

CR9040, CR9060, CR9070 REPAIR MANUAL COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION	2
SECTION 10 - ENGINE	4
SECTION 14 - LIVE PTO	6
SECTION 21 - TRANSMISSION	8
SECTION 25 - FRONT MECHANICAL DRIVE	9
SECTION 29 - HYDROSTATIC SYSTEM	11
SECTION 33 - BRAKES AND CONTROLS	16
SECTION 35 - HYDRAULIC SYSTEMS	17
SECTION 41 - STEERING AXLE	21
SECTION 50 - CLIMATE CONTROL	23
SECTION 55 - ELECTRICAL SYSTEMS	30
SECTION 60 - PRODUCT FEEDING	69
SECTION 66 - THRESHING	73
SECTION 72 - DISCHARGE BEATER	76
SECTION 74 - CLEANING SYSTEMS	77
SECTION 80 - GRAIN STORAGE	82
SECTION 88 - ACCESSORIES	84
SECTION 90 - PLATFORM, CAB, BODYWORK, DECALS	87

The following pages are the collation of the contents pages from each section and chapter of the CR9040, CR9060, and CR9070 Repair manual. Complete Repair part # 87682452.

The sections used through out all New Holland product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the CR9040, CR9060, and CR9070 Combines.

Sample of manual. Download All 3586 pages at:

<https://www.arepairmanual.com/downloads/new-holland-cr9040-cr9060-cr9070-combines-service-repair-manual/>

SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87682453

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Foreword	3
	About Improvements	3
	Part and Accessories	3
	Precautionary Statements	4
	Personal Safety	4
	Machine Safety	4
	Information	4
	Safety Precautions	4
	Personal Considerations	4
	Equipment Considerations	5
	General Considerations	6
	Operational Considerations	6
	Health and Safety Precautions	7
	Acids and Alkalis	7
	Adhesives and Sealers	7
	Antifreeze	8
	Battery Acids	8
	Brake and Clutch Linings and Pads	8
	Brazing	8
	Chemical Materials - General	8
	Clutch Linings and Pads	9
	Corrosion Protection Materials	9
	Cutting	9
	Dewaxing	9
	Do's	9
	Don'ts	9
	Dusts	9
	Electric Shock	9
	Exhaust Fumes	10
	Fiber Insulation	10
	Fire	10

SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87682453

Chapter 1 - General Information (Continued)

CONTENTS

Section	Description	Page
	First Aid	10
	Foams- Polyurethane	10
	Fuels	11
	Gas Cylinders	11
	Gases	11
	Gas Shielding Welding	11
	Gas Welding	11
	General Workshop Tools and Equipment	11
	Glues	12
	High-pressure Air, Lubrication and Oil Test Equipment	12
	Legal Aspects	12
	Lubricants and Greases	12
	Noise Insulation Material	12
	Paints	12
	Paint Thinners	12
	Pressurized Equipment	12
	Resistance Welding	12
	Sealers	12
	Solder	12
	Welding	12
	Service Techniques	13
	General	13
	Hoses and Tubes	13
	Product Identification	14
	Base Unit	14
	Engine	14
	Straw Chopper (If Equipped)	15
	Powered Rear Axle Wheel Motors (If Equipped)	15
	Minimum Hardware Tightening Torques	16
	Recommended Lubricants and Coolants (North America Only)	20

SECTION 10 - ENGINE

BOOK 1 - 87682453

Chapter 1 - 9.0L Engine Removal and Replace

CONTENTS

Section	Description	Page
	Engine	2
	Removal	2
	Installation	17

SECTION 10 - ENGINE

BOOK 1 - 87682453

Chapter 2 - 10.3L Complete Engine, Removal and Replace

CONTENTS

Section	Description	Page
	Engine	2
	Removal	2
	Installation	17

SECTION 10 - ENGINE

BOOK 1 - 87682453

Chapter 3 - Common Engine Compartment Components

CONTENTS

Section	Description	Page
	Overhaul	2
	Cooling Fan Drive	2
	Removal	2
	Disassembly	4
	Inspection	4
	Assembly	5
	Installation	6
	Radiator Unit	8
	Removal	8
	Disassembly	13
	Inspection	13
	Assembly	15
	Installation	16
	Rotary Screen	20
	Removal	20
	Disassembly	21
	Inspection	22
	Assembly	23
	Installation	25
	Rotary Screen Drive Shaft	26
	Removal	26
	Installation	28
	Rotary Screen Seal	30
	Replacement	30
	Rotary Screen Brush	31
	Removal	31
	Installation	32
	Rotary Screen Brush Actuator	34
	Removal	34
	Installation	35

