SERVICE MANUAL

E45-65XM2 (F108)



FORM 1464843 Rev. 01/04

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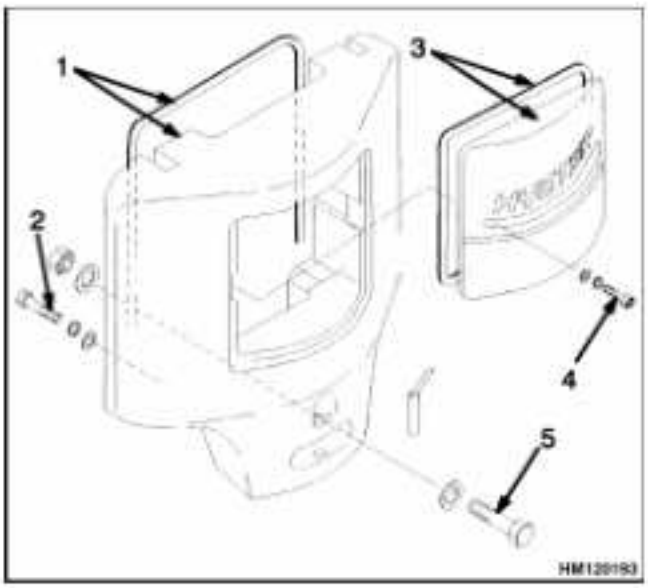
E45-65XM2 (F108)
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FRAME (E45-65XM2)	0100 SRM 0558	11/03
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DRIVE AXLE, SPEED REDUCER / DIFF (E45-65XM2)	1400 SRM 0285	11/03
DRIVE AXLE, SPEED REDUCER / DIFF (J40-65XM2)	1400 SRM 0575	03/03
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PART NO. 1464843

Rev. 1/04

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1. COUNTERWEIGHT AND SEAL
2. UPPER CAPSCREW AND WASHERS
3. COVER AND SEAL
4. COVER CAPSCREW AND WASHERS
5. LOWER CAPSCREW AND WASHER

Figure 11. Counterweight Assembly

Table 1. Counterweights

Model	(mm*)	Weight	+ 50 kg (110 lb) − 0 kg (0 lb)
E2.00XM (F108) and E2.25XM (F108) E2.00XM (G108)	700	544 kg (1200 lb)	
E2.50XM (F108) and E50XM, XM_2 (F108) 2.50XM (G108) and E50Z (G108)	847		
E3.00XM (F108) and E3.00XM (G108)	1015		
*Approximate battery compartment lengths.			

Table 1. Counterweights (Continued)

Model	(mm*)	Weight	+ 50 kg (110 lb) − 0 kg (0 lb)
E45XM, XM_2 (F108) and E40-45Z (G108)	700	770 kg (1700 lb)	
E55XM, XM_2 (F108) and E2.50XM (F108) and E55Z (G108) and E2.50XM (G108)	847		
E65XM, XM_2 (F108) and E3.00-3.20XM (F108) and E65Z (G108) and E3.00-3.20XM (G108)	1015		
E50XM, XM_2 (F108) and E2.50XM (F108) and E50Z (G108) and E2.50XM (G108)	700	976 kg (2150 lb)	
E60XM, XM_2 F108) and E3.00XM (F108) and E60Z (G108) and E3.00XM (G108)	847		
N30XMH, and $N30XMH_2$ (C210) and V30ZD (D210)	1015		
*Approximate battery compartment lengths.			

REMOVE

1. See **How to Change Battery** in your vehicle's **Periodic Maintenance** or **Operating Manual**. Remove the battery from the truck.
2. Install the counterweight lifting tool to the counterweight with a 1 UNC × 2 in. (50 mm) bolt. See Figure 11, Figure 12, and Figure 13. Connect a

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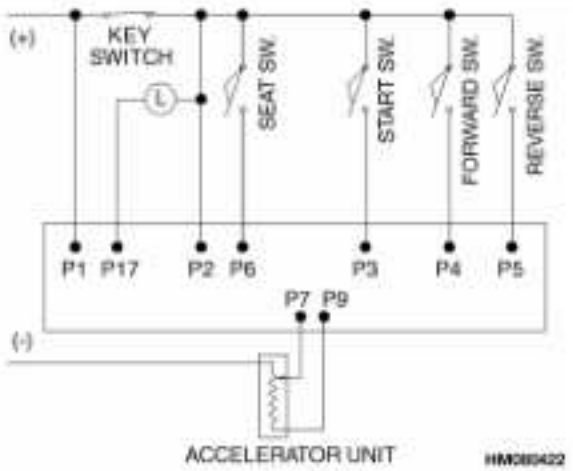
Status Code	Description	Memory Recall	Circuit
06	Accelerator depressed with no direction selected.	No	Traction

Symptom

Lift truck does not move.

Possible Causes and Test Procedures

- Accelerator pedal is depressed before moving direction control lever.
  Status code disappears when directional switch is closed or when accelerator pedal is released.
- Malfunction of directional switch.
  Check forward or reverse switch to make sure that there is continuity when direction is selected.
- Open circuit between directional switch and battery positive or between directional switch and P4 or P5.
  Check all wires and connections shown in troubleshooting diagram.



Cause of Status Indication

This status code is displayed when P4 and P5 are less than 60% of battery volts and P7 is less than 2.5 volts.

