Operation & Maintenance Manual

DG711



930E

DUMP TRUCK

SERIAL SUFFIX AFE48-A thru AFE48-N (Except L)

KOMATSU®

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TABLE OF CONTENTS

SUBJECT . . . . . **SECTION / PAGE**

INTRODUCTION . . . . . **SECTION 1**
Foreword 1-1
ALERTS Page - a description of the DANGER, WARNING, and CAUTION symbols used in this manual. . . . 1-2
TABLE OF CONTENTS 1-3
Truck Model Illustration 1-6
About This Manual 1-7
STANDARD CHARTS and TABLES . . . . . 1-9 thru 1-14

SAFETY . . . . . **SECTION 2**

Safety records of most organizations will show that the greatest percentage of accidents are caused by unsafe acts of persons. The remainder are caused by unsafe mechanical or physical conditions. Report all unsafe conditions to the proper authority. These safety rules are provided as a guide for the truck operator.
However, local conditions and regulations may add many more to this list.

GENERAL SAFETY 2-1
PRECAUTIONS DURING OPERATION 2-5
Operating Machine 2-6
Towing 2-9
Battery 2-10
PRECAUTIONS FOR MAINTENANCE 2-11
Before Carrying Out Maintenance 2-11
During Maintenance 2-12
Tires 2-15
Additional Job Site Rules 2-16
WHEN REPAIRS ARE NECESSARY 2-17
Special Precautions for Working on a 930E Truck 2-18
WARNING, CAUTION, and Instruction Plates / Decals . . . . . 2-21 thru 2-30

OPERATION . . . . . **SECTION 3**

This portion of the manual covers Identification, location,and operation of the controls, switches, and indicators in the Operator's Cab and use / function of these controls, switches, and indicators.

OPERATING INSTRUCTIONS
Preparing For Operation 3-1
Safety Is Thinking Ahead 3-1
At The Truck - Ground Level Walk-Around Inspection 3-1
ENGINE START-UP SAFETY PRACTICES 3-4
AFTER ENGINE HAS STARTED 3-5
MACHINE OPERATION SAFETY PRECAUTIONS 3-6
MACHINE OPERATION ON THE HAUL ROAD 3-6
STARTING ON A GRADE WITH A LOADED TRUCK 3-7
PASSING 3-7
LOADING 3-7
DUMPING 3-8
TOWING 3-9
SAFE PARKING PROCEDURES 3-10
NORMAL ENGINE SHUTDOWN PROCEDURE 3-10
DELAYED ENGINE SHUTDOWN PROCEDURE 3-11

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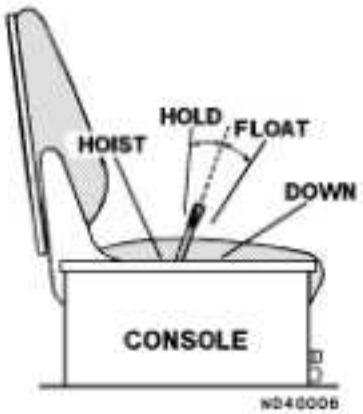
HOIST CONTROL LEVER

The hoist control (3, Figure 3-4) is a four position hand-operated lever located between the operator seat and the Center Console.

To Raise dump body:

1. Pull the 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 lever as the last stage reaches full extension.
5. After material being dumped clears the body, lower the body to frame.

Refer to "OPERATING INSTRUCTIONS, DUMPING" for more complete details concerning this control.



To lower body:

Move hoist 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.

ASH TRAY

The Ash Tray(4, Figure 3-4) is used for extinguishing and depositing smoking materials. DO NOT use for flammable materials, such as paper wrappers, etc.
Be certain that all fire ash is extinguished!

LIGHTER

The LIGHTER (5, Figure 3-4) may be used for lighting cigars/cigarettes.
Always use CAUTION with smoking materials!.

This socket may also be used for a 12 VDC power supply.

L.H. WINDOW CONTROL SWITCH

This switch (6, Figure 3-4) is spring-loaded to the "OFF" position. Pushing the front of the switch raises the left side cab window. Pushing the rear of the switch lowers the window.

R.H. WINDOW CONTROL SWITCH

This switch (7, Figure 3-4) is spring-loaded to the "OFF" position. Pushing the front of the switch raises the right side cab window. Pushing the rear of the switch lowers the window.

ENGINE SHUTDOWN SWITCH

This switch (8, Figure 3-4) is used for engine shutdown by depressing this button and holding it until engine stops.

Use this switch to shutdown engine if engine does not shutdown by turning off keyswitch, or to shutdown engine without turning off 24 VDC electric circuits.

There is also a ground level engine shutdown switch on the left front frame rail behind the ladder.

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250 HOUR LUBRICATION AND MAINTENANCE CHECKS

Maintenance for every 10 & 50 hour Lubrication and Maintenance Checks should also be carried out at this time.
NOTE: "Lube Key" references are to the Lubrication Specification Chart.

