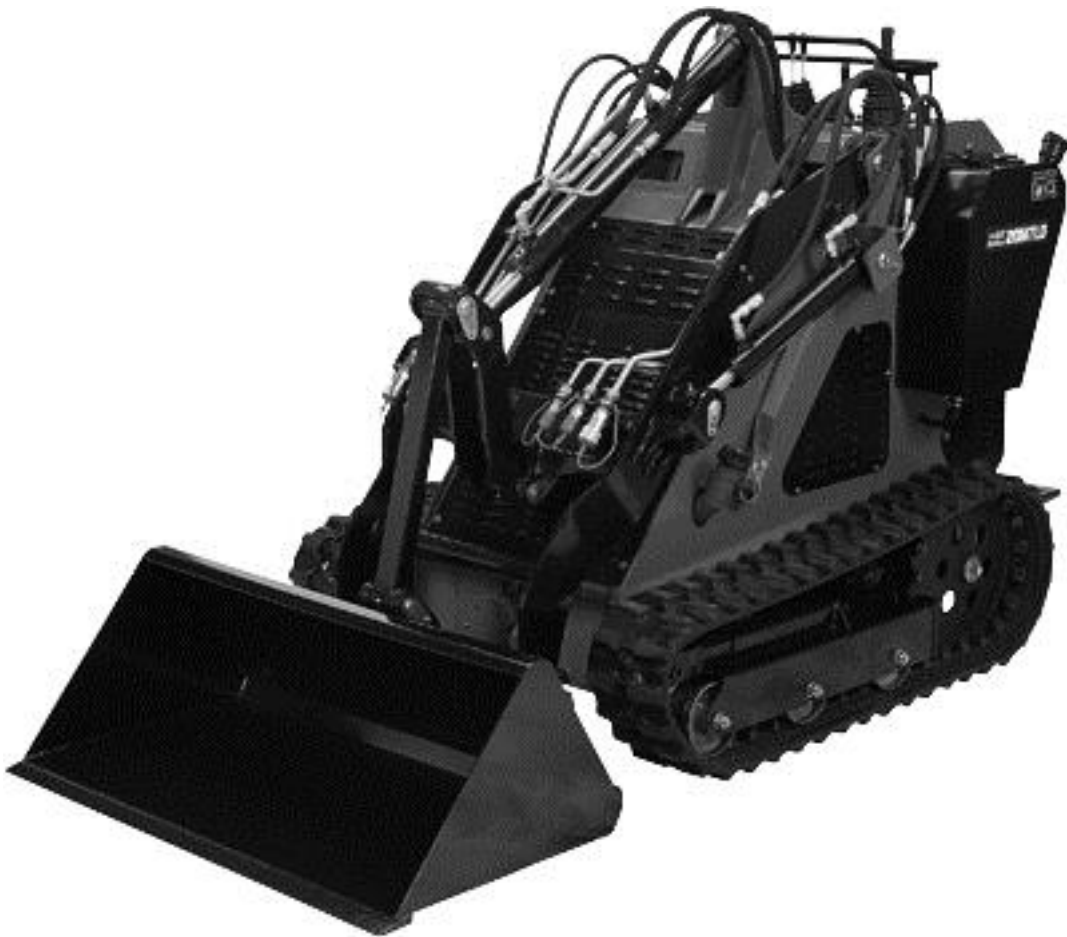




25 HP Diesel-Powered Mini Track Loader

Owner's Manual



⚠ WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item #2232503

READ & SAVE THESE INSTRUCTIONS

Thank you very much for choosing a NorTrac™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This Mini-Track Loader is designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-800-521-0438**.

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Intended Use

The NorTrac 25 HP Diesel-Powered Mini Track Loader is used for trenching, digging, carrying materials, demolition, site preparation, snow removal, utility installation, sweeping, and more. Use it for short runs working in limited-access spaces. It can be used with other attachments for light and medium duty work.

Technical Specifications

Property	Specification
Overall Width (with bucket)	43.7 inches
Overall Length	99.2 inches
Overall Height	55.3 inches
Maximum Operating Height (with standard bucket)	80.2 inches
Operating Weight	3351 lb.
Rated Loading Capacity – bucket (with 198 lb. operator)	749.6 lb.
Travel Speed	0-4.5 km/h
Angle of Departure	22°
Engine	18.6 KW
Ground Clearance	4.1 inch
Hydraulics Flow (auxiliary)	6.5 gal/min
System Relief Pressure (hydraulic)	18 MPa
Hydraulic Oil Tank Capacity	33 liters
Standard Bucket Capacity	0.17 CBM
Standard Bucket Dump Height	51.65 inches
Height to Hinge Pin	73.5 inches

**Specifications and design subject to change without notice.

Important Safety Information

⚠️WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool. Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. This product will be safer and do a better job at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

⚠️WARNING

PROP 65

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

⚠️WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well-lit. Cluttered, wet, or dark work areas can result in injury. Using the product in confined work areas may put you dangerously close to cutting tools and rotating parts.
- Do not use the product where there is a risk of causing a fire or an explosion; e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The tool is not insulated, and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the tool. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

⚠️WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the tool. Do not use the tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the tool often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.

- Remove keys or wrenches before connecting the tool to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.
- Engine exhaust contains carbon monoxide, an odorless, deadly poison that can kill you. Do not run the engine indoors or in an enclosed area.

⚠CAUTION

LOADER USE AND CARE

- Do not force the loader. Products are safer and do a better job when used in the manner for which they are designed. Plan your work and use the correct product for the job.
- Check for damaged parts before each use. Carefully check that the product will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the product with a damaged part.
- Do not use a product with a malfunctioning switch. Any power tool that cannot be controlled with the power switch is dangerous and must be repaired by an authorized service representative before using.
- Disconnect the power/air supply from the product and place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store the product when it is not in use. Store it in a dry, secure place out of the reach of children. Inspect the tool for good working condition prior to storage and before re-use.
- Use only accessories that are recommended by the manufacturer for use with your product. Accessories that may be suitable for one product may create a risk of injury when used with another tool. Never use an accessory that has a lower operating speed or operating pressure than the tool itself.
- Keep guards in place and in working order. Never operate the product without the guards in place.
- Do not leave the tool running unattended.

⚠WARNING

TRAINING

- Read the Operator's Manual and other training material. If the operator(s) or mechanic(s) cannot read English, it is the owner's responsibility to explain this material to them.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- The owner/user can prevent and is responsible for accidents or injuries occurring to himself or herself, other people or property.

