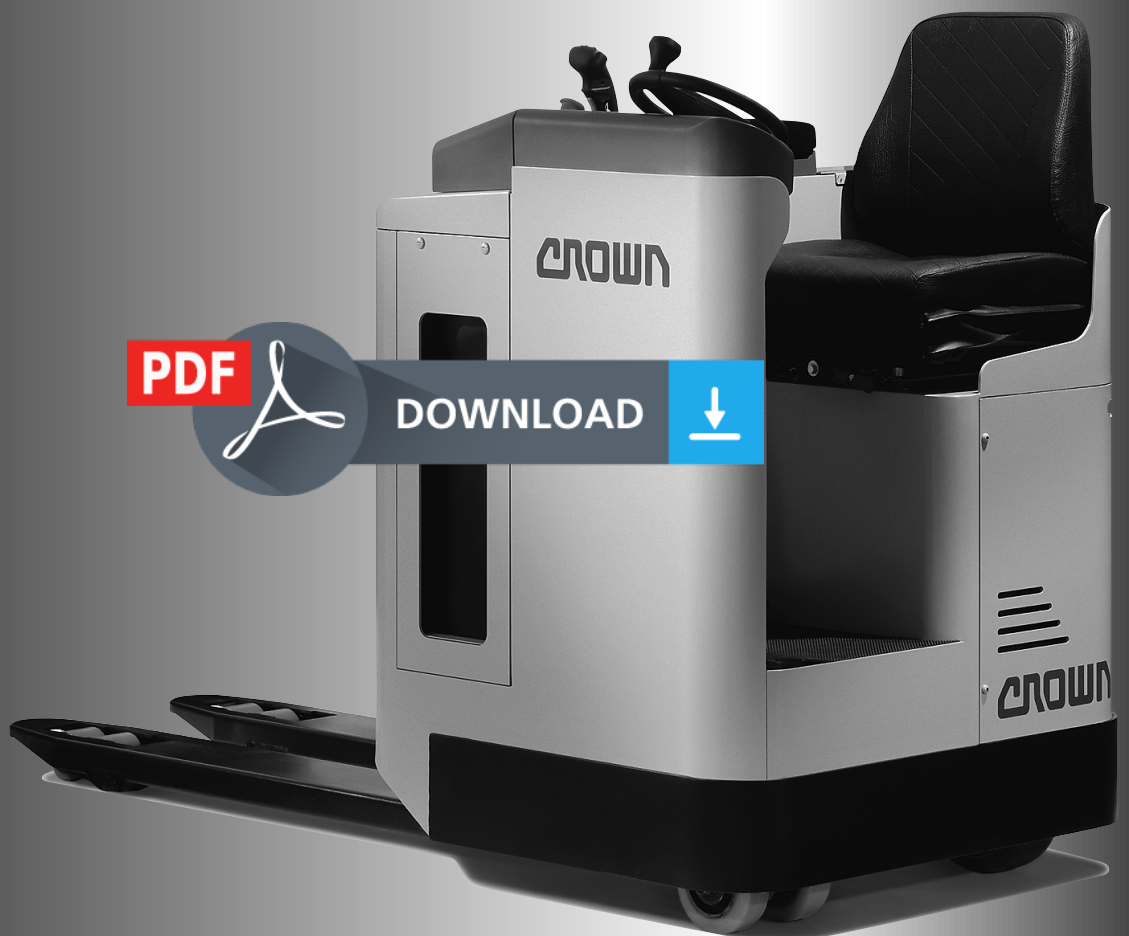


CROWN



Service Manual
Wartungshandbuch
Manuel de maintenance

RT3020 Serie

CROWN

TABLE OF CONTENT

Page intentionally left blank
Seite absichtlich freigelassen
Page intentionnellement laissée blanche

