

D55 International Engine

Safety, Operation, Maintenance, & Parts Manual

074241* Engine, D55 Yanmar	rev. B
074512** Engine, D55 T3 Diesel, Super	rev. B

Safety is our #1 concern!

*Used with first international LT70, Feb 2015, rev. B6.03

*International only after Oct 2017

**Used with international LT70 super wide during 2018, rev
A5.07-A5.10

Form #2507

USED WITH:

(NON-SUPER)

*LT70HDD55N

LT70HD 55HP Diesel Tier2

rev. B6.03-B8.03 (OBS)

*LT70HDD55NW

LT70HD 55HP Dsl Wide Tier2

rev. B6.03-B8.03

(SUPER)

*LT70HDD55N-RH

Int'l LT70HD 55HP Diesel, Super

rev. A4.06-A6.02 (OBS)

*LT70HDD55NW-RH

Int'l LT70HD 55HP Diesel, Super Wide

rev. A4.06-A6.02

**LT70HDD55NT3-RH

Int'l LT70HD 55HP T3 Diesel, Super 70

rev. A4.06-A6.02 (OBS)

**LT70HDD55NWT3-RH Int'l LT70HD 55HP T3 Diesel, Super 70 Wide

rev. A4.06-A6.02



**WARNING! Read and understand this
manual before using this machine.**

California
Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to **www.P65warnings.ca.gov**.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to **www.P65Warnings.ca.gov/wood**.

Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: woodmizer.com/patents

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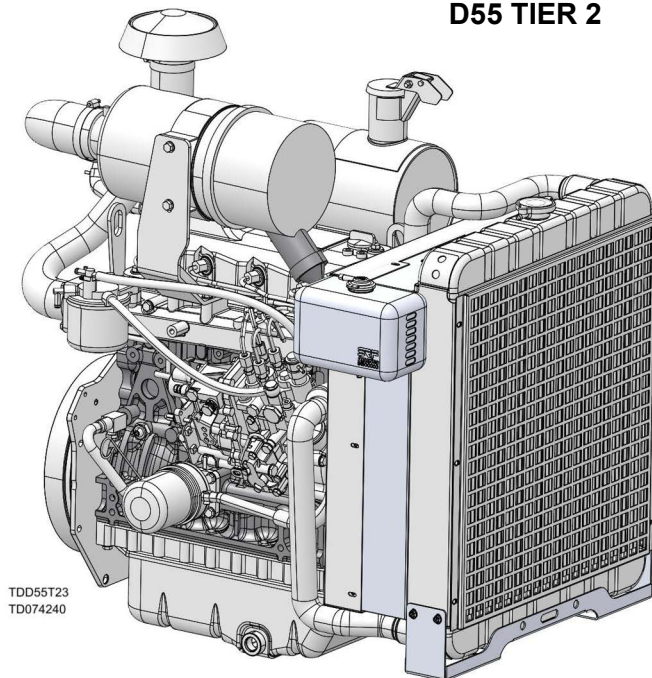
SECTION 1 ABOUT THIS MANUAL

This manual is provided as a supplement to the equipment manufacturer's manuals. This manual provides information specific to the use of this equipment on the Wood-Mizer® sawmill. Refer to the sawmill operator's manual and manufacturer's manual before attempting to operate this equipment.

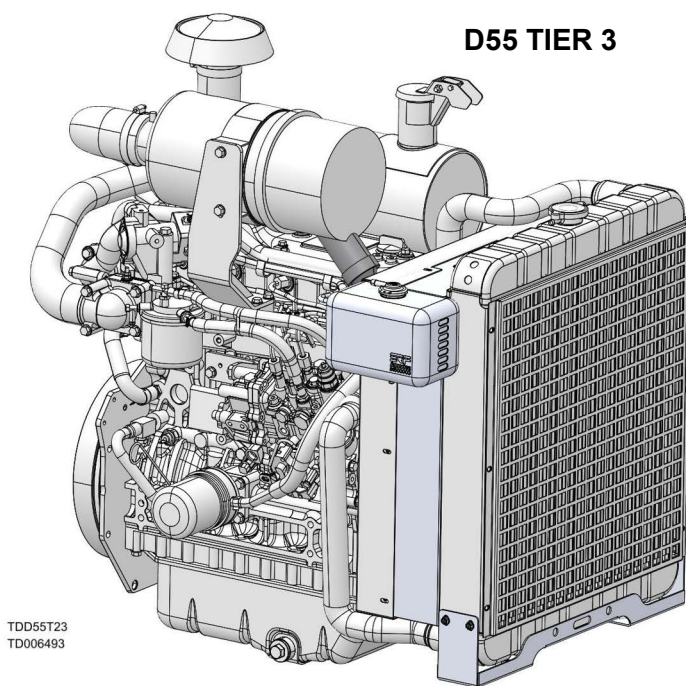
NOTICE Read the sawmill operator's manual and engine manufacturer's manual for instructions and safety precautions before operating this equipment.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

D55 TIER 2



D55 TIER 3



SECTION 2 OPERATION

2.1 Starting The Engine (Non-Super)



Alternator Charge Indicator: Lights up if the alternator is not charging the battery



Engine Temperature Indicator: Lights up if the engine is overheating. A circuit breaker assembly in the engine harness will shut the engine off if the engine overheats. Turn the key switch off and allow the engine to cool for a period of time before restarting. If the overheating condition persists, stop operating the engine until the condition is corrected. The engine will automatically switch to low idle if an overheating condition occurs.



Key Switch Indicator: Lights up when the key is in either the on or accessory (#1 or #3) position.



Oil Indicator: Lights up if the oil pressure is too low. The engine will automatically switch to low idle if a low oil condition occurs.



Glow Plug Indicator: Lights up after the key has been turned to the on (#1) position.

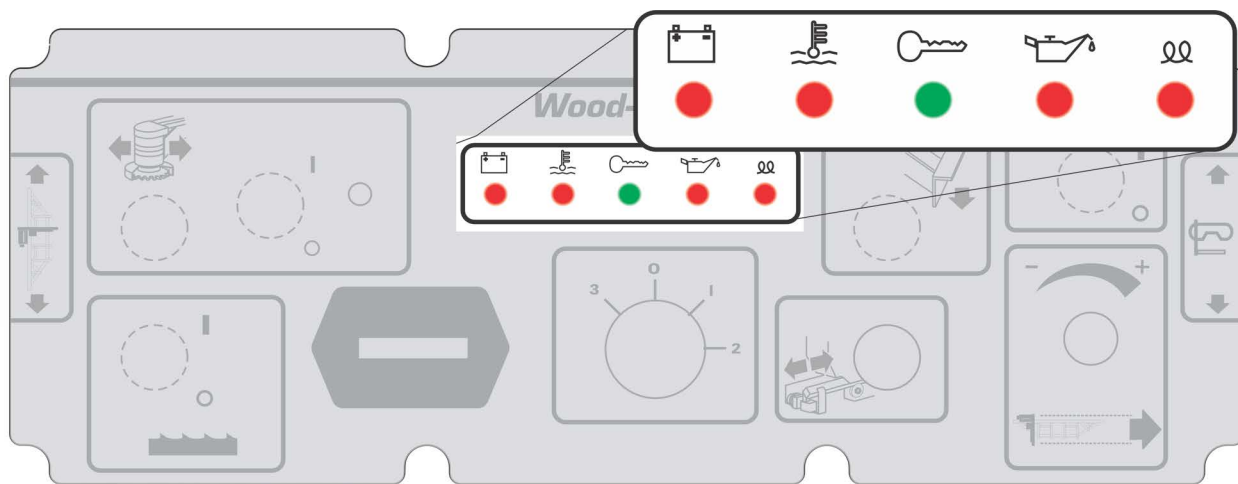


FIG. 2-1

ENGINE START



DANGER! Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine.

Operate your engine/machine only in well ventilated areas. The exhaust gases of your engine can cause nausea, delirium and potentially death unless adequate ventilation is present.

Never operate an engine with a fuel or oil leak. The leaking fuel or oil could potentially come in contact with hot surfaces and ignite into flames.



WARNING! Be sure the power feed switch is in the neutral position before turning the key switch to the on (#1) or accessory (#3) position. This prevents accidental carriage movement, which may cause serious injury or death.

Do not operate engine without proper and operational spark arrester/muffler. Sparks emitted from the engine exhaust could ignite surrounding materials, causing serious injury or death.



CAUTION! Do not crank starter for more than 20 seconds at one time during starting attempts. Allow the starter motor to cool for 2 minutes before cranking the starter again.

Let engine idle for 3 - 5 minutes before applying load to prevent engine damage.

1. See the engine manufacturer's manual for lubricating oil recommendations for specific temperature ranges.
 - a. Use #2 or better quality diesel fuel for above freezing starting.
 - b. Use a #1 quality diesel fuel for below freezing starting.
2. Engage the blade handle to place the throttle in high position.
3. Turn the key switch on the control panel to the on (#1) position.
4. Be sure all persons are clear of the blade and turn the key switch to the start (#2) position and release.
5. Disengage the blade lever to place the throttle in low idle position and allow the engine to idle for 3-5 minutes.

ENGINE SHUTOFF



CAUTION! A minimum 2 minute idle time is recommended to allow the battery charge to recover before the engine is shut off.

Turn the key switch to the off (#0) position.

2.2 Starting The Engine (Super)

ENGINE CONTROL INDICATORS



Battery Indicator: Shows the current battery voltage



Engine Oil Pressure Indicator: Icon turns red when there is no oil pressure..



Engine Water Temperature Indicator: Shows the current engine temperature. Icon turns yellow when temperature is between 215F-225F (102C-107C). Icon turns red when temperature is above 225F (107C).



Cold Start Device Indicator: Shows when the air heater is running



Engine RPM Indicator: Shows the current engine RPM.

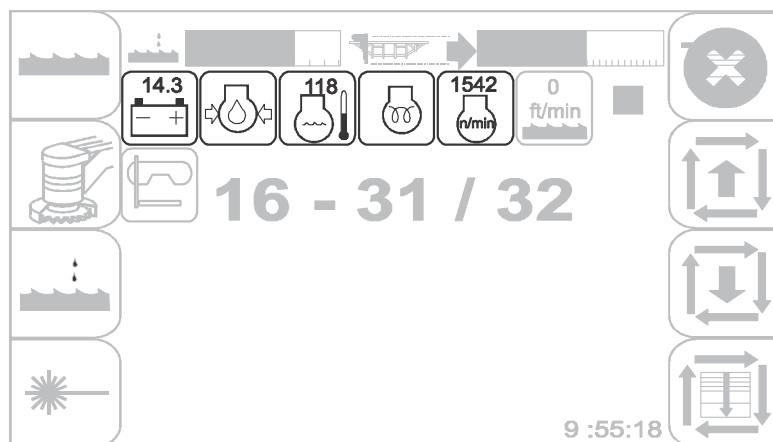


FIG. 2-2

ENGINE START



DANGER! Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine. Failure to do so will result in serious injury.

Operate your engine/machine only in well ventilated areas. The exhaust gases of your engine can cause nausea, delirium and potentially death unless adequate ventilation is present.

Never operate an engine with a fuel or oil leak. The leaking fuel or oil could potentially come in contact with hot surfaces and ignite into flames.



WARNING! Be sure the joystick is in the neutral position before turning the key switch to the on (#1) or accessory (#3) position. This prevents accidental carriage movement, which may cause serious injury or death.

Do not operate engine without proper and operational spark arrester/muffler. Sparks emitted from the engine exhaust could ignite surrounding materials, causing serious injury or death.