⚠WARNING

PREPARATION

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Wear appropriate clothing including gloves, safety glasses, long pants, substantial slip-resistant footwear, and hearing protection. Tie back long hair and do not wear jewelry.
- Inspect the area where the equipment is to be used and remove all objects such as rocks, toys, and wire which can be thrown by the machine.
- Use extra care when handling fuels. They are flammable, and vapors are explosive.
 - Use only an approved fuel container
 - Never remove the fuel cap or add fuel with the engine running. Allow the engine to cool before refueling. Do not smoke.
 - Never refuel or drain the machine indoors.
- Check that the operator's presence controls, safety switches, and shields are attached and functioning properly. Do not operate unless they are functioning properly.

⚠WARNING

OPERATION

- Only operate in good light, keeping away from holes and hidden hazards.
- Be sure all drives are in neutral before starting the engine. Only start the engine from the operator's position.
- Do not operate any of the control levers (including auxiliary lever) unless you are standing with both feet on the platform and firmly holding the grip handles.
- Slow down and use extra care on hillsides. Be sure to travel in the recommended direction on hillsides. Turf conditions can affect the machine's stability.
- Slow down and use caution when making turns, crossing roads and sidewalks, and changing directions on slopes.
- Never operate without the guards securely in place. Be sure all interlocks are attached, adjusted, and functioning properly.
- Do not change the engine governor setting or overspeed the engine.
- Stop on level ground, lower implements, disengage the auxiliary hydraulics and shut off the engine before leaving the operator's position for any reason.
- Keep hands and feet away from moving attachments.
- Look behind and down before backing up to be sure of a clear path.
- Never carry passengers and keep pets and bystanders away.
- Slow down and use caution when making turns and crossing roads and sidewalks.
- Do not operate the machine when you are tired, ill, or under the influence of alcohol or drugs.

- Use care when loading or unloading the machine into a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Read all attachment manuals.
- Ensure that the area is clear of other people before operating the loader unit. Stop the loader unit if anyone enters the area.
- Never leave a running loader unit unattended. Always lower the loader arms, stop the engine, set the parking brake, and remove the key before leaving.
- Do not exceed the rated operating capacity, as the loader unit may become unstable which may result in loss of control.
- Do not carry a load with the arms raised. Always carry loads close to the ground.
- Do not overload the attachment and always keep the load level when raising the loader arms. Logs, boards, and other items could roll down the loader arms, injuring you.
- Never jerk the controls; use a steady motion.
- Watch for traffic when operating near or crossing roadways.
- Do not touch parts which may be hot from operation. Allow them to cool before attempting to maintain, adjust, or service.
- Check for overhead clearances (i.e., branches, doorways, electrical wires) before driving under any objects and do not contact them.
- Ensure that you operate the loader unit in areas where there are no obstacles in close proximity to the operator. Failure to maintain adequate distance from trees, walls, and other barriers may result in injury. Only operate the unit in areas where there is sufficient clearance for the operator to safely maneuver the product.
- Before digging, have the area marked for underground utilities, and do not dig in marked areas. Also, be aware of the location of objects and structures that may not be marked, such as underground storage tanks, wells, and septic systems.
- Locate the pinch point areas marked on the loader unit and attachments and keep hands and feet away from these areas.
- Before operating the loader unit with an attachment, ensure that the attachment is properly installed and a genuine NorTrac attachment.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.

⚠WARNING

SLOPE OPERATION

- Do not operate on slopes exceeding 15°. If the slope is greater than 5°, only go up and down (not across).
- Operate up and down slopes with the heavy end of the loader unit uphill. Weight distribution changes. An empty bucket will make the rear of the loader unit the heavy end, and a full bucket will make the front of the loader unit the heavy end. Most other attachments will make the front of

loader unit the heavy end.

- Raising the loader arms on a slope will affect the stability of the machine. Whenever possible, keep the loader arms in the lowered position when on slopes. Remove obstacles such as rocks, tree limbs, etc. from the work area. Watch for holes, ruts, or bumps, as uneven terrain could overturn the loader unit. Tall grass can hide obstacles.
- Use only NorTrac-approved attachments. Attachments can change the stability and the operating characteristics of the loader unit. Warranty may be voided if used with unapproved attachments.
- Keep all movements on slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If the loader unit loses traction, proceed slowly, straight down the slope.
- Avoid turning on slopes. If you must turn, turn slowly and keep the heavy end of the loader unit uphill.
- Do not operate near drop-offs, ditches, or embankments. The loader unit could suddenly turn over if a track goes over the edge of a cliff or ditch, or if an edge caves in.
- Use caution when operating on wet grass. Reduced traction could cause sliding.
- Do not park the loader unit on a hillside or slope without lowering the attachment to the ground and chocking the tracks.

Safety and Product Labels

Ref.#	Description	Quantity
1	Burn Hazard Warning Decal	1
2	Crush Hazard (Hand) Warning Decal	2
3	Crush Hazard (Body) Warning Decal	2
4	High-Pressure Fluid Hazard Warning Decal	3
5	Crush Hazard (Hand, Track) Warning Decal	2
6	Fire Hazard Danger Decal	1
7	Rotating Parts Warning Decal	1
8	Crush Hazard (Body, Access Panel) Warning Decal	1
9	Operational Warnings Decal (Impact, Rollover, Electrocuting, Fall, General)	1
10	Start up/Shut down Instructions Decal	1
11	Nameplate	1
12	NorTrac Decal	1
13	Lifting Hook Decal	1
14	Proposition 65 Warning Label (California)	1

WARNING

BURN HAZARD
Do not touch. Allow surface to cool before servicing.

1. Size: 60x36mm

WARNING

CRUSH HAZARD
Keep hands clear between the arm and frame.

2. Size: 128x40mm

WARNING

CRUSH HAZARD
Keep clear from under bucket or load while the arms are raised.

3. Size: 155x60mm

WARNING

HIGH-PRESSURE FLUID HAZARD
• Inspect hydraulic system regularly for leaks • Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning • Wear proper hand and eye protection when searching for leaks. Never check for leaks with your hand while system is pressurized. Use wood or cardboard instead of hands • Relieve pressure on hydraulic system before servicing or disconnecting hoses • Seek medical attention immediately if injured by escaping fluid

4. Size: 128x40mm

WARNING

CRUSH HAZARD
Shut engine off before servicing track.

5. Size: 128x40mm

DANGER

FIRE HAZARD
• Do not fuel at the work site or while the machine is running • Refuel loader on a hard, level surface • Keep open flames and sparks away from the machine while fueling • Do not smoke while fueling • Do not fill beyond the overflow marking. Expansion of fuel from heat of sun or normal operation may cause tank spillage if overfilled • Clean up any fuel spills before starting engine

6. Size: 105x66mm

WARNING

ROTATING PARTS INSIDE
Keep hands clear.

7. Size: 128x40mm

WARNING

CRUSH HAZARD
Always install loader safety support and pin securely in place before performing any maintenance or service checks under loader arms. See owner's manual for instructions on use of safety support.

