



QUICK SERVICE REFERENCE

Copyright 2004 – The Toro Company

Version 9, March, 2007

This book is intended to provide easy reference to information most commonly accessed. Every effort has been made to assure the information provided in this book is up to date. The most current version of this book can be found on www.toro.com. Look at revision date on cover page for current version and compare to the version on website

Part numbers are provided for your convenience, but number changes are common. Toro part number changes are usually reflected on shipping invoices. However, non-Toro part number changes (Kohler, B&S, etc.) may occur without notification. Refer to the proper parts catalog prior to ordering to assure accuracy.

To make this book a desk reference, print it (or only the desired pages), Use a standard 3 hole punch, and put them into a 1 inch thick 3-ring binder (8.5 X 11).

All oils mentioned in this guide are based on Toro engineering specifications. Please refer to your equipment's Operators Manual for acceptable substitutes (if any). You may also refer to Toro's website for Service Bulletins regarding the use of Biodegradable oils (listed under General Topics).

The "Charts" indicated for many of the oil listings provide viscosity ratings for different operating temperatures. All charts are listed in the back of this book (pages 93-96).

All traction units have grease fittings that must be lubricated regularly with No.2 General Purpose Lithium-based grease. If machinery is operated under severe conditions, lubricate all bearings and bushings more often than normal recommendations.

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change without notice. Refer to Toro Master Parts Viewer on the internet at www.toro.com for free online Toro parts catalogs. The current version of this document may be found at Toro's Golf or Grounds area of the website under the Education and Technical Reference section of the *Toro Customer Care* page.

The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for detailed information on motor oils.

Copyright 2004 The Toro Company Rev 02/04

Table of Contents

Reelmaster®	3-23
Greensmaster®	24-40
Groundsmaster®	41-63
Workman® Mid Duty	64-67
Workman® Heavy Duty	68-75
Aerators	76-81
Turf Sweeper	82
Rake-O-Vac®	83
Sand Pro®	84-85
Multi Pro®	86-90
Top Dresser	91-92
Trailer/Skid Sprayers	93-95
Engine Oil Viscosity Charts	96-98
Hydraulic Oil Viscosity Charts	99
API Motor Oil Guide	100

Notes

Version 2 changes: Pages 48 & 50; Toro part numbers provided for Air and Fuel Filters.
Dated 08/02

Version 3 changes: Pages 2, 9, 27& 34; Peugeot engine coolant has changed. The part number has changed from (93-7213) to (104-8606). Dated 02/04

Version 4 changes: Page 35; Incorrect part number for oil filter on GM 345. The correct number is FL-100-A. Dated 02/04

Version 4 changes: Page 41; Workman 1100 tire pressure range change.
Dated 02/04

Version 5 changes: All 2003 updates. Dated 01/03

Version 6 changes: All 2004 updates Dated 07/04

Version 7 changes: All 2005 updates Dated 02/05

Version 8 changes: All 2006 updates

Version 9 changes: All 2007 updates includes increased oil change intervals newer units.



QUICK SERVICE REFERENCE

REELMASTER 6500 D / 6700 D (2 & 4 WHEEL DRIVE)

Model 03806 thru 03808 **Serial** 210000001- 240999999

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF,CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Hydraulic Oil.....Mobil DTE15M

Hydraulic Filter..... 94-2621

Air Filter 108-3812

Safety Air Filter 108-3813

Water Separator 98-9764

Filter Fuel..... 99-8358 (2001-2002)

Filter In-line Fuel 98-7612 (2003 & up)

Planetary Gear Drive..... SAE 85W140

Rear Axle Oil.....SAE 80W90

Tire Pressure 15 – 20 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> Check the fan and alternator belt tension. Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> Change the engine oil and filter. Check the engine RPM (idle and full throttle).
After first 200 hours	<ul style="list-style-type: none"> Change the planetary gear oil Change the 4 WD rear axle lubricant.
Every 50 hours	<ul style="list-style-type: none"> Lubricate all grease fittings. Check the air cleaner.¹ Check the battery fluid level and cable connections.
Every 100 hours	<ul style="list-style-type: none"> Change the engine oil and filter. Inspect the cooling system hoses. Check the fan and alternator belt tension.
Every 200 hours	<ul style="list-style-type: none"> Drain moisture from hydraulic tank. Drain moisture from fuel tank. Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner.¹ Replace the fuel/water separator filter. Replace the fuel filter. Inspect traction linkage movement Check the engine RPM (idle and full throttle). Check the planetary gear oil Check the 4 WD rear axle lubricant.
Every 800 hours	<ul style="list-style-type: none"> Change the hydraulic filter. Change the hydraulic fluid Check rear wheel toe-in. Pack the 2WD rear wheel bearings. Change the planetary gear oil Change the 4 WD rear axle lubricant. Adjust valves
Every 1600 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> Replace all moving hoses. Replace interlock safety switches. Flush/replace the cooling system fluid. Drain/flush fuel tank. Drain/flush hydraulic tank.

¹Service air cleaner whenever indicator shows red

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

REELMASTER 6500 D / 6700 D (2 & 4 WHEEL DRIVE)

Model 03806 thru 03808 **Serial** 250000001 & UP

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF,CF4

Engine Oil Filter 108-3841

Breather Element98-9493

Hydraulic Oil.....Mobil DTE15M

Hydraulic Filter.....94-2621

Air Filter 108-3812

Safety Air Filter 108-3813

Water Separator98-9764

Filter Fuel.....99-8358 (2001-2002)

Filter In-line Fuel98-7612 (2003 & up)

Planetary Gear Drive.....SAE 85W140

Rear Axle Oil.....SAE 80W90

Tire Pressure 15 – 20 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 operating hours	<ul style="list-style-type: none"> Check the torque of the wheel nuts or bolts (after the first 1–4 hours of operation and then after 10 hours of operation).
After the first 50 operating hours	<ul style="list-style-type: none"> Change the engine oil and oil filter.
After the first 200 operating hours	<ul style="list-style-type: none"> Change the planetary gear drive oil. Change the planetary gear drive oil. Change the rear axle lubricant.
Before each use or daily	<ul style="list-style-type: none"> Check the engine oil level. Check and clean the cooling system. Check the hydraulic fluid level. Check the tire pressure. Check the reel to bedknife contact. Check the interlock switches. Drain the fuel filter/water separator. Remove debris from the rear screen, oil cooler, and radiator (more frequently in dirty conditions). Inspect the hydraulic lines and hoses for leaks, kinked lines, loose mounting supports, wear, loose fittings, weather deterioration, and chemical deterioration.
Every 50 hours	<ul style="list-style-type: none"> Grease the bearings and bushings. Check the condition of the battery.
Every 100 hours	<ul style="list-style-type: none"> Inspect and tighten the cooling system hoses and connections. Check the condition and tension of the alternator belt.
Every 150 hours	<ul style="list-style-type: none"> Change the engine oil and oil filter.
Every 200 hours	<ul style="list-style-type: none"> Check the torque of the wheel nuts or bolts.
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner. (Service the air cleaner earlier if the air cleaner indicator shows red. Service it more frequently in extremely dirty or dusty conditions.) Check the fuel lines and connections. Replace the fuel filter canister. Replace the fuel pre-filter. Check the rear axle lubricant level.
Every 800 hours	<ul style="list-style-type: none"> Change the planetary gear drive oil. Change the planetary gear drive oil. Change the rear axle lubricant. Check the rear wheel toe-in. Change the hydraulic fluid.
Yearly	<ul style="list-style-type: none"> Change the planetary gear drive oil.
Every 2 years	<ul style="list-style-type: none"> Drain and clean the fuel tank. Drain and flush the cooling system. Replace all moving hoses. Drain/flush the hydraulic tank.



QUICK SERVICE REFERENCE

REELMASTER 6500 D / 6700 D (2 & 4 WHEEL DRIVE)

Model 03800 thru 03805 **Serial** 51001 & UP

Engine Brand.....Peugeot

Engine Oil (*Chart C*)SAE 15W40 CF,CF4

Engine Oil Filter108-3837

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....94-2621

Air Filter108-3812

Safety Air Filter108-3813

Water Separator76-5220

Planetary Gear Drive.....SAE 85W140

Rear Axle Oil.....SAE 80W90

Tire Pressure15 – 20 PSI
(Front & Rear)

Engine Coolant (Special Requirement) Peugeot Antifreeze
Toro Part # (104-8606)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

REELMASTER 6500–D/6700–D Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service				
Lubricate All Grease Fittings	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Inspect Air Filter, Dust Cup, and Baffle	A Level Service				
Check Battery Level/Cable Connections					
Change Engine Oil and Filter					
Inspect Cooling System Hoses	B Level Service				
Check Fan and Alternator Belt Tension					
Torque Wheel Lug Nuts			C Level Service		
Service Air Filter					
Change Fuel Filter					
Inspect Fuel Lines and Connections					
Check Engine RPM (idle and full throttle)					
Check Rear Axle Oil Level (4wd)					
Check Front Planetary Gear Lube				D Level Service	
Inspect Engine Timing Belt (see note below)					
Drain and Clean Fuel Tank					
Change Hydraulic Oil					
Change Hydraulic Oil Filter					
Change Front Planetary Gear Lube					
Pack 2WD Rear Axle Bearings					
Change Rear Axle Oil Level (4wd)					E Level Service
Check Rear Wheel Toe-In					
Initial break in at 10 hours					
Initial break in at 50 hours					
Initial break in at 200 hours					
If indicator shows red					
Replace Moving Hoses					
Replace Safety Switches					
Cooling System Flush/Replace Fluid					

Annual Recommendations:

Items listed are recommended every 1500 hours or 2 years, whichever occurs first.

NOTE: Replace Timing Belt if worn, cracked or oil soaked. A new Timing Belt should be installed any time the Belt is removed or loosened.



QUICK SERVICE REFERENCE

REELMASTER 5010 Series (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	260000001 & UP
Engine Brand	Kubota		
Engine Oil	SAE 15W-40 CF4		
Engine Oil Filter	108-3841		
Breather Element	68-6150		
Hydraulic Oil	ISO VG 46		
Hydraulic Filter	94-2621		
Steering valve Filter	86-3010		
Air Filter	108-3810		
Air Filter (5610 only)	108-3812		
Water Separator	98-9764		
Fuel Filter In-line	98-7612		
Tire Pressure	12 – 15 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first operating hour	<ul style="list-style-type: none"> Torque the wheel lug nuts to 70 to 90 ft-lb (94 to 122 N·m).
After the first 8 operating hours	<ul style="list-style-type: none"> Check the condition and tension of the alternator belt.
After the first 10 operating hours	<ul style="list-style-type: none"> Torque the wheel lug nuts to 70 to 90 ft-lb (94 to 122 N·m). Check and adjust the brake cables to equalize the engagement.
After the first 50 operating hours	<ul style="list-style-type: none"> Change the engine oil and filter. Check the engine RPM (idle and full throttle).
Before each use or daily	<ul style="list-style-type: none"> Check the engine oil level. Check the cooling system. Check the hydraulic fluid level. Check the reel to bedknife contact. Check the operation of the interlock switches. Drain water and other contaminants from the fuel filter/water separator. Remove debris from the screen, oil coolers, and radiator (more frequently in dirty operating conditions). Check the hydraulic lines and hoses for leaks, kinked lines, loose mounting supports, wear, loose fittings, weather deterioration, and chemical deterioration.
Every 50 hours	<ul style="list-style-type: none"> Grease the bearings and bushings. (Grease them immediately after every washing regardless of the interval listed.) Check the condition of and clean the battery. Check the battery cable connections.
Every 100 hours	<ul style="list-style-type: none"> Inspect the cooling system hoses. Check the condition and tension of the alternator belt.
Every 150 hours	<ul style="list-style-type: none"> Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> Drain moisture from the fuel and hydraulic fluid tanks. Check the reel bearing preload.
Every 250 hours	<ul style="list-style-type: none"> Torque the wheel lug nuts to 70 to 90 ft-lb (94 to 122 N·m).
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner. (Service the air cleaner earlier if the air cleaner indicator shows red. Service it more frequently in extremely dirty or dusty conditions.) Check the fuel lines and connections for deterioration, damage, or loose connections. Replace the fuel filter canister. Replace the fuel filter. Check the engine RPM (idle and full throttle).

Maintenance Service Interval	Maintenance Procedure
Every 800 hours	<ul style="list-style-type: none"> Check the rear wheel toe-in. Change the hydraulic fluid. Change the hydraulic filters (sooner if the service interval indicator is in the Red zone). Pack the rear wheel bearings. Adjust the engine valves (refer to the engine Operator's Manual)
Every 2 years	<ul style="list-style-type: none"> Flush and replace the cooling system fluid. Drain and flush the hydraulic tank. Replace all moving hoses.

Important: Refer to your Engine Operator's Manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

REELMASTER 5200 D / 5400 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	80001 - 240999999
Engine Brand	Kubota		
Engine Oil (Chart A)	SAE 10W30 CF,CF4		
Engine Oil Filter	108-3841		
Breather Element	98-9493		
Transmission Oil	Mobil 424		
Transmission Filter	75-1330		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	75-1310		
Air Filter	108-3810		
Pre Cleaner Filter	48-7430		
Water Separator	98-9764		
Fuel Filter In-line if used	98-7612		
Pre Fuel Filter If Used	99-8358		
Rear Axle, Models	SAE 80W90		
Tire Pressure	10 – 15 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Important Refer to your engine operator's manual for additional maintenance procedures.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> Check the fan and alternator belt tension. Torque the wheel lug nuts. Change the transmission fluid. Replace the transmission filter.
After first 50 hours	<ul style="list-style-type: none"> Replace the engine oil filter. Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> Check the battery fluid level. Check the battery cable connections. Lubricate all grease fittings. Change the engine oil. Inspect the air filter, dust cup, and baffle.
Every 100 hours	<ul style="list-style-type: none"> Check the fan and alternator belt tension. Replace the engine oil filter. Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> Torque the wheel lug nuts. Drain moisture from the hydraulic tank. Drain moisture from the fuel tank. Check the reel bearing preload. Lubricate the front axle bearings.
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner (when the indicator shows red). Replace the fuel/water separator filter. Replace the fuel filter. Inspect the traction linkage movement. Check the engine RPM (idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> Change the hydraulic filter. Change the transmission fluid. Replace the transmission filter. Check rear wheel toe-in. Pack the bearings to both rear wheels (2WD). Change the rear axle lubricant (4WD). Adjust the valves (Kubota diesel engine).
Every 1600 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> Replace all moving hoses. Replace the interlock safety switches. Flush/replace the cooling system fluid. Drain/flush the fuel tank. Drain/flush the hydraulic tank.



QUICK SERVICE REFERENCE

REELMASTER 5200 D / 5400 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	250000001 & Up
Engine Brand	Kubota		
Engine Oil	(Chart A) SAE 10W30 CF,CF4		
Engine Oil Filter	108-3841		
Breather Element	98-9493		
Transmission Oil	Mobil 424		
Transmission Filter	75-1330		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	75-1310		
Front Axle Element	75-6340		
Air Filter	108-3810		
Pre Cleaner Filter	48-7430		
Water Separator	98-9764		
Fuel Filter In-line if used	98-7612		
Pre Fuel Filter If Used	99-8358		
Rear Axle, Models	SAE 80W90		
Tire Pressure	10 – 15 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> Check the fan and alternator belt tension. Torque the wheel lug nuts. Change the transmission fluid. Replace the transmission filter.
After first 50 hours	<ul style="list-style-type: none"> Replace the engine oil and filter. Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> Check the battery fluid level. Check the battery cable connections. Lubricate all grease fittings. Inspect the air filter, dust cup, and baffle.
Every 100 hours	<ul style="list-style-type: none"> Check the fan and alternator belt tension. Inspect the cooling system hoses.
Every 150 hours	<ul style="list-style-type: none"> Replace the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> Torque the wheel lug nuts. Drain moisture from the hydraulic tank. Drain moisture from the fuel tank. Check the reel bearing preload. Lubricate the front axle bearings.
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner (when the indicator shows red). Replace the fuel/water separator filter. Replace the fuel filter. Inspect the traction linkage movement. Check the engine RPM (idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> Change the hydraulic filter. Change the transmission fluid. Replace the transmission filter. Check rear wheel toe-in. Pack the bearings to both rear wheels (2WD). Change the rear axle lubricant (4WD). Adjust the valves (Kubota diesel engine).
Every 1600 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> Replace all moving hoses. Replace the interlock safety switches. Flush/replace the cooling system fluid. Drain/flush the fuel tank. Drain/flush the hydraulic tank.



QUICK SERVICE REFERENCE

REELMASTER 5100 D / 5300 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	40001 & UP
Engine Brand	Mitsubishi		
Engine Oil (Chart I)	SAE 10W30 CF, CF4		
Engine Oil Filter	108-3841 (5100D) 93-4295 (5300D)		
Breather Element	98-9493		
Transmission Oil	Mobil 424		
Transmission Filter	75-1330		
Front Axle Element	75-6340		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	75-1310		
Air Filter	27-7110		
Pre Cleaner Filter	48-7430		
Water Separator	63-8300		
Fuel Filter In-line	43-2550		
Rear Axle, Models	SAE 80W90		
Tire Pressure	10 – 15 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

REELMASTER® 223-D, 5100-D, and 5300-D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Lubricate All Grease Fittings					
Change Engine Oil	A Level Service				
Inspect Air Filter, Dust Cup, and Baffle					
† Check Fan and Alternator Belt Tension					
‡ Replace Engine Oil Filter		B Level Service			
Inspect Cooling System Hoses					
Drain Moisture-Hyd. Tank					
Drain Moisture-Fuel Tank					
Check Reel Bearing Preload Adjustment			C Level		
† Torque Wheel Lug Nuts					
Service Air Filter					
Replace Electric Fuel Pump Filter					
Replace Fuel/Water Separator Filter					
Inspect Traction Linkage Movement					
‡ Torque Head and Adjust Valves				D Level	
‡ Check Engine RPM (idle and full throttle)					
Change Hydraulic Fluid					
Change Transmission Fluid					
† Replace Transmission Filter					
Check Rear Wheel Toe-in					
Rear Axle Service					
- pack Rear Wheel Bearings (2WD)					
- change Rear Axle Lubricant (4WD)					E Level Service
† Initial break in at 10 hours					
‡ Initial break in at 50 hours					
Replace Moving Hoses					
Replace Safety Switches					
Coolant System - Flush/Replace Fluid					
Fuel Tank - Drain/Flush					
Hydraulic Tank - Drain/Flush					

Annual Recommendations:
Items listed are recommended every 1600 hours or 2 years whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

REELMASTER 5500 D (2 & 4 WHEEL DRIVE)

Model 03550 and 03551 **Serial** 210000001 - 240999999

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF, CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Transmission Oil.....Mobil 424

Transmission Filter..... 75-1330

Hydraulic Oil.....Mobil 424

Hydraulic Filter RES. 94-2621

Front Axle Element 75-6340

Air Filter 108-3810

Pre Cleaner Filter 48-7430

Water Separator 98-9764

Fuel Filter (If Used) 99-8358

Fuel Filter In-line (If Used) 98-7612

Rear Axle SAE 80W90

Tire Pressure 10 – 15 PSI (Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Torque the wheel lug nuts. • Change the transmission fluid. • Replace the transmission filter.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (idle and full throttle). • Torque the head and adjust valves.
After first 200 hours	<ul style="list-style-type: none"> • Change the planetary gear oil
Every 50 hours	<ul style="list-style-type: none"> • Change the engine oil. • Lubricate all grease fittings. • Check the air cleaner.¹ • Check the battery fluid level and cable connections.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil filter. • Inspect the cooling system hoses. • Check the fan and alternator belt tension.
Every 200 hours	<ul style="list-style-type: none"> • Drain moisture from hydraulic tank. • Drain moisture from fuel tank. • Torque the wheel lug nuts. • Check the reel bearing preload.
Every 400 hours	<ul style="list-style-type: none"> • Service the air cleaner.¹ • Replace the fuel/water separator filter. • Replace the fuel filter. • Inspect traction linkage movement • Check the engine RPM (idle and full throttle). • Torque the head and adjust valves.
Every 800 hours	<ul style="list-style-type: none"> • Change the hydraulic fluid • Check rear wheel toe-in. • Pack the 2 WD rear wheel bearings. • Change the 4 WD rear axle lubricant. • Change the transmission fluid.
Every 1600 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace interlock safety switches. • Flush/replace the cooling system fluid. • Drain/flush fuel tank. • Drain/flush hydraulic tank.

¹Service air cleaner whenever indicator shows red



QUICK SERVICE REFERENCE

REELMASTER 5500 D (2 & 4 WHEEL DRIVE)

Model 03550 and 03551 **Serial** 250000001 & UP

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF, CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Transmission Oil.....Mobil 424

Transmission Filter..... 75-1330

Hydraulic Oil.....Mobil 424

Hydraulic Filter RES. 94-2621

Front Axle Element 75-6340

Air Filter 108-3810

Pre Cleaner Filter 48-7430

Water Separator 98-9764

Fuel Filter (If Used) 99-8358

Fuel Filter In-line (If Used) 98-7612

Rear Axle SAE 80W90

Tire Pressure 10 – 15 PSI (Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Torque the wheel lug nuts. • Change the transmission fluid. • Replace the transmission filter.
After first 50 hours	<ul style="list-style-type: none"> • Replace the engine oil and filter. • Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Lubricate all grease fittings. • Inspect the air filter, dust cup, and baffle.
Every 100 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 150 hours	<ul style="list-style-type: none"> • Replace the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Drain moisture from the hydraulic tank. • Drain moisture from the fuel tank. • Check the reel bearing preload. • Lubricate the front axle bearings.
Every 400 hours	<ul style="list-style-type: none"> • Service the air cleaner (when the indicator shows red). • Replace the fuel/water separator filter. • Replace the fuel filter. • Inspect the traction linkage movement. • Check the engine RPM (idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> • Change the hydraulic filter. • Change the transmission fluid. • Replace the transmission filter. • Check rear wheel toe-in. • Pack the bearings to both rear wheels (2WD). • Change the rear axle lubricant (4WD). • Adjust the valves (Kubota diesel engine).
Every 1600 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace the interlock safety switches. • Flush/replace the cooling system fluid. • Drain/flush the fuel tank. • Drain/flush the hydraulic tank.



