# ENGINE MAINTENANCE GUIDELINES – M1 SERIES MIDMOUNT™ UNITS

This is intended as a general reference guide. Consult your engine manual for complete service details.

## AIR-COOLED MODELS, HORIZONTAL CRANKSHAFT, V-TWIN, OHV, PRESSURE LUBE/FILTER, GASOLINE

Kohler Models: Command (218, 220); Command Pro (223, 225, 227); Command Pro EFI (327 EFI) B&S Models: Big Block (329B, 335) Engine Oil: API Service Class: SG or higher Oil Change Intervals: Break-in period before 1<sup>st</sup> oil change: 5 Hours, then every 100 hours\* Viscosity Recommendations: Check engine oil level daily Kohler Command: 10W-30; B&S Big Block: SAE 30 wt. (above 40° F) For extreme hot or cold operating temperatures, see engine manual for other viscosity recommendations. Oil Filter Order Number: Kohler models: 100802; B&S models: 100803 Engine Oil Capacity: Kohler models: 2 quarts (1.9 liters); B&S models: 2.5 quarts (2.4 liters) Air Filters: See engine owner's manual for proper cleaning procedures and replacement intervals. Models: 220, 223, 225, 227, 327 EFI, 329B, 335: 100937-inner element; 100936-outer element Models 218: 100928-paper element; 100929-foam pre-cleaner

#### LIQUID-COOLED MODELS, HORIZONTAL CRANKSHAFT, 3-CYLINDER, OHV, PRESSURE LUBE/FILTER – GASOLINE

Kubota Models: 325, 329, 432

Engine Oil - API Service Class: SH or higher:

Oil Change Intervals: Break-in period before 1st oil change: 50 hours, then models 325: 100 hours\*; 329, 432: 200 hours\*\*

Oil Filter Order Number: 100800

Oil Capacity: WG752 engine (325): 3.4 quarts (3.2 liters); WG972 engine (329, 432): 3.6 quarts (3.4 liters)

## LIQUID-COOLED MODELS, HORIZONTAL CRANKSHAFT, 3-CYLINDER, OHV, PRESSURE/LUBE – DIESEL

Kubota Models: 321D, 428D; Kubota MaxTorque™ Models: 322D, 325D, 400D 1.3L, 430D

Engine Oil - API Service Class: CD or higher:

Oil Change Intervals: Break-in period before 1st oil change: 50 hrs, then Models 321D, 322D, 325D: 100 hours\*; 428D, 400D 1.3L, 430D: 200 hours\*\* Oil Filter Order Number: For 321D, 322D, 325D: 100800; For 428D, 400D 1.3L, 430D: 100805

Oil Capacity: D722 engine (321D): 3.4 quarts (3.2 liters); D902 engine (322D. 325D): 3.9 quarts (3.7 liters);

D1105 engine (428D): 5.4 quarts (5.1 liters); D1305 engine (400D 1.3L, 430D): 5.4 quarts (5.1 liters)

## Viscosity Recommendations - Liquid-cooled Models: Check engine oil level daily

Above 77°F (25° C) SAE 30, 10W-30 or 15W40; 32° (0° C) to 77° F (25° C) SAE 20, 10W40 or 15W40; Below 32° F (0° C) SAE 10 or 10W30 For extreme hot or cold operating temperatures, see engine manual for other viscosity recommendations.

Antifreeze: 1). For Kubota engine models with serial no. 5036937 & above, use only ethylene glycol **extended life** formulas; use of standard ethylene glycol (non-extended life) will void the extended life properties of the antifreeze. Kubota engines with serial no. 5036836 and below and all Kawasaki engines, use standard green ethylene glycol. 2). Don't add straight water or antifreeze to the radiator. Always premix 50% antifreeze and 50% water unless solution is purchased pre-mixed. Drain & change coolant every 3 to 5 years. 3). Do not use propylene glycol. 4). Use refractometer for accurate freeze protection measurements. 5). Check coolant level DAILY.

<u>Air Filters – Liquid-cooled Models</u>: See engine owner's manual for proper cleaning procedures and replacement intervals. 321D: Plastic canister models (5600000 & newer) & 325 (5500000 & newer: 100942-outer element; 100943-inner element 325 (5499999 & older): Metal canister models: 100940-single filter

428D, 400D 1.3L, 430D, 432 (5500000 & newer) & 322D, 325D 329: Plastic canister: 100936-outer element; 100937-inner element 428D, 432: (5499999 & older): Metal canister: 100939-single filter

CAUTION: Use OEM filters only. Some aftermarket filters do not have adequate sealing characteristics and may have irregular dimensions or specifications in their filter-media composition. An incorrect size filter allows contaminants into the engine's system, voiding warranty and possibly resulting in engine damage or failure.

\* Reduce to 50 hours in high heat or heavy dust & debris conditions. \*\* Reduce to 100 hours in high heat or heavy dust & debris conditions.

Other Items	Kohler	Kubota		Briggs & Stratton
Contact:	Hotline: 800-544-2444	Engine Div: 847-955-2500		Hotline: 800-743-4115
Spark Plugs	Champion RC12YC	KU 1130 (325)		Champion RC12YC
(Check at 200 hours)		NGK-BKR4E (329, 432)		
Fuel Filter – Replace:	101001	Gas Models	Diesel models	366560
Gas: Annually		101005	101000 & 101005 – All 21-22 hp	
Diesel: 200 hrs.			& 325D (6614449 & below)	
			101004 – All 400D Series & 321D (6700000 & above)	
			& 325D (6614450 & above)	