

A MESSAGE TO HYUNDAI BATTERY TRACTOR OPERATORS

Battery tractors are specialized machines with unique operating characteristics, designed to perform a specific job. Their function and operation are not like a car or ordinary truck. They are required specific instructions and rules for safe operation and maintenance.

Safe operation of battery tractors is of primary importance to HYUNDAI.

Our experience with battery tractor accidents has shown that when accidents happen and people are killed or injured, the causes are:

- **Operator not properly trained**
- **Operator not experienced with battery tractor operation**
- **Basic safety rules not followed**
- **Battery tractor not maintained in safe operating condition**

For these reasons, HYUNDAI wants you to know about the safe operation and correct maintenance of your battery tractor.

This manual is designed to help you operate your battery tractor safely.

This manual shows and tells you about safety inspections and the important general safety rules and hazards of battery tractor operation. It describes the special components and features of the battery tractor and explains their function. The correct operating procedures are shown and explained. Illustrations and important safety messages are included for clear understanding. A section on maintenance and lubrication is included for the battery tractor mechanic.

The operator's manual is not a training manual. It is a guide to help trained and authorized operators safely operate their battery tractor by emphasizing and illustrating the correct procedures. However, it cannot cover every possible situation that may result in an accident. You must watch for hazards in your work areas and avoid or correct them. It is important that you know and understand the information in this manual and that you know and follow your company safety rules!

Be sure that your equipment is maintained in a safe condition. Do not operate a damaged or malfunctioning battery tractor. Practice safe operation every time you use your battery tractor. Let's join together to set high standards in safety.

Remember, before you start operating this battery tractor, be sure you understand all driving procedures. It is your responsibility, and it is important to you and your family, to operate your battery tractor safely and efficiently.

△ **Be aware that the Federal Occupational Safety and Health Act (OSHA) and state laws require that operators be completely trained in the safe operation of battery tractors; It is also an (OSHA) requirement that a machine inspection be performed before every shift. If you need training in operating or inspecting your battery tractor, ask your supervisor.**

HYUNDAI battery tractors are built to take hard work, but not abuse. They are built to be dependable, but they are only as safe and efficient as the operator and the persons responsible for maintaining them. Do not make any repairs to this battery tractor unless you have been trained in safe battery tractor repair procedures and are authorized by your employer.

This manual describes procedures for operation, handling, lubrication, maintenance, checking and adjustment. It will help the operator realize peak performance through effective, economical and safe machine operation.

INTRODUCTION

HYUNDAI welcomes you to the growing group of professionals who own, operate and maintain HYUNDAI battery tractors. We take pride in the long tradition of quality products and superior value the HYUNDAI name represents. This manual familiarizes you with safety, operating, and maintenance information about your new battery tractor. It has been specially prepared to help you use and maintain your HYUNDAI battery tractor in a safe and correct manner.

Your HYUNDAI battery tractor has been designed and built to be as safe and efficient as today's technology can make it. As manufactured, for some models, it meets all the applicable mandatory requirements of ANSI B56.1-1988 Safety Standard for Powered Industrial Trucks. Some trucks are also furnished with equipment to help you operate safely; for example, parking brake and horn are standard equipment.

Safe, productive operation of a battery tractor requires both skill and knowledge on the part of the operator. The operator must know, understand, and practice the safety rules and safe driving and load handling techniques described in this manual. To develop the skill required, the operator must become familiar with the construction and features of the battery tractor and how they function, the operator must understand its capabilities and limitations, and see that it is kept in a safe condition.

Routine Servicing and Maintenance

Regular maintenance and care of your battery tractor is not only important for economy and utilization reasons; it is essential for your safety. A faulty battery tractor is a potential source of danger to the operator, and to other personnel working near it. As with all quality equipment, keep your battery tractor in good operating condition by following the recommended schedule of maintenance.

Operator Daily Inspection - Safety and Operating Checks

A battery tractor should always be examined by the operator, before driving, to be sure it is safe to operate. The importance of this procedure is emphasized in this manual with a brief illustrated review and later with more detailed instructions. HYUNDAI dealers can supply copies of a helpful Drivers Daily Checklist. It is an OSHA requirement.

Planned Maintenance

In addition to the daily operator inspection, HYUNDAI recommends that a planned maintenance and safety inspection program (PM) be performed by a trained and authorized mechanic on a regular basis. The PM will provide an opportunity to make a thorough inspection of the safety and operating condition of your battery tractor. Necessary adjustments and repairs can be done during the PM, which will increase the life of components and reduce unscheduled downtime and increase safety. The PM can be scheduled to meet your particular application and battery tractor usage.