CAUTION! Do not crank starter for more than 15 seconds at one time during starting attempts. Allow the starter motor to cool for 2 minutes before cranking the starter again. Damage to the engine may result.

Let engine idle for 3 - 5 minutes before applying load to prevent engine damage.

1. See the engine manufacturer's manual for lubricating oil recommendations for specific temperature ranges.
2. Use #2 or better quality diesel fuel for above freezing starting. Use a #1 quality diesel fuel for below freezing starting.
3. Turn the key switch on the control panel to the on (#1) position.
4. Wait for the air heater to finish heating up as indicated on the screen.
5. Be sure all persons are clear of the blade and turn the key switch to the start (#2) position and release.
6. Turn the key switch to the start (#2) position and release.

ENGINE SHUTOFF



CAUTION! A minimum 2 minute idle time is recommended to allow the battery charge to recover and to give the engine turbocharger time to spin down before the engine is shut off.

Turn the key switch to the off (#0) position.

SECTION 3 MAINTENANCE

Refer to the manufacturer's manual for maintenance intervals and procedures unless otherwise instructed in this manual. Follow the manufacturer's recommendations for dusty conditions.

NOTICE This manual only provides information about additional procedures or procedures to be performed at different time intervals than found in the manufacturer's manuals. Refer to the manufacturer's manual for complete maintenance instructions.



WARNING! Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather **after every shift**. Failure to do so may result in fire, causing death or serious injury.



3.1 Safety

Use caution when performing maintenance or service to the engine.



DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc.

Stay a safe distance from rotating members making sure that loose clothing or long hair do not engage rotating members resulting in possible injury.

Avoid contact with any part of a hot engine. Allow the engine to cool sufficiently before beginning any service function.



WARNING! Remove the blade before performing any engine service. Failure to do so may result in serious injury.

Always wear proper safety equipment (eye, breathing, hand, and foot) when performing service functions.

3.2 Engine Oil & Filter

Check the oil level every 8 hours of operation. Add oil as necessary. See the engine manual for oil viscosity and grade recommendations.



CAUTION! Operating the engine with water in the engine oil will cause severe damage to the engine. Follow all maintenance procedures for checking oil level and oil/filter change intervals.

When checking the oil level, inspect the oil for indications of water in the oil. ***If there is water present or the oil is cloudy:***

1. DO NOT start the engine.
2. Replace the oil and oil filter.
3. Run the engine at low idle for no more than 2 minutes.
4. Replace the oil and filter again.

NOTICE Engines are equipped with a muffler rain cap to keep water out of the muffler and engine. If the sawmill is stored outside or transported during rainy weather, the muffler must be covered. The rain flap is available for previous revision sawmills

Change the engine oil and oil filter **every 250 hours** of operation.

3.3 Cooling System

Clean the radiator fins **every 8 hours** of operation.

Spray the radiator with water from a hose or compressed air to clean sawdust from the radiator fins.

Do not use a pressure sprayer.



CAUTION! Failure to keep the radiator fins clear of sawdust and/or dirt may cause the engine to overheat resulting in damage to the engine.

3.4 Battery

Check the battery electrolyte level **every 50 hours** of operation. See manufacturer's manual for instructions.



DANGER! Batteries expel explosive gases. Keep sparks, flames, burning cigarettes, or other ignition sources away at all times. Always wear safety goggles and a face shield when working near batteries. Failure to do so will cause serious injury.



WARNING! Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

3.5 Alternator Belt

The alternator belt is self-tensioning and should not need adjustment. If the battery continues to not charge properly or the belt continues to squeal after the initial belt adjustment, replace the belt.

1. Release the blade tension and remove the blade from the sawmill if necessary.
2. Turn the key switch to OFF (0) and remove the key.
3. Remove the drive belt cover and alternator cover.
4. Pry the belt idler up and remove the belt from the alternator and engine pulleys.
5. While holding the idler up, install the new belt around the alternator and engine pulleys.
6. Release the idler on top of the belt and reinstall the alternator and drive belt covers.

3.6 RPM Adjustments (International)



WARNING! Remove the blade before performing any engine service. Failure to do so may result in serious injury.

Check the RPM with a tachometer **every 200 hours** of operation. High-end RPM should be 2800 RPM and low-end RPM should be 1500 RPM.

1. Ensure belt and brake strap tensions are correct (See Sawmill Maintenance).
2. Check oil, fuel, and coolant levels.
3. Ensure the throttle solenoid linkage is adjusted properly.

With the clutch disengaged, the throttle linkage should rest against the idle adjustment screw. With the clutch engaged, the linkage should rest against the high-end adjustment screw and leave 0" to 1/32" of play in the linkage.



CAUTION! Failure to properly adjust the throttle solenoid linkage may cause damage to the solenoid.

1. Adjust the throttle solenoid linkage by disengaging the clutch and loosen the solenoid mounting bolts.
2. Adjust the solenoid as far to the right as possible and retighten the mounting bolts.
3. Engage the clutch and recheck the amount of play in the linkage.

If there is more than $1/32$ " of play in the linkage with the clutch engaged, disengage the clutch and turn the linkage turnbuckle.

4. Repeat adjustments to achieve 0 "- $1/32$ " of play in the linkage with the clutch engaged.

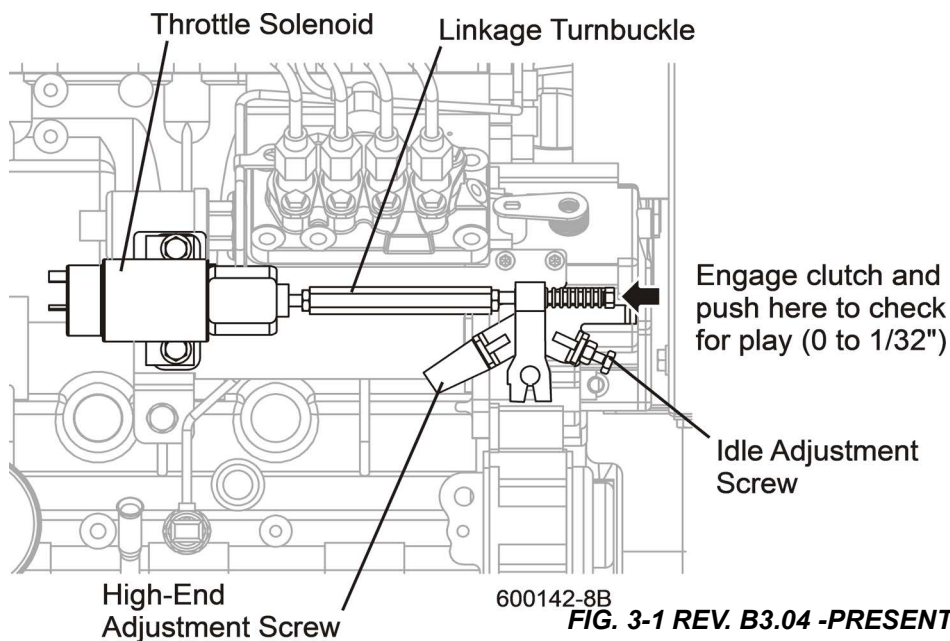


FIG. 3-1 REV. B3.04 -PRESENT

5. Start the engine to measure the low-end RPM.
6. Let idle for 10 minutes.
7. Check the low-end RPM with the engine still at idle.
8. Adjust to 1500 RPM.
9. To decrease speed, loosen the idle adjustment screw. To increase speed, tighten the idle adjustment screw. The high-end adjustment screw should not be adjusted.

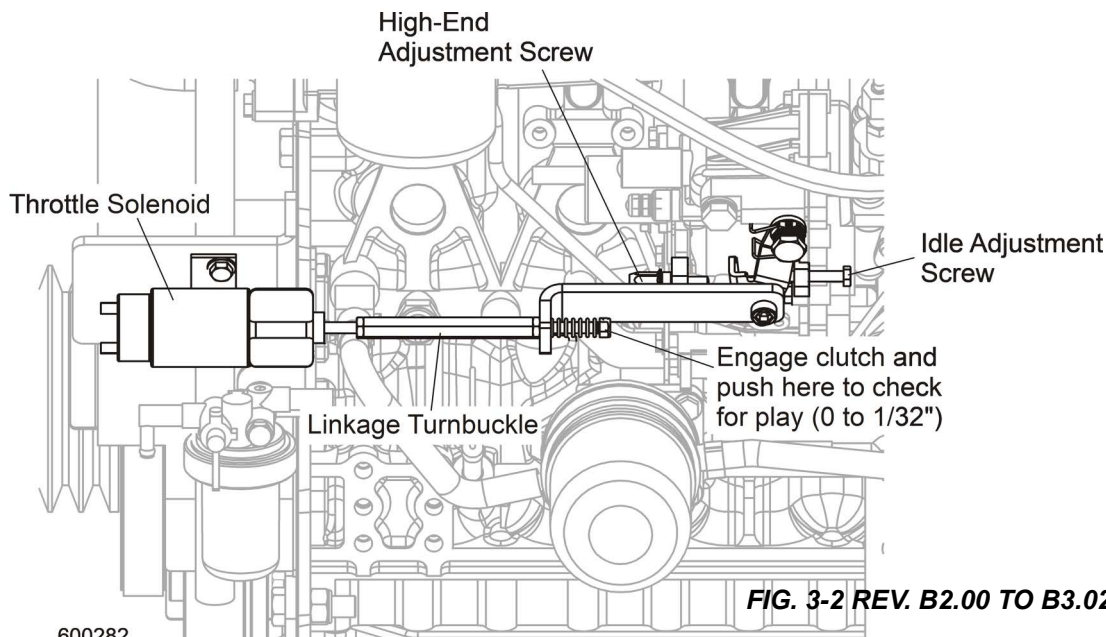
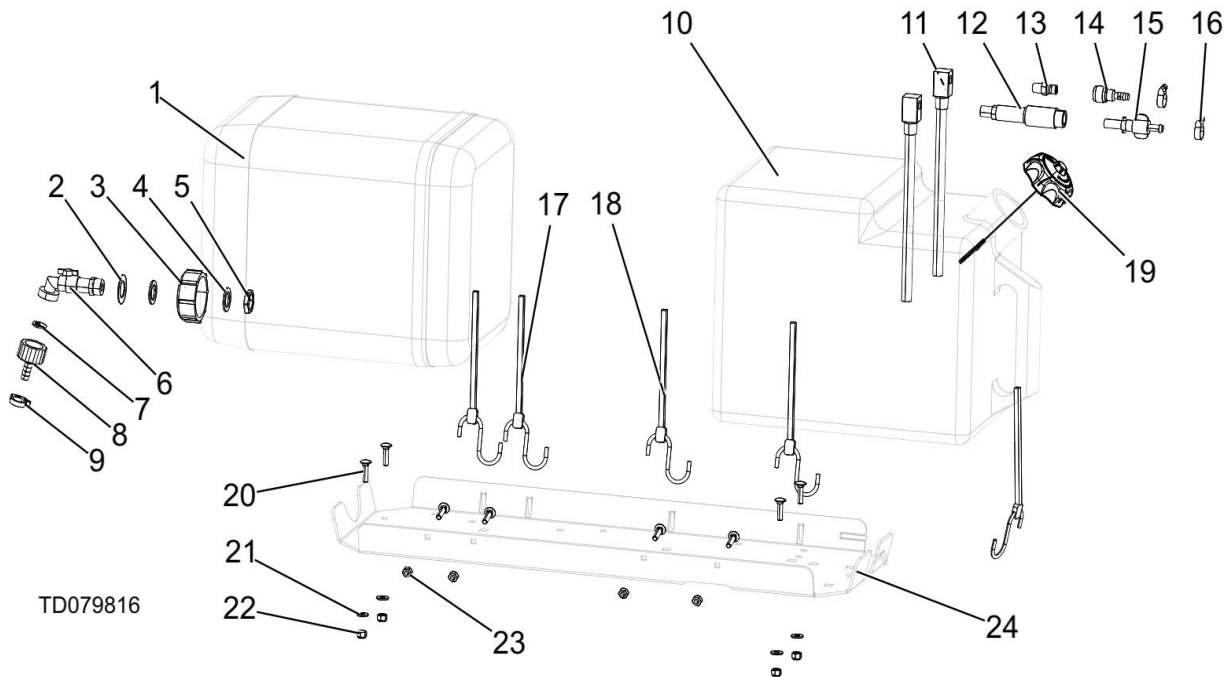