SECTION 14 - LIVE PTO

BOOK 1 - 87682453

Chapter 1 - Engine Gearbox, Clutch Pack Removal/Installation

CONTENTS

Section	Description	Page
	Special Torque	2
	Labor Guide	2
	Overhaul	3
	Clutch Pack	3
	Removal	3
	Installation	10

SECTION 14 - LIVE PTO

BOOK 1 - 87682453

Chapter 2 - Engine Gearbox, Clutch Pack Rebuild

CONTENTS

Section	Description	Page
	Special Tool	2
	General	2
	Overhaul	3
	Main Clutch Disassembly	3
	Main Clutch Assembly	6
	Unload Clutch Disassembly	10
	Unload Clutch Assembly	12

SECTION 14 - LIVE PTO

BOOK 1 - 87682453

Chapter 3 - Engine Gearbox Removal/Installation

CONTENTS

Section	Description	Page
	Gearbox	2
	Removal	2
	Replacement	8
	Flexplate	14
	Removal	14
	Installation	16

SECTION 14 - LIVE PTO

BOOK 1 - 87682453

Chapter 4 - Engine Gearbox Rebuild

CONTENTS

Section	Description	Page
	Overhaul	2
	Gearbox	2
	Disassembly	2
	Inspection	7
	Component Repair - Bearing and Race Removal/Installation	9
	Component Repair - Clutch Cylinder Bushing Removal/Installation	9
	Assembly	10
	Clutch Installation	15
	Unloader Clutch Shimming Process	16
	Main Clutch Shimming Installation	16
	Assembly	17
	Clutch Temperature Sender Shim Installation	17
	Assembly	19

SECTION 21 - TRANSMISSION

BOOK 1 - 87682453

Chapter 1 - Transmission

CONTENTS

Section	Description	Page
	Specifications	2
	Tightening Torques	2
	Special Tools	3
	Sectional/Exploded Views	4
	Transmission Cover (Exploded View)	4
	Gearbox Shafts (Sectional View)	5
	Shifting Diagram (Sectional View)	6
	Shifting Disc/Drive Gear (Sectional View)	7
	Shifting Disc/Drive Gear (Exploded View)	8
	Differential (Sectional View)	9
	Differential (Exploded View)	10
	Differential Shafts (Exploded View)	11
	Drive Shaft/Cover (Exploded View)	12
	Drive Shaft (Sectional View)	13
	Drive Shaft (Exploded View)	14
	Input Shaft And Bearing Caps (Exploded View)	15
	Input Shaft (Sectional View)	16
	Input Shaft (Exploded View)	17
	Overhaul	18
	Transmission	18
	Removal	18
	Disassembly	23
	Assembly	38
	Installation	52
	Differential	57
	Disassembly	57
	Assembly	59
	Drive Shaft	60
	Disassembly	60
	Assembly	63
	Input Shaft	65
	Disassembly	65
	Assembly	66

SECTION 25 - FRONT MECHANICAL DRIVE

BOOK 2 - 87682454

Chapter 1 - Planetary Final Drive

CONTENTS

Section	Description	Page
	General Specification – Final Drive	2
	Specifications	2
	Final Drive – Torque	2
	Final Drive – Special tools	3
	Overview	4
	Final Drive – Sectional View	4
	Final Drive – Exploded View	5
	Final Drive Input Shaft – Exploded View	6
	Final Drive Input Shaft – Overview	6
	Final Drive Reducer, Satellite and Planetary – Exploded View	7
	Removal	8
	Disassembly	9
	Assembly	15
	Distance Ring Combinations Table	16
	Installation	26
	Final Drive Input Shaft	26
	Disassembly	26
	Assembly	28
	Final Drive Output Shaft	29
	Disassembly	29
	Assembly	31
	Final Drive Reducer, Satellite and Planetary	33
	Disassembly	33
	Assembly	34
	Final Drive Wheel Stud	37
	Replacement	37
	Half-Shaft	38
	Removal	38
	Installation	39

