

KOMATSU

Operation & Maintenance Manual

FORKLIFT TRUCK

FG10/15/18-21

FG15H/18H-21

FD10/15/18-21

FG20/25-17

FG20H/25H/30/35A-17

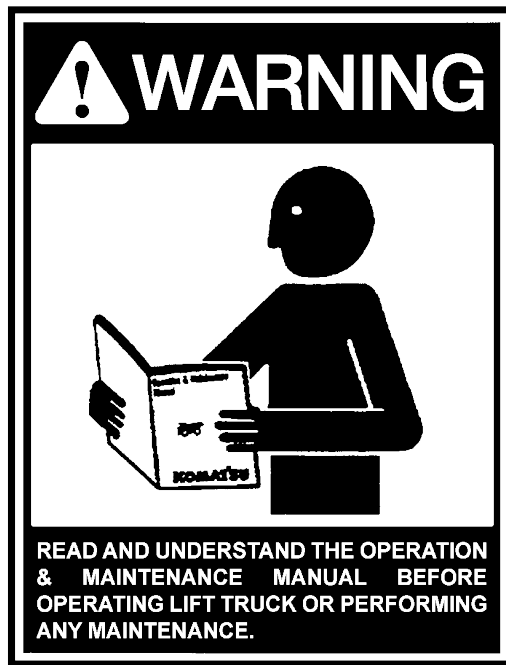
FG20N/25N/30N-17

FD20/25/30-17

FD20H/25H/30H/35A-17


⚠ WARNING

Unsafe use of this lift truck may cause serious injury or death. Operators and maintenance personnel must read this manual and be sure that they understand its contents before operating, inspecting, or carrying out maintenance on this lift truck. This manual should be kept near the lift truck for reference and periodically reviewed by all operators and maintenance personnel who will come into contact with it.




WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual, must be trained and authorized by the employer, before operating or maintaining this machine. This manual should be kept in or near the machine for reference and periodically reviewed by all personnel who come in contact with the machine.

 **WARNING:** Breathing 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/diesel

 **WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm.

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

The information and specifications contained herein were accurate at the time of publication, but may change without notice as required for product improvements. Neither Komatsu Forklift USA, LLC nor its parent company nor any of its subsidiaries will be held responsible for damages due to misuse or inappropriate use of its products.

© Copyright 2011, Komatsu Forklift USA, LLC. All rights reserved. No part of this document may be photocopied or reproduced in any way without prior written consent of Komatsu Forklift USA, LLC.

INTRODUCTION

1. INTRODUCTION

1.1 ABOUT THIS MANUAL

This manual describes procedures for proper operation, inspection, and maintenance of this lift truck, and rules you must follow for your safety.

Some actions involved in operation and maintenance of the lift truck can cause a serious accident if they are not done in the manner described in this manual.

WARNING

This manual describes fundamental prohibitions and precautions for operations, inspections, and maintenance of this lift truck. Failure to follow these instructions will result in a serious bodily injury or damage.

Operators and service staffs must follow the followings before conducting operations, inspections, and maintenance of this lift truck.

Operators must understand this manual for conducting safety control of this lift truck.

- Read this manual carefully and understand it fully.
- Make sure you fully understand the instructions and safety indicators of this manual.
- For the lift truck equipped with options, read also "OPTIONS".

Be sure to store this manual in the designated location for the Operation and Maintenance Manual as shown below, so that it will be avail for the concerned persons repeatedly as needed.

If this manual has been lost or has become dirty or worn and cannot be read, request a replacement manual from your KOMATSU FORKLIFT distributor.

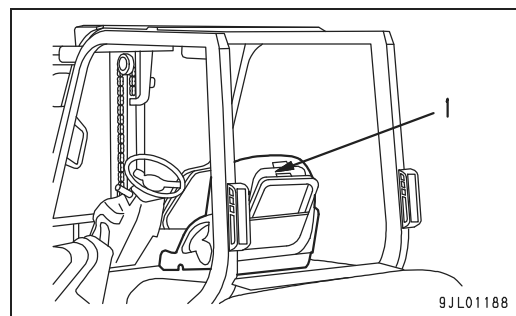
When you transfer this lift truck to others, make sure to attach this manual together.

Continuing improvements in the design of this lift truck may not be reflected in this manual. Consult Komatsu Ltd. FORKLIFT COMPANY or your KOMATSU FORKLIFT distributor for the latest available information on your lift truck or for questions regarding information in this manual.

