
T2210, T2220 - BOOMER 2030, BOOMER 2035 REPAIR MANUAL COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION	2
SECTION 10 - ENGINE	3
SECTION 18 - CLUTCH	10
SECTION 21 - GEAR TRANSMISSION	12
SECTION 25 - FWD AXLE	14
SECTION 27 - DIFFERENTIAL, REAR AXLE	16
SECTION 29 - HYDROSTATIC TRANSMISSION	17
SECTION 31 - POWER TAKE-OFF SYSTEMS	21
SECTION 33 - BRAKES	23
SECTION 35 - HYDRAULIC SYSTEM	23
SECTION 41 - STEERING SYSTEMS	27
SECTION 44 - WHEELS AND TIRES	29
SECTION 55 - ELECTRICAL SYSTEM	30
SECTION 90 - PLATFORM	38

The following pages are the collation of the contents pages from each section and chapter of the T2210, T2220 - Boomer 2030, Boomer 2035 Repair manual. Complete Repair part # 84122964.

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.

SECTION 00 - GENERAL INFORMATION

BOOK 1 - 84122965

Chapter 1 - General Information

CONTENTS

Section	Description	Page
	Precautionary Statements	2
	Personal Safety	2
	Machine Safety	2
	Information	2
	Safety	3
	Precautionary Statements	3
	The Tractor	3
	Servicing the Tractor	3
	Operating the Tractor	4
	Driving the Tractor	4
	Operating the PTO	5
	Diesel Fuel	5
	Safety Frame (ROPS)	5
	Decals	6
	Safety Decals	6
	Instruction Decals	8
	Ecology and the Environment	12
	Helpful Hints	12
	International Symbols	13
	Specifications	14
	General Dimensions	20
	Minimum Hardware Tightening Torques	23
	Lubrication and Maintenance	25
	Lubrication	25
	Liquid Ballast (Optional)	27
	Tire Pressure	27
	Rear Tire Liquid	27

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems

CONTENTS

Section	Description	Page
	Specifications	6
	Cooling System All Models	13
	Engine Bolt Torque Specifications	14
	Engine Fuel System Bolt Torque Specifications	14
	Metric Bolt Torque Specifications	15
	Special Tools	16
	Compression Test and Tools	16
	Description of Operation - General Information	17
	Cylinder Head and Valve Train Components	18
	Cylinder Block Assembly	18
	Troubleshooting	20
	Overhaul	24
	Engine	24
	Preparation	24
	Fuel Injector and Glow Plug	25
	Removal	25
	Oil Pressure Switch	26
	Removal	26
	Temperature Sending Switch and Alternator	26
	Removal	26
	Fan, Water Pump and External Oil Tube	26
	Removal	26
	Head Cover	27
	Removal	27
	Rocker Arm Shaft and Support Bracket	27
	Removal	27
	Cylinder Head	28
	Removal	28
	Valve Tappet	28
	Removal	28
	Fuel Shutoff Solenoid	28
	Removal	28

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems (Continued)

CONTENTS

Section	Description	Page
	Timing Gear Cover	29
	Removal	29
	Timing Gears and Camshaft	30
	Removal	30
	Oil Sump	30
	Removal	30
	Oil Suction Pipe and Strainer	31
	Removal	31
	Connecting Rods, Bearings, Pistons and Rings	31
	Removal	31
	Flywheel	32
	Removal	32
	Backplate and Oil Seal	32
	Removal	32
	Front Crankshaft Gear	32
	Removal	32
	Crankshaft and Main Bearings	33
	Removal	33
	Cylinder Head	34
	Disassembly	34
	Inspection and Repair	34
	Valve Seats	35
	Inspection and Repair	35
	Valves	36
	Inspection and Replacement	36
	Valve Guides	37
	Inspection and Replacement	37
	Valve Springs	38
	Inspection and Replacement	38
	Rocker Arms	38
	Inspection and Replacement	38

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems (Continued)

