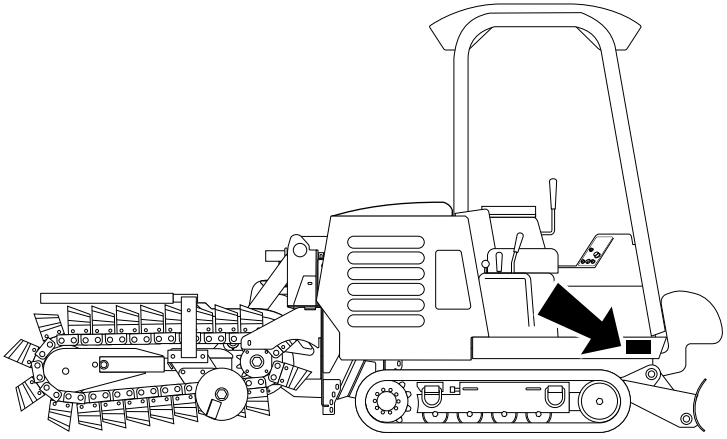
SERVICE

SERIAL NUMBER RECORD

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



Om0548h.eps

Date of Manufacture:	
Date of Purchase:	
Tractor Serial Number:	
Front Attachment Serial Number:	
Engine Serial Number:	
Trailer Serial Number:	

SUPPORT PROCEDURE

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

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

Return damaged parts to dealer for inspection and Warranty consideration.

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

RESOURCES

Publications

Contact your Ditch Witch dealer for publications covering operation, service, and repair of your equipment.

Ditch Witch Training

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

FOREWORD

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

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

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

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

The descriptions and specifications in this manual are subject to change. The Charles Machine Works, Inc. reserves the right to improve equipment. Some product improvements may have taken place after this manual was published. For the latest information on Ditch Witch equipment, see your Ditch Witch dealer.

Thank you for buying and using Ditch Witch equipment.

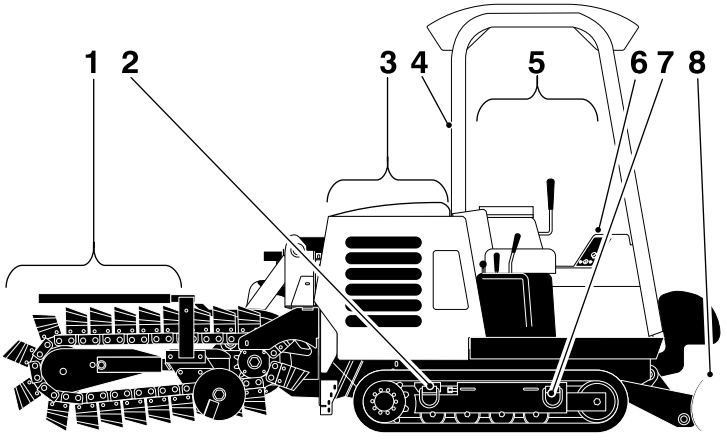
Operator's Manual

Issue Number 1.0/OP-4/00
Part Number 054-062

CONTENTS

OVERVIEW

The HT25 is a 25 hp (18.6 kW) riding tractor that can be fitted with a centerline, wide centerline, or offset digging boom. Optional cab, backfill blade, backhoe, drilling attachment, and mechanical trench cleaner are available. The HT25 is designed to cut trenches up to 36 in (91 cm) deep and 16 in (40 cm) wide.



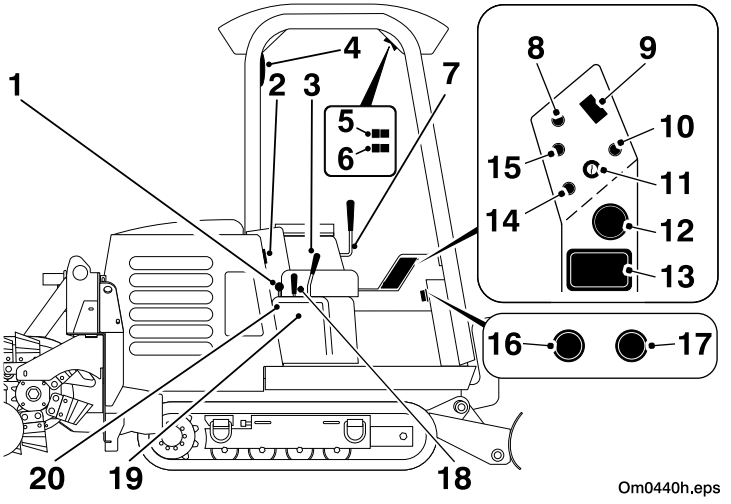
Om0442h.eps

1. Digging boom
2. Lift/tiedown point
3. Engine compartment
4. Rollover Protective Structure
5. Operator's position
6. Control console
7. Lift/tiedown point
8. Backfill blade*

*optional

CONTROLS

OVERVIEW



1. Throttle
2. Accessory socket*
3. Backfill blade control*
4. Dome light switch*
5. Windshield wiper switch*
6. Work light switch*
7. Track controls
8. Horn button
9. Digging chain control**
10. Glow plug control
11. Ignition switch
12. Fuel gauge
13. Start interlock indicators
14. Engine water temperature indicator
15. Engine oil pressure indicator
16. Heater fan control*
17. Heater temperature control*
18. Boom lift control**
19. Battery disconnect*
20. Hourmeter

* Optional
See **TRENCHING for a description of this control.

DESCRIPTIONS

Throttle

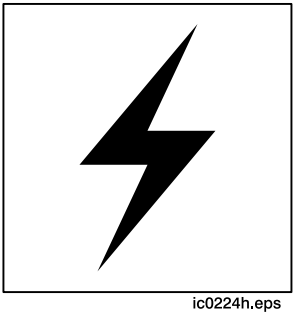
This lever controls engine speed.

- Push to increase speed.
- Pull to reduce speed.

ic0128h.eps

Accessory Socket

This optional outlet can be used to provide power for work lights or other equipment.



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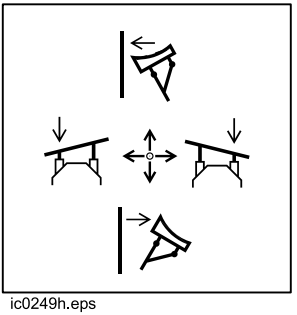
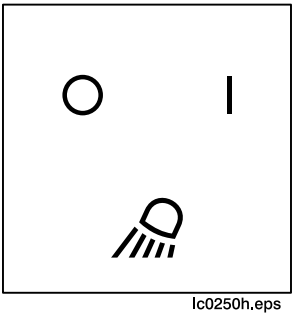
Backfill Blade Control


ic0249h.eps

This optional lever raises, lowers, and swings backfill blade.

- Push to lower blade.
- Pull to raise blade.
- Move right to swing blade right.
- Move left to swing blade left.

Work Light Switch


Ic0250h.eps

This optional switch controls front and rear work lights.

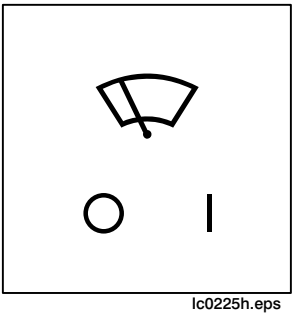
- Press right to turn on.
- Press left to turn off.

Dome Light Switch

This optional button controls interior dome light.

- Press top to turn on.
- Press bottom to turn off.

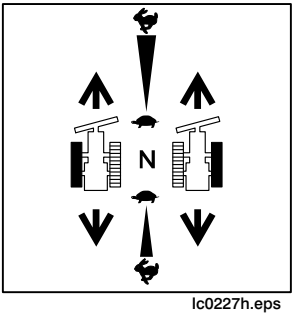
Windshield Wiper Switch


lc0225h.eps

This optional switch controls windshield wipers.

- Press right to turn on.
- Press left to turn off.

Track Controls

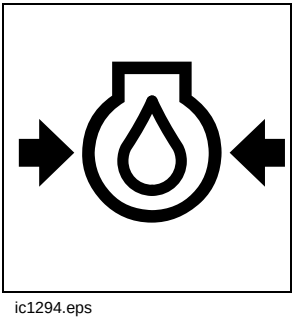


lc0227h.eps

These levers, used together, control left and right track speed and direction.

- Push to go forward.
- Pull to go backward.
- Return to neutral to stop.
- Use together to steer.

Engine Oil Pressure Indicator

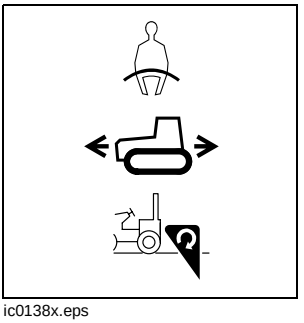

ic1294.eps

This indicator lights when oil pressure is low. Light will come on briefly when engine is started.

If light remains on:

- Turn off engine.
- Check oil level.
- Check for leaks before starting engine.

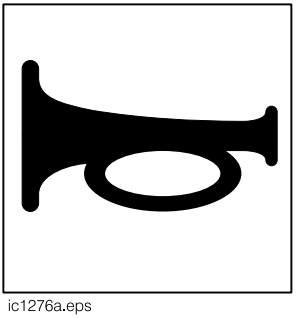
Start Interlock Indicators


ic0138x.eps

To start machine, these must be lit, indicating the following conditions have been met:

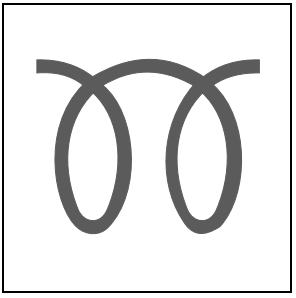
- Operator is in seat.
- Track controls are in neutral.
- Digging chain clutch is not engaged.

Horn Button


ic1276a.eps

Press button to sound horn.

Glow Plug Button



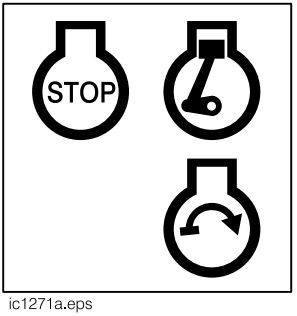
ic0219h.eps

This button helps start cold engine. To operate, first turn ignition switch to first position.