Table of Content





| MA – SAFETY | PAGE | SER-NR. CUT | REV. |
|---|--------------------------|--------------------|-------------|
| Safety Symbols used in the Manual | M/P-MA-0000-001 | | |
| General Maintenance and Repair Safety Notes | M/P-MA-0000-001 | | |
| - Maintenance and Repair | M/P-MA-0000-002 | | |
| - Before Leaving the Truck | M/P-MA-0000-002 | | |
| - Before Carrying out Work on the Truck | M/P-MA-0000-002 | | |
| - Before Operating the Truck | M/P-MA-0000-002 | | |
| Warnings and Labels on the Truck | M/P-MA-0000-002 | | |
| ITD – INTRODUCTION | PAGE | SER-NR. CUT | REV. |
| General | M/P-ITD-2900-001 | | |
| - Operating instruction | M/P-ITD-2900-001 | | |
| - Service training | M/P-ITD-2900-001 | | |
| - Replacement parts orders | M/P-ITD-2900-001 | | |
| - Structure of the Manual | M/P-ITD-2900-001 | | |
| - Page Numbers | M/P-ITD-2900-002 | | |
| Truck Data Numbering Sheet | M/P-ITD-2900-004 | | |
| M1 – LUBRICATION AND ADJUSTMENT | PAGE | SER-NR. CUT | REV. |
| Jacking up the Truck | M-1.0-2900-001 | | |
| Raising the Truck with a Crane | M-1.0-2900-002 | | |
| Lifting the Truck with a second Truck | M-1.0-2900-002 | | |
| Towing the Truck | M-1.0-2900-002 | | |
| Component Access | M-1.0-2900-003 | | |
| Removing the Floorboard | M-1.0-2900-005 | | |
| Removing the Side Panel | M-1.0-2900-005 | | |
| Access to Drive Unit, Hydraulic System and Electrical Components | M-1.0-2900-005 | | |
| Maintenance | M-1.1-2900-001 | | |
| - Driver Participation | M-1.1-2900-001 | | |
| - Daily Maintenance Log | M-1.1-2900-001 | | |
| - Recommended Lubricants and Oils | M-1.1-2900-001 | | |
| - Lubricants | M-1.1-2900-002 | | |
| Grease items and grease intervals | M-1.2-2900-002 | | |
| - Inspection and Maintenance Schedule | M-1.2-2900-002 | | |
| - Daily or every 8 service hours | M-1.2-2900-003 | | |
| - Monthly or every 100 service hours | M-1.2-2900-005 | | |
| - Every three months or 250 service hours | M-1.2-2900-007 | | |
| - Every six months or 500 service hours | M-1.2-2900-009 | | |
| - Annually or every 1.000 service hours | M-1.2-2900-011 | | |
| - Every 2 years or 2.000 service hours | M-1.2-2900-011 | | |
| Caster | M-1.5-2900-001 | | |
| Torques | M-1.9-2900-002 | | |
| M2 – HYDRAULICS | PAGE | SER-NR. CUT | REV. |
| Hydraulic System | M/P-M2.1-2900-001 | | |
| Operation | M/P-M2.1-2900-001 | | |
| Removing the Hydraulic Unit | M-2.2-2900-001 | | |
| Replacing the Hydraulic Pump | M-2.3-2900-001 | | |
| - Disassembly | M-2.3-2900-001 | | |
| - Assembly | M-2.3-2900-001 | | |
| - Start-up | M-2.3-2900-001 | | |
| Replacing the Hydraulic Filter | M-2.3-2900-001 | | |
| - Replacing the Suction Filter | M-2.3-2900-001 | | |
| - Oil Change | M-2.3-2900-002 | | |

| | |
|--------------------------------|----------------|
| Valve Setting Control | M-2.3-2900-004 |
| Non-return valve control | M-2.3-2900-004 |
| Safety Valve Control | M-2.3-2900-004 |
| Safety Valve Setting | M-2.3-2900-004 |

| M3 – DRIVE UNIT | PAGE | SER-NR. CUT | REV. |
|---|-----------------------|--------------------|-------------|
| Gear Unit | M-3.1-2900-001 | | |
| Preparation | M-3.1-2900-001 | | |
| Maintenance | M-3.1-2900-002 | | |
| - General | M-3.1-2900-002 | | |
| Drive Unit Disassembly | M-3.1-2900-003 | | |
| Assembly | M-3.1-2900-003 | | |
| Adjusting the Bevel Wheel Set | M-3.1-2900-004 | | |
| Final Assembly | M-3.1-2900-004 | | |
| Drive Unit Re-Installation | M-3.1-2900-005 | | |
| Live Ring Bearing Replacement | M-3.1-2900-005 | | |
| Forcing out the Live Ring Bearing | M-3.1-2900-005 | | |
| Pressing in the Live Ring Bearing | M-3.1-2900-005 | | |
| Installation of the Live Ring Bearing in the Drive Unit ... | M-3.1-2900-005 | | |

