521D
Wheel Loaders

Operator's Manual

Revision Date 09/2004

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CASE
CONSTRUCTION

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TABLE OF CONTENTS

TO THE OWNER 1
AFTER DELIVERY CHECK 4
RIGHT, LEFT, FRONT AND REAR SIDES OF THE MACHINE 4
IDENTIFICATION NUMBERS 5
MACHINE COMPONENTS 7
SAFETY/DECALS/HAND SIGNALS 9
SAFETY RULES 9
UTILITY SAFETY 10
PERSONAL SAFETY 11
BEFORE OPERATION 12
MACHINE OPERATION 13
PARKING THE MACHINE 15
BURN PREVENTION 15
FIRE EXTINGUISHER 16
FIRE OR EXPLOSION PREVENTION 17
MAINTENANCE 18
WHEEL AND TIRE MAINTENANCE 19
ROLL-OVER PROTECTIVE STRUCTURE 19
READ OPERATORS MANUAL 20
SAFETY DECALS 20
HAND SIGNALS 32
INSTRUMENT/CONTROLS 35
FRONT CONSOLE 35-39
INSTRUMENT PANEL INDICATORS 40-54
INFORMATION CENTER 55-60
GAUGE DISPLAY 61-67
TRANSMISSION DISPLAY CENTER 68-70
FOOT PEDALS 71
SIDE CONSOLE 79-85
OPERATORS SEAT 92
SEAT BELT 95
OPERATING INSTRUCTIONS 97
BEFORE STARTING THE ENGINE 97
RUN - IN PROCEDURE 97
SEAT BELT 98
STARTING THE ENGINE 99
STOPPING THE ENGINE AND PARKING THE MACHINE 101
BEFORE YOU OPERATE 107
MACHINE OPERATION 110
CONTROL LEVERS 113
LOADER FUNCTION SWITCHES 118
LOADER CONTROL 120
BRAKE ACCUMULATORS 121
DECLUTCH 121

TRIM THIS EDGE

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RIGHT PAGE (First)

TRIM THIS EDGE

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BUCKET LEVEL INDICATOR 122
AUXILIARY HYDRAULIC CONNECTION (IF EQUIPPED) 122
ROTATING BEACON (IF EQUIPPED) 123
RIDE CONTROL (IF EQUIPPED) 123
COUPLER PIN ENGAGEMENT (IF EQUIPPED) 124
LOADER OPERATING TIPS 125
TOWING THE MACHINE 127
TRANSPORTING THE MACHINE 128
OPERATING IN COLD WEATHER 130
OPERATING IN HOT WEATHER 132
WHEELS/TIRES/BALLAST 133
LUBRICATION/FILTERS/FLUIDS 139
GENERAL SAFETY BEFORE YOU SERVICE 139
SUPPORT STRUT FOR LOADER LIFT ARMS 140
TRANSPORT/SERVICE LINK 141
SYSTEMGARD LUBRICATION ANALYSIS PROGRAM 142
PLASTIC AND RESIN PARTS 142
THE ENGINE HOOD 143
ENGINE HOURMETER 144
FLUIDS AND LUBRICANTS - 521D 145
LUBRICATION/MAINTENANCE CHART 146-148
ACCESS DOORS 149
GREASE FITTINGS - 50 HOURS 150
GREASE FITTINGS - 100 HOURS 151
GREASE FITTINGS - 1000 HOURS 152
GREASE FITTINGS - 50 HOURS 153
GREASE FITTINGS - 100 HOURS 154
FLUID LEVELS 155
ENGINE LUBRICATION 159
AIR FILTER SYSTEM 164
ENGINE COOLING SYSTEM 168
DIESEL FUEL SYSTEM 171
HYDRAULIC/BRAKE SYSTEM 176
TRANSMISSION 181
AXLES 184
CAB AIR FILTER 187
MAINTENANCE/ADJUSTMENT 191
ETHER CONTAINER (If Equipped)) 191
CAB SERVICE 192
TRANSMISSION CLUTCH CALIBRATION 195
SECONDARY STEERING CHECK 196