- If ambient temperature is below 40° F (4° C), press and hold button for 15 seconds.
- If ambient temperature is below 20° F (-7° C), press and hold button for 30 seconds.

Release button, then turn ignition switch all the way clockwise.

Ignition Switch



ic1271a.eps

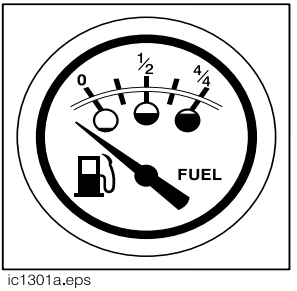
This three-position switch starts or stops engine.

- Insert key and turn clockwise to first position.
- Press glow plug button to warm cold engine if necessary. See instructions for glow plug button.
- Turn switch all the way clockwise.
- Release when engine starts. Key will return to first position.
- Turn counterclockwise to stop engine.

If engine does not start on first attempt, check that all interlock requirements have been met, return switch to STOP position, and try again.

Fuel Gauge

This gauge indicates fuel level in tank. Use only #2 diesel fuel.

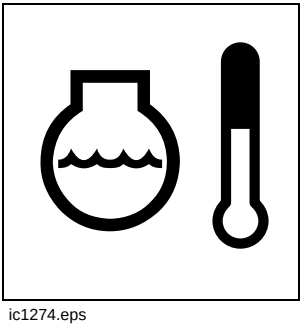


ic1301a.eps

Engine Temperature Indicator

This indicator lights if cooling system water overheats.

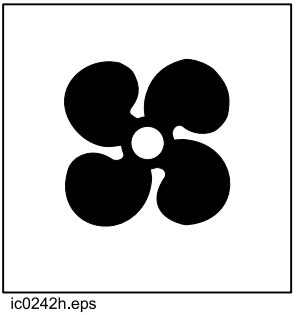
- Turn off engine and let cool.
- Check cooling system fluid level.


ic1274.eps

Heater Fan Control

This optional knob adjusts heater fan speed.

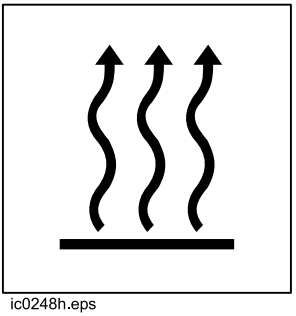
- Turn clockwise for faster.
- Turn counterclockwise for slower.


ic0242h.eps

Heater Temperature Control

This optional knob adjusts heater temperature.

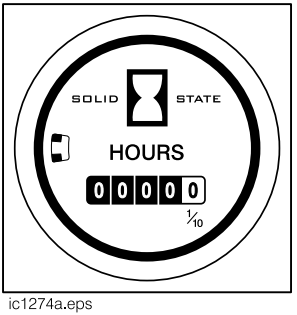
- Turn clockwise for warmer.
- Turn counterclockwise for cooler.



ic0248h.eps

Hourmeter

This gauge, located under seat, records engine operating time. Use these times to schedule lubrication and maintenance.

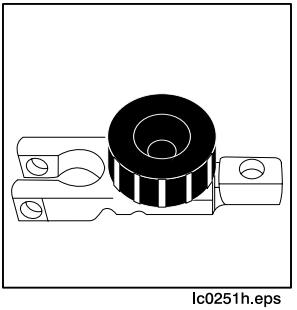


ic1274a.eps

Battery Disconnect

Use this optional knob, located under seat, to disconnect battery when servicing unit or during long-term storage.

- Turn clockwise to connect battery power.
- Turn counterclockwise to disconnect battery power.



Ic0251h.eps

SAFETY

Follow these guidelines before operating any jobsite equipment:

- Complete proper training and read operator's manual before using equipment.
- Contact One-Call (888-258-0808) and any utility companies which do not subscribe to One-Call. Have all underground pipes and cables located and marked before operating equipment. If you damage a utility, contact utility company.
- Classify jobsite based on its hazards and use correct tools and machinery, safety equipment, and work methods for jobsite.
- Mark jobsite clearly and keep spectators away.
- Wear personal protective equipment.
- Review jobsite hazards, safety and emergency procedures, and individual responsibilities with all personnel before work begins. Safety videos are available from your Ditch Witch dealer.
- Replace missing or damaged safety shields and safety signs.
- Use equipment carefully. Stop operation and investigate anything that does not look or feel right.
- Do not operate unit where flammable gas is present.
- Contact your Ditch Witch dealer if you have any question about operation, maintenance, or equipment use.

ACCESSORIES

Fire Extinguisher

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

Lighting Kit

If you need additional light, plug lighting kit into provided outlet. Contact your Ditch Witch dealer for further information.

UNDERGROUND HAZARDS

Striking underground hazards can cause explosion, electrocution, fire, and exposure to hazardous materials.

Hazards include:

- Electric lines
- Natural gas lines
- Fiber optic cables
- Water lines
- Sewer lines
- Pipes carrying other chemicals, liquids, or gases
- Storage tanks

EMERGENCY PROCEDURES

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

EMERGENCY SHUTDOWN - Turn ignition switch to stop position or push remote engine stop button.

Electric Strike Description

When working near electric cables, remember the following:

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

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

- Power outage
- Smoke
- Explosion
- Popping noises
- Arcing electricity

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

If an Electric Line is Damaged

On Tractor

1. DO NOT MOVE. Remain on tractor.
2. Warn people nearby that an electric strike has occurred. Instruct them to leave the area and contact utility.
3. Raise attachments and drive from immediate area.
4. Contact utility company to shut off power.
5. Do not return to area or allow anyone into area until given permission by utility company.

Off Tractor

1. DO NOT TOUCH ANY EQUIPMENT.
2. LEAVE AREA.
3. Contact utility company to shut off power.
4. Do not return to area or allow anyone into area until given permission by utility company.

If a Gas Line is Damaged

1. Immediately shut off engine(s) and remove any ignition sources.
2. LEAVE AREA as quickly as possible.
3. Warn others that a gas line has been cut and that they should leave area.
4. Contact emergency personnel.
5. Contact utility company.
6. Do not return to area until given permission by utility company.

If a Fiber Optic Cable is Damaged

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

JOBSITE CLASSIFICATION

Inspecting Jobsite

- Follow U.S. Department of Labor regulations on excavating and trenching (Part 1926, Subpart P) and other similar regulations.
- Contact One-Call (888-258-0808) and any utility companies which do not subscribe to One-Call.
- Inspect jobsite and perimeter for evidence of underground hazards, such as:
  - – “Buried utility” notices
  - – Utility facilities without overhead lines
  - – Gas or water meters
  - – Junction boxes
  - – Drop boxes
  - – Light poles
  - – Manhole covers
  - – Sunken ground
- Have an experienced locating equipment operator sweep area within 20 feet (6 m) to each side of trench path. Verify previously marked line and cable locations.
- Mark location of all buried utilities and obstructions.
- Classify jobsite.

Selecting a Classification

Jobsites are classified according to underground hazards present.

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

NOTICE: If you have any doubt about jobsite classification, or if jobsite might contain unmarked hazards, take steps outlined previously to identify hazards and classify jobsite before working.

Applying Precautions

Once classified, precautions appropriate for jobsite must be taken.

Electric Jobsite Precautions

Use one or both of these methods.

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

Natural Gas Jobsite Precautions

In addition to positioning equipment upwind from gas lines, use one or both of these methods.

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

Crystalline Silica (Quartz) Dust

Follow these guidelines when trenching, sawing or drilling through material that might produce dust containing crystalline silica (quartz) dust.

1. Know the work operations where exposure to crystalline silica may occur. Be aware of health effects of crystallline silica and that smoking adds to the damage.
2. Follow OSHA (or other) guidelines for exposure to airborne crystalline silica. Participate in air monitoring or training programs offered by employer.
3. Be aware of and use available engineering controls such as water sprays, local exhaust ventilation, and enclosed cabs with positive pressure air conditioning.
4. Where respirators are required, wear one approved for protection against crystalline silica-containing dust. Do not alter respirator in any way. Workers using tight-fitting respirators cannot have beards/mustaches which interfere with respirator's seal to the face.
5. If possible, change into disposable or washable work clothes at jobsite; shower and change into clean clothing before leaving jobsite.
6. Do not eat, drink, use tobacco products, or apply cosmetics in areas where there is dust containing crystalline silica. Wash hands and face before eating, drinking, smoking, or applying cosmetics outside exposure area.
7. Store food, drink, and personal belongings away from work area.

Other Jobsite Precautions

You may need to use different methods to safely avoid other underground hazards. Talk with those responsible for hazards to determine which precautions should be taken or if job should be attempted.

SAFETY ALERT CLASSIFICATIONS

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

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

⚠ DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

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

⚠ CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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

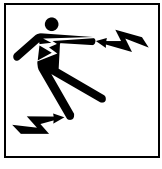
NOTICE can keep you from doing something that might damage the machine or someone's property. It can also alert you against unsafe practices.

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

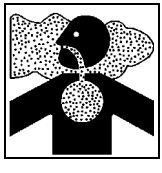
SAFETY ALERTS

DANGER Moving digging teeth will kill you or cut off arm or leg. Stay away.

DANGER Turning shaft will kill you or crush arm or leg. Stay away.



DANGER Electric shock. Contacting electric lines will cause death or serious injury. Know location of lines and stay away.

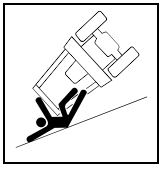


DANGER Deadly gases. Lack of oxygen or presence of gas will cause sickness or death. Provide ventilation.

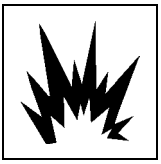

⚠WARNING Jobsite hazards could cause death or serious injury. Use correct equipment and work methods. Use and maintain proper safety equipment.


⚠WARNING Crushing weight could cause death or serious injury. Use proper procedures and equipment or stay away.

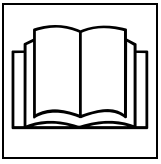

⚠WARNING Moving parts could cut off hand or foot. Stay away.



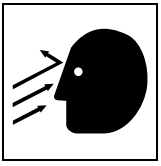
⚠WARNING Rollover possible. If machine rolls over, you could be thrown from seat and killed or crushed. Wear seat belt.



