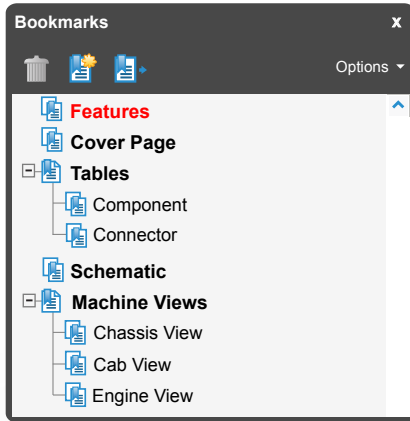


INTERACTIVE SCHEMATIC



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

****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**.

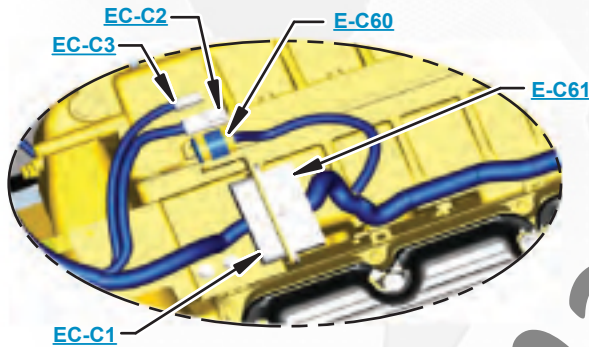
Select **PROPERTIES**.

CLICK the **SETTINGS TAB**.

MOVE THE SLIDER under **SCREEN RESOLUTION** until it shows **1024 X 768**.

CLICK OK to apply the resolution.

**Due to different monitor sizes and PDF reader preferences there may be some variance in linked schematic locations*



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



[Click here to save a copy of this interactive schematic to your desktop](#)

VIEW ALL CALLOUTS

When only one callout is showing on a machine view, clicking on 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”

ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)

[Click here to view the Schematic Symbols and Definitions page](#)



SCHEMATIC SYMBOLS AND DEFINITIONS



VALVES		
ENVELOPES		
One Position	Two Position	Three Position
PORTS		
Two-way	Three-Way	Four-Way
CONTROL		
Normal Position	Shifted Position	Infinite Position
CHECK		
Basic Symbol	Spring Loaded	Shuttle
Pilot Controlled		

INTERNAL PASSAGEWAYS			
Flow in One Direction	Flow Allowed in Either Direction	Parallel Flow	Cross Flow
Infinite Positioning	Two Position	Three Position	

CYLINDERS	
Single Acting	Double Acting

ACCUMULATORS	
Spring Loaded	Gas Charged

PUMPS	
FIXED DISPLACEMENT	
Unidirectional	Bidirectional
VARIABLE DISPLACEMENT NON-COMPENSATED	
Unidirectional	Bidirectional

MOTORS	
FIXED DISPLACEMENT	
Unidirectional	Bidirectional
VARIABLE DISPLACEMENT NON-COMPENSATED	
Unidirectional	Bidirectional

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)
Spring	Pressure Compensation
Control Valves	Line Restriction (Variable)
Restriction	Line Restriction (Fixed)
Line Restriction Variable and Pressure Compensated	2-Section Pump
Attachment	Pump: Variable and Pressure Compensated
Hydraulic Energy Triangles	Pneumatic Energy Triangles

PILOT CONTROL	
RELEASED PRESSURE	
External Return	Internal Return
REMOTE SUPPLY PRESSURE	
Simplified	Complete
Internal Supply Pressure	

ROTATING SHAFTS	
Unidirectional	Bidirectional

COMBINATION CONTROLS						
Solenoid	Solenoid or Manual	Solenoid and Pilot	Solenoid and Pilot or Manual	Servo	Thermal	Detent

LINES	
Crossing	Joining

MEASUREMENT		
Pressure	Temperature	Flow

MANUAL CONTROL					
Push-pull Lever	Manual Shutoff	General Manual	Push Button	Pedal	Spring

FLUID STORAGE RESERVOIRS			
Vented	Pressurized	Return Above Fluid Level	Return Below Fluid Level

HYDRAULIC SYMBOLS - ELECTRICAL							
Transducer (Fluid)	Transducer (Gas / Air)	Generator	Electric Motor	Pressure Switch	Pressure Switch (Adjustable)	Temperature Switch	Electrical Wire

ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC ELECTRICAL COMPONENT SYMBOLS	
	Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.
	Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.
	Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.
	Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.
	Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.
	Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.
	Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.
	Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.
	Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.
	Magnetic Latch Solenoid: An electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil circuit open at the time the coil latches.