QUICK SERVICE REFERENCE

REELMASTER 4500 D

Model	All Models	Serial	30101 & UP
Engine Brand	Mitsubishi		
Engine Oil (Chart A)	SAE 10W30 CF,CF4		
Engine Oil Filter	108-3835		
Planetary Gear	SAE 80W90		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	86-6110		
Air Filter	108-3833		
Pre Cleaner Filter	48-7430		
Water Separator Fuel Filter	60-5470		
Tire Pressure	13 PSI (Front) 15 PSI (Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

REELMASTER® 450-D and 4500-D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service Type :				
Lubricate Reel Control Valve Grease Fitting	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Lubricate Reel Speed Control Valve with Oil					
Lubricate all Grease Fittings	A Level Service				
Check Battery Condition and Connections					
‡ Change Engine Oil and Filter					
Drain water from Hydraulic Tank					
† Check Engine Fan and Alternator Belt		B Level Service			
Inspect Cooling System Hoses					
Service Air Cleaner Filter Element					
Inspect Cutting Unit Reel Drive Belts				C Level Service	
† Torque Wheel Lug Nuts					
Replace Fuel Filter					
Inspect Fuel Lines and connections					
‡ Torque Cylinder Head and Adjust Valves				D Level Service	
‡ Check Engine RPM (idle and full throttle)					
Drain and Clean Fuel Tank					
‡ Replace Hydraulic Oil Filter					
Replace Hydraulic Tank Breather					
‡ Change Front Planetary Gear Lube					
Pack Rear Axle Bearings (2wd)					E Level Service
Check Rear Wheel Toe-in					
† Initial break in at 10 hours					
‡ Initial break in at 50 hours					
Replace all Moving Hydraulic Hoses					
Replace Safety Switches					
Cooling System - Flush/Replace Fluid					
Change Hydraulic Oil					

Annual Recommendations:
Items listed are recommended every 1500 hours or 2 years whichever occurs first.

See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

REELMASTER 4000 D

Model 03706 and 03707 **Serial** 80101 & UP

Engine BrandKubota

Engine Oil (*Chart A*).....SAE 10W30 CF, CF4

Engine Oil Filter 104-5169

Hydraulic Oil (*Chart P*)Mobil DTE 26

Hydraulic Filter.....86-6110

Air filter 108-3812

Air Filter -Safety 108-3813

Water Separator98-9764 (2002 & Up)

Water Separator76-5220 (2001 & Older)

Fuel Filter In-line98-7612 (1998 - 2001)

Fuel Filter In-line99-8358 (2002 - 2003)

Tire Pressure 13 – 15 PSI
(Front & Rear see operators manual for turf conditions)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (idle and full throttle). • Change the hydraulic filter. • Adjust valves • Change the front planetary gear lube
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Check the air cleaner.¹ • Check the battery fluid level and cable connections. • Lubricate reel control valve grease fitting • Lubricate reel speed valve with oil
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Drain water from hydraulic tank • Inspect the cooling system hoses. • Check the fan and alternator belt tension.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Inspect cutting unit reel drive belts
Every 400 hours	<ul style="list-style-type: none"> • Service the air cleaner.¹ • Replace the fuel filters. • Check the engine RPM (idle and full throttle). • Inspect fuel lines and connections
Every 800 hours	<ul style="list-style-type: none"> • Drain and clean fuel tank • Change the hydraulic filter • Change hydraulic tank breather • Check rear wheel toe-in. • Pack the 2WD rear wheel bearings. • Change the front planetary gear lube • Adjust valves
Every 1600 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace interlock safety switches. • Flush/replace the cooling system fluid. • Drain/flush hydraulic tank.

¹Service air cleaner whenever indicator shows red

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

REELMASTER 4000 D

Model 03706 and 03707 **Serial** 250000001 & Up

Engine BrandKubota

Engine Oil (Chart A).....SAE 10W30 CF, CF4

Engine Oil Filter 104-5169

Hydraulic Oil (Chart P)Mobil DTE 26

Hydraulic Filter86-6110

Air filter 108-3812

Air Filter -Safety 108-3813

Water Separator98-9764 (2002 & Up)

Fuel Filter In-line98-7612 (2004 & UP)

Tire Pressure 13 – 15 PSI

(Front & Rear see operators manual for turf conditions)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (idle and full throttle). • Change the hydraulic filter. • Adjust valves • Change the front planetary gear lube
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Check the air cleaner.¹ • Check the battery fluid level and cable connections. • Lubricate reel control valve grease fitting • Lubricate reel speed valve with oil
Every 100 hours	<ul style="list-style-type: none"> • Drain water from hydraulic tank • Inspect the cooling system hoses. • Check the fan and alternator belt tension.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Inspect cutting unit reel drive belts
Every 400 hours	<ul style="list-style-type: none"> • Service the air cleaner.¹ • Replace the fuel filters. • Check the engine RPM (idle and full throttle). • Inspect fuel lines and connections
Every 800 hours	<ul style="list-style-type: none"> • Drain and clean fuel tank • Change the hydraulic filter • Change hydraulic tank breather • Check rear wheel toe-in. • Pack the 2WD rear wheel bearings. • Change the front planetary gear lube • Adjust valves
Every 1600 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace interlock safety switches. • Flush/replace the cooling system fluid. • Drain/flush hydraulic tank.

¹Service air cleaner whenever indicator shows red

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

REELMASTER 3100 D

Model	All Models	Serial	90001- 24099999
Engine Brand	Kubota		
Engine Oil (<i>Chart A</i>)	SAE 10W30 CF, CF4		
Engine Oil Filter	108-3841		
Breather Element	98-9493		
Hydraulic Oil	Mobil DTE 15M		
Hydraulic Filter	54-0110		
Air Filter	108-3811		
Water Separator	98-9764		
Fuel Filter In-line	98-7612		
Tire Pressure	14 – 18 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check Fan and Alternator Belt Tensions • Change Hydraulic Filter • Torque Wheel Lug Nuts
After first 50 hours	<ul style="list-style-type: none"> • Change Engine Oil Filter • Check Engine RPM (idle and full throttle)
Every 50 hours	<ul style="list-style-type: none"> • Inspect Air Filter, Dust Cup, and Burp Valve • Lubricate All Grease Fittings • Change Engine Oil • Check Battery Cable Connections • Check Fan and Alternator Belt Tensions • Check Battery Fluid Level
Every 100 hours	<ul style="list-style-type: none"> • Change Engine Oil Filter • Check Traction Belt
Every 200 hours	<ul style="list-style-type: none"> • Change Air Filter • Change Hydraulic Filter • Torque Wheel Lug Nuts
Every 400 hours	<ul style="list-style-type: none"> • Change Hydraulic Fluid • Change Fuel/Water Separator Filter • Change Fuel Pre Filter • Inspect Traction Cable Movement • Inspect Spider Coupling for Wear • Check Engine RPM (idle and full throttle)
Every 800 hours	<ul style="list-style-type: none"> • Adjust valves
Every 1000 hours	<ul style="list-style-type: none"> • Replace Moving Hoses • Replace Safety Switches • Coolant System – Flush/Replace Fluid • Fuel Tank – Drain/Flush • Hydraulic Tank – Drain/Flush



QUICK SERVICE REFERENCE

REELMASTER 3100 D

Model	All Models	Serial	250000001 & Up
Engine Brand	Kubota		
Engine Oil (<i>Chart A</i>)	SAE 10W30 CF, CF4		
Engine Oil Filter	108-3841		
Breather Element	98-9493		
Hydraulic Oil	Mobil DTE 15M		
Hydraulic Filter	54-0110		
Air Filter	108-3811		
Water Separator	98-9764		
Fuel Filter In-line	98-7612		
Tire Pressure	14 – 18 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check Fan and Alternator Belt Tensions • Change Hydraulic Filter • Torque Wheel Lug Nuts
After first 50 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter • Check Engine RPM (idle and full throttle)
Every 50 hours	<ul style="list-style-type: none"> • Inspect Air Filter, Dust Cup, and Burp Valve • Lubricate All Grease Fittings • Check Battery Cable Connections • Check Fan and Alternator Belt Tensions • Check Battery Fluid Level
Every 100 hours	<ul style="list-style-type: none"> • Check Traction Belt
Every 150 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter
Every 200 hours	<ul style="list-style-type: none"> • Change Air Filter • Change Hydraulic Filter • Torque Wheel Lug Nuts
Every 400 hours	<ul style="list-style-type: none"> • Change Hydraulic Fluid • Change Fuel/Water Separator Filter • Change Fuel Pre Filter • Inspect Traction Cable Movement • Inspect Spider Coupling for Wear • Check Engine RPM (idle and full throttle)
Every 800 hours	<ul style="list-style-type: none"> • Adjust valves
Every 1000 hours	<ul style="list-style-type: none"> • Replace Moving Hoses • Replace Safety Switches • Coolant System – Flush/Replace Fluid • Fuel Tank – Drain/Flush • Hydraulic Tank – Drain/Flush



QUICK SERVICE REFERENCE

REELMASTER 3500 D

Model 03603	Serial 40001 & UP
Engine Brand	Peugeot
Engine Oil (<i>Chart C</i>)	SAE 15W40 CF, CF4
Engine Oil Filter	108-3837
Hydraulic Oil (<i>Chart Q</i>)	Mobil DTE 26
Hydraulic Filter	86-3010
Front And Rear Axle	SAE 80W90
Air Filter	108-3833
Water Separator	76-5220
Tire Pressure	15-20 PSI (Front & Rear)
Engine Coolant (Special Requirement)	Peugeot Antifreeze Toro Part # (104-8606)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

REELMASTER® 335-D and 3500-D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service Type :				
	Every 50hrs <i>A Level Service</i>	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Inspect Air Filter, Dust Cup, and Baffle					
Lubricate All Grease Fittings					
‡ Change Engine Oil & Filter					
Check Battery Level and Connections					
Inspect Cooling System Hoses					
Service Air Cleaner Filter Element					
Inspect Cutting Unit Reel Drive Belts					
† Torque Wheel Lug Nuts					
Replace Fuel Filter					
Check Front Transaxle Oil level					
Check Rear Axle Oil level (4WD)					
Inspect Fuel Lines and Connections					
‡ Check Engine RPM (idle and full throttle)					
Inspect Engine Fan Belt					
Inspect Engine Timing Belt (see note below)					
Drain and Clean Fuel Tank					
Change Hydraulic Oil					
‡ Replace Hydraulic Oil Filter					
Change Front Transaxle Oil					
Pack Rear Axle Bearings (2WD)					
Change Rear Axle Oil (4WD)					
Check Rear Wheel Toe-in					
† Initial break in at 10 hours					
‡ Initial break in at 50 hours					
Replace Moving Hydraulic Hoses					
Replace Safety Switches					
Cooling System - Flush/Replace Fluid					

Annual Recommendations:

Items listed are recommended every 1500 hours or 2 years whichever occurs first.

See Operator's and Service Manual for specifications and procedures)

NOTE: Replace Timing Belt if worn, cracked or oil soaked. A new Timing Belt should be installed any time the Belt is removed or loosened.



QUICK SERVICE REFERENCE

REELMASTER 2300 D / 2600 D

Model	All Models	Serial	60001 & UP
Engine Brand	Perkins		
Engine Oil (<i>Chart M</i>)	SAE 10W30 CF		
Engine Oil Filter	85-4930		
Hydraulic Oil	MOBIL 424		
Hydraulic Filter	54-0110		
Air Filter	108-3811		
Water Separator	98-9764		
Fuel Filter	Perkins-130336040		
Tire Pressure	12 – 18 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

REELMASTER 2300±D/2600±D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
Inspect Air Filter, Dust Cup, and Baffle	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs
Lubricate All Grease Fittings				
Change Engine Oil	A±Level Service			
Check Fan and Alternator Belt Tensions				
Change Engine Oil and Filter		B±Level Service		
Check Traction Belt Tension				
Service Air Filter				
Replace Fuel Filter/Water Separator				
Replace Hydraulic Filter			C±Level Service	
Torque Wheel Lug Nuts				
Replace Hydraulic Fluid				
Check Battery Level/Connections				
Inspect Traction Linkage Movement				
* Inspect Spider Coupling for Wear				D±Level Service
Torque Head Bolts and Adjust Valves				
Check Engine RPM (idle and full throttle)				
Initial break in at 10 hours				
* Every 400 hours or annually, whichever occurs first				
Initial break in at 50 hours				
Replace all Moving Hoses	Annual Recommendations: <i>Items listed are recommended every 1000 hours or 2 years, whichever occurs first.</i>			
Replace Safety Switches				
Cooling System ± Flush/Replace Fluid				
Replace Thermostat				
Fuel Tank ± Drain/Flush				
Hydraulic Tank ± Drain/Flush				

(See Operator's and Service Manuals for specifications and procedures.)



QUICK SERVICE REFERENCE

REELMASTER 2000 D

Model All Models **Serial** 220000001 - 240999999

Engine Brand.....B&S / Daihatsu

Engine Oil (Chart G)SAE 10W30 CF

Engine Oil Filter 108-3842

Hydraulic Oil.....MOBIL DTE 15M

Hydraulic Filter.....54-0110

Air Filter 108-3811

Water Separator63-8300

Tire Pressure 16 – 20 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Change the engine oil. • Check the engine belt tension. • Change the engine oil filter. • Check the traction belt tension. • Replace the hydraulic filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Inspect the air filter, dust cup, and burp valve. • Lubricate all grease fittings. • Check the engine belt tension.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil filter. • Check the traction belt tension. • Change the engine oil.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Replace the fuel filter/water separator. • Replace the hydraulic filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Replace the hydraulic fluid. • Check the battery level and connections. • Inspect the traction linkage movement. • Check the engine RPM (idle and full throttle).
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the safety switches. • Flush the cooling system and replace the hoses. • Replace the thermostat. • Drain and flush the fuel tank. • Drain and flush the hydraulic tank.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

REELMASTER 2000 D

Model	All Models	Serial	250000001 & UP
Engine Brand	B&S / Daihatsu		
Engine Oil (<i>Chart G</i>)	SAE 10W30 CF		
Engine Oil Filter	108-3842		
Hydraulic Oil	MOBIL DTE 15M		
Hydraulic Filter	54-0110		
Air Filter	108-3811		
Water Separator	63-8300		
Tire Pressure	16 – 20 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the engine belt tension. • Change the engine oil filter. • Check the traction belt tension. • Replace the hydraulic filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Inspect the air filter, dust cup, and burp valve. • Lubricate all grease fittings. • Check the engine belt tension.
Every 100 hours	<ul style="list-style-type: none"> • Check the traction belt tension.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Replace the fuel filter/water separator. • Replace the hydraulic filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Replace the hydraulic fluid. • Check the battery level and connections. • Inspect the traction linkage movement. • Check the engine RPM (idle and full throttle).
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the safety switches. • Flush the cooling system and replace the hoses. • Replace the thermostat. • Drain and flush the fuel tank. • Drain and flush the hydraulic tank.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUND PRO 2000

Model	All Models	Serial	80001 & UP
Engine Brand	Briggs & Stratton		
Engine Oil	(Chart K)..... SAE 30 SH, SJ		
Engine Oil Filter	..... 107-7817		
Hydraulic Oil	(Chart P) SAE 10W30		
Hydraulic Filter	..... 54-0110		
Air Filter Main	..... 107-7817		
Air Filter Wrapper	..... *272490		
Fuel Filter In-line	..... 38-8000		
Tire Pressure	..... 12 – 18 PSI (Front & Rear)		
Engine Coolant	..... Ethylene Glycol, Water (50/50 mix)		

*Indicates Briggs & Stratton Part Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details

Copyright © 2004 The Toro Company Rev 02/04

N/A



QUICK SERVICE REFERENCE

GROUNDS PRO 2000 D

Model	02003	Serial	90001 & UP
Engine Brand	B&S / Daihatsu		
Engine Oil (<i>Chart G</i>)	SAE 30 CF, CF4		
Engine Oil Filter	108-3842		
Hydraulic Oil (<i>Chart P</i>)	SAE 10W30		
Hydraulic Filter	54-0110		
Air Filter	108-3811		
Water Separator	63-8300		
Tire Pressure	12 – 18 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04



QUICK SERVICE REFERENCE

REELMASTER TRANSPORT FRAME

Model	All Models	Serial	40001 & UP
Hydraulic Fluid	Mobil 424		
Gear Case Cutting Unit	SAE 80W90		
Grease	NO.2 G/P Lithium Base		
Friction Points	SAE30 Oil		
Transport Frame Tires	24-28 PSI		
Tire Pressure Cutting Units	35 PSI		

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.



QUICK SERVICE REFERENCE

GREENSMaster 3250 D

Model 04383 **Serial** 200000001 - 240999999

Engine Brand.....B&S / Daihatsu

Engine Oil (*Chart E*).....SAE10W30 CF, CF4

Engine Oil Filter 108-3842

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....75-1310 (2002 & Older)

Hydraulic Filter..... 107- 9531 (2003 & Up)

Air Filter 108-3811

Air Filter-Safety98-2982

Water Separator/Fuel Element 100-3192

Tire Pressure 8 - 12 PSI (Front)
8 –15 PSI (Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> • Change the engine oil. • Check the fan/alternator belt tension. • Replace the engine oil filter.
After first 50 hours	<ul style="list-style-type: none"> • Replace the hydraulic oil filter. • check the engine RPM (at idle and full throttle)
Every 50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Service the air filter. • Lubricate all grease fittings. • Change the engine oil. • Check the fan/alternator belt tension.
Every 100 hours	<ul style="list-style-type: none"> • Replace the engine oil filter.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air filter element. • Torque the wheel lug nuts.
Every 800 hours	<ul style="list-style-type: none"> • Replace the hydraulic oil. • Replace the hydraulic oil filter. • Check the engine RPM (idle and full throttle) • Replace the fuel filter/water separator canister.
Every 2000 hours or 2 years	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Drain/flush the fuel tank. • Drain/flush the hydraulic tank. • Drain/flush the cooling system.

Important Refer to your engine operator's manual for additional maintenance procedures.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.



QUICK SERVICE REFERENCE

GREENSMaster 3250 D

Model	04383	Serial	250000001 & UP
Engine Brand	B&S / Daihatsu		
Engine Oil (<i>Chart E</i>)	SAE10W30 CF, CF4		
Engine Oil Filter	108-3842		
Hydraulic Oil	Mobil DTE 15M		
Hydraulic Filter	75-1310 (2002 & Older)		
Hydraulic Filter	107-9531 (2003 & Up)		
Air Filter	108-3811		
Air Filter-Safety	98-2982		
Water Separator/Fuel Element	100-3192		
Tire Pressure	8 - 12 PSI (Front) 8 - 15 PSI (Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> Check the fan/alternator belt tension.
After first 50 hours	<ul style="list-style-type: none"> Replace the hydraulic oil filter. Check the engine RPM (at idle and full throttle) Change the engine oil and filter.
Every 50 hours	<ul style="list-style-type: none"> Check the battery electrolyte level. Check the battery cable connections. Service the air filter. Lubricate all grease fittings. Change the engine oil. Check the fan/alternator belt tension.
Every 100 hours	<ul style="list-style-type: none"> Change the engine oil filter.
Every 200 hours	<ul style="list-style-type: none"> Replace the air filter element. Torque the wheel lug nuts.
Every 800 hours	<ul style="list-style-type: none"> Replace the hydraulic oil. Replace the hydraulic oil filter. Check the engine RPM (idle and full throttle) Replace the fuel filter/water separator canister.
Every 2000 hours or 2 years	<ul style="list-style-type: none"> Replace moving hoses. Replace safety switches. Drain/flush the fuel tank. Drain/flush the hydraulic tank. Drain/flush the cooling system.

Important Refer to your engine operator's manual for additional maintenance procedures.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.



QUICK SERVICE REFERENCE

GREENSMASTER 3200 D

Model 04381	Serial 60474 & UP
Engine Brand	Perkins
Engine Oil (Chart M)	SAE10W30 CF
Engine Oil Filter	85-4930
Hydraulic Oil	Mobil 424
Hydraulic Filter	75-1310
Air Filter	108-3811
Fuel Filter	Perkins 130336040
Tire Pressure	8-12 PSI (Front) 8-15 PSI (Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GREENSMASTER 3200±D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Service Air Filter					
Lubricate All Grease Fittings					
Change Engine Oil					
Check Fan/Alternator Belt Tension	A±Level Service	B±Level Service			
Replace Engine Oil Filter					
Torque Wheel Lug Nuts					
Replace Air Filter Element					
Replace Fuel Filter/Water Separator					D±Level Service
Adjust Valves and Torque Heads					
Replace Hydraulic Oil					
Replace Hydraulic Oil Filter					E±Level Service
Check Engine RPM (idle and full throttle)					
Initial break in at 8 hours					
Initial break in at 50 hours					
Replace Moving Hoses					
Replace Safety Switches					
Fuel Tank ± Drain/Flush					
Hydraulic Tank ± Drain/Flush					
Cooling System ± Drain/Flush					

Annual Recommendations:
Items listed are recommended every 2,000 hours or 2 years, whichever occurs first

(See Operator's and Service Manuals for specifications and procedures.)



QUICK SERVICE REFERENCE

GREENSMASTER 3200

Model 04380

Serial 60001 & UP

Engine Brand.....B&S / Daihatsu

Engine Oil (Chart E).....SAE10W30 SH, SJ

Engine Oil Filter*491056

Hydraulic Oil.....Mobil DTE 424

Hydraulic Filter.....75-1310

Air Filter108-3811

Fuel Filter In-line94-2690

Tire Pressure8-12 PSI (Front)
8-15 PSI (Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

GREENSMASTER 3200 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Cable Connections					
Service Air Filter					
Check Battery Electrolyte					
Lubricate All Grease Fittings					
Check Fan/Alternator Belt Tension	A±Level Service				
Change Engine Oil		B±Level Service			
Replace Engine Oil Filter					
Torque Wheel Lug Nuts					
Replace Air Filter Element			C±Level Service		
Replace Fuel Filter					
Adjust Valves and Torque Heads				D±Level Service	
Replace Spark Plugs					
Replace Hydraulic Oil					E±Level Service
Replace Hydraulic Oil Filter					
Initial break in at 8 hours					
Initial break in at 50 hours					
Replace Moving Hoses					
Replace Safety Switches					
Fuel Tank ± Drain/Flush					
Hydraulic Tank ± Drain/Flush					
Cooling System ± Drain/Flush					

Annual Recommendations:
Items listed are recommended every 2,000 hours
or 2 years, whichever comes first.

(See Operator's and Service Manuals for specifications and procedures.)



QUICK SERVICE REFERENCE

GREENSMASTER 3150

Model 04357 **Serial** 220000001 & UP

Engine Brand.....B&S Vanguard

Engine Oil (*Chart K*).....SAE 30 SH, SJ

Engine Oil Filter*492932

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....107-9531

Air Filter*394018S

Air Filter-Safety*272490S

Fuel Filter In-line94-2690

Tire Pressure8-12 PSI (Front)
8-15 PSI (Rear)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> • Change the engine oil. • Replace the engine oil filter.
After first 50 hours	<ul style="list-style-type: none"> • Replace the hydraulic oil filter. • Check the engine RPM (at idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Service the air filter pre-cleaner. • Lubricate all grease fittings.¹ • Change the engine oil.
Every 100 hours	<ul style="list-style-type: none"> • Replace the engine oil filter. • Replace the air filter element.
Every 200 hours	<ul style="list-style-type: none"> • Check the reel bearing preload adjustment. • Torque the wheel lug nuts.
Every 800 hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Check the engine RPM (idle and full throttle). • Check the valve clearance. • Replace the hydraulic oil and filter.
Every 2000 hours or 2 years (whichever occurs first)	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the safety switches. • Drain/flush the fuel tank. • Drain/flush the hydraulic tank.