8. Size: 155x60mm

Size: 418x95mm

9. Size: 418x95mm

<p>WARNING</p> <p>IMPACT HAZARD To avoid injury or death caused by falling loads: • Do not handle load unless loader is equipped with approved load handling attachments. • Handle raised loads with caution - carry safely - low • Read operator's manual for additional safety information</p>	<p>DANGER</p> <p>ROLLOVER HAZARD Serious injury or death can result from rollovers. • Do not drive on steep slopes. • Carry loader arms and all loads at a low position during transport. • Operate loader at low speeds.</p>	<p>DANGER</p> <p>ELECTROCUTION HAZARD Serious injury or death can result from contact with electrical lines. • Check overhead clearance before driving under electric lines.</p>	<p>WARNING</p> <p>FALL HAZARD To avoid injury from falls: • Do not allow others on loader or its attachments. • Do not use loader as a work platform.</p>	<p>WARNING</p> <p>• To prevent serious injury or property damage, read and understand owner's manual before operating. • Always wear the proper protective equipment including ANSI Z87.1 compliant eye protection, hearing protection, steel toe boots, heavy duty work gloves, and hard hat. Do not remove the rated load capacity (see owner's manual) • Operate all controls from the operator's position • Keep all limbs, hands and feet in place when operating the loader. • Follow all instructions at least 20 feet away from work area before servicing.</p>
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10. Size: 105x66mm

<p>Startup</p> <ol style="list-style-type: none"> 1. Inspect all hydraulic hoses for damage and leaks before each use. 2. Check all operation fluids such as oil before each use. 3. Ensure that the drive control levers and auxiliary hydraulics lever are in the neutral position. 4. Ensure that the throttle lever is in the SLOW position. 5. Follow instructions on starting the engine as detailed in the engine manufacturer's manual. 	<p>Shut down</p> <ol style="list-style-type: none"> 1. Park on a hard, level surface. 2. Move the throttle lever to the SLOW position. 3. Lower loader arms to the ground. 4. Ensure that the drive control levers and auxiliary hydraulics lever are in the neutral position. 5. Stop engine by placing ignition key in the OFF position. 6. Move the ignition key to the ON position, and move the Lift/Tilt control lever and auxiliary hydraulics lever to verify that the hydraulic system is de-pressurized.
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11. Size: 120x68mm

Mini-Track Loader		Item# 2232003 Made in China
Model	<input type="text"/>	Capacity
Power (Kw)	<input type="text"/>	Max. Speed (Km/h)
Engine	<input type="text"/>	Weight (Kg)
Production Date	<input type="text"/>	Serial No.

12. 230 x 50mm 2232003



14. Size: 105x57mm

WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P86warnings.ca.gov/diesel.

Before Each Use

⚠WARNING

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Before digging, have the area marked for underground utilities, and do not dig in marked areas. Also, be aware of the location of objects and structures that may not be marked, such as underground storage tanks, wells, and septic systems.

Read this manual and the engine manual. Always check the following before operating:

- Fuel level.
- Engine oil level (refer to engine manual).
- Remove all debris from the machine.
- Be sure that the work area is free from other people and children.
- Clear debris in work area. Know and mark the location of any utility lines.

Adding Fuel

⚠WARNING

- Use extra care when handling fuels. They are flammable, and vapors are explosive.
 - Use only an approved container.
 - Never remove the fuel cap or add fuel when the engine is running. Allow the engine to cool before refueling. Do not smoke.
 - Never refuel the loader unit indoors.
 - Never store the loader unit or fuel container inside where there is an open flame, such as near a water heater or furnace.
 - Never fill a container while it is inside a vehicle, trunk, pick-up bed, or any surface other than the ground.
 - Keep container nozzle in contact with the tank during filling.

The labelling on the fuel tank indicates whether a machine requires gas or diesel fuel. For fuel types and information on suitable additives, refer to the engine manual. Request new labels if they are removed or become unreadable.

Filling the Fuel Tank

1. Position the machine on a level surface. Lower the loader arms and turn off the engine (turn ignition key to OFF). Remove the key.
2. Clean around the fuel tank cap and remove the cap. Use a funnel to add fuel to the fuel tank (as specified above), filling until the fuel reaches 60-70mm below the top of the tank. This space is needed to allow the fuel to expand. Do not fill the fuel tank completely full.
3. Replace the fuel cap securely. Clean up any fuel that may have spilled.

Checking the Oil Level

- Refer to your engine manual.
- Remove debris from the machine.

IMPORTANT: Overheating will result if the engine is operated with a blocked grass screen, dirty or plugged cooling fins, and/or cooling shrouds removed.

- Park the machine on a flat surface, lower the loader arms, and turn off the engine (turn ignition key to OFF). Remove the key.
- Check the air filter pre-cleaner for debris. If required, wipe away debris before and during each use.
- Debris can build up in the engine area. Clean any debris build-up with a brush or blower before each use.

IMPORTANT: It is preferable to blow out dirt than to wash it out. If water is used, keep it away from electrical appliances.

IMPORTANT: Do not high-pressure wash. High-pressure washing can damage the electrical system.

Check Hydraulic Fluid

⚠WARNING

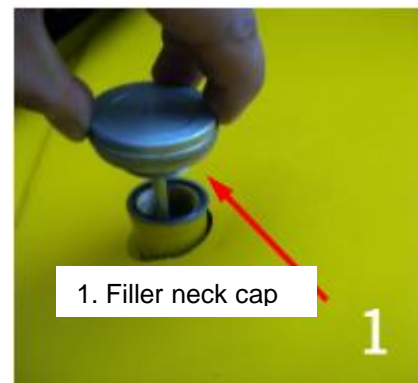
- Inspect hydraulic system regularly for leaks.
- Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning.
- Wear proper hand and eye protection when searching for leaks. Never check for leaks with your hand while system is pressurized. Use wood or cardboard instead of hands
- Relieve pressure on hydraulic system before servicing or disconnecting hoses.
- Seek medical attention immediately if injured by escaping fluid.

Check the hydraulic fluid level before the engine is started and after every 25 hours of operation.

Fluid type: H68 or equivalent.

Hydraulic tank capacity: 33 liters.

1. Position the machine on a level surface. Lower the loader arms and stop the engine.
2. Clean the area around the filler neck of the hydraulic tank.
3. Remove the cap from the filler neck and check the fluid level. The fluid level should be approximately 75-100mm below the top of the tank.
4. If the level is low, add fluid to the proper level.



5. Install cap on filler neck.

Pre-Start Inspection

It is very important to do a visual inspection of the machine before beginning operation. This inspection should include:

1. Check all decals and warning signs for damage.
2. Check engine oil.
3. Check and refill fuel tanks.
4. Check hydraulic lines and hoses for signs of damage or leaks.
5. Inspect the machine for any signs of damage or loose fasteners.
6. Check fluid levels and any signs of leaking fluid.
7. Conduct all daily service checks.
8. Check machine controls to make sure that they automatically return to the neutral position.

