NEW HOLLAND

EXCAVATOR

E130

SERVICE MANUAL

87360591 NA

Issued 01-2006

NEW HOLLAND

www.newhollandconstruction.com

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591

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

SHOP MANUAL
E130
CRAWLER EXCAVATOR
TABLE OF CONTENTS

SECTION 1
STANDARD SPECIFICATIONS AND MAINTENANCE

Table of Contents I
(Book/Form Number: 5-1280 NA)

CHAPTER 1
GENERAL INFORMATION AND SAFETY
Table of Contents 1-1
(Book/Form Number: 5-1290 NA)

CHAPTER 2
SPECIFICATIONS
Table of Contents 2-1
(Book/Form Number: 5-1300 NA)

CHAPTER 3
ATTACHMENT DIMENSIONS
Table of Contents 3-1
(Book/Form Number: 5-1310 NA)

CHAPTER 11
TOOLS
Table of Contents 11-1
(Book/Form Number: 5-1320 NA)

CHAPTER 12
STANDARD MAINTENANCE TIME TABLE
Table of Contents 12-1
(Book/Form Number: 5-1330 NA)

CHAPTER 13
MAINTENANCE STANDARDS AND TEST PROCEDURES
Table of Contents 13-1
(Book/Form Number: 5-1340 NA)

SECTION 2
HYDRAULIC, ELECTRICAL, AND COMPONENT SYSTEMS

Table of Contents I
(Book/Form Number: 5-1350 NA)

CHAPTER 21
MECHATRO CONTROL SYSTEM
Table of Contents 21-I
(Book/Form Number: 5-1520 NA)

CHAPTER 22
HYDRAULIC SYSTEM
Table of Contents 22-1
(Book/Form Number: 5-1360 NA)

CHAPTER 23
ELECTRICAL SYSTEM
Table of Contents 23-1
(Book/Form Number: 5-1370 NA)

CHAPTER 24
COMPONENTS SYSTEM
Table of Contents 24-1
(Book/Form Number: 5-1380 NA)

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591 Order the manual at mid-west-tech.com >

SECTION 1
STANDARD SPECIFICATIONS AND MAINTENANCE

TABLE OF CONTENTS

CHAPTER 1
GENERAL INFORMATION AND SAFETY
TABLE OF CONTENTS 1-1
1.1 General Safety Information 1-3
1.2 Safety Precautions. 1-4
1.3 General Precautions for Repairs 1-6
1.4 International Unit Conversion System 1-9

CHAPTER 2
SPECIFICATIONS
TABLE OF CONTENTS 2-1
2.1 Components Name 2-3
2.2 Machine Dimensions 2-4
2.3 Specifications and Performance 2-5
2.4 Machine and Components Weights (Dry) 2-6
2.5 Transportation 2-7
2.6 Type of Track Shoes 2-9
2.7 Type of Bucket. 2-9
2.8 Engine Specifications 2-10

CHAPTER 3
ATTACHMENT DIMENSIONS
TABLE OF CONTENTS 3-1
3.1 Boom 3-3
3.2 Arm 3-8
3.3 Bucket 3-13
3.4 Dozer 3-15
3.5 Swing 3-18

CHAPTER 11
TOOLS
TABLE OF CONTENTS 11-1
11.1 Torque Specifications for Capscrews and Nuts 11-3
11.2 Screw and Tool Sizes 11-5
11.3 Torque Specifications for Joints and Hoses 11-6
11.4 Torque Specifications for Sleeve Type Tube Fittings 11-7
11.5 Plugs 11-8
11.6 Special Spanners for Tubes 11-10
11.7 Special Tools 11-11
11.8 Application of Screw Locking and Sealing Compounds 11-11
11.9 Counterweight Lifting Jig 11-12
11.10 Upper Frame Lifting Jig 11-13

CHAPTER 12
STANDARD MAINTENANCE TIME TABLE
TABLE OF CONTENTS 12-1
12.1 Working Standards for Time Tables 12-3
12.2 Time Tables 12-4

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591 Order the manual at mid-west-tech.com >

CHAPTER 1
GENERAL INFORMATION AND SAFETY
TABLE OF CONTENTS

1.1 GENERAL SAFETY INFORMATION

1.2 SAFETY PRECAUTIONS

1.3 GENERAL PRECAUTIONS FOR REPAIRS

1.3.1 Preparation Before Disassembling 1-6
1.3.2 Safety In Disassembling and Assembling 1-6
1.3.3 Disassembling and Assembling Hydraulic Equipment 1-6
1.3.4 Electrical Equipment 1-7
1.3.5 Hydraulic Parts 1-8
1.3.6 Welding Repair 1-8
1.3.7 Environmental Protection 1-8