| M4 – ELECTRICS | PAGE | SER-NR. CUT | REV. |
|---|-----------------------|--------------------|-------------|
| Electrical Components | M-4.2-2900-001 | | |
| Transmitter (MC, MN, PT) | M-4.2-2900-001 | | |
| Fast / Slow Switch (HES) | M-4.2-2900-001 | | |
| Safety Pedal (PCT) | M-4.2-2900-001 | | |
| Lift / Lower Switch (PCS, PCD) | M-4.2-2900-001 | | |
| Lift Limit Switch (MFF) | M-4.2-2900-001 | | |
| Pressure Switch (PS) | M-4.2-2900-001 | | |
| Horn Switch (PCX) | M-4.2-2900-001 | | |
| Horn (CX) | M-4.2-2900-001 | | |
| Key Switch (QC) | M-4.2-2900-001 | | |
| Emergency Disconnect Switch (PE) | M-4.2-2900-001 | | |
| Steering Angle-Dependent Speed Reduction Microswitch .. | M-4.2-2900-001 | | |
| Brake (FE) | M-4.2-2900-002 | | |
| Fuses (F1, F2, FA) | M-4.2-2900-002 | | |
| Traction Motor (M1) | M-4.2-2900-002 | | |
| Pump Motor (M2) | M-4.2-2900-002 | | |
| Pump Contactor (K3) | M-4.2-2900-002 | | |
| Main Contactor (K4) | M-4.2-2900-002 | | |
| Raise Contactor (RLS) and Lower Contactor (RLD) | M-4.2-2900-002 | | |
| ^{OPTION} Steering Motor (M3) | M-4.2-2900-002 | | |
| ^{OPTION} Encoder (MS) | M-4.2-2900-002 | | |
| ^{OPTION} Limit Switch (MF) | M-4.2-2900-002 | | |
| ^{OPTION} Steering-Contactor (K6) | M-4.2-2900-002 | | |
| ^{OPTION} Fuses (F3, FA3) | M-4.2-2900-002 | | |
| Travel Direction Display | M-4.2-2900-002 | | |
| ES1 Traction Controller | M-4.3-2900-001 | | |
| General | M-4.3-2900-001 | | |
| - Precautionary Measures | M-4.3-2900-001 | | |
| Operational Features | M-4.3-2900-001 | | |
| - Speed Control | M-4.3-2900-001 | | |
| - Reduced Speed Range | M-4.3-2900-001 | | |
| - Downhill Speed Control | M-4.3-2900-001 | | |
| - Regenerative Braking | M-4.3-2900-001 | | |
| - Anti-Roll-Down-Function | M-4.3-2900-001 | | |

| | |
|---|------------------------|
| - Hourmeter | M-4.3-2900-002 |
| Self Test | M-4.3-2900-002 |
| - Monitored Circuits | M-4.3-2900-002 |
| Protective Devices | M-4.3-2900-003 |
| - Polarity Protection | M-4.3-2900-003 |
| - Wiring Errors | M-4.3-2900-003 |
| - Temperature | M-4.3-2900-003 |
| - Start Sequence | M-4.3-2900-003 |
| - Safety Class | M-4.3-2900-003 |
| Maintenance | M-4.3-2900-003 |
| ES1 Traction Controller Connections | M-4.3-2900-004 |
| Programmer | M-4.4-2900-001 |
| General | M-4.4-2900-001 |
| Operating Menu ES1 Controller | M-4.4-2900-002 |
| - General | M-4.4-2900-002 |
| - Menu Functions | M-4.4-2900-002 |
| - Operating Menu - Overview | M-4.4-2900-003 |
| Adjustment | M-4.5-2900-001 |
| - Menu PARAMETER CHANGE | M-4.5-2900-001 |
| - Max. Speed Setting | M-4.5-2900-002 |
| - TESTER Menu | M-4.5-2900-004 |
| - Error Code Display in SAM Hourmeter | M-4.5-2900-006 |
| - ALARMS Menu | M-4.5-2900-006 |
| - PROGRAM VACC Menu | M-4.5-2900-009 |
| CONFIG Menu | M-4.5-2900-010 |
| SAM Hourmeter | M-4.5-2900-01 |
| Traction Controller Replacement and Transfer of Service Hours into the new Controller: | M-4.5-2900-011 |
| Traction Controller Safety Test | M-4.20-2900-001 |
| Battery | M-4.25-2900-001 |
| General | M-4.25-2900-001 |
| Operation | M-4.25-2900-001 |
| Battery Replacement | M-4.25-2900-001 |
| Battery Removal | M-4.25-2900-001 |
| - Replacing the Battery with a Crane | M-4.25-2900-002 |
| - Replacing the Battery with a Battery Trolley | M-4.25-2900-003 |
| Charging the Battery | M-4.25-2900-004 |
| Electric Motors | M-4.35-2900-001 |
| General Maintenance Instructions | M-4.35-2900-001 |
| Preparation | M-4.35-2900-001 |
| Important Maintenance Instructions | M-4.35-2900-001 |
| Traction Motor Maintenance | M-4.35-2900-002 |
| Access to the Brushes | M-4.35-2900-002 |
| Maintenance | M-4.35-2900-002 |
| - Armature | M-4.35-2900-002 |
| - Bearings | M-4.35-2900-002 |
| Pump Motor Maintenance | M-4.35-2900-003 |
| Access to the Brushes | M-4.35-2900-003 |
| Maintenance | M-4.35-2900-003 |
| <small>(OPTION)</small> Steering Motor Maintenance | M-4.35-2900-004 |
| Access to the Brushes | M-4.35-2900-004 |
| Maintenance | M-4.35-2900-004 |

