

Greenfield GF-3200

Compact Utility Tractor

Operator's Manual

Models GF-3200-C (cab) and GF-3200-R (ROPS) · Publication GF-OM-3200-EN,
Rev. 2

Read this manual before operating the tractor. Keep it with the machine.
Greenfield Agriculture is a fictional brand created for product demonstration.

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1. Safety

This manual uses three signal words. **DANGER** indicates a hazardous situation that, if not avoided, will result in death or serious injury. **WARNING** indicates a hazardous situation that could result in death or serious injury. **CAUTION** indicates a hazardous situation that could result in minor or moderate injury or damage to the tractor.

DANGER: Rotating PTO shafts can grab clothing, hair and limbs. Never step over or reach across a turning PTO shaft. Disengage the PTO, stop the engine and remove the key before you approach any implement driveline.

DANGER: Tractors can roll over on slopes, near ditches and on soft ground. Always keep the ROPS frame raised and locked and wear the seat belt. Never operate on slopes steeper than 15 degrees.

WARNING: Engine exhaust contains carbon monoxide, which can kill. Never run the engine in a closed building. Open doors and provide ventilation when the engine must run indoors for a short time.

WARNING: Do not allow anyone to ride on the tractor or on implements. The GF-3200 has a seat for the operator only.

CAUTION: Engine, muffler and hydraulic components become hot during operation. Allow the tractor to cool for at least 30 minutes before servicing.

General rules

1. Only trained adults may operate the tractor. Children must never operate it or be near it while it runs.
2. Inspect the work area and remove stones, wire and debris before mowing or tilling.
3. Keep all shields and guards in place. Replace damaged safety decals.
4. Lower implements to the ground, engage the parking brake and stop the engine before leaving the seat.

Safety decals

Safety decals are located on the hood, the fender next to the PTO switch, and the rear PTO shield. Keep decals clean and legible. Order replacement decals with part numbers GF-DEC-101 (PTO), GF-DEC-102 (rollover) and GF-DEC-103 (hot surface).

WARNING: Battery gases are explosive. Keep sparks and flames away from the battery and always disconnect the negative (-) cable first.

Fire prevention

Remove grass and crop residue from the engine compartment, muffler and battery area every day. Refuel only outdoors, with the engine stopped and cool.

DANGER: Diesel fuel is flammable. Never refuel with the engine running, and never smoke while refueling. Wipe up spilled fuel immediately.

2. Specifications

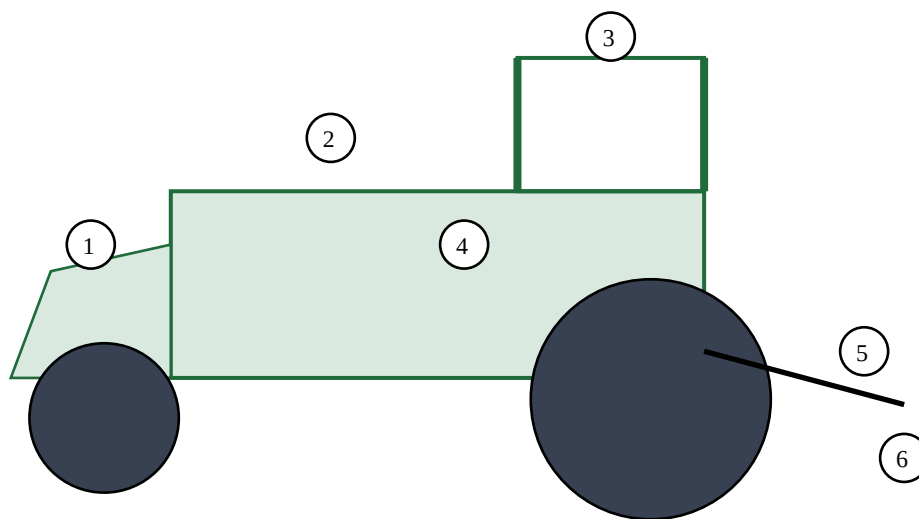
Item	GF-3200-R	GF-3200-C
Engine	3-cylinder diesel, 1.5 L	3-cylinder diesel, 1.5 L
Rated power	24.6 kW (33 hp)	24.6 kW (33 hp)
PTO power	19.4 kW (26 hp)	19.4 kW (26 hp)
Rear PTO speed	540 rpm at 2,500 engine rpm	540 rpm at 2,500 engine rpm
Fuel tank	31 L	31 L
Engine oil capacity	4.2 L with filter	4.2 L with filter
Hydraulic / transmission fluid	18 L	18 L
Coolant capacity	5.0 L	5.0 L
3-point hitch lift (24 in behind ball)	850 kg	850 kg
Front tire pressure	1.4 bar (20 psi)	1.4 bar (20 psi)
Rear tire pressure	1.0 bar (14 psi)	1.0 bar (14 psi)
Operating weight	1,240 kg	1,410 kg
Maximum travel speed	22 km/h	22 km/h