SECTION 25 - FRONT MECHANICAL DRIVE

BOOK 2 - 87682454

Chapter 2 - 11/111 Final Drives

CONTENTS

Section	Description	Page
25 000	Specifications	2
	Tightening Torques	2
	Special Tools	2
	Overview	3
	Final Drive (Standard Seal) - Sectional View	3
	Final Drive (Mud Seal) - Sectional View	4
	Overhaul	5
	Wheel Bolt	5
	Replacement	5
	Final Drive	6
	Removal	6
	Disassembly	7
	Inspection	9
	Assembly	11
	Installation	18

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 1 - Hydrostatic Drive System Introduction

CONTENTS

Section	Description	Page
	Specifications	3
	Hydrostatic Oil	3
	Hydrostatic Pump (CR9040 and 9060 Machines w/HD 11/111 Final Drives)	3
	Hydrostatic Pump (CR9040 and 9060 Machines w/Planetary Final Drives)	3
	Hydrostatic Pump (CR9070 Machines)	3
	Hydrostatic Drive Motor (CR9040 and 9060 Machines w/HD 11/111 Final Drives)	4
	Hydrostatic Drive Motor (CR9040 and 9060 Machines w/Planetary Final Drives; CR9070 Machines)	4
	Oil Cooler Bypass Valve	4
	Introduction	5
	Oil Reservoir	5
	Hydrostatic Pump	5
	Hydrostatic Brake (Integrated)	6
	Hydrostatic Drive Motor	6
	Powered Rear Axle (PRA) (Optional)	7
	Description of Operation	8
	Neutral	8
	Forward	8
	Hydrostatic Drive Schematic	9
	Hydrostatic Block Operation (Integrated Brake)	10
	Reverse	10
	Gear Changing	14
	Temperature Control	14
	Multi Function Valves	15
	Charge Check Valve 8a - 9a	17
	Pressure Limiter 8b - 9b	17
	High Pressure Relief Valve 8c - 9c	18
	Bypass Valve 8d - 9d	18

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 1 - Hydrostatic Drive System Introduction (Continued)

CONTENTS

Section	Description	Page
	Servo Valve	19
	System in Neutral	19
	Servo Solenoid Valve 10a Energized	19
	Hydrostatic Drive Motor Valves	21
	Shuttle Spool Valve	21
	Flushing Relief Valve	21
	Pressure Release Valve Circuit	21
	Oil Cooler bypass Valve	23
	Hydrostatic Pump and Drive Motor Identification Numbers	24
	Hydrostatic Pump	26
	Pump Characteristics	27
	Hydrostatic Drive Motor	29
	Drive Motor Characteristics	30

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 2 - Filling the Hydrostatic System/Start-up Procedure

CONTENTS

Section	Description	Page
29 000	Filling the Hydrostatic System and Start-up Procedure	2

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 3 - Powered Rear Axle

CONTENTS

Section	Description	Page
	Specifications	2
	Selector Valve	2
	Flow Regulator (Optional)	3
	Description of Operation	4
	2WD-4WD Hydraulic System - Overview	4
	2WD-4WD Hydraulic System - Detailed View	7
	Selector Valve - Dynamic Description	18
	Flow Regulator (Optional)	23
	Hydraulic Line - Plumbing Schema PRA Hoses	25
	Testing	30
	Selector Valve	30
	Troubleshooting	38
	2WD-4WD Hydraulic System	38
	Selector Valve - Electrical	40
	Two-Speed Valve - Electrical	42
	Repair	44
	Control Valve	44
	Replacement	44
	Overhaul	45
	Two-Speed Valve	47
	Replacement	47

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 4 - Pressure Testing and Troubleshooting

CONTENTS

Section	Description	Page
29 000	Specifications	2
	Special Tools	3
	Main Hydrostatic System, Pressure Testing	4
	Charge Pressure	5
	Servo Pressure	6
	High Pressure	7
	Troubleshooting	9

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 5 - Hydrostatic Pump and Motor Repair

CONTENTS

Section	Description	Page
	Repair	3
29 212	Main Hydrostatic Pump	3
	Removal	3
	Installation	4
29 218	Shaft Seal Removal	5
29 218	Shaft Seal Installation	6
29 218	Shaft Removal	7
29 218	Shaft Installation	8
29 212	Charge Pump Removal	10
29 212	Charge Pump Installation	11
	Major Repairs	13
	Electric Displacement Control (EDC) Valve	14
	Removal	14
	Inspection	15
	Installation	16

