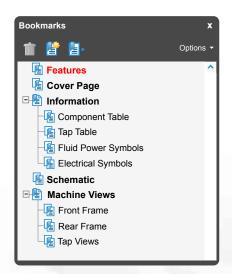
INTERACTIVE SCHEMATIC





This document is best viewed at a screen resolution of 1024 X 768.

To set your screen resolution do the following:

RIGHT CLICK on the **DESKTOP**.

Select **PROPERTIES**.

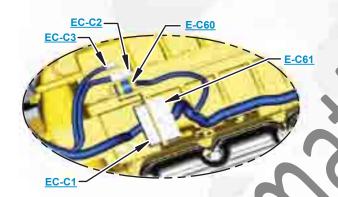
CLICK the SETTINGS TAB.

MOVE THE SLIDER under SCREEN RESOLUTION

until it shows 1024 X 768.

CLICK OK to apply the resolution

The Bookmarks panel will allow you to quickly navigate to points of interest.



Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

VIEW ALL CALLOUTS

When only one callout is showing on a machine view this button will make all of the callouts visible. This button is located in the top right corner of every machine view page.

HOTKEYS (Keyboard Shortcuts)			
	FUNCTION	KEYS	
+	Zoom In	"CTRL" / "+"	
	Zoom Out	"CTRL" / "-"	
	Fit to Page	"CTRL" / "0" (zero)	
	Hand Tool	"SPACEBAR" (hold down)	
	Find	"CTRL" / "F"	



Schematic

797F Off-Highway Truck Hydraulic and Powertrain Oil System

LAJ1-UP WSP1-UP

Volume 1 of 3: Steering

Volume 2 of 3: Steep Grade - Braking and Cooling

Volume 3 of 3: Optional Oil Sands Loafing Attachment

COMPONENT LOCATION Volume 1 of 3 - STEERING



Description	Part Number	Machine Location	Schematic Location
Accumulator Gp - Precharge Pressure	253-4120	<u>1</u>	<u>J-13</u>
Cylinder Gp - Left Steer	194-6171	<u>2</u>	<u>l-1</u>
Cylinder Gp - Right Steer	288-5537	<u>3</u>	<u>G-1</u>
Filter - Hydraulic	4T-6788	4	<u>D-5</u>
Filter Gp - Oil	290-2569	5	<u>B-8</u>
Filter Gp - Oil	339-9708	<u>6</u>	<u>F-5</u>
Filter Gp - Oil (Case Drain)	290-2569	<u>Z</u>	<u>E-3</u>
Motor Gp - Fan Speed Control	226-6003	<u>8</u>	<u>G-10</u>
Pump Gp - Brake Cooling Drive	281-8284	91	<u>C-13</u>
Pump Gp - Metering	192-3897	<u>10</u>	<u>H-7</u>
Pump Gp - Steering And Fan	284-9631	<u>11</u>	<u>C-9</u>
Sensor Gp - Pressure	221-3405	<u>12</u>	<u>J-12</u>
Sensor Gp - Pressure (Park Brake Retract)	221-3410	13*	<u>B-5</u>
Sensor Gp - Speed	186-0131	<u>14</u>	<u>A-3, G-10</u>
Sensor Gp - Temperature	134-2252	<u>15</u>	<u>C-3</u>
Switch As - Steering Oil Level	172-8660	<u>16</u>	<u>C-3</u>
Tank Gp - Hydraulic	280-2090	<u>17</u>	<u>D-4</u>
Valve Gp - Make Up (Fan Anti - cav)	183-7170	<u>18</u>	<u>G-12</u>
Valve Gp - Pressure Reducing	226-0835	<u>19</u>	<u>H-14</u>
Valve Gp - Solenoid	288-4351	<u>20</u>	<u>H-11</u>
Valve Gp - Steering	151-5933	<u>21</u>	<u>l-3</u>

Note * - Component not shown

Always check Component part Numbers with Parts Manual for your specific machine

COMPONENT LOCATION Volume 2 of 3 - STEEP GRADE -BRAKING AND COOLING



Description	Part Number	Machine Location	Schematic Location
Accumulator Gp - Brake Precharge	377-4739	22	G-9
Accumulator Gp - Brake Precharge	377-4739	23	F-6
Adjuster Gp	205-0560	24	I-11
Adjuster Gp	205-0560	<u>25</u>	I-1
Connector As - Orifice	335-3978	<u>25</u> 26	E-7
Connector As - Orifice	335-3978		
		<u>27</u>	<u>E-7</u>
Control Gp - Brake	321-5086	<u>28</u>	<u>F-6</u>
Control Gp - Hyd (Traction Control System)	222-4744	<u>29</u>	<u>l-8</u>
Core As	299-3290	<u>30</u>	<u>J-13</u>
Core As - Front / Rear Brake Cooler	331-0301	<u>31</u>	<u>H-3</u>
Core As - Front / Rear Brake Coolers	331-0301	<u>32</u>	<u>B-4</u>
Cylinder Gp - Basic	339-3275	<u>33</u>	<u>D-13</u>
Cylinder Gp - Hoist	289-8616	34	<u>l-3</u>
Filter Gp - Brake System Oil	290-2567	<u>35</u>	<u>B-9</u>
Filter Gp - Oil (Brake Cooling)	339-9703	<u>36</u>	H-2
Filter Gp - Transmission	334-0572	<u>37</u>	112
Filter Gp - Transmission	334-0572	38	G-13
Filter - Hydraulic	4T-6788	39	C-6
Manifold Gp - Power Access Line Relief	336-0981	40	C-13
Motor Gp - Rear Axle Fan	257-6844	41	B-7
Motor Gp - Rear Axle Lube	296-5306	42	D-11
Orifice	164-5545	43	C-13
Plug As	242-7114		
		44	<u>l-13</u>
Pump Gp - Brake Charge	314-9248	<u>45</u>	<u>A-10</u>
Pump Gp - Brake Cooling Drive	281-8284	<u>46</u>	<u>A-10</u>
Pump Gp - Elec Dr (Relief Valve)	5T-1060	<u>47</u>	<u>C-4</u>
Pump Gp - Electric Drive	293-3902	<u>48</u>	<u>A-13</u>
Pump Gp - Hoist	354-6918	<u>49</u>	<u>B-10</u>
Pump Gp - Rear Axle Lube	324-2716	<u>50</u>	<u>E-11</u>
Screen As	9P-9555	<u>51</u>	<u>F-13</u>
Screen As	172-6104	<u>52</u>	<u>F-13</u>
Screen Gp - Bypass Switch	172-2395	<u>53</u>	<u>C-10</u>
Screens - Brake Cooling	N/A	<u>54</u>	<u>B-5</u>
Sensor Gp - Parke Brake Pressure	221-3410	<u>55</u>	<u>J-8</u>
Sensor Gp - Parke Brake Pressure	221-3410	<u>56</u>	H-9
Sensor Gp - Pressure	221-3405	57	F-8
Sensor Gp - Pressure	221-3405	58	F-6
Sensor Gp - Pressure	221-3415	<u>59</u>	G-13
Sensor Gp - Temp	1		
	134-2252	<u>60</u>	<u>F-1</u>
Sensor Gp - Temp	134-2252	<u>61</u>	<u>J-1</u>
Sensor Gp - Temp	134-2252	<u>62</u>	<u>J-11</u>
Sensor Gp - Temp	134-2252	<u>63</u>	<u>F-11</u>
Sensor Gp - Temp	288-8390	<u>64</u>	<u>H-13</u>
Switch As - Pressure	130-7459	<u>65</u>	<u>l-13</u>
Switch As - Pressure (Service Brake)	128-5091	<u>66</u>	<u>E-7</u>
Switch Gp - Filter Bypass	164-7577	<u>67</u>	<u>G-13</u>
Switch Gp - Filter Bypass	164-7577	<u>68</u>	<u>l-12</u>
Tank Gp - Hydraulic	280-2090	<u>69</u>	<u>B-6</u>
Valve - Check	123-4750	<u>70</u>	<u>F-7</u>
Valve - Check	6E-4701	<u>71</u>	<u>G-9</u>
Valve - Check	340-9727	72	<u>C-4</u>
Valve Gp - Control	293-4974	73	H-4
Valve Gp - Diverter	168-7859	<u>74</u>	H-12
Valve Gp - Manual Bypass Control	336-0978	75	C-14
Valve Gp - Mtg	371-4190		
• •		<u>76</u>	<u>E-8</u>
Valve Gp - Relief	346-4815	77	<u>C-7</u>
Valve Gp - Relief	172-5381	<u>78</u>	<u>G-13</u>