1. ENGINE - Change engine oil and replace lube oil filters. Lube Key "A".

NOTE: When installing spin-on filter elements, thread onto base until the seal touches the base and then tighten only 1/2 to 3/4 additional turn by hand to seat element fully. **Do not use a wrench or strap to tighten filter elements.**

2. HYDRAULIC SYSTEM FILTERS - Replace filter elements only after the ***initial 250*** hours of operation; then at each 500 hours of operation thereafter. Check oil level. Add oil as necessary. Lube Key "B".
3. FUEL FILTERS - Change Primary Fuel Filter, Secondary Fuel Filter, and Fuel Separator.
4. MOTORIZED WHEEL GEAR CASE - Refer to the G.E. planned maintenance manual and specific motorized wheel Shop Manual.
5. HYDRAULIC PUMP DRIVESHAFT & U-JOINTS - Add one or two applications of grease to each grease fitting. Check that each bearing of the Cross & Bearing assembly is receiving grease. Lube Key "D".
6. COOLING SYSTEM - Check cooling system for proper coolant mixuture. Add water as required.
7. REAR WHEEL MOUNTING - Using a mirror on a long rod and a flashlight, inspect where possible, all inner and outer wheel mounting nuts/studs for any evidence of looseness, damage, or missing hardware.

   If wheel mounting nuts/studs must be secured/replaced, outer wheel must be removed for access. Refer to Shop Manual, Section "G", for these procedures.

   Tighten wheel mounting nuts to ***1580 ± 150 ft.lbs. (2140 ± 203 N.m)*** torque.
8. STEERING LINKAGE - Check torque on pin retaining nuts (steering linkage), **525 ft.lbs. (712 N.m)**. Check torque on tie rod retaining capscrews, **310 ft.lbs. (420 N.m)**.
9. MAGNETIC PLUG - Remove magnetic plugs from front hub covers and inspect. Clean the plugs and perform any necessary repairs.

Truck Serial Number _____

Site Unit Number _____

Date:_____Hour Meter_____

Name of Service person_____

COMMENTS	√'d	INITIALS

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In order to adjust this gain:

1. Start with the payload meter in normal operation mode.
2. Adjust the gain pot, left to reduce the value and right to increase the value.
3. Press and hold the LIGHT/INC and MODE switches until "CHEC" is flashing on the meter. CHEC
4. Press and hold the LIGHT/INC switch until "ALL0" is flashing on the display. "A.FUL" may also be displayed. ALL0
5. Press the LIGHT/INC switch14 times. The number displayed will be the current Gt gain. This is not a "live" reading. Any time the potentiometer is changed, this cycle must be repeated to view the change.
6. Press MODE once and "CHEC" will flash on the display. CHEC
7. Press MODE once and the meter will return to normal operation.

These calculations used a 13" front suspension diameter and 10" rear suspension diameter.

$$\text{Sprung Weight} = \frac{\pi}{4} \text{Suspension Diameter}^2 \text{ (Psi Left + Psi Right)}$$

Sprung Weight = Axle Weight(lbs)/2000

Example Calculation of Payload

Front Weight (6)	106.00	Rear Weight(7)	75.10
X Incline Factor (9)	0.95	X Incline Factor (10)	0.98
	100.70		73.90
X Link Factor (11)	1.00	X Link Factor (12)	1.53
Front Weight	100.70	Rear Weight	113.70
Front Weight	100.70		
Rear Weight	113.70		
Total Weight	214.40		
XGain Factor (14)	1.00		
	214.40		
- Calibration (13)	-70.60		
Current Load(15)	143.80		

Figure6-5.

Calculation of the Calibration Load

This procedure is similar to the manual calculation of load. This calibration load is used as item #13 from the manual calculation procedure.

1. Press and hold the LIGHT/INC and MODE switches until "CHEC" is flashing on the display. CHEC
2. Press and hold the CAL/CLR switch until "CALL0" is flashing on the display. CALL0
3. Press the CAL/CLR switch to cycle through the following data. The sequence repeats.

Item and Description	Units
1. Year of Calibration	Last 2 digits of year
2. Month:Day of Calibration	XX:XX
3. Hour:Minute of Calibration	XX:XX
4. Truck Model Setting	
5. Pressure Front Left	Psi
6. Pressure Front Right	Psi
7. Pressure Rear Left	Psi
8. Pressure Rear Right	Psi
9. Front Sprung Weight	Tons
10. Rear Sprung Weight	Tons
11. Degree of Incline	±° Nose Up Positive
12. Incline Factor - Front Axle	
13. Incline Factor - Rear Axle	
14. Link Factor Front Axle	
15.Link Factor Rear Axle	
16. Calibration Weight	Tons

4. Press MODE once and "CHEC" will flash on the display. CHEC
5. Press MODE once and the meter will return to normal operation.

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