



MODEL NO. 30301TE—60001 & OVER
MODEL NO. 30301TC—70001 & OVER
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OPERATOR'S MANUAL

GROUNDMASTER® 3000-D

2- & 4-WHEEL DRIVE TRACTION UNITS



FOREWORD

This operator's manual has instructions on safety, proper set-up and operation, adjustments and maintenance. Therefore, anyone involved with the product, including the operator, should read and understand this manual. This manual emphasizes safety, mechanical and general product information. DANGER, WARNING and CAUTION identify safety messages. Whenever the triangular safety alert symbol appears, understand the safety message that follows. For complete safety instructions, read pages 4-5. IMPORTANT highlights special mechanical information and NOTE emphasizes general product information worthy of special attention.

Whenever you have questions or need service, contact your local authorized Toro Distributor. In addition to having a complete line of accessories and professional turf care service technicians, the distributor has a complete line of genuine TORO replacement parts to keep your machine operating properly. Keep your TORO all TORO. Buy genuine TORO parts and accessories.

MODEL AND SERIAL NUMBER

The model and serial number is on a plate that is mounted on the left side of operator platform behind footrest. Use model and serial number in all correspondence and when ordering parts.

To order replacement parts from an authorized TORO Distributor, supply the following information:

- 1. Model and serial numbers of the machine.
- 2. Part number, description and quantity of parts desired.

Note: Do not order by reference number if a parts catalog is being used; use the part number.

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Safety Instructions

Training

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
 2. Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations may restrict the age of the operator.
 3. Never mow while people, especially children, or pets are nearby.
 4. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
 5. Do not carry passengers.
 6. All drivers should seek and obtain professional and practical instruction. Such instruction should emphasize:
 - the need for care and concentration when working with rideon machines;
 - control of a ride on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
 - insufficient wheel grip;
 - being driven too fast;
 - inadequate braking;
 - the type of machine is unsuitable for its task;
 - lack of awareness of the effects of ground conditions, especially slopes;
- Store fuel in containers specifically designed for this purpose.
 - Refuel outdoors only and do not smoke while refueling.
 - Add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
 - If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapors have dissipated.
 - Replace all fuel tanks and container caps securely.
4. Replace faulty silencers.
 5. Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
 6. On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

Operation

1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
2. Mow only in daylight or in good artificial light.
3. Before attempting to start the engine, disengage all blade attachment clutches and shift into neutral.
4. Do not use on slopes of more than:
 - Never mow side hills over 5°
 - Never mow uphill over 10°
 - Never mow downhill over 15°
5. Remember there is no such thing as a “safe” slope. Travel on grass9 slopes requires particular care. To guard against overturning:

Preparation

1. While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
2. Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine.
3. **WARNING—Petrol is highly flammable.**

- do not stop or start suddenly when going up or downhill;
 - engage clutch slowly, always keep machine in gear, especially when travelling downhill;
 - machine speeds should be kept low on slopes and during tight turns;
 - stay alert for bumps and hollows and other hidden hazards;
 - never mow across the face of the slope, unless the lawnmower is designed for this purpose.
6. Use care when pulling loads or using heavy equipment.
 - Use only approved drawbar hitch points.
 - Limit loads to those you can safely control.
 - Do not turn sharply. Use care when reversing.
 - Use counterweight(s) or wheel weights when suggested in the instruction handbook .
 7. Watch out for traffic when crossing or near roadways.
 8. Stop the blades rotating before crossing surfaces other than grass.
 9. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation .
 10. Never operate the lawnmower with defective guards, shields or without safety protective devices in place.
 11. Do not change the engine governor settings or overspeed the engine. Operating the engine at excessive speeds may increase the hazard of personal injury.
 12. Before leaving the operator's position:
 - disengage the power take-off and lower the attachments;
 - change into neutral and set the parking brake;
 - stop the engine and remove the key.
 13. Disengage drive to attachments, stop the engine, and disconnect the spark plug wire(s) or remove the

ignition key

- before cleaning blockages or unclogging chute;
 - before checking, cleaning or working on the lawnmower;
 - after striking a foreign object. Inspect the lawnmower for damage and make repairs before restarting and operating the equipment;
 - if the machine starts to vibrate abnormally (check immediately).
14. Disengage drive to attachments when transporting or not in use.
 15. Stop the engine and disengage drive to attachment
 - before refueling;
 - before removing the grass catcher;
 - before making height adjustment unless adjustment can be made from the operator's position.
 16. Reduce the throttle setting during engine runout and, if the engine is provided with a shutoff valve, turn the fuel off at the conclusion of mowing.

Maintenance and Storage

1. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
2. Never store the equipment with petrol in the tank inside a building where fumes may reach an open flame or spark.
3. Allow the engine to cool before storing in any enclosure.
4. To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves, or excessive grease.
5. Check the grass catcher frequently for wear or deterioration.
6. Replace worn or damaged parts for safety.
7. If the fuel tank has to be drained, this should be done outdoors
8. On multi-bladed machines, take care as rotating one

blade can cause other blades to rotate.

9. When machine is to be parked, stored or left unattended, lower the cutting means unless a positive mechanical lock is used.

Sound & Vibration Levels

Sound Levels

This unit has an equivalent continuous A-weighted sound pressure at the operator ear of: 88 dB(A), based on measurements of identical machines per Directive 84/538/EEC.

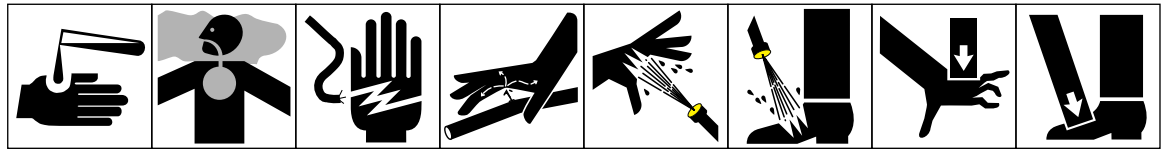
This unit has a sound power level of 104 dB(A)/1pW, based on measurements of identical machines per procedures outlined in Directive 79/113/EEC and amendments

Vibration Levels

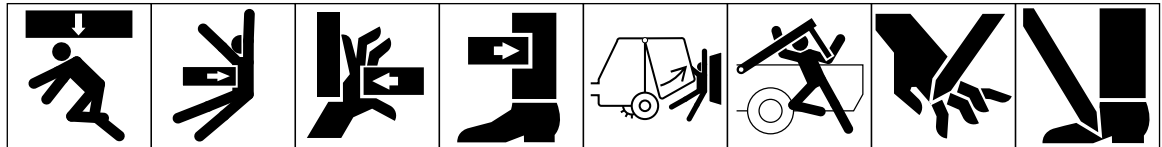
This unit has a vibration level of 2.5 m/s² at the posterior, based on measurements of identical machines per ISO 2631 procedures.

This unit does not exceed a vibration level of 0.5 m/s² at the posterior based on measurements of identical machines per ISO 2631 procedures.

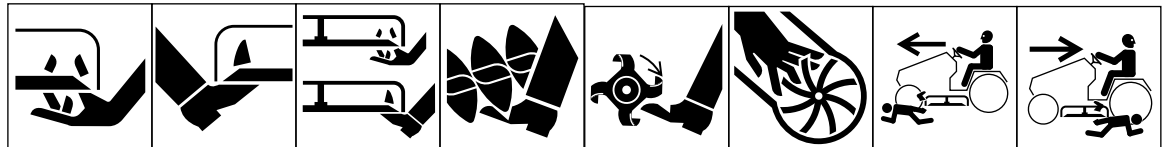
Symbol Glossary



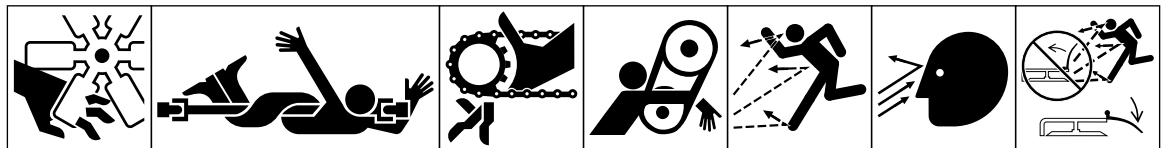
Caustic liquids, chemical burns to fingers or hand Poisonous fumes or toxic gases, asphyxiation Electrical shock, electrocution High pressure fluid, injection into body High pressure spray, erosion of flesh High pressure spray, erosion of flesh Crushing of fingers or hand, force applied from above Crushing of toes or foot, force applied from above



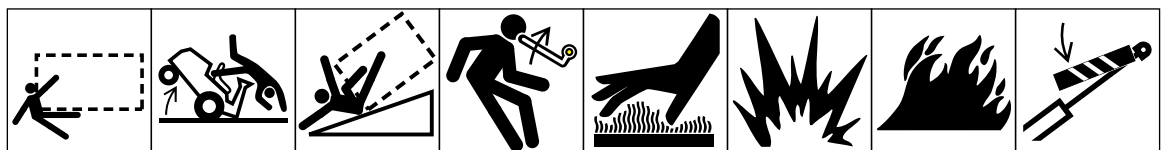
Crushing of whole body, force applied from above Crushing of torso, force applied from side Crushing of fingers or hand, force applied from side Crushing of leg, force applied from side Crushing of whole body Crushing of head, torso and arms Cutting of fingers or hand Cutting of foot



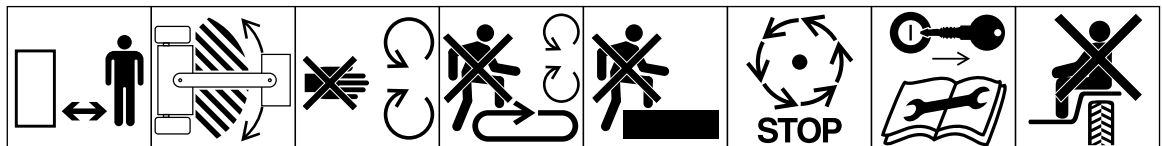
Severing of fingers or hand, mower blade Severing of toes or foot, mower blade Severing of toes or fingers, rotary mower blade Cutting or entanglement of foot, rotating auger Severing of foot, rotating knives Severing of fingers or hand, impeller blade Dismemberment, front engine mower in forward motion Dismemberment, front engine mower in rearward motion