¹immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENSMaster 3100

Model 04381 **Serial** 200000001 - 220999999

Engine Brand.....B&S Vanguard

Engine Oil (*Chart K*).....SAE 30 SH, SJ

Engine Oil Filter 107-7817

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....74-3570

Air Filter *394018S

Air Filter-Safety *272490S

Fuel Filter In-line 94-2690

Tire Pressure 8-12 PSI (Front)
8-15 PSI (Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance Schedule

Maintenance Procedure		Maintenance Interval & Service			
Check battery fluid level	Every 50	Every	Every	Every	
Check battery cable connections	hours	100	200	800	
Service the air filter pre-cleaner		hours	hours	hours	
Lubricate all grease fittings					
†Change the engine oil					
†Replace the engine oil filter					
Replace the air filter element					
Check the reel bearing preload adjustment					
Torque the wheel lug nuts					
Replace the spark plugs					
Replace the fuel filter					
Check valve clearance					
Check the engine RPM (idle and full throttle)					
† Initial break in at 8 hours					
Replace moving hoses					
Replace safety switches					
Fuel tank—drain and flush					
Hydraulic tank—drain and flush					
Replace the hydraulic oil					
Recommendations Items are recommended every 2000 hours or 2 years, whichever occurs first.					



Model 04356 **Serial** 230000001 & UP

Engine Brand.....B&S Vanguard

Engine Oil (*Chart K*)..... SAE 30 SH, SJ

Engine Oil Filter 107-7817

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter 74-3570

Air Filter *394018S

Air Filter-Safety *272490S

Fuel Filter In-line 94-2690

Tire Pressure 8-12 PSI (Front)
8-15 PSI (Rear)

Engine Coolant..... Ethylene Glycol, Water
(50/50 mix)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance Service Interval	Maintenance Procedure
After First 8 Hours	<ul style="list-style-type: none"> • Change the engine oil. • Replace the engine oil filter.
Every 50 Hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Service the air filter pre-cleaner. • Lubricate all grease fittings.¹ • Change the engine oil.
Every 100 Hours	<ul style="list-style-type: none"> • Replace the engine oil filter. • Replace the air filter element.
Every 200 Hours	<ul style="list-style-type: none"> • Check the reel bearing preload adjustment. • Torque the wheel lug nuts.
Every 800 Hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Check the engine RPM (idle and full throttle). • Check the valve clearance.
Every 2000 Hours or 2 Years (whichever occurs first)	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the safety switches. • Drain/flush the fuel tank. • Drain/flush the hydraulic tank. • Replace the hydraulic oil and filter.

¹immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.

GREENSMASTER 3050

Model 04351	Serial 70001 - 20999999
Engine Brand	B&S Vanguard
Engine Oil (<i>Chart K</i>).....	SAE 30 SH, SJ
Engine Oil Filter	*492932
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	74-3570
Air Filter	*394018S
Air Filter-Safety	*272490S
Fuel Filter In-line	94-2690
Tire Pressure	8-12 PSI (Front) 8-15 PSI (Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GREENSMASTER® 3100/3050 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
Check Battery Fluid Level	Every 50hrs	Every 100hrs	Every 200hrs	Every 800hrs
Check Battery Cable Connections				
Service Air Filter Pre-Cleaner				
Lubricate All Grease Fittings	A Level Service			
† Change Engine Oil				
Replace Engine Oil Filter		B Level Service		
Replace Air Filter Element				
Check Reel Bearing Preload Adjustment			C Level Service	
Torque Wheel Lug Nuts				
Replace Spark Plugs				
Replace Fuel Filter				
Decarbon Combustion Chambers				
Torque Heads and Adjust Valves				D Level Service
Check Engine RPM (idle and full throttle)				

† Initial break in at 8 hours

Replace Moving Hoses
Replace Safety Switches
Fuel Tank - Drain/Flush
Hydraulic Tank - Drain/Flush
Replace Hydraulic Filter

Annual Recommendations:
Items listed are recommended every 2000 hours or 2 years whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

GREENSMaster 3050

Model 04351	Serial 210000001 & Up
Engine Brand	B&S Vanguard
Engine Oil (<i>Chart K</i>).....	SAE 30 SH, SJ
Engine Oil Filter	107-7817
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	74-3570
Air Filter	*394018S
Air Filter-Safety	*272490S
Fuel Filter In-line	94-2690
Tire Pressure	8-12 PSI (Front) 8-15 PSI (Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After First 8 Hours	<ul style="list-style-type: none"> • Change the engine oil. • Replace the engine oil filter.
Every 50 Hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Service the air filter pre-cleaner. • Lubricate all grease fittings.¹ • Change the engine oil.
Every 100 Hours	<ul style="list-style-type: none"> • Replace the engine oil filter. • Replace the air filter element.
Every 200 Hours	<ul style="list-style-type: none"> • Check the reel bearing preload adjustment. • Torque the wheel lug nuts.
Every 800 Hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Check the engine RPM (idle and full throttle). • Check the valve clearance.
Every 2000 Hours or 2 Years (whichever occurs first)	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the safety switches. • Drain/flush the fuel tank. • Drain/flush the hydraulic tank. • Replace the hydraulic oil and filter.

¹immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENSMASTER 1600

Model 04060 and 04060TE **Serial** 10001 - 210999999

Engine Brand.....Kawasaki

Engine Oil (Chart B).....SAE 10W30 SH, SJ

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826

Tire Pressure.....15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

GREENSMASTER® 1600 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
Service Air Filter Pre-Cleaner	Every 25hrs	Every 50hrs	Every 100hrs	Every 200hrs
Lubricate All Grease Fittings				
Check for loose Fasteners	A Level			
Clean Fuel Filter and Sediment Bowl				
Adjust Traction Drive Belts		B Level Service		
† Change Engine Oil				
¹ Clean Combustion Chamber				
¹ Replace Spark Plug				
Check Cut-Off Bar Adjustment			C Level Service	
Service Air Cleaner Filter				
² Clean Combustion Chamber				
² Replace Spark Plug				D Level Service
Adjust Valves and Torque Head Bolts				
† Initial Break in at 20 hours				
¹ Interval for Engine Model: FG150				
² Interval for Engine Model: FE120				
Replace All Interlock Switches	Annual Recommendations: Item listed is recommended every 2 years.			

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

GREENSMaster 1600

Model 04060 and 04060TE **Serial** 220000001 & Up

Engine Brand.....Kawasaki

Engine Oil (*Chart B*).....SAE 10W30 SH, SJ

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826

Tire Pressure.....15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
25 Hours	<ul style="list-style-type: none">• Air filter pre-cleaner—service• Grease fittings—lubricate• Fasteners—check and tighten
50 Hours	<ul style="list-style-type: none">• Fuel filter and sediment bowl—clean• Traction drive belts—adjust• Engine oil—change¹
100 Hours	<ul style="list-style-type: none">• Cut-off bar—check adjustment• Air cleaner filter—service
200 Hours	<ul style="list-style-type: none">• Combustion chamber—clean• Spark plug—replace• Valves—adjust• Head bolts—torque
Every 2 years	<ul style="list-style-type: none">• Interlock switches—replace

¹Initial break in at 20 hours

Important Refer to your engine operator's and service manuals for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENSMASTER 1000

Model 04052 **Serial** 10001 - 210999999
Engine Brand.....Kawasaki
Engine Oil (Chart B).....SAE 10W30 SH, SJ
Air Filter:
 Element.....93-8636
 Pre-Cleaner.....93-8637
Fuel Filter.....94-6826 (1996 & up)
Fuel Filter.....93-8684 (1995 - Mid 1996)
Tire Pressure 15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GREENSMASTER® 1000 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
Service Air Filter Pre-Cleaner	Every 25hrs	Every 50hrs	Every 100hrs	Every 200hrs
Lubricate All Grease Fittings				
Check for loose Fasteners	A Level			
Clean Fuel Filter and Sediment Bowl				
Adjust Traction Drive Belts		B Level Service		
† Change Engine Oil				
¹ Clean Combustion Chamber				
¹ Replace Spark Plug				
Check Cut-Off Bar Adjustment			C Level Service	
Service Air Cleaner Filter				
² Clean Combustion Chamber				
² Replace Spark Plug				D Level Service
Adjust Valves and Torque Head Bolts				
† Initial Break in at 20 hours				
¹ Interval for Engine Model: FG150				
² Interval for Engine Model: FE120				
Replace All Interlock Switches	Annual Recommendations: Item listed is recommended every 2 years.			

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

GREENSMASTER 1000

Model 04052

Serial 220000001 & UP

Engine Brand.....Kawasaki

Engine Oil (Chart B).....SAE 10W30 SH, SJ

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826 (1996 & up)

Fuel Filter.....93-8684 (1995 - Mid 1996)

Tire Pressure 15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
25 Hours	<ul style="list-style-type: none">• Air filter pre-cleaner—service• Grease fittings—lubricate• Fasteners—check and tighten
50 Hours	<ul style="list-style-type: none">• Fuel filter and sediment bowl—clean• Traction drive belts—adjust• Engine oil—change¹
100 Hours	<ul style="list-style-type: none">• Cut-off bar—check adjustment• Air cleaner filter—service
200 Hours	<ul style="list-style-type: none">• Combustion chamber—clean• Spark plug—replace• Valves—adjust• Head bolts—torque
Every 2 years	<ul style="list-style-type: none">• Interlock switches—replace

¹Initial break in at 20 hours

Important Refer to your engine operator's and service manuals for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENSMASTER 800

Model 04048 and 04048TE **Serial** 80001 - 210999999

Engine Brand.....Kawasaki

Engine Oil (*Chart B*).....SAE 10W30 SH, SJ

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826

Tire Pressure 15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GREENSMASTER® 800 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
Service Air Filter Pre-Cleaner	Every 25hrs	Every 50hrs	Every 100hrs	Every 200hrs
Lubricate All Grease Fittings				
Check for loose Fasteners	A Level			
Clean Fuel Filter and Sediment Bowl				
Adjust Traction Drive Belts		B Level Service		
† Change Engine Oil				
¹ Clean Combustion Chamber				
¹ Replace Spark Plug				
Check Cut-Off Bar Adjustment			C Level Service	
Service Air Cleaner Filter				
² Clean Combustion Chamber				
² Replace Spark Plug				D Level Service
Adjust Valves and Torque Head Bolts				
† Initial Break in at 20 hours				
¹ Interval for Engine Model: FG150				
² Interval for Engine Model: FE120				
Replace All Interlock Switches	Annual Recommendations: Item listed is recommended every 2 years.			

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

GREENSMaster 800

Model 04048 and 04048TE **Serial** 220000001 & UP

Engine Brand.....Kawasaki

Engine Oil (*Chart B*).....SAE 10W30 SH, SJ

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826

Tire Pressure 15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
25 Hours	<ul style="list-style-type: none"> • Air filter pre-cleaner—service • Grease fittings—lubricate • Fasteners—check and tighten
50 Hours	<ul style="list-style-type: none"> • Fuel filter and sediment bowl—clean • Traction drive belts—adjust • Engine oil—change¹
100 Hours	<ul style="list-style-type: none"> • Cut-off bar—check adjustment • Air cleaner filter—service
200 Hours	<ul style="list-style-type: none"> • Combustion chamber—clean • Spark plug—replace • Valves—adjust • Head bolts—torque
Every 2 years	<ul style="list-style-type: none"> • Interlock switches—replace

¹Initial break in at 20 hours

Important Refer to your engine operator's and service manuals for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENSMMASTER 500

Model All Models **Serial** 30001 & UP
Engine Brand.....Kawasaki
Engine Oil (*Chart B*).....SAE 10W30 SH, SJ
TransaxleSAE 90
Air Filter:
 Element.....93-8636
 Pre-Cleaner.....93-8637
Fuel Filter.....94-6826
Tire Pressure15 PSI

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.



QUICK SERVICE REFERENCE

GREENSMaster Flex 18/21

Model 04018, 04021, 04021 Serial 210000001 & UP

Engine Brand.....Kawasaki

Engine Oil (Chart B).....SAE 10W30 SH, SJ

Transmission.....Dexron III ATF

Air Filter:

Element.....93-8636

Pre-Cleaner.....93-8637

Fuel Filter.....94-6826

Tire Pressure.....15 PSI

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 20 hours	w Change the engine oil. w Clean the fuel filter.
After first 50 hours	w Change the transmission fluid.
Every 25 hours	w Service the air filter pre-cleaner. w Check for loose fasteners.
Every 50 hours	w Clean the fuel filter and sediment bowl. w Change the engine oil. w Check the transmission fluid level.
Every 100 hours	w Check the cut-off bar adjustment. w Service the air cleaner filter. w Check the gear case oil level.
Every 200 hours	w Clean the combustion chamber. w Replace the spark plug. w Adjust the valves and torque the head bolts.
Every 2 years	w Replace safety interlock switch. w Change the transmission fluid.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 7200

Model	30360	Serial	270000001 & UP
Engine Brand	Kubota		
Engine Oil	SAE15W-40		
Engine Oil Filter	108-3841		
Hydraulic Oil (Chart P)	Mobil 424 HYD		
Hydraulic Filter	108-5194		
Air Filter	108-3810		
Water Separator	98-9764		
Pre Fuel Filter	98-7612		
Tire Pressure	15 PSI (Rear) 25 PSI (Castor)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 operating hours	<ul style="list-style-type: none"> Check the alternator belt tension. Torque the frame mounting bolts. Torque wheel lug nuts.
After the first 50 operating hours	<ul style="list-style-type: none"> Change the mower deck gear box lubricant Change the engine oil and filter.
After the first 200 operating hours	<ul style="list-style-type: none"> Change the hydraulic oil and filter.
Before each use or daily	<ul style="list-style-type: none"> Test the safety system. Check the engine oil level. Check the engine coolant level. Clean the radiator with compressed air (do not use water) Check the hydraulic fluid level. Check the mower blades. Clean the mower deck.
Every 50 hours	<ul style="list-style-type: none"> Grease the bearing and bushing grease fittings. Check battery cable connections. Check the tire pressure. Check the condition of the blade drive belts on the mower deck.
Every 150 hours	<ul style="list-style-type: none"> Check the lubricant in the mower deck gear box. Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> Inspect cooling system hoses and seals. Replace them if cracked or torn. Check the alternator belt tension. Torque wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> Change the mower deck gear box lubricant Service the air cleaner. Replace the fuel filter canister. Replace the fuel pre-filter. Check the fuel lines and connections.
Every 800 hours	<ul style="list-style-type: none"> Change the hydraulic oil and filter. Inspect engine valve clearance. Refer to your Engine Operator's Manual.
Every 1,500 hours	<ul style="list-style-type: none"> Replace moving hoses
Every 2 years	<ul style="list-style-type: none"> Drain and clean the fuel tank. Flush and replace cooling system fluid. Replace safety switches.

Important: Refer to your Engine Operator's Manual for additional maintenance procedures. A detailed Service Manual is also available for purchase from your Authorized Toro Distributor.



QUICK SERVICE REFERENCE

GROUNDMASTER 580 D

Model 30580 **Serial** 90001- 70001 (1989-1997)

Engine Brand.....Mitsubisihi

Engine Oil (Chart C)SAE 30 CF, CF-4

Engine Oil Filter 108-3835

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....69-1720

Hydraulic Breather.....68-6150

Air Filter 108-3809

Engine Thermostat99-2155

Fuel Filter..... 108-3818

Planetary Gear Drive.....SAE 80W90

Brake FluidDOT 3 Fluid

Water Separator69-1770

Tire PressureSee Operator's

Caster Tire50 PSI

Engine Coolant.....Ethylene Glycol. Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

MAINTENANCE SCHEDULE

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Lubricate All Grease Fittings					
Inspect Air Filter, Dust Cup, and Baffle					
Clean Under Cutting Unit Belt Covers					
Check Cutting Unit Drive Belt Adjustment					
‡ Change Engine Oil and Replace Filter					
† Check Fan and Alternator Belt Tension					
Inspect Cooling System Hoses					
Service Air Filter					
Replace Fuel/Water Separator Filter					
† Torque Wheel Lug Nuts					
Check Battery Level/Cable Connections					
‡ Replace Hydraulic Filter					
‡ Torque Head and Adjust Valves					
‡ Check Engine RPM (idle and full throttle)					
‡ Change Planetary Gear Drive Fluid					
Check Rear Wheel Toe-In					
† Initial break in at 10 hours					
‡ Initial break in at 50 hours					
Change Brake Fluid					
Change Fuel Filter					
Change Thermostat					
Replace Safety Switches					
Flush Cooling System and Replace Hoses					
Fuel Tank – Drain/Flush					
Change Hydraulic Oil					

Annual Recommendations:

Items listed are recommended every 1000 hours or 2 years, whichever occurs first.



QUICK SERVICE REFERENCE

GROUNDMASTER 580 D

Model 30581	Serial 80001 - 240999999
Engine Brand	Mitsubishi
Engine Oil (<i>Chart C</i>)	SAE 30 CF, CF-4
Engine Oil Filter	110-6166
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	69-1720
Hydraulic Breather	43-8510 (1989-1992)
Hydraulic Breather	68-6150 (1993-2004)
Air Filter	108-3815
Water Separator	69-1770
Engine Thermostat	99-2155
Planetary Gear Drive	SAE 80W90
Brake Fluid	DOT 3 Fluid
Tire Pressure	See Operator's
Caster Tire	50 PSI
Engine Coolant	Ethylene Glycol. Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04



Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> Check the fan and alternator belt adjustment. Torque the wheel lug nuts. Check the cutting unit drive belt adjustment.
After first 50 hours	<ul style="list-style-type: none"> Change the engine oil and replace the filter. Replace the hydraulic filter. Torque head and adjust valves. Check the engine RPM (at idle and full throttle). Change the planetary gear drive fluid.
Every 50 hours	<ul style="list-style-type: none"> Lubricate all grease fittings. Inspect the air filter, dust cup, and baffle. Clean under the cutting unit belt covers. Check the cutting unit drive belt adjustment.
Every 100 hours	<ul style="list-style-type: none"> Change the engine oil and replace the filter. Check the fan and alternator belt tension. Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> Service the air filter. Replace the fuel/water separator filter. Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> Check the battery level and cable connections. Replace the hydraulic filter. Torque head and adjust valves. Check the engine RPM (at idle and full throttle).
Maintenance Service Interval	Maintenance Procedure
Every 800 hours	<ul style="list-style-type: none"> Change the planetary gear drive fluid. Check the rear wheel toe-in.
Every 1000 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> Change the brake fluid. Change the fuel filter. Change the thermostat. Replace the safety switches. Flush the cooling system and replace the hoses. Drain/flush the fuel tank. Change the hydraulic oil.

Important Refer to your engine operator's manual for additional maintenance procedures.

	Caution	
<p>If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.</p> <p>Remove the key from the ignition and disconnect the wire(s) from the spark plug(s) before you do any maintenance. Set the wire(s) aside so that it does not accidentally contact the spark plug(s).</p>		



QUICK SERVICE REFERENCE

GROUNDMASTER 580 D

Model 30582 & 30583	Serial 24000000 & up
Engine Brand	Mitsubishi
Engine Oil (<i>Chart N</i>)	SAE 15W 40 CF-4
Engine Oil Filter	110-6166
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	69-1720
Hydraulic Breather	68-6150
Air Filter	108-3815 (Mid & up)
Engine Thermostat	99-2155
Water Separator	60-5470
Fuel Filter	108-3831 (30583 only)
Planetary Gear Drive	SAE 80W90
Brake Fluid	DOT 3 Fluid
Tire Pressure	See Operator's
Caster Tire	50 PSI
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt adjustment. • Torque the wheel lug nuts. • Check the cutting unit drive belt adjustment.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and replace the filter. • Replace the hydraulic filter. • Torque cylinder head bolts and adjust valves. • Check the engine RPM (at idle and full throttle). • Change the planetary gear drive fluid.
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Inspect the air filter, dust cup, and baffle. • Clean under the cutting unit belt covers. • Check the cutting unit drive belt adjustment.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and replace the filter. • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Replace the fuel/water separator filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Check the battery level and cable connections. • Replace the hydraulic filter. • Adjust valves. • Check the engine RPM (at idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> • Change the planetary gear drive fluid. • Check the rear wheel toe-in.
Every 1000 hours or every 2 years, whichever occurs first	<ul style="list-style-type: none"> • Change the brake fluid. • Change the injection pump filter. • Change the thermostat. • Replace the safety switches. • Flush the cooling system and replace the hoses. • Drain/flush the fuel tank. • Change the hydraulic oil.

Important Refer to your engine operator's manual for additional maintenance procedures.

**Model 30450 and 30455 Serial 20001 & UP**

Engine Brand.....Peugeot

Engine Oil (*Chart C*) SAE 15W40 CF, CF-4

Engine Oil Filter 108-3837

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....86-3010

Bidirectional Clutch Were App.Mobil DTE 15m

Air Filter 108-3812 (1996 & UP)

Safety Air Filter 108-3813 (1996 & UP)

Air Filter 108-3833 (1992-95)

Fuel Filter.....76-5220

Rear4WDAxle Oil.....SAE 80W90

Transaxle Oil80W90

Tire Pressure 15 – 20 PSI
(Front & Rear)

Caster Tires 50 PSI

Engine Coolant (Special Requirement) Peugeot Antifreeze
Toro Part # (104-8606)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

GROUNDMASTER® 455-D Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Interval	Service Type
Inspect Air Filter, Dust Cup, and Baffle Lubricate All Grease Fittings Check Cutting Unit Gear Box Oil Level	Every 50hrs <i>A Level Service</i>
‡ Change Engine Oil and Filter Check Battery Level and Connections Inspect Cooling System Hoses	Every 100hrs <i>B Level Service</i>
Service Air Cleaner Filter Element † Inspect PTO and Cutting Unit Belts ‡ Check Electric Deck Clutches Adjustment ‡ Check Electric PTO Clutch Adjustment † Torque Wheel Lug Nuts	Every 200hrs <i>C Level Service</i>
Replace Fuel Filter Check Front Transaxle Oil level Check Rear Axle Oil level (4wd) Inspect Fuel Lines and Connections ‡ Check Engine RPM (idle and full throttle)	Every 400hrs <i>D Level Service</i>
† Inspect Engine Fan Belt Inspect Engine Timing Belt (see note below) Drain and Clean Fuel Tank Change Hydraulic Oil ‡ Replace Hydraulic Oil Filter Change Front Transaxle Oil Pack Rear Axle Bearings (2wd) Change Rear Axle Oil (4wd) Check Rear Wheel Toe-in	Every 800hrs <i>E Level Service</i>
† Initial break in at 10 hours ‡ Initial break in at 50 hours	
Replace Moving Hydraulic Hoses Replace Safety Switches Cooling System - Flush/Replace Fluid Replace PTO Belts/Cutter Deck Belts	Annual Recommendations: Items listed are recommended every 1500 hours or 2 years whichever occurs first.

See Operator's and Service Manual for specifications and procedures)

NOTE: Replace Timing Belt if worn, cracked or oil soaked. A new Timing Belt should be installed any time the Belt is removed or loosened.



