



Greensmaster® 3050 & 3100 Specifications*

	GREENSMAS ^T ER 3050, MODEL 04351	GREENSMAS ^T ER 3100, MODEL 04356		
ENGINE	Vanguard® V-Twin cylinder, 4-cycle, OHV, air-cooled, gas engine with cast iron cylinder sleeves. 16 hp (11.9 kW), 29.3 cu. in. (480 cc) displacement. Dual element air cleaner. Electronic ignition. Full pressure lubrication, oil filter. 54 ounces (1.6 liter) oil capacity. Engine is vertically mounted with three focused isolation mounts.	Vanguard® V-Twin cylinder, 4-cycle, OHV, air-cooled, gas engine with cast iron cylinder sleeves. 18 hp (13.4 kW), 34.8 cu. in. (570 cc) displacement. Dual element air cleaner. Electronic ignition. Full pressure lubrication, oil filter. 54 ounces (1.6 liter) oil capacity. Engine is vertically mounted with three focused isolation mounts.		
FUEL CAPACITY	7.5 gallon (28.4 liters) capacity; unleaded gasoline.			
TRACTION DRIVE	Hydraulic gear pump. Foot pedal forward and reverse; infinitely variable. Front wheel orbit motors.			
GROUND SPEED	Forward – 1st, mow: 3.8 mph (6.1 km/h); 2nd, transport: 8.1 mph (13 km/h). Reverse – 1.9 mph (3 km/h).			
TURF COMPACTION IMPLEMENT DRIVE	8-10 psi (dependent on tire pressure) with operator and cutting units down. Hydraulic drive, individual pump and valve sections operating 3 reel motors.			
HYD. OIL CAPACITY	4.5 gallon (17 liter) oil reservoir.	7.0 gallon (26.5 liter) oil reservoir.		
HYD. OIL FILTER	10 micron, large capacity, long life replaceable cartridge, full flow.			
TURF GUARDIAN® LEAK DETECTOR	Optional: manufactured by B.H. Sales.	Electrical actuation when ignition switch is on (automatic reset w/ignition switch off). A float switch detects hydraulic fluid leaks of 4-6 oz. (118-177 ml); sounds electric alarm. Nylon expansion tank (w/sight gauge) holds excess hydraulic fluid due to temperature rise.		
TIRES/WHEELS/PRESSURE	Three tires: 18 x 9.50-8, 2-ply pneumatic, tubeless, demountable and interchangeable with smooth tread. Tire pressure: 8-12 psi (55-83 kPa). Optional Traction Tire (2-ply): P/N 231-124.			
MAIN FRAME	Tricycle vehicle; two front wheels, rear wheel steering. Welded, steel tube frame construction. Two cutting units up front with center cutting unit beneath the operator.			
BRAKES	Two 6" (15 cm) drum type mechanical brakes with rack and pawl lock for parking.			
STEERING	Rectangular steering wheel. Adjustable steering arm.	Power steering. 13" (33 cm) round steering wheel. No-tool quick adjust steering arm and adjustable tilt. Double rod steer cylinder for accurate straight line steering/mowing.		
CONTROLS/GAUGES/DIAGNOSTICS	Hand operated choke, throttle and gear selection. Foot operated traction drive, brakes, and mow/lift pedal for starting or stopping of implements. Hour meter and volt meter.			
ELECTRICAL FEATURES	12 volt battery; 32 amp hour. 16 amp alternator, circuit fused at 10 amps. Ignition switch/key. Seat switch, mow and traction drive & parking brake, interlock switches.			
SEAT	Contour seat with high backrest. 7" (18 cm) fore/aft adjustment with 2 mounting positions.			
OPER. SOUND LEVEL	81 dB(A) at operator's ear under normal operation.			
BYSTANDER SOUND LEVEL	SAE Bystander Sound Pressure at:			
	25 ft. (8m)	50 ft. (15 m)	100 ft. (30 m)	
	Mowing: 74 dB(A)	68 dB(A)	62 dB(A)	
	In Transport: 72 dB(A)	66 dB(A)	60 dB(A)	
CERTIFICATION	Certified to meet ANSI specification B71.4-1990 and applicable Federal and State regulations based thereon.			
WARRANTY	Two year limited warranty. Refer to the Operator's Manual for further details. Briggs & Stratton provides a two year commercial engine, and a lifetime Magnetron® ignition warranty.			
OVERALL DIMENSIONS AND WEIGHTS	Model 04351	Model 04356	Model 04351	Model 04356
	Width of Cut: 59" (150 cm)	59" (150 cm)	Width w/reels: 69.75" (177 cm)	69.75" (177 cm)
	Wheel Tread: 49.5" (126 cm)	49.5" (126 cm)	Height: 48.5" (123 cm)	48.5" (123 cm)
	Wheelbase: 46" (119 cm)	46" (119 cm)	Wet Weight (without reels): 940 lbs. (423 kg)	1,021 lbs. (463 kg)/04353
	Length: 90" (229 cm)	90" (229 cm)		1,071 lbs. (485 kg)/04354

* Specifications and design subject to change without notice.