COMPONENT LOCATION Volume 3 of 3 - OPTIONAL OIL SANDS LOAFING ATTACHMENT



Description	Part Number	Machine Location	Schematic Location
Core As	331-0301	<u>79</u>	<u>C-3, C-2</u>
Cylinder Gp - Hoist	289-8616	<u>80</u>	<u>E-3, F-3</u>
Filter - Hydraulic	4T-6788	<u>81</u>	<u>C-4</u>
Filter Gp - Oil (Brake Oil)	339-9703	82	<u>C-2, D-2</u>
Pump Gp - Brake Charge	314-9248	<u>83</u>	<u>A-5</u>
Pump Gp - Brake Cooling	281-8284	<u>84</u>	<u>A-5</u>
Pump Gp - Hoist	354-6918	<u>85</u>	<u>B-6</u>
Screen Gp - Bypass Switch	172-2395	<u>86</u>	<u>B-6</u>
Sensor Gp - Temperature	34-2252	<u>87</u>	<u>A-8, B-1</u> <u>E-1, F-8</u>
Tank Gp - Hydraulic	280-2090	<u>88</u>	<u>B-4</u>
Valve Gp - Control	293-4974	<u>89</u>	<u>F-6</u>
Valve Gp - Diverter	376-4642	90	<u>D-3</u>
Valve Gp - Diverter	342-2110	<u>91</u>	<u>D-2</u>
Valve Gp - Manifold	376-7246	<u>92</u>	<u>A-4</u>
Valve Gp - Reliei	364-5661	<u>93</u>	<u>A-4</u>

Always check Component part Numbers with Parts Manual for your specific machine.

TAP LOCATION Volume 1 of 3 - STEERING



Тар	Description	Schematic
Number	Description	Location
<u>Y</u>	Brake Cooling Drive Pump Pressure	<u>E-14</u>
W	Radiator Fan Pressure	<u>G-12</u>
RR	Steering Accumulator Pressure	<u>l-12</u>
X	Steering Flow Amp	<u>l-5</u>
SS	Steering Pump Pressure	<u>l-12</u>
<u>YY</u>	Steering Return	<u>H-11</u>
<u>UU</u>	Steering Supply	<u>l-11</u>

TAP LOCATION Volume 2 of 3 - STEEP GRADE BRAKING AND COOLING



Tap Number	Description	Schematic Location
<u>A</u>	Rear Brake Slack Adjuster	<u>H-12</u>
<u>B</u>	Front Brake Slack Adjuster	<u>H-1</u>
<u>C</u>	Brake Accumulator	<u>F-9</u>
<u>D</u>	Brake Accumulator	<u>F-6</u>
<u>E</u>	Brake Pedal	<u>F-6</u>
<u>E</u>	Right Rear Park Brake	F-10
<u>G</u>	Left Rear Park Brake	<u>J-10</u>
<u>H</u>	Tcs Pilot	<u>H-7</u>
l*	Brake To Tank	<u>D-5</u>
<u>J</u>	Raxl Drive Pump Pressure	<u>D-12</u>
<u>K</u>	Brake Charge Pressure	<u>B-9</u>
<u>L</u>	Right Rear Service Brake	<u>G-11</u>
<u>M</u>	Left Rear Service Brake	<u>l-11</u>
<u>N</u>	Left Front Service Brake	<u>l-1</u>
<u>O</u>	Right Front Service Brake	<u>G-1</u>
Q	Left Rear Brake Cooling In	<u>J-10</u>
<u>R</u>	Right Rear Brake Cooling In	<u>F-10</u>
<u>S</u>	Left From Brake Cooling Out	<u>J-2</u>
I	Left Front Brake Cooling Out	<u>J-1</u>
<u>U</u>	Right Front Brake Cooling In	<u>F-2</u>
V	Right Front Brake Cooling Out	<u>F-1</u>
Z	Front Brake Cooling Supply	<u>B-5</u>
AA	Rear Brake Cooling Supply	<u>B-5</u>
BB	eft Brake Pressure	<u>J-8</u>
<u>CC</u>	Right Brake Pressure	<u>l-8</u>
DD	Pilot Oil Bypass (To Front Brake Cooling)	<u>J-7</u>
<u>EE</u>	Pilot Oil Bypass (To Rear Brake Cooling)	<u>l-7</u>
<u>FF</u>	Hoist Cylinder Rod End Pressure	<u>J-4</u>
<u>GG</u>	Pilot Pressure -Rod End To Tank (Raise)	<u>J-4</u>
<u>HH</u>	Pilot Pressure -Pump To Rod End (Lower)	<u>l-5</u>
<u>JJ</u>	Pilot Pressure -Pump To Head End (Raise)	<u>l-5</u>
KK	Pilot Pressure -Head End To Tank (Lower)	<u>H-5</u>
<u>LL</u>	Hoist Cylinder Head End Pressure	<u>H-4</u>
<u>PP</u>	Hoist Pump Discharge/brake Cooling Supply	<u>l-5</u>

Note * - component not shown

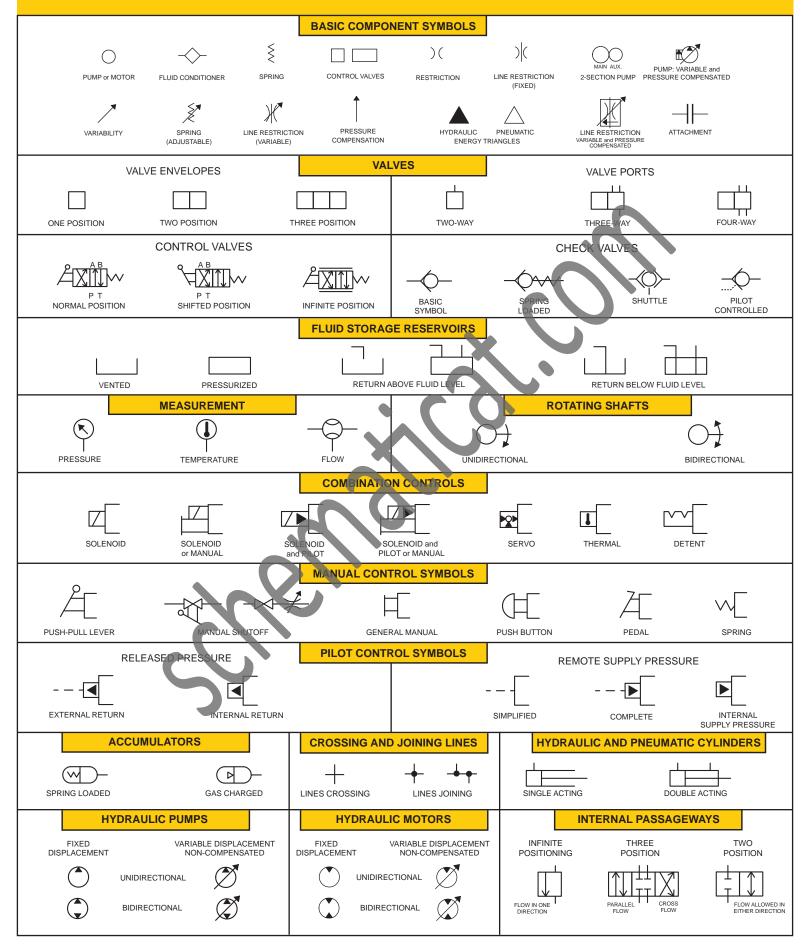
TAP LOCATION Volume 3 of 3 - OPTIONAL OIL SANDS LOAFING ATTACHMENT



Tap Number	Description	Schematic Location
Q	Right Rear Brake Cooling In	<u>F-7</u>
<u>R</u>	Left Rear Brake Cooling In	<u>A-7</u>
<u>S</u>	Left Front Brake Cooling Out	<u>E-2</u>
Ι	Left Front Brake Cooling Out	<u>E-1</u>
<u>U</u>	Right Front Brake Cooling In	<u>B-2</u>
V	Right Front Brake Cooling Out	<u>B-1</u>
<u>Z</u>	Front Brake Cooling Supply	<u>A-3</u>
AA	Rear Brake Cooling Supply	<u>A-3</u>