SECTION 29 - HYDROSTATIC SYSTEM

BOOK 2 - 87682454

Chapter 5 - Hydrostatic Pump and Motor Repair (Continued)

CONTENTS

Section	Description	Page
29 218	Multi-Function Valve	17
	Adjustment	17
29 218	Removal	19
29 218	Installation	20
	Pump Charge Pressure Relief Valve	20
	Adjustment	20
	Removal	21
	Installation	22
29 212	Drive Motor	22
	Removal	22
	Installation	24
	Major Repairs	25
29 218	Motor Charge Relief Valve - Style 1	26
	Check	26
29 218	Replace	27
	Shuttle Spool Valve - 100 cc/rev Motor	28
	Removal	28
	Installation	29
	Motor Pressure Relief Valve - 130 cc/rev Motor	30
	Replacement	30
	Shuttle Spool Valve - 130 cc/rev Motor	32
	Removal	32
	Installation	33
	Pressure Release Valve Solenoid	35
	Removal	35
	Installation	36
	Pressure Release Valve Spool	38
	Removal	38
	Installation	39

SECTION 33 - BRAKES AND CONTROLS

BOOK 2 - 87682454

Chapter 1 - Brakes and Controls

CONTENTS

Section	Description	Page
	Specifications	2
	Tightening Torques	2
	Overhaul	5
	Brake Pads	5
	Replacement	5
	Brake Cylinders	8
	Bleeding the Brake System	9
	Brake Caliper and Brake Disc	12
	Removal	12
	Installation	14
	Parking Brake Caliper	16
	Removal	16
	Installation	17
	Parking Brake Disc	17
	Removal	17
	Installation	18
	Parking Brake Override	20
	Manual Override	20
	Parking Brake Piston Travel and Adjustment	21
	Parking Brake Pads	24
	Replacement	24
	Bleeding the Hydraulic Parking Brake Caliper	25
	Parking Brake Caliper	26
	Parking Brake Caliper - Cross Section View	26
	Disassembly	27
	Assembly	29

SECTION 35 - HYDRAULIC SYSTEMS

BOOK 3 - 87682455

Chapter 1 - Introduction

CONTENTS

Section	Description	Page
	Specifications	2
	High Pressure System	2
	Low Pressure System	3
	Introduction	4
	Low Pressure Circuit	4
	High Pressure Circuit	5
	Hydraulic Symbols	8
	High Pressure Circuit Diagram, Main	9
	High Pressure Circuit Diagram, Main (with Autoguidance Steering Valve)	11
	Main Frame Stack Valve	13
	Main Frame Stack Valve (with Autoguidance Steering Valve)	15
	Feeder Stack Valve	17
	Component Locations	19
	Component Descriptions	20
	Low Pressure System Description	30
	Schematic Diagrams	30
	Low Pressure System	30
	Low Pressure System with Positive Straw Discharge	32
	Low Pressure System with Chopper Infeed Roll Motor with Valve - Model Year 2005 and Later	34
	Component Location	36
	Component Descriptions	37

SECTION 35 - HYDRAULIC SYSTEMS

BOOK 3 - 87682455

Chapter 2 - Description of Operation

CONTENTS

Section	Description	Page
	Description of Operation	2
	Closed Center Load Sensing (CCLS) Variable Displacement Pump	2
	Principal of Pump Operation - Fixed Vs. Variable Displacement	3
	Flow and Pressure Compensating Valves	5
	Hydraulic Circuit Operation	6
	Low Pressure Standby	6
	High Pressure Circuit High Demand	8
	High Pressure Circuit Low Demand	9
	Controlling Maximum System Pressure	10
	Main Stack	11
	Feeder Valve Stack	11
	Stack Valves	12
	Priority Valve	12
	Header Height Control Valve	17
	Accumulator Valve	21
	Function Control Valves	24
	Rotor Variator/Feeder Variator/Reel Raise-lower	30
	Unloading Auger Swing/Feeder Reverser Valve	30
	Lateral Float Valve/Reel Fore-Aft Valve	30
	Reel Drive Valve	31
	Stone Trap Valve	31
	Hydraulic Cleaning Fan Drive	32
	Low Pressure System	33
	Chaff Spreader Valve	33
	Chaff Spreader/PSD Valve	33
	Chopper Infeed Roll Motor Valve	34
	Low Pressure Valve	35

