# **TORO**<sub>®</sub>

**Groundsmaster**<sup>®</sup> **5900/5910** Rough Mowers

## **REDEFINING PRODUCTIVITY**

The Toro Groundsmaster 5900 Tier 4 Series sets the new standard for productivity, uptime and low daily operating costs. The Groundsmaster 5900 Series mowers can mow over 6.87 hectares/hour and to match the 16' (4.9 m) wide mowing brawn and a more fuel-efficient EPA Tier 4 Final and EU Stage IV emissions compliant Yanmar<sup>®</sup> 3.3 L engine, the Groundsmaster 5900 series is loaded with intelligence. Smart Power<sup>™</sup> allows the operator to effortlessly maintain the correct speed for optimal cutting, while the SmartCool<sup>™</sup> system prevents over-heating with auto-reversing cooling fans. An onboard InfoCenter<sup>™</sup> gives the operator a quick read on all systems and even provides assistance at the right moment. When the comfort and safety of an all season cab, the incredibly nimble handling, and tough Toro durability are added in, the new Groundsmaster 5900 series proves beyond doubt that increased efficiency and ease of operation lead to higher productivity.

Groundsmaster® 5900

## toro.com/5900



## FEATURES

#### • Powerful Tier 4 Yanmar<sup>®</sup> Engine

3.3 L Yanmar<sup>®</sup> Tier 4 Final Compliant turbodiesel engine, 72 hp (53.7 kW) @2500 rpm, B20 diesel compatible.

#### Onboard InfoCenter<sup>™</sup>

The onboard InfoCenter<sup>™</sup> displays clear and simple operating information at a glance, while constantly monitoring the internal health of the machine. Audible and visible alarms notify the operator of a potential problem. In the field or at the workshop, technicians can quickly identify the source and solution.

#### SmartCool<sup>™</sup> System

Sensor-triggered fan reversal clears chaff buildup. It prevents over-heating with auto-reversing cooling fans and reduces operating downtime.

## • Reduced Operator Vibration

The air-ride suspension seat adjusts to the operator's desired firmness for maximum comfort. The seat adjusts with easy moves of height and angle levers for an ergonomic fit to the operator, and the armrests adjust to a comfortable angle.

#### Maximise Your Cut

4.9 m width of cut capable of mowing more than 40 hectares per day. The ability to mow a 0 cm uncut circle - without wheel brakes - allows you to easily mow striping patterns without leaving any grass uncut.

#### • eFan Cooling System

Two independently controlled 24v electric fan banks provide system cooling for hydraulics and engine.

#### • Full-Time, Bi-Directional 4WD & All Time Traction Assist

The full-time, 4-wheel drive puts power where it's needed. The cutting decks automatically take weight off the cutting units for more floatation, and put it on the traction wheels when climbing hills. CrossTrax<sup>®</sup> all-wheel drive system offers increased cross wheel traction control.

#### Smart Power™ Technology

Prevents the machine from bogging down in heavy cutting conditions and keeps the blade speed at optimum cutting speed in any condition by automatically slowing down the traction unit ground speed to give more power to the blades.

#### HybridDrive<sup>™</sup> Cutting Deck System

Groundsmaster® 5910

Belts transfer power more efficiently than hydraulic motors while adding a layer of protection against hydraulic failures. Large diameter spindle housing dissipates impact loads, and dual tapered roller bearings last up to six times longer than ball bearings.

#### • Integrated ControlArm<sup>™</sup> with Fingertip Electronic Controls

Controls are logically organised and easy to access from the operator's seat control arm.

#### • All Season Safety Cab (model 5910)

The factory installed, permanent safety cab protects the operator with a four-post rollover protection structure (ROPS), tempered safety glass, and climate controlled environment including both air conditioning and heater.

## THE NEW IMPROVED ALL SEASON TORO SAFETY CAB

Improved comfort means improved productivity. The ROPS-certified cab comes standard with air conditioning and heat and pre-filter kit as well as superb all-round visibility. Easy access for maintenance, front and rear opening windows for 100% outside airflow and low profile roof are some of the features of this Toro factory-fitted cab.

