CEBM021201

Shop Manual

730E

DUMP TRUCK

SERIAL NUMBERS **A30552 - A30580**

KOMATSU®

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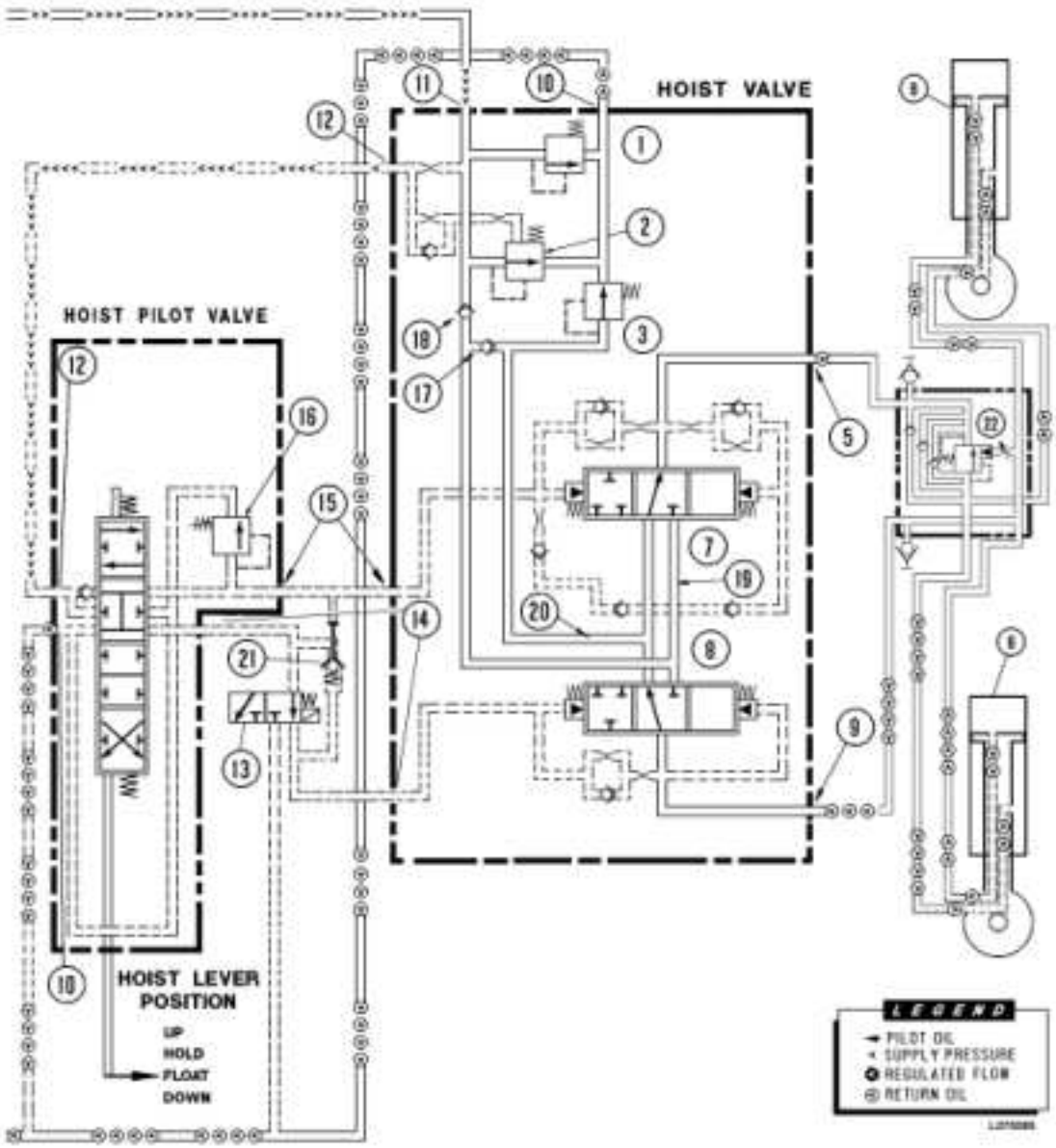


FIGURE 7-5. FLOAT POSITION

1. Hoist Relief Valve 17 238 (2,500 psi)
2. Flow Control Valve
3. Low Pressure Relief Valve 517 kPa (75 psi)
4. Not Used
5. Rod End Work Port
6. Hoist Cylinders
7. Rod End Spool
8. Head End Spool
9. Head End Work Port
10. Return Port
11. Supply Port
12. Pilot Supply Port
13. Hoist Limit Solenoid
14. Raise Pilot Port
15. Down Pilot Port
16. Power Down Relief Valve 10 341 kPa (1,500 psi
17. Anti-Void Check Valve
18. Load Check Valve
19. High Pressure Passage
20. Low Pressure Passage
21. Pilot Operated Check Valve
22. Overcenter Manifold

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17. Steer lock-to-lock 10 times to purge the steering system of air. Stop the truck. Depressurize the steering accumulators completely. Ensure the oil is visible in the upper sight glass on the hydraulic tank. Add oil, if necessary.

