CEBM025700

Shop Manual

730E

DUMP TRUCK

SERIAL NUMBERS **A30620, A30622 - A30632**

KOMATSU®

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TABLE OF CONTENTS

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

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SECTION A
GENERAL INFORMATION
INDEX

MAJOR COMPONENTS & SPECIFICATIONS A2

SAFETY AND OPERATING INSTRUCTIONS A3

WARNINGS AND CAUTIONS A4

TORQUE TABLES AND CONVERSION CHARTS A5

STORAGE AND IDLE MACHINE PREPARATION A7

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Determining Shim Requirements

1. Subtract engine dimension B from alternator dimension A determined in the previous steps.
2. Add 0.25 mm (0.010 in.) to result in Step 1. The result is the shim pack thickness required Refer to Table II.
3. If the alternator reading Measurement A is greater than the engine reading Measurement B:
   - ❑ Install the shim pack between alternator housing face and flywheel housing face (5, Figure 4-7).
4. If the alternator reading Measurement A is less than the engine reading Measurement B:
   - ❑ Install the shim pack between armature rotor coupling adapter and engine coupling (6, Figure 4-8).

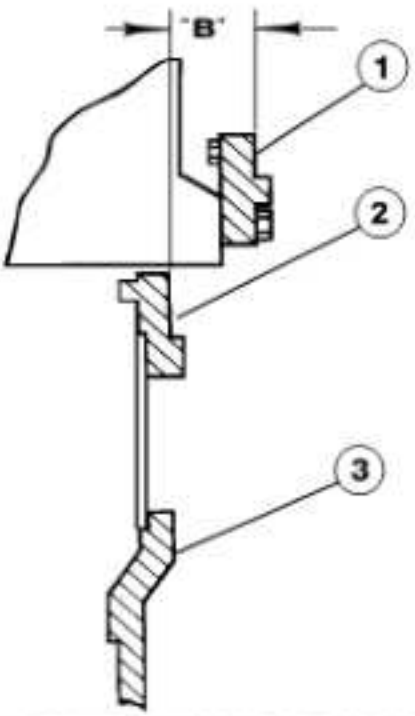


FIGURE 4-6. DETERMINING MEASREMENT B

1. Alternator Mounting Face
2. Rotor Drive Adapter Mounting Face
3. Engine Flywheel

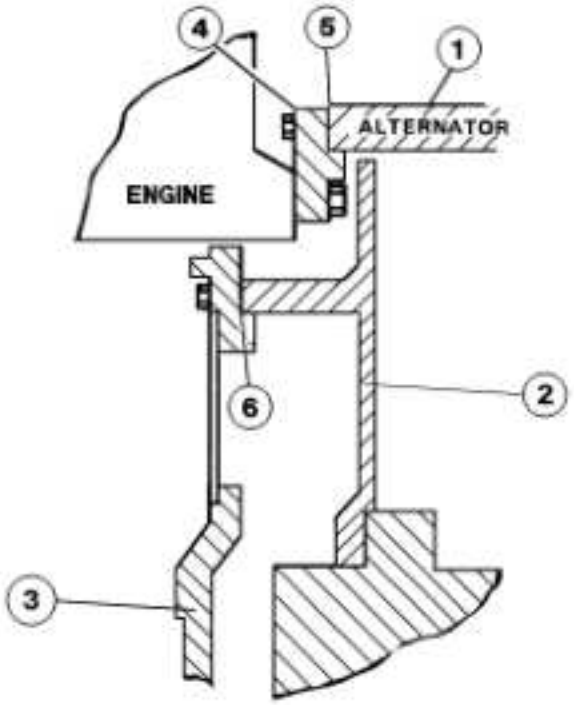


FIGURE 4-7. SHIM PLACEMENT LOCATION

1. Alternator Housing
2. Rotor Drive Adapter
3. Flywheel
4. Flywheel Housing Adapter
5. Housing Shim Location
6. Flywheel Shim Location

Table 2: ENGINE/ALTERNATOR SHIMS

Part No.	LOCATION	THICKNESS	
		inches	millimeters
TM3466	Housing	0.004	0.102
TM3467	Flywheel	0.004	0.102
TM3468	Housing	0.007	0.179
TM3469	Flywheel	0.007	0.179

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Chassis Fault Codes

Fault codes generated from the truck chassis, PLM III, or GE are shown in Table 3.