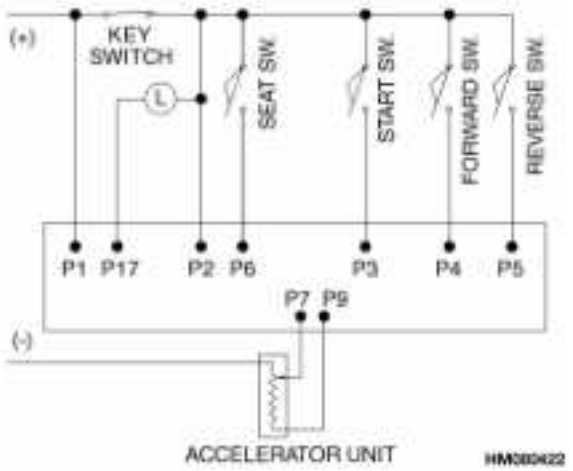
Status Code	Description	Memory Recall	Circuit
07	Accelerator input voltage too high when key is first moved to the **ON** position.	No	Traction

Symptom

Motor controller does not operate when accelerator pedal is depressed, or status code 07 is displayed then disappears when the lift truck starts to accelerate.

Possible Causes and Test Procedures

- Start switch has a malfunction or is out of adjustment.
  Input voltage at P7 must be less than 4.2 volts. Adjust or replace start switch to make sure that the voltage at P7 varies from 3.5 volts (pedal up) to less than 0.5 volts (pedal fully depressed).
- Open circuit between battery negative and P7 in the accelerator input circuit.
  Check for broken wires or loose connections or open potentiometer/voltage supply.
- Short circuit from battery positive to wiring in the accelerator input circuit
  Disconnect wire from P7 and measure voltage at wire to negative. Should be zero volts for potentiometer type and less than 3.7 volts for solid state type accelerator input.



Cause of Status Indication

This status code is displayed when the accelerator input voltage at P7 is higher than 4.2 volts and a directional switch is closed.

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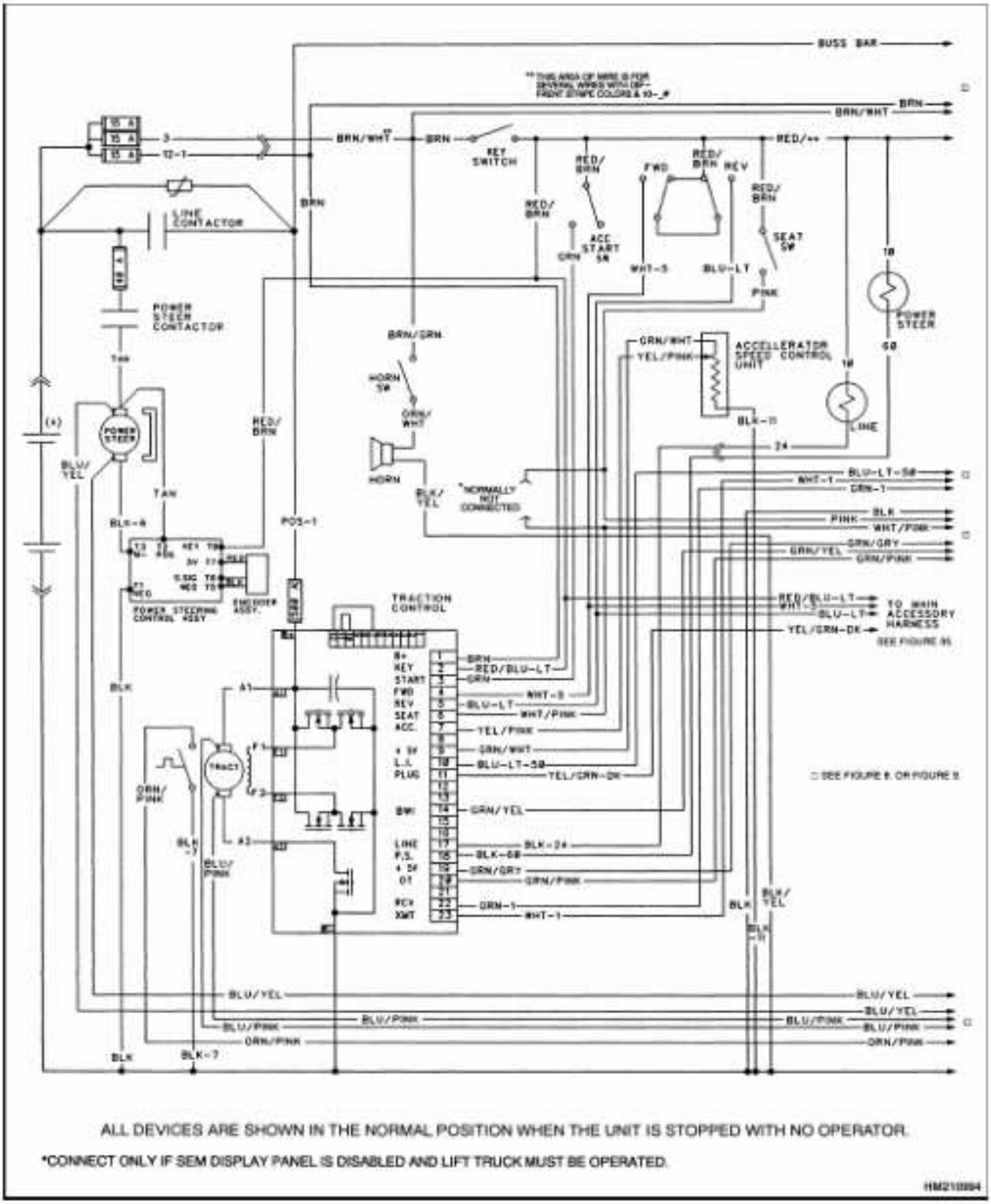


Figure 14. SR (SEM) Motor Controller for Traction Motor ($N30XMH_2$) Schematic Diagram

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