

# Operation & Maintenance Manual

# 450FXL-1

## CRAWLER FELLER BUNCHERS/HARVESTERS

**SERIAL NUMBER**      **450FXL-1 A10001-UP**

**ENGINE**                **QSC 8.3 TIER 3**

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# **INTRODUCTION**

## INTRODUCTION

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# FOREWORD

This manual provides rules and guidelines which will help you use this machine safely and effectively. The precautions in this manual must be followed at all times when performing operation and maintenance. Most accidents are caused by the failure to follow fundamental safety rules for the operation and maintenance of machines. Accidents can be prevented by knowing beforehand conditions that may cause a hazard when performing operation and maintenance.

## **WARNING**

**Before beginning operation or maintenance, operators and maintenance personnel must always observe the following points.**

- **Read this manual thoroughly and understand its contents fully.**
- **Read the safety messages and safety labels given in this manual carefully so that they should be understood fully.**

**Keep this manual at the storage location for the Operation and Maintenance Manual given below so that all personnel involved in working on the machine can consult it periodically.**

**In case this manual should be lost or damaged, immediately contact Komatsu or your Komatsu distributor to obtain a new copy.**

**When you sell the machine, make sure that this manual should be provided to the new owner together with the machine.**

**In this manual, measurements are expressed in international standard units (SI). For the reference purpose, weight units used in the past are also displayed in ( ).**

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Storage location for the Operation and Maintenance Manual is in drawer under operator's seat. (See arrow in graphic at right.)



## SAFETY INFORMATION

Most accidents are caused by the failure to follow fundamental safety rules for the operation and maintenance of machines. To avoid accidents, read, understand and follow all precautions and warnings in this manual and on the machine before performing maintenance and machine operations.

The following signal words are used to inform you that there is a potentially hazardous situation that may lead to personal injury or damage. In this manual and on machine labels, different signal words are used to express the potential level of hazard.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to most extreme situations.



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



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### **Remark**

*This word is used for precautions that must be taken to avoid actions, which could shorten the life of the machine.*

Safety precautions are described in **SAFETY** section 1.

KOMATSU AMERICA CORP. cannot predict every circumstance that might involve a potential hazard in operation and maintenance. Therefore the safety message in this manual and on the machine may not include all possible safety precautions. If any procedures or actions not specifically recommended or allowed in this manual are used, you must be sure that you and others can do such procedures and actions safely and without damaging the machine. If you are unsure about the safety of some procedures, contact your local distributor or KOMATSU AMERICA CORP.

## INTRODUCTION

- Safety labels

Safety labels are affixed to the machine to inform the operator or maintenance worker on the spot when carrying out operation or maintenance of the machine that may involve hazard.

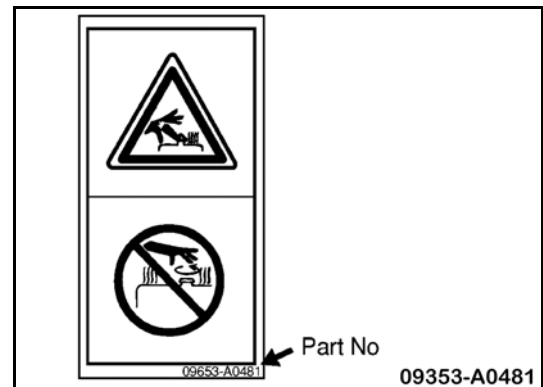
This machine uses "Safety labels using words" and "Safety labels using pictograms" to indicate safety procedures.

Example of safety label using words



Safety labels using pictogram

Safety pictograms use a picture to express a level of hazardous condition equivalent to the signal word. These safety pictograms use pictures in order to let the operator or maintenance worker understand the level and type of hazardous condition at all times. Safety pictograms show the type of hazardous condition at the top or left side, and the method of avoiding the hazardous condition at the bottom or right side. In addition, the type of hazardous condition is displayed inside a triangle and the method of avoiding the hazardous condition is shown inside a circle.



Komatsu cannot predict every circumstance that might involve a potential hazard in operation and maintenance.

Therefore, the safety messages in this manual and on the machine 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 take the necessary steps to ensure safety.

In no event should you engage in prohibited uses or actions described in this manual.

The explanations, values, and illustrations in this manual were prepared based on the latest information available at that time. Continuing improvements in the design of this machine can lead to changes in detail which may not be reflected in this manual. Consult Komatsu or your Komatsu distributor for the latest available information of your machine or for questions regarding information in this manual.

## INTRODUCTION

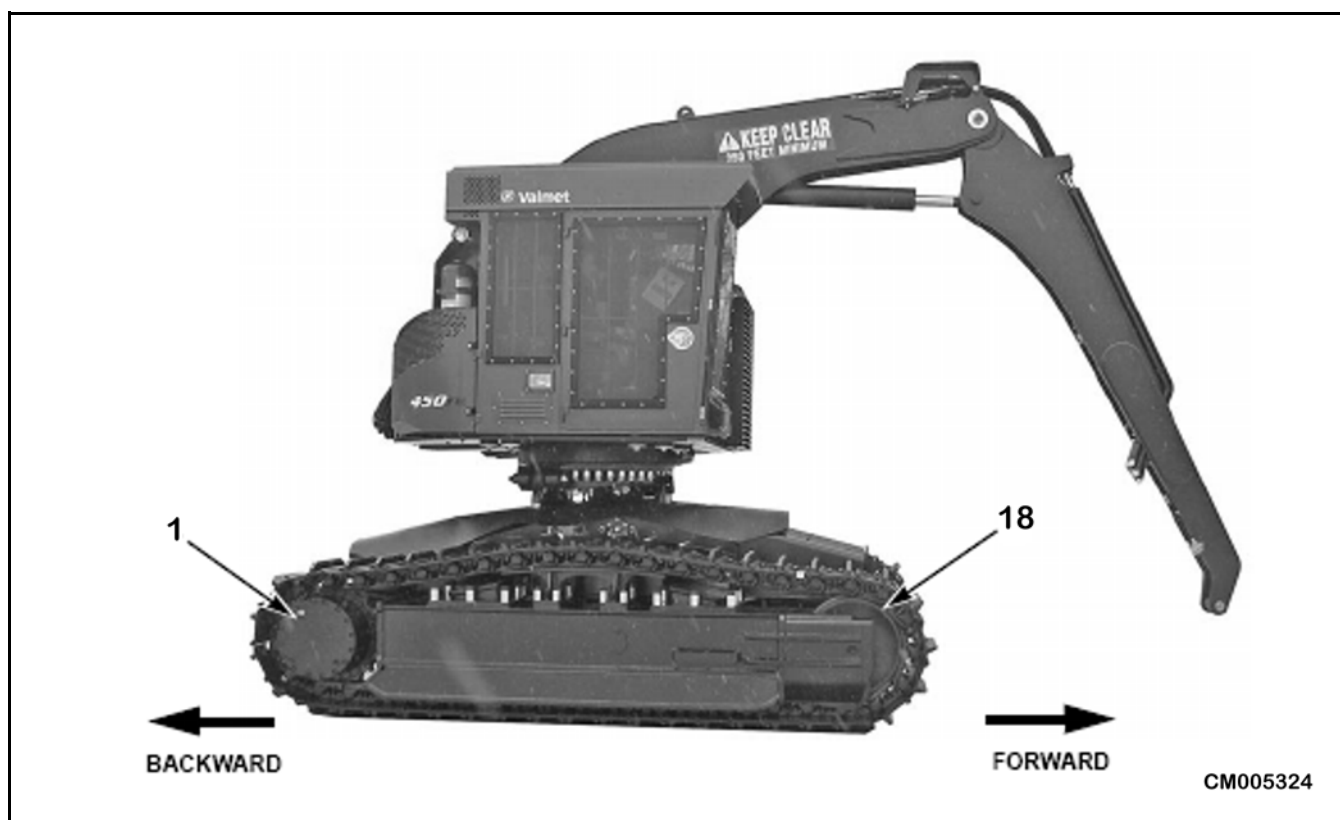
This manual has been designed to introduce the Operator to the safe and proper use of the Komatsu 450 FXL Track Machines. The instructions furnished in this manual cover the basic machines with the most common control configurations and options. Customized control settings are not covered in this manual.