Greensmaster® 3050 & 3100 Specifications* (continued)

GREENSMaster 8 AND 11 BLADE CUTTING UNITS 8 BLADE MODELS 04404, 04408, 04468 11 BLADE MODELS 04406, 04450													
TYPE OF CUTTER	Three 21" (53 cm) reels.												
HEIGHT OF CUT	HOC range: $\frac{1}{8}$ "- $\frac{3}{4}$ " (3.1-19 mm). Effective HOC may vary depending upon turf conditions and bedknife installed.												
OPTIONAL BEDKNIVES	<table border="1"> <thead> <tr> <th>Bedknife</th> <th>Blade Thickness</th> </tr> </thead> <tbody> <tr> <td>Micro-Cut Bedknife</td> <td>$\frac{5}{64}$" (1.9 mm)</td> </tr> <tr> <td>Tournament Bedknife (SPA std.)</td> <td>$\frac{3}{32}$" (2.4 mm)</td> </tr> <tr> <td>Lo-Cut Bedknife (04408 & 04406 std.)</td> <td>$\frac{1}{8}$" (3.1 mm)</td> </tr> <tr> <td>High Cut Bedknife</td> <td>$\frac{3}{16}$" (4.8 mm)</td> </tr> <tr> <td>Fairway Bedknife (04404 std.)</td> <td>$\frac{1}{4}$" (6.3 mm)</td> </tr> </tbody> </table>	Bedknife	Blade Thickness	Micro-Cut Bedknife	$\frac{5}{64}$ " (1.9 mm)	Tournament Bedknife (SPA std.)	$\frac{3}{32}$ " (2.4 mm)	Lo-Cut Bedknife (04408 & 04406 std.)	$\frac{1}{8}$ " (3.1 mm)	High Cut Bedknife	$\frac{3}{16}$ " (4.8 mm)	Fairway Bedknife (04404 std.)	$\frac{1}{4}$ " (6.3 mm)
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HOC AND ROLLER ADJUSTMENT	<p>Front roller: micrometer hand adjustment; 1 turn = .025" (.6 mm) HOC change.</p> <p>Rear Roller SPA Cutting Units: 4 fixed hole positions. Left-hand shoulder bolt has eccentric to provide rear roller leveling.</p> <p>Rear Roller 4-Bolt Adjustment Cutting Units: adjustable swing arm to also provide for rear roller leveling.</p>												
REEL/FRAME	Reels are 5" (13 cm) diameter. High carbon steel blades, RC-42-48. Reel blades are welded to 5 stamped steel spiders. Welded cutting unit frame.												
BEDKNIFE AND BEDBAR	<p>Single Point Adjustment (SPA) Models: Replaceable single edged, high carbon steel bedknife austempered to RC 48-55, fastened to a machined cast iron bedbar. The bedbar pivots on 4 rubber bushings. The left end has an eccentric pivot bolt for leveling.</p> <p>4-Bolt Adjustment Models: Opposed screw adjustment, replaceable bedknife.</p>												
CLIP FREQUENCY & OPTIMUM HOC RANGE	<table border="1"> <thead> <tr> <th>Model</th> <th>Inches (max.)</th> <th>Cuts per Meter</th> <th>Optimum HOC Range</th> </tr> </thead> <tbody> <tr> <td>11 Blade: 04406, 04450</td> <td>.18"</td> <td>217</td> <td>$\frac{1}{8}$" - $\frac{7}{32}$"</td> </tr> <tr> <td>8 Blade: 04404, 04408 and 04468</td> <td>.25"</td> <td>158</td> <td>$\frac{1}{8}$" - $\frac{7}{32}$"</td> </tr> </tbody> </table>	Model	Inches (max.)	Cuts per Meter	Optimum HOC Range	11 Blade: 04406, 04450	.18"	217	$\frac{1}{8}$ " - $\frac{7}{32}$ "	8 Blade: 04404, 04408 and 04468	.25"	158	$\frac{1}{8}$ " - $\frac{7}{32}$ "
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BEDKNIFE TO REEL ADJUSTMENT	SPA Models: Bedknife adjusts against reel with a single point control knob containing detents of .001" (.025 mm) bedknife movement for each indexed position. 4-Bolt Models: Opposed screw adjusts bedknife to reel.												
REEL DRIVE	Each reel is powered by a quick disconnect gear type motor with displacement of .43 cu. in./rev. (7 cc).												
ROLLERS	Front and rear rollers are 2" (5.1 cm) diameter with regreaseable water pump type bearings. Front rollers must be ordered separate (see Accessory Matrix).												

