



Groundsmaster® 580-D Specifications*

GROUNDMASTER 580-D, 2WD MODEL 30582, GROUNDMASTER 580-D, 4WD MODEL 30583	
ENGINE	Mitsubishi Model S4S-DT, 4-cylinder in-line, 4-cycle, liquid-cooled, turbo-charged diesel engine; 80 hp (59.6 kW) at governed maximum of 2750 rpm. 203.3 cu. in. (3.3 liter) displacement, vertical overhead valve, direct injection. Forced feed lubrication w/ trochoid gear pump. 10.6 quart (10 liter) capacity. 17.1 compression ratio. 12-volt (2.2 kW) gear reduction starter. Heavy duty centrifugal air cleaner with replaceable element. Draws air from screened air intake.
RADIATOR AND OIL COOLER	Magnetically latched air intake grill and shielding are easily removed to provide access to the mid-mount agricultural-type radiator with wide spaced fins (5 fins/in.). Oil cooler hinges away from the radiator to provide easy service access. 3.9 gal. (14.7 liter) coolant capacity. Variable speed radiator fan controlled by engine temperature. Full flow hydraulic oil cooler, (7 fins/in.).
FUEL SYSTEM	Direct mechanical injection system with replaceable fuel filter and water separator. Front console warning light indicates water in fuel. Fuel capacity: 28 gal. (106 liter), No. 2 diesel fuel. 2008 models Biodiesel-Ready for use up to B-20 (20% biodiesel and 80% petrol blend).
FRAME CONSTRUCTION	5 x 9 lbs./ft. welded structural steel channel. Six tie down loops; 2 front, 2 center and 2 at rear of frame. Ground clearance: 8" (20.3 cm).
TIRES/WHEELS	Front: (2) 31 x 12.50-15, 8-ply high flotation turf tires w/ tubes. Rear (2) 23 x 10.50-12, 6-ply tubeless turf tire.
BRAKES	Front multiple disc brakes. Fully sealed in cast housings. Hydraulic service brake via a brake pedal operated by the right foot. Mechanical, individual, steering brake controls via two pedals which lock together for parking brake function. Dynamic braking through closed-loop hydrostatic drive.
STEERING	Tilt 15.5" (39 cm) steering wheel and tilt steering tower; released and locked by a patented single lever control. Dual hydraulic cylinder power steering for extra sharp turning.
TRACTION SYSTEM	Hydrostatic closed loop system, consisting of Sauer-Danfoss Series 40 hydrostatic pump and two speed motors, and Auburn Model 6 industrial planetary gear reduction at the drive wheels. Includes system reliefs of 5000 psi (344.8 bars) and bypass valve for towing. Planetaries for radial load rated @ 10,000 lbs. (4536 kg) and output torque of 50,000 lbs-in. Maximum system flow is 28 gpm (105.9 liter per minute). Hydraulically assisted single foot operated traction pedal with adjustable speed stop controls forward/reverse ground speed. Electromagnetic speed control actuated from console by push button switch. Disengage speed control by service brake or on/off switch. Control of speed can be changed without disengaging. 4WD standard on model 30583. Optional 4WD kit, model number 30582. On/off system with full time 4WD set in forward and momentary 4WD in reverse. Driven by hydrostatic system in parallel with two high-torque wheel motors. ROPS standard.
GROUND SPEED/CLEARANCE	Infinitely variable speed. Forward speeds: 0-7.5 mph (0-12.1 km/h) - mow; 0-20 mph (0-32.2 km/h) - transport. Reverse speeds: 0-3 mph (0-4.8 km/h) - mow; 0-8 mph (0-12.9 km/h) transport. Ground clearance: 8" (0-20.3 cm).
