KOMATSU

Operation & Maintenance Manual

ELECTRIC LIFT TRUCK

FB10M-3 FB13M-3 FB15M-3 FB18M-3

Komatsu Forklift Co., Ltd.

No. 3-4, 2-chome, Akasaka, Minato-ku, Tokyo, Japan

A WARNING

Unsafe use of this lift truck may cause serious injury or death.

Operators and maintenance person-

nel 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.

KOMATSU FORKLIFT

FOREWORD

FOREWORD FOREWORD

FOREWORD

This manual provides rules and guidelines which will help you use this lift truck safely and effectively. Always be sure to read and understand this manual thoroughly before operating and performing maintenance.

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

- Improper operation and maintenance of this lift truck can be hazardous and could result in serious injury or death.
- Operators and maintenance personnel should read this manual thoroughly before beginning operation or maintenance.
- · Keep this manual handy and have all personnel read it periodically.
- Do not use this lift truck unless you are sure that you have understood the contents completely.
- 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/dealer.
- Komatsu Forklift provides lift trucks that comply with all applicable regulations and standards in the destination country for trucks exported through official channels from Komatsu Forklift overseas sales division. If your lift truck was purchased in another country or was purchased from a person or enterprise from another country, there is a possibility that the specifications needed for safety have been removed or that the lift truck lacks the safety devices required for use in your country. If there is any question about whether your product complies with the regulations and standards of your country, consult your Komatsu Forklift distributor/dealer before operating the lift truck.
- Continuing improvements in the design of this lift truck may not be reflected in this manual. Consult Komatsu Forklift or your Komatsu Forklift distributor/dealer for the latest available information on your lift truck or for questions regarding information in this manual.
- Information on safety is given in the SAFETY INFORMATION section on page 0-2 and in chapter 1, the SAFETY section, starting
 on page 1-1.2.

FOREWORD SAFETY INFORMATION

SAFETY INFORMATION

Most accidents are caused by a failure to follow fundamental safety rules for the operation and maintenance of lift trucks.

To avoid accidents, read, understand and follow all precautions and warnings in this manual and on the lift truck before operating and performing maintenance.

Do not operate or carry out maintenance of this lift truck unless you are sure that you understand the explanations and procedures completely.

To identify safety messages in this manual and on lift truck labels, the following signal words are used.



These safety messages or labels describe precautions that must be taken to avoid a hazard which carries a serious risk of serious injury or death.



These safety messages or labels usually describe precautions that must be taken to avoid a hazard which may lead to serious injury or death.



This word is used on safety messages and safety labels for hazards which could result in injury or damage to the lift truck or surrounding property if the hazard is not avoided.

NOTICE

This word is used for precautions that may not lead to damage or failure, but which must be taken to avoid actions that could shorten the life of the lift truck.

Safety precautions are described in the SAFETY section, starting on page 1-1.

Komatsu Forklift cannot predict every circumstance that might involve a potential hazard in operation and maintenance. Therefore the safety messages in this manual and on the lift truck may not include all possible safety precautions.

If any procedures or actions not specifically recommended or allowed in this manual are used, it is your responsibility to be sure that you and others can do such procedures and actions safely and without damaging the lift truck. If you are unsure about the safety of some procedures, contact your Komatsu Forklift distributor/dealer.

The procedures and precautions given in this manual apply only to intended uses of the lift truck. If you use your lift truck for any unintended use that is not specifically prohibited, you must be sure that it is safe for you and others. In no event should you or others engage in prohibited uses or actions as described in this manual.

RUNNING IN NEW LIFT TRUCK FOREWORD

RUNNING IN NEW LIFT TRUCK

RUNNING IN NEW LIFT TRUCK

Your Komatsu Forklift truck has been thoroughly adjusted and tested before shipment.

However, 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 following items.

- · Avoid operation with heavy loads or at high speeds.
- Avoid sudden starting or acceleration, unnecessarily abrupt braking and sharp turning, except in the case of emergency.