Other features include heavy-duty pantograph front windshield wiper; interior mirror and dome light; fold away exterior side mirrors; right and left doors and rear window have tinted glass; quick-release window latches on front and rear windows enable emergency exit on four sides; rubber sound isolator cab mounts; upholstered interior panels and headliner and textured neoprene floor mat.

Optional accessories available: lighting kit (work light kit, beacon kit, head rest kit)



## SAFETY ALONG WITH OPERATOR COMFORT

Even a small increase in temperature can have a substantial effect on operator efficiency and safety. A study by the Society of Automotive Engineers\* showed a 50% increase in missed driver tasks and 22% slower reaction times at 27° C (81° F) compared to a temperature of 21° C (70° F). Toro air-conditioned safety cab will keep operators at their best, no matter what the outside temperature. With 5 individual air-vent controls with full 360 degree rotation for improved operator comfort and increased defrost/de-mist capability.



\*Driver Diligence – The Effects of Compartment Temperature (SAE Paper 920168).

## GROUNDSMASTER° 5900/5910 SPECIFICATIONS\*

## GROUNDSMASTER 5900, MODEL 31698 / GROUNDSMASTER 5910, MODEL 31699

ENGINE	Yanmar 3.3L, EPA Tier 4 Final and EU Stage IV emissions compliant, turbocharged diesel with direct injection and electronic high-pressure common rail. 72 HP (53.7 kW) @ 2500 rpm, Torque: 206 lbft. (279 Nm) @ 1625 rpm Displacement: 202 cu. in. (3.3 L).
COOLING SYSTEM	24V dual electric fan banks for separate engine radiator and hydraulic oil cooling; fan banks are variable speed, with auto-reverse feature (SmartCool™, based on coolant and oil temps), radiator is cross flow, 3 rows, 9 fins per in. (FPI). Hydraulic oil cooler is crossflow, 6 FPI. Cooling fan banks tilts away for fast, easy cleaning.
FUEL SYSTEM	Uses ultra-low sulfur diesel fuel only. Biodiesel compatible up to B20.
CAPACITIES	Fuel: 35 gal.(132L); Hydraulic: 19 gal (71.9 L); Engine Oil with filter: 11 qt. (10.4 L); Coolant: 13.5 qt. (12.7 L) (Model 31698), 18 qt. (17 L) (Model 31699).
HYDRAULIC SYSTEM	Capacity: 19 gal (71.9 L) reservoir, Remote spin-on charge filter, Oil: Toro premium all season hydraulic fluid.
TYRES/WHEELS	Front: 29x12.00-15, 6 ply rating, 32 psi; Rear: 23x10.50-12, 6 ply rating, 30 psi.
INSTRUMENTATION	Onboard LCD (InfoCenter™) display shows customisable gauges, service reminders, advisories/faults and troubleshooting assistance. Indicates fuel level, coolant temp, hydraulic oil temp, engine glow plug, low oil pressure, air cleaner restriction, 12 and 24 volt alternator voltage output, engine hours and rpm, and engine DPF regeneration.
POWERTRAIN	Full time automatic forward and reverse 4WD in low (mow) range. Front wheel drive in transport. Parallel hydrostatic, closed loop with cross wheel traction (CrossTrax™) design; traction drive pump: variable displacement piston, servo control. <b>Front drive:</b> 2-speed, fixed displacement high torque, low speed radial piston motors. <b>Rear drive:</b> single speed, fixed displacement, high torque, low speed radial piston motors. Smart Power™ feature controls traction speed to maintain optimal cutting blade speed.
	Main: 12 volt system; Alternator: 12v, 80 amp, supplied w/ engine Battery: 1380 CCA (2x 690 CCA), Cooling Fans, Engine/Hydraulic cooling: 24 volt system; Alternator: 24v, 105 amp w/ remote sense; Battery: 700 CCA (2 x 350 CCA); Disconnect ON/OFF switch for 12 & 24 volt service safety.
