



West Virginia Purchasing Division

2019 Washington Street, East
Charleston, WV 25305
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The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header @ 2

List View


General Information | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#)

Procurement Folder: 326614

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0310

Vendor ID: 000000213912 

SO Doc ID: DNR1700000054

Legal Name: SMITHTURF AND IRRIGATI

Published Date: 5/8/17

Alias/DBA:

Close Date: 5/30/17

Total Bid: \$0.00

Close Time: 13:30

Response Date: 05/26/2017 

Status: Closed

Response Time: 16:17

Solicitation Description: Golf Course Equipment Purchase for Canaan Valley & Pipestem 


Total of Header Attachments: 2

Total of All Attachments: 2



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 326614

Solicitation Description : Golf Course Equipment Purchase for Canaan Valley & Pipestem

Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2017-05-30 13:30:00	SR 0310 ESR05261700000005882	1

VENDOR
000000213912 SMITHTURF AND IRRIGATI

Solicitation Number: CRFQ 0310 DNR1700000054

Total Bid : \$0.00 **Response Date:** 2017-05-26 **Response Time:** 16:17:27

Comments:

FOR INFORMATION CONTACT THE BUYER
 Brittany E Ingraham
 (304) 558-2157
 brittany.e.ingraham@wv.gov

Signature on File	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Agricultural machinery for soil preparation	0.00000	EA	\$116,514.480000	\$0.00

Comm Code	Manufacturer	Specification	Model #
21101500			

Extended Description : Please see Exhibit A Pricing Page. Vendor must submit pricing page with their submitted bid response.

Smith Turf & Irrigation
 Expiration Date: 6/15/2017
 Quote Name: WVA spro/grmsmr bid
 Quote ID: 2179265

_STIiQuoteGolf(TaxSupported)
_STIiQuoteGolf(TaxSupported)
_STIiQuoteGolf(TaxSupported), - null
May 16, 2017

Qty	Model Number	Description	Unit Price	Extension
1	08703	Sand Pro 3040	\$12,459.00	\$12,459.00
1	08714	Manual Blade (40")	\$1,119.00	\$1,119.00
1	08731	Mid-Mount ASM	\$1,042.00	\$1,042.00
1	08732	Weeder Tine Toolbar	\$692.00	\$692.00
1	08751	Tooth Rake	\$1,049.00	\$1,049.00
				\$16,361.00
1	04384	Greenmaster 3250-D	\$23,246.00	\$23,246.00
4	04654	11 BL Cutting Unit	\$1,861.00	\$7,444.00
1	04625	Front Full Roller (Set of 3)	\$769.00	\$769.00
1	04257	Front Full Roller	\$272.00	\$272.00
4	121-2260	REAR ROLLER SCRAPER KIT, 21"	\$53.79	\$215.16
1	04477	3WD Kit	\$2,211.00	\$2,211.00
				\$34,157.16
1	04520	Greenmaster TriFlex 3400 Hydraulic Diesel	\$24,002.00	\$24,002.00
1	04718	Seat Kit, Standard	\$447.00	\$447.00
4	04653	11 BL Cutting Unit	\$1,889.00	\$7,556.00
1	04625	Front Full Roller (Set of 3)	\$769.00	\$769.00
1	04257	Front Full Roller	\$272.00	\$272.00
4	121-2260	REAR ROLLER SCRAPER KIT, 21"	\$53.79	\$215.16
1	04714	3WD Kit	\$1,966.00	\$1,966.00
				\$35,227.16
1	04358	Greenmaster 3150-Q	\$19,858.00	\$19,858.00
4	04654	11 BL Cutting Unit	\$1,861.00	\$7,444.00
1	04625	Front Full Roller (Set of 3)	\$769.00	\$769.00
1	04257	Front Full Roller	\$272.00	\$272.00
4	121-2260	REAR ROLLER SCRAPER KIT, 21"	\$53.79	\$215.16
1	04476	3 WD Kit (Without ROPS) (Available January 2012)	\$2,211.00	\$2,211.00
				\$30,769.16

TOTALS	
Equipment Total	\$116,514.48
Toro Protection Plus	\$0.00
Trade Ins	\$0.00
Estimated Sales/Use Tax	\$0.00
Total	\$116,514.48

TORO[®]

Sand Pro[®] 3040/5040

BUNKER RAKE

F E A T U R E S

- Quick Attach System to change implements in seconds without tools
- Over 25 implements available
- Hydraulic power steering (5040)
- Exclusive steerable front attachments (5040)
- 16hp (3040), 18hp (5040) Kawasaki V-twin engine
- Responsive hydraulically-actuated front (5040) and rear attachments

Maintaining bunkers and a whole lot more.

It's time to demand more from your bunker rake. With the exclusive Quick Attach System (QAS) offering tool-free, quick attachment change outs and over 25 valuable attachments, the Sand Pro 3040 and 5040 are versatile utility vehicles with as many uses outside the bunker as in it. The Sand Pro 5040's optional front QAS provides added flexibility and exclusive steerable front attachments for surgical precision. The Toro Sand Pro keeps bunkers in tournament condition every day.

toro.com/sandpro



Sand Pro[®] 5040

Call your Toro distributor at 800-803-8676

Sand Pro[®] 3040 & 5040 Specifications[†]

	SAND PRO 3040, MODEL 08703	SAND PRO 5040, MODEL 08705
ENGINE	Vanguard [®] , V-twin cylinder, 4-cycle, OHV, air-cooled, gas engine with cast iron sleeves. 16 hp (11.9 kW) at 3600 rpm. Displacement: 29.3 cu. in. (480 cc). Oil capacity: 1.75 quart (1.8 liter). Electronic ignition. Full pressure lubrication, oil filter. Base mounted engine and pump with 4 isolation mounts.	Vanguard [®] , V-twin cylinder, 4-cycle, OHV, air-cooled, gas engine with cast iron sleeves. 18 hp (13.4 kW) at 3600 rpm. Displacement: 34.8 cu. in. (570 cc). Oil capacity: 1.75 quart (1.8 liter). Electronic ignition. Full pressure lubrication, oil filter. Base mounted engine and pump with 4 isolation mounts.
AIR CLEANER SYSTEM	Remote mounted 3-phase Donaldson [®] air cleaner.	
FUEL CAPACITY	5.0 gallon (18.9 liter) of unleaded gasoline.	
TRACTION DRIVE	Direct driven hydrostatic variable displacement piston pump to 3 hydraulic motors for 3WD. Large, front mounted hydraulic cooler and fan. Foot pedal control, forward/reverse. Patented Series/Parallel hydraulic traction system keeps three wheels working together, virtually eliminates spin-outs.	
GROUND SPEED	Infinitely variable 0-10 mph (16 km/h) forward; 4.3 mph (6.9 km/h) reverse.	
HYDRAULIC OIL	5.0 gallon (18.9 liter) system capacity. Nylon reservoir to reduce corrosion. 10 (nominal) micron replaceable cartridge.	
TIRES/WHEELS	Three 22 x 11.00-8 pneumatic tubeless tires on demountable, interchangeable wheels. Tire pressure: 4-6 psi (27.5 kPa).	
MAIN FRAME	Tricycle vehicle with welded rectangular tubular steel frame construction. Rear engine placement.	
BRAKES	Dynamic braking through the hydrostatic transmission and hand actuated brake lever.	
STEERING	Manual front wheel steering. 15" (38 cm) diameter steering wheel. Double lubed for life gearbox.	Hydraulic power steering. 15" (38 cm) diameter steering wheel.
CONTROLS/GAUGES	Hand operated choke, throttle, and hydraulic control for raising/lowering with float. Foot pedal controls traction forward/reverse speed. Rear hydraulic lift and lower controls. Gauges: hour meter.	Hand operated choke, throttle, and hydraulic control for raising/lowering with float. Foot pedal controls traction forward/reverse speed. Front and rear hydraulic lift and lower controls. Gauges: hour meter.
SEAT	High-back cushion seat w/drain hole. 4" front-back adjustment w/additional 1.75" mounting adjustment. (arm rests optional)	
ELECTRICAL FEATURES	12-volt battery, 15 amp., 300 CCA @ 0° F, 12-volt electric starter. Dash mounted ignition switch with key. Neutral interlock switch, seat switch. Also provisions for light kit.	
POWER	97 dB(A) under normal operating conditions.	
DIMENSIONS	Width: 58" (147 cm), Length: 67.5" (171.5 cm), Height: 45.25" (114.9 cm), Wheelbase: 42.75" (108 cm)	
GROUND CLEARANCE	6.0" (15.2 cm)	
WEIGHT	Net weight (less fluids): 930 lbs. (421.8 kg).	
WARRANTY	Two-year limited warranty. Refer to the Operator's Manual for further details. Briggs & Stratton [®] provides a two-year commercial engine warranty and a lifetime Magnetron [®] warranty.	