FLUID POWER SYMBOLS





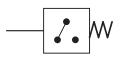
ELECTRICAL SYMBOLS



Hydraulic Symbols (Electrical)



Transducer (Fluid)



Pressure Switch



Transducer (Gas / Air)



Generator



Electric Motor



Pressure Switch (Adjustable)



Temperature Switch



Electrical Wire

Electrical Symbols (Electrical)



Pressure Symbol



Temperature Symbol



Level Symbol



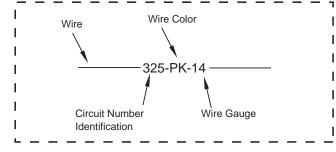
Flow Symbol

Wire Number Identification Codes

Electrical Schematic Example

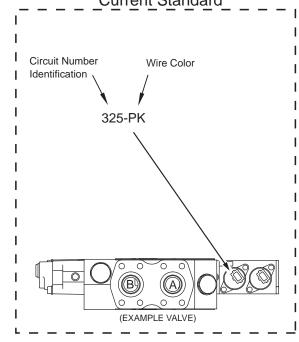
Current Standard Harness identification code This example indicates wire 135 in harness "AG". Wire 325-AG 135 PK-14 Circuit Identification Number Wire Color Wire Gauge

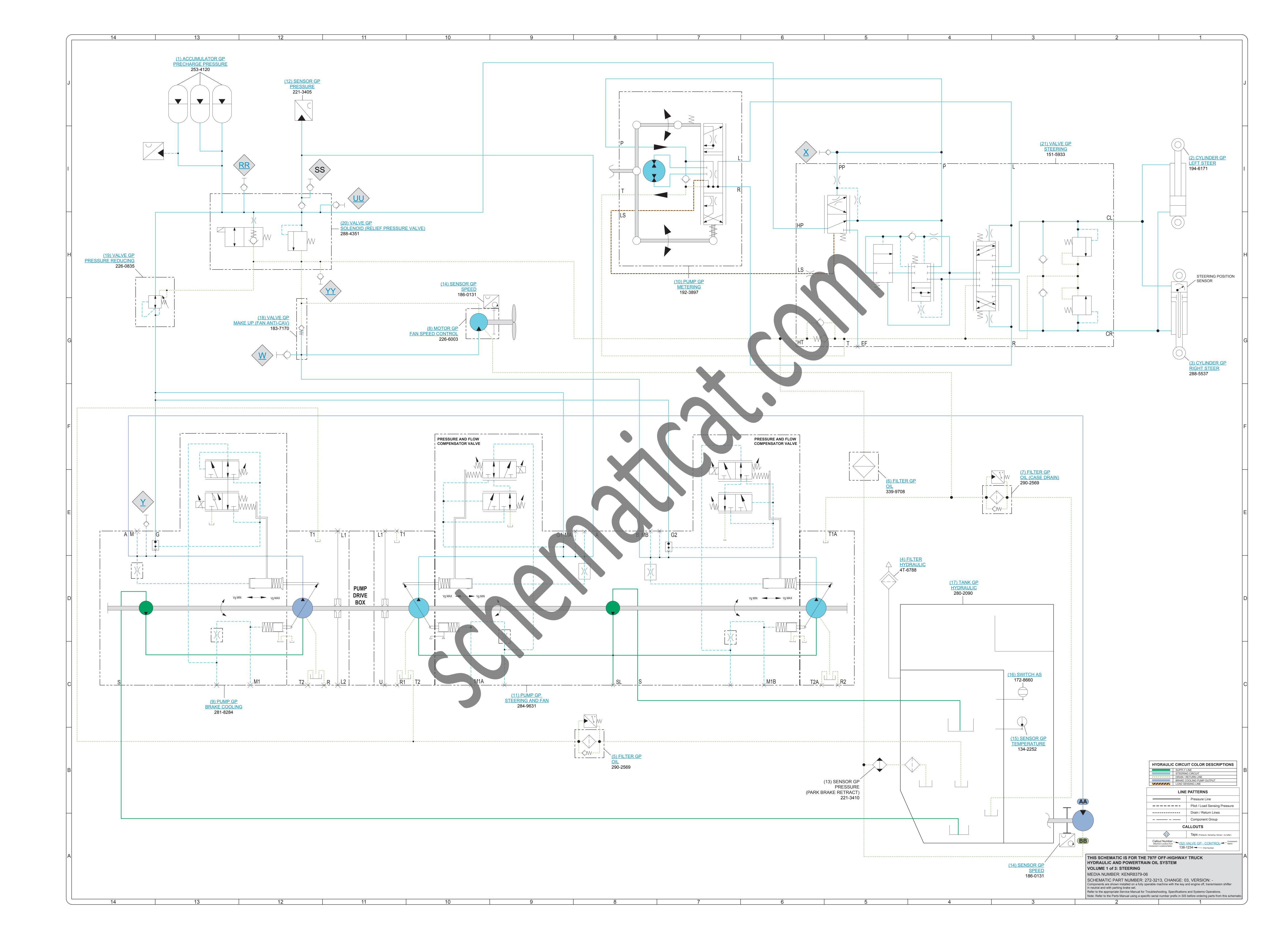
Previous Standard

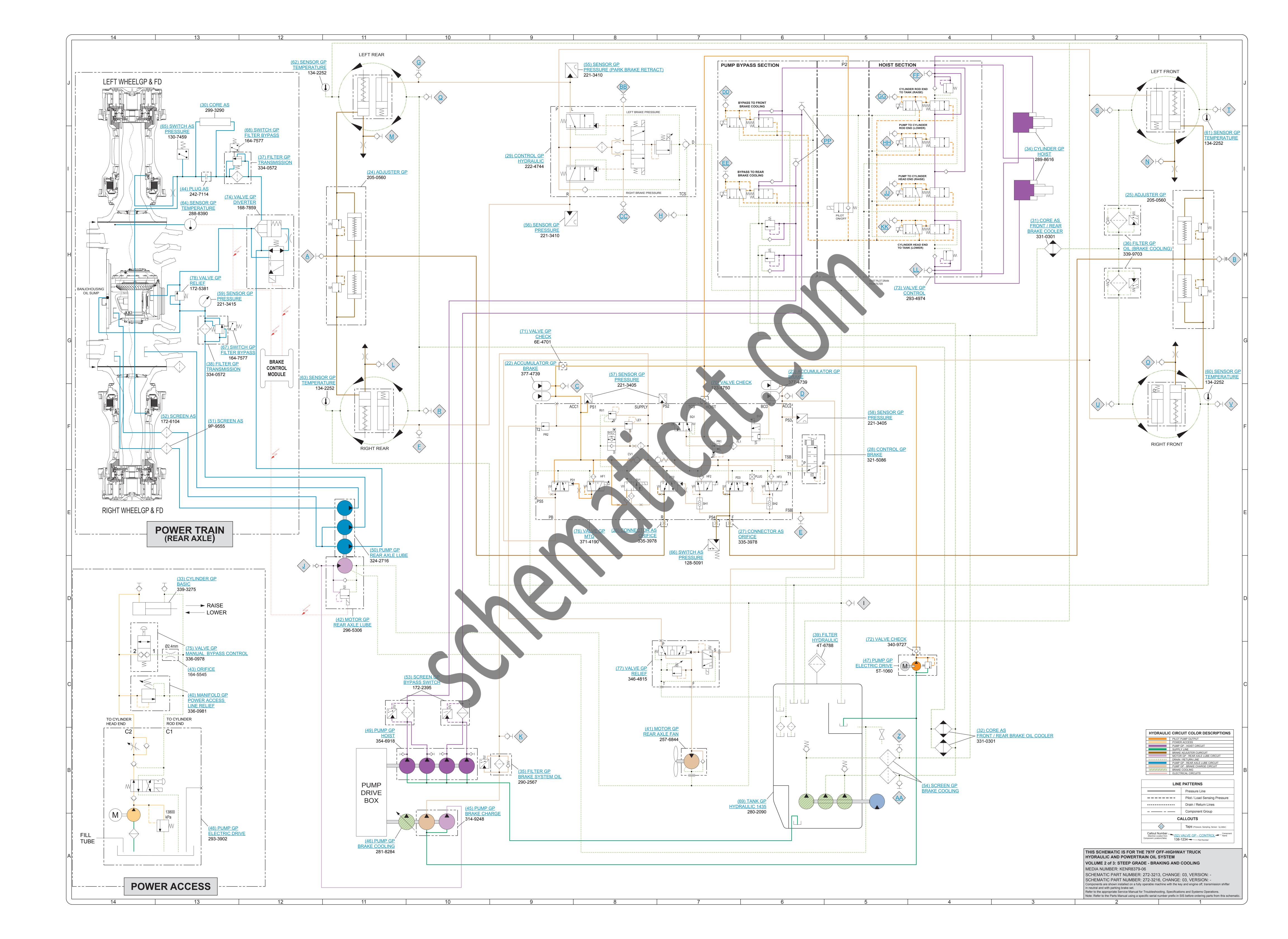


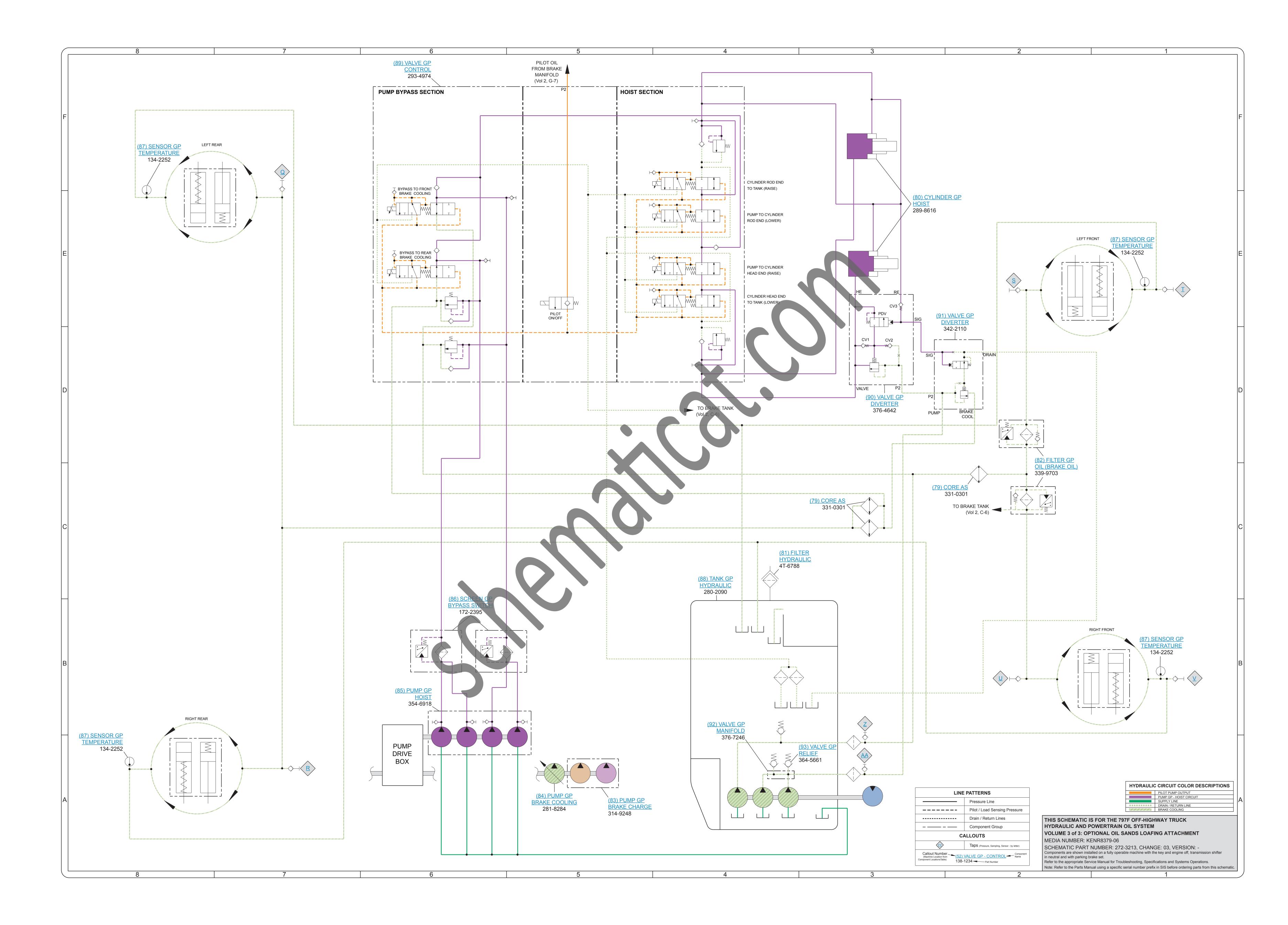
Hydraulic Schematic Example

Current Standard

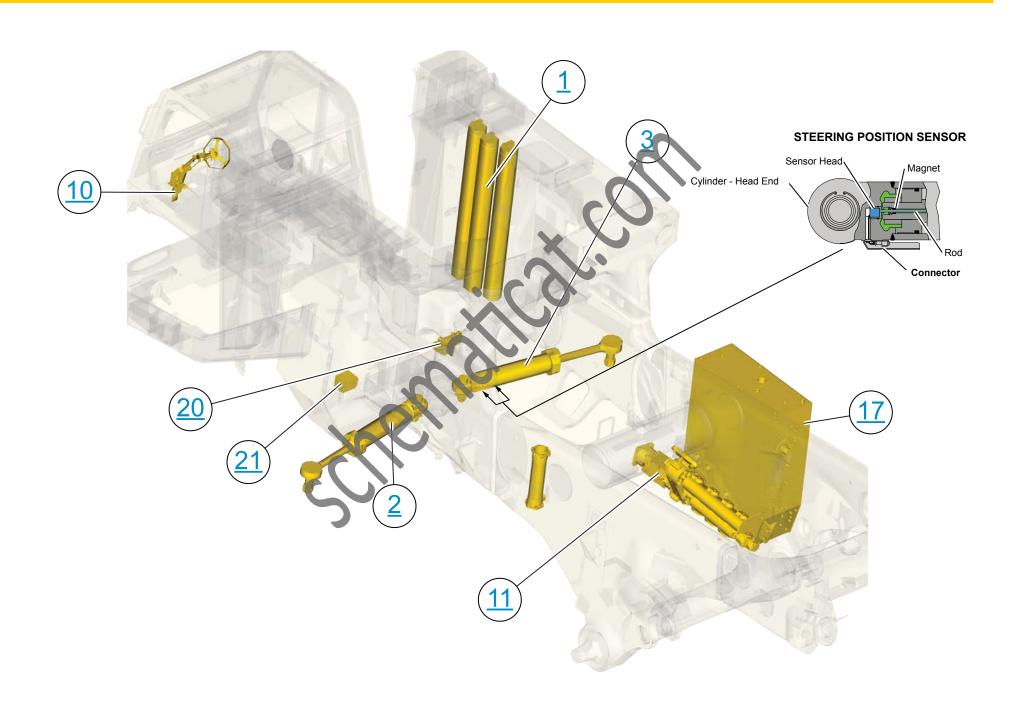






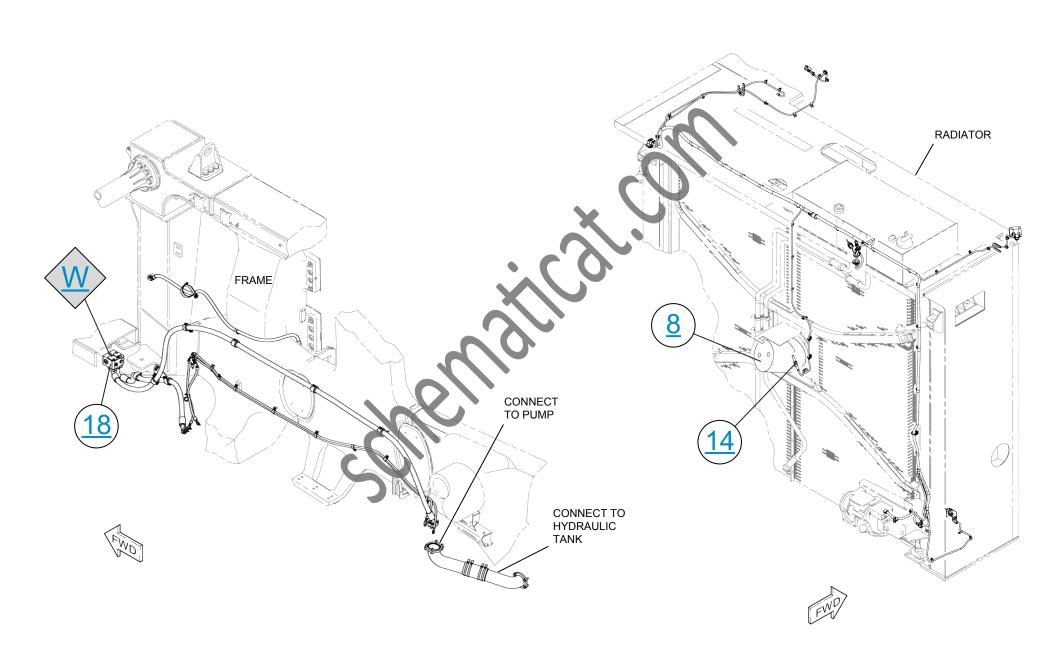






