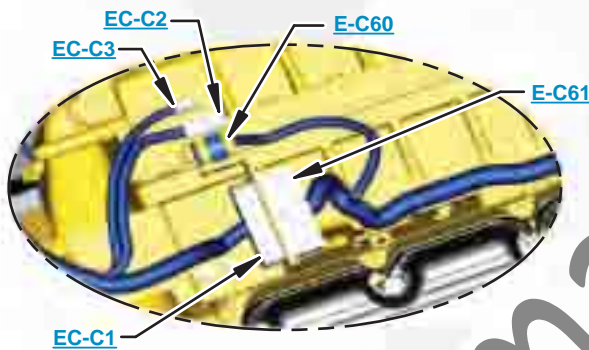


***This document is best viewed at a screen resolution of 1024 X 768.***

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

---

## **D8R Track-Type Tractor Hydraulic System**

---

AKA1-UP  
6YZ1-UP

SchematicCat.com

Volume 1 of 2: Ripper  
Volume 2 of 2: Winch

---

# COMPONENT LOCATION

## Volume 1 of 2 - RIPPER



Component	Part Number	Machine Location	Schematic Location
Pump Gp - Steering / Cooling	139-4151	<a href="#">1</a>	<a href="#">F-4</a>
Motor Gp - Steering	159-7162	<a href="#">2</a>	<a href="#">F-7</a>
Pump Gp - Implement	9T-8346	<a href="#">3</a>	<a href="#">D-4</a>
Valve Gp - Dozer and Ripper Imp Dozer Only	160-5951 160-5952	<a href="#">4</a>	<a href="#">D-5</a>
Manifold Gp - Inlet and Relief	163-0829	<a href="#">5</a>	<a href="#">D-5</a>
Valve Gp - Dozer Lift Section	160-5953	<a href="#">6</a>	<a href="#">D-5</a>
Valve Gp - Tilt Section	160-5954	<a href="#">7</a>	<a href="#">C-5</a>
Valve Gp - Ripper Lift and Tilt Sections	169-3323	<a href="#">8</a>	<a href="#">B-5</a>
Cover - End	169-9119	<a href="#">10</a>	<a href="#">A-5</a>
Valve Gp - Dozer Pilot Control	200-0189	<a href="#">11</a>	<a href="#">A-3</a>
Valve Gp - Ripper Pilot Control	184-5321	<a href="#">12</a>	<a href="#">A-8</a>
Valve Gp - Implement Lockout	130-4531	<a href="#">14</a>	<a href="#">B-8</a>
Accumulator - Pilot Circuit	200-0750	<a href="#">15</a>	<a href="#">C-8</a>
Valve Gp - Pressure Reg Manifold	162-0162	<a href="#">16</a>	<a href="#">C-8</a>
Valve Gp - Cooler Bypass	126-0747	<a href="#">17</a>	<a href="#">E-3</a>
Cooler - Hydraulic Oil	153-1271	<a href="#">18</a>	<a href="#">D-2</a>
Filter Gp - Steering Charge	177-6979	<a href="#">19</a>	<a href="#">F-3</a>
Valve Gp - Steering Pilot	9T-8693	<a href="#">20</a>	<a href="#">F-3</a>
Valve Gp - Pressure Control	163-0057	<a href="#">21</a>	<a href="#">E-7</a>
Valve Gp - Quick Drop	109-6942	<a href="#">22</a>	<a href="#">D-2</a>
Cylinder Gp - Lift	6E-1102	<a href="#">23</a>	<a href="#">D-1</a>
Cylinder Gp - Dual Tilt	6E-0397	<a href="#">24</a>	<a href="#">C-1</a>
Cylinder Gp - Single Tilt	6E-1175	<a href="#">25</a>	<a href="#">B-1</a>
Cylinder Gp - Ripper Tip (LH)	155-3652	<a href="#">26</a>	<a href="#">D-8</a>
Cylinder Gp - Ripper Tip (RH)	165-0102	<a href="#">27</a>	<a href="#">D-8</a>
Cylinder Gp - Ripper Lift	155-3653	<a href="#">28</a>	<a href="#">D-7</a>
Cylinder Gp - Pin Puller	6E-3113	<a href="#">29</a>	<a href="#">E-8</a>
Tank Gp - Hydraulic Oil	164-3700	<a href="#">30</a>	<a href="#">C-3</a>
Valve Gp - Dual Tilt	106-9648	<a href="#">32</a>	<a href="#">C-1</a>

# COMPONENT LOCATION

## Volume 2 of 2 - WINCH



Component	Part Number	Machine Location	Schematic Location
Pump Gp - Steering / Cooling	139-4151	<a href="#">1</a>	<a href="#">F-4</a>
Motor Gp - Steering	159-7162	<a href="#">2</a>	<a href="#">F-6</a>
Pump Gp - Implement	9T-8346	<a href="#">3</a>	<a href="#">D-4</a>
Valve Gp - Dozer & Winch Imp Dozer Only	160-8612 160-5952	<a href="#">4</a>	<a href="#">D-6</a>
Manifold Gp - Inlet & Relief	163-0829	<a href="#">5</a>	<a href="#">D-5</a>
Valve Gp - Dozer Lift Section	160-5953	<a href="#">6</a>	<a href="#">C-5</a>
Valve Gp - Tilt Section	160-5954	<a href="#">7</a>	<a href="#">C-5</a>
Valve Gp - Winch Section	124-2906	<a href="#">9</a>	<a href="#">B-5</a>
Cover - End	169-9119	<a href="#">10</a>	<a href="#">B-5</a>
Valve Gp - Dozer Pilot Control	200-0189	<a href="#">11</a>	<a href="#">A-3</a>
Valve Gp - Winch Pilot Control	160-0766	<a href="#">13</a>	<a href="#">A-8</a>
Valve Gp - Implement Lockout	130-4531	<a href="#">14</a>	<a href="#">B-8</a>
Accumulator - Pilot Circuit	200-0750	<a href="#">15</a>	<a href="#">B-8</a>
Valve Gp - Pressure Reg Manifold	162-0162	<a href="#">16</a>	<a href="#">C-8</a>
Valve Gp - Cooler Bypass	126-0747	<a href="#">17</a>	<a href="#">E-3</a>
Cooler - Hydraulic Oil	153-1271	<a href="#">18</a>	<a href="#">D-2</a>
Filter Gp - Steering Charge	177-6979	<a href="#">19</a>	<a href="#">F-3</a>
Valve Gp - Steering Pilot	9T-8693	<a href="#">20</a>	<a href="#">F-3</a>
Valve Gp - Pressure Control	163-0057	<a href="#">21</a>	<a href="#">E-6</a>
Valve Gp - Quick Drop	109-6942	<a href="#">22</a>	<a href="#">D-2</a>
Cylinder Gp - Lift	6E-1102	<a href="#">23</a>	<a href="#">D-1</a>
Cylinder Gp - Dual Tilt	6E-0397	<a href="#">24</a>	<a href="#">C-1</a>
Cylinder Gp - Single Tilt	6E-1175	<a href="#">25</a>	<a href="#">B-1</a>
Tank Gp - Hydraulic Oil	164-3700	<a href="#">30</a>	<a href="#">C-3</a>
Winch Unit	160-5555	<a href="#">31</a>	<a href="#">E-8</a>
Valve Gp - Dual Tilt	106-9648	<a href="#">32</a>	<a href="#">C-1</a>