	FRONT ATTACHMENTS
FRONT LIFT FRAME ASSEMBLY	Front Quick Attach System [™] mounting assembly and hydraulic components. Used on Sand Pro 5040 only. Model 08713.
HYDRAULIC FLEX BLADE	Hydraulic QAS flex blade is designed for leveling, packing, and smoothing uneven areas in one pass. Model 08712. Available for SP5040 only (requires Front Lift Frame Assembly – 08712)
MANUAL BLADE	Standard 40" (102 cm) width steel blade. Spring balanced manual blade is used for leveling uneven areas and pushing up bunkers after washouts (cannot be used when 08712 is installed). Model 08714.
	Blade extension available to increase blade width to 60" (152 cm) for leveling out larger uneven areas. PN 115-5646.

	FRONT & REAR QAS ATTACHMENTS
BUNKER PUMP	Throws water up to 40' (12 m) and can pump 95 gal/min (360 l/min). Adjustable throw direction and angle. Requires Rear Remote Hydraulics (08781) for rear QAS mount. Requires Front Lift Frame Assembly (08712), Rear Remote Hydraulics (08781) and Front Remote Hydraulics for front QAS mount (on SP5040 only) Model 08765.
BUNKER PUMP REMOTE DISCHARGE KIT	An available 50' (15 m) discharge hose allows the QAS Bunker Pump to be removed and dropped into hard to reach areas. PN 115-2084.
LIP BROOM	Eliminates the task of manually maintaining infield lips. Removes ridge buildup by sweeping material back into the infield. Mounts to front QAS (SP5040) and rear QAS (SP3040 & 5040). Requires Front Lift Frame Assembly– 08712 for front attachment (on SP5040 only) Lip Broom available from Rahn Industries at www.rahngroomer.com or 1-800-298-1707.
TURF PLOW	The 64" Turf Plow is a great tool for removing aeration cores from greens, clearing snow from walkways, cart paths and even sports fields. It is lightweight and features a rounded lower lip that is gentle on turf. The Turf Plow fits both Sand Pro 3040 and 5040. Turf Plow is available from Nordic Plow at nordicplow.com

	MID-MOUNT ATTACHMENTS
MID-MOUNT ASSEMBLY	Base mounting assembly for mid-mount toolbars with spring-loaded regulation to allow relief if obstruction is hit. Model 08731.
WEEDER TINE TOOLBAR	Ideal for removing weeds and grass from less maintained bunkers and fields (requires Mid-Mount Assembly – 08731). Model 08732.
LEVELING BLADE	Attaches to any mid-mount toolbar to quickly level out large areas. Foot operated latch allows operator to lower leveling blade independently from the other mid-mount toolbar. PN 108-8496.
SOLID TINE TOOLBAR	Used for general scarifying applications. Rotate teeth to maximize tine life (requires Mid-Mount Assembly – 08731). Model 08734.
CARBIDE TINE TOOLBAR	Use in the harshest conditions and for extended life – 15 carbide tines included (requires Mid-Mount Assembly – 08731). Model 08735.
SPRING TINE TOOLBAR	Use for light to moderate scarifying and daily maintenance in bunkers and on premium fields (requires Mid-Mount Assembly – 08731). Model 08733.
EDGER	Maintains the grass edge of the outfield near the infield skin or warning track. Easily renovate ballfields by removing overgrown turf and infield lip build-up. Significantly reduces labor required for infield edging (requires Rear Remote Hydraulics – 08781). Model 08766.

[†]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.