CONTENTS

Section	Description	Page
	Push Rods	39
	Inspection and Replacement	39
	Cylinder Block	40
	Inspection	40
	Pistons	41
	Disassembly and Inspection	41
	Piston Rings	43
	Disassembly and Inspection	43
	Connecting Rods	43
	Disassembly and Inspection	43
	Pin to Bushing Clearance	44
	Connecting Rod Bearing Oil Clearance Check	45
	Pistons, Rings and Connecting Rod	46
	Assembly	46
	Main Bearing and Thrust Washer	47
	Removal and Inspection	47
	Crankshaft	47
	Inspection	47
	Crankshaft Bearing (Bushing)	48
	Inspection	48
	Replacement	49
	Crankshaft Front Gear, Main Bearings and Thrust Washers	49
	Assembly	49
	Port Block	51
	Removal	51
	Installation	51
	Timing Gear	51
	Inspection	51
	Camshaft	52
	Disassembly	52
	Inspection	52
	Assembly	52

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems (Continued)

CONTENTS

Section	Description	Page
	Flywheel	53
	Inspection and Repair	53
	Timing Gear Housing	53
	Front Oil Seal and Steering Pump Seal	53
	Replacement	53
	Crankshaft and Bearing Holder	54
	Installation	54
	Rear Oil Seal and Backplate	54
	Installation	54
	Flywheel	55
	Installation	55
	Pistons and Connecting Rods	55
	Installation	55
	Oil Suction Pipe and Suction Strainer	56
	Installation	56
	Oil Sump	56
	Installation	56
	Camshaft and Camshaft Gear	57
	Installation	57
	Idler Gear, Oil Pump and Injection Timing	57
	Installation	57
	Timing Gear Cover	57
	Installation	57
	Crankshaft Pulley	58
	Installation	58
	Fuel Injection Pump	58
	Installation	58
	Power Steering Pump	58
	Installation	58
	Head Gasket Selection	59
	Cylinder Head	59
	Assembly	59

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems (Continued)

CONTENTS

Section	Description	Page
	Valve Clearance Adjustment	60
	Head Cover	60
	Installation	60
	Water Pump and Cooling Fan	60
	Installation	60
	External Oil Tube	61
	Installation	61
	Glow Plug and Connector	61
	Installation	61
	Fuel Injector	61
	Installation	61
	Fuel Piping	62
	Installation	62
	Alternator and Temperature Sender Switch	62
	Installation	62
	Exhaust Manifold	62
	Installation	62
	Description of Operation - Engine Lubrication System	63
	Oil Filter	66
	Construction and Function	66
	Maintenance	66
	Oil Pump	66
	Removal	66
	Inspection	66
	Installation and Adjustment	67
	Engine Oil Pressure Check	68
	Oil Pressure Relief Valve	69
	Removal	69
	Installation	69
	Oil Consumption	70
	Description of Operation - Cooling System	71

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 1 - Engine Systems (Continued)

CONTENTS

Section	Description	Page
	Maintenance	72
	Coolant	72
	Radiator Cap	72
	Thermostat	73
	Water Pump	73
	Cooling Fan	73
Overhaul		74
	Radiator	74
	Removal	74
	Inspection and Repair	76
	Installation	76
	Water Pump	78
	Removal	78
	Inspection and Repair	79
	Installation	79
	Thermostat	80
	Removal	80
	Inspection and Repair	81
	Installation	81

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 2 - Fuel System

CONTENTS

Section	Description	Page
	Specifications	3
	Fuel Injection Pump Specifications	4
	Special Tools	4
	Troubleshooting	5
	General	5
	Fuel Injectors	8
	Governor	9
	Breather Valve	10
	Description of Operation - Injection Pump	11
	Effective Stroke	12
	Fuel Variation Mechanism	12
	CTD (Compact Timing Device) Mechanism	13
	Delivery Valves	15
	Fuel Delivery	15
	Injection Pump	18
	Removal	18
	Repair	19
	Installation	20
	Timing and Governor Adjustment	21
	Original Pump and Drive Components	21
	Installation	21
	New Pump or Drive Component	22
	Installation	22
	Spill-Timing Procedure	23
	Bleeding the Fuel System	27
	Fuel Setting - Adjustment	29
	Fuel Screw/High Idle	29

