



SENR5847-03  
May 2000

# Schematic

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**TH62, TH 63, TH82, TH83 & TH103  
Telehandler  
Electrical System**

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4TM1-1234  
5WM1-1587  
3JN1-578  
3KN1-483  
3LN1-749  
3NN1-783  
3PN1-529  
3RN1-1071

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12 Page, (Dimensions: 25 inches x 24 inches)

## Introduction

The following schematic shows the complete electrical system, including all options EXCEPT the longitudinal stability indicator. The longitudinal stability indicator is described in a separate Service Manual Module, form SENR5861.

Circuits are identified by number, color and description on the schematic and in the chart on page 3.

Components are listed in alphabetic order in the chart on page 6. The numbers in the "ident" column refer to the illustration on page 7. The letter "A" refers to components located in the operator compartment. See the Operation and Maintenance Manual for more precise locations of these components. The alpha-numeric reference in the "location" column refers to the grid on the schematic.

## Introduction

## Circuit Number Chart

## Electrical Schematic

## Component Locations

Circuit Number Chart

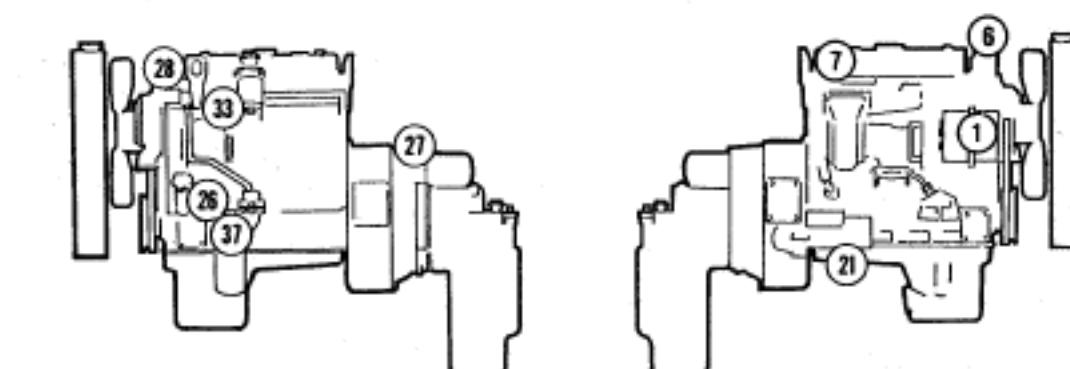
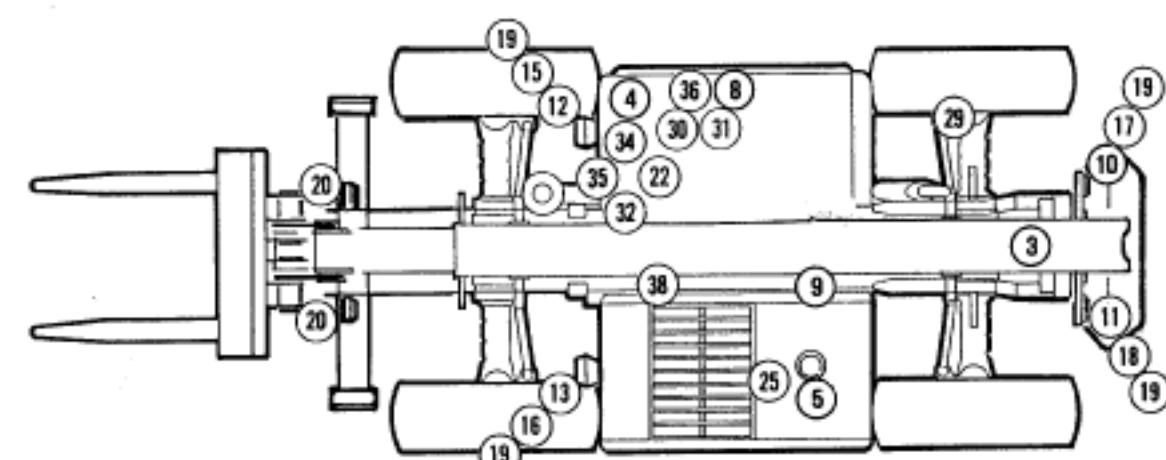
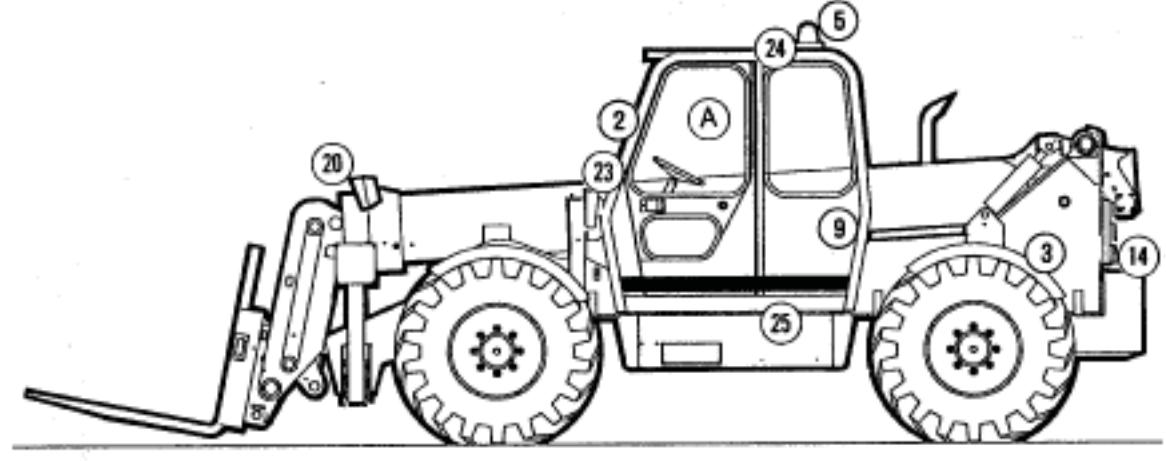
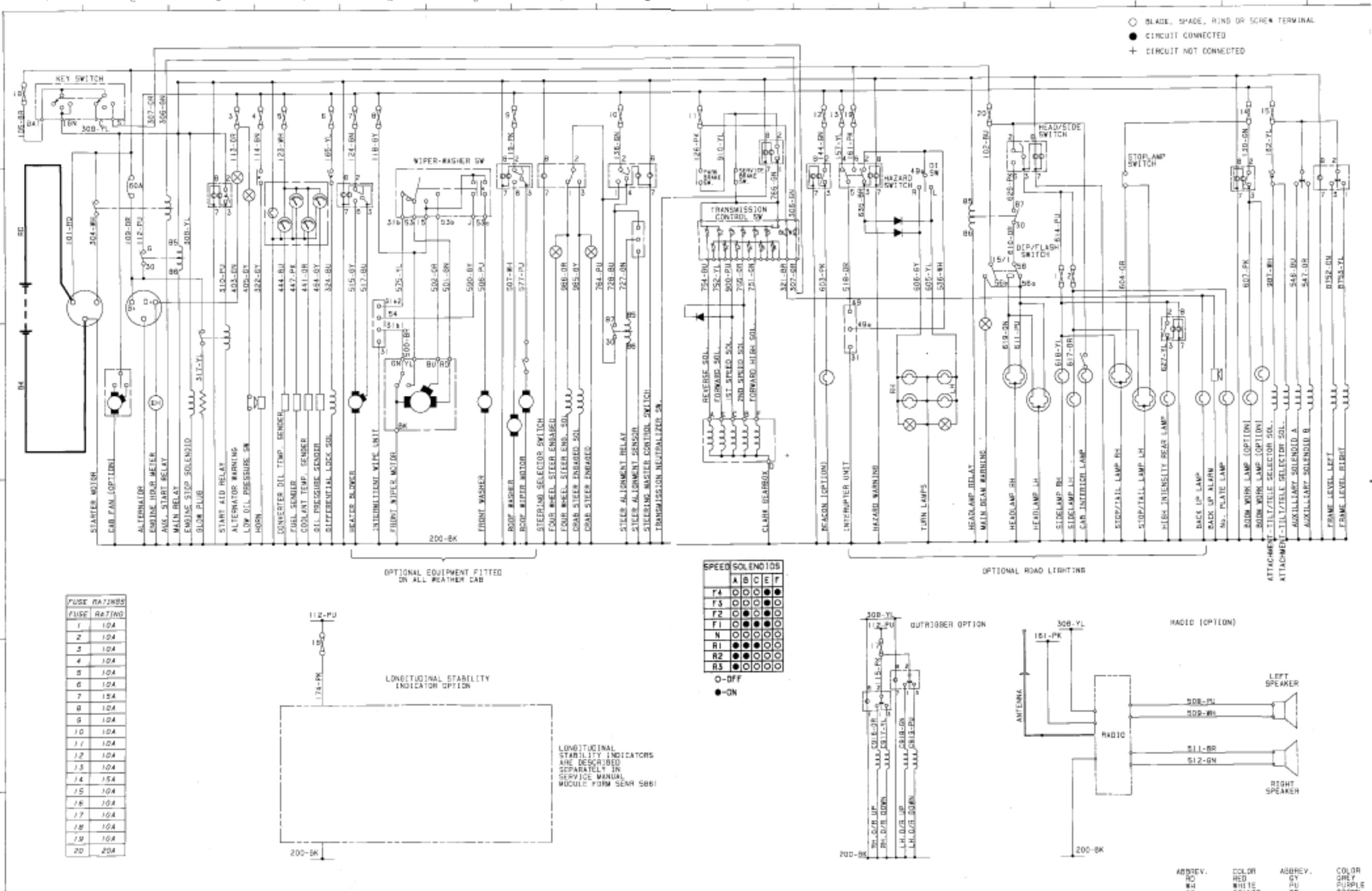
CIRCUIT NUMBER	COLOR	POWER DISTRIBUTION CIRCUITS	CIRCUIT NUMBER	COLOR	ACCESSORY CIRCUITS
101	RD	BATTERY	500	BR	WIPER - FRONT (PARK)
102	BU	HEAD LAMP	501	GN	WIPER - FRONT (LOW)
105	BR	KEY SW.	502	OR	WIPER - FRONT (HIGH)
109	OR	ALTERNATOR OUTPUT (+) TERMINAL	506	PU	WASHER - FRONT
112	PU	MAIN POWER RELAY OUTPUT	507	WH	WASHER - ROOF
113	OR	OPERATOR MONITOR PANEL	508	PU	SPEAKER - LEFT
114	GN	WARNING HORN PUSH (FORWARD)	509	WH	SPEAKER - LEFT (COMMON)
115	PK	OUTRIGGER SW.	511	BR	SPEAKER - RIGHT
118	GY	WINDSHIELD WIPER SW. (FRONT)	512	GN	SPEAKER - RIGHT (COMMON)
119	PK	WINDSHIELD WIPER SW. (ROOF)	515	GY	HEATER (BLOWER) MOTOR (HIGH)