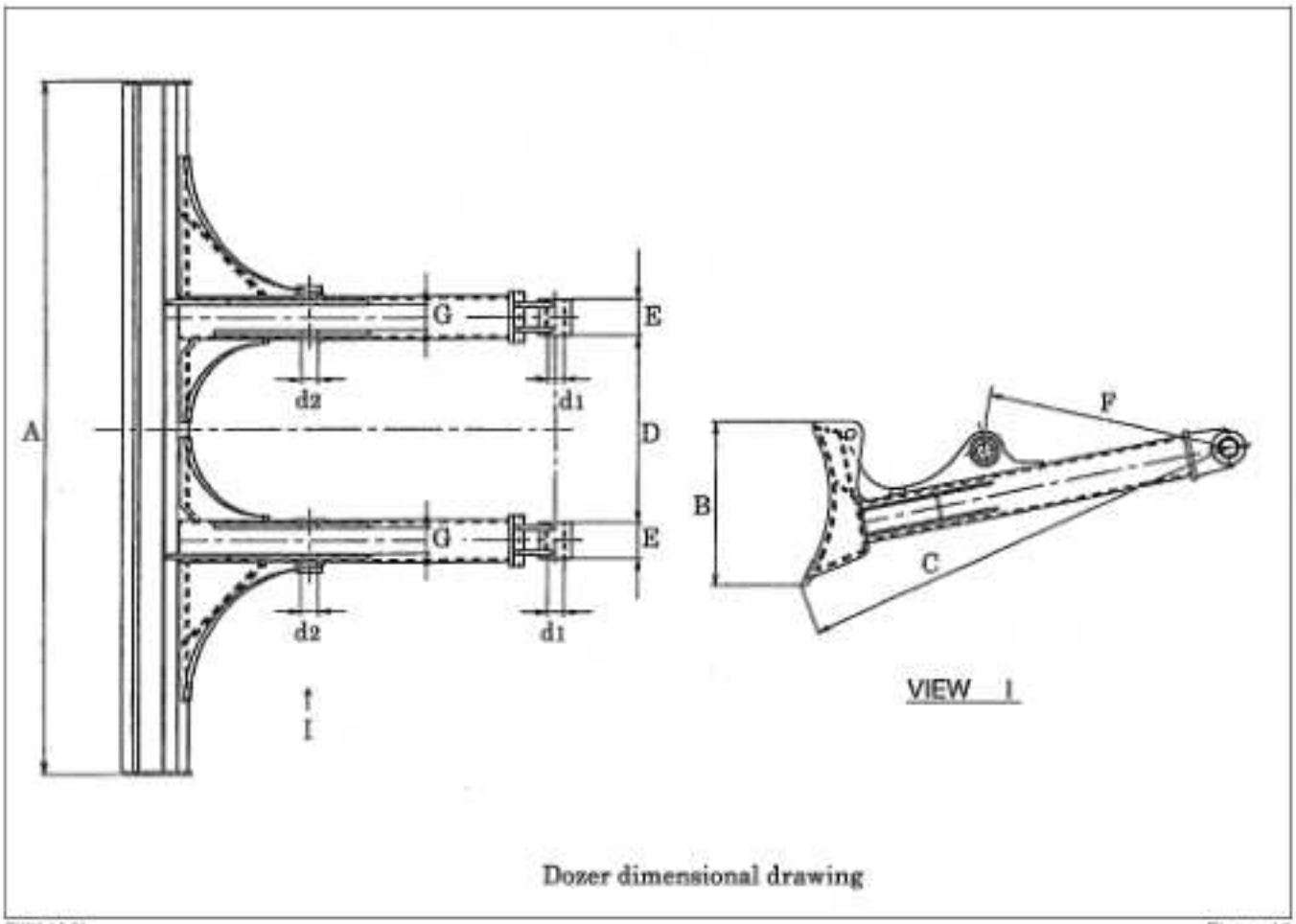
1.4 INTERNATIONAL UNIT CONVERSION SYSTEM

Introduction 1-9

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591 Order the manual at mid-west-tech.com >

