COMPONENT IDENTIFICATION

Figure 1 shows where major engine components are located.

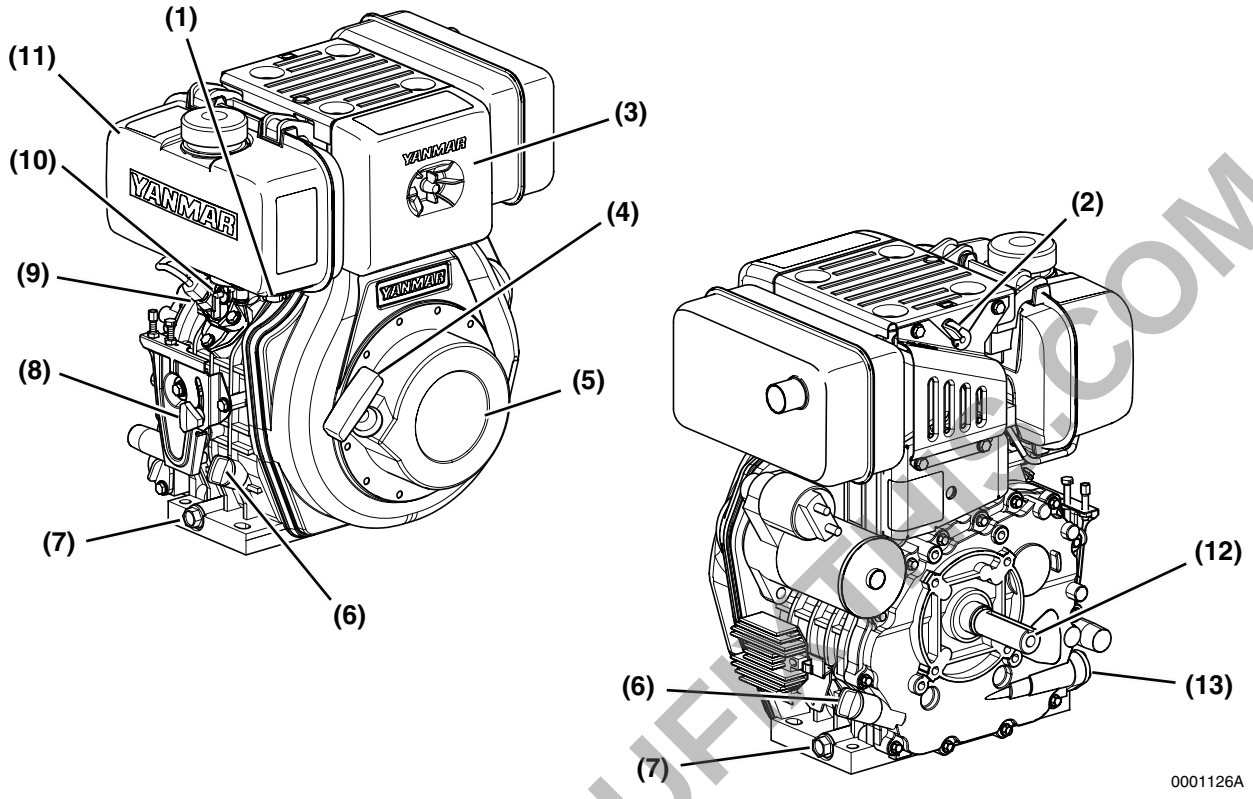


Figure 1

1. Fuel Drain Plug
2. Decompression Lever
3. Air Cleaner
4. Recoil Starter Handle
5. Recoil Starter
6. Oil Cap / Dipstick
7. Oil Drain Plug
8. Engine Speed Control Lever
9. Fuel Injection Pump
10. Fuel Cock
11. Fuel Tank
12. PTO Shaft
13. Oil Filter

Note: L48N standard engines are not equipped with covers. L70N and L100N engines are represented in this manual.

PREVIEW - YOUFIXTOO.COM

The engine oil on a new engine becomes contaminated from the initial break-in of internal parts. The initial 50 hour oil change and filter cleaning is very important.

