CEAM029803

Operation & Maintenance Manual

930E-4SE

DUMP TRUCK

SERIAL NUMBERS 930E-4SE A31875-A31927

ENGINE 18V170

April 2017

KOMATSU®

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INTRODUCTION
FOREWORD 1-2
ABOUT THIS MANUAL 1-3
WARNINGS 1-4
California Proposition 65 Warnings 1-4
ALERTS 1-5
TRUCK MODEL ILLUSTRATION 1-6
NON-OEM PARTS IN CRITICAL SYSTEMS 1-7
STANDARD CHARTS AND TABLES
GENERAL INFORMATION 2-2
Effect Of Special Lubricants 2-2
Suggested Sources For Rust Preventive Grease 2-2
STANDARD TIGHTENING TORQUES 2-3
Class 10.9 Capscrews And Class 10 Nuts 2-3
SAE Grade 5 And Grade 8 Capscrews 2-4
SAE Grade 9 Capscrews 2-5
T-Bolt Clamps 2-5
Split Flange Clamps 2-6
Flared Tube And Hose Fittings 2-6
JIC 37° Swivel Nuts 2-7
Pipe Thread Fittings 2-8
O-Ring Boss Fittings 2-9
O-Ring Face Seal Fittings 2-10
CONVERSION MULTIPLIERS 2-11
Metric To English 2-11
English To Metric 2-12
Temperature Conversions 2-13
GENERAL SAFETY
GENERAL SAFETY 3-2
Safety Rules 3-2
Truck Safety Features 3-2
Clothing And Personal Items 3-2
Unauthorized Modification 3-2
Leaving The Operator's Seat 3-2
Mounting And Dismounting 3-2
Fire Extinguishers And First Aid Kits 3-3
Precautions For High Temperature Fluids 3-3
Asbestos Dust Hazard Prevention 3-3
Fire Prevention 3-3
ROPS Precautions 3-3
Preventing Injury From Work Equipment 3-4
Precautions For Optional Attachments 3-4
Precautions When Starting The Machine 3-4
PRECAUTIONS FOR TRUCK OPERATION 3-5
Safety Is Thinking Ahead 3-5
Safety At The Worksite 3-5
Preparing For Operation 3-5
Ventilation For Enclosed Areas 3-5
Mirrors, Windows, And Lights 3-5
Before Starting The Engine 3-5
Seat Belts And Tethers 3-5
Emergency Egress Ladders 3-6
OPERATING THE MACHINE 3-7
General Information 3-7

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Starting The Engine 3-7
Traveling In The Machine 3-7
Traveling In Reverse 3-8
Traveling On Slopes 3-8
Traveling On Snow 3-8
Traveling Near High Voltage Cables 3-8
Traveling On Loose Ground 3-8
Ensuring Good Visibility 3-8
Avoid Damage To The Dump Body 3-8
Safe Parking Of The Machine 3-9
Loading The Machine 3-9
Dumping The Machine 3-9
Towing The Machine 3-9
EXTERIOR LIGHTING 3-10
Fog Lights 3-10
Headlights 3-10
Mirror Mounted Backup Lights 3-10
Deck Mounted Flood Lights and Ladder Lights 3-10
Brake Lights 3-11
Retard Lights 3-11
Clearance/Turn Signal Lights 3-11
Backup Lights 3-11
Retard Lights 3-11
Brake Lights 3-12
Backup Alarm 3-12
Backup Lamp 3-12
PRECAUTIONS FOR MAINTENANCE 3-13
BEFORE PERFORMING MAINTENANCE 3-13
Electrical System Isolation 3-13
Securing The Dump Body 3-14
Jack Point Locations 3-15
DURING MAINTENANCE 3-16
Warning Tag 3-16
Proper Tools 3-16
Attachments 3-16
Working Under The Machine 3-16
Keeping The Machine Clean 3-16
Adding Fuel Or Oil To The Machine 3-16
Radiator Coolant Level 3-17
Use Of Lighting 3-17
Handling High Pressure Hoses 3-17
Precautions With High Pressure Oil 3-17
Maintenance Near High Temperatures And High Pressures 3-17
Rotating Fan And Belts 3-17
Waste Materials 3-17
Use Of Tie-Off Anchor During Maintenance 3-17
Handling Tires 3-18
Tire Maintenance 3-18
Storing Tires After Removal 3-18
Battery Hazard Prevention 3-19
Jump Starting With Jumper Cables 3-19
Jump Starting With Receptacles 3-20
WHEN REPAIRS ARE NECESSARY 3-21
Observe The Following Precautions 3-21

