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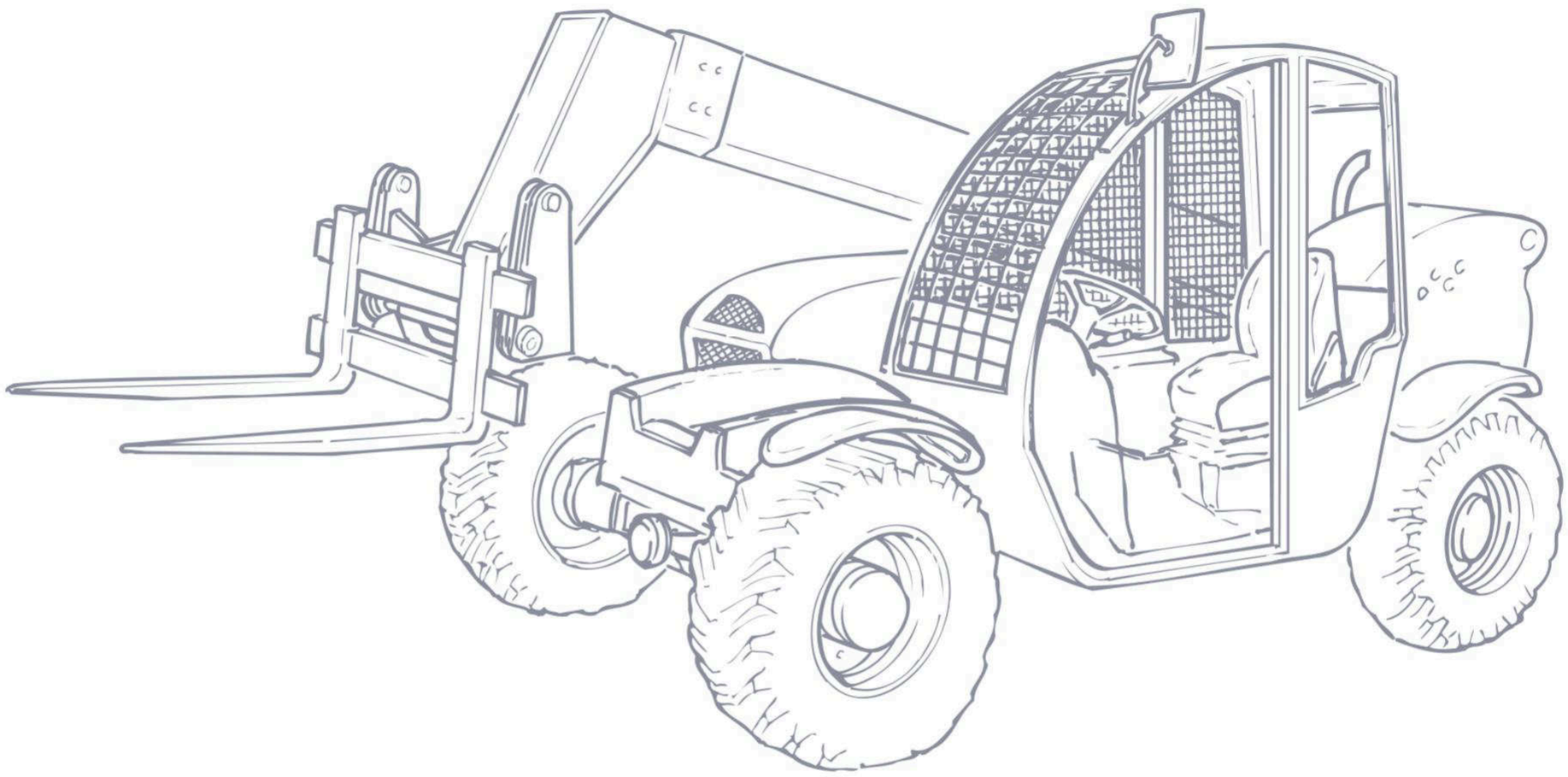
WORKSHOP MANUAL

Code 57.4401.8200 - 2nd Edition 05/2007

Handler with telescopic boom

GTH 55-19

(from serial number 10242 to serial number 18818)



English
Edition

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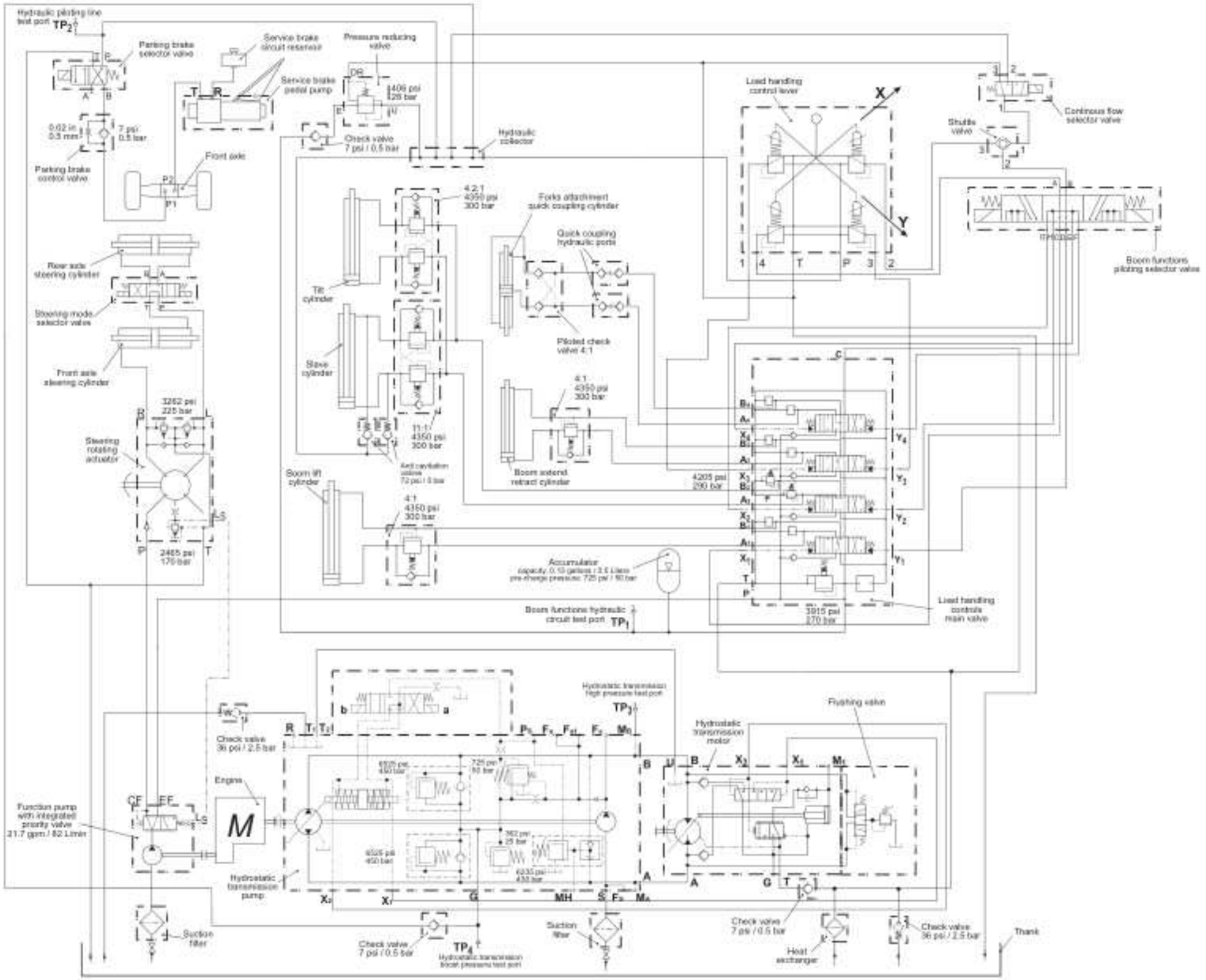
Section C
TECHNICAL OPERATING DATA

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Operation: General hydraulic scheme	Table: C.03



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Operation: Wiring diagram - page 6 of 6 (from serial no. 16980)	Table: C.05.12

COLOUR TABLE	
Acronym	Colour
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
TQ	Turquoise

LIST OF ABBREVIATION	
Label	Description
F##	Fuse
H##	Lamp, light
HA##	Clacson or back-up horn
K##	Relè
M##	Motor engine or pump
P##	Indicator
R##	Resistance
RP##	Potentiometer
SW##	Switces, selector
SS##	Sensor, microswitches, pressure switches, transducer
Y##	Solenoid valve
X##	Connectors
A##	Other components

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⚠DANGER

Any service, maintenance or troubleshooting must be carried out with the machine stopped, the boom in rest position lowered to the ground, and the transportation locking devices fitted.

Use the wiring diagrams enclosed for finding solenoid valves (EV), fuses (F), relays (E) or other electrical components in an easier way - see ***chapter C - Technical data*** of this manual.

Trouble	Cause	Solution
The boom does not move	• Low pressure	• Set the max pressure of the control block to 270 bar (see sec. D)
	• Hydraulic pump damaged	• Replace the pump
	• Load sensing valve defective	• Check the efficiency of the valve; replace if necessary
	• Leakage on the control block valve	• Dismantle the valve, check and eliminate any foreign matters
	• Pressure reducing valve maladjusted	• Check the efficiency and reset the correct pressure (28 bar) if necessary
	• Joystick damaged	• Check the efficiency of the joystick; replace if necessary
Wrong wheel shafting	• Leakage in the steering cylinders	• Check and replace the seals if necessary (see sec. G)
	• Leakage in the steer selection solenoid valve	• Check the efficiency of the solenoid valve
The steering wheel is hard (low force in the cylinders)	• Low pressure	• Check the pressure; in case, reset (170 bar)
	• Priority valve damaged	• Check the efficiency of the valve; replace if necessary

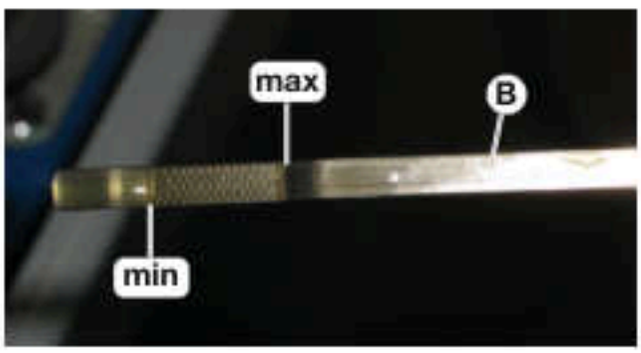
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Procedure: **Checking the engine oil level**	Table: **D.04**

To check the engine oil level:

- Park the machine on a flat ground, stop the engine and check the parking brake is engaged.
- Remove dipstick **A** and check if oil reaches the max mark **B**.





- If oil is below this mark, remove plug **C** and pour new oil into the engine using the special appliance **D**.

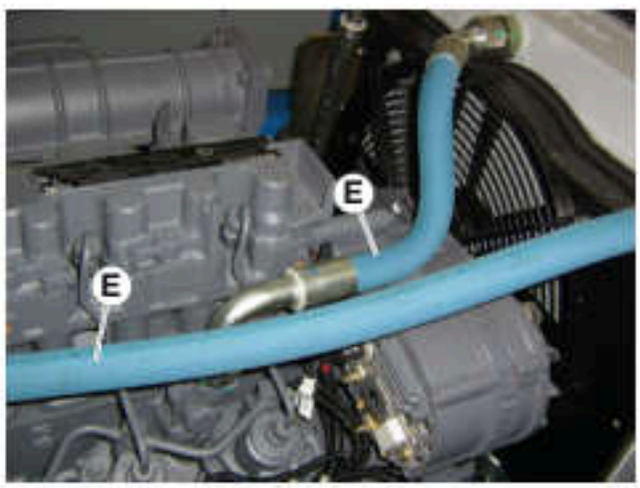




- Remove dipstick **A** once again and check if oil reaches the max mark **B**.
- Refit the plug.

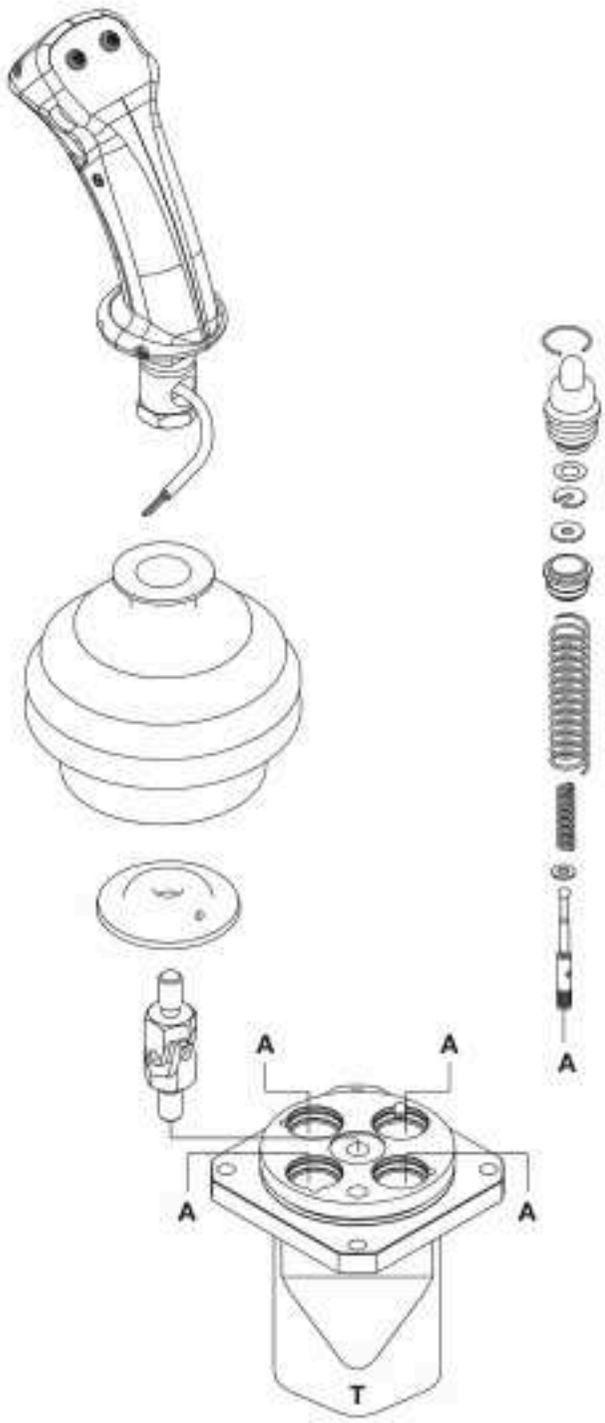
If one of the connecting pipes of radiator **E** breaks:

- Stop the machine immediately, if possible on a flat ground; stop the engine and check the parking brake is engaged.
- Change the damaged pipe.
- Remove dipstick **A** and check if oil reaches the max mark **B**.
- If oil is below this mark, remove plug **C** and pour new oil into the engine using the special appliance **D**.
- Restart the machine and let oil circulate in the engine and the radiator.
- Stop the machine and check again the oil level. If necessary, add new oil step by step until reaching the max level by starting and stopping the engine at every step.



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Operation: Hand-lever	Table: C.07





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Operation: Legend wiring diagram	Table: C.05.13

Label	Description	Page	Position
F1	INTERIOR LAMP POWER SUPPLY	5	D3
F2	FRONTWORK LIGHT SWITCH POWER SUPPLY	2	D8
F3	REAR WORK LIGHT SWITCH POWER SUPPLY	2	D8
F4	K1 RELAY EXCITATION, HYDRAULIC STOP, FUEL GAUGE INSTRUMENT POWER SUPPLY, GLOWE LIGHT INSTRUMENT, AIR FILTER SOILED WARNING LIGHT, VSE SWITCH LIGHT	1	D3
F5	POWER SUPPLY: ENGINE STOP SOLENOID, PREHEATING CONTROL UNIT	1	D3
F6	HORN SWITCH POWER SUPPLY	5	D8
F7	ATTACHMENT COUPLING/RELEASE SOLENOID VALVE POWER SUPPLY	4	D8
F8	PARKING BRAKE SWITCH POWER SUPPLY, PARKING BRAKE SOLENOID VALVE POWER SUPPLY	3	D4
F9	REAR WINDSCREEN WIPER/WASHER MOTOR POWER SUPPLY	5	D4
F10	WINDSCREEN WIPER/WASHER SWITCH POWER SUPPLY	5	D6
F11	BEACON POWER SUPPLY, LIGHTING, FUEL GAUGE WARNING LIGHT, HYDRAULIC OIL TEMPERATURE GAUGE ENGINE OIL TEMPERATURE GAUGE	4	D5
F12	STEERING SELECTOR POWER SUPPLY, JOISTICK	3	D1
F13	RELAY K3/RELAY K5 POWER SUPPLY	1	D5
F30	PREHEATING CONTROL UNIT MAXIFUSE	1	B6
F31	SYSTEM PROTECTION FUSE	1	B5
H01	PREHEATING GLOW PLUGS WARNING LIGHT	1	F2
H02	FRONT WORK LIGHT OPTIONAL	2	B5
H03	REAR WORK LIGHT OPTIONAL	2	B2
H04	AIR FILTER SOILED WARNING LIGHT	3	F8
H05	BEACON	5	B4
H06	CAB LIGHTING	5	B3
HA01	BACK-UP HORN	3	B1
HA02	HORN	5	B6
K1	FRONT/REAR WORK LIGHTS OPTIONAL	2	D9
K2	ENGINE START ENABLING COMMAND WITH SPEED LEVER IN NEUTER	1	E6
K3	FORWARD SPEED	3	D9
K4	FORWARD/REVERS SPEED ENABLING COMMAND	3	D4
K5	REVERSE SPEED	3	D3
K11	STARTING RELAY	1	B5
M01	STARTER MOTOR	1	B9
M02	ALTERNATOR	1	B8
M03	FRONT WINDSCREEN WIPER/WASHER MOTOR OPTIONAL	5	B5
M04	REAR WINDSCREEN WIPER/WASHER MOTOR OPTIONAL	5	B4
P01	WARNING LIGHTS-FUEL GAUGE	4	G7
P02	HYDRAULIC OIL TEMPERATURE GAUGE	4	F4
P03	ENGINE OIL TEMPERATURE GAUGE	4	F2

Label	Description	Page	Position
R01	GLOW PLUGS	1	B4
SW01	IGNITION KEY SWITCH	1	F10
SW02	DISCONNECTION BATTERY	1	B10
SW03	CHANGEOVER-OVER SWITCH	1	F5
SW04	FRONT WORK LIGHT SWITCH OPTIONAL	2	F6
SW05	REAR WORK LIGHT SWITCH OPTIONAL	2	F3
SW06	PARKING BRAKE SWITCH	3	F6
SW07	ATTACHMENT COUPLING/RELEASE SWITCH	3	G2
SW08	JOYSTICK	3	G1
SW09	VSE SOLENOID SWITCH	4	G9
SW10	STEERING SELECTOR	5	E9
SW11	FRONT WINDSCREEN WIPER/WASHER SWITCH OPTIONAL	5	F5
SW12	HORN SWITCH	5	F7
SS01	AIR FILTER CLOGGING SENSOR	3	B9
SS02	HYDRAULIC STOP	3	B7
SS03	ENGINE OIL PRESSURE TRANSDUCER	4	B7
SS04	FUEL FLOAT	4	B6
SS05	NEGATIVE BRAKE PRESSURE SWITCH	4	B5
SS06	HYDRAULIC OIL TEMPERATURE SENSOR	4	B3
SS07	ENGINE OIL TEMPERATURE SENSOR	4	B2
SS08	ENGINE OIL COOLING TEMPERATURE SENSOR	5	B2
Y01	ADDITIONAL FUEL SOLENOID VALVE	1	B7
Y02	SOLENOID VALVE-FWD SPEED	3	C10
Y03	PARKING BRAKE SOLENOID VALVE	3	B5
Y04	ATTACHMENT COUPLING/RELEASE SOLENOID VALVE	3	B3
Y05	REVERSE SPEED SOLENOID VALVE	3	B2
Y06	VSE SOLENOID VALVE	4	B10
Y07	WHEEL STEERING SOLENOID VALVE	5	B10
Y08	WHEEL STEERING SOLENOID VALVE	5	B8
Y09	ENGINE STOP SOLENOID	5	B2
Y10	EXTEND/RETRACT BOOM SOLENOID VALVE	5	B1
A01	12V BATTERY	1	C10
A02	PREHEATING CONTROL UNIT	1	B3

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