123	WH	GAUGES	517	BU	HEATER (BLOWER) MOTOR (LOW)
124	GN	HEATER/AIR CONDITIONER SW.	518	OR	HAZARD FLASHER TO SW.
126	PK	PARK BRAKE SWITCH	536	WH	HAZARD SW. TO INTERRUPTER UNIT
130	GN	BOOM WORK LAMPS/STOP LAMPS	546	BU	AUXILIARY SOL. A
136	GN	STEERING MODE SW.	547	OR	AUXILIARY SOL. B
144	GN	BEACON SW.	575	YL	WIPER - AUX (PARK)
157	YL	TURN FUSE TO HAZARD SW.	577	PU	WIPER - ROOF
161	PK	HAZARD FUSE TO HAZARD SW.	590	GY	WIPER SW. TO INTERMITTENT MODULE
162	YL	ATTACHMENT MOTION SW.			LIGHTING CIRCUITS
165	YL	DIFF. LOCK SW.	603	PK	BEACON
		GROUND CIRCUITS	604	OR	STOP LAMP
200	BK	MAIN CHASSIS	605	YL	TURN LAMP - LEFT
		MACHINE BASIC CIRCUITS	606	GY	TURN LAMP - RIGHT
304	WH	START RELAY	607	PK	BOOM WORK LAMPS
306	GN	START RELAY TO TRANSMISSION CONTROL (NEUTRAL START) SW.	610	OR	HEAD LAMP - BASIC
307	OR	KEY SW. TO TRANSMISSION CONTROL (NEUTRAL START) SW.	611	PU	HEAD LAMP - HIGH
308	YL	MAIN POWER RELAY COIL	614	PU	PARK/TAIL/DASH LAMP
310	PU	START AID SW. TO START AID SOL.	617	BR	TAIL/POSITION LAMP - LEFT
317	YL	GLOW PLUG	618	YL	TAIL/POSITION LAMP - RIGHT
321	BR	BACKUP ALARM/LAMP	619	GN	HEAD LAMP - LOW
322	GY	WARNING HORN (FORWARD)	627	YL	FOG LAMP
324	BU	DIFF. LOCK SOL.	629	PK	HEAD LAMP SW. TO RELAY
		MONITORING CIRCUITS	635	BR	HAZARD SW.
					CONTROL CIRCUITS
403	GN	ALTERNATOR (R) TERMINAL	727	GN	STEERING ALIGNMENT RELAY SOL.
405	GY	OPERATOR MON. PANEL OIL PRESS.	728	BU	STEERING ALIGNMENT RELAY
441	OR	ENGINE COOLANT TEMP. GAUGE	751	GN	TRANS. SHIFT SOL. - FORWARD - HIGH
444	BU	CONVERTER OIL TEMP. GAUGE	752	YL	FORWARD SOL.
447	PK	FUEL LEVEL GAUGE	B752	GN	FRAME TILT LEFT SOL.
464	GY	ENGINE OIL PRESSURE	B753	YL	FRAME TILT RIGHT SOL.
			754	BU	REVERSE SOL.
			755	OR	2ND SPEED SOL.
			764	PU	STEERING SELECTOR SW.
			766	GN	TRANSMISSION CONTROL SW.
			900	PU	1ST SPEED SOL.
			910	YL	SERVICE BRAKE SW.
			C916	OR	RIGHT OUTRIGGER UP SOL.
			C917	YL	RIGHT OUTRIGGER DOWN SOL.
			C918	GN	LEFT OUTRIGGER UP SOL.
			C919	PU	LEFT OUTRIGGER DOWN SOL.
			965	GY	CRAB STEER SOL.
			966	OR	CIRCLE (FOUR WHEEL) STEER SOL.
			967	WH	TIFF/TELE SELECTOR SOL.