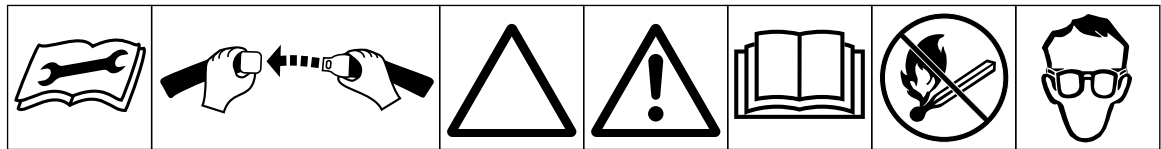
Severing of fingers or hand, engine fan Whole body entanglement, implement input drive line Fingers or hand entanglement, chain drive Hand & arm entanglement, belt drive Thrown or flying objects, whole body exposure Thrown or flying objects, face exposure Thrown or flying objects, rotary mower



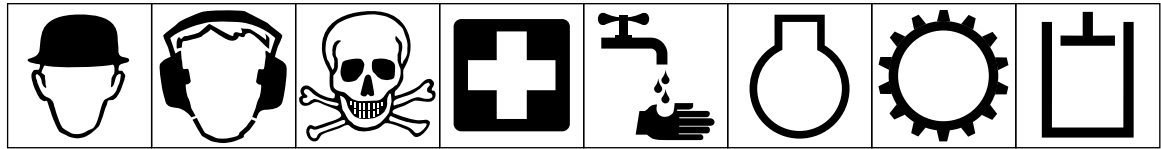
Runover/backover, vehicle Machine tipping, riding mower Machine rollover, ROPS (rear engine mower) Stored energy hazard, kickback or upward motion Hot surfaces, burns to fingers or hands Explosion Fire or open flame Secure lifting cylinder with locking device before getting in hazardous area



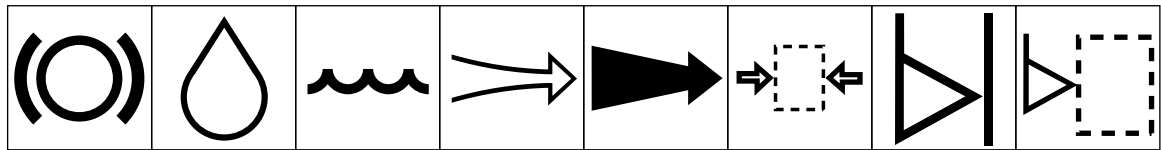
Stay a safe distance from the machine Stay clear of articulation area while engine is running Do not open or remove safety shields while engine is running Do not step on loading platform if PTO is connected to tractor & engine is running Do not step Wait until all machine components have completely stopped before touching them Shut off engine & remove key before performing maintenance or repair work Riding on this machine is allowed only on a passenger seat & only if the driver's view is not hindered



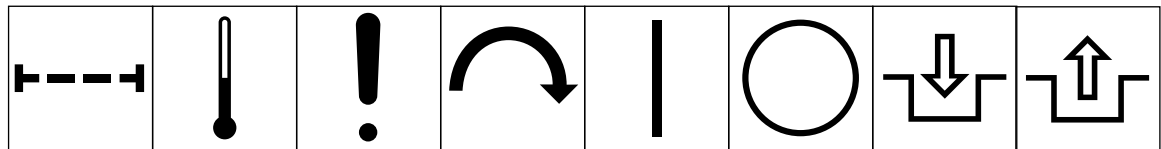
Consult technical manual for proper service procedures Fasten seat belts Safety alert triangle Outline safety alert symbol Read operator's manual Fire, open light and smoking prohibited Eye protection must be worn



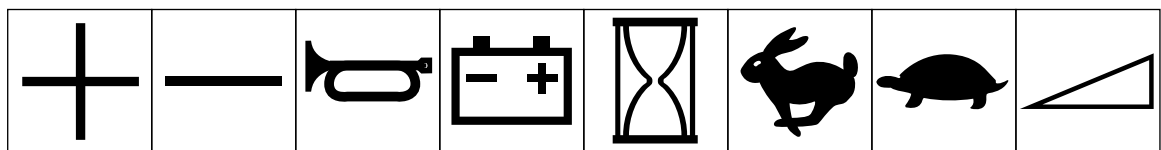
Head protection must be worn Hearing protection must be worn Caution, toxic risk First aid Flush with water Engine Transmission Hydraulic system



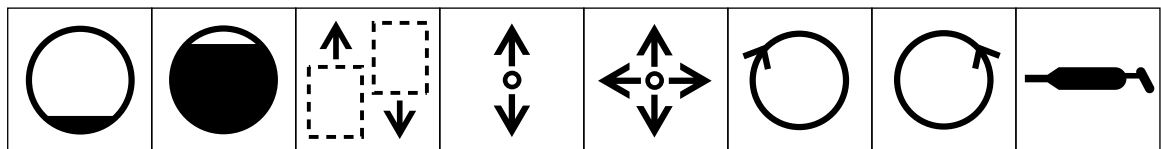
Brake system Oil Coolant (water) Intake air Exhaust gas Pressure Level indicator Liquid level



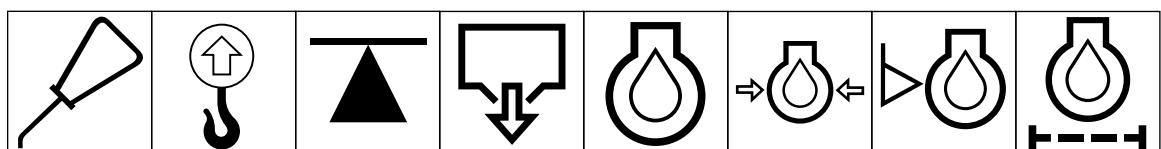
Filter Temperature Failure/Malfunction Start switch/mechanism On/start Off/stop Engage Disengage



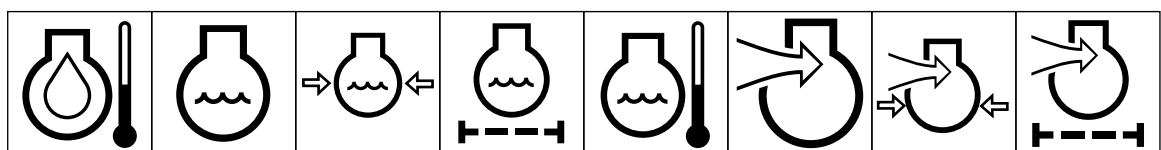
Plus/increase/positive polarity Minus/decrease/negative polarity Horn Battery charging condition Hourmeter/elapsed operating hours Fast Slow Continuous variable, linear



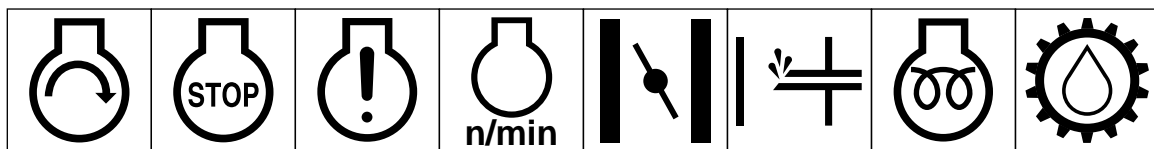
Volume empty Volume full Machine travel direction, forward/rearward Control lever operating direction, dual direction Control lever operating direction, multiple direction Clockwise rotation Counter-clockwise rotation Grease lubrication point



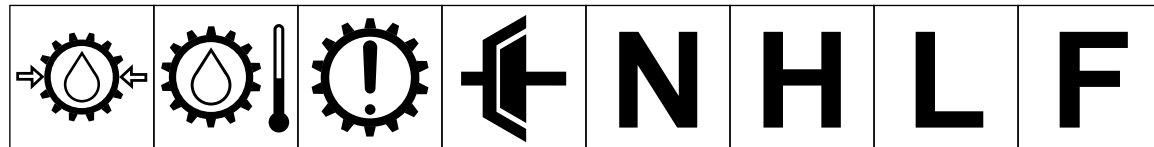
Oil lubrication point Lift point Jack or support point Draining/emptying Engine lubricating oil Engine lubricating oil pressure Engine lubricating oil level Engine lubricating oil filter



Engine lubricating oil temperature Engine coolant Engine coolant pressure Engine coolant filter Engine coolant temperature Engine intake/combustion air Engine intake/combustion air pressure Engine intake/air filter



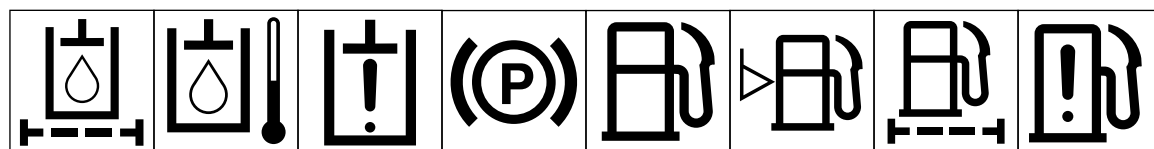
Engine start Engine stop Engine failure/malfunction Engine rotational speed/frequency Choke Primer (start aid) Electrical preheat (low temperature oil start aid) Transmission