Recommended fluids

Fluid	Specification	Part number
Engine oil	SAE 10W-30, API CK-4	GF-OIL-1030
Transmission / hydraulic fluid	Greenfield UTF-55	GF-UTF-55
Coolant	50/50 ethylene glycol, low silicate	GF-COOL-50
Grease	NLGI No. 2 lithium complex	GF-GRS-02
Fuel	Ultra-low sulfur diesel (ULSD), EN 590	-

3. Controls and instruments

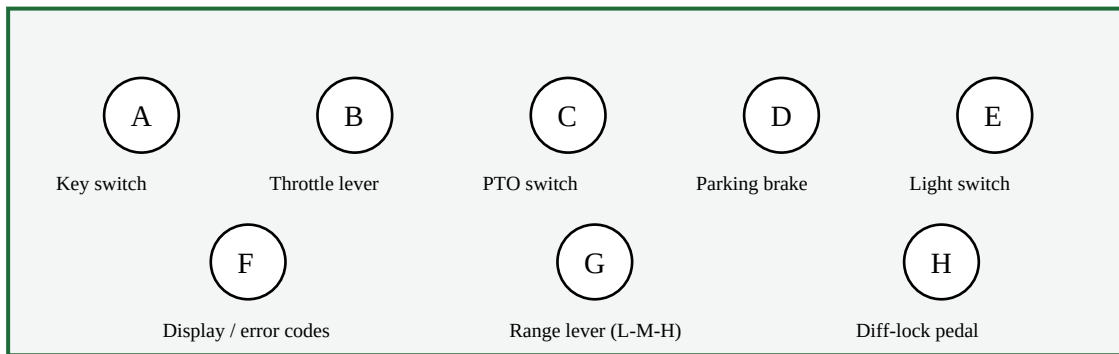
Figure 3-1. Tractor overview (left side).



(1) Engine hood (2) Steering wheel (3) ROPS frame (4) Operator seat (5) 3-point hitch (6) Rear PTO shaft

The ROPS frame (3) must be raised and locked whenever you operate the tractor, except briefly when you must pass under a low obstacle. Lower it only as far as needed and raise it again immediately.

Figure 3-2. Control panel.



1. Key switch (A): OFF, ON, PREHEAT and START positions.
2. Throttle lever (B): pull back to increase engine speed. Set 2,500 rpm for PTO work.
3. PTO switch (C): pull up and turn to engage the rear PTO. The operator must be seated.
4. Parking brake (D): lock both brake pedals together, then pull the lever up.
5. Display (F): shows engine hours, PTO status and error codes (see section 14).
6. Range lever (G): selects LOW, MID or HIGH range. Stop the tractor before changing range.
7. Differential lock pedal (H): press to lock the rear axle when wheels slip. Release before turning.

4. Before you operate

Perform this daily check before the first use of the day. It takes about ten minutes.

Check	What to look for
Engine oil level	Between the two marks on the dipstick (see section 11)
Coolant level	Between MIN and MAX on the reserve tank, engine cold
Fuel level	Refuel outdoors; never fill above the filler neck
Tire pressure and condition	Front 1.4 bar, rear 1.0 bar; no cuts or bulges
Air filter indicator	Clean the element if the indicator shows red
Radiator screen	Remove grass and chaff
Seat belt and ROPS	Belt latches; ROPS raised and pinned
Lights and display	All lamps work; display shows no error code at key ON

WARNING: Never check for hydraulic leaks with your hand. Fluid escaping under pressure can penetrate the skin. Use a piece of cardboard and wear eye protection.

5. Starting and stopping the engine

Starting the engine

1. Sit in the operator seat and fasten the seat belt.
2. Engage the parking brake and place the range lever in neutral.
3. Make sure the PTO switch is OFF. The engine will not start with the PTO engaged.
4. Set the throttle to about one-third open.
5. Turn the key to PREHEAT and hold until the glow-plug lamp goes out (about 5 seconds; up to 15 seconds below 0 °C).
6. Turn the key to START. Release it as soon as the engine starts. Do not crank for more than 10 seconds.
7. Let the engine warm up at low idle for 3 to 5 minutes before applying load.

CAUTION: If the engine does not start after 10 seconds of cranking, wait 30 seconds before trying again to let the starter motor cool.

