

Engineering Release Notice (ERN)	Location	Change Description	A = Added D = Deleted	W = Was	Document Release Status RELEASED
D-16504-52					Date Modification Count

Table of Contents:

	Page
1. Rigid 6x4	2
2. Rigid 8x4	3
3. Rigid 10x4	4
4. Tractor 8x6	5
5. Rigid 6x4 with ABS (Anti-lock Braking System)	6
6. Rigid 8x4 with ABS (4S4M)	7
7. Rigid 10x4 with ABS (6S6M)	8
8. Rigid 8x6 with ABS (6S6M)	9
9. Rigid 6x4 with RSA (Road Stability Advantage)	10
10. Rigid 8x4 with RSA	11
11. Rigid 10x4 with RSA	12
12. Relation between with or without Traction Control	13
13. Relay valve air supply for BBOX-IF, ABS4S4M & UTRACONT	14
14. Relation between Tractor / Rigid with Trailer & RSA	15
15. Hill Start Assist (HSA) on Rigid / Tractor with 2 or 3 Rear Axles	16
16. Auxiliary Systems on Pressure Protected Circuits	17
17. Air Line Numbers and Description	18

The copying, distribution and utilization of this document as well as the communication of its contents to others without expressed authorization is prohibited. Offenders will be held liable for payment of damages. All rights reserved in the event of the grant of a patent, utility model or ornamental design registration.

Document Title
**SCHEMATICS
BRAKE SYSTEM
CONVENTIONAL 3 (MTA)**

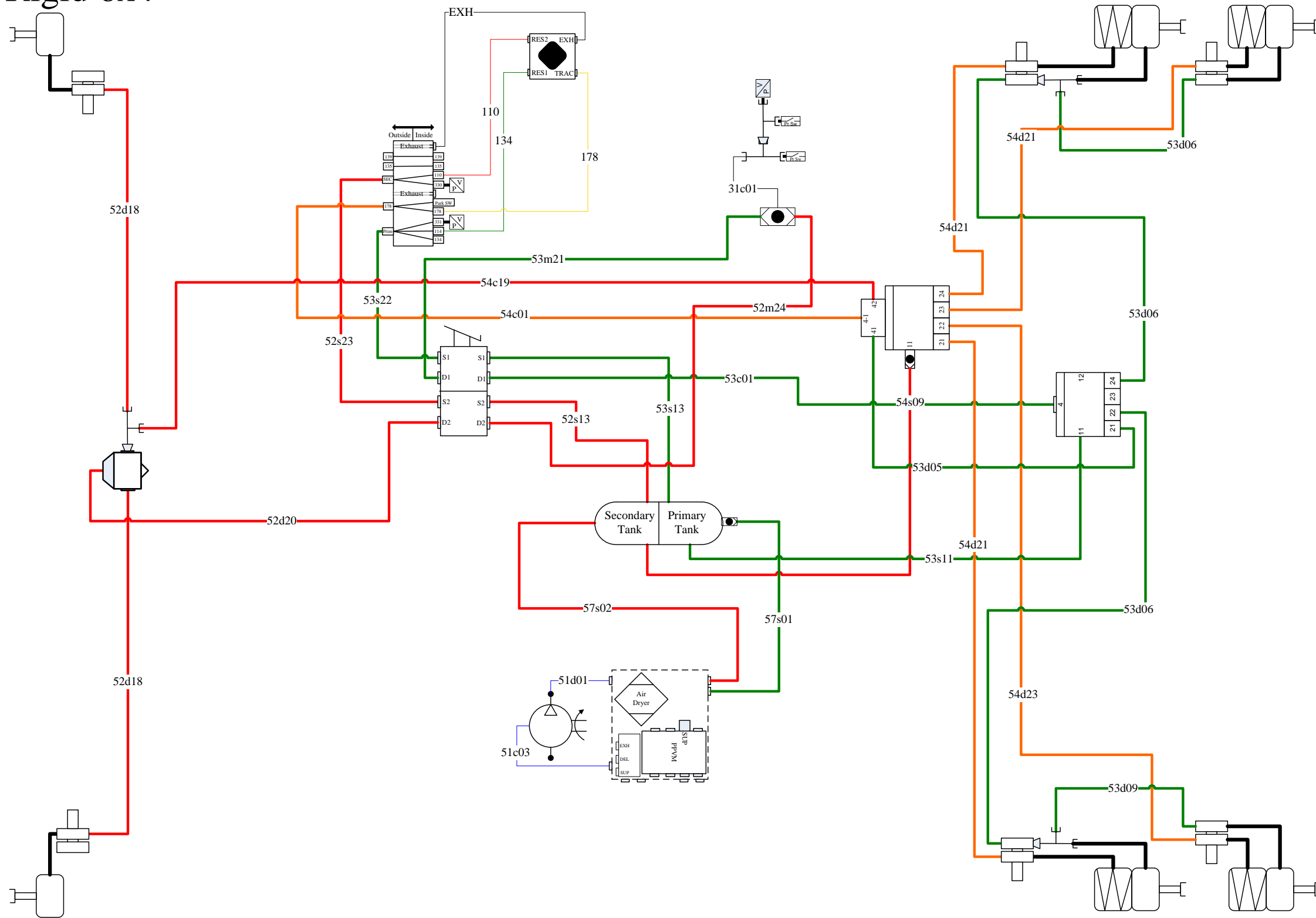
VOLVO
Group Trucks Technology

Document Type
LAYOUT

The legal owner of this document is stated as Design Location in KOLA and in associated Part Version Report

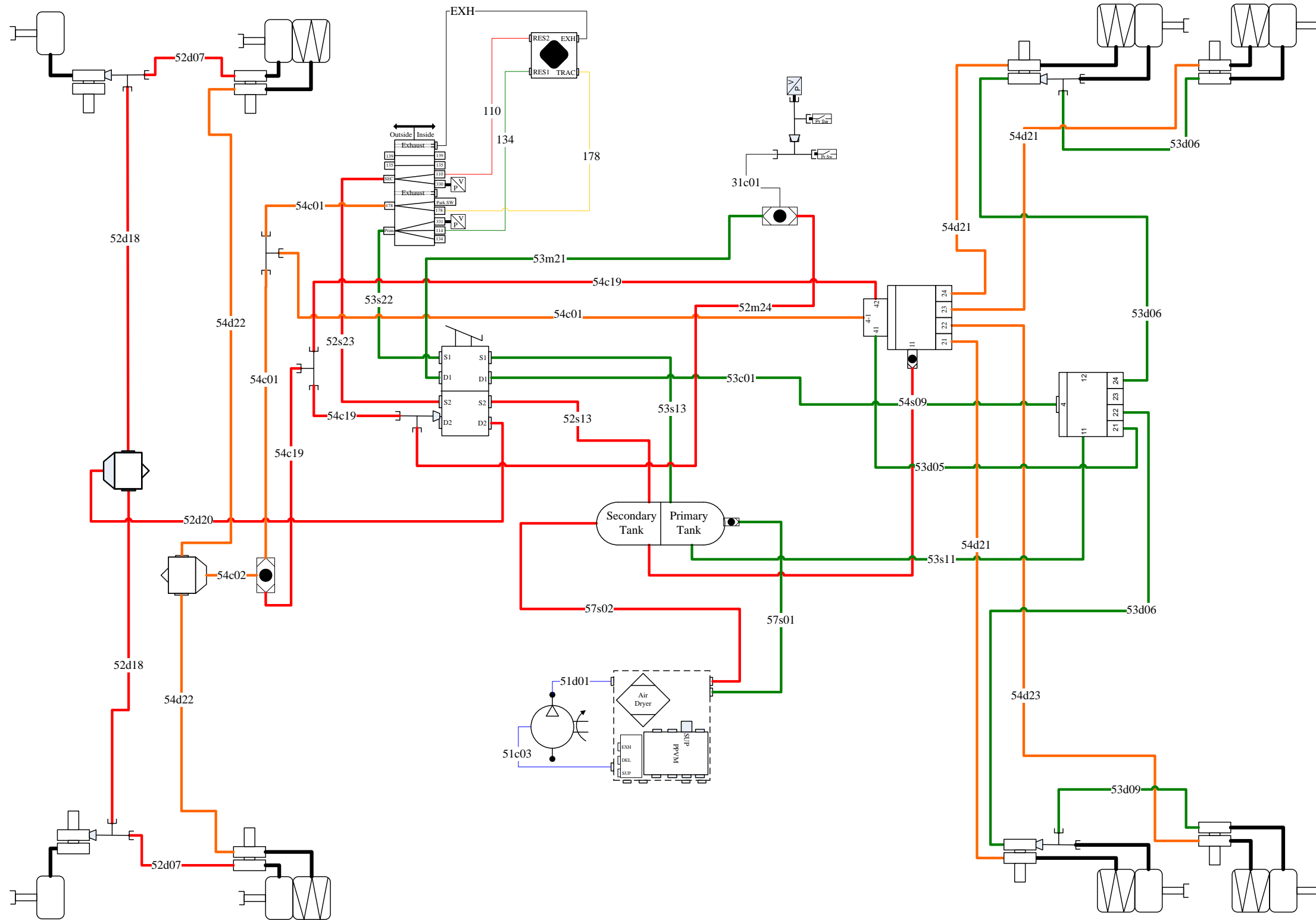
Document No	Issue Index	Volume No	Page No
22861964	01	01	1(18)

1. Rigid 6x4



				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	2(18)			