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Bur 6-36651na

LEFT PAGE

MidWestTech | Case 521D Wheel Loader Operator's Manual | Publication 6-36651NA Order the manual at mid-west-tech.com >

PARKING BRAKE CHECK 197
PARKING BRAKE HOLD CHECK 197
PARKING, HOLDING 108
LOADER ADJUSTMENTS 199
ROLL-OVER PROTECTIVE STRUCTURE 206
TORQUE SPECIFICATIONS FOR SEAT AND SEAT BELTS 209
ALTERNATOR BELT AND AIR CONDITIONING COMPRESSOR BELT . 210
FIRE EXTINGUISHER MOUNTING (IF EQUIPPED) 211
SPARK ARRESTING MUFFLER (IF EQUIPPED) 212
ELECTRICAL SYSTEM 213
BATTERY SERVICE 213
FUSES 216
REPLACEMENT FUSES 217
SERVICE ELECTRICAL CONNECTOR (IF EQUIPPED) 218
AUXILIARY POWER OUTLET (IF EQUIPPED) 218
AUXILIARY POWER EQUIPMENT MOUNTING BRACKET LOCATION . 219
REPLACEMENT BULBS 220
MACHINE STORAGE 221
SPECIFICATIONS 223
ENGINE DATA - 521D 223
OPERATING DATA AND DIMENSIONS 224-227
SPECIAL BOLT TORQUES (521D) 231

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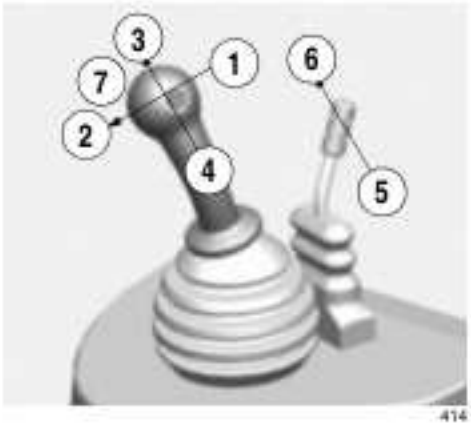
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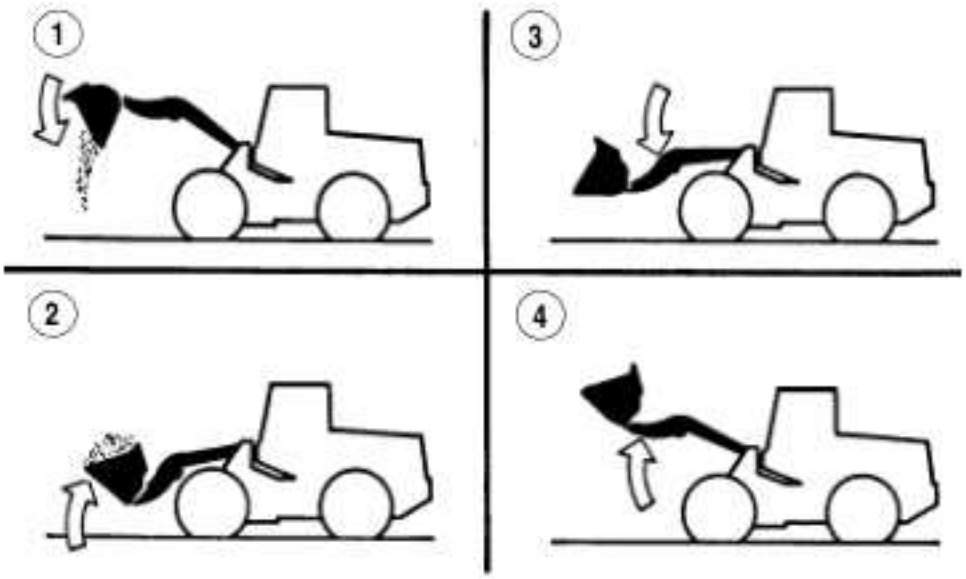
THREE SPOOL VALVE - TWO CONTROL LEVERS



414

NOTE: *This page shows the basic control lever positions. The Detent Switch for the loader functions is in the OFF position.*

See Loader Function Switches in this manual for RETURN-TO-DIG, BUCKET HEIGHT CONTROL and RETURN-TO-TRAVEL/FLOAT switches.



