CEBM023603

Shop Manual

930E-4

DUMP TRUCK

SERIAL NUMBERS **A31002 - A31054**

KOMATSU®

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603

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

TABLE OF CONTENTS

SUBJECT . . . . . SECTION

GENERAL INFORMATION . . . . . A

STRUCTURES . . . . . B

ENGINE C

ELECTRICAL SYSTEM (24VDC NON-PROPULSION) . . . . . D

ELECTRIC PROPULSION SYSTEM . . . . . E

REAR AXLE, SPINDLES AND WHEELS . . . . . G

HYDRAIR® II SUSPENSIONS . . . . . H

BRAKE CIRCUIT . . . . . J

HYDRAULIC SYSTEM L

OPTIONS AND SPECIAL TOOLS . . . . . M

OPERATOR CAB AND CONTROLS . . . . . N

LUBRICATION AND SERVICE . . . . . P

ALPHABETICAL INDEX . . . . . Q

SYSTEM SCHEMATICS . . . . . R

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

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

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

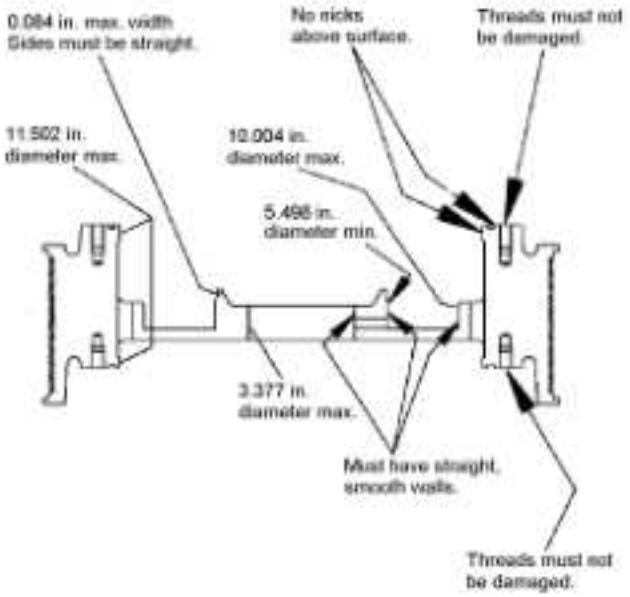
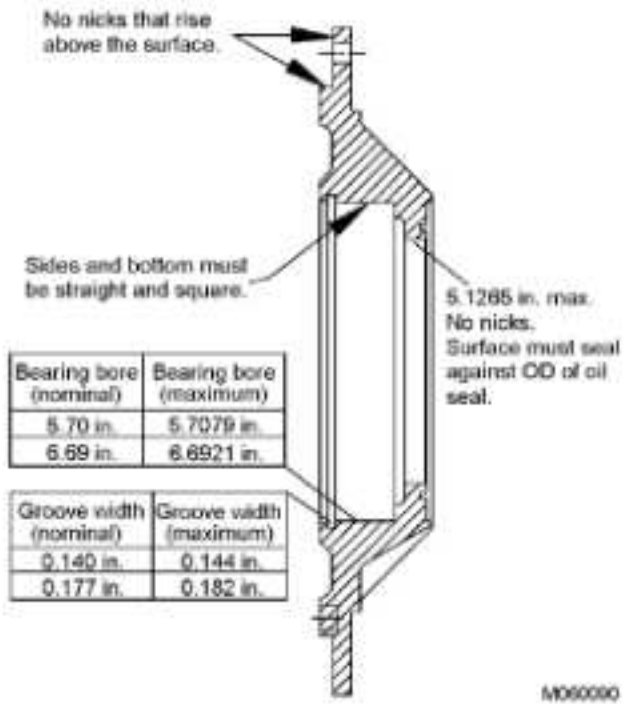


FIGURE 7-32.

3. Check pulley and adapter dimensions.



Bearing bore (nominal)	Bearing bore (maximum)
5.70 in.	5.7079 in.
6.69 in.	6.6921 in.

Groove width (nominal)	Groove width (maximum)
0.140 in.	0.144 in.
0.177 in.	0.182 in.

FIGURE 7-33.