FIRST MONTH SERVICE (OR INITIAL 200 HOURS SERVICE) FOR NEW LIFT TRUCK

For new lift truck, carry out the following maintenance only after the first month or 200 hours.

Unit	Check item	Remarks
Transfer case	Change oil	Including differential case
Hydraulic tank	Change oil	
	Replace line filter	
	Clean strainer	_
	Clean inside tank	
Other	Tighten all bolts and nuts.	Particularly hub nuts, mounting bolts for overhead guard and backrest and nuts for operator's seat

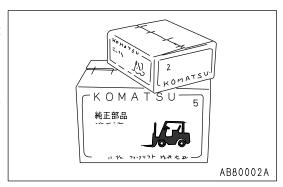
WARRANTY AND SERVICE FOR NEW LIFT TRUCK

KOMATSU FORKLIFT GENUINE PARTS

Komatsu Forklift genuine parts are manufactured from the same materials and by the same method as the parts built in the new lift truck.

In the event that the customer uses imitation parts, Komatsu Forklift will not be held accountable for any faults which result from the use of such imitation parts, and the Komatsu Forklift warranty will not be applicable.

Always use Komatsu forklift genuine parts when replacing parts.



LOCATION OF PLATES FOREWORD

LOCATION OF PLATES

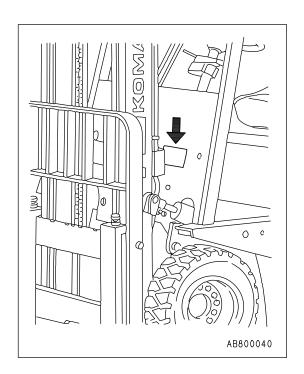
APPLICABLE LIFT TRUCK SERIAL NO.

Mode I	Applicable Lift Truck serial No.
FB10M/13M-3	10001 and up
FB15M/18M-3	10001 and up

LIFT TRUCK SERIAL NO. PLATE POSITION

APPLICABLE LIFT TRUCK SERIAL NO.

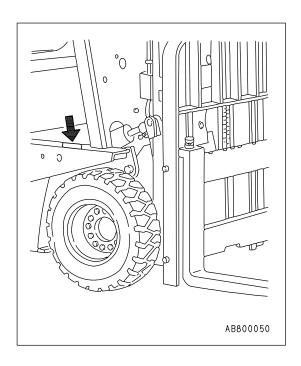
On front left of dashboard.



FOREWORD LOCATION OF PLATES

EMBOSSED SERIAL NO. LOCATION

On top right at tip of frame.



CONTACTING

When contacting a Komatsu Forklift distributor for parts ordering or problem consulting, always give the lift truck serial No. embossed on the lift truck.

NOTICE

Take care not to damage the embossed serial No.

REMARKS

The serial No. is located on the nameplate.