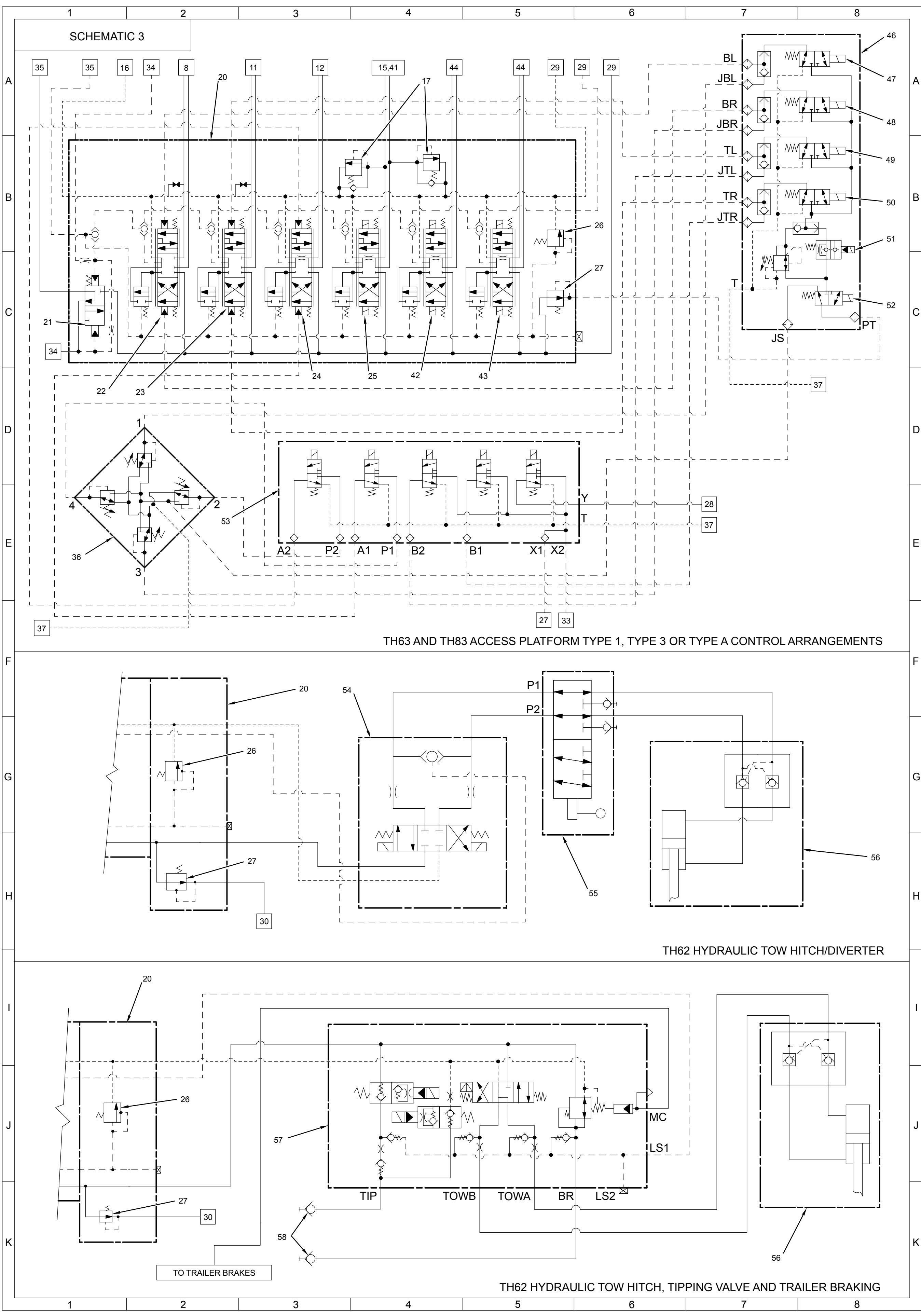
## Component Locations

## A – COMPONENTS IN OPERATOR COMPARTMENT

IDENT	SCHEMATIC COMPONENTS	LOCATION	IDENT	SCHEMATIC COMPONENTS	LOCATION
1	ALTERNATOR	B-2	28	SENDER - COOLANT TEMP.	C-4
2	ANTENNA	E-12	25	SENDER - FUEL	C-4
3	BACK UP ALARM	C-14	26	SENDER - OIL PRESSURE	C-4
4	BATTERY	B-1	29	SENSOR - STEERING ALIGNMENT	B-8
5	BEACON	C-10	34	SOLENOID - 1ST SPEED	C-9
6	CIRCUIT BREAKER - ALTERNATOR	B-2	34	SOLENOID - 2ND SPEED	C-9
A	FUSES - 3 TO 15, 18, 19, 20	A-1-16	30	SOLENOID - AUXILIARY A	C-15
A	FUSES - 1, 2	B-13	30	SOLENOID - AUXILIARY B	C-16
A	FUSE 17	E-11	32	SOLENOID - CIRCLE STEER	C-7
A	GAUGE - CONVERTER OIL TEMP.	B-4	32	SOLENOID - CRAB STEER	C-7
A	GAUGE - COOLANT TEMP.	B-4	31	SOLENOID - DIFF. LOCK	C-4
A	GAUGE - ENGINE HOURS	C-2	33	SOLENOID - ENGINE STOP	C-3
A	GAUGE - ENGINE OIL PRESSURE	B-4	34	SOLENOID - FORWARD	C-9
A	GAUGE - FUEL	B-4	34	SOLENOID - FORWARD - HIGH	C-9
7	GLOW PLUG	C-3	35	SOLENOID - FRAME LEVEL	C-16
8	HORN - FORWARD WARNING	C-4	36	SOLENOID - OUTRIGGER - LEFT - DOWN	E-11
A	HORN PUSH	B-4	36	SOLENOID - OUTRIGGER - LEFT - UP	E-11
A	INDICATOR - ALTERNATOR	B-3	36	SOLENOID - OUTRIGGER - RIGHT - DOWN	E-11
A	INDICATOR - CIRCLE STEER ENGAGED	B-7	36	SOLENOID - OUTRIGGER - RIGHT - UP	E-11
A	INDICATOR - CRAB STEER ENGAGED	B-7	34	SOLENOID - REVERSE	C-8
A	INDICATOR - ENGINE OIL PRESSURE	B-3	31	SOLENOID - TILT/TELE SELECTOR	C-15
A	INDICATOR - HIGH BEAM	B-12	A	SPEAKER - LEFT	E-15
A	INDICATOR - TURN SIGNAL	C-11	A	SPEAKER - RIGHT	E-15
10	LAMP - BACK UP	C-14	A	SWITCH - AUX. SOLENOIDS A/B	B-15
A	LAMP - CAB INTERIOR	C-13	A	SWITCH - BEACON	B-10
A	LAMP - GAUGES	B-4	A	SWITCH - CAB FAN	C-2
12	LAMP - HEAD - RIGHT	C-12	A	SWITCH - CIRCUIT CONTROL (IGNITION)	A-1
13	LAMP - HEAD - LEFT	C-12	A	SWITCH - COLD START	B-3
11	LAMP - HIGH INTENSITY REAR	C-14	A	SWITCH - DIFF. LOCK	B-4
14	LAMP - NUMBER PLATE	C-15	A	SWITCH - DIRECTION SELECTOR	B-11
15	LAMP - PARKING - RIGHT	C-13	37	SWITCH - ENGINE OIL PRESSURE	C-3
16	LAMP - PARKING - LEFT	C-13	A	SWITCH - FORK TILT/TELE	B-15
17	LAMP - STOP/TAIL - RIGHT	C-13	A	SWITCH - FRAME LEVEL	B-16
18	LAMP - STOP/TAIL - LEFT	C-14	A	SWITCH - HAZARD LAMP	B-10
19	LAMP - TURN SIGNALS	C-11	A	SWITCH - HEAD LAMP	A-12
20	LAMPS - WORK - BOOM	C-15	A	SWITCH - HEATER	B-5
A	MOTOR - CAB FAN	C-2	A	SWITCH - HIGH INTENSITY REAR LAMP	C-14
A	MOTOR - HEATER	C-5	A	SWITCH - LOW BEAM/FLASH	B-12
21	MOTOR - STARTER	B-2	A	SWITCH - OUTRIGGERS - LEFT	E-11
22	MOTOR - WASHER - FRONT	C-6	A	SWITCH - OUTRIGGERS - RIGHT	E-10
24	MOTOR - WASHER - ROOF	C-7	A	SWITCH - PARK BRAKE	B-8
23	MOTOR - WIPER - FRONT	C-5	A	SWITCH - ROOF WIPE	C-7
24	MOTOR - WIPER - ROOF	C-7	A	SWITCH - STEERING MASTER CONTROL	B-8
A	RADIO	E-13	A	SWITCH - STEERING SELECTOR	B-7
A	RELAY - COLD START	C-3	A	SWITCH - STOP LIGHT	B-13
A	RELAY - HEAD LAMP	B-12	38	SWITCH - TRANS. NEUTRALIZER	B-9