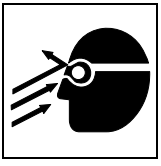
⚠WARNING Explosion possible. Serious injury or equipment damage could occur. Follow directions carefully.



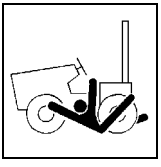
⚠WARNING Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.



⚠WARNING Looking into fiber optic cable could result in permanent vision damage. Do not look into ends of fiber optic or unidentified cable.



⚠WARNING Fluid or air pressure could pierce skin and cause injury or death. Stay away.

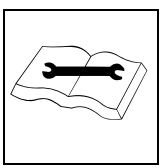


⚠WARNING Runaway possible. Machine could run over you or others. Learn how to use all controls. Start and operate only from operator’s position.

⚠WARNING Fire or explosion possible. Fumes could ignite and cause burns. No smoking, no flame, no spark.

⚠WARNING Moving traffic - hazardous situation. Death or serious injury could result. Avoid moving vehicles, wear high visibility clothing, post appropriate warning signs.

⚠WARNING Hot pressurized cooling system fluid could cause serious burns. Allow to cool before servicing.



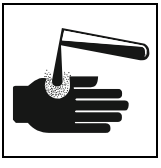
⚠WARNING Improper control function could cause death or serious injury. If control does not work as described in instructions, stop machine and have it serviced.

⚠ CAUTION Flying objects may cause injury. Wear hard hat and safety glasses.

⚠ CAUTION Hot parts may cause burns. Do not touch until cool.

⚠ CAUTION Exposure to high noise levels may cause hearing loss. Wear hearing protection.

⚠ CAUTION Fall possible. Slips or trips may result in injury. Keep area clean.



⚠ CAUTION Battery acid may cause burns. Avoid contact.

⚠ CAUTION Improper handling or use of chemicals may result in illness, injury, or equipment damage. Follow instructions on labels and in material safety data sheets (MSDS).

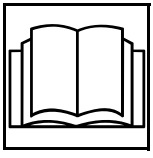
TRACTOR

DAILY INSPECTION

For efficient use of your machine, do the following before each day's work.

- Check general appearance of tractor and attachments. Look for loose, worn, or damaged parts and fluid leaks.
- Check condition of all wear items such as fan belts, etc. Check condition of attachment wear items.
- Check fuel level.
- Check that all signs, guards, and shields are in place and readable.

Service machine according to schedules in **LUBRICATION** and **MAINTENANCE** and in engine manufacturer's guide.



sf1027

⚠ WARNING Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.

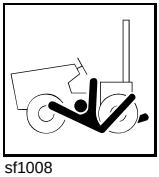
NOTICES:

- Read operator's manual before operating equipment. Follow instructions carefully. Contact your Ditch Witch dealer for operation information or demonstration.
- Wear hard hat, safety glasses, and other protective gear required by job. Do not wear jewelry or loose clothing that can catch on controls.

STARTUP

Before operating tractor, read engine manufacturer's starting and operating instructions. Follow instructions for new engine break-in.

1. Fasten seatbelt.
2. Check that track controls and digging chain control are in neutral position.
3. Move hand throttle to 1/2 open.


sf1008

⚠WARNING Runaway possible. Machine could run over you or others. Learn how to use all controls. Start and operate only from operator's position.

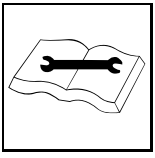
4. If starting in cold weather, press glow plug button for appropriate length of time. See **CONTROLS** for more information.

5. Turn key. Indicators will light.

   If engine does not turn, check start interlock display. See **CONTROLS**. If engine turns but does not start within 10 seconds, allow starter to cool before trying to start again.

6. After engine is started, run engine at half-throttle or less for five minutes before operating tractor.

   During warm up, check that all controls work properly.



sf1020

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

OPERATION

1. Raise backfill blade and digging boom.
2. Adjust throttle.
3. Move track controls to forward or reverse.

sf1001

⚠ WARNING Moving traffic – hazardous situation. Death or serious injury could result. Avoid moving vehicles, wear high visibility clothing, post appropriate warning signs.

SHUTDOWN

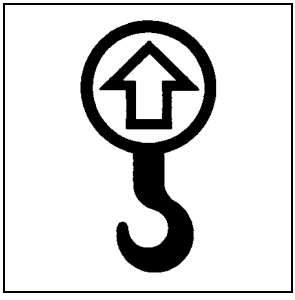
1. When job is complete, move track controls to neutral.
2. Lower attachments to ground or stowed position.
3. Move throttle to idle and let machine idle for 3 minutes to cool engine.
4. Turn key to stop position. If leaving machine unattended, remove key.
5. For maintenance or long-term storage, turn optional battery disconnect switch to disconnect position.

TRANSPORTATION

LIFT

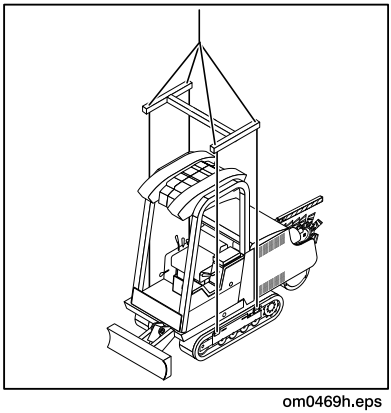
Lifting Points

Lifting points are identified by lifting decals. Lifting at any other point can be unsafe and can damage machinery.



Lifting Unit

Before lifting, check **SPECIFICATIONS**. Use a hoist capable of supporting equipment's size and weight.



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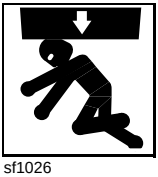


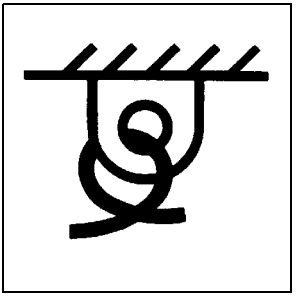
sf1026

⚠ WARNING Crushing weight could cause death or serious injury. Use proper procedures and equipment or stay away.

TIEDOWN

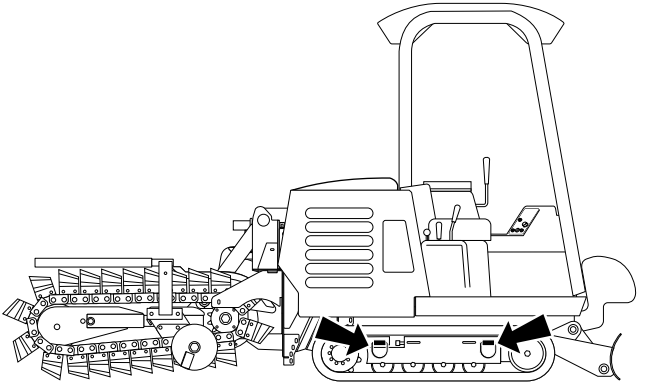
Tiedown Points

Tiedown points are identified by tiedown decals. Securing unit to trailer at any other points may be unsafe and can damage machinery.



Tie Down Unit

Attach tiedowns at front and rear tiedown points. Make sure tiedowns are tight before transporting unit.



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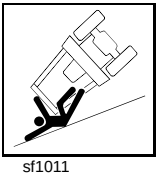
HAUL

sf1014

WARNING Crushing weight could cause death or serious injury. Use proper procedures and equipment or stay away.

NOTICES:

- Read trailer operator’s manual before loading or transporting your machine. Incorrectly loaded machine can slip or cause trailer sway.
- Park, load, and unload trailer on a level part of jobsite. Check that unit and trailer do not exceed size or weight regulations.



sf1011

WARNING Rollover possible. If machine rolls over, you could be thrown from seat and killed or crushed. Wear seat belt.

Loading

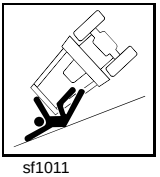
1. Fasten seatbelt and start engine. See **TRACTOR** for startup procedures.
2. Raise backfill blade and digging boom, but keep them low.

   NOTICE: Stability is reduced if digging boom is offset.
3. Slowly drive tractor onto trailer until tiedown position is reached.
4. Lower backfill blade and digging boom to trailer bed and turn off engine.
5. Securely chain tractor and digging boom to trailer using tiedowns.

   NOTICE: Check that unit and trailer do not exceed size or weight regulations.

Unloading

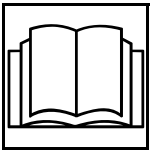
1. Check that track drive controls are in neutral.
2. Remove tiedowns.
3. Fasten seatbelt and start engine.


sf1011

⚠ WARNING Rollover possible. If machine rolls over, you could be thrown from seat and killed or crushed. Wear seat belt.

4. Raise backfill blade and digging boom, but keep them low.
5. Slowly drive tractor off trailer.

TOW



sf1027

⚠WARNING Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.

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

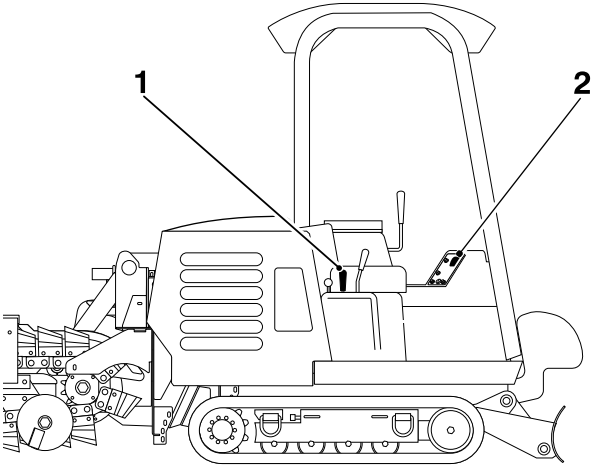
- tow for short distances at less than 1 mph (1.6 km/h),
- do not tow for more than 200 yd (183 m),
- steering will be through tow vehicle only.

1. Attach tow line to tiedown points nearest the towing vehicle.
2. Fasten seat belt and begin towing.

   IMPORTANT: Tracks will not move.
3. Use tow vehicle or other lifting device to load unit onto trailer.

