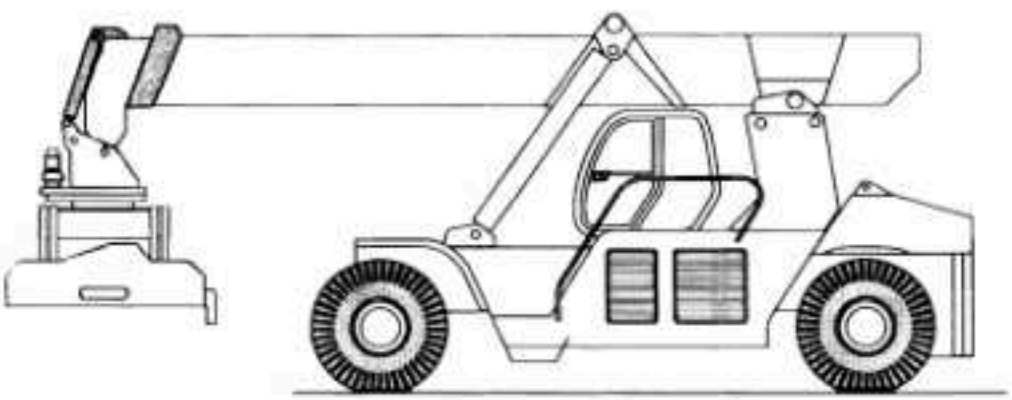
SERVICE MANUAL

HR45, HR45H



FORM 1470227 Rev. 02/04

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HR45, HR45H
SERVICE MANUAL CONTENTS

Section	SRM Number	Rev Date
FOUR-SPEED PS TRANSMISSION-DESCR / OPER	1300 SRM 0634	11/03
FOUR-SPEED PS TRANSMISSION-REPAIR	1300 SRM 0635	11/03
DIFFERENTIAL	1400 SRM 0046	11/03
PLANETARY GEAR AXLE	1400 SRM 0047	11/03
STEERING SYSTEM	1600 SRM 0786	11/03
BRAKE SYSTEM	1800 SRM 0785	11/03
SERVICE BRAKES (Later Units)	1800 SRM 1308	11/03
HYDRAULIC SYSTEM	1900 SRM 0783	01/04
ELECTRICAL SYSTEM	2200 SRM 1065	02/04
BOOM	4500 SRM 0787	11/03
EXTENDABLE CONTAINER ATTACHMENT	5000 SRM 0776	11/03
EXTENDABLE CONTAINER ATTACHMENT, PPM	5000 SRM 1063	11/03
INCH (SAE) and METRIC FASTENERS	8000 SRM 0231	03/03
PERIODIC MAINTENANCE	8000 SRM 0780	11/03
DIAGRAMS	8000 SRM 0784	03/03

PART NO. 1470227
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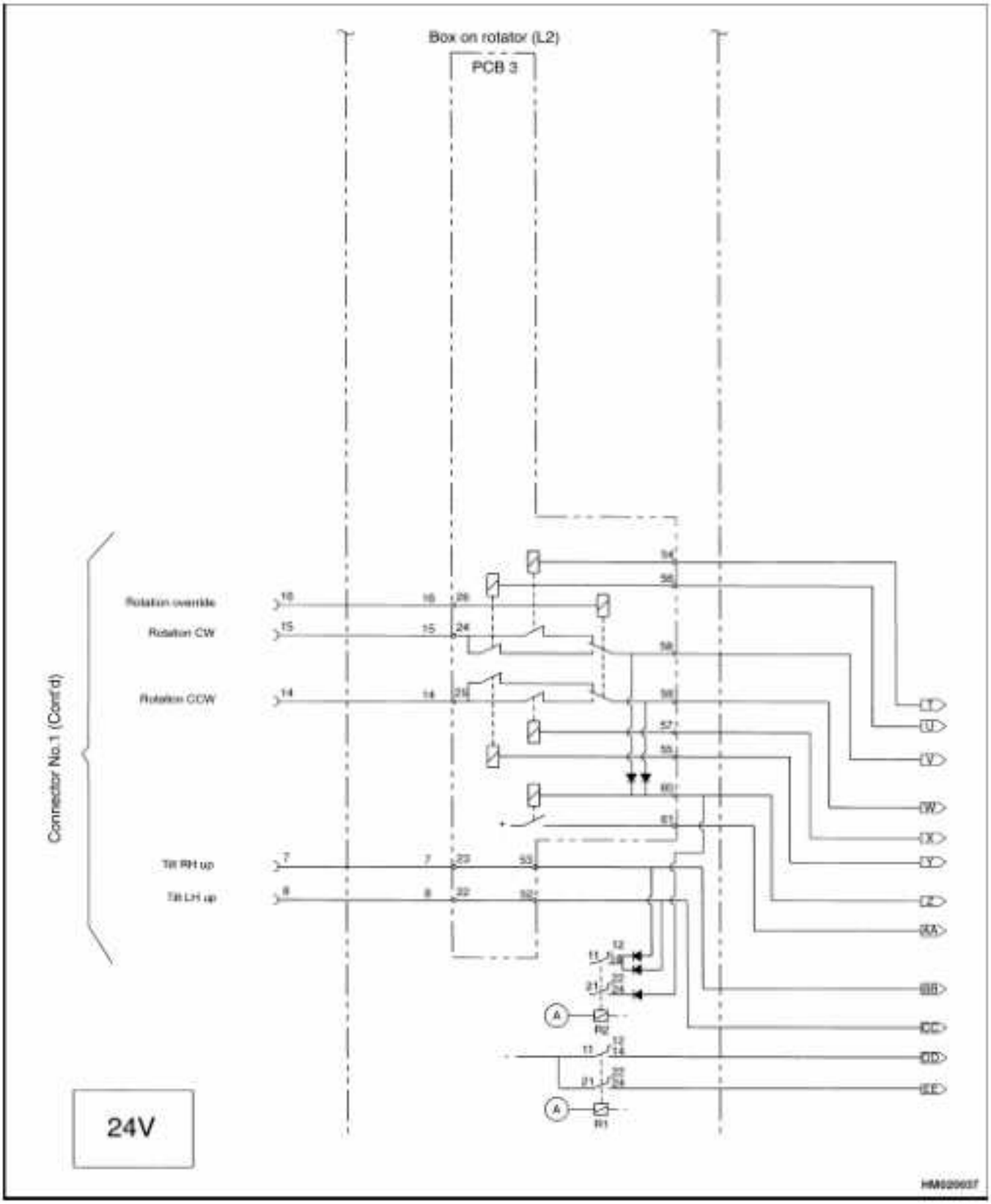


