Genie®
A TEREX COMPANY

Service and Repair Manual

Z-30/20N
Z-30/20N RJ
Z-34/22N
Z-34/22DC

Serial Number Range

from Z30N14-15222 to Z30N16F-18899
From Z30N16D-104 to Z30N16D-199

from Z3414-9686 to Z3416F-11999
from Z34N14-10984 to Z34N16F-13999
from Z34N15D-102 to Z34N16D-279

from Z30NF-18900
from Z30ND-200

from Z34F-12000
from Z34NF-14000
from Z34ND-280

This manual includes:
Repair procedures
Fault Codes
Electrical and
Hydraulic Schematics

For detailed maintenance procedures, refer to the appropriate Maintenance Manual for your machine.

Part No. 1268498GT
Rev A3
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Specifications

Hydraulic Component Specifications

Function pump	
Type: Fixed displacement gear pump	
Displacement	0.183 cu in 3 cc
Flow rate @2800 psi / 172 bar	2.1 gpm 7.9 L/min
Hydraulic tank return filter	10 micron with 25 psi / 1.7 bar bypass

Function manifold	
System relief valve pressure, Z-30/20N and Z-30/20N RJ	2800 psi 193 bar
System relief valve pressure, Z-34/22 and Z-34/22N	3200 psi 221 bar
Primary boom down relief pressure	1600 psi 110 bar
Secondary boom down relief pressure	1600 psi 110 bar
Primary boom extend relief pressure Models with rotating jib	1800 psi 124 bar
Turntable rotate relief pressure	1100 psi 76 bar
Auxiliary pump	
Type: Fixed displacement gear pump	
Displacement	0.3 gpm 1.14 L/min

Manifold Component Specifications

Plug torque	
SAE No. 2	36 in-lbs / 4 Nm
SAE No. 4	10 ft-lbs / 13 Nm
SAE No. 6	14 ft-lbs / 19 Nm
SAE No. 8	38 ft-lbs / 51 Nm
SAE No. 10	41 ft-lbs / 55 Nm
SAE No. 12	56 ft-lbs / 76 Nm

Valve Coil Resistance

Note: The following coil resistance specifications are at an ambient temperature of 68°F / 20°C. As valve coil resistance is sensitive to changes in air temperature, the coil resistance will typically increase or decrease by 4% for each 18°F / 10°C that your air temperature increases or decreases from 68°F / 20°C.

Valve Coil Resistance Specification

Description	Specification
Solenoid valve, 3 position 4 way, 20V DC (schematic items A, J, K, U, V, Y, AA, AB and CC)	22 Ω
Proportional solenoid valve, 24V DC (schematic item H)	19.5 Ω
Solenoid valve, N.C. poppet, 20V DC (schematic item M)	23.5 Ω
Solenoid valve, N.O. poppet, 20V DC (schematic item P)	23.5 Ω

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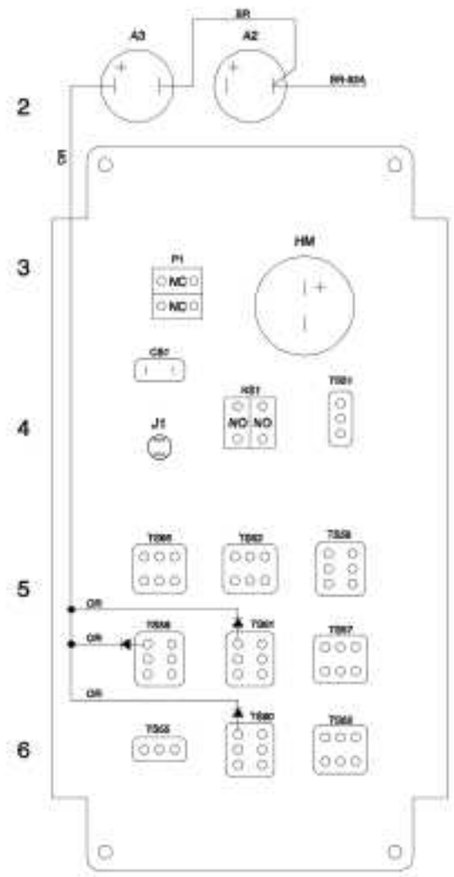
Fault Code Chart

Fault Code	Programmer Diagnostic Display	Condition	Possible Causes	Solution
Fault code LED is off or is on, but not blinking	COMMUNICATION ERROR	Machine will not drive.	The key switch or Emergency Stop button(s) was cycled on and off faster than 5 seconds OR controller sensed an internal error during start up.	Push in the ground control red Emergency Stop button to the off position and wait for 5 seconds. Pull out the ground control red Emergency Stop button to the on position. If problem persists, replace the motor controller.
1		Normal operation.		
12	HW FAILSAFE 1-2-3	Machine will not drive.	The motor controller failed self test.	Replace the motor controller.
13	M- SHORTED	Machine will not drive.	The motor controller has a internal short between M- and B- terminals.	Test the motor controller. See Repair Section.
	FIELD OPEN	Machine will not drive.	Motor wiring is loose OR motor is defective OR motor controller has an internal short.	Check for loose or open connections at the drive motors and motor controller OR replace the defective drive motor OR test the motor controller. See Repair Section.
	ARM SENSOR	Machine will not drive.	Defective motor controller.	Replace the motor controller.
	FLD SENSOR	Machine will not drive.	Defective motor controller.	Replace the motor controller.

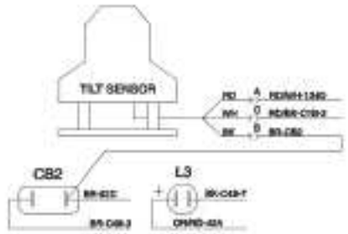
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Ground Control Box Switch Panel Wiring Diagram, (CE, AS)

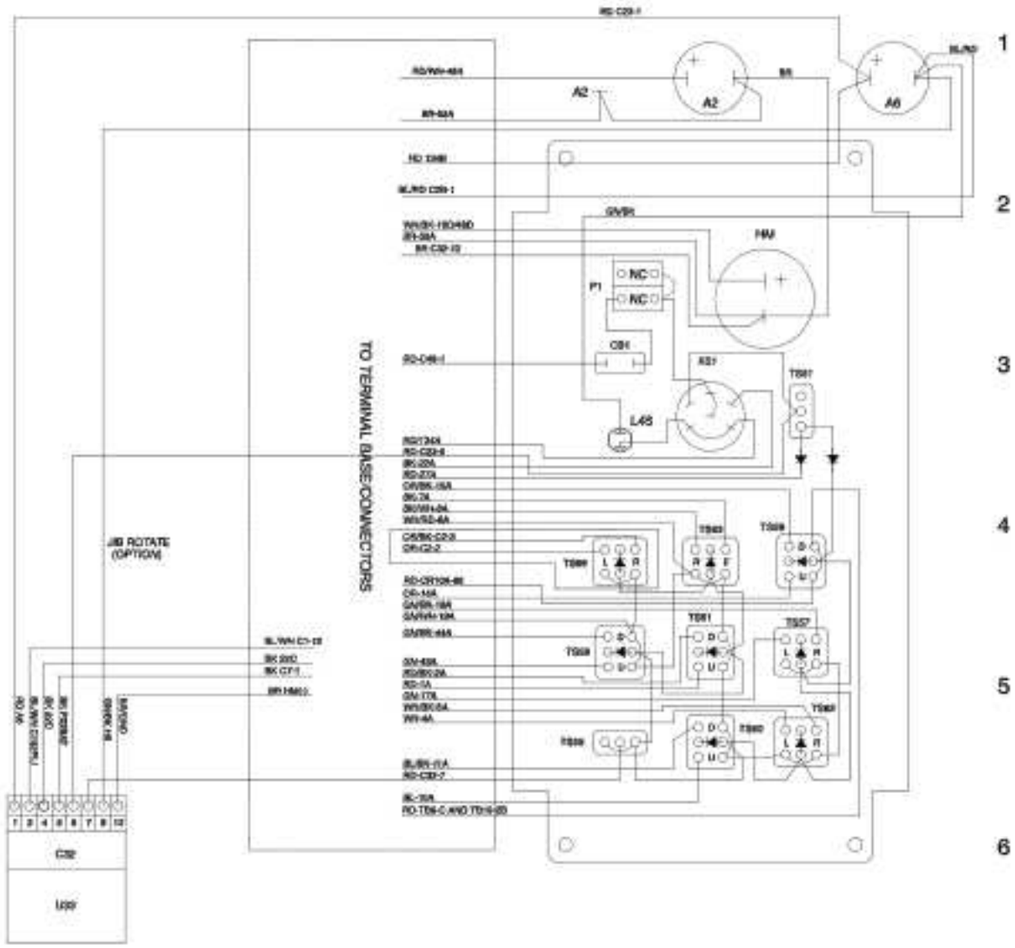
(from serial numbers Z30N14-15222, Z34N14-10984, and Z3414-9686)



DESCENT ALARM WIRING



LABEL	DESCRIPTION
P1	EMERGENCY STOP BUTTON
K21	KEY SWITCH
T581	AUXILIARY SWITCH
T582	FUNCTION ENABLE SWITCH
T583	PLATFORM ROTATE SWITCH
T584	JIB UP/DOWN SWITCH
T585	PLATFORM LEVEL SWITCH
T586	SECONDARY BOOM UP/DOWN SWITCH
T587	PRIMARY BOOM UP/DOWN SWITCH
T582	TURNTABLE ROTATE SWITCH
T588	BOOM EXTEND/RETRACT SWITCH
T589	JIB ROTATE SWITCH (OPTION)
CB1	CIRCUIT BREAKER, CONTROLS, 15A
CB2	CIRCUIT BRKR., CONTROLS RETURN, 30A
J1	BRAKE RELEASE JACK
HM	HOURMETER
CH	CHASSIS HARNESS
MH	MANIFOLD HARNESS
SP	SWITCH PANEL
CR	CONTROL RELAY
A6	BRK REL/TRANSL ALARM
A8	DESCENT ALARM (OPTION)
L2	CONTROLLER STATUS LED
L46	PLATFORM OVERLOAD LED



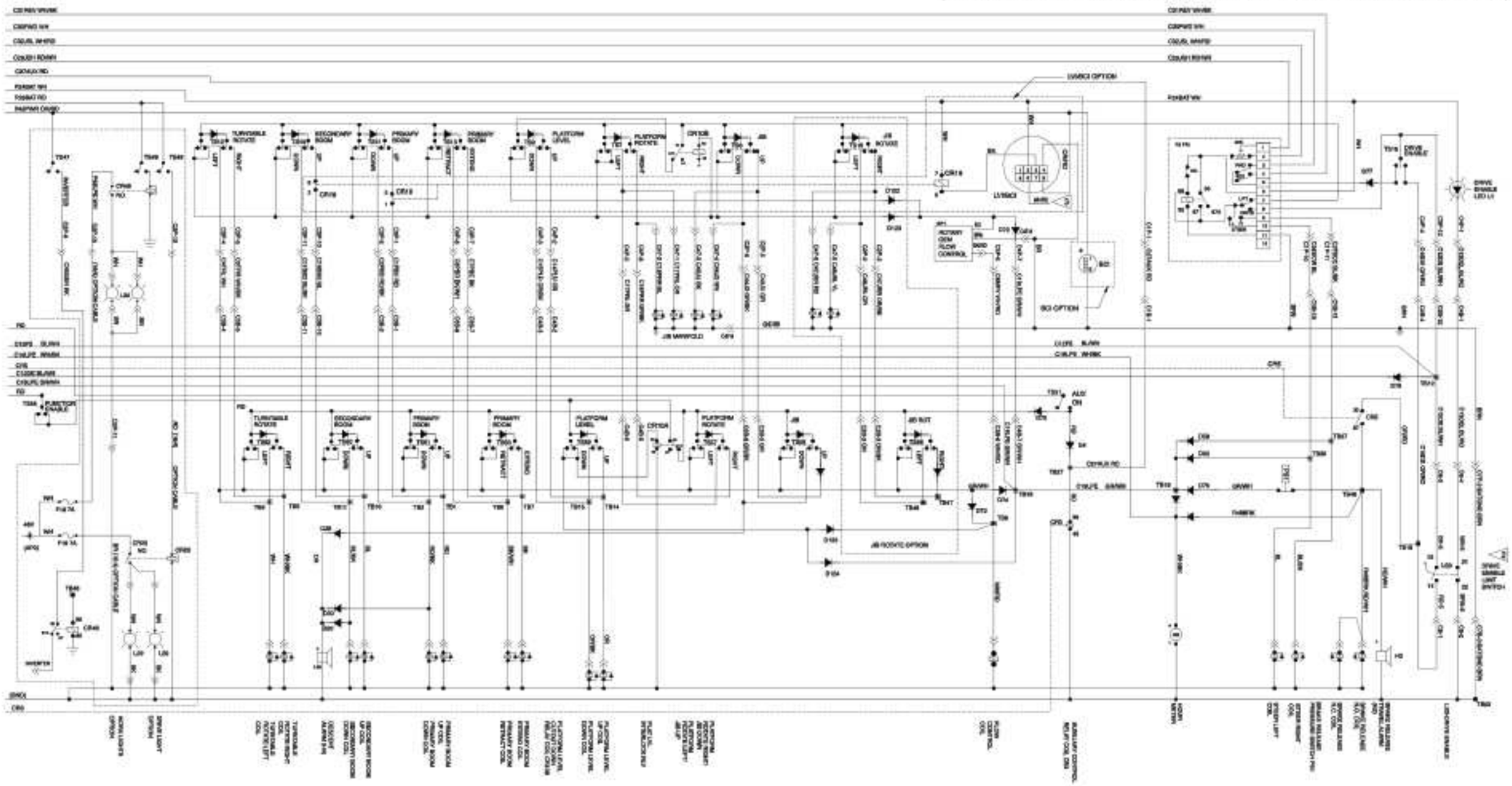
OPTION - WIRE LIST

BK MVERTER
BK/WH DRIVE LIGHT
BK/RD WORK LIGHT
GR/WH BRAKE

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Electrical Schematic, (CE, AS)

(from serial numbers Z30N14-15222, Z34N14-10984, and Z3414-9686)



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