SERVICE MANUAL

T7.240 / T7.245 / T7.260

Tractor

Part number 47770440A
English
February 2017

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Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.103] Crankshaft and flywheel 10.2

[10.216] Fuel tanks 10.3

[10.210] Lift pump and lines 10.4

[10.218] Fuel injection system 10.5

[10.250] Turbocharger and lines 10.6

[10.254] Intake and exhaust manifolds and muffler 10.7

[10.400] Engine cooling system 10.8

[10.414] Fan and drive 10.9

[10.304] Engine lubrication system 10.10

[10.408] Oil cooler and lines 10.11

Transmission 21

[21.113] Powershift transmission 21.1

[21.135] Powershift transmission external controls 21.2

[21.155] Powershift transmission internal components 21.3

[21.160] Creeper 21.4

Four-Wheel Drive (4WD) system 23

[23.202] Electro-hydraulic control 23.1

Front axle system 25

[25.100] Powered front axle 25.1

[25.102] Front bevel gear set and differential 25.2

[25.108] Final drive hub, steering knuckles, and shafts 25.3

Rear axle system 27

[27.100] Powered rear axle 27.1

MidWestTech | New Holland T7.240,T7.245, T7.260 Tractor Service Manual | Publicati... Order the manual at mid-west-tech.com >

[27.106] Rear bevel gear set and differential 27.2
[27.120] Planetary and final drives 27.3
Power Take-Off (PTO) 31
[31.101] Rear mechanical control 31.1
[31.104] Rear electro-hydraulic control 31.2
[31.114] Two-speed rear Power Take-Off (PTO) 31.3
Brakes and controls 33
[33.202] Hydraulic service brakes 33.1
[33.300] Pneumatic service brakes 33.2
[33.110] Parking brake or parking lock 33.3
Hydraulic systems 35
[35.000] Hydraulic systems 35.1
[35.300] Reservoir, cooler, and filters 35.2
[35.106] Variable displacement pump 35.3
[35.102] Pump control valves 35.4
[35.105] Charge pump 35.5
[35.322] Regulated/Low pressure system 35.6
[35.204] Remote control valves 35.7
[35.220] Auxiliary hydraulic pump 35.8
[35.114] Three-point hitch control valve 35.9
[35.116] Three-point hitch cylinder 35.10
Pneumatic system 36
[36.100] Pneumatic system 36.1
Hitches, drawbars, and implement couplings 37
[37.100] Drawbars and towing hitches 37.1
[37.110] Rear three-point hitch 37.2
Frames and ballasting 39
[39.100] Frame 39.1

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[39.140] Ballasts and supports 39.2

