SERVICE MANUAL

7630 / 8030 TIER 3

Tractor

Part number 47793462
English
April 2017

NEW HOLLAND AGRICULTURE

© 2017 CNH Industrial Latin America LTDA. All Rights Reserved.

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 73403953

Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.102] Pan and covers 10.2

[10.106] Valve drive and gears 10.3

[10.101] Cylinder heads 10.4

[10.105] Connecting rods and pistons 10.5

[10.103] Crankshaft and flywheel 10.6

[10.110] Balancer and damper 10.7

[10.114] Pump drives 10.8

[10.210] Lift pump and lines 10.9

[10.206] Fuel filters 10.10

[10.218] Fuel injection system 10.11

[10.250] Turbocharger and lines 10.12

[10.254] Intake and exhaust manifolds and muffler 10.13

[10.400] Engine cooling system 10.14

[10.414] Fan and drive 10.15

[10.304] Engine lubrication system 10.16

[10.408] Oil cooler and lines 10.17

Clutch 18

[18.104] Clutch hydraulic release control 18.1

[18.110] Clutch and components 18.2

Transmission 21

[21.114] Mechanical transmission 21.1

[21.130] Mechanical transmission external controls 21.2

[21.140] Mechanical transmission internal components 21.3

[21.112] Power shuttle transmission 21.4

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >

[21.160] Creeper 21.5

Four-Wheel Drive (4WD) system 23

[23.202] Electro-hydraulic control 23.1

[23.304] Four-Wheel Drive (4WD) gearbox 23.2

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

[27.106] Rear bevel gear set and differential 27.2

[27.120] Planetary and final drives 27.3

[27.124] Final drive hub, steering knuckles, and shafts 27.4

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

[31.220] Gearbox 31.4

Brakes and controls 33

[33.120] Mechanical service brakes 33.1

[33.202] Hydraulic service brakes 33.2

[33.110] Parking brake or parking lock 33.3

Hydraulic systems 35

[35.000] Hydraulic systems 35.1

[35.106] Variable displacement pump 35.2

[35.102] Pump control valves 35.3

[35.304] Combination pump units 35.4

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >

[35.204] Remote control valves 35.5
[35.114] Three-point hitch control valve 35.6
[35.116] Three-point hitch cylinder 35.7
Hitches, drawbars, and implement couplings 37
[37.110] Rear three-point hitch 37.1
Steering 41
[41.101] Steering control 41.1
[41.200] Hydraulic control components 41.2
[41.206] Pump 41.3
[41.216] Cylinders 41.4
Electrical systems 55
[55.000] Electrical system 55.1
[55.100] Harnesses and connectors 55.2
[55.015] Engine control system 55.3
[55.201] Engine starting system 55.4
[55.301] Alternator 55.5
[55.302] Battery 55.6
[55.012] Engine cooling system 55.7
[55.013] Engine oil system 55.8
[55.610] Ground speed control 55.9
[55.030] Service brake electrical system 55.10
[55.404] External lighting 55.11
[55.405] External lighting switches and relays 55.12

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >

Clutch - General specification

Component	Specification
Disc type	dry disc, **330 mm**
Material	Organic, asbestos free
Pressure plate type	Belleville spring (self-adjustment, maintenance free)
Thrust bearing type	Mechanical activation.
Clutch pedal free play setting	**28 - 41 mm (1.102 - 1.614 in)**
Transmission input shaft lubricant	**NEW HOLLAND AMBRA GR 75 MD** molybdenum lithium grease, amber colour

Clutch - Torque

7630	LA
8030	LA

Component	Specification
Screws from clutch cover to flywheel	**35 N·m (26 lb ft)**
Locknut on clutch pedal	**34 N·m (25 lb ft)**
Drive disc screws of PTO	**129 N·m (95 lb ft)**
Bearing fork setscrew on crosswise shaft	**47 N·m (35 lb ft)**