### Machine Orientation

The following graphics illustrate the machine orientation used throughout the manual. All operating instructions are written from the operator's viewpoint, seated in the cab, facing forward with the track drive sprockets towards the rear of the machine.

## WARNING

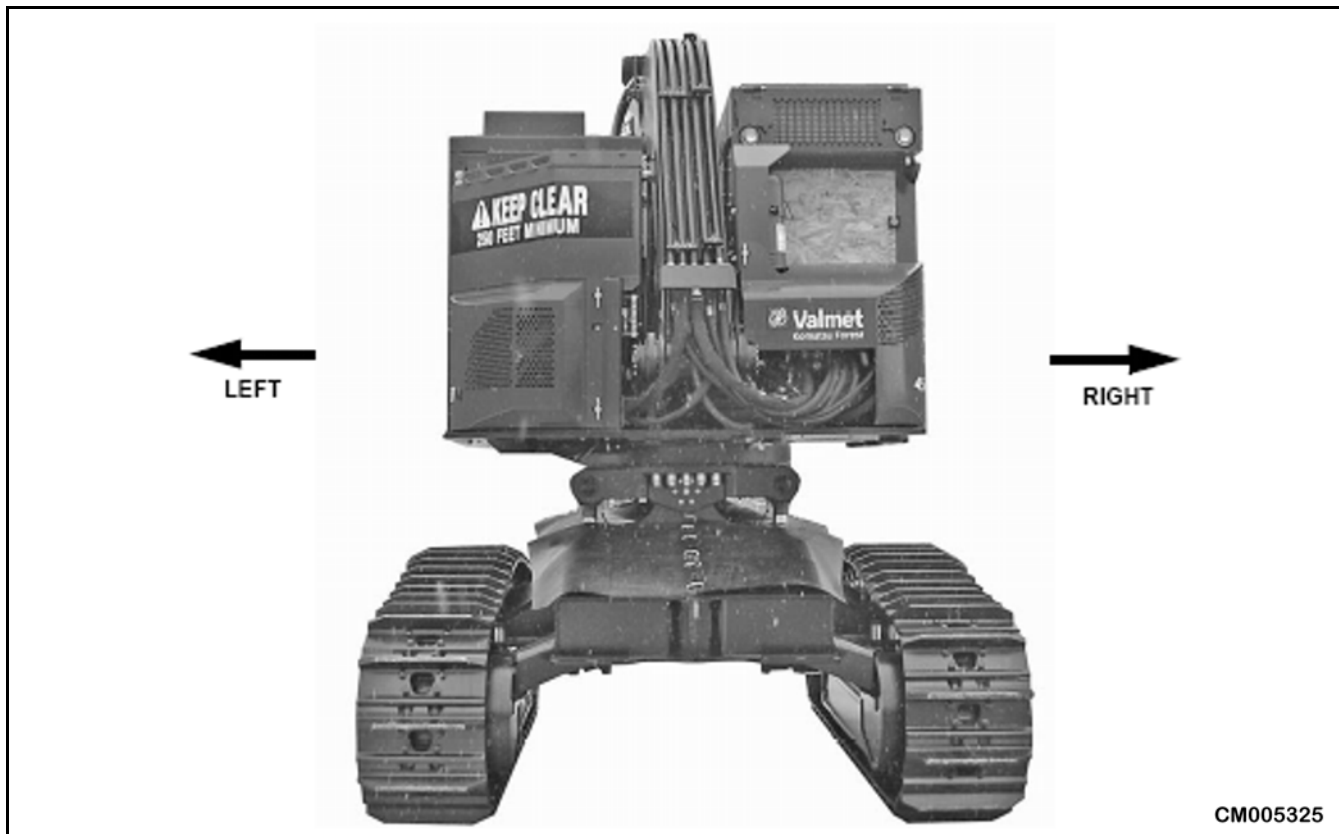
**Make sure that you know where the track drive sprockets are in relation to the direction you are facing. If you have rotated the cab 180° and are facing the track drive sprockets, you will have to press downwards with your heels on the bottom end of the pedals (reverse) to travel in the direction you are looking.**