The following information presents details on these inspection points and service checks.

Activity	Daily (10 Hours)
Fuel	Check and fill
Engine Oil	Check and fill if low
Engine Oil Filter	Inspect for leaks
Engine Radiator	Inspect add if necessary
Air Filter	Check air filter dirt release
Fuel Filter	Inspect for leaks
Battery	Inspect terminals/leaks
Hydraulics - Hydraulic Filter - Hydraulic Fluid - Hydraulic Hoses	Inspect for leaks Check and fill if low Inspect for leaks
Grease	Check

Track Damage	Inspect
Visual Check for Loose/Missing Fasteners	Inspect
Check and Adjust Track Tension	Inspect
Check Both Track Widening Stop Bolts	Inspect

Operating Instructions

⚠️ WARNING

- Only operate in good light, keeping away from holes and hidden hazards.
- Slow down and use extra care on hillsides. Be sure to travel in the recommended direction on hillsides. Turf conditions can affect the machine's stability.
- Slow down and use caution when making turns, crossing roads and sidewalks, and changing directions on slopes.
- Never operate without the guards securely in place. Be sure all interlocks are attached, adjusted, and functioning properly.
- Do not change the engine governor setting or overspeed the engine.
- Stop on level ground, lower implements, disengage the auxiliary hydraulics and shut off the engine before leaving the operator's position for any reason.
- Keep hands and feet away from moving attachments.
- Look behind and down before backing up to be sure of a clear path.
- Never carry passengers and keep pets and bystanders away.
- Slow down and use caution when making turns and crossing roads and sidewalks.
- Do not operate the machine when you are tired, ill, or under the influence of alcohol or drugs.
- Use care when loading or unloading the machine into a trailer or truck.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Read all attachment manuals.
- Ensure that the area is clear of other people before operating the loader unit. Stop the loader unit if anyone enters the area.
- Never leave a running loader unit unattended. Always lower the loader arms, stop the engine, set the parking brake, and remove the key before leaving.
- Do not exceed the rated operating capacity, as the loader unit may become unstable which may result in loss of control.
- Do not overload the attachment and always keep the load level when raising the loader arms. Logs, boards, and other items could roll down the loader arms, injuring you.
- Never jerk the controls; use a steady motion.

- Watch for traffic when operating near or crossing roadways.
- Do not touch parts which may be hot from operation. Allow them to cool before attempting to maintain, adjust, or service.
- Check for overhead clearances (i.e., branches, doorways, electrical wires) before driving under any objects and do not contact them.
- Ensure that you operate the loader unit in areas where there are no obstacles in close proximity to the operator. Failure to maintain adequate distance from trees, walls, and other barriers may result in injury. Only operate the unit in areas where there is sufficient clearance for the operator to safely maneuver the product.
- Locate the pinch point areas marked on the loader unit and attachments and keep hands and feet away from these areas.
- Before operating the loader unit with an attachment, ensure that the attachment is properly installed and a genuine NorTrac attachment.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.

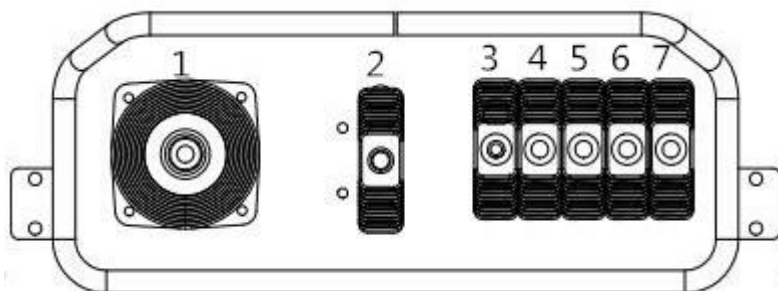
Read all the safety instructions and the pre-start up section of this manual and the engine manual before operating the equipment.

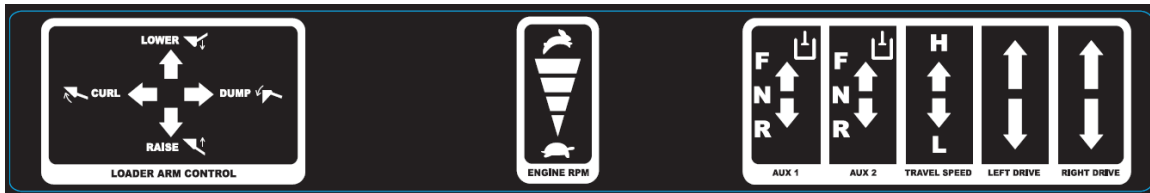
IMPORTANT: Ensure the auxiliary hydraulic lever is in the center position before attempting to start the engine. The most common cause of 'hard to start / engine will not turn over fast enough / battery does not have enough power' type starting problems is that the auxiliary lever has been left on or knocked into gear and the engine is trying to start under load. Ensure auxiliary lever is in center position before starting engine.

Drive Control Levers





⚠WARNING

- Be sure all drives are in neutral before starting the engine. Only start the engine from the operator's position.
- Do not operate any of the control levers (including auxiliary lever) unless you are standing with both feet on the platform and firmly holding the grip handles.
- Do not carry a load with the arms raised. Always carry loads close to the ground.





Loader Control Lever (Lift Arm and Bucket) (Lever 1)

-  Forward.....Lower the loader arm
-  Back.....Raise the loader arm
-  Right.....Dump bucket / Tilt attachment forward
-  Left.....Curl bucket / Tilt attachment backward

Throttle Lever (Lever 2)

Push forward to increase engine RPM. Pull backwards to reduce engine RPM.

Auxiliary Hydraulics Lever (Lever 3/4)

The auxiliary hydraulic lever allows you to alter the direction of rotation of the hydraulic driven attachments or stop them completely.

You can choose either Lever 3 or Lever 4 to operate if there is no motor or only one motor on the attachment.

If there are two motors on the attachment, operate Lever (3) and (4) together at the same time to alter the direction of attachments.

Driving Speed Select Lever (Lever 5)

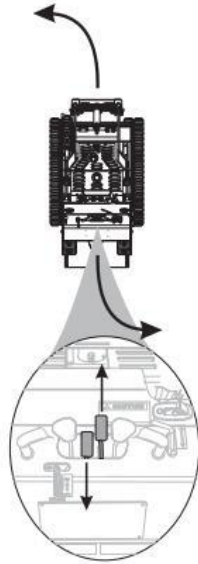
Push forward to select high speed. Push backward to select low speed.