3.4 DOZER

3.4.1 DOZER DIMENSIONAL DRAWINGS



Dozer dimensional drawing

CH03-14-01

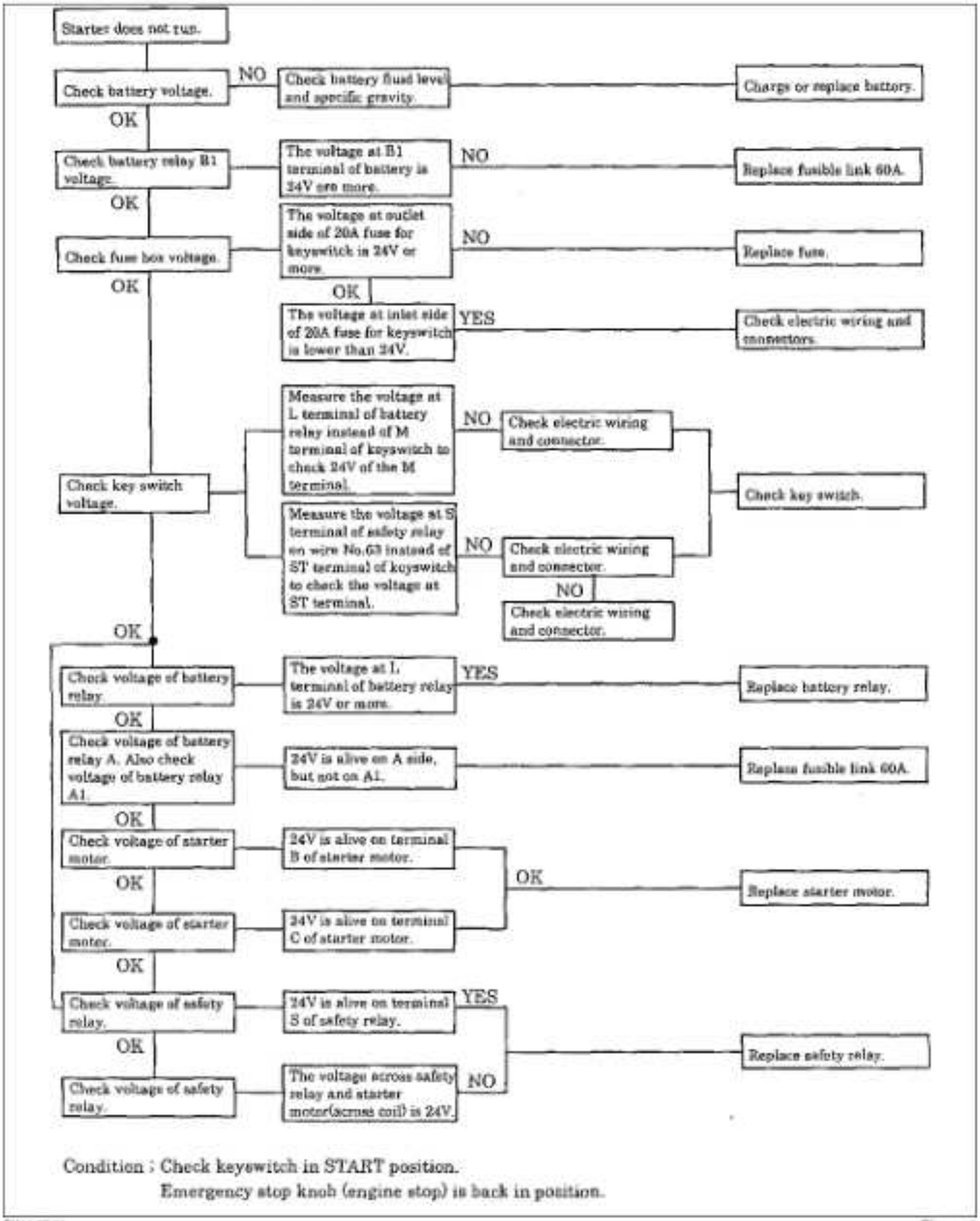
Figure 12

DOZER DIMENSIONS		
No.	NAME	Dimensions
A	Blade width	2590 (8' 6")
B	Blade height	590 (23.2")
C	Distance from dozer attaching pin center to cutting edge end	R1633 (5' 4")
D	Inner width of dozer attaching bracket	672 (26.5")
E	Width of dozer attaching bracket	128 (5.04")
F	Distance from dozer attaching pin center to attaching pin on dozer cylinder head side	R881 (34.7")
G	Attaching bracket inner width on dozer cylinder head side	92 (3.62")
d1	Dozer attaching pin diameter.	ø 60 (2.36")
d2	Attaching pin diameter on dozer cylinder head side	ø 60 (2.36")
Unit: MM. (ft-in)		

