



R&M Materials Handling, Inc
Springfield, Ohio USA
☎: 800-955-9967
www.rmhoist.com

STAGEMAKER® COMPACT Concert Hoist
SM1 Installation & Maintenance Manual

June 2006

STAGEMAKER® CONCERT CHAIN HOIST



INSTALLATION & MAINTENANCE MANUAL

JOB NO.: _____

SERIAL NO.: _____

(RECORD HOIST SERIAL NUMBER FOR FUTURE REFERENCE)



R&M Materials Handling, Inc
Springfield, Ohio USA
☎: 800-955-9967
web: www.rmhoist.com

STAGEMAKER® COMPACT Concert Hoist
SM1 Manual

June 2006

(LEAVE THIS PAGE BLANK)



TABLE OF CONTENTS

| | | |
|----------|--|-----------|
| 1 | INTRODUCTION | 1 |
| 1.1 | Contact Information | 1 |
| 1.2 | Warranty..... | 1 |
| 1.3 | Disclaimer | 1 |
| 1.4 | Safety..... | 2 |
| 1.5 | Placards and Instructions | 4 |
| 2 | INSTALLATION | 5 |
| 2.1 | General..... | 5 |
| 2.2 | Lubrication..... | 5 |
| 2.3 | Mounting | 6 |
| 2.4 | Load Hook Throat Opening..... | 7 |
| 3 | ELECTRICAL CONNECTIONS & DIAGRAMS | 8 |
| 3.1 | Control Fuses | 8 |
| 3.2 | Configuration A - Connections | 9 |
| 3.3 | Configuration A – Single Speed – 208 or 230 Volt Wiring Diagram..... | 10 |
| 3.4 | Configuration A – Pigtail Pin-out Connections – R&M Standard..... | 11 |
| 3.5 | Configuration B – Single Speed – 208 or 230 Volt Connections | 13 |
| 3.6 | Configuration B – Single-speed – 208 or 230 Volt Wiring Diagram..... | 14 |
| 3.7 | Configuration B – Wiring Labels..... | 15 |
| 3.8 | Configuration B – Pigtail Pin-out Connections – R&M Standard..... | 16 |
| 3.9 | Configuration C – Single Speed – 208 or 230 Volt Connections | 17 |
| 3.10 | Configuration C – Power Circuit – 208 or 230 Volt Wiring Diagram | 18 |
| 3.11 | Configuration C – Control Circuit – 208 or 230 Volt Wiring Diagram | 19 |
| 3.12 | Configuration C – Wiring Labels..... | 20 |
| 3.13 | Configuration C – Pigtail Pin-out Connections – R&M Standard..... | 21 |
| 3.14 | Configuration S – Single Speed – 115 Volt Connections | 22 |
| 3.15 | Configuration S – Single-speed – 115 Volt Wiring Diagram..... | 23 |
| 3.16 | Configuration S – Wiring Labels..... | 24 |
| 3.17 | Configuration S – Pigtail Pin-out Connections – R&M Standard..... | 25 |
| 3.18 | Cable Assemblies..... | 26 |
| 4 | INITIAL START-UP | 28 |
| 4.1 | General | 28 |
| 4.2 | Correcting the Direction of Hook Travel | 28 |
| 4.3 | Operational Checks – No Load | 29 |
| 4.4 | Operational Checks – With Load | 29 |
| 5 | HOIST OPERATION | 30 |
| 6 | MAINTENANCE | 32 |
| 6.1 | Basic Hoist Construction (Inverted Position)..... | 32 |
| 6.2 | Basic Hoist Construction (Normal Suspension) | 33 |
| 6.3 | Motor / Body | 34 |
| 6.4 | Hoist Motor Brake and Load-Limiting Device..... | 34 |
| 6.4.1 | Slip Clutch Operation (Figure 6.3)..... | 34 |
| 6.4.2 | Slip Clutch Adjustment after Installation..... | 36 |
| 6.4.3 | Hoist Motor Brake Adjustment (Figure 6.3)..... | 37 |
| 6.5 | Load Chain..... | 37 |
| 6.5.1 | Maintenance Inspection..... | 37 |
| 6.5.2 | Load Chain Specifications (Figure 6.4)..... | 39 |
| 6.5.3 | Removing the Load Chain..... | 39 |



| | | |
|--------|--|----|
| 6.5.4 | Installing the Load Chain..... | 40 |
| 6.6 | Fall Stop Assembly | 42 |
| 6.7 | Chain Container Installation (Normal Position)..... | 43 |
| 6.8 | Limit Switches | 44 |
| 6.8.1 | Upper and Lower Travel Safety Limit Switch | 44 |
| 6.8.2 | Rotary Geared Limit Switch | 44 |
| 6.9 | Brake Coil Specifications | 45 |
| 6.10 | SM1 Motor Data | 45 |
| 6.11 | Hooks | 46 |
| 6.11.1 | Hook Inspection | 47 |
| 6.11.2 | Hook Dimensions and Specifications | 47 |
| 6.11.3 | Body Hook (Normal Position) | 48 |
| 7 | PREVENTATIVE MAINTENANCE | 50 |
| 7.1 | Maintenance and Inspection Table..... | 50 |
| 7.2 | Lubrication..... | 51 |
| 7.2.1 | Load Chain Cleaning and Lubrication | 51 |
| 7.3 | Recommended technical support for various spare parts..... | 52 |
| 7.4 | Torque (lb-ft) Specifications for fasteners..... | 52 |
| 7.5 | Troubleshooting..... | 53 |
| 8 | PARTS ILLUSTRATION..... | 54 |
| 8.1 | Hoist Body (NORMAL position shown)..... | 54 |
| 8.2 | Helical Gear Mechanism & Brake | 56 |
| 8.3 | Lifting Assembly | 58 |
| 8.4 | Control Panel Assembly – Configuration A..... | 60 |
| 8.5 | Control Panel Assembly – Configuration B & C..... | 61 |
| 8.6 | Control Panel Assembly – Configuration S | 62 |
| 8.7 | SM1 Pigtail Connectors | 63 |
| 8.8 | Pickle Assembly | 64 |