The procedures for a periodic planned maintenance program that covers inspections, operational checks, cleaning, lubrication, and minor adjustments are outlined in this manual. Your HYUNDAI dealer is prepared to help you with a Planned Maintenance Program by trained service personnel who know your battery tractor and can keep it operating safely and efficiently.

Service Manual

In-depth service information for trained service personnel is found in Service Manual.

HOW TO USE THIS MANUAL

This manual is a digest of essential information about the safe operation, the features and functions and explains how to maintain your battery tractor. This manual is organized into six major parts:

Section 1. General Safety Rules, reviews and illustrates accepted practices for safe operation of a battery tractor.

Section 2. Know your tractor, describes operating components, systems, controls, and other features of your truck and tells how they function.

Section 3. Operating procedures, discusses specific instructions on the safe, efficient operation of your battery tractor.

Section 4. Battery and charger, presents details on how to perform the charging and maintaining battery system.

Section 5. Maintenance and inspection, discusses specific instructions on maintenance and how to check out the battery tractor.

Section 6. Specifications, provides reference information and data on features, components, and tightening torque.

※The descriptions and specifications included in this manual were in effect at the time of printing. HYUNDAI reserves the right to make improvements and changes in specifications or design, without notice and without incurring obligation. Please check with your authorized HYUNDAI dealer for information on possible updates or revisions.

The examples, illustrations, and explanations in this manual should help you improve your skill and knowledge as a professional battery tractor operator and take full advantage of the capabilities and safety features of your new battery tractor.

The first section of the manual is devoted to a review, with illustrations and brief messages, of general safety rules and the major operating hazards you can encounter while operating a battery tractor. Next, you will find descriptions of the components of your specific battery tractor model and how the instruments, gauges, and controls operate. Then, you will find a discussion of safe and efficient operating procedures, followed by instructions on how to tow a disabled battery tractor. The later sections of the manual are devoted to maintenance and battery tractor specifications.

Take time to carefully read the **Know Your Tractor** section. By acquiring a good basic understanding of your battery tractor's features, and how they function, you are better prepared to operate it both efficiently and safely.

In **Planned Maintenance**, you will find essential information for correct servicing and periodic maintenance of your tractor, including charts with recommended maintenance intervals and component capacities. Carefully follow these instructions and procedures.

Each major section has its own table of contents, so that you can find the various topics more easily.

We urge you to first carefully read the manual from cover to cover. Take time to read and understand the information on general safety rules and operating hazards. Acquaint yourself with the various procedures in this manual. Understand how all gauges, indicator lights, and controls function. Please contact your authorized HYUNDAI dealer for the answers to any questions you may have about your battery tractor's features, operation, or manuals.

Operate your battery tractor safely; careful driving is your responsibility.

Drive defensively and think about the safety of people who are working nearby. Know your tractor's capabilities and limitations. Follow all instructions in this manual, including all symbols (▲ △ ※) messages to avoid damage to your battery tractor or the possibility of any harm to yourself or others.