# TAP LOCATION

## Volume 1 of 2 - RIPPER



Tap Number	Description	Schematic Location
<a href="#">HB</a>	Implement Pump Signal Pressure	<a href="#">D-4</a>
<a href="#">E</a>	Charge Pump Discharge Pressure	<a href="#">E-7</a>
<a href="#">G</a>	Case Return	<a href="#">E-7</a>
<a href="#">H</a>	Filter Outlet Pressure	<a href="#">F-3</a>
<a href="#">HA</a>	Implement Pump Discharge At Pump	<a href="#">E-7</a>
<a href="#">HC</a>	Left Steering Loop	<a href="#">F-7</a>
<a href="#">HD</a>	Right Steering Loop	<a href="#">F-7</a>
<a href="#">J</a>	Hydraulic Oil Cooler Inlet Pressure	<a href="#">D-2</a>
<a href="#">K</a>	Filter Inlet Pressure (SOS)	<a href="#">F-3</a>
<a href="#">X1</a>	Right Steer Actuator Signal Pressure	<a href="#">F-4</a>
<a href="#">X2</a>	Left Steer Actuator Signal Pressure	<a href="#">F-4</a>
<a href="#">Y1</a>	Left Steer Pilot Signal	<a href="#">E-3</a>
<a href="#">Y2</a>	Right Steer Pilot Signal	<a href="#">E-3</a>
<a href="#">CP</a>	Pilot Oil Supply Pressure	<a href="#">B-8</a>
<b>Non Tap Location Points Of Reference</b>		
A	Implement Pump Discharge Pressure	D-4
E	Charge Pump Relief Pressure	F-5
MA	Right Steer Loop At Pump	F-5
MB	Left Steer Loop At Pump	F-5
PS	Steer Pump Control Supply	F-5

# TAP LOCATION

## Volume 2 of 2 - WINCH

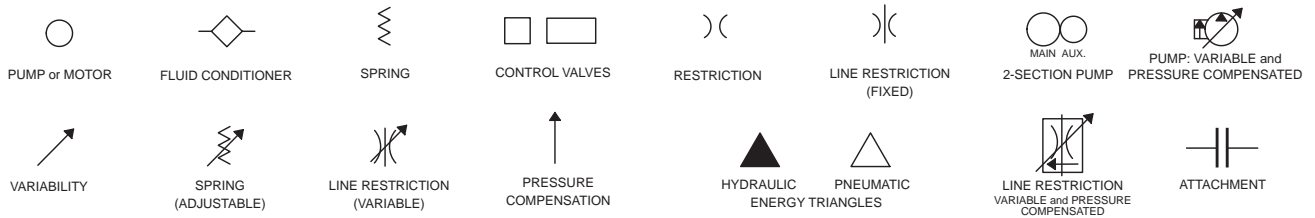


Tap Number	Description	Schematic Location
<a href="#">HB</a>	Implement Pump Signal Pressure	<a href="#">D-4</a>
<a href="#">E</a>	Charge Pump Discharge Pressure	<a href="#">E-6</a>
<a href="#">G</a>	Case Return	<a href="#">E-6</a>
<a href="#">H</a>	Filter Outlet Pressure	<a href="#">F-3</a>
<a href="#">HA</a>	Implement Pump Discharge At Pump	<a href="#">E-6</a>
<a href="#">HC</a>	Left Steering Loop	<a href="#">F-6</a>
<a href="#">HD</a>	Right Steering Loop	<a href="#">F-6</a>
<a href="#">J</a>	Hydraulic Oil Cooler Inlet Pressure	<a href="#">D-2</a>
<a href="#">K</a>	Filter Inlet Pressure (SOS)	<a href="#">F-3</a>
<a href="#">X1</a>	Right Steer Actuator Signal Pressure	<a href="#">F-4</a>
<a href="#">X2</a>	Left Steer Actuator Signal Pressure	<a href="#">F-4</a>
<a href="#">Y1</a>	Left Steer Pilot Signal	<a href="#">E-3</a>
<a href="#">Y2</a>	Right Steer Pilot Signal	<a href="#">E-3</a>
<a href="#">CP</a>	Pilot Oil Supply Pressure	<a href="#">B-8</a>
<b>Non Tap Location Points Of Reference</b>		
A	Implement Pump Discharge Pressure	D-4
E	Charge Pump Relief Pressure	F-5
MA	Right Steer Loop At Pump	F-5
MB	Left Steer Loop At Pump	F-5
PS	Steer Pump Control Supply	F-5

# FLUID POWER SYMBOLS



## BASIC COMPONENT SYMBOLS



## VALVE ENVELOPES

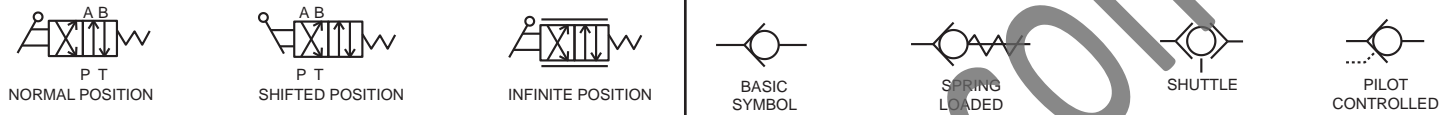
## VALVES

## VALVE PORTS



## CONTROL VALVES

## CHECK VALVES



## FLUID STORAGE RESERVOIRS



## MEASUREMENT

## ROTATING SHAFTS



## COMBINATION CONTROLS



## MANUAL CONTROL SYMBOLS



## RELEASED PRESSURE

## PILOT CONTROL SYMBOLS

## REMOTE SUPPLY PRESSURE



## ACCUMULATORS

## CROSSING AND JOINING LINES

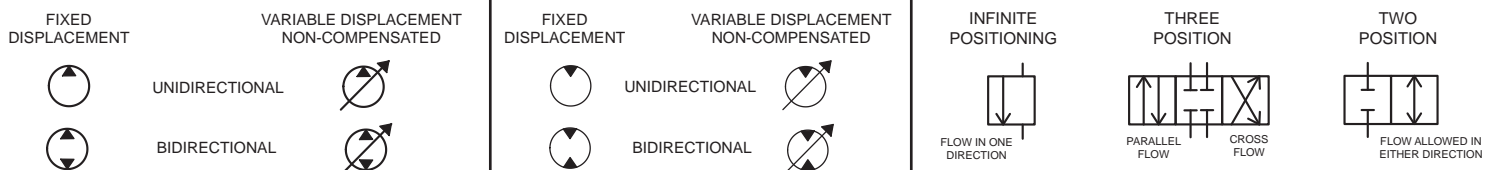
## HYDRAULIC AND PNEUMATIC CYLINDERS



## HYDRAULIC PUMPS

## HYDRAULIC MOTORS

## INTERNAL PASSAGEWAYS



# ELECTRICAL SYMBOLS



## Hydraulic Symbols (Electrical)



Transducer  
(Fluid)