CONTROLS	Individual deck lift levers, ground speed high range/low range switch, PTO switch, hand operated throttle, speed control on/off switch, speed engage button and ignition switch. Single implement shut-off control. Steering tower and wheel tilt lever. Service brake pedal, steering brake pedals with parking brake latch, foot operated traction pedal.
GAUGES/DIAGNOSTICS	Gauge package includes fuel gauge, engine water temperature, engine hour meter, and engine oil pressure. An indicator light and audible warning of low oil pressure, high water temperature, no charge, glow plugs, water in fuel, air cleaner service, hydraulic oil filter service, low hydraulic oil, and high hydraulic oil temperature. Indicator lights on steering tower to show parking brake on, speed control engaged, and high range ground speed. 8 hydraulic test ports easily accessible without removing panels to diagnose system pressures. The Automated Control Electronics™, ACE™, system allows precision timing and control of machine functions for maximum reliability. Available diagnostic display connects to an electronic control unit to pinpoint any electrical problems quickly and easily. Available DATA LOG™ system allows technician to find intermittent problems.
INTERLOCK SYSTEM	Prevents starting of engine if traction pedal is out of neutral. Stops engine if operator leaves seat or if parking brake is "on" with traction pedal out of neutral. Prevents engaging of PTO if operator is out of seat, engine off or all decks raised. Prevents engagement of high range ground speed mode if a cutting unit is lowered or engine is off.
ELECTRICAL FEATURES	12-volt automotive type electrical system. Dual maintenance free batteries, cold cranking 1380 amps at 0°F (-18°C), 250 minute reserve capacity at 80°F (27°C). 100 amp alternator with I/C regulator/rectifier. Seat switch, PTO and traction interlock system.
OVERLOAD PROTECTION	A 40 amp circuit breaker with reset button is located under the control panel for protection of the entire wiring circuit. The inputs to the solid state controller are protected by a 5 amp fuse for logic and two 15 amp fuses for the power circuits. ATO type fuses.
SEAT AND STORAGE	Grammer premium seat with adjustable arm rest and air ride suspension. Adjustable for weight, fore/aft travel and height. Large tool tray storage located under hinged floor plate. Small storage and beverage holder beside control panel.
IMPLEMENT DRIVE	Hydraulic implement drive to all cutting units.
CUTTING UNIT CONFIGURATION	Consists of one 92" (234 cm) front center Triflex cutting unit and two 57" (145 cm) outboard cutting units.
MOWING RATE/WIDTH	Mows up to 14.4 acres/h (5.8 hectares/h) at 7.5 mph (12.1 km/h) with use of all cutting units. (Assumes no overlap and stops.) Total cutting width: 192" (488 cm).
HEIGHT OF CUT RANGE	Low range: 1"-4" (2.5-10.2 cm). High range: 2.5"-5.5" (6.3-14 cm).
CUTTING UNIT CONSTRUCTION	10-gauge (3.4 mm) steel, 5.5" (14 cm) deep shell. Welded construction reinforced with 7-gauge (4.6 mm) plates and 10-gauge (3.4 mm) channels. Leading edge constructed in closed triangular cross section to provide additional reinforcement.