HARNES AND WIRE SYMBOLS	
Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).	
Harness Identification Letter(s): (A, B, C, AA, AB, AC, ...)	
Harness Connector Serialization Code: The "C" stands for "Connector" and the number indicates which connector in the harness (C1, C2, C3, ...)	
Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.	
Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.	

Schematic

D7R Track-Type Tractor Hydraulic System

DSH1-UP
DLN1-UP
DJR1-UP

Volume 1 of 2: Blade and Ripper
Volume 2 of 2: Blade and Winch

COMPONENT TABLE



Description	Part Number	Machine Location	Schematic Location
PUMP GP-PS - IMPLEMENTS AND STEERING	299-5790	1	D-2
MOTOR GP - STEERING MOTOR	159-7156	2	C-3
VALVE GP - STEERING COUNTER-BALANCE VALVE	227-0832	3	D-4
VALVE GP - 5 BANK (Shown - Volume 1)	224-4941	4	B-3
VALVE GP - 3 BANK (Not Shown)	224-4940		B-3
VALVE GP - 4 BANK (Shown - Volume 2)	224-4942		B-3
MANIFOLD GP - INLET	271-4965	5	A-3
VALVE GP - STEERING CONTROL	271-4967	6	A-4
VALVE GP - DOZER RAISE CONTROL	271-4968	7	B-4
VALVE GP - DOZER TILT CONTROL	271-4969	8	B-5
VALVE GP - RIPPER CONTROL	271-4970	9	A-4
VALVE GP - WINCH CONTROL (VOLUME 2)	271-4972	10	A-6
COVER - VALVE STACK	230-0399	11	A-6
VALVE GP - DOZER PILOT VALVE (STANDARD)	200-0189	12	E-1
VALVE GP - DOZER PILOT VALVE (DUAL TILT HANDLE)	200-0188		F-3
VALVE GP - RIPPER PILOT VALVE (DUAL AXIS)	184-5321	13	B-8
VALVE GP - RIPPER PILOT VALVE (SINGLE AXIS)	167-1177		B-8
VALVE GP - WINCH PILOT VALVE (VOLUME 2)	160-0766	14	B-8
VALVE GP - SHUT OFF (PART OF 226-4751)	201-0950	15	D-8
ACCUMULATOR GP - PILOT CIRCUIT	200-0750	16	D-8
VALVE GP - PRESSURE REDUCING and CHECK VALVES (NOT SHOWN)	766	17	D-8
VALVE GP - COOLER BYPASS (NOT SHOWN)	9T-3004	18	C-2
COOLER - AIR/OIL COOLER	110-2317	19	C-2
TANK GP-FILTER	224-4948	20	B-2
VALVE GP-BREATHER	3G-4783	21	C-1
FILTER-IMPL RETURN	1R-0777	22	B-1
FILTER-CASE RETURN	1R-0777	22	B-1
VALVE GP - QUICK DROP	228-2576	23	F-6
CYL GP-LIFT	129-1908	24	F-6
CYL GP-LIFT	129-4259		F-6
CYL GP-DUAL TILT	9T-6113	25	D-6
CYL GP-SINGLE TILT	3G-4533	26	C-6
CYL GP-RIPPER RAISE	164-7320	27	E-8, F-8
CYL GP-RIPPER TIP	189-4645	28	F-8
VALVE GP - DUAL TILT VALVE	225-2321	29	D-6
WINCH ARRANGMENT - PACCAR WINCH UNIT (VOLUME 2)	161-8892	30	E-8
VALVE GP - COUNTER BALANCE, LIFT CIRCUIT	239-0681	31	E-3
VALVE GP - EH SOLENOID VALVES (CTCT)	239-5317	32	F-2
VALVE - SHUTTLE VALVE (CTCT)	233-6942	33	A-6
			A-4
			C-5
SENSOR GP-PRESSURE - PRESSURE SENSOR (CTCT) (NOT SHOWN)	237-0957	34	E-2
MANIFOLD GP - WINCH (NOT SHOWN) (VOLUME 2)	234-2864	35	E-7
RESOLVER (VOLUME 2)	263-3912	36	E-2