Table 3: Chassis Fault Codes

KOM-TRAX Plus Fault Code	KOMTRAX Plus Fault Description	Source	Sent via OrbComm	Snapshot Trigger	Model Notes
#A1	LF Pressure Sensor Signal High	PLMIII			All
#A2	LF Pressure Sensor Signal Low	PLMIII			All
#A3	RF Pressure Sensor Signal High	PLMIII			All
#A4	RF Pressure Sensor Signal Low	PLMIII			All
#A5	LR Pressure Sensor Signal High	PLMIII			All
#A6	LR Pressure Sensor Signal Low	PLMIII			All
#A7	RR Pressure Sensor Signal High	PLMIII			All
#A8	RR Pressure Sensor Signal Low	PLMIII			All
#A9	Inclinometer Sensor Signal High	PLMIII			All
#A10	Inclinometer Sensor Signal Low	PLMIII			All
#A13	Body Up Switch Failure	PLMIII			All
#A14	Internal Checksum Failure	PLMIII			All
#A16	Internal Memory Write Failure	PLMIII			All
#A17	Internal Memory Read Failure	PLMIII			All
#A18	RR Flat Cylinder Warning	PLMIII			All
#A19	LR Flat Cylinder Warning	PLMIII			All
#A20	Date/Time Change	PLMIII			All
#A21	Manual Tare Reset	PLMIII			All
#A22	Alarm Carry Back	PLMIII			All
#A26	User Switch Select Failure	PLMIII			All
#A27	User Switch Clear Failure	PLMIII			All

RBM - Right Bank Manifold
LBM - Left Bank Manifold
RBR - Right Bank Rear
RBF - Right Bank Front
IMT - Intake Manifold Temperature
ckt - Circuit
RR - Right Rear
LR - Left Rear
LF - Left Front
RF - Right Front

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17. Install O-ring (12, Figure 8-19) and back-up ring (23) on cover (10). Align and lower the cover onto housing (4). Install cap screws and lock washers (11). Tighten the cap screws to standard torque.
18. Install hoist cylinder eye bearing (5, Figure 8-18) and retainer rings (4) if removed.
19. If the cylinder is going to be stored, add a small amount of clean C-4 oil to the cylinder through the ports on the rod eye section to prevent rust. Seal the ports with tape or covers after the oil is added.

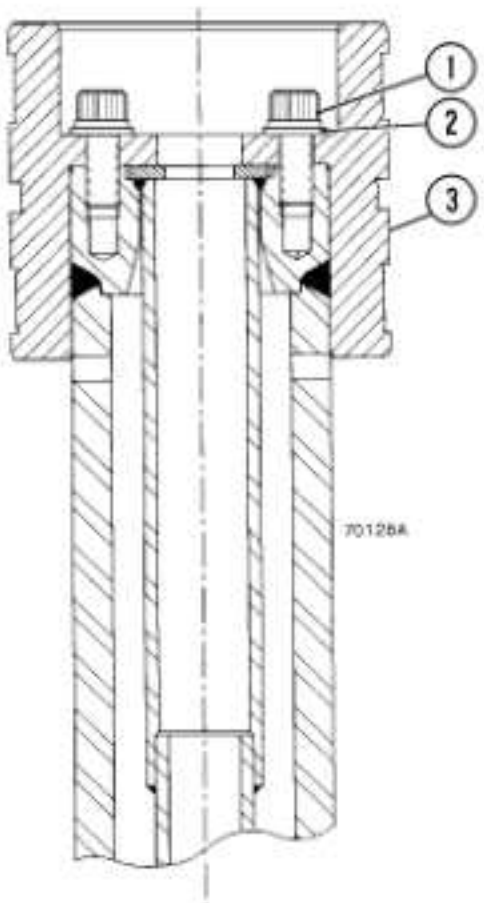


FIGURE 8-23. THIRD STAGE PISTON

1. Cap Screw
2. Hardened Flat Washer
3. Piston

Pressure Testing

After the cylinder is assembled, perform the following tests to verify that performance is within acceptable limits.