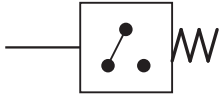
Transducer  
(Gas / Air)



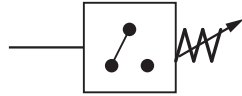
Generator



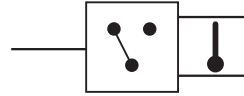
Electric Motor



Pressure Switch



Pressure Switch  
(Adjustable)

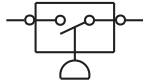


Temperature Switch

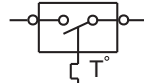


Electrical Wire

## Electrical Symbols (Electrical)



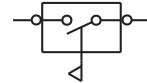
Pressure  
Symbol



Temperature  
Symbol



Level  
Symbol

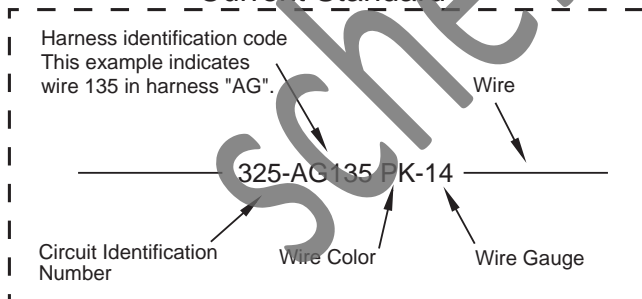


Flow  
Symbol

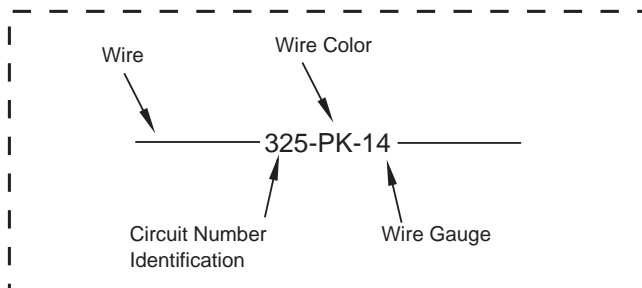
## Wire Number Identification Codes

### Electrical Schematic