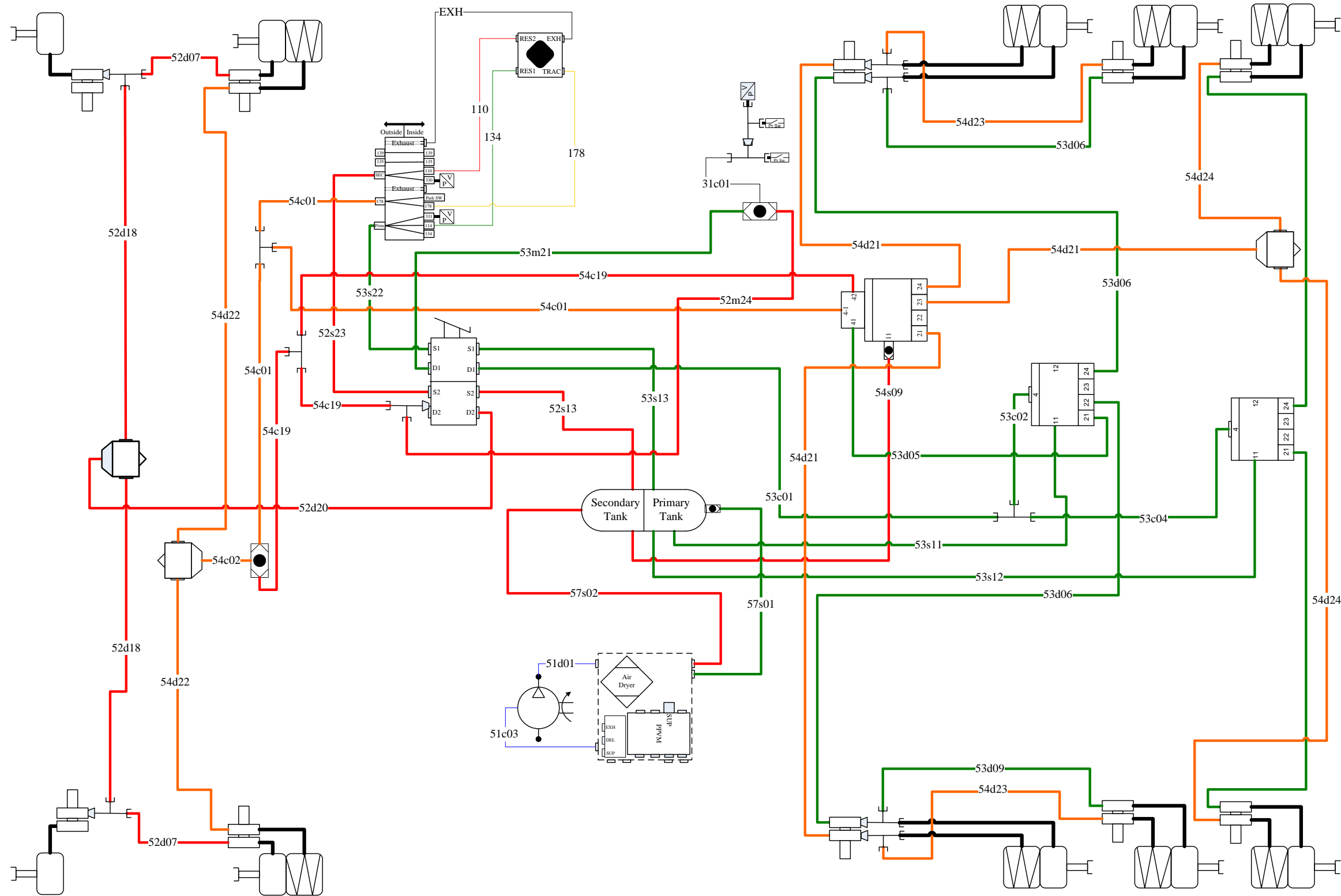
2. Rigid 8x4



VOLVO
Group Trucks Technology

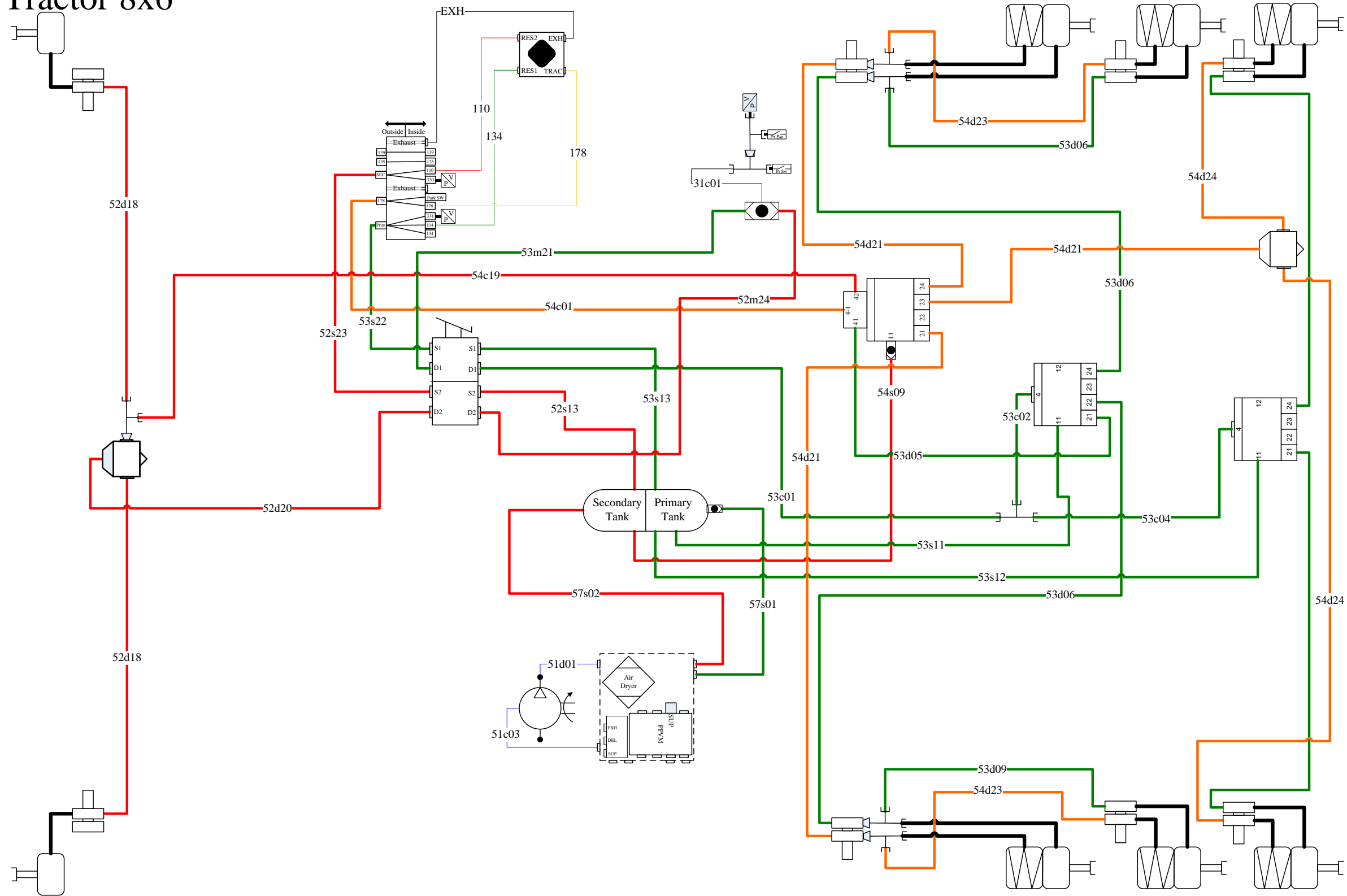
Document Title			
SCHEMATICS			
Document Type			
LAYOUT			
Document No	Issue Index	Volume No	Page No
22861964	01	01	3(18)

3. Rigid 10x4



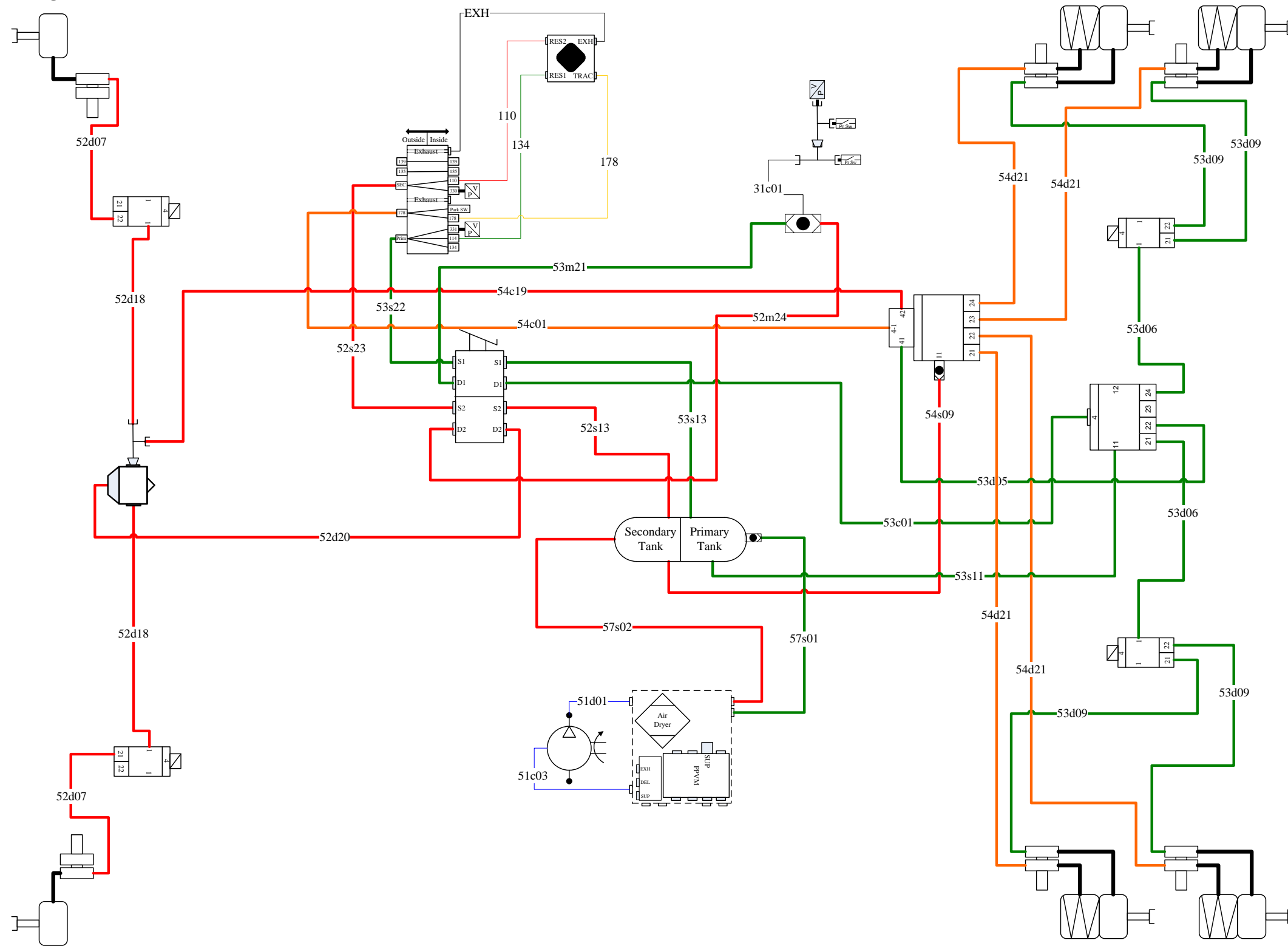
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	4(18)			

