

TORO®

Greensmaster® TriFlex™

3300/3320 Hybrid 3400/3420 Hybrid

The next generation of the world's favorite riding greensmower.



Greensmaster® TriFlex™ 3300/3320/3400/3420

Specifications*

	GREENMASTER 3300 TriFlex, MODEL 04510	GREENMASTER 3320 TriFlex Hybrid, MODEL 04530	GREENMASTER 3400 TriFlex, MODEL 04520	GREENMASTER 3420 TriFlex Hybrid, MODEL 04540
ENGINE	Briggs & Stratton® Vanguard®, 21 HP (13.4 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.
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 ampsdraw. 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/fauls, 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.	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/fauls, 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.
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, dew whip holder, 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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Accessories*

	8-BLADE DPA CUTTING UNITS, 04613	11-BLADE DPA CUTTING UNITS, 04614	14-BLADE CUTTING UNITS, 04615
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 .285-1" (7.3-25.4 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 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)
119-7138	Dew Whip Holder
115-4510	Canopy
119-1715	Utility Bag Kit
115-4754	Wireless Hour Meter

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 UNITS	
04613	8-Blade Cutting Unit
04614	11-Blade Cutting Unit
04615	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 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 DPA CUTTING UNIT ACCESSORIES	
04710	Groomer Drive, Forward
04260	Groomer Drive, Counter Rotating
04711	Groomer Reel, Carbide
04712	Groomer Reel, Spring Steel
04713	Groomer Brush, Spiral
04274	Greens Perfection Brush, Soft
04275	Greens Perfection Brush, Stiff
04724	Rotating Rear Roller Brush - RH
04744	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

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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