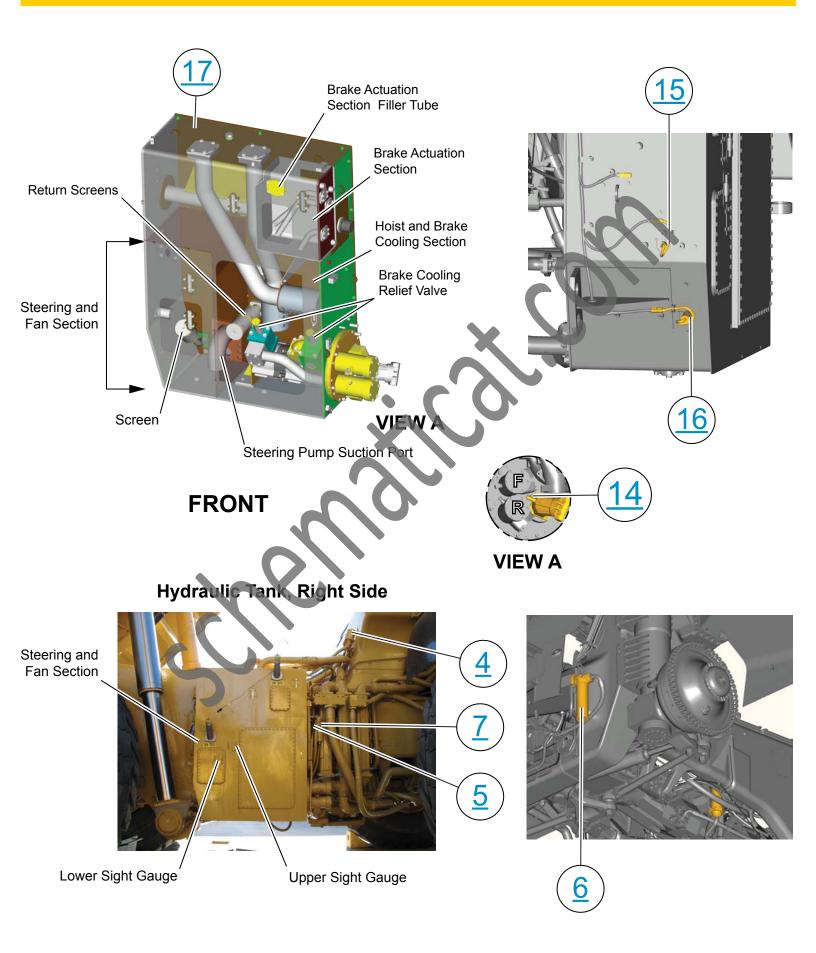
FAN CONTROL CIRCUIT



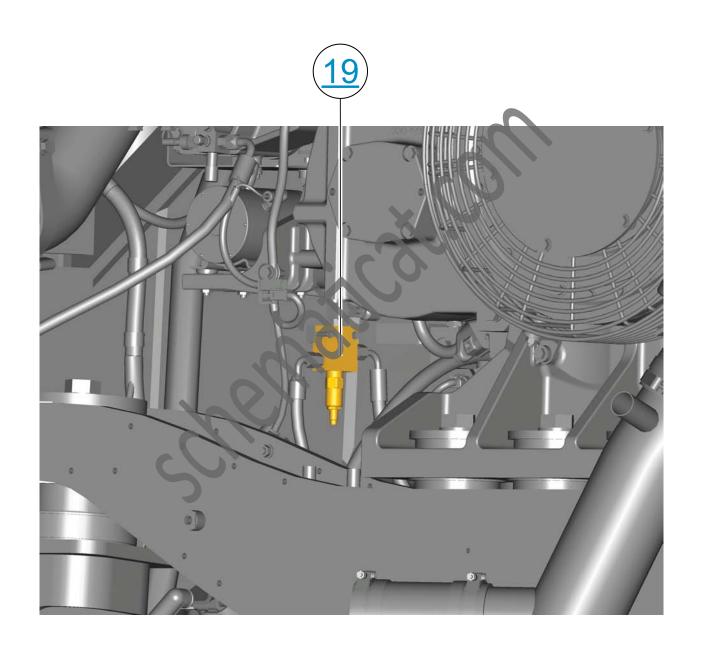


HYDRAULIC TANK



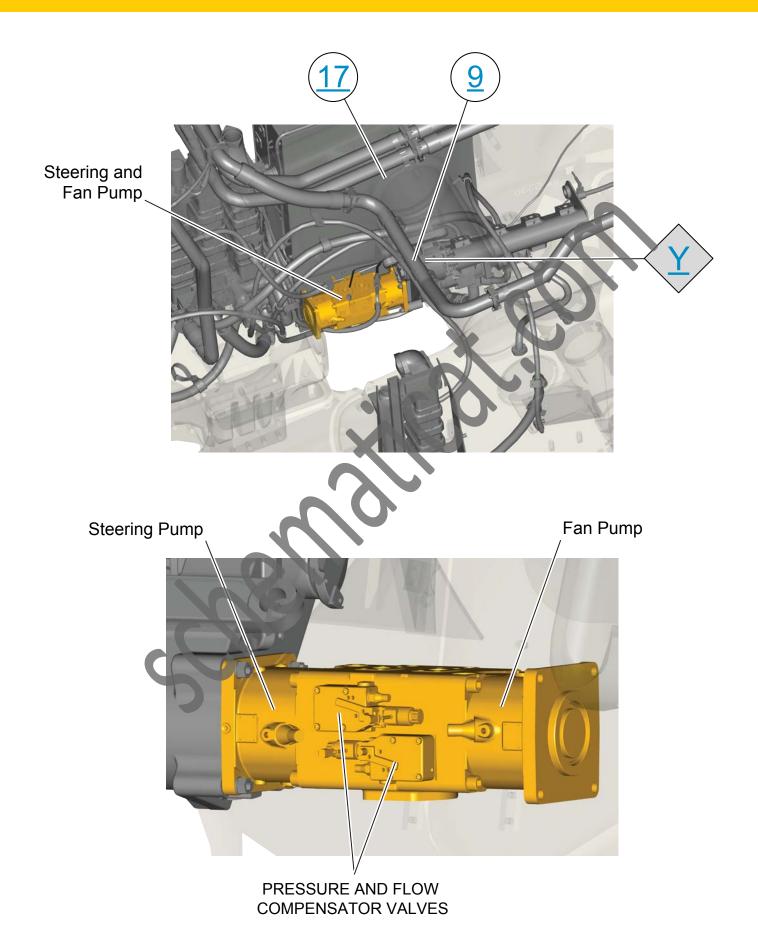






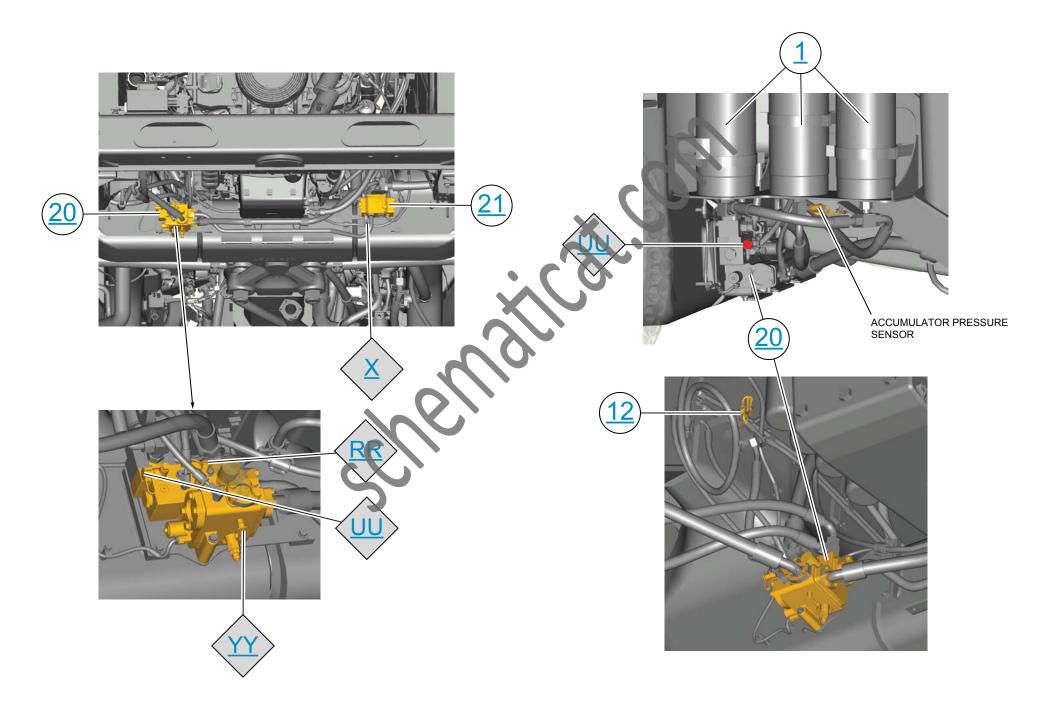
STEERING AND FAN PUMP





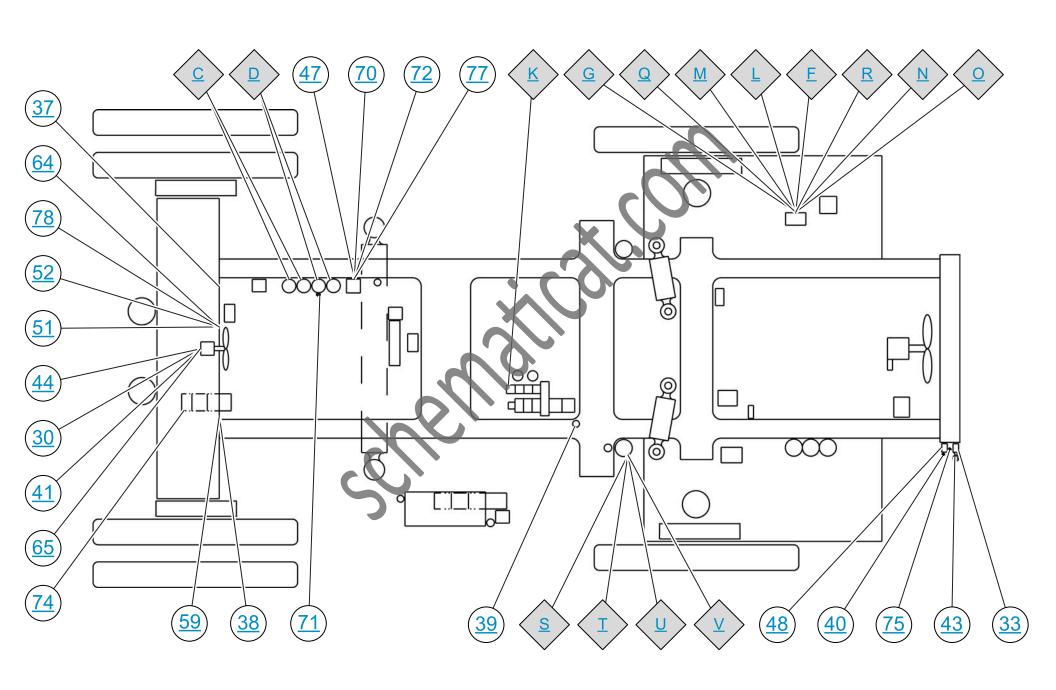
STEERING CONTROL VALVE AND RELIEF VALVE MANIFOLD