SECTION 35 - HYDRAULIC SYSTEMS

BOOK 3 - 87682455

Chapter 3 - Pressure Testing and Fault Finding The High and Low Pressure Hydraulic Systems

CONTENTS

Section	Description	Page
	Description and Operation	2
	Special Tools	3
	Specifications - Closed Center Systems	4
	Main Hydraulic Pump	4
	Low Pressure Pump	4
	General Fault Finding	5
	CCLS Pump Pressure and Flow Testing	11
	CCLS Pump Low Pressure Standby	11
	CCLS Pump High Pressure Standby	12
	CCLS Pump Load Sensing Circuit	13
	CCLS Pump Flow Test	14
	Steering Testing	15
	Steering Test	15
	Steering Relief Valve Pressure Test	15
	Hydraulic Cleaning Fan Flow Test	16
	Low Pressure System Testing	18
	Low Pressure System – Chaff Spreader Pressure Test	18
	Chaff Spreader/PSD Pressure Test	18
	Low Pressure System – Regulated Pressure Test	19
	Low Pressure System – Individual Circuit Testing	19
	Low Pressure System – Pump Flow Test	20

SECTION 35 - HYDRAULIC SYSTEMS

BOOK 3 - 87682455

Chapter 4 - Stack Valves Overhaul

CONTENTS

Section	Description	Page
	Repair	2
	Main Stack Valve	2
	Removal	2
	Installation	3
	Disassembly	4
	Inspection	6
	Assembly	7
	Feeder Stack Valve	10
	Removal	10
	Installation	11
	Disassembly	12
	Inspection	14
	Assembly	15
	Low Pressure Valve Block	18
	Removal	18
	Installation	18

SECTION 41 - STEERING AXLE

BOOK 3 - 87682455

Chapter 1 - Axle, General

CONTENTS

Section	Description	Page
	Introduction and General Information	2
	Axle Types	2
	Axle Center Section	2
	Heavy Duty Adjustable Steering Axle (HDASA)	3
	Powered Rear Axle (PRA)	3
	Overhaul	4
	Center Section	4
	Removal	4
	Installation	6
	Toe In Adjustment	9
	Tie Rod	9
	Steering Cylinders	11

SECTION 41 - STEERING AXLE

BOOK 3 - 87682455

Chapter 2 - Wheel Bearings (HDASA)

CONTENTS

Section	Description	Page
	Introduction and General Information	2
	Overhaul	3
	Wheel Bearing	3
	Disassembly	3
	Repacking	5
	Assembly	5

SECTION 41 - STEERING AXLE

BOOK 3 - 87682455

Chapter 3 - Steering Pivot (HDASA)

CONTENTS

Section	Description	Page
	Overhaul	2
	Hub and Kingpin Casting	2
	Hub and Kingpin - Exploded View	2
	Disassembly	3
	Inspection	4
	Bushing Replacement	4
	Removal	4
	Installation	5
	Assembly	6

SECTION 41 - STEERING AXLE

BOOK 3 - 87682455

Chapter 4 - Hydrostatic Motor

CONTENTS

Section	Description	Page
	Specifications	2
	Tightening Torques	2
	Special Tools	3
	Valve Retainer Tool	3
	Split Ring Assembly Hood	4
	Bushing Driver	5
	Bushing Driver Ring	6
	Assembly, Shaft Removal Tool	7
	Wheel Motor Bar	8
	Parts Specifications - Shaft Removal Tool and Rotational Torque Tool	9
	Rotational Torque Tool	10
	Bar, Rotational Torque Tool	11

SECTION 41 - STEERING AXLE

BOOK 3 - 87682455

Chapter 4 - Hydrostatic Motor (Continued)

CONTENTS

Section	Description	Page
	Radial Clip Installation Tool	12
	Setting Tool	13
	Tool Holder	14
	Description and Operation	15
	Rear Axle	15
	Hydrostatic Motor - Exploded View	16
	Overhaul	18
	Bleeding the Rear Axle System	18
	Hydrostatic Motor	20
	Removal	20
	Disassembly	23
	Assembly	28
	Installation	35