Drive Control Levers (Lever 6 and 7)

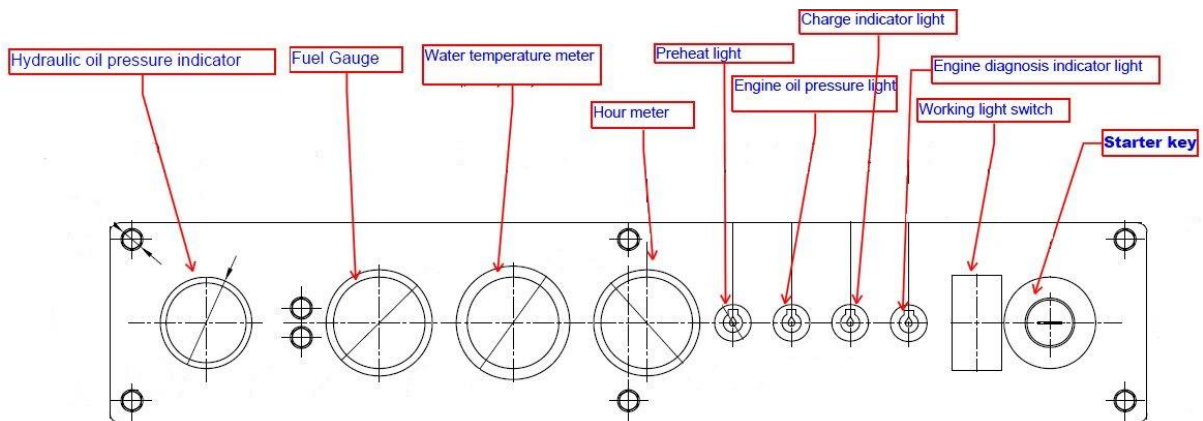
- To move forward, push the drive control levers (6 and 7) forward. To move backward, pull the drive control levers (6 and 7) backward.
- To go straight, move both (6) and (7) drive control levers equally.
- To turn, decrease pressure on the drive control lever closest to the direction you want to turn. The farther you move the drive control levers in either direction, the faster the machine will move in that direction.
- To slow or stop, move or release the drive control levers (6), (7) into neutral. (If released the control levers should automatically return to neutral).

Spin Turn

Move the control levers in opposite directions to spin the machine on it axis. To spin left, move the right control lever forward while pulling the left control lever backward. To spin/turn to the right, push the left control lever forward while pulling the right control lever backward. Hold on with one hand.



Instrumental Panel



Hydraulic Oil Pressure Indicator

When the indicator is in the green range, it is normal. When the indicator is in red range, stop the loader and replace the oil return filter.

Fuel Gauge

When the indicator is in the red range, the fuel is low. Stop the engine and refuel.

Water Temperature Meter

The meter shows the temperature of engine's coolant. Start the engine and do not work on the loader until the coolant is in the green range. When the temperature is in the red range, stop the engine and check the problem.

Hour Meter

Accumulated working time of the loader.

Preheat Light

When the switch turns to the NEUTRAL position, engine preheats, the light turns on. If the light is not on, check the wire.

Engine Oil pressure Light

When the light turns on, the engine oil pressure is low. Stop the loader and check the engine oil.

Charging Indicator

When the pointer is on the right of "0", it is charging. When the pointer is on the left of "0", check the battery.

Engine Diagnosis Indicator Light

When the light turns on, stop the machine and check the engine.

Working Light Switch

Press the switch, and the working light will turn on.

Starter Key

Insert the key - position 0 = no operating voltage

- Turn key left against spring pressure - position 3 = Preheating

- When the preheating controller illuminates:

- Turn key right - position 2 = Starting

- Release the key as soon as the engine starts. The key returns to position 1 and the control lights extinguish.

Starting and Stopping the Engine

Starting

1. Stand on the platform.
2. Move the auxiliary hydraulics lever to neutral.
3. Follow instructions on starting the engine as detailed in the engine manufacturer's manual.

Stopping

1. Move the throttle lever to SLOW.
2. Lower the loader arms to the ground.
3. Turn the ignition key to OFF.

Note: If the engine has been working hard or is hot, let it idle for a minute before turning the ignition key to OFF. This helps cool the engine before it is stopped. In an emergency, turning the ignition key to OFF will stop the engine.

Attachments

Connecting

IMPORTANT: Use only manufacturer approved attachments. Attachments could change stability and operating characteristics of the machine. The warranty of the machine may be voided if used with unapproved attachments.

IMPORTANT: Before connecting any attachments to the machines, make sure mount plates are free of any dirt and debris.

1. Move speed control lever to slow (turtle) position.
2. Slowly push the attachment tilt lever forward to tilt the attachment mount plate forward.
3. Position the mount plate into the upper lip of the attachments receiver plate.
4. Raise the loader arms while tilting back the mount plate at the same time.

IMPORTANT: The attachment should be raised enough to clear the ground and the mount plate tilted all the way back.

5. Turn the ignition key to OFF to stop the engine.
6. Engage the attachment lock pins.

Note: Lock pins are located on the operator side of the mount plate and should be turned toward the inside to engage.

Note: Proceed to the next step if auxiliary hydraulics is required with the attachment.

IMPORTANT: Make sure all foreign matter is cleaned from the hydraulic connections before making connections.

7. Move the auxiliary hydraulics lever to the forward, backward, and back to neutral position to relieve hydraulic pressure at the hydraulic couplers.
8. Remove protective covers from the hydraulic couplers on the machine. Connect covers together to prevent contamination during operation.
9. Confirm that connection is secure by pulling on the hoses.

Disconnecting

1. Lower the attachment onto a firm, level surface.
2. Shut off the machine's engine.
3. Move the auxiliary hydraulics lever forward, backward, and back to the normal position to relieve hydraulic pressure at the hydraulic couplers.
4. Slide the collar back on the hydraulic coupler and disconnect the attachment couplers from the machine couplers. Note: If this is difficult, return to step 3 and repeat.

IMPORTANT: Connect attachment hoses together to prevent contamination during storage.

5. Install protective covers onto the machine's hydraulic couplers.

6. Disengage the attachment lock pins by turning them to the outside.
7. Start the engine and tilt the mount plate forward and backward with the machine away from the attachment.

After Each Use

Transporting and Securing

IMPORTANT: When transporting the machine on a trailer, always use the following procedure.

1. Lower the loader arms.
2. Turn the ignition key to OFF to stop the engine.
3. Secure the machine to the trailer with chains or straps using the rear platform support openings to secure of machine and loader arms/mount plate to secure front of machine.

Moving a Non-functioning Machine

⚠WARNING

- Never tow the machine! Hydraulic damage may occur.