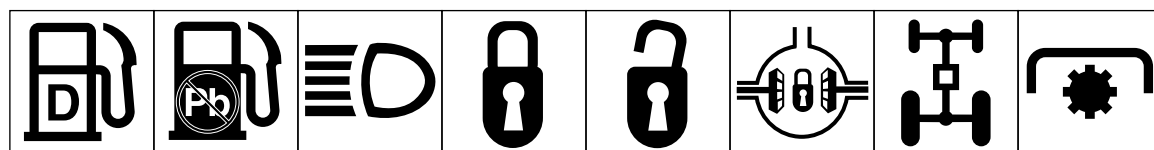
Transmission oil pressure Transmission oil temperature Transmission failure/malfunction Clutch Neutral High Low Forward



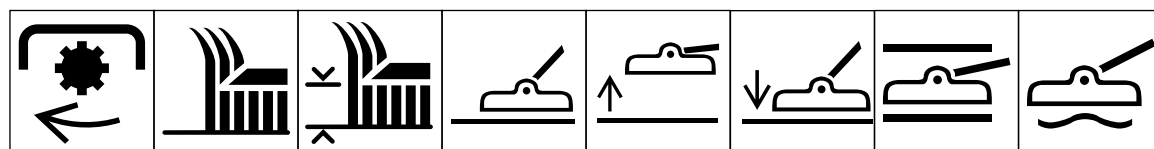
Reverse Park First gear Second gear Third gear (other #'s may be used until the maximum # of forward gears is reached.) Hydraulic oil Hydraulic oil pressure Hydraulic oil level



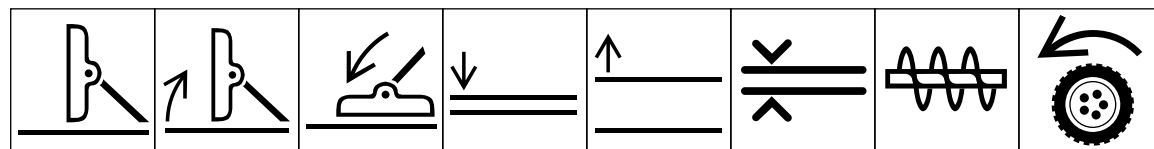
Hydraulic oil filter Hydraulic oil temperature Hydraulic oil failure/malfunction Parking brake Fuel Fuel level Fuel filter Fuel system failure/malfunction



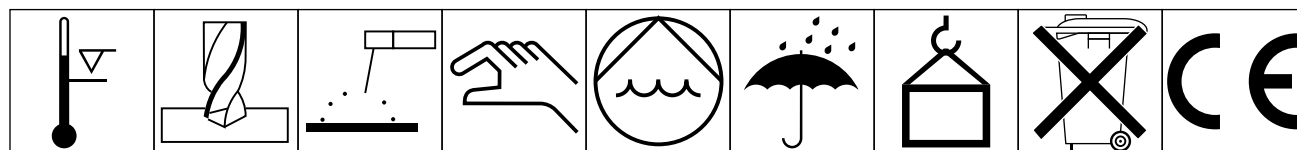
Diesel fuel Unleaded fuel Headlights Lock Unlock Differential lock 4-Wheel drive Power Take-Off



Power Take-Off, rotational speed Blade cutting element Blade cutting element, height adjustment Cutting unit Cutting unit, raise Cutting unit, lower Cutting unit, hold Cutting unit, float



Cutting unit, transport position Cutting unit, raise to transport position Cutting unit, lower to transport position Attachment raise Attachment raise Spacing distance Snow thrower, collector auger Traction



Above working temperature range Drilling Manual metal arc welding Manual Water pump Keep dry Weight Do not dispose in the garbage CE logo

Specifications

Engine: Peugeot TUD5, 4-cylinder, 4-cycle, in-line, over-head cam, liquid cooled diesel engine with centrifugal water pump. Available power, 25 kW at 2500 RPM. 1.5 liter displacement, governed to a maximum speed of 2650 RPM. Compression ratio 23.5:1. Glow plugs controlled by pre/post heat relay. Oil capacity 4.75 quart (4.5 liters) with the oil filter. 12-volt type 4 starter motor with integral solenoid. 70-amp type 7 alternator with integral regulator.

Fuel Tank Capacity: 45.4 l (12 gallons) diesel fuel

Radiator : Rear-mount industrial radiator with tube and fin construction: 4 rows, 5 fins per inch. Thermally stable water-cooled hydrostatic system regulates operating temperature. Separate degassing bottle removes air from cooling system fluid. System capacity is 11.5 quarts (10.9 liter).

Controls: Hand-operated throttle, PTO switch, hydraulic lift/lower/counterbalance of implement, ground speed high/low range switch, ignition switch. Foot-operated tilt steering locking lever, traction pedal, steering/parking brake pedals.

Gauges and Diagnostics: Gauge package includes fuel gauge, engine coolant temperature gauge, and hour meter. Indicator light for high engine coolant temperature, low engine oil pressure, alternator, low engine coolant level, water in fuel, glow plugs.

Electrical Features: 12-volt automotive-type electrical system. 650 cold cranking amp battery performance at -18°C. Dash-mounted ignition switch. 70-amp alternator. PTO, seat and traction interlock switches.

Transaxle/PTO: Sauer-Sundstrand integrated hydrostatic transaxle (IHT-M15) incorporating the hydrostatic transmission, mechanical gearbox, differential, drive axle, power-take-off (PTO) system, implement hydraulic system pump and reservoir in a single component. Variable-speed, axial piston, hydrostatic U-type transmission: gear-type charge circuit hydraulics with filtration provides hydraulic flow for power steering and implement lift. 11.8 l (12.5 quart) oil capacity. Single foot pedal control of forward/reverse ground speed. Two-speed axle with “shift on the fly” speed range selection. Four-wheel drive is mechanically driven from the front axle by a universal shaft. Double overrunning clutch provides four-wheel drive function in forward

and reverse, preventing rear tire scuffing in turns. Both two-wheel and four-wheel drive have the same turning radius. Optional cruise control available.

Implement Lift: Twin hydraulic lift cylinders (2.5" bore x 3.5" stroke) provide lift, lower and counterbalance of implement via an electrically-actuated hydraulic control manifold.

Steering: Eaton Series 2 steering control unit. The steering valve controls a single steering cylinder. Steering system is single tie-rod type which provides identical steering performance on both two- and four-wheel drive versions. Tilt the steering wheel with single lever control. 14" diameter steering wheel.

Ground Speed

Low speed -	0–138 kmh, infinitely variable
High speed -	0–24 kmh, infinitely variable

Clearance

Front ground clearance—	21 cm
Rear ground clearance—	2wd : 15 cm 4wd : 7.6 cm

Tires/Wheels/Pressures

Two front traction drive tires—25x10.5-15 turf tread, 6-ply rating.

Two rear steering tires— 20x8-10, turf tread, 6-ply rating.

Tire pressure—103 kPa

Brakes: Individual mechanical caliper disc brakes provide both independent application for steering assist and combined application for parking brake function. Dynamic braking through the hydrostatic traction drive.

Seat: Deluxe high-back seat. Optional seat suspension kit, Model 30395, or deluxe adjustable suspension kit, Model 30396.

Storage: Toolbox with cover located to the left of the seat base. Beverage holder integral to the toolbox cover. Operator manual storage tube for attachment to seat frame.

Weight:	2wd—1930 lbs (875kg) 4wd—2030lbs (920kg)
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Wheel Base:	139.7 cm
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Tread Width:	134.6 cm
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Before Operating



CAUTION

Before servicing or making adjustments to the machine, stop the engine and remove the key from the switch.

Check the Engine Oil (Fig. 1 & 2)

Crankcase capacity is 4-3/4 qt. (4.5 l) with filter.

1. Park the machine on a level surface. Turn the hood latch fully counterclockwise and open the hood.
2. Remove the dipstick and wipe it with a clean cloth. Insert the dipstick into the tube and make sure it is fully seated. Remove the dipstick and check the level of oil. If the level of oil is low, add enough oil to raise the level to the notch in the dipstick. **DO NOT OVER-FILL.**
3. Install the oil fill cap.
4. Close the hood and secure the latch.

CHECK COOLING SYSTEM (Fig. 3)

System capacity is 11.5 qts. (10.9 l).

Check the cooling system if the low water level light illuminates.

1. Park the machine on a level surface. Release the hood latch and open the hood.
2. Remove the degasser tank cap and check the coolant level. Coolant level should be up to or above the tabs in the degasser tank when the engine is cold.
3. If the coolant is low, remove the degasser tank cap and add a 50/50 mixture of water and Peugeot recommended anti-freeze (Toro Part No. 93-7213). **DO NOT USE WATER ONLY OR ALCOHOL/METHANOL-BASE COOLANTS.**