Greensmaster® 3200 Cutting Units also available

8 BLADE CUTTING UNITS: 4-BOLT, 04470, OR SINGLE POINT ADJUSTMENT, 04472 11 BLADE CUTTING UNITS: 4-BOLT, 04471, OR SINGLE POINT ADJUSTMENT, 04473													
HEIGHT OF CUT (HOC) RANGE	Cutting height is adjusted on rear roller by two vertical screws and held by two locking capscrews. Bench HOC range is $\frac{3}{32}$ " (.094 inch, 2.4 mm) to 1.03" (26 mm). Higher heights may require changing the front roller bracket aggressiveness setting. Effective HOC may vary depending on turf conditions and bedknife installed.												
REEL WELDMENT	Reels are 5" (13 cm) in diameter, 21" (53.3 cm) in length. High carbon steel blades are welded to 5 stamped steel spiders, and heat treated to RC 48-54 hardness.												
REEL BEARINGS	Two double row ball bearings, 30 mm inside diameter press to fit onto reel shaft. Inverted seal pressed onto reel shaft. Bearing side-load maintained by wave washer.												
REEL DRIVE	The reel weldment shaft is a 1.375" diameter tube with drive inserts permanently pressed in both ends. A replaceable floating coupler with an internal eight tooth spline is factory installed on the right end, and held in place by a snap ring. The floating coupler may be moved to the other end when the cutting unit is used on the 3200's front right position.												
CUTTING UNIT ATTITUDE	Front roller bracket has four positions that allows the user to change the cutting unit attitude and behind center distance of bedknife from reel centerline. Varying settings will significantly alter the cutting unit's aggressiveness and amount of grass removed.												
BEDKNIFE	Replaceable single edged, high carbon steel bedknife austempered to RC 48-55, fastened to a machined cast iron bedbar. 4-bolt and SPA models both use 13 screw bedknives. Extended tournament bedknife is standard.												
BEDKNIFE ADJUSTMENT	4 Bolt Models: Two opposed screws on each end of bedbar to level and regulate bedknife to reel contact. SPA Models: Two rubber bushings as pivots and a centered lever arm to regulate knife to reel contact. A single screw has detents corresponding to .0007" (.018 mm) bedknife movement for each indexed position. A linear adjustment on the bedbar left end allows leveling of bedknife to reel blades.												
CLIP FREQUENCY & OPTIMUM HOC RANGE	<p>Dependent on mowing ground speed, reel rpm and number of reel blades. Example below assumes a 3.8 mph (6.1 km/h) ground speed:</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Inches (max.)</th> <th>Cuts per Meter</th> <th>Optimum HOC Range*</th> </tr> </thead> <tbody> <tr> <td>11 Blade: 04471 or 04473 —</td> <td>.18"</td> <td>217</td> <td>$\frac{1}{8}$" - $\frac{7}{32}$"</td> </tr> <tr> <td>8 Blade: 04470 or 04472 —</td> <td>.25"</td> <td>158</td> <td>$\frac{1}{8}$" - $\frac{9}{32}$"</td> </tr> </tbody> </table>	Model	Inches (max.)	Cuts per Meter	Optimum HOC Range*	11 Blade: 04471 or 04473 —	.18"	217	$\frac{1}{8}$ " - $\frac{7}{32}$ "	8 Blade: 04470 or 04472 —	.25"	158	$\frac{1}{8}$ " - $\frac{9}{32}$ "
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FRONT & REAR ROLLERS	Standard Wiehle front roller: 2" (5.2 cm) diameter. Right bracket has an eccentric shoulder bolt to provide leveling. A second eccentric may be added to the left bracket for increased leveling range. Roller has a regreaseable water pump type bearing. Standard smooth rear roller: 2" (5.2 cm) diameter. Roller has a through shaft with greasable ball bearings.												
COUNTERBALANCE WEIGHT	The cutting unit left end weight seals the bearing area and balances the reel motor's weight during cutting.												

