NEW HOLLAND

COMPACT EXCAVATORS

E30
E35

SERVICE MANUAL

87360586 NA

Issued 01-2006

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23.2 ELECTRICAL EQUIPMENT AND HARNESS

23.2.1 ELECTRICAL EQUIPMENT LIST

NOTE: *Refer to fold out schematics.*

Group	Code	Name	Part No.
Diode	D-1	DIODE	YN02D01001P1
	D-2	DIODE	
	D-3	DIODE	
	D-4	DIODE	
	D-12	DIODE	
	D-13	DIODE	
	D-14	DIODE	
Electrical Fittings	E-1	FUSE BOX	PW73E00001F1
	E-2	GENERATOR (ALTERNATOR)	E/G accessory (119626–77210)
	E-3	HORN	PY53S00002P1
	E-4	FUSIBLE LINK	PH73S00001P1
	E-6	GAUGE CLUSTER	PH59S00005F1
	E-8	AIR HEATER	E/G accessory (129100–77500)
	E-10	RADIO (OPT)	Cab accessory (PY54S00001P1)
	E-12	HEATER (OPT)	PM21M00005F1
	E-13	BATTERY	PW72S00003P1
	E-14	SEQUENCE BOX	PA24S00002P3
	E-15	FUSE BOX FOR COOLER (OPT)	PH73E00004F1
	E-20	TRAVEL ALARM	PW53S00002F1
	E-26	HOUR METER	YT58S00006P1
Light	L-1	ROOM LAMP	PM80S00006P1
	L-2	BOOM WORKING LIGHT	PM80S00007F1
	L-5	CANOPY WORKING LIGHT	PW80S00003F1
Motor	M-1	STARTER MOTOR	E/G accessory (129242-77010)
	M-2	WIPER MOTOR (CAB)	Cab accessory (PM76S00001F1)
	M-3	WASHER MOTOR (CAB)	Cab accessory (PE54C00002S002)
	M-4	DECELERATION MOTOR	PW20S00012F1
Relay	R-1	BATTERY RELAY	PH24S00001P1
	R-2	SAFETY RELAY	PX24S00001P1
	R-3	DECELERATION RELAY	PA24E01001P1
	R-6	TIMER UNIT	PH25S00002P1
	R-7	E/G STOP RELAY	PH24S00001P1
	R-8	CHARGE INDICATOR RELAY	PM24S00001P1
	R-9	CAB / CANOPY WORKING LIGHT RELAY	PA24E01001P1
	R-14	SLEW / SWING SELECT RELAY	
	R-22	SW. SELECT RELAY	
	R-23	SLEW / SWING PRESERVATION RELAY	
	R-24	NIBBLER OPEN RELAY	
	R-25	NIBBLER CLOSE RELAY	
Sensor	SE-1	FUEL SENSOR	PX52S00006F1
	SE-2	ENGINE THERMO SENSOR	PA24S00003P1

NOTE: *The part number may be changed because of modification, use them only for reference.*
NOTE: *NA: North America, AUST: Australia.*

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32.1.4 BOOM

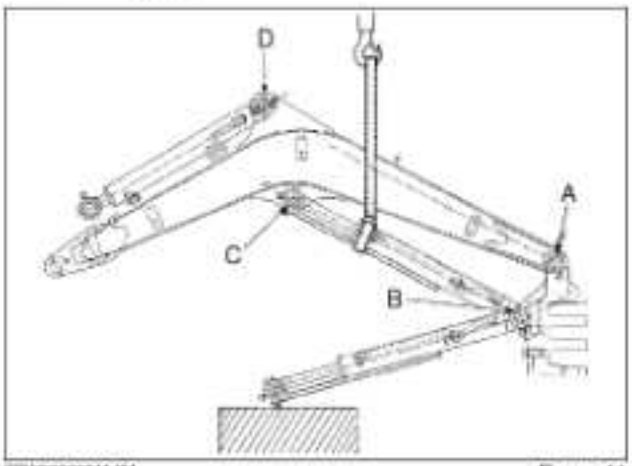
32.1.4.1 REMOVAL OF BOOM

1. Lower the boom and support the boom end with a suitable stand.
2. Disconnect all hoses from the bucket cylinder, arm cylinder and boom cylinder, install plugs in all the openings.

: 22mm

3. Disconnect the wiring for working light at the connector.
4. Removal of Boom Cylinder
   1. Lift up the boom cylinder with a nylon sling to prevent the boom cylinder from falling.
   2. Removing the capscrew and nuts that secure pin (C), remove pin (C).

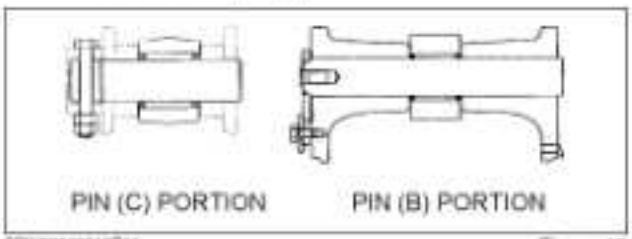
: 17mm



SPW32000011J01 Figure 11

FIG. 32-11 REMOVAL OF BOOM CYLINDER

   3. Retract the rod, then put the cylinder on a stable stand.
   4. Removing the capscrew that secures pin (B), remove the pin (B).



SPW32000012E01 Figure 12

FIG. 32-12 SECTIONAL VIEW OF INSTALLING PIN

   5. Remove the boom cylinder.

      Weight:

      35 kg (77 lbs) — E30

      35 kg (77 lbs) — E35

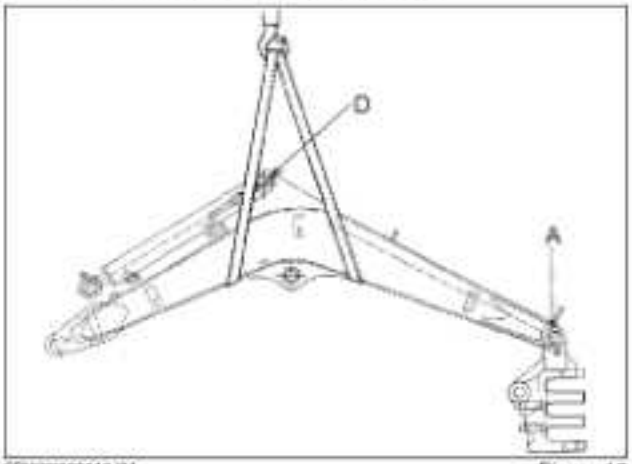
5. Removal of Boom assembly
   1. Attach lifting equipment to the boom.
   2. Lift the boom assembly in order to relieve any load on the boom foot pin (A).

      Weight of boom assembly: approx

      170 kg (375 lbs) — E30

      190 kg (419 lbs) — E35

   3. Removing the capscrew that secures pin (A), remove the pin (A).
   4. Remove the boom assembly.



SPW32000013J01 Figure 13

FIG. 32-13 REMOVAL OF BOOM ASSEMBLY

6. Removal the Arm Cylinder
   1. Removing the capscrew and nuts that secure pin (D), remove pin (D).

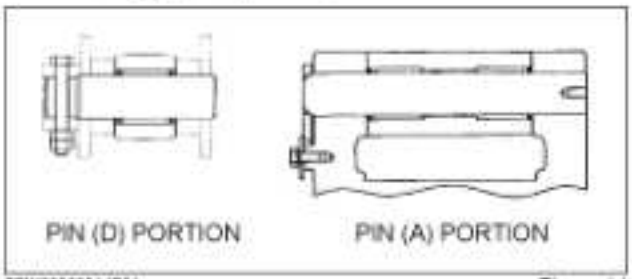
: 17mm

   2. Attach a sling to the tube of the arm cylinder, remove the arm cylinder.

      Weight:

      30 kg (66 lbs) — E30

      34 kg (75 lbs) — E35



SPW32000014E01 Figure 14

FIG. 32-14 SECTIONAL VIEW OF INSTALLING PIN

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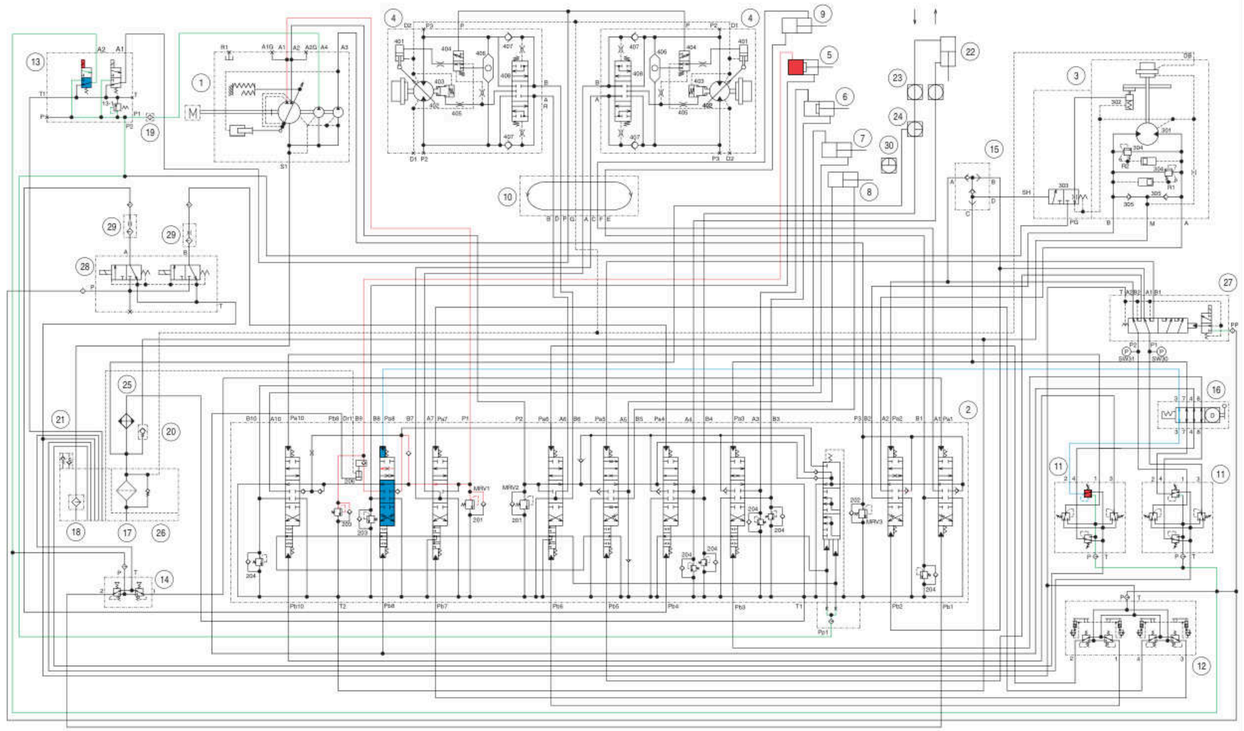
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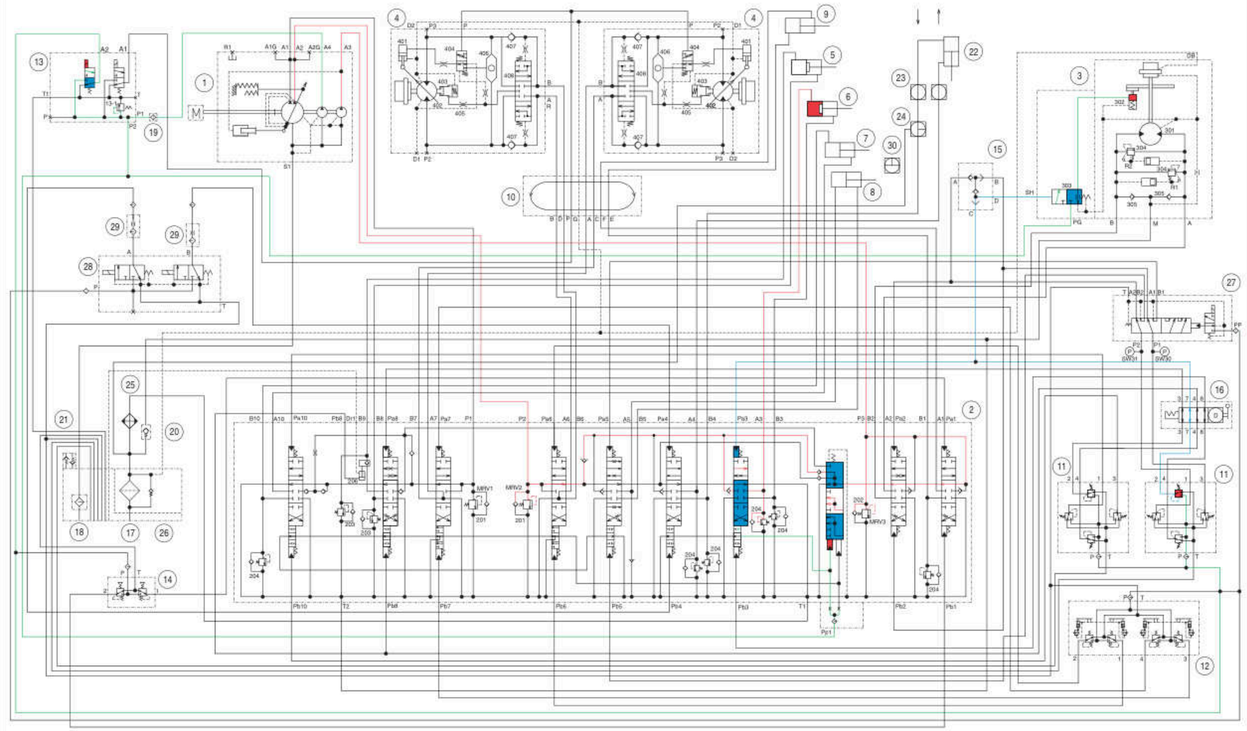
Revision History			
Issue	Issue Date	Applicable Machines	Remarks
First Edition	01-2006	E30 and E35	6-80870 NA

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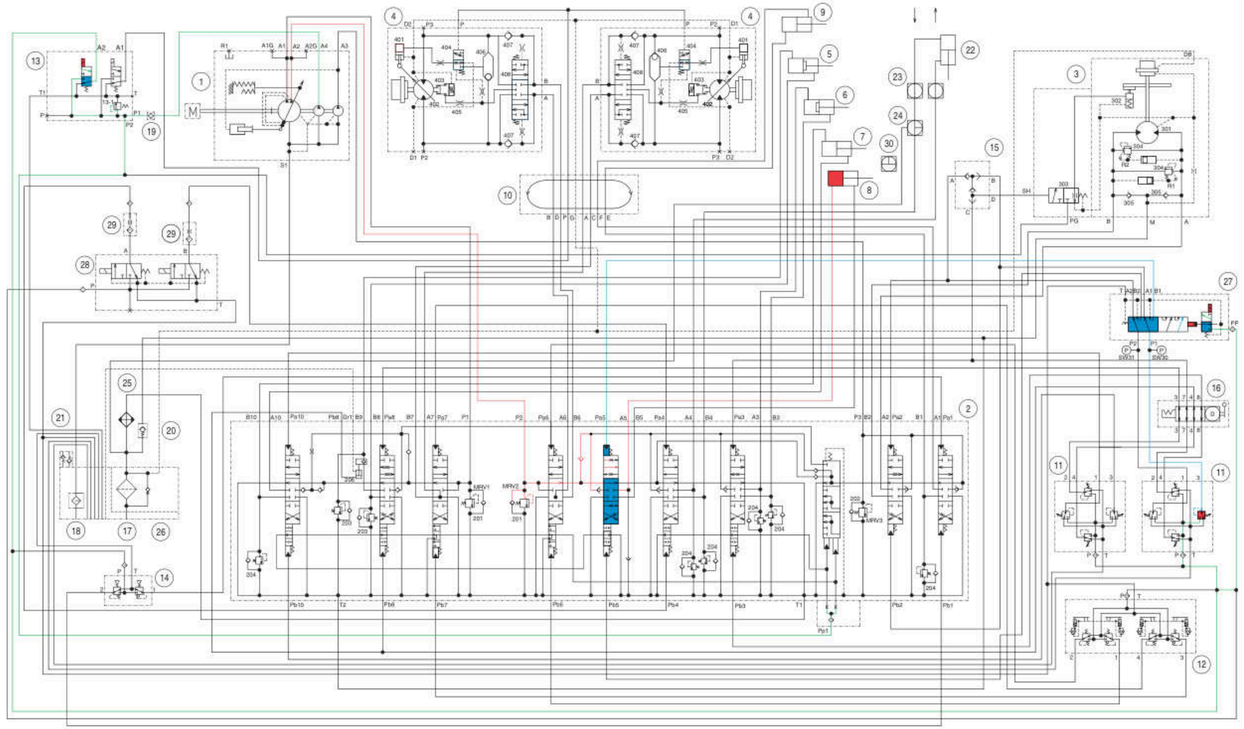
BOOM CIRCUIT - BOOM-UP OPERATION



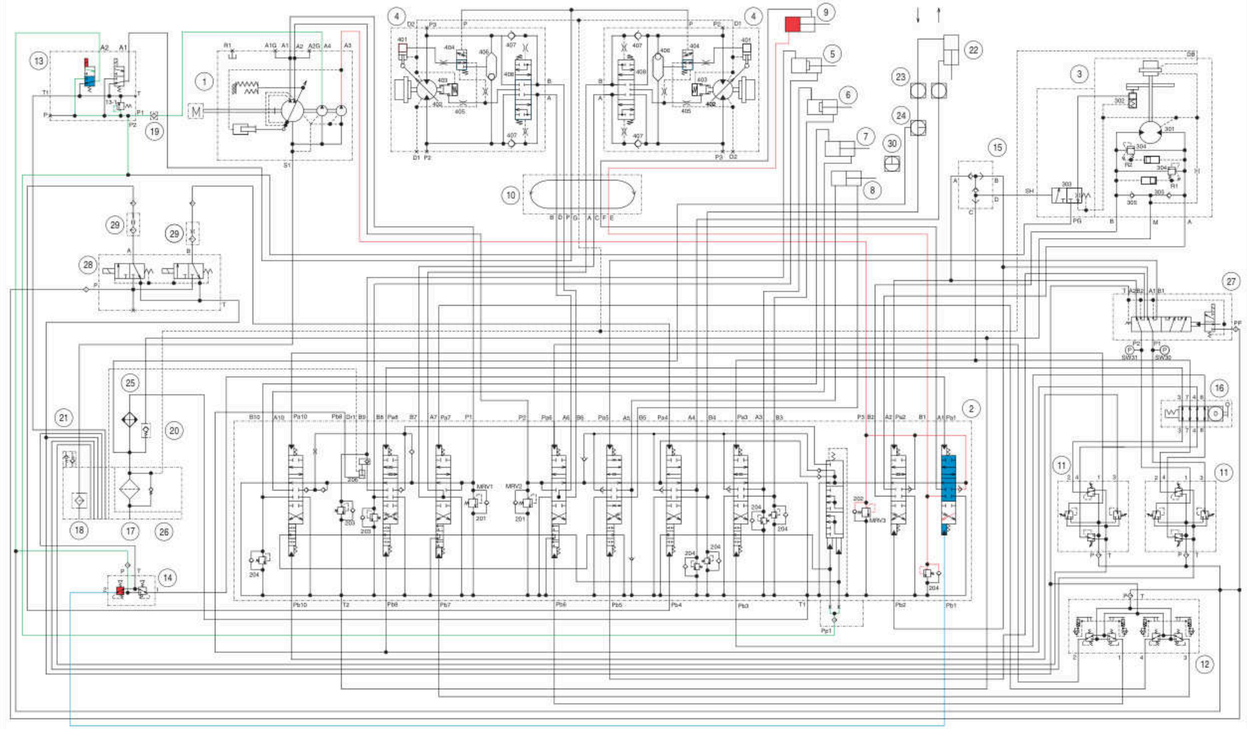
ARM CIRCUIT - ARM-IN OPERATION



SWING CIRCUIT - BOOM SWING-LEFT OPERATION



DOZER CIRCUIT - DOZER-DOWN OPERATION



COMPONENT IDENTIFICATION

1. PUMP ASSEMBLY
2. CONTROL VALVE
3. SLEWING MOTOR
4. TRAVEL MOTOR
5. BOOM CYLINDER / CANOPY CAB
6. ARM CYLINDER
7. BUCKET CYLINDER
8. SWING CYLINDER
9. DOZER CYLINDER
10. SWIVEL JOINT
11. PILOT VALVE (ATT)
12. PILOT VALVE (TRAVEL)
13. SOLENOID VALVE
14. PILOT VALVE (DOZER)
15. SHUTTLE VALVE
16. MULTI CONTROL VALVE
17. RETURN FILTER (ELEMENT)
18. SUCTION STRAINER
19. INLINE FILTER
20. CHECK VALVE
21. HYDRAULIC RESERVOIR VENT
22. NIBBLER CYLINDER
23. STOP VALVE
24. SELECTOR VALVE
25. OIL COOLER
26. HYDRAULIC OIL TANK
27. SOLENOID VALVE
28. SOLENOID VALVE
29. ORIFICE

NOTES

1. 201 (MAIN RELIEF VALVE P1,P2) 23.0 MPa (3340 psi)
2. 202 (MAIN RELIEF VALVE P3) 20.0 MPa (2900 psi)
3. 203 (OVERLOAD RELIEF VALVE) 27.5 MPa (4000 psi)
4. 204 (OVERLOAD RELIEF VALVE) 25.5 MPa (3700 psi)
5. 304 (SLEW RELIEF VALVE) 20.0 MPa (2900 psi)
6. 13-1 (PILOT RELIEF VALVE) 3.5MPa (508 psi)

HYDRAULIC SYMBOLS

PRESSURE
PILOT MAIN PRESSURE
PILOT SEC PRESSURE
CASE DRAIN
COMPONENT
54 COMPONENT NUMBER
SHOWS CIRCUIT CROSSING NOT CONNECTED
SHOWS CIRCUIT CONNECTED
CHECK VALVE
RESTRICTOR
FILTER OR SCREEN
OIL COOLER

HYDRAULIC SCHEMATIC
E30, E35 HYDRAULIC EXCAVATORS

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