1. Turn the ignition key to OFF to stop the engine.
2. Lift the entire machine off the ground and move the machine.

Maintenance

⚠WARNING

- Disengage the auxiliary hydraulics, lower the attachment, stop the engine, and remove the key. Wait for all movement to stop and the unit to cool before adjusting, cleaning, or repairing.
- Never run the machine in an enclosed area.
- Clean debris from attachments, drives, mufflers, and engine to help prevent fires. Clean up oil or fuel spillage.
- Let the engine cool before storing and do not store near flame.
- Park the machine on level ground. Never allow untrained personnel to service the machine.
- Use jack stands to support components when required.
- Carefully release pressure from components with stored energy.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Keep all parts in good working condition and all hardware tightened. Replace all worn or damaged decals.
- Always install loader safety support and pin securely in-place before performing any maintenance or service checks under loader arms. See owner's manual for instructions on use of safety

support.

- Keep nuts and bolts tight. Keep equipment in good condition.
- Never tamper with safety devices.
- Keep the loader unit free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage. Allow the loader unit to cool before storing.
- Use extra care when handling fuels. They are flammable, and vapors are explosive.
 - Use only an approved container.
 - Never remove the fuel cap or add fuel when the engine is running. Allow the engine to cool before refueling. Do not smoke.
 - Never refuel the loader unit indoors.
 - Never store the loader unit or fuel container inside where there is an open flame, such as near a water heater or furnace.
 - Never fill a container while it is inside a vehicle, trunk, pick-up bed, or any surface other than the ground.
 - Keep container nozzle in contact with the tank during filling.
- Stop and inspect the equipment if you strike an object. Make any necessary repairs before restarting.
- Use only genuine NorTrac replacement parts to ensure that original standards are maintained.

Maintain the loader by adopting a program of conscientious repair and maintenance in accordance with the following recommended procedures. It is recommended that the general condition of any tool be examined before it is used. Also refer to the engine manufacturer's instruction manual for additional information about engine maintenance. The following chart is based on a normal operation schedule.

Maintenance Interval	Maintenance Point
Every 25 hours	<ul style="list-style-type: none"> • Check hydraulic oil level and check for external leaks. • Service pre-cleaner element. • Check bushings and replace if required. • Check engine oil level.
Every 50 hours	<ul style="list-style-type: none"> • Check hydraulic oil level and check for external leaks. • Check hydraulic hoses and tighten if required. • Replace air cleaner & clean pre-cleaner. • Check of fuel pipes and clamp bands. • Check engine oil level.

Maintenance Interval	Maintenance Point
Every 100 hours	<ul style="list-style-type: none"> • Change engine oil and filter. • Test all functions in operation. • Check – clean spark plug(s). • Replace fuel filter. • Replace air cleaner element. • Remove cooling shrouds and clean cooling areas. • Check oil cooler fins, clean as necessary.
Every 500 hours	<ul style="list-style-type: none"> • Change hydraulic fluid. • Change hydraulic filter. • Remove sediment in fuel tank.

It is recommended that some parts are kept on hand for maintenance purposes at all times.

- Bush Drift (used for changing bushings): 1 piece
- Hub Puller: 1 piece
- Hydraulic Return Filter: 1 piece
- Fuel Filter: 1 piece
- Engine Oil Filter: 1 piece
- Air Filter Element: 1 piece
- Spare Track: 1 piece

Bushings

1. The equipment has 10 Duralon bushings and chrome pins. These are located on either end of your hydraulic cylinders and on all pivot points of the lift arms.
2. These bushings are wear part and require regular inspection. It is essential that these bushings be replaced on the first sign of wear, otherwise costly damage will occur.
3. You should ensure that spare bushings are on hand at all times.

Engine Oil

Refer to the Engine Manual for required frequencies of oil changes, oil types, crankcase capacity, and viscosity.

Changing/ Draining oil

1. Start the engine and let it run for 5 minutes. This warms the oil so it drains easier.
2. Park the machine so the drain side is slightly lower than then opposite side to assure that the oil drains completely. Then lower the loader arms, chock the wheels, and turn the ignition key to OFF to stop then engine. Remove the key.
3. Place the end of the hose in a pan. Remove the bung by turning counter-clockwise while holding the nut. Allow to drain.
4. When the oil has drained completely, replace the bung.

Note: Dispose of used oil in accordance with local authority regulations.

5. Slowly pour approximately 80% of the specified amount of oil (refer to engine’s manual) into the

filter tube. Now check the oil level. Slowly add additional oil to bring it to the FULL mark on the dipstick.

Changing the Oil Filter

Refer to the engine's manual.

Spark Plug(s)

Removing and Checking Spark Plugs (Gas Only)

Refer to the engine's manual.

Fuel Filter

Replace the fuel filter after every 100 operating hours or yearly, whichever occurs first.

Replacing the Fuel Filter

1. Never re-install a dirty filter.
2. Lower the loader arms and turn the ignition key to OFF to stop the engine. Remove the key.
3. Clamp the fuel line between the fuel tank and the fuel filter to block fuel flow.
4. Squeeze the ends of the hose clamps together and slide them away from the filter.
5. Place a drain pan under the fuel lines to catch any leaks, then remove the filter from the fuel lines.
6. Install a new filter and move the hose clamps close to the filter.
7. Remove clamp blocking fuel flow.

Fuel Tank

Draining the Fuel Tank

⚠WARNING

Use extra care when handling fuels. They are flammable, and vapors are explosive.

- Use only an approved container.
- Never remove the fuel cap or add fuel when the engine is running. Allow the engine to cool before refueling. Do not smoke.
- Never store the loader unit or fuel container inside where there is an open flame, such as near a water heater or furnace.
- Drain gasoline from the fuel tank into an approved fuel container when the engine is cold. Do this outdoors or in a well-ventilated area. Wipe up any gasoline that spills.
- Properly dispose of drained fuel and any fuel soaked rags.
- Never drain gasoline near an open flame or where a spark may ignite gasoline fumes.
- Never smoke while handling fuel.

1. Park the machine on a level surface to assure that the fuel tank drains completely. Then lower the loader arms and turn the ignition key to OFF to stop the engine. Remove the key.
2. Loosen the hose clamp at the fuel filter and slide it up the fuel line away from the fuel filter.
3. Pull the fuel line off the fuel filter, open the fuel valve, and allow gasoline to drain into a gas can or drain pan.

- Remove the tank from the machine by undoing the nut at the clamp at the top of the tank. Remove the tank, drain it completely, and flush it by tipping tank upside down.
- Reverse the procedure to replace a clean tank.

Note: Now is the best time to install a new fuel filter because the fuel tank is empty.

- Install the fuel line onto the fuel filter. Slide the hose clamp close to the fuel filter to secure the fuel line.

Hydraulic System

Replacing the Hydraulic Filter

Change the hydraulic filter after every 500 operating hours

- Position the machine on a level surface, lower the loader arms and turn the ignition key to OFF to stop the engine. Remove the key.

IMPORTANT: Do not substitute automotive oil filter or severe hydraulic damage may result.