TRENCHING

CONTROL OVERVIEW



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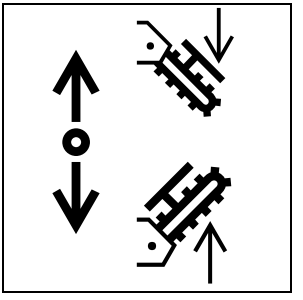
1. Boom lift control
2. Digging chain control

CONTROL DESCRIPTIONS

Boom Lift Control

This lever raises or lowers digging boom.

- Push to lower.
- Pull to raise.



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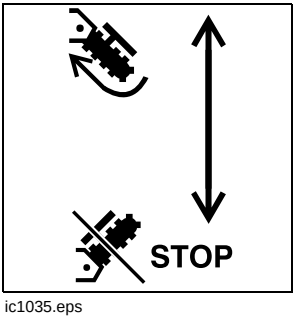
Digging Chain Control

This switch starts the digging chain.

- Slide orange tab down and press top of switch to start digging chain.
- Press bottom of switch to stop digging chain.



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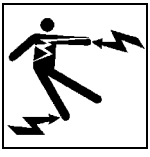
SETUP

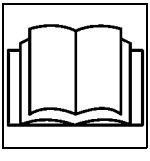
WARNING Jobsite hazards could cause death or serious injury. Use correct equipment and work methods. Use and maintain proper safety equipment.

NOTICE: Know and comply with regulations covering One-Call service and utility notification before digging or drilling.



DANGER Electrical shock. Contacting electrical lines will cause death or serious injury. Know location of lines and stay away.

NOTICE: Cutting high voltage cable can cause electrocution. Expose lines by hand before digging.



WARNING Incorrect procedures can result in death, injury, or property damage. Learn to use equipment correctly.

NOTICE: Cutting or drilling through concrete and rock that contain sand or quartz may result in exposure to silica dust that can cause lung disease. Use respirator, water spray, or other means to control dust. Silica dust is known to the state of California to cause cancer.

1. Fasten and adjust seat belt.
2. Start tractor and adjust throttle.
3. Raise boom and backfill blade.
4. Adjust throttle and drive to starting point. Move in line with planned trench.
5. Lower backfill blade.
6. Lower boom to just above the ground.
7. Check that digging chain control and track controls are in neutral.
8. Check that boom is in line with planned trench.

OPERATION

1. Lower backfill blade to reduce shock when trenching begins.
2. Adjust throttle.
3. Engage digging chain control. DIGGING CHAIN WILL MOVE.

DANGER Moving digging teeth will cause death or serious injury. Stay away.

NOTICES:

- Machine might lunge when digging starts. Allow 3 feet (1 m) between digging teeth and obstacle.
- Keep everyone at least 6 feet (2 m) from machine, attachments, and their range of movement.

CAUTION Flying objects thrown by machine may strike people. Wear hard hat and safety glasses.

sf1023

4. Increase engine speed to full throttle.
5. Slowly lower digging boom to desired trench depth.
6. Raise backfill blade.
7. Push track controls forward to trenching speed.
8. When trench is complete, move track controls to neutral.
9. Move throttle to half open.
10. Raise boom. As boom clears top of trench, move digging chain control to neutral.
11. Drive forward, lower backfill blade and boom.
12. Move throttle to idle and let machine idle for three minutes to cool engine.
13. Turn ignition switch to stop position.

OPERATING TIPS

- Avoid using badly worn teeth. When replacing teeth, maintain original pattern. Use Ditch Witch replacement teeth.
- Operate engine at full throttle.
- Do not make sharp turns. Lower boom to full depth when turning.
- While trenching, steering is best accomplished by feathering *one* track control at a time, rather than both together.
- If an object becomes lodged in chain, move digging chain clutch to neutral and raise boom slightly. If object must be removed manually, turn engine off.
- Before operating with rock chains, check bits for free rotation. Tap bits lightly with a hammer and turn by hand. If bits are stuck, remove and clean packed soil from bit block.
- Carbide bits are recommended for cutting abrasive material, such as sandstone or frozen sands or gravels.

OPTIONAL EQUIPMENT

Chain

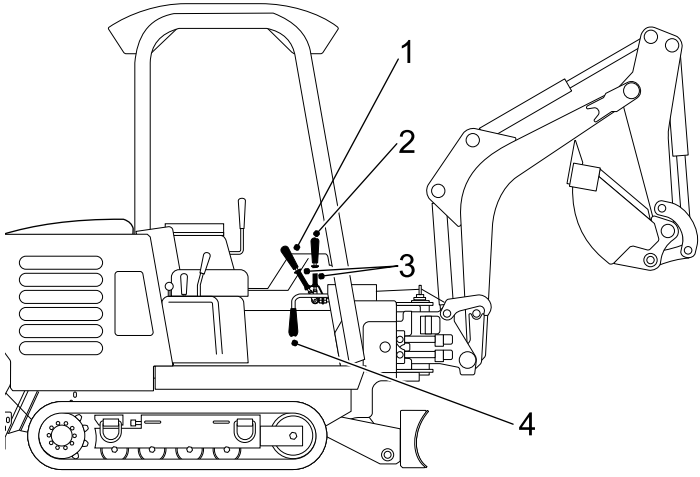
A variety of chains, teeth, and tooth patterns are available to provide efficient digging at any jobsite. For more information, contact your Ditch Witch dealer.

Trench Cleaner

Trench cleaners remove spoils from the trench floor. For more information about the mechanical trench cleaner available for use on the HT25, contact your Ditch Witch dealer.

BACKHOE

CONTROL OVERVIEW



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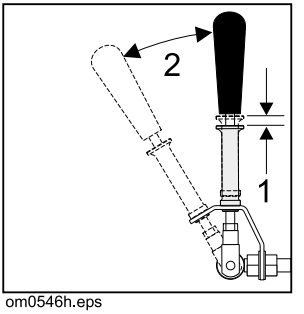
1. Bucket/dipper control
2. Boom/swing control
3. Position adjustment sleeves
4. Stow lock

CONTROL DESCRIPTIONS

Position Adjustment Sleeves



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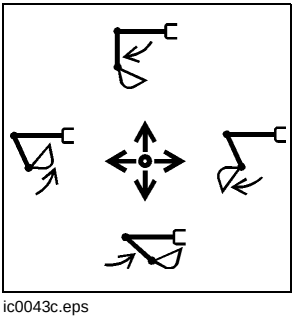
These sleeves allow movement of boom/swing control and bucket/ dipper control between stowed position and operating position.

- Lift sleeve (1) and pull control (2) to operating position. Release sleeve before operating.
- Lift sleeve and push control to stowed position. Release sleeve.

NOTICE: Do not operate backhoe with control in the stowed (upright) position. Component failure could occur. Return control to stowed position when finished operating.

Bucket/Dipper Control

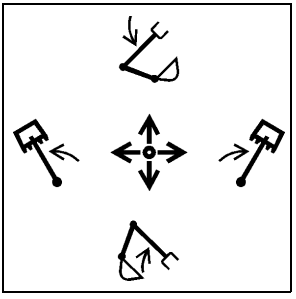

ic0043c.eps

This control opens or closes bucket and moves dipper in or out.

- Move right to open bucket
- Move left to close bucket.
- Pull to move dipper in.
- Push to move dipper out.

Control can perform more than one action at a time. Using them together, operator can “feather,” or combine backhoe operations.

Boom/Swing Control


ic0042c.eps

This control moves boom left or right and raises or lowers boom.

- Move left to swing left.
- Move right to swing right.
- Pull to raise.
- Push to lower.

Control can perform more than one action at a time. Using them together, operator can “feather,” or combine, backhoe operations.

Stow Lock

This control locks boom during transport.

To lock:

- Turn handle counterclockwise.
- Raise boom fully.
- Release handle. Boom will settle into latch.

To release:

- Lift boom slightly.
- Turn handle counterclockwise to release latch.
- Lower boom slightly.
- Release handle.

SETUP

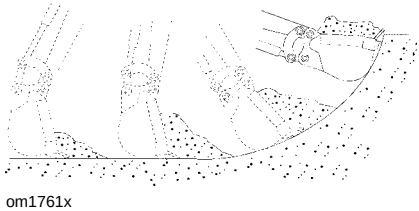
1. Move track controls to neutral position.
2. Lower rear attachment to 6 in (152 mm) above ground.
3. Check that backfill blade is straight and lower it to ground.
4. Adjust throttle.

   NOTICE: Engine speed affects speed of backhoe operation.
5. Raise boom to release tension on stow lock.
6. Release stow lock.

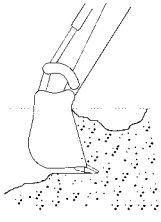
OPERATION

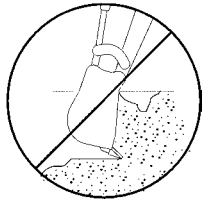
1. Use boom/swing control and bucket/dipper control to dig hole or trench.

   - Keep dipper and boom at right angles as much as possible for maximum power.
   - Keep bucket in line with dipper as much as possible.
   - Position bucket so teeth cut soil. As soil is cut, curl bucket under dipper.
   - Move dipper and bucket together. Increasing engine speed will not increase backhoe force.



om1761x





om1762

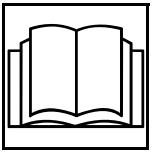
2. When hole or trench is complete, lift boom while keeping dipper pointed at ground.
3. Curl bucket closed and move dipper fully toward boom.
4. Lift boom to highest position and latch stow lock.

LUBRICATION

Proper lubrication and maintenance protects Ditch Witch equipment from damage and failure. In extreme conditions, lubricate more frequently.

Use only recommended lubricants. Fill to capacities listed in **SPECIFICATIONS**.