1. Track drive sprocket (Right hand track)

18. Track drive idler wheel

# INTRODUCTION

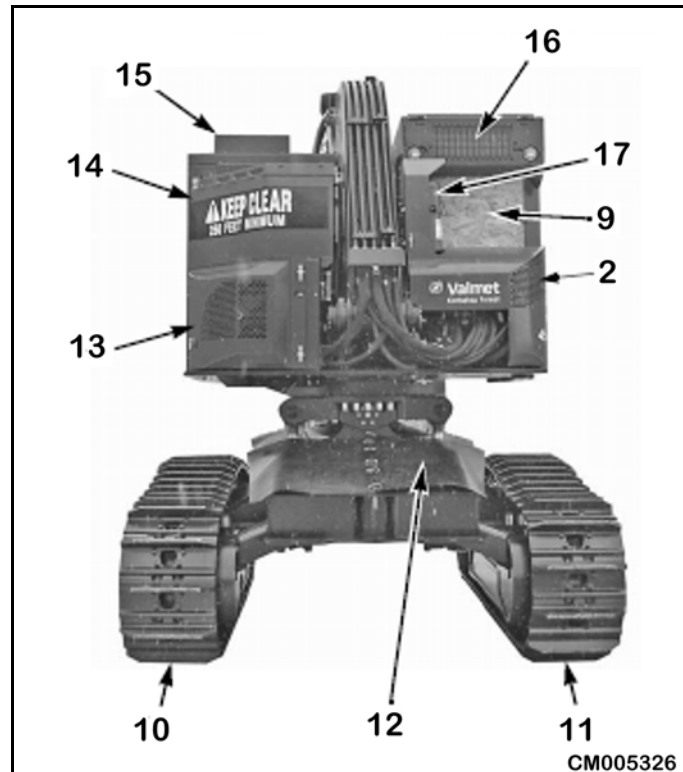




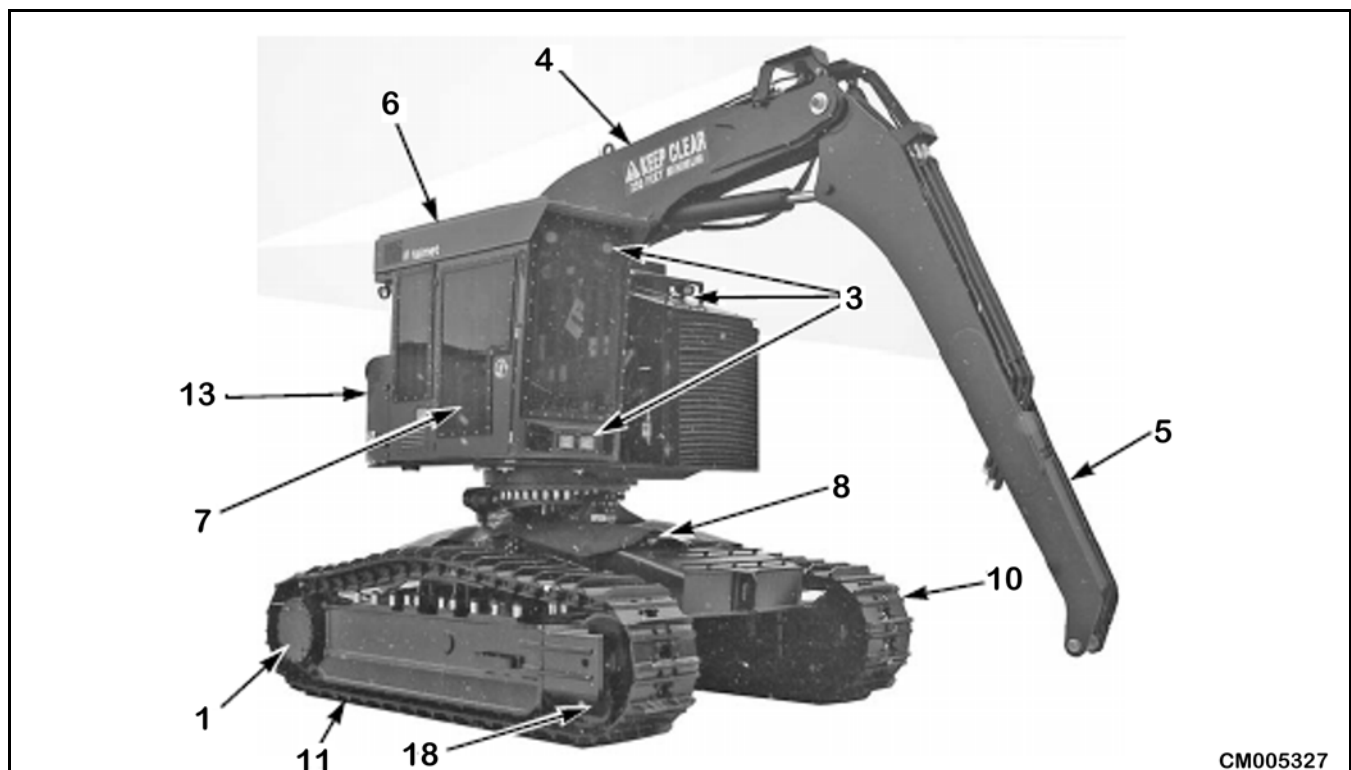
## General Orientation

The following illustrations will show you the main components of the Model 450FXL Track Machines.

1. Track drive sprocket (Right hand track)
2. Swing out oil cooler and hydraulic control valve cover
3. Work lights
4. Main boom
5. Stick arm
6. Operators cab (ROPS, FOPS, OPS)
7. Cab door
8. Fuel tank
9. Rear emergency escape window
10. Left track assembly
11. Right track assembly
12. Fuel filter and pump assembly (under access door) (continuous rotation units only)
13. Hydraulic pumps (access door closed)
14. Hydraulic tank
15. Engine air intake pre-cleaner
16. Air conditioner condenser
17. Fire suppression system (optional)
18. Track drive idler wheel