A	RELAY - INTERMITTENT WIPE	B-5	A	SWITCH - TRANS. NEUTRALIZER ON/OFF	A-9
A	RELAY - INTERRUPTER	B-10	A	SWITCH - TURN SIGNAL	B-11
A	RELAY - MAIN	B-3	A	SWITCH - WASH/WIPE - FRONT	B-6
A	RELAY - STEERING ALIGNMENT	C-8	A	SWITCH - WASH/WIPE - ROOF	B-7
27	SENDER - CONVERTER OIL TEMP.	C-4	A	SWITCH - WORK LAMPS	B-15

## **Electrical Schematic**





# Schematic

## TH62, TH63, TH82 & TH83 Telehandler Hydraulic System for Type 1, Type 3 or Type A Control Arrangements

3LN641 - Up  
4TM892 - 4013  
3NN509 - Up  
5WM918 - 6020  
3KN434 - Up  
3JN502 - 1509  
3RN550 - 4014

TH62 and TH82 Machines  
Telescoping cylinder (10) is equipped with a single element lock valve (11A) which blocks the piston side in the hold position.

TH63 and TH83 Machines  
Telescoping cylinder (10) is equipped with a dual element lock valve (11) which blocks the rod and piston sides in the hold position.

TH62 and TH82 Machines (Early)  
The spool in the implement section for boom raise/lower (22) and the implement section for boom extend/retract (23A) of bank valve (20) blocks the work port for rod side of the telescoping cylinder when it is in the center position.

TH63 and TH83 Machines (Early)  
The spool in the implement section for boom extend/retract (23B) of bank valve (20) connects both work ports for the telescoping cylinder together and to tank when in the center position.

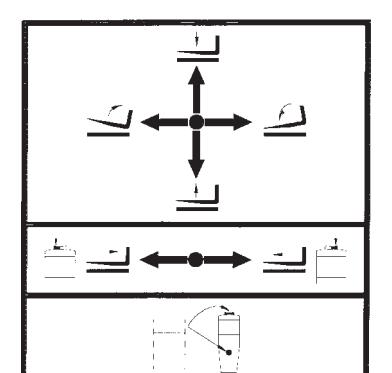
All Machines (Early)  
The spool in the implement section for the boom raise/lower (22A) of bank valve (20) connects both work ports for the boom cylinder together and to tank when in the center position.

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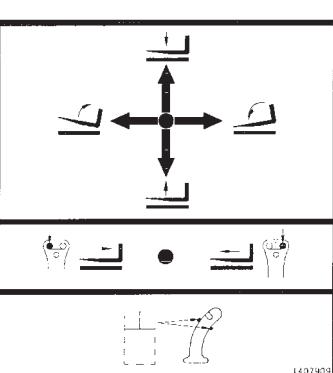
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### Introduction

This publication shows the hydraulic system schematics for machines equipped with either of the films illustrated below for the joystick control. For full details of the joystick control arrangements refer to Operation and Maintenance Manual SEBU6865 or SEBU7112.



139-0038 Film (Boom Control). Installed on machines equipped with an early type of joystick control.



140-7909 Film (Boom Control). Installed on machines equipped with a later type of joystick control.

Early type of joystick controls have a straight handle, with a pushbutton switch on the front and a rocker switch on the top. Later type of joystick controls have curved handles with pushbutton switches on the front and rear, and a rocker switch on top. The hydraulic valve section of the joystick control is the SAME on both types.

Compare the film for the joystick control located in the machine cab with the film illustrations above to determine if these schematics apply to your machine. If the film for the joystick control on the machine you are operating is not shown above, refer to Hydraulic Schematic Form No. RENR3444.