Sand Pro® 3040 & 5040 Accessories

REAR QAS ATTACHMENTS	
TOOTH RAKE	Designed to lightly scarify, pack, smooth and groom in one pass. Use in dry or wet conditions and can improve the condition of neglected sports fields. Model 08751.
WEIGHT KIT FOR TOOTH RAKE	Additional weight for the Tooth Rake attachment to improve performance in coarse or wet conditions. Set of 5 weights. PN 115-4333.
QAS FLEX TOOTH RAKE	85" (216 cm) daily bunker groomer. Flexible rubber material will not tear liners or turf, allowing for edge grooming. Rubber groomers are reversible for longer life. Model 08757.
TOOTH RAKE BROOM	75" (190 cm) Brush – Attaches behind the Tooth Rake (08751) for a smoother finish. Model 08816.
PIVOTING TROWELS KIT	This kit allows independent outside trowels to pivot and rake across the entire turn which eliminates unraked teardrop – Attaches to Tooth Rake (08751). PN 119-7158.
SPRING RAKE	Leaf rake assembly designed to be used alone or in combination with the tooth rake (08751) to achieve desired appearance. Great for wet conditions and collecting debris in groomed areas (if used independently, requires QAS A-Frame Assembly, 108-9427). Model 08752.
DRAG MAT CARRIER SYSTEM	QAS-mounted carrier frame with hydraulic lifter allows operator to raise and lower drag mats without ever leaving the operator seat. 72" (183 cm) width. Model 08756.
COCO DRAG MAT	Quickly produces a premium finish on dry, level surfaces (requires Drag Mat Carrier System - 08756). Model 08758.
STEEL DRAG MAT	Designed to for more rugged surfaces to quickly groom and finish. Use on wet or dry sand surfaces (requires Drag Mat Carrier System - 08756). Model 08757.
AUTOMAT DRAG MAT	78" x 18" (198 cm x 46 cm). Steel drag mat is controlled by and works together with nail drag for single-pass scarification and finish grooming. Drag mat automatically engages the infield as the nail drag is lowered via Rear QAS. Features lock-out position when use is not required. Model 08763. Requires Nail Drag 08761. Compatible with QAS Flex Groomer 08762.
MANUAL DRAG MAT	78" x 36" (198 cm x 91.5 cm). Steel drag mat delivers exceptional finish grooming. Mat easily rolls up and stores on yolks provided. Model: 130-7852. Requires Nail Drag 08761. Compatible with QAS Flex Groomer 08762.
NAIL DRAG	Pivots to follow the contours of uneven field surface. Use to scarify, loosen, or weed before smoothing. Easily adjust nail pattern and depth. Accepts up to a 400 common nail. Model 08761.
QAS FLEX GROOMER	72" (182 cm) flexible groomer mounts to Nail Drag (08761) for single-pass infield scarification and grooming. Features lock-out position to restrict use without tools or removal. Model 08762. Requires Nail Drag 08761.
SEGMENTED GROOMING BROOM	Designed to minimize top surface disruption, to maximize firmness, and provide a smooth finished look in contoured bunkers. Model 08753.
REPLACEMENT SEGMENTED GROOMING BROOM	Replacement grooming broom with stiffer bristles. PN 110-8182.
WEIGHT KIT FOR SEGMENTED GROOMING BROOM	Additional weight for Segmented Grooming Broom to improve performance in coarse or wet conditions. Set of 4 weights. PN 112-0025.
GROOMING BRUSH	Designed to groom and level synthetic turf fields. Designed to brush in topdressing and stand-up turf on greens and tees – (requires Synthetic Turf Brush Kit, PN 119-7107 or Greens Brush Kit, PN 119-7108). Model 08794.
SYNTHETIC TURF BRUSH	For use with Turf Groomer, 08794. PN 119-7107.
GREENS BRUSH	For use with Turf Groomer, 08794. PN 119-7108.
SPRING TINE KIT	Use to help stand-up and decompact synthetic turf. For use with Turf Groomer, 08794. PN 119-7109.
MAGNET ATTACHMENT	Use to collect ferrous debris on synthetic field. For use with Turf Groomer, 08794. PN 119-2827.
SYNTHETIC TURF CONDITIONER	Stainless spring steel brushes loosen infill from compacted synthetic turf fields. Use to scarify, loosen, or weed infields. Use to groom beaches and rocky trails. Model 08790.
QAS FINISH GRADER	Use to level and/or scarify large areas. Includes box plow and scarifier with spring load regulation to allow relief if obstruction is hit. Model 08754.
RAHN GROOMER	The Rahn GL650 Infield Groomer levels uneven playing fields, helping to prevent ridge build up while creating a safer, more consistent infield. The triple row broom is perfect for finishing the playing surface and can be stored upright for easy transport. The 2-way leveling system provides both a lock and float position to match infield conditions Rahn Groomer available from Rahn Industries at www.rahngroomer.com or 800-298-1707.
QAS SPIKER	Use for spiking greens and other formal turf to increase air flow for healthier turf. Model 08755.
QAS DEBRIS BLOWER	High powered blower designed to quickly clear debris from groomed and unwanted areas. Hydraulically-powered, 2000 rpm fan speed – 2700 cfm @ 81 mph (2700 cfm @ 130 kph). Requires Rear Remote Hydraulics - 08781. Model 08759.
BASIC DRAG MAT SYSTEM	Basic Drag Mat System, Model 112-1424 (requires 108-9427 & 110-1375)

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TORO

Greensmaster® 3150-Q / 3250-D

RIDING GREENSMOWERS

F E A T U R E S

Greensmaster 3150-Q:

- Briggs & Stratton® 18 hp (13.4 kW) air-cooled, gasoline engine
- Industry's quietest engine-powered riding greensmower

Greensmaster 3250-D:

- Kubota® D902, 24.8 hp (18.5 kW) 3-cylinder, liquid-cooled, diesel engine
- Ample power for any greens or off-greens application; extremely versatile

Legendary performance and reliability.

The Greensmaster 3150-Q and 3250-D are distinguished for their field-proven performance and exceptional quality of cut. Equipped with patented DPA cutting units for a superior cut and minimal maintenance, convenient controls for easy operation, and ample power to handle any application—it's no wonder these classic models have been trusted over the years to deliver the performance golf courses demand with a putting surface that exceeds expectations.

toro.com



Greensmaster® 3150-Q

Greensmaster® 3250-D

4
TIER

GREENSMASTER 3250-D, MODEL 04384																					
ENGINE	Kubota® 902 tier 4i, 3-cylinder liquid-cooled diesel engine. 55.0 cu. in. (902 cc). Full pressure lubrication, oil filter. 24.8 hp (18.5 kW) @ 3600 rpm. Engine governed to 2760 rpm high idle, 1500 rpm low idle (no load).																				
FUEL CAPACITY	6 gallons (22.7 liters). Biodiesel-Ready for use up to B-20 (20% biodiesel and 80% petroleum blend).																				
TRACTION DRIVE	Hydraulic piston pump, closed loop system. 2WD Parallel Hydrostatic or 3WD Series Parallel piston pump closed loop system. Foot pedal forward and reverse; infinitely variable.																				
GROUND SPEED	Forward-mowing speed is variable from 2-5 mph (3.2-8 km/h), adjusted by stop on pedal mechanism. Mow speed setting does not affect transport speed. Maximum Greensmaster 3250-D transport speed is 8.8 mph (14.4 km/h), may be reduced by adjusting stop in footrest pan without affecting mow speeds. Reverse is 2.5 mph (4.0 km/h) maximum.																				
TURF COMPACTION	10 psi (.68 bar) average at recommended minimum tire pressures, with a 200 lb. operator, and cutting units down.																				
STEERING	Power steering. No-tool quick adjust steering arm position, with arm motion allowing a wide range of operator sizes. Steering cylinder has through shaft design for accurate straight line steering.																				
CONTROLS/GAUGES	Raise/lower-mow lever. Functional control lever (neutral, mow, transport). Foot operated traction drive and brakes. Hour meter and 4 bulb warning cluster. Hand operated choke, throttle. Mechanical engine speed control.																				
ELECTRICAL FEATURES	Maintenance-free 12-volt battery with 530 minimum cold cranking amps at 0° F (-17.7° C) and 95 minutes minimum reserve capacity at 85° F (29.4° C) 40 amp alternator, circuit fused at 40 amps. Ignition switch/key. Seat switch. High temperature engine kill override switch. Harness terminals, fuse slot, and console switch location available for optional lights installation.																				
SOUND LEVEL	84 dBA at operator ear under normal conditions.																				
OVERALL DIMENSIONS	<table border="0"> <tr> <td>Width of Cut:</td> <td>59.0" (150 cm)</td> <td>Overall Height:</td> <td>77.5" (197 cm)</td> </tr> <tr> <td>Wheel Tread:</td> <td>50.5" (128 cm)</td> <td>Net Weight (no fuel, no operator):</td> <td>1,216 lbs. (552 kg)</td> </tr> <tr> <td>Wheel Base:</td> <td>48.6" (123 cm)</td> <td>Reel Speed:</td> <td>Approx. 1,950 rpm @ 2760 rpm (Adjustable)</td> </tr> <tr> <td>Overall Length (w/baskets):</td> <td>93.9" (238 cm)</td> <td></td> <td></td> </tr> <tr> <td>Overall Width:</td> <td>68.0" (173 cm)</td> <td></td> <td></td> </tr> </table>	Width of Cut:	59.0" (150 cm)	Overall Height:	77.5" (197 cm)	Wheel Tread:	50.5" (128 cm)	Net Weight (no fuel, no operator):	1,216 lbs. (552 kg)	Wheel Base:	48.6" (123 cm)	Reel Speed:	Approx. 1,950 rpm @ 2760 rpm (Adjustable)	Overall Length (w/baskets):	93.9" (238 cm)			Overall Width:	68.0" (173 cm)		
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TIRES	Three 19 x 10.5-8, 2 ply pneumatic tubeless demountable and interchangeable. Smooth tread (approx. 1290 rev/mile). 8-12 psi front; 8-15 psi rear.																				
LEAK DETECTION	Turf Guardian™ optional.																				
BACKLAPPING	Standard equipment.																				
BRAKES	6" (15.2 cm) drum type mechanical with rack and pawl lock for parking.																				
SEAT	Contour seat with high backrest. 7" (17.8 cm) fore/aft slider adjustment with two mounting positions, allowing 9" (22.8 cm) total seat travel. Operator manual tube mounted on the seat back for easy access.																				
ROPS	Roll over protection system standard.																				
CERTIFICATION	Certified to meet ANSI specification B71.4-2012 and European CE standards with appropriate kits installed.																				
WARRANTY	Two-year limited warranty. Refer to the Operator's Manual for further details.																				