4. Tractor 8x6



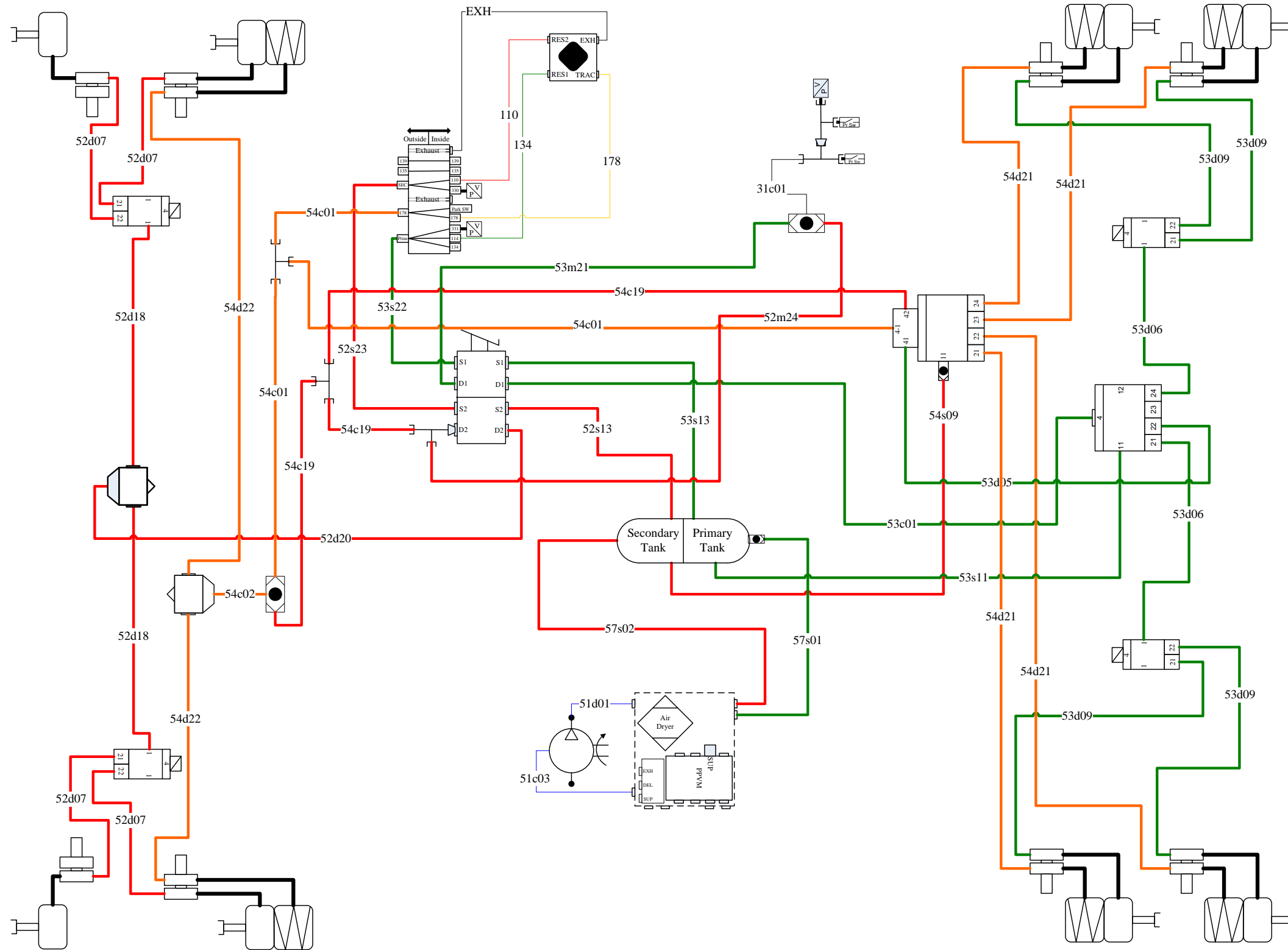
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	5(18)			

5. Rigid 6x4 with ABS (4S4M)



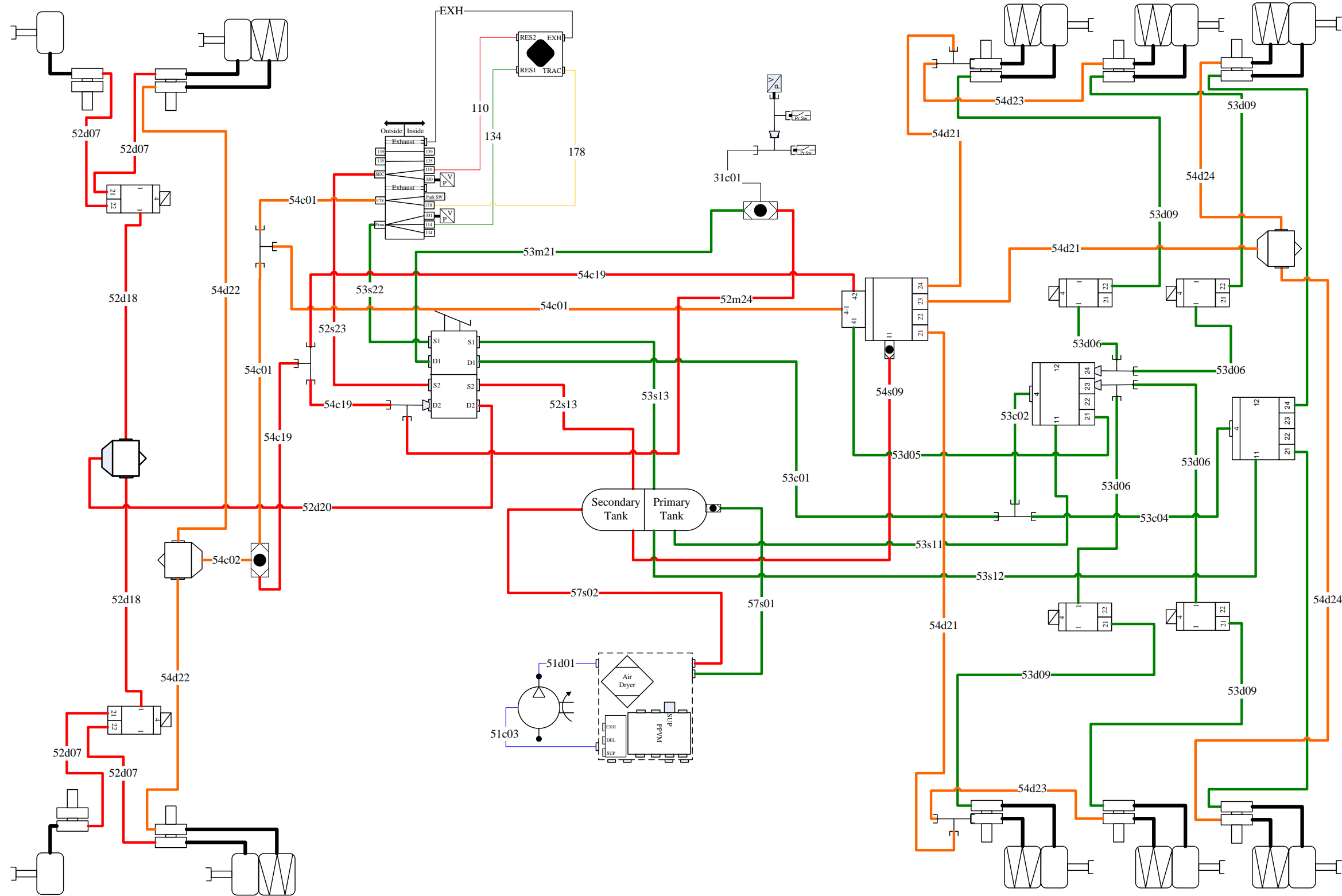
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	6(18)			

6. Rigid 8x4 with ABS (4S4M)



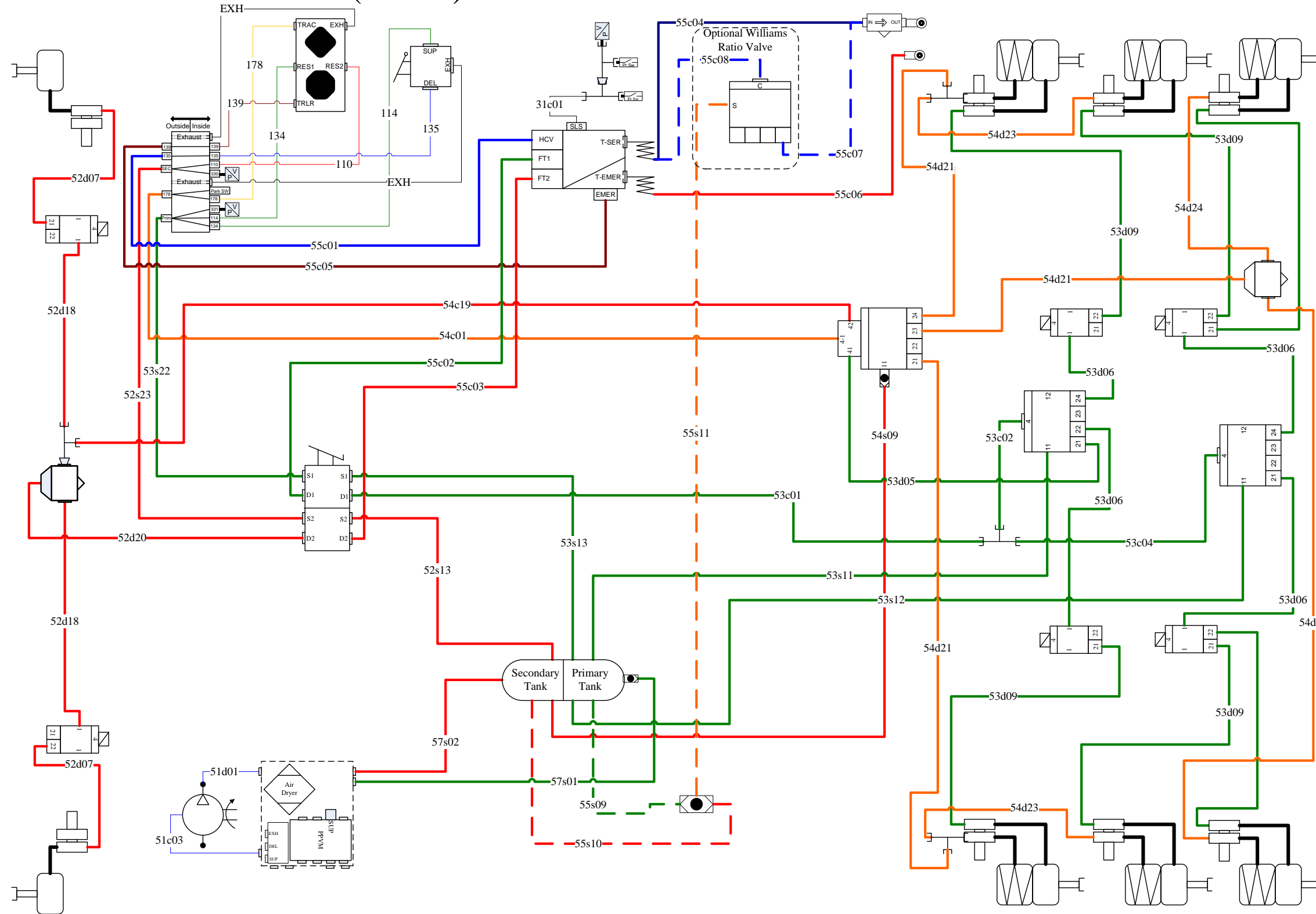
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	7(18)			