Drain the engine oil as follows:

1. Make sure the engine is level.
2. Start the engine and bring it up to operating temperature.
3. Stop the engine.
4. Remove the oil cap / dipstick **(Figure 3, (1))** to allow the engine oil to drain more easily.

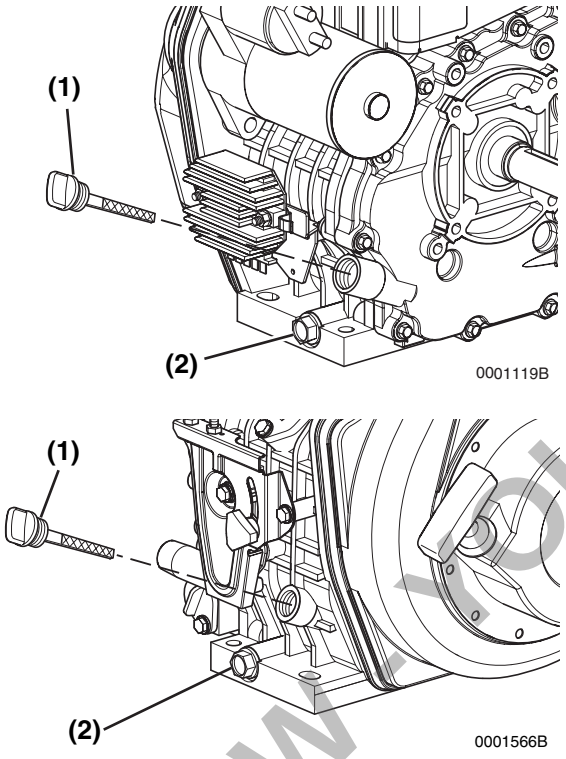


Figure 3

5. Position a container under the engine to collect waste oil.
6. Remove the drain plug located on the bottom of the cylinder block **(Figure 3, (2))**. Allow oil to drain.
7. After all oil has been drained from the engine, install the drain plug **(Figure 3, (2))** and tighten to 19.6-23.5 N•m (2.0-2.4 kgf•m).
8. Dispose of used oil properly.

Clean / Inspect Engine Oil Filter

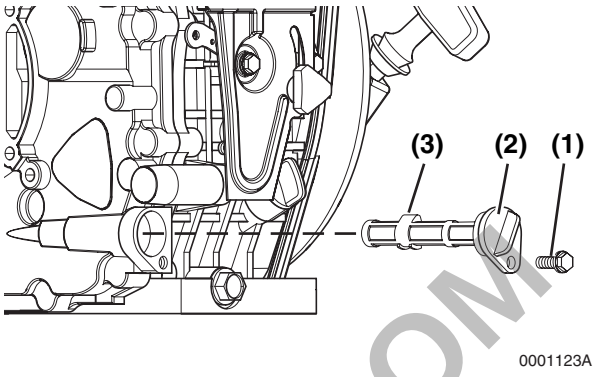


Figure 4

Clean / inspect the engine oil filter as follows:

1. Remove the oil filter retaining bolt **(Figure 4, (1))**.
2. Pull the oil filter cap **(Figure 4, (2))** out and remove the oil filter **(Figure 4, (3))**.
3. Clean the oil filter or replace if damaged.
4. Install the oil filter **(Figure 4, (3))**.
5. Make sure the oil filter cap is fully seated **(Figure 4, (2))**.
6. Install and tighten the oil filter retaining bolt **(Figure 4, (1))**.

Applicable Engine Oil Filter Part No.	
L48N, L70N and L100N	114299-35110

7. Add new engine oil to the engine as specified in *Adding Engine Oil on page 28*.

CAUTION

- **NEVER overfill the engine with engine oil.**
- **ALWAYS keep the oil level between the upper and lower lines on the oil cap / dipstick.**

0000015en

8. Warm up the engine by running it for 5 minutes and check for any engine oil leaks.
9. After engine is warm, shut it off and let it sit for 10 minutes.

PREVIEW.YOUFIXTHIS.COM

TROUBLESHOOTING

If a problem occurs, stop the engine immediately. Refer to the SYMPTOM column in the Troubleshooting Chart to identify the problem.

