Model No._____

Serial No. _____

RR/RD 5700S Series
AC Traction
Service & Parts Manual



Crown 2009 PF17573 6/09

Printed in U.S.A.

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Manual & Parts Catalog | Publication PF17573-006

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

TABLE OF CONTENTS

SAFETY **PAGE**

General Maintenance Instructions 3
Cleaning of Material Handling Equipment 5
Cleaning Methods 5
Control of Hazardous Energy 7
Lockout/Tagout 7
Battery 7
Safety Rules 7
Battery Care 7
Charging 7
Battery Removal 8
Battery Installation 8
Lockout - Tagout 8
Capacitance 9
Releasing the Brakes 10
Tow Mode Method 10
Brake Release Service Tool Method 10
Mechanical Brake Release Method 11
Towing Truck 12
Towing by Pulling in Power Unit First Direction 12
Towing by Pulling in the Forks First Direction 12
Towing by Lifting Truck and Pulling in Power Unit First Direction 12
Towing by Lifting Truck and Pulling in the Forks First Direction 13
Hydraulic 14
Lifting and Blocking 15
Mast and Fork Carriage 16
Blocking Masts 16
Reach Mechanism 17
Tilt 17

INTRODUCTION **PAGE**

Introduction 21
Operator Instructions 21
Operator Training 21
Service Training 21
Replacement Parts 21

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

LUBRICATION & ADJUSTMENT	PAGE
Lubrication and Adjustment	**27**
Planned Maintenance	**33**
Overview	33
Component Access	33
Power Unit Console	34
Knee Pad and Upper Pedal Assembly	34
Seat Covers and Floorboard	34
Floorboard	35
Upper Foot Rest	35
Power Unit Door	35
Front Left Hand Power Unit Compartment	35
Front Right Hand Power Unit Compartment	35
Lubrication	36
Componentry	**53**
Audible Indicators	**54**
ALM1	54
ALM2	54
HN	54
Contactors	**54**
ED1	54
ED2	56
P2	56
Encoders	**56**
ECR1	56
ECR2	56
ECR3	56
ECR4	58
ECR6	58
ECR7	58
Fans	**58**
FAN1	58
FAN3	58
FAN5	60
FAN6	60
Fuses	**60**
FU1	60
FU2	60
FU3	60
FU4	62
FU5	62
FU6	62
FU7	62
FU8	62
FU9 (AC Hydraulic Trucks)	64
FU9 (DC Hydraulic Trucks)	64
FU10	64
FU11	64
FU12	64
FU13	66
FU14	66

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

Lights **66**
LGT1 66
LGT2, LGT3 66
LGT4 66
Miscellaneous **68**
BRK1 68
LS 68
RES1 68
RES2 68
RES3 68
RES5 70
RES6 70
RES8 70
RES9 72
RES10 72
RES11 72
RES13 72
RES14 72
RES15 74
RES16 74
RES17 74
RES18 74
RES19 76
RES22 76
RES23 76
RES24 76
RPS1 78
RPS2 78
THS4 78
THS5 78
TS1 78
TS2 80
TS4 80
Motors **80**
M1 80
M2 80
M3 82
M4 82
Potentiometers **82**
POT1 82
POT2 82
POT3 82
POT4 84
Relays **84**
K1 84
K2 84
K3 84
K12 86