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SPECIAL PRECAUTIONS 3-22
Preliminary Procedures Before Welding Or Performing Maintenance 3-22
Engine Shutdown Procedure Before Welding or Performing Maintenance 3-22
Before Welding On The Machine, Obey The Following Guidelines: 3-22
Discharging Control Cabinet Capacitors 3-23
WARNING AND CAUTIONS
GENERAL INFORMATION 4-2
PIN PLATE 4-2
GRADE SPEED CHART 4-3
MACHINE SAFETY 4-3
KEY SWITCH 4-5
OIL FILL AND CHECK 4-5
HIGH PRESSURES 4-6
BATTERY AND ISOLATION BOX 4-9
HIGH VOLTAGE 4-12
WELDING 4-15
LIFTING POINTS 4-16
EMERGENCY DUMPING 4-17
AUTOMATIC LUBRICATION FILL 4-18
ROPS/FOPS 4-18
TOWING 4-18
LUBRICATION CHART 4-19
OPERATING INSTRUCTIONS
PREPARING FOR OPERATION 5-2
Safety Is Thinking Ahead 5-2
Walk Around Inspection 5-2
RETRACTABLE LADDER SYSTEM (If Equipped) 5-7
General Information 5-7
Ladder System Description 5-7
Ladder System Operation 5-7
In-Cab Control Panel 5-8
Ground Level Control Box 5-10
Emergency Down Valve 5-11
PRE-SHIFT BRAKE TEST 5-12
Operation 5-12
Service Brake Test 5-13
Parking Brake Test 5-13
Retard System Test 5-14
Brake Test Exit Criteria 5-14
TRUCK OPERATION 5-15
ENGINE START-UP SAFETY 5-15
After Engine Has Started 5-15
MACHINE OPERATION SAFETY PRECAUTIONS 5-16
Machine Operation On The Haul Road 5-17
Starting On A Grade With A Loaded Truck 5-17
Retarding On A Grade 5-17
Passing 5-18
Loading 5-18
Overload Speed Limit Function 5-18
Dumping 5-19
Lowering The Dump Body (When Dumping On Flat Ground) 5-20
Lowering The Dump Body (When Dumping Over A Berm Or Into A Crusher) 5-21
SUDDEN LOSS OF ENGINE POWER OR LOSS OF DRIVE SYSTEM FUNCTION 5-21
EMERGENCY STEERING SYSTEM 5-22

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PAYLOAD METER IV SYSTEM A.2-0000071708

GENERAL INFORMATION B.7-0000071844

Payload Meter IV (PLM IV) measures, displays and records the weight of material being carried by an off-highway truck. The pressure data from the suspensions is combined with incline, speed and other inputs to calculate the weight of the payload carried in the truck body. The payload weight is displayed to the operator through the digital display on the dashboard as the shovel operator loads the truck body, and through the Red/Amber/Green payload lights or optional "Scoreboard" monitor mounted to the side of the truck.

Data Summary

The payload meter creates and stores more than 10,000 haul cycles in memory. Each haul cycle is recorded with information described in data structure Table . Oldest data records will be overwritten as the internal memory is filled.

Data Gathering

NOTE: *Precise calibrations and configurations are important to ensure accurate payload calculations.*

The PLM IV uses an Internet browser interface instead of a stand-alone software program. For users with previous PLM III experience, there is no additional software required to download and view payload meter data and fault information.

The user can directly log into the payload meter by entering the PLM IV controller's assigned IP address into the address bar of a standard web browser such as Internet Explorer® or Google Chrome®. See System Configurations for instructions on configuring PLM IV.

COMPONENT DESCRIPTION A.17-0000071858

Electronic Dash Display

The Electronic Dash Display is used to display payload information. See DIGITAL DISPLAY OPERATION, page 6-26.

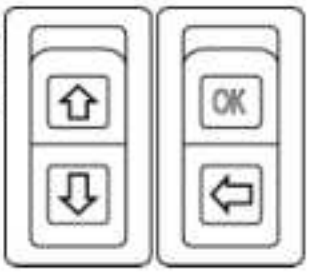
The Payload Meter (PLM) uses the lower display for payload information in conjunction with the operator switches to navigate to different modes and enter information, as well as to display of various status messages. The bottom display does include units. Payload can be displayed in short tons, long tons or metric tons.