Example

#### Current Standard

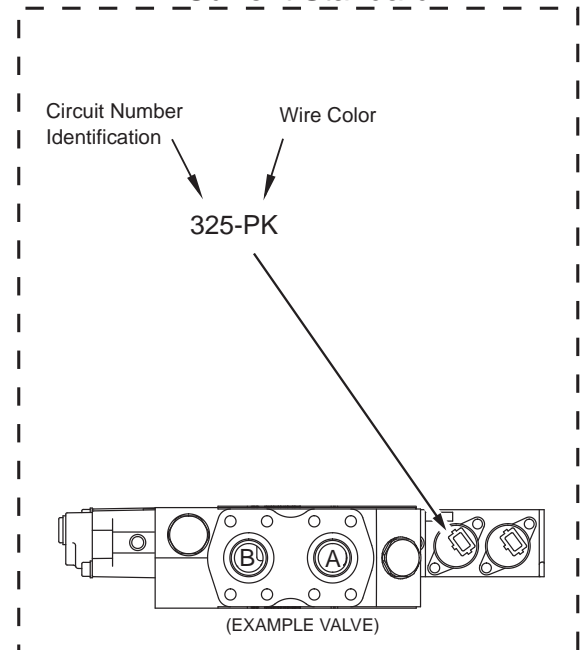


#### Previous Standard

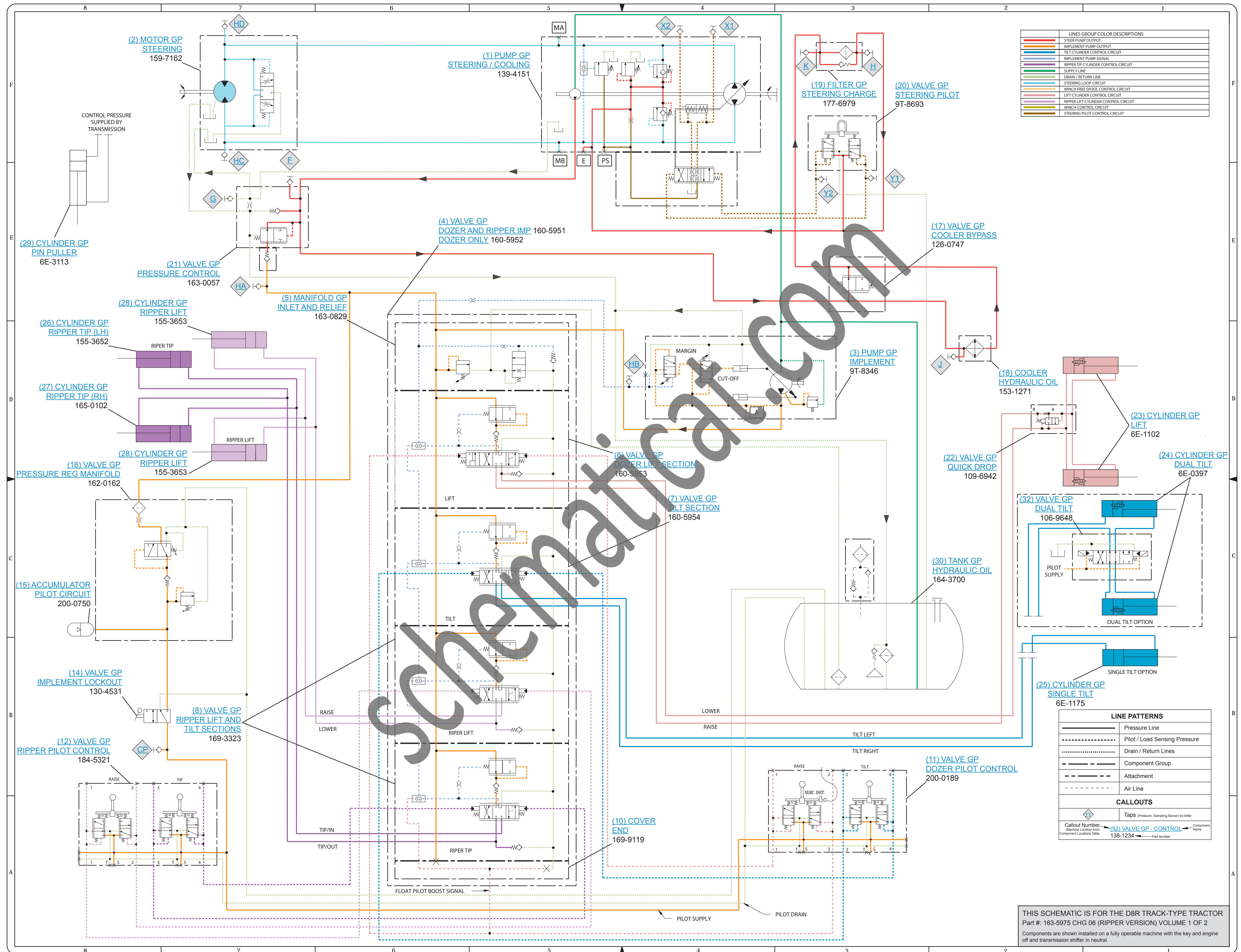


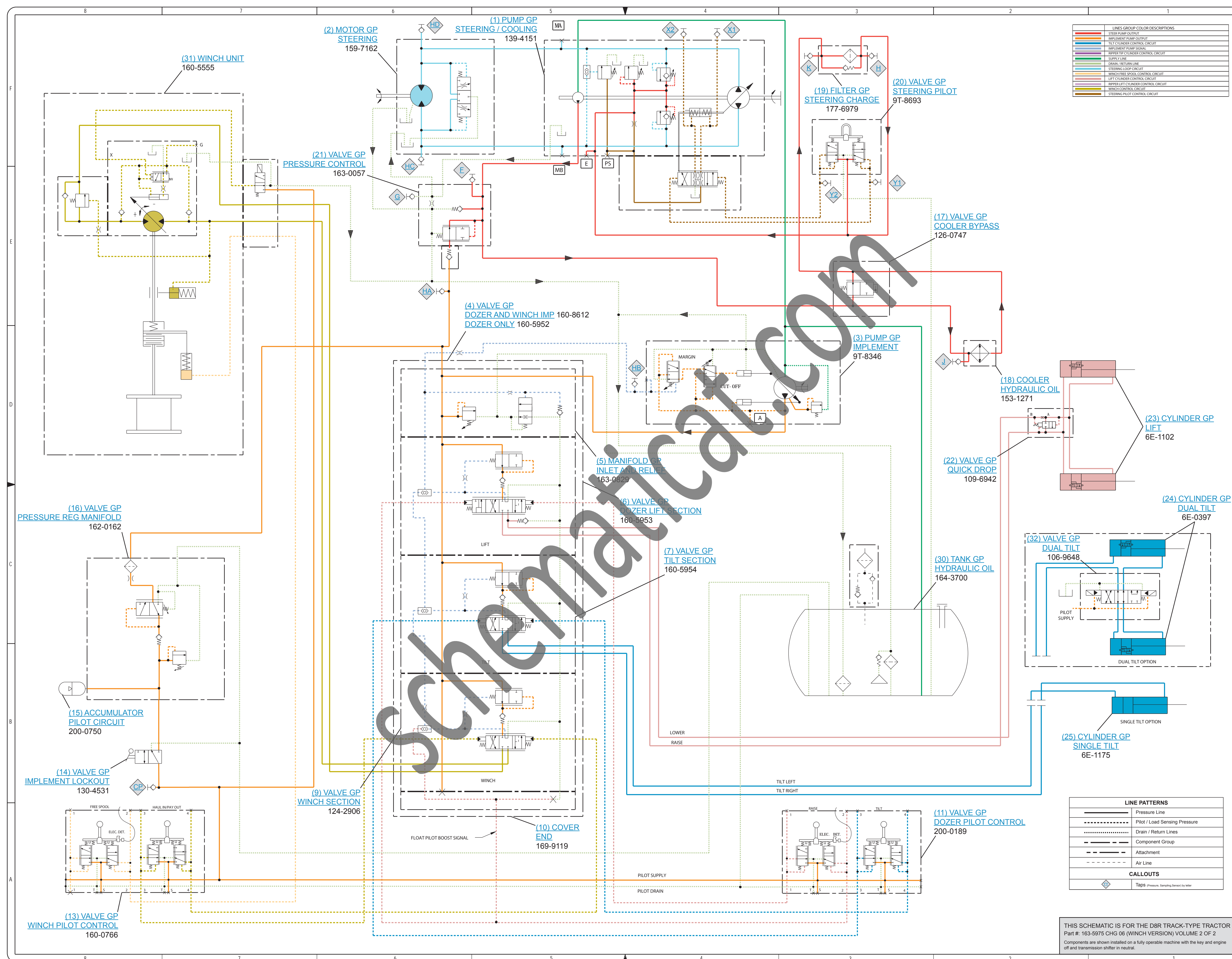
### Hydraulic Schematic Example

#### Current Standard





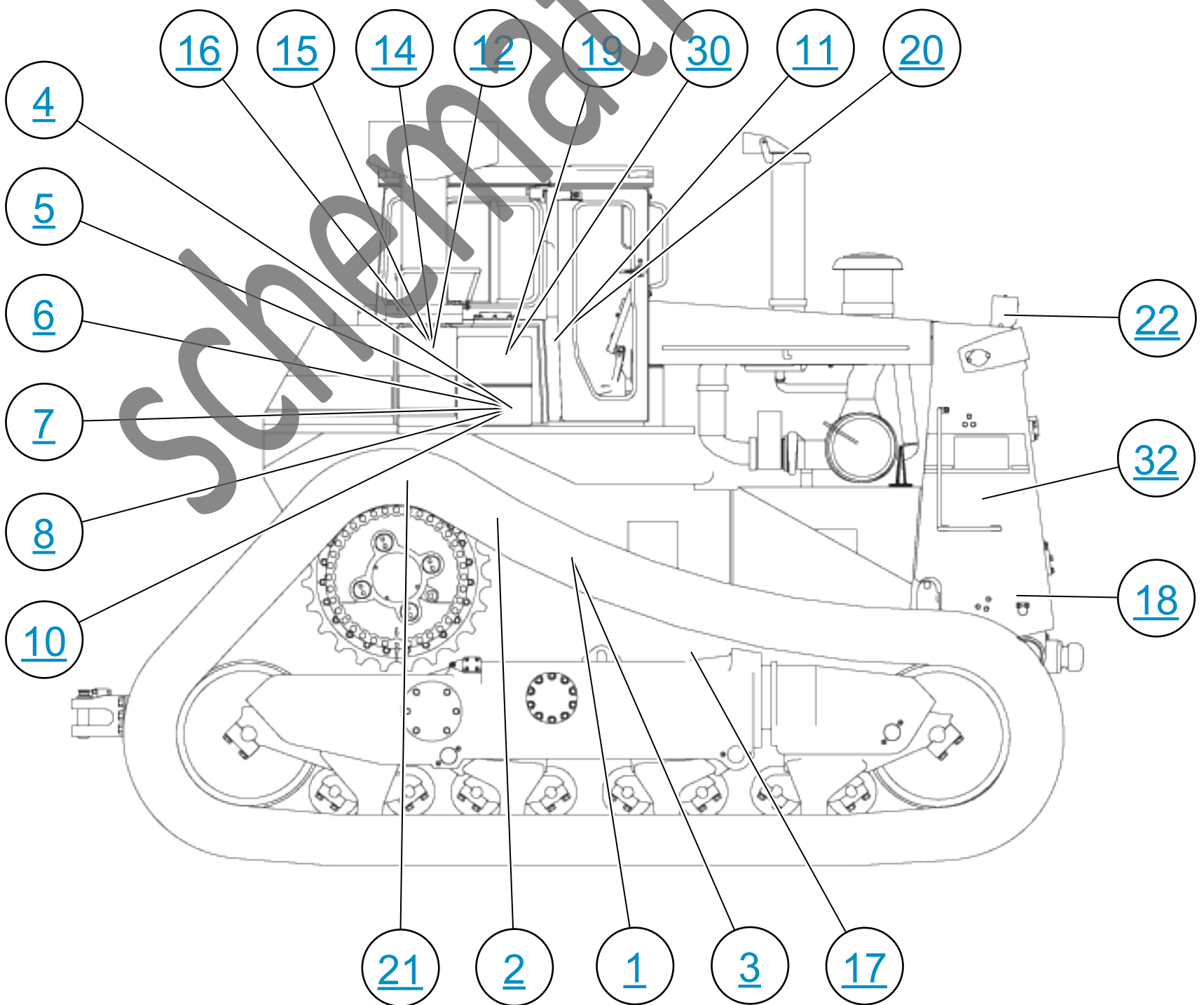
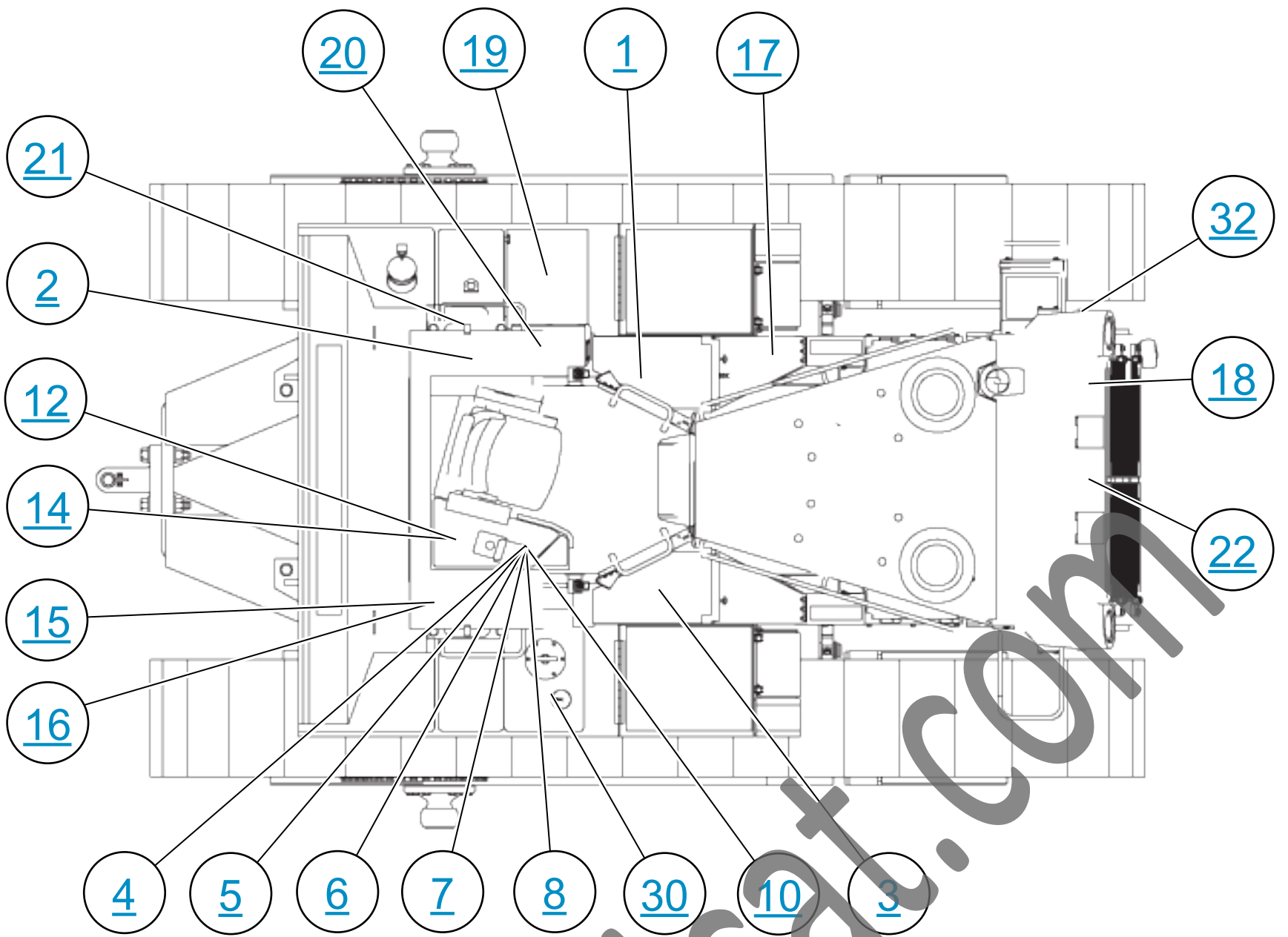