Steering 41

[41.101] Steering control 41.1

[41.106] Tie rods 41.2

[41.200] Hydraulic control components 41.3

[41.206] Pump 41.4

[41.216] Cylinders 41.5

[41.432] Autoguidance steering 41.6

Wheels 44

[44.511] Front wheels 44.1

[44.520] Rear wheels 44.2

Cab climate control 50

[50.100] Heating 50.1

[50.104] Ventilation 50.2

[50.200] Air conditioning 50.3

Electrical systems 55

[55.000] Electrical system 55.1

[55.100] Harnesses and connectors 55.2

[55.201] Engine starting system 55.3

[55.301] Alternator 55.4

[55.010] Fuel injection system 55.5

[55.012] Engine cooling system 55.6

[55.640] Electronic modules 55.7

[55.045] Front axle control system 55.8

[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls 55.9

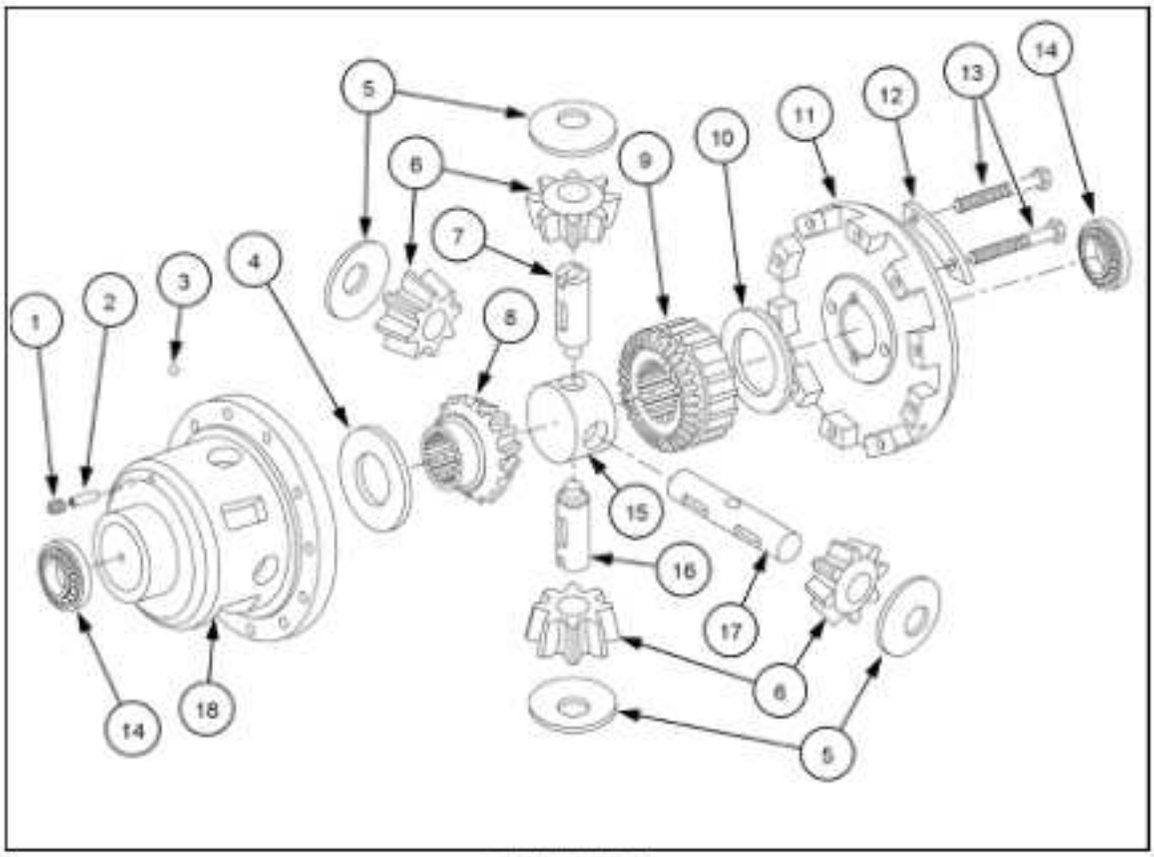
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.10

[55.523] Cab hitch controls 55.11

[55.130] Rear three-point hitch electronic control system 55.12

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Differential gears



(1) Adjustment bolt, Allen, M10 x **22 mm**	**(10)** Adjustment shim
(2) Guide, M7 x **75 mm**	**(11)** Cover
(3) Ball, M7.14	Plate **(12)**
(4) Thrust ring	Bolt, **(13)** x M14 x **55 mm**
(5) Thrust ring	**(14)** Bearing **90 mm** (**3.543 in**) x **140 mm** (**5.512 in**) x **32 mm** (**1.260 in**)
(6) Pinion	Support **(15)**
(7) Pin	**(16)** Pin
(8) Pinion	**(17)** Pin
(9) Pinion	**(18)** Housing

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Powered rear axle - Troubleshooting

T7.240	LA
T7.245	LA
T7.260 With cab, 18X6, TIER 3 [HCCZ7245CFCP38297 -]	LA

Problem	Possible Cause	Correction
Noisy rear axle when the tractor is moving, and also with transmission in neutral (not originating from final drives)	Pinion and/or crown wheel bearing incorrect adjustment	Remove rear axle housing and adjust pinion and crown wheel bearings correctly . Refer to **Powered rear axle - Adjust (27.100)**
	Worn or incorrectly adjusted sun and planetary gears	Remove rear axle housing, replace worn parts and adjust the differential gear backlash . Refer to **Powered rear axle - Adjust (27.100)**
	Excess differential side gears to half-shaft spline backlash	Remove rear axle housing and replace damaged parts.. Refer to **Powered rear axle - Disassemble (27.100)**
Noisy rear axle with tractor under load and upon release	Excess bevel pinion to crown wheel backlash	Remove rear axle housing and adjust pinion and crown wheel bearings correctly. Refer to **Powered rear axle - Adjust (27.100)**
	Faulty or defective inner component	Remove rear axle housing, replace worn parts and adjust differential gear backlash correctly. Refer to **Powered rear axle - Adjust (27.100)**
Noisy rear axle and over-heating	Insufficient pinion and/or crown wheel bearing backlash	Remove rear axle housing and adjust pinion and crown wheel bearings correctly. Refer to Refer to **Powered rear axle - Adjust (27.100)**
	Insufficient bevel pinion to crown wheel tooth backlash	Remove rear axle housing and adjust crown wheel bearings correctly Refer to Refer to **Powered rear axle - Adjust (27.100)**
	Contaminated oil or incorrect specification of oil	Check condition and specification of oil and if required replace accordingly.