ELECTRICAL SYSTEM	Service: Dynamic, hydrostatic 4WD in low range. Front wheel drive braking in high range.
	<b>Parking:</b> Electro-hydraulic controlled via double-motion rocker switch. Spring applied, hydraulic released. Internal to front wheel motors. Automatically applies with engine OFF or key OFF Manual override from operator platform for servicing.
PRODUCTIVITY	Infinitely variable speed. Forward speeds: mow: 0-10.8 mph (17.4 km/h) Transport: 0-20 mph (0-32.2 km/h). Reverse speeds: mow 0-5.7 mph (0-9.2 km/h), transport: 0-10.5 mph (0-16.9 km/h) transport. Speed control: Electronic, limits max speed. Maximum mow rate: 20.77 acres/hr. (8.4 ha)* Typical mow rate: 9.6 acres/hr. (3.9 ha).**
CONTROLS	Control arm, right armrest, travels with seat and suspension. Deck lift/lower, electrohydraulic switches. Throttle; electronic, variable. Traction pedal, electronic. Park brakes: double-motion switch. Steering; hydrostatic load sensing. Other: High/low range, PTO, cruise control, lights (31698 only), horn, key switch, wing deck transport latches (manual).
OPERATOR STATION	Operator platform: isolated rubber mounted. Seat: 4 way adjustable with vinyl (31698) or cloth (31699) cushions standard. Suspension: air-ride with 3 in. (7.6 cm) of adjustability. Steering: power and adjustable tilt. Traction Pedal: adjustable angle uses position sensor. Storage box, cup holder, and 12 volt power outlet standard.
STEERING	Uncut circle - 0" diameter. Turning radius - 86" (218 cm).
CAB (GM 5910)	ROPS certified cab with heat, AC and the following standard features: climate system pressurised cab, heavy-duty pantograph front windshield wiper and washer, front windshield has 38" of visibility, interior mirror, fold away exterior side mirrors, molded front fenders, right and left doors and rear window have tinted (50%) glass, front and rear windows open, quick release window latches act as emergency exit, rubber sound isolator cab mounts and upholstered interior panels and headliner, textured neoprene floor mat, interior dome light. Power provided for optional aftermarket audio accessories. Optional road lights, rotating beacon and work lights available.
SAFETY AND LIGHTING	Standard (31698 & 31699): SMV sign rear mounted; LED brake, tail lights and flashers mounted in rear bumper; horn. ROPS Unit (31698) headlights, red and amber flashers, turn signals. Cab Unit (31699): Optional light kits, Rotating Beacon Kit, Work Light Kit. Disconnect ON/OFF switch for 12 & 24 volt service safety.
CERTIFICATION	Meets or exceeds EU Machinery Directive (2006/42/EC); ISO 5395-2013 and ANSI B71.4-2012; ISO 21299 and SAE J1194; OSHA 29CFR1910.95 (SAEJ1175, European Directive 2000/14/EC, ISO 5395-2013); EN 55012:2007 and CISPR12. Model 31698 meets or exceeds ANSI/ASAE S279.12 (Lighting and Marking of Agricultural Equipment on Highways). Model 31699 air conditioning system meets SAE J1503, Section 8.
WARRANTY	Two year limited warranty. Refer to operator's manual for further details.
VEHICLE WEIGHT (W/ FULL FLUIDS)	6,710 lbs. (3043 kg) (31698); 7,304 lbs. (3313 kg) (31699).
GROUND CLEARANCE	10.3 in. (26.1 cm).
DIMENSIONS	WIDTH: Transport: 99 in. (251 cm), Mow: 199 in. (505 cm) LENGTH: 174 in. (442 cm) HEIGHT: 85 in. (216 cm) (31698), 95 in. (241 cm) (31699) WHEELBASE: 77 in. (196 cm).