QUICK SERVICE REFERENCE

GROUNDMASTER 4000 D

Model 30410	Serial 210000001 & UP
Engine Brand	Kubota
Engine Oil (<i>Chart A</i>).....	SAE10W30 CF, CF4
Engine Oil Filter	104-5169
Breather Element	98-7419
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	75-1310
Traction Hydraulic Filter	94-2621
Hydraulic Breather	68-6150
Air Filter	108-3814
Safety Air Filter	108-3816
Water/Separator Element	98-9764
Fuel Filter In-line	98-7612
Planetary Gear Drive	SAE 85W140
Rear Axle	SAE 85W140
Rear Axle Breather	99-7591
Tire Pressure	25-30 PSI (Front & Rear)
Caster Tires	50 PSI
Engine Coolant	Ethylene Glycol Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 operating hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Check the fan and alternator belt tension. • Check the blade drive belt tension.
After the first 50 operating hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (at idle and full throttle). • Torque the locknuts on the pivots.
After the first 200 operating hours	<ul style="list-style-type: none"> • Change the front planetary gear oil. • Change the rear axle oil. • Change the hydraulic oil. • Change the hydraulic oil filters.
Before each use or daily	<ul style="list-style-type: none"> • Check the engine oil level. • Check the coolant level. • Check the hydraulic fluid level. • Check the tire pressure.
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Inspect the air cleaner. • Check the battery level and cable connections. • Check the blade drive belt tension. • Clean the underside of the mower housing and under the belt covers.
Every 100 hours	<ul style="list-style-type: none"> • Inspect the cooling system hoses. • Check the fan and alternator belt tension.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Service the spark arrestor.
Every 400 hours	<ul style="list-style-type: none"> • Check the planetary gear drive oil. • Check the rear axle lubricant. • Check the rear axle gear box lubricant. • Service the air filter (if the indicator shows red). • Inspect the fuel lines and connections. • Change the fuel filters (fuel/water and prefilter). • Check the engine RPM (at idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> • Drain and clean the fuel tank. • Change the front planetary gear oil. • Change the rear axle oil. • Check the rear wheel toe-in. • Inspect the blade drive belts. • Change the hydraulic oil. • Change the hydraulic oil filters. • Inspect the cutting unit castor wheel assemblies. • Check and adjust the valve clearance.
Every 2 years	<ul style="list-style-type: none"> • Flush the cooling system and replace fluid. • Replace moving hoses.



QUICK SERVICE REFERENE

GROUNDMASTER 4100 D

Model 30411	Serial 230000001 & UP
Engine Brand	Kubota
Engine Oil (<i>Chart A</i>).....	SAE10W30 CF, CF4
Engine Oil Filter	104-5169
Breather Element	98-7419
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	75-1310
Traction Hydraulic Filter	94-2621
Hydraulic Breather	68-6150
Air Filter	108-3814
Safety Air Filter	108-3816
Water/Separator Element	98-9764
Fuel Filter In-line	98-7612
Planetary Gear Drive	SAE 85W140
Rear Axle	SAE 85W140
Rear Axle Breather	99-7591
Tire Pressure	25-30 PSI (Front & Rear)
Caster Tires	50 PSI

Engine Coolant..... Ethylene Glycol Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 operating hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Check the fan and alternator belt tension. • Check the blade drive belt tension.
After the first 50 operating hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (at idle and full throttle). • Torque the locknuts on the pivots.
After the first 200 operating hours	<ul style="list-style-type: none"> • Change the front planetary gear oil. • Change the rear axle oil. • Change the hydraulic oil. • Change the hydraulic oil filters.
Before each use or daily	<ul style="list-style-type: none"> • Check the engine oil level. • Check the coolant level. • Check the hydraulic fluid level. • Check the tire pressure.
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Inspect the air cleaner. • Check the battery level and cable connections. • Check the blade drive belt tension. • Clean the underside of the mower housing and under the belt covers.
Every 100 hours	<ul style="list-style-type: none"> • Inspect the cooling system hoses. • Check the fan and alternator belt tension.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Service the spark arrestor.
Every 400 hours	<ul style="list-style-type: none"> • Check the planetary gear drive oil. • Check the rear axle lubricant. • Check the rear axle gear box lubricant. • Service the air filter (if the indicator shows red). • Inspect the fuel lines and connections. • Change the fuel filters (fuel/water and prefilter). • Check the engine RPM (at idle and full throttle).
Every 800 hours	<ul style="list-style-type: none"> • Drain and clean the fuel tank. • Change the front planetary gear oil. • Change the rear axle oil. • Check the rear wheel toe-in. • Inspect the blade drive belts. • Change the hydraulic oil. • Change the hydraulic oil filters. • Inspect the cutting unit castor wheel assemblies. • Check and adjust the valve clearance.
Every 2 years	<ul style="list-style-type: none"> • Flush the cooling system and replace fluid. • Replace moving hoses.



QUICK SERVICE REFERENCE

GROUNDMASTER 4500 & 4700 D

Model 30856 & 30868	Serial 220000001 - 240999999
Engine Brand	Kubota
Engine Oil (<i>Chart A</i>).....	SAE10W30CF, CF4
Engine Oil Filter	104-5169
Breather Element	98-7419
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	75-1310
Traction Hydraulic Filter	94-2621
Hydraulic Breather	68-6150
Air Filter	108-3814
Safety Air Filter	108-3816
Water/Separator Element	98-9764
Fuel Filter In-line	98-7612
Planetary Gear Drive	SAE 85W140
Rear Axle	SAE 85W140
Rear Axle Breather	99-7591
Tire Pressure	20 PSI (Front & Rear)
Caster Tires	50 PSI
Engine Coolant	Ethylene Glycol Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the alternator belt tension. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (at idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Inspect the air cleaner indicator.¹ • Check the battery level and cable connections.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Inspect the cooling system hoses. • Check the alternator belt tension.
After first 200 hours	<ul style="list-style-type: none"> • Change the hydraulic oil. • Change the hydraulic oil filters. • Change the front planetary gear lube. • Change the rear axle oil.
Every 200 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Service the spark arrestor.
Every 400 hours	<ul style="list-style-type: none"> • Service the air filter.¹ • Change the fuel filters (fuel/water and pre-filter) • Inspect the fuel lines and connections. • Check the engine RPM (at idle and full throttle) • Check the rear axle oil level. • Check the front planetary gear lube.
Every 800 hours or annually, whichever occurs first	<ul style="list-style-type: none"> • Drain and clean the fuel tank. • Change the hydraulic oil. • Change the hydraulic oil filters. • Change the front planetary gear lube. • Change the rear axle oil. • Inspect the cutting unit front roller assemblies for wear. • Check the rear wheel toe-in. • Check and adjust the valve clearance. • Replace the hydraulic tank breather
Every 1500 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Flush the cooling system and replace fluid.

¹If the indicator shows red

Important Refer to your engine operator's manual and cutting unit operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 4500 & 4700 D

Model 30856 & 30868	Serial 250000001 & UP
Engine Brand	Kubota
Engine Oil (<i>Chart A</i>).....	SAE10W30 CF, CF4
Engine Oil Filter	104-5169
Breather Element	98-7419
Hydraulic Oil	Mobil DTE 15M
Hydraulic Filter	75-1310
Traction Hydraulic Filter	94-2621
Hydraulic Breather	68-6150
Air Filter	108-3814
Safety Air Filter	108-3816
Water/Separator Element	98-9764
Fuel Filter In-line	98-7612
Planetary Gear Drive	SAE 85W140
Rear Axle	SAE 85W140
Rear Axle Breather	99-7591
Tire Pressure	20 PSI (Front & Rear)
Caster Tires	50 PSI
Engine Coolant	Ethylene Glycol Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 operating hours	<ul style="list-style-type: none"> Torque the wheel nuts.
After the first 50 operating hours	<ul style="list-style-type: none"> Change the engine oil and filter.
After the first 200 operating hours	<ul style="list-style-type: none"> Change the planetary gear drive oil. Change the rear axle lubricant. Change the hydraulic filters.
Before each use or daily	<ul style="list-style-type: none"> Check the engine oil level. Check the cooling system. Check the hydraulic fluid level. Check the tire pressure. Check the interlock switches. Drain water or other contaminants from the water separator. Remove debris from the engine area, oil cooler, and radiator. Inspect the hydraulic lines and hoses for leaks, kinked lines, loose mounting supports, wear, loose fittings, weather deterioration, and chemical deterioration.
Every 50 hours	<ul style="list-style-type: none"> Grease the bearings and bushings. Check the battery condition.
Every 100 hours	<ul style="list-style-type: none"> Check the condition and tension of the alternator belt.
Every 150 hours	<ul style="list-style-type: none"> Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> Torque the wheel nuts. Clean the spark arrestor muffler.
Every 400 hours	<ul style="list-style-type: none"> Service the air cleaner. (Service the air cleaner earlier if the air cleaner indicator shows red. Service it more frequently in extremely dirty or dusty conditions.) Check the fuel lines and connections. Replace the fuel pre-filter. Check the planetary gear drive oil level (sooner if external leakage is noticed). Check the rear axle lubricant level.
Every 800 hours	<ul style="list-style-type: none"> Drain and clean the fuel tank. Change the planetary gear drive oil. Change the rear axle lubricant. Check the rear wheel toe-in. Change the hydraulic fluid. Change the hydraulic filters.
Before storage	<ul style="list-style-type: none"> Drain and clean the fuel tank. Check the tire pressure. Check all fasteners. Grease or oil all grease fittings and pivot points. Paint chipped surfaces.
Yearly	<ul style="list-style-type: none"> Check the fuel lines and connections. Replace the fuel pre-filter. Change the planetary gear drive oil. Check the rear wheel toe-in.
Every 2 years	<ul style="list-style-type: none"> Replace the interlock switches.

Important: Refer to your engine Operator's Manual and cutting unit Operator's Manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 3500 D

Model 30821 & 30839 **Serial** 200000001 - 249999999

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF, CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....86-3010 (2002 & up)

Hydraulic Filter.....54-0110 (2000 -2001)

Air Filter 108-3810

Water/Separator 98-9764

Fuel Filter In-line 98-7612

Tire Pressure 14-18 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Replace the hydraulic filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (at idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Inspect the air filter, dust cup, and burp valve. • Lubricate all grease fittings. • Change the engine oil. • Check the battery cable connections. • Check the fan and alternator belt tension. • Check the battery fluid level.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil filter. • Inspect the traction belt.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air filter. • Replace the hydraulic filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Replace the hydraulic fluid. • Replace the fuel/water separator filter. • Replace the fuel prefilter. • Inspect the traction cable movement. • Check the engine RPM (at idle and full throttle).
Every 800 hours or annually, whichever occurs first	<ul style="list-style-type: none"> • Adjust the valves. • Inspect, disassemble and install new seals in cutting unit roller assemblies.
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace the safety switches. • Flush the cooling system and replace the fluid. • Drain and flush the fuel tank. • Drain and flush the hydraulic tank.

Important Refer to your engine operator's manual and cutting unit operator's manual for additional maintenance procedures.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition before you do any maintenance.



QUICK SERVICE REFERENCE

GROUNDMASTER 3505 & 3500 D

Model 30821,30839 & 30826 **Serial** 250000101 & UP

Engine Brand.....Kubota

Engine Oil (Chart A).....SAE 10W30 CF, CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter..... 86-3010

Air Filter 108-3810

Water/Separator 98-9764

Fuel Filter In-line 98-7612

Tire Pressure 14-18 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the fan and alternator belt tension. • Replace the hydraulic filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the engine RPM (at idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Inspect the air filter, dust cup, and burp valve. • Lubricate all grease fittings. • Check the battery cable connections. • Check the fan and alternator belt tension. • Check the battery fluid level.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Inspect the traction belt.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air filter. • Replace the hydraulic filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Replace the hydraulic fluid. • Replace the fuel/water separator filter. • Replace the fuel prefilter. • Inspect the traction cable movement. • Check the engine RPM (at idle and full throttle).
Every 800 hours or annually, whichever occurs first	<ul style="list-style-type: none"> • Adjust the valves. • Inspect, disassemble and install new seals in cutting unit roller assemblies.
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace all moving hoses. • Replace the safety switches. • Flush the cooling system and replace the fluid. • Drain and flush the fuel tank. • Drain and flush the hydraulic tank.

Important Refer to your engine operator's manual and cutting unit operator's manual for additional maintenance procedures.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition before you do any maintenance.



QUICK SERVICE REFERENCE

GROUNDMASTER 3320

Model 30307 **Serial** 250000101 & UP

Engine Brand.....B&S Daihatsu

Engine Oil (*Chart E*).....SAE 30 SH, SJ

Engine Oil Filter 108-3842

Hydraulic Oil (*Chart P*) Mobil 424 HYD

Hydraulic Filter.....23-2300

Air Filter 108-3810

Fuel Filter 95-2926

Tire Pressure 20 PSI
(Front & Rear)

Engine Coolant Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Change Transmission Filter • Torque Wheel Lug Nuts • Check Brake Operation
After first 50 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter • Check PTO Belt Tension • Check Brake Operation
Every 50 hours	<ul style="list-style-type: none"> • Check Battery Fluid Level • Check Battery Cable Connections • Lubricate All Grease Fittings • Lubricate Brake Cables • Inspect Air Filter, Dust Cup, and Baffle
Every 200 hours	<ul style="list-style-type: none"> • Check Electric Clutch Gap Adjustment • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Inspect Cooling System Hoses • Change Engine Oil and Filter • Check Rear Wheel Toe-In and Steering Linkage • Change Transmission Filter • Torque Wheel Lug Nuts
Every 400 hours	<ul style="list-style-type: none"> • Replace Air Filter • Replace Fuel Filter • Coat Transmission Bypass Pins with Grease • Adjust Valves and Check Engine RPM
Every 1500 hours	<ul style="list-style-type: none"> • Replace Moving Hoses • Replace Safety Switches • Coolant System – Flush/Replace Fluid • Replace Hydraulic Oil



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.



QUICK SERVICE REFERENCE

GROUNDMASTER 225

Model 30230	Serial 60001 & UP
Engine Brand	B&S Daihatsu
Engine Oil (<i>Chart E</i>).....	SAE 30 SH, SJ
Engine Oil Filter	108-3842
Hydraulic Oil (<i>Chart P</i>)	SAE10W30, 10W40 (Mobil 424 HYD)
Hydraulic Filter	23-2300
Air Filter	95-2926
Fuel Filter	99-9193
Fuel Filter In-line	95-2926 (2000 & older)
Tire Pressure	20 PSI (Front & Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GROUNDMASTER® 225

Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
	50hrs	100hrs	200hrs	400hrs
Check Battery Fluid Level				
Check Battery Cable Connections				
Lubricate All Grease Fittings				
Lubricate Brake Cables				
Check Cutting Unit Gear Box Oil Level				
Clean Under Cutting Unit Belt Covers				
Check Cutting Unit Drive Belt Adjustment				
Change Engine Oil				
Inspect Air Filter, Dust Cup, and Baffle				
‡ Replace Engine Oil Filter				
Check Electric Clutch Gap Adjustment				
† Check PTO Belt Tension				
† Check Fan and Alternator Belt Tension				
Inspect Cooling System Hoses				
Service Air Filter				
Replace Gasoline Fuel Filter (gas unit)				
Check Rear Wheel Toe-In and Steering Linkage				
† Replace Transmission Filter				
† Torque Wheel Lug Nuts				
Drain and Clean Fuel Tank (diesel unit)				
Change Cutting Unit Gear Box Oil				
Change Electric Fuel Pump Filter				
Change Diesel/Water Separator Filter				
Rear Axle Service				
- pack rear wheel bearings (2WD)				
- change rear axle lubricant (4WD)				
Coat Transmission Bypass Pins with Grease				
Replace Spark Plugs (gasoline unit)				
‡ Torque Head, Adjust Valves, and Check Engine RPM				
† Initial break in at 10 hours				
‡ Initial break in at 50 hours				
Replace Moving Hoses				
Replace Safety Switches				
Coolant System - Flush/Replace Fluid				
Change Hydraulic Oil				

Annual Recommendations:
Items listed are recommended every
1000 hours or 2 years whichever occurs
first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

GROUNDMASTER 3000

Model 30300

Serial 60001 & UP

Engine Brand.....Ford

Engine Oil (*Chart D*)SAE 10W30 SF, SJ

Engine Oil Filter*FL-400A

Hydraulic Oil.....Mobil 424

Hydraulic Filter.....94-3951

Air Filter108-3812

Fuel Filter*FG795A

Tire Pressure15 PSI
(Front & Rear)

Caster Tire50 PSI

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

*Indicates Ford Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Groundmaster 3000 Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Lubricate All Grease Fittings	Every 50hrs				
Inspect Air Filter					
Check Battery Level/Cable Connections					
Check Cutting Unit Gearbox Oil Level					
Clean Under Cutting Unit Belt Covers					
Check Cutting Unit Drive Belt Adjustment	A Level Service				
Change Engine Oil and Filter					
Inspect Cooling System Hoses					
Check Fan, Governor and Alternator Belt Tension		B Level Service			
Torque Wheel Lug Nuts					
Check Governor Oil Level					
Service Spark Arrester Muffler				C Level Service	
Service Air Filter					
Change Fuel Filter					
Inspect Fuel Lines and Connections					
Change Spark Plugs					
Check Engine RPM (idle and full throttle)					
Torque Head and Adjust Valves					
Change Cutting Unit Gearbox Oil				D Level Service	
Change Hydraulic Oil					
Change Hydraulic Oil Filter					
Drain and Clean Fuel Tank					
Pack Rear Axle Bearings					
Check Rear Wheel Toe-In					E Level Service
Initial break in at 10 hours					
Initial break in at 50 hours					
Initial break in at 200 hours					
Replace Moving Hoses					
Replace Safety Switches					
Cooling System Flush/Replace Fluid					

Annual Recommendations:
Items listed are recommended every 1500 hours or 2 years, whichever occurs first.

(See Operator's Manual for specifications and procedures.)



QUICK SERVICE REFERENCE

GROUNDMASTER 3000-D

Model	All Models	Serial	60001 & UP
Engine Brand	Peugeot		
Engine Oil (<i>Chart C</i>)	SAE 15W40 CF		
Engine Oil Filter	108-3837		
Breather Element	93-5670		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	94-3951		
Hydraulic Filter Contour Deck	54-0110		
Rear Axle (4WD)	Mobil 424		
Air Filter	108-3812		
Fuel Filter	76-5220		
Tire Pressure	15 PSI (Front & Rear)		
Castor Tire	50 PSI		
Engine Coolant (Special Requirement)	Peugeot Antifreeze Toro Part # (104-8606)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Groundmaster 3000-D Maintenance Schedule

Minimum Recommended Maintenance Intervals

	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800 hrs
Lubricate All Grease Fittings					
Inspect Air Filter					
Check Battery Level/Cable Connections					
Check Cutting Unit Gearbox Oil Level					
Clean Under Cutting Unit Belt Covers					
Check Cutting Unit Drive Belt Adjustment	A Level Service				
Change Engine Oil and Filter					
Inspect Cooling System Hoses					
Check Fan and Alternator Belt Tension			B Level Service		
Torque Wheel Lug Nuts				C Level Service	
Service Air Filter					
Change Fuel Filter					
Inspect Fuel Lines and Connections					
Check Engine RPM (idle and full throttle)					
Check Rear Axle Oil Level (4wd)					
Change Cutting Unit Gearbox Oil					
Change Rear Axle Oil (4wd)					D Level Service
Change Hydraulic Oil (see note below)					
Change Hydraulic Oil Filter (see note below)					
Inspect Engine Timing Belt (see note below)					
Drain and Clean Fuel Tank					
Pack 2WD Rear Axle Bearings					
Check Rear Wheel Toe±In					E Level Service
Initial break in at 10 hours					
Initial break in at 50 hours					
Initial break in at 200 hours					
Replace Moving Hoses					
Replace Safety Switches					
Cooling System Flush/Replace Fluid					

Annual Recommendations:

Items listed are recommended every 1500 hours or 2 years, whichever occurs first.

(See Operator's Manual for specifications and procedures.)

NOTE: Replace Timing Belt after every 2500 hours of operation or if worn, cracked, oil soaked or any time the Belt is removed or loosened.

NOTE: Replace Hydraulic Oil and Filter every 400 hours of operation if machine is equipped with Model 30726 Auxiliary Hydraulic Kit.



QUICK SERVICE REFERENCE

GROUNDMASTER 345

Model	30789	Serial	40001 & UP
Engine Brand	Ford		
Engine Oil (<i>Chart D</i>)	SAE 10W20 SH, SJ		
Engine Oil Filter	108-3817		
Hydraulic Oil (<i>Chart P</i>)	SAE 10W30 10W40 (Mobil 424 HYD)		
Hydraulic Filter	23-9740		
Air Filter	108-3833		
Fuel Filter	99-9403		
Fuel Filter (at tank)	95-3305		
Tire Pressure	21 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the PTO belt tension. • Check the fan and alternator belt tension. • Change the transmission filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the PTO belt tension.
Every 50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Lubricate the brake cables. • Check the PTO belt tension. • Inspect the air filter, dust cup and baffle.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> • Change the transmission filter. • Service the air filter. • Check governor oil level • Decarbon spark arrestor muffler. • Check rear wheel toe-in and steering linkage. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Change fuel filter. • Replace spark plugs • Pack the rear wheel bearings. • Torque head, adjust valves and check engine RPM.
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Flush and replace the coolant system fluid. • Replace the hydraulic fluid.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 325 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	80001 & UP
Engine Brand	Mitsubishi		
Engine Oil (<i>Chart I</i>)	SAE10w30 CF, CF4		
Engine Oil Filter	108-3841 (4WD 1995&UP)		
Engine Oil Filter	42-9030 (2WD & 4WD 1991-94)		
Breather Element	98-9493		
Hydraulic Oil (<i>Chart P</i>)	SAE 10W30, 10W40 (Mobil 424 HYD)		
Hydraulic Filter	23-9740		
Air Filter	108-3833		
Water Separator	98-9764		
Fuel Pump Filter	43-2550		
Fuel Filter In-line	43-1820		
Rear Axle	SAE 80W90		
Bi-directional Clutch	Mobil 424		
Tire Pressure	21 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Change Transmission Filter • Torque Wheel Lug Nuts
After first 50 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter • Torque Head, Adjust Valves and Check Engine RPM
Every 50 hours	<ul style="list-style-type: none"> • Check Battery Fluid Level • Check Battery Cable Connections • Lubricate All Grease Fittings • Lubricate Brake Cables • Inspect Air Filter, Dust Cup, and Baffle
Every 100 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter • Check Electric Clutch Gap Adjustment • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Inspect Cooling System Hoses
Every 200 hours	<ul style="list-style-type: none"> • Check Rear Wheel Toe-In and Steering Linkage • Change Transmission Filter • Torque Wheel Lug Nuts
Every 400 hours	<ul style="list-style-type: none"> • Service Air Filter • Change Electric Fuel Pump Filter • Pack Rear Wheel Bearings • Coat Transmission Bypass Pins with Grease • Torque Head, Adjust Valves and Check Engine RPM
Every 1000 hours	<ul style="list-style-type: none"> • Replace Moving Hoses • Replace Safety Switches • Coolant System – Flush/Replace Fluid • Replace Hydraulic Oil



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.