7. Rigid 10x4 with ABS (6S6M)



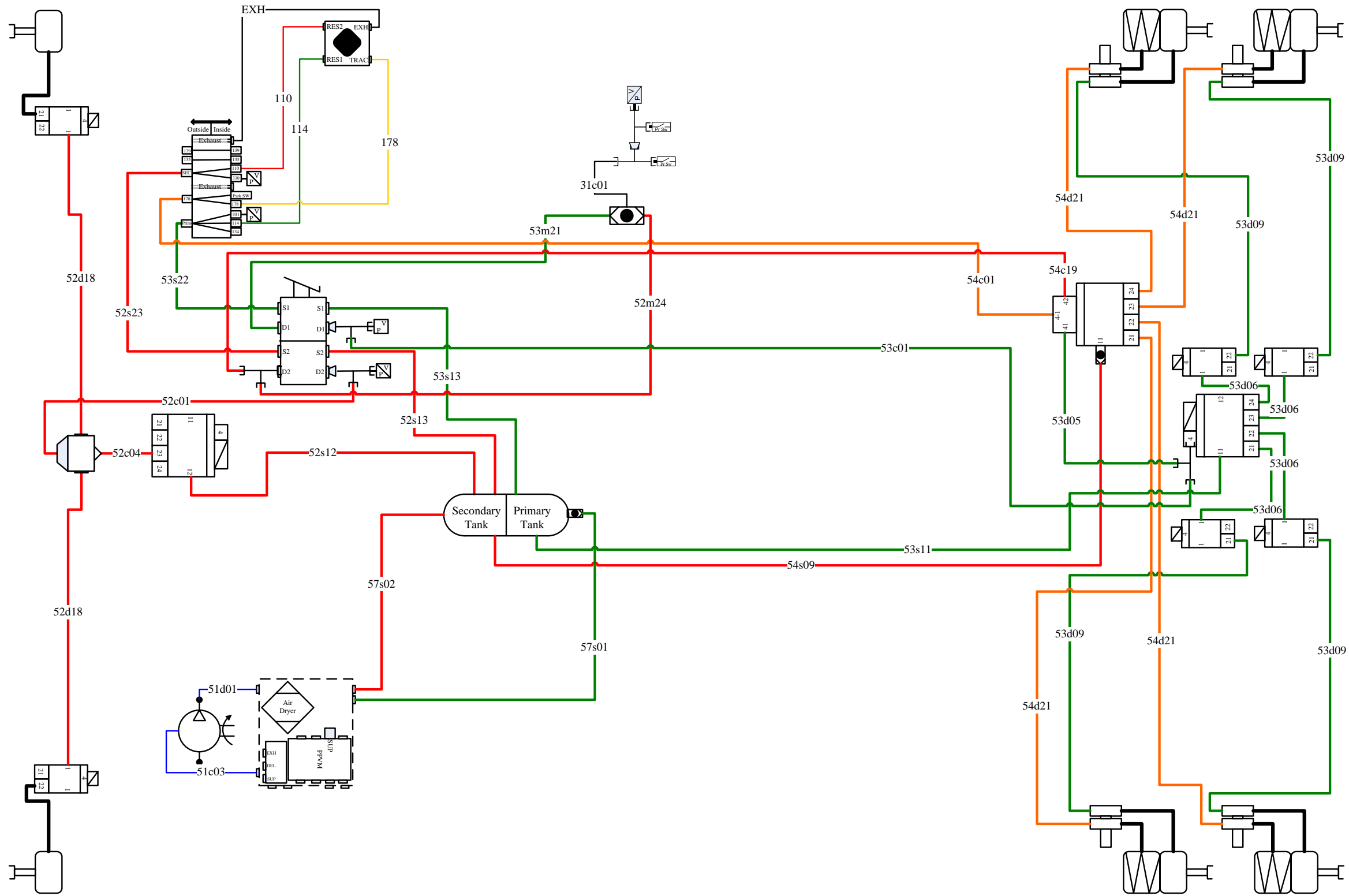
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	8(18)			

8. Tractor 8x6 with ABS (6S6M)



				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	9(18)			

9. Rigid 6x4 with RSA

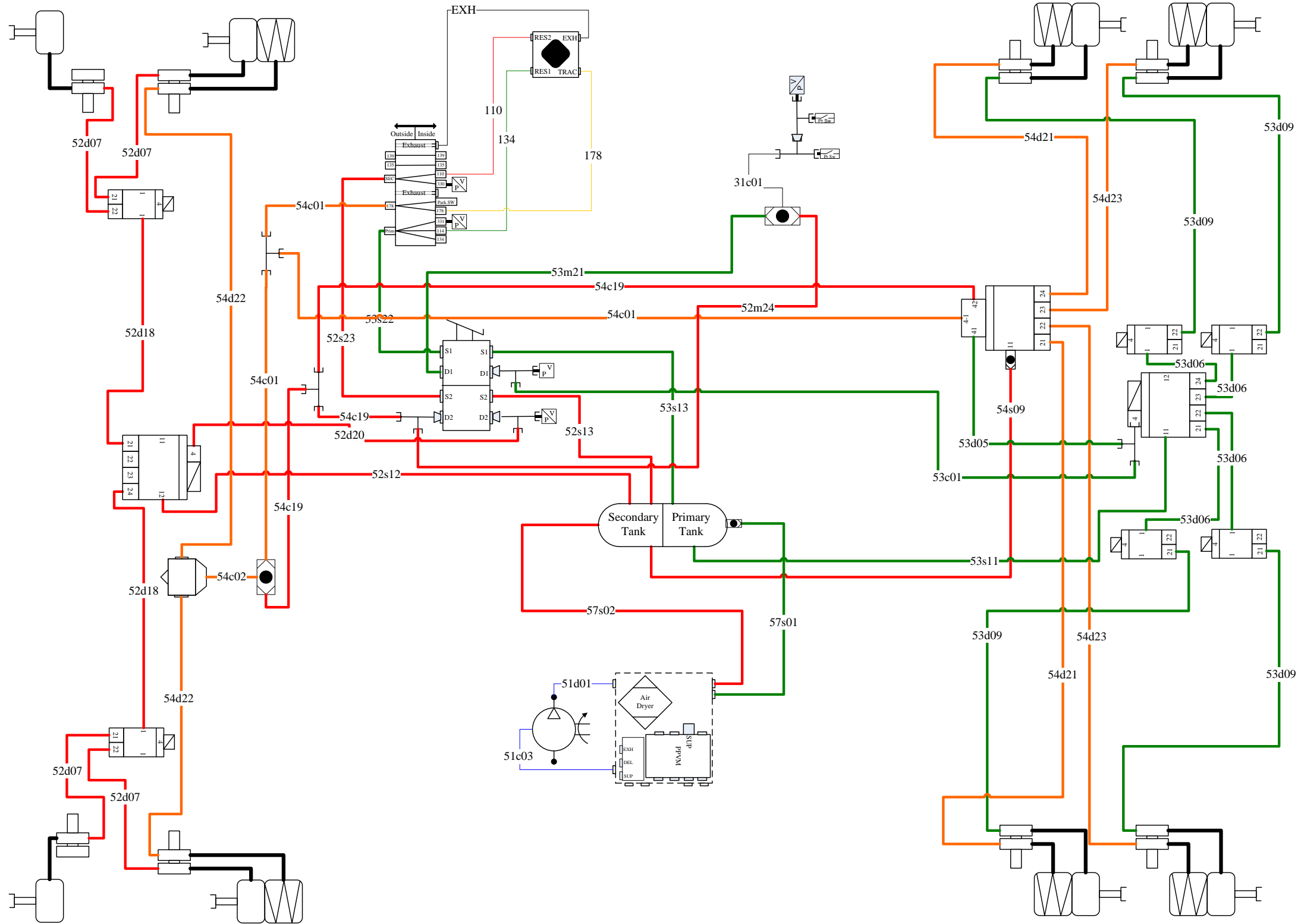


VOLVO

Group Trucks Technology

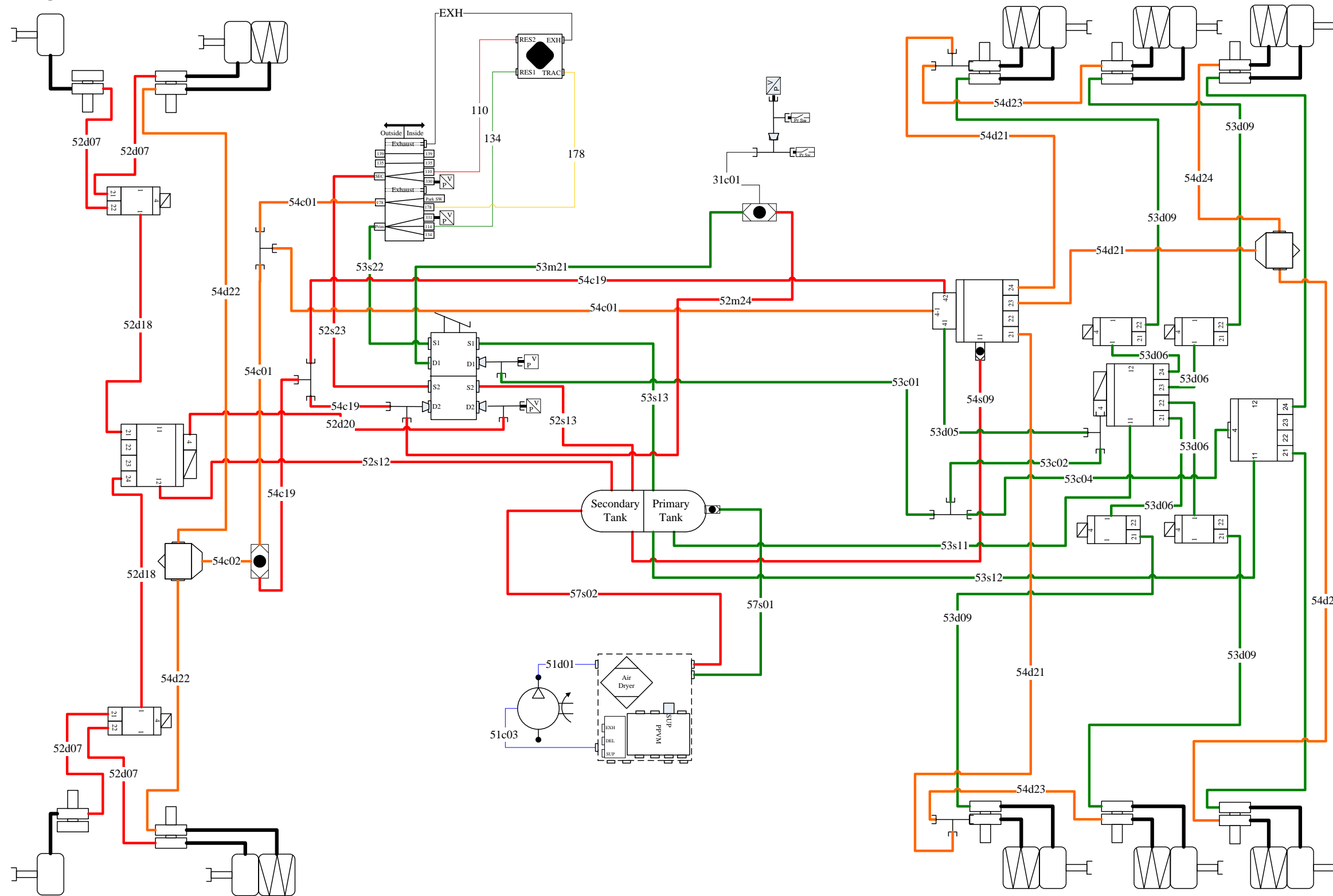
Document Title			
SCHEMATICS			
Document Type			
LAYOUT			
Document No	Issue Index	Volume No	Page No
22861964	01	01	10(18)