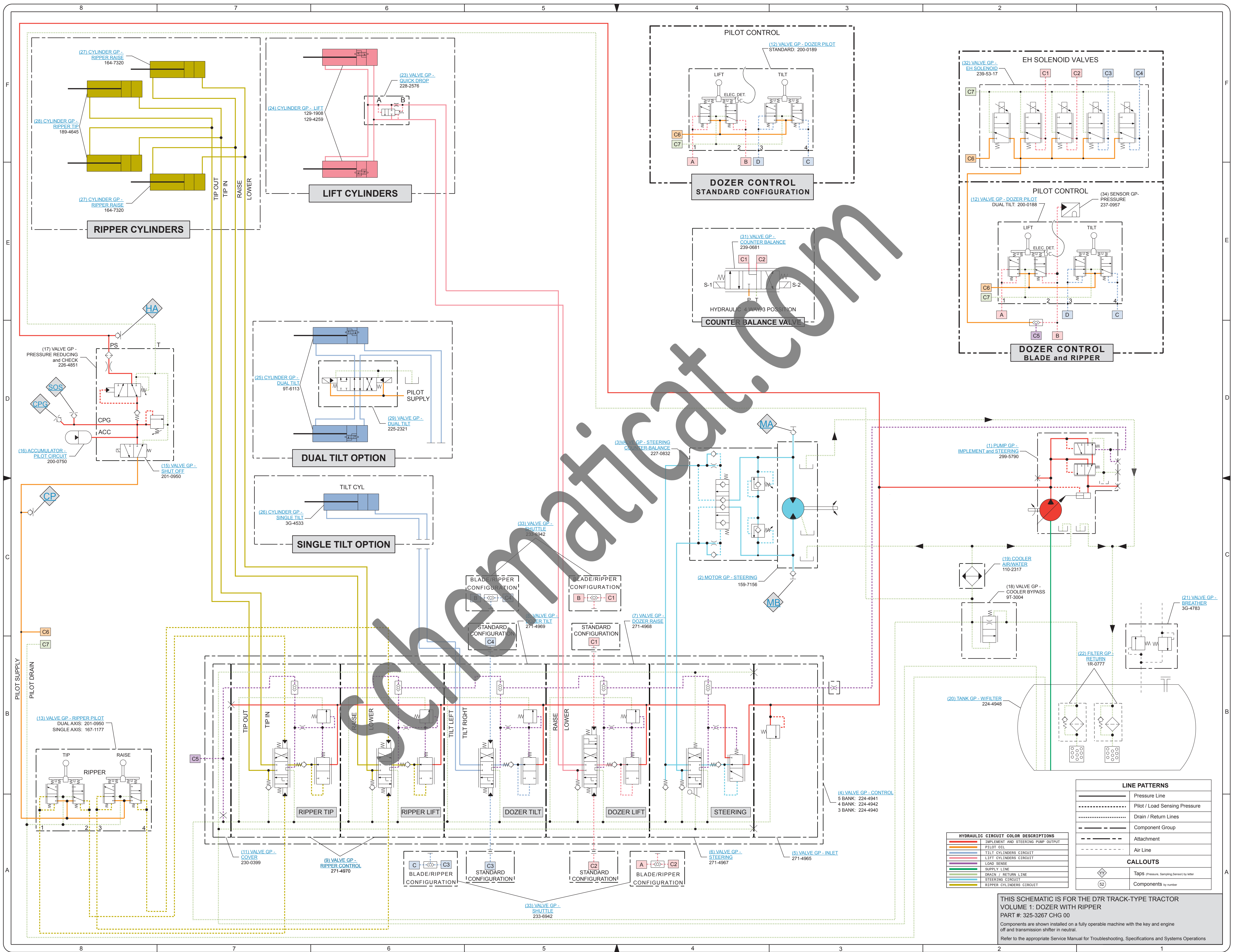
 = See Volume 2

NOT SHOWN = View not available at time of publication

TAP LOCATIONS Pressure, Sampling, Sensor

Tap Number	Description	Schematic Location
CPG	ACCUMULATOR	D-8
SOS	OIL SAMPLING PORT	D-8
CP	PILOT SUPPLY	C-8
MA	STEERING PORT A	D-3
MB	STEERING PORT B	C-3
HA	IMPLEMENT PUMP DISCHARGE	D-8