1. With the rod fully extended, piston leakage must not exceed 164 cm^3/min. (10.0 in^3/min.) at 17 250 kPa (2,500 psi), port to port.
2. With the rod fully retracted, piston leakage must not exceed 328 cm^3/min. (20.0 in^3/min.) at 17 250 kPa (2,500 psi), port to port.
3. External rod seal leakage must not exceed one drop of oil in eight cycles of operation.

COUNTERBALANCE MANIFOLD

The counterbalance manifold is located to the rear of the hoist valve. The internal counterbalance valve relieves excessive pressure that can develop in the annulus area of the hoist cylinders if the load sticks to the tail of the body as the body goes overcenter while dumping.

Figures 8-24 through 8-26 show the proper placement of the O-rings and back-up-rings on the needle valve, counterbalance valve, and the cavity plug.

For information on how the counterbalance valve functions, see Hoist Circuit Operation in this section. For adjusting of the counterbalance valve, refer to the Hydraulic Checkout Procedure in this section.

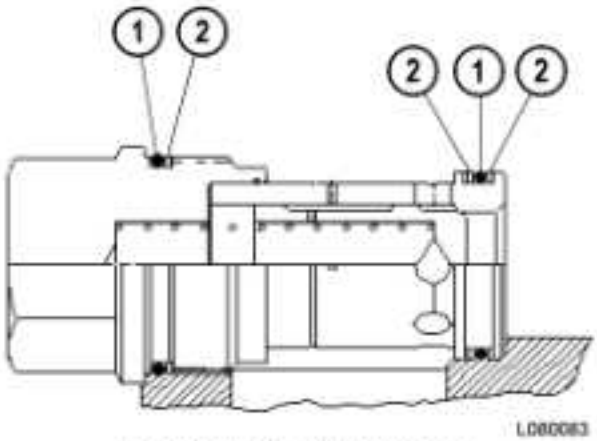
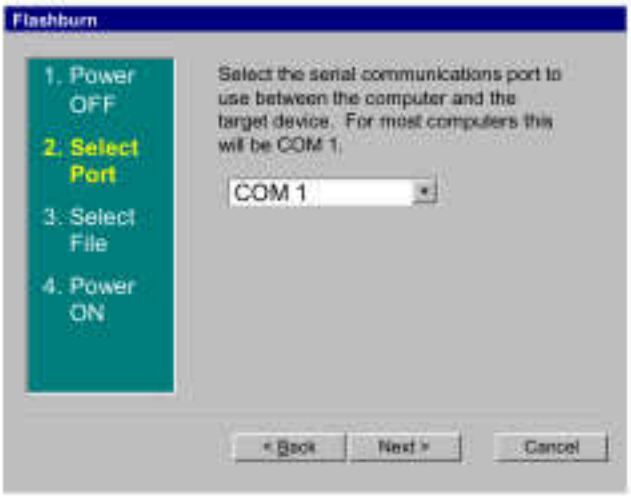