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Wiring harnesses - Electrical schematic sheet 10 SH10 - WITHOUT ISOLATOR

Type	Component	Connector / Link	Description
Voltage source	G-002		Alternator
Motor	M-003		Starter Motor
Connector	X-026	**X-026**	ENGINE 1
Connector	X-232	**X-232**	
Connector	X-236	**X-236**	ALTERNATOR 2
Connector	X-237	**X-237**	ALTERNATOR 1
Connector	X-823	**X-823**	
Connector	X-890	**X-890**	BATTERY POSITIVE
Connector	X-891	**X-891**	STARTER SOLENOID

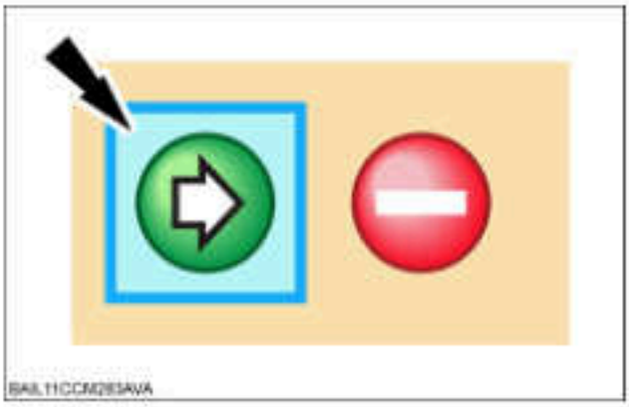
Wire Break

Component	Connector / Link	Description
WB-402	**Wiring harnesses - Electrical schematic sheet 02 SH02 - POWER DISTRIBUTION-MAXI FUSES 1-6 (55.100)**	

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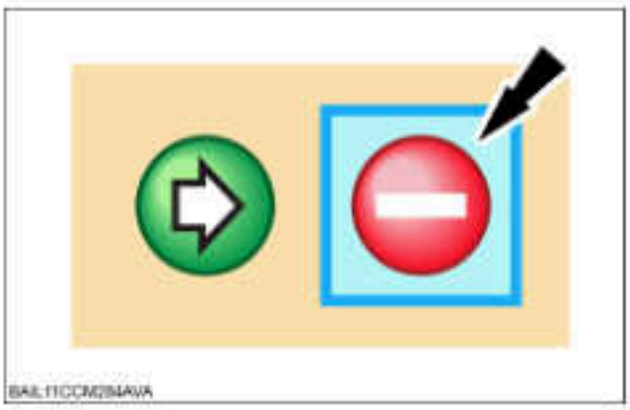
Step 5a. RAMP Test Procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the UP SHIFT button on the transmission shift lever to run the RAMP test. The machine display will count up to 100 and then back to 0. When the test is finished the display will show "END". This test will take about 20 seconds.



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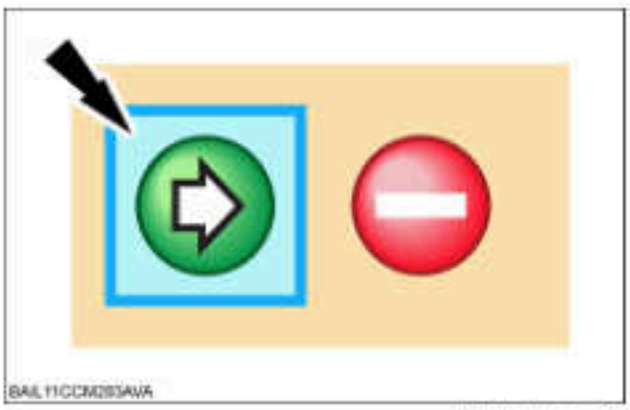
- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)



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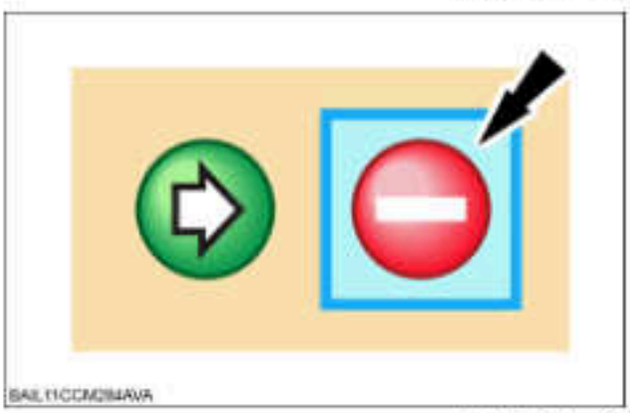
Step 5b. STEP Test Procedure:

- On the DATAR Scope, in the bottom left corner, verify the capture trigger is "ready" to start capturing data. This is indicated with a green ball highlighted in blue as shown in the figure to the right. If the scope is not ready, then press the keyboard SPACE bar to change the scope trigger state to ready.
- Press and hold the DOWN SHIFT button on the transmission shift lever to run the STEP test. The machine display will count up from 1 to 4. When the test is finished the display will show "END". This test will take about 5 seconds.



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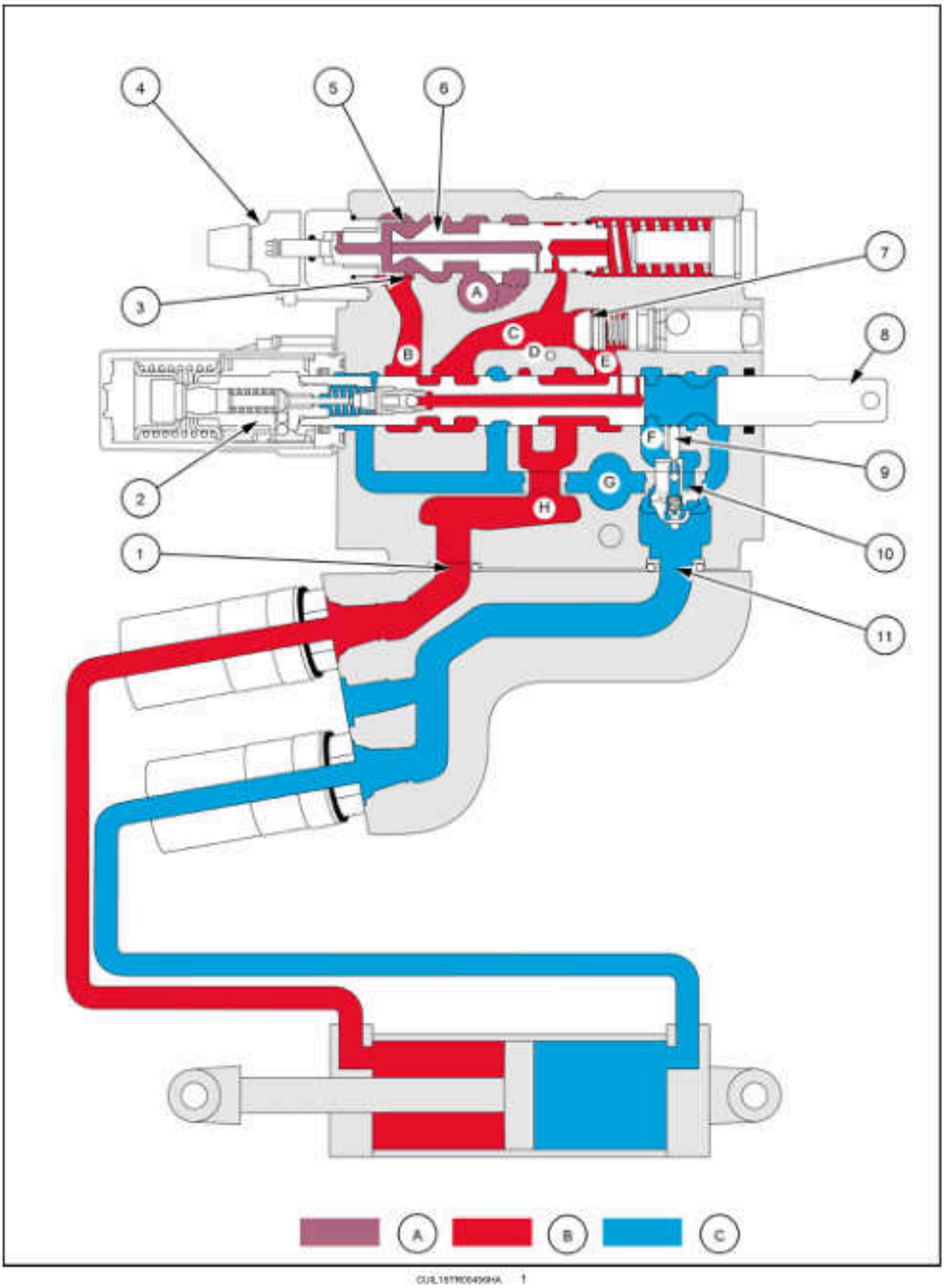
- On the DATAR Scope, when the test ramp is finished, then press the PC SPACE bar to capture and hold the result trace.
- Compare the DATAR measured trace with the expected result trace shown on the next Valve Test Assistant screen. (Remember ALT-TAB to switch between the programs)