COMPONENT CHECKOUT AND ADJUSTMENT

18. Before checking the shock valves in the steering system, increase the steering pressure to the steering cylinders by removing the external seal on the flow amplifier with an 8 mm allen wrench. Turn the adjustment screw completely inward using a 5 mm allen wrench.

19. Raise the unloader valve cut-out pressure to 21 374 kPa (3,100 psi) measured at the bleed-down manifold test port.

20. To check the shock valve pressure, steer away from the cylinder stops. Then steer into the stop and continue to rotate the steering wheel. One gauge on the steering cylinder manifold will read approximately 19 995 kPa (2,900 psi). Steer into the opposite stop. The other gauge on the steering cylinder manifold will read approximately 19 995 kPa (2,900 psi).

21. After checking the steering shock valve pressures, lower the steering supply pressure to 17 237 kPa (2,500 psi). To do this, rotate the steering wheel fully left or right into the stop and adjust the steering pressure with a 5 mm allen wrench at the flow amplifier while slowly turning the steering wheel. When adjusted properly, the steering cylinder pressure will be 17 237 kPa (2,500 psi) at the steering cylinder manifold when steering against the stops. Replace the external seal on the flow amplifier using a 8 mm allen wrench.

22. The unloader valve must be adjusted to unload the steering pump when the accumulator pressure, measured at the bleed-down manifold test port, reaches 20 512 kPa (2,975 psi). After adjustment, tighten the lock nut and verify the unload pressure remains at 20 512 kPa (2,975 psi) by steering to cause the unloader valve to cycle. Replace the cover.

23. Verify the low steering accumulator pressure switch activates at 14 479 ± 317 kPa (2,100 ± 46 psi) falling, measured at the test port on the bleed-down manifold.

    Start the truck and allow the pump to pressurize the steering accumulators before stopping the engine. DO NOT depressurize the steering accumulators with the bleed-down solenoid valve on the bleed-down manifold. Open the needle valves in the brake cabinet to depressurize the steering accumulators. Observe the pressure value which activates the warning light and warning buzzer. The activation range must be within 14 479 ± 317 kPa (2,100 ± 46 psi) falling. If outside this pressure range, locate and correct the problem.

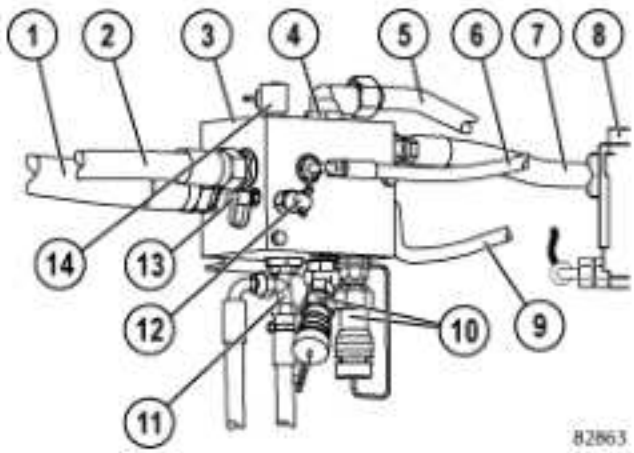
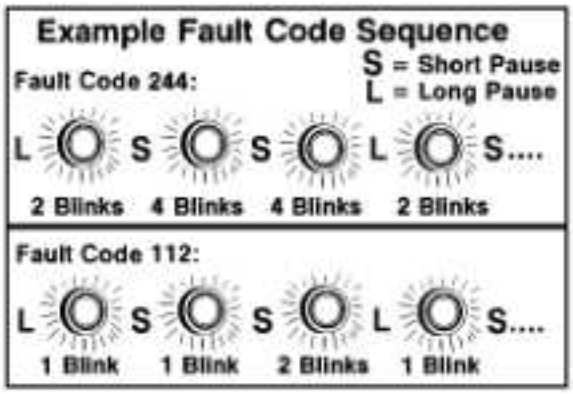