**All Machines (Later)**  
The spools in the implement section for boom raise/lower (22) and the implement section for boom extend/retract (23) of bank valve (20) block the flow of oil to tank when in the center position.

**TH62 Machines**  
Frame leveling is not an option on these machines. TH62 machines can be equipped with an optional powered tow hitch attachment which is raised and lowered by a cylinder. This attachment uses control valve (54), and the same instrument panel switch and circuits as frame leveling.

**TH62, TH63, TH82 and TH83 Machines**  
Valve (12) for the compensating cylinders is mounted on the rear axle on TH63 and TH83 machines. The valve is mounted on the right side front of the machine frame on TH62 and TH82 machines.

**TH62, TH63, TH82 and TH83 Machines**  
On machines equipped with a first type brake system, the brake cylinder (master) (33A), located in the front of the cab, is connected to the pilot hydraulic system. On machines equipped with a second type brake system, the brake cylinder (boost) (33), located in the machine frame is connected to the pilot hydraulic system.

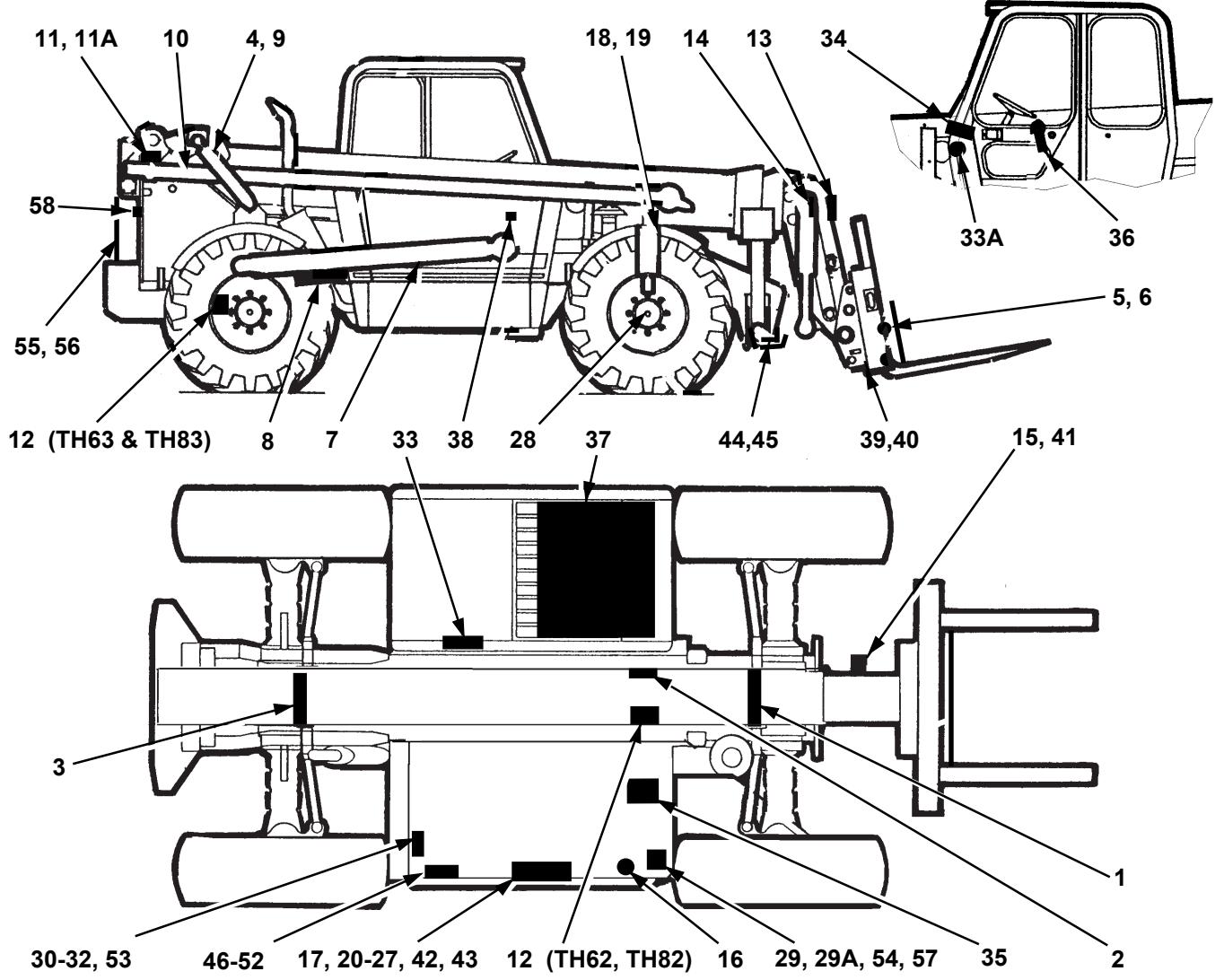
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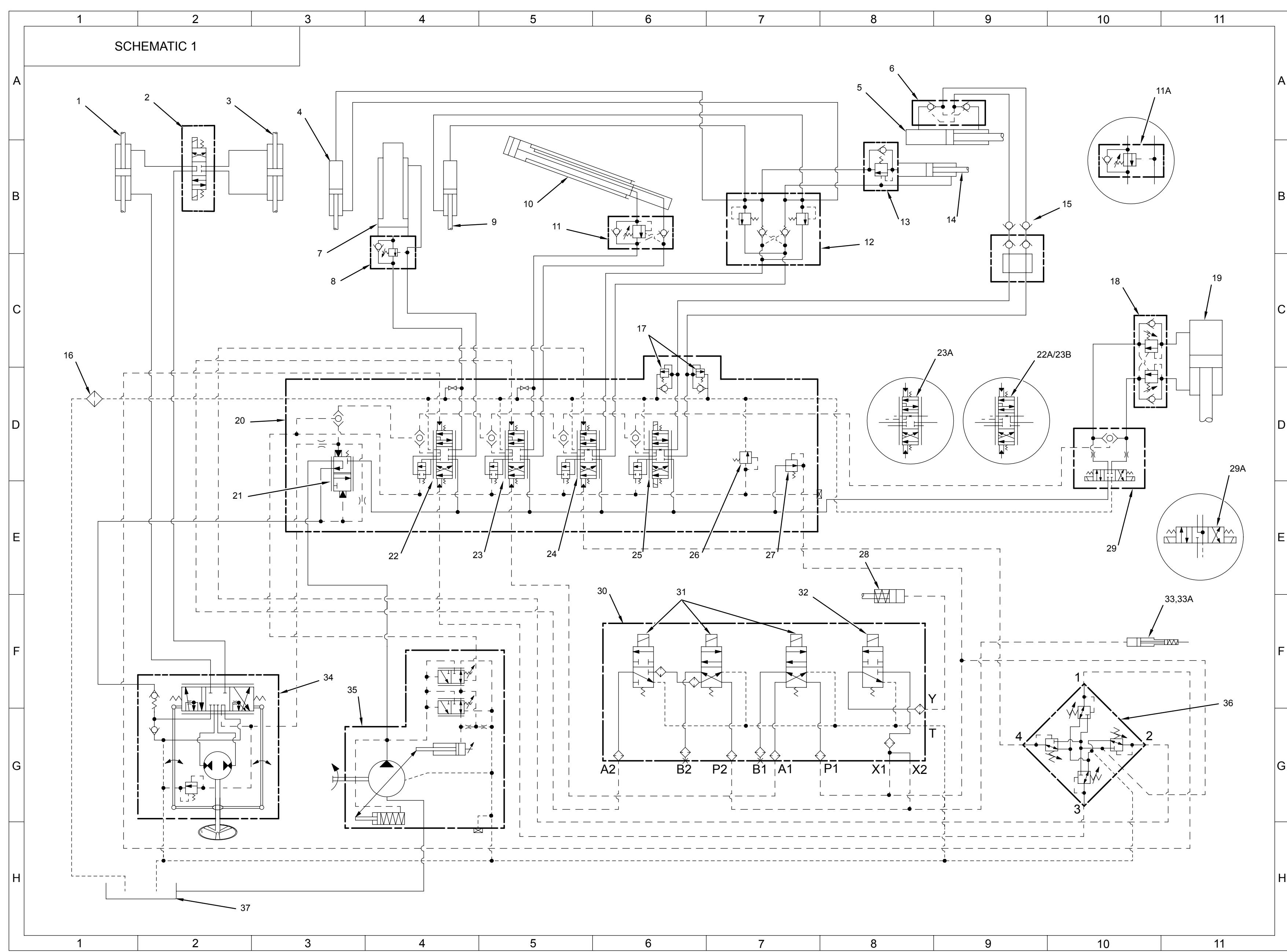
### Component Location Table