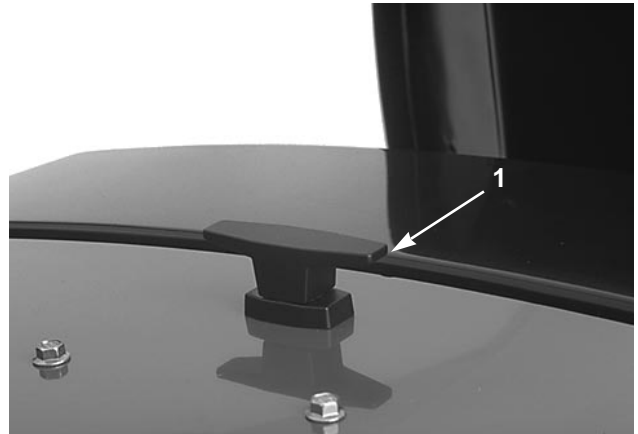


Figure 1

1. Hood Latch

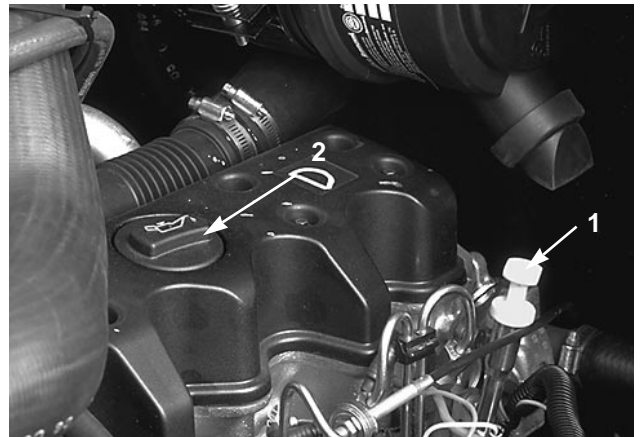


Figure 2

1. Dipstick
2. Oil fill cap

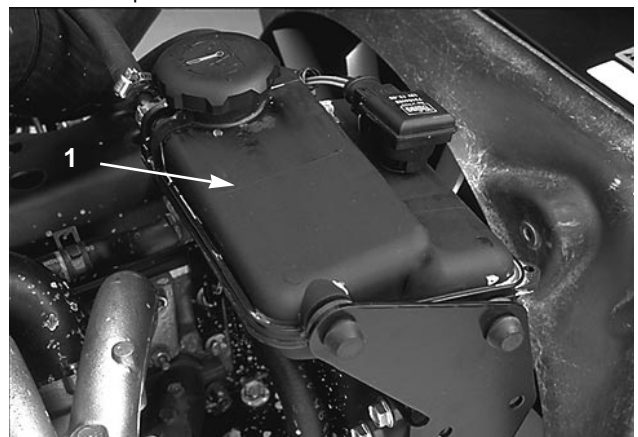


Figure 3

1. Degasser tank



CAUTION

If the engine has been running, pressurized hot coolant can escape and cause burns if the degasser cap is removed. Allow the engine to cool at least 15 minutes until the degasser cap is cool enough to touch without burning your hand.

4. Install the degasser tank cap.
5. Close the hood and secure the latch.

FILL THE FUEL TANK (Fig. 4)

Capacity of the fuel tank is 45 l.

1. Remove the fuel tank cap.
2. Fill the tank to about one inch below top of the tank, not the filler neck with No. 2 diesel fuel. Then install the cap.



DANGER

Because diesel fuel is flammable, use caution when storing or handling it. Do not smoke while filling the fuel tank. Do not fill fuel the tank while engine is running, hot, or when the machine is in an enclosed area. Always fill the fuel tank outside and wipe up any spilled diesel fuel before starting the engine. Store fuel in a clean, safety-approved container and keep the cap in place. Use diesel fuel for the engine only; not for any other purpose.

CHECK THE HYDRAULIC FLUID (Fig. 5)

The hydraulic system is designed to operate on anti-wear hydraulic fluid. The machine's reservoir is filled at the factory with 11.8 l of Mobil 424 hydraulic fluid. Check the level of hydraulic fluid before the engine is first started and daily thereafter.

1. Position the machine on a level surface, raise the implement, and stop the engine.
2. Unscrew the dipstick cap (Fig. 5) from the filler neck and wipe it with a clean cloth. Screw the dipstick cap



Figure 4

1. Fuel tank cap

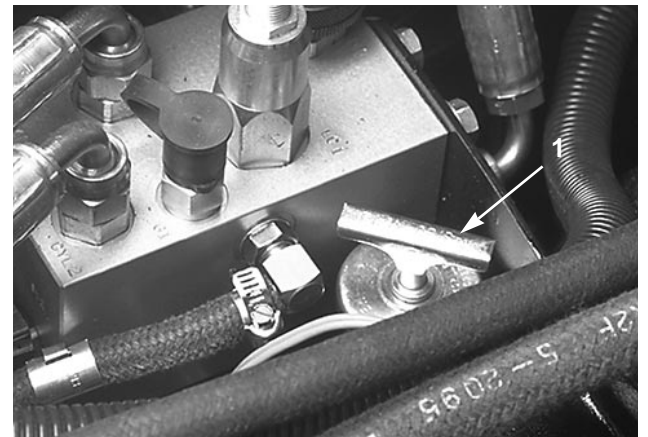


Figure 5

1. Dipstick cap

finger-tight onto the filler neck. Unscrew the the dipstick and check the level of oil. If the level is not up to the FULL mark on the dipstick (Fig. 5), add enough oil to raise the level to the mark. DO NOT OVERFILL.

3. Screw the dipstick filler cap finger-tight onto the filler neck.
4. Lower the implement.

**The following fluids are recommended for use:
ISO type 46/68 anti-wear hydraulic fluid**

Mobil	Mobil Fluid
424	
Amoco	Amoco
1000	
International Harvester	Hy-
Tran	
Texaco	
TDH	
Shell	Donax
TD	
Union Oil	Hydraulic/Tractor
Fluid	
Chevron	Tractor Hydraulic
Fluid	
BP Oil	BP HYD
TF	
Boron Oil	Eldoran
UTH	
Exxon	Torque
Fluid	
Conoco	Power-Tran
3	
Kendall	Hyken
052	
Phillips	HG
Fluid	

Note: The fluids within this group are interchangeable.

IMPORTANT: Do Not Use Biodegradable Hydraulic Fluid.

IMPORTANT: Use only types of hydraulic fluids specified. Other fluids could cause system damage.

Note: A red dye additive for detecting leaks in the hydraulic system is available in 19.8ml bottles. One bottle is sufficient for 16–23 l. of hydraulic fluid. Order Part No. 44-2500 from your Authorized Toro Distributor



Figure 5

1. Dipstick cap

CHECK REAR AXLE LUBRICANT (Fig. 6)

(Model 30302 Only)

The rear axle reservoir uses Mobil 424 hydraulic fluid. Although the axle is shipped with lubricant from the factory, check the level before operating the machine.

1. Position the machine on a level surface.
2. Remove the check plug from the axle and make sure lubricant is up to the bottom of the check hole. If the level is low, add enough lubricant to bring the level up to the bottom of the check hole (Fig. 6).

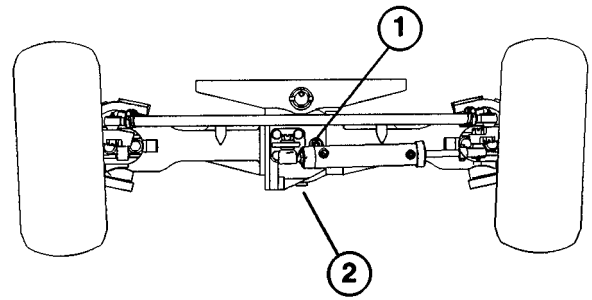


Figure 6

1. Check plug
2. Drain plug

CHECK TIRE PRESSURE (Fig. 7)

The tires are over-inflated for shipping. Therefore, release some of the air to reduce pressure. Correct air pressure in the front and rear tires is 15 psi.

IMPORTANT: Maintain even pressure in all tires to assure a good quality of cut and proper machine performance. **DO NOT UNDER INFLATE.**

CHECK WHEEL NUT TORQUE



WARNING

Torque the wheel nuts to 45–55 ft. lb after 1–4 hours of operation and again after 10 hours of operation and every 200 hours thereafter. Failure to maintain proper torque could result in failure or wheel loss, and may result in personal injury.



Figure 7

1. Rear tire

Controls

Traction Pedal (Fig. 8)—Controls forward and reverse operation. Depress the top of the pedal to move forward and the bottom to move backward. Ground speed depends on how far the pedal is depressed. For no-load, maximum ground speed, fully depress the pedal while the throttle is in FAST.

To stop, reduce your foot pressure on the traction pedal and allow it to return to the center position.

Brake Pedals (Fig. 8)—Two foot pedals operate individual wheel brakes for turning assistance, parking and to aid in obtaining better sidehill traction. A locking strap connects the pedals for parking brake operation.

Parking Brake Latch (Fig. 8)—A knob on the left side of the console actuates the parking brake lock. To engage the parking brake, connect the pedals with the locking strap, push down on both pedals and pull the parking brake latch out. To release the parking brake, depress both pedals until the parking brake latch retracts.

Tilt Steering Control (Fig. 8)—A lever on the rear of the steering tower. Push the lever downward to adjust the steering wheel to the desired fore or aft operating position and release the lever to lock the adjustment.

Lift Lever (Fig. 9)—The lever raises and lowers the cutting unit.

PTO Switch (Fig. 9)—The PTO switch has three positions: ON (engage), Neutral and OFF (disengage). Slowly lift and push the PTO switch forward to ON position to start the implement or cutting unit blades. Slowly, pull the switch backward to OFF position to stop implement operation. The only time PTO switch should be in the ON position is when the implement or cutting unit is down in operating position.

Ignition Switch (Fig. 9)—Three positions: OFF, ON/Preheat and START.

Charge Indicator (Fig. 9)—Illuminates when system charging circuit malfunctions.

Low Water Level Light (Fig. 9)—Indicates coolant water level is low.

Engine Coolant Temperature Warning Light (Fig. 9)—The light illuminates and the engine shuts down when the coolant reaches a dangerously high temperature.