10. Rigid 8x4 with RSA



				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	11(18)			

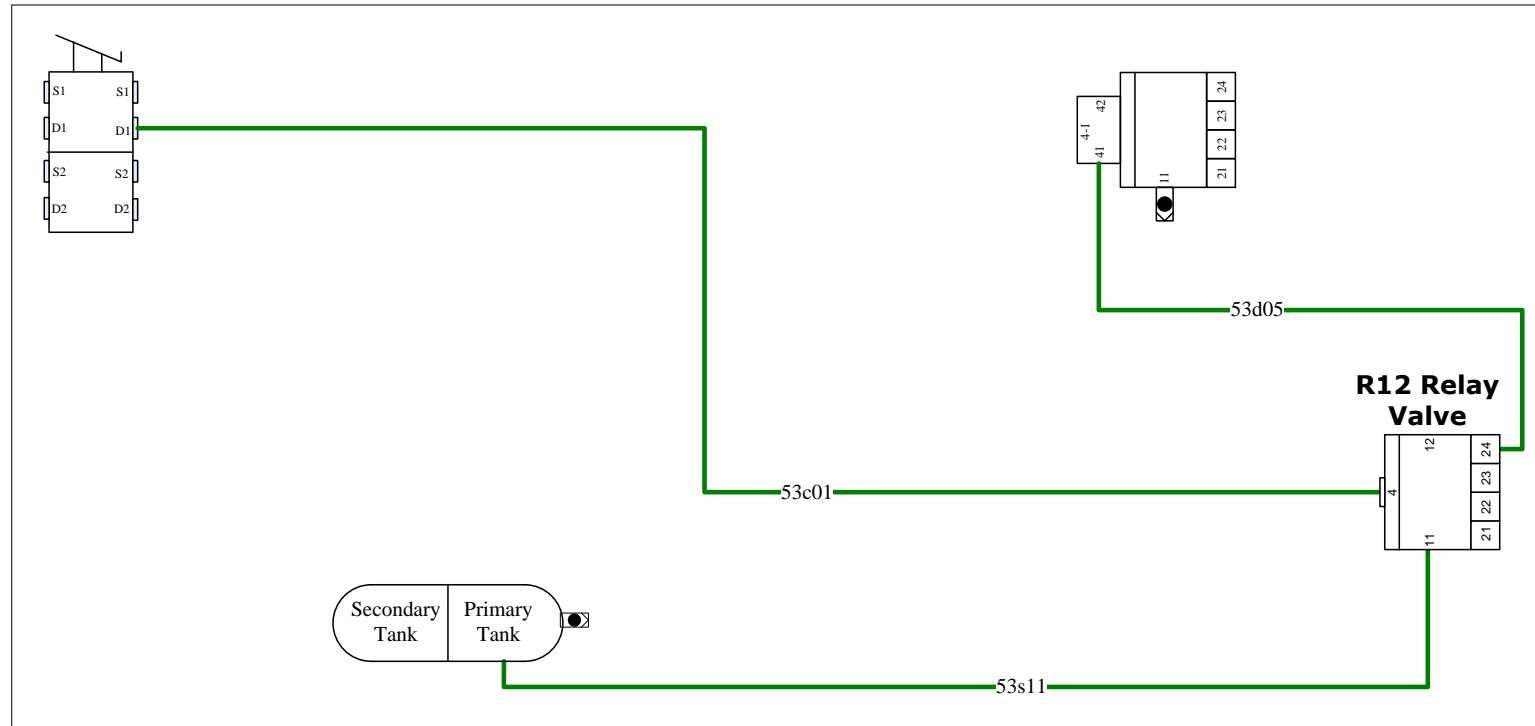
11. Rigid 10x4 with RSA



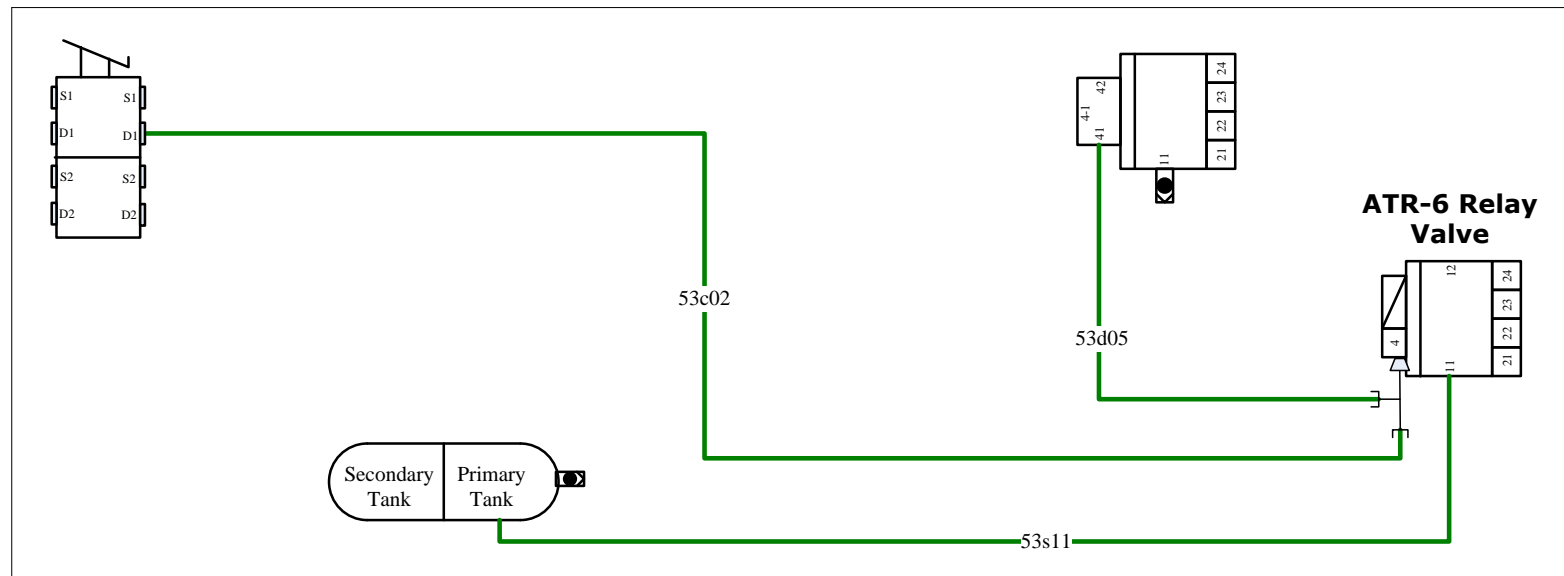
				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	12(18)			

12. Relation between with or without Traction Control

Without Traction Control



With Traction Control

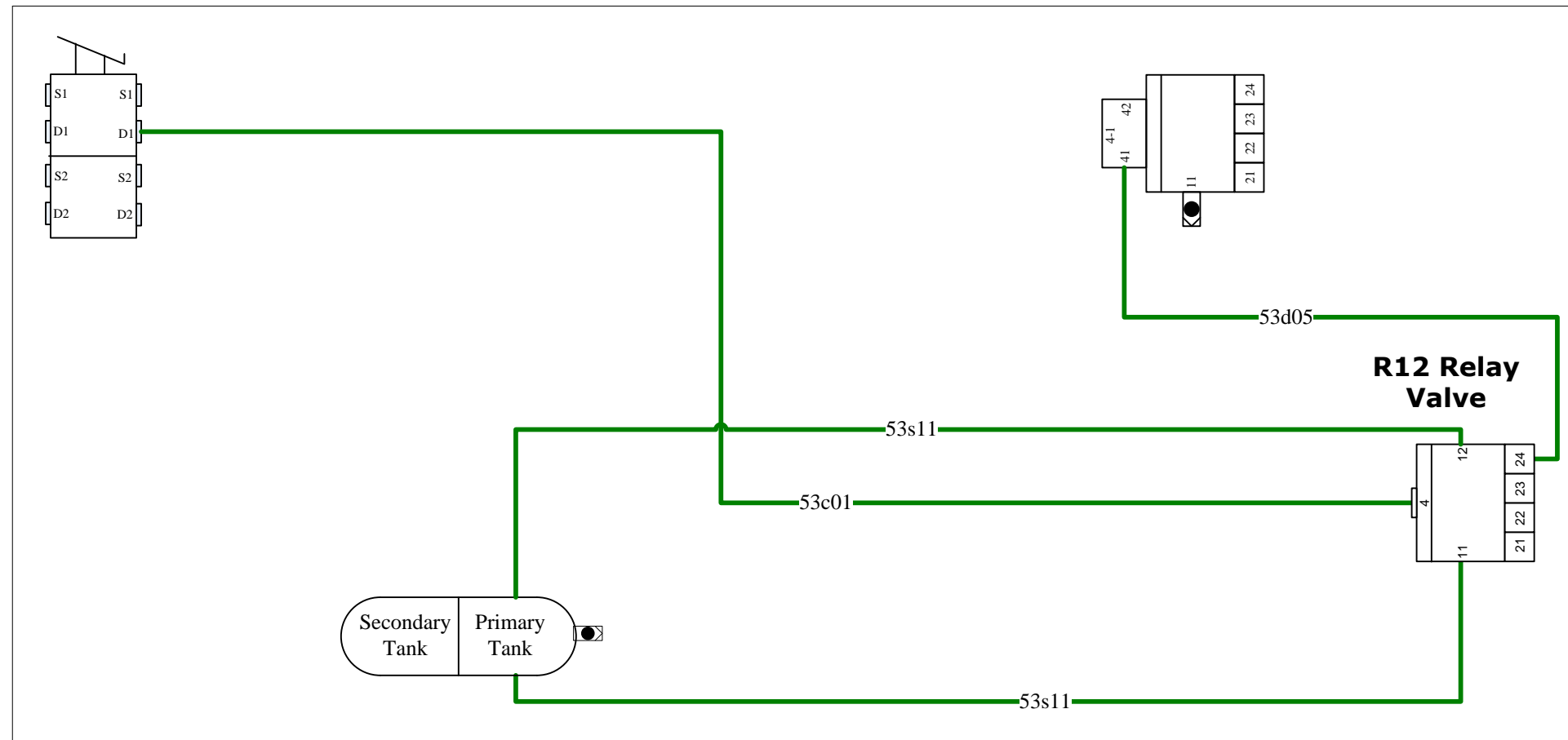


This schematic is intended to show the relation between **with or without Traction Control** on a Truck. So all parts outside this area have been deleted for clarity and drawing space

