

13. MAINTENANCE

- For each of the checkpoints listed below, check and service at the intervals indicated in the table.
- For the inspection and maintenance procedures, for details, see "Chapter 14. PERIODIC SERVICE" on page 14-1.

Table 13-1

1. Maintenance Check List

Topic		Time	✓: By user ●:By authorized Yanmar dealer or distributor Service Intervals															
			Daily	If Necessary	Every 50 hours	Every 250 hours	Every 500 hours	Every 1000 hours	Every 1500 hours	Every 2000 hours	Every 1 year	Every 2 years						
			Engine Oil Level	Check	Daily	✓												
Transmission Hydraulic Oil Level	Check	Daily	✓															
Tire Air Pressure	Check	Daily	✓															
Grille	Check	Daily	✓															
Fuel Tank	Check/Refill	Daily	✓															
Rubber Dust Unloading Valve	Check	Daily	✓															
Radiator Hose and Clamp	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If Necessary		●														
Radiator Cooling Screen	Check	Daily	✓															
Safety Systems	Check	Daily	✓															
Radiator Cooling Fins	Clean	Every 50 hr			✓													
Cooling System	Check	Daily	✓															
Coolant	Flush/Change	Every 2000hr or 2 years whichever occurs first												●*1				●*1
Fuel Line	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If Necessary		●														
Power Steering Line	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If Necessary		●														
Seatbelt	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If necessary		●														
Roll-Over Protective Structure (ROPS)	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If necessary		●														
Headlights, Hazard Lights, and all other lights (lights and/or bulbs).	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1										●*1
	Replace	If necessary		✓														
Fan and Alternator Belt	Inspect	Every 50 hr			✓													
	Adjust	50/250 hr and every 250hr after or every year whichever occurs first			●1 st time		●*1											●*1
	Replace	If Necessary		●														
Air Cleaner Element	Check/Clean	Every 250 hr and if necessary	✓					●*3										
	Replace	Every 500 hr or every year whichever occurs first and if necessary		●				●*1										●*1
Fuses	Replace	If necessary		●														
Battery Condition	Check	Every 50hr			✓													
Fuel Filter	Replace	Every 500 hr or every 2 years whichever occurs first						●*1										●*1

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Topic		Time	✓: By user ●:By authorized Yanmar dealer or distributor											
			Service Intervals											
			Daily	If Necessary	Every 50 hours	Every 250 hours	Every 500 hours	Every 1000 hours	Every 1500 hours	Every 2000 hours	Every 1 year	Every 2 years		
Fuel/Water Separator	Check	Daily	✓											
	Drain	Every 50 hr and if necessary		✓	✓									
	Replace	Every 500 hr or every 2 years whichever occurs first					●*1							●*1
Wheel Bolt Tightening Torque	Check	After one hour of break -in and every 50 hr Every 250 hr or every 1 year whichever occurs first			✓*2		●*1							●*1
Engine Oil	Change	Every 250 hr or every year whichever occurs first					●*1							●*1
Engine Oil Filter	Replace	Every 250 hr or every year whichever occurs first					●*1							●*1
Transmission Hydraulic Oil	Change	50/500 hr and every 500hr after			●1 st time			●						
Transmission Hydraulic Oil Filter	Replace	50/500 hr and every 500hr after			●1 st time			●						
HST Hydraulic filter	Replace	50/500 hr and every 500hr after			●1 st time			●						
Hydraulic hose	Check	Daily Every 500hr or 2 years whichever occurs first	✓					●*1						●*1
	Replace	If Necessary		●										
Grease fittings	Grease	Every 50 hr			✓*4									
Front Axle Pivot	Grease	Every 50hr			✓*4									
Air Intake Hoses and Clamps	Check	50/250 hr and every 250hr after or every year whichever occurs first			●1 st time		●*1							●*1
	Replace	If Necessary		●										
Front Axle Gear Oil	Check	Every 50hr			✓									
	Change	Every 500hr						●						
Brake	Check	Daily	✓											
	Adjust	Every 500hr						●						
	Replace	If necessary		●										
Engine Valve Clearance*6	Adjust	Every 1000hr						●						
Fuel Injection Nozzle*6	Check	Every 1500hr								●				
Intake/exhaust valve seats*6	Clean	Every 2000hr									●			
Governer lever and engine speed control*6	Check and adjust	Every 250hr					●							
Crankcase breather system*6	Inspect	Every 1500hr								●				

For assistance in periodic maintenance procedures, contact YOUR LOCAL YANMAR TRACTOR DEALER.

