CASE

OPERATOR'S MANUAL

LOADER BACKHOE

580M
580 SUPER M
580 SUPER M +
590 SUPER M
590 SUPER M +
SERIES 3

87657943 NA

Issued 01 Feb 06

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

M SERIES 3 LOADER BACKHOES 1-1
IDENTIFICATION NUMBERS 1-4
MACHINE COMPONENTS 1-6

CHAPTER 2
SAFETY, AND SAFETY DECALS
TABLE OF CONTENTS 2-1
SAFETY DECALS 2-11

CHAPTER 3
INSTRUMENTS AND CONTROLS
TABLE OF CONTENTS 3-1
INSTRUMENTS AND CONTROLS 3-3
RIGHT SIDE CONSOLE CONTROLS 3-13

CHAPTER 4
OPERATING INSTRUCTIONS
TABLE OF CONTENTS 4-1
OPERATING INSTRUCTIONS

CHAPTER 5
LUBRICATION, FILTERS, AND FLUIDS
TABLE OF CONTENTS 5-1

CHAPTER 6
MAINTENANCE AND ADJUSTMENTS
TABLE OF CONTENTS 6-1

CHAPTER 7
ELECTRICAL
TABLE OF CONTENTS 7-1

CHAPTER 8
SPECIFICATIONS
TABLE OF CONTENTS 8-1
580M SERIES 3 LOADER / BACKHOE SPECIFICATIONS 8-3
580 SUPER M SERIES 3 LOADER/ BACKHOE 8-12
580 SUPER M + SERIES 3 LOADER / BACKHOE 8-21
590 SUPER M SERIES 3 LOADER/BACKHOE 8-30
590 SUPER M+ SERIES 3 LOADER/BACKHOE 8-39

CHAPTER 10
AFTER DELIVERY CHECK - DEALER COPY 10-1
AFTER DELIVERY CHECK - OWNERS COPY 10-3

AFTER DELIVERY CHECK 297

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

Chapter 2

SAFETY, AND SAFETY DECALS

TABLE OF CONTENTS

SAFETY RULES 2-3
UTILITY SAFETY 2-4
OPERATOR PRECAUTIONS 2-5
Personnel 2-5
General 2-5
Mounting And Dismounting Precautions 2-5
Starting And Stopping Precautions 2-5
Operating Precautions 2-6
Maintenance Precautions 2-7
Fuel Handling Precautions 2-8
Burn Prevention 2-8
Hazardous Chemical Precautions 2-8
Transporting Precautions 2-9
Wheel And Tire Safety 2-9
Roll-Over Protective Structure 2-9
Seat Belt Precautions 2-9
Specific Precautions To This Machine 2-10
Cast Ductile Iron 2-10
SAFETY DECALS 2-11
HAND SIGNALS 2-24

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

Chapter 3

INSTRUMENTS AND CONTROLS

TABLE OF CONTENTS

INSTRUMENTS AND CONTROLS 3-3
FRONT CONSOLE AND STEERING COLUMN MOUNTED CONTROLS 3-3
LOADER CONTROL LEVER 3-10
LOADER CONTROL LEVER MOUNTED SWITCHES 3-11
RIGHT SIDE CONSOLE CONTROLS 3-13
RIGHT SIDE CONSOLE CONTROLS 3-15
RIGHT SIDE CONSOLE CONTROLS 3-16
580 M INSTRUMENT CLUSTER 3-17
ADVANCED INSTRUMENT CLUSTER 3-20
SEAT SWITCH ALARM SYSTEM 3-26
LEFT REAR CONSOLE CONTROLS 3-27
BACKHOE CONTROLS 3-29
BACKHOE CONTROLS WITH FOOT SWING 3-30
EXTENDAHOE CONTROLS WITH FOOT SWING 3-31
BACKHOE CONTROLS WITH HAND SWING 3-32
BACKHOE CONTROLS WITH HAND SWING 3-33
BACKHOE CONTROLS WITH HAND SWING AND EXTENDABLE DIPPER 3-34
BACKHOE WITH PILOT CONTROLS 3-35
LEFT TOWER CONTROLS AND SWITCHES 3-36
RIGHT TOWER CONTROLS AND SWITCHES 3-38
BACKHOE CONTROL PATTERN 1 3-41
BACKHOE CONTROL PATTERN 2 3-42
AUXILIARY HYDRAULIC ATTACHMENT CONTROL FOR BACKHOES 3-43
SEATS 3-44
CAB AIR LOUVERS 3-48