SECTION 10 - ENGINE

BOOK 1 - 84122965

Chapter 2 - Fuel System (Continued)

CONTENTS

Section	Description	Page
	Description of Operation - Governor	30
	Governor	32
	Disassembly	32
	Assembly	33
	Description of Operation - Injectors	34
	Injectors	36
	Removal	36
	Disassembly	37
	Assembly and Adjustment	37
	Engine Breather Valve	38
	Removal	39
	Installation	39

SECTION 18 - CLUTCH

BOOK 1 - 84122965

Chapter 1 - Clutch

CONTENTS

Section	Description	Page
	Troubleshooting	3
	Specifications	4
	Special Tools	5
	Description of Operation - Single Clutch	6
	HST Transmission	6
	Adjustments - Single Clutch	8
	Free-Play	8
	Overhaul - Single Clutch	9

SECTION 18 - CLUTCH

BOOK 1 - 84122965

Chapter 1 - Clutch (Continued)

CONTENTS

Section	Description	Page
	Single Clutch	9
	Removal	9
	Inspection	9
	Installation	10
	Description of Operation - Double Clutch	11
	9 x 3 Gear Transmission	11
	Adjustments - Double Clutch	12
	Free-Play	12
	PTO Clutch	12
	9 x 3 Transmission Only	12
	Overhaul - Double Clutch	13
	Double Clutch	13
	Disassembly	13
	Inspection	15
	Assembly	15
	Double Clutch Adjustments	16
	Servicing Clutch-Related Components	17
	Clutch Pilot Bearing (9 x 3 Transmission Only)	17
	Removal	17
	Installation	17
	Clutch Dimensions	18
	Clutch Release Bearing	19
	Removal	19
	Inspection	19
	Assembly	20
	Clutch Linkage Components	20
	Clutch Cross Shaft Bushings	20
	Removal	20
	Assembly	21
	Clutch Pedal Bushings	22
	Removal	22
	Assembly	22

SECTION 21 - GEAR TRANSMISSION

BOOK 2 - 84122966

Chapter 1 - Gear Transmission 9 x 3

CONTENTS

Section	Description	Page
	Specifications	3
	9 x 3 Gear Transmission	3
	General Bolt Torque Specifications	4
	Special Tools	5
	Description of Operation	6
	9 x 3 Gear Transmission	6
	Clutch Housing	14
	Disassembly	14
	Overhaul	15
	Transmission Preparation	15
	Separating the Tractor at Clutch Housing/Engine	15
	Separating Clutch Housing/Transmission	22
	Separating Transmission/Differential	22
	Transmission Assembly	23
	Removal	23
	Double Clutch Input Shaft	23
	Removal	23
	Double Clutch	23
	Main Gear Shifter Rod	23
	Removal	23
	Main Shaft	24
	Removal	24
	Reverse Idler Shaft	24
	Removal	24
	Double Clutch Countershaft	25
	Removal	25
	Double Clutch PTO Countershaft	26
	Removal	26
	Double Clutch FWD Drive Shaft	26
	Removal	26
	FWD Shift Rod	27
	Removal	27

SECTION 21 - GEAR TRANSMISSION

BOOK 2 - 84122966

Chapter 1 - Gear Transmission 9 x 3 (Continued)