TYPE A

Storage location for Operation and Maintenance Manual

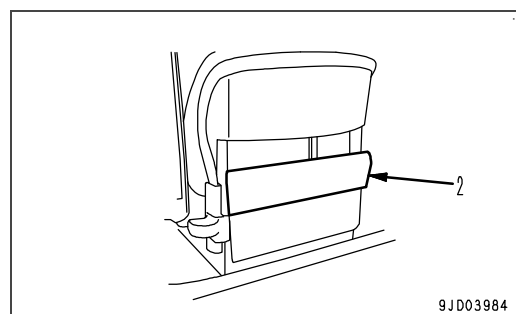
- Retractable pocket behind the operator's seat (1)



TYPE B

Storage location for Operation and Maintenance Manual

- Operator's seat back literature storage area (2)



1.2 FOR YOUR SAFETY

For your safety, the information of possible hazards and how to avoid them are provided on this manual and with the safety indicators attached to this lift truck.

1.2.1 SIGNAL WORDS

The following signal words indicate the possible hazard which leads bodily injury.

For this lift truck and this manual, the following signal words are used depending on the degree of possible hazard.

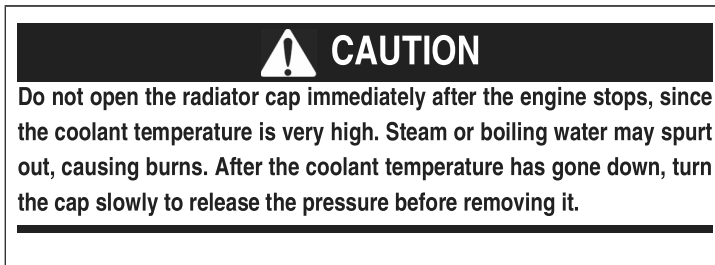


WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Example of safety message using signal word



Other signal words

Besides the above signal words, the followings indicate precautions you must take for the lift truck as well as useful information.

NOTICE - - - - -The lift truck can get damaged or shortens its service life when handled incorrectly.

REMARKS - - - - -Useful information.

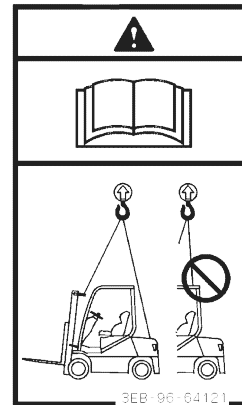
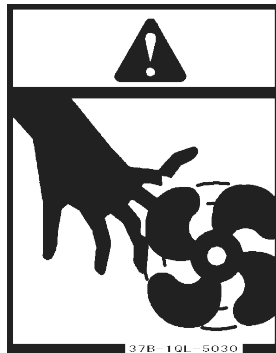
1.2.2 SAFETY INDICATORS

Safety indicators are used in the various locations of the lift truck to indicate the possible hazards to the concerned persons during operations, inspections, and maintenances. This lift truck employs [pictorial safety indicator] for safety indicators.

EXAMPLE OF PICTORIAL SAFETY INDICATOR

The pictorial safety indicators indicate the hazard equivalent to the signal words. Illustrations are used for these safety indicators to tell the operators and service staffs clearly of the existence and content of a hazard.

In addition, there are pictorial indicators which simply indicate the prohibition content as well as indicators which comply with the international standards.



Komatsu Ltd. FORKLIFT COMPANY cannot predict every circumstance that the customers will experience. Therefore the precautions in this manual and on the lift truck may not include all possible safety precautions.

When carrying out any procedures or actions which are not specifically recommended or allowed in this manual, it is your responsibility to carry out such procedures and actions safely.

The explanations, numeric values, and illustrations of this manual are based on the information at the time of publication. Continuing improvements in the design of this lift truck may not be reflected in this manual.

Consult **KOMATSU FORKLIFT** distributor for the latest available information or for questions regarding this manual.

1.3 APPLICABLE MODEL AND SERIAL No.

This Operation and Maintenance Manual applies to the following lift trucks.