FIGURE 8-24. CAVITY PLUG

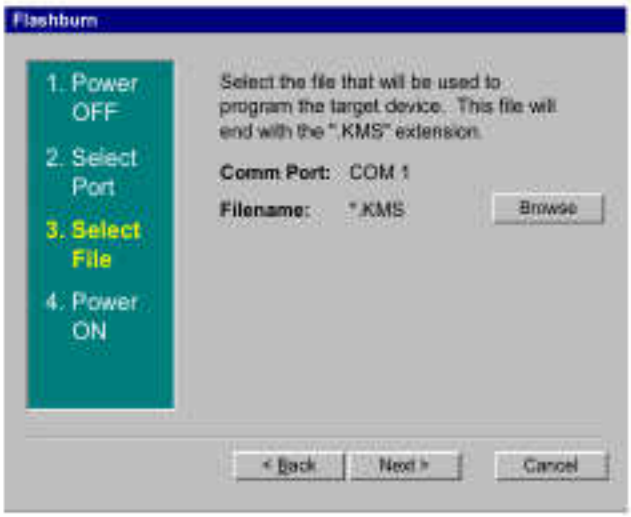
1. O-Rings
2. Back-Up Rings

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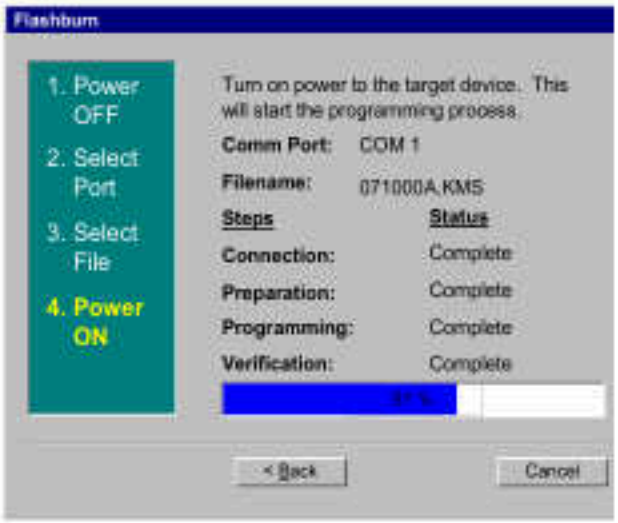
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



5. Press "BROWSE" and select the ".kms" file to program into the payload meter. Press "NEXT".



6. When instructed, turn the key switch ON in order to power-up the payload meter. The PC will begin to reprogram the payload meter. This process takes approximately 5 minutes.



7. After successful programming, turn the key witch OFF.
8. Wait 20 seconds and turn the key switch ON.
9. The payload meter will need to be configured as instructed in the manual using the Payload Data Manager software on the laptop computer.

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A/C DRIVE BELT CHECKOUT PROCEDURE

This procedure must be performed each time any component in the accessory drive is serviced, such as replacing a belt or removing the compressor. In addition, a 250 hour inspection of the AC drive belt is mandatory. The belts must be inspected for indications of wear and damage that may hinder performance. Replace as necessary and perform the following procedure.

Pulley Alignment

1. Install alignment tool (EL8868) onto the pulleys to check the alignment. Refer to Figure 4-15. If misalignment of the pulleys exceeds 3 mm (0.13 in.), the position of the compressor must be adjusted.

Belt Tension Check

NOTE: This procedure has been written for use with belt tension tool (XA3379), shown in Figure 4-13. Other tension tools may differ in functionality.