CONTENTS

Section	Description	Page
	Rear Main Shaft	27
	Removal	27
	Range Gear Shifter Rod	28
	Removal	28
	Drive Pinion	29
	Removal	29
	Inspection	29
	Pre-installation Instructions	29
	Installation	30
	Range Gear Shifter Rod	30
	Installation	30
	Rear Main Shaft	30
	Installation	30
	FWD Drive Shaft	31
	Installation	31
	FWD Shift Rod	31
	Installation	31
	Double Clutch PTO Countershaft	32
	Installation	32
	Double Clutch Countershaft	32
	Installation	32
	Reverse Idler	32
	Installation	32
	Main Shaft	33
	Installation	33
	Main Gear Shifter Rod	33
	Installation	33
	Main Transmission Shift Lever	34
	Removal and Overhaul	34
	Installation	34
	Double Clutch Input Shaft	35
	Installation	35

SECTION 21 - GEAR TRANSMISSION

BOOK 2 - 84122966

Chapter 1 - Gear Transmission 9 x 3 (Continued)

CONTENTS

Section	Description	Page
	Transmission/Differential	36
	Assembly	36
	Clutch Housing/Transmission	37
	Assembly	37
	Clutch Housing/Engine	38
	Assembly	38
	Main Shift Lever	46
	Removal	47
	Inspection	47
	Assembly	48

SECTION 25 - FWD AXLE

BOOK 2 - 84122966

Chapter 1 - SuperSteer

CONTENTS

Section	Description	Page
	Specifications	3
	Torque Specifications	4
	Front to Rear Axle Ratio	5
	Special Tools	8
	Description of Operation - SuperSteer, Front Axle and Sensitrack	8
	Automatic Position (Engaged)	9
	Automatic Position (Disengaged)	9
	Full Time Front Wheel Drive (Locked Down)	9
	SuperSteer Front Axle	10

SECTION 25 - FWD AXLE

BOOK 2 - 84122966

Chapter 1 - SuperSteer (Continued)

CONTENTS

Section	Description	Page
	Sensitrack	12
	Removal	12
	Disassembly	13
	Inspection and Repair	13
	Assembly	14
	Cable Adjustment	17
	Installation	17
	SuperSteer Axle	18
	Removal	18
	SuperSteer Axle Components	21
	Reduction Gear - Drop Box	22
	Removal	22
	Disassembly	24
	Inspection	24
	Reduction Gear Box Assembly	25
	Seal Installation	25
	Front Axle and Differential	27
	Disassembly	27
	Drive Pinion	28
	Disassembly	28
	Front Axle	28
	Inspection and Repair	28
	Differential	29
	Inspection	29
	Front Axle and Differential	29
	Assembly	29
	Differential Gear	30
	Assembly	30
	Axle and Differential	30
	Assembly	30
	Ring Gear-To-Pinion	31
	Backlash Check and Adjustment	31

SECTION 25 - FWD AXLE

BOOK 2 - 84122966

Chapter 1 - SuperSteer (Continued)

CONTENTS

Section	Description	Page
	SuperSteer Axle	35
	Installation	35
	Crankshaft Pulley	36
	Installation	36
	Steering Stops	37
	Adjustment	37

SECTION 25 - FWD FRONT AXLE

BOOK 2 - 84122966

Chapter 2 - FWD Front Axle

CONTENTS

Section	Description	Page
	Specifications	2
	Four Wheel Drive	2
	Bolt Torque Specifications	3
	Special Tools	4
	Description of Operation - Front-Wheel Drive Front Axle	5
	Troubleshooting	7
	Overhaul	7
	Front-wheel Drive Front Axle	7
	Removal	7
	Reduction Gear - Drop Box	9
	Disassembly	9
	Front Axle and Differential	10
	Disassembly	10
	Drive Pinion	11
	Disassembly	11

SECTION 25 - FWD FRONT AXLE

BOOK 2 - 84122966

Chapter 2 - FWD Front Axle (Continued)

CONTENTS

Section	Description	Page
	Front Axle	12
	Inspection and Repair	12
	Differential	12
	Inspection and Repair	12
	Gear Reduction - Drop Box	13
	Inspection and Repair	13
	Front Axle and Differential	13
	Assembly	13
	Differential Gear	14
	Assembly	14
	Axle and Differential	14
	Assembly	14
	Ring Gear-to-pinion Backlash Check and Adjustment	15
	Ring Gear to Pinion Adjustment	17
	Reduction Gear Box	17
	Assembly	17
	Idler Case Vertical Shimming Procedure	20
	Bevel Gear-to-Pinion Backlash Check	21
	Front Wheel Toe-in	22
	Checking Toe-In	22
	Adjusting Toe-In	22