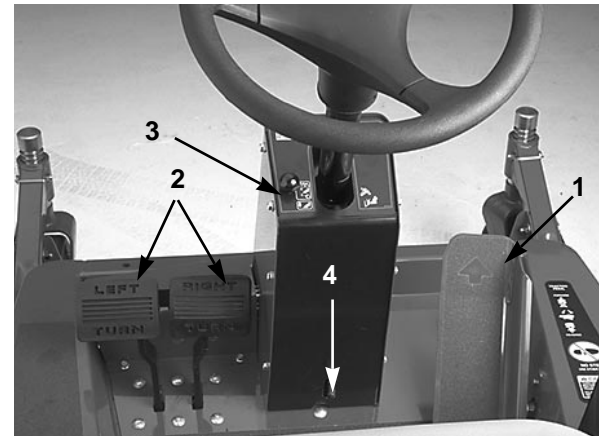


Figure 8

1. Traction pedal
2. Brake pedals
3. Parking brake latch
4. Tilt steering control

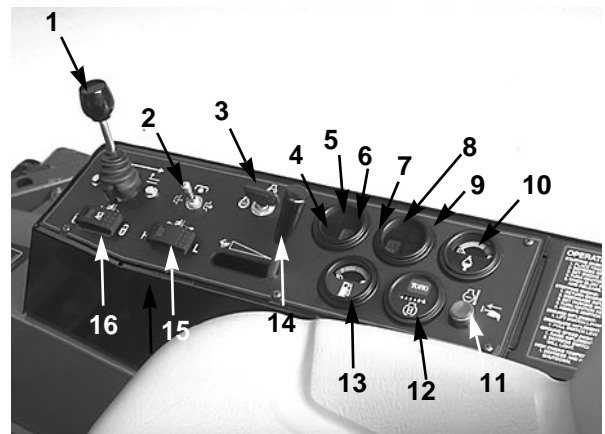


Figure 9

1. Lift lever
2. PTO switch
3. Ignition switch
4. Charge indicator
5. Low water level light
6. Engine coolant temperature warning light
7. Engine oil pressure warning light
8. Glow plug indicator light
9. Water-in-fuel light
10. Temperature gauge
11. Temperature reset button
12. Hour meter
13. Fuel gauge
14. Throttle control
15. Hi-Lo speed control
16. Cruise control (optional)

Engine Oil Pressure Warning Light (Fig. 9)—Indicates dangerously low engine oil pressure.

Glow Plug Indicator Light (Fig. 9)- When lit, indicates the glow plugs are on.

Water in The fuel Light (Fig. 9)—Indicates water in fuel system.

Temperature Gauge (Fig. 9)—The temperature gauge registers the temperature of the coolant in the cooling system.

Temperature Reset Button (Fig. 9)—Press the reset button to start the engine after high-temperature shut down.

Hour Meter (Fig. 9)—Shows total hours that the machine has been operated.

Fuel Gauge (Fig. 9)—Indicates the level of fuel in the tank.

Throttle Control (Fig. 9)—Move the control forward to increase engine speed, rearward to decrease speed.

Hi-Lo Speed Control (Fig. 9)—Allows the speed range to increase for transport of the machine.

Cruise Control (Optional) (Fig. 9)—Controls speed of the machine.

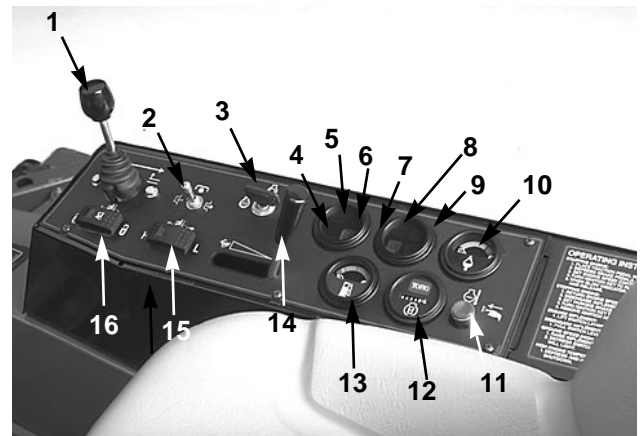


Figure 9

1. Lift lever
2. PTO switch
3. Ignition switch
4. Charge indicator
5. Low water level light
6. Engine coolant temperature warning light
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8. Glow plug indicator light
9. Water-in-fuel light
10. Temperature gauge
11. Temperature reset button
12. Hour meter
13. Fuel gauge
14. Throttle control
15. Hi-Lo speed control
16. Cruise control (optional)

Operation



CAUTION

Before servicing or making adjustments to the machine, stop the engine and remove the key from the switch.

STARTING/STOPPING THE ENGINE

IMPORTANT: The fuel system must be bled if:

- **Initial start up of a new machine.**
- **The engine has stopped because lack of fuel.**
- **Maintenance has been performed on fuel system components.**

Refer to *Priming the Fuel System*.

1. Ensure the parking brake is set. Remove your foot from the traction pedal and insure it is in neutral.
2. Move the throttle control to the low-idle position.
3. Turn the ignition key to RUN; the glow indicator will light.

Note: Do not run the starter motor more than 15 seconds at a time or starter failure may result. If the engine doesn't start after 15 seconds, turn the key to the OFF position, recheck the controls and procedures, wait 15 additional seconds and repeat the starter procedure.

4. When the glow indicator dims, turn the ignition key to the START position. Release the key immediately when the engine starts and allow it to return to the RUN position. Move the throttle control to the desired position.
5. When the engine is started for the first time, or after overhaul of the engine, transmission or axle, operate the machine in forward and reverse for one or two minutes. Also operate the lift lever and PTO lever to assure proper operation of all parts. Turn the steering wheel to the left and right to check the steering response. Then shut the engine off and check for oil leaks, loose parts, and any other noticeable difficulties.



CAUTION

Shut the engine off and wait for all moving parts to stop before checking for oil leaks, loose parts, or other difficulties.

6. To stop the engine, move the throttle control backward to the SLOW position, move the PTO lever to the OFF position, and turn the ignition key to OFF. Remove the key from the switch to prevent accidental starting.

PRIMING THE FUEL SYSTEM (Fig. 10)

IMPORTANT: The fuel system may need to be primed when a new engine is started for the first time, if it runs out of fuel or if maintenance is performed on the fuel system.

1. Unlatch and raise the hood.
2. Insert a 3/16" hose over the bleed screw and run other end into a container to catch the fuel.
3. Loosen the fuel filter/water separator bleed screw (Fig. 10) a few turns. Pump the priming plunger until a steady stream of fuel comes out of the hole in the bleed screw. When fuel stops foaming, tighten the bleed screw during the downstroke of the priming plunger. Wipe up any spilled fuel.
4. Pump the priming plunger until resistance is felt. Try to start the engine. If the engine does not start, repeat step 3.



Figure 10

1. Primer plunger
2. Bleed screw

CHECKING INTERLOCK SWITCHES

The machine has interlock switches in the electrical system. These switches are designed to stop the engine when the operator leaves the seat when the traction pedal is depressed. However, the operator may leave the seat while the engine is running. Although the engine will continue to run if the PTO lever is disengaged and the traction pedal is released, it is strongly recommended that the engine be stopped before dismounting from the seat.

To check operation of the interlock switches:

1. Drive the machine slowly to a large, relatively open area. Lower the cutting unit, stop the engine and apply the

parking brake.



CAUTION

Do not disconnect the interlock switches. Check switch operation daily to assure the interlock system is operating correctly. If a switch is malfunctioning, replace it before operating the machine. To ensure maximum safety, replace all switches after every two years or 1,000 hours, whichever comes first.

2. Sit on the seat. Depress the traction pedal. Try to start the engine. The engine should not crank. If the engine cranks, there is a malfunction in the interlock system that should be corrected before beginning operation.



CAUTION

Do not operate the machine without the implement unless the PTO drive shaft is also removed.

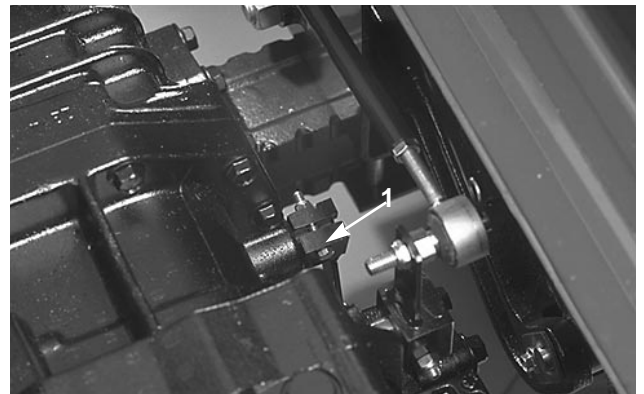
3. Sit on the seat and start the engine. Rise off the seat and move the PTO lever to ON. The PTO should not engage. If the PTO engages, there is a malfunction in the interlock system that should be corrected before beginning operation.

PUSHING OR TOWING THE TRACTION UNIT (Fig. 11)

In an emergency, the traction unit can be pushed or towed. However, Toro does not recommend this as standard procedure.

IMPORTANT: Do no push or tow the traction unit faster than 10 mph. If the traction unit must be moved a considerable distance, transport it on a truck or trailer.

1. Locate the towing lever on the right side of the axle assembly.
2. Remove the cotter pin and clevis pin securing the lever to the plate on the side of the axle.
3. Pivot the lever rearward until the hole is aligned with the rear hole in the plate. Secure the lever to rear hole with the cotter pin and clevis pin previously removed.



1. Towing lever

Figure 11

4. After towing, pivot the lever back to its original position and secure it.

OPERATING CHARACTERISTICS

Practice driving the GROUNDSMASTER 3000-D because its hydrostatic transmission gives it characteristics are different than many turf maintenance machines. Some points to consider when operating the traction unit, cutting unit, or other implement are the transmission, engine speed, load on the cutting blades or other implement components, and the importance of the brakes.

To maintain enough power for the traction unit and implement while operating, use the traction pedal to keep engine rpm high and somewhat constant. A good rule to follow is: decrease ground speed as the load on the implement increases, and increase ground speed as the load decreases.

Therefore, allow the traction pedal to move backward as engine rpm decrease, and depress the pedal slowly as rpm increase. By comparison, when driving from one work area to another with no load and the cutting unit raised, have the throttle in the FAST position and depress the traction pedal slowly but fully to attain maximum ground speed.

Also consider the operation of the pedals that are connected to the brakes. The brakes can be used to assist in turning the machine. However, use them carefully, especially on soft or wet grass because the turf may be torn accidentally.

Another benefit of the brakes is to maintain traction. For example: in some slope conditions, the uphill wheel slips and loses traction. If this occurs, depress the pedal gradually and intermittently until the uphill wheel stops slipping, thus, increasing traction on the downhill wheel.

Use extra care when operating the machine on slopes. Make sure the seat latch is properly secured. Drive slowly and avoid sharp turns on slopes to prevent roll overs. The cutting deck must be lowered when going downhill for steering control.