CAUTION

If any indicator fails to illuminate when the key switch is in the ON position, see your authorized Yanmar industrial engine dealer or distributor for service before operating the engine.

0000028en

CAUTION

If any indicator illuminates during engine operation stop the engine immediately. Determine the cause and repair the problem before you continue to operate the engine.

0000029en

TROUBLESHOOTING CHART

SYMPTOM	PROBABLE CAUSE	ACTION	REFER TO
Indicator Turns On - Engine Running			
Engine oil pressure indicator (If equipped)	• Low level of engine oil • Too high an oil level	• Check and adjust oil level as necessary	*Checking Engine Oil on page 28*
	• Clogged engine oil filter	• Replace engine oil filter element	*Replace Engine Oil on page 68*
Battery Indicator	• Battery failure	• Check battery condition	*Check Indicators on page 30*
	• Faulty dynamo	• See authorized Yanmar industrial engine dealer or distributor	—
Indicator Does Not Turn On - Key Switch is Turned to ON (OFF → ON)			
	• Faulty electrical wiring or faulty indicator	• See authorized Yanmar industrial engine dealer or distributor	—

PREVIEW - YOUFIXTHIS.COM

PRINCIPAL ENGINE SPECIFICATIONS

Engine Specifications

Engine Model		L48N		L70N		L100N	
Type		4-stroke, Vertical Cylinder, Air-Cooled Diesel Engine					
No. of Cylinders		1					
Bore × Stroke		70 × 57 mm		78 × 67 mm		86 × 75 mm	
Displacement		0.219 L		0.320 L		0.435 L	
Continuous Rated Output	rpm (min^{-1})	3600	3000	3600	3000	3600	3000

PREVIEW - YOUFIXTHIS.COM
Blurred on purpose. The manual you buy has this page in full quality.
Download full manual at youfixthis.com

AIR COOLED ENGINE

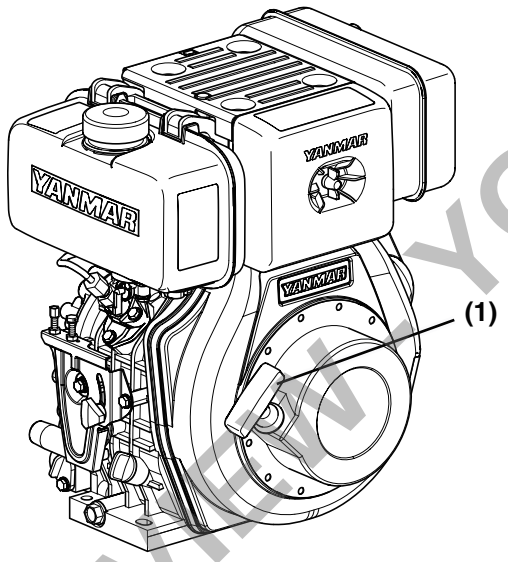
The L-N engine is air-cooled by means of a cooling fan. The cooling system consists of a fan attached to the flywheel.

CONTROLS - RECOIL STARTER

The L-N Series engines are equipped with a recoil or electric starter. This section explains the controls available with the recoil starter.

Recoil Starter

A recoil starter allows you to manually start an engine by pulling on the recoil starter handle **(Figure 3, (1))**. When you pull on the handle you set the flywheel and crankshaft in motion. The recoil starter is spring loaded so the handle and attached cable automatically return to the recoil starter assembly.

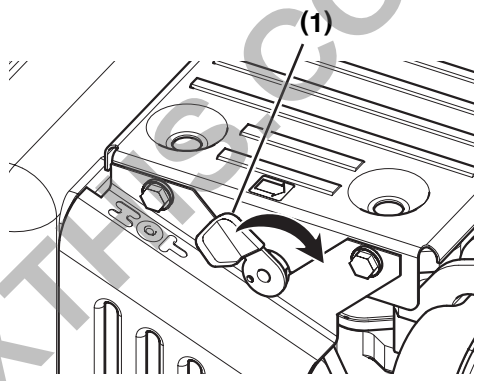


0001126B

Figure 3

Decompression Lever

The decompression lever **(Figure 4, (1))** helps you start the engine by reducing the effort needed to pull the recoil starter handle. The decompression lever will automatically return to the original position when the engine starts. Some L-N model engines have an automatic, internal compression release mechanism and do not have the external compression release lever. Refer to the specific instructions for your driven machine.



