CEBM006402

Shop Manual

930E-2

DUMP TRUCK

SERIAL NUMBERS **A30156 thru A30180**
w/ MTU/DDC 4000 Engine

KOMATSU®

Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

SUBJECT	SECTION
GENERAL INFORMATION	A
STRUCTURES	B
ENGINE SYSTEMS	C
ELECTRIC SYSTEM (24 VDC. NON-PROPULSION)	D
ELECTRIC PROPULSION AND CONTROL	E
DRIVE AXLE, SPINDLES AND WHEELS	G
HYDRAIR® II SUSPENSIONS	H
BRAKE CIRCUIT	J
HYDRAULIC SYSTEM	L
OPTIONS AND SPECIAL TOOLS	M
OPERATOR'S CAB	N
LUBRICATION AND SERVICE	P
ALPHABETICAL INDEX	Q
SYSTEM SCHEMATICS	R

MidWestTech | Komatsu 930E- 2 Dump Truck Service Manual | Publication CEBM006402 Order the manual at mid-west-tech.com >

SECTION A

GENERAL INFORMATION

INDEX

MAJOR COMPONENTS & SPECIFICATIONS A2-1

GENERAL SAFETY AND TRUCK OPERATION A3-1

WARNINGS AND CAUTIONS. A4-1

STANDARD TABLES. A5-1

STORAGE PROCEDURES A7-1

MidWestTech | Komatsu 930E- 2 Dump Truck Service Manual | Publication CEBM006402 Order the manual at mid-west-tech.com >

23. After the brake assembly is properly positioned on the adapter and the four capscrews are snug, remove the alignment studs.

    Remove socket head capscrews (34) securing seal retainer (37) to brake assembly (18).

    Install the remaining brake adapter/brake assembly mounting capscrews (20) and hardened flatwashers (21). Tighten the capscrews to **1995 ± 100 ft. lbs. (2705 ± 136 N.m)**.

24. Install bearing retainer pin (40) in groove in spindle. Align and slide outer bearing cone (7) over pin. Lubricate the bearing with clean hydraulic oil.

25. Install shim pack (8), retainer (13), capscrews (11), and washers (12). Tighten the capscrews alternately in several successive increments while rotating the hub. Final torque is **750 ± 75 ft. lbs. (1017 ± 100 N.m)**.

26. Install a new O-ring (41) on cover (5). Install the cover, capscrews, and washers. Tighten the capscrews to standard torque.

Seal Assembly Gap Check

After the assembly of the wheel and brake is complete, the gap between seal carrier (3, Figure 3-7) and the brake assembly back plate (6) must be measured and adjusted if necessary.

The ideal gap is 0.433 in (11.0 mm). If necessary, the gap must be adjusted, using shims as required to maintain a **minimum** gap of 0.423 in (10.75 mm) to 0.443 in (11.25 mm) **maximum**.

27. Measure seal gap as follows:

    a. Measure gap, dimension "A", Figure 3-7 at three, equally spaced places and record the results.

    b. Add the three dimensions and divide the result by 3 to obtain the average gap width

28. If average gap width is not between the minimum and maximum allowable range, loosen the seal retainer capscrews (4, Figure 3-6) and add shims (5) as required to **reduce** the gap or remove shims to **increase** the gap. **The quantity and thickness of shims at each of the six locations must be equal.**

29. Re-tighten seal retainer capscrews to standard torque and measure gap as described in Step 28. If necessary, repeat Step 29 until the proper gap is maintained.