Figure 5-26 TRUCK ELECTRONIC DISPLAY UNIT

Operator Input Switches

The operator Input Switches allow the toggling through warning screens and various truck information.



For PLM IV, they are used to:

- Enter the operator ID number (0000–9999)
- View and Clear the total loads and payload counter for a shift period
- View live readings from the inclinometer and pressure sensors

The operator switches are

1. SELECT – The left showing an UP and DOWN arrow. This is used to step through the various screens or displays as described in the manual.
2. OK – The right switch showing an "OK." This is used to select an option for the displayed screen.

For troubleshooting purpose, the inputs from the switches to the payload meter are normally open circuit and the switch makes momentary contact.

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A ground level engine stop switch is also located at the right or left front corner of the truck, depending on ladder access.

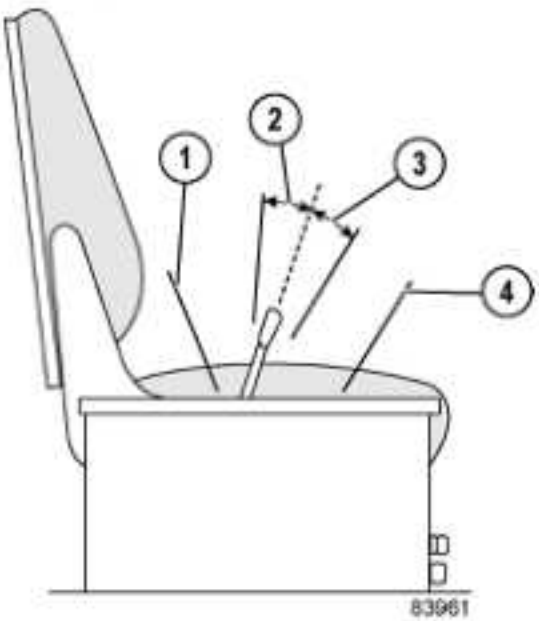
Window Control Switches

The window control switch (5, 6) controls the operation of the window. The switch is spring-loaded to the OFF position.

- Pushing the front of the switch raises the cab window.
- Pushing the rear of the switch lowers the window.

Hoist Control Lever

Hoist control lever (7) is a four position hand-operated lever located between the operator seat and the center console (see Figure 6-4 HOIST CONTROL, page 6-8).



1. Raise
2. Hold
3. Float
4. Lower

Figure 6-4 HOIST CONTROL

Raising The Dump Body

1. Pull the hoist control lever to the rear to actuate hoist circuit. (Releasing the lever anywhere during "hoist up" will place the body in HOLD at that position.)
2. Raise engine rpm to increase hoist speed.
3. Reduce engine rpm as the last stage of the hoist cylinders begin to extend and then let the engine go to low idle as the last stage reaches half-extension.
4. Release hoist control lever as the last stage reaches full extension.
5. After material being dumped clears the body, lower the body to frame.

   Refer to Dumping, page 5-19 for more complete details concerning this control.

Lowering The Dump Body

Move hoist control lever forward to DOWN position and release. Releasing the lever places hoist control valve in the FLOAT position allowing the body to return to frame.

Retard Speed Control (RSC) Adjust Dial

Retard speed control (RSC) adjust dial (8, Figure 6-3 CENTER CONSOLE, page 6-7) allows the operator to vary the downhill truck speed that the retard speed control system will maintain when descending a grade. This function can be overridden by either the accelerator or retard pedal.

The retard speed setting will be displayed to the operator on the digital display in the instrument panel.

When the dial is rotated counterclockwise toward this symbol, the truck will descend a grade at lower speeds.



When the dial is rotated clockwise toward this symbol, the truck speed will increase.



Always refer to the Grade/Speed Chart in the operator's cab and follow the recommendations for truck operation. DO NOT exceed these recommended MAXIMUM speeds when descending grades with a loaded truck.

Throttle pedal position will override RSC setting. If operator depresses throttle pedal to increase truck speed, dynamic retarding will not come on unless truck over speed setting is reached or the brake/retarder pedal (or retarder lever) is used. When throttle pedal is released and RSC switch is on, dynamic retarding will come on at, or above, the RSC dialed speed and will adjust truck speed to, and maintain, the dialed speed. The dialed speed will be displayed on the digital display in the instrument panel.