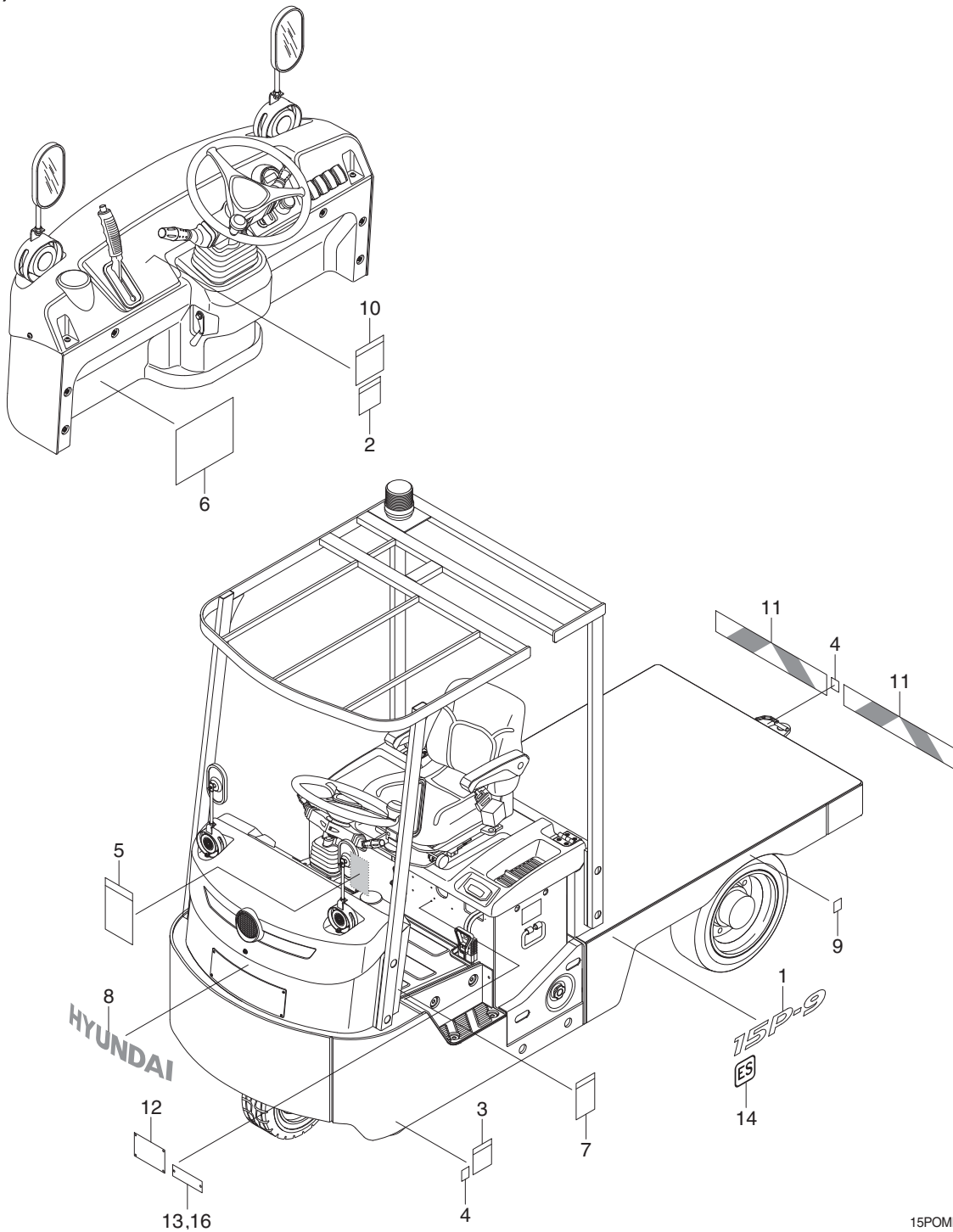
This manual is intended to be a permanently attached part of your battery tractor. Keep it on the tractor as a ready reference for anyone who may drive or service it. If the battery tractor you operate is not equipped with a manual, ask your supervisor to obtain one and have it attached to the tractor. And, remember, your HYUNDAI dealer is pleased to answer any questions about the operation and maintenance of your battery tractor and will provide you with additional information should you require it.

SAFETY LABELS

1. LOCATION

Always keep these labels clean. If they are lost or damaged, attach them again or replace them with new labels.