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

RIGHT TOWER CONTROLS AND SWITCHES



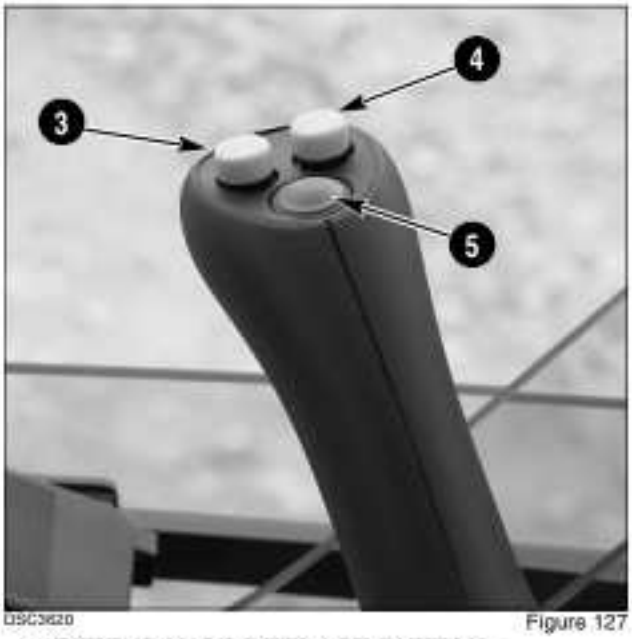
BD07J092 Figure 126

1. RIGHT TOWER:

2. RIGHT CONTROL LEVER:

This lever controls the Dipper and Bucket functions when in Backhoe Control Pattern 1.

When in Backhoe Control Pattern 2 this lever controls the Boom and Bucket. *The Backhoe Control Pattern Switch will illuminate when in pattern 2.*



DSC3620 Figure 127

3. EXTENDAHOE RETRACT BUTTON:

If equipped, this button activates the Extendahoe retract function. Push and hold the button to retract. Release the button to stop. This switch is proportional. Push harder and retract will function faster.

4. EXTENDAHOE EXTEND BUTTON:

If equipped, this button activates the Extendahoe extend function. Push and hold the button to extend. Release the button to stop. This switch is proportional. Push harder and extend will function faster.

5. ONE TOUCH IDLE BUTTON:

Press this button to reduce the engine speed to idle. Press the switch again to restore the engine speed.

WARNING: *Pilot control machines are equipped with two backhoe control function patterns. Check control functions before operating this machine. Failure to check control pattern before operating can cause unexpected machine movement, death or serious injury.*

M956 Figure 128

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

INITIAL 100 HOURS

INITIAL HYDRAULIC FILTER CHANGE

Replace the hydraulic filter after the first 100 hours on a new machine or if a major component has been rebuilt.

Always replace the filter if the Hydraulic Oil Filter Warning Lamp remains illuminated.



BD06A520 Figure 73

1. HYDRAULIC FILTER

The hydraulic filter is located under the left rear portion of the machine just in front of the rear axle.

1. Park the machine on a firm, level surface.
2. Place the backhoe in the transport position with the swing lock pin installed for transport.
3. Place the loader bucket on the ground, with the bottom of the loader bucket parallel to the surface.
4. Stop the engine.
5. Slowly open the hydraulic reservoir cap to help relieve pressure.



BD06A524 Figure 74

6. Clean the area around the filter head area before removing the old filter. Wear eye protection to keep dirt and debris from eyes.
7. Have a suitable container ready to capture any fluid that might leak or spill.
8. Use a filter wrench and remove the old filter. *Dispose of the filter in accordance with local, regional and federal regulations.*
9. Lubricate the gasket of the new filter with clean oil.
10. Install the new filter and turn clockwise until the gasket contacts the head of the filter assembly. Continue to tighten the filter for 1/3 turn.
11. Tighten the hydraulic reservoir cap.
12. Start the engine and after running for three or four minutes stop the engine.
13. Inspect for leaks.