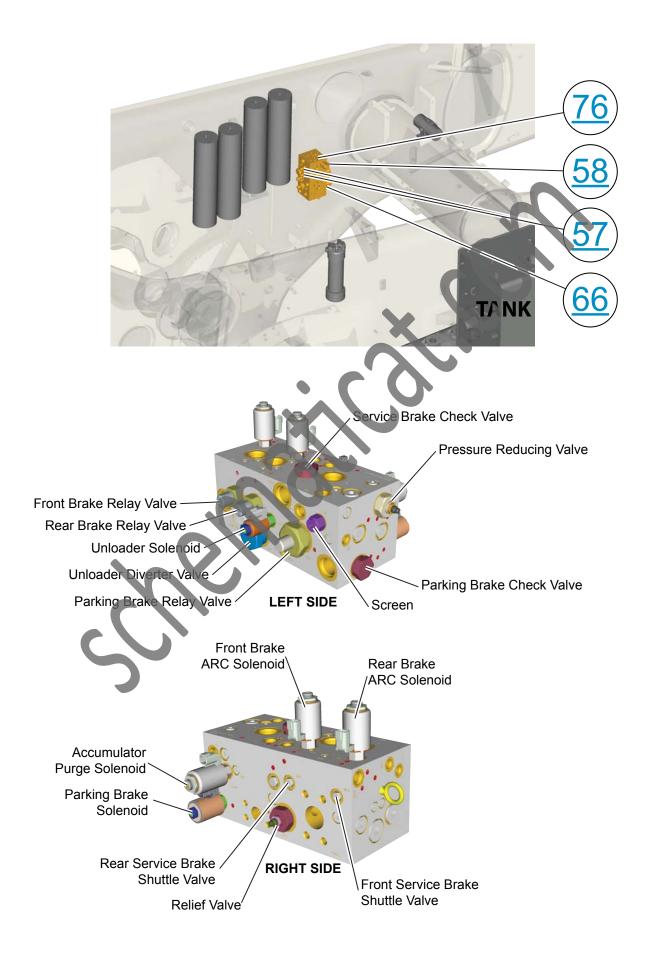
MACHINE COMPONENT AND TAP LOCATIONS



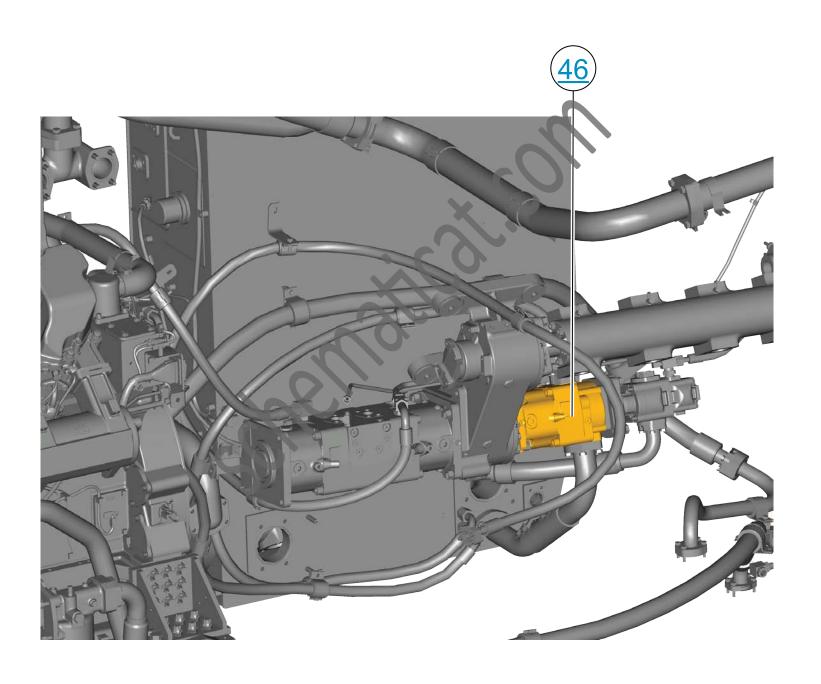


BRAKE CHASSIS VALVE



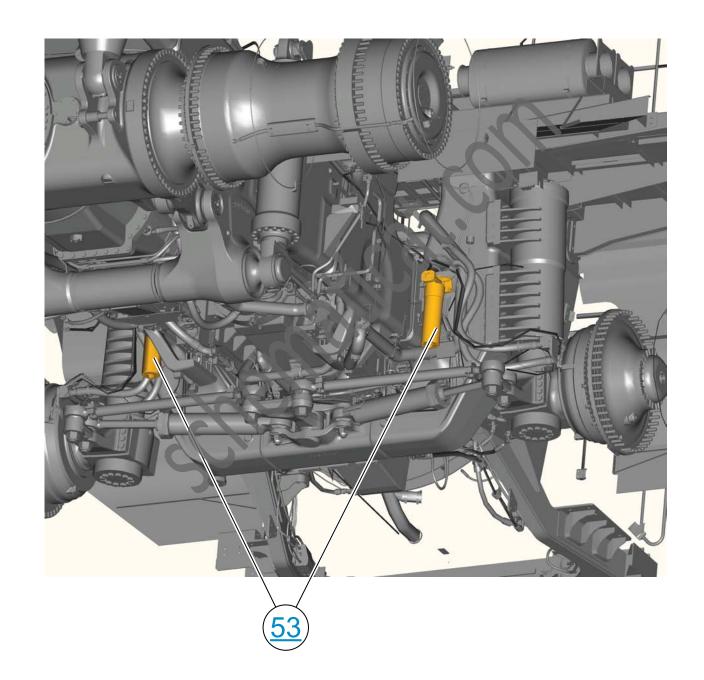




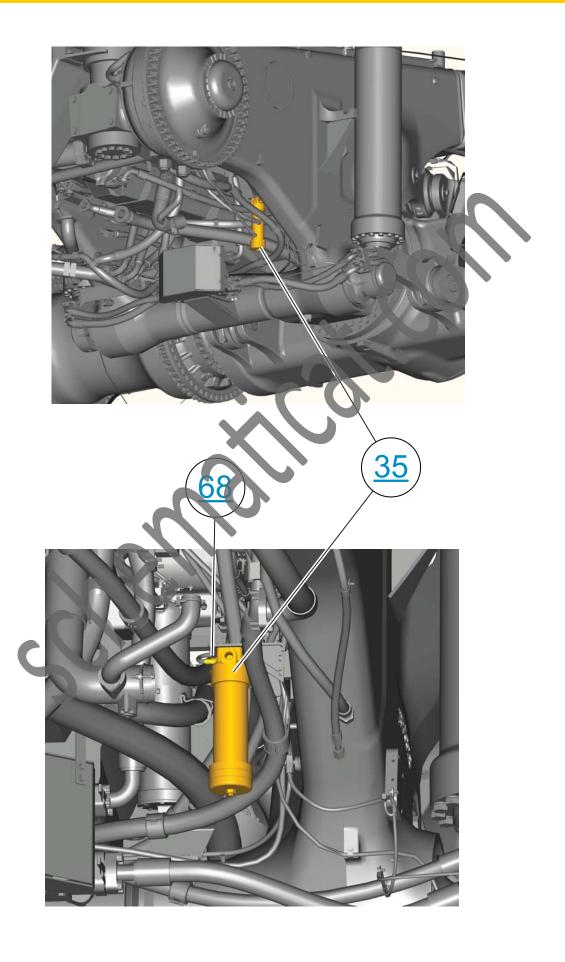


BRAKE COOLING SCREENS





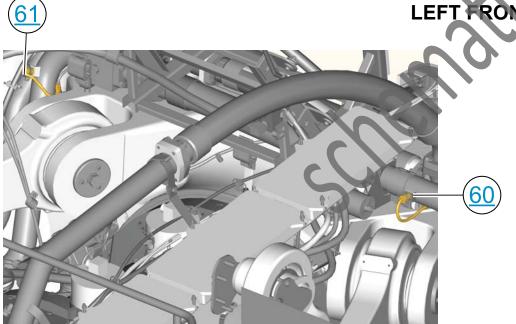




BRAKE TEMPERATURE SENSORS





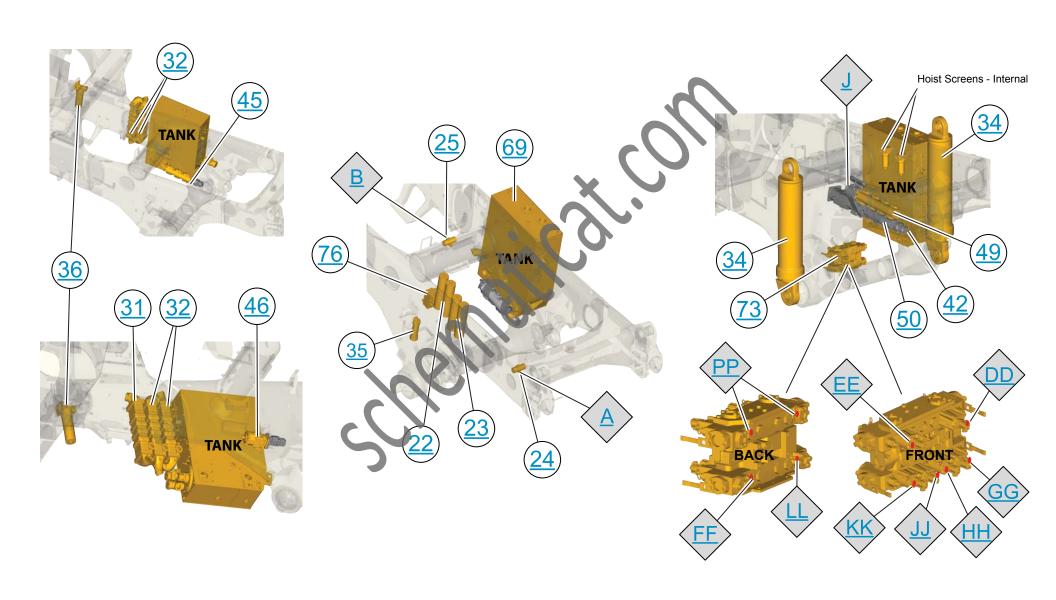