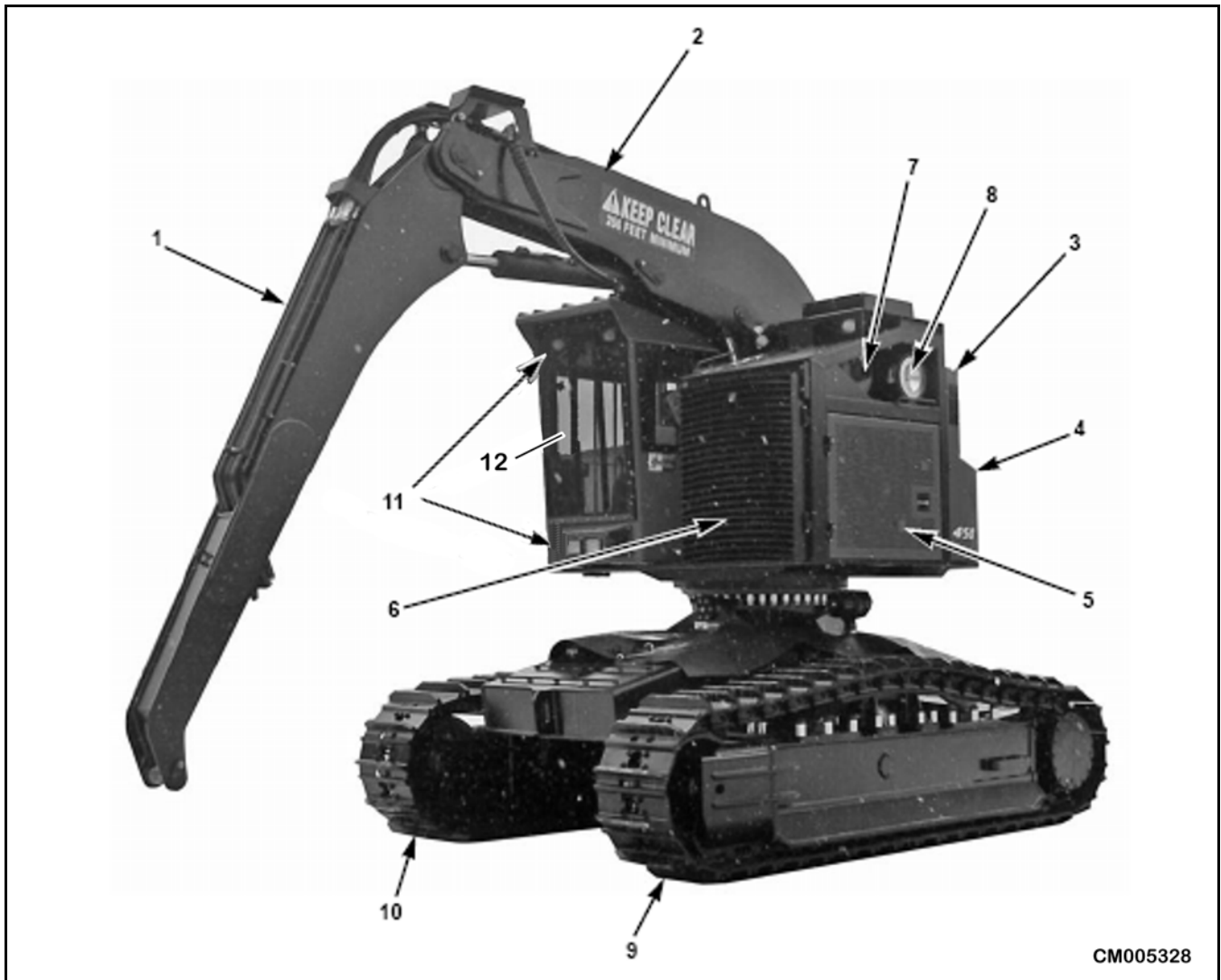
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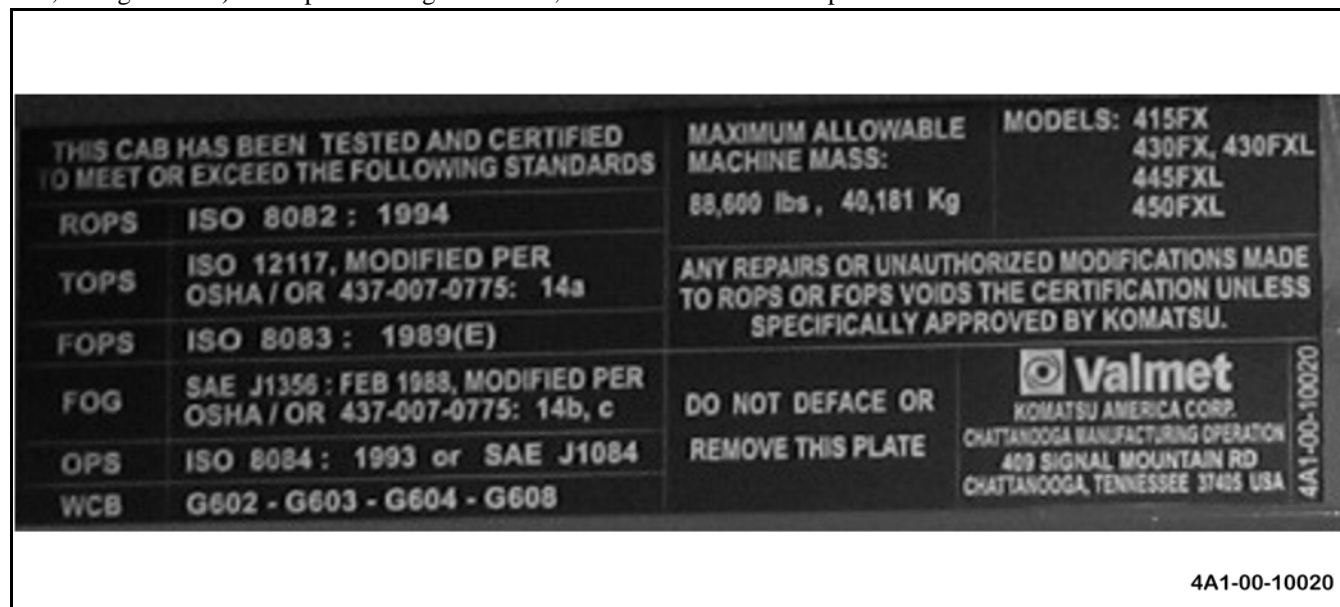
## INTRODUCTION

1. Stick arm
2. Main boom
3. Hydraulic Tank
4. Hydraulic pumps (access door closed)
5. Engine compartment (access door closed)
6. Engine, hydraulic, and charge air coolers (protective grill closed)
7. Engine muffler
8. Engine air cleaner
9. Left track assembly
10. Right track assembly
11. Work lights
12. Front emergency escape window



## Protective Structure

This machine is ROPS, TOPS, FOPS, FOG, OPS and WCB compliant when plate is installed. Location (as driver sitting in seat, facing forward) over operator’s right shoulder, on rear bulk head. Example below.