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591 Order the manual at mid-west-tech.com >

44.1.1 TROUBLESHOOTING

44.1.1.1 STARTER DOES NOT ROTATE



CH44-05-01

Figure 1

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591 Order the manual at mid-west-tech.com >

23.1.3 ELECTRIC EQUIPMENT LIST

Note : ● The part numbers and serial numbers of machine may be changed due to modification, so use only the numbers for references.
● Part number in [ ] shows the number before modification of machines.
YY02-03001~, YH02-01301~, LK02-01041~
● Part number marked ※ shows the change and additional parts according to modification of machine.
YY03-04555~, YH03-02097~, LK03-01107~

Group	Code	PARTS	Part No.
CONTROLLER	C−1	Mechatro controller	[YY22E00021F1] YY22E00065F1※
	C−2		
	C−2	Gauge cluster (KCMA)	YY59S00003F1
	C−4	Air conditioner controller (A/C Acc.)	YT20M00004S036
DIODE	D−1	Diode	YN02D01001P1
	D−2	Diode	↑
	D−3	Diode	↑
	D−4	Diode	2475R132
	D−5	Diode	YN02D01001P1
	D−6,7,8,9,10	Diode	↑
ELECTRIC FITTINGS	E−1	Fuse box	YY73E00001F2
	E−2	Alternator	[181200-4710]
	E−2	Alternator	181200-5303※
	E−3	Hour meter	YT58S00006P1
	E−4	Horn (Low)	CM53S00002F2
	E−5	Horn (High)	CM53S00002F1
	E−6	Cigarette lighter	2421R180F1
	E−7	Tuner AM & FM (Option)	LB54S00001P1
	E−8	Speaker (Left)	YT54S00006P1
	E−9	Speaker (Right)	↑
	E−10	Receiver drier (A/C Accessory)	YT54S00002P1
	E−11	A/C compressor (A/C Accessory)	YX91V00001F1
	E−14	Resistor (P1, P2 pump proportional valve)	LC22E01001D1
	E−15	Travel alarm	YN53S00002F1
	E−16	DC−DC converter	YT77S00001P1
	E−17	Power socket 12V	YN81S00001P1
	E−25	Battery (95E41R)	2484U171
	E−A	Antenna	YT54S00001P1
LIGHT	L−1, 9	Boom work light (RH, LH)	YW80S00001F1
	L−2	Work light right	YN80S00010F1
	L−3	Room light (Cab)	YT80S00001P1
	L−4,5,6,7	Cab work light	Locally procured
	L−8	E/G room light	4056R4F1
	L−10	Cab work light (Rear)	Locally procured
	L−11,12	Swing flasher (RH, LH)	YY80S00001F1
	L−15	Rotary light	Locally procured
MOTOR	M−1	Starter motor (24V×4.5kW)	[897029−1991]
	M−1	Starter motor (24V×4.5kW)	897029−8637※
	M−2	Governor motor	YN20S00002F1
	M−3	Wiper motor assy	YT53C00011F1
	M−4	Washer motor (tank assy)	YT54C00003F1
	M−9	Fuel pump	YR22P00001P1
	M−11	Fuel supply pump	YT22P00001F6