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 1 - Heating, Ventilation and Air-Conditioning

CONTENTS

Section	Description	Page
	Special Tools	2
	Tightening Torques	2
	Introduction	3
	A/C Cycle	4
	Air Conditioning Process	4
	Climate Control	5
	Automatic Temperature Control (ATC)	5

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 1 - Heating, Ventilation and Air-Conditioning (Continued)

CONTENTS

Section	Description	Page
	Troubleshooting	7
	General	7
	Fault Codes	9
	Testing	10
	Problem Solving Pressure Test Results and Temperature/Pressure Chart	10
	Air-conditioning Temperature/Pressure Chart	10
	Heater Valve	12
	Expansion Valve	14
	Ventilation System Separator Fan	15
	Ventilation System Blower Motor	17
	Electrical Control Temperature Control Potentiometer	19
	Electrical Control Blower Speed Potentiometer	20
	Electrical Control Relay	21
	Electronic HVAC Control - Display Data Line	23
	Electronic HVAC Control - ATC Control Switch and Mode Control Switch	24
	Electronic HVAC Control - ATC Controller Power Supply	25
	Sensing System High Pressure Switch	26
	Sensing System Low Pressure Switch	28
	Sensing System Outlet Temperature Sensor	30
	Sensing System Cab Temperature Sensor	31
	Sensing System Evaporator Temperature Sensor	32
	Overhaul	33
	Evacuating the Refrigerant	33
	Pressure Test	38
	Leakage Test	39
	Charging	39

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 2 - Air Filters

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Recirculation Air Filter	3
	Removal	3
	Installation	4
	Separator Filter	4
	Removal	4
	Installation	5

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 3 - Blower Fans

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Circulation Fan	3
	Removal	3
	Installation	5
	Separator Fan	7
	Removal	7
	Installation	8

SECTION 50 – CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 4 – Compressor

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Compressor	3
	Removal	3
	Installation	4
	Clutch	4
	Removal	4
	Installation	8

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 5 - Condenser

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Condenser	3
	Removal	3
	Installation	4

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 6 - Cool Box

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Cool Box Damper Actuator	3
	Removal	3
	Installation	4

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 7 - Evaporator

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Evaporator Core	3
	Removal	3
	Installation	5

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 8 - Heater Core

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Heater Core	3
	Removal	3
	Installation	7
	Water Valve	11
	Removal	11
	Installation	12
	Water Valve Actuator	15
	Removal	15
	Installation	16

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 9 - High/Low Pressure Cutout Switch

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	High Pressure Switch	3
	Removal	3
	Installation	3
	Low Pressure Switch	3
	Removal	3
	Installation	3

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 10 - Receiver/Dryer

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	3
	Receiver / Dryer	3
	Removal	3
	Installation	3

SECTION 50 - CLIMATE CONTROL

BOOK 3 - 87682455

Chapter 11 - Thermal Expansion Valve

CONTENTS

Section	Description	Page
	Description of Operation	2
	Overhaul	4
	Thermal Expansion Valve	4
	Removal	4
	Installation	5

SECTION 35 - ELECTRICAL SYSTEMS

BOOK 4 - 87682456

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Overview	3
	Introduction to Troubleshooting	6
	Fault Codes and Fault Finding	6
	The Digital Multi-Meter	9
	General Operation	9
	Measuring Voltage (Volts)	10
	Measuring Current (Amps)	10
	Measuring Resistance (Ohms)	10
	Continuity (Buzzer) Test	11
	Summary	11
	Electrical Test Procedures	12
	Electrical Test Procedure 1: Continuity Test – Short to Ground	12
	Electrical Test Procedure 2: Voltage Measurement or Short to Positive Supply Volts	13
	Electrical Test Procedure 3: Resistance Test for Electrical Parts	13
	Electrical Test Procedure 4: Continuity Test – Check for Open Circuits	14
	Circuit Components - Basic Description and Testing	15
	Fuses	15
	Switches	16
	Flashers	16
	Resistance Devices	17
	Fluid Level Sender	17
	Potentiometers	17
	Potentiometer Adjustment	18
	Electromagnetic Devices	19
	Relays	19
	Solenoids	20
	Pwm Solenoid Valves	21
	Sensors	23
	Temperature Sensors	23
	Pressure Sensor	23
	Speed and Position Sensors	24