

ENGINE MODELS 855, 856 AND 955

49. Yanmar, three-cylinder, diesel engines are used on all models. Model 855 and 856 tractors are equipped with 3TN75RJ engine and Model 955 tractors are equipped with 3TN84RJ engine.

MAINTENANCE

855, 856 And 955 Models

50. **LUBRICATION.** Recommended engine lubricant is good quality engine oil with API classification CD/SF or CD/SE. Select oil viscosity depending on the ambient temperature. Recommended oil viscosities for ambient temperature ranges are as follows.

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|------------------|-------------------------------------|
| Arctic Oil | -55° to 0° C (-67° to 32° F) |
| SAE 5W30 | -30° to +10° C (-22° to +50° F) |
| SAE 10W | -20° to +10° C (-4° to +50° F) |
| SAE 10W30 | -20° to +20° C (-4° to +68° F) |
| SAE 15W30 | -15° to +30° C (+5° to +86° F) |
| SAE 15W40 | -15° to +40° C (+5° to +104° F) |
| SAE 20W40 | -10° to +40° C (+14° to +104° F) |
| SAE 30 | 0° to +40° C (+32° to +104° F) |
| SAE 40 | +10° to +50° C (+50° to +122° F) |

Drain engine oil and remove oil filter, then install new filter and refill with new oil after the first 50 hours of operation for new or rebuilt engine. Oil and filter should be changed every 100 hours of normal operation for 955 models; every 200 hours of normal operation for 855 and 856 models.

Capacity of engine crankcase, including filter, is 3.9 L (4.1 qt.) for 855 and 856 models, and 4.2 L (4.4 qt.) for 955 models. Oil should be maintained between marks on dipstick of all models.

51. **AIR FILTER.** The air filter should be cleaned after every 200 hours of operation or more frequently if operating in extremely dusty conditions. Remove dust from filter element by tapping lightly with your hand. Low pressure (less than 210 kPa or 30 psi) can be directed through filter from the inside, toward outside, to blow dust from filter. Be careful not to damage filter element while attempting to clean. A new element should be installed if condition of old

element is questionable. If special air cleaner solution and water are used to wash air cleaner, make sure element is dry before installing.

NOTE: Do not wash filter with any petroleum solvent.

52. WATER PUMP/FAN/ALTERNATOR BELT.

Fan belt tension should be maintained so belt will deflect approximately 13 mm (1/2 in.) when moderate thumb pressure is applied to belt midway between pump and alternator pulleys. Reposition alternator to adjust belt tension. Belt length is 965 mm (38 in.) for 855 and 856 models, and 927 mm (36.5 in.) for 955 models.

53. **FUEL FILTER.** A renewable paper filter element type fuel filter is located between fuel feed pump and fuel injection pump. Check the clear filter sediment bowl daily for evidence of water or sediment. Bowl should be drained and new filter installed at least every 200 hours of operation or if filter appears dirty. Air must be bled from filter and fuel system as outlined in paragraph 82 each time filter is removed.

R & R ENGINE ASSEMBLY

855, 856 And 955 Models

54. To remove the engine from tractor, remove grille, engine side panels, hood, battery, fuel tank, oil cooler, and radiator. Remove the muffler, pedestal side panels and the starting aid module. Detach fuel line, throttle cable, throttle cable housing, and tachometer cable. Disconnect wires to fuel shut-off, fuel transfer pump, glow plug, alternator, oil pressure sending unit, temperature sender, and starter motor at electrical connectors or terminals. Detach clamp holding wiring harness to top of engine, then move wiring and cables out of the way. Unbolt front of drive shaft from engine and attach hoist to the two lifting eyes of engine. Remove the four engine mounting bolts and lift engine from tractor frame. Be careful to remove, identify and save any shims located at engine mounts for reinstallation at same location.

Reassemble by reversing removal procedure. Clearance between fan blades and radiator must be at least 12 mm (1/2 in.). Center to center distance between side panel mounting tabs should be 567 mm (22.3 in.). Tighten drive shaft attaching screws to 49 N·m (36 ft.-lbs.) torque. Refer to paragraph 82 for bleeding the fuel system.