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Groundsmaster® 580-D Specifications* (continued)

GROUNDMASTER 580-D, 2WD MODEL 30582, GROUNDMASTER 580-D, 4WD MODEL 30583	
BLADES	20" (50.8 cm) long, .25" (6.3 mm) thick, 2.5" (6.3 cm) wide, heat treated steel blades. Triflex cutting unit: 5 blades. Outboard cutting units: 3 blades each. All blades and spindles are interchangeable.
ANTI-SCALP DEVICES	Each cutting unit equipped with adjustable skids. Anti-scalp cup located on each blade.
CUTTING UNIT COVERS	Impact resistant molded plastic covers. Four covers per Triflex and two per outboard cutting unit. Easy to remove and replace without tools. Held down with high strength permanent magnets.
PATENTED AUTOMATIC WEIGHT TRANSFER	Automatic hydraulic counterbalance transfers weight from the cutting units to the traction unit for improved traction and better deck flotation. Under demanding traction situations the system automatically transfers additional weight from the cutting units to the traction unit.
WARRANTY	Two-year limited warranty. Refer to the Operator's Manual for further details.
CERTIFICATION	Certified to meet ANSI specifications B71.4-2004, applicable Federal and State OSHA regulations based thereon, CE compliant with installation of 94-9800.

HYDRAULIC SYSTEM	
CUTTING UNIT DRIVE SYSTEM	High efficiency pressure balanced tandem output gear pump, JS Barnes Model G2020, all cast iron body with rated pressure 3300 psi (227.6 bars), 20 gpm (75.7 liter/m) output each section. System is protected at 3000 psi (206.9 bars) with relief valves. Cooling and filtration of the full cutting circuit flow for cool running and long life. Easily accessible electro-hydraulic manifold block controls on/off, braking and relief functions for high efficiency and ease of service. Cutting drive initially engaged with electric switch; cutting units shut off/engage individually when raised or lowered.
AUXILIARY DRIVE	Sauer Danfoss-D series pressure loaded gear pump with flow divider cover. Maximum flow is 12.5 gpm (47.3 liter/m). Priority flow of 3 gpm (11.3 liter/m) with 1500 psi (103.4 bars) relief for power steering, remaining flow for lift and counterbalance system.
HYDRAULIC OIL RESERVOIR	Hydraulic system capacity of 40 gallons (151 liters) with reservoir capacity of 32 gallons (121 liters). Sight glass level indicator. Water collector/drain plugs. 100 mesh suction screen. Internal baffle system. Oil level warning, protection/shut-down system.
FITTINGS & FILTRATION	Hydraulic system utilizes O-ring face seals. A single large spin-on 5 micron hydraulic oil filter element.

	TRIFLEX FRONT CUTTING UNIT, MODEL 30592	OUTBOARD CUTTING UNITS (2), LEFT - MODEL 30591, RIGHT - MODEL 30593
TYPE	Triflex type, 92" (234 cm) width of cut, 5 spindle, front mounted rotary cutting unit. Outside spindle on each side of cutting unit will flex up to 15° maximum for ground following. Rear discharge with even dispersion over entire width of cut. By removing two pins the front cutting unit tips vertically exposing all spindles and blades for ease of service.	57" (145 cm) width of cut, three spindle, side mounted rotary cutting unit. Rear discharge with even dispersion over entire width of cut.
TRIMMING ABILITY	Front cutting unit offset from outside of traction tires 8" (20.3 cm) from trimming on either side.	Trims on outer sides. 18" (46 cm) uncut circle. Trim side of cutting unit in line with traction axle centerline, forward of operator for ease of visibility and control.
CUTTING UNIT SUSPENSION	Two independent lift/push arms of 2.5" (6.4 cm) square by .25" (6.3 mm) thick formed tubing. Rigidly mounted to cutting unit via ball joint assembly. Torsion spring pivot assembly secures front cutting unit in transport position.	Outboard cutting unit arms of .38" (9.6 mm) to .25" (6.3 mm) plate closed box construction. Inner arm, 4" x 6" (10 x 15 cm); outer, 3.5" x 5" (9 x 13 cm). Built in two parts pivoting from the center to: 1) sweep cutting units forward in mow and, 2) lift and rotate cutting units down and back into transport to enhance visibility and transport stability. Cutting units attached to arm with rubber mount design to absorb shock, vibration and increase flotation. Adjustable spring loaded breakaway arms release and rotate outboard cutting unit upon accidental impact. Resets automatically when cutting unit is raised. Cam lock links secure outboard cutting units in transport position.
HEIGHT OF CUT ADJUSTMENT	Adjustable in .5" (12.7 mm) increments with spacers on front castor shafts and clevis pins on rear wheel forks.	Adjustable in .5" (12.7 mm) increments with spacers on all castor shafts.
CUTTING UNIT DRIVE	High efficiency pressure balanced hydraulic gear motor. All cast iron body with rated capacity of 4000 psi (275.9 bars). Model 30592 only: 3 - 3V section belt drives center spindle, 4 - B section belts drive all other spindles. Models 30591/30593 only: three "B" section belts to spindles. 1.25" (3.2 cm) diameter splined shafts mounted in two greaseable tapered roller bearings in cast iron housing, greaseable from the top. All cutting unit drive belts are interchangeable except for the Triflex front "center" cutting belt[1].	
BELT IDLERS	Self tensioning, permanently lubricated steel idlers.	Adjustable, permanently lubricated steel idlers.
CASTOR WHEELS	Two 12 x 5.00 heavy duty pneumatic front castor wheels and two 10.50 x 3.50 heavy duty pneumatic rear castor wheels. All same size castors are interchangeable.	Four 10.50 x 3.50 heavy duty pneumatic castor wheels; all interchangeable.
OVERALL WIDTH	95" (241 cm)	60" (152 cm)

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[1] Front deck and wing decks use the same B section belts.