SECTION 27 - DIFFERENTIAL, REAR AXLE

BOOK 2 - 84122966

Chapter 1 - Differential, Rear Axle

CONTENTS

Section	Description	Page
	Specifications	2
	Ring Gear and Pinion Gear Pattern Specification and Adjustment	2
	Bolt Torque Specifications	3
	Special Tools	3
	Introduction	4
	Description of Operation - Differential Assembly	5
	Differential Lock	6
	Overhaul - Differential Assembly	7
	Differential	7
	Removal	7
	Disassembly	9
	Inspection	9
	Drive Pinion	10
	Removal	10
	Disassembly (with HST Transmission)	10
	Disassembly (with 9 x 3 Transmission)	11
	Assembly and Installation	12
	Differential	13
	Assembly and Installation	13
	Description of Operation - Rear Axle	15
	Overhaul - Rear Axle	16
	Rear Axle	16
	Removal	16
	Disassembly	16
	Inspection	19
	Assembly	19

SECTION 29 - HYDROSTATIC TRANSMISSION

BOOK 2 - 84122966

Chapter 1 - Hydrostatic Transmission

CONTENTS

Section	Description	Page
	Specifications	5
	Hydrostatic Transmission	5
	Bolt Torques	5
	Minimum Hardware Tightening Torques	6
	Special Tools	8
	Troubleshooting	9
	Description of Operation - Hydrostatic Transmission	10
	Hydrostatic Transmission	10
	Variable Displacement Pump	12
	Operation	12
	Fixed Displacement Motor	13
	Operation	13
	Fluid Flow	14
	Neutral Position	14
	Forward Position	15
	Reverse Position	16
	HST Charge Circuit	17
	Overhaul - Hydrostatic Transmission	18
	Separating the Tractor Between the Engine and Clutch Housing	18
	Attaching the Tractor at Engine and Clutch Housing	22
	Separating the Tractor Between the Hydrostatic Transmission and the Rear Axle Center Housing	29
	Hydrostatic Unit	29
	Removal	29
	Hydrostatic Gearbox	30
	Removal	30
	Hydrostatic Unit and Gearbox	30
	Installation	30
	Precautions Before HST Disassembly	31
	Hydrostatic Pump	34
	Disassembly	34
	Hydrostatic Motor	35
	Disassembly	35

SECTION 29 - HYDROSTATIC TRANSMISSION

BOOK 2 - 84122966

Chapter 1 - Hydrostatic Transmission (Continued)

CONTENTS

Section	Description	Page
	Hydrostatic Motor Shaft	37
	Disassembly	37
	Charge Pump	37
	Disassembly	37
	Swash Plate	38
	Disassembly	38
	Inspection	39
	Hydrostatic Pump	42
	Assembly	42
	HST Piston Pump Cylinder Block	43
	Assembly	43
	HST Motor Cylinder Block	45
	Assembly	45
	Port Block - Neutral and Feed Valves	46
	Disassembly	46
	Inspection	46
	Assembly	46
	Neutral Valve	47
	Disassembly	47
	Inspection	47
	Assembly	47
	Charge Pump Relief Valve	47
	Disassembly	47
	Inspection	47
	Assembly	47
	High Pressure Relief Valve	48
	Removal	48
	Installation	48
	Hydrostatic Pump and Port Block	48
	Assembly	48
	Motor and Port Block	50
	Assembly	50

**Thanks very much for your reading,
Want to get more information,
Please click here, Then get the complete
manual**

JustClickHere 

NOTE:

**If there is no response to click on the link above,
please download the PDF document first, and then
click on it.**

**Have any questions please write to me:
admin@servicemanualperfect.com**