WARNING

This product is designed to drive objects into the ground where they lose energy quickly in grassy areas. However, when a person or pet appears suddenly in or near the mowing area, STOP MOWING.

Careless operation, combined with terrain angle, ricochets, or improperly positioned safety guards can lead to thrown object injuries. Do not resume mowing until the area is cleared.

Before stopping the engine, disengage all controls and move the throttle to SLOW. Moving the throttle to SLOW reduces high engine rpm, noise, and vibration. Turn the key to OFF to stop the engine.

Before transporting the machine, raise the cutting deck and secure with transport latch.

CAUTION: This product may exceed noise levels of 85 dB(A) at the operator position. Ear protectors are recommended, for prolonged exposure, to reduce the potential of permanent hearing damage.

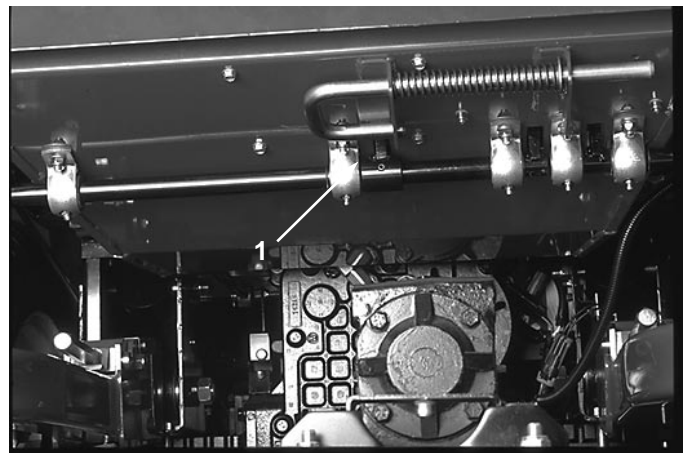


Figure 12

1. Transport latch

Daily Maintenance Checklist

- ✓ Safety Interlock Operation
- ✓ Brake Operation
- ✓ Engine Oil & Fuel Level
- ✓ Cooling system Fluid Level
- ✓ Radiator & Screen for Debris
- ✓ Unusual Engine Noises¹
- ✓ Unusual Operating Noises
- ✓ Hydraulic System Oil Level
- ✓ Hydraulic Hoses for Damage
- ✓ Fluid Leaks
- ✓ Tire Pressure
- ✓ Instrument Operations
- ✓ Lubricate All Grease Fittings²
- ✓ Touch-up Damaged Paint

¹= Check the glow plug and injector nozzles if you encounter hard starting, excess smoke or rough running

²= Immediately after every washing, regardless of the interval listed.

Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service						
<div> <div> <div> <div> Lubricate all grease fittings Inspect the air filter Check battery level/cable connections </div> <div> Every 50 hours </div> </div> <div> <div> Every 100 hours </div> <div> Every 200 hours </div> </div> <div> <div> Every 400 hours </div> <div> Every 600 hours </div> </div> <div> <div> Every 800 hours </div> </div> </div> <div> †Change the engine oil and filter Inspect cooling system hoses †Check fan and alternator belt tension </div> <div> †Torque the wheel lug nuts </div> <div> Service the air filter Change the fuel filter Inspect the fuel line and connections ✓Check the engine RPM (idle and full throttle) Check the rear axle oil level (4-wheel drive) </div> <div> ▲Change hydraulic oil ▲Change hydraulic oil filter ▲Change rear axle oil (4-wheel drive) </div> </div>							
Inspect engine timing belt (see note below) Drain and clean the fuel tank Pack the 2-wheel drive's rear axle bearings Check rear wheel toe-in							
† Initial break in at 10 hours ✓ Initial break in at 50 hours ▲ Initial break in at 200 hours							
<div> <div> Replace moving hoses Replace safety switches Flush the cooling the cooling system and replace fluid </div> <div> Annual Recommendations Items are recommended every 1500 hours or 2 years, whichever occurs first. </div> </div>							

NOTE: Replace the timing belt after every 1500 hours of operation or if worn, cracked, oil soaked or any time the belt is removed or loosened.

Maintenance

GREASING BEARINGS AND BUSHINGS

The machine has grease fittings that must be lubricated regularly with No. 2 General Purpose Lithium Base Grease. If the machine is operated under normal conditions, lubricate all bearings and bushings after every 50 hours of operation or immediately after every washing.

The grease fitting locations and quantities are:

2-Wheel Drive Models only—Steering cylinder ball joints (2), Rear axle tie rod (2), Rear axle pivot (1) Rear Spindle Shafts (2) (Fig. 13).

4-Wheel Drive Models only—Steering cylinder ball joints (2), Rear axle tie rod (2), Rear axle pivot (1), Double Cardan joints (2 each side) (Fig. 14) and Rear Drive Shaft (3) (Fig. 15).

All Models—Intermediate Drive Shaft (3) (Fig. 16); Pedal Pivots (5), Traction pedal (In square tube under floor plate) (1) (Fig. 17) and Lift arm pivot (2) (Fig. 18).



Figure 13

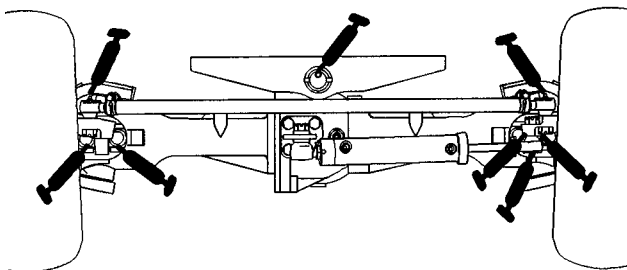


Figure 14

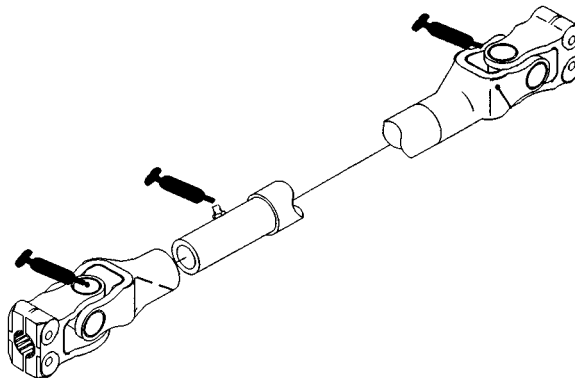


Figure 15

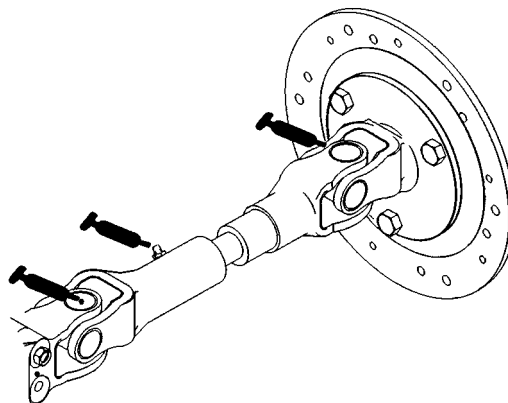


Figure 16

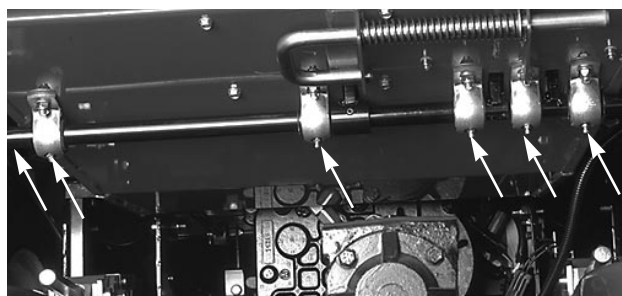


Figure 17

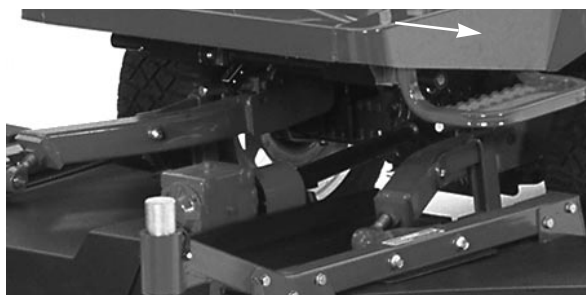


Figure 18



CAUTION

Before servicing or making adjustments to the machine, stop the engine and remove the key from the switch.

GENERAL AIR CLEANER MAINTENANCE

1. Inspect the air cleaner after every 50 hours of operation. More often in dusty or dirty conditions.
2. Check the air cleaner body for damage that could possibly cause an air leak. Replace a damaged air cleaner body.
3. Service the air cleaner filter every 400 hours (more frequently in extreme dusty or dirty conditions). Do not over service the air filter.



CAUTION

Never operate the machine without the complete air cleaner assembly in place and latched, otherwise debris can enter the engine and cause engine failure.

4. Be sure the cover is sealing around the air cleaner body.

SERVICING THE AIR CLEANER (Fig. 19 & 20)

1. Release the latches securing the air cleaner cover to the air cleaner body. Separate the cover from the body. Clean inside of the air cleaner cover.
2. Gently slide the filter (Fig. 20) out of the air cleaner body to reduce the amount of dust dislodged. Avoid knocking the filter against the air cleaner body.
3. Inspect the filter and discard it if damaged. Do not wash or reuse a damaged filter.

Washing Method

- A. Prepare a solution of filter cleaner and water and soak filter element about 15 minutes. Refer to directions on the filter cleaner carton for complete

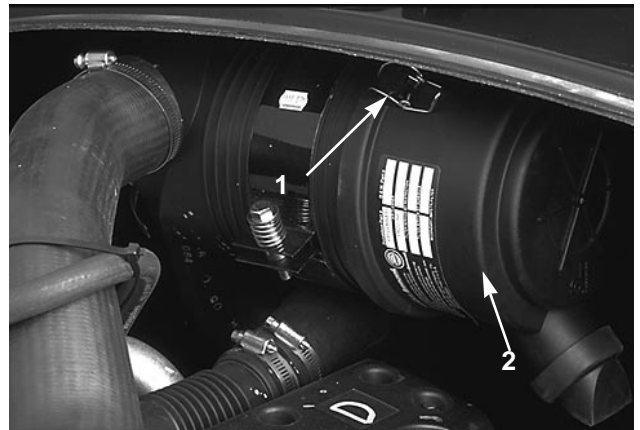


Figure 19

1. Air cleaner latches
2. Dust cup



Figure 20

1. Air cleaner filter

information.