Separate schematics in this publication are identified as Schematic 1, Schematic 2 and Schematic 3. Components common to all schematics have the same item number. In Schematic 3, some item numbers are shown in boxes at the end of some of the hydraulic lines. This provides a reference to the component on Schematic 1 and Schematic 2 that connects to these lines. The schematics have borders and grids to locate the components. Identify both the cross reference and the number on the schematic from the following table.

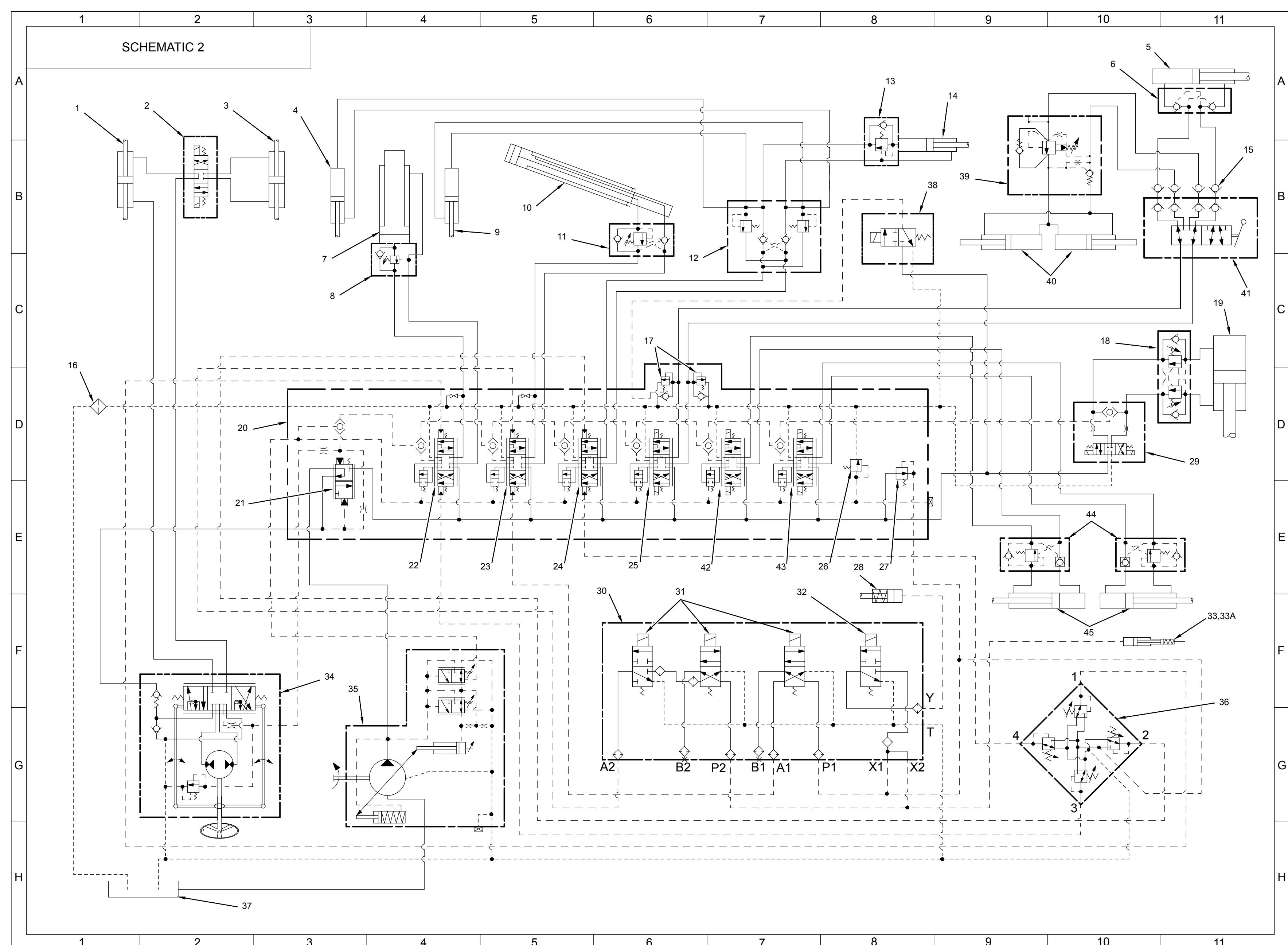
Component Item No.	Component Description	Schematic Location		
		No. 1	No. 2	No. 3
1	Front Steering Cylinder	A1	A1	-
2	Selector Valve (steering mode)	A2	A2	-
3	Rear Steering Cylinder	A2	A2	-
4	Compensating Cylinder	A3	A3	-
5	Work Tool Cylinder (if equipped)	A8	A10	-
6	Load Control Valve for Work Tool Cylinder (if equipped)	A8	A10	-
7	Boom Cylinder (boom raise/lower)	C3	C3	-
8	Load Control Valve for Boom Cylinder	C5	B5	-
9	Compensating Cylinder	B5	B5	-
10	Telescoping Cylinder	B5	B5	-
11	Load Control Valve for Telescoping Cylinder (TH63 & TH83)	B5	B5	-
11A	Load Control Valve for Telescoping Cylinder (TH62 & TH82)	A10	-	-
12	Valve (compensating cylinders)	B8	C6	-
13	Load Control Valve for Tilt Cylinder	B8	A8	-
14	Tilt Cylinder	B9	A9	-
15	Couplers (quick disconnect)	B10	B11	-
16	Oil Filter	C1	C1	-
17	Relief Valves (auxiliary services) (part of item 20)	C6	C6	A4
18	Load Control Valve for the Frame Leveling Cylinder (if equipped)	C10	C10	-
19	Frame Leveling Cylinder (if equipped)	C11	C11	-
20	Bank Valve	D2	A2/F3/2	-
21	Inlet Section	E2	E2	C1
22	Implement Section (boom raise/lower) (closed center spool)	E4	E4	D1
22A	Implement Section (boom raise/lower) (open center spool)	C10	-	-
23	Implement Section (boom extend/retract) (closed center spool)	E5	E5	D2
23A	Implement Section (boom extend/retract) (closed center spool) TH62 & TH82	C9	-	-
23B	Implement Section (boom extend/retract) (open center spool) TH63 & TH83	C10	-	-
24	Implement Section (coupler tilt)	E5	E5	D3
25	Implement Section (auxiliary services)	E6	E6	D4
26	Signal Relief Valve	E6	B6/G3/J2	-
27	Pressure Reducing Valve	E7	E8	C6/H3/K2
28	Differential Lock Cylinder	E8	E8	-
29	Control Valve for Frame Leveling (if equipped) (closed center spool)	E10	D11	-
29A	Control Valve for Frame Leveling (if equipped) (open center spool)	D11	-	-
30	Control Valve	E6	E6	-
31	Solenoid Valves (pilot control system)	E6	E6	-
32	Solenoid Valve (differential lock)	E7	E7	-
33	Brake Cylinder (boost) (second type system)	F11	F11	-
33A	Brake Cylinder (master) (first type system)	F11	F11	-
34	Metering Pump (steering)	F3	F3	-
35	Piston Pump	F3	F3	-
36	Joystick Control	F11	F11	E1
37	Hydraulic Tank	H2	H2	-
38	Valve for quick coupler (disengage pins)	-	B8	-
39	Load Control Valve for Coupler Cylinder	-	B9	-
40	Coupler Cylinder	-	C10	-

