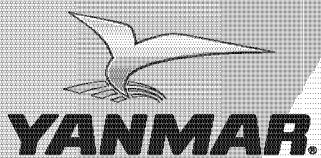


YAMMAR

OPERATION MANUAL

TNV



OPERATION MANUAL

INDUSTRIAL ENGINES

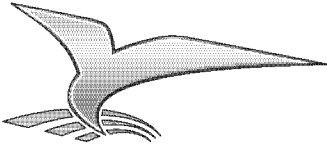
TNV

2TNV70
3TNV70
3TNV76
3TNV82A
3TNV84
3TNV84T
3TNV88
4TNV84
4TNV84T
4TNV88
4TNV94L
4TNV98
4TNV98T
4TNV106
4TNV106T

Thank you for purchasing
YANMAR product.



Be sure to read this Operation Manual for you to use this product safely and correctly. Even after reading it, carefully keep it, making clear to all personnel concerned where it's kept so that the operator, mechanic or supervisor will have an access to it whenever he wants to read or refer to it.



TNV series

OPERATION MANUAL

2TNV70
3TNV70 • 3TNV76
3TNV82A
3TNV84 • 3TNV84T • 3TNV88
4TNV84 • 4TNV84T • 4TNV88
4TNV94L
4TNV98 • 4TNV98T
4TNV106 • 4TNV106T

P/N: 0ATNV-G00100

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**INDUSTRIAL
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INTRODUCTION

Welcome to the world of Yanmar Engines! Yanmar has been the leader in industrial diesel engines for over 90 years. We developed the world's first practical small-sized diesel engine in 1933. Our engineers are continuously developing new technology to keep Yanmar on the leading-edge of the industry. The TNV engine is only one example of the new technology we have developed. We are committed to maintaining our environment, and are proud of our history of innovation, quality and respect for operator safety.

To help you enjoy your Yanmar TNV engine for many years to come, please follow these recommendations:

- Read and understand this *Operation Manual* before you operate the machine to ensure that you follow safe operating practices and maintenance procedures.
 - Keep this *Operation Manual* in a convenient place for easy access.
 - If this *Operation Manual* is lost or damaged, order a new one from your authorized Yanmar industrial engine dealer or distributor.
 - Make sure this manual is transferred to subsequent owners. This manual should be considered a permanent part of the engine and remain with it.
- Constant efforts are made to improve the quality and performance of Yanmar products, so some details included in this *Operation Manual* may differ slightly from your engine. If you have any questions about these differences, please contact your authorized Yanmar industrial engine dealer or distributor.
 - The specifications and components (instrument panel, fuel tank, etc.) described in this manual may differ from ones installed on your machine. Please refer to the manual provided by the manufacturer of these components.

INTRODUCTION

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:

SYMBOL EXPLANATION

The following symbols are used throughout this manual to identify specific engine model information



This symbol indicates information pertaining to the following indirect injection engines:

- 2TNV70
- 3TNV70
- 3TNV76



This symbol indicates information pertaining to the following direct injection engines:

- 3TNV82A
- 3TNV84
- 3TNV84T
- 3TNV88
- 4TNV84
- 4TNV84T
- 4TNV88
- 4TNV94L
- 4TNV98
- 4TNV98T
- 4TNV106
- 4TNV106T

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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 TNV 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
<p>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.</p>
000001en

 WARNING
<p>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.</p>
000001en

 CAUTION
<p>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.</p>
000001en

CAUTION
<p>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.</p>
000001en