QUICK SERVICE REFERENCE

GROUNDMASTER 328 D (2 & 4 WHEEL DRIVE)

Model All Models **Serial** 210000001 - 240999999

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE 10W30 CF, CF4

Engine Oil Filter 108-3841

Breather Element 98-9493

Hydraulic Oil (*Chart P*) SAE 10W30, 10W40
(Mobil 424 HYD)

Hydraulic Filter.....23-9740

Bidirectional Clutch Mobil 424

4 WD Rear Axle SAE 80W90

Air Filter 108-3810

Water Separator 98-9764

Pre Fuel Filter-In Line 98-7612

Tire Pressure 21 PSI
(Front & Rear)

Engine Coolant.....Ethylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the PTO belt tension. • Check the fan and alternator belt tension. • Change the transmission filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check engine RPM. • Check the PTO belt tension. • Check engine RPM
Every 50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Lubricate the brake cables. • Inspect the air filter.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the PTO belt tension. • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Check rear wheel toe-in and steering linkage. • Change the transmission filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Change fuel filter. • Change the fuel/water separator filter. • Change rear axle lubricant (4 wheel drive only). • Change bidirectional clutch lubricant (4 wheel drive only). • Pack the rear wheel bearings (2 wheel drive only). • Torque head, adjust valves and check engine RPM
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Flush and replace the coolant system fluid. • Replace the hydraulic fluid. • Drain and clean the fuel tank.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 328 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	250000001 & UP
Engine Brand	Kubota		
Engine Oil (<i>Chart A</i>)	SAE 10W30 CF, CF4		
Engine Oil Filter	108-3841		
Hydraulic Oil (<i>Chart P</i>)	SAE 10W30, 10W40 (Mobil 424 HYD)		
Hydraulic Filter	23-9740		
Bidirectional Clutch	Mobil 424		
4 WD Rear Axle	SAE 80W90		
Air Filter	108-3810		
Water Separator	98-9764		
Pre Fuel Filter-In Line	98-7612		
Tire Pressure	21 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the PTO belt tension. • Check the fan and alternator belt tension. • Change the transmission filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check engine RPM. • Check the PTO belt tension. • Check engine RPM
Every 50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Lubricate the brake cables. • Inspect the air filter.
Every 100 hours	<ul style="list-style-type: none"> • Check the PTO belt tension. • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 150 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Check rear wheel toe-in and steering linkage. • Change the transmission filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Change fuel filter. • Change the fuel/water separator filter. • Change rear axle lubricant (4 wheel drive only). • Change bidirectional clutch lubricant (4 wheel drive only). • Pack the rear wheel bearings (2 wheel drive only). • Torque head, adjust valves and check engine RPM
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Flush and replace the coolant system fluid. • Replace the hydraulic fluid. • Drain and clean the fuel tank.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 228 D (2 & 4 WHEEL DRIVE)

Model	All Models	Serial	210000001 & UP
Engine Brand	Kubota		
Engine Oil (<i>Chart A</i>)	SAE10w30 CF, CF4		
Engine Oil Filter	108-3841		
Hydraulic Oil (<i>Chart P</i>)	SAE10W30, 10W40 (Mobil 424 HYD)		
Hydraulic Filter	23-2300		
Bidirectional Clutch	Mobil 424		
4 WD Rear Axle	SAE 80W90		
Air Filter	108-3810		
Water Separator	98-9764		
Pre Fuel Filter-In Line	98-7612		
Tire Pressure	20 PSI (Front & Rear)		
Engine Coolant	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check the PTO belt tension. • Check the fan and alternator belt tension. • Change the transmission filter. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check engine RPM. • Check the PTO belt tension. • Check engine RPM
Every 50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Lubricate the brake cables. • Inspect the air filter.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Check the PTO belt tension. • Check the fan and alternator belt tension. • Inspect the cooling system hoses.
Every 200 hours	<ul style="list-style-type: none"> • Service the air filter. • Check rear wheel toe-in and steering linkage. • Change the transmission filter. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Change fuel filter. • Change the fuel/water separator filter. • Change rear axle lubricant (4 wheel drive only). • Change bidirectional clutch lubricant (4 wheel drive only). • Pack the rear wheel bearings (2 wheel drive only). • Torque head, adjust valves and check engine RPM
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Flush and replace the coolant system fluid. • Replace the hydraulic fluid. • Drain and clean the fuel tank.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GROUNDMASTER 3280 D (2 & 4 WHEEL DRIVE)

Model 30308 & 30309 **Serial** 250000101 & UP

Engine Brand.....Kubota

Engine Oil (*Chart A*).....SAE10w30 CF, CF4

Engine Oil Filter 108-3841

Hydraulic Oil (*Chart P*)Mobil 424 HYD

Hydraulic Filter.....23-2300

Bidirectional ClutchMobil 424

4 WD Rear AxleSAE 80W90

Air Filter 108-3810

Water Separator98-9764

Pre Fuel Filter98-7612

Tire Pressure20 PSI
(Front & Rear)

Engine CoolantEthylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Change Transmission Filter • Torque Wheel Lug Nuts • Check Brake Operation
After first 50 hours	<ul style="list-style-type: none"> • Change Engine Oil and Filter • Check PTO Belt Tension • Check Brake Operation
Every 50 hours	<ul style="list-style-type: none"> • Check Battery Fluid Level • Check Battery Cable Connections • Lubricate All Grease Fittings • Lubricate Brake Cables • Inspect Air Filter, Dust Cup, and Baffle
Every 150 hours	<ul style="list-style-type: none"> • Check Electric Clutch Gap Adjustment • Check PTO Belt Tension • Check Fan and Alternator Belt Tension • Inspect Cooling System Hoses • Change Engine Oil and Filter • Check Rear Wheel Toe-In and Steering Linkage • Change Transmission Filter • Torque Wheel Lug Nuts
Every 450 hours	<ul style="list-style-type: none"> • Replace Air Filter • Drain and Clean Fuel Tank • Change Fuel/Water Separator Filter • Change Rear Axle Lubricant (4 wheel drive only) • Change Bi-directional Clutch Lubricant (4 wheel drive only) • Coat Transmission Bypass Pins with Grease • Adjust Valves and Check Engine RPM
Every 1500 hours	<ul style="list-style-type: none"> • Replace Moving Hoses • Replace Safety Switches • Coolant System – Flush/Replace Fluid • Replace Hydraulic Oil



Model 30243 and 30223	Serial 80001 & UP
Engine Brand	Mitsubishi
Engine Oil (<i>Chart E</i>).....	SAE 10W30 CF, CF4
Engine Oil Filter	108-3841
Hydraulic Oil (<i>Chart P</i>)	SAE 10w30 SJ
Hydraulic Filter	23-2300
Air Filter	27-7110 x 108-3833
Water/Separator	63-8300
Fuel Pump Filter	43-2550
Tire Pressure	20 PSI (Front & Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GROUNDMASTER® 220-D, 223-D, 224 Maintenance Schedule

Maintenance Procedure		Maintenance Interval & Service			
		50hrs	100hrs	200hrs	400hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Lubricate All Grease Fittings					
Lubricate Brake Cables					
Check Cutting Unit Gear Box Oil Level					
Clean Under Cutting Unit Belt Covers					
Check Cutting Unit Drive Belt Adjustment					
Change Engine Oil	<i>A Level Service</i>				
Inspect Air Filter, Dust Cup, and Baffle					
‡ Replace Engine Oil Filter					
Check Electric Clutch Gap Adjustment					
† Check PTO Belt Tension					
† Check Fan and Alternator Belt Tension					
Inspect Cooling System Hoses					
Service Air Filter					
Replace Gasoline Fuel Filter (gas unit)					
Check Rear Wheel Toe-In and Steering Linkage					
† Replace Transmission Filter					
† Torque Wheel Lug Nuts					
Drain and Clean Fuel Tank (diesel unit)					
Change Cutting Unit Gear Box Oil					
Change Electric Fuel Pump Filter					
Change Diesel/Water Separator Filter					
Rear Axle Service					
- pack rear wheel bearings (2WD)					
- change rear axle lubricant (4WD)					
Coat Transmission Bypass Pins with Grease					
Replace Spark Plugs (gasoline unit)					
‡ Torque Head, Adjust Valves, and Check Engine RPM					
† Initial break in at 10 hours					
‡ Initial break in at 50 hours					
Replace Moving Hoses					
Replace Safety Switches					
Coolant System - Flush/Replace Fluid					
Change Hydraulic Oil					

Annual Recommendations:
 Items listed are recommended every
 1000 hours or 2 years whichever occurs
 first.

Page 62 of 101



QUICK SERVICE REFERENCE

GROUNDMASTER 1000L

Model 30200	Serial 70001 & UP
Engine Brand	Kawasaki
Engine Oil (<i>Chart B</i>).....	SAE10W30 SH, SJ
Engine Oil Filter	95-9762
Hydraulic Oil (<i>Chart P</i>)	SAE 10W30 SJ
Hydraulic Filter	23-2300
Air Filter	95-9898
Pre Air Filter	95-9899
Fuel Filter	95-9962
Tire Pressure	20 PSI (Front & Rear)
Engine Coolant	Ethylene Glycol, Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

GROUNDMASTER® 1000

Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service			
	50hrs	100hrs	200hrs	400hrs
Check Battery Fluid Level				
Check Battery Cable Connections				
Lubricate All Grease Fittings				
Lubricate Brake Cables				
Check Cutting Unit Gear Box Oil Level				
Clean Under Cutting Unit Belt Covers				
Check Cutting Unit Drive Belt Adjustment				
Change Engine Oil				
Inspect Air Filter, Dust Cup, and Baffle				
‡ Replace Engine Oil Filter				
Check Electric Clutch Gap Adjustment				
† Check PTO Belt Tension				
† Check Fan and Alternator Belt Tension				
Inspect Cooling System Hoses				
Service Air Filter				
Replace Gasoline Fuel Filter (gas unit)				
Check Rear Wheel Toe-In and Steering Linkage				
† Replace Transmission Filter				
† Torque Wheel Lug Nuts				
Drain and Clean Fuel Tank (diesel unit)				
Change Cutting Unit Gear Box Oil				
Change Electric Fuel Pump Filter				
Change Diesel/Water Separator Filter				
Rear Axle Service				
- pack rear wheel bearings (2WD)				
- change rear axle lubricant (4WD)				
Coat Transmission Bypass Pins with Grease				
Replace Spark Plugs (gasoline unit)				
‡ Torque Head, Adjust Valves, and Check Engine RPM				
† Initial break in at 10 hours				
‡ Initial break in at 50 hours				
Replace Moving Hoses				
Replace Safety Switches				
Coolant System - Flush/Replace Fluid				
Change Hydraulic Oil				

Annual Recommendations:
Items listed are recommended every
1000 hours or 2 years whichever occurs
first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

WORKMAN 1100

Model 07252	Serial 210000001 & UP
Engine Brand	Kohler
Engine Oil (<i>Chart F</i>).....	SAE 10W30 SH, SJ
Transaxle Oil	SAE 10W30
Air Filter	108-3811
Fuel Filter In-line	94-2690
Tire Pressure	8-22 PSI (Front & Rear)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Important Refer to your **engine operator's manual** for additional maintenance procedures.

Maintenance Service Interval	Maintenance Procedure
After First Use	<ul style="list-style-type: none"> • Check the drive belt tension. • Check the starter belt tension. • Check the engine oil.
Every 8 Hours	<ul style="list-style-type: none"> • Check the engine oil. • Check the tire pressure.
After First 20 Hours	<ul style="list-style-type: none"> • Change the engine oil. • Check the front wheel toe-in at the proper ride height.
Every 50 Hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections.
Every 100 Hours	<ul style="list-style-type: none"> • Change the engine oil.¹ • Lubricate all grease fittings. • Clean the engine cooling areas.¹ • Inspect the air cleaner filter.¹ • Inspect the brake and parking brake. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts. • Check the front suspension adjustment toe-in and ride height. • Check the spark plug and replace it, if necessary. • Check the operation of the Neutral gear shift position.
Every 200 Hours	<ul style="list-style-type: none"> • Replace the air cleaner filter. • Check the brake cable adjustments. • Inspect the drive belt. • Inspect and adjust the starter belt.
Every 400 Hours or Yearly	<ul style="list-style-type: none"> • Inspect the fuel lines. • Clean and lubricate the primary drive clutch • Complete all yearly maintenance procedures specified in the engine operator's manual.
Every 800 Hours or Yearly	<ul style="list-style-type: none"> • Replace the fuel filter. • Change the transaxle oil.

¹Twice as often in special operating conditions; refer to Maintaining the Vehicle under Special Operating Conditions, page 24.



QUICK SERVICE REFERENCE

WORKMAN 2100

Model 07253 **Serial** 200000001 & UP

Engine Brand.....B&S Vanguard

Engine Oil (Chart J)SAE 30 SH, SJ

Engine Oil Filter 107-7817

Transaxle SAE 10W30

Air Filter 108-3811

Fuel Filter In-line 94-2690

Tire Pressure 8-22 PSI
(Front & Rear)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> • Change the engine oil.
Every 8 hours	<ul style="list-style-type: none"> • Check the engine oil.
Every 50 hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Change the engine oil (includes synthetic oil).¹
Every 100 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings. • Clean the engine rotating screen.² • Inspect the air cleaner filter.² • Replace the engine oil filter. • Inspect the brake and parking brake. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts. • Check the front suspension adjustment.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air cleaner filter. • Check the brake cable adjustments. • Inspect the drive belt. • Adjust the starter generator belt.
Every 400 hours or yearly	<ul style="list-style-type: none"> • Inspect the fuel lines. • Check the front wheel toe-in.
Every 800 hours or yearly	<ul style="list-style-type: none"> • Replace the fuel filter. • Change the transaxle oil. • Replace the spark plugs. • Drain and flush the fuel tank.

¹More often when operating under heavy load or high temperatures

²More often in dusty, dirty conditions

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

WORKMAN 2110

Model 07277 **Serial** 26000001& UP

Engine Brand..... B&S Vanguard

Engine Oil (Chart J) SAE30 SH, SJ

Engine Oil Filter 107-7817

Transaxle SAE 10W30

Air Filter 108-3811

Fuel Filter In-line 94-2690

Tire Pressure 8-22 PSI
(Front &Rear)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 operating hours	<ul style="list-style-type: none"> • Change the engine oil. • Check the condition and tension of the drive belt. • Check the tension of the starter generator belt.
After the first 25 operating hours	<ul style="list-style-type: none"> • Check the front wheel toe-in and front suspension.
Before each use or daily	<ul style="list-style-type: none"> • Check the engine oil. • Check the tire pressure. • Check the transmission oil level. • Check the brake fluid level.
Every 50 hours	<ul style="list-style-type: none"> • Change the engine oil (twice as often in special operating conditions; refer to Maintaining the Vehicle under Special Operating Conditions). • Check the battery cable connections for wear or damage. • Check the battery electrolyte level.
Every 100 hours	<ul style="list-style-type: none"> • Grease the bearings and bushings. • Inspect and clean the air filter element (twice as often in special operating conditions; refer to Maintaining the Vehicle under Special Operating Conditions). • Change the oil filter (twice as often in special operating conditions; refer to Maintaining the Vehicle under Special Operating Conditions). • Check the operation of the Neutral gear shift position. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts to 45-65 ft-lb (61-88 N·m). • Check the front wheel toe-in and front suspension. • Clean the engine cooling areas (twice as often in special operating conditions; refer to Maintaining the Vehicle under Special Operating Conditions). • Inspect the brakes.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air filter element. • Adjust the parking brake. • Check the condition and tension of the drive belt. • Check the tension of the starter generator belt.
Every 400 hours	<ul style="list-style-type: none"> • Inspect the fuel lines and connections. • Clean and lubricate the primary drive clutch.
Every 800 hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Change the transaxle fluid.
Yearly	<ul style="list-style-type: none"> • Complete all yearly maintenance procedures specified in the Engine Operator's Manual.

Important: Refer to your Engine Operator's Manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

e2050 WORKMAN

Model 07280

Serial 240000000 & UP

Transaxle SAE 10W30

Battery Top Off Distilled Water

Tire Pressure 8-22 PSI
(Front & Rear)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance Service Interval	Maintenance Procedure
When not in use	<ul style="list-style-type: none">• Charge the batteries.
Every 8 hours	<ul style="list-style-type: none">• Check the tire pressure.
After first 20 hours	<ul style="list-style-type: none">• Check the front wheel toe-in at the proper ride height.
Every 25 hours	<ul style="list-style-type: none">• Check the battery electrolyte level.• Check the battery cable connections.• Clean the batteries.
Every 100 hours	<ul style="list-style-type: none">• Lubricate all grease fittings.• Inspect the brake and parking brake.• Inspect the condition and wear of the tires.• Torque the wheel lug nuts.• Check the front suspension toe-in and ride height.• Check the transaxle oil level.
Every 200 hours	<ul style="list-style-type: none">• Check the brake cable adjustments.



QUICK SERVICE REFERENCE

WORKMAN 3100

Model 07210	Serial 40001 - 210999999
Engine Brand	Kohler
Engine Oil (Chart G)	SAE 10W30 SH, SJ
Engine Oil Filter	*1205001S
Trans/Hydraulic Oil	Dexron III ATF
Trans/Hydraulic Filter	54-0110
Air Filter	*4708303S
Pre Cleaner Element	*2408302S
Fuel Filter In-line	99-9403 (1993-1999)
Fuel Filter In-line	99-9404 (2000 & up)
Tire Pressure	6-12 PSI (Front)
23" Tire.....	20 PSI (Rear)
24" Tire.....	18 PSI (Rear)

*Indicates Kohler Part Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

WORKMAN 3100 and 3120 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Lubricate Engine Prefilter	A Level Service				
Change Engine Oil and Filter					
Lubricate All Grease Fittings					
Remove Engine Shrouds and Clean Fins		B Level Service			
Inspect Condition and Wear of Tires					
Check Cable Adjustments					
Check Pump Drive Belt Tension					
Replace Air Filter					
Check Engine RPM (Idle and Full Throttle)			C Level Service		
Torque Wheel Lug Nuts					
Check Front Wheel Alignment					
Inspect Service and Parking Brakes					
Inspect Fuel Lines					D Level Service
Replace Fuel Filter					
Replace Transaxle Filter					
Change Transaxle Oil					
Clean Transaxle Strainer					
Pack Front Wheel Bearings					E Level Service
Replace Spark Plugs					
Initial break in at 5 hours					
Initial break in at 10 hours					
Replace all Interlock Switches					
Drain/Flush Fuel Tank					
Change Brake Fluid					

Annual Recommendations:
Items listed are recommended every 1200 hours or 2 years, whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)

Product Records and Maintenance

Page 2 – 12 Rev. D

Workman 3000/4000 Series



QUICK SERVICE REFERENCE

WORKMAN 3100

Model	07214	Serial	220000001 & Up
Engine Brand	Kohler		
Engine Oil (<i>Chart G</i>)	SAE 10W30 SH, SJ		
Engine Oil Filter	*1205001S		
Trans/Hydraulic Oil	Dexron III ATF		
Trans/Hydraulic Filter	54-0110		
Air Filter	*2408303S		
Pre Cleaner Element	*2408305S		
Breather Element	*2405010S		
Fuel Filter In-line	99-9403 (1993-1999)		
Fuel Filter In-line	108-3832 (2000 & up)		
Tire Pressure	6-12 PSI (Front)		
23" Tire	20 PSI (Rear)		
24" Tire	18 PSI (Rear)		

*Indicates Kohler Part Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 5 hours	<ul style="list-style-type: none"> Replace the engine oil and filter.
After first 10 hours	<ul style="list-style-type: none"> Check cable adjustments Check pump drive belt tension Torque wheel lug nuts Replace transaxle filter
Every 50 hours	<ul style="list-style-type: none"> Check the battery fluid level. Check the battery cable connections. Lubricate engine pre filter Replace engine oil and filter
Every 100 hours	<ul style="list-style-type: none"> Lubricate all grease fittings Inspect condition and wear of tires Remove engine shrouds and clean fins
Every 200 hours	<ul style="list-style-type: none"> Check cable adjustments Check pump drive belt tension Replace air cleaner filter Check engine RPM (idle and full throttle) Torque wheel lug nuts
Every 400 hours	<ul style="list-style-type: none"> Check front wheel alignment Inspect service and parking brakes Inspect fuel lines Replace fuel filter
Every 800 hours	<ul style="list-style-type: none"> Replace transaxle filter Change transaxle oil Clean transaxle strainer Replace spark plugs Pack front wheel bearings
Every 1200 hours or 2 years (whichever occurs first)	<ul style="list-style-type: none"> Replace all interlock switches Fuel tank-drain/flush Change brake fluid

*Immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

WORKMAN 3120

Model 07232	Serial 90001 & UP
Engine Brand	Kohler
Engine Oil (<i>Chart F</i>)	SAE 10W30 SH, SJ
Engine Oil Filter	*1205001S
Trans/Hydraulic Oil	Dexron III ATF
Trans/Hydraulic Filter	54-0110
Air Filter	*4708303S
Pre Cleaner Element	*2408302S
Breather Element	*2405010S
Fuel Filter In-line	99-9404
Tire Pressure	35 PSI (Front) 50 PSI (Rear)

* Indicates Kohler Part Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

WORKMAN 3100 and 3120 Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Lubricate Engine Prefilter	A Level Service				
Change Engine Oil and Filter					
Lubricate All Grease Fittings					
Remove Engine Shrouds and Clean Fins		B Level Service			
Inspect Condition and Wear of Tires					
Check Cable Adjustments					
Check Pump Drive Belt Tension					
Replace Air Filter					
Check Engine RPM (Idle and Full Throttle)			C Level Service		
Torque Wheel Lug Nuts					
Check Front Wheel Alignment					
Inspect Service and Parking Brakes					
Inspect Fuel Lines				D Level Service	
Replace Fuel Filter					
Replace Transaxle Filter					
Change Transaxle Oil					
Clean Transaxle Strainer					
Pack Front Wheel Bearings					E Level Service
Replace Spark Plugs					
Initial break in at 5 hours					
Initial break in at 10 hours					
Replace all Interlock Switches					
Drain/Flush Fuel Tank					
Change Brake Fluid					

Annual Recommendations:
Items listed are recommended every 1200 hours or 2 years, whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

WORKMAN 3130

Model 07214 **Serial** 220000002 & UP

Engine Brand..... Kohler

Engine Oil (*Chart G*) SAE 10W30 SH, SJ

Engine Oil Filter *1205001S

Trans/Hydraulic Oil Dexron III ATF

Trans/Hydraulic Filter 54-0110

Air Filter *4708303S

Pre Cleaner Element *2408302S

Breather Element *2405010S

Fuel Filter In-line 99-9403

Tire Pressure 6-12 PSI (Front)

23" Tire..... 20 PSI (Rear)

24" Tire..... 18 PSI (Rear)

