# SERVICE MANUAL

## E40-65Z (G108)




FORM 1551322 Rev. 01/04

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# E40-65Z (G108)
# SERVICE MANUAL CONTENTS


| Section | SRM Number | Rev Date |
|---|---|---|
| FRAME (E45-65XM2) | 0100 SRM 0558 | 11/03 |
| DC MOTOR MAINTENANCE | 0620 SRM 0294 | 08/03 |
| AC MOTOR REPAIR | 0620 SRM 1098 | 11/03 |
| DRIVE AXLE, SPEED REDUCER / DIFFERENTIAL | 1400 SRM 0285 | 11/03 |
| STEERING AXLE | 1600 SRM 0258 | 11/03 |
| STEERING CONTROL UNIT | 1600 SRM 0720 | 11/03 |
| STEERING SYSTEM | 1600 SRM 1054 | 11/03 |
| BRAKE SYSTEM | 1800 SRM 0574 | 11/03 |
| HYDRAULIC SYSTEM | 1900 SRM 0559 | 11/03 |
| MAIN CONTROL VALVE | 2000 SRM 0562 | 11/03 |
| TILT CYLINDERS | 2100 SRM 0103 | 10/03 |
| ELECTRICAL SYSTEM (TRUCKS WITH AC CONTROLLERS) | 2200 SRM 1055 | 01/04 |
| AC MOTOR CONTROLLERS/DISPLAY PANEL, DESCRIPTION, | 2200 SRM 1056 | 01/04 |
| CHECKS, ADJUSTMENTS AND TROUBLESHOOTING | 2200 SRM 1056 | 01/04 |
| TROUBLESHOOTING and ADJUSTMENTS USING AC CONTROLS | 2200 SRM 1058 | 11/03 |
| PROGRAM | 2200 SRM 1058 | 11/03 |
| INDUSTRIAL BATTERY | 2240 SRM 0001 | 11/03 |
| MAST - DESCRIPTION | 4000 SRM 0521 | 11/03 |
| MAST - REPAIR | 4000 SRM 0522 | 11/03 |
| FOUR-STAGE MAST | 4000 SRM 0563 | 11/03 |
| INCH (SAE) and METRIC FASTENERS | 8000 SRM 0231 | 03/03 |
| DIAGRAMS | 8000 SRM 1059 | 11/03 |
| PERIODIC MAINTENANCE | 8000 SRM 1060 | 11/03 |
| CAPACITIES and SPECIFICATIONS | 8000 SRM 1083 | 11/03 |



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**Rev. 1/04**



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*Legend for Figure 37*

| * Metric Formulas (All Dimensions are in Millimeters) |
|---|
| **Class II Mast Type** |
| Dimension E = (0.492 × Y) + (0.985 × Z) + 303 |
| **Example:** Dimension E = (0.492 × Y) + (0.985 × Z) + 303<br>**Step 1.** Dimension E = (0.492 × 2482) + (0.985 × 2095) + 303<br>**Step 2.** Dimension E = 1221.1 + 2063.6 + 303<br>**Step 3.** Dimension E = 3284.7 + 303<br>**Step 4.** Dimension E = 3587.7 |
| **Dimension G Calculations are Similar to Dimension E**<br>Dimension G (3 Function) for Lift Heights of 2482 mm to 2982 mm:<br>(1.982 × Y) + (0.985 × Z) − 801<br>Dimension G (3 Function) for Lift Heights of 3082 mm to 5482 mm:<br>(1.991 × Y) + (0.985 × Z) − 917<br>Dimension G (4 Function) for Lift Heights of 2482 mm to 2982 mm<br>(1.982 × Y) + (0.985 × Z) − 868<br>Dimension G (4 Function) for Lift Heights of 3082 mm to 5482 mm:<br>(1.991 × Y) + (0.985 × Z) − 1046 |

| * Inch Formulas (All Dimensions are in Inches) |
|---|
| **Class II Mast Type** |
| Dimension E = (0.492 × Y) + (0.985 × Z) + 11.938 |
| **Example:** Dimension E = (0.492 × Y) + (0.985 × Z) + 11.938<br>**Step 1.** Dimension E = (0.492 × 97.7) + (0.985 × 82.5) + 11.938<br>**Step 2.** Dimension E = 48.1 + 81.3 + 11.938<br>**Step 3.** Dimension E = 129.4 + 11.938<br>**Step 4.** Dimension E = 141.34 |
| **Dimension G Calculations are Similar to Dimension E**<br>Dimension G (3 Function) for Lift Heights of 97.7 to 117.4:<br>(1.982 × Y) + (0.985 × Z) − 31.531<br>Dimension G (3 Function) for Lift Heights of 121.3 to 215.8:<br>(1.991 × Y) + (0.985 × Z) − 36.125<br>Dimension G (4 Function) for Lift Heights of 97.7 to 117.4:<br>(1.982 × Y) + (0.985 × Z) − 34.156<br>Dimension G (4 Function) for Lift Heights of 121.3 to 215.8:<br>(1.991 × Y) + (0.985 × Z) − 41.156 |
| *All measurements are made with mast vertical and fully lowered. |