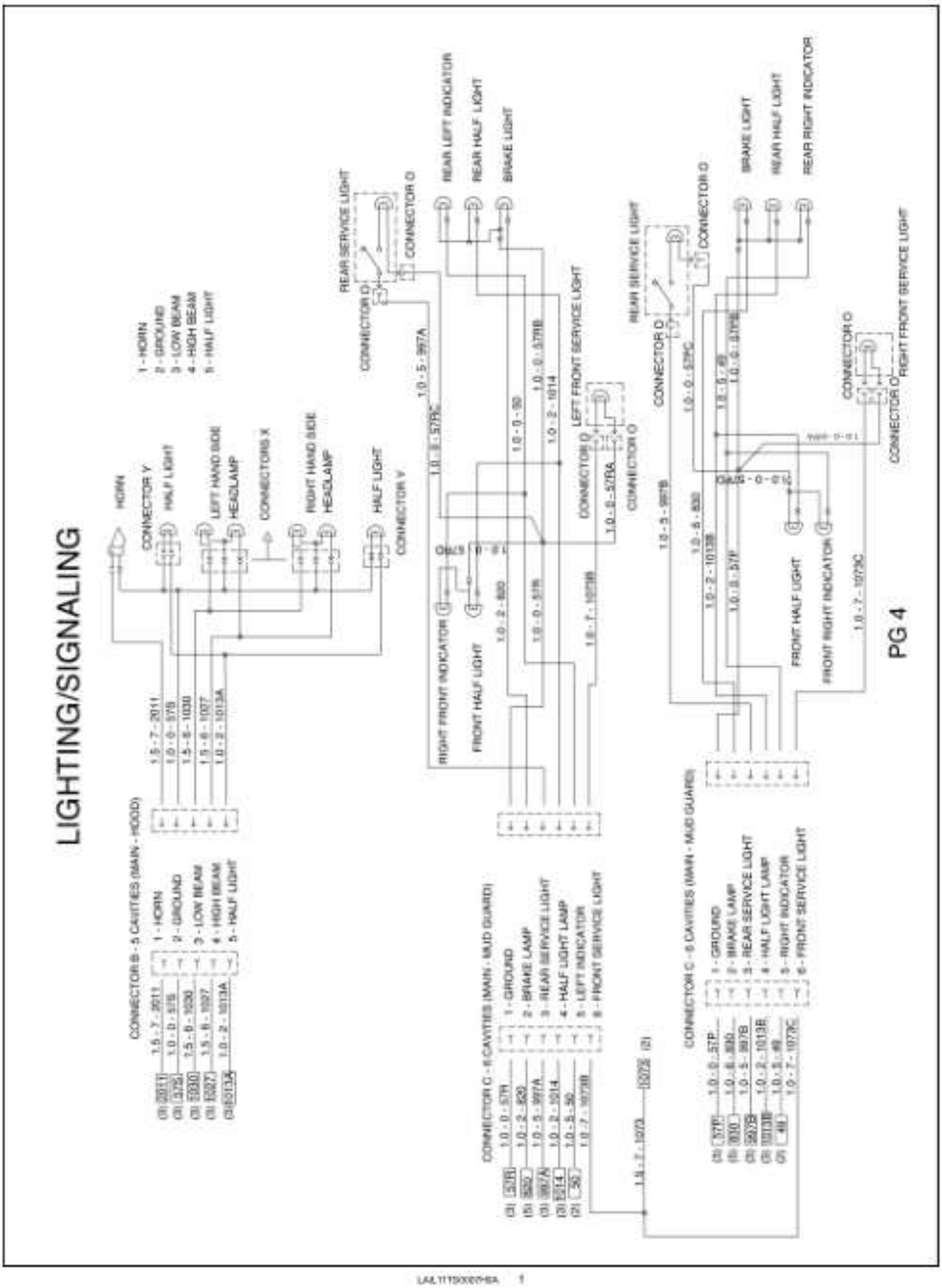
MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >

Differential lock - Troubleshooting

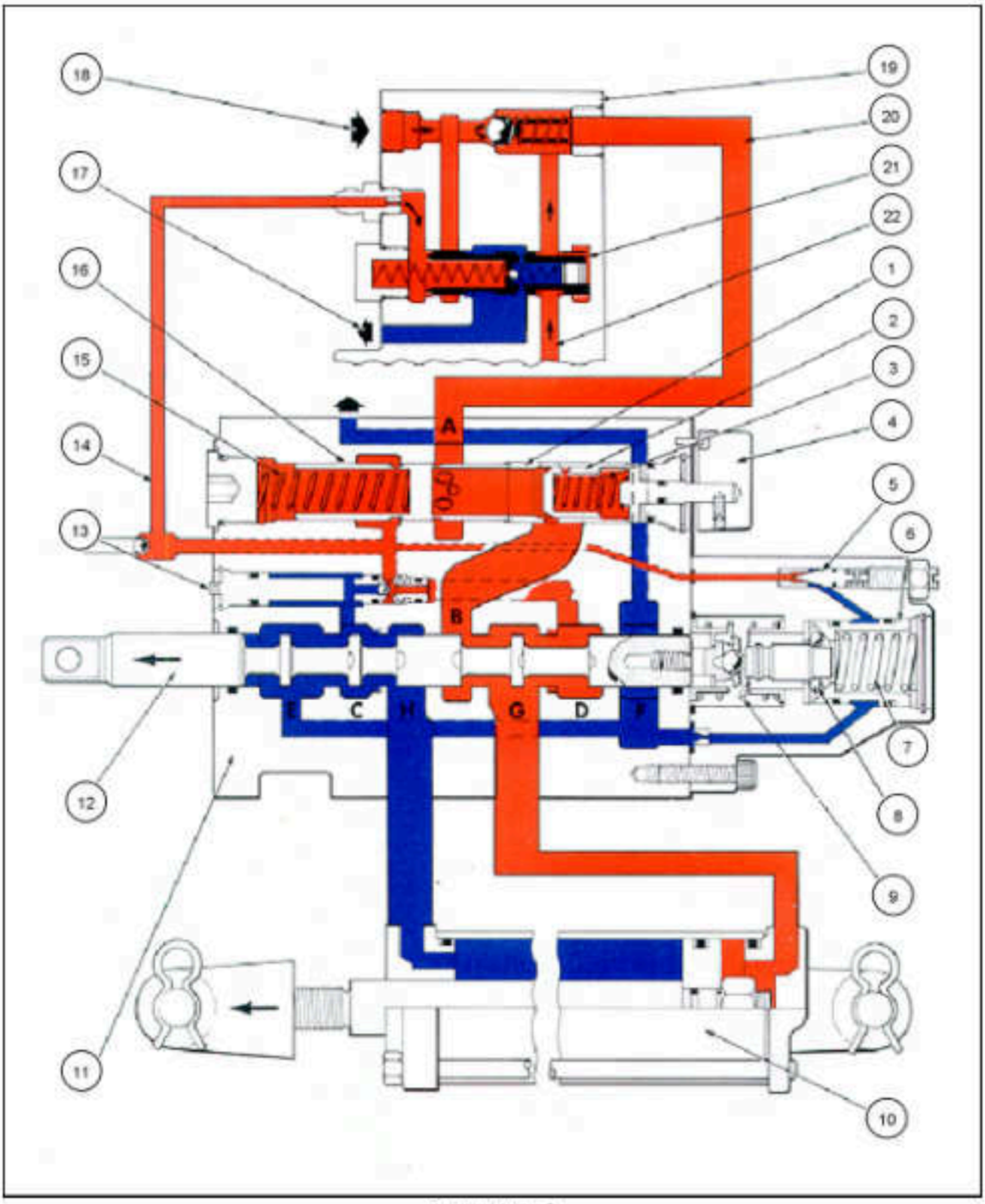
Problem	Possible Cause	Correction
The differential lock does not work	Outer linkage is damaged or broken	Change or repair damaged parts
	Inside linkage, transverse axle, fork or pivot axle are damaged or broken	Remove cover and inspect
	Lock adaptor teeth or coupling is damaged	Remove and inspect differential lock
The differential lock does not disconnect	Broken spring between adaptor and coupling	Remove differential and change spring
	Adaptor teeth or coupling is damaged or peeling	Remove differential and change damaged parts