4A1-00-10020

## Breaking-in The New Machine

### Remark

*Your Komatsu machine has been thoroughly adjusted and tested before shipment from the factory. However, operating the machine under full load before breaking the machine in can adversely affect the performance and shorten the machine life.*

*Be sure to break in the machine for the initial 100 hours (as indicated on the service meter).*

Make sure that you fully understand the content of this manual, and pay careful attention to the following points when breaking in the machine.

- Run the engine at idle for 15 seconds after starting it. During this time, do not operate the control levers or fuel control dial.
- Idle the engine for five minutes after starting it up.
- Avoid operation with heavy loads or at high speeds.
- Immediately after starting the engine, avoid sudden starts, sudden acceleration, unnecessary sudden stops, and sudden changes in direction.

# INTRODUCTION

## Product Information

When requesting service or ordering replacement parts, please inform your Komatsu distributor of the following items.

### Product Identification Number (Pin)/Machine Serial No. Plate

On the inside of the cab, behind the operator's left shoulder, on the bulkhead.

|   |                      |
|---|----------------------|
| <b>Valmet</b><br>KOMATSU AMERICA CORP<br>409 SIGNAL MOUNTAIN ROAD<br>CHATTANOOGA, TENNESSEE 37405 USA |                      |
| MODEL   | <input type="text"/> |
| SERIAL #  | <input type="text"/> |
| UNITED STATES PATENT NUMBERS<br>U.S. PAT. - 4,459,061 U.S. PAT. - 4,583,908                           |                      |
| 4A1-00-10030  |                      |

4A1-00-10030

### Saw Head Identification Plate.

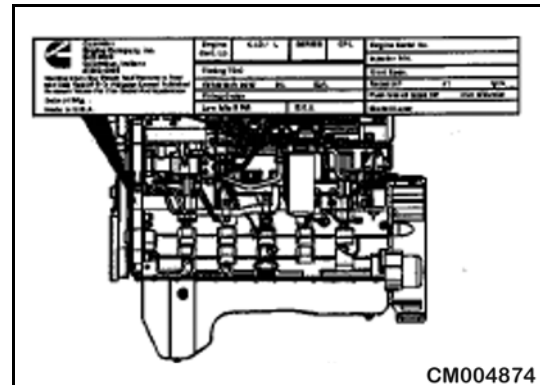
Located on the saw head.

|   |                      |
|---|----------------------|
| <b>Valmet</b><br>KOMATSU AMERICA CORP<br>409 SIGNAL MOUNTAIN ROAD<br>CHATTANOOGA, TENNESSEE 37405 USA |                      |
| MODEL   | <input type="text"/> |
| MASS (kg)   | <input type="text"/> |
| SERIAL #  | <input type="text"/> |
| UNITED STATES PATENT NUMBERS<br>U.S. PAT. - 4,459,061 U.S. PAT. - 4,583,908                           |                      |
| 4A1-00-10010  |                      |

4A1-00-10010

### Engine Dataplate

The engine dataplate provides important facts about the engine. The engine serial number (ESN) and control part list (CPL) provides information for service and ordering parts. The engine dataplate must not be changed unless approved by Cummins Inc.



CM004874

### EPA Regulations

EPA: Environmental Protection Agency, U.S.A.

Located on front of engine.

|                          |                        |              |
|--------------------------|------------------------|--------------|
| <b>KOMATSU</b>           |                        | Komatsu Ltd. |
| Engine Model             | SAAG0114E-3            | ESN *****    |
| EPA Cert. Family:        | *****                  |              |
| EU Approval NO.          | *****                  |              |
| Gross Rated HP/kW        | ***/** at ***rpm       |              |
| FR***                    | Low Idle RPM *** rpm   |              |
| CPL***                   | CID/L. ***/*.*         |              |
| Timing XTDC des.         | Firing Order *-*-*-*-* |              |
| Valve Lash Cold          | In *.***mm Ex *.***mm  |              |
| Fuel Rate at Rated HP/kW | *** mm3/st             |              |
| Date of Manufacture      | XXXXXXXX               | *****        |

|  |  |
|--|--|
| IMPORTANT ENGINE INFORMATION   |  |
| This engine conforms to 2005 U.S. EPA<br>and California regulations for<br>heavy duty non-road compression<br>ignition diesel cycle engines as applicable. |  |
| THIS ENGINE IS CERTIFIED TO OPERATE<br>ON DIESEL FUEL 3978698  |  |

CM004876

## Your Machine Serial Numbers And Distributor

|                                     |  |
|-------------------------------------|--|
| Machine serial No.                  |  |
| Engine serial No.                   |  |
| Product identification number (PIN) |  |
| Distributor name                    |  |
| Address                             |  |
|                                     |  |
|                                     |  |
| Service Personnel                   |  |
| Phone/Fax                           |  |

# **INTRODUCTION**

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**MEMORANDUM**

# SAFETY

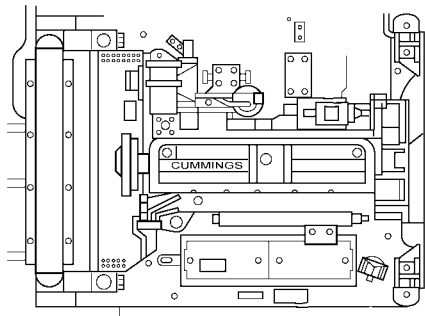
## **WARNING**

Please read and make sure that you fully understand the precautions described in this manual and the safety labels on the machine. Read and follow all safety precautions. Failure to do so may result in serious injury or death.

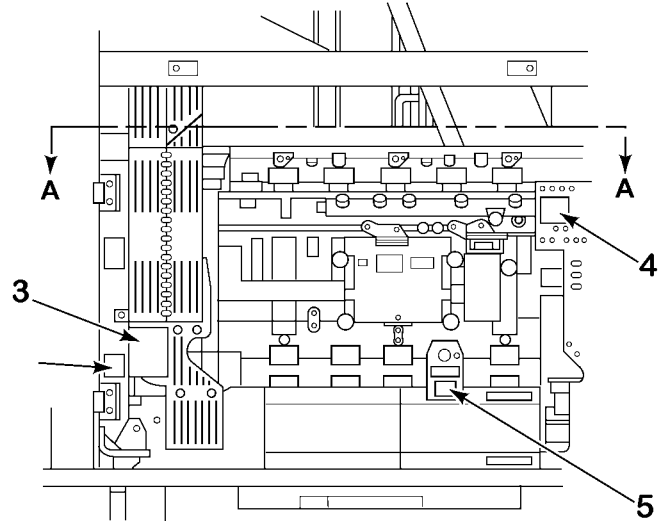
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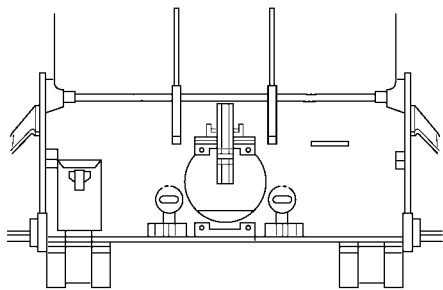