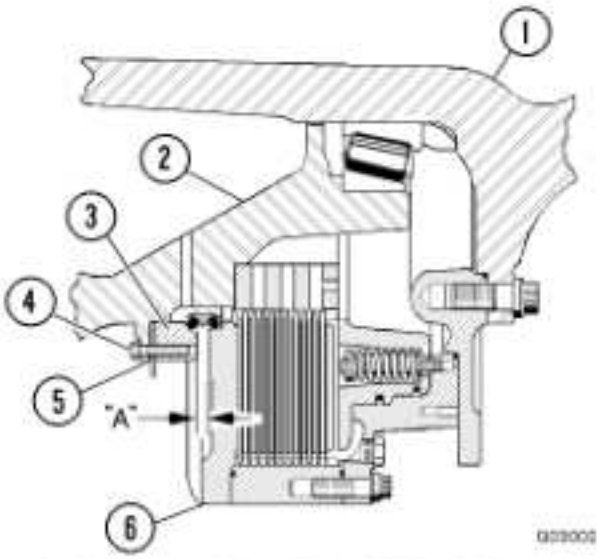


FIGURE 3-7. MEASURING SEAL GAP

1. Spindle
2. Wheel Hub
3. Seal Carrier
4. Capscrews
5. Shims
6. Brake Back Plate

30. Install speed sensor(s) (16, Figure 3-6) in support bracket(s) (17). Adjust sensor gap as follows:

    a. Rotate hub to position the top of a gear tooth directly under the sensor tip.

    b. Insert a 0.060 in (1.5 mm) feeler gauge between sensor tip and gear tooth. Loosen and adjust sensor clearance.

    c. Lock the sensor in place.

    d. Rotate hub 180° and verify clearance remains within 0.040 in (1.0 mm) minimum to 0.080 in (2.0 mm) maximum.

31. Install speed sensor cables.

32. Install hub and spindle assembly on suspension per instructions in Installation.

MidWestTech | Komatsu 930E- 2 Dump Truck Service Manual | Publication CEBM006402 Order the manual at mid-west-tech.com >

POSSIBLE CAUSES	SUGGESTED CORRECTIVE ACTION
TROUBLE: Steering wheel oscillates or turns by itself	
Lines connected to wrong ports	Check line routing and connections.
Parts assembled wrong. steering control unit improperly timed.	Reassemble correctly and time control valve.
TROUBLE: Steered wheels turn in opposite direction when operator turns steering wheel	
Lines connected to wrong cylinder ports	Inspect and correct line connections.

(STEERING PUMP)

TROUBLE: No pump output	
Air trapped inside steering pump	Bleed air from pump and/or system.
Broken pump drive shaft	Inspect hoist and steering pump, replace drive shaft.
Excessive circuit leakage	Check for external leaks, internal system pressure loss.
No oil to pump inlet	Check hydraulic tank oil level. Make certain pump inlet shut-off valve is open.
TROUBLE: Low pump output	
Low pump pressure	Check unloader valve operation and adjust pressure if necessary. Check compensator adjustment pressure. Check system relief valves.
Internal pump wear	Repair or replace steering pump.
Restricted inlet	Make certain shut-off valve is open. Check suction hose. Clean tank strainers.
Insufficient oil supply	Check hydraulic tank oil level. Make certain shut-off valve is open.
High pressure filter restricted	Replace filter element.

MidWestTech | Komatsu 930E- 2 Dump Truck Service Manual | Publication CEBM006402 Order the manual at mid-west-tech.com >