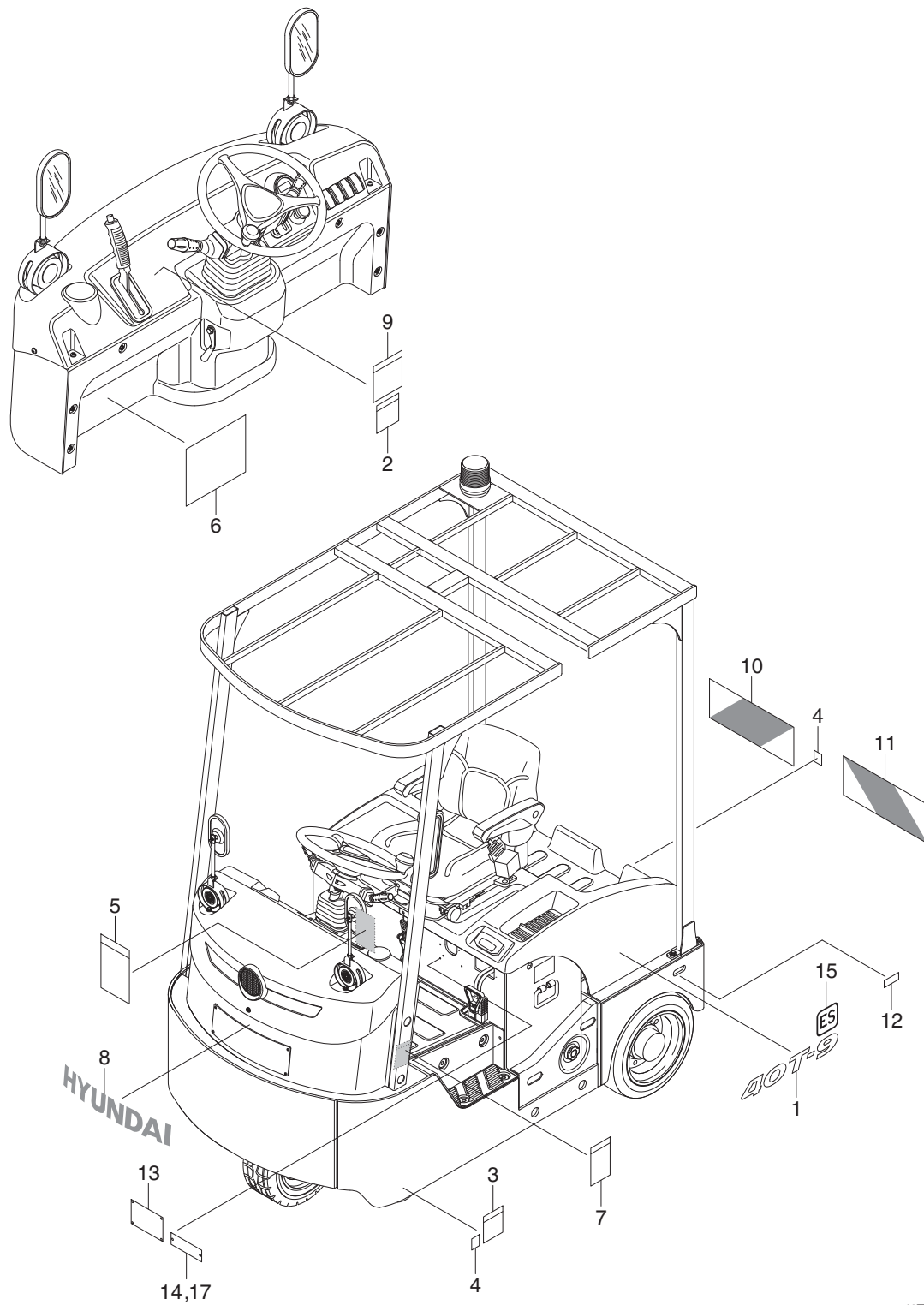
1) 15P-9



15POMFW01

- | | | |
|----------------------------|----------------------------------|---------------------|
| 1 Model name | 6 Circuit diagram (non-UL or UL) | 11 Reflective sheet |
| 2 Parking brake | 7 Battery handling | 12 Name plate |
| 3 Hanger | 8 Hyundai logo | 13 Label-UL "ES" |
| 4 Hook | 9 Tire (rear) | 14 ES mark |
| 5 Maintenance instructions | 10 For safety | 16 Round |

2) 40T-9



40TOMFW01

- | | | | | | |
|---|--------------------------|----|--------------------------------|----|----------------|
| 1 | Model name | 6 | Circuit diagram (non-UL or UL) | 12 | Inching switch |
| 2 | Parking brake | 7 | Battery handling | 13 | Name plate |
| 3 | Hanger | 8 | Hyundai logo | 14 | Label-UL "ES" |
| 4 | Hook | 9 | For safety | 15 | ES mark |
| 5 | Maintenance instructions | 10 | Reflective sheet | 17 | Round |

2. DESCRIPTION

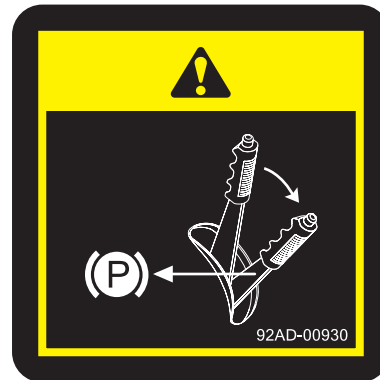
There are several specific warning labels on this machine please become familiarized with all warning labels. The item numbers are based on the 15P-9.

Replace any safety label that is damaged, or missing.

1) PARKING BRAKE (item 2)

This warning plate is located on the dashboard cover at right side of the parking brake lever.

▲ Pull by sufficient tension for constant parking ability.



25L7A0OM06

2) HANGER (item 3)

This warning label is positioned on the front left side of the main frame.

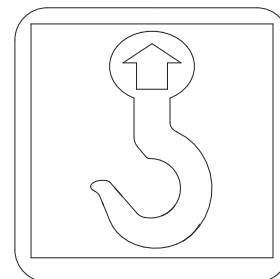
▲ Refer to page 1-9 for safe loading procedures.



91HB-00650

3) HOOK (item 4)

This labels are positioned respectively on the front both sides of the main frame and rear side of the platform near the towing assy.