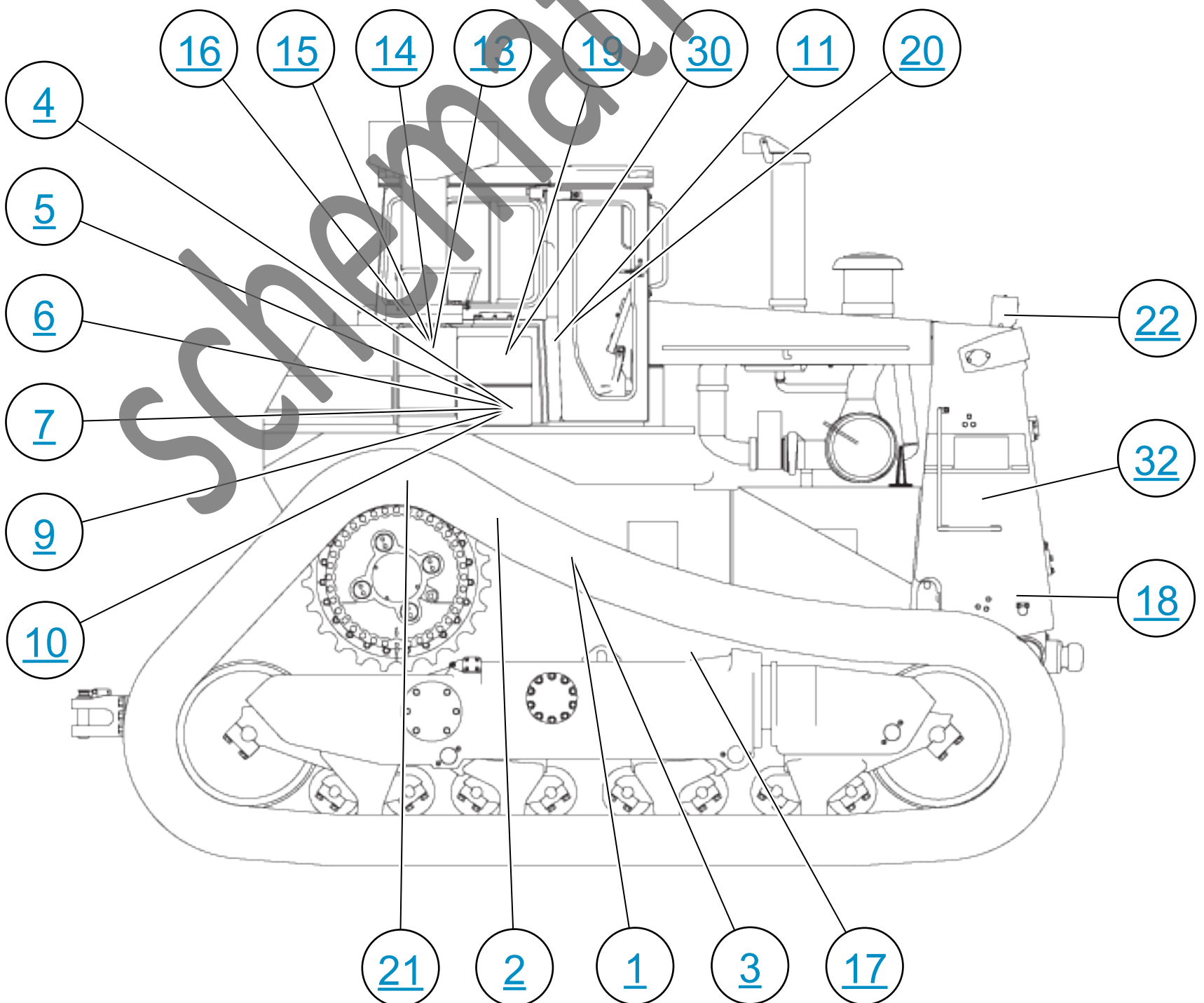
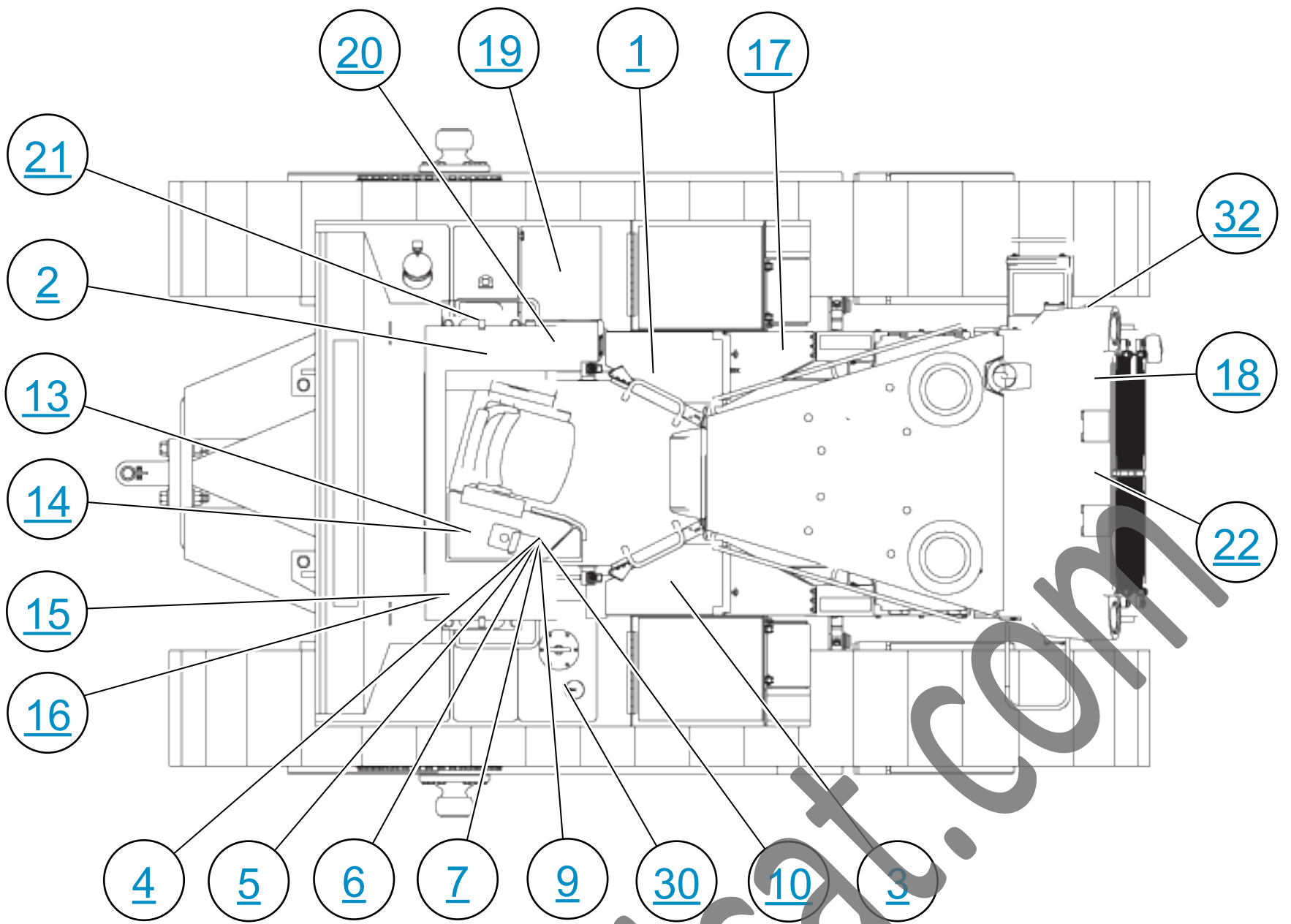


