SERVICE MANUAL

A276 (J40-70XN)



Rev. 08/14

MidWestTech | Hyster A276 (J40-70XN) Forklift Service Manual | Publication A276

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SERVICE MANUAL CONTENTS

Section	SRM Number	Rev Date
OPERATOR'S CAB	0100 SRM 1446	08/13
AC MOTOR REPAIR	0620 SRM 1385	12/12
DRIVE UNIT ASSEMBLY/WET BRAKE	1300 SRM 1370	08/14
STEERING AXLE	1600 SRM 1360	04/13
STEERING SYSTEM	1600 SRM 1363	09/13
HYDRAULIC SYSTEM	1900 SRM 1367	08/13
HYDRAULIC CLEANLINESS PROCEDURES	1900 SRM 1620	04/13
MAIN CONTROL VALVE	2000 SRM 1334	08/13
CYLINDER REPAIR (MAST S/N A270, A271, A272, A551, A555, A559,	2100 SRM 1382	03/14
A626, A627, A751, A752, B551, B555, B586, B587, B588, B589, B590,	2100 SRM 1382	03/14
MAST REPAIR (S/N A551, A555, A559, B551, B555, D507, D562, D508,	4000 SRM 1338	01/14
D563, D509, D564, D515, E509, E564	4000 SRM 1338	01/14
CYLINDER REPAIR (MAST S/N F507, F562, F508, AND F563)	2100 SRM 1668	04/14
MAST REPAIR (S/N F507, F562, F508, AND F563)	4000 SRM 1669	04/14
WIRE HARNESS REPAIR	2200 SRM 1128	04/14
USER INTERFACE, SUPERVISOR	2200 SRM 1335	02/14
USER INTERFACE, SERVICE	2200 SRM 1336	02/14
ELECTRICAL SYSTEM	2200 SRM 1369	01/14
INDUSTRIAL BATTERY	2240 SRM 0001	03/14
METRIC AND INCH (SAE) FASTENERS	8000 SRM 0231	12/04
PERIODIC MAINTENANCE	8000 SRM 1372	08/13
CAPACITIES AND SPECIFICATIONS	8000 SRM 1375	08/13
DIAGRAMS	8000 SRM 1384	12/12
DIAGNOSTICS TROUBLESHOOTING	9000 SRM 1377	08/13

Rev. 08/14

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Specifications for Lift Truck J2.2-3.5XN (J45-70XN) (A276)

TANK CAPACITY

Dipstick FULL Mark
33.0 liter (35.0 qt)

Table 3. Hydraulic Pump Motor

Pump Displacement	Relief Pressure	Max. Peak Pressure	Speed	Voltage
19 CC	20.6 MPa (2988 psi)	24.5 MPa (3553 psi)	300 to 3000 RPM	36/48 Volts
20 CC	20.6 MPa (2988 psi)	25.4 MPa (3684 psi)	600 to 3000 RPM	72/80 Volts

Specifications for Lift Truck J4.0-5.0XN (J80-100XN) (A970)

TANK CAPACITY

Dipstick FULL Mark
57.0 liter (60.2 qt)

Table 4. Hydraulic Pump Motor

Pump Displacement	Relief Pressure	Max. Peak Pressure	Speed	Voltage
33 CC	20.6 MPa (2988 psi)	24.5 MPa (3553 psi)	300 to 3000 RPM	72/80 Volts

Specifications for Lift Truck E4.0-5.5XN, E5.0XNS (E80-120XN, E100XNS) (A099)

TANK CAPACITY

Dipstick FULL Mark
62.0 liter (65.5 qt)

Table 5. Hydraulic Pump Motor

Pump Displacement	Relief Pressure	Max. Peak Pressure	Speed	Voltage
33 CC	20.6 MPa (2988 psi)	24.5 MPa (3553 psi)	300 to 3000 RPM	72/80 Volts