Stopping the engine

1. Lower any implement to the ground and disengage the PTO.
2. Reduce engine speed to low idle and let the engine run for 1 minute to cool the turbocharger.
3. Engage the parking brake and turn the key to OFF.
4. Remove the key before leaving the tractor.

6. Driving

The GF-3200 uses a hydrostatic transmission. Press the forward pedal to move forward and the reverse pedal to move backward. Travel speed increases with pedal travel. Release the pedal to stop; the tractor slows smoothly to a halt.

Use LOW range for loader and heavy tillage work, MID range for mowing, and HIGH range for transport on level ground.

WARNING: Drive straight up and down slopes, never across them. Shift to LOW range before going downhill and never coast in neutral.

Transport on public roads

Use the slow-moving vehicle emblem and the hazard lights. Lock the brake pedals together. Raise implements and engage the transport lock on the 3-point hitch.

7. PTO operation

The rear PTO turns at 540 rpm when the engine runs at 2,500 rpm. Always match the implement's rated PTO speed.

DANGER: Rotating PTO shafts can grab clothing, hair and limbs. Never step over or reach across a turning PTO shaft. Disengage the PTO, stop the engine and remove the key before you approach any implement driveline.

Engaging the PTO

1. Sit in the seat. The operator presence switch stops the PTO if you leave the seat.
2. Run the engine at low idle.
3. Pull up and turn the PTO switch to ON.
4. Increase engine speed gradually to 2,500 rpm.

Disengaging the PTO

1. Reduce engine speed to low idle.
2. Push the PTO switch down to OFF.
3. Wait until the implement has stopped completely before approaching it.

8. 3-point hitch and implements

The Category 1 3-point hitch lifts up to 850 kg measured 24 in (610 mm) behind the lift-arm balls. Use the position control lever to raise and lower the implement, and the drop-speed knob to set how fast it lowers.

1. Back the tractor up to the implement with the lift arms lowered.
2. Stop the engine, engage the parking brake and remove the key.
3. Attach the left lift arm, then the right lift arm, and insert the lynch pins.
4. Attach the top link and adjust its length so the implement is level.
5. Connect the PTO driveline if used, and make sure the shield turns freely.

WARNING: Stand clear of the area between the tractor and the implement while the hitch is being raised or lowered. Never stand between the tractor and the implement to attach it with the engine running.

9. Mid-mount mower deck

The 60-inch (152 cm) mid-mount deck is driven by the mid PTO. Cutting height is adjustable from 25 to 100 mm in 13 mm steps with the height dial on the right footstep.

DANGER: Mower blades are sharp and can throw objects. Keep bystanders at least 25 m away. Never mow with the discharge chute removed or raised.

Replacing the mower blades

1. Disengage the PTO, stop the engine and remove the key.
2. Lower the deck and remove it from under the tractor (see Figure 9-1 on the deck decal).
3. Wear heavy gloves. Hold the blade with a wooden block and loosen the 19 mm blade bolt counterclockwise.
4. Install the new blade with the wing facing up toward the deck.
5. Tighten the blade bolt to 110 N·m (81 lb·ft).

CAUTION: Always replace blades as a set to keep the deck balanced. An unbalanced deck causes vibration and damages the spindle bearings.

10. Maintenance schedule

Service intervals are based on the engine hours shown on the display. Perform the service at the interval that comes first.

Item	Every 10 h / daily	First 50 h	Every 100 h	Every 250 h	Every 500 h / yearly
Engine oil level	Check				
Engine oil and filter		Change		Change	
Air filter element	Check		Clean		Replace
Fuel filter				Replace	
Water separator	Drain				
Transmission fluid	Check	Change filter			Change
Coolant	Check				Replace (2 years)
Grease fittings (12)	Grease				
Fan belt tension		Check	Check		
Battery terminals			Clean		
Mower deck spindles	Grease				

11. Engine oil and filters

Checking the engine oil level

1. Park on level ground, stop the engine and wait 5 minutes so the oil drains back to the pan.
2. Pull the yellow dipstick on the right side of the engine and wipe it clean.
3. Insert it fully, pull it out again and read the level.
4. The level must be between the two marks. Add SAE 10W-30 through the filler cap if it is at or below the lower mark.
5. Do not overfill. The difference between the two marks is about 0.8 L.

Changing the engine oil and filter

CAUTION: Engine oil can be hot enough to cause burns. Let the engine cool for at least 30 minutes before draining the oil.