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Greensmaster® 3050 & 3100 Specifications* (continued)

RIDING GREENSMaster ACCESSORY MATRIX																
	8 Bid C/U HD (4-bolt) 04404	8 Bid C/U (4-bolt) 04408	8 Bid C/U (4-bolt) 04470	11 Bid C/U (4-bolt) 04406	11 Bid C/U (4-bolt) 04471	8 Bid C/U (SPA) 04468	8 Bid C/U (SPA) 04472	11 Bid C/U (SPA) 04450	11 Bid C/U (SPA) 04473	Thatching Reels 04493	Ind. Reel Shut-Off Kit 28-2150	Variable-Speed Kit 04422	Tri Roller 04495	Traction Tire (2-ply) 231-124	Service Manual	Splicer 04494
Greensmaster 3050 Model 04351	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
Greensmaster 3100, Model 04353	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
Greensmaster 3100 3WD, Model 04354	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
⁵ / ₁₆ " (2.0 mm), (13 screw) Microcut Bedknife, P/N 93-4262	-	-	-	-	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
³ / ₃₂ " (2.4 mm), (13 screw) Tournament Bedknife, P/N 93-4263	-	-	-	-	-	Std.	-	Std.	-	-	-	-	-	-	-	-
¹ / ₈ " (3.2 mm), (13 screw) Lo-Cut Bedknife, P/N 93-4264	-	-	Opt.	-	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
³ / ₁₆ " (4.8 mm), (13 screw) High Cut Bedknife, P/N 94-6392	-	-	Opt.	-	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
¹ / ₄ " (6.3 mm), (13 screw) Fairway Bedknife, P/N 63-8600	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
³ / ₃₂ " (2.4 mm), (7 screw) Tournament Bedknife, P/N 94-6394	Opt.	Opt.	-	Opt.	-	-	-	-	-	-	-	-	-	-	-	-
¹ / ₈ " (3.2 mm), (7 screw) Lo-Cut Bedknife, P/N 94-6395	Opt.	Std.	-	Std.	-	-	-	-	-	-	-	-	-	-	-	-
³ / ₁₆ " (4.8 mm), (7 screw) High Cut Bedknife, P/N 94-6396	Opt.	Opt.	-	Opt.	-	-	-	-	-	-	-	-	-	-	-	-
¹ / ₄ " (6.3 mm), (7 screw) Fairway Bedknife, P/N 63-8610	Std.	Opt.	-	Opt.	-	-	-	-	-	-	-	-	-	-	-	-
Full Front Roller Kit, Model 04412	Opt.	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Swaged Roller Kit, Model 04414	Opt.	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Cast Iron Wiehle Roller Kit, Model 04424	Opt.	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Wiehle Sectional Type Roller, P/N 21-6540	Opt.	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Aluminum Wiehle Roller Kit, Model 04426	Opt.	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Rear Roller Scraper Kit	Opt. 42-4820	Opt. 42-4820	Opt. 95-1600	Opt. 42-4820	Opt. 95-1600	Opt. 53-9240	Opt. 95-1600	Opt. 53-9240	Opt. 95-1600	-	-	-	-	-	-	-
Rotating Rear Roller Brush [1]	Opt. 93-0110	Opt. 93-0110	-	Opt. 93-0110	-	Opt. 92-9160	-	Opt. 92-9160	-	-	-	-	-	-	-	-
Backlapping Kit, (hose quick connect), P/N 92-9656	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
Backlapping Kit, (two-speed motor), P/N 94-1870	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
Cam Quick HOC Kit (SPA), Model 04451	-	-	-	-	-	Opt.	-	Opt.	-	-	-	-	-	-	-	-
Grooming Reel Kit 04456	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
Full Front Roller, P/N 104-2642	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
Wiehle Rear Roller Kit, Model 04488	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
Front Roller Scraper Kit, P/N 104-7731	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
⁵ / ₁₆ " (2.0 mm) (13 screw) Extended Microcut P/N 104-7720	-	-	Opt.	-	Opt.	-	Opt.	-	Opt.	-	-	-	-	-	-	-
³ / ₃₂ " (2.4 mm) (13 screw) Extended Tournament P/N 99-4299	-	-	Std.	-	Std.	-	Std.	-	Std.	-	-	-	-	-	-	-



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Variable Quick HOC Kit, P/N 24-9400	Opt.	Opt.	Opt.	-	-	-	-	-	-	-	-	-
Scraper Comb Assembly, P/N 11-0070	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
Scraper Brush Assembly, P/N 33-1000	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	-	-	-	-
Grooming Reels [2], Model 04455	Opt.	Opt.	Opt.	Opt.	Opt.	-	-	-	Recmnd	-	-	-
Groomer Pull Arm Extension, P/N 88-6870	-	-	-	-	-	-	-	-	Opt.	-	-	-

[1] Extended Carrier Frames (2), P/N 93-1020, are required to mount 93-0110 or 92-9160 on Serial Nos. 40000 and before.

[2] Groomer Pull Arms, P/N 92-4953 recommended.

* 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 design, required attachments and safety features. Consult your local Toro Distributor.

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The Greensmaster 3050 and 3100 is manufactured in Tomah, WI ISO 9002 Certified Plant.