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END SYMPTOM

PARK BRAKE TROUBLESHOOTING GUIDE

Symptoms	Possible Solutions	Action
Slow Park Brake Release	Check hose restrictions	Replace hoses that have been crushed or kinked.
	Check needle valve setting	Refer to the appropriate **Transaxle or Drive Axle, Speed Reducer, and Differential** SRM.
	Check solenoid valve	Refer to the appropriate **Electrical System** SRM.
	Check standby pressure	Refer to the appropriate **Main Control Valves** SRM.
	Check accelerator pedal	Refer to the appropriate **Electrical System** SRM.
	Check linkage for damage	Replace sheared clevis pins, worn or damaged cables and springs and retaining clips.
	Check actuator rod damage	Refer to the appropriate **Transaxle or Drive Axle, Speed Reducer, and Differential** SRM.
	Check actuator rod interference	Secure hoses, lines, and wires out of the way to eliminate interference.
	Check fault codes	If fault code appears, go to General Maintenance and Diagnostic Data, Diagnostic Trouble Codes, Page 9030-03-5.
Slow Park Brake Apply	Check needle valve setting	Refer to the appropriate **Transaxle or Drive Axle, Speed Reducer, and Differential** SRM.
	Check solenoid valve voltage, coil, contamination	Refer to the appropriate **Electrical System** SRM.
	Check Tank return hose for kinks, pinches or back pressure	Remove any excessive elbow joints or other restrictions in the tank return hose.

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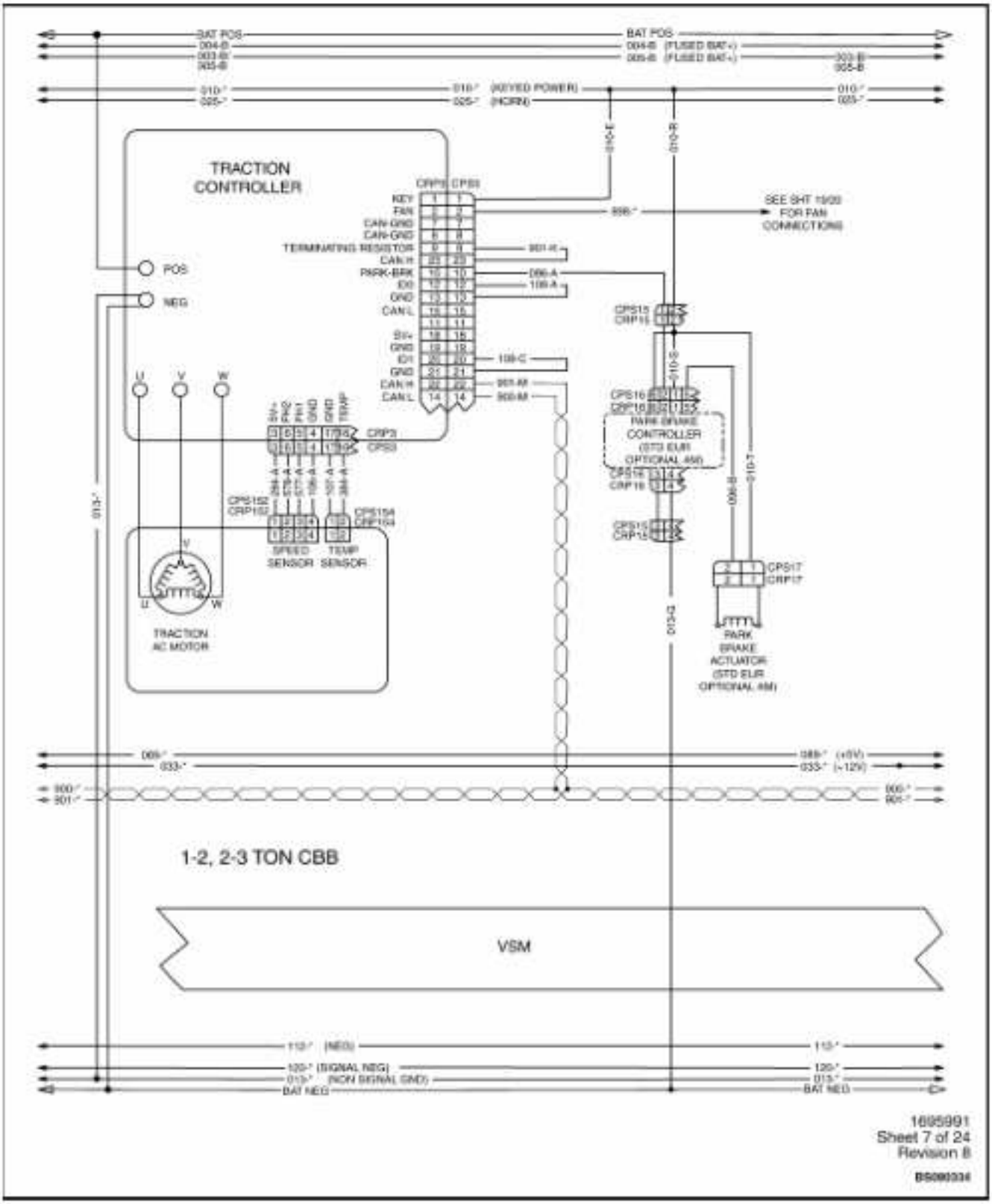