VOLVO
Group Trucks Technology

Document Title			
SCHEMATICS			
Document Type			
LAYOUT			
Document No	Issue Index	Volume No	Page No
22861964	01	01	13(18)

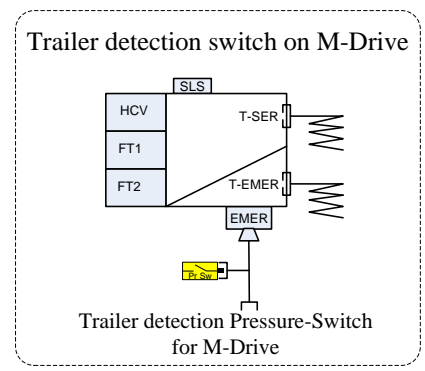
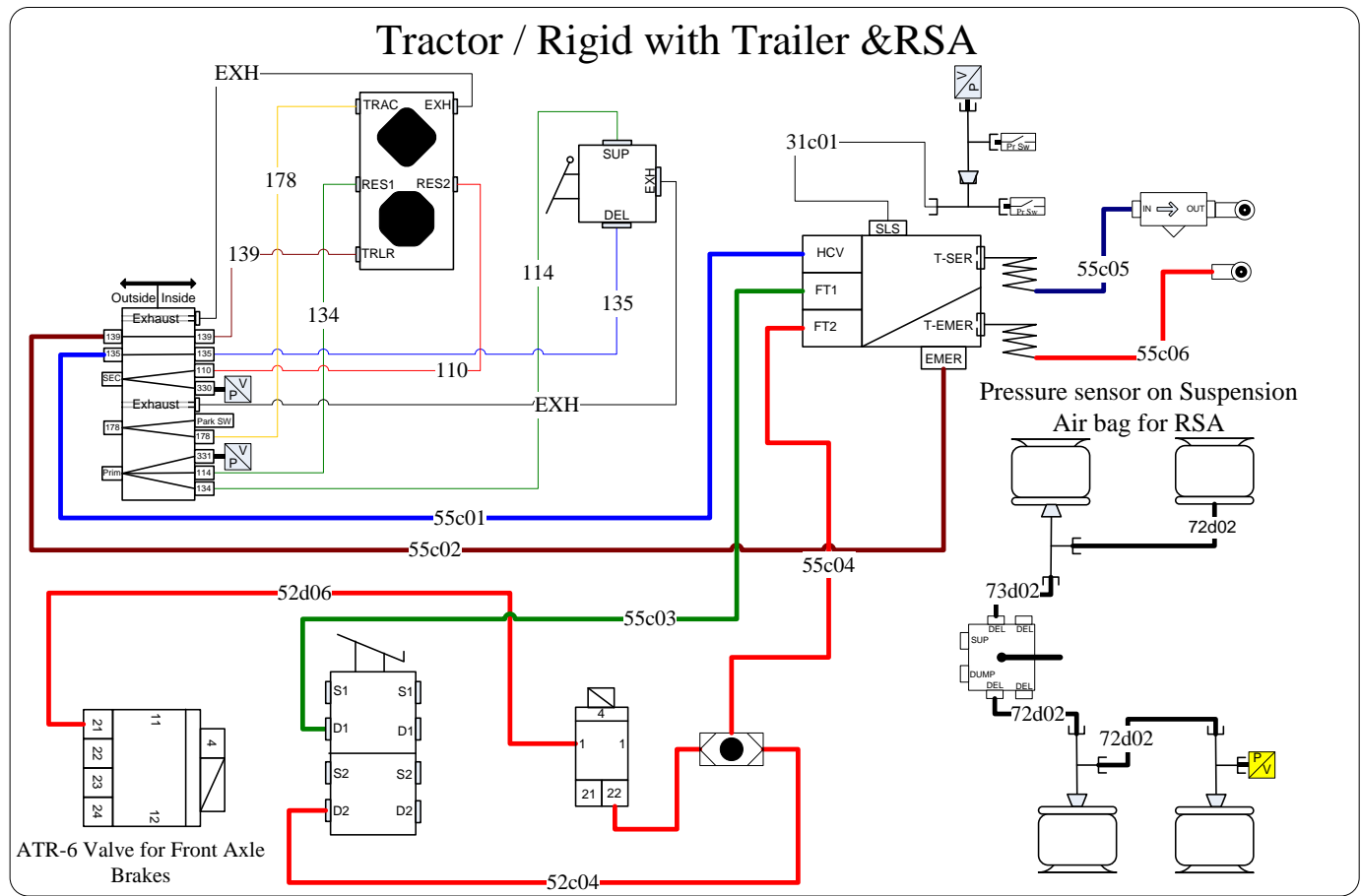
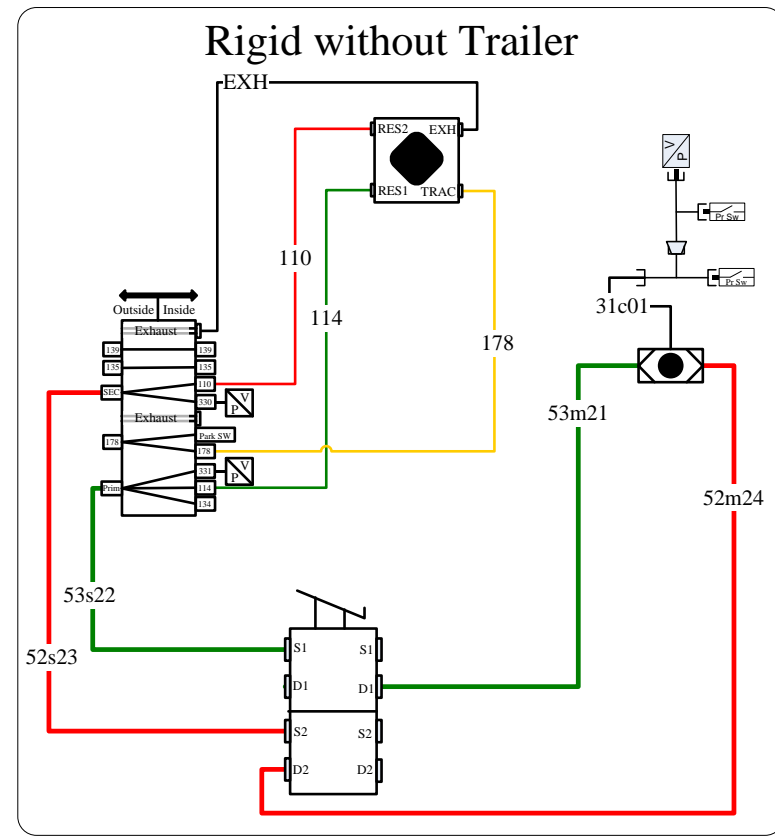
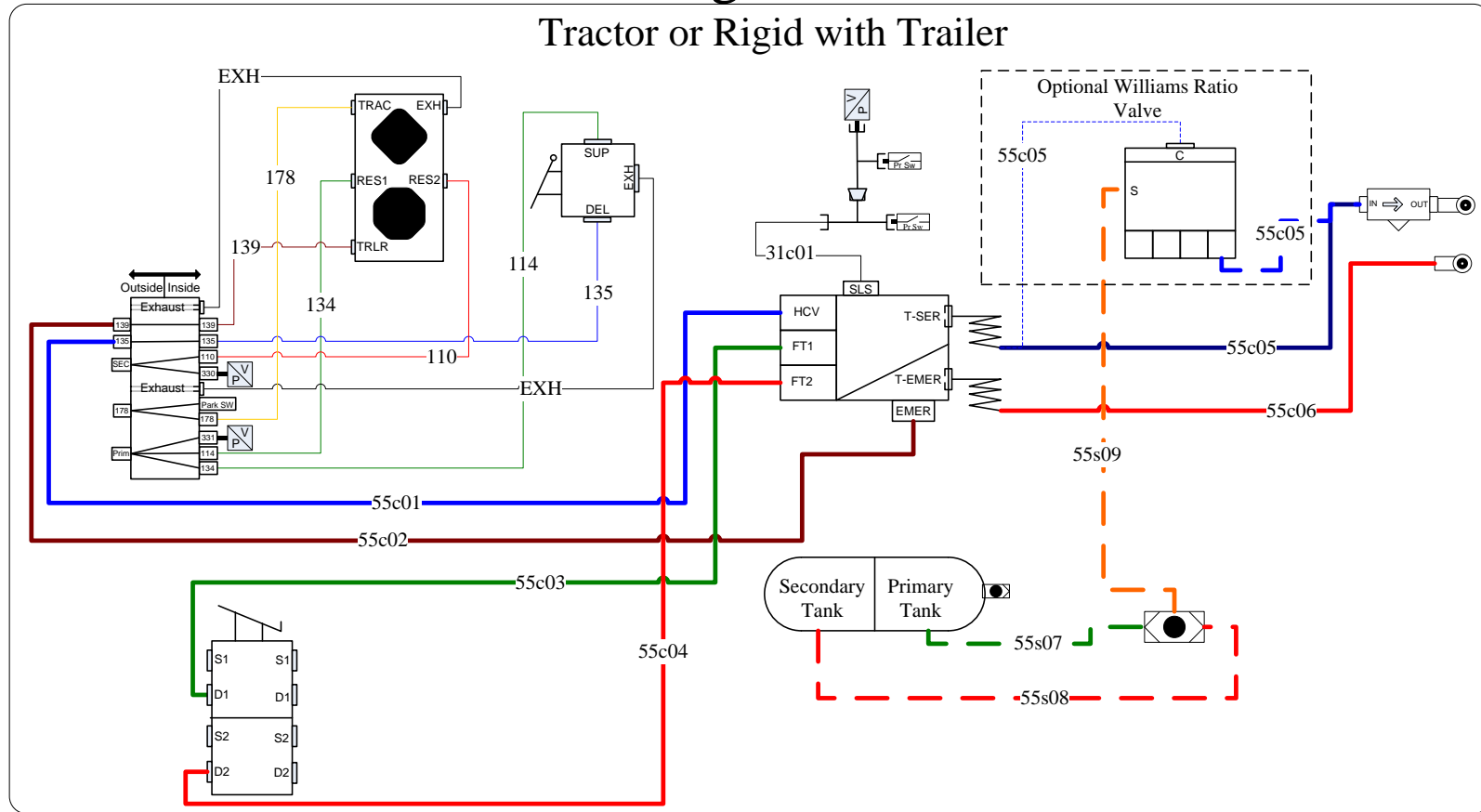
13. Relay valve air supply for BBOX-IF, ABS4S4M & UTRACONT.