CONTENTS

FOREWORD	1 - 1
FOREWORD	1 - 2
SAFETY INFORMATION	1 - 3
RUNNING IN NEW LIFT TRUCK	1 - 4
RUNNING IN NEW LIFT TRUCK	1 - 4
FIRST MONTH SERVICE (OR INITIAL 200 HOURS SERVICE) FOR NEW LIFT TRUCK	
WARRANTY AND SERVICE FOR NEW LIFT TRUCK	
KOMATSU FORKLIFT GENUINE PARTS	
LOCATION OF PLATES	1 - 6
APPLICABLE LIFT TRUCK SERIAL NO	
LIFT TRUCK SERIAL NO. PLATE POSITION	
SAFETY	
SAFETY MANAGEMENT	2 - 2
SAFE TRAVEL	2 - 5
LOADING OPERATIONS	2 - 13
STOPPING AND PARKING	2 - 20
INSPECTION AND MAINTENANCE	
SLININGING	
LIFTING THE TRUCK	2 - 29
STRUCTURE AND STABILITY OF THE LIFT TRUCK (TO PREVENT LIFT TRUCIFROM	
TIPPING!)	
SAFETY LABEL STICKING POSITIONS	
SAFETY LABEL STICKING POSITIONS	2 - 33
INTRODUCTION OF SAFETY DEVICE (OPTION)	2 - 37
OPERATION	
GENERAL VIEW	3 - 2
GENERAL VIEW OF LIFT TRUCK	3 - 2
INSTRUMENTS AND CONTROLS	3 - 3
EXPLANATION OF COMPONENTS	3 - 4
EXPLANATION OF CONTROLS AND GAUGES	3 - 4
OPERATOR'S COMPARTMENT	
SINGLE ACTION WATER REFILLER	3 - 14
FORK STOPPER	3 - 15
DESCRIPTION OF ACCESSORIES	3 - 15
REMOVING AND INSTALLATION OF ATTACHMENTS	3 - 16
OPERATION	
CHECK BEFORE OPERATION	3 - 19
MOUNTING/DISMOUNTING	3 - 27
OPERATOR'S SEAT POSITION ADJUSTMENT	
STARTING LIFT TRUCK OFF	
PLUGGING	3 - 30
STARTING AND INCHING ON INCLINE	3 - 31
TURNING	3 - 32
TEMPORARY STOPPING AND PARKING	3 - 33
FORK SPREAD ADJUSTMENT	
LOAD HANDLING OPERATION	3 - 35
CHECK AFTER OPERATION	
BATTERY CHARGING	3 - 37
CHARGING BY ON-BOARD TYPE BATTERY CHARGER	

CHARGING BY STATIONARY BATTERY CHARGER	
REPLACING BATTERY	3- 45
MAINTAINING LONG BATTERY LIFE	3- 47
LIFT TRUCKS WITH COLD-ROOM SPECIFICATIONS	3- 48
EXPLANATION OF LIFT TRUCKS WITH COLD-ROOM SPECIFICATIONS	3- 48
LONG-TERM STORAGE	3- 49
BEFORE STORAGE	3- 49
DURING STORAGE	3- 49
AFTER STORAGE	3- 49
MAINTENANCE	4- 1
OUTLINE OF SERVICE	4- 2
SUITABLE OIL	4- 2
LUBRICANT LIST	4- 3
LUBRICANT LIST	4- 3
OIL AND GREASING CHART (OIL, GREASE LOCATIONS AND INSPECTIAND	
MAINTENANCE INTERVALS)	4- 4
SERVICE DATA	4- 5
SERVICE DATA	4- 5
TORQUE LIST	4- 6
PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS	4- 7
MAINTENANCE SCHEDULE CHART	4- 8
MAINTENANCE SCHEDULE CHART	4- 8
MAINTENANCE	4- 11
FIRST ONE MONTH OR INITIAL 200 HOURS SERVICE	4- 11
CHECK BEFORE OPERATION	4- 11
FORTNIGHTLY/100 HOURS SERVICE	4- 12
MONTHLY/200 HOURS SERVICE	4- 14
3-MONTHLY/600 HOURS SERVICE	4- 16
6-MONTHLY/1200 HOURS SERVICE	4- 17
YEARLY/2400 HOURS SERVICE	
REPLACING FUSES	
CONTROLLER PORTION (F1, F2, F3, F4)	4- 24
STATIONARY CHARGER (F6)	
REPLACING TIRES	
REPLACING FRONT TIRES	4- 26
REPLACING REAR TIRE	
TIRE FOR BATTERY-POWERED LIFT TRUCK	
REPLACING LAMPS	
LIFT TRUCK WASHING PROCEDURE	
REFRIGERATOR SPECIFICATION LIFT TRUCK	
TECHNICAL DATA	
TECHNICAL DATA	
CAPACITY CHART	5- 3
INDEX	