| M-5 – BRAKE | PAGE | SER-NR. CUT | REV. |
|--|-------------------------|--------------------|-------------|
| Brake | M-5.0-2900-001 | | |
| - Function | M-5.0-2900-001 | | |
| - Removal | M-5.0-2900-001 | | |
| - Assembly | M-5.0-2900-002 | | |
| - Air Gap Setting | M-5.0-2900-002 | | |
| - Brake Moment Setting | M-5.0-2900-002 | | |
| - Brake Test | M-5.0-2900-003 | | |
| M6 – STEERING | PAGE | SER-NR. CUT | REV. |
| Steering | M-6.1-2900-001 | | |
| Operation | M-6.1-2900-001 | | |
| Lower Steering Chain Adjustment | M-6.1-2900-002 | | |
| Adjusting the Drive Unit Steering Chain | M-6.1-2900-002 | | |
| Checking the Sliding Clutch | M-6.1-2900-003 | | |
| Replacing the Sliding Clutch | M-6.1-2900-003 | | |
|  Steering Sensor Removal / Installation | M-6.1-2900-004 | | |
|  Steering Motor Removal / Installation | M-6.1-2900-004 | | |
|  Limit Switch Removal / Installation | M-6.1-2900-004 | | |
| M7 – LIFTING MECHANISM | PAGE | SER-NR. CUT | REV. |
| Lifting Mechanism | M-7.0-2900-001 | | |
| Test | M-7.0-2900-001 | | |
| Adjusting the Stop | M-7.0-2900-001 | | |
| M8 – CYLINDERS | PAGE | SER-NR. CUT | REV. |
| Cylinders | M-8.0-0000-001 | | |
| General | M-8.0-0000-001 | | |
| Plunger Cylinders (single-acting) | M-8.0-0000-001 | | |
| Piston Cylinder (Double-Acting Cylinder) | M-8.0-0000-002 | | |
| Maintenance | M-8.0-0000-004 | | |
| Inspection | M-8.0-0000-001 | | |
| Seal Installation | M-8.6-2900-001 | | |
| General | M-8.6-2900-001 | | |
| Lift Cylinder | M-8.6-2900-001 | | |
| Removal Preparation | M-8.6-2900-001 | | |
| Removal | M-8.6-2900-001 | | |
| Repairing the Lift Cylinder | M-8.6-2900-002 | | |
| - Disassembly | M-8.6-2900-002 | | |
| - Inspection | M-8.6-2900-002 | | |
| - Assembly | M-8.6-2900-002 | | |
| Assembly | M-8.6-2900-002 | | |
| Gas Pressure Spring Removal and Assembly | M-8.6-2900-003 | | |
| - Removal Preparation | M-8.6-2900-003 | | |
| - Removal | M-8.6-2900-003 | | |
| - Assembly | M-8.6-2900-003 | | |
| DIA – ELECTRICAL DIAGRAMS | PAGE | SER-NR. CUT | REV. |
| Standard Version | M/P-DIA-2900-001 | | |
|  With electrical steering | M/P-DIA-2900-002 | | |
| HYD – HYDRAULIC SCHEMATIC | PAGE | SER-NR. CUT | REV. |
| Hydraulic Schematic | M/P-HYD-2900-001 | | |

CROWN

SAFETY



Thank you very much
for your reading.
Please click here
to get more information.