- B. After soaking the filter for 15 minutes, rinse it with clear water. Maximum water pressure must not exceed 40 psi to prevent damage to the filter element. Rinse the filter from the clean side to the dirty to side.
- C. Dry the filter element using warm, flowing air (71° C max), or allow element to air-dry. Do not use a light bulb to dry the filter element because damage could result.

Compressed Air Method

- A. Blow compressed air from inside to the outside of dry filter element. Do not exceed 276 psi to prevent damage to the element.
 - B. Keep the air hose nozzle at least 5cm from the filter and move the nozzle up and down while rotating the filter element. Inspect for holes and tears by looking through the filter toward a bright light.
5. Inspect the new filter for shipping damage. Check the sealing end of the filter. Do not install a damaged filter.
 6. Insert new filter into the air cleaner body. Make sure the filter is sealed properly by applying pressure to the outer rim of the filter when installing. Do not press on the flexible center of the filter.
 7. Reinstall the cover and secure the latches. Make sure the cover is positioned with the TOP side up.



CAUTION

Before servicing or making adjustments to the machine, stop the engine and remove the key from the switch.

ENGINE OIL AND FILTER (Fig. 21–22)

Change the oil and filter initially after the first 50 hours of operation, thereafter change the oil and filter every 100 hours.

1. Remove the drain plug (Fig. 21) and let the oil flow into the drain pan. When the oil stops, install the drain plug and new plug seal, Part No. 74-7850.



Figure 21

1. Drain plug



Figure 22


1. Oil filter

2. Remove the oil filter (Fig. 22). Apply a light coat of clean the oil to the new filter seal before screwing it on. DO NOT OVER-TIGHTEN.
3. Add 15W-40 CE oil to the crankcase. Capacity is 4.5 l with the filter.

FUEL SYSTEM (Fig. 23)

Fuel Tank

Drain and clean the fuel tank every 800 hours of operation or yearly, whichever comes first. Also, drain and clean the tank if the fuel system becomes contaminated or if the machine is to be stored for an extended period. Use clean fuel to flush out the tank.

**DANGER**

Because diesel fuel is highly flammable, use caution when storing or handling it. Do not smoke while filling the fuel tank. Do not fill the fuel tank while the engine is running, hot, or when th in an enclosed area. Always fill the fuel tank outside and wipe up any spilled diesel fuel before starting the engine. Store fuel in a clean, safety-approved container and keep the cap in place. Use diesel fuel for the engine only; not for any other purpose.

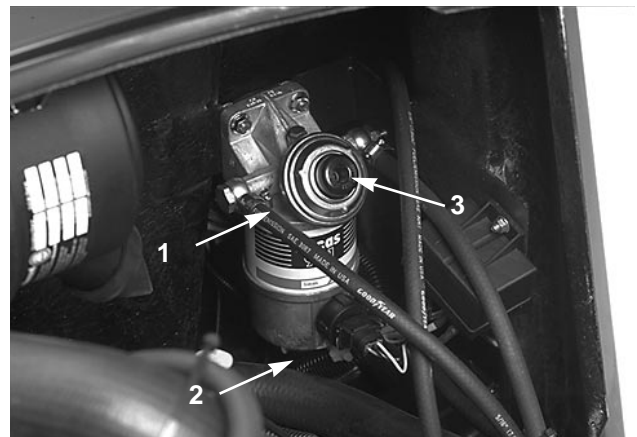


Figure 23

1. Fuel filter
2. Drain screw
3. Primer plunger

Fuel Lines and Connections

Check lines and connections every 400 hours or yearly, whichever comes first. Inspect for deterioration, damage, or loose connections.

Draining The Fuel Filter/Water Separator

Drain water or other contaminants from the fuel filter/ water separator daily.

1. Place a clean container under the fuel filter.
2. Loosen the drain screw on bottom of the fuel filter and press the primer plunger until only the fuel is evident draining into the container.
3. Tighten the drain screw.

Changing The Fuel Filter

Replace the fuel filter if the fuel flow becomes restricted, after every 400 hours of operation or annually, whichever comes first.

1. Loosen the bolt and unscrew the bottom filter cap from the filter assembly. Remove the cap, gaskets, o-ring and filter from the assembly. Note the position of the gaskets and o-ring when disassembling from the filter.
3. Install the new filter, gaskets, o-ring with the filter assembly cap.
4. Prime the fuel system, refer to *Priming The Fuel System*.

ENGINE COOLING SYSTEM (Fig. 24–25)

1. **Removing Debris**—Remove debris from the rear screen, oil cooler and radiator daily, clean more often in dirty conditions.

IMPORTANT: Never spray water onto a hot engine as damage to the engine may occur.

- A. Turn the engine off and clean the hood screen thoroughly.
- B. Release the hood latch and raise the hood. Clean the engine area thoroughly of all debris.
- C. Clean both sides of the oil cooler and radiator area thoroughly with compressed air. Do not use water.
- D. Close the hood and secure the latch.

Note: Do not use water to clean the engine or electrical components, as damage may occur.

2. **Maintaining The Cooling System**—Capacity of the system is 11.5 quarts. Always protect the cooling system with a 50/50 solution of water and Peugeot recommended anti-freeze (Part No. 93-7213). **DO NOT USE WATER ONLY IN THE COOLING SYSTEM.**
 - A. After every 100 operating hours, inspect and tighten hose connections. Replace any deteriorated hoses.

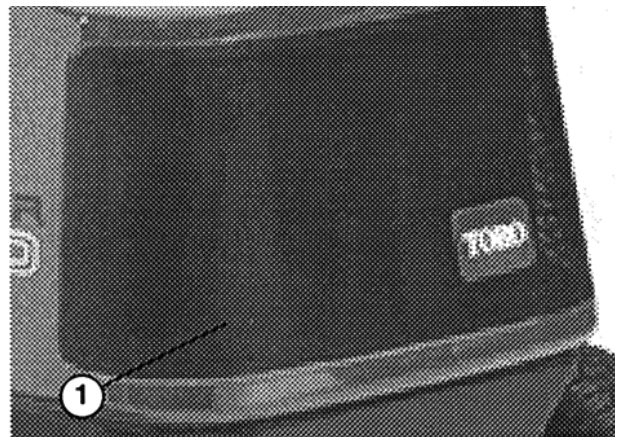


Figure 24

1. Rear screen

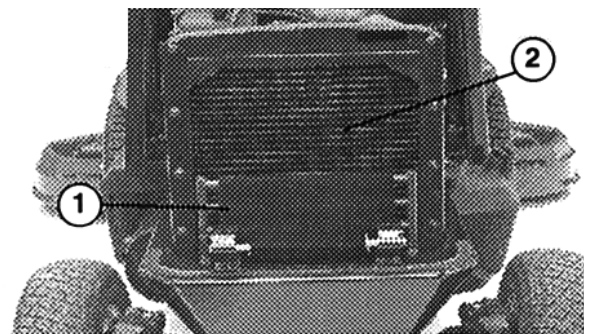


Figure 25

1. Oil cooler
2. Radiator

- B. After every 2 years, drain and flush the cooling system. Add anti-freeze (refer to *Check Cooling System*).

CHANGING THE HYDRAULIC SYSTEM OIL & FILTER (Fig. 26–27))

The hydraulic system oil must be changed initially at 200 hours and thereafter every 600 hours of operation or seasonally, whichever comes first. The hydraulic system is designed to operate on anti-wear hydraulic fluid. The machine's reservoir is filled at the factory with 11.4 l of Mobil 424 hydraulic fluid. Check the level of hydraulic fluid before the engine is first started and daily thereafter.

The following fluids are recommended for use:

ISO type 46/68 anti-wear hydraulic fluid

Mobil	Mobil Fluid 424
Amoco	Amoco 1000
International Harvester	Hy-Tran
Texaco	TDH
Shell	Donax TD
Union Oil	Hydraulic/Tractor Fluid
Chevron	Tractor Hydraulic Fluid
BP Oil	BP HYD TF
Boron Oil	Eldoran UTH
Exxon	Torque Fluid
Conoco	Power-Tran 3
Kendall	Hyken 052
Phillips	HG Fluid

Note: The fluids within this group are interchangeable.

IMPORTANT: Do Not Use Biodegradable Hydraulic Fluid.

IMPORTANT: Use only types of hydraulic fluids specified. Other fluids could cause system damage.

1. Start the engine, park the machine on a level surface, lower the implement to the shop floor, set the parking brake, and shut the engine off.
2. To ease access to the axle housing drain plug, the implement may be removed from the traction unit.
3. Remove the drain plug from the axle housing and allow the oil to flow into the drain pan (Fig. 26).
4. Clean the area around hydraulic oil filter and remove

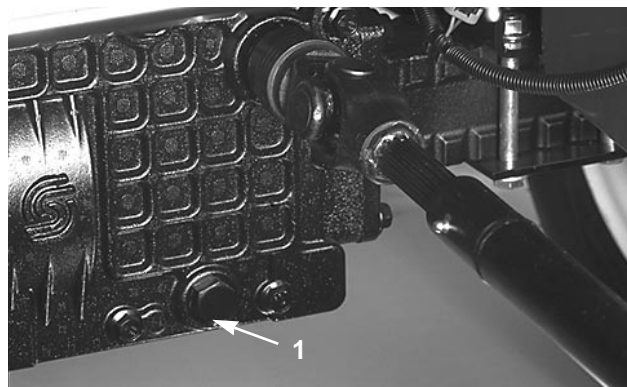


Figure 26

1. Drain Plug

the filter (Fig. 27).