FIGURE 4-13. BELT TENSION TOOL - XA3379

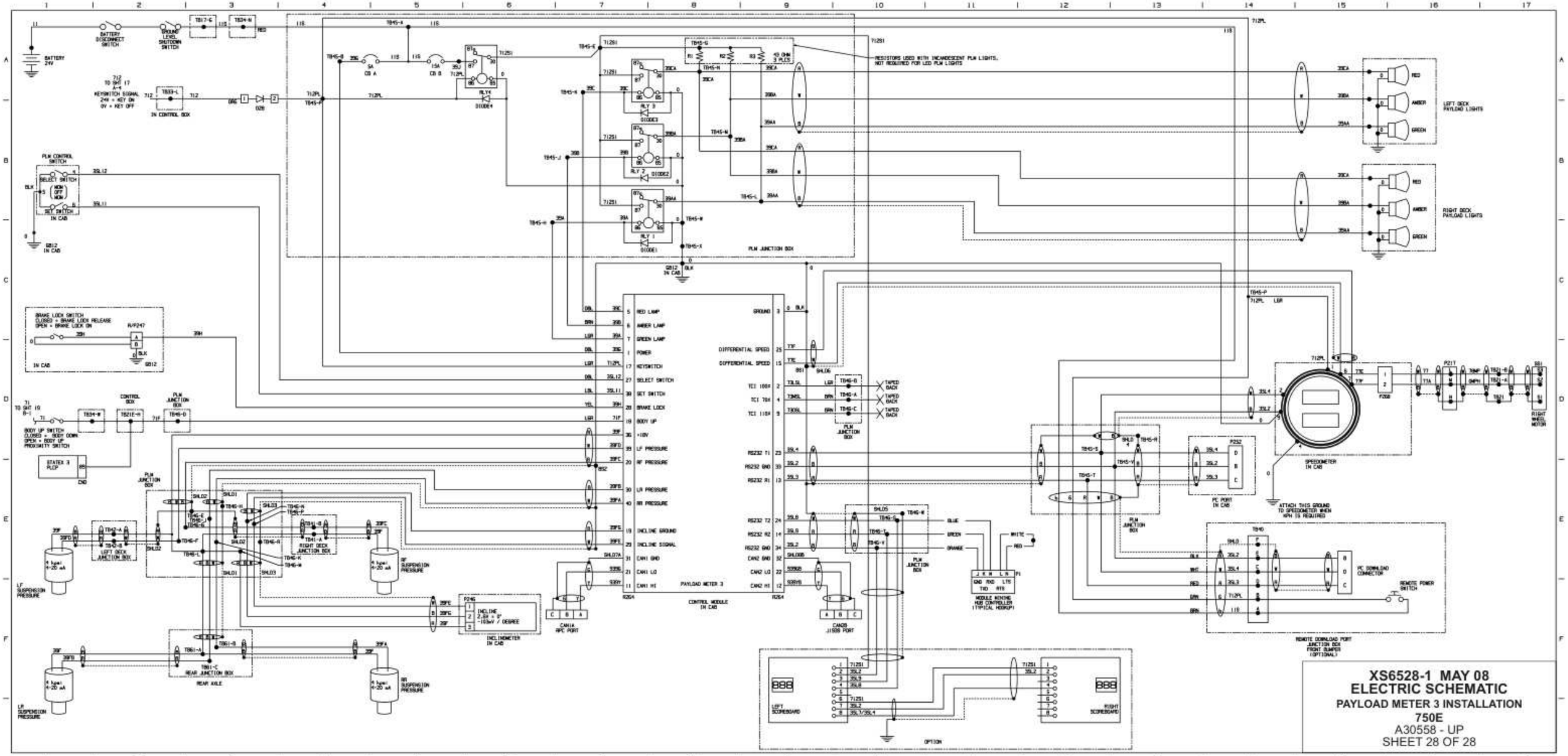
2. Refer to Figure 4-16 for the proper distance from the centerline of the drive pulley to the centerline of the compressor pulley. Set the tension tool accordingly on the deflection scale by moving the deflection O-Ring to the corresponding distance on the scale.
3. Slide the O-Ring for the "force" scale to zero.



FIGURE 4-14. DEFLECTION MEASUREMENT

4. Find the approximate center of the belt between the two pulleys. Place the tip of the tool onto the outer face of the belt and apply pressure, as shown in Figure 4-14. The tool must be perpendicular to the belt. Push on the tool until the bottom edge of the deflection scale O-Ring is even with the outer face of the adjacent drive belt. If only one belt is used, rest a straight edge across both pulleys to serve as the indicating plane.
5. The O-Ring on the force scale indicates the force used to deflect the belt. The belt must deflect 5.3 mm (0.21 in.) under a force of 1.6 ± 0.1 kg f (3.44 ± 0.11 lbf). If not, adjust the belt accordingly and recheck the tension.

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