Model type	Serial No.
FG10/15/18-21	M221-200001 and up
FG15H/18H-21	M256-200001 and up
FG20/25-17	M225-300001 and up
FG30/35A-17	M226-300001 and up
FG20H/25H-17	M227-300001 and up
FG20N/25N-17	M232-300001 and up
FG30N-17	M233-300001 and up
FD10/15/18-21	M223-200001 and up
FD20/25-17	M228-300001 and up
FD30-17	M229-300001 and up
FD20H/25H-17	M230-300001 and up
FD30H/35A-17	M231-300001 and up

1.4 GENERAL VIEW OF LIFT TRUCK

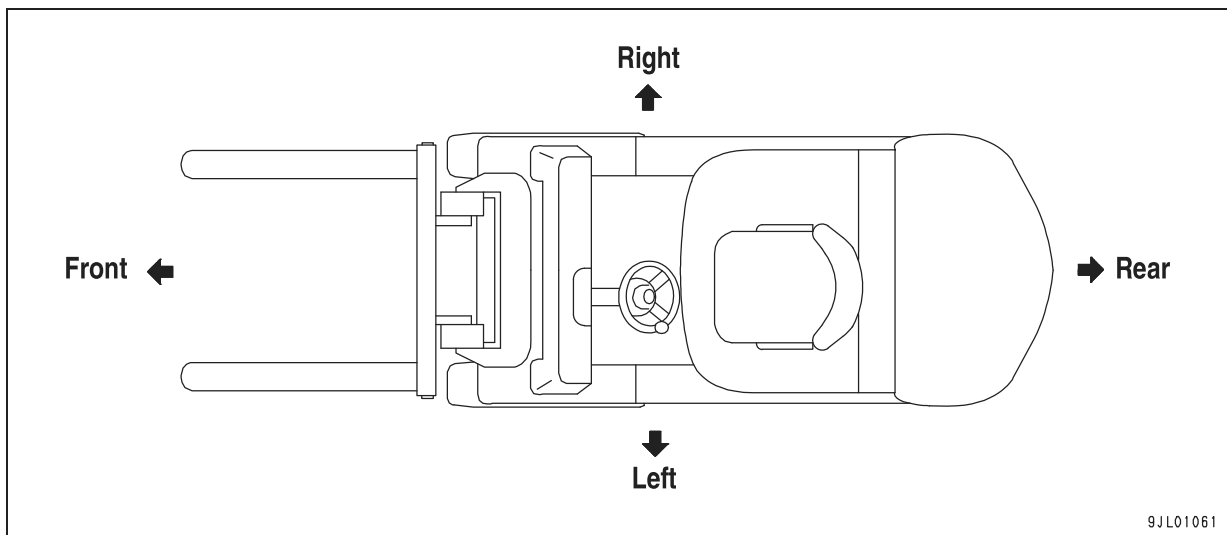
1.4.1 APPLICATION OF LIFT TRUCK

This lift truck is intended to use mainly for the following work.

- Load handling with the forks of the lift truck.

1.4.2 DIRECTION OF LIFT TRUCK

This manual determines the left and right directions and fore and aft directions as seen from the operator's seat.



1.5 UNITS OF MEASURE

This manual uses the international system of units (SI) for units of measure.

Also the gravitational system of units, conventionally used, are provided as { } for reference.

1.6 QUALIFICATION FOR OPERATION



WARNING

Only the trained and qualified persons are allowed to operate this lift truck. Operation by unqualified persons may result in serious injury or death.

1.7 RUNNING IN NEW LIFT TRUCK

1.7.1 RUNNING IN NEW LIFT TRUCK

Your KOMATSU FORKLIFT truck has been thoroughly adjusted and tested before shipment. However, operate moderately during the first one month (or initial 200 hours) until each part of the lift truck comes into stable.

Operating the lift truck under severe conditions at the beginning can adversely affect performance and shorten the lift truck life.

Be sure to run in the lift truck, taking special care concerning the followings.

- Idle the engine for 5 minutes after starting it up.
 - Do not operate with heavy loads or at high speeds.
 - Avoid sudden starting, acceleration, braking, and sharp turning.
-

1.7.2 MAINTENANCE FOR NEW LIFT TRUCK

For new lift truck, carry out the followings after the first month or 200 hours: Replacement of oil and cleaning of filters, retightening of bolts and nuts. Have your lift truck serviced by KOMATSU FORKLIFT distributor.

1.8 WARRANTY AND SERVICE

1.8.1 PERIODICAL EXCHANGE PARTS

Other than those specified by the law, KOMATSU FORKLIFT designates "periodical exchange parts." Deterioration of such parts is unavoidable over time but is critical for safety and therefore must be replaced periodically. Replace those parts at the designated periods regardless of their appearance. For the periodic replacement of safety critical parts, see the Section "4.15 PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS (PAGE 4-53)".

1.8.2 USE OF GENUINE KOMATSU PARTS AND OILS

Any problem caused by the use of other than Genuine Komatsu Parts (including oils) warranted by Komatsu is not covered by the warranty.