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >

Wire harnesses - Electrical schematic sheet 05

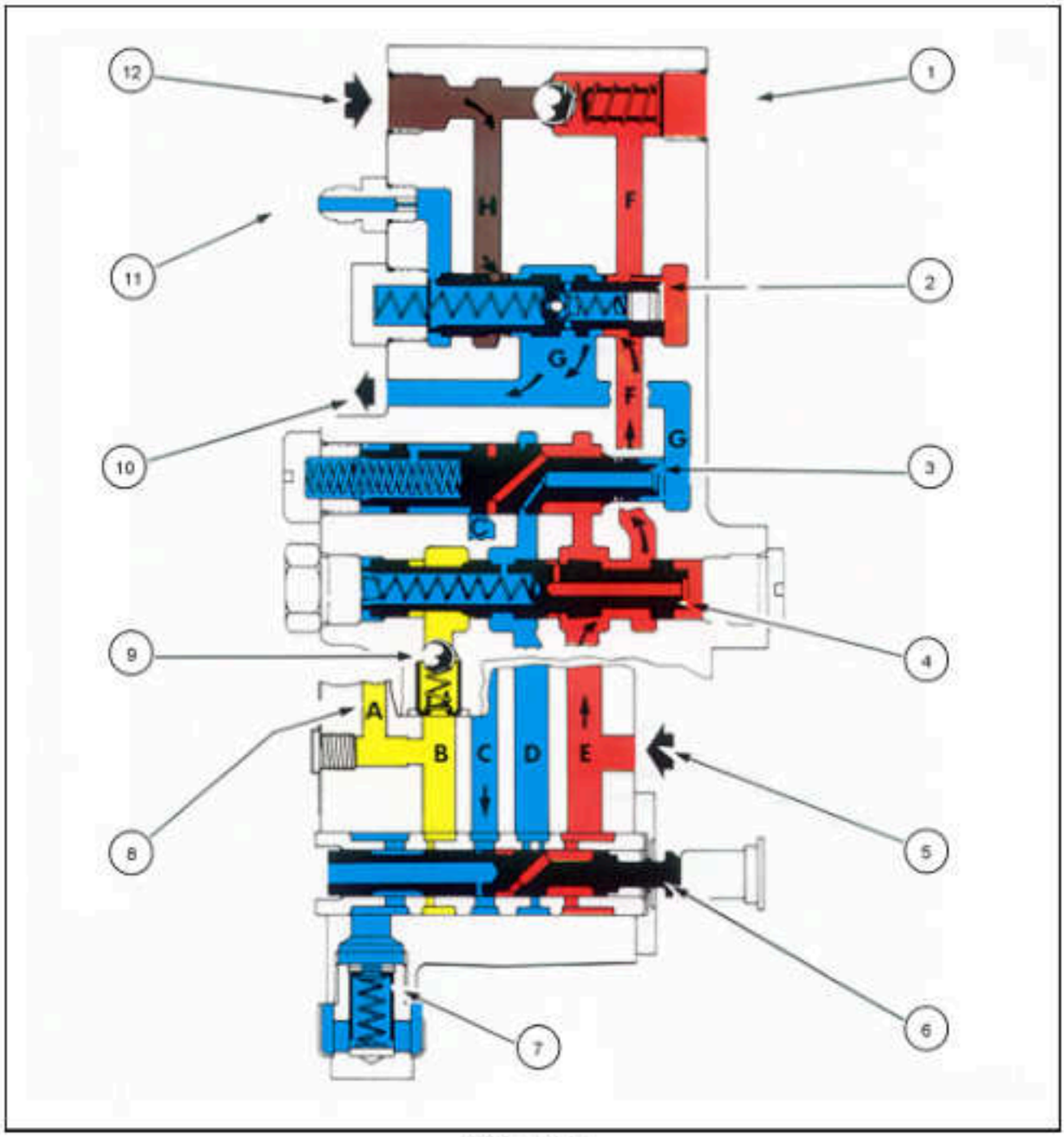


MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >



RCPH11T736100AD 2

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >



RCPH15TT5403HAD 1

MidWestTech | New Holland 7630, 8030 Tier 3 Tractor Service Manual | Publication 7... Order the manual at mid-west-tech.com >