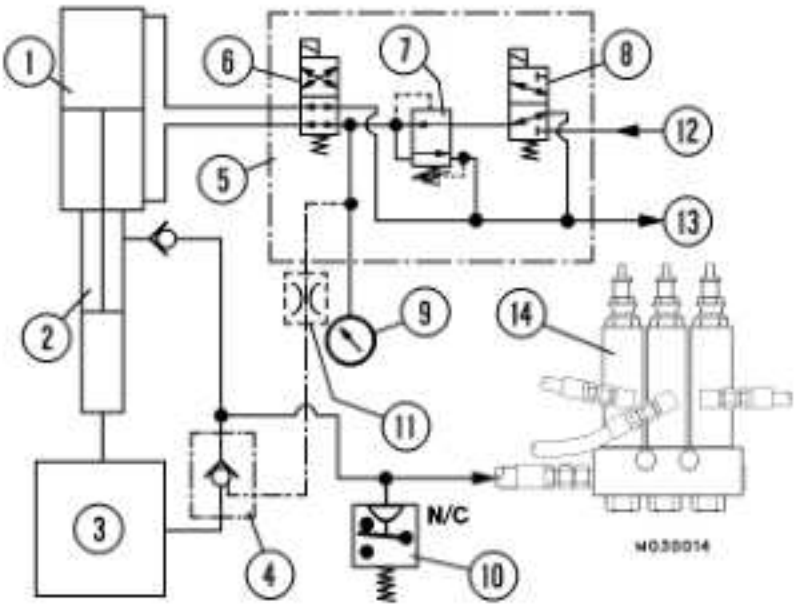


FIGURE 3-6. HYDRAULIC SCHEMATIC FOR AUTOMATIC LUBE

1. Grease Pump Cylinder
2. Grease Pump
3. Grease Reservoir
4. Vent Valve
5. Combination Valve (Pressure Reducing &Solenoid Valves)
6. Solenoid (SV2)
7. Pressure Reducer
8. Solenoid (SV1)
9. Gauge (Cyl. Press.)
10. Pressure Switch, N/C 2,000 PSI (13 790 kPa)
11. Orifice Assembly
12. Hydraulic Supply
13. Hyd. Tank (Return)
14. Injectors