4. Check rear bearing retainer (11) dimensions.

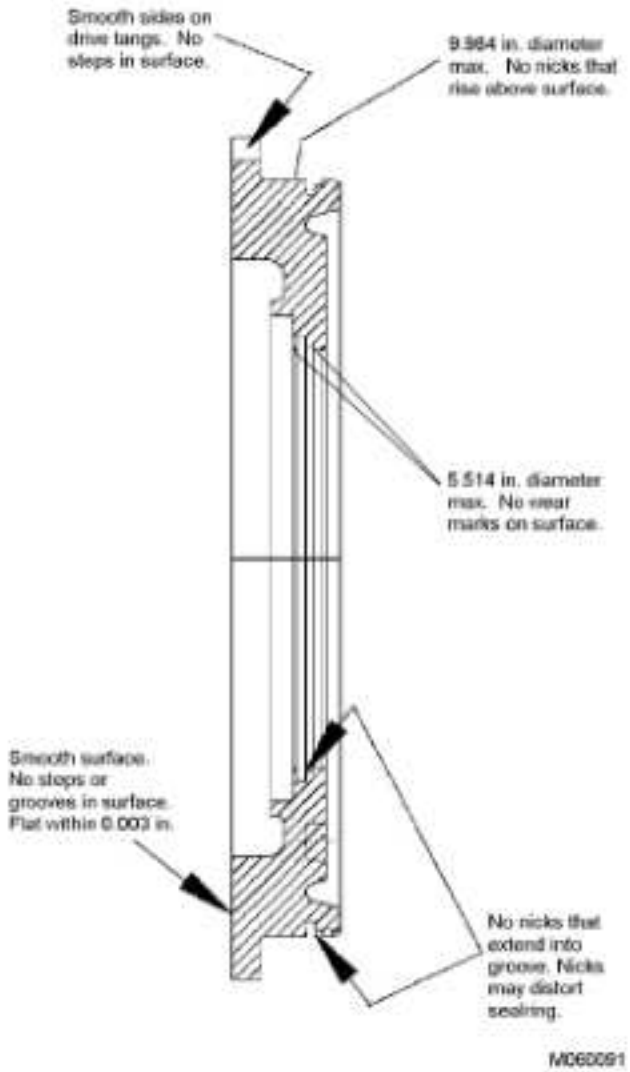


FIGURE 7-34.

5. Check piston (23) dimensions.

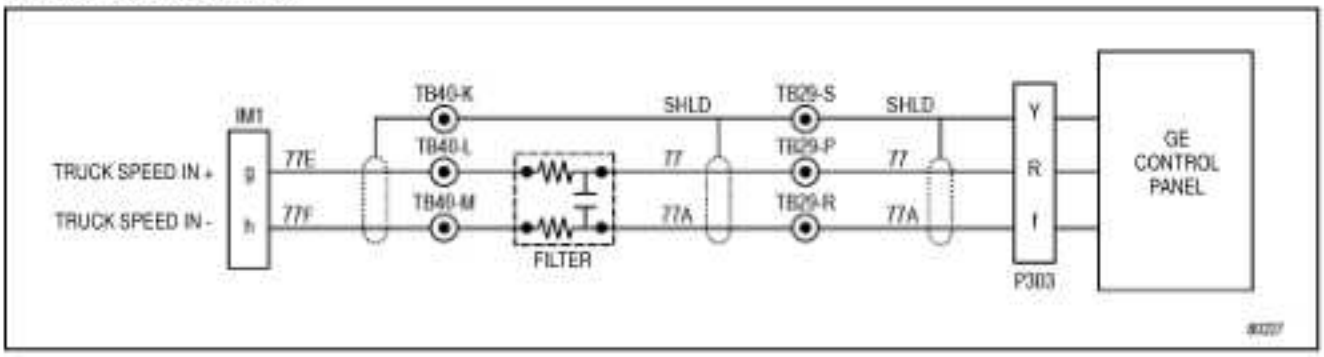
MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

Fault Code A011: Payload meter speed sensor signal has failed

Operator Action	None
Fault Code	A011
Description	Payload meter speed sensor signal has failed.
Fault Conditions	Sets when payload meter declares a speed sensor fault. Resets when payload meter resets the speed sensor fault.
Operator Alerting System Response	PLM Display: ------
Resulting Problem(s)	Payload and haul cycle data is bad.
Related Information	A laptop running "IM Realtime Data Monitor" software may be required to resolve this fault.

Table	
1. The primary correction for this fault is to correct any external wiring or replace the GE signal source. 2. Refer to the schematic to identify which item(s) may be causing the parameter(s) to be in the unexpected state. Troubleshoot these items. 3. If this fault is not currently active or if no parameters are currently in the unexpected state and the malfunction is still unresolved, then check each of the parameters in the Table for proper functionality. Troubleshoot all item(s) related to the parameter(s) which are found to be malfunctioning.	
Parameter	**Expected State and/or Related Fault(s)**
Truck Speed Signal (PLM3 15, 25)	7 Hz: truck is not moving Greater than 7 Hz: truck is moving Fault(s): A212

Related circuit diagram



MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

Fault Code A360: Overload on output 1S

Operator Action	None
Fault Code	A360
Description	Overload on output 1S.
Fault Conditions	Sets if driver chip detects overcurrent or over temp on output 1S. Output is turned off when overload is detected. Resets at power down.
Operator Alerting System Response	Amber "IM Maintenance" Lamp No Buzzer Right Lamp Module Row 5, Column 3
Resulting Problem(s)	Unused outputs with short circuits on them might damage the driver chip if not corrected.
Related Information	A laptop running "IM Realtime Data Monitor" software may be required to resolve this fault.