- Remove the old filter and wipe the filter adapter gasket surface clean.
- Apply a thin coat of hydraulic fluid to the rubber gasket on the replacement filter.
- Install replacement hydraulic filter adapter. Tighten clockwise until the rubber gasket contacts the filter adapter, then tighten the filter an additional ½ turn.
- Clean up any spilled fluid.
- Start the engine and let it run for about two minutes to purge air from the system. Stop the engine and check for leaks.
- Check the fluid level in the hydraulic tank and add oil to raise the level to the correct mark on the dipstick.

DO NOT OVER FILL.

Note: The correct level is 75mm below the top of the tank.

Change the Hydraulic Fluid After Every 500 Operating Hours

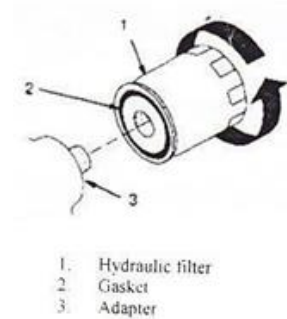
- Position the machine on a level surface, lower the loader arms and turn the ignition key to OFF to stop the engine. Remove the key.

IMPORTANT: Do not substitute automotive oil filter or severe hydraulic damage may result.

- Place large drain pan under the machine that can hold at least 70 liters.
- Remove the drain plug from the bottom of the hydraulic tank and allow the fluid to completely drain out.
- Remove the tank top and wipe out the inside of the tank. Note if any foreign objects are found. If anything unusual is found, consult your service center or a hydraulic expert.
- Install the drain plug.
- Fill the hydraulic tank with approximately 33 liters of H68 Hydraulic oil.

Note: Dispose of used oil in accordance with local authority regulations.

Check Hydraulic Lines



⚠ WARNING

- Inspect hydraulic system regularly for leaks.

- Hydraulic fluid escaping through even a pin-size hole opening can puncture skin and cause blood poisoning.
- Wear proper hand and eye protection when searching for leaks. Never check for leaks with your hand while system is pressurized. Use wood or cardboard instead of hands
- Relieve pressure on hydraulic system before servicing or disconnecting hoses.
- Seek medical attention immediately if injured by escaping fluid.

After every 100 operating hours, check hydraulic lines and hoses for leaks, loose fittings, kinked lines, loose mounting supports, wear, weather, and chemical deterioration. Replace all moving hydraulic hoses every 1500 hours or two years, whichever comes first. Make necessary repairs before operating.

Battery

⚠WARNING

- Disconnect the battery before making any repairs.
- Charge batteries in an open well-ventilated area, away from spark and flames. Unplug the charger before connecting or disconnecting it from the battery. Wear protective clothing and use insulated tools.
- Battery acid is poisonous and can cause burns. Avoid contact with skin, eyes, and clothing. Protect your face, eyes, and clothing when working with a battery.
- Battery gases can explode. Keep cigarettes, sparks and flames away from the battery.

Always keep the battery clean and fully charged. Use a paper towel to clean the battery case. If the battery terminals are corroded, clean them with a solution of four parts water and one-part baking soda. Apply a light coating of grease to the battery terminals to reduce corrosion.

Voltage: 12v, 380 Cold Cranking Amps.

If the battery becomes flat or the machine is not used for a long period, charge the battery using an external battery charger. Do not rely on the engine's charging system to recharge a battery. It is only meant to maintain a charge in a good battery.

Cleaning and Long-Term Storage

1. Lower the loader arms and turn the ignition key to OFF to stop the engine. Remove the key.
2. Remove dirt and grime from the external parts of the entire machine, especially the engine. Clean dirt and chaff from the outside of the engine's cylinder head fins and blower housing.

IMPORTANT: You can wash the machine with mild detergent and water. Do not pressure wash the machine. Avoid excess use of water, especially near the control panel, engine, hydraulic pumps, and motors.

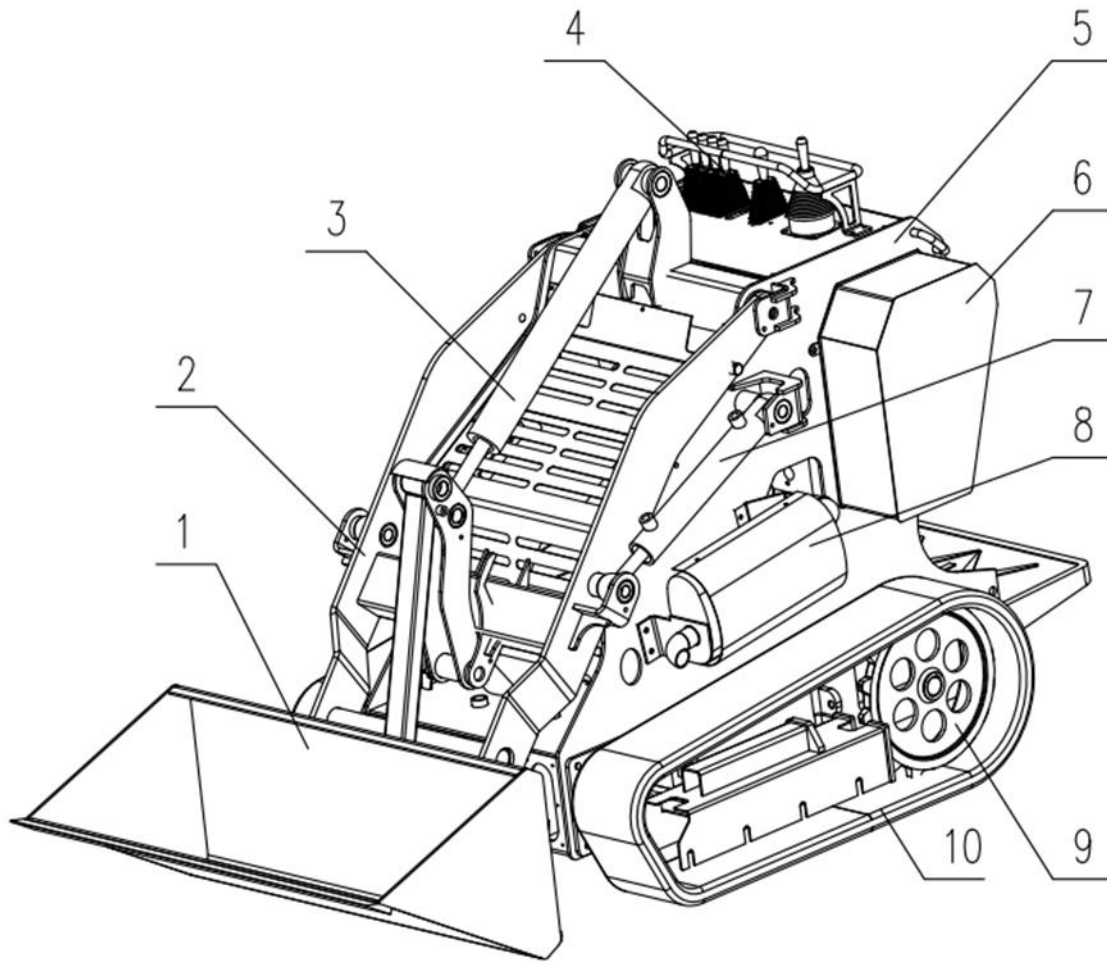
3. Service the air cleaner; refer to the Air Cleaner section in the engine's manual.
4. Change the crankcase oil; refer to the engine's manual.
5. Charge the battery. Refer above to the battery section.
6. Check and tighten all bolts, nuts, and screws. Repair or replace any part that is damaged or defective.
7. Store the machine in a clean, dry garage or storage area. Remove the key from the ignition switch and keep it in a memorable place. Cover the machine to protect it and keep it clean.