Recommended Lubricants	
DEO	Diesel engine oil (SAE 10W40) meeting API engine service classification SF/CD or CE
EPG	Extreme pressure grease
MPL	Multipurpose gear oil (SAE 80W90) meeting API service classification GL-5
THF	Tractor hydraulic fluid, similar to Phillips 66 HG, Mobilfluid 423, Chevron Tractor Hydraulic Fluid, Texaco TDH Oil, or equivalent



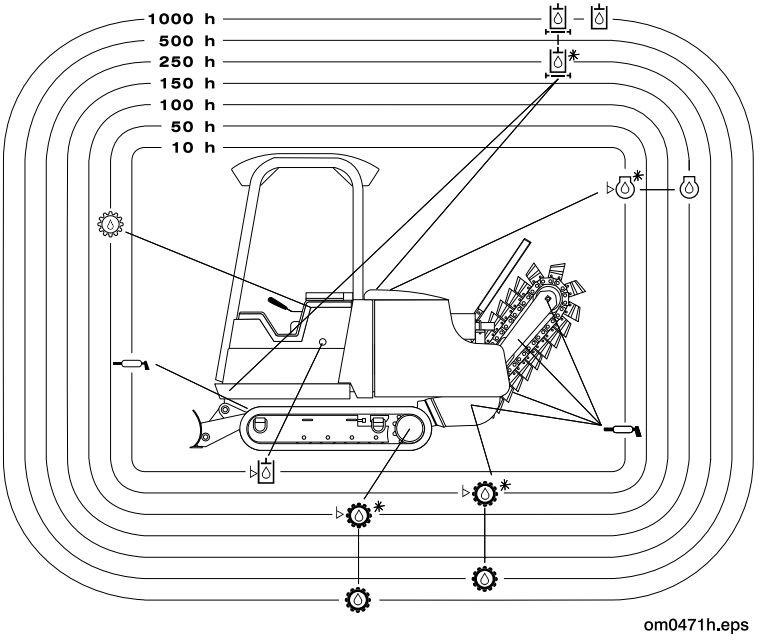
sf1027

WARNING Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.

NOTICES:

- Unless otherwise instructed, all service should be performed with engine off.
- Refer to engine manufacturer's manual for engine maintenance instructions.
- Before servicing equipment, lower unstowed attachments to ground.

OVERVIEW



(DEO) 10W40 diesel engine oil

(THF) Tractor hydraulic fluid

(MPL) 80W90 Multipurpose lubricant

(EPG) Extreme pressure grease

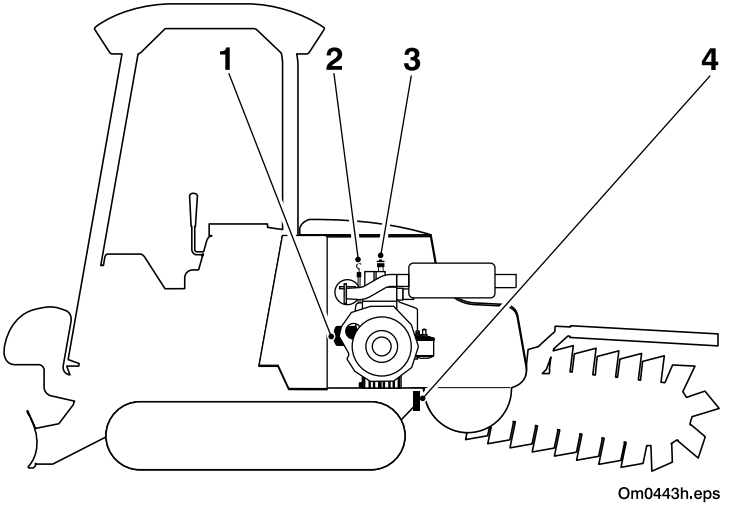
Filter

Check

SCHEDULE

Interval	Task	Page
10 hours	Check engine oil	63
	Check hydraulic oil	67
	Lube trencher pivot	69
	Lube trencher tail roller	69
	Lube trencher outboard bearing (centerline attachments only)	69
	Lube backfill blade pivot	71
50 hours	Change engine oil and filter (initial)	63
	Change hydraulic oil filter (initial)	67
	Check trencher gearbox oil	70
	Change trencher gearbox oil (initial)	70
100 hours	Check track planetary oil	65
	Change track planetary oil (initial)	65
150 hours	Change engine oil and filter	63
250 hours	Change hydraulic oil filter	67
500 hours	Change trencher gearbox oil	70
1000 hours	Change track planetary oil	65
	Change hydraulic oil	67

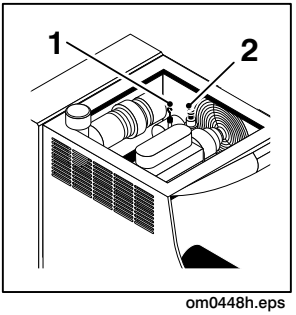
ENGINE



Ref.	Task	Hours	Lubricant
2	Check engine oil	10	DEO
1,3,4	Change engine oil and filter (initial)	50	DEO
1,3,4	Change engine oil and filter	150	DEO

Engine Oil and Filter

Check



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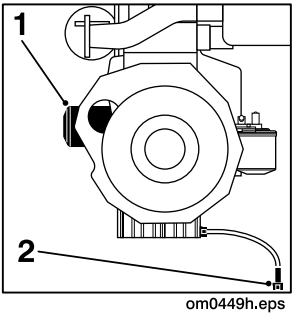
Check engine oil at dipstick (1) before operation and every 10 hours thereafter.

Add DEO at fill (2) as necessary to keep oil level at highest line on dipstick.

Change



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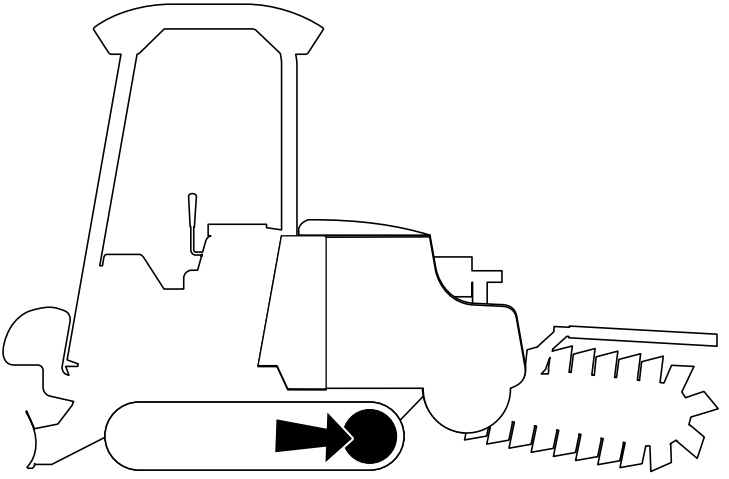
Change oil and filter after first 50 hours of operation and every 150 hours thereafter. Change oil more frequently if working in dusty conditions.

- Drain crankcase through drain (2) while oil is warm.
- Replace filter (1) each time oil is changed.
- Refill with DEO at fill neck.

GROUND DRIVE



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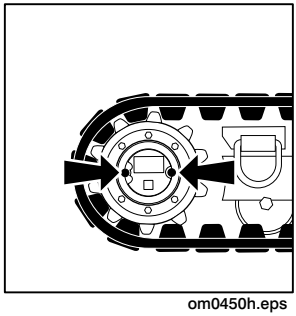
Task	Hours	Lubricant
Check track planetary oil	100	MPL
Change track planetary oil (initial)	100	MPL
Change track planetary oil	1000	MPL

Track Planetary Oil

Check

Check oil level every 100 hours. Position gearbox as shown. Oil should be level with plugs. Fill at one plug and use the other to check oil level.



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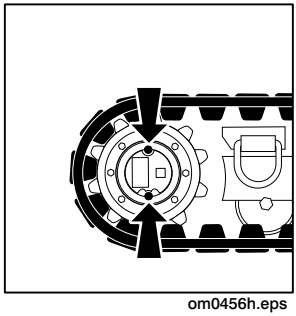
Change

Change oil after first 100 hours of operation and every 1000 hours thereafter. To change:



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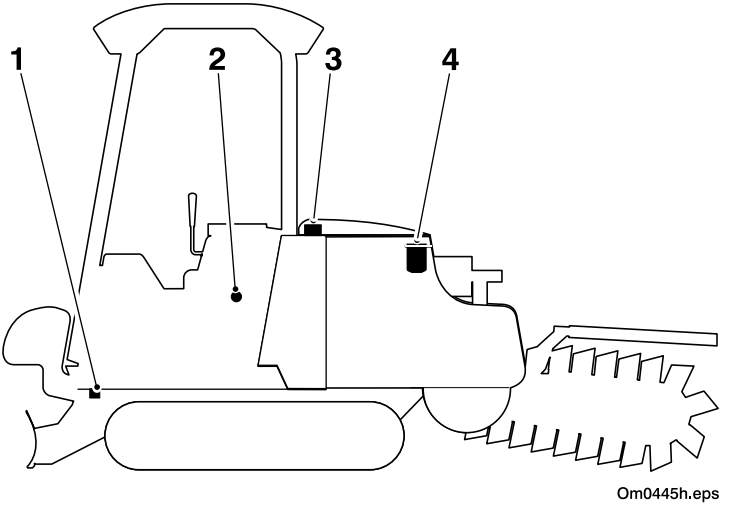
- Position gearbox as shown.
- Remove both plugs and drain the oil.
- Position gearbox with plugs aligned horizontally.
- Fill at one plug and use the other to check oil level.

HYDRAULICS



Ref.	Task	Hours	Lubricant
2	Check hydraulic oil	10	THF
4	Change hydraulic oil filter (initial)	50	
4	Change hydraulic oil filter	250	
1,3,4	Change hydraulic oil	1000	THF

Hydraulic Oil

Check

With frame level and digging boom fully raised, check oil at sight glass (2) every 10 hours.

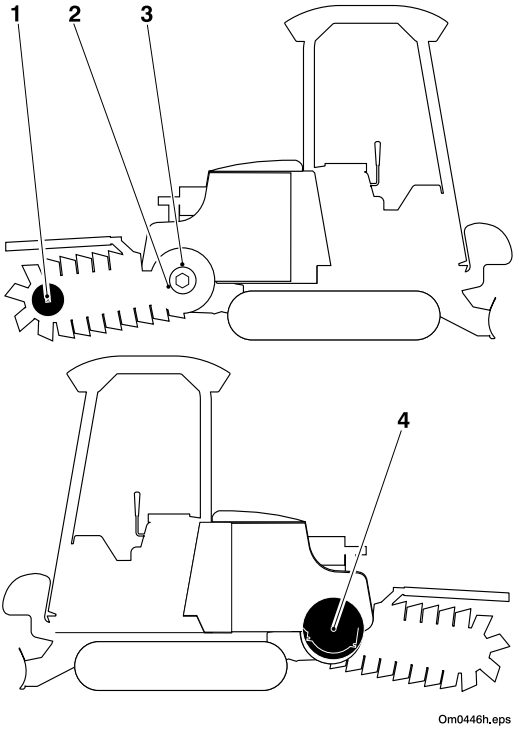
Add THF at fill (3) as necessary. Clean dust from cap by blowing with low-pressure air.