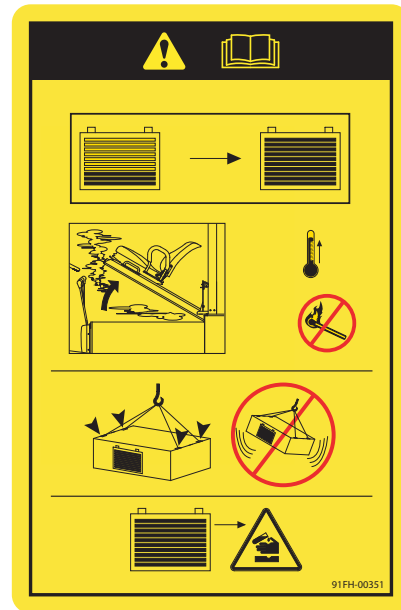


50DEOM35

4) BATTERY HANDLING (item 7)

This battery handling is located on the left side of the dashboard.

- ※ Refer to page 5-4 for a safe battery removal.
- ※ Open the battery cover when charging. Battery being charged not only heat, but also inflammable hydrogen gas is produced. Keep fire away.
- ※ Hoisting the battery case, use 2 or 4 wires with hook and handle carefully, not to shock.
- ※ The electrolyte solution of battery is dilute sulfuric acid (H_2SO_4). Be careful not to drop on clothes and mechanical parts.

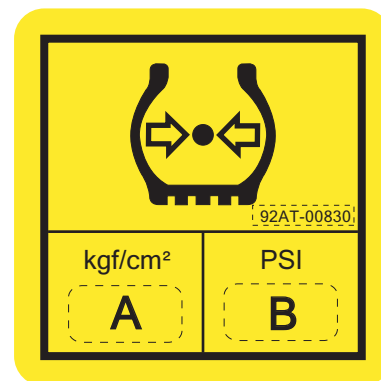


91FH-00351

5) REAR TIRE (item 9)

This label is positioned on the both sides of the platform near the rear tires.

- ※ Tire pressure must be checked in accordance with the specifications.
- ※ Refer to page 7-3 for the regulated tire air pressure (A and B).



25L7A00M08

6) FOR SAFETY (item 10)

This warning plate is located on the dashboard cover at right side of the parking brake lever.

- (1) Before attempting to operate this battery tractor, carefully read and understand the operating procedures.
- (2) Do not carry or draw the load exceeded rated capacity.
Pay attention to the bulky load, although it does not exceed rated capacity.
- (3) Rapid turn in dangerous especially, do not rapid turn in a downward slope.



91HB-00310

7) INCHING SWITCH (item 12, 40T-9, OPT)

This label is positioned on the left side of the platform near the inching switches.

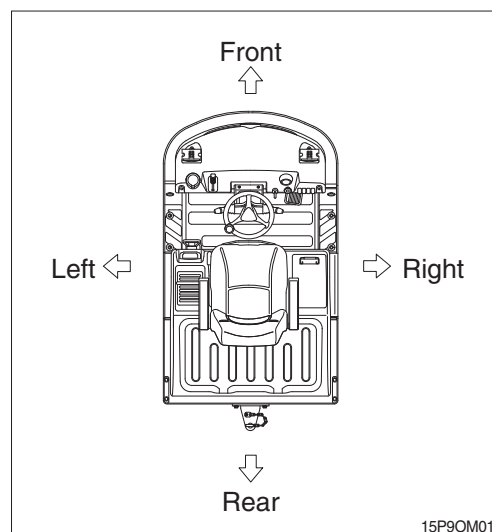
※ Refer to page 2-11 for the inching switches.



91HB-00710

1. DIRECTION

The direction of this machine indicate forward, backward, right and left when machine is in the travelling direction.

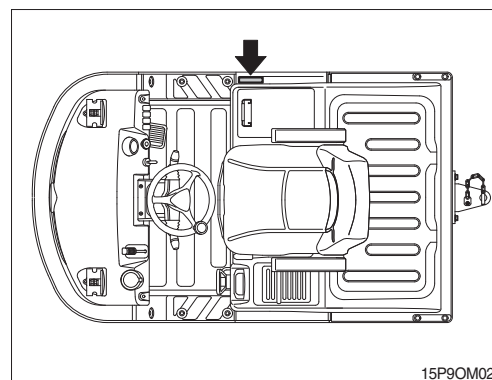


2. SERIAL NUMBER

Inform following when you order parts or the machine is out of order.

1) MACHINE SERIAL NUMBER

It's shown of the right side of the frame.



3. SYMBOLS

▲ Important safety hint.

△ It indicates matters which can cause the great loss on the machine or the surroundings.

※ It indicates the useful information for operator.