8 BLADE DPA CUTTING UNITS, 04652 11-BLADE DPA CUTTING UNITS, 04654 14-BLADE CUTTING UNITS, 04656	
TRACTOR	These cutting units will mount on any Toro riding Greensmaster (excluding Greensmaster TriFlex 33xx/34xx series).
HEIGHT OF CUT (HOC) RANGE	Cutting height is adjusted on front roller by two vertical screws and held by two locking cap screws. Bench HOC range is .062"-.297" (1.6-7.5 mm). With high HOC kit, range is .297-1.0" (7.5-25.4 mm). 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. The reel is ground for diameter and concentricity, and backgrind.
REEL BEARINGS	Two stainless steel ball bearings, 30 mm inside diameter slip fit onto reel shaft retained by internally splined threaded insert. Low drag seals/stingers for added protection with o-ring sealed motor and counterweight. Reel position maintained by a wave washer with no adjusting nut.
MAINTENANCE	No grease zerks, sealed bearing design eliminates daily maintenance.
REEL DRIVE	The reel weldment shaft is a 1.375" (35 mm) diameter tube with internally splined threaded insert.
FRAME	Precision machined, die-cast aluminum cross member with two bolt-on die-cast aluminum side plates.
AGGRESSIVENESS	Aggressiveness stays constant throughout the life of the reel. Patented design.
BEDKNIFE	Replaceable single edged EdgeMax™ Microcut Bedknife is standard.
BEDKNIFE ADJUSTMENT	Dual screw, indexed "click" adjustment to the reel; detents corresponding positively to .0007" (.018 mm) bedknife movement for each position.
FRONT & REAR ROLLERS	Front: Not included with cutting unit, purchased separately. Option between full, narrow-spaced and wide-spaced roller. Rear: Steel full, 2" (5.1 cm) diameter with sealed bearings and through-shaft.
GRASS SHIELD	Non-adjustable shield with adjustable cut-off bar to improve grass discharge from reel in wet conditions.
TOTAL WEIGHT	8-blade: 72 lbs. (32.7 kg) with aluminum Wiehle Roller. 11-blade: 75 lbs. (34 kg) with aluminum Narrow Wiehle Roller. 14-blade: 78 lbs. (35 kg) with aluminum Wiehle Roller.

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Greensmaster® 3250-D Accessories

GREENSMaster 3250-D ACCESSORIES

TRACTION UNIT ACCESSORIES	
04477	3-Wheel Drive Kit
04479	Thatching Reel (Set of 1)
04494	Greens Spiker Kit
04495	Greens Tri-Roller Kit
30707	Armrest Kit
99-4506	Traction Tires
104-7701	Hydraulic Oil Cooler Kit
04554	Light Kit
120-1951	Spark Arrestor
04497	Leak Detector
112-0279	Front Wheel Weight Kit
100-6442	2WD Weight Kit
99-1645	3WD Weight Kit
100-6430	Hose Adapter Kit
105-9766	Radiator Screen Kit
104-9400	Ground Follow Kit
115-4510	Bimini Folding Shade
115-4754	Wireless Hour Meter

ROLLER OPTIONS	
04626	Front Narrow Wiehle Roller (set of 3)
04627	Front Wide Wiehle Roller (set of 3)
04625	Front Full Roller (set of 3)
04628	Solid Steel Roller Kit (front Wiehle & rear steel rollers)
04629	Anti-Bobbing Roller
71-1550	Cast Iron Rear Wiehle Roller
107-3514	Steel Wide Wiehle Roller
121-4675	Extended Wiehle Roller
04258	Extended Narrow Wiehle Roller
04267	Narrow Wiehle Roller (for paspalum)
107-3510	Steel Narrow Wiehle Roller
120-9595	Steel Rear Roller (standard)
125-5180	DPA Rear Roller Extension Kit
120-9600	High Height of Cut Kit
04249	Split Full Front Roller
04250	Split Narrow Wiehle Roller

CUTTING UNIT & REEL OPTIONS	
04652	8-Blade Cutting Unit
04654	11-Blade Cutting Unit
04656	14-Blade Cutting Unit
119-4103	8-Blade Reel (Individual)
121-6651	8-Blade Reel, Heavy-Duty (Individual)
119-4104	11-Blade Reel (Individual)
127-2202	14-Blade Reel (Individual)

GROOMER OPTIONS	
04648	Universal Groomer Drive (Set of 1)
04283	Groomer Reel, Spring Steel (Set of 1)
04270	Grooming Brush - Soft
04271	Grooming Brush - Stiff
112-9248	Groomer Pull Link Kit
04741	Grooming Reel - Thin Blade (Set of 1)

SCRAPER OPTIONS	
125-5303	Front Narrow Wiehle Roller Scraper
125-5304	Front Wide Wiehle Roller Scraper
125-5305	Front Full Roller Scraper
115-7377	Front Narrow Wiehle Roller Scraper Brush
115-7378	Front Wide Wiehle Roller Scraper Brush
115-7379	Front Full Roller Scraper Brush
115-7380	Front Narrow Wiehle Roller Scraper Comb
115-7381	Front Wide Wiehle Roller Scraper Comb
115-7382	Front Full Roller Scraper Comb
115-7383	Rear Roller Scraper
121-2260	Adjustable Rear Roller Scraper
04646	Spring Loaded Rear Roller Scraper (Set of 3)
107-9561	Anti-Bobbing Roller Scraper Kit
04650	Rotating Rear Roller Brush (Set of 1)

BEDKNIFE & BEDBAR OPTIONS	
93-4262	Microcut Bedknife
93-4263	Tournament Bedknife
93-4264	Low Cut Bedknife
94-6392	High Cut Bedknife
63-8600	Fairway Bedknife
108-4303	Extended Microcut Bedknife
108-4302	Extended Tournament Bedknife
115-1880	EdgeMax™ Microcut Bedknife (Standard)
115-1881	EdgeMax™ Tournament Bedknife
112-7475	EdgeMax™ Fairway Bedknife
106-2648-01	Bedbar (Standard)
99-3794-03	Aggressive Bedbar

THATCHING REEL ACCESSORIES	
117-6824	Thin dynaBLADE, (1.2mm Thickness) (Individual)
119-1128	Regular dynaBLADE, (2mm Thickness) (Individual)
117-6839	Replacement Kit, 1.2mm dynaBLADE (36 Blades)
117-6840	Replacement Kit, 2mm dynaBLADE (36 Blades)
121-6675	Spring Steel Kit
121-6674	Blade, Spring Steel
121-9525	Thatching Reel Quick Change Kit