Change

Change oil filter at 50 hours and every 250 hours thereafter.

Drain hydraulic oil (1), change filter (4), and refill with THF every 1000 hours. Change oil and filter every 500 hours if jobsite temperature exceeds 100°F (38°C) more than 50% of the time.

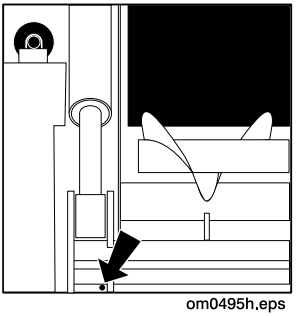
TRENCHER



Ref.	Task	Hours	Lubricant
1	Lube tail roller	10	EPG
2	Lube pivot	10	EPG
3	Lube outboard bearing (centerline attachments only)	10	EPG
4	Check trencher gearbox oil	50	MPL
4	Change trencher gearbox oil (initial)	50	MPL
4	Change trencher gearbox oil	500	MPL

Pivot

Wipe zerk clean and lube every 10 hours with EPG.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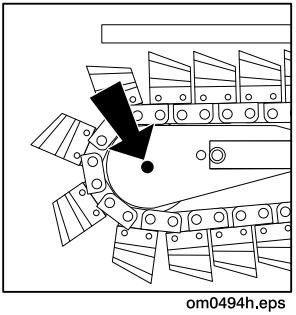
Tail Roller

Wipe zerk clean and lube every 10 hours with EPG.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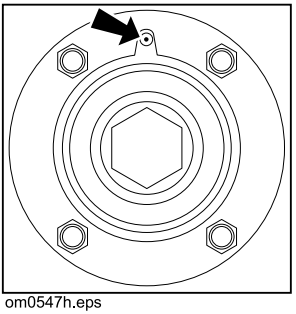
Outboard Bearing

On centerline attachments, wipe zerk clean and lube every 10 hours with EPG. Offset attachment bearing does not need greasing.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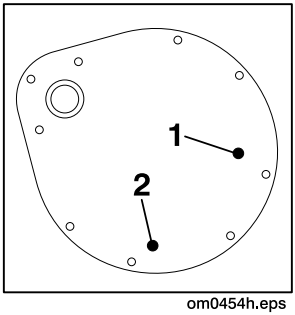
Gearbox



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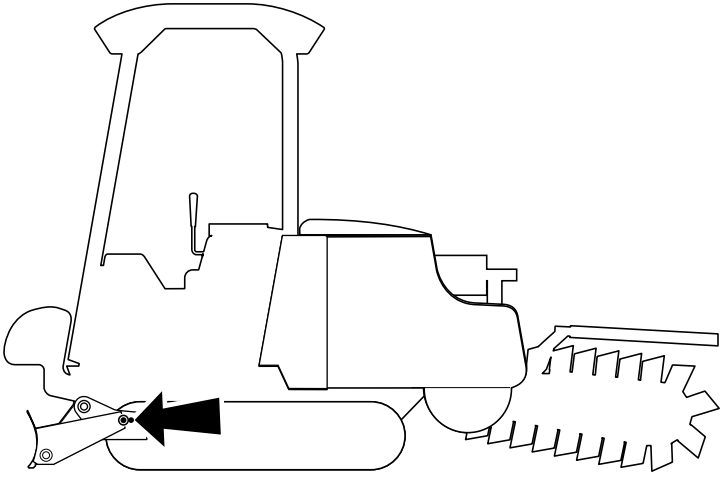
Check

Check oil at fill plug (1) every 50 hours. Keep oil level at plug. If necessary, add MPL at fill plug.

Change

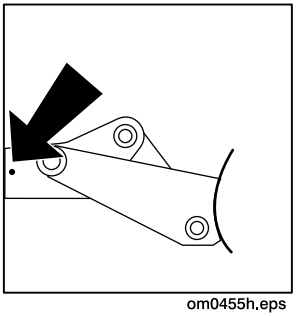
Change oil after 50 hours and every 500 hours thereafter. Drain at drain plug (2). Replace drain plug and add MPL at fill plug until oil is level with plug.

BACKFILL BLADE



Pivot

Wipe zerk clean and lube every 10 hours with EPG.



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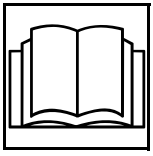
MAINTENANCE



⚠WARNING Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.

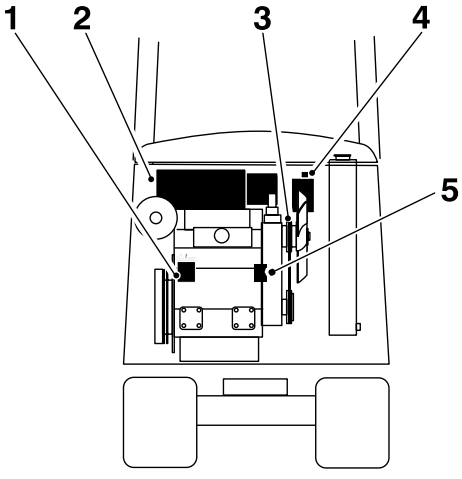
NOTICES:

- Unless otherwise instructed, all service should be performed with engine shut off.
- Refer to engine manufacturer's manual for engine maintenance instructions.
- Before servicing equipment, lower unstowed attachments to ground.

OVERVIEW

Interval	Task	Page
10 hours	Check coolant level	78
	Check track tension	81
	Check hydraulic hoses	83
	Check fuel filter	76
	Check digging chain teeth	86
	Check digging chain	86
	Check/adjust digging chain tension	87
	Check boom mounting bolts	88
	Check attachment mounting bolts	88
	Check personnel restraint bar bolts	88
50 hours	Check fan belt	77
	Check air filter	79
	Check track sprocket bolts (initial)	82
100 hours	Change fuel filter	76
	Change in-line fuel filter	76
	Check track sprocket bolts	82
	Check front idler roller	82
250 hours	Change air filter	79
500 hours	Replace fan belt	77
2000 hours	Change coolant	78
As needed	Adjust track tension	81
	Check battery	84
	Check fuses	84
	Replace digging chain	89

ENGINE



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Ref.	Task	Hours
4	Check coolant level	10
3	Check fan belt	50
2	Check air filter	50
1	Change fuel filter	100
5	Change in-line fuel filter	100
2	Change air filter	250
3	Replace fan belt	500
4	Change coolant	2000

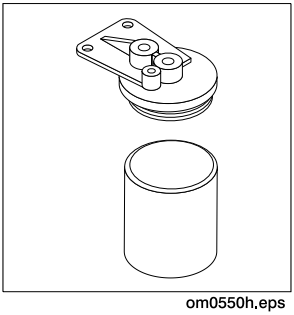
Fuel Filters

To access fuel filters, remove rear engine access panel.

Change

Change fuel filter and inline fuel filter every 100 hours. To change:

- Remove filter.
- Install new filter. Apply fuel oil thinly over the gasket and hand-tighten.
- Air-bleed the injection pump.



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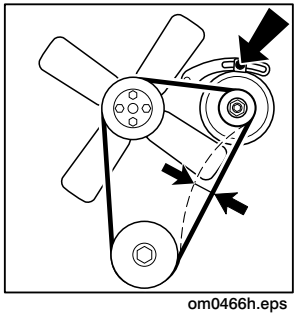
Fan Belt

Check

Check belt every 50 hours for damage or wear. Replace worn belt.

Adjust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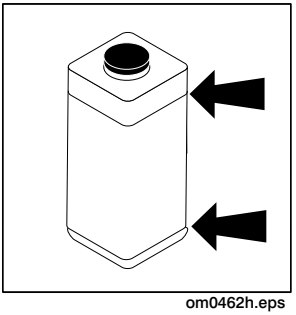
- Turn off engine and remove key.
- Apply moderate thumb pressure to belt between pulleys, as shown.
- Belt is properly tensioned when deflection is about 0.28 to 0.35 in (7 to 9 mm).
- If needed, loosen alternator bolts (shown) and pull alternator out until correct tension is reached.

Replace

Replace belt every 500 hours.

Cooling System

Check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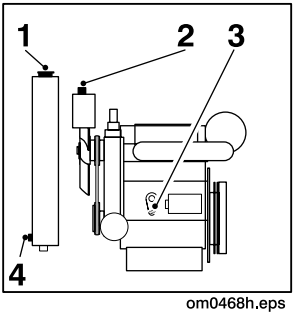
Check coolant level in overflow tank every 10 hours. Coolant should be between LOW and FULL marks on tank.

Fill as needed with only Ditch Witch approved coolant (p/n 255-006), or other fully formulated ethylene-glycol-based heavy duty engine coolant meeting ASTM specification D6210, TMC RP329, or John Deere specification JDM H24A2. Do not fill over FULL mark on tank.

Check clamps and hoses for looseness or wear. Tighten loose clamps. Replace swollen, hardened, or cracked hoses.

Change



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Change coolant every 2000 hours.

- Allow engine to cool.
- Open two drains (3, 4) and radiator cap and drain coolant.
- Drain overflow tank.
- Close drains and fill (1, 2) with a 50-50 mix of anti-freeze and water.

Air Filter

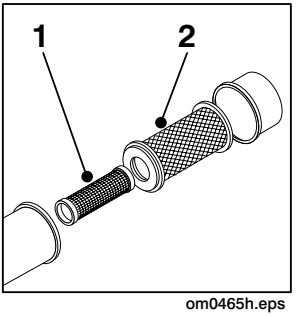
To better access air filter, slide out overflow tank.

Check

Check filter and suction hose every 50 hours for wear or holes. Check more often if working in dusty conditions.