VOLVO
Group Trucks Technology

Document Title			
SCHEMATICS			
Document Type			
LAYOUT			
Document No	Issue Index	Volume No	Page No
22861964	01	01	14(18)

14. Relation between Tractor / Rigid with Trailer & RSA

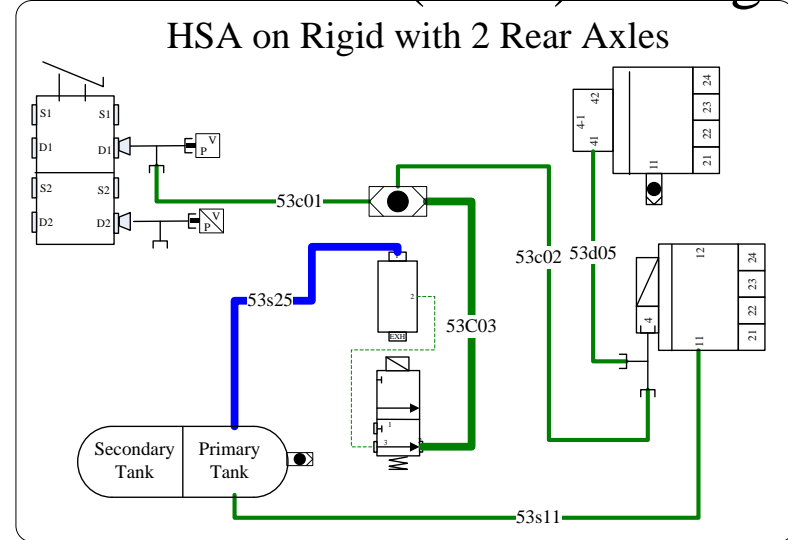


This schematic is intended to show the relation between **RSA and with or without Trailer on a Truck**. So all parts outside this area have been deleted for clarity and drawing space.

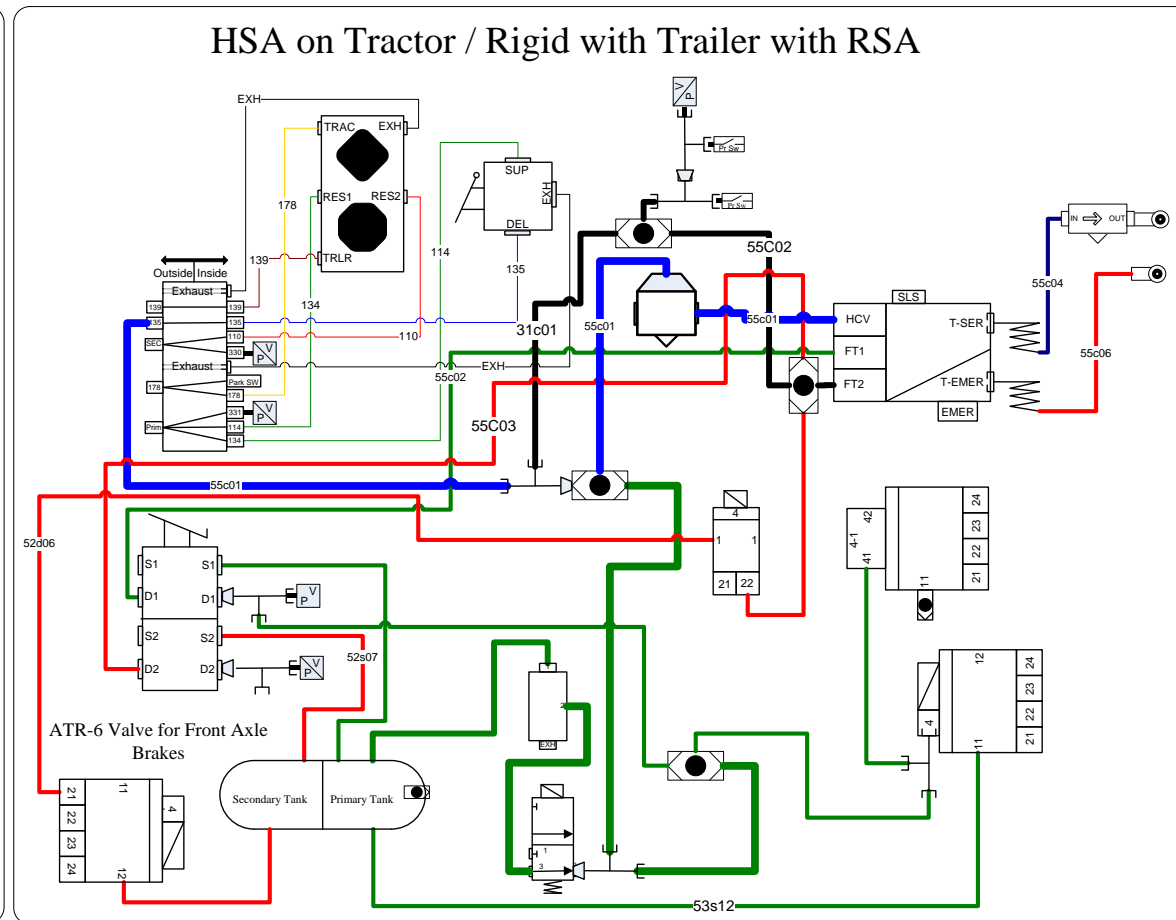
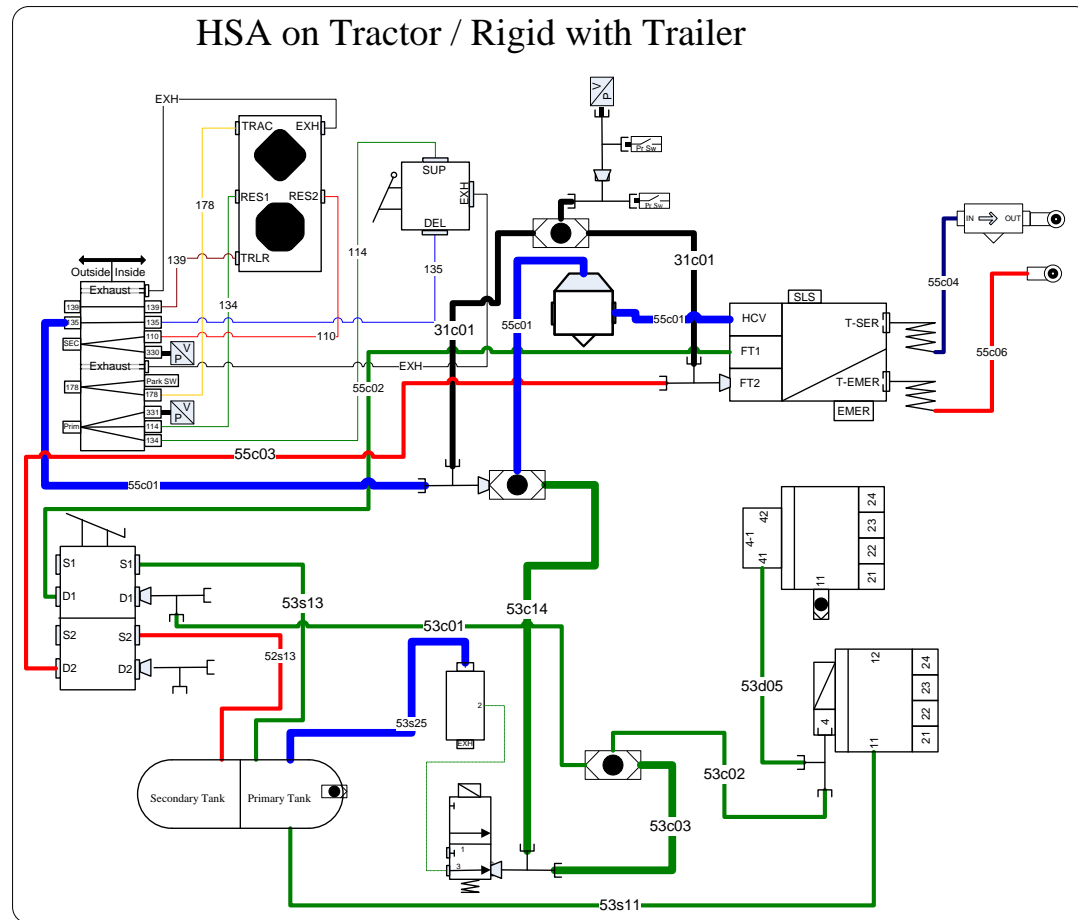
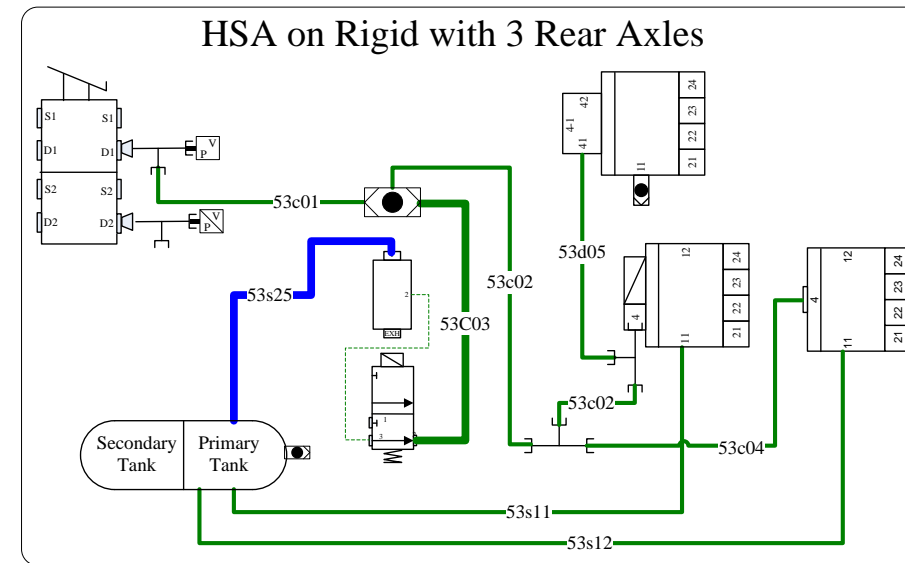
6x4 Tractor schematics = 6x4 Rigid schematics + Trailer schematics
 8x4 Tractor schematics = 8x4 Rigid schematics + Trailer schematics
 10x4 Rigid with Trailer schematics = 10x4 Rigid schematics + Trailer schematics