BIO-HYDRAULIC FLUID / HYDRAULIC FLUID / OIL	
119-2157	Bio-Hydraulic Fluid, 5 gal. (18.9 L)
119-2158	Bio-Hydraulic Fluid, 55 gal. (208.2 L)
108-1178	Premium Hydraulic Fluid, 5 gal. (18.9 L)
108-1177	Premium Hydraulic Fluid, 55 gal. (208.2 L)
121-6393	Premium Engine Oil SAE 10W30, 5 gal. (18.9 L)
121-6392	Premium Engine Oil SAE 10W30, 55 gal. (208.2 L)

TOOLS	
04399	Turf Evaluator
125-5610	Paper - Reel
125-5611	Shim - Reel
94-9010	Height of Cut Bar Assembly

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Greensmaster® TriFlex™

HYBRID & HYDRAULIC RIDING GREENSMOWERS

FEATURES

Advanced Cutting Performance

- Patent pending Double A-Arm Suspension for superior contour following
- Industry leading Flex technology and DPA cutting units for easy adjustment and precision
- Innovative Lift-In-Turn feature for a consistently level cleanup cut
- Enhanced clippings capture system for improved turf health

Highly Productive and Versatile

- Powerful 21 hp Briggs & Stratton® Vanguard Gasoline or 24.8 hp Kubota® diesel engine
- Ample power for a wide range of applications both on and off the greens
- 10mph transport speed to save time and improve productivity

Innovative Maintenance Enhancements

- A Lift-Gate Footrest provides easy access to the center cutting unit for simplified maintenance and adjustments
- Tool-Free, Quick Change cutting units for greater versatility, simplified maintenance, and enhanced productivity
- Large, balloon-style tires ensure equal pressure on the turf to minimize tire marking and reduce scuffing in turns

All-Electric Reel Technology (Hybrid models only)

- Custom designed, highly efficient electrical reel motors
- Electrical energy storage for peak power demands
- Sufficient power to verticut

Setting a new standard by which all other riding greensmowers will be measured.

The Greensmaster TriFlex and TriFlex Hybrid models are the first riding greens mowers delivering the productivity of a rider and the precision of a walker. Combining the innovative, Double A-Arm Suspension System with industry-leading Flex technology, the cutting units float freely over any terrain resulting in a superior quality of cut and aftercut appearance. And, superior cutting performance is only the beginning. A patented Lift-Gate Footrest and Tool-Free, QuickChange cutting units are just two of the many features that provide added versatility, simplified service, and ultimately, more productivity.

TriFlex Hybrid models feature a reliable all-electric reel circuit that was custom designed with ample power for your most demanding applications, on and off the green. Features that save time and energy, and enhance productivity and turf health combine to make the TriFlex Hybrid the first product to earn the EnergySmart™ label from Toro.

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Call your Toro distributor at 800-803-8676



	GREENSMAS TM 3300 TriFlex, MODEL 04510	GREENSMAS TM 3320 TriFlex Hybrid, MODEL 04530	GREENSMAS TM 3400 TriFlex, MODEL 04520	GREENSMAS TM 3420 TriFlex Hybrid, MODEL 04540
ENGINE	Briggs & Stratton® Vanguard®, 21 HP (15.6 kW) @ 3600 rpm, 2-cylinder, air cooled, gasoline engine, governed to 2920 high idle, 1650 rpm low idle. Displacement: 38.3 cu-in. (627 cc)		Kubota® D902, Tier 4i, 24.8 HP (18.5 kW) @ 3600 rpm, 3-cylinder, liquid cooled, diesel engine, governed to 2880 high idle, 1560 rpm low idle. Displacement: 55.0 cu-in. (902 cc) Radiator: cooled with a 12-volt electric fan	
FUEL CAPACITY	6 gallons (22.7 liter) capacity.		6 gallons (22.7 liter) capacity. Biodiesel ready up to B20	
TRACTION DRIVE	2WD parallel hydrostatic or 3WD series-parallel piston pump closed loop system. Foot pedal forward and reverse; infinitely variable.			
GROUND SPEED	Forward-mowing speed is variable from 0-5 mph (0-8 km/h), adjusted by stop on pedal mechanism. Mow speed setting does not affect transport speed. Maximum Greensmaster TriFlex transport speed is 10 mph (16.1 km/h), may be reduced by adjusting stop in footrest pan without affecting mow speeds. Reverse is 3 mph (4.8 km/h) maximum.			
CUTTING UNIT DRIVE	Single gear pump, valve block, series reel drive to 3 reel motors.	48V-5400 watt air-cooled brushless permanent magnet generator in parallel with 48V 9Ah battery set powers three 48V- 1100 watt brushless permanent magnet reel motors.	Single gear pump, valve block, series reel drive to 3 reel motors.	48V-5400 watt air-cooled brushless permanent magnet generator in parallel with 48V 9Ah battery set powers three 48V- 1100 watt brushless permanent magnet reel motors.
AUTOMATIC CLIP CONTROL	N/A	Yes	N/A	Yes
STEERING	Power steering. No-tool quick adjust steering arm position with power assist, with arm motion allowing a wide range of operator sizes. Steering cylinder has a through shaft design for accurate straight line steering.			
ELECTRICAL SYSTEM	12-volt lead acid, group size U1, with 300 minimum cold cranking amps at 0° F and 34 minutes reserve capacity at 85° F/25 amps draw. 50 amp alternator. Ignition switch/key. Seat switch. Harness terminals and fuse slot available for optional lights installation.		Maintenance-free 12-volt battery with 585 minimum cold cranking amps at 0° F (-17.7° C) and 95 minutes minimum reserve capacity at 85° F (29.4° C) 60 amp alternator, circuit fused at 60 amps. Ignition switch/key. Seat switch. High temperature engine shut down. Harness terminals, fuse slot, and console switch location available for optional lights installation.	
48-VOLT SYSTEM FOR ELECTRIC REELS	N/A	4-12V 9Ah sealed, maintenance-free, VRLA batteries. 48-volt system is isolated from 12-volt including the frame/chassis.	N/A	4-12V 9Ah sealed, maintenance-free, VRLA batteries. 48-volt system is isolated from 12-volt including the frame/chassis.
CONTROLS	Ignition: Off/Run/Start. Throttle: Low - High Idle. Choke (AC only): Open /Closes choke plate. Parking Brake: Off - On. Traction Pedal: Rev/Neutral/Forward Joystick: Raises/lowers reels also tap off feature for clean up pass. Functional Control Lever sets neutral/mow/transport limits for traction pedal. Diagnostic Light: Indicates system faults to assist in resolving issues (04510 & 04520). InfoCenter™ Diagnostics (04530 & 04540).			
GAUGES	Fuel and hydraulic sight gauges, hour meter. Low oil pressure warning light.	Fuel and hydraulic sight gauges. InfoCenter™: Onboard LCD display shows gauges, alerts/faults, service reminders, electrical system diagnostics, low oil pressure, alternator, engine hours, engine rpm, voltage, functional control status, parking brake applied, reel speed setting, backlap control. New clip selection feature.	Fuel and hydraulic sight gauges, hour meter. Low oil pressure warning light, alternator warning light (on if not charging), glow plug indicator, high engine temperature.	Fuel and hydraulic sight gauges. InfoCenter™: Onboard LCD display shows gauges, alerts/faults, service reminders, electrical system diagnostics, low oil pressure, alternator, engine hours, engine rpm, voltage, functional control status, parking brake applied, reel speed setting, backlap control. New clip selection feature.
TIRES/WHEELS/PRESSURE	Three, 19 x 10.5 x 8, 4-ply rating pneumatic tubeless and demountable. Smooth tread. Tire pressure recommended: 12 - 18 psi front and rear.			
BRAKES	Hand-actuated parking brake lever with two 6" (15.2 cm) diameter drum brakes mounted on the front wheel motors.			
HYDRAULIC OIL	6.8 gallon (25.7 liter) tank	5.5 gallon (20.8 liter) tank	6.8 gallon (25.7 liter) tank	5.5 gallon (20.8 liter) tank
LEAK DETECTION	Equipped with Turf Guardian™ Leak Detection System. System sounds an alarm and turns on a warning light with the loss of 3 to 5 ounces of hydraulic oil.	Optional		
SOUND LEVEL	80 dB(A) at operator's ear under normal conditions.		84 dB(A) at operator's ear under normal conditions.	
OVERALL DIMENSIONS	Wheel Tread: 50.5" (128.3 cm) Wheel Base: 47" (119 cm) Length: 98" (249 cm) Width: 70.62" (179 cm) w/reels Height: 80.83" (205 cm)	Wheel Tread: 50.5" (128.3 cm) Wheel Base: 47" (119 cm) Length: 98" (249 cm) Width: 70.84" (180 cm) w/reels Height: 80.83" (205 cm)	Wheel Tread: 50.5" (128.3 cm) Wheel Base: 48.6" (123 cm) Length: 98" (249 cm) Width: 70.62" (179 cm) w/reels Height: 80.83" (205 cm)	Wheel Tread: 50.5" (128.3 cm) Wheel Base: 48.6" (123 cm) Length: 98" (249 cm) Width: 70.84" (180 cm) w/reels Height: 80.83" (205 cm)
WEIGHT	1161 lbs. (526 kg)	1257 lbs. (570 kg)	1286 lbs. (586 kg)	1406 lbs. (638 kg)
WIDTH OF CUT	59" (150 cm)			
GROUND CLEARANCE	4.5" (11.4 cm)			
CUTTING UNIT SUSPENSION	Double A-arm suspension utilizing sealed ball joints allows free cutting unit motion in pitch, roll, and yaw. The basket is directly mounted to the cutting unit displacing weight evenly over both cutting unit rollers eliminating the carrier frame, roller and pull links.			
QUICK CONNECT CUTTING UNITS	Quick connect/disconnect feature for both the reel drive motor and cutting unit. No tools required.			
REEL SPEED	Approximately 2050 RPM at 2850 engine RPM. Adjustable.			
BACKLAPPING	Standard equipment.			
OPTIONAL ACCESSORIES	Canopy, verticutters, greens rollers, dethatchers, oil cooler.			
CERTIFICATION	Certified to meet ANSI specification B71.4 - 2004 and European CE standards.			
WARRANTY	Two-year limited warranty. Refer to the Operator's Manual for further details.			