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1. **DUMP BUCKET**
2. **ROLLBACK BUCKET**
3. **LOWER LIFT ARMS**
4. **RAISE LIFT ARMS**
5. **5-6.) AUXILLARY FUNCTION**
6. **7.) HOLD:** THE LOADER ARMS AND BUCKET WILL NOT MOVE WHEN THE CONTROL LEVERS ARE IN **HOLD**. WHEN RELEASED, THE CONTROL LEVERS WILL RETURN TO **HOLD** AUTOMATICALLY.

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LUBRICATION/MAINTENANCE CHART

PAGE NUMBER	SERVICE POINTS	NUMBER OF POINTS	FREQUENCY IN HOURS					
			CHECK	CHANGE	REPLACE	LUBRICATE	CLEAN	DRAIN WATER
162	Engine Oil **(See Note 5)**			500				
162	Engine Oil Filter				250			
211	Air Conditioning Compressor Belt (If Equipped)		250					
214	Battery Fluid Level **(See Note 3)**		500					
133	Tire Condition and Air Pressure		250					
187	Cab Air Filter (If Equipped)						250	
174	Fuel Filter				500			
173	Fuel Tank							500
206	ROPS and Seat Belt Mounting Bolts		500					
178	Hydraulic Filter				1000			
182	Transmission Filter **(See Note 2)**				1000			
182	Transmission Oil **(See Note 4)**			1000				
182	Transmission Breather						1000	
151	Upper and Lower Chassis Pivots	2				1000		
186	Front Axle Differential and Planetary Oil **(See Note 4)**			1000				
185	Axle Oil Level Front and Rear		500					

NOTE 1: *Use Case Filter A77659*

NOTE 2: *Replace the transmission filter if the transmission filter restriction warning lamp illuminates, or after 1000 hours, which ever occurs first.*

NOTE 3: *Check battery fluid every 250 hours in extreme heat.*

NOTE 4: *Initial fluid change at 100 hours, 1000 hours there after. Follow change information in this manual.*

NOTE 5: *Reduce to 250 hours if CASE AKCELA No.1 Engine oil is not used.*

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ROLL-OVER PROTECTIVE STRUCTURE

Your machine has a Roll-Over Protective Structure (ROPS). A ROPS label shows the serial number of the ROPS, gross weight, approval, regulation, and model numbers of the machine. See Identification Numbers in this manual.

Before you operate this machine, always make sure that the ROPS and operator's seat belts are correctly installed.



RD188C104

ROPS CANOPY LABEL

Seat Belt

The seat belt is an important part of your ROPS. You must wear the seat belt at all times when you operate the machine.

1. Keep the seat belts away from objects that can damage the seat belts.
2. Check the seat belts for damage. Replace all parts that are damaged.
3. Make sure that the mounting bolts of the seat belts are tight. See Torque Specifications for Seat in this manual.
4. Keep the seat belts clean. Wash the seat belts only in soap and water.
5. Do not put the seat belts in bleach or dye. You will make the seat belts weak.

Maintenance and Inspection of ROPS

After the first 20 hours of operation and after every 500 hours of operation, do the following:

1. Check the torque of the ROPS mounting bolts. If necessary, tighten the bolts to the correct torque. See torque specifications on this page.
2. Check the operators seat and the mounting parts for the seat belt. Tighten the bolts to the correct torque. See Torque Specifications in this manual. Replace parts that have wear or damage.
3. Check for cracks, rust, or holes in the ROPS and ROPS parts. Age, weather, and accidents can cause damage to the ROPS and ROPS parts. If you have any doubt about the ROPS system, see your dealer.

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