SERVICE MANUAL

T7510 / T7520 / T7530
T7540 / T7550

Tractor

Part number 47505533
English
February 2013

NEW HOLLAND
AGRICULTURE

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Planetary drive and hub - Disassemble and assembly

T7510 Vorderachse 20.25S, T7520 Vorderachse 20.25S, T7530 Vorderachse 20.25S

⚠ WARNING

Maintenance hazard!
Before performing any maintenance or inspection:
-position machine on a firm, level surface
-turn off the engine
-remove the ignition key
-secure the machine (wheels chocked)
-disconnect the wiring
(unless instructed otherwise)
Failure to comply could result in death or serious injury.

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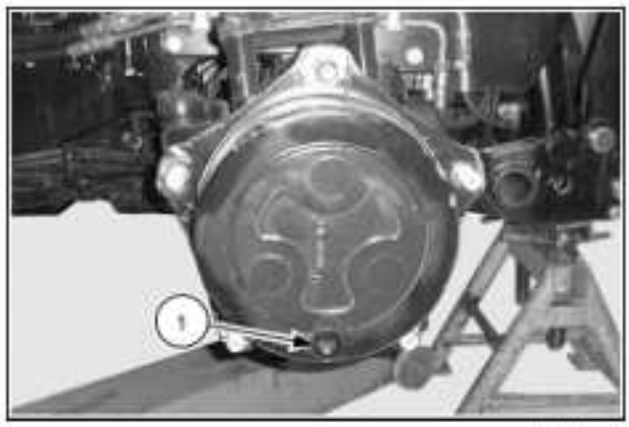
NOTE: *The steps are numbered for the removal sequence. Assembly is carried out in the same way, but following the steps in the reverse order.*

The following points must be observed before the planet gear unit is disassembled:

- Park the tractor on solid, even ground, apply the parking brake and completely lower the front axle until it rests against the lower mechanical stops. If necessary, open the drain valve on the hydraulic control unit to do so — see **Axle suspension control - Service instruction (25.122)**
- Switch off the engine and remove the key
- Push wheel chocks in front of and behind the rear wheels
- Undo the front wheel nuts. Place a hydraulic jack under the middle of the front axle, raise the tractor and position it on suitable front axle support blocks. Remove the front wheels

1. Align the drain/filling level screw **(1)** such that it is facing downwards. Place a container with a minimum capacity of **2 l** underneath the wheel hub. Unscrew the drain/filling level screw **(1)** and remove the O-ring. Drain the oil.

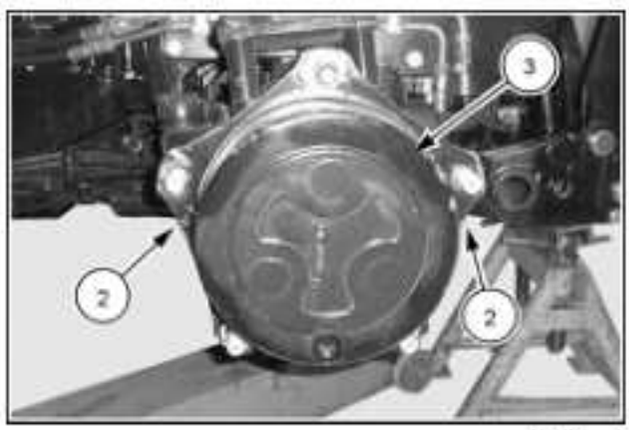
NOTE: *When assembling, rotate the wheel hub so that the drain/filling level screw **(1)** is horizontal to the centre of the axle. Fill the wheel hub with the correct grade of oil to the specified level, see **Powered front axle - General specification (25.100)**. Screw in the drain/filling level screw **(1)** together with the O-ring and tighten to **80 Nm**.*



SD008039 1

2. Unscrew the two countersunk screws **(2)**.

NOTE: *When assembling, tighten the screws **(2)** to **25 Nm**.*



SD008039 2

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Wire harnesses - Electrical schematic frame 31 Hydraulic master/exterior switch linkage, front/front loader

T7510 Doppel-Batterie, T7520 Doppel-Batterie, T7530 Doppel-Batterie, T7540 Doppel-Batterie, T7550 Doppel-Batterie

Sections

A Hydraulic master switch
B Exterior switch, front, raise/lower
C Armrest supply, front loader
See **Wire harnesses - Electrical schematic frame 30 (55.100)** for variant

Grounding points

No grounding points

NOTE: *Spot welds are depicted in the circuit diagram with the identification X0/../.. (e.g. X0/28/13)*

Color coding table							
A	Red	B	Beige	C	White	D	Yellow
E	Grey	F	Green	G	Violet	H	Orange
K	Light blue	L	Brown	M	Ground Strap	N	Pink
P	No color	S	Black				

Components

(A8)	Armrest	**S18/2**	Exterior switch AUX, rear , push to "+"
A12	Central print	**X1/15/1**	Motor print plug, power socket, front, Potential 15/1
A14	Motor print	**X1/31/1**	Motor print bolt connection, Potential 31
A60	ECCU3	**X2/4**	Cab wiring harness connector - auxiliary line for front loader
CN3a	ECCU3 plug	**X2/5**	Cab wiring harness connector - armrest
F39	Supply fuse, ARU, Potential 15/1	**X6/4**	Cab wiring harness connector - armrest supply
K5/LOADER1	Solenoid valve relay, front loader 1	**X10/4**	Cab wiring harness connector - control console wiring harness, right
K5/LOADER2	Solenoid valve relay, front loader 2	**X16**	Front loader socket
S2/7/3	Hydraulic master switch	**X24/2**	Central print plug — cab wiring harness
S18/1	Exterior switch AUX, rear, push to "-"	**X24/5**	Cab wiring harness connector - control console wiring harness, right

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Battery - General specification

12 V 160 Ah - single battery

Rated capacity for 20 hours of charging	160 **Ah**
Cold discharge test current in accordance with DIN (EN-CCA)	**630 A (1050 A)**
Voltage	**12 V**
Cells	6
Earth terminal	to body

12 V 95 Ah - twin battery

Rated capacity for 20 hours of charging	95 **Ah**
Cold discharge test current in accordance with DIN (EN-CCA)	**485 A (800 A)**
Voltage	**12 V**
Cells	6
Earth terminal	to body

Table for determining output depending on temperature:

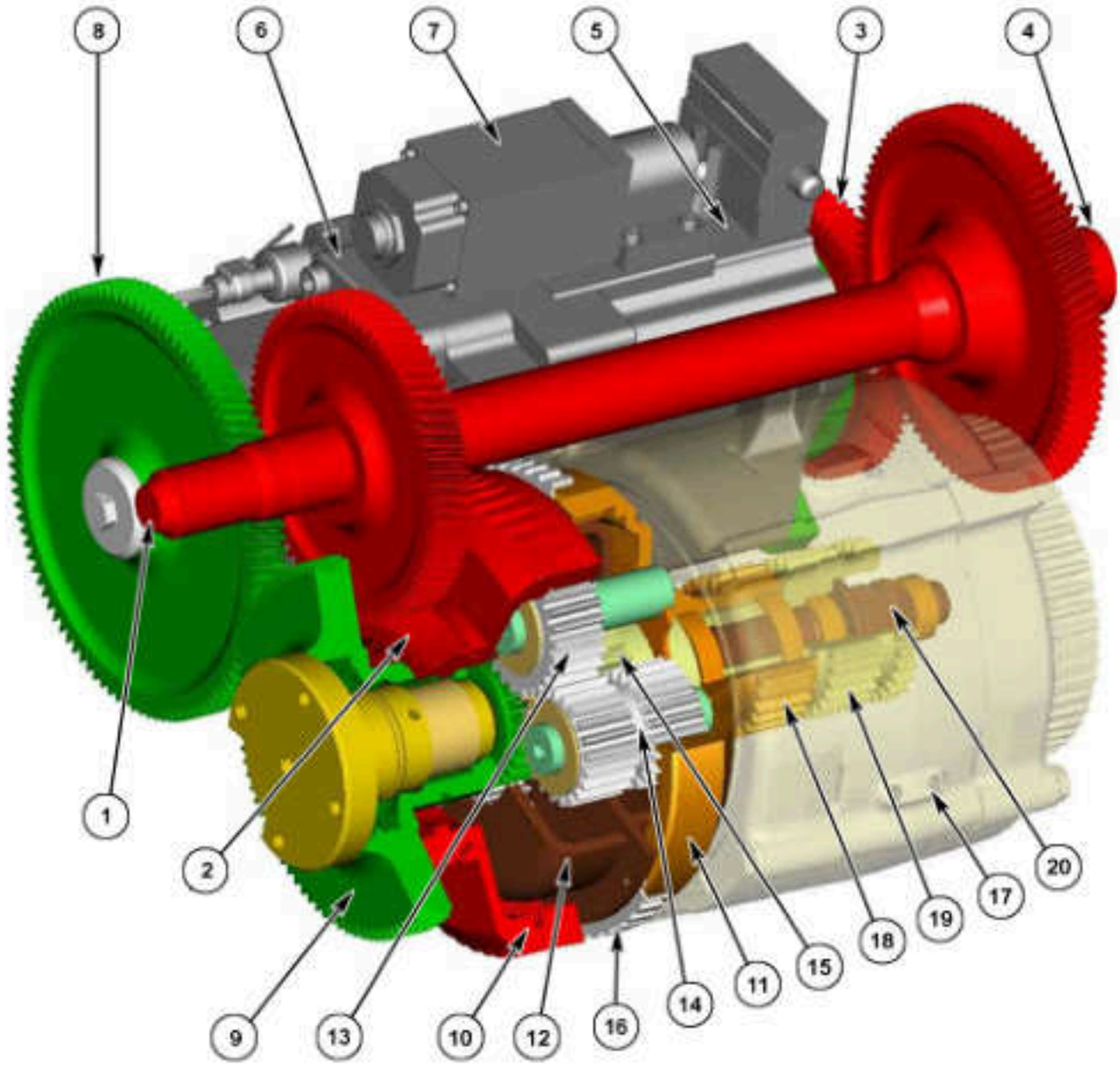
Temperature	Capacity of a fully charged battery
25 °C	**100 %**
-4.5 °C	**82 %**
-24 °C	**64 %**
-27.5 °C	**58 %**
-31 °C	**50 %**
-34.5 °C	**40 %**
-37.5 °C	**33 %**

Table for determining charge state:

Charge state	Acid density at 15 °C	Acid density at 25 °C	Medium battery voltage
100 %	1.295	1.287	**12.76 V**
75 %	1.253	1.246	**12.52 V**
50 %	1.217	1.210	**12.30 V**
25 %	1.177	1.170	**12.06 V**
Discharged	1.137	1.130	**11.84 V**

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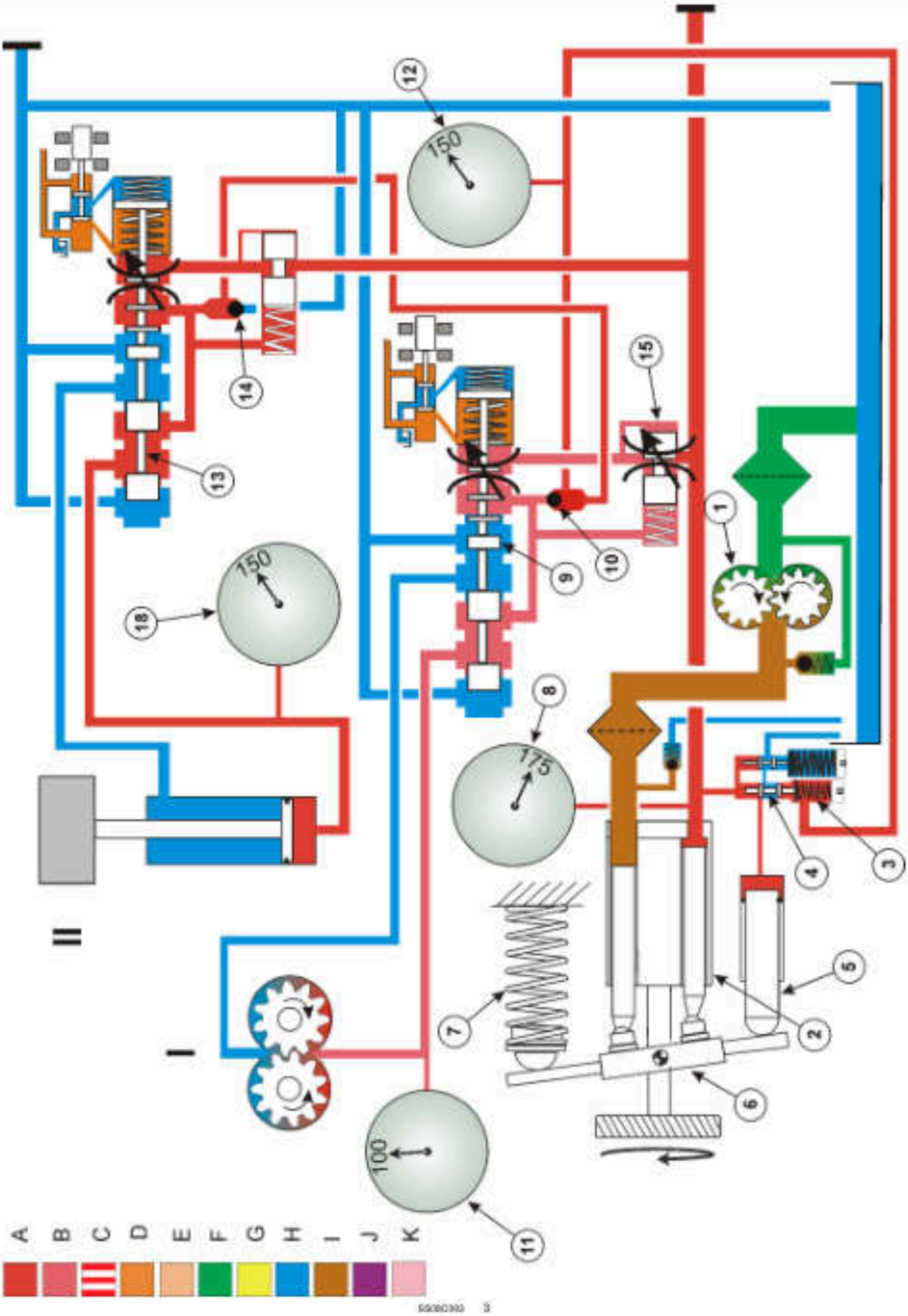
Continuously Variable Transmission (CVT) external controls - Dynamic description (Assembling transmission module)



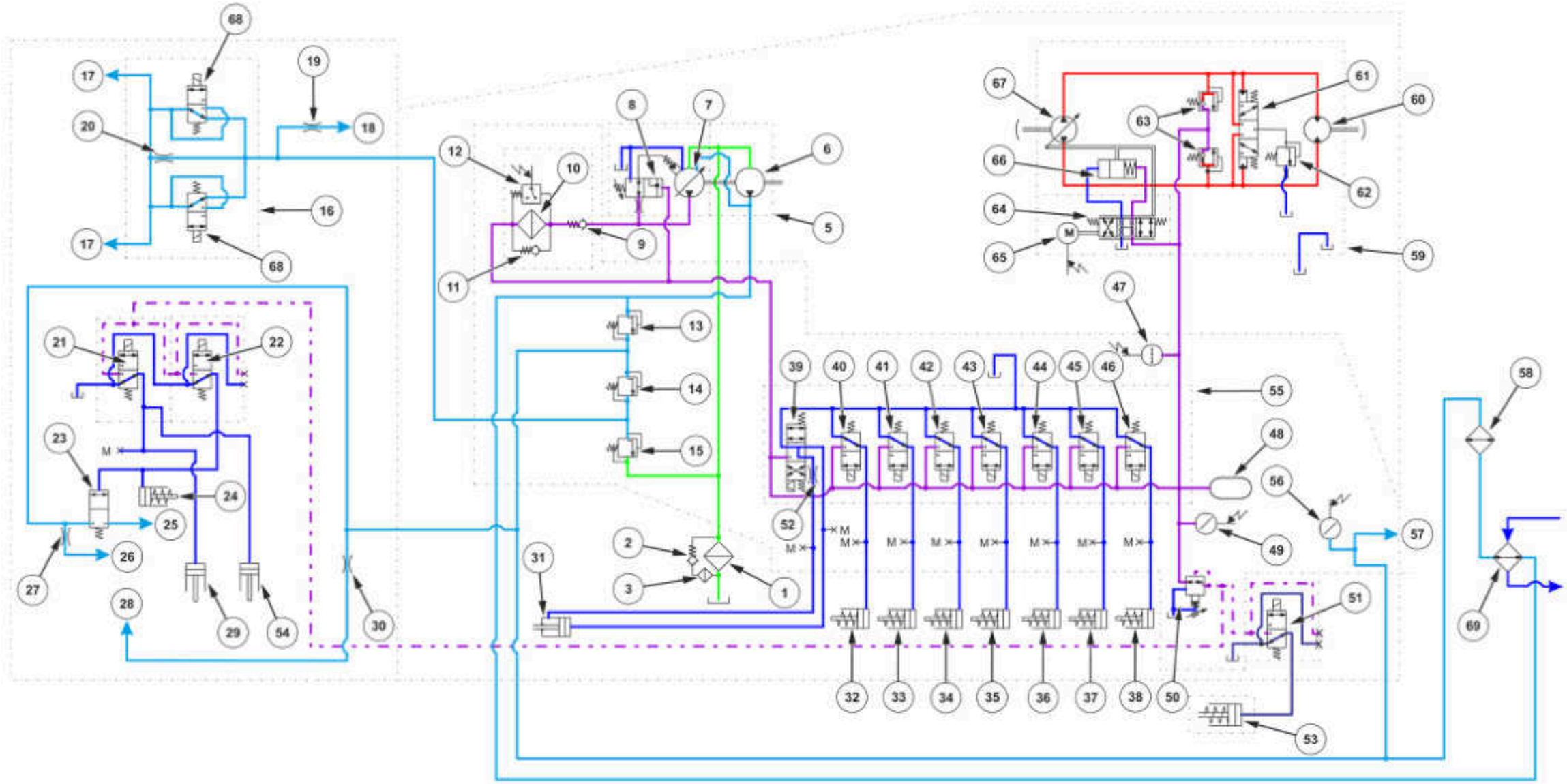
Components list:

1. Engine drive
2. Mechanical transfer of power, ring gear 1 (H1)
3. Variable displacement hydraulic pump operation
4. Drive for hydraulic pumps and PTO shaft
5. Hydrostatic pump
6. Hydrostatic engine
7. Displacement unit - hydrostatic pump
8. Oil engine output gear - hydrostatic transfer of power
9. Drive gear for sun gear 1 (S1)
10. Ring gear 1 (H1)
11. Ring gear 2 (H2), output level 1
12. Planetary carrier 1 (base 1)
13. Planetary gear (short, meshed in H1 and S1)
14. Planetary gear (long, meshed in short planetary gear at P1 and in S2 and H2 at P2)
15. Sun 2 (S2), output level 2 and 4
16. Measuring wheel stage 1 (ST1)
17. Shifting roller with P3, P4
18. Sun 3 (S3)
19. Sun 4 (S4)
20. Output for level 3 (always connected with stage 1)

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