Change

Change air filter every 250 hours or when yellow band in air filter service indicator reaches red line.



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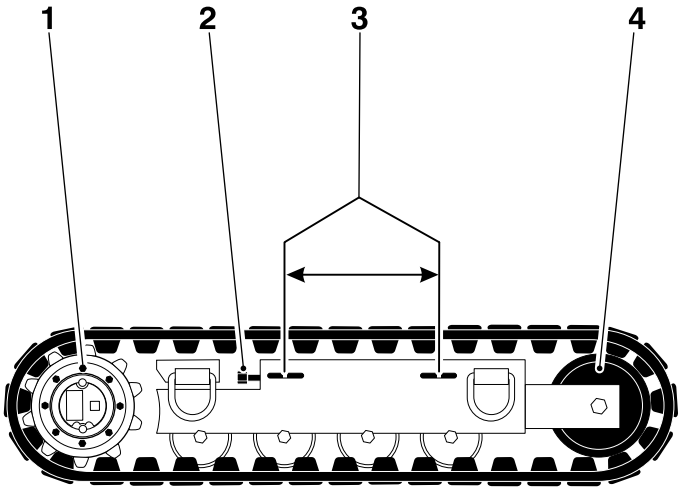
1. Open air filter housing.
2. Remove primary (2) and safety (1) elements.
3. Wipe inside of housing and wash end cup.
4. Insert new primary and safety elements.
5. Close air filter case.
6. Reset air filter service indicator.

GROUND DRIVE



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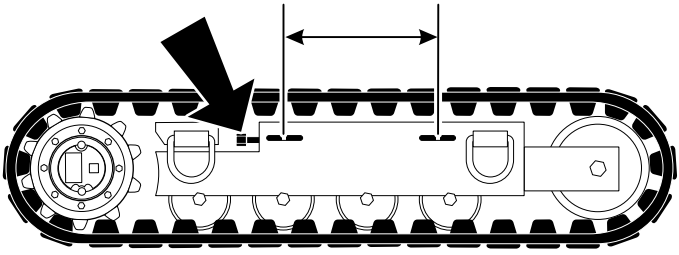
Ref.	Task	Hours
3	Check track tension	10
1	Check sprocket bolts (initial)	50
1	Check sprocket bolts	100
4	Check front idler roller	100
2, 3	Adjust track tension	As needed

Track Tension



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Check

Check track tension every 10 hours. Measure length of spring as shown. When tracks are correctly tensioned, spring should measure 9 1/2 in (241 mm).

Adjust

To increase track tension, turn screw clockwise. To reduce track tension, turn screw counterclockwise.

Track Sprocket Bolts

Check sprocket bolts after first 50 hours and every 100 hours thereafter. Torque bolts to 70 ft•lb (95 N•m).

Front Idler Roller

Check front idler roller for wear every 100 hours. Replace if needed.

HYDRAULICS

NOTICE: Before disconnecting any hydraulic line, turn engine off and operate all controls to relieve pressure. Lower, block or support any raised component. Cover connection with heavy cloth and loosen connector nut slightly to relieve residual pressure. Catch all fluid in container.

Hoses

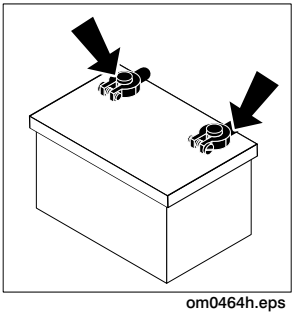
Check hoses every 10 hours for wear or damage. Replace as needed.

ELECTRICAL

Battery and fuses are located under seat.

Battery

Check battery connections for wear or corrosion. Keep connections clean and tight. Batteries supplied by factory are maintenance-free. Service replacement batteries according to manufacturer's instructions.



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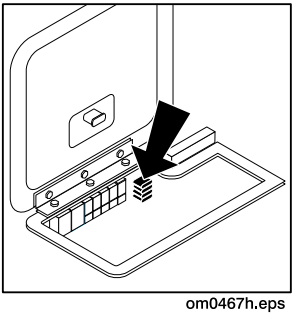
Fuses

Change fuses as needed. Replace blown fuses with spares in fuse box.



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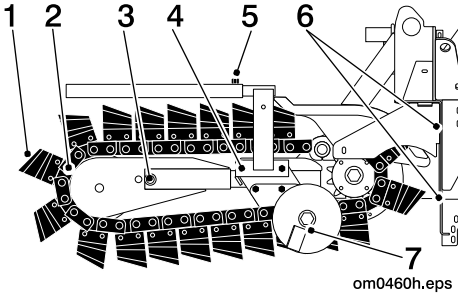
TRENCHER



Ref.	Task	Hours
1	Check digging chain teeth	10
2	Check digging chain	10
3	Check/adjust digging chain tension	10
4	Check boom mounting bolts	10
6	Check attachment mounting bolts	10
5	Check personnel restraint bar bolts	10
2	Replace digging chain	As needed

Teeth and Bits

Check teeth for wear every 10 hours. Replace worn teeth, using Ditch Witch replacement parts and maintaining original tooth pattern.

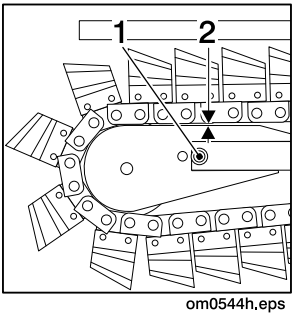
For more efficient digging, contact your Ditch Witch dealer for information about the tooth pattern best suited to your jobsite.

If using rock chain bits, check that bits rotate freely. Clean chain and check bits after each use. Replace bit when tungsten cap or insert is worn, or adapter can be damaged.

Chain

Check chain every 10 hours. Replace worn or broken chains. If sidebars are bent or loose on chain pins, chain spacers should be used to join sidebars.

Chain Tension



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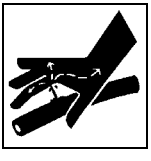
Adjust digging chain tension every 10 hours.

With boom horizontal, pull up on chain until it is taut. Measure distance (2) from top of boom to chain. Correct distance is 1.5 to 2 in (40 to 50 mm).

To tighten chain, pump MPG into cylinder at check valve zerk (1).

NOTICE: Do **not** overtension chain. Premature chain failure could result.

To relieve digging chain tension, stand on opposite side of boom and unscrew check valve zerk (1) to release grease.

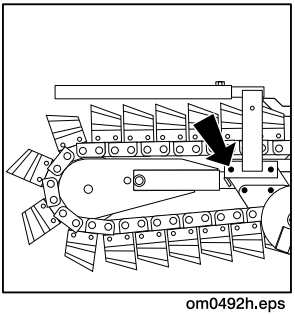


⚠ WARNING Fluid pressure could pierce skin and cause injury or death. Stay away.

NOTICE: Service digging boom grease cylinder only while standing on opposite side of boom. Wear gloves and safety glasses and cover fitting with cloth when relieving pressure in cylinder.

Boom Mounting Bolts

Check 4 bolts every 10 hours for looseness or wear. Torque as necessary to keep bolts and nuts tight.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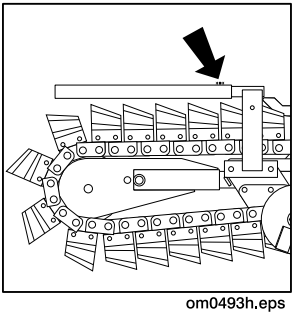
Attachment Mounting Bolts

Check two upper and two lower bolts every 10 hours for looseness or wear. Torque as necessary to keep bolts and nuts tight.

Personnel Restraint Bar

Check one bolt every 10 hours for looseness or wear. Torque as necessary to keep bolt and nut tight.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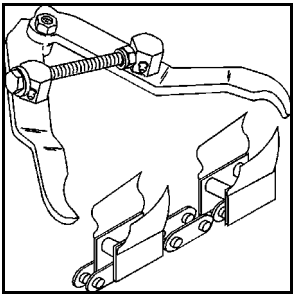
Chain Replacement

Visually check digging chains for wear on rollers and sidebars. Check pins and bushing wear by measuring distance between chain pins and comparing it with a new chain.

Replace sprockets when a new chain is installed.

To remove chain:

1. Start unit, following directions in **OPERATION**.
2. Turn digging chain until connector pin is on top of boom.
3. Lower boom to ground.
4. Stop engine.
5. Secure chain by clamping links on either side of connector pin with chain jaws. Squeeze jaws to reduce pressure on connector pin.



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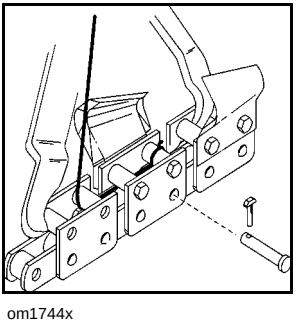
6. Loop cable through links nearest connector pin.



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WARNING Fluid pressure could pierce skin and cause injury or death. Stay away.

NOTICE: Service digging boom grease cylinder only while standing on opposite side of boom. Wear gloves and safety glasses and cover fitting with cloth when relieving pressure in cylinder.

7. Loosen plug on grease cylinder to relieve chain tension.
8. Stand clear of chain and remove lock key from connector pin. Drive connector pin out of link.

sf1014

sf1026

WARNING Crushing weight could cause death or serious injury. Use proper procedures and equipment or stay away.

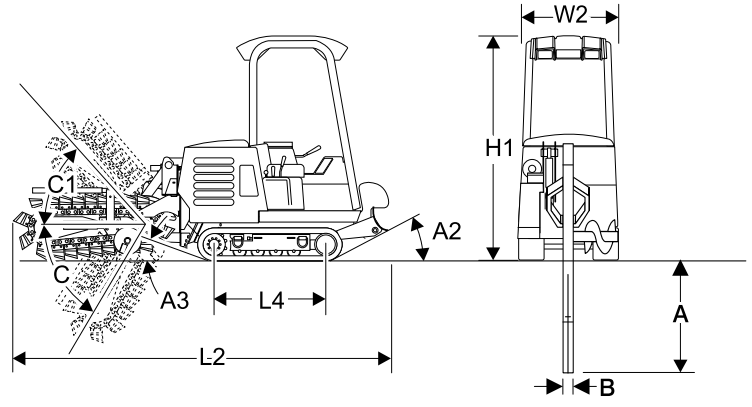
9. Unclamp links. Slowly release cable and lower chain to ground.
10. Lay chain on ground with teeth down.