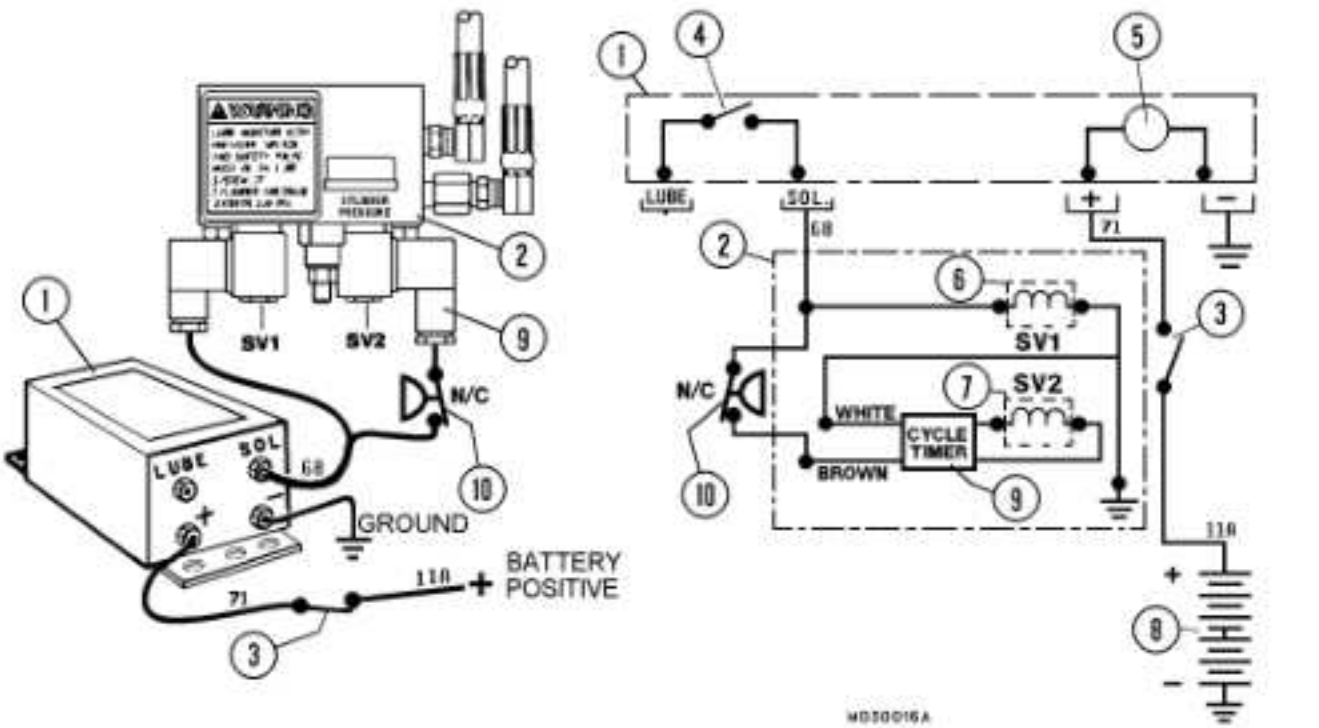
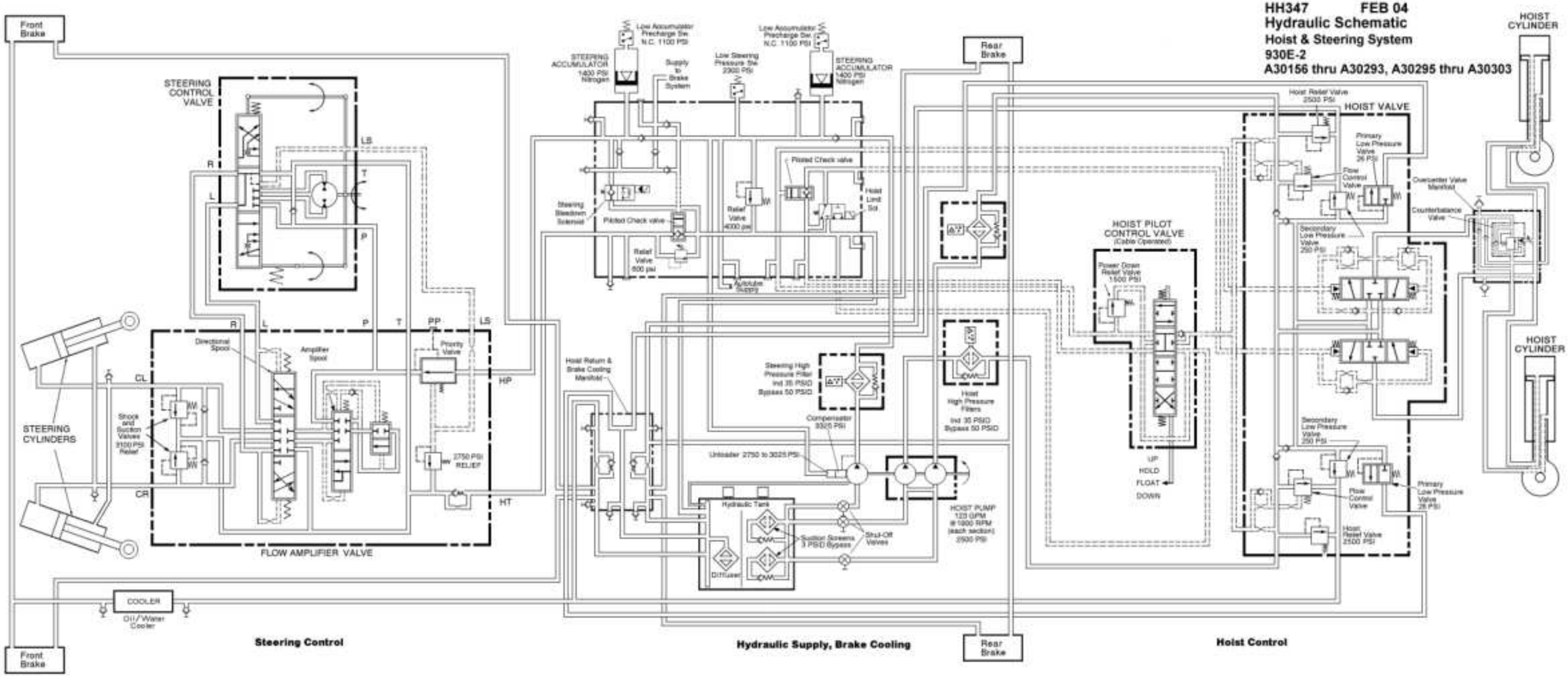


FIGURE 3-7. TYPICAL ELECTRICAL HOOKUP FOR AUTOMATIC LUBE

1. Timer Assembly
2. Combination Valve (Pressure Reducing &Solenoid Valves)
3. Keyswitch
4. Relay
5. Timer (solid State)
6. Solenoid (SV1)
7. Solenoid (SV2)
8. Battery (24 V)
9. Cycle Timer
10. Pressure Switch, N/C 2,000 PSI (13 790 kPa)

MidWestTech | Komatsu 930E- 2 Dump Truck Service Manual | Publication CEBM006402 Order the manual at mid-west-tech.com >

HH347 FEB 04
Hydraulic Schematic
Hoist & Steering System
930E-2
A30156 thru A30293, A30295 thru A30303



Order the manual at mid-west-tech.com >