NOTE
 ● Check the wheel bolt tightening torque after one hour of break-in.

13. MAINTENANCE

CAB type

Periodic inspection list (CAB type)

Topic		Time	✓: By user ●:By authorized Yanmar dealer or distributor												
			Service Intervals												
			Daily	If Necessary	Every 50 hours	Every 250 hours	Every 500 hours	Every 1000 hours	Every 1500 hours	Every 2000 hours	Every 1 year	Every 2 years			
External air introduction filter	Clean	Every 250 hr and if necessary		✓		● ^{*3}									
	Replace	Every 500hr or 2 years whichever occurs first					● ^{*1}								● ^{*1}
Warm water piping	Check	Every 500hr or 2 years whichever occurs first					● ^{*1}								● ^{*1}
	Replace	If Necessary		●											
Wascher Liquid tank	Check/refill	Daily	✓												

Attachments^{*6}

Periodic inspection list (Attachments^{*6})

Topic		Time	✓: By user ●:By authorized Yanmar dealer or distributor												
			Service Intervals												
			Daily	If Necessary	Every 50 hours	Every 250 hours	Every 500 hours	Every 1000 hours	Every 1500 hours	Every 3000 hours	Every 1 year	Every 2 years			
Front Lift hydraulic lines. Check for leakages	Check	Daily 50/500 hr and every 500 hr after	✓		● ^{1st time}		●								
Front lift	Grease	Every 50 hr			✓ ^{*4}										
Front Lift and front PTO bolts on torque	Check	50/500 hr and every 500 hr after			● ^{1st time}		● ^{*1}								● ^{*1}
Front PTO grease nipples	Grease	Every 500 hr					●								
Front PTO gear oil ^{*5}	Check	Every 250 hr				●									
	Replace	Every 500hr or every year whichever occurs first					● ^{*1}							● ^{*1}	
Front PTO oil filter ^{*5}	Clean	Every 500hr or every year whichever occurs first					● ^{*1}							● ^{*1}	
	Replace	If Necessary		●											
Drawbar	Grease	Every 50 hr			✓										
	Check	50/500 hr and every 500hr after			● ^{1st time}		●								

^{*1} Whichever occurs first.

^{*2} Check the Wheel bolt Tightening torque after one hour of break -in

^{*3} At Dusty Conditions: Clean filter once every 50 operating hours.

^{*4} Extremely Wet or Muddy Conditions: Lubricate the grease fittings once every 10 operating hours or once a day.

^{*5} For SA424 only

^{*6} Dealer can find descriptions of this maintenance on YDS (Manual, Bulletin or Service News)

3. Lubricants

Table 13-2

No.	Locations		Capacities			Lubricants	
			UNIT	SA221	SA424		
1	Fuel		L	23.0		No.2-D diesel fuel No.1-D diesel fuel if temperature is below -10°C (14°F)	
2	Coolant		L	CAB: 3.3 ROPS: 2.8		High Quality Permanent Type Antifreeze (Ethylene Glycol with corrosion and rust inhibitor chemicals) Coolant Mixture Ratio Distilled Water 50%: Antifreeze 50%	
3	Engine crankcase (with filter)		L	2.9	3.4	ACEA Service Categories E3, E4, or E5 SAE 10W-30 or SAE 10W-40	
4	Transmission hydraulic oil		L	15.5		Hydraulic/Transmission Fluid (TF500A)	
5	Front axle gear oil		L	3.0		SAE 80W-90 gear oil	
6	Greasing	Tie rod	No. of greasing point	2		Until grease overflows	NLGI GRADE No.2
		Brake pedal	No. of greasing point	1		Until grease overflows	NLGI GRADE No.2
		HST pedal	No. of greasing point	1		Until grease overflows	NLGI GRADE No.2

(Specifications and design are subject to change without prior notice for improvement.)

***NOTE**

- Immediately after purchasing the tractor:
 - adjust the coolant mixture ratio of the coolant and water to suite the local climate
 - the preceding practice assists in making the tractor function efficiently
- The coolant can remain unchanged for a period of 2 years:
 - if during the period the tractor is operated for less than 2000 hours
 - if the tractor is operated for more than 2000 hours during the period, the coolant has to be replaced during flushing of the system
- After pouring the coolant, run the engine for a short period to mix the two fluids thoroughly.