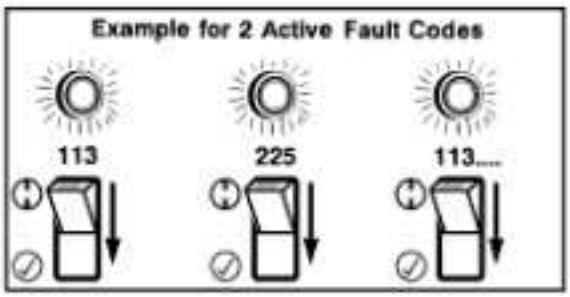
FIGURE 10-2. BLEED-DOWN MANIFOLD VALVE

1. Inlet From Filter
2. Return To Tank
3. Valve Body
4. Check Valve
5. Supply To Flow Amplifier
6. Return To Tank
7. Return From Flow Amplifier
8. Flow Amplifier
9. Brake Circuit Supply
10. Auxiliary Quick Disconnects
11. To Steering Accumulators
12. Low Steering Pressure Switch
13. Test
16. Bleed-Down Solenoid

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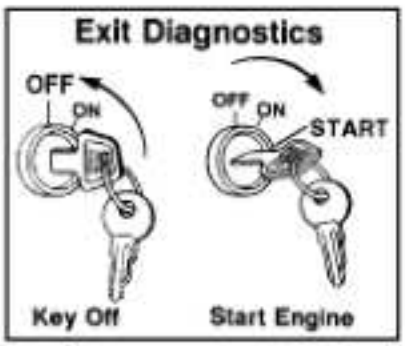


4. Pressing the lamp test switch to the bottom (√) again will advance to the next fault code (if more than one code is present). Once all the active fault codes have been displayed, the fault code display sequence will be repeated, starting from the first fault code.



EXITING THE DIAGNOSTICS MODE

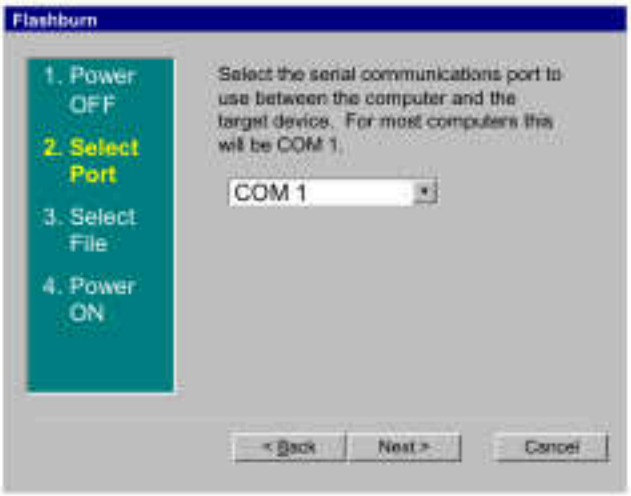
Starting the engine or turning the key switch to the OFF position will exit the diagnostics fault flash mode.



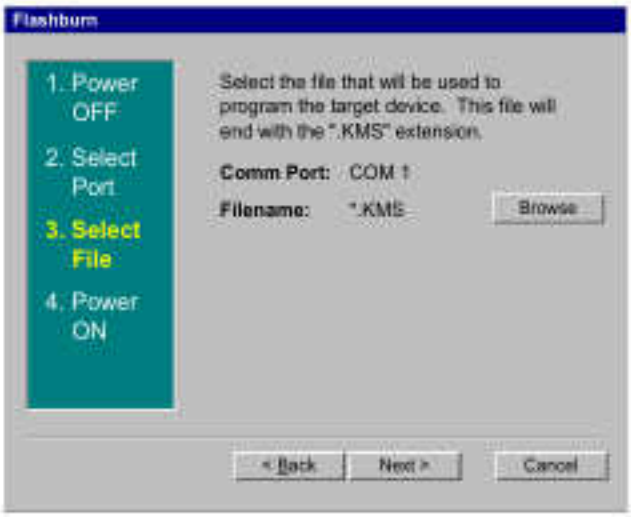
If active fault codes have been identified, refer to the Cummins Centry™ System Troubleshooting and Repair Manual, Bulletin No. 3666070, or contact an authorized repair location.