0001347A

Figure 4

INDICATORS AND CONTROLS – ELECTRIC STARTER

If an L-N series engine is ordered with an electric starter it will include a key switch and may also have indicators to monitor engine functions.

CAUTION

The illustrations and descriptions of optional equipment in this manual, such as the operator's console, are for a typical engine installation. Refer to the documentation supplied by the optional equipment manufacturer for specific operation and maintenance instructions.

0000018en

PREVIEW - YOUFIXTHIS.COM

⚠ DANGER



FIRE AND EXPLOSION HAZARD!

- Diesel fuel is extremely flammable and explosive under certain conditions.
- Be sure to place the diesel fuel container on the ground when

⚠ DANGER



FIRE AND EXPLOSION HAZARD!

- Diesel fuel is extremely flammable and explosive under certain conditions.
- NEVER remove the fuel cap with the engine running.

PREVIEW - YOUFIXTHIS.COM

Blurred on purpose. The manual you buy has this page in full quality.

Download full manual at youfixthis.com

3. High viscosity at low temperatures may result in fuel delivery problems, injection pump seizures, and poor injection nozzle spray atomization.
4. FAME may have adverse effects on some elastomers (seal materials) and may result in fuel leakage and dilution of the engine lubricating oil.
5. Even bio-diesel fuels that comply with a suitable standard as delivered, will require additional care and attention to maintain the quality of the fuel in the equipment or other fuel tanks. It is important to maintain a supply of clean, fresh fuel. Regular flushing of the fuel system, and/or fuel storage containers, may be necessary.
6. The use of bio-diesel fuels that do not comply with the standards as agreed to by the diesel engine manufacturers and the diesel fuel injection equipment manufacturers, or bio-diesel fuels that have degraded as per the precautions and concerns above, may affect the warranty coverage of your engine. *See Yanmar Limited Warranty on page vii*.