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >

LIFT CAPACITIES 580 SUPER M +

Standard Backhoe		
Boom Lift	Distance from swing pivot	Backhoe lift capacity
+ 14 ft (4.27 m)	8 ft 7 in (2.62 m)	2 750 lbs (1247 kg)
+ 12 ft (3.66 m)	11 ft 2 in (3.40 m)	3 050 lbs (1383 kg)
+ 10 ft (3.05 m)	12 ft 9 in (3.84 m)	3 100 lbs (1406 kg)
+ 8 ft (2.44 m)	13 ft 11 in (4.24 m)	3 050 lbs (1383 kg)
+ 6 ft (1.83 m)	14 ft 7 in (4.45 m)	3 000 lbs (1361 kg)
+ 4 ft (1.22 m)	15 ft 0 in (4.57 m)	2 900 lbs (1315 kg)
+ 2 ft (0.61 m)	15 ft 1 in (4.60 m)	2 850 lbs (1293 kg)
Ground Level	14 ft 11 in (4.55 m)	2 775 lbs (1259 kg)
–2 ft (0.61 m)	14 ft 5 in (4.40 m)	2 675 lbs (1213 kg)
–4 ft (1.22 m)	13 ft 7 in (4.14 m)	2 600 lbs (1179 kg)
–6 ft (1.83 m)	12 ft 4 in (3.76 m)	2 600 lbs (1179 kg)
- 8 ft (2.44 m)	10 ft 5 in (3.18 m)	2 600 lbs (1179 kg)
- 10 ft (3.05 m)	7 ft 6 in (2.28 m)	2 825 lbs (1281 kg)
Dipper Lift		
+12 ft (3.66 m)	10 ft 1 in (3.08 m)	4 940 lbs (2241 kg)
+10 ft (3.05 m)	10 ft 7 in (3.23 m)	4 650 lbs (2109 kg)
+8 ft (2.44 m)	10 ft 6 in (3.20 m)	4 680 lbs (2123 kg)
+6 ft (1.83 m)	9 ft 7 in (2.92 m)	5 290 lbs (2400 kg)
+4 ft (1.22 m)	7 ft 5 in (2.25 m)	6 610 lbs (2998 kg)

Figure 26

NOTE: *Lift capacities apply straight to the rear of prime mover. Equipped with 24 in (610 mm) Universal H.D. trenching bucket and Case coupler except as noted.*

Extendahoe Retracted		
Boom Lift	Distance from swing pivot	Backhoe lift capacity
+ 14 ft (4.27 m)	9 ft 6 in (2.89 m)	2 350 lbs (1066 kg)
+ 12 ft (3.66 m)	11 ft 10 in (3.61 m)	2 575 lbs (1168 kg)
+ 10 ft (3.05 m)	13 ft 4 in (4.06 m)	2 700 lbs (1225 kg)
+ 8 ft (2.44 m)	14 ft 5 in (4.40 m)	2 650 lbs (1202 kg)
+ 6 ft (1.83 m)	15 ft 2 in (4.62 m)	2 600 lbs (1179 kg)
+ 4 ft (1.22 m)	15 ft 6 in (4.72 m)	2 575 lbs (1168 kg)
+ 2 ft (0.61 m)	15 ft 7 in (4.75 m)	2 525 lbs (1145 kg)
Ground Level	15 ft 5 in (4.70 m)	2 425 lbs (1100 kg)
–2 ft (0.61 m)	15 ft 0 in (4.57 m)	2 400 lbs (1088 kg)
–4 ft (1.22 m)	14 ft 2 in (4.32 m)	2 300 lbs (1043 kg)
–6 ft (1.83 m)	12 ft 10 in (3.91 m)	2 300 lbs (1043 kg)
- 8 ft (2.44 m)	11 ft 2 in (3.40 m)	2 300 lbs (1043 kg)
- 10 ft (3.05 m)	8 ft 7 in (2.62 m)	2 425 lbs (1099 kg)
Dipper Lift	Distance from swing pivot	Backhoe lift capacity
+12 ft (3.66 m)	10 ft 7 in (3.23 m)	4 360lbs (1978 kg)
+10 ft (3.05 m)	11 ft 2 in (3.40 m)	4 190lbs (1901 kg)
+8 ft (2.44 m)	10 ft 11 in (3.33 m)	4 160 lbs (1887 kg)
+6 ft (1.83 m)	10 ft 2 in (3.10 m)	4 680 lbs (2123 kg)
+4 ft (1.22 m)	8 ft 3 in (2.58 m)	5 590 lbs (2536 kg)

Figure 27

Lift capacities apply straight to the rear of prime mover. Equipped with 24 in (610 mm) Universal H.D. trenching bucket and Case coupler except as noted.

MidWestTech | Case 580M, 580 Super M, 580 Super M +, 590 Super M, 590 Super M + Seri... Order the manual at mid-west-tech.com >