Figure 22. Container Attachment Electrical Wiring Diagram

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PROBLEM	POSSIBLE CAUSE	PROCEDURE OR ACTION
Service brakes do not operate when the engine is not running.	There is no charge in the accumulator.	Check oil supply to brake pedal valve.
	Hydraulic lines for the accumulator circuit leak or have restrictions.	Check and replace brake lines.
The parking brake does not release.	The hydraulic pressure is too low.	Check oil supply to brake pedal valve.
	There is a leak(s) in the hydraulic lines.	Check and replace brake lines.
	The parking brake valve is damaged.	Install new valve.
	The parking brake caliper is damaged.	Repair or replace brake caliper.
The parking brake will not apply.	The springs in the brake caliper are damaged.	Install new springs.
	The brake caliper is not adjusted correctly.	Check and adjust caliper.
	The brake linings are worn or damaged.	Replace brake linings.
	The brake rotor is worn or damaged.	Repair or replace brake rotor.
Accumulator fails to start charging.	The relief valve in the brake pedal valve does not work correctly.	Check and repair relief valve.
	The line to the accumulator has a restriction.	Check and replace brake lines.

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Type C and E

NOTE: On each end of the extension beams, there are two side slide pads type C and two side slide pads type E.

Inspect remaining thickness of these pads when, at the locations of slide pads C and E, the end beam can be moved more than 15 mm (0.60 in.).

Remove

1. Extend the extension beams 30 cm (1 ft).
2. Remove the bolts, except one, holding the slide pads.
3. Move the end beam with a pry bar to gain access to the wear pad to be removed.
4. Hold the wear pad with one hand, while removing the remaining bolt.
5. Remove the slide pad.

Install

NOTE: Replace pads type E first.

1. Replace pads.
2. Apply Loctite on the bolts and torque to 100 N•m (74 lbf ft).

CARRIAGE SIDE WEAR PADS

Adjust

NOTE: Replace the side wear pad if pad thickness at the contact surface is 8 mm (0.32 in.) or less.

1. Support the spreader frame to remove its weight from the carriage.
2. Push the carriage against one side of the spreader frame to measure the total sideward play.

NOTE: Adjust to 4 mm (0.16 in.) if play has reached 8 mm (0.32 in.) or more.

3. Remove the wear pad, and add the required quantity of shims.
4. Use Loctite to secure the mounting bolts.

Extension Beam Repair

REMOVE

NOTE: Removal of the RH side extension beam is required, when the extension motor needs to be removed. Both extension beams need to be removed for replacement of the extension chains.

1. Put the main frame on a work bench, approximately 80 cm (2.6 ft) high.
2. Remove all slide pads, including the pad retainer plate at the underside.
3. Remove the anchor chains of the extension chains, which are attached at the inner end of the extension beams.
4. Remove the chain from the extension motor and the chain sheave, and attach the chain ends to the outer side of the opposite extension beam. Keep the chains tensioned in their normal horizontal position.
5. Remove the pinion of the extension motor.
6. Use a hub extractor to separate pinion from the extension motor.

WARNING

Verify the lifting device has a rated capacity of at least 5000 kg (5.5 ton).

7. Attach a lifting device to the right hand extension beam.
8. Pull out the right hand extension beam until you have access to the bolts and nuts holding the extension chain onto the extension beam.

NOTE: Do not disassemble the end beam further if only the chain has to be replaced.

9. Disconnect the chain.
10. Tag and disconnect hydraulic lines at the beam ends.
11. Put caps on open lines.
12. Disconnect electrical cable.

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