To install chain:

1. Lay chain on ground with teeth down and pointed toward unit.
2. Start unit.
3. Back unit up until chain extends past head shaft about 1 ft (30.5 cm).
4. Lower backfill blade to ground.
5. Lower boom to horizontal position.
6. Stop engine.
7. Pull rear end of chain over and about 10 in (26 cm) past tail roller.
8. Use hoist to pull front end of chain over head shaft sprocket.
9. Move chain down boom until chain connector pin and lock key can be installed. Install connector pin and lock key.
10. Tighten chain by pumping EPG into grease cylinder.

SPECIFICATIONS

HT25



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DIMENSIONS*:		U.S.	METRIC
A	Max. trench depth	39 in	99 cm
A2	Angle of approach	19°	19°
A3	Angle of departure	18°	18°
B	Max. trench width	16 in	40.6 cm
C	Boom angle down	53°	53°
C1	Boom angle up	50°	50°
H1	Height, top of cab	80 in	203 cm
L2	Basic unit length-transport	120 in	304.8 cm
L4	Centerline of track, hub-to-hub	39 in	99 cm
W2	Width, transport	35.5 in	90.2 cm

*Dimensions are based on unit equipped with 3 ft (.91 m) centerline digging attachment and backfill blade.

Backfill blade: 4-way hydraulic lift angle		U.S.	METRIC
	Blade width	35.5 in	90.2 cm
	Blade height	9.9 in	25.1 cm
	Lift lift above ground	30°	30°
	Blade drop below ground	20°	20°
	Maximum swing angle (left/right)	28°	28°
Standard left auger:			
	Diameter	4 in	10 cm
	Length	13.5 in	34.3 cm
Standard right auger			
	Diameter	10.5 in	26.7 cm
	Length	12.2 in	31 cm
Offset auger (optional)			
	Diameter	10.5 in	26.7 cm
	Length	16.4 in	41.7 cm

OPERATIONAL:		**U.S.**	**METRIC**
Vehicle speeds			
	Maximum transit forward	< 3 mph	< 4.8 km/h
	Maximum transit reverse	< 2 mph	< 3.2 km/h
Digging chain speed @ 3000 engine rpm		364 fpm	111 m/min
Headshaft speed @ 3000 engine rpm		180 rpm	180 r/min
Operating weight (with 3 ft [.9 m] boom, backfill blade, cab, and A225 backhoe)		4080 lb	1850.7 kg
Operator orientation		Facing front of vehicle in full view of all operations	

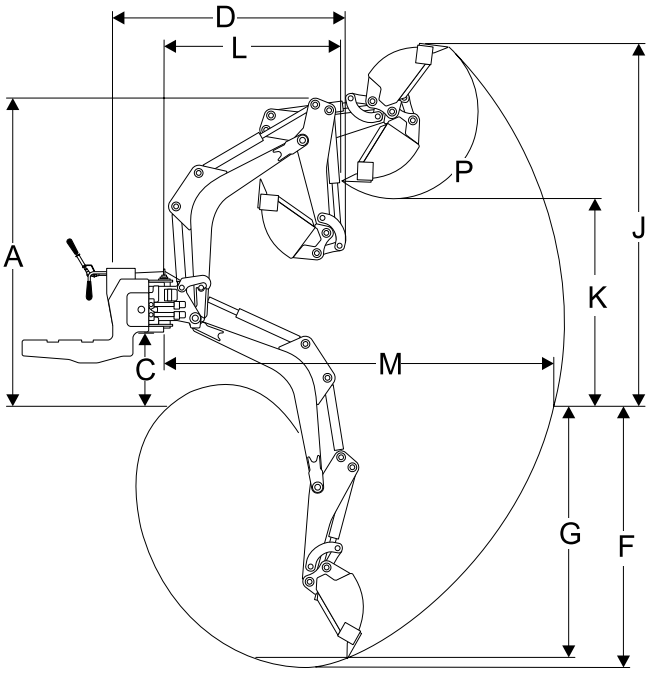
POWER		**U.S.**	**METRIC**
Engine: Kubota D1105-E diesel			
	Cooling medium	50/50 antifreeze, see **MAINTENANCE** for more information	
	Injection	1991 lbw/in^2	140 kgf/cm^2
	Number of cylinders	3	
	Displacement	68.53 in^3	1123 cm^3
	Bore	3.07 in	7.70 cm
	Stroke	3.09 in	7.86 cm
	*Maximum tilt angle fore & aft	30°	30°
	*Maximum tilt angle side	30°	30°
Engine manufacturer's gross power rating @ 3150 rpm		25 hp	18.6 kW
Maximum governed speed as installed (no load)		3160 rpm	3160 r/min
Flywheel horsepower (full load)		22 hp	16.4 kW
POWER DELIVERY SYSTEM			
Ground drive		Dual hydrostatic drive infinitely variable from zero to maximum, hand lever operated speed/direction control	
Service brake		Ground drive speed/direction controls brake machine hydraulically when moved to neutral position	
Parking brake		Disc, hydraulic pressure released	
Tracks		230 x 39 x 72 FP	
Trencher drive			
	Transmission	Belt drive through gearbox reduction	
	Clutch	Electric over hydraulic	

*Exceeding these operating angles will cause engine damage. This DOES NOT IMPLY machine is stable to maximum angle of safe engine operation.

HYDRAULIC SYSTEM:		U.S.	METRIC
Ground drive pump			
	Pump capacity per track @ 3000 rpm	11.8 gpm	44.9 L/min
	Pump relief	track slip	
Auxiliary pump			
	Pump capacity @ 3000 rpm	6.7 gpm	25.2 L/min
	Pump relief	2320 psi	160 bar
FLUID CAPACITIES:			
Fuel tank		6 gal	22.7 L
Engine lubrication oil, including filter		4.5 qt	4.3 L
Track drive planetary		1.5 qt	1.4 L
Engine cooling system		6.0 qt	5.7 L
Hydraulic system		10.1 gal	38.2 L
Hydraulic reservoir		8.7 gal	32.9 L
BATTERY:		Group 26/26R/70 SAE cold crank @ 0°F (-18°C) 675 amp	
NOISE LEVELS:			
Operator 89 dbA sound pressure per ISO 6394, without cab. Operator 91 dbA sound pressure per ISO 6394, with cab.			
Exterior 106 dbA sound power per ISO 6393, without cab. Exterior 103 dbA sound power per ISO 6393, with cab.			

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

A225 BACKHOE



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DIMENSIONS:		U.S.	METRIC
A	Transport height	77.25 in	1.96 m
C	Ground clearance	20 in	50.8 cm
D	Backhoe length, stowed	62 in	1.58 m
F	Digging depth, max.	68 in	1.73 m
G	Digging depth, 2 ft (0.6 m) flat bottom	64 in	1.63 m
J	Operating height, fully raised	93 in	2.36 m
K	Loading height	55.75 in	1.42 m
L	Loading reach	45 in	1.14 m
M	Reach from swing pivot	103 in	2.62 m
P	Bucket rotation	176°	176°

GENERAL:		U.S.	METRIC
Bucket			
	Width	12 in	30.5 cm
	Capacity	1 ft^3	.027 m^3
Backhoe weight with bucket		780 lb	353.8 kg
Lift capacity, boom over end and swing arc, SAE			
	at 36 in (.9 m)	154 lb	70 kg
	at ground level	359 lb	162 .8 kg
Lift capacity, dipperstick over end and swing arc, SAE			
	at 41 in (1.04 m)	180 lb	81.7 kg
	at 62 in (1.6 m)	140 lb	63.5 kg
Swing arc		170°	170°

WARRANTY

Ditch Witch Equipment and Parts Limited Warranty Policy

Subject to the limitations and exclusions herein, free replacement parts will be provided at any authorized Ditch Witch dealership for any Ditch Witch equipment or parts manufactured by The Charles Machine Works, Inc. (CMW) that fail due to a defect in material or workmanship within one (1) year of first commercial use. Free labor will be provided at any authorized Ditch Witch dealership for installation of parts under this warranty during the first year following initial commercial use of the serial-numbered Ditch Witch equipment on which it is installed.

Exclusions from Product Warranty

- Wear-related failure of parts subject to ground contact including, but not limited to, digging teeth, digging chains, sprockets, backhoe buckets, plow blades, drill pipe, drill bits, backreamers, and swivels.
- All incidental or consequential damages.
- All defects, damages, or injuries caused by misuse, abuse, improper installation, alteration, neglect, or uses other than those for which products were intended.
- All defects, damages, or injuries caused by improper training, operation, or servicing of products in a manner inconsistent with manufacturer's recommendations.
- All engines and engine accessories (these are covered by original manufacturer's warranty).
- Tires, belts, and other parts which may be subject to another manufacturer's warranty (such warranty will be available to purchaser).
- All implied warranties not expressly stated herein, including any warranty of fitness for a particular purpose and merchantability.

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

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

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

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

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

For information regarding this limited warranty, contact CMW's Product Support department, P.O. Box 66, Perry, OK 73077-0066, or contact your local Ditch Witch dealer.

First version: 1/91; Latest version: 4/00

A Note To Ditch Witch Equipment Owners:

If your equipment was purchased through a Ditch Witch dealer, there is no need to read further.

However, if you purchased from any other source, please fill out the form on the reverse side and return it to us.

This will enable you to receive updates on this equipment as well as information on new products of interest.

Thanks for using Ditch Witch equipment.

(Please Fold Along This Line And Seal At Bottom With Tape)

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO 23 PERRY OKLAHOMA

POSTAGE WILL BE PAID BY

The Charles Machine Works, Inc.
P.O. Box 66
Perry, Oklahoma 73077-9989

Ditch Witch® Registration Card

Please Type or Print All Information

Purchaser's Company Name

Attention

Street Address or P.O. Box

City County

State Zip Nation

( )

Phone Number With Area Code

Model Serial Number

Attachments/Accessories Serial Numbers

Attachments/Accessories Serial Numbers

Attachments/Accessories Serial Numbers

Name of Ditch Witch Dealership

Your Signature