb (476 kg) without boom and chain	
Weight, equipped with tracks	1125 lb (510 kg) without boom and chain	
Length - transport	81" (206 cm) without boom	
Height	46" (117 cm)	
Width, equipped with tires	35" (90 cm) with 18 x 10.5 x 8" tires	
Width, equipped with tracks	34" (86 cm)	
Drive wheels	Size: 18 x 10.5 x 8"; pressure: 12 psi (83 kPa)	
Nose wheel	Size: 13" x 5.0 x 6"; pressure: 40 psi (276 kPa)	
Lug bolts torque	60 ft-lb (80 Nm)	

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RTX100 Trencher Maintenance

MACHINE SPECIFICATIONS

Engine	Honda	Kohler
Model	Honda GX390	Kohler CH440
Maximum power	13 hp (10 kW) @ 3,600 rpm	14 hp (10.5 kW) @ 3,600 rpm
Fuel capacity and type	1.6 gal (6.1 L) unleaded gasoline	2 gal (7.6 L) unleaded gasoline
Oil capacity	1.2 qt (1.1 L)	1.2 qt (1.1 L)
Maximum engine inclination	20° all directions NOTICE: Engine operating angles do not indicate safe machine operating angles.	
Battery (electric start option)	12-volt, negative ground 230 CCA @ 0°F, 290 CA @ 32°F 30 min. reserve capacity (25 amp @ 80°F)	
Hydraulic system		
Hydraulic system relief setting	Main: 2500 psi (17.2 MPa); Lift: 1000 psi (6.9 MPa)	
Hydraulic tank capacity	13 gal (49 L)	
General		
Weight, equipped with tires	1050 lb (476 kg) without boom and chain	
Weight, equipped with tracks	1125 lb (510 kg) without boom and chain	
Length - transport	81" (206 cm) without boom	
Height	46" (117 cm)	
Width, equipped with tires	35" (90 cm) with 18 x 10.5 x 8" tires	
Width, equipped with tracks	34" (86 cm)	
Drive wheels	Size: 18 x 10.5 x 8"; pressure: 12 psi (83 kPa)	
Nose wheel	Size: 13" x 5.0 x 6"; pressure: 40 psi (276 kPa)	
Lug bolts torque	60 ft-lb (80 Nm)	

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Revision History

Revision	Date	Pages	Description
tm1_00	08/08	All	Temporary Maintenance Manual released.
m1_00	01/09	All	First edition production manual released.
m1_01	06/09	Sections: 10, 15, 25, 40, 55, 60, 65	Updated safety definitions; shutdown decal added; corrected information, corrected track tension adjustment; corrected troubleshooting information
m2_00	12/10	All	Updated Honda engine, miscellaneous updates, Kohler engine not currently available
m2_01	04/11	All	Added Kohler engine option and electric start <i>Keyswitch</i> , miscellaneous updates
m2_02	10/12	Sections: 10, 25, 60, 75	Hydraulic tank sight gauge, lubricants, miscellaneous updates
m2_03	07/15	10-1, 65-4	Added alert, added trencher boom installation, updated warnings

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