FORKLIFT

SERVICE MANUAL

66TT-110TT

HYUNDAI

MidWestTech | Hyundai 66TT-110TT Forklift Service Manual | Publication 66TT-110TT

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

Content

1-1 How to use this manual 5
1-1-1 Composition of this manual 5
1-1-2 Definitions of Warning Signs 6
1-2 Glossary 7
1-3 Appearance and Specifications 10
1-4 Safety Notes 12
1-5 Maintenance 16
1-6 Lube 19
1-6-1 Lubricating Oil Specification 19
1-7 Instructions of Disassembly/Assembly 20
1-8 Standard Torque 27
1-8-1 Standard torque of bolts and nuts 27
1-8-2 Standard torques for fastening fittings 29
2 Electronic System 32
2-1 General 32
2-1-2 Communication Protocol 33
2-2 Battery (Lead Battery) 35
2-2-1 Appearance and Specifications 35
2-2-2 Function 37
2-2-3 Test 37
2-2-4 Maintenance 39
2-2-5 Disassembly and Installation 40
2-3 Emergency Switch 41
2-3-1 Appearance and Specifications 41
2-3-2 Function 41
2-4 Controller and Related Equipment 42
2-4-1 Appearance and Specification 42
2-4-2 Circuits and Functions 44
2-4-3 Diagnosis and Troubleshooting 48
2-4-4 Disassembly and Installation 50
2-5 Display 51
2-5-1 Appearance 51
2.6 ZAPI Use of handheld programmers 62
3 Drive / Brake System 70

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

3-1 Overview 70
3-1-1 Assembly 70
3-2 Drive motor 70
3-2-1 Appearance and specification 70
3-2-2 How to run it 70
3-2-3 Disassembly/assembly and test of drive motor 72
3-2-4 Removal / installation of drive wheel 74
3-3 Drive axle 74
3-3-1 Appearance and specifications 74
3-3-2 How does it work 74
3-3-3 Replacement of drive gear oil 75
3-4 Knob 75
3-4-1 Appearance and specifications 75
3-4-2 How does it work 76
3-4-3 Disassembly and installation 76
3-5 Brake 77
3-5-1 Overview 77
3-5-2. Inspection of the brake 77
3-5-3 Brake assembly 78
3-5-4 Operating test of automatic clearance regulator 79
3-6-2 Gear box 81
4 Steering system 83
4-1 Overview 83
4-2 Steering control group 83
4-2-1 Appearance and specifications 83
4-2-2 How does this work 83
5 Battery charger 85
5-1 Introduction of Battery Charger 85
5-2 Introduction of Control Panel 85
5-3 Common faults of charger 86

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

2-4-3 Diagnosis and Troubleshooting

Controller

The diode voltage of AC MOSFET circuit inside the controller shall be tested and checked for any burn out damage.

According to the table below, each test item shall be tested repeatedly for more than 3 times.

Item	Multimeter terminals		Range of normal value	
	Red indicating pen	Black indicating pen	Polarity measurement	Resistance measurement
1	B+	U/V/W/B-		1MΩand above
2	B-	U/V/W		1MΩand above
3	U/V/W	B+	0.3-0.6V	
4	B-	U/V/W	0.3-0.6V	

Pull multimeter to Ω mode (resistance) Pull the multimeter to the diode mode (polarity measurement)

Remove the cables and wires that connected to the controller, and release all the internal power of capacitor (discharge the B + and B - terminals with 30 Ω resistance).

Test the diode voltage (0.3-0.6v) with a multimeter and check if it is normal.

Test1: Read the diode voltage, through which the red wire is B-, the black wires are U, V and W.



Test 2: Read the voltage of the diode to U, V and W, and the black lead to B + with red wires.



Notes: The multimeter pointers shall not be inverted in use

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

60	CAPACITOR CHARGE	Capacitor charging error	when the electric lock is turned on, the controller will charge the capacitor through the power resistance, and detect whether the capacitor is sufficient for the specified time. if there is not enough electricity, the capacitor voltage is still less than 20% battery voltage, the controller will alarm and the main contactor will not close. Possible reasons: 1. peripheral equipment, such as DC-DC, motor or other equipment, interferes with the charging process of the controller and the interference caused by these devices should be eliminated. 2. the charging resistance is disconnected, the charging circuit is broken, and the power module is in trouble, the controller needs to be replaced
61	HIGH TEMPERATURE	Controller over-temperature protection	if the temperature of the controller itself drops below 85°, if this fault still exists, it may be a temperature sensor fault or a logic board fault of the controller itself. at this time, the controller needs to be replaced.
65	MOTOR TEMPERAT.	Motor temperature high	1. this fault arises if the motor temperature digital switch is turned on or the analog signal exceeds the cut-off value. 2. the motor temperature reaches 120℃, the controller alarm, at this time the vehicle can still walk, but the maximum current is reduced, the vehicle performance is reduced. when the motor temperature reaches 125℃, the motor stops working. should try to cool the motor at this time. 3. the fault still