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Greensmaster® TriFlex™ 3300/3320/3400/3420 Accessories

	8-BLADE DPA CUTTING UNITS, 04651	11-BLADE DPA CUTTING UNITS, 04653	14-BLADE CUTTING UNITS, 04655
DPA CUTTING UNITS	These cutting units will fit on the Greensmaster TriFlex Series.		
HEIGHT OF CUT (HOC) RANGE	Cutting height is adjusted on front roller by two vertical screws and held by two locking cap screws. Bench HOC range is .062"-.297" (1.6-7.5 mm). With high HOC kit, range is .297-1.0" (7.5-25.4 mm). 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. The reel is ground for diameter and concentricity, and relief grind.		
REEL BEARINGS	Two stainless steel ball bearings, 30 mm inside diameter slip fit onto reel shaft retained by internally splined threaded insert. Low drag seals/slingers for added protection with o-ring sealed motor and counterweight. Reel position maintained by a wave washer with no adjusting nut.		
MAINTENANCE	No grease zerks, sealed bearing design eliminates daily maintenance.		
REEL DRIVE	The reel weldment shaft is a 1.375" (35 mm) diameter tube with internally splined threaded insert.		
FRAME	Precision machined, die-cast aluminum cross member with two bolt-on die-cast aluminum side plates.		
AGGRESSIVENESS	Aggressiveness stays constant throughout the life of the reel. Patented design.		
BEDKNIFE	Replaceable single edged, EdgeMax™ Microcut Bedknife is standard on all cutting units.		
BEDKNIFE ADJUSTMENT	Dual screw, indexed "click" adjustment to the reel; detents correspond to .0007" (.018 mm) bedknife movement for each position.		
FRONT & REAR ROLLERS	Front: Not included with cutting unit, purchased separately. Option between full, narrow-spaced and wide-spaced Wiehle roller. Rear: Steel full, 2" (5.1 cm) diameter with sealed bearings and through-shaft.		
GRASS SHIELD	Non-adjustable shield with adjustable cut-off bar to improve grass discharge from reel in wet conditions.		
TOTAL WEIGHT	8-blade: 80 lbs. (30.4 kg) with aluminum Wiehle Roller. 11-blade: 83 lbs. (37.7 kg) with aluminum Wiehle Roller. 14-blade: 86 lbs. (39 kg) with aluminum Wiehle Roller.		

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Greensmaster® TriFlex™ 3300/3320/3400/3420 Accessories*

GREENSMaster TRIFLEX ACCESSORIES

TRIFLEX TRACTION UNIT ACCESSORIES	
04714	3WD Kit
04730	Leak Detector
04554	Light Kit
04718	Seat Kit, Standard
04719	Seat Kit, Premium
92-7307	Armrest Kit - Standard
119-7105	Armrest Kit - Premium
119-1691	Hydraulic Oil Cooler Kit (Gas)
117-9314	Hydraulic Oil Cooler Kit (Diesel)
119-7129	2WD Weight Kit (Gas) (ANSI compliant)
121-6665	2WD Weight Kit (Diesel) (ANSI compliant)
120-5750	3WD Weight Kit (Gas) (ANSI compliant)
104-6540	Spark Arrestor Kit (Gas)
120-1951	Spark Arrestor Kit (Diesel)
115-4510	Canopy
119-1715	Utility Bag Kit
115-4754	Wireless Hour Meter

TRIFLEX DPA CUTTING UNITS	
04651	8-Blade Cutting Unit
04653	11-Blade Cutting Unit
04655	14-Blade Cutting Unit

TRIFLEX DPA CUTTING UNIT ROLLERS	
04625	Full Roller DPA
04626	Narrow Wiehle Roller DPA
04627	Wide Wiehle Roller DPA
04249	Full Split Roller
04250	Wiehle Split Roller
04628	Solid Steel Roller Kit (Front Wide Wiehle, Rear Full)
04629	Anti Bobbing Roller - DPA (Front and Rear)
71-1550	2" Rear Wiehle Roller (cast iron)
125-5180	Rear Roller Extension Kit
120-9600	High Height of Cut Kit (.35 - .94)
04258	Extended Wiehle Roller
04267	Narrow Wiehle Roller (for paspalum)