LINES GROUP COLOR DESCRIPTIONS	
Red	STEER PUMP OUTPUT
Blue	IMPLEMENT PUMP OUTPUT
Green	TILT CYLINDER CONTROL CIRCUIT
Orange	IMPLEMENT PUMP SIGNAL
Purple	ROPPER TOP CYLINDER CONTROL CIRCUIT
Light Blue	SUPPLY LINE
Light Green	DRAIN / RETURN LINE
Light Purple	STEERING LOOP CIRCUIT
Light Orange	WINCH FREE SPool CONTROL CIRCUIT
Light Blue	STEERING LOOP CIRCUIT
Light Green	LIFT CYLINDER CONTROL CIRCUIT
Light Purple	ROPPER LIFT CYLINDER CONTROL CIRCUIT
Light Orange	WINCH CONTROL CIRCUIT
Light Blue	STEERING PILOT CONTROL CIRCUIT

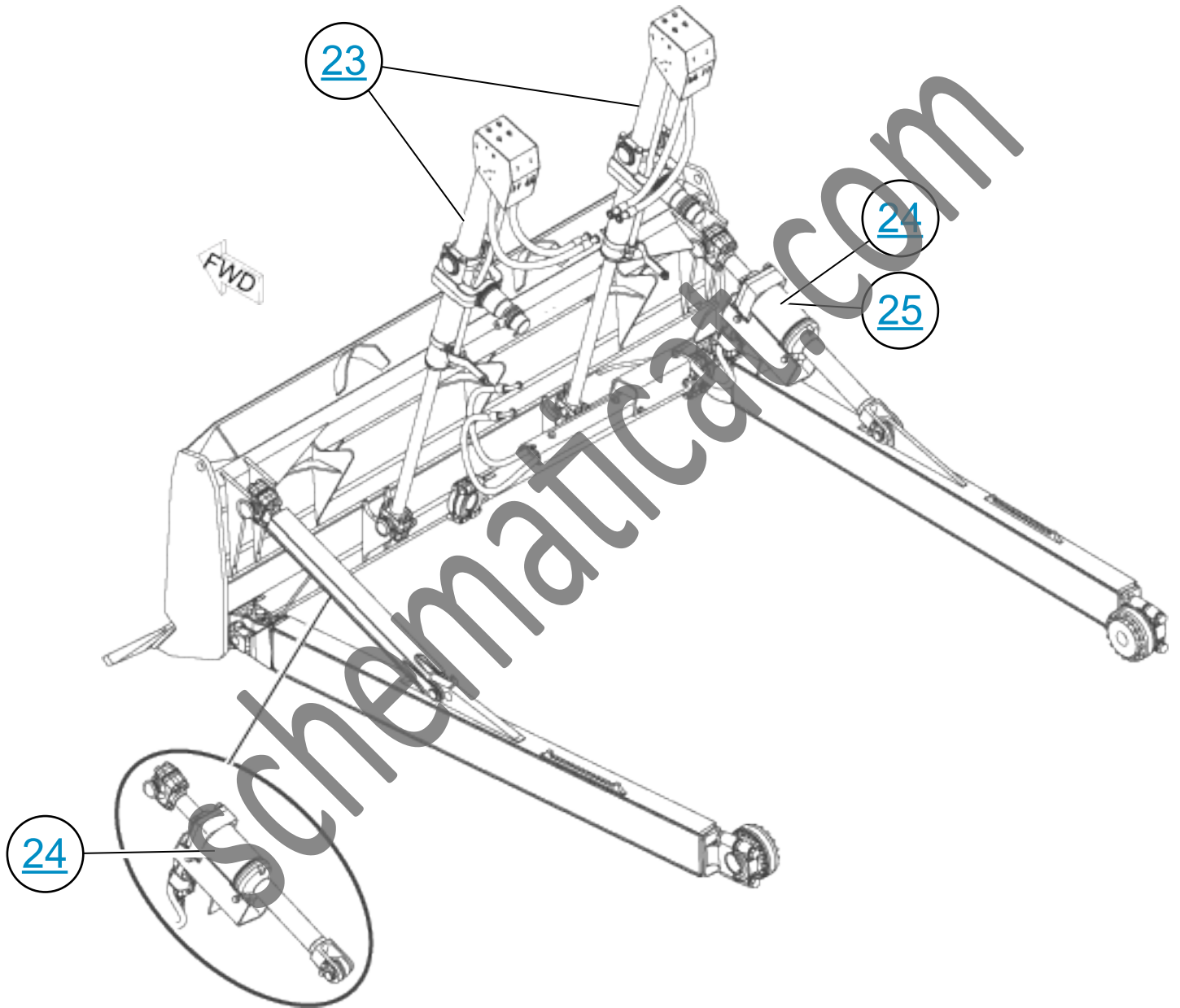
LINE PATTERNS	
—	Pressure Line
- - - - -	Pilot / Load Sensing Pressure
· · · · ·	Drain / Return Lines
—	Component Group
- - - - -	Attachment
- - - - -	Air Line
◇	CALLOUTS
◇	Taps Pressure Sensing Sensor to Meter

THIS SCHEMATIC IS FOR THE D8R TRACK-TYPE TRACTOR  
 Part #: 163-5975 CHG 06 (WINCH VERSION) VOLUME 2 OF 2  
 Components are shown installed on a fully operable machine with the key and engine off and transmission shifter in neutral.