*Indicates Kohler Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

WORKMAN 3130

Maintenance Schedule

Minimum Recommended Maintenance Intervals:

Maintenance Procedure	Maintenance Interval & Service					
	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs	
Check Battery Fluid Level	A Level Service					
Check Battery Cable Connections						
Lubricate Engine Prefilter						
Change Engine Oil and Filter						
Lubricate All Grease Fittings	B Level Service					
Remove Engine Shrouds and Clean Fins						
Inspect Condition and Wear of Tires						
Check Cable Adjustments	C Level Service					
Check Pump Drive Belt Tension						
Replace Air Filter						
Check Engine RPM (Idle and Full Throttle)						
Torque Wheel Lug Nuts						
Check Front Wheel Alignment	D Level Service					
Inspect Service and Parking Brakes						
Inspect Fuel Lines						
Replace Fuel Filter						
Replace Transaxle Filter	E Level Service					
Change Transaxle Oil						
Clean Transaxle Strainer						
Pack Front Wheel Bearings						
Replace Spark Plugs						
Initial break in at 5 hours						
Initial break in at 10 hours						
Replace all Interlock Switches	Annual Recommendations: Items listed are recommended every 1200 hours or 2 years, whichever occurs first.					
Drain/Flush Fuel Tank						
Change Brake Fluid						

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

WORKMAN 3300 D / 4300 D

Model 07205 and 07215 **Serial** 50001 & UP

Engine Brand.....Mitsubishi

Engine Oil (Chart I)SAE30, 10W30 (CF, CF4)

Engine Oil Filter 108-3841

Trans/Hydraulic OilDexron III ATF

Trans/Hydraulic Filter54-0110

Air Filter 108-3811

Fuel Pump Filter43-2550

Water Separator63-8300

Strainer87-3990

Front Differential 10W30 CF

Tire Pressure20 PSI (Front)

23" Tire.....20 PSI (Rear)

24" Tire.....18 PSI (Rear)

Engine CoolantEthylene Glycol, Water
(50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

WORKMAN 3300-D, 3310-D, 3320-D, and 4300-D Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs <i>A Level Service</i>	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Check Dust Cup and Baffle					
Lubricate All Grease Fittings					
Inspect Condition and Wear of Tires					
Check Front Differential Oil Level (4WD)					
Change Engine Oil and Filter					
Inspect Cooling System Hoses					
Check Cable Adjustments					
Check Alternator and Fan Belts					
Service Air Filter					
Check Front Axle CV Boot Joint (4WD)					
Check Engine RPM (Idle and Full Throttle)					
Torque Wheel Lug Nuts					
Check Front Wheel Alignment					
Inspect Service and Parking Brakes					
Inspect Fuel Lines					
Replace Electric Fuel Pump Filter					
Replace Fuel/Water Separator Filter					
Torque Cylinder Head and Adjust Valves					
Replace Transaxle Filter					
Change Transaxle Oil					
Clean Transaxle Strainer					
Pack Front Wheel Bearings					
Change Front Differential Oil (4WD)					
Initial break in at 10 hours					
Initial break in at 50 hours					
Replace all Interlock Switches					
Flush/Replace Coolant System Fluid					
Change Brake Fluid					
Drain/Flush Fuel Tank					

Annual Recommendations:
Replace switches, Coolant and Brake Fluid every 1200 hours or 2 years, whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

WORKMAN 3300 D / 4300 D

Model	All Models	Serial	220000002 & UP
Engine Brand	B&S Daihatsu		
Engine Oil (<i>Chart E</i>)	SAE 30,10W30 CF, CF4		
Engine Oil Filter	108-3842		
Trans/Hydraulic Oil	Dexron III ATF		
Trans/Hydraulic Filter	54-0110		
Air Filter	108-3811		
Safety Element	98-2982		
Fuel Filter	63-8300		
Front Differential	SAE 10W30 CF		
Tire Pressure	20 PSI (Front)		
23" Tire	20 PSI (Rear)		
24" Tire	18 PSI (Rear)		
Coolant Type	Ethylene Glycol, Water (50/50 mix)		

*Indicates Briggs & Stratton Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> Check cable adjustments Torque wheel lug nuts Check alternator and fan belts Replace transaxle filter
After first 50 hours	<ul style="list-style-type: none"> Replace the engine oil and filter. Torque cylinder head and adjust valves
Every 50 hours	<ul style="list-style-type: none"> Check the battery fluid level. Check the battery cable connections. Service the air cleaner.
Every 100 hours	<ul style="list-style-type: none"> Lubricate all grease fittings Inspect condition and wear of tires Check front differential oil level (4WD) Replace engine oil and filter Inspect cooling system hoses
Every 200 hours	<ul style="list-style-type: none"> Check cable adjustments Check alternator and fan belts Service air cleaner filter Check front axle CV boot joint (4WD) Check engine RPM (idle and full throttle) Torque wheel lug nuts
Every 400 hours	<ul style="list-style-type: none"> Check front wheel alignment Inspect service and parking brakes Inspect fuel lines Replace electric fuel pump filter Replace fuel/water separator filter Adjust valves
Every 800 hours	<ul style="list-style-type: none"> Replace transaxle filter Change transaxle oil Clean transaxle strainer Pack front wheel bearings Change front differential oil (4WD)
Every 1200 hours or 2 years (whichever occurs first)	<ul style="list-style-type: none"> Replace all interlock switches Coolant System – flush/replace fluid Fuel tank – Drain/flush Change brake fluid

¹immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

WORKMAN 3200 / 4200

Model	All Models	Serial	30001 & UP
Engine Brand	Mitsubishi		
Engine Oil (<i>Chart H</i>)	SAE30, 10W30, SH, SJ		
Engine Oil Filter	108-3841		
Trans/Hydraulic Oil	Dexron III ATF		
Trans/Hydraulic Filter	54-0110		
Air Filter	108-3811		
Fuel Filter In line	99-9403		
Strainer	87-3990		
Front Differential	SAE 10W30 CF		
Tire Pressure	20 PSI (Front)		
23" Tire	20 PSI (Rear)		
24" Tire	18 PSI (Rear)		
Coolant Type	Ethylene Glycol, Water (50/50 mix)		

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

WORKMAN 3200, 3210, 3220, and 4200 Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service				
	Every 50hrs <i>A Level Service</i>	Every 100hrs	Every 200hrs	Every 400hrs	Every 800hrs
Check Battery Fluid Level					
Check Battery Cable Connections					
Check Dust Cup and Baffle					
Lubricate All Grease Fittings					
Inspect Condition and Wear of Tires					
Check Front Differential Oil Level (4WD)					
Change Engine Oil and Filter					
Inspect Cooling System Hoses					
Check Governor Oil Level					
Check Cable Adjustments					
Check Alternator, Governor and Fan Belts					
Change Air Cleaner Filter					
Check Front Axle CV Boot Joint (4WD)					
Check Engine RPM (Idle and Full Throttle)					
Torque Wheel Lug Nuts					
Check Front Wheel Alignment					
Inspect Service and Parking Brakes					
Inspect Fuel Lines					
Replace Fuel Filter					
Adjust Valves					
Replace Spark Plugs and Check Timing					
Replace Transaxle Filter					
Change Transaxle Oil					
Clean Transaxle Strainer					
Pack Front Wheel Bearings (2WD)					
Change Front Differential Oil (4WD)					
Initial break in at 10 hours					
Initial break in at 50 hours					
Replace all Interlock Switches					
Flush/Replace Coolant System Fluid					
Change Brake Fluid					
Replace Engine Timing Belt					

Annual Recommendations:

Replace switches, Coolant and Brake Fluid every 1200 hours or 2 years, whichever occurs first.
Replace Engine Timing Belt every 2000 hours or 2 years, whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

WORKMAN 3200 / 4200

Model	All Models	Serial	220000002 & UP
Engine Brand	B&S Daihatsu		
Engine Oil (<i>Chart E</i>)	SAE, 10W30 SH, SJ		
Engine Oil Filter	108-3842		
Trans/Hydraulic Oil	Dexron III ATF		
Trans/Hydraulic Filter	54-0110		
Air Filter	108-3811		
Fuel Filter	105-8045		
Front Differential	SAE 10W30 CF		
Tire Pressure	20 PSI (Front)		
23" Tire	20 PSI (Rear)		
24" Tire	18 PSI (Rear)		
Coolant Type	Ethylene Glycol, Water (50/50 mix)		

*Indicates Briggs & Stratton Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 10 hours	<ul style="list-style-type: none"> • Check cable adjustments • Torque wheel lug nuts • Replace transaxle filter
After first 50 hours	<ul style="list-style-type: none"> • Replace the engine oil and filter.
Every 50 hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Service the air cleaner.
Every 100 hours	<ul style="list-style-type: none"> • Lubricate all grease fittings • Inspect condition and wear of tires • Check front differential oil level (4WD) • Replace engine oil and filter • Inspect cooling system hoses • Check governor oil level
Every 200 hours	<ul style="list-style-type: none"> • Check cable adjustments • Check alternator, governor and fan belts • Change air cleaner filter • Check front axle CV boot joint (4WD) • Check engine RPM (idle and full throttle) • Torque wheel lug nuts
Every 400 hours	<ul style="list-style-type: none"> • Check front wheel alignment • Inspect service and parking brakes • Inspect fuel lines • Replace fuel filter • Adjust valves • Replace spark plugs
Every 800 hours	<ul style="list-style-type: none"> • Replace transaxle filter • Change transaxle oil • Clean transaxle strainer • Pack front wheel bearings • Change front differential oil (4WD)
Every 1200 hours or 2 years (whichever occurs first)	<ul style="list-style-type: none"> • Replace all interlock switches • Coolant System – flush/replace fluid • Change brake fluid

¹Immediately after every washing, regardless of the interval listed

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

GREENS AERATOR

Model 09120 **Serial** 80001 & UP

Engine Brand.....B&S Vanguard

Engine Oil (*Chart K*).....SAE 30 SH, SJ

Engine Oil Filter 107-7817

Hydraulic Oil (*Chart P*) SAE 10W30

Trans Axle.....SAE 90W E.P.

Air Filter *394018S

Pre Air Filter *272490S

Fuel Filter In-line *493629

Tire Pressure 10 PSI
(Front & Rear)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

MAINTENANCE SCHEDULE

Minimum Recommended Maintenance Intervals

Maintenance Procedure		Maintenance Interval & Service			
Check Condition of Tines	Every 5 hrs	Every 25 hrs	Every 50 hrs	Every 100hrs	
Check Engine Oil Level					
Service Air Filter Pre-Cleaner					
† Change Engine Oil					
Service Air Filter Cartridge					
Lubricate Coring Head Switch Assembly					
Change Engine Oil Filter					
Service Spark Plugs					
Grease Wheel Bearing					
Grease Steering Handle Spindle					
Check Battery Fluid Level					
Check Battery Cable Connections					
Check Coring Head Chain Tension					
Check Hydraulic Pump Belt Tension					
† Initial break in at 8 hours					
Replace Safety Switches					
Change Transaxle gear Lubricant					
Replace Hydraulic Oil					
Adjust Valves and Torque head Bolts					
Decarbon Combustion Chamber					

Annual Recommendations:
Items listed are recommended every 500 hours or 1 year, whichever occurs first.



QUICK SERVICE REFERENCE

ProCore 648 Aerator

Model 09200	Serial 240000001 & UP
Engine Brand	Kohler
Engine Oil (<i>Chart K</i>).....	Mobil 10 W30 SH, SJ
Engine Oil Filter	107-7817
Hydraulic Oil	Mobil 424
Traction Hydraulic	107-9531
Charge Hydraulic	1-633750
Trans Axle	SAE 90W E.P.
Air Filter	*2408303S
Pre Air Filter	*2408305S
Fuel Filter In-line	*2405005S
Tire Pressure	12 PSI (Front & Rear)

*Indicates Kohler Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> Hydraulic fluid—check level Hydraulic return filter—change Hydraulic charge filter—change Pump belt—re-tension Coring head fasteners—check torque
After first 50 Hours	<ul style="list-style-type: none"> Engine oil & filter—change
Each Use	<ul style="list-style-type: none"> Engine oil—check level Safety System—check Engine air intake—clean¹ Belts—check Hydraulic fluid—check level Tires—check pressure Hydraulic lines—check
Every 25 Hours	<ul style="list-style-type: none"> Wash and re-oil air precleaner Battery—check electrolyte
Every 100 Hours	<ul style="list-style-type: none"> Engine oil & filter—change¹ Primary air cleaner filter—replace¹ Fuel filter—replace Engine cooling system—clean¹
Every 200 Hours	<ul style="list-style-type: none"> Hydraulic fluid—change Hydraulic return filter—change Hydraulic charge filter—change Spark Plug(s)—check
Every 500 Hours	<ul style="list-style-type: none"> Spark Plug(s)—replace
Before Storage Service	<ul style="list-style-type: none"> Battery—charge, Disconnect cables Gasoline—drain Chipped Surfaces—paint Perform all maintenance procedures listed above before storage

¹More often in dusty, dirty conditions

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

HYDROJECT 3000

Model 09801	Serial 70001 & UP
Engine Brand	Onan
Engine Oil (Chart M)	SAE 30
Engine Oil Filter	57-8530
Gear Case (Chart P)	Mobil DTE 26
Gear Case Filter	67-8110
Pump Case	Mobil DTE EH 150 (Extra Heavy)
Air Filter	82-0660
Pre Air Filter	82-8670
Fuel Filter	71-5960
Water Filter	86-8630
Strainer	86-9140
Accumulator	Dry Nitrogen
Tire Pressure	16-18 PSI (Front & Rear)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Hydroject 3000 Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service			
Check Battery Fluid Level	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs
Check Battery Cable Connections				
Lubricate All Grease Fittings	A Service			
Change Engine Oil				
Change Engine Oil Filter				
Change Engine Pre-cleaner (Air Filter)		B Service		
Replace Air Filter Element				
Replace Fuel Filter				
Adjust Water System Cam Valve Clearance				
Clean Engine Crankcase Breather				
Change Gear Case Oil and Filter				
Change Pump Case Oil				
Torque Wheel Lug Nuts				C Service
Service Accumulator				
Adjust Parking Brake				
Calibrate Aeration Traction Speed				
Service Injector Nozzles and Springs				
Replace Spark Plugs				
Decarbon Combustion Chambers				
Torque Head and Adjust Valves				
Check Engine RPM (idle and full throttle)				D Service
Initial break in at 25 hours				
Initial break in at 50 hours				
Replace Moving Hoses				
Replace Safety Switches				
Fuel Tank Drain/Flush				
Hydraulic Tank Drain/Flush				

Annual Recommendations:
Items listed are recommended every 1000 hours or 2 years, whichever occurs first.

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

HYDROJECT 3010

Model 09802 **Serial** 250000101 & UP

Engine Brand..... Kohler

Engine Oil (*Chart K*)..... Mobil SAE 10W30

Engine Oil Filter *52-050-02-S

Gear Case (HYD RES)(*Chart P*) Mobil DTE 26

Gear Case Filter 67-8110

Pump Case (Water Pump) Mobil DTE EH 150
(Extra Heavy)

Primary Air Filter..... *25-083-01-S

Safety Air Filter *25-083-04-S

Fuel Filter..... *24-050-09-S

Water Filter 86-8630

Strainer 86-9140

Accumulator..... Dry Nitrogen

Tire Pressure 8-12 PSI
(Front & Rear)

*Indicates Kohler Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 25 hours	<ul style="list-style-type: none"> • Change the engine oil and filter. • Change the gear case oil and filter. • Change the pump case oil. • Torque the wheel lug nuts.
After first 50 hours	<ul style="list-style-type: none"> • Check the engine RPM (idle and full throttle).
Every 50 hours	<ul style="list-style-type: none"> • Check the battery cable connections. • Lubricate all grease fittings.
Every 100 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 200 hours	<ul style="list-style-type: none"> • Replace the primary air filter element. • Check the inner air filter element. • Replace the fuel filter. • Adjust the water system cam—valve clearance. • Change the gear case oil and filter. • Change the pump case oil. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Service the accumulator. • Adjust the parking brake. • Calibrate the aeration traction speed. • Service the injector nozzles and springs. • Replace the spark plugs. • Check the engine RPM (idle and full throttle).
Every 1000 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace safety switches. • Drain and flush the fuel tank. • Drain and flush the hydraulic tank.



QUICK SERVICE REFERENCE

HYDROJECT 4000

Model 09850	Serial 60001 & UP
Engine Brand (<i>Chart M</i>).....	Onan
Engine Oil	SAE 30
Engine Oil Filter	57-8530
Gear Case (<i>Chart P</i>)	Mobil DTE 26
Gear Case Filter	87-8110
Pump Case	Mobil DTE EH 150 (Extra Heavy)
Air Filter	82-0660
Pre Air Filter	82-0670
Fuel Filter	71-5960
Water Filter	86-8630
Strainer	86-9140
Accumulator	Dry Nitrogen
Tire Pressure	30 PSI (Front)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Hydroject 4000 Maintenance Schedule

Minimum Recommended Maintenance Intervals

Maintenance Procedure	Maintenance Interval & Service			
Check Battery Fluid Level	Every 50hrs	Every 100hrs	Every 200hrs	Every 400hrs
Check Battery Cable Connections				
Lubricate All Grease Fittings	A Service			
Change Engine Oil				
Change Engine Oil Filter				
Change Engine Pre-cleaner (Air Filter)		B Service		
Replace Air Filter Element				
Replace Fuel Filter				
Adjust Water System Cam Valve Clearance				
Clean Engine Crankcase Breather				
Change Gear Case Oil and Filter				
Change Pump Case Oil				
Torque Wheel Lug Nuts			C Service	
Service Accumulator				
Service Injector Nozzles and Springs				
Replace Spark Plugs				
Decarbon Combustion Chambers				
Torque Head and Adjust Valves				
Check Engine RPM (idle and full throttle)				D Service
Initial break in at 25 hours				
Initial break in at 50 hours				
Replace Moving Hoses				
Replace Safety Switches				
Fuel Tank Drain/Flush				
Hydraulic Tank Drain/Flush				
Annual Recommendations: <i>Items listed are recommended every 1000 hours or 2 years, whichever occurs first.</i>				

(See Operator's and Service Manual for specifications and procedures)



QUICK SERVICE REFERENCE

FAIRWAY AERATOR

Model 09502**Serial 70001 & UP**

Gear Case SAE 90W E.P.

Reservoir SAE 90W E.P.

Tire Pressure 16-18 PSI (Front & Rear)

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.



Model 44044 **Serial 21000001 & UP**

Engine Brand.....Kohler

Engine Oil (Chart G)SAE 10W30 SH, SJ

Engine Oil Filter *5205002-S

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....23-9740

Air Filter *2408302-S

Pre Air Filter*4708303-S

Fuel Filter In-line *2405002-S

Tire Pressure 22 PSI (Front)
24 PSI (Rear)

*Indicates Kohler Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 50 hours	<ul style="list-style-type: none"> • Change engine oil and filter.
After first 10 hours	<ul style="list-style-type: none"> • Check reel drive belts. • Torque wheel lug nuts.
Every 25 hours	<ul style="list-style-type: none"> • Clean and lubricate foam pre-cleaner. • Clean reel drive area. • Check reel drive belts.
Every 50 hours	<ul style="list-style-type: none"> • Check battery fluid level. • Lubricate gate pivots. • Lubricate all grease fittings. • Check battery cable connections.
Every 100 hours	<ul style="list-style-type: none"> • Replace air filter. • Clean air intake/cooling areas. • Check reel fingers. • Replace fuel filter. • Inspect condition of tires. • Adjust steering chain.
Every 200 hours	<ul style="list-style-type: none"> • Torque wheel lug nuts. • Service spark plugs. • Check electric brake clutch air gap. • Check engine RPM (idle and full throttle).
Every 600 hours or annually, whichever occurs first	<ul style="list-style-type: none"> • Drain and flush fuel tank. • Inspect hopper and gate for damage. • Replace hydraulic fluid and filter.



QUICK SERVICE REFERENCE

RAKE-O-VAC (ENGINE & PTO DRIVE)

Model 07050 and 07052 **Serial** 50001 & UP

Engine Brand..... Kohler

Engine Oil (*Chart G*) SAE 10W30 SH,SJ

Engine Oil Filter *1205001

Clutch Housing SAE 30

Air Filter *2508301

Safety Filter *2508304

Fuel Filter In-line *2505002

Tire Pressure 28 PSI
(Front & Rear)

*Indicates Kohler Part Numbers

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04



QUICK SERVICE REFERENCE

SAND PRO 2020, 3020 & 5020

Model	All Models	Serial	70001 & UP
Engine Brand	B&S Vanguard		
Engine Oil (Chart K)	SAE 30 SH,SJ		
Engine Oil Filter	107-7817		
Hydraulic Oil	Mobil DTE 15M		
Hydraulic Filter	23-9740		
Remote Air Filter	108-3811		
Air Filter (Main)	*394018S		
Air Filter (wrapper)	*272490S		
Fuel Filter In-line	94-2690		
Tire Pressure	4-6 PSI (Front & Rear)		

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> • Change the engine oil. • Torque the wheel lug nuts. • Replace the hydraulic oil filter.
Every 25 hours	<ul style="list-style-type: none"> • Check the battery fluid level. • Check the battery cable connections. • Change the engine oil. • Lubricate the front wheel bearing. • Lubricate the traction control linkage.
Every 100 hours	<ul style="list-style-type: none"> • Replace the engine oil filter • Inspect the remote air filter element. • Inspect the engine air filter element. • Lubricate the steering shaft grease fitting. • Check the steering chain adjustment. • Torque the wheel lug nuts.
Every 400 hours	<ul style="list-style-type: none"> • Change the hydraulic oil. • Replace the hydraulic oil filter. • Replace the remote air filter element. • Replace the engine air filter element.
Every 800 hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Decarbon the combustion chamber. • Adjust the valves and torque head. • Check the engine RPM (at idle and full throttle). • Drain and clean the fuel tank.
Every 1500 hours or 2 years, whichever occurs first	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the traction safety switch.

Important Refer to your engine operator's manual for additional maintenance procedures.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition and disconnect the wire from the spark plug before you do any maintenance. Set the wire aside so that it does not accidentally contact the spark plug.



QUICK SERVICE REFERENCE

SAND PRO 3040 & 5040

Model All Models **Serial** 260000001 & UP

Engine Brand.....B&S Vanguard

Engine Oil (*Chart K*).....SAE 30 SH,SJ

Engine Oil Filter 107-7817

Hydraulic Oil.....Mobil DTE 15M

Hydraulic Filter.....54-0110

Remote Air Filter 108-3811

Fuel Filter In-line 94-2690

Tire Pressure4-6 PSI
(Front & Rear)

*Indicates Briggs & Stratton Part Numbers

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition before you do any maintenance.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 8 operating hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Change the engine oil and filter. • Change the hydraulic filter.
Before each use or daily	<ul style="list-style-type: none"> • Check the engine oil level. • Check the hydraulic fluid level. • Check the tire pressure. • Check the condition of the hydraulic lines and hoses. • Inspect and clean the machine.
Every 25 hours	<ul style="list-style-type: none"> • Check the battery fluid level and the cable connections.
Every 50 hours	<ul style="list-style-type: none"> • Change the engine oil and filter.
Every 100 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Grease the machine.
Every 200 hours	<ul style="list-style-type: none"> • Replace the air filter.
Every 400 hours	<ul style="list-style-type: none"> • Change the hydraulic system oil and filter.
Every 800 hours	<ul style="list-style-type: none"> • Replace the spark plugs. • Replace the fuel filter. • Decarbon the combustion chamber. • Adjust the valves and torque head. • Check the engine RPM (at idle and full throttle). • Drain and clean the fuel tank.
Every 1,500 hours	<ul style="list-style-type: none"> • Replace moving hoses. • Replace the neutral and seat interlock switches.