TRIFLEX DPA CUTTING UNIT ACCESSORIES	
04648	Universal Groomer Drive
04284	Groomer Reel, Carbide
04283	Groomer Reel, Spring Steel
04270	Grooming Brush, Soft
04271	Grooming Brush, Stiff
04650	Rotating Rear Roller Brush
04741	Grooming Reel, Thin Blade (set of 1)
115-1880	EdgeMax™ Microcut Bedknife
115-1881	EdgeMax™ Tournament Bedknife
93-4262	Microcut Bedknife (HOC Range 1.58mm - 3.18mm)
93-4263	Tournament Bedknife (HOC Range 3.2mm - 6.35mm)
93-4264	Low Cut Bedknife (HOC Range 6.35mm and higher)
94-6392	Bedknife - High Cut
108-4303	Extended Microcut Bedknife
108-4302	Extended Tournament Bedknife
63-8600	Bedknife - Fairway
99-3794-03	DPA Bedbar, Aggressive (optional)
106-2648-01	DPA Bedbar, Less Aggressive (standard equipment)
112-7475	EdgeMax™ Fairway Bedknife

OPTIONAL TRIFLEX ACCESSORIES	
04720	Thatching Reel - TriFlex (set of 1)
119-1128	Individual dynaBLADE, 2mm thickness
117-6824	Individual dynaBLADE, 1.2mm thickness
117-6839	Replacement dynaBLADE kit, 1.2mm thickness (36 blades)
117-6840	Replacement dynaBLADE kit, 2mm thickness (36 blades)
121-6674	Individual Spring Steel Blade
121-6675	Replacement Spring Steel Blade Kit (36 pcs)
04722	Greens Tri-Roller - TriFlex (set of 1)
04723	Greens Spiker - TriFlex (set of 1)

TRIFLEX DPA CUTTING UNIT ROLLER SCRAPERS / BRUSHES / COMBS	
04646	Rear Roller Scraper (Spring Loaded)
125-3503	Front Wiehle Roller Scraper - Narrow
125-3504	Front Wiehle Roller Scraper - Wide
125-3505	Front Roller Scraper - Full
115-7377	Front Wiehle Roller Scraper Brush - Narrow
115-7378	Front Wiehle Roller Scraper Brush - Wide
115-7379	Front Roller Scraper Brush - Full
115-7380	Front Wiehle Roller Scraper Comb - Narrow
115-7381	Front Wiehle Roller Scraper Comb - Wide
115-7382	Front Roller Scraper Comb - Full
107-9561	Anti Bobbing Roller - Scraper Kit (Front and Rear)
121-2260	Rear Roller Scraper - Adjustable

TRIFLEX SERVICE KITS	
30042	400 hour filter Maintenance Kit - Greensmaster TriFlex 3300 / 3320
30043	400 hour filter Maintenance Kit - Greensmaster TriFlex 3400 / 3420

BIO-HYDRAULIC FLUID / HYDRAULIC FLUID / OIL	
119-2157	Bio-Hydraulic Fluid, 5 gal. (18.9 L)
119-2158	Bio-Hydraulic Fluid, 55 gal. (208.2 L)
108-1178	Premium Hydraulic Fluid, 5 gal. (18.9 L)
108-1177	Premium Hydraulic Fluid, 55 gal. (208.2 L)
121-6393	Premium Engine Oil SAE 30, 5 gal. (18.9 L)
121-6392	Premium Engine Oil SAE 30, 55 gal. (208.2 L)

TOOLS	
04399	Turf Evaluator
125-5610	Paper - Reel
125-5611	Shim - Reel
94-9010	Height of Cut Bar Assembly

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**TORO**[®]

Greensmaster[®] 3150-Q / 3250-D

RIDING GREENSMOWERS

FEATURES

Greensmaster 3150-Q:

- Briggs & Stratton[®] 18 hp (13.4 kW) air-cooled, gasoline engine
- Industry's quietest engine-powered riding greensmower

Greensmaster 3250-D:

- Kubota[®] D902, 24.8 hp (18.5 kW) 3-cylinder, liquid-cooled, diesel engine
- Ample power for any greens or off-greens application; extremely versatile

Legendary performance and reliability.

The Greensmaster 3150-Q and 3250-D are distinguished for their field-proven performance and exceptional quality of cut. Equipped with patented DPA cutting units for a superior cut and minimal maintenance, convenient controls for easy operation, and ample power to handle any application—it's no wonder these classic models have been trusted over the years to deliver the performance golf courses demand with a putting surface that exceeds expectations.

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Greensmaster[®] 3150-Q

Greensmaster[®] 3250-D

4
TIER

Call your Toro distributor at 800-803-8676



Greensmaster® 3150-Q Specifications*

GREENSMASTER 3150-Q, MODEL 04358	
ENGINE	18 hp (13.4 kW) @3600 rpm, Briggs & Stratton® gasoline engine, governed to 2850 rpm high idle, 1650 rpm low idle. Air-cooled.
FUEL CAPACITY	7 gallon (26.5 liter) capacity; unleaded gasoline.
TRACTION DRIVE	Hydraulic piston pump, closed loop system. 2WD Parallel Hydrostatic or 3WD Series Parallel piston pump closed loop system. Foot pedal forward and reverse; infinitely variable.
GROUND SPEED	Forward-mowing speed is variable from 2-5 mph (3.2-8 km/h), adjusted by stop on pedal mechanism. Mow speed setting does not affect transport speed. Maximum Greensmaster 3150-Q transport speed is 8.8 mph (14.4 km/h), may be reduced by adjusting stop in footrest pan without affecting mow speeds. Reverse is 2.5 mph (4.0 km/h) maximum.
TURF COMPACTION	8-10 psi (dependent on tire pressure) with operator and cutting units down.
IMPLEMENT DRIVE	Single gear pump, mono valve block, series reel drive to 3 motors.
STEERING	Power steering. Adjustable steering wheel tilt and a 5-position steering arm tilt.
CONTROLS/GAUGES	Raise/lower-mow lever (joystick). Functional control lever (neutral, mow, transport). Foot operated traction drive and brakes. Hour meter. Hand operated throttle and choke. Mechanical engine speed control.
ELECTRICAL FEATURES	12-volt lead acid, group size U1, with 300 minimum cold cranking amps at 0° F and 34 minutes reserve capacity at 85° F/25 amps draw. 16 amp alternator. Ignition switch/key. Seat switch. Harness terminals and fuse slot available for optional lights installation.
TIRES/WHEELS/PRESSURE	Three tires: Three 18 x 10.5-8, 4-ply pneumatic tubeless demountable and interchangeable with smooth tread. 8-12 psi front; 8-15 psi rear. Optional Traction Tire (4-ply): P/N 119-3516.
BRAKES	Two 6" (15.2 cm) drum type.
HYDRAULIC OIL	7.5 gallon (28.4 liter) tank with internal baffle. 1.0 gallon (3.8 liter) auxiliary tank.
LEAK DETECTION	Equipped with Turf Guardian™ leak detection system.
SOUND LEVEL	82 dB(A) at operator's ear under normal conditions.
OVERALL DIMENSIONS	Wheel Tread: 49.5" (149.9 cm), Wheel Base: 47" (119 cm), Length: 90" (229 cm), Width: 69.7" (177 cm) w/reels, Height: 74.5" (189 cm), Weight: 1,087 lbs. (493 kg).
WIDTH OF CUT	59" (150 cm)
REEL SPEED	Approximately 1975 RPM at 2850 engine RPM. Adjustable.
BACKLAPPING	Standard equipment.
CUTTING UNIT SUSPENSION	Cutting units are completely free-floating, each attaching to the tractor by direct pull links and lifted by a centered lift arm. Baskets are supported by carrier frames that are ground following. Cutting unit floatation is unaffected by basket content. Grass baskets are all interchangeable and accessible from the front of the machine.
ROPS	Roll Over Protection System standard.
CERTIFICATION	Certified to meet ANSI specification B71.4-2012 and European CE standards with appropriate kits installed.
WARRANTY	Two-year limited warranty. Refer to the Operator's Manual for further details.