### Component Location Illustration





BASIC MACHINES EQUIPPED WITH TYPE 1, TYPE 3 OR TYPE A CONTROL ARRANGEMENTS



MACHINES EQUIPPED WITH STABILIZERS, TWO AUXILIARY HYDRAULIC SERVICES  
AND TYPE 1, TYPE 3 OR TYPE A CONTROL ARRANGEMENTS

Wire Number	Wire Color	Wire Description	Wire Number	Wire Color	Wire Description			
<b>Power Circuits</b>								
101	RD	Bolt (+)	577	PU	Rear Wiper			
102	BU	Head Lamp Sw, Dome Lamp, Steer Col Sw	585	YL	Func Lock Sw to Boom Crt Sw			
103	YL	Func Lock Sw	A546	GN	Boom Crt Sw to Aux A Relay (coil)			
105	BR	Key Sw	A546	BU	Boom Crt Sw to Aux A Relay (coil)			
108	RD	B+ Radio	A547	PU	Boom Crt Sw to Aux B Relay (coil)			
112	PU	Main Power Rly Output to Fuses	A547	OR	Boom Crt Sw to Aux B Relay (coil)			
113	OR	Indicator Lights (Power)	603	PK	Rotary Beacon			
114	GN	Warning Horn Sw (Forward)	604	OR	Stop Lamp			
115	PK	Steering Swerves	605	YL	Turn Lamp - Left			
116	BR	Frame Lmgt Sw	606	GY	Turn Lamp - Right			
117	YL	Speed Limiter	607	PK	Flood Lamp			
118	GY	Front Wiper Sw	610	OR	Head Lamp Relay to Steer Col Sw			
119	PR	Rear Wiper/Washer Sw	611	PU	Head Lamp Hi			
123	WI	Power to Gauges, Hi Cool Temp Alarm	614	PU	Head Lamp Sw to Lamp Fuses			
124	GN	Heater Sw	617	BU	Tail/Position Lamp - Left & Plate Lamp			
126	PN	Park Brake Sw	618	YL	Tail/Position Lamp - Right			
130	GN	Flood Lamp Sw	619	GN	Head Lamp			
135	BU	Not Used	622	PU	Flood Lamp Sw (TUV)			
136	GN	Steer Select Sw	627	YL	Fog Lamp			
144	GN	Beacon Sw	629	PK	Head/Flood Lamp Sw to Head Lamp Relay			
147	PU	Lockout Rly to Stab Fuse and Frame Lvl Ckt	634	VH	Headlamp / Side Sw (TUV)			
157	YL	Haz Warrn Sw (Tim Sig Ckt)	<b>Control Circuits</b>					
161	PK	Haz Warrn Sw (Haz Ckt)	720	PU	XMSN Neutralizing Relay (contact)			
162	YL	Aux Sw	721	GN	Prov Sw (Lead) to Steer Relay (coil)			
165	YL	Dift Ind Sw	722	BU	Prov Sw (Lead) to Steer Relay (contact)			
174	PK	Load Indicator	723	GN	XMSN High Sol			
<b>Ground Circuits</b>								
200	GN	Main Chassis	752	YL	XMSN Fwd Sol			
200	BK	Main Chassis	754	BU	XMSN Rev Sol			
<b>Monitoring Circuits</b>								
304	WI	Starter Relay Output	755	OR	XMSN 2nd Sol			
306	GN	Neut Start Relay (contact) to Start Relay (coil)	762	YL	Lockout relay to Boom Sensor			
307	OR	Key Sw to Neut Start Relay (contact)	764	PU	Steer Select Sw B			
308	YL	Main Pwr, Headlamp Rly, Backlights	766	GN	Frame Control Sw			
310	PU	Cold Start Relay Coll	753	YL	Frame Level Sw to Sol			
317	YL	Start Aid Relay To Start Aid Sol	E783	WH	Lowering Relay to D_EngLow Sw			
321	BU	Reverse Lamp, Backup Alarm	G769	GN	Lockout			
322	GY	Warning Horn (Forward)	H708	OR	Boom Prox Switch			
324	BU	Differential Lock Sol	H709	OR	Boom Prox Switch			
327	PK	Func Lock Sw to Tilt Sol, Lockout Relay	H717	BR	Boom Speed Platform Control			
329	YL	E_Susp Sol	J755	BU	Left Frame Level Solenoid Return			
330	YL	Neutral Start Relay Coll, Park Brake Sw	J756	BR	Right Frame Level Solenoid Return			
332	BU	Func Lock Sw to Func Lock Sw	J757	PU	LH Off Up Sol Return			
A314	OR	Park Brake Sw to Trans Neutralizer Relay Set	J758	BR	LH Stabilizer Down Solenoid			
A315	WH	Park Brake Sw to Trans Neutralizer Rly Roset	J759	GN	RH Off Up Sol Return			
A316	BU	Platform Control and Boom Low Sw	J760	YL	RH Off Down Sol Return			
<b>Accessory Circuits</b>								
403	GN	Alternator (R) Term to Serv Meter	818	BR	Indicator Sw			
405	GY	Oil Press Sw	819	GY	Indicator Sw			
441	OR	Eng Coolant Temp Gauge	E893	BR	Reeling Drum to Platform Control			
444	BU	Oil Temp Gauge	900	PU	XMSN 1st Sol			
447	PK	Fuel Level Gauge	910	YL	XMSN Neu Rly to Neut & Brk SW			
F401	GY	High Coolant Temp Sw	979	BU	Telsa Dry Relay			
<b>Monitoring Circuits</b>								
500	BR	Wiper - Front (Park)	980	BR	Telescope Out Sol			
501	GN	Wiper - Front (Low)	981	GN	Boom Raise Platform Crtf			
502	OR	Wiper - Front (Hi)	982	GY	Boom Lower Platform Crtf			
506	PU	Washer - Front	985	GY	Crab Steer Sol			
507	YL	Washer - Rear	986	OR	Front Master Steer Sol			
508	PU	Radio Selector - Left	A779	WH	Tele Dry Relays			
511	BR	Radio Selector - Right	A960	YL	Telsa Out Delay (coil)			
515	GY	Blower Motor (Hi)	C916	OR	State Sw to RH Crt Up Sol			
517	BU	Blower Motor (Low)	C917	YL	State Sw to RH Crt Down Sol			
518	OR	Haz Sw to Flasher	C918	GN	State Sw to LH Crt Up Sol			
536	WI	Hazard Sw to Steer Col Sw & Flasher	C919	PU	State Sw to LH Crt Down Sol			
546	BU	Aux A Sol	G943	BU	Boom Low Sw			
547	OR	Aux B Sol	G969	YL	Tilt Sol Return			
548	GY	Aux Div Sol	N918	YL	Speed Limiter to Pressure Sw			
<b>Sender Specifications</b>								
3T-7076		Component Description		Resistance (Ohms)*				
		Sender: Coolant Temperature		72-82 @ 110°C (230°F)				
				560-716 @ 54°C (150°F)				
8I-3814		Sender: Fuel Level		33 Full				
8I-6428		Sender: Transmission Oil Temperature		72-82 @ 110°C (230°F)				
				560-716 @ 54°C (150°F)				