Important: Refer to your Engine Operator's Manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

MULTI PRO 1100

Model 41105

Serial 70001 & UP

Engine Brand.....Kohler

Engine Oil (Chart G)SAE 10W30 SH, SJ

Engine Oil Filter*1205001

Transmission.....SAE 85W140

DifferentialSAE 85W140

Brake FluidDOT 3 Brake Fluid

Power Steering FluidMobil 424

Hydraulic Oil Filter92-3836

Air Filter*4708303-S

Pre Cleaner Element*2408302-S

Cab Charcoal Element92-3814

Fuel Filter In-line*2405002-S

Tire Pressure18 PSI (Front & Rear)

*Indicates Kohler Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Pg. No.	Service at Intervals Indicated (X)	Hours of Operation					
		Daily	25	50	100	200	500
26	Check Safety Start Switch Function	X					
20	Check Engine Crankcase Oil Level	X					
	Note: Change Oil in New or Rebuilt Engine	5					
28	Check Brake Function	X					
25	Check Power Steering Oil Level, & Hoses	X					
21	Check Air Cleaner	X					
11	Check Tire Pressure	X					
27	Check Belt Tensions (initially)	X					
10	Tighten Wheel Nuts (initially)	2 & 10					
21	Service Air Cleaner Pre-cleaner		X				
24	Check Transmission Oil Level			X			
24	Check Differential Oil Level			X			
25	Check Master Cylinder Oil Level			X			
23	Lubricate All Grease Fittings			X			
22	Check Spark Plugs				X		
20	Change Engine Crankcase Oil				X		
21	Check Air Cleaner Filter				X		
20	Change Oil Filter					X	
27	Check Tension of All Belts					X	
8	Clean Battery Terminals					X	
24	Drain and Refill Transmission and Differential						X



QUICK SERVICE REFERENCE

MULTI PRO 1200 / 1250

Model 41107 and 41106 **Serial** 70001 & UP
Model 41163 and 41164 **Serial** 240000001& UP
Model 41178 and 41177 **Serial** 260000001& UP
Engine Brand..... Kohler
Engine Oil (*Chart G*) SAE 10W30 SH,SJ
Engine Oil Filter 108-3847
Hydraulic/Transaxle Dexron III ATF
Hydraulic Filter 54-0110
Brake Fluid DOT 3 Brake Fluid
Air Filter *4708303-S
Pre Cleaner Element *2408302-S
Fuel Filter In-line *2405002-S
Tire Pressure 18 PSI (Front & Rear)
Suction Screen Sprayer..... 100-8642

*Indicates Kohler Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule

Important Refer to your **engine operator's manual** for additional maintenance procedures.

Maintenance Service Interval	Maintenance Procedure
After first 8 hours	<ul style="list-style-type: none"> • Torque the wheel lug nuts. • Replace the hydraulic filter. • Check the drive belt tension. • Check the steering pump belt.
8 hours	<ul style="list-style-type: none"> • Check the engine oil. • Check the tire pressure. • Clean the suction strainer³
25 hours	<ul style="list-style-type: none"> • Clean and oil the foam air cleaner element.²
50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Clean the suction strainer.
100 hours	<ul style="list-style-type: none"> • Change the engine oil (includes synthetic oil).¹ • Replace the engine oil filter. • Lubricate all grease fittings. • Replace the fuel filter. • Inspect the brakes. • Clean the engine rotating screen.² • Replace the paper cleaner element.² • Inspect the brake and parking brake. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts. • Check the front wheel toe-in. • Check the steering pump belt. • Check the operation of the Neutral gear shift position.
200 hours	<ul style="list-style-type: none"> • Change the spark plugs. • Check the parking brake. • Check the shift cables. • Check the drive belt.
Maintenance Service Interval	Maintenance Procedure
400 hours or yearly	<ul style="list-style-type: none"> • Change the pump drive gearbox fluid. • Clean and lubricate the primary drive clutch • Inspect the fuel lines. • Have an Authorized Toro Service Distributor check the diaphragms and check valves in the pump and replace them if necessary. • Complete all yearly maintenance procedures specified in the engine operator's manual. • Inspect the pump diaphragm and replace it if necessary. • Inspect the pressure dampener bladder and replace it if necessary. • Inspect the pump check valves and replace them if necessary. • Inspect the O-rings in the valve assemblies and replace them if necessary.
800 hours or yearly	<ul style="list-style-type: none"> • Change the transaxle/hydraulic fluid. • Replace the hydraulic filter.

¹More often when operating under heavy load or high temperatures

²More often in dusty, dirty conditions

³More often when using wettable powders



QUICK SERVICE REFERENCE

MULTI PRO 5500

Model 41564	Serial 70224 & UP
Engine Brand	Ford
Engine Oil (<i>Chart D</i>)	SAE 10W20 SH,SJ
Engine Oil Filter	108-3817
Hydraulic Oil	Mobil 424
Hydraulic Filter	86-3010
Planetary Gear	SAE 85W140
Air Filter	*41905
Cab Charcoal Element	92-3814
Fuel Filter In-line	*41770
Fuel Filter Threaded	*FG778B
Tire Pressure	18 PSI (Front & Rear)
Coolant Type	Ethylene Glycol, Water (50/50 mix)

*Indicates Ford Parts Number

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
8 hours	<ul style="list-style-type: none"> • Check the air filter, cap, and baffle for wear or damage. • Check the engine oil. • Check the tire pressure. • Check the engine coolant level • Check the hydraulic oil level • Clean the suction strainer² • Initial break-in service only: check the fan and alternator belts, torque the wheel lug nuts, replace the hydraulic oil filter, and change the rear planetary gearbox fluid.
50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Initial break-in service only: change the engine oil (includes synthetic oil) and replace the engine oil filter.
100 hours	<ul style="list-style-type: none"> • Change the engine oil (includes synthetic oil).¹ • Replace the engine oil filter. • Check the cooling system hoses for wear or damage. • Service the air cleaner.² • Check the fan and alternator belts. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts.
200 hours	<ul style="list-style-type: none"> • Check the front wheel toe-in. • Clean the radiator fins • Initial break-in service only: pack the front wheel bearings.
400 hours or yearly	<ul style="list-style-type: none"> • Change the spark plugs. • Change the hydraulic oil. • Replace the hydraulic oil filter. • Inspect the fuel lines. • Replace the fuel filters. • Change the rear planetary gearbox fluid. • Check the coolant (as directed by the manufacturer) and change if necessary. • Drain and clean the fuel tank • Pack the front wheel bearings.

¹More often when operating in high temperatures

²More often in dusty, dirty conditions

³More often when using variable powers

Important: Refer to your engine operator's manual for additional maintenance procedures.



Model	41568	Serial	220000002 & UP
Engine Brand	Ford		
Engine Oil (<i>Chart D</i>)	SAE 10W20 SH,SJ		
Engine Oil Filter	108-3817		
Hydraulic Oil	Mobil 424		
Hydraulic Filter	86-3010		
Planetary Gear	SAE 85W140		
Air Filter	106-4904		
Fuel Filter In-line	*41770		
Fuel Filter Threaded	*FG778B		
Tire Pressure	18 PSI (Front & Rear)		
Coolant Type	Ethylene Glycol, Water (50/50 mix)		

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Maintenance

Recommended Maintenance Schedule

Maintenance Service Interval	Maintenance Procedure
8 hours	<ul style="list-style-type: none"> • Check the air filter, cap, and baffle for wear or damage. • Check the engine oil. • Check the tire pressure. • Check the engine coolant level • Check the hydraulic oil level • Clean the suction strainer³ • Initial break-in service only: check the fan and alternator belts, torque the wheel lug nuts, replace the hydraulic oil filter, and change the rear planetary gearbox fluid.
50 hours	<ul style="list-style-type: none"> • Check the battery electrolyte level. • Check the battery cable connections. • Lubricate all grease fittings. • Initial break-in service only: change the engine oil (includes synthetic oil) and replace the engine oil filter.
100 hours	<ul style="list-style-type: none"> • Change the engine oil (includes synthetic oil).¹ • Replace the engine oil filter. • Check the cooling system hoses for wear or damage. • Service the air cleaner.² • Check the fan and alternator belts. • Inspect the condition and wear of the tires. • Torque the wheel lug nuts.
200 hours	<ul style="list-style-type: none"> • Check the front wheel toe-in. • Clean the radiator fins • Initial break-in service only: pack the front wheel bearings.
400 hours or yearly	<ul style="list-style-type: none"> • Change the spark plugs. • Change the hydraulic oil. • Replace the hydraulic oil filter. • Inspect the fuel lines. • Replace the fuel filters. • Change the rear planetary gearbox fluid. • Check the coolant (as directed by the manufacturer) and change if necessary. • Drain and clean the fuel tank. • Pack the front wheel bearings.

Important Refer to your engine operator's manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

MULTI PRO 5700

Model 41581 & 41582	Serial 240000001 & UP
Engine Brand	Kubota
Engine Oil (Chart O)	SAE 10W30
Engine Oil Filter	108-3841
Hydraulic Oil	Mobil DTE15 M
Hydraulic Filter	86-3010
Planetary Gear	SAE 85W140
Air Filter	108-3810
Fuel Filter In-line	98-7612
Water Separator	98-9764
Tire Pressure	18 PSI (Front & Rear)
Coolant Type	Ethylene Glycol, Water (50/50 mix)

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04

Maintenance

Note: Determine the left and right sides of the machine from the normal operating position.

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 5 operating hours	<ul style="list-style-type: none"> Replace the hydraulic oil filter.
After the first 8 operating hours	<ul style="list-style-type: none"> Torque the wheel lug nuts. Change the rear planetary gearbox fluid. Check the fan/alternator belt
After the first 50 operating hours	<ul style="list-style-type: none"> Change the engine oil (including synthetic oil) and oil filter.
After the first 200 operating hours	<ul style="list-style-type: none"> Pack the front wheel bearings.
Before each use or daily	<ul style="list-style-type: none"> Check the air filter, cap, and valve for wear or damage. Check the engine oil. Check the tire pressure. Check the coolant level. Check the hydraulic oil level. Clean the suction strainer. (More often when using wettable powders)
Every 50 hours	<ul style="list-style-type: none"> Lubricate all grease fittings (including the boom hinges). Check the fuel lines and connections. Check the battery cable connections.
Every 100 hours	<ul style="list-style-type: none"> Service the air cleaner. (more often in dusty, dirty conditions). Inspect the condition and wear of the tires. Torque the wheel lug nuts. Check the cooling system hoses for wear and damage.
Every 150 hours	<ul style="list-style-type: none"> Replace the engine oil filter. Change the engine oil, including synthetic oil (more often when operating under heavy load or in high temperature).
Every 200 hours	<ul style="list-style-type: none"> Check front wheel toe-in. Clean the radiator fins. Inspect all hoses and connections for damage and proper attachment.
Every 400 hours	<ul style="list-style-type: none"> Grease the actuator rod bearings. Complete all yearly maintenance procedure specified in the engine operator's manual. Drain and clean the fuel tank. Check the fuel lines and connections. Replace the fuel filter/water separator canister. Replace the fuel filters. Pack the front wheel bearings. Change the planetary gearbox fluid. Check the coolant (as directed by the manufacturer) and change if necessary. Change the hydraulic oil. Inspect the O-rings in the valve assemblies and replace them if necessary. Inspect the pump diaphragm and replace if necessary (see an Authorized Toro Service Distributor). Inspect the pressure dampener bladder and replace if necessary (see an Authorized Toro Service Distributor). Inspect the pump check valves and replace if necessary (see an Authorized Toro Service Distributor). Check boom actuator hydraulic oil for air bubbles. Inspect the nylon pivot bushings.
Yearly	<ul style="list-style-type: none"> Grease the actuator rod bearings. Complete all yearly maintenance procedure specified in the engine operator's manual. Drain and clean the fuel tank. Check the fuel lines and connections. Pack the front wheel bearings. Check the coolant (as directed by the manufacturer) and change if necessary. Replace the hydraulic oil filter. Replace the hydraulic oil filter. Change the hydraulic oil. Inspect the O-rings in the valve assemblies and replace them if necessary. Inspect the pump diaphragm and replace if necessary (see an Authorized Toro Service Distributor). Inspect the pressure dampener bladder and replace if necessary (see an Authorized Toro Service Distributor). Inspect the pump check valves and replace if necessary (see an Authorized Toro Service Distributor). Inspect the nylon pivot bushings.

Important: Refer to your engine Operator's Manual for additional maintenance procedures.



QUICK SERVICE REFERENCE

TOP DRESSER 2300

Model 44501 Serial 20101 & UP

Hydraulic Fluid SAE 10W30

Hydraulic Filter 01-317-0240

Tire Pressure 20 PSI

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04



QUICK SERVICE REFERENCE

TOP DRESSER 2500

Model 44507 **Serial** 200000001 & UP

Hydraulic Fluid Mobil 15M

Biodegradable Hydraulic Fluid Mobil 224H

Hydraulic Filter 86-3010

Tire Pressure 20-30 PSI

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Copyright © 2004 The Toro Company Rev 02/04



QUICK SERVICE REFERENCE

TRAILER SPRAYERS

Model All Models **Serial** 90101 & UP
Engine Brand Briggs & Stratton
Engine Oil SAE 30 SH, SJ
Engine Air Filter *494511
Engine Pre Air Filter *492889
Gear Reduction Oil SAE 30
Spark Plug *5066
Strainer Screen 42702

*Indicates Briggs & Stratton Part Numbers

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.



QUICK SERVICE REFERENCE

SKID SPRAYERS 110ST

Model	All Models	Serial	90101 & UP
Engine Brand	.....		Briggs & Stratton
Fuel Filter	.....		*394358
Engine Oil	.....		SAE 30 SH, SJ
Fuel Filter	.....		*394358
Air Filter	.....		*496077
Air Filter Pre Cleaner	.....		*4928889
Spark Plug	.....		*5066
Strainer Screen	.....		42702

*Indicates Briggs & Stratton Part Numbers

N/A

IMPORTANT NOTES:

Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

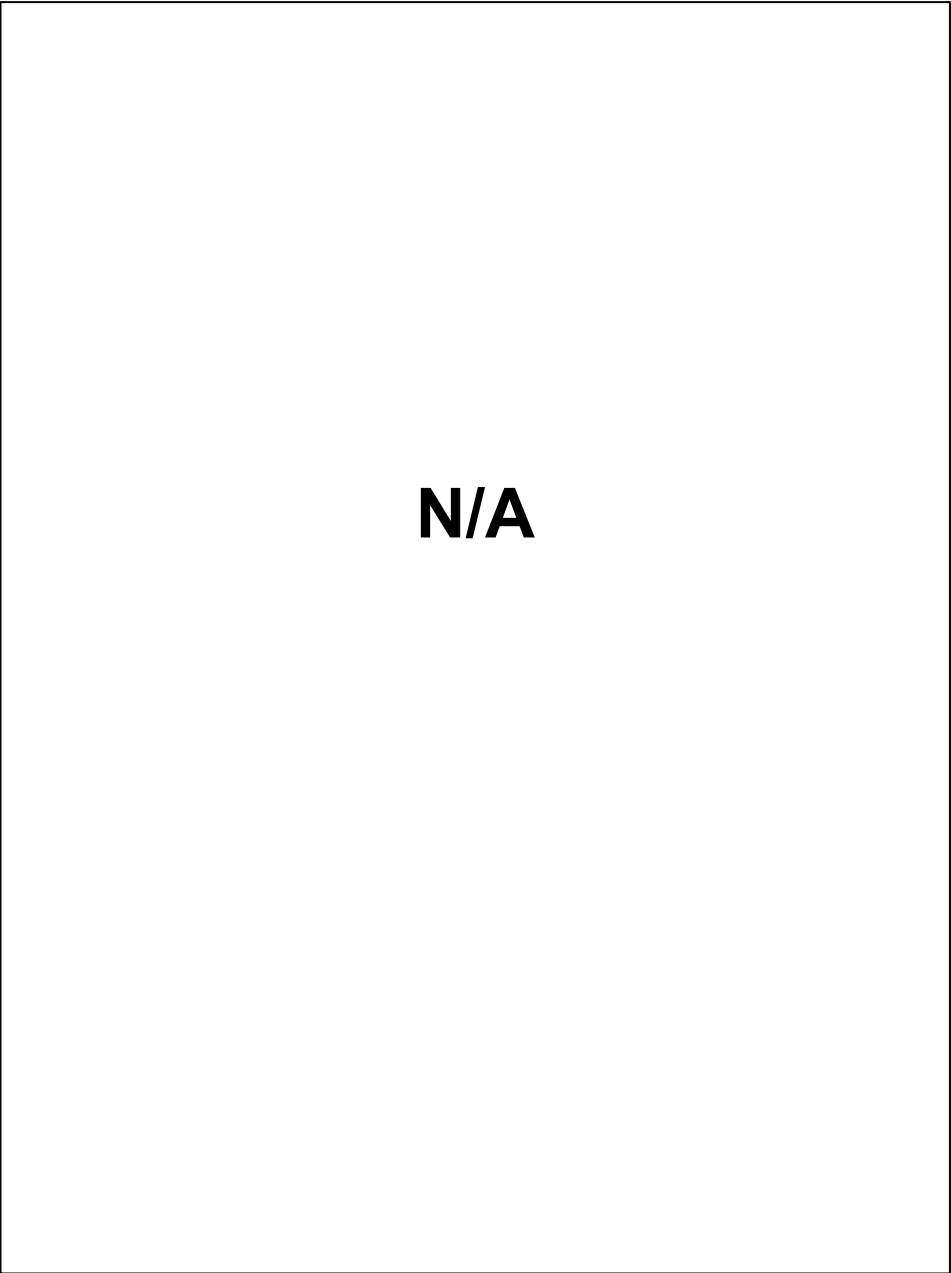


QUICK SERVICE REFERENCE

SKID SPRAYERS 160ST

Model	All Models	Serial	90101 & UP
Engine Brand	Kohler		
Engine Oil	SAE 10W30 SH, SJ		
Engine Air Filter	*1508306-S		
Engine Pre Air Filter	*234870-S		
Spark Plug	*1213202-S		
Strainer Screen	42702		

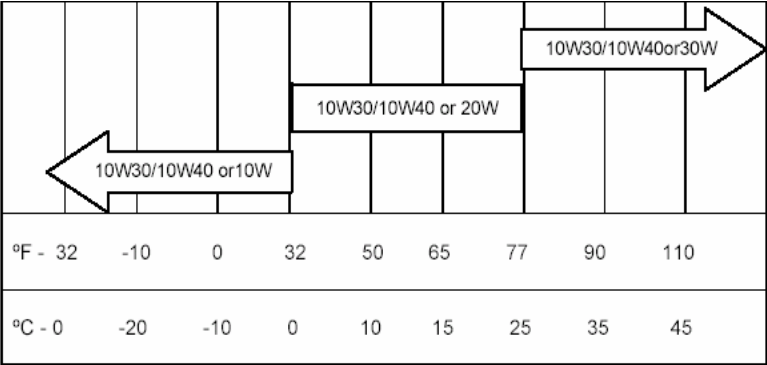
*Indicates Kohler Part Numbers



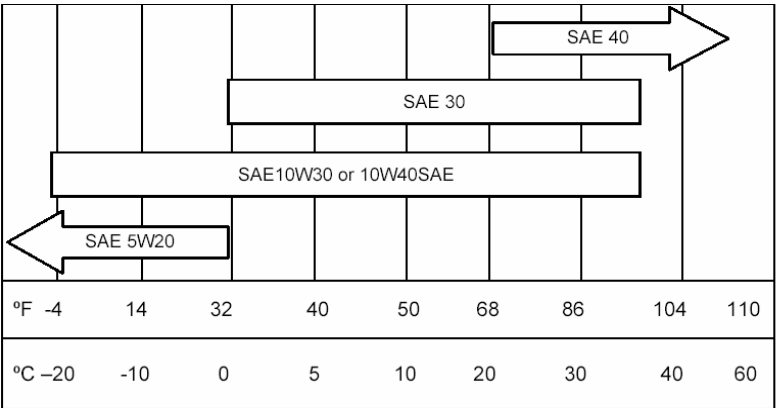
IMPORTANT NOTES:
Part numbers, specifications, and lubricants listed herein are subject to change. Refer to Toro's Master Parts Viewer on the internet at www.toro.com for online Toro parts catalogs. The current version of this document may be found at that website under Technical Reference section of the *Toro Customer Care* page. The most current API Service Grade of oil includes the service properties of earlier classifications. Refer to the API Motor Oil Guide at the back of this book for further details.

