NEW HOLLAND

D180 (Tier 3)

Workshop Manual

NEW HOLLAND CONSTRUCTION

BUILT AROUND YOU

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SECTION 0

GENERALITIES

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SECTION 1

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SECTION 2

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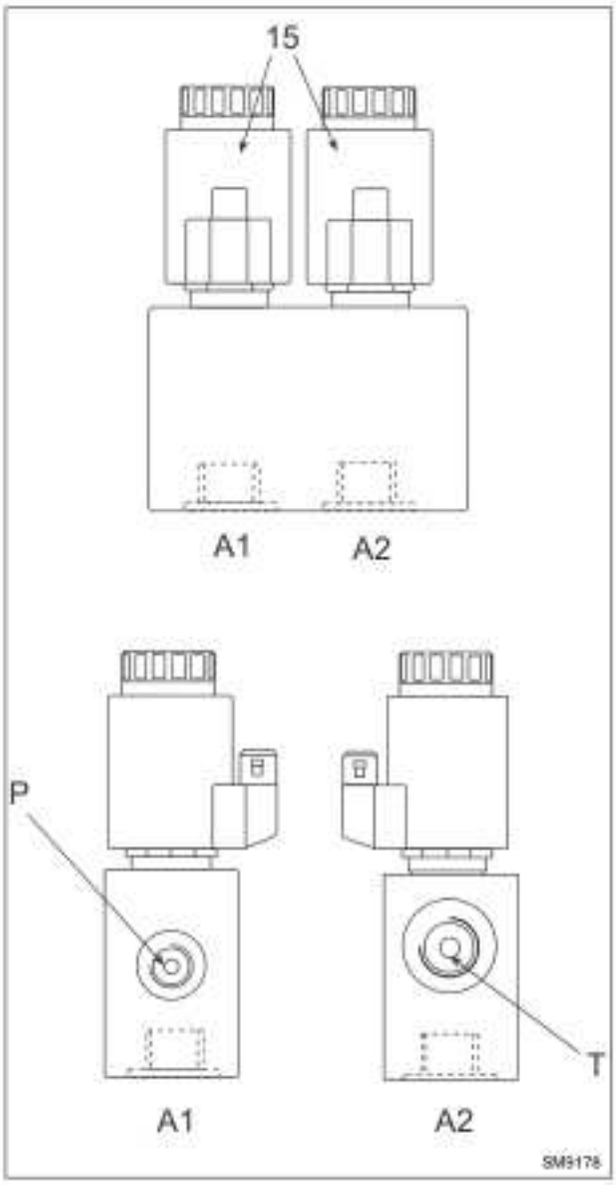
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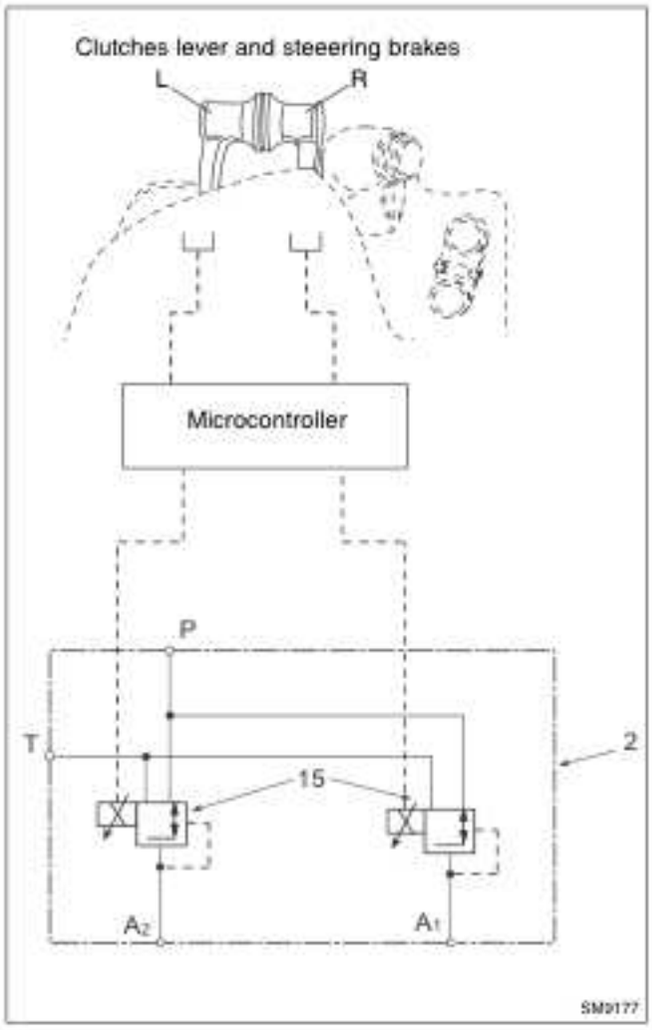
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Proportional solenoid valves block
(Ref. **2**, hydraulic diagram)

It is mounted on the machine frame, on the left side.
To reach it, it is necessary to lift the cab.





Hydraulic diagram

2. Proportional solenoid valves block
15. Proportional solenoid valve
P. Feeding
T. To reservoir
A1. To brakes / clutches control valve
A2. To brakes / clutches control valve
L. Left clutch lever
R. Right clutch lever

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4.5 SPECIFICATIONS AND DATA

4.5.1 BEVEL GEAR REDUCTION UNIT (General data / dimensions)

General data		Ref.
Type of gears	helical teeth	5
Reduction ratio (13/40)	1:3.076	5
Backlash between the face of the teeth	0.25 ÷ 0.33 mm (0.0098 to 0.0130 in) average 0.3 mm (0.0118 in)	5

Dimensions		mm	inches	Ref.
A	Inner diameter of bevel gear shaft bearing cage	139.948 ÷ 139.988	5.5098 to 5.5113	21
	Outer diameter of bearing	139.980 ÷ 140.000	5.5110 to 5.5118	22
* **B**	Inner diameter of bearing	79.850 ÷ 80.000	3.1437 to 3.1496	22
	Outer diameter of bevel gear shaft	80.020 ÷ 80.033	3.1504 to 3.1509	18
C	Outer diameter of bevel gear shaft hub	239.948 ÷ 240.000	9.4468 to 9.4488	18
	Inner diameter of bevel gear	240.000 ÷ 240.052	9.4488 to 9.4508	5
E	Inner diameter of pinion housing	179.932 ÷ 179.972	7.0839 to 7.0855	10
	Outer diameter of pinion bearing	179.975 ÷ 180.00	7.0856 to 7.0866	7
D	Inner diameter of pinion support	149.932 ÷ 149.972	5.9028 to 5.9044	10
	Outer diameter of bearing	149.980 ÷ 150.00	5.9047 to 5.9055	6

* **Note ñ** *The dimensions are identical on both sides.*

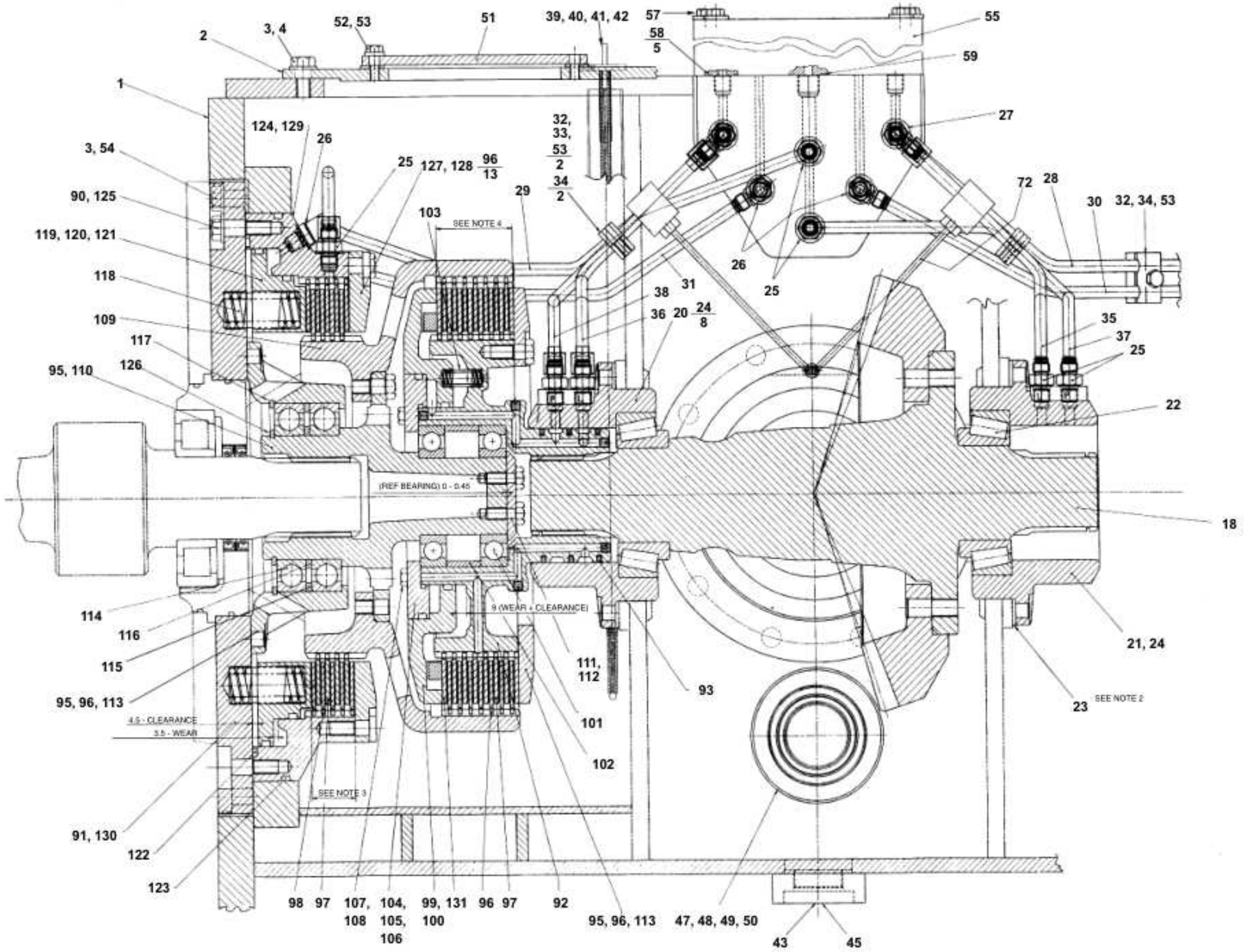
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6.2 TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	TOOLS REQ.ED	TEST	SOLUTION
All cylinders operate slowly	Worn pump		Perform test flow	If the test proves a pressure drop of 15% from no load through test load, replace the pump
	Main safety valve stuck open		Perform test flow	If the flow is very low and the pressure does not reach the prescribed values, reset the main pressure relief valve
	Control linkage out of adjustment		Perform test flow	Check and adjust the linkage for a precise spool stroke
A series of cylinders moves slowly	Control valve broken		Move the spool manually	Negative test, replace the valve
	Control valve stuck in its seat		Perform test flow	Replace the valve if spool stucks
	Safety valve stuck open		Perform test flow	Negative test, replace the valve
	Cylinder piston seal leaking			Negative test of cylinder, replace seal
The hydraulic oil overheats	Insufficient oil level	Operation and Maintenance Manual	Perform test flow	Refill equipment reservoir with oil of the prescribed type
	Suction filter clogged			Suction is clogged, clean suction filter
	Pump suction leaking		Perform test flow	Repair seal or tighten connections
	Main safety valve out of setting			Re-set at prescribed value

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REAR TRANSMISSION (transmission side section)



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