Off Machine Switch Specification			
Part No.	Function	Actuate	Deactuate
123-2844	Service Brake Pressure	1000 kPa (145 psi)	2000 kPa (290 psi)
7W-1238	Oil Pressure	76 ± 21 kPa (11 ± 3 psi)	-

Related Electrical Service Manuals	
Title	Form Number
Alternator	SENR5841
Electric Starting Motor	SENR5828
Powertrain Control	SENR5839

Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
<b>Accessory Circuits (Continued)</b>					
Alarm - Backup	D-15	1	Solenoid - Advance	F-13	2
Alternator	F-14	3	Solenoid - Aux_A	A-14	8
Assembly - Heater	I-13	B	Solenoid - Aux_B	A-14	8
Batteries	E-14	9	Solenoid - Aux_Div	E-16	14
Control - Platform	F-1, G-1	D	Solenoid - B_Ext	A-15	5
Control - Swivel	F-2	D	Solenoid - B_Lower	A-14	5
Control - Transmission	A-8, A-9	A	Solenoid - B_Raise	A-15	5
Dozer Transmission	F-13	A	Solenoid - C_Rate	A-15	5
Flasher	L-17	B	Solenoid - C_O	A-15	5
Fuse Block	J-17, I-17	B	Solenoid - Cob	G-13	12
Gauge - Cool_Temp	C-5	A	Solenoid - D_Lock	A-13	8
Gauge - Fuel Level	C-5	A	Solenoid - Div_1	A-13	8
Gauge - Transmission Oil Temp	B-5	A	Solenoid - Div_2	A-13	8
Ground - Chassis	D-17	7	Solenoid - Div_3	A-12	8
Ground - Dash	J-5	C	Solenoid - E_Stop	F-12	13
Ground - Subframe	B-13, C-13	15	Solenoid - Frame Level Up	E-14	2
Heater	F-15	B	Solenoid - FWD	A-12	2
Horn	D-10	A	Solenoid - FWS	G-13	12
Indicator - Display	J-15	21	Solenoid - High	A-11	2
Indicator - Load	I-15	C	Solenoid - LH_Stab_Down	G-3	25
Lamp - Boom Flood LH, RR	D-1	22	Solenoid - LH_Stab_Up	H-3	25
Lamp - Boom Flood RH, RR	D-1	22	Solenoid - Pres_Red	A-15	13
Lamp - LH Fog Or Reverse	I-18	18	Solenoid - Rel_Sig	A-13	14
Lamp - LH Turn	G-18	18	Solenoid - Ret_Hitch	A-14	9
Lamp - LH Turn TUV	G-18	18	Solenoid - RH_Hitch_Down	D-14	9
Lamp - RH Fog Or Reverse	E-18	18	Solenoid - RH_Hitch_Up	D-14	9
Lamp - RH Head Turn	J-1	9	Switch - (A) Mode Select	I-7	A
Lamp - RH Head Turn Pos	I-1	9	Switch - (B) Mode Select	H-7	A
Lamp - LH License Plate	E-18	18	Switch - Aux	D-6	A
Lamp - LH Stop/Tail	F-18	18	Switch - Beacon	F-6	A
Lamp - LH Turn TUV	G-18	18	Switch - Boom Control	K-15	C
Lamp - RH Stop/Tail TUV	E-18	18	Switch - Boom Prox	E-3	22
Lamp - RH Turn TUV	G-18	18	Switch - Brake Pedal	H-10	6
Lamp - RH Turn Up	E-18	18	Switch - Cold Start	E-6	A
Lamp - RH Turn Up TUV	G-18	18	Switch - Frame Level	H-14	C
Lamp - RH Turn Up TUV	E-18	18	Switch - Func_Lock	B-6	24
Motor - Fan	G-13	2	Switch - Hazard Warning	H-7	A
Motor - Front Washer	H-3	A	Switch - Head_Flood_Lamp_TUV	J-3	A
Motor - Front Wiper	G-13	2	Switch - Headlight/Side	G-7	A
Motor - Roof Washer	G-13	2	Switch - Engine_Cool_Temp	F-12	14
Motor - Roof Wiper	I-3	7	Switch - Fan	L-2</td	