Engine Oil Viscosity Charts (A thru C)

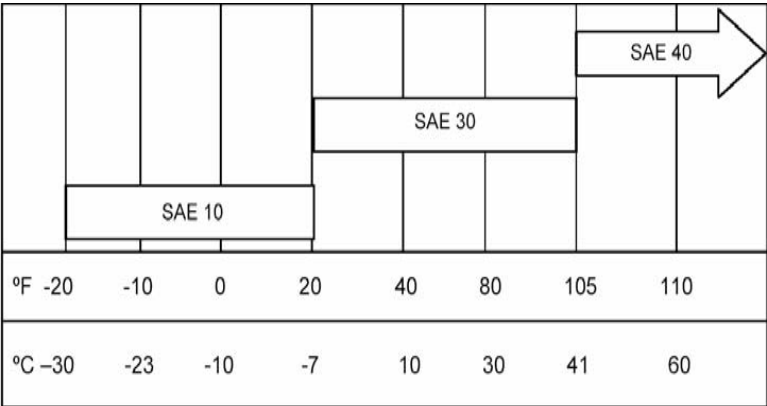
A



B

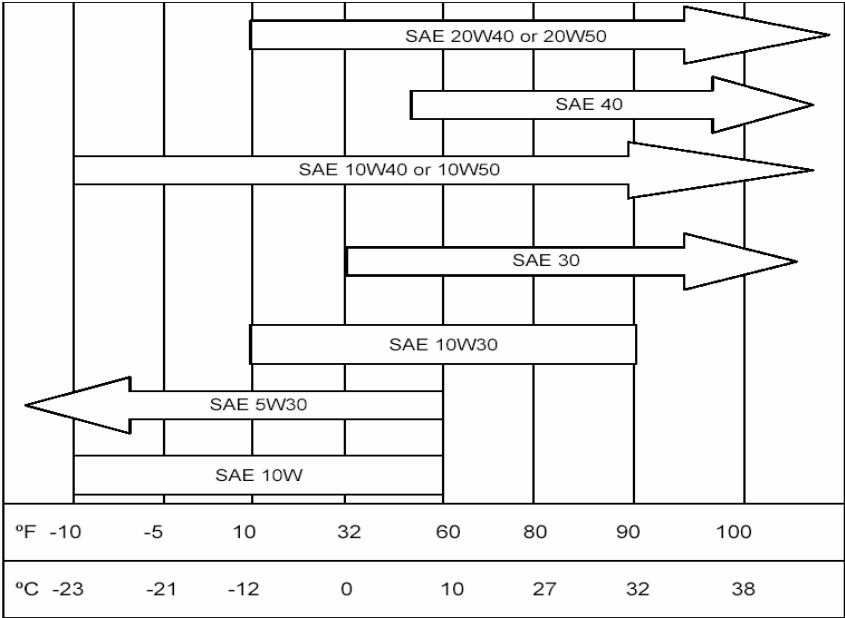


C

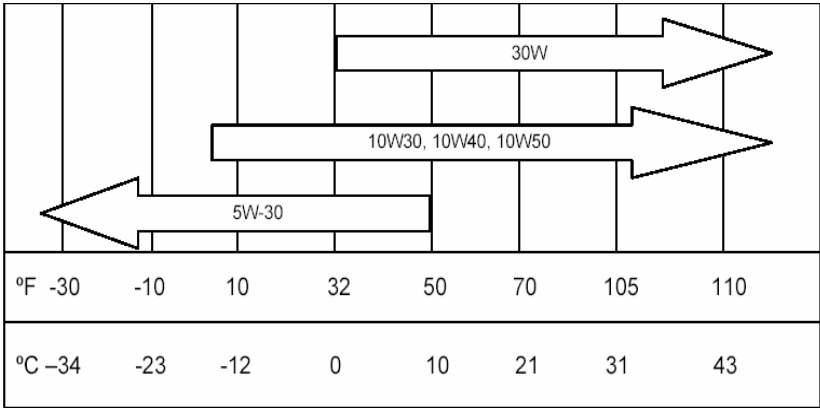


Engine Oil Viscosity Charts (D and E)

D

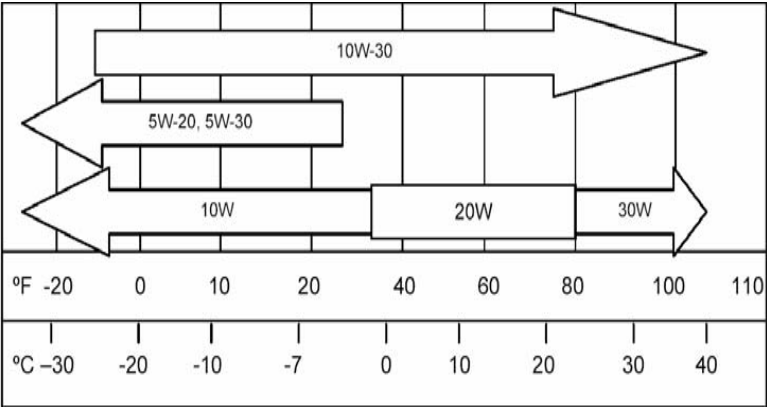


E

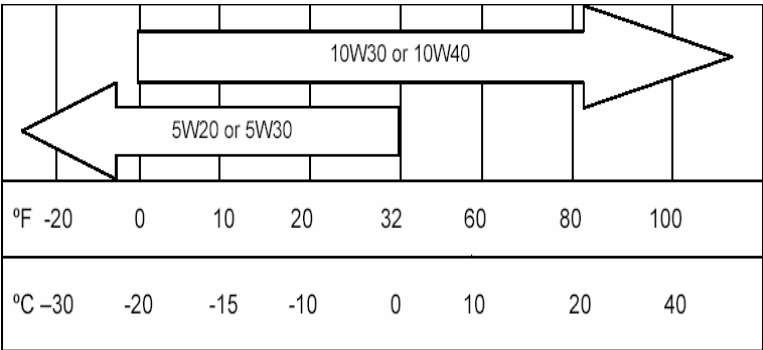


Engine Oil Visvosity Charts (F through H)

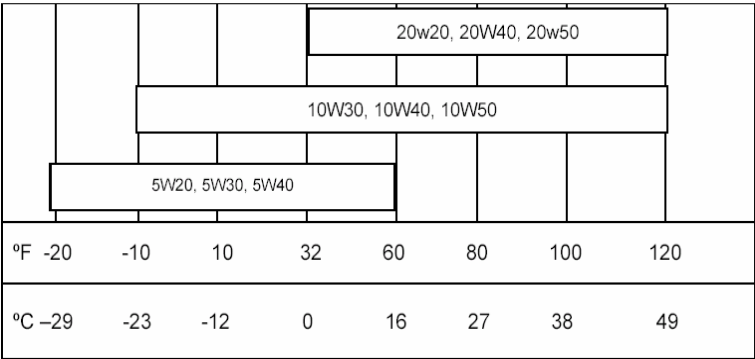
F



G

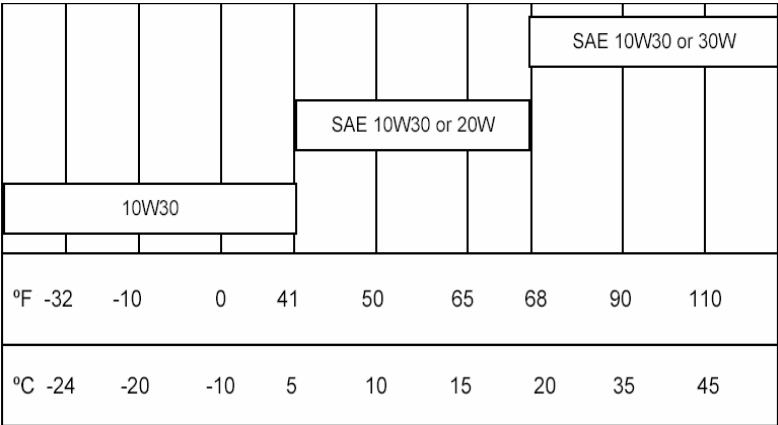


H

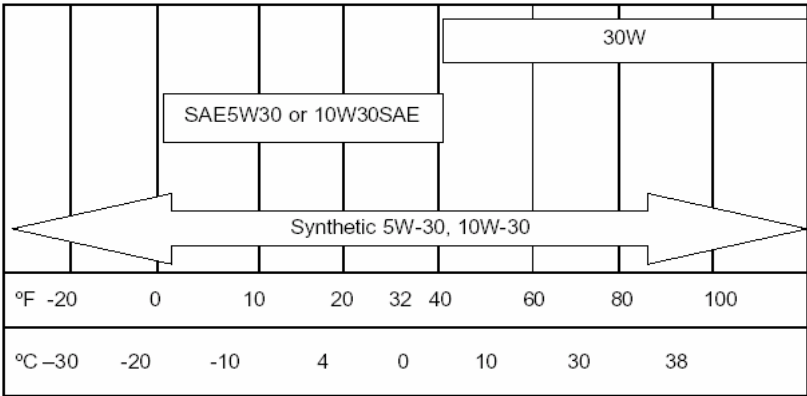


Engine Oil Visvosity Charts (I through K)

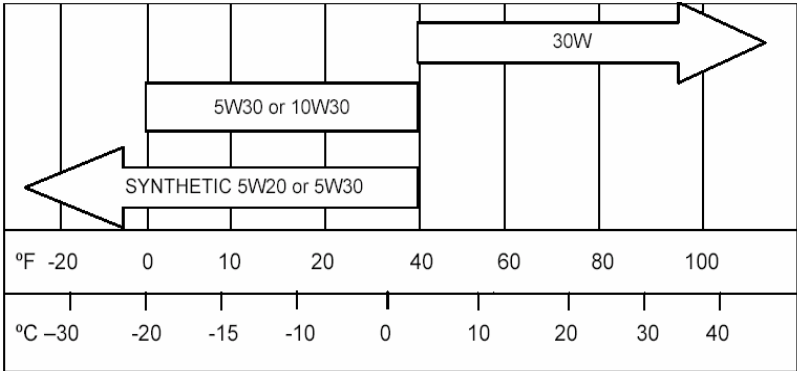
I



J

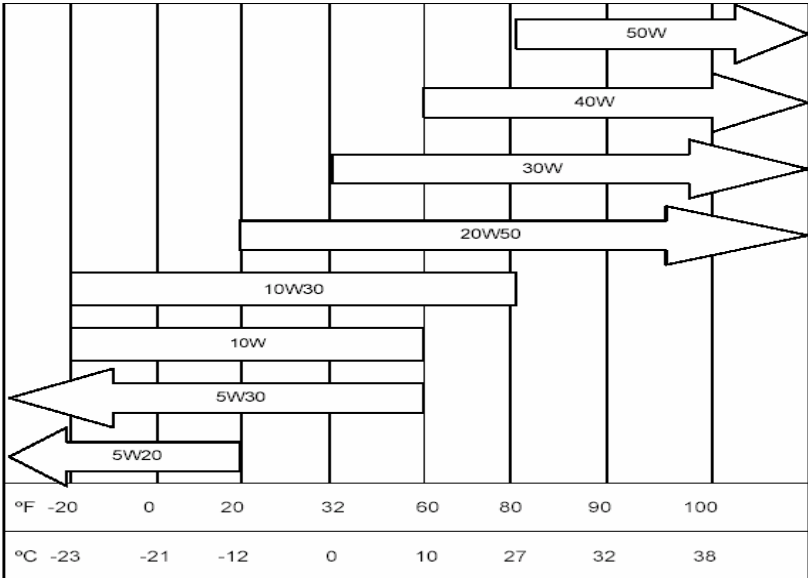


K

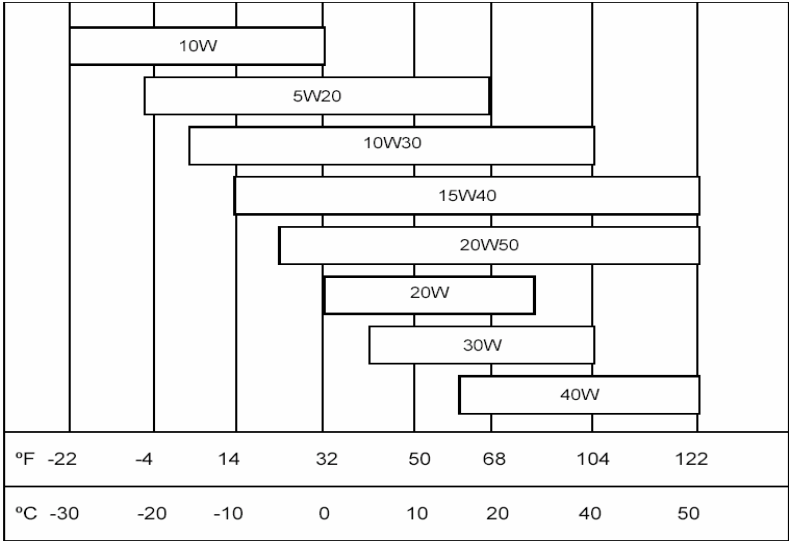


Engine Oil Visvosity Charts (L and M)

L

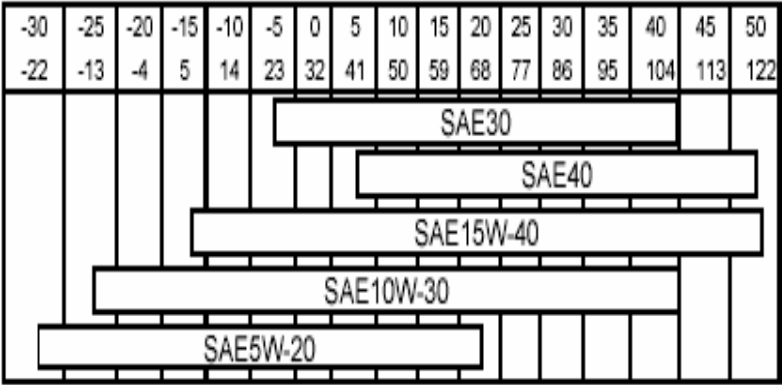


M

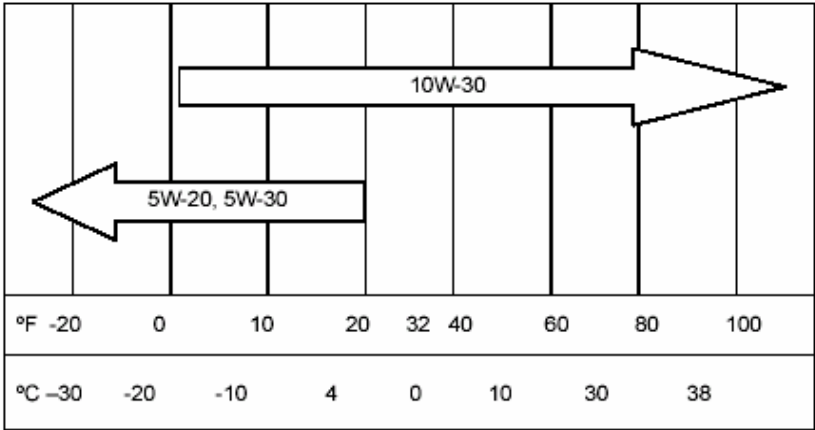


Engine Oil Visvosity Charts (N)

N

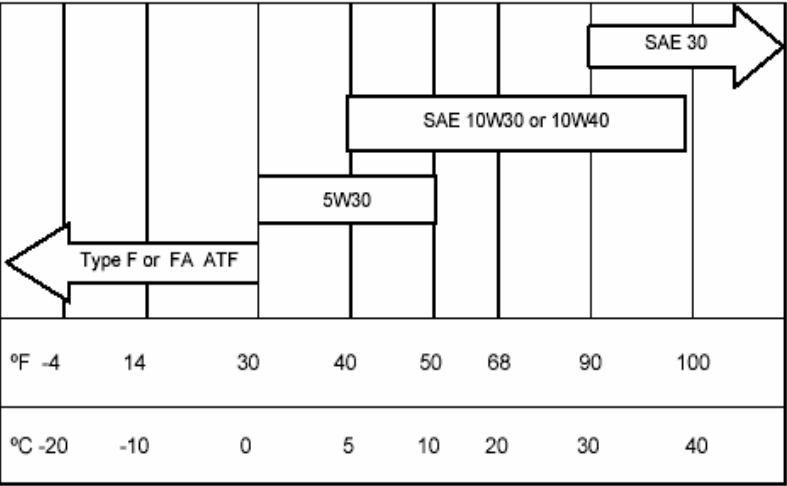


O

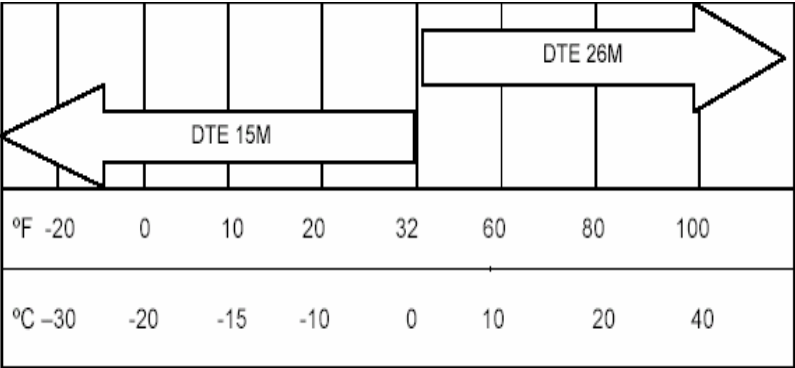


Hydraulic Oil Viscosity Charts (P and Q)

P



Q



MOTOR OIL GUIDE

MOTOR OIL GUIDE



API® Certification Mark
“Starburst”



API® Service Symbol
“Donut”



API® Service Symbol “Donut”
with CI-4 PLUS

API's Service Symbol and Certification Mark identify quality engine oils for gasoline- and diesel-powered vehicles. Oils displaying these marks meet performance requirements set by U.S. and international vehicle and engine manufacturers and the lubricant industry. More than 500 companies worldwide participate in this voluntary program, which is backed by a marketplace sampling and testing program.

1. Starburst: An oil displaying this mark meets the current engine protection standard and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ILSAC), a joint effort of U.S. and Japanese automobile manufacturers. Most automobile manufacturers recommend oils that carry the API Certification Mark.

2. Performance Level: Gasoline engine oil categories (for cars, vans, and light trucks with gasoline engines): Oils designed for gasoline-engine service fall under API's "S" (Service) categories. See reverse for descriptions of current and obsolete API service categories.

Diesel engine oil categories (for heavy-duty trucks and vehicles with diesel engines): Oils designed for diesel-engine service fall under API's "C" (Commercial) categories. See reverse for descriptions of current and obsolete API service categories.

3. Viscosity Grade: The measure of an oil's thickness and ability to flow at certain temperatures. Vehicle requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity grade.

4. Energy Conserving: The "Energy Conserving" designation applies to oils intended for gasoline-engine cars, vans, and light trucks. Widespread use of "Energy Conserving" oils may result in an overall savings of fuel in the vehicle fleet as a whole.

5. CI-4 PLUS: Used in conjunction with API CI-4, the "CI-4 PLUS" designation identifies oils formulated to provide a higher level of protection against soot-related viscosity increase and viscosity loss due to shear in diesel engines. Like Energy Conserving, CI-4 PLUS appears in the lower portion of the API Service Symbol "Donut."

GUIDE TO SAE VISCOSITY GRADES OF MOTOR OIL FOR PASSENGER CARS

Multigrade oils such as SAE 5W-30 and 10W-30 are widely used because, under all but extremely hot or cold conditions, they are thin enough to flow at low temperatures and thick enough to perform satisfactorily at high temperatures. Note that vehicle requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity grade.

If lowest expected outdoor temperature is	Typical SAE Viscosity Grades for Passenger Cars
0°F (32°F)	5W-20, 5W-30, 10W-30, 10W-40, 20W-50
-18°F (0°F)	5W-20, 5W-30, 10W-30, 10W-40
Below -18°F (0°F)	5W-20, 5W-30

GUIDELINES TO HELP YOU GET MORE FROM YOUR MOTOR OIL

- Refer to your owner's manual for type of oil to use.
- Follow manufacturer's oil change recommendations.
- Use only the recommended API category: "S" for gasoline engines; "C" for diesel engines.
- Select the proper SAE oil viscosity grade.
- If you find it necessary to mix brands of oil, use the same viscosity grade and API service category to maintain performance.
- Properly dispose of used oil. Learn more about recycling used oil on the web at www.recycleoil.org. Go to www.earth911.org for used oil collection center locations.

Look for the API Quality Marks every time you buy motor oil.

Ask for API-licensed oil whenever you have your oil changed.



Which oil is right for you?

The current and previous API Service Categories are listed below. Vehicle owners should refer to their owner's manuals before consulting these charts. Oils may have more than one performance level.

For automotive gasoline engines, the latest engine oil service category includes the performance properties of each earlier category. If an automotive owner's manual calls for an API SJ or SL oil, an API SM oil will provide full protection. For diesel engines, the latest category usually – but not always – includes the performance properties of an earlier category.

Gasoline Engines		
Category	Status	Service
SM	Current	For all automotive engines currently in use. Introduced November 30, 2004. SM oils are designed to provide improved oxidation resistance, improved deposit protection, better wear protection, and better low-temperature performance over the life of the oil. Some SM oils may also meet the latest ILSAC specification and/or qualify as Energy Conserving.
SL	Current	For 2004 and older automotive engines.
SJ	Current	For 2001 and older automotive engines.
SH	Obsolete	For 1996 and older engines. Valid when preceded by current C categories.
SG	Obsolete	For 1993 and older engines.
SF	Obsolete	For 1988 and older engines.
SE	Obsolete	CAUTION—Not suitable for use in gasoline-powered automotive engines built after 1979.
SD	Obsolete	CAUTION—Not suitable for use in gasoline-powered automotive engines built after 1971. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SC	Obsolete	CAUTION—Not suitable for use in gasoline-powered automotive engines built after 1967. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SB	Obsolete	CAUTION—Not suitable for use in gasoline-powered automotive engines built after 1963. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SA	Obsolete	CAUTION—Contains no additives. Not suitable for use in gasoline-powered automotive engines built after 1930. Use in modern engines may cause unsatisfactory engine performance or equipment harm.

Note: API intentionally omitted "SI" and "SK" from the sequence of categories. For more information about API's Engine Oil Program, visit our website at www.api.org/oils.

Diesel Engines		
Category	Status	Service
CI-4	Current	Introduced in 2002. For high-speed, four-stroke engines designed to meet 2004 at least emission standards implemented in 2002. CI-4 oils are formulated to sustain engine durability where exhaust gas recirculation (EGR) is used and are intended for use with diesel fuels ranging in sulfur content up to 0.5% weight. Can be used in place of CD, CE, CF-4, CG-4, and CH-4 oils. Some CI-4 oils may also qualify for the CI-4 PLUS designation.
CH-4	Current	Introduced in 1996. For high-speed, four-stroke engines designed to meet 1996 at least emission standards. CH-4 oils are specifically compounded for use with diesel fuels ranging in sulfur content up to 0.5% weight. Can be used in place of CD, CE, CF-4, and CG-4 oils.
CG-4	Current	Introduced in 1995. For severe duty, high-speed, four-stroke engines using fuel with less than 0.5% weight sulfur. CG-4 oils are required for engines meeting 1994 emission standards. Can be used in place of CD, CE, and CF-4 oils.
CF-4	Current	Introduced in 1990. For high-speed, four-stroke, naturally aspirated and turbocharged engines. Can be used in place of CD and CE oils.
CF-2	Current	Introduced in 1994. For severe duty, two-stroke cycle engines. Can be used in place of CD-4 oils.
CF	Current	Introduced in 1994. For off-road, indirect-injected and other diesel engines including those using fuel with over 0.5% weight sulfur. Can be used in place of CD oils.
CE	Obsolete	Introduced in 1985. For high-speed, four-stroke, naturally aspirated and turbocharged engines. Can be used in place of CC and CD oils.
CD-II	Obsolete	Introduced in 1985. For two-stroke cycle engines.
CD	Obsolete	Introduced in 1985. For certain naturally aspirated and turbocharged engines.
CC	Obsolete	CAUTION—Not suitable for use in diesel-powered engines built after 1990.
CB	Obsolete	CAUTION—Not suitable for use in diesel-powered engines built after 1961.
CA	Obsolete	CAUTION—Not suitable for use in diesel-powered engines built after 1959.

Copyright 2006 American Petroleum Institute. All rights reserved. API, the API logo, the API Service Symbol, and the API Starburst are registered marks of API. The API logo and the API Service Symbol are also registered marks of API. The API Starburst is a registered mark of API. The API logo and the API Service Symbol are also registered marks of API. The API Starburst is a registered mark of API. The API logo and the API Service Symbol are also registered marks of API. The API Starburst is a registered mark of API.