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EVERY 18,000 HOUR MAINTENANCE A.9-0000071968

NOTE: *Maintenance for every 10, 250, 500 & 1,000 hour Lubrication and Maintenance Checks must also be performed at this time. "Lube Key" references are to the lubrication chart.*

EVERY 18,000 HOUR MAINTENANCE	
Item	**Task**
SEAT BELTS AND TETHERS	Even if there are no signs of damage, replace both driver and passenger seat belts five years after seat belt manufacture, or every three years after start of use, whichever comes first.

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NOTE: *Some of the configuration parameters require a password to change. The password for all parameters except the Payload Gain is "**Kac2300**". This is case sensitive. The password for the payload gain, which is a critical setting, is not included in this document.*

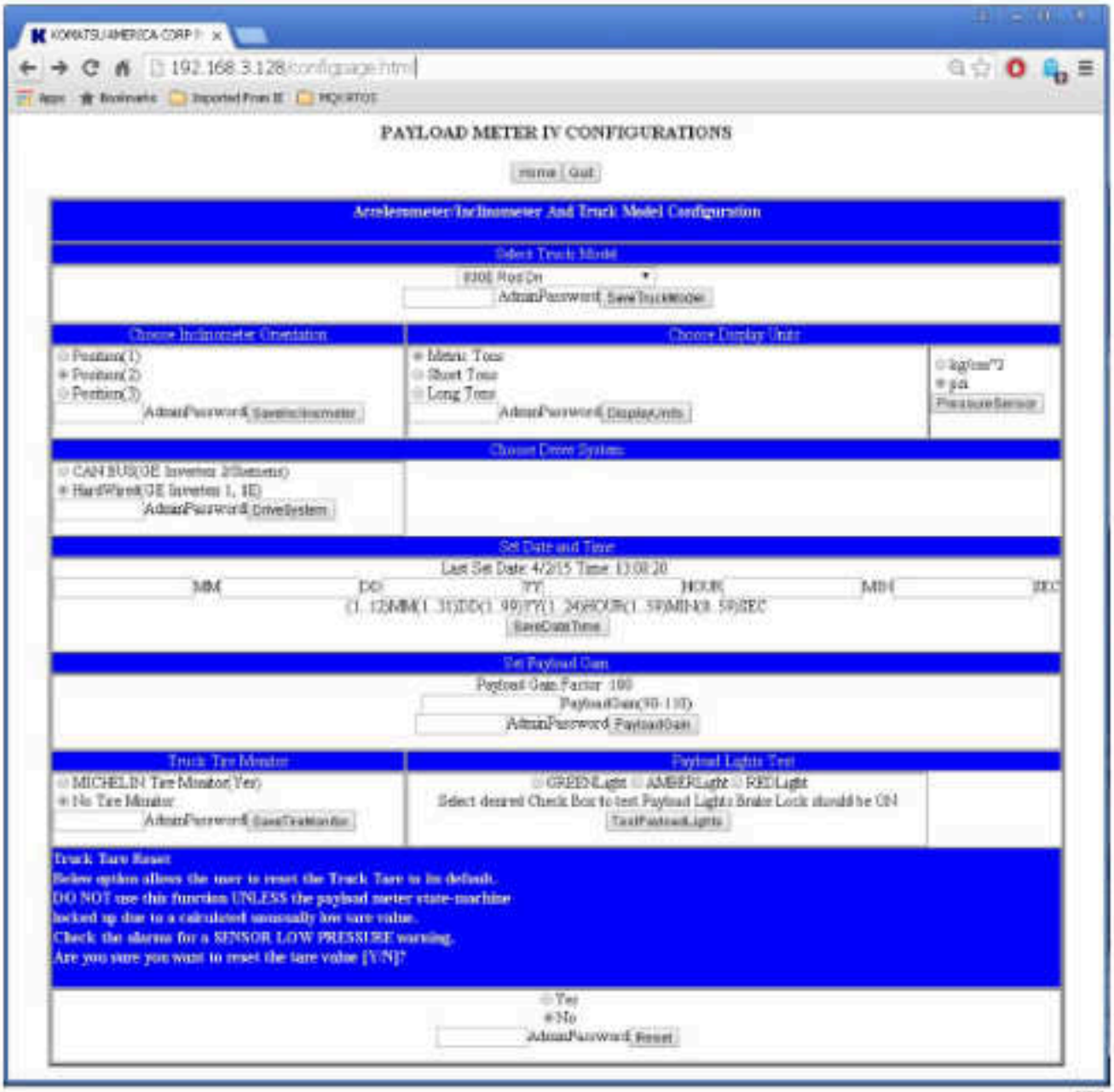
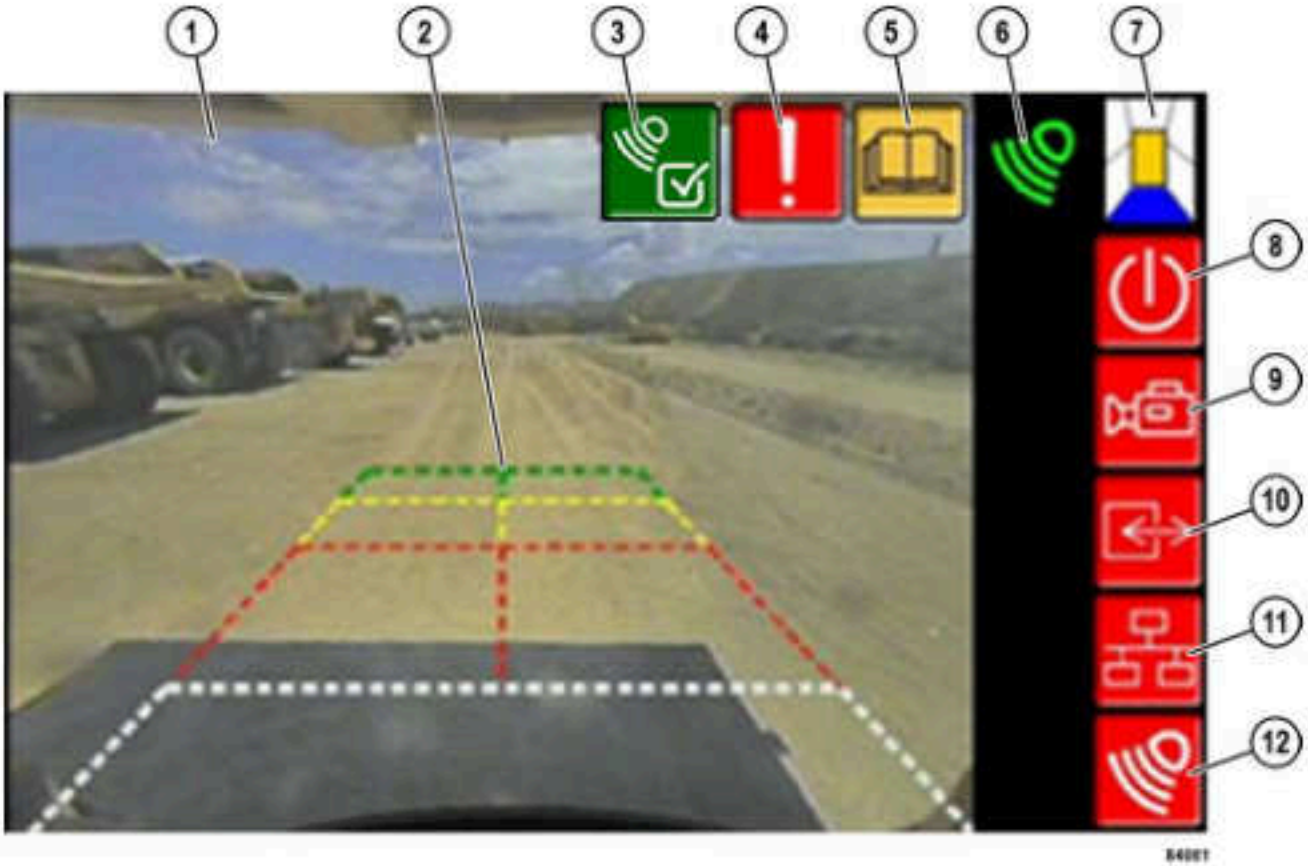


Figure 5-36 PAYLOAD METER IV CONFIGURATIONS

There are ten configuration parameters on this page. Below is a description of each.

- Truck Model
- PLM IV Mounting Orientation
- Gauge Display Units
- Pressure Sensor Units (for RTD web page only)
- Date and Time
- Payload Gain Factor
- Payload Light Test
- Truck Tare Reset

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1. Camera Display
2. Reference Lines
3. Radar Startup Inspection Mode Indicator
4. Fault Indicator
5. Read Manual Indicator
6. Radar System On/Off Indicator
7. Bird's Eye Camera Indicator
8. System Error Indicator
9. Camera Error Indicator
10. Input/Output Error Indicator
11. Communication Error Indicator
12. Radar Error Indicator

Figure 5-13 MONITOR DISPLAY — SINGLE DISPLAY MODE

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