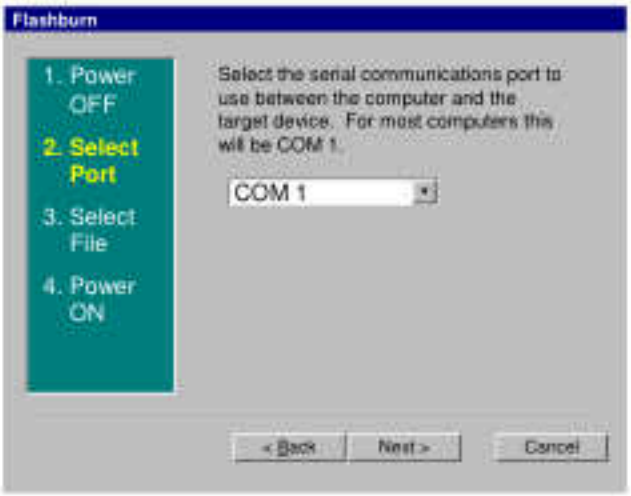
Table

1. This fault's logic contains just one parameter, which may have additional fault code(s). This fault may be resolved by resolving the parameter(s) active fault code(s). Refer to the Troubleshooting Instructions for the active parameter fault(s).
2. If there are no active parameter fault codes, then based on the truck's setup while this fault is active, determine which of the parameters in the Table is not shown in its expected state on the IM Realtime Data Monitor program. Refer to the schematic to identify which item(s) may be causing the parameter(s) to be in the unexpected state. Troubleshoot these items.
3. If this fault is not currently active or if no parameters are currently in the unexpected state and the malfunction is still unresolved, then check each of the parameters in the Table for proper functionality. Troubleshoot all item(s) related to the parameter(s) which are found to be malfunctioning.

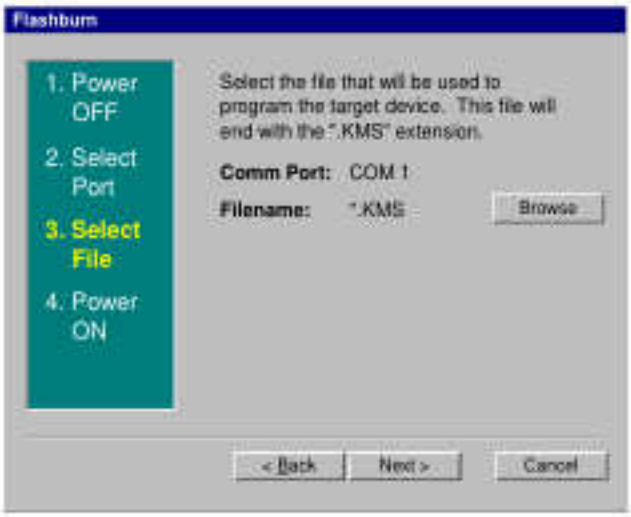
Parameter	Expected State and/or Related Fault(s)
Engine Start Fail Lamp (IM1 S)	Status - Open Load: Unexpected. Troubleshoot Status - Normal: Expected Status - Shorted to Ground: Unexpected. Troubleshoot Status - Overload: Unexpected. Troubleshoot. 0: Lamp Off (IM output at B+) 1: Lamp On (IM output at ground)
IM Maintenance Lamp (IM1 X)	Status - Open Load: Unexpected. Troubleshoot Status - Normal: Expected Status - Shorted to Ground: Unexpected. Troubleshoot Status - Overload: Unexpected. Troubleshoot. 0: Lamp Off (IM output at B+) 1: Lamp On (IM output at ground) Fault(s): A363

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

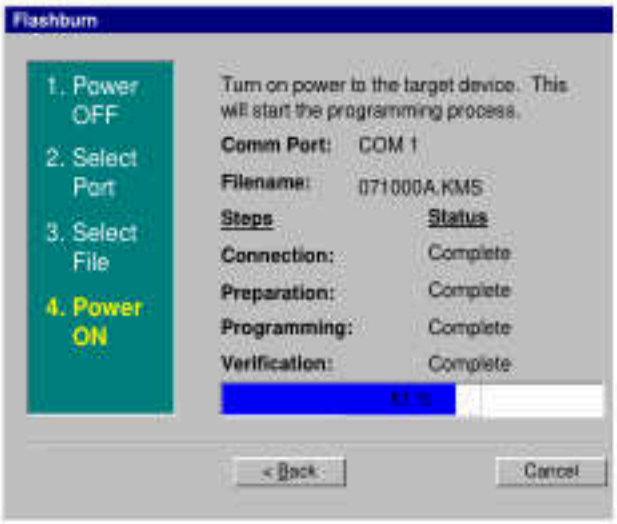
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



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.