Filling the Fuel Tank

⚠ DANGER



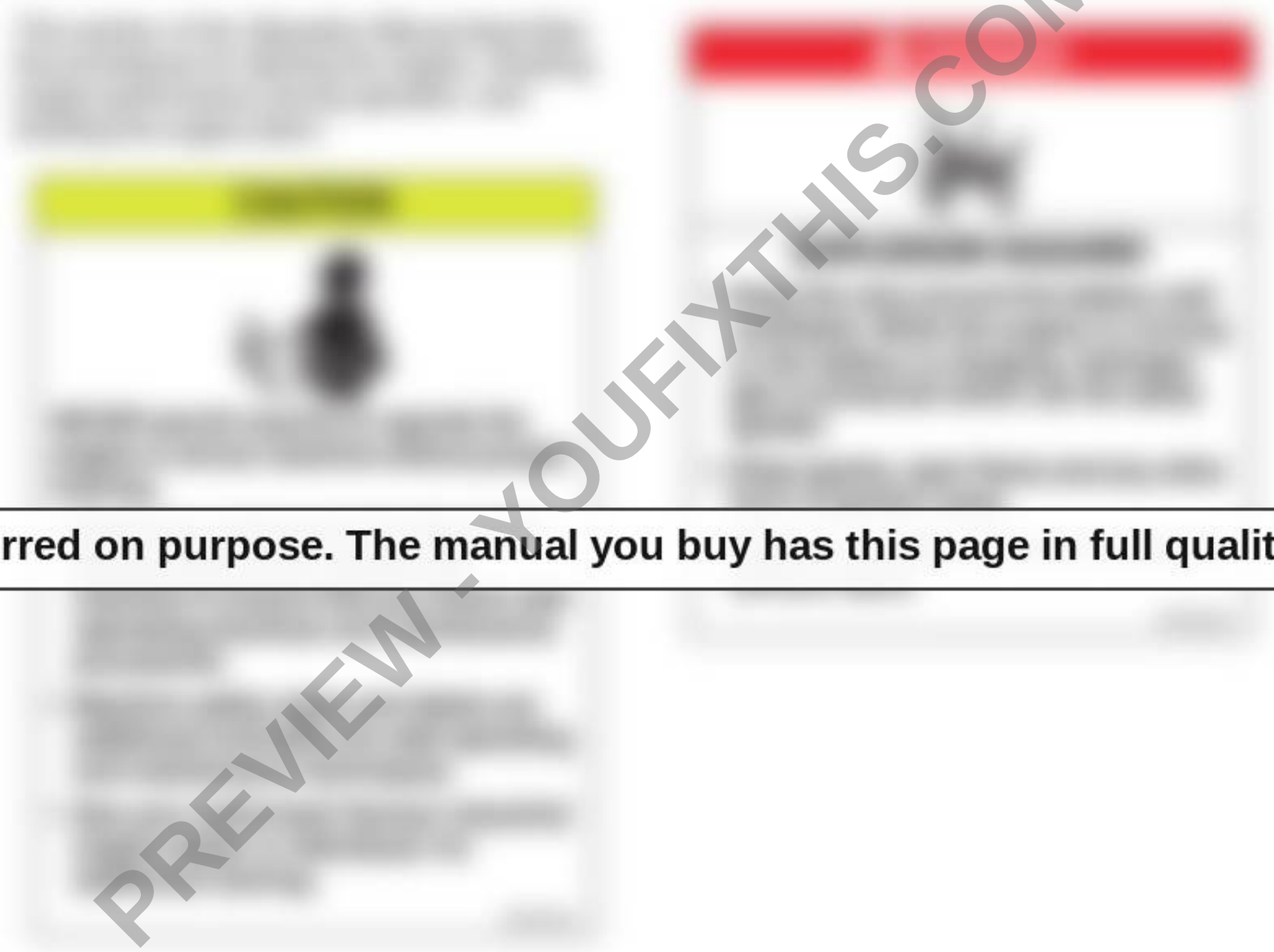
FIRE AND EXPLOSION HAZARD!

- **Diesel fuel is extremely flammable and explosive under certain conditions.**
- **Only fill the fuel tank with diesel fuel. Filling the fuel tank with gasoline may result in a fire.**
- **NEVER refuel with the engine running.**
- **Wipe up all spills immediately.**
- **Keep sparks, open flames or any other form of ignition (match, cigarette, static electric source) away when fueling / refueling.**
- **NEVER overfill the fuel tank.**
- **Fill the fuel tank and store fuel in a well-ventilated area only.**
- **Failure to comply will result in death or serious injury.**

0000005en

PREVIEW - YOUFIXTHIS.COM

ENGINE OPERATION



Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

TABLE OF CONTENTS

Page

Introduction i

Record of Ownership ii

Table of Contents iii

Yanmar Warranties vii

Yanmar Limited Warranty vii

What is Covered by this Warranty? vii

How Long is the Warranty Period? vii

What the Engine Owner Must Do: vii

To Locate an Authorized Yanmar Industrial Engine Dealer or Distributor: viii

What Yanmar Will Do: viii

What is Not Covered by this Warranty? viii

Warranty Limitations: ix

Warranty Modifications: ix

Questions: ix

Retail Purchaser Registration ix

Safety 1

Safety Statements 1

Safety Precautions 2

Before You Operate 2

During Operation and Maintenance 2

PREVIEW - YOUFIXTHIS.COM

SAFETY

SAFETY STATEMENTS

Yanmar is concerned for your safety and your machine's condition. Safety statements are one of the primary ways to call your attention to the potential hazards associated with Yanmar L-N Series engine operation. Follow the precautions listed throughout the manual before operation, during operation and during periodic maintenance procedures for your safety, the safety of others and to protect the performance of your engine. Keep the labels from becoming dirty or torn and replace them if they are lost or damaged. Also, if you need to replace a part that has a label attached to it, make sure you order the new part and label at the same time.



This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alert symbol.

DANGER

Danger (the word "DANGER" is in white letters with a red rectangle behind it) – indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. Danger is limited to the most extreme situations.