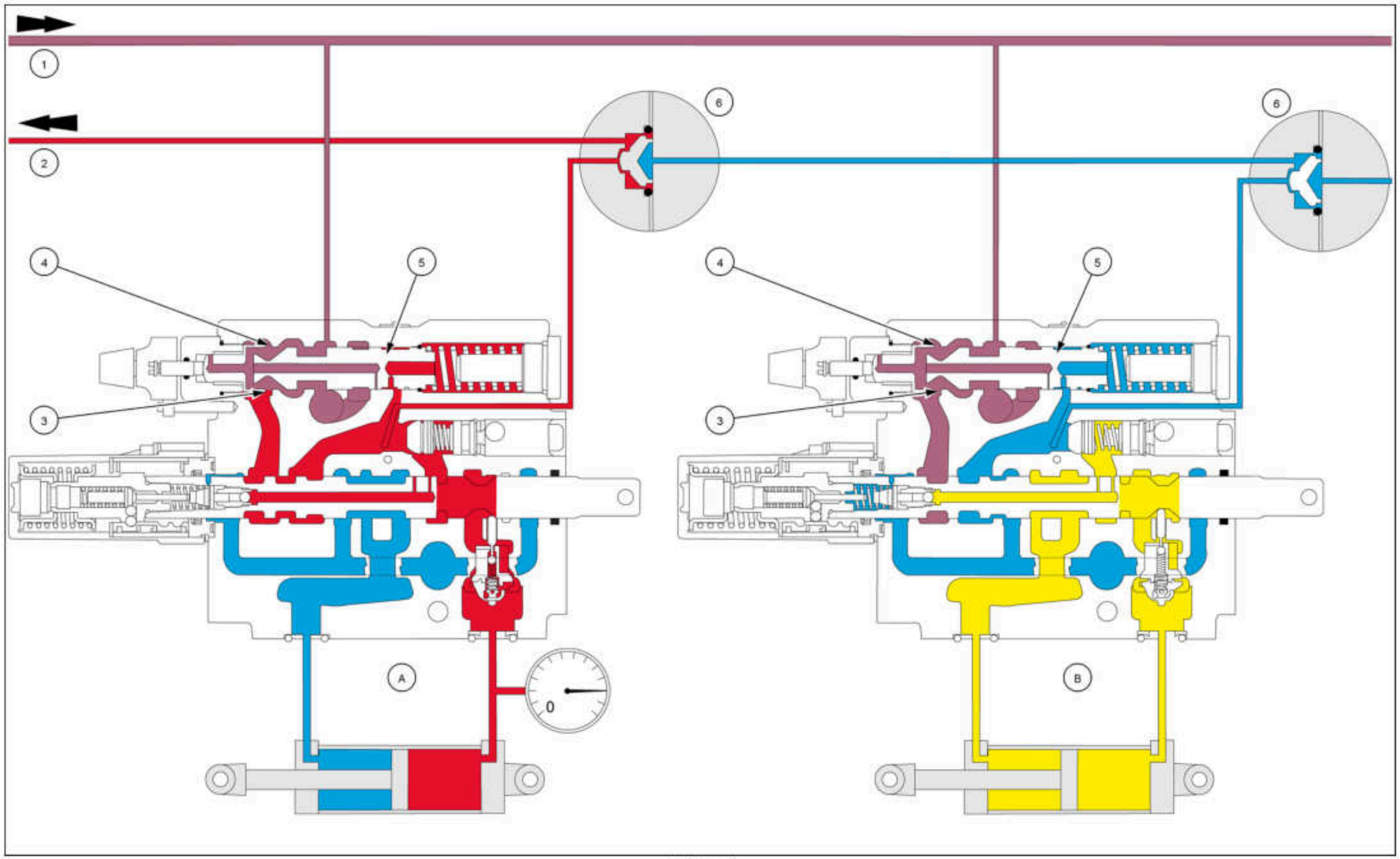
BAIL11CCM284AVA 23

NOTE: *During the step test, the machine software makes two quick engagements of the clutch. With some clutches, there will be a banging sound.*

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