Troubleshooting

Use the table below to troubleshoot problems before contacting service personnel or your local dealer. If the problem continues after troubleshooting, call your local dealer for assistance.

Failure	Possible Cause	Corrective Action
Starter does not crank.	1. Battery is dead.	1. Change the battery.
	2. Electrical connections are corroded or loose.	2. Check electrical connections for good contact.
	3. Relay switch is defective.	3. Contact authorized service dealer.
Engine will not start, starts hard, or fails to keep running.	1. Auxiliary hydraulics lever is not in neutral position.	1. Move the lever to neutral position.
	2. Fuel tank is empty.	2. Fill fuel tank with gasoline.
	3. Air cleaner is dirty.	3. Clean or replace air cleaner element.
	4. Dirt in fuel filter.	4. Replace fuel filter.
	5. Dirt, water, or stale fuel is in the fuel system.	5. Contact authorized service dealer.
Engine loses power.	1. Engine load is excessive.	1. Reduce ground speed.
	2. Air cleaner is dirty.	2. Clean air cleaner element.
	3. Cooling fins and air passages under engine blower housing are plugged.	3. Remove obstruction from cooling fins and air passages.
	4. Dirt in fuel filter.	4. Replace fuel filter.
	5. Dirt, water, or stale fuel is in fuel system.	5. Contact authorized service dealer.
	6. Breather on fuel tank is closed.	6. Open breather.
Engine overheats.	1. Engine load is excessive.	1. Reduce ground speed.
	2. Cooling fins and air passages under engine blower housing are plugged.	2. Remove obstruction form cooling fins and air passages.
	3. Water level is low (diesel only).	3. Top up water.
Abnormal vibration.	Engine mounting bolts are loose.	Tighten engine mounting bolts.
Machine does not drive.	2. Hydro fluid level low.	2. Add hydro fluid to reservoir.
	3. Traction pump drive coupler is loose or broken.	3. Contact authorized service dealer.
	4. Pump and /or wheel motor is defective or damaged.	4. Contact authorized service dealer.
	5. Control valve is defective or damaged.	5. Contact authorized service dealer.
	6. Relief valve is defective or damaged.	6. Contact authorized service dealer.

Parts Diagram



Parts List

Reference	Part Description	Quantity
1	Bucket	1
2	Loading Arm	2
3	Tilt Cylinder	1
4	Control Lever	7
5	Frame	1
6	Tool Box	1
7	Lift Cylinder	2
8	Muffler	1
9	Sprocket	2
10	Track	2

Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-521-0438**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

Limited Warranty

The 25 HP Diesel-Powered Mini Track Loader is sold by NorTrac; a division of Northern Tool & Equipment Company, Inc. (NTE). NorTrac will repair or replace, at its option, any part(s) thereof of the NorTrac Compact Articulated Wheel Loader that are shown to be defective in material and/or workmanship, under normal use during the applicable 24-month warranty period. NorTrac wants your equipment to operate well and will assist you on repairs. **All warranty repairs submitted after the first 60 days of ownership are subject to a \$100.00 labor deductible, per covered repair.** After the labor deductible has been met, all warranty repairs and replacements will be made without charge for parts or labor at a pre-authorized service center. All parts replaced as a result of this limited warranty become the property of NorTrac and must be returned to NTE upon request. All parts replaced will become a portion of the whole and will be warranted for the duration of the original equipment warranty.

Length of Warranty

The limited warranty begins on the original date of purchase and extends to 24 months for consumer household use. For the commercial end user, the limited warranty continues for 6 months (180) days from date of original purchase. Commercial use is defined as: intended for the purpose of monetary reward or gain through the loan, rental or hire of equipment - OR- any manner that is primarily intended for or directed toward commercial advantage "For Profit" or private monetary compensation, or use by any governmental agency.

Qualifications for the Limited Warranty

This applies to the original purchaser of the equipment. The limited warranty is non-transferable. Owner is to provide proof of purchase. Equipment was purchased in the United States from authorized representatives of NorTrac and/or NTE, Company, Inc.

To Obtain Service

Contact NorTrac Warranty Administrator by calling 1-800-521-0438 to report a possible warranty issue and to receive repair authorization from the Warranty Administrator. Detailed failure information can also be provided in hard-copy written form along with contact information to the address listed at the bottom of this page.

After receiving authorization from NorTrac Warranty Administrator, and the address of the pre-authorized service center, take the equipment to the service center during their regular business hours. **All transportation costs after the first 60 days of ownership, are the responsibility of the equipment owner.**

Exclusions and Warranty Disclaimers

This limited warranty applies to equipment used in its original form. Any unauthorized modifications or any incorporation or use of unsuitable attachments or parts will automatically void this limited warranty. This limited warranty does not include parts affected or damaged by accident and/or collision, normal wear & tear (light bulbs, filters, belts, motor brushes, brakes, fuses and switches, tires and tubes, clutch linings, engine tune up, wheel alignment and lubrication), fuel contamination, or from failure to follow instructions contained in the User Manual for the equipment. Warranty is void if adjustments are made to the injection pump fuel delivery system, starting fluid or ether is used to start or run the engine or regular maintenance and service is not performed as prescribed by the operator's manual during the warranty term. The cost of normal maintenance of the equipment is the responsibility of the owner.

Limited Warranty

This limited warranty does not cover defects that result from accident, misuse, lack of maintenance, improper repairs, neglect or use of replacement parts and accessories which do not meet NorTrac specifications.

Disclaimer of Consequential Damage

Any implied warranty of merchantability or fitness for a particular purpose, to the extent that either may apply to any NorTrac TM tractor or crawler / bulldozer, shall be limited in duration to the periods of the express warranties shown above, and to the extent permitted by law any and all implied warranties are excluded. In no event will NorTrac or NTE Company, Inc. be liable for any loss of income, loss of time or use of the product, transportation, hiring of alternative services, commercial loss or any other incidental, consequential, or special damages and / or expenses. Some states do not allow limitations on how long an implied warranty lasts and / or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you. This limited warranty gives you specific legal rights which may vary from state to state.



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