VOLVO			
Group Trucks Technology			
Document Title			
SCHEMATICS			
Document Type			
LAYOUT			
Document No	Issue Index	Volume No	Page No
22861964	01	01	15(18)

15. Hill Start Assist (HSA) on Rigid / Tractor with 2 or 3 Rear Axles

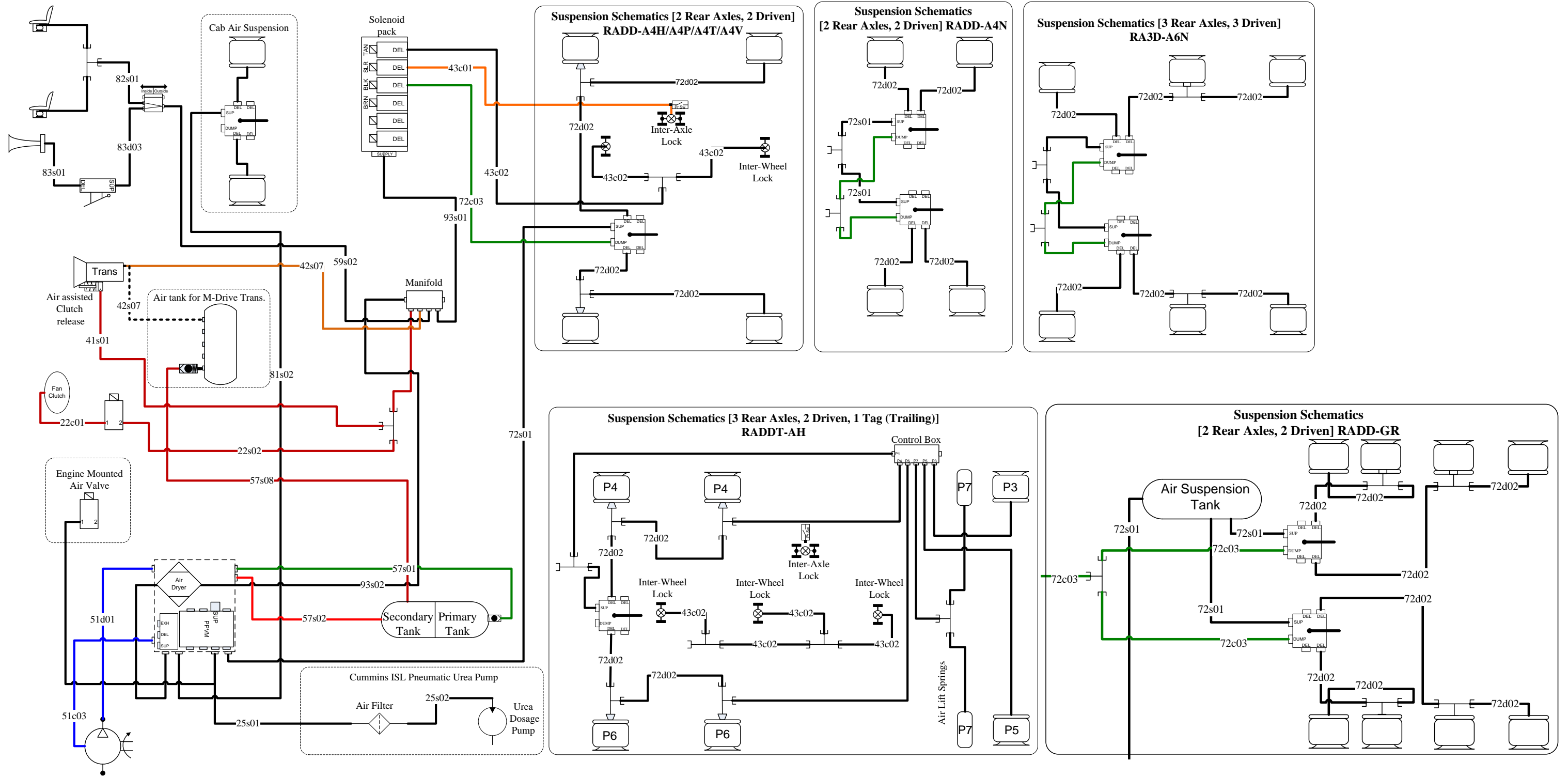


This schematic is intended to show the relation between HSA and other brake systems. So all parts outside this area have been deleted for clarity and drawing space.



				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	16(18)			

16. Auxiliary Systems on Pressure Protected Circuits




				Document Title			
				SCHEMATICS			
				Document Type			
				LAYOUT			
Document No		Issue Index	Volume No	Page No			
22861964		01	01	17(18)			

17. Air Line Numbers and Description

2 Engine with Mounting and Equipment		Colour	Line Size
22 Fan clutch			
22c01	Fan clutch control, Solenoid to clutch	Green	1/4
22s02	Compressor unload	Black	1/4
25 Emissions Control			
25s01	Air dryer to Filter	Black	1/4
25s02	Filter to Dosage pump	Black	6 mm
4 Power Transmission		Colour	Line Size
41 Clutch			
41s01	Clutch release air assist supply	Black	1/4
42 Gearbox			
42s07	Transmission supply	Red	1/2
43 Rear Axles			
43c01	Inter axle lock	Black	1/4
43c02	Inter wheel lock	Black	1/4
5 Brake		Colour	Line Size
51 Compressor, regulator, anti-freeze unit			
51d01	Delivery from the compressor		
51c03	Compressor unload	Black	1/4
52 Front circuit			
52c01	Foot brake valve to QRV	Red	1/2
52c04	ESP Relay to QRV	Red	1/2
52s12	Front circuit/ESP relay supply	Red	1/2
52s13	Front circuit foot brake valve supply	Red	5/8
52d06	Front ATR6 valve to ABS valve for trailer secondary control	Red	1/2
52d07	ABS solenoid valve to fitting on frame	Red	1/2
52d18	QRV / Relay valve to ABS modulator valves	Red	1/2, 5/8
52d20	Foot valve to ESP ATC valve/ ESP Relay control port	Red	3/8, 5/8
52s23	Foot brake valve to pass through supply to park valve	Red	3/8
52m24	Foot brake valve to SLS DCV	Red	1/2
53 Rear circuit			
53c01	Foot Brake valve to Relay valve / DC valve (HSA)	Green	3/8
53c02	DC Valve to Relay valve (HSA)	Green	3/8
53c03	ATC valve to DC valve (HSA)	Green	1/4
53c04	Tag axle Relay control	Green	3/8
53d05	Anti-compounding	Green	3/8
53d06	Relay to ABS modulators / tee fitting	Green	5/8
53d09	ABS solenoid valve to chassis fitting for brake chambers	Green	5/8
53s11	Service relay supply	Green	5/8
53s12	Tag axle relay supply	Green	1/2
53c14	HSA solenoid to DC valve for HCV	Green	1/4
53m21	Foot brake valve to SLS DCV	Green	1/2
53s22	Foot brake valve to pass through supply to park valve	Green	3/8
53s25	Hill start assist supply	Blue	3/8
54 Parking brake			
54c01	Spring brake control	Orange	3/8
54c02	DC valve to QR valve for second front axle park brake	Orange	3/8
54s09	Inversion relay secondary supply	Red	1/2
54c19	Redundant control line	Red	3/8
54d21	Inversion relay to chassis fitting for brake chambers/ QRV	Orange	1/2
54d22	QRV to to chassis fitting for front brake chambers	Orange	3/8
54d23	Tee piece to chassis fittings for brake chambers	Orange	1/2
54d24	QRV to chassis fitting for brake chambers Tag axle	Orange	1/2

55 Trailer brake			
55c01	Hand Control	Blue	3/8
55c02	Spring brake control	Black	3/8
55c03	Primary control	Green	1/2
55c04	Secondary control	Red	1/2
55c05	Trailer service control	Blue	1/2
55s06	Trailer park control	Red	1/2
55s07	Supply from primary tank for Williams Ratio vlve	Green	1/2
55s08	Supply from primary tank for Williams Ratio vlve	Red	1/2
55s09	Supply Williams Ratio valve	Orange	1/2
57 Air Tanks			
57s01	Primary Tank Supply	Green	1/2
57s02	Secondary Tank Supply	Red	1/2
57s08	Transmission air tank supply	Red	1/2
59 Auxiliary Equipment			
59s02	Auxiliary manifold to cab	Black	1/4
7 Frame, Springs, Damping and Wheels		Colour	Line Size
72 Air Suspension Rear Axles			
72s01	Levelling valve supply from air dryer	Black	3/8
72d02	Air Bellow pressure supply	Black	3/8
72c03	Rear suspension dump from Solenoid pack	Black	1/4, 3/8
8 Cab		Colour	Line Size
81 Cab suspension			
81s02	Air dryer to cab levelling valve	Green	1/4
82 Seat Suspension			
82s01	Seat suspension supply from PPVM	Black	1/4
83 Air Horn			
83s01	Solenoid valve pack to air horn	Red	1/4
83d03	Auxiliary manifold to air horn Lanyard valve	Black	1/4
9 Miscellaneous, Special Functions		Colour	Line Size
93 Miscellaneous			
93s01	Solenoid valve pack supply from PPVM	Black	3/8
93s02	PPVM supply from Air dryer	Black	1/2
10 Miscellaneous, Inside Cab		Colour	Line Size
110	Secondary cab supply, Cab pass through to Dash valve	Red	3/8
114	Primary cab supply, Cab pass through to Dash valve	Green	3/8
134	Supply to Hand control valve from Cab pass through	Green	3/8
135	Delivery from Hand control valve to Cab pass through	Black	3/8
139	Dash valve delivery to Cab pass through, Trailer spring brake control	Yellow	3/8
178	Dash valve delivery to Cab pass through, Trailer spring brake control	Orange	3/8

	Document Title			
	SCHEMATICS			
	Document Type			
	LAYOUT			
Document No	Issue Index	Volume No	Page No	
22861964	01	01	18(18)	