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >

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

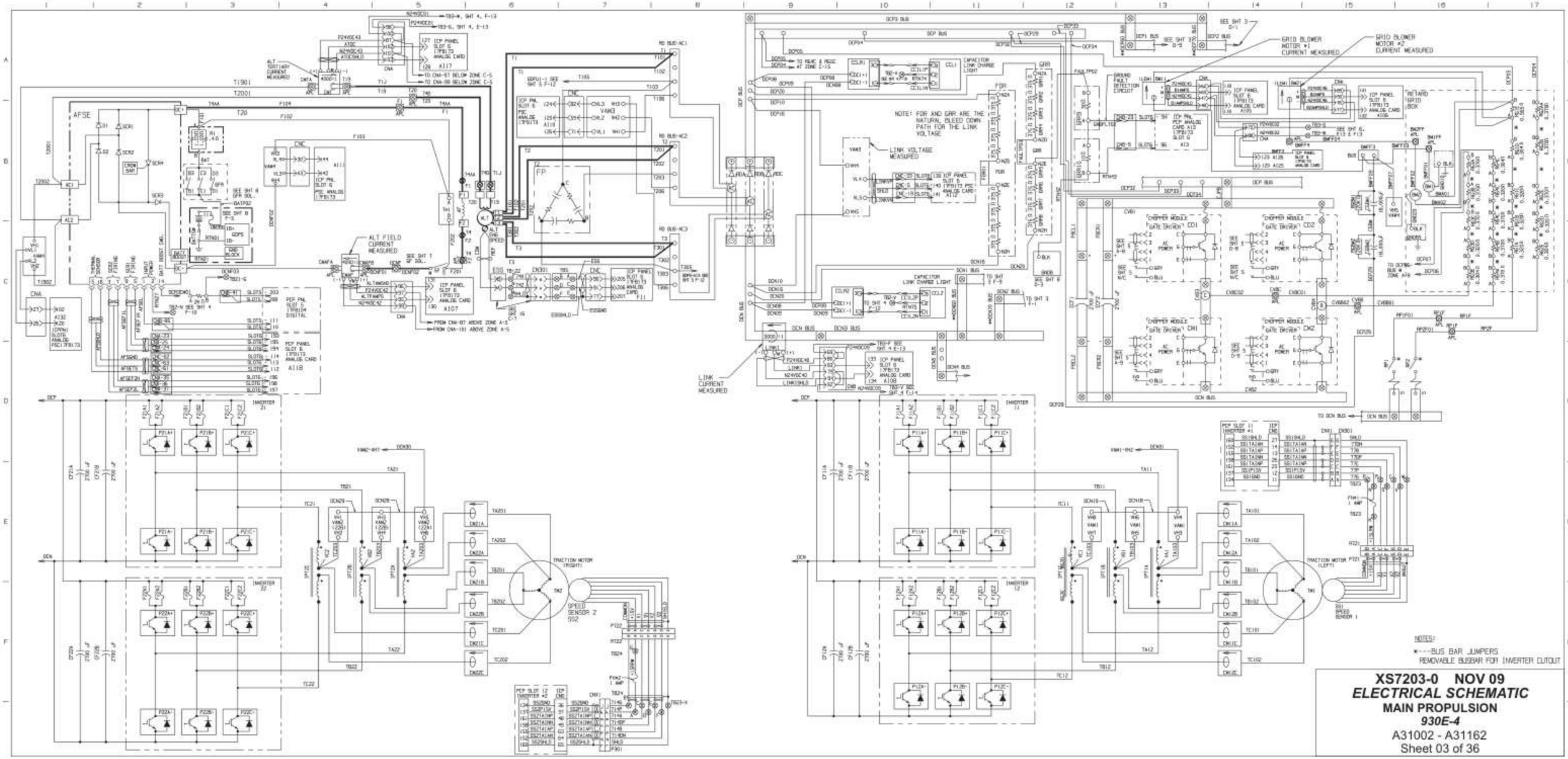
2. Refer to Figure 4-16 for the proper distance from the centerline of the drive pulley to the centerline of the compressor pulley. Set the tension tool accordingly on the "deflection" scale by moving the deflection O-ring to the corresponding distance on the scale.
3. Slide the O-ring for the "force" 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 kgf (3.44 ± 0.11 lbf). If not, adjust the belt accordingly and recheck the tension.

MidWestTech | Komatsu 930E -4 Dump Truck Service Manual | Publication CEBM023603 Order the manual at mid-west-tech.com >



XS7203-0 NOV 09

ELECTRICAL SCHEMATIC

MAIN PROPULSION

930E-4

A31002 - A31162

Sheet 03 of 36

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