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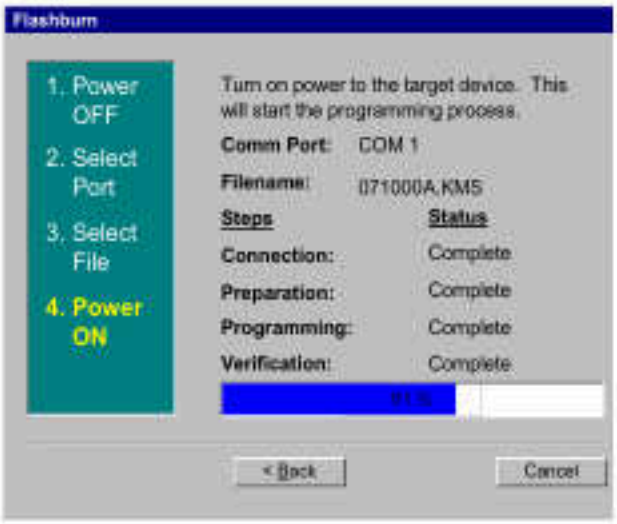
4. Confirm the proper communications port for the programming laptop. This is usually COM 1. Press "NEXT".



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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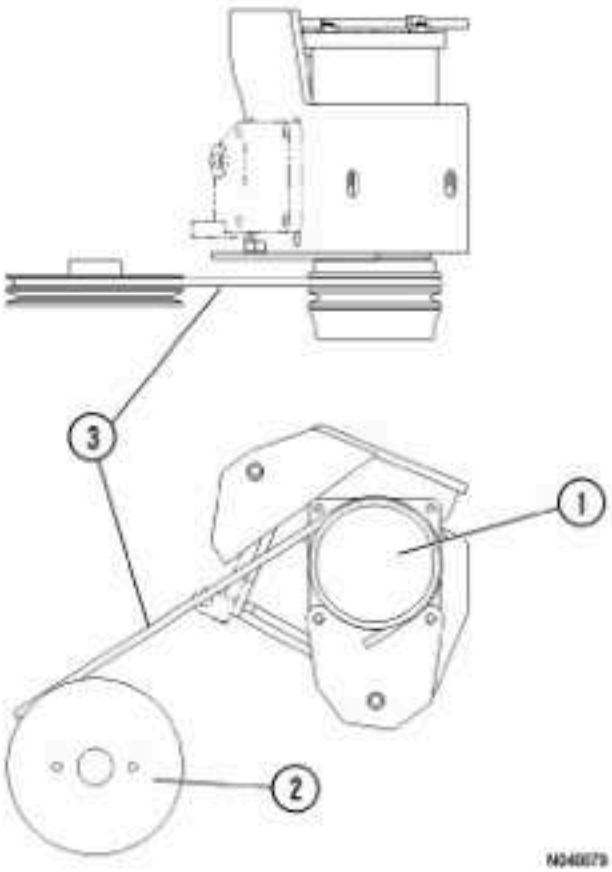


FIGURE 4-24. PULLEY ALIGNMENT TOOL

1. A/C Compressor Pulley
2. Drive Pulley
3. Alignment Tool

Belt Tension

NOTE: This procedure has been written for use with the PC2061 belt tension tool tester.

1. Verify the distance between the centerlines of the two pulleys is 400 mm (15.75 in.).
2. Set the tension tool by moving deflection O-ring (3, Figure 4-25) to 6.4 mm (0.25 in.) on tool body and deflection scale (1).
3. Slide force O-ring (4) on force scale rod (2) to zero [against tool body and deflection scale (1)].
4. Locate the approximate center of the belt between the two pulleys. Refer to Figure 4-26.

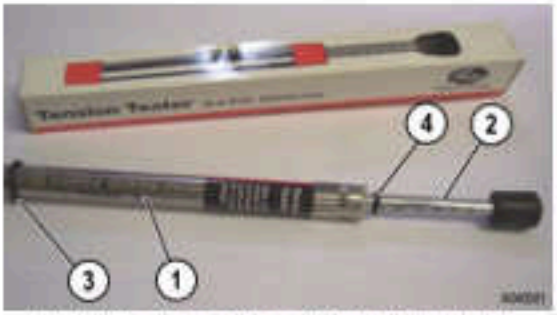


FIGURE 4-25. BELT TENSION TESTER

1. Tool Body and Deflection Scale
2. Force Scale Rod
3. Deflection O-Ring
4. Force O-Ring

5. Place a straight edge across both pulleys, on the outer face of the belt, to serve as an indicating plane.
6. Place the tip of tool body and deflection scale (1) against the outer face of the V-belt. The tool must be perpendicular to the belt.
7. Apply hand pressure against force scale rod (2) until the edge of deflection O-ring (3) is aligned with the straight edge.