1. Place a 6 L container under the drain plug at the bottom of the oil pan.
2. Remove the drain plug (17 mm) and let the oil drain completely.
3. Turn the oil filter counterclockwise with a filter wrench and remove it.
4. Coat the gasket of the new filter GF-FLT-210 with clean oil and screw it on by hand until it seats, then a further 3/4 turn.
5. Reinstall the drain plug with a new washer and tighten to 35 N·m.
6. Fill with 4.2 L of SAE 10W-30 oil, start the engine for 1 minute, stop it and re-check the level.
7. Dispose of used oil and filters at an approved recycling center.

12. Fuel, battery and tires

Draining the water separator

The water separator is below the fuel filter on the left side. Drain it daily: open the drain valve until clear diesel flows, then close it. If the display shows code E07, drain the separator before restarting.

Battery

The 12 V battery is under the hood. To remove it, disconnect the negative (-) cable first, then the positive (+) cable. When installing, connect the positive cable first.

WARNING: Battery gases are explosive. Keep sparks and flames away from the battery and always disconnect the negative (-) cable first.

Tires

Check pressure daily with a gauge when the tires are cold: front 1.4 bar (20 psi), rear 1.0 bar (14 psi). Rear tires may be filled with ballast; check pressure with the valve at the top.

DANGER: A tire can explode during inflation and cause serious injury or death. Never inflate a tire above the pressure shown on the sidewall, and stand to the side of the tire, not in front of it.

13. Troubleshooting

Symptom	Possible cause	Remedy
Engine will not crank	PTO switch ON; range lever not in neutral; battery discharged	Turn PTO OFF, set range lever to neutral; charge or replace battery
Engine cranks but will not start	Out of fuel; air in fuel system; glow plug faulty and bleed the fuel system	Refuel and bleed the fuel system; preheat 15 s below 0 °C
Engine stops when operator stands	PTO engaged with operator off the seat	Disengage the PTO before leaving the seat
Black exhaust smoke	Clogged air filter; engine overloaded	Clean/replace air filter; reduce load or shift to LOW range
Engine overheats	Radiator screen clogged; low coolant; loose fan belt	Clean fan screen; top up coolant when cold; adjust belt
Hitch will not lift	Low transmission fluid; position lever locked	Check fluid level; release transport lock
Mower leaves uneven cut	Dull or unbalanced blades; low tire pressure	Sharpen/replace blades as a set; set tire pressure
Tractor creeps in neutral	Hydrostatic neutral out of adjustment	Contact your Greenfield dealer

14. Display error codes

When a fault is detected, the display shows a code and the warning lamp flashes. Stop work, note the code and follow the action below.

Code	Meaning	Action
E01	Engine oil pressure low	Stop the engine immediately. Check the oil level. Do not restart if the level is correct.
E02	Engine coolant temperature high	Reduce load and idle for 2 minutes, then stop. Clean the radiator screen; check coolant level.
E03	Battery charge voltage low	Check the fan/alternator belt and battery terminals.
E04	Air filter restricted	Clean or replace the air filter element.
E05	Hydraulic oil temperature high	Reduce hydraulic load; check transmission fluid level.
E06	Operator not seated with PTO engaged	Sit down or disengage the PTO.
E07	Water in fuel	Drain the water separator (section 12) before restarting.
E08	Glow plug circuit fault	Engine may be hard to start in cold weather; contact your dealer.
E09	Parking brake engaged while driving	Release the parking brake.
E10	Sensor communication fault	Turn the key OFF for 10 seconds and restart. If it returns, contact your dealer.

15. Storage

For storage longer than 30 days:

1. Clean the tractor and the mower deck thoroughly.
2. Change the engine oil and filter.
3. Fill the fuel tank and add a diesel fuel stabilizer to prevent condensation.
4. Remove the battery, charge it fully and store it in a cool, dry place.
5. Raise the tractor on stands so the tires are off the ground, or inflate them to the maximum sidewall pressure.
6. Cover the tractor and store it in a dry, ventilated building.

WARNING: Engine exhaust contains carbon monoxide, which can kill. Never run the engine in a closed building. Open doors and provide ventilation when the engine must run indoors for a short time.

16. Support and warranty

Your GF-3200 is covered by a 3-year or 1,500-hour limited warranty (whichever comes first) on parts and labor, and a 5-year powertrain warranty. Register the tractor within 30 days of delivery to activate it.

For service, contact your authorized Greenfield dealer. Have the model and serial number ready: they are on the plate under the operator seat (for example GF-3200-C, serial GF32C-104577).

Greenfield Owner Support: support.greenfield.example · +1 555 0134 · Monday to Friday, 7:00–18:00.

Greenfield Agriculture is a fictional company. This manual was written for the StartHere product demonstration and describes no real product.