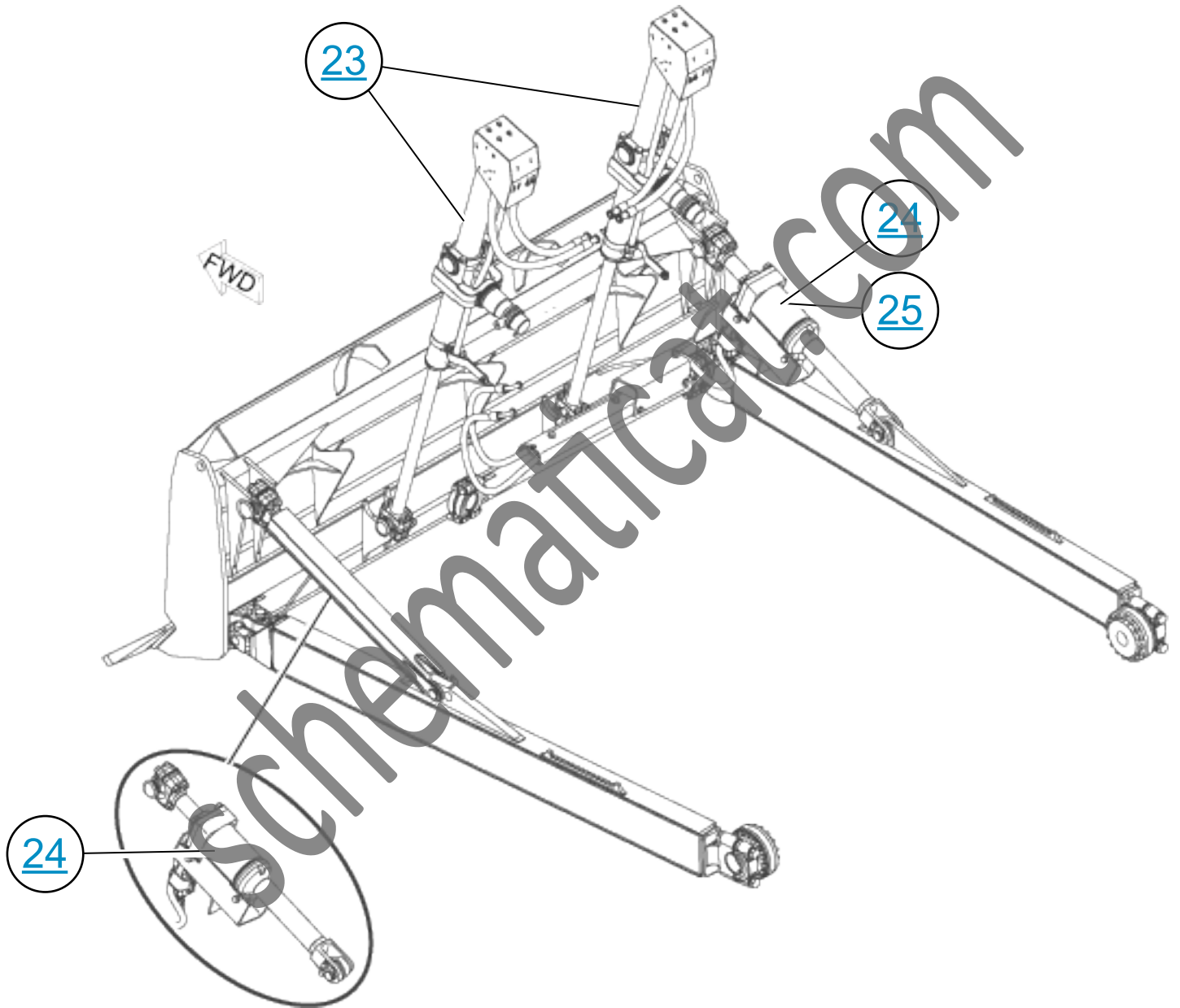


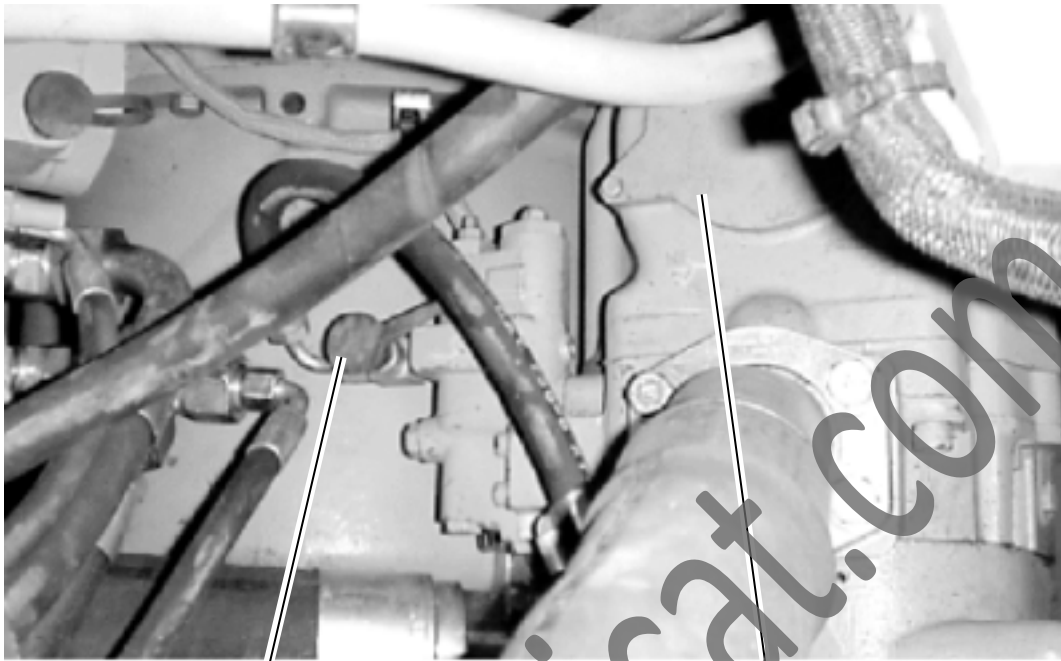


# DOZER BLADE



# DOZER BLADE



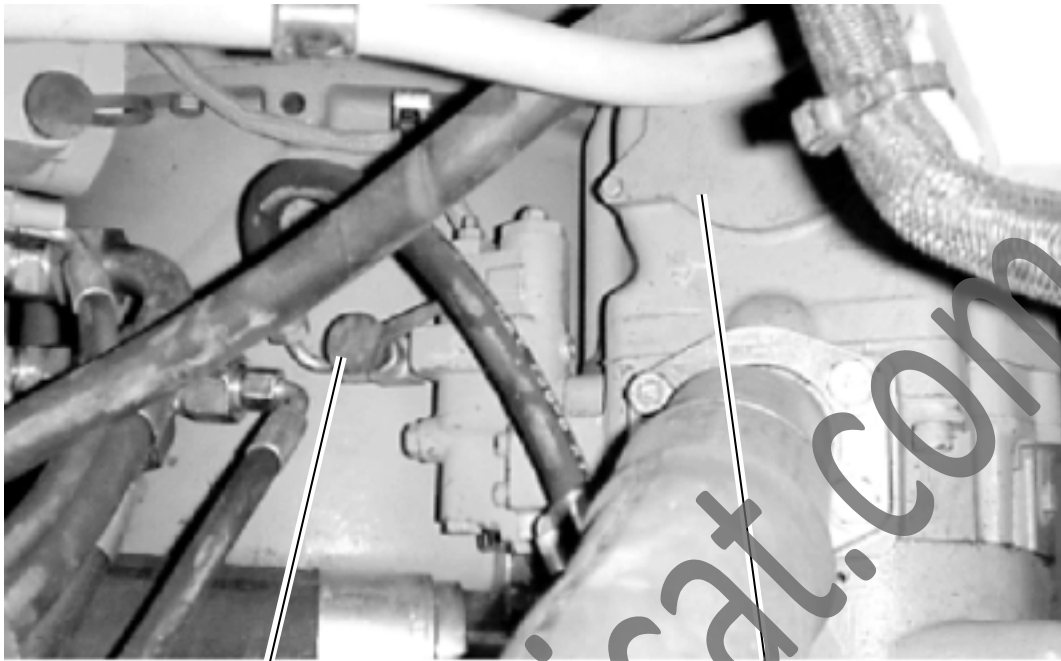


HB

CP

3





HB

CP

3