Groundsmaster® 580-D Specifications* (continued)

OVERALL WEIGHT AND DIMENSIONS (APPROXIMATE)	
WIDTH	Transport: 7', 11" (241 cm). Mow: 16' (496 cm).
WHEELBASE	76" (193 cm)
WHEEL TREAD	Front: 76" (193 cm) Rear: 69" (175 cm)
HEIGHT	Transport: 85" (216 cm), (top of cutting units raised). Mow: 4', 11" (152 cm), (top of seat back).
OVERALL LENGTH	14' (427 cm)
TOTAL WEIGHT	6,540 lbs. (2,967 kg) with fluids.

TORO ACCESSORIES				OTHER MANUFACTURERS' ACCESSORIES
Model/Part #	Description	Model/Part #	Description	Description
30359	Universal Mount Sunshade	98-7329	Foam Filled 12" (30 cm) Castor Tire	Cab** with ROPS
30613	Road Light Kit			
30588	Leaf Mulcher Kit	93-5973	Foam Filled 10" (25 cm) Castor Tire	2-Stage Snow Thrower***
30615	Air Conditioner Installation Kit	30601	4 Wheel Drive Kit	Rotary Broom****
30614	Front PTO Hydraulic	108-8080	Brake Light Kit	**Air conditioner/heater model 800101. Requires Toro A/C mounting kit, model 30615.
108-1453 107-0217-03	Atomic Mulching Blades Atomic Mulching Blades 11 pk.			

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**Manufactured by Jodale Perry.

***Manufactured by Loftness.

****Manufactured by M-B Companies, Inc.

The Toro Company does not manufacture or sell the ROPS, cab, snow thrower, rotary broom or air conditioner, nor does Toro guarantee these accessories in any manner whatsoever.

The Groundsmaster 580-D is manufactured in Tomah, WI ISO 9002 Certified Plant.





Groundsmaster® 580-D Attachments Specifications*



BOXER CAB****	
CONSTRUCTION	ROPS solid-welded steel frame. Composite roof and body panels.
STANDARD FEATURES	Curved clear tempered glass windshield, 2-speed pantograph windshield wiper, all-glass doors, emergency exit windows, opening windows, fixed windows, upholstered cab interior, overhead console, dome light, cup holder.
OPTIONAL FEATURES	4-way flasher, rear wiper, windshield washers, exterior mirrors, pressurize fan/heater, air conditioning unit, interior rearview mirror, sun shade, 12-volt auxiliary outlet, AM/FM Cassette Stereo, AM/FM CD Stereo, and storage pack.



ROTARY BROOM***	
TYPE	Windrow type, front mounted hydraulic broom with dual motors. Electric/hydraulic angling, 30° left and right.
BROOM SIZE	32" (81 cm) diameter x 96" (244 cm) wide.
BRUSH	Sectional brush with combination polypropylene/wire radial segments.
SHIPPING WEIGHT	1300 lbs. (590 kg)
OPTIONS	Dirt Deflector, Storage Stands.



SNOWTHROWER**	
DIMENSIONS	Width: 84" (213 cm); Weight: 1,000 lbs. (454 kg).
HYDRAULIC REQUIREMENTS	35-45 gpm (133-170 liters/m)
GEARBOX-MAXIMUM POWER	1.5" - 120 hp
AUGER	(1) 16" (41 cm)
CUTTING HEIGHT	32" (81 cm)
FAN	Size: 27" (69 cm) diameter; Depth: 6" (15 cm); Speed: 630/775 rpm.
HYDRAULIC MOTOR	112 - 1064
CHAIN	Drive: #60 Double; Auger: #60.
BEARING	1.375" (3.8 cm)
CUTTING EDGE	.375" x 3" (1 x 7.6 cm)
SPOUT DIAMETER	11" (28 cm)

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