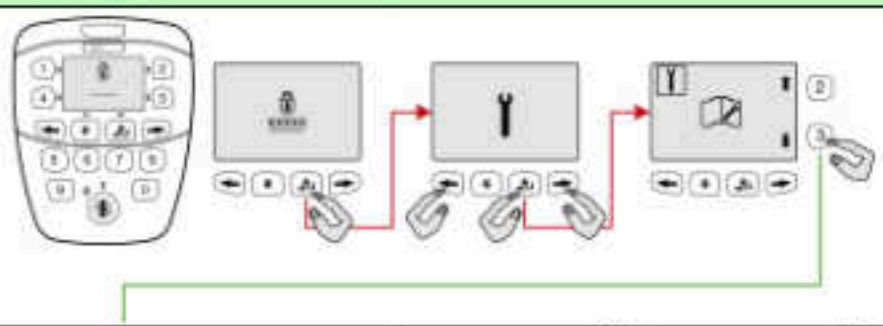
Figure 1. Wiring Diagram/Schematic (Sheet 7 of 24)

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TSP Steer Axle Calibration Required (Cont)

CAUSE D

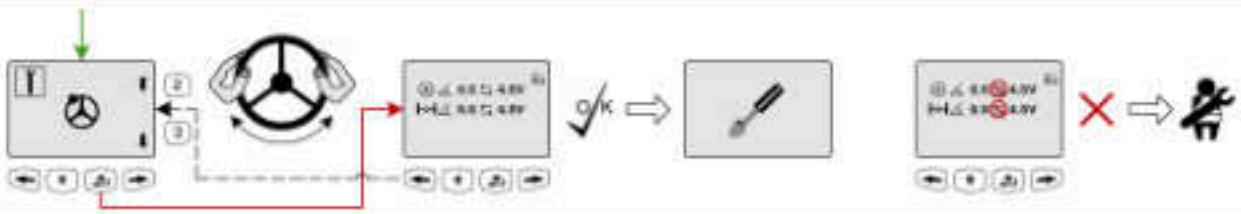
Calibration Process--Go to Display Menu



Enter SERVICE Password→ ☞* ⇆Diagnostics→ ☞* ↓↑Steering Sensor

CAUSE D1

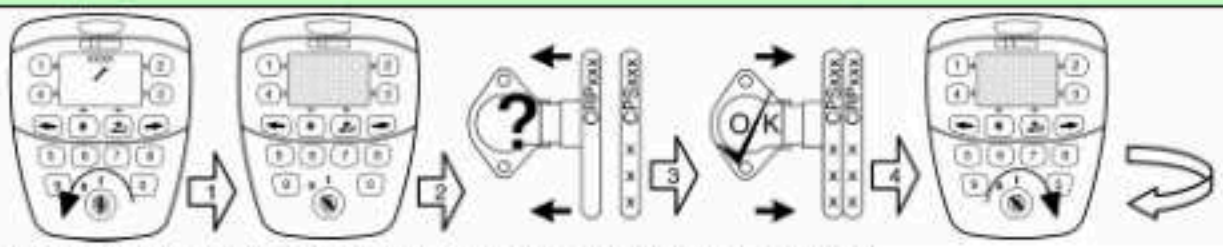
Steering Sensor Values



1. ☞*→ Rotate steering wheel ↑ Values vary >0.5V <4.5V = H→ Proceed with Calibration→ Cause D3↓
2. ☞*→ Rotate steering wheel ↑ Values =the same = X=Steer Mechanism/Faulty Sensor→ Go to 3↓
3. Check Steer Mechanism Operation→ Mechanism H→ Cause D2↓ Mechanism X Go to 4↓
4. See **Steering System** 1600 SRM 1331/**Steering System** 1600 SRM 1363 repair.

CAUSE D2

Steer Sensor(s) Replacement



1. Power **OFF**→ Disconnect sensor **Do not discard.**→ Install new sensor→ Power **ON**→ Go to 2↓
2. See **Electrical System** 2200 SRM 1337/**Electrical System** 2200 SRM 1369.

(continued on next page)

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High Tire Wear - Steer Axle

POSSIBLE CAUSE

A. RUNNING OVER OIL/SOLVENTS AND DEBRIS
B. EXCESSIVE SPEED ON TURNS AND STOPS
C. TURNING WITH MACHINE STOPPED OR NO LOAD ON FORKS
D. LOW PNEUMATIC TIRE INFLATION
E. HIGH PNEUMATIC TIRE INFLATION
F. FAILED WHEEL BEARINGS
G. LOOSE TIE RODS

CAUSE A - RUNNING OVER OIL/SOLVENTS AND DEBRIS