Group	Code	PARTS	Part No.
RELAY	R−1	Battery relay	YN24S00003F1
	R−3	Glow relay	894258−0140
	R−4	Safety relay	897226−6550
	R−5	Wiper motor relay	EN24S00008P1
	R−6	Washer motor relay	↑
	R−7	Horn relay	↑
	R−8	Work light relay	↑
	R−9	Extra dis-press relay	↑
	R−10	Cab work light relay 1	↑
	R−18	Travel alarm relay	↑
	R−19	Flasher relay	YT24S00001P1
	R−20	Timer relay	YN25S00001P1
	R−22	Clockwise relay	EN24S00008P1
	R−23	Counterclockwise relay	↑
	R−24	Nibbler open relay	↑
	R−25	Nibbler close relay	↑
	R−26	Angle right relay	↑
	R−27	Float relay	↑
	R−28	Lever lock interlock relay	↑
	R−29	Angle left relay	↑
SENSOR	SE−1	Pressure sensor (low pressure) bucket digging	LC52S00011P1
	SE−2	Pressure sensor (low pressure) bucket dump	↑
	SE−3	Pressure sensor (low pressure) boom up	↑
	SE−4	Pressure sensor (low pressure) boom down	↑
	SE−5	Pressure sensor (low pressure) swing	↑
	SE−7	Pressure sensor (low pressure) arm in	LC52S00011P1
	SE−8	Pressure sensor (low pressure) arm out	↑
	SE−9	Pressure sensor (low pressure) travel right	↑
	SE−10	Pressure sensor (low pressure) travel left	↑
	SE−11	Pressure sensor (low pressure) ; P2 option LH	↑
	SE−12	Pressure sensor (low pressure) ; P2 option RH	↑
	SE−13	E/G speed sensor	181510−5130
	SE−14	E/G water temperature sensor	YT52S00001P1
	SE−15	Fuel sensor	YN52S00034F1
	SE−16	Accel potentiometer	YN52S00032P1
	SE−20	Pressure sensor (low pressure) ; P1 option	LC52S00011P1
	SE−22	Pressure sensor (high pressure) ; P1 pump	LC52S00012P1
	SE−23	Pressure sensor (high pressure) ; P2 pump	↑
	SE−24	Pressure sensor (high) ; Extra	↑
	SE−26	Pressure sensor (low) ; Revolution R/L Opt.	LC52S00011P1
	SE−29	Pressure sensor (low) ; Dozer down	↑
	SE−30	Pressure sensor (low) ; Dozer up	↑
SOLENOID	SV−1	Swing parking sol.	YY35V00006F1 (VALVE ASSY)
	SV−3	2-speed travel sol.	
	SV−4	Safety lock lever sol.	
	SV−6	Clockwise sol.	LC35V00004F2

Group	Code	PARTS	Part No.
SOLENOID	SV−7	Counter-clockwise sol.	LC35V00004F2
	SV−9	Nibbler open sol.	↑
	SV−10	Nibbler close sol.	↑
	SV−20	Dozer sol.	↑
	SV−21	Angle left sol.	↑
	SV−22	Angle right sol.	↑
	SV−23	Float sol.	↑
	SV−24	Extra dis-press sol.	LS52S00012P1
SOLENOID PROPORTIONAL VALVE	PSV−A	Arm variable recirculation proportional valve	YY35V00006F1 (VALVE ASSY)
	PSV−B	P2 bypass cut proportional valve	
	PSV−C	Travel straight proportional valve	
	PSV−D	P1 bypass cut proportional valve	
	PSV−P1	P1 pump proportional valve	YY10V00001P4 (PUMP ASSY) YB35V00003F1 (VALVE ASSY)
	PSV−P2	P2 pump proportional valve	
SWITCH	SW−1	Key switch	YN50S00026F1
	SW−3	2-speed travel switch	YN03M01286F1
	SW−4	Swing parking release switch	YT50E00001F1
	SW−5	KPSS release switch	YN50S01003P1
	SW−6	E/G water temperature switch [105℃(221˚F)]	897125−6010
	SW−7	E/G oil pressure switch	182410−0082
	SW−8	Air filter clogging switch	LE11P01015S001
	SW−10	Horn switch (LH) (RH)	YN50E01001P1
	SW−10	Horn switch left (Handle Assy)	LF03M01005F3
	SW−11	Safety lock lever switch (Limit SW.)	YN50S01001P1
	SW−13	Air conditioner switch (Panel assy)	YT20M01104F1
	SW−16	Auto accel release switch (Decel)	2479U1190F7
	SW−17	Swing flasher select switch	2479U1190F19
	SW−20	Horn switch right (Handle Assy)	LF03M01005F1
	SW−21	Work light switch	2479U1190F1
	SW−22	Single/Conflux flow select switch	2479U1190F32
	SW−23	Wiper inter lock switch	YT50E00003P1
	SW−36	Rotary light switch	2479U1190F20
	SW−37	Hydraulic oil temp. switch	2479R2348
	SW−38	Warm-up switch	2479U1190F31
	SW−41	Travel alarm switch	2479U1190F16
	SW−42	Engine room light switch	YT50S00005P1
	SW−43	Jib press switch : option	GB50S00049F2
	SW−44	Extra press switch : option	↑
	SW−46	Clockwise switch	LF03M01005F3
	SW−47	Counter-lockwise swith	↑
	SW−48	Nibbler open switch	↑
	SW−49	Nibbler close switch	↑
	SW−50	Dozer switch	2479U1190F15
	SW−51	Angle switch	YM03M01012P1
	SW−52	Float switch	↑
	SW−53	Pressure switch ; Float cancel	YT50S00013P1

MidWestTech | New Holland E130 Excavator Service Manual | Publication 87360591
Order the manual at mid-west-tech.com >