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

Lifting and Blocking

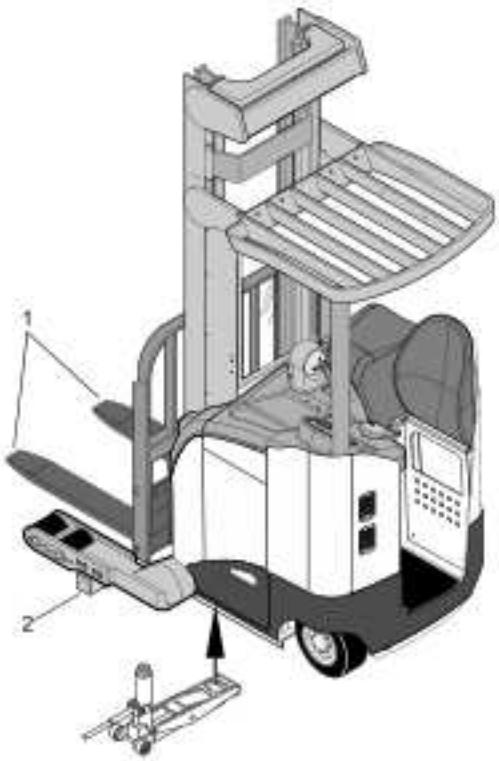


Figure 21075

1 Lower forks and move towards center of truck if required

2 Chock load wheels with hardwood block

- Move truck to a secure non-traffic maintenance area with a level floor.
- No load on forks.
- Lockout or tagout truck as described in Lockout/ Tagout in this section.

Equipment Capacities Required:

- Hydraulic jack capacity: 3620 kg (8000 lb)
  - Crown part number: 122599
  - Collapsed height minimum: 60 mm (2.25 in)
  - Raised height maximum: 400 mm (16 in)
- Jack stand capacity: 4500 kg (10000 lb)
  - Commercially available.

WARNING

Truck stability decreases dramatically if load wheels are raised more than 13 mm (0.5 in). Attach sling and overhead lifting device to all cross members of the mast to prevent truck from tipping over when raising the side of the truck.

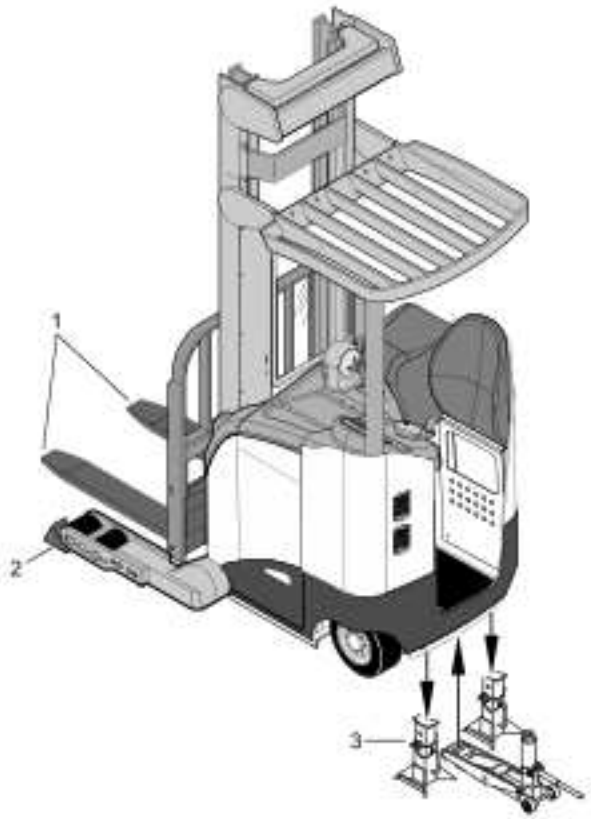


Figure 21076

1 Raise forks 70 to 150 mm (3.0 to 6.0 in) from floor

2 Chock both load wheels

3 Set jack stand as required – not to exceed 400 mm (16.0 in)

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

CAUTION

Drive unit may tip over when lowering it. Keep hands and feet away from pinch points

CAUTION

After reinstallation of drive unit, recalibrate steer feedback sensor. Refer to the Calibration section of Analyzer 123 Menus chapter.

Drive Unit Replacement

1. Make sure load wheels are chocked and rear of truck is securely blocked high enough to allow drive unit replacement, but not higher than 400 mm (16 in). Refer to *Control of Hazardous Energy, Lifting and Blocking.*
2. Refer to Figure 21079. Clean all mounting surfaces on undercarriage (17) and drive unit (18) and check for damage.
3. Install seal (16), bearing cup (15), bearing cone (14) and seal (13) into undercarriage (17).
4. Install ring gear (12) on drive unit (18). Apply blue thread locking adhesive, 061004-026, to screws (11) and torque to 34 - 41 Nm (25 - 30 ft lb).
5. Install dowel pin (10) and bearing stud (9) into drive unit (18). Use red thread locking adhesive, 061004-019, on screw (5) and torque to 47 Nm (35 ft lb).
6. Install metallic seal (8), bearing cone (7) and bearing cup (6).
7. Raise drive unit into position using floor jack.
8. If re-installing original drive unit, use same shims (19) that were removed during disassembly. If installing replacement drive unit, use the following instructions to determine the correct shim quantity. The replacement drive unit is shipped with one thick shim that brings it to a factory - established standard measurement. Five 0.05 mm (0.002 in) shims are included in the kit. To determine the proper quantity shims required:

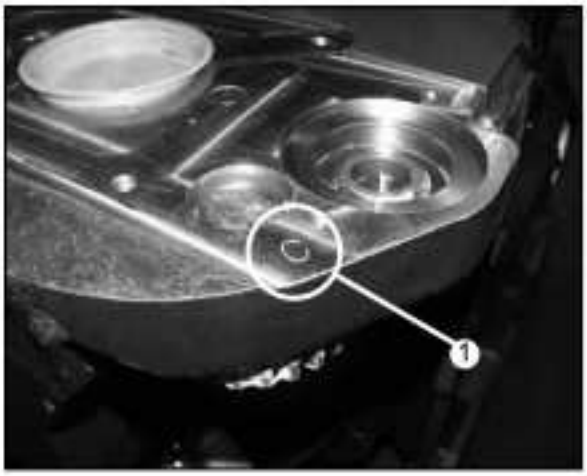


Figure 16875-01

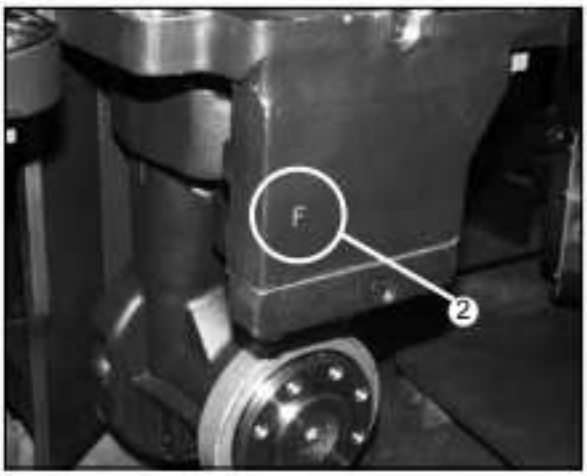


Figure 16876-01

Trucks with Factory Stamp

Locate the undercarriage factory stamp, letters A - K. Two possible locations have been used to stamp your drive carriage. The first (1) is located on the machined surface near the steering unit towards the left side of the undercarriage, see Figure 16875-01. The second (2) is located on the lower left side near the bearing cup mounting surface, see Figure 16876-01. For all trucks with undercarriage stamps refer to Chart 1 for correct quantity of shims.

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

This electrical diagram index lists wiring diagrams with the area or component(s) of the truck covered by each diagram. Exceptions indicated are listed below.

Chart 1 - Electrical Diagrams Index		
Title	**Page Number**	**Revision**
Electrical Schematic - All Trucks	DIA-1457-002	
Electrical Schematic - AC Traction/Hydraulics	DIA-1457-003	
Electrical Schematic - DC Hydraulics	DIA-1457-004	
Distribution Panel	DIA-1457-005	
Multi-Task Control Handle	DIA-1457-006	
ACCESS 3 - TCM & Motors	DIA-1457-007	
ACCESS 2 - HCM	DIA-1457-008	
Fuse Panel	DIA-1457-009	
ACCESS 1 - DM & Key Switch	DIA-1457-010	
42 inch Freezer/Corrosion Package	DIA-1457-011	01 - 7/09
48 inch Freezer/Corrosion Package	DIA-1457-012	01 - 7/09
ACCESS 4 - VCM	DIA-1457-013	
Mast Cable & Options	DIA-1457-014	01 - 9/09
Brakes & Floorboard	DIA-1457-015	
Power Unit Hydraulics	DIA-1457-016	
Electronic Power Steering Control	DIA-1457-017	
42 inch Power Cables - AC Hydraulics	DIA-1457-018	01 - 7/09
42 inch Power Cables - DC Hydraulics	DIA-1457-019	01 - 7/09
42 inch Power Cables - AC Hydraulics European	DIA-1457-020	01 - 7/09
48 inch Power Cables - AC Hydraulics	DIA-1457-021	01 - 7/09
48 inch Power Cables - DC Hydraulics	DIA-1457-022	01 - 7/09
48 inch Power Cables - AC Hydraulics European	DIA-1457-023	01 - 7/09
Thermo Assist	DIA-1457-024	01 - 7/09
Thermo Assist	DIA-1457-025	01 - 7/09
Infolink	DIA-1457-026	01 - 7/09
Mast Camera	DIA-1457-027	01 - 7/09
Wire Harnesses	DIA-1457-028	02 - 9/09