8 BLADE DPA CUTTING UNITS, 04652 11-BLADE DPA CUTTING UNITS, 04654 14-BLADE CUTTING UNITS, 04656	
TRACTOR	These cutting units will mount on any Toro riding Greensmaster (excluding Greensmaster TriFlex® 33xx/34xx series).
HEIGHT OF CUT (HOC) RANGE	Cutting height is adjusted on front roller by two vertical screws and held by two locking cap screws. Bench HOC range is .062"-.297" (1.6-7.5 mm). With high HOC kit, range is .297-1.0" (7.5-25.4 mm). 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. The reel is ground for diameter and concentricity, and relief ground.
REEL BEARINGS	Two stainless steel ball bearings, 30 +/- .1 mm inside diameter slip fit onto reel shaft retained by internally splined threaded insert. Low drag seals/slingers for added protection with o-ring sealed motor and counterweight. Reel position maintained by a wave washer with no adjusting nut.
MAINTENANCE	No grease zerks, sealed bearing design eliminates daily maintenance.
REEL DRIVE	The reel weldment shaft is a 1.375" (35 mm) diameter tube with internally splined threaded insert.
FRAME	Precision machined, die-cast aluminum cross member with two bolt-on die-cast aluminum side plates.
AGGRESSIVENESS	Aggressiveness stays constant throughout the life of the reel. Patented design.
BEDKNIFE	Replaceable single edged EdgeMax® Microcut Bedknife is standard.
BEDKNIFE ADJUSTMENT	Dual screw, indexed "click" adjustment to the reel; detents corresponding to .0007" (.018 mm) bedknife movement for each position.
FRONT & REAR ROLLERS	Front: Not included with cutting unit, purchased separately. Option between full, narrow-spaced and wide-spaced Wiehle roller. Rear: Steel full, 2" (5.1 cm) diameter with sealed bearings and through-shaft.
GRASS SHIELD	Non-adjustable shield with adjustable cut-off bar to improve grass discharge from reel in wet conditions.
TOTAL WEIGHT	8-blade: 72 lbs. (32.7 kg) with aluminum Wiehle Roller. 11-blade: 75 lbs. (34 kg) with aluminum Narrow Wiehle Roller. 14-blade: 78 lbs. (35 kg) with aluminum Wiehle Roller.

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Greensmaster® 3150-Q Accessories*

GREENSMaster 3150-Q ACCESSORIES

TRACTION UNIT ACCESSORIES	
04476	3-Wheel Drive Kit
04479	Thatching Reel (Set of 1)
04494	Greens Spiker Kit
04495	Greens Tri-Roller Kit
30707	Armrest Kit
119-3516	Traction Tires
04554	Light Kit
130-6536	Hydraulic Oil Cooler Kit
108-6472	Traction Speed Control Kit
104-6540	Spark Arrestor Screen
115-4510	Bimini Folding Shade
100-6442	2WD Weight Kit
99-1645	3WD Weight Kit
115-4754	Wireless Hour Meter

ROLLER OPTIONS	
04626	Front Narrow Wiehle Roller (set of 3)
04627	Front Wide Wiehle Roller (set of 3)
04625	Front Full Roller (set of 3)
04628	Solid Steel Roller Kit (front Wiehle & rear steel rollers)
04629	Anti-Bobbing Roller
71-1550	Cast Iron Rear Wiehle Roller
107-3514	Steel Wide Wiehle Roller
121-4675	Extended Wiehle Roller
04258	Extended Narrow Wiehle Roller
04267	Narrow Wiehle Roller (for paspalum)
107-3510	Steel Narrow Wiehle Roller
120-9595	Steel Rear Roller (standard)
125-5180	DPA Rear Roller Extension Kit
120-9600	High Height of Cut Kit
04249	Split Full Front Roller
04250	Split Narrow Wiehle Roller

CUTTING UNIT & REEL OPTIONS	
04652	8-Blade Cutting Unit
04654	11-Blade Cutting Unit
04656	14-Blade Cutting Unit
119-4103	8-Blade Reel (Individual)
121-6651	8-Blade Reel, Heavy-Duty (Individual)
119-4104	11-Blade Reel (Individual)
127-2202	14-Blade Reel (Individual)

GROOMER OPTIONS	
04648	Universal Groomer Drive (Set of 1)
04283	Groomer Reel, Spring Steel (Set of 1)
04270	Grooming Brush - Soft
04271	Grooming Brush - Stiff
106-2643	Groomer Pull Link Kit
04741	Grooming Reel - Thin Blade (Set of 1)

SCRAPER OPTIONS	
125-5303	Front Narrow Wiehle Roller Scraper
125-5304	Front Wide Wiehle Roller Scraper
125-5305	Front Full Roller Scraper
115-7377	Front Narrow Wiehle Roller Scraper Brush
115-7378	Front Wide Wiehle Roller Scraper Brush
115-7379	Front Full Roller Scraper Brush
115-7380	Front Narrow Wiehle Roller Scraper Comb
115-7381	Front Wide Wiehle Roller Scraper Comb
115-7382	Front Full Roller Scraper Comb
115-7383	Rear Roller Scraper
121-2260	Adjustable Rear Roller Scraper
04646	Spring Loaded Rear Roller Scraper (Set of 3)
107-9561	Anti-Bobbing Roller Scraper Kit
04650	Rotating Rear Roller Brush (Set of 1)

BEDKNIFE & BEDBAR OPTIONS	
93-4262	Microcut Bedknife
93-4263	Tournament Bedknife
93-4264	Low Cut Bedknife
94-6392	High Cut Bedknife
63-8600	Fairway Bedknife
108-4303	Extended Microcut Bedknife
108-4302	Extended Tournament Bedknife
115-1880	EdgeMax™ Microcut Bedknife (Standard)
115-1881	EdgeMax™ Tournament Bedknife
112-7475	EdgeMax™ Fairway Bedknife
106-2648-01	Bedbar (Standard)
99-3794-03	Aggressive Bedbar

THATCHING REEL ACCESSORIES	
117-6824	Thin dynaBlade, (1.2mm Thickness)(Individual)
119-1128	Regular dynaBlade, (2mm Thickness) (Individual)
117-6839	Replacement Kit, 1.2mm dynaBlade (36 Blades)
117-6840	Replacement Kit, 2mm dynaBlade (36 Blades)
121-6675	Spring Steel Kit
121-6674	Blade, Spring Steel
121-9525	Thatching Reel Quick Change Kit

BIO-HYDRAULIC FLUID / HYDRAULIC FLUID / OIL	
119-2157	Bio-Hydraulic Fluid, 5 gal. (18.9 L)
119-2158	Bio-Hydraulic Fluid, 55 gal. (208.2 L)
108-1178	Premium Hydraulic Fluid, 5 gal. (18.9 L)
108-1177	Premium Hydraulic Fluid, 55 gal. (208.2 L)
108-1197	Premium Engine Oil SAE 30, 5 gal. (18.9 L)
108-1196	Premium Engine Oil SAE 30, 55 gal. (208.2 L)

TOOLS	
04399	Turf Evaluator
125-5610	Paper - Reel
125-5611	Shim - Reel
94-9010	Height of Cut Bar Assembly

*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. Consult your local Toro Distributor.