FIG. 3-2 REV. B2.00 TO B3.02

10. After the RPM settings are made, shut the engine off.

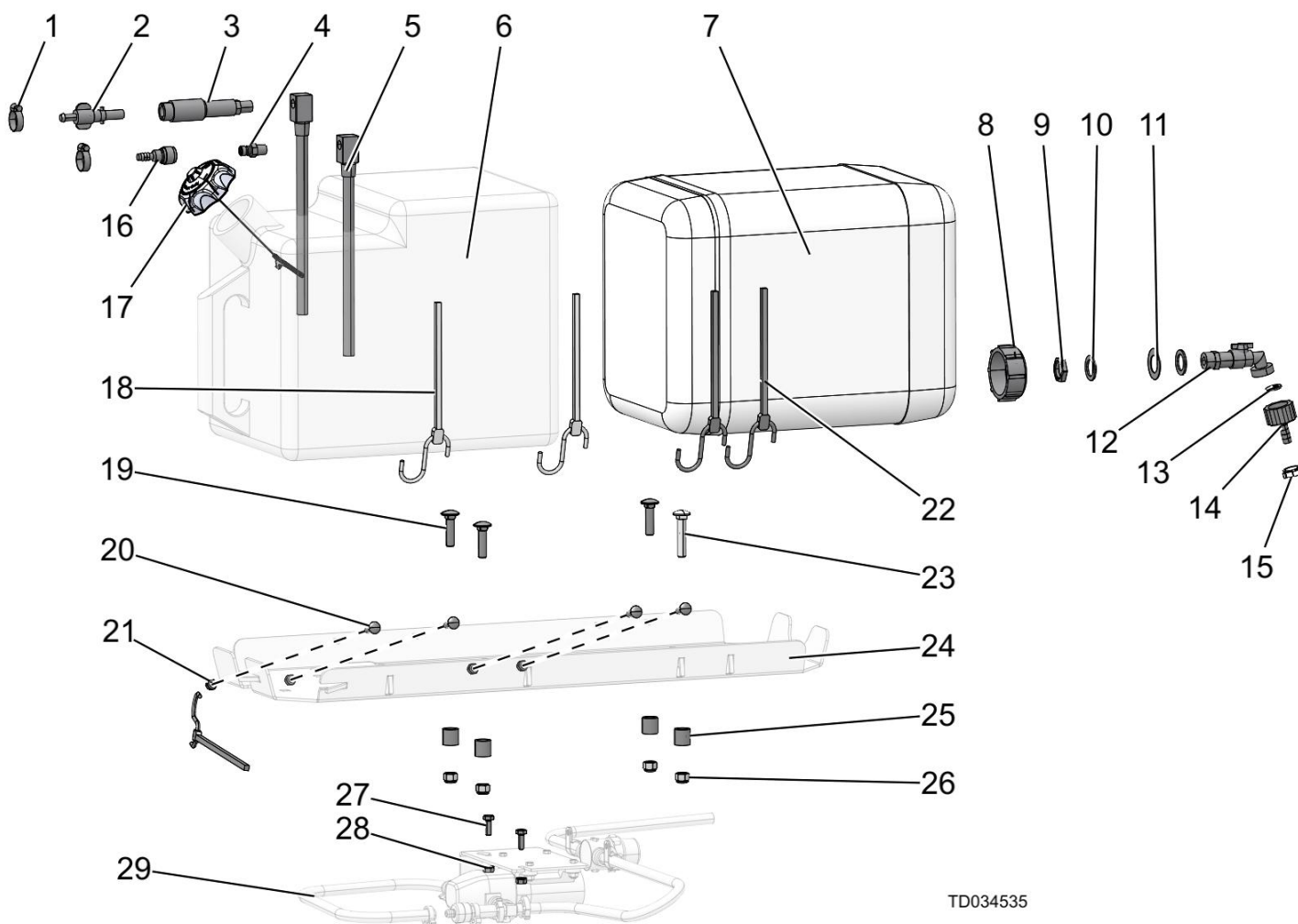
SECTION 4 REPLACEMENT PARTS

4.1 Fuel/Water Tank, Super Hydraulic



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074488	Assembly, LT70 Hyd Diesel Fuel Can Tray	P649 Qty 2 Was 4 per ECN 37785 on 1/2021	1
	550787	Bottle Kit, 5 Gallon Water	Replaced 110731 per ECN 39290 on 1/2024	1
1	513866	Bottle, Water		1
2	530841	Shim, 21/37-1		1
3	550785	Cap. Water Bottle		1
4	550780	O-ring, 27x20x1.5		1
5	550779	Gland Nut, 1/2 NPT		1
6	550776	Fitting, Water Lube Shutoff Valve		1
7	550778	Gasket, 1/2 (Batard)		1
8	550777	Fitting, G3/4" X 10mm Hose Barb		1
9	016845	Clamp, Single Snap Grip, #38		1
10	P12166	Container, Refillable Fuel, Diesel		1
11	P12172	Fitting, 1/4NPTx9 Fuel Pick Up		2
12	P12175	Fitting, 1/4NPT Male-Female Discon		1
13	015583	Fitting, 1/4 NPT Male Quick Disconnect		1
14	015582	Fitting, Female Quick Disconnect Barb		1
15	P12176	Fitting, 1/4 Barb-Male Discon		1
16	P649	Hose Clamp, 7/32in-5/8in		2
17	P11668	Strap, 20 Rubber W/Hooks		2
18	P11258	Strap, 24 Rubber W/Hooks		3
19	F05005-34	Bolt, 1/4-20 X 1 CARR		8
20	F05011-11	Washer, 1/4 SAE Flat		4
21	F05010-69	Nut, 1/4-20 Nylock		4
22	F05010-21	Nut, 1/4-20 Swaged		4
23	S11684	Plate, Gas Can/Water Bottle		1

4.2 Fuel/Water Tank, Non-super

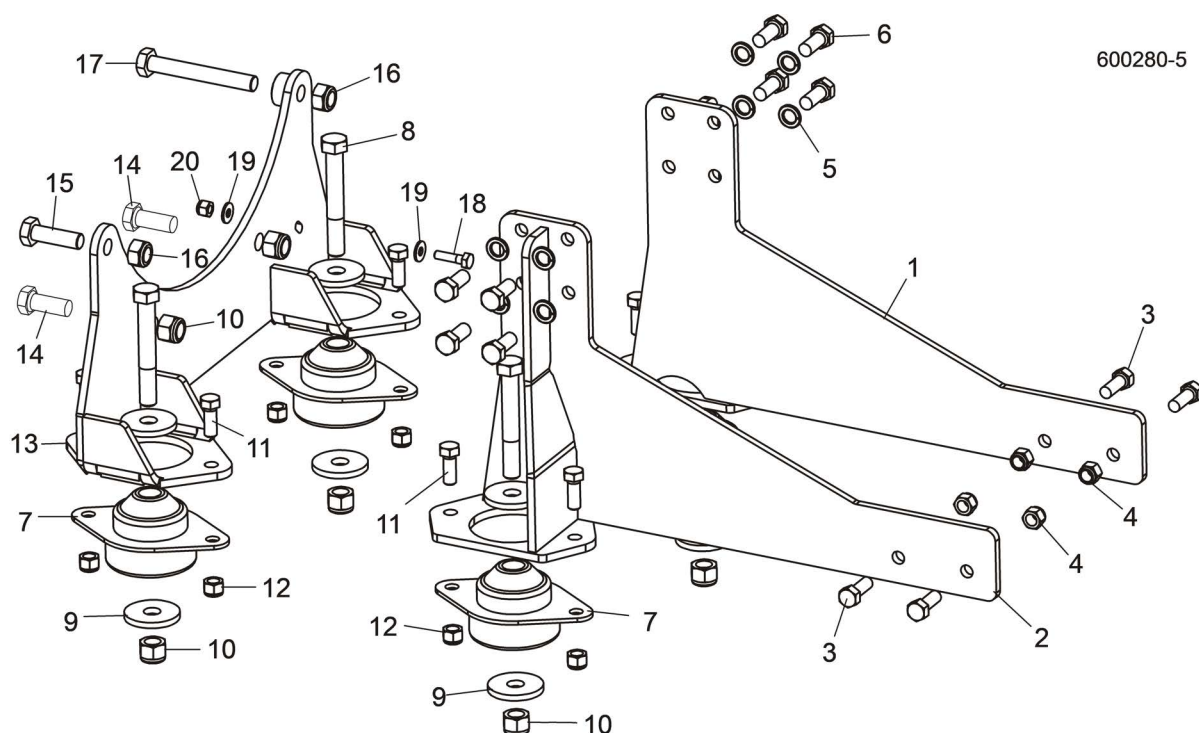


TD034535

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	034535	Tray Assy, LT70 Diesel Fuel Can		1
1	P12739	Clamp, 11/16 Worm		2
2	P12176	Fitting, 1/4 Barb-Male Discon		1
3	P12175	Fitting, 1/4NPT Male-Female Discon		1
4	015583	Fitting, 1/4 NPT Male Quick Disconnect		1
5	P12172	Fitting, 1/4NPTx9 Fuel Pick Up		2
6	P12166	Container, Refillable Fuel, Diesel		1
	550787	Bottle Kit, 5 Gallon Water	Replaced 110731 per ECN 39290 on 1/2024	1
7	513866	Bottle, Water		1
8	550785	Cap. Water Bottle		1
9	550779	Gland Nut, 1/2 Npt		1
10	550780	O-ring, 27x20x1.5		2
11	530841	Shim, 21/37-1		1
12	550776	Fitting, Water Lube Shutoff Valve		1
13	550778	Gasket, 1/2 (Batard)		1
14	550777	Fitting, G3/4" X 10mm Hose Barb		1
15	016845	Clamp, Single Snap Grip, #38		1
16	015582	Fitting, Female Quick Disconnect Barb		1

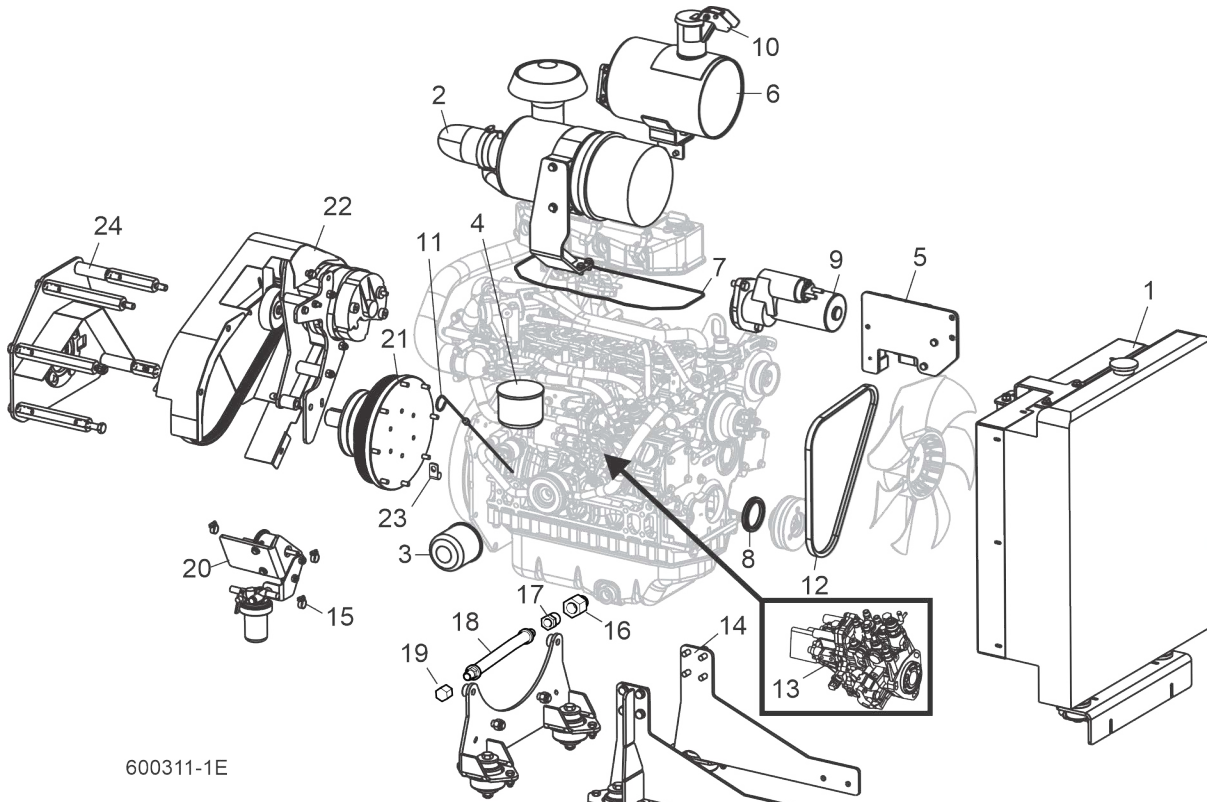
REF	PART #	DESCRIPTION	COMMENTS	QTY.
17	061257	Cap, Fuel Tank Diesel 080298AE		1
18	P11258	Strap, 24 Rubber W/Hooks		2
19	F05007-85	Bolt, 3/8-16 X 1-1/2 CB		3
20	F05005-34	Bolt, 1/4-20 X 1 Carr		4
21	F05010-21	Nut, 1/4-20 Swaged		4
22	P11668	Strap, 20 Rubber W/Hooks		3
23	F05007-22	Bolt, 3/8-16x2 FT Carriage		1
24	S11684	Plate, Gas Can/Water Bottle		1
25	033911	Spacer, Pivot Lock Board Return		4
26	F05010-10	Nut, 3/8-16 Hex Nyl Lock		4
27	F05005-1	Bolt, 1/4-20x3/4 FT HHC		2
28	F05010-9	Nut, 1/4-20 Keps		2
29	033490	Pump/Filter Assembly, Lube-Mizer	See mill's Parts Manual for breakdown	1

4.3 Engine Mount Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074258	Assy, Yanmar 55HP Motor Mnt		1
1	006522	Mount Weldment, Yanmar Right		1
2	006521	Mount Weldment, Yanmar Left		1
3	F05007-7	Bolt, 3/8-16 x 1" Hex Head		4
4	F05010-10	Nut, 3/8-16 Hex Nylon Lock		4
5	F81003-11	Bolt, M10-1.5 x 25mm Hex Head Grade 8.8		8
6	F05011-88	Washer, 10mm Split Lock		8
7	036095	Mount, Vibration Isolator		4
8	F05008-61	Bolt, 1/2-13" x 3 1/2" HeX Head Grade 5		4
9	014632	Washer, .52 x 1.69		8
10	F05010-8	Nut, 1/2-13 Nylon Hex Lock		6
11	F05007-87	Bolt, 3/8-16 x 1" Hex Head Grade 5		8
12	F05010-10	Nut, 3/8-16 Hex Nylon Lock		8
13	006535	Mount Weldment, Yanmar rear		1
14	F05008-37	Bolt, 1/2-13 x 1 1/4" Hex Head Grade 5		2
15	F05004-250	Bolt, M12 x 1.75 X 40mm Hex Head Full Thread		1
16	F05010-209	Nut, M12 x 1.75 Hex Nylon Lock		2
17	F05004-249	Bolt, M12 X 1.75 X 90mm Hex Head Full Thread		1
18	F05005-101	Bolt, 1/4-20 X 1" Hex Head Grade 5		1
19	F05011-11	Washer, 1/4" SAE Flat		2
20	F05010-69	Nut, 1/4-20 Nylon Lock		1

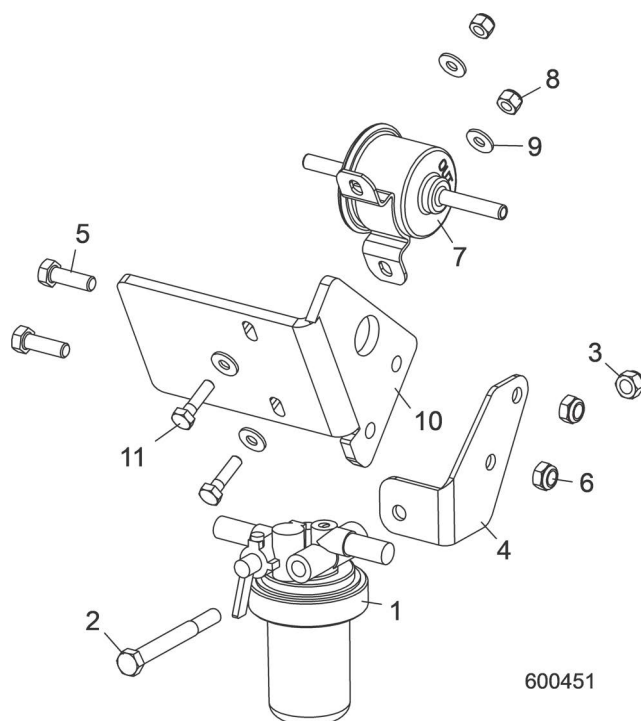
4.4 Engine Assembly, T2 and T3



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	CED47	Cover, D55 Engine		1
	006493	Engine, Yanmar 55HP Diesel Tier 3	LT70HDD55NT3-RH and wide	1
	074240	Engine, Yanmar 55HP Diesel Engine Tier 2	Used with LT70HDD55N, LT70HDD55N-RD, LT70HDD55N-WR, LT70HDD55N-RH, and wide	1
1		Radiator Parts	(See Section 4.7)	
2	006515	Air Cleaner Assembly, Yanmar #KAC-6		1
	061744	Air Filter, Yanmar #129687-12510		1
	061100	Cap, Air Filter Assembly Yanmar		1
3	057935	Filter, Oil #129150-35153		1
4	057933	Filter, Fuel #119802-55801		1
5		Electronic Control Unit Parts	(See Section 4.11)	
6	006516	Muffler Assembly, Yanmar #KM-5		1
	061145	Cap, Muffler Rain D55 Yanmar		1
7	061753	Gasket, Yanmar Bonnet #129508-11310		1
8	061751	Seal, Yanmar Front Main #129795-01800		1
	061750	Injector Assembly, Yanmar #729649-53100		1
	061245	Switch, Yanmar Oil Pressure #119761-39450	T3 Super LT70s only	1
	057936	Switch, Yanmar Oil Pressure #114250-39450	T2 Super LT70s only	1
9	061749	Starter Motor, Yanmar #129400-77012		1
	057938	Thermostat, Yanmar #129155-49801		1
	044641	Alternator, Yanmar 3TVN70-ASA #129423-77200	T2 and T3 Super LT70s only	1

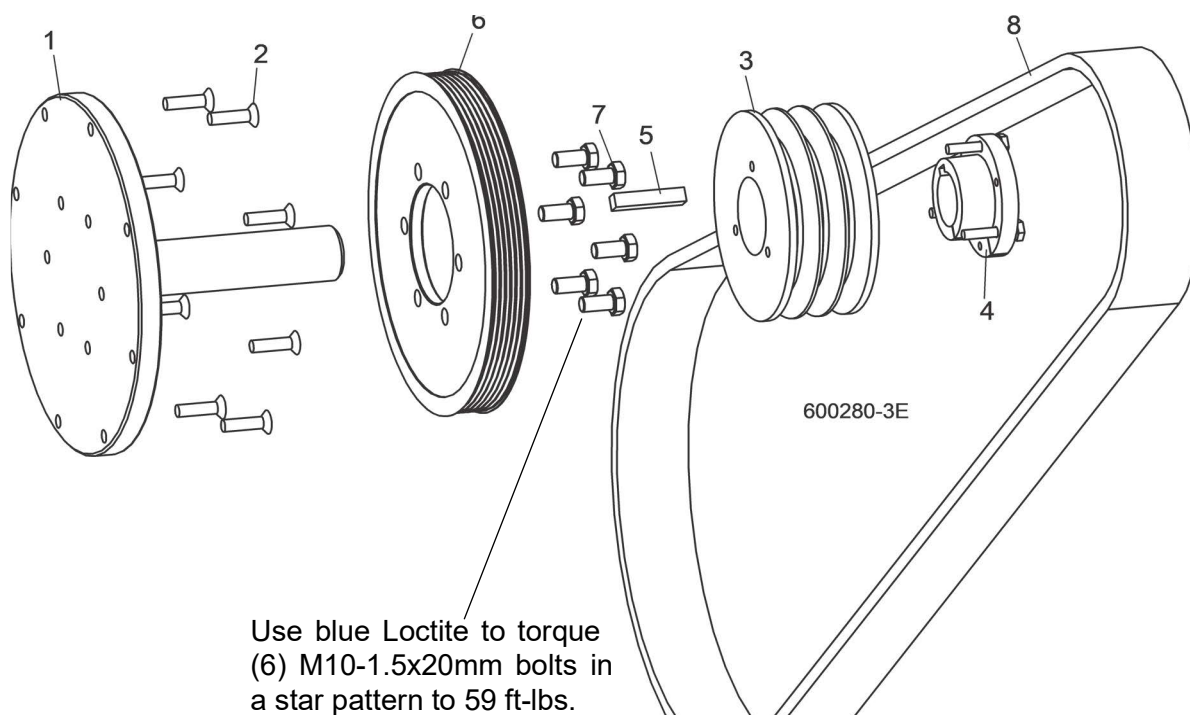
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	044652	Gasket, Yanmar Thermostat #129795-49551		1
	057939	Pump, Yanmar Water #129001-42001		1
	057940	Gasket, Yanmar Water Pump #129486-42021		1
	061172	Sender, Yanmar Water Temperature #129927-44900	Tier 3 Engine Only	1
	044655	Sender, Yanmar Water Temperature #121250-44901	Tier 2 Engine Only	1
	044657	Diode, Yanmar Solenoid Relay #119643-66900		1
	057941	Timer, Yanmar Air Heater #128300-77920		1
	061747	Gasket, Yanmar Head #129508-01330		1
	057943	Plug, Yanmar Oil Drain #119640-01640		1
	057944	Seal, Yanmar Oil Drain #22190-220002		1
	061053	Spring, Governor Yanmar #129573-61700		1
	061142	Relay, Start Yanmar		1
10	061073	Cap, Yanmar Rain #129087-13530		1
	061113	Heater Kit, Engine Block Yanmar		1
	061078	Heater, Engine Yanmar D55 #171015-77900		1
	061079	Cable, Engine Heater Yanmar D55 #3600003		1
11	057946	Dip Stick, Yanmar Oil #129004-34802		1
12	061745	Belt, Yanmar Fan #119831-42290		1
	057947	Pipe, Yanmar Fuel Return #129004-49610		1
	061181	Heater, Engine Glow #129100-77501		1
	061182	Gasket, Heater Manifold Side #129100-77510		1
	061183	Gasket, Heater Intake Side #129150-77511		1
	061311	Seal, Rear Engine 129795-01780		1
13	061291	Pump Assembly. Inj. D55 #729509-51300	Tier 3 only	1
	061254	Pump, Assembly Inj. D55 729508-51310	Tier 2 only	1
14		Engine Mount Parts	(See Section 4.3)	
15	P649	Hose Clamp, 7/32"-5/8"		4
	074263	Drain Assembly, Yanmar 55HP Oil		1
16	006640	Fitting, M22 x 1/2" NPT		1
17	028073	Fitting, 1/2" NPT x 3/8" NPT Hex Reducer		1
	046026	Fitting, 3/8" NPT Street Elbow		1
18	P10082	Hose, 3/8" NPT x 9 5/8" Rubber		1
19	P04332	Fitting, 3/8" Galvanized Pipe Cap		1
20		Yanmar 55HP Fuel Pump Parts	(See Section 4.5)	
21		Drive Hub Parts	(See Section 4.6)	
22		Alternator Parts	Non-super mills only (See Section 4.11)	
23	P07584	Clamp, 1/2" EMT Coated		1
24		Bearing Support Parts	(See Section 4.13)	

4.5 Fuel Pump Assembly



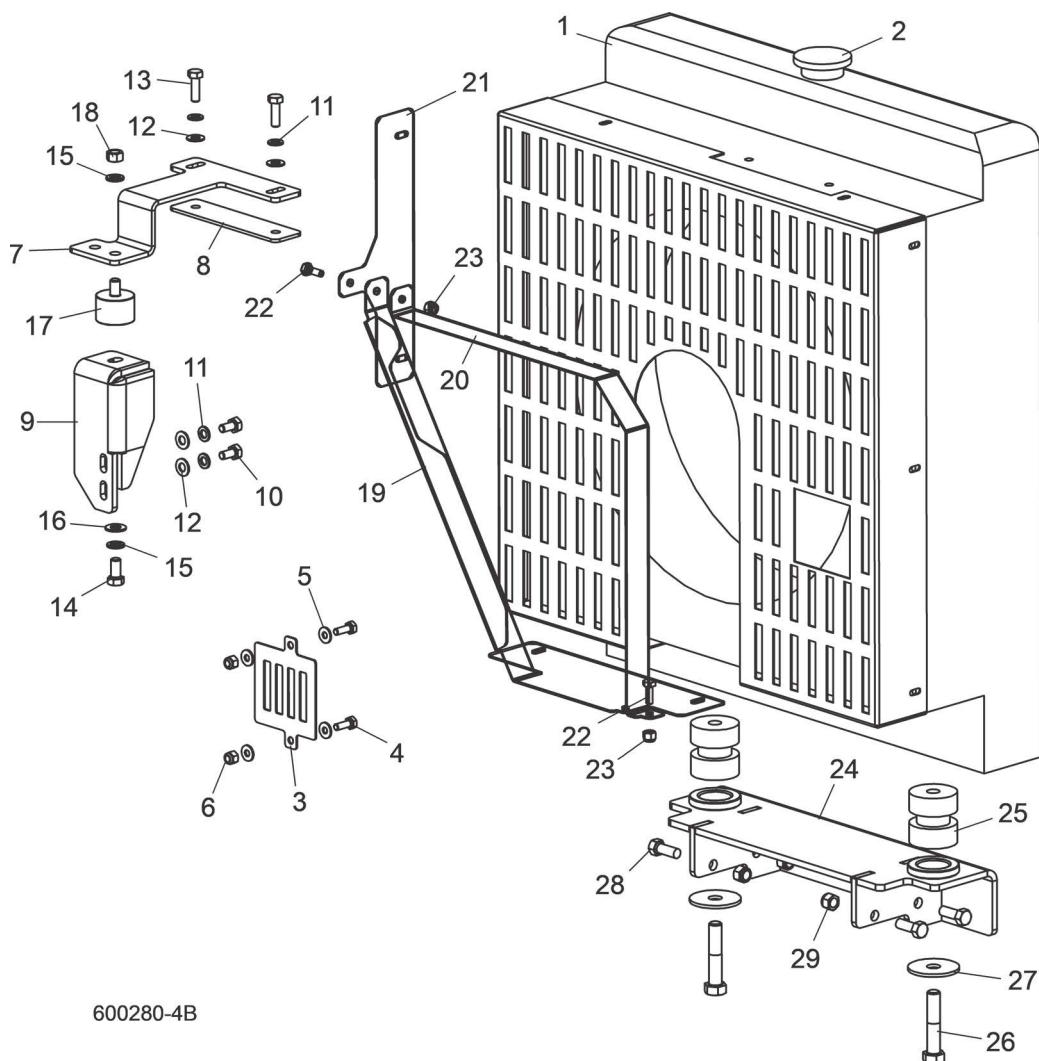
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074262	Assy, Yanmar 55HP Fuel Pump		1
1	061300	Filter Assembly, Water Separator D55 #129242-55701		1
	061301	Filter, Water Separator D55 #129242-55730		1
2	F05006-62	Bolt, 5/16-18 x 3" Hex Head Grade 5		1
3	F05010-58	Nut, 5/16-18 Hex Nylon Lock		1
4	006801	Bracket, Fuel Filter Mount		1
5	F05004-40	Bolt, M8-1.25 x 1" Hex Head Grade 8.8		2
6	F05010-132	Nut, M8-1.25 Hex Nylon Lock		2
7	061074	Pump, Yanmar Fuel Feed		1
8	F05010-69	Nut, 1/4-20 Nylock		2
9	F05011-11	Washer, 1/4" SAE Flat		4
10	006566	Plate, Yanmar Throttle Solenoid Mount		1
11	F05005-101	Bolt, 1/4-20 X 1" Hex Head Grade 5		2

4.6 Drive Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074264	Shaft Assembly, Yanmar 55HP Stub		1
1	071326	Shaft, Yanmar Large Drive Stub	Replaced 006498 Yanmar (Short) Large Drive Stub Shaft (1/14).	1
2	F05004-245	Bolt, M8-1.25 X 30mm Flat Socket Head		8
3	006320	Sheave, 3/5V5.5 SDS	006320 drive sheave and 038174 SDS bushing replace 034693 drive sheave (no longer available) and 034697 Q1 bushing (Rev. B4.09).	1
4	038174 ²	Bushing, 1 7/16" SDS		1
5	014693	Key, 3/8" x 3/8" x 1 7/8"		1
6	033878	Pulley, 9" OD Poly-V		1
7	F05004-207	Bolt, M10 -1.5 x 20mm Hex Head Full Thread Grade 8.8	Torque: 81 Nm / 59 ft-lbs	6
8	045190	BELT, 3/5VFX950 DRIVE	Removed 034590 Belt Support Bracket, (2) F05006-1 Hex Head Bolts, (2) F05011-13 Split Lock Washers and (2) F05011-17 Flat Washers (LT70 Rev. B6.04).	1

4.7 Radiator Assembly (International)



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	006517	Radiator, Diesel Engines #KR16		1
2	044660	Cap, Yanmar Radiator #129987-44570		1
	061087	Coolant Overflow, Yanmar #129689-44000		1
	074231	Cover Assembly, KR9 Radiator Cutout		1
3	006769	Plate, KR9 Radiator Cutout Cover		1
4	F05005-1	Bolt, 1/4-20 x 3/4" Full Thread Hex Head Cap		2
5	F05011-11	Washer, 1/4" SAE Flat		4
6	F05010-69	Nut, 1/4-20 Nylon Lock		2
	074227	Mount Assembly, Yanmar Upper Radiator		1
7	006713	Plate, Yanmar Top Radiator support		1
8	006557	Plate, Top Radiator MOUNT Spacer		1
9	006558	Plate, Yanmar Top Radiator MOUNT		1
10	F05004-47	Bolt, M8 x 125 x 16mm Hex Head		2
11	F05011-45	Washer, 8mm Split Lock		4
12	F05011-17	Washer, 5/16" SAE Flat		4

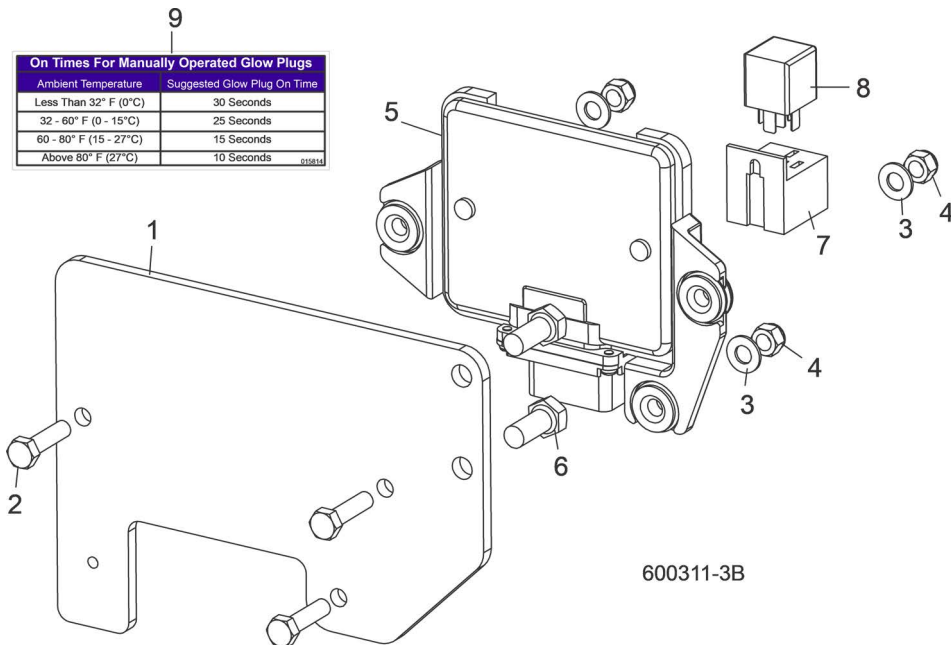
4 Replacement Parts

Radiator Assembly (International)

REF	PART #	DESCRIPTION	COMMENTS	QTY.
13	F05004-40	Bolt, M8 x 1.25 x 1 Hex Head Full Thread		2
14	F05007-27	Bolt, 3/8-16 x 3/4" Hex Head Grade 2		1
15	F05011-4	Washer, 3/8" SPlit Lock		2
16	F05011-3	Washer, 3/8" SAE Flat		1
17	028217	Bushing, Rubber Radiator Mount		1
18	F05010-1	Nut, 3/8-16 Hex		1
19	006730	Plate, Radiator Lower Cover		1
20	006731	Plate, Radiator Guard Wrap		1
21	006732	Plate, Radiator Side Guard		1
22	F05005-1	Bolt, 1/4-20 X 3/4" Hex Head Full Thread		2
23	F05010-69	Nut, 1/4-20 Hex Nylon Lock		2
	074229	Mount Assembly, Yanmar Lower Radiator		1
24	006530	Mount Weldment, Yanmar Radiator		1
25	018734	Bushing, Rubber Mount		2
26	F05008-74	Bolt, 1/2-13 x 2 1/2" Hex Head Grade 5		2
27	018751	Washer, Engine Mount		2
28	F05007-7	Bolt, 3/8-16 x 1" Hex Head Cap		4
29	F05010-10	Nut, 3/8-16 Hex Nylon Lock		4

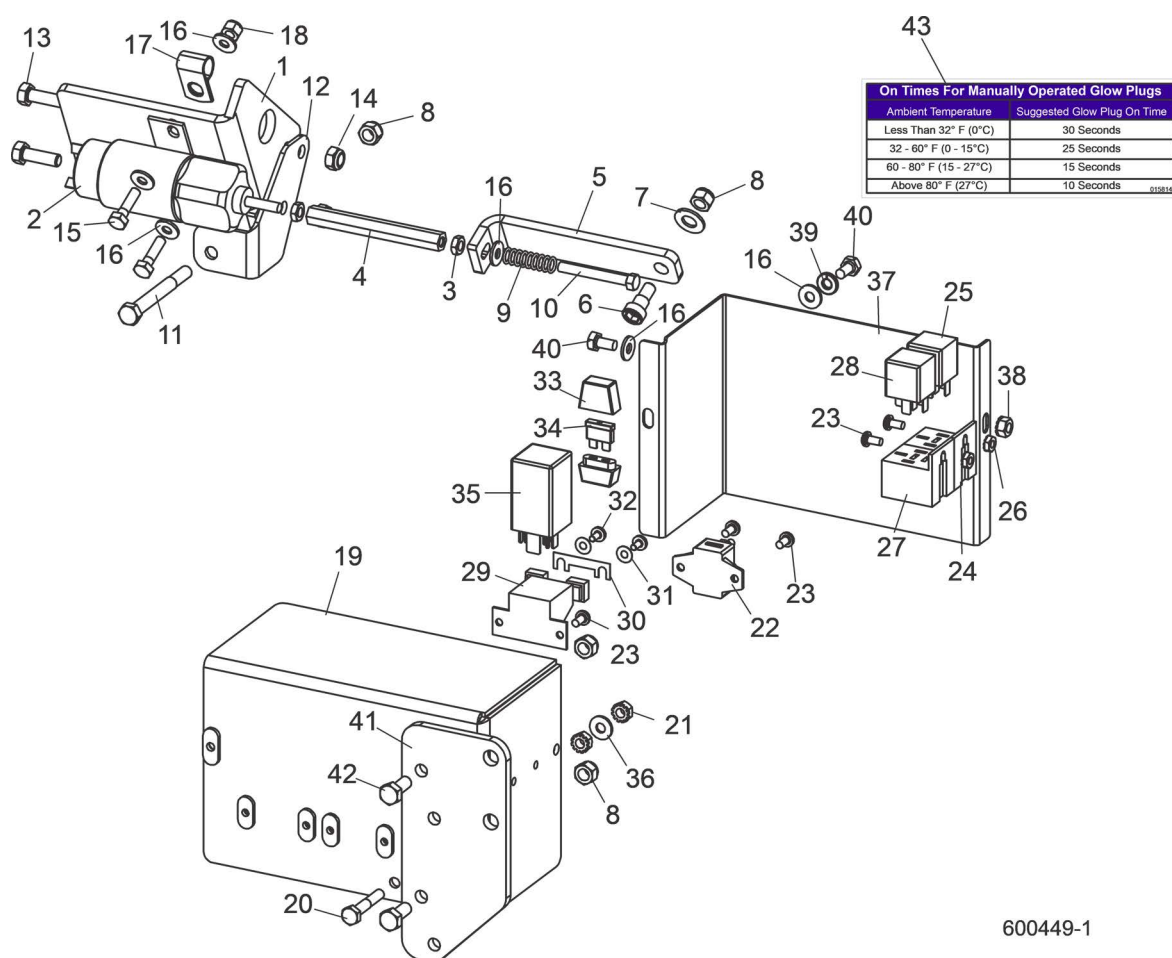
4.8 Electronic Control Unit (ECU) T3 Only

LT70HDD55NT3-RH and LT70HDD55NT3W-RH only



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074259	ECU Assembly, Yanmar 55HP	LT70HDD55NT3-RH and wide version only	1
1	007819	Plate, ECU Mount		1
2	F05006-93	Bolt, 5/16-18 x 1 1/4" Hex Head Full Thread Grade 5		3
3	F05011-17	Washer, 5/16" SAE Flat		3
4	F05010-58	Nut, 5/16-18 Hex Nylon Lock		3
5	N/A	Control Assembly, D55 Electronic	Available in assemblies only. ECU must be matched to fuel delivery system. Contact Yanmar for replacement information.	1
6	F81003-11	Bolt, M10-1.5 x 25mm Hex Head Grade 8.8		2
	069376	Relay Assembly, D55 Tier 3 Throttle		1
7	069527	Socket Assembly, D55T3 Throttle Relay	Socket Assembly 069527 replaces socket 050033 for service replacement (2/11).	1
8	051335	Relay, ISO 12V Coil w/Diode		1
9	015814	Decal, Glow Plug Operation		1

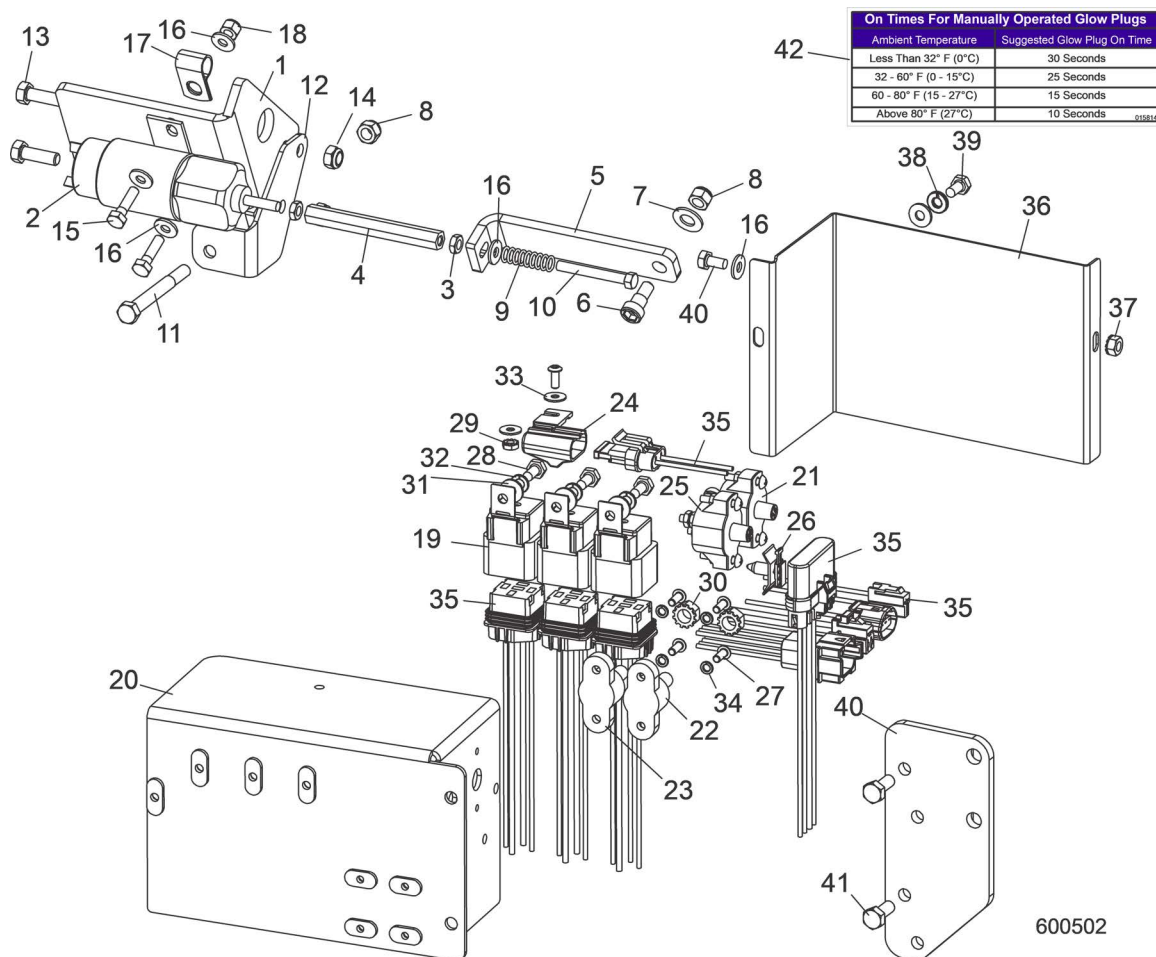
4.9 Throttle & Relay Assembly (Non-supers)



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	006566	Plate, Yanmar Throttle Solenoid Mount		1
	074475	Solenoid Kit, Throttle, Yanmar/Cat	Service Parts	1
2	045848	Solenoid, Throttle		1
	074475-2058	Instruction Sheet, Solenoid Adjustment		1
3	F05010-113	Nut, 1/4-28 Hex Jam		2
4	045850	Link, Throttle Actuator		1
5	006568	Plate, Long Throttle Connecting		1
6	F05007-159	Bolt, 3/8" X 5/16-18" Socket Head Shoulder		1
7	F05011-3	Washer, 3/8" SAE Flat		1
8	F05010-58	Nut, 5/16-18 Hex Nylon Lock		4
9	P11644	Spring, .42" x 1.34" x .061"		1
10	F05005-188	Bolt, 1/4-28 x 2" Hex Head Grade 5		1
11	F05006-62	Bolt, 5/16-18 x 3" Hex Head Grade 5		1
12	006801	Bracket, Fuel/Water Separator Mount		1
13	F05004-40	Bolt, M8-1.25 x 1mm Hex Head		2
14	F05010-132	Nut, M8 Hex Nylon Lock		2
15	F05005-101	Bolt, 1/4-20 x 1" Hex Head Grade 5		2
16	F05011-11	Washer, 1/4" SAE Flat		7
17	P07584	Clamp, 1/2" EMT Coated		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	F05010-69	Nut, 1/4-20 Hex Nylon Lock		2
	069625	Bracket Assembly, Yanmar Relay 2012		1
19	036269	Bracket Weldment, Glow Plug Relay Mount		1
20	F05005-31	Bolt, 1/4-20 x 1 1/2" Hex Head Full Thread		1
21	F05010-9	Nut, 1/4-20 Self-Locking Hex		2
22	E20430	Breaker, 15A Manual Reset Circuit		1
23	F05004-3	Screw, #10-24 x 3/8" Phillips Head		6
	053234	Relay Assembly, Yanmar Throttle (2008)		1
24	050033	Socket, Relay Plug		1
25	051335	Relay, ISO 12V Coil w/Diode		1
26	F05010-14	Nut, #10-24 Hex		2
	053233	Relay Assembly, Yanmar Starter (2008)		1
27	050033	Socket, Relay Plug		1
28	051335	Relay, ISO 12V Coil w/Diode		1
	069624	Relay Assembly, Yanmar Glow Plug (2012)		1
	053388	Socket Kit, Yanmar Glow Plug Relay Replacement		1
29	024554	Socket, Glow Plug Relay w/Fuse Holder		1
30	024597	Fuse Link, 50 Amp		1
31	F81052-4	Washer, M5 Wave		2
32	F81000-14	Screw, M5-0.8 x 8mm Phillips Head Black Oxide		2
33	024555	Fuseholder, In-Line 3-20AATC w/Cover		1
34	024150-4	Fuse, 4AATO Blade (Pink)		1
	052663	Resistor Kit, Glow Plug		1
35	023359	Relay, Diesel Glow Plug		1
36	F05011-11	Washer, 1/4" SAE Flat		1
37	045824	Cover, Relay Assembly		1
38	F05010-9	Nut, 1/4-20 Self-Locking Hex		1
39	F05011-14	Washer, 1/4" Split Lock		1
40	F05005-15	Bolt, 1/4-20 X 1/2" Hex Head		2
41	006523	Plate, Glow Plug Relay Mount Adaptor		1
42	F05006-5	Bolt, 5/16-18 x 3/4" Hex Head		2
43	015814	Decal, Glow Plug Operation		1

4.10 Throttle & Relay Assembly (T2 Super)

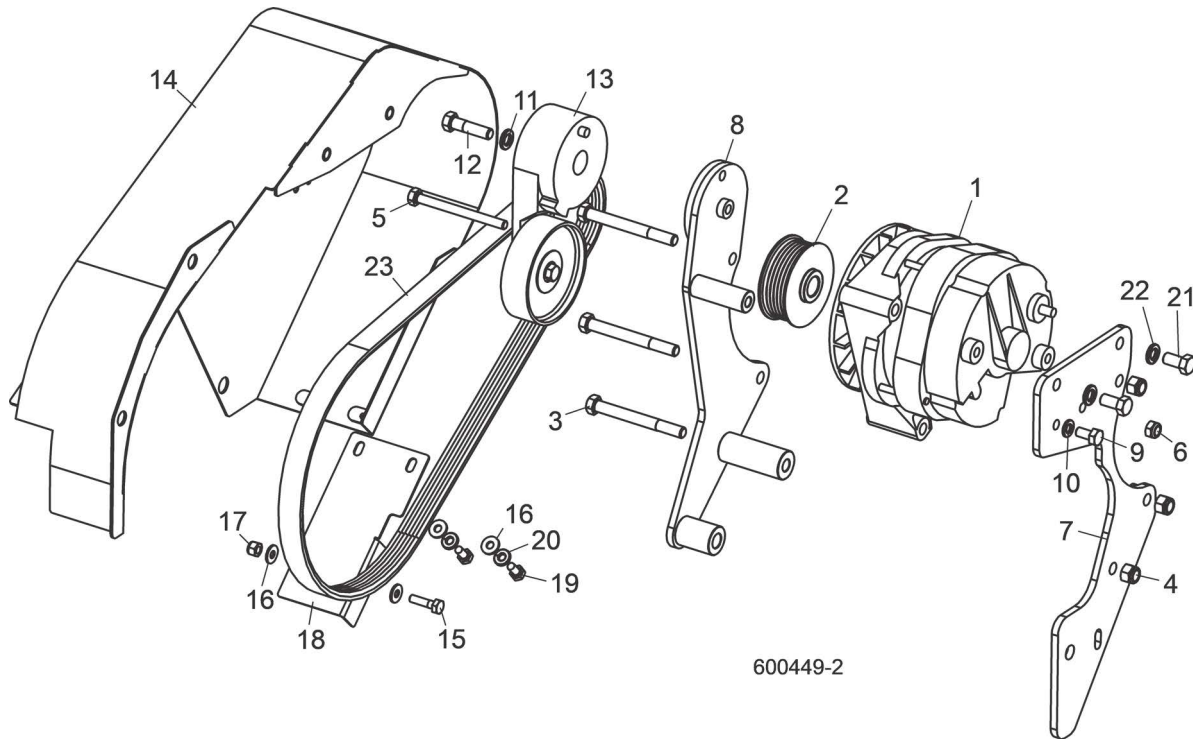


REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	006566	Plate, Yanmar Throttle Solenoid Mount		1
	074475	Solenoid Kit, Throttle, Yanmar/Cat		1
2	045848	Solenoid, Throttle		1
	074475-2058	Instruction Sheet, Solenoid Adjustment		1
3	F05010-113	Nut, 1/4-28 Hex Jam		2
4	045850	Link, Throttle Actuator		1
5	006568	Plate, Long Throttle Connecting		1
6	F05007-159	Bolt, 3/8" X 5/16-18" Socket Head Shoulder		1
7	F05011-3	Washer, 3/8" SAE Flat		1
8	F05010-58	Nut, 5/16-18 Hex Nylon Lock		4
9	P11644	Spring, .42" x 1.34" x .061"		1
10	F05005-188	Bolt, 1/4-28 x 2" Hex Head Grade 5		1
11	F05006-62	Bolt, 5/16-18 x 3" Hex Head Grade 5		1
12	006801	Bracket, Fuel/Water Separator Mount		1
13	F05004-40	Bolt, M8-1.25 x 1mm Hex Head		2
14	F05010-132	Nut, M8 Hex Nylon Lock		2
15	F05005-101	Bolt, 1/4-20 x 1" Hex Head Grade 5		2
16	F05011-11	Washer, 1/4" SAE Flat		7
17	P07584	Clamp, 1/2" EMT Coated		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	F05010-69	Nut, 1/4-20 Hex Nylon Lock		2
	078138	Control Assembly, LT70 Hydraulic International Engine		1
19	078141	Relay, 50A 12VDC Plug-in Mini ISO Wthrpr		3
20	078143	Bracket Weldment, LT70 Hydraulic International Engine Control		1
21	078149	Breaker, 15A Pnl Mnt Mnl Rst Wthrprf		1
22	078150	Junction Block, 250A Red 3/8-16x7/8 Stud		1
23	078151	Junction Block, 250A Blk 3/8-16x7/8 Stud		1
24	078152	Fuse Holder, Wthr Rst ATO		1
25	078155	Breaker, 50A Pnl Mnt Mnl Rst Wthrprf		1
26	078244	Clip, Delphi Tree Mount		1
27	F05004-196	Screw, 10-24 x 1/2 BHSH Stainless Stl		5
28	F05005-15	Bolt, 1/4-20 x 1/2 Hex Head		3
29	F05010-14	Nut, #10-24 Keps		1
30	F05010-19	Nut, 3/8-16 Keps		2
31	F05011-11	Washer, 1/4 SAE Flat		3
32	F05011-14	Washer, 1/4 Split Lock		3
33	F05011-18	Washer, #10 SAE Flat		2
34	F05011-20	Washer, #10 Split Lock		4
35	078154	Harness Assembly, LT70 Hydraulic International Engine Control		1
36	045824	Cover, Relay Assembly		1
37	F05010-9	Nut, 1/4-20 Self-Locking Hex		1
38	F05011-14	Washer, 1/4" Split Lock		1
39	F05005-15	Bolt, 1/4-20 X 1/2" Hex Head		2
40	006523	Plate, Glow Plug Relay Mount Adapter		1
41	F05006-5	Bolt, 5/16-18 x 3/4" Hex Head		2
42	015814	Decal, Glow Plug Operation		1

4.11 Alternator Assembly (Non-Super T2)

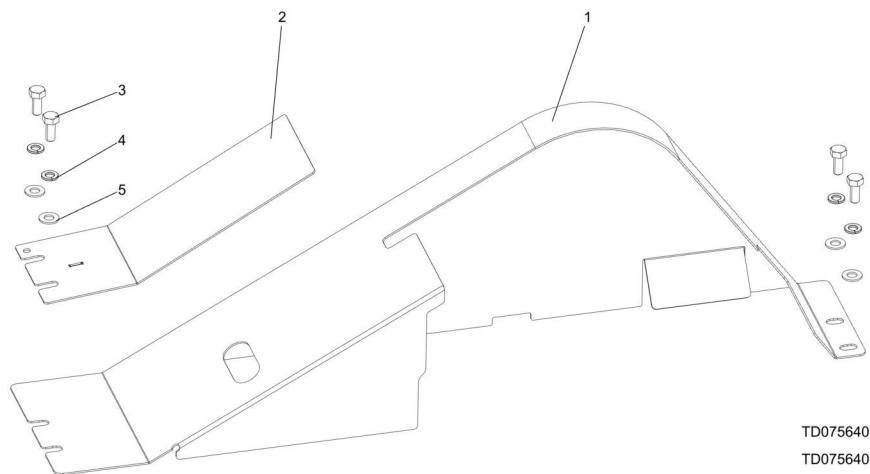
Note: Super LT70s use 044641Alternator, Yanmar 3TVN70-ASA #129423-77200 with no associated assembly.



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	024308	Wire Assembly, Starter To Alternator 12"		1
	074367	Alternator Assembly, Yanmar 55HP Tier2		1
	034500	Alternator Assembly, 190 Amp		1
1	034499	Alternator, 190 Amp	Available in assemblies only.	1
2	046402	Pulley, 2 3/4" O.D. Alternator		1
3	F05004-123	Bolt, 3/8-16 x 3 1/2" Hex Head Grade 5		3
4	F05010-10	Nut, 3/8-16 Hex Nylon Lock		3
5	F05004-247	Bolt, M8 x 1.25 x 90mm Hex Head Full thread		1
6	F05010-132	Nut, M8 Hex Nylon Lock		1
7	058708	Bracket Weldment, Yanmar Alternator Mount		1
8	057493	Bracket Weldment, Yanmar Alternator Tensioner Mount		1
9	F05004-47	Bolt, M8 x 125 x 16mm Hex Head		1
10	F05011-45	Washer, 8mm Split Lock		1
11	F05011-4	Washer, 3/8" Split Lock		1
12	F05007-78	Bolt, 3/8-16 x 1 1/2" Hex Head Grade 5		1
13	034464	Tensioner, Alternator Belt		1
	074366	Cover Assembly, Yanmar 55HP Alternator Tier2		1
14	074365	Guard Weldment, Yanmar 55HP Tier2 Alternator Belt		1
15	F05005-101	Bolt, 1/4-20 x 1 Hex Head Grade 5		1
16	F05011-11	Washer, 1/4" SAE Flat		4
17	F05010-69	Nut, 1/4-20 Nylon Lock		1

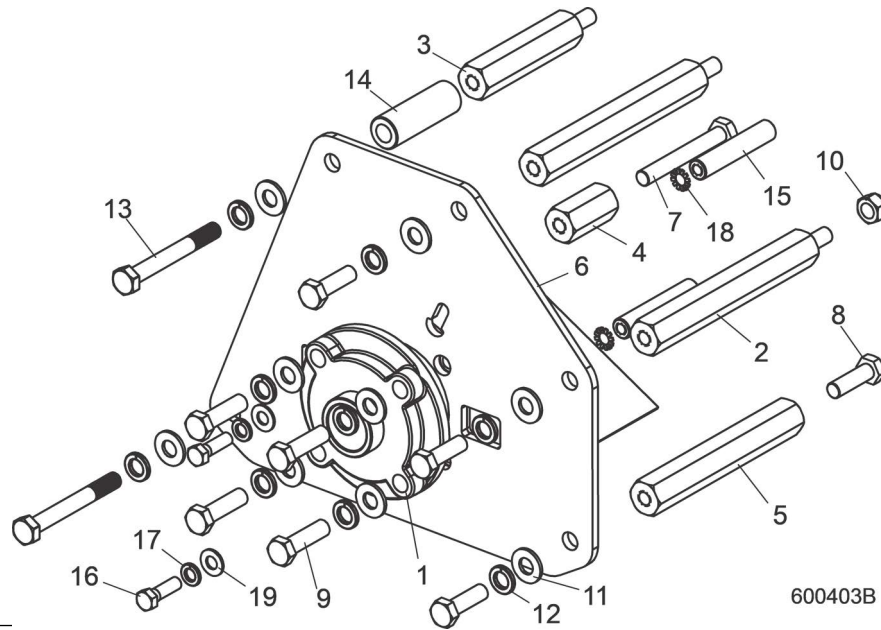
REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	006881	Plate, Lower ALternator Cover		1
19	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		2
20	F05011-14	Washer, 1/4" Split Lock		2
21	F05007-27	Bolt, 3/8-16 x 3/4 Hex Head Grade 2		1
22	F05011-4	Washer, 3/8" Split Lock		1
23	006524	Belt, 6PK1145 Alternator		1
	050941	Wire Assembly, Alternator Ground		1

4.12 Engine Pulley Guards



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	075640	Cover Weldment, D55 Top Pulley Belt		1
2	143159	Plate, LT70 Int'l Belt Guard Cover		1
3	F05006-5	Bolt, 5/16-18x3/4 HH Gr2		4
4	F05011-13	Washer, 5/16 Split Lock		4
5	F05011-17	Washer, 5/16 Flat SAE		4

4.13 Bearing Support (Non-Super)



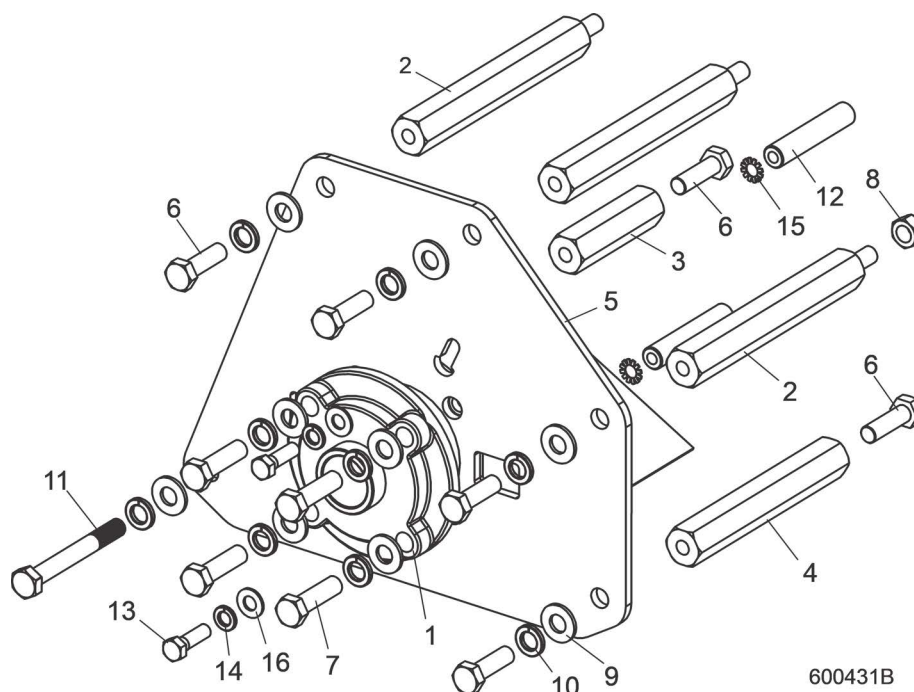
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074265	Support Assembly, Yanmar 55HP BearinG	Added (2) 074751 and mounting hardware to improve clutch enhancement (Rev. B6.04). NOTE: Adjust clutch enhancement rods 074751 approx. 1/4" from drive belt when tensioned. Yanmar Bearing Support introduced into production to prevent possible crank failures (1/14). Use 075746 Yanmar D55 Bearing Support Kit to upgrade Yanmar D55 engines supplied prior to 1/14.	1
1	071491	Bearing, 1-7/16 4-Bolt Flange		1
2	071493	Spacer, 1 Hex x 7.31		2
3	071499	Spacer, 1 Hex x 4.38		1
4	075103	Spacer, 1 Hex x 2.03		1
5	075104	Spacer, 1 Hex x 6.63		1
6	075638	Support Weldment, Yanmar 55HP Bearing		1
7	F05004-249	Bolt, M12 x 1.75 x 90mm Hex Head Full Thread Cl10.9 Zinc		1
8	F05004-250	Bolt, M12 x 1.75 x 40mm Hex Head Full Thread Cl10.9 Zinc		4
9	F05008-102	Bolt, 1/2-13x2 HH Gr5	Replaced (4) F05008-88 after 4/24/24 per ECN 39373	4
	F05008-88	Bolt, 1/2-13 x 1 3/4" Hex Head Grade 5 Full Thread		4
10	F05010-209	Nut, M12 x 1.75 Hex Nylock Zinc		1
11	F05011-2	Washer, 1/2" SAE Flat		10
12	F05011-9	Washer, 1/2" Split Lock		10
13	F05023-7	Bolt, M12-1.75 x 100 Grade 8.8 Hex Head		2
14	074529	Spacer, 9/16 x 1x 2.94 Painted		1
15	074751	Rod, LT70 Clutch Enhancement		2
16	F05007-123	Bolt, 3/8-16 x 1 1/4" Full Thread Hex Head Grade 5		2
17	F05011-4	Washer, 3/8 Split Lock		2

4 Replacement Parts

Bearing Support (Non-Super)

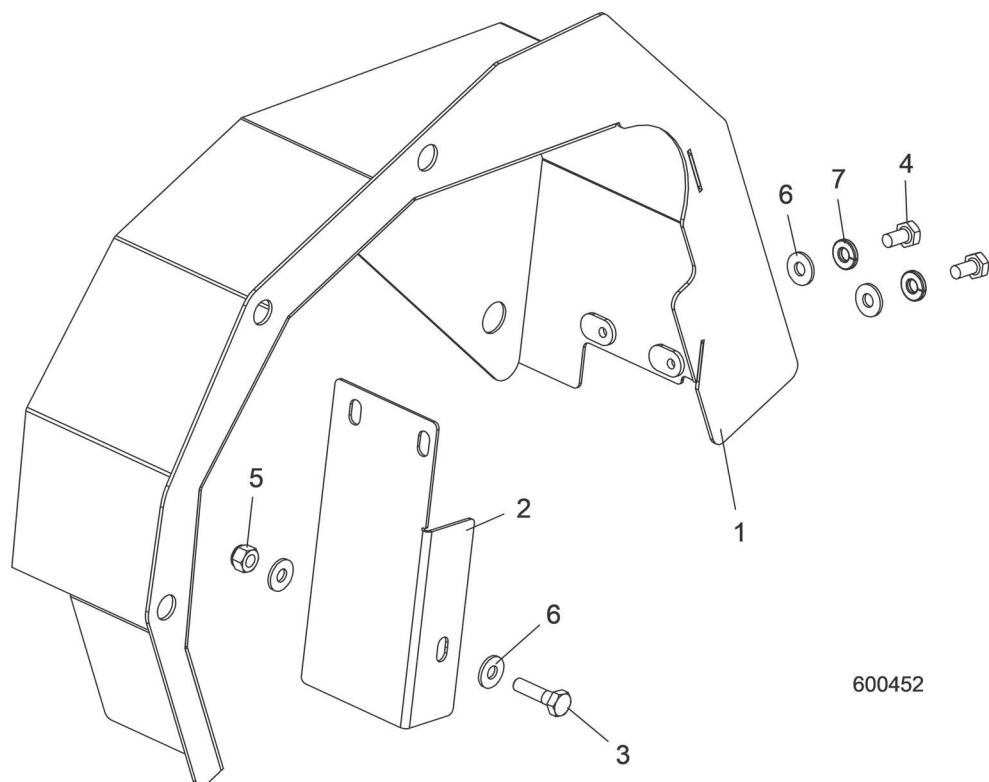
REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	F05011-36	Washer, 3/8 Star External		2
19	F05011-3	Washer, 3/8 Flat SAE		2

4.14 Bearing Support (Super)



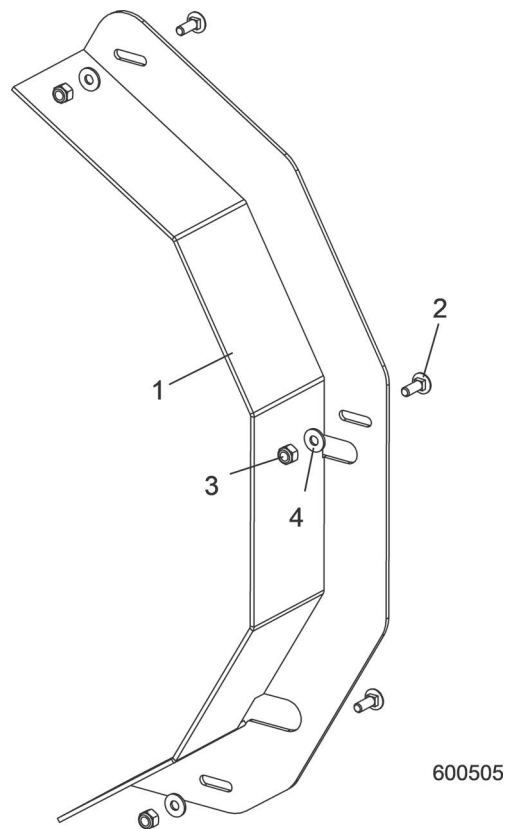
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074515	Support Assembly, LT70 Hydraulic Yanmar 55HP Bearing		1
1	071491	Bearing, 1-7/16 4-Bolt Flange		1
2	071493	Spacer, 1 Hex x 7.31		3
3	074516	Spacer, 1 Hex x 3.64		1
4	075104	Spacer, 1 Hex x 6.63		1
5	075638	Weldment, Yanmar 55HP Bearing Support		1
6	F05004-250	Bolt, M12 x 1.75 x 40mm Hex Head Full Thread Cl10.9 Zinc		6
7	F05008-102	Bolt, 1/2-13x2 HH Gr5	Replaced (4) F05008-88 after 11/21/23 per ECN 39219	4
	F05008-88	Bolt, 1/2-13 x 1 3/4" Hex Head Grade 5 Full Thread		4
8	F05010-209	Nut, M12 x 1.75 Hex Nylock Zinc		1
9	F05011-2	Washer, 1/2" SAE Flat		9
10	F05011-9	Washer, 1/2" Split Lock		9
11	F05023-7	Bolt, M12-1.75 x 100 Grade 8.8 Hex Head		1
12	074751	Rod, LT70 Clutch Enhancement		2
13	F05007-123	Bolt, 3/8-16 x 1 1/4" Full Thread Hex Head Grade 5		2
14	F05011-4	Washer, 3/8 Split Lock		2
15	F05011-36	Washer, 3/8 Star External		2
16	F05011-3	Washer, 3/8 Flat SAE		2

4.15 Flywheel Cover Assembly (Super)



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074513	Cover Assembly, LT70 Hydraulic 55HP Flywheel		1
1	075313	Cover Weldment, LT70 Hydraulic Flywheel Cover		1
2	075314	Plate, LT70 Hydraulic Lower Flywheel Cover		1
3	F05005-101	Bolt, 1/4-20 x 1" Hex Head Grade 5		1
4	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		2
5	F05010-69	Nut, 1/4-20 Nylon Lock		1
6	F05011-11	Washer, 1/4" SAE Flat		4
7	F05011-14	Washer, 1/4" Split Lock		2

4.16 Drive Belt Guard Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	079141	Guard Assembly, LT70 Drive Belt	Located inside the sawhead	1
1	079132	Guard Weldment, LT70 Drive Belt Guard		1
2	F05005-113	Bolt, 1/4-20x3/4 Carriage		3
3	F05010-69	Nut, 1/4-20 Nylock		3
4	F05011-11	Washer, 1/4 SAE Flat		3