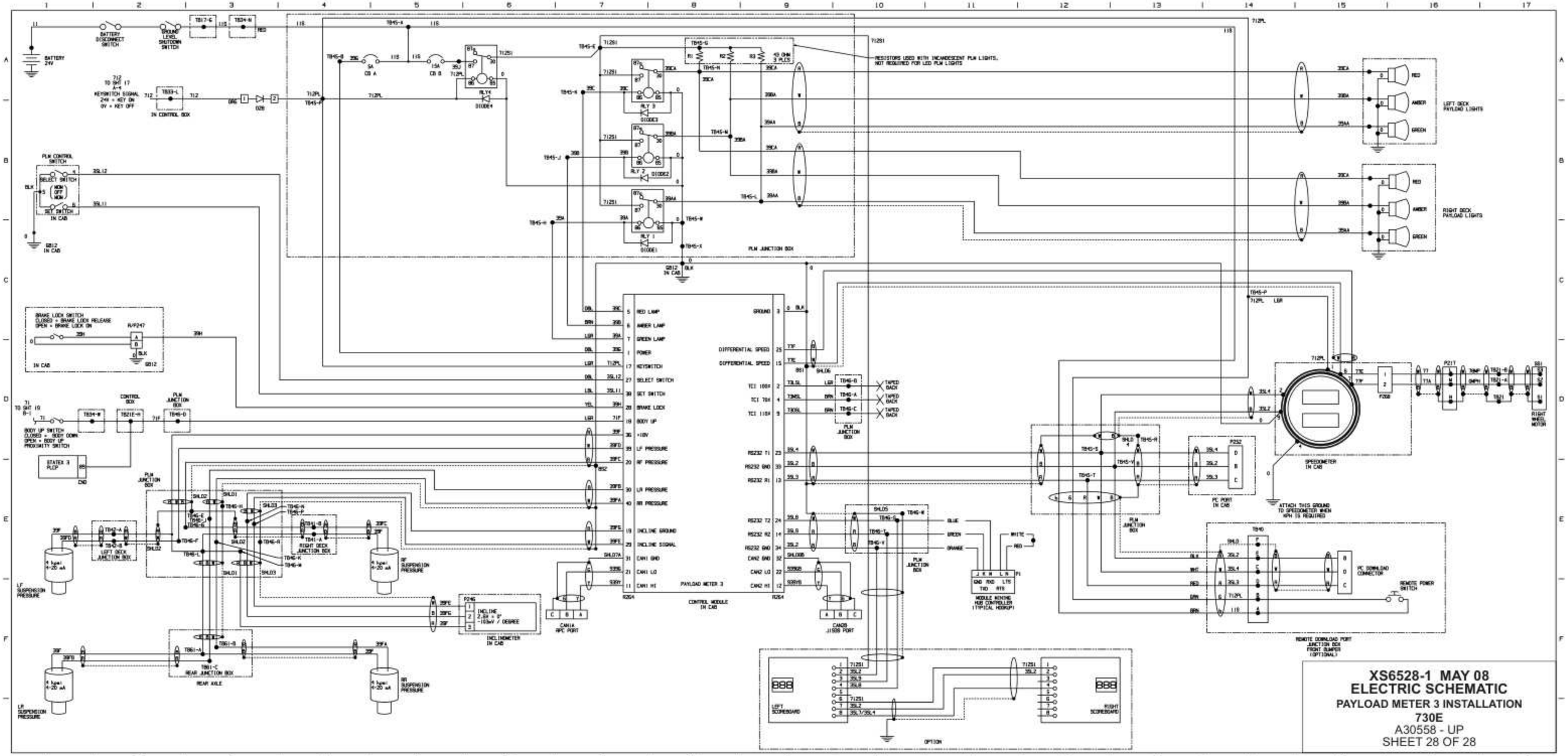


FIGURE 4-26. CHECKING BELT TENSION

8. Release the pressure on the tool.
9. Force O-ring (4) on the force scale rod will indicate the force used to deflect the belt. The correct force is 3.0 ± 0.1 kg f (6.5 ± 0.21 lb f).

   If the reading is incorrect, adjust the belt tension to obtain the correct reading. If the reading is correct, proceed to the next step.
10. Start the engine and allow it to operate for approximately ten minutes. Shut the engine off and recheck the tension.

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