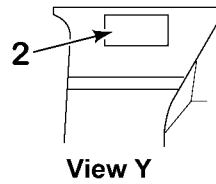
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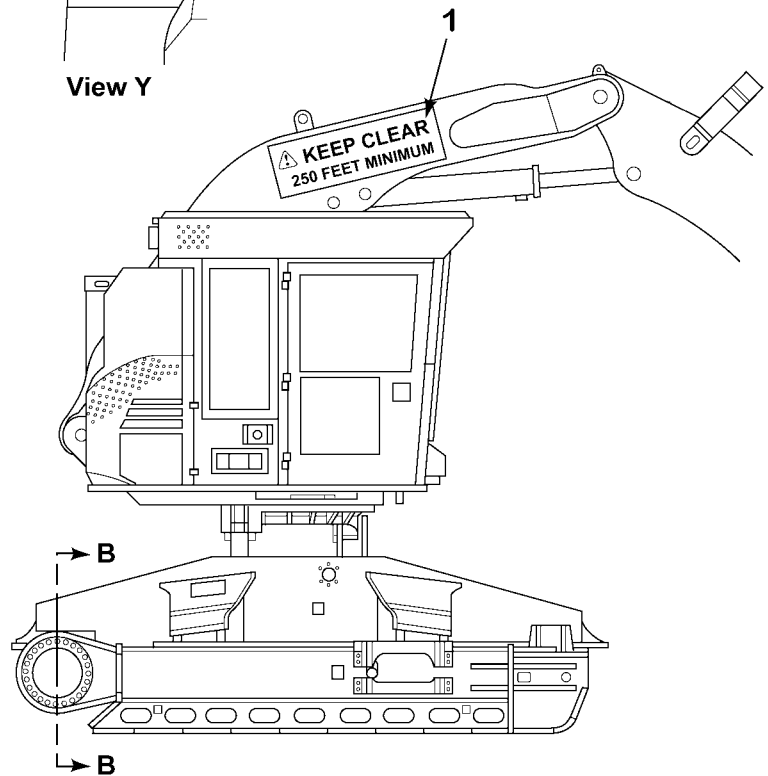
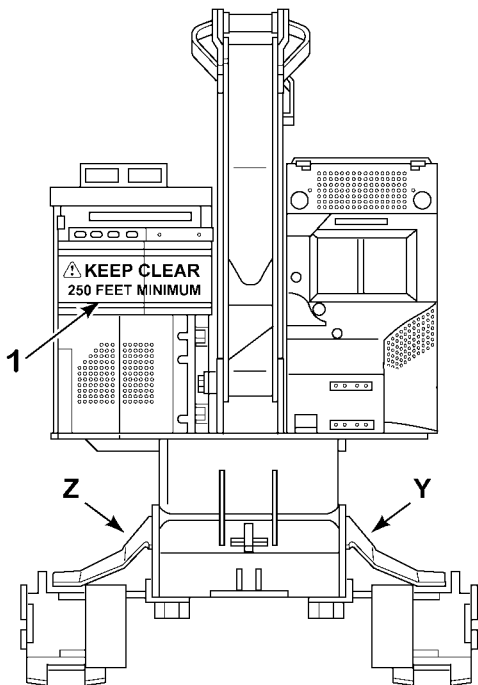
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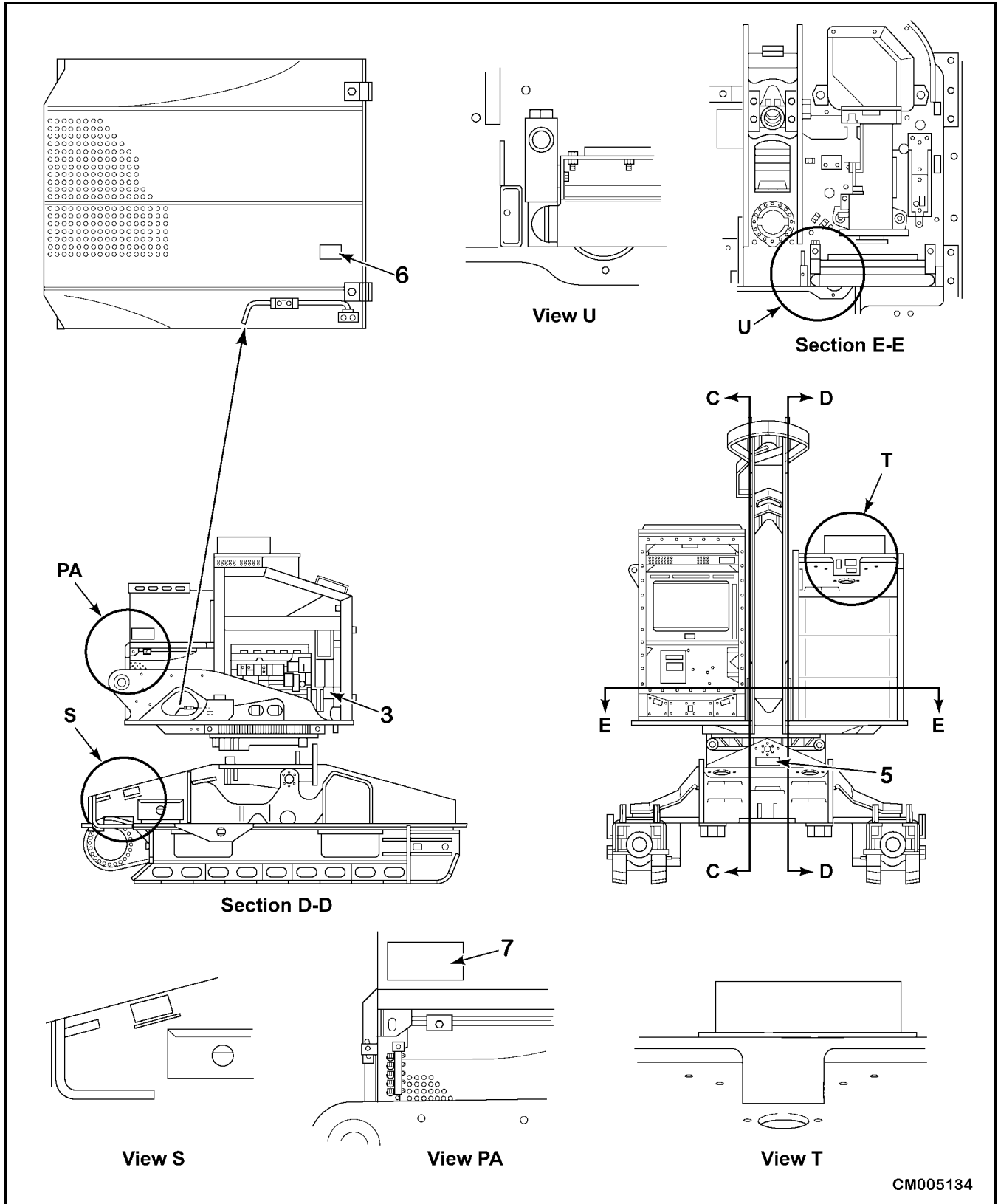
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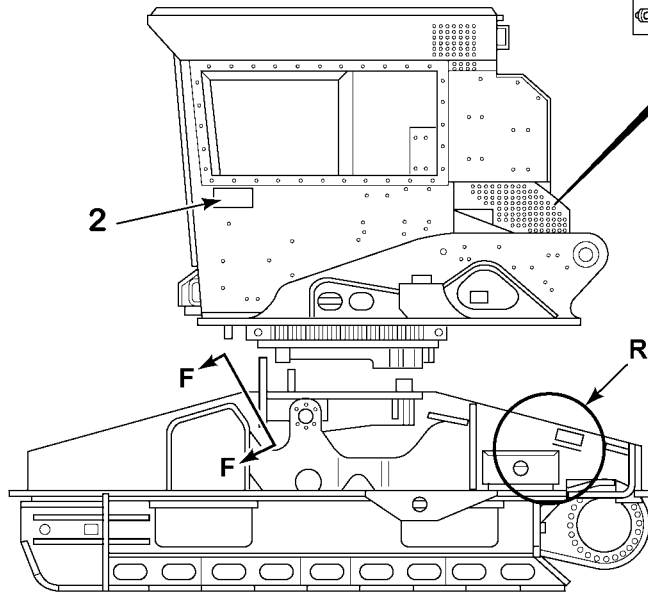
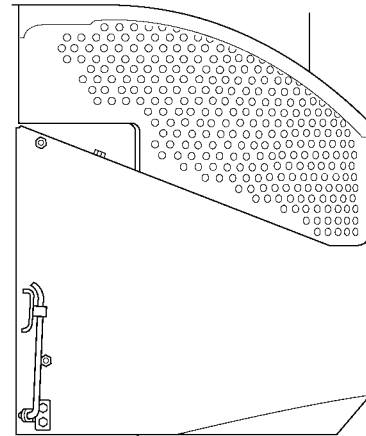
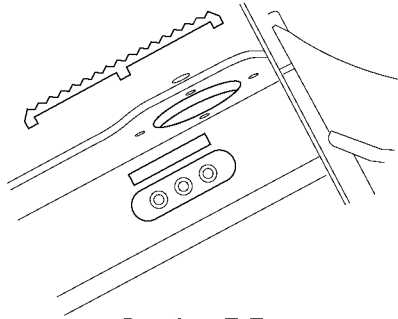
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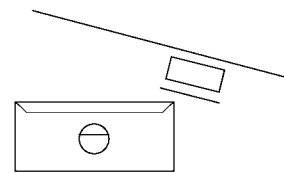
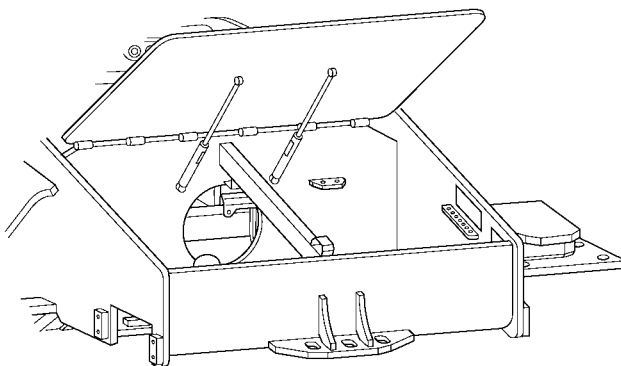
CM005131