#### **CUTTING DECKS**

COTTINO DECKS	
TYPE	Three rear discharge rotary decks
CUTTING WIDTH	192 in. (490 cm), 57 in. (145 cm), 92 in. (234 cm), 144 in. (366 cm).
HEIGHT OF CUT	1-6 in. (2.5 – 15 cm) in 0.5 in. (1.3 cm) increments.
CONSTRUCTION	11/12 gauge high-strength steel. 7-gauge, reinforcements, bullnose bumpers.
PROTECTION	Wing decks: 2 way shock absorption.
DECK DRIVE	HybridDrive™ - Hydraulic motor to spindle, remaining spindle(s), driven by "B" section v-belts.
TENSIONING	Automatic, spring loaded idlers.
SPINDLES	Shaft: 1.25" (3.2 cm) hardened steel. Housing: 9" (22.9 cm) ductile iron. Bearings: Greasable tapered roller.
STANDARD BLADES	20" (50.8 cm), heat-treated steel blades.
OPTIONAL BLADES	Atomic™ mulching blades, flat blades.
SKIDS	4 reversible polymeric, 2 reversible steel.

\*Maximum mow rate is calculated at 17.4 km/h with no overlap or stops. Actual mowing rate may vary depending on operator and conditions.

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## GROUNDSMASTER<sup>®</sup> 5900/5910 SPECIFICATIONS<sup>\*</sup> (continued)

#### **MOWING UNIT ACCESSORIES**

Breakdown Warning Triangle
Backup Alarm
Seat Backrest Extension Kit – Vinyl (GM5900)
Seat Backrest Extension Kit – Fabric (GM5910)
Polycarbonate Front Window Kit (GM5910)
Universal Mount Sunshade – White (GM5900)
Universal Mount Sunshade – Red (GM5900)
Seat Cover Large
CE Kit (includes hood deck cover locks)

CUTTING UNIT ACCESSORIES	
Deck Wheel Castor Wrench	
10" Foam Filled Caster Tyre Assembly	
Leaf Mulching kit	
Standard Blade & Belt Kit	
Standard Blade Kit	
Atomic Blade Kit	

LIGHT KITS	
EU Light Kit (GM5910)	
Halogen Work Light Kit (GM5910)	
LED Work Light Kit (GM5910)	
Rotating Beacon ROPS (GM5900)	
Rotating Beacon CAB (GM5910)	

## MAINTENANCE KIT

MVP Maintenance Kit (oil/fuel)

## TWO-POST ROPS EXTENSION (TREX) SYSTEM - fits model 31698, available on 2017 model only

## Enhance operator comfort and protection when facing the elements

Equipping a mower with operator ergonomic features can be expensive, but Toro has a solution that is both affordable and effective. The new two-post rollover protection system (ROPS) extension system enhances the comfort and weather protection for the operator. This unique ROPS system is built on a base model for each Reelmaster machine which includes a sunshade and steel support structure that ties into the existing two-post ROPS. A large number of accessories mount to the base model, which allows operators to stay safe, comfortable and more productive in all kinds of weather.

## **TWO-POST ROPS EXTENSION (TREX) SYSTEM ACCESSORIES**

- Two-Post ROPS Extension Kit Base steel frame attaches to existing ROPS; includes a white sunshade.
- Thermoplastic Windscreen Kit Impact and abrasion-resistant polycarbonate windscreen (mounts to 2-post ROPS extension).
- Tempered Glass Windshield Similar safety glass used in Toro all season safety cabs.
- Windshield Wiper Kit for Glass Windshield
- LED Work Lights
- Interior Dome Light
- Halogen Work Lights
- Rotating Beacon
- Exterior and Interior Mirrors
- Operating Fan
- Safety and Security Cage



\*Specifications and design subject to change without notice. Products depicted in this literature are for demonstration purposes only. Actual products offered for sale may vary in use, design, required attachments and safety features. See distributor for details on all warranties. The Groundsmaster 5900 and 5910 are manufactured in Tomah, WI ISO 9002 Certified Plant





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## Count on it.

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