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

Line contactor and fuse

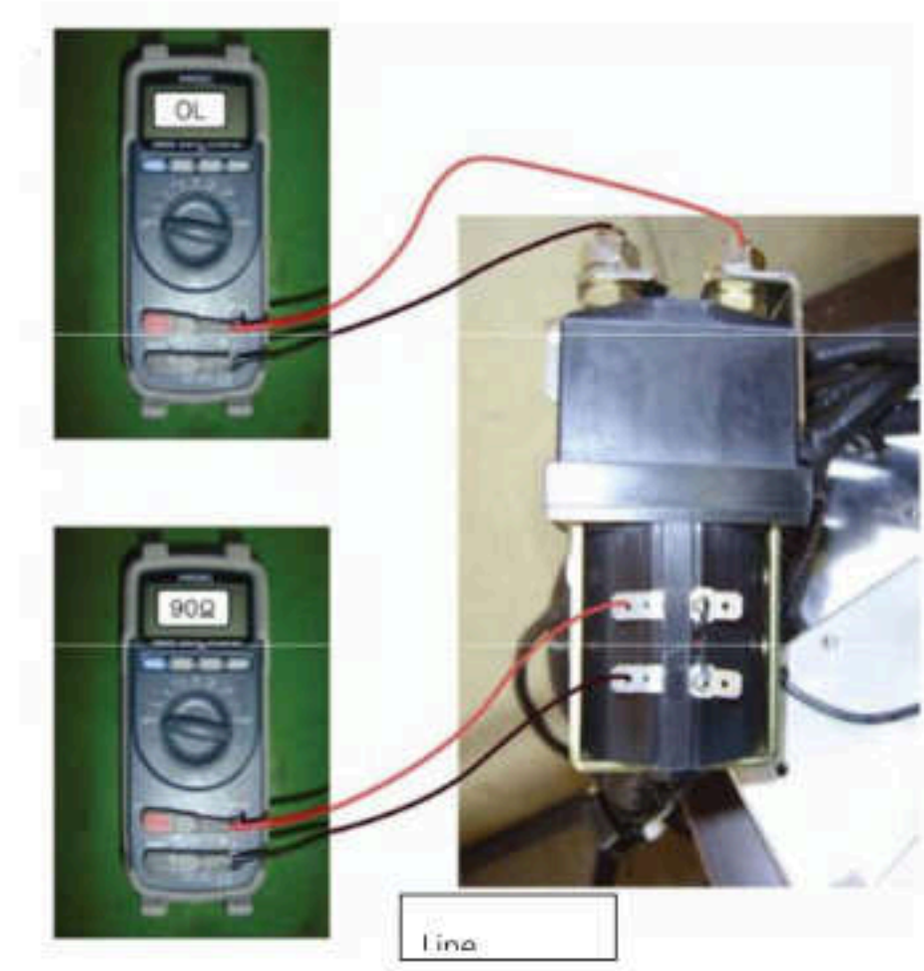
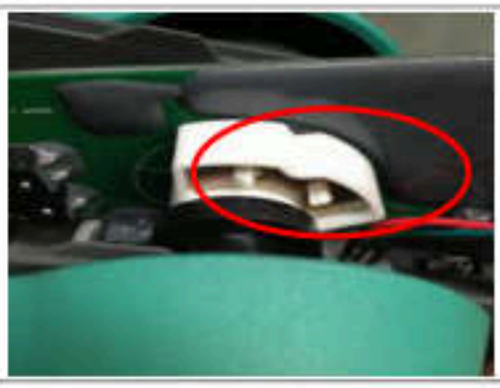
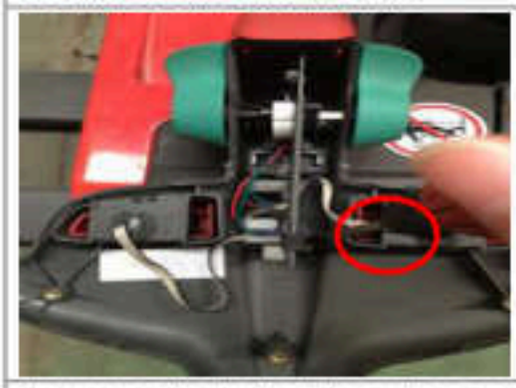
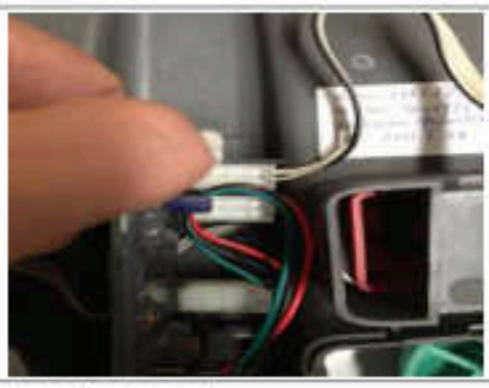


Figure 2-23

For line contactors and line fuses, an ohmmeter shall be connected at the point shown in the figure and shall be tested for the specified value.

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

	cover
	
4: Remove the switch shaft	
	
5.remove the bolts ,take out connector and replace the board.	

3-5 Brake

3-5-1 Overview

The electromagnetic brake system consists of electromagnetic coil, brake disc and gear.
1. Action of automatic clearance adjusting mechanism
When the forklift truck recedes, the brake shoe is in contact with the main brake shoe and rotates together to make the pull rod turn right around the A point. As shown in the figure, the B point is raised. After the brake is released, the pull rod turns left under the spring force. B point drops. As the gap between the friction plate and the brake hub becomes larger, the vertical distance of the B point rotation increases, the regulator is moved to a tooth, the adjusting rod becomes longer, and the gap shrinks. The clearance adjustment range is 0.40 mm~0.45 mm.

3-5-2. Inspection of the brake

Inspection of parts, maintenance or replacement of damaged parts.
(1) Check the surface of the pump body and the periphery of the piston for rust; then determine the gap between the piston and the pump body.

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