5. Lubricate the new filter seal and install the filter.
6. Install the drain plug in the axle housing (Fig. 26).
7. Remove the dipstick from the axle filler tube (Fig. 28) and fill the axle to proper level with Mobil 424 hydraulic fluid.
8. Start and run the engine at idle speed for about two minutes, raise and lower the implement and turn the steering wheel lock to purge air trapped in the system. Shut the engine off.
9. Wait for two additional minutes, then remove the dipstick and check the oil level in the axle. If the level is low, add oil until the level matches groove in the dipstick. If the level is too high, remove the drain plug and drain the oil until the oil level matches the FULL mark on the dipstick.

CHECKING HYDRAULIC LINES AND HOSES

Inspect hydraulic lines and hoses daily for leaks, kinked lines, loose mounting supports, wear, loose fittings, weather deterioration and chemical deterioration. Make all necessary repairs before operating.



CAUTION

Keep your body and hands away from pin hole leaks or nozzles that eject high-pressure hydraulic fluid. Use cardboard or paper to find hydraulic leaks. Hydraulic fluid escaping under pressure can penetrate your skin and cause injury. Fluid accidentally injected into your skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

CHANGING REAR AXLE LUBRICANT

(Model 30302 only) (Fig. 29)

Initially, change the oil in the rear axle after 200 hours of operation. Thereafter change it after every 600 hours of operation.

1. Position the machine on a level surface.

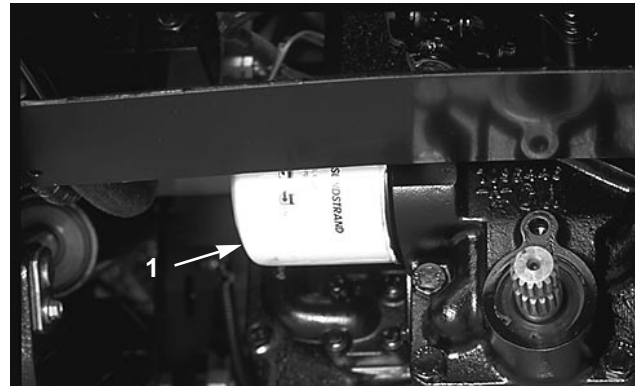
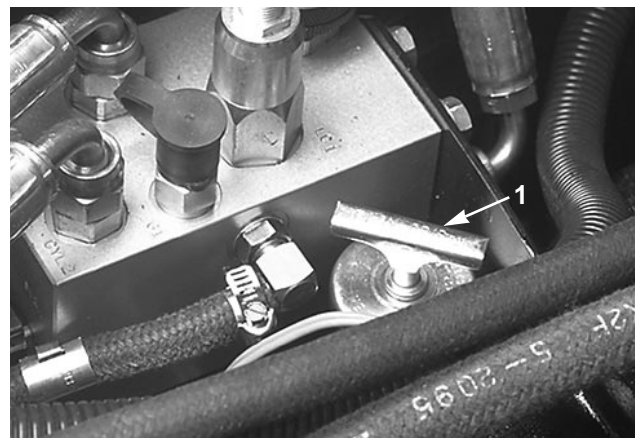


Figure 27

1. Hydraulic filter



Filter 28

1. Dipstick cap

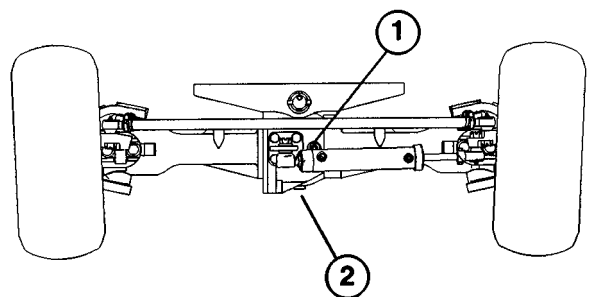


Figure 29

1. Check plug
2. Drain plug

2. Clean the area around the drain plug on rear axle.
3. Remove the check plug to ease oil draining.
4. Remove the drain plug, allowing the oil to drain into pan.
5. Install the drain plug.
6. Fill the axle with 47 cl of Mobile 424 or until lubricant is up to bottom of the check hole.
7. Install the check plug.



Figure 30

1. Tie rod
2. Tie rod clamps

REAR WHEEL TOE-IN (Fig. 30)

After every 800 operating hours or annually, check rear wheel toe-in.

1. Measure center-to-center distance (at axle height) at front and rear of the steering tires. Front measurement must be $\frac{1}{8}$ in. less than rear measurement.
2. To adjust toe-in:
 - A. Remove the cotter pins and nuts securing the ball joints to the steering arms. Separate the ball joint from the arm.
 - B. Loosen the clamps at both ends of the tie rod.
 - C. Turn the ball joints to move the front of the tire inward or outward.
 - D. Tighten the tie rod clamps when the adjustment is correct.

BATTERY CARE

Check battery condition weekly or after every 50 hours of operation. Keep terminals and entire battery case clean because a dirty battery will discharge slowly. To clean the battery, wash the entire case with solution of baking soda and water. Rinse with clear water. Coat the battery posts and cable connectors with Grafo 112X (skin-over) grease (Toro Part No. 505-47) or petroleum jelly to prevent corrosion.

FUSES (Fig. 31)

There are four fuses in the the machine's electrical system. They are located in compartment rear of the control panel.

PREPARATION FOR SEASONAL STORAGE

Traction Unit

1. Thoroughly clean the traction unit, cutting units and the engine.
2. Check the tire pressure. Inflate all tires to 103–138 kPa.
3. Check all fasteners for looseness; tighten as necessary.
4. Grease or oil all grease fittings and pivot points. Wipe up any excess lubricant.
5. Lightly sand and use touch-up paint on painted areas that are scratched, chipped, or rusted. Repair any dents in the metal body.
6. Service the battery and cables as follows:
 - a. Remove the battery cables from the battery posts.
 - b. Clean the battery, posts and cable connections with a wire brush and baking soda solution.
 - c. Coat the cable terminals and battery posts with Grafo 112X skin-over grease (Toro Part No. 505-47) or petroleum jelly to prevent corrosion.
 - d. Slowly recharge the battery every 60 days for 24 hours to prevent lead sulfation of the battery.

Engine

1. Drain the engine oil from the oil pan and replace the drain plug.
2. Remove and discard the oil filter. Install a new oil filter.
3. Refill the oil pan with 4.5 l of SAE15W-40 CE motor oil.
4. Start the engine and run at idle speed for two minutes.

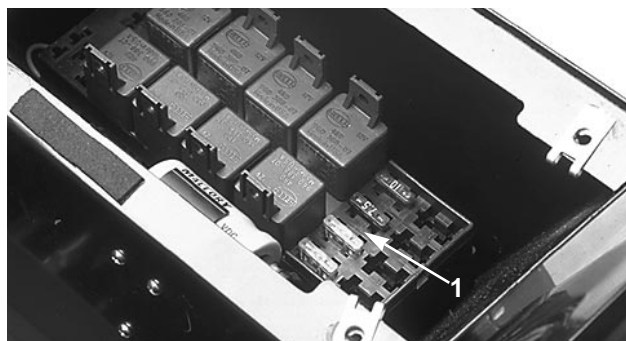


Figure 31

1. Fuses

	STARTER 20A SOLENOID	HIGH COOLANT TEMP RELAY	TRANSPORT RELAY	IMPLEMENT FLOAT RELAY	CRUISE RELAY (OPTIONAL)
	PTO 20A TRANS-				
	LIFT/LOWER 7.5A CONTROL	START RELAY	PTO RELAY	SEAT RELAY	ENGINE SHUTDOWN DELAY RELAY
	IGNITION 10A SWITCH				

5. Stop the engine.
6. Resecure all fuel system fittings.
7. Thoroughly clean and service the air cleaner assembly.
8. Seal the air cleaner inlet and the exhaust outlet with weatherproof tape.
9. Check anti freeze protection and add a 50/50 solution of water and Peugeot-recommended anti freeze, Part No. 93-7213, as needed for expected minimum temperature in your area.

The Toro Commercial Products Two-Year Limited Warranty

The Toro Company warrants your 1996 or newer Toro Commercial Product ("Product") purchased after January 1, 1997, to be free from defects in materials or workmanship for the period of time listed below. Where a warrantable condition exists, Toro will repair the Product at no cost to you including diagnosis, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

Warranty Duration: Two years or 1500 operational hours*, whichever occurs first.

***Product equipped with hour meter**

Owner Responsibilities:

As the Product owner, you are responsible for required maintenance and adjustments stated in your Owner's Manual. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Instructions for Obtaining Warranty Service:

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists.

If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department
8111 Lyndale Avenue South
Minneapolis, MN, 55420-1196
Telephone: (612) 888-8801
Facsimile: (612) 887-8258
E-Mail: Commercial.Service@Toro.Com

Maintenance Parts:

Parts scheduled for replacement as required maintenance ("Maintenance Parts"), are warranted for the period of time up to the scheduled replacement time for that part.

Items/Conditions Not Covered:

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. The items/conditions listed below are not covered by this warranty:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, modified, or unapproved accessories are not covered.
- Product failures which result from failure to perform required maintenance and/or adjustments are not covered.

- Product failures that result from operating the Product in an abusive, negligent or reckless manner are not covered.
- This warranty does not apply to parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, blades, reels, bedknives, tines, spark plugs, castor wheels, tires, filters, belts, etc.
- This warranty does not apply to failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.
- This warranty does not apply to normal "wear and tear" items. Normal "Wear and Tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Other Legal Disclaimers:

The above remedy of product defects through repair by an authorized distributor or dealer is the purchaser's sole remedy for any defect. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of the express warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The Toro Company is not liable for indirect, incidental or consequential damages in connection with the use of the Product, including any cost or expense of providing substitute Product or service during periods of malfunction or non-use.

Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.