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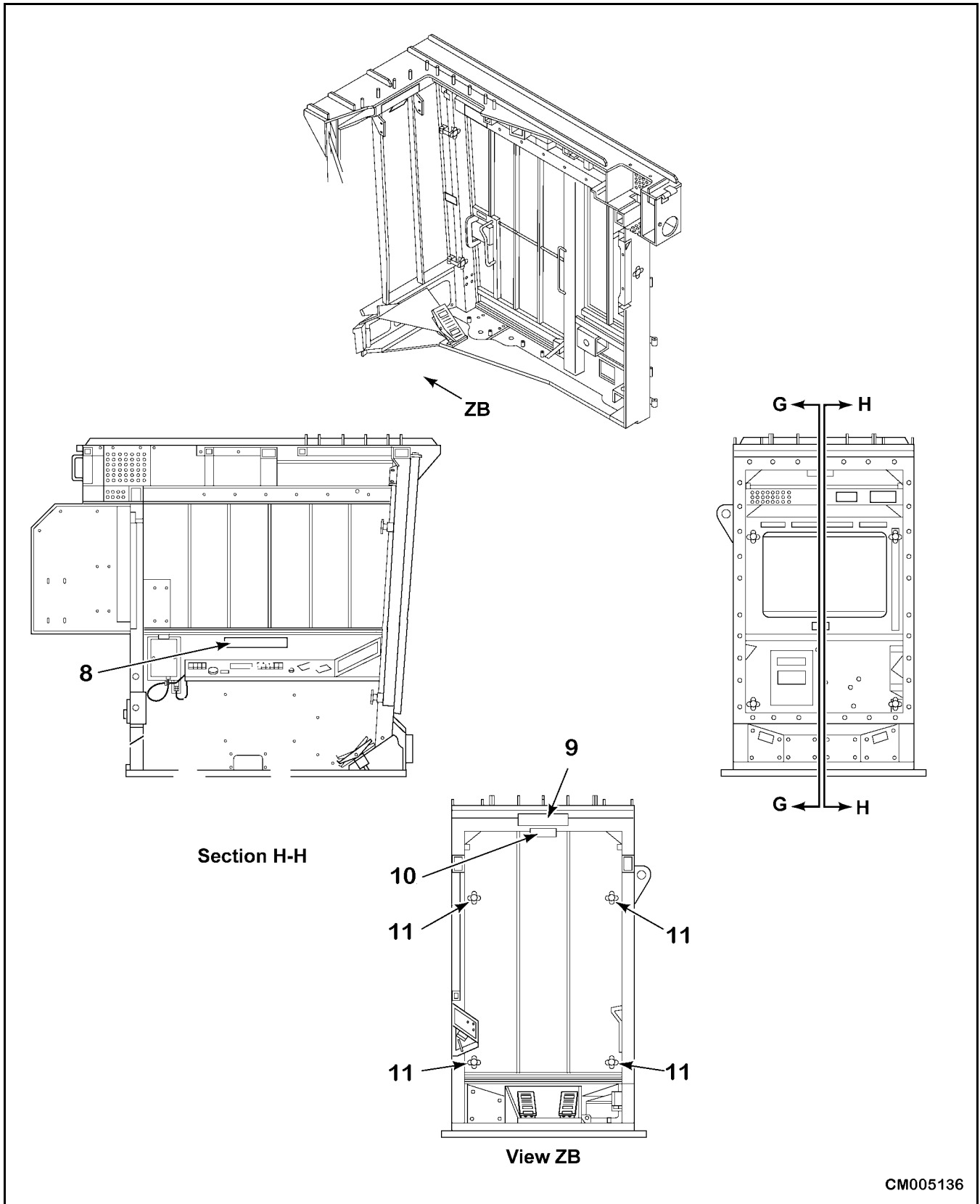