PROCEDURE OR ACTION:
Visually inspect work area for contaminates and debris.

CAUSE B - EXCESSIVE SPEED ON TURNS AND STOPS

PROCEDURE OR ACTION:
Reduce speed and spinning of wheels.

CAUSE C - TURNING WITH MACHINE STOPPED OR NO LOAD ON FORKS

PROCEDURE OR ACTION:

NOTE: Steering without load on forks puts the highest load on steer axle because of counterweight. Avoid steering wheels when not moving to reduce tire wear.
Steer while moving whenever possible.

CAUSE D - LOW PNEUMATIC TIRE INFLATION

PROCEDURE OR ACTION:
Check and adjust tire inflation. See **Operating Manual**.

CAUSE E - HIGH PNEUMATIC TIRE INFLATION

PROCEDURE OR ACTION:
Check and adjust tire inflation. See **Operating Manual**.

CAUSE F - FAILED WHEEL BEARINGS

PROCEDURE OR ACTION:
Inspect wheel bearings.

Are bearings in good condition?

YES: Tires are defective. See tire manufacturer for warranty.

NO: Replace wheel bearing. Depending on your lift truck, see **Transaxle** 1300 SRM 1330 or **Steering Axle** 1600 SRM 1360.

CAUSE G - LOOSE TIE RODS

PROCEDURE OR ACTION:
Inspect joint where tie rods are attached to pinion assembly.

Is the tie rod tight in bore?

YES: See Wheels Appear Tipped or Misaligned.

NO: Replace tie rod. Depending on your lift truck, see **Transaxle** 1300 SRM 1330 or **Steering Axle** 1600 SRM 1360.

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