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# Troubleshooting

| PROBLEM | POSSIBLE CAUSE | PROCEDURE OR ACTION |
|---|---|---|
| Slow or no movement of lift or tilt cylinders. | Air is in the hydraulic system. | Remove air from hydraulic system. |
| | The hydraulic pump is worn or damaged. | Repair or replace hydraulic pump. |
| | Restriction in the hydraulic lines. | Repair hydraulic lines. |
| | Cylinder seals are damaged. | Repair cylinders. |
| | Load is greater than capacity. | Reduce load. |
| | Linkage is disconnected or damaged. | Repair and adjust linkage for control levers. |
| | Pressure relief valve(s) is not adjusted correctly or is damaged. | Repair or adjust relief valve(s). |
| | Large leaks between spool and bore. | Replace valve section. |
| | Spool is not fully extended or retracted. | Adjust linkage to spool. |
| Rough movement of the mast assembly. | Air is in the hydraulic system. | Remove air from hydraulic system. |
| | Lift cylinder(s) is damaged. | Repair cylinder(s). |
| | Mast weldments are damaged or not aligned. | Repair or adjust mast weldments. |
| | Mast weldments are not lubricated correctly. | Lubricate mast correctly. |
| Lift or tilt cylinders retract when the spool is in the NEUTRAL position. | Check valve for the lift spool is damaged. | Replace check valve. |
| | Cylinder seals have leaks. | Repair lift cylinders. |
| | Hydraulic lines have leaks. | Repair or tighten lines or fittings. |
| | Leaks between the lift spool and the bore. | Replace valve section. |



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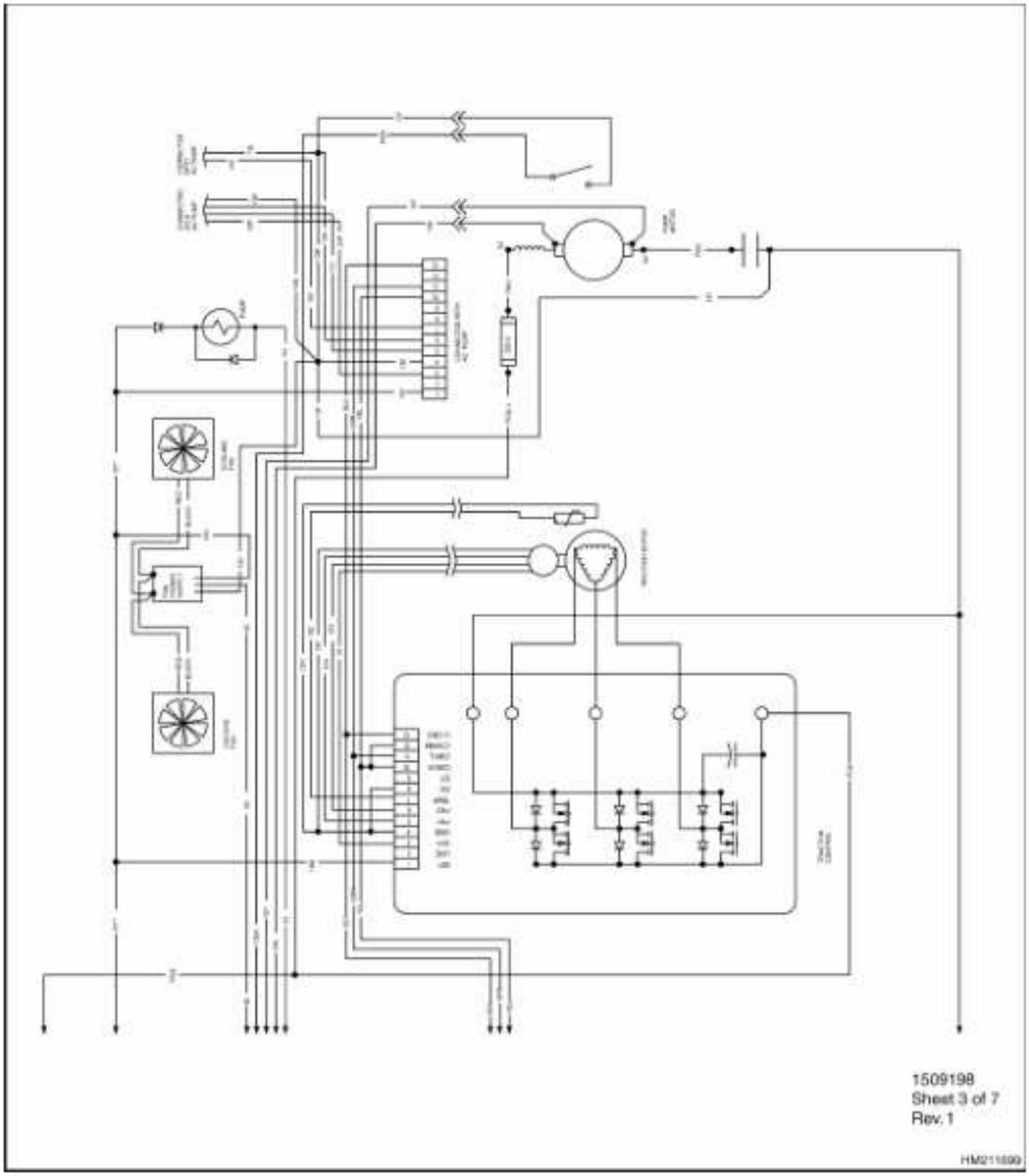



*Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 3 of 7)*



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