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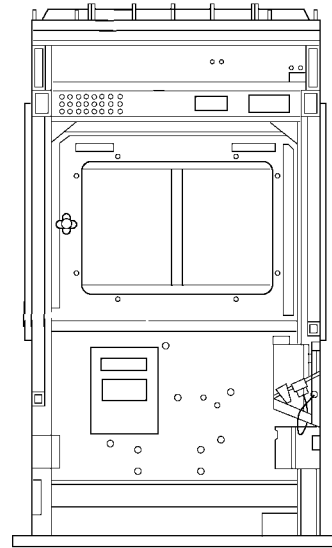
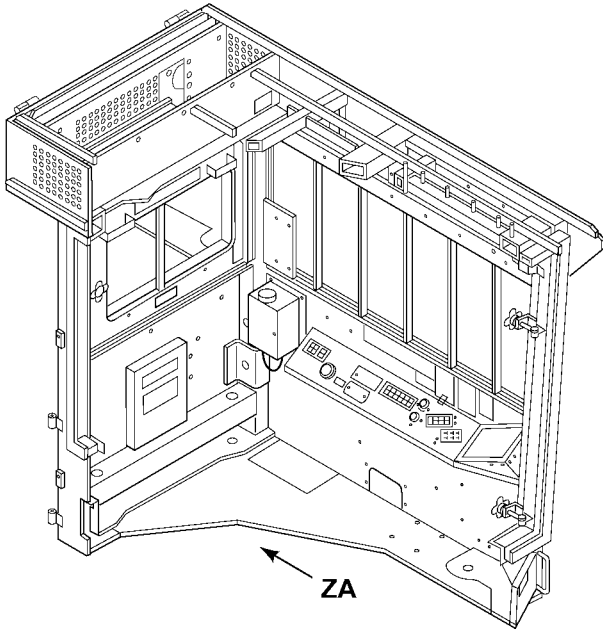


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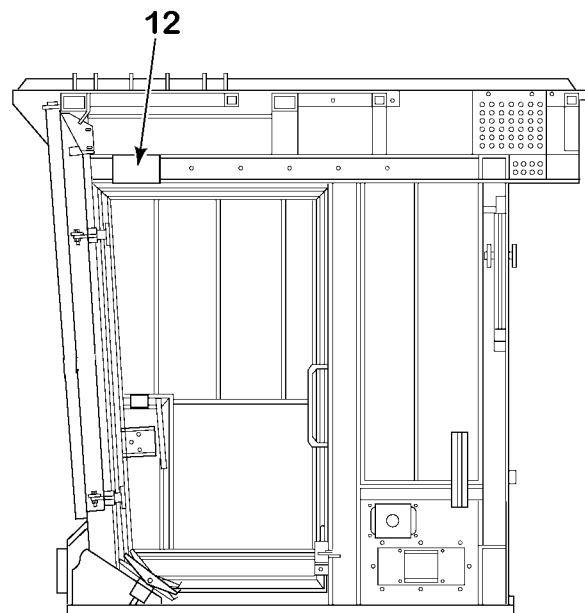
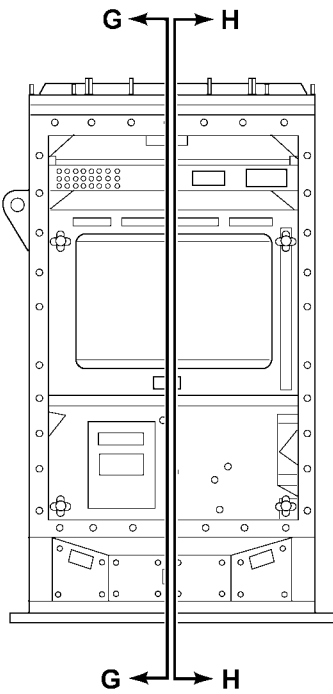
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**View ZA**



**Section G-G**

CM005137

## SAFETY

1. N/I Keep Clear (26779KF)

250 Feet Minimum



26779KF

2. DANGER - (16060KF)

Crush Zone

Keep clear to avoid personal injury or death.



16060KF

3. WARNING - (Fan Guard 19765KF)

Fan guard must be bolted in place before operating machine.

Keep clear of all moving parts.

Serious personal injury could result.



19765KF

4. WARNING - Ether (24472KF)

Do not use ether to start machine.

This machine is equipped with an intake manifold grid heater.

Damage to engine will result.



24472KF

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