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

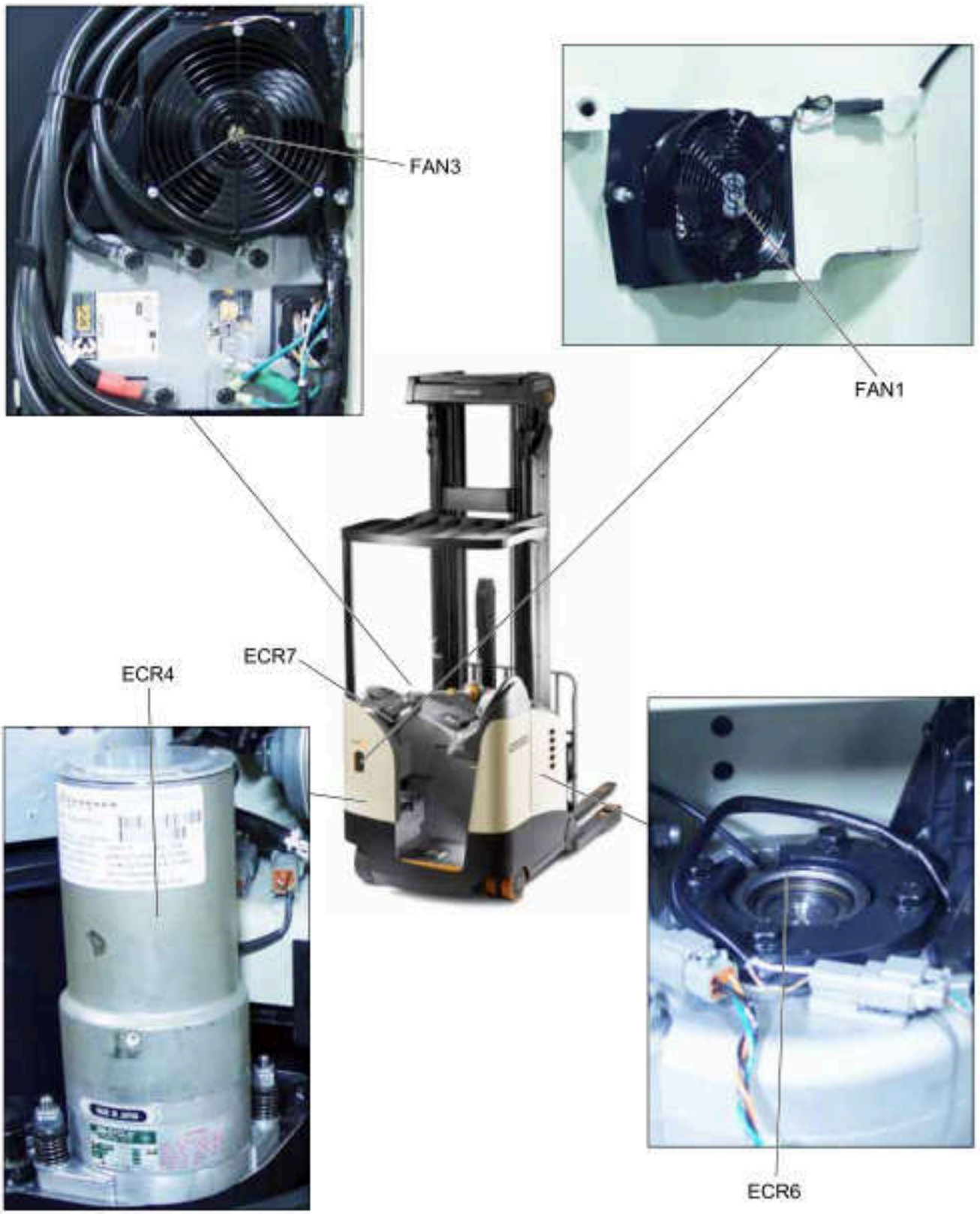


Figure 22131

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >

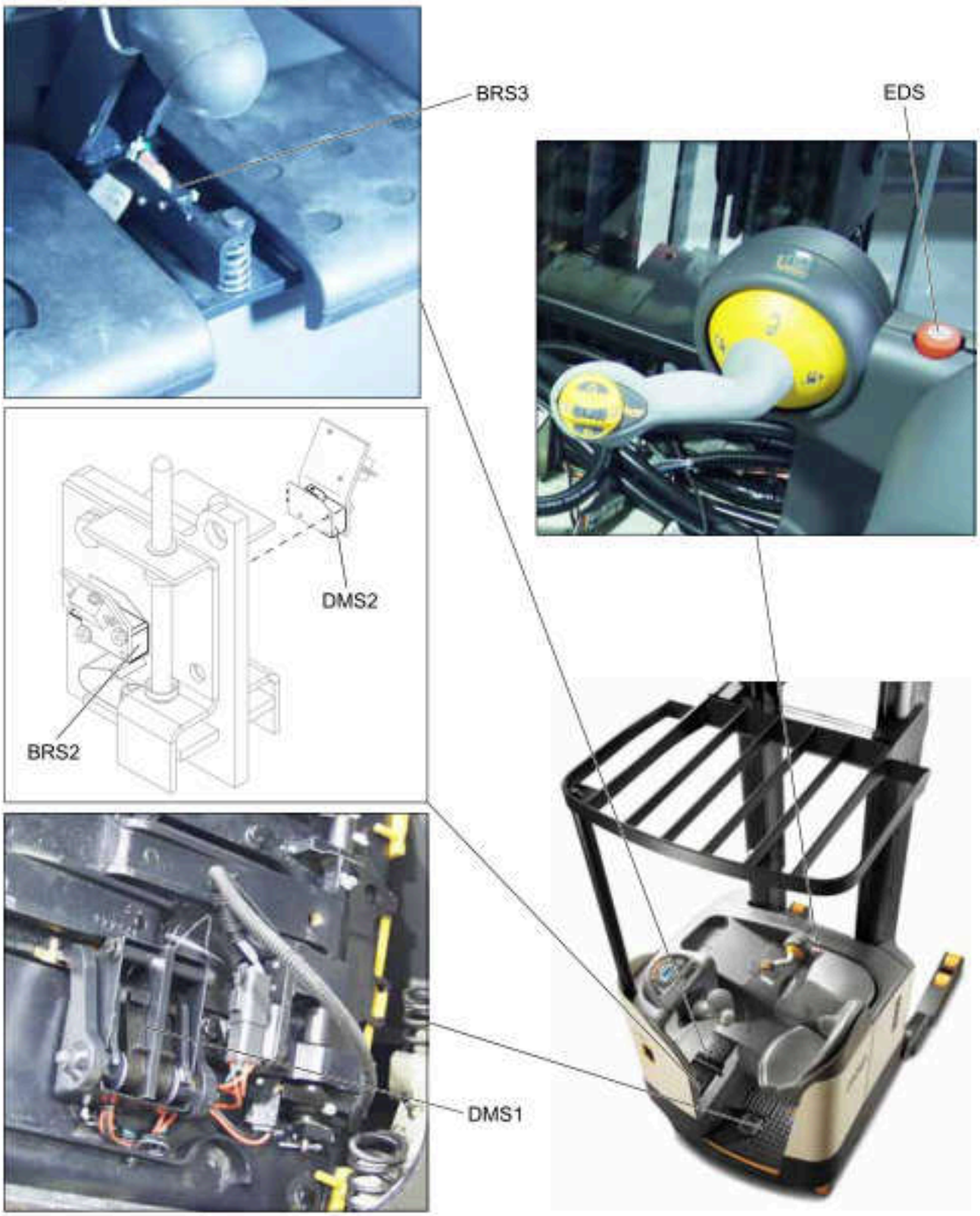


Figure 22147

MidWestTech | Crown RR, RD 5700S Series AC Traction Double Reach Truck Service Man... Order the manual at mid-west-tech.com >