REAR



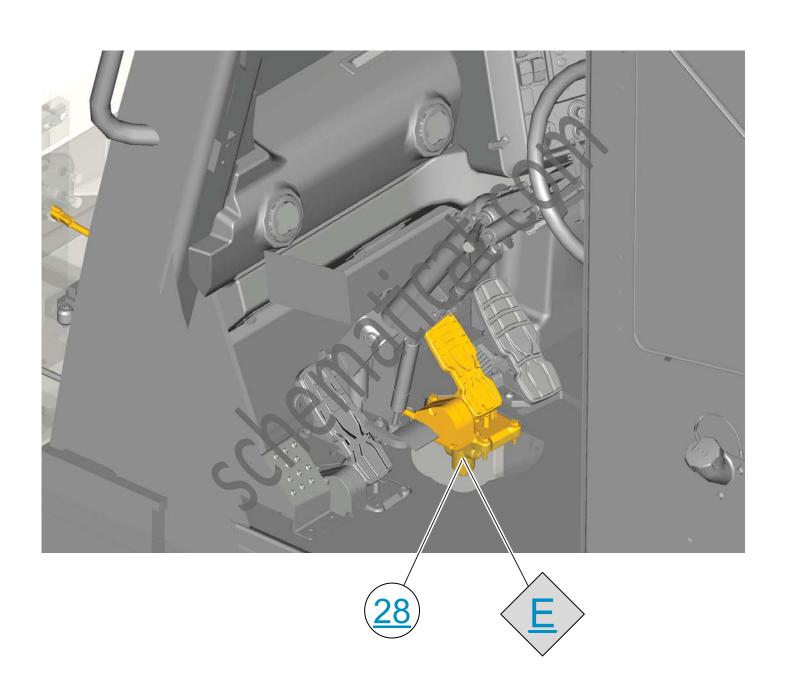
RIGHT FRONT



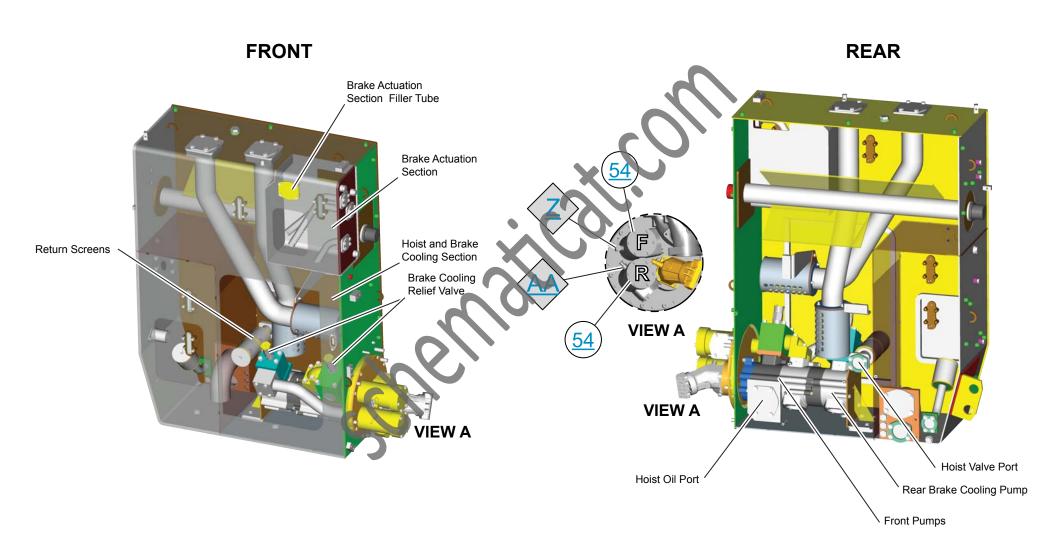


SERVICE BRAKE CONTROL VALVE



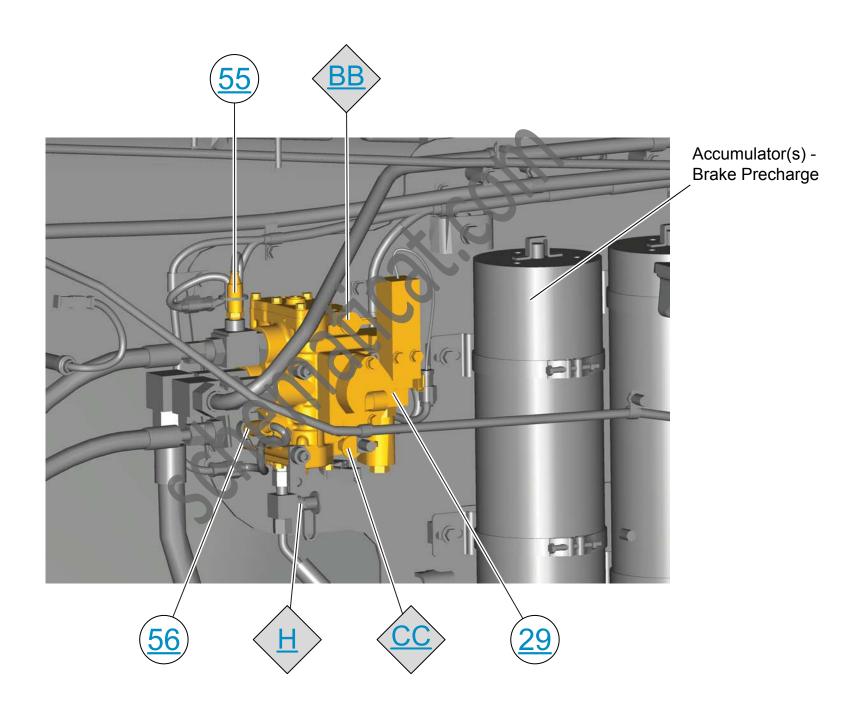






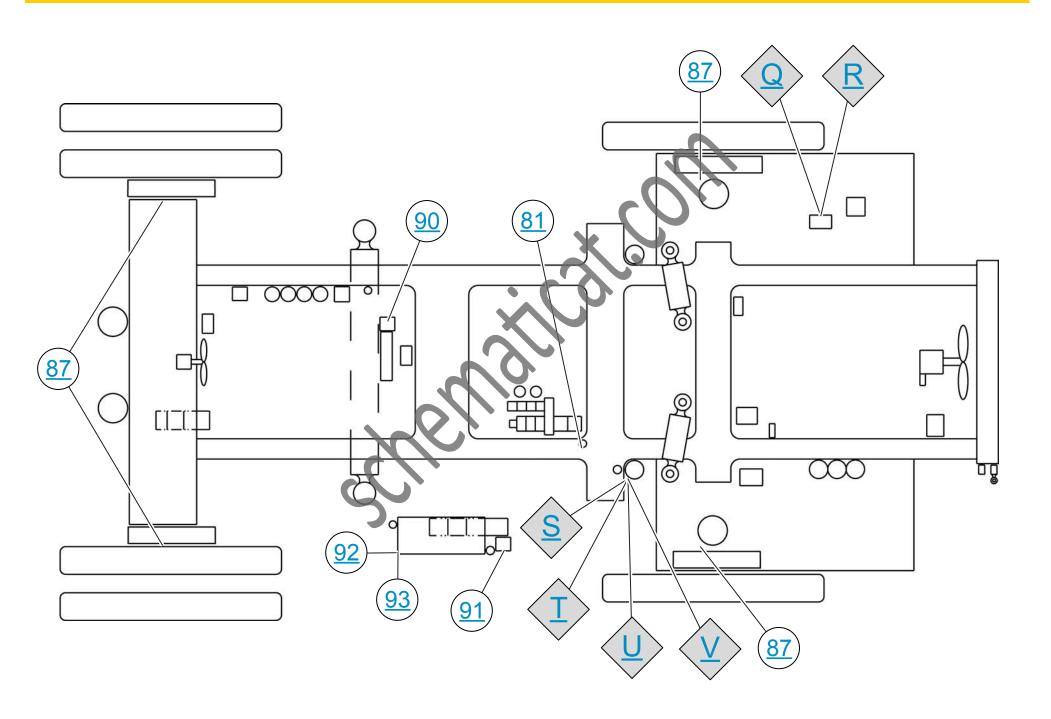
TRACTION CONTROL SYSTEM VALVE



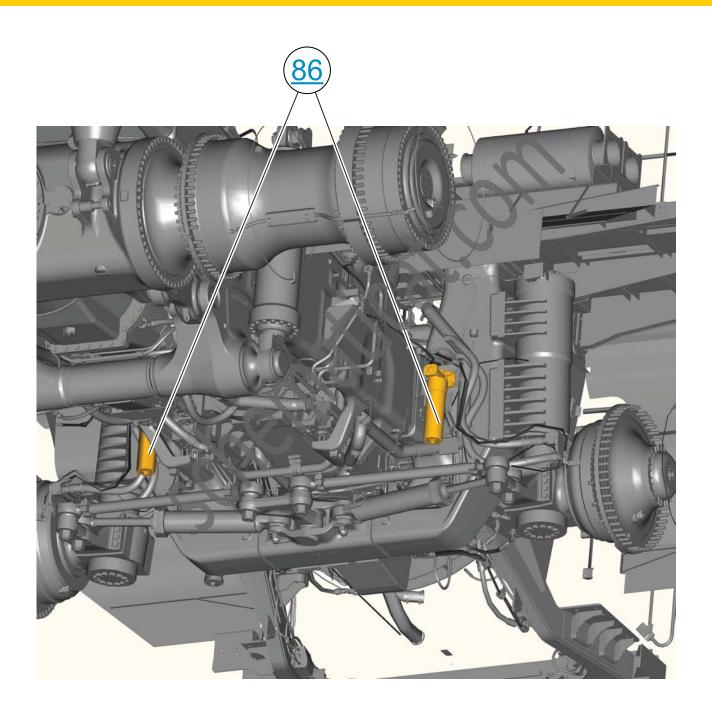


MACHINE COMPONENT AND TAP LOCATIONS















REAR