0000001en

WARNING

Warning (the word "WARNING" is in black letters with an orange rectangle behind it) – indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

0000001en

CAUTION

Caution (the word "CAUTION" is in black letters with a yellow rectangle behind it) – indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

0000001en

CAUTION

Caution *without the safety alert symbol* indicates a potentially hazardous situation that can cause damage to the machine, personal property and / or the environment or cause the machine to operate improperly.

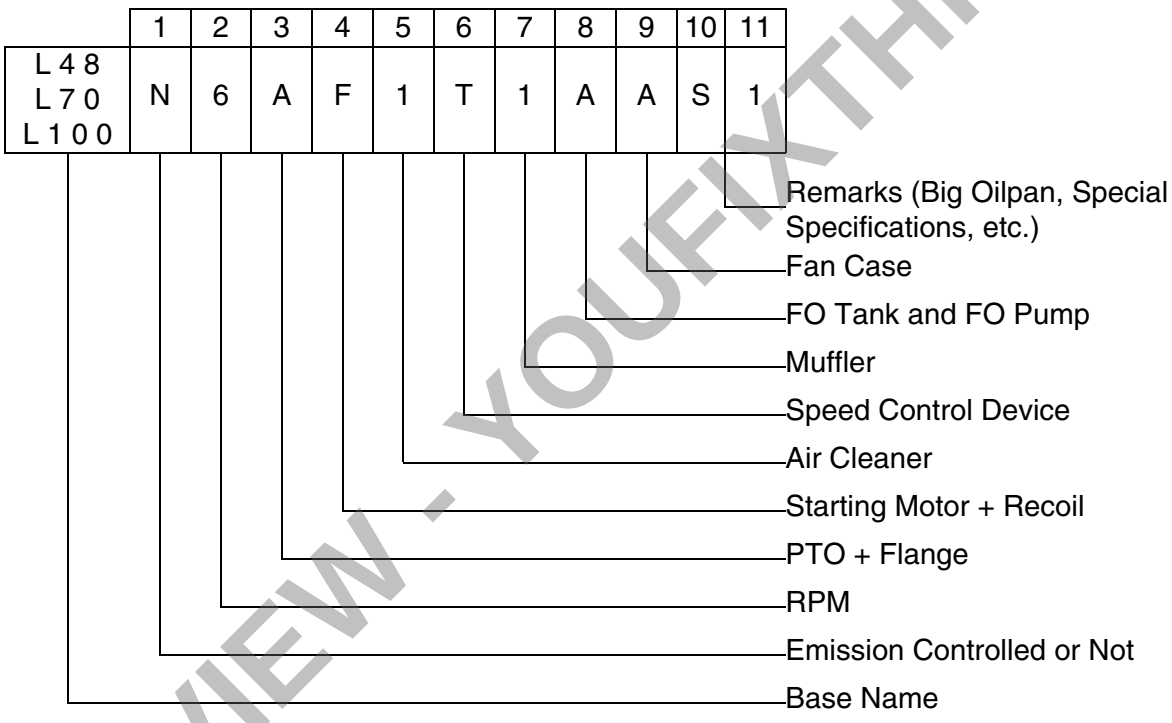
0000001en

PREVIEW - YOUFIXTHIS.COM

SPECIFICATIONS

GENERAL

Description of Model Number



Engine Speed Specifications

AVAILABLE ENGINE SPEED	INTENDED USES
2500 ~ 3450 rpm (min^{-1})	Agricultural, Constructive, Industrial Machines
3600 rpm (min^{-1})	Generator Sets, Pumps

PREVIEW - YOUFIXTHIS.COM

RECORD OF OWNERSHIP

Take a few moments to record the information you need when you contact Yanmar for service, parts or literature.

Engine Model: _____

Engine Serial No.: _____

Date Purchased: _____

Dealer:_____

Dealer Phone:_____

PREVIEW - YOUFIXTHIS.COM

PREVIEW ONLY

You're viewing 12 of 104 pages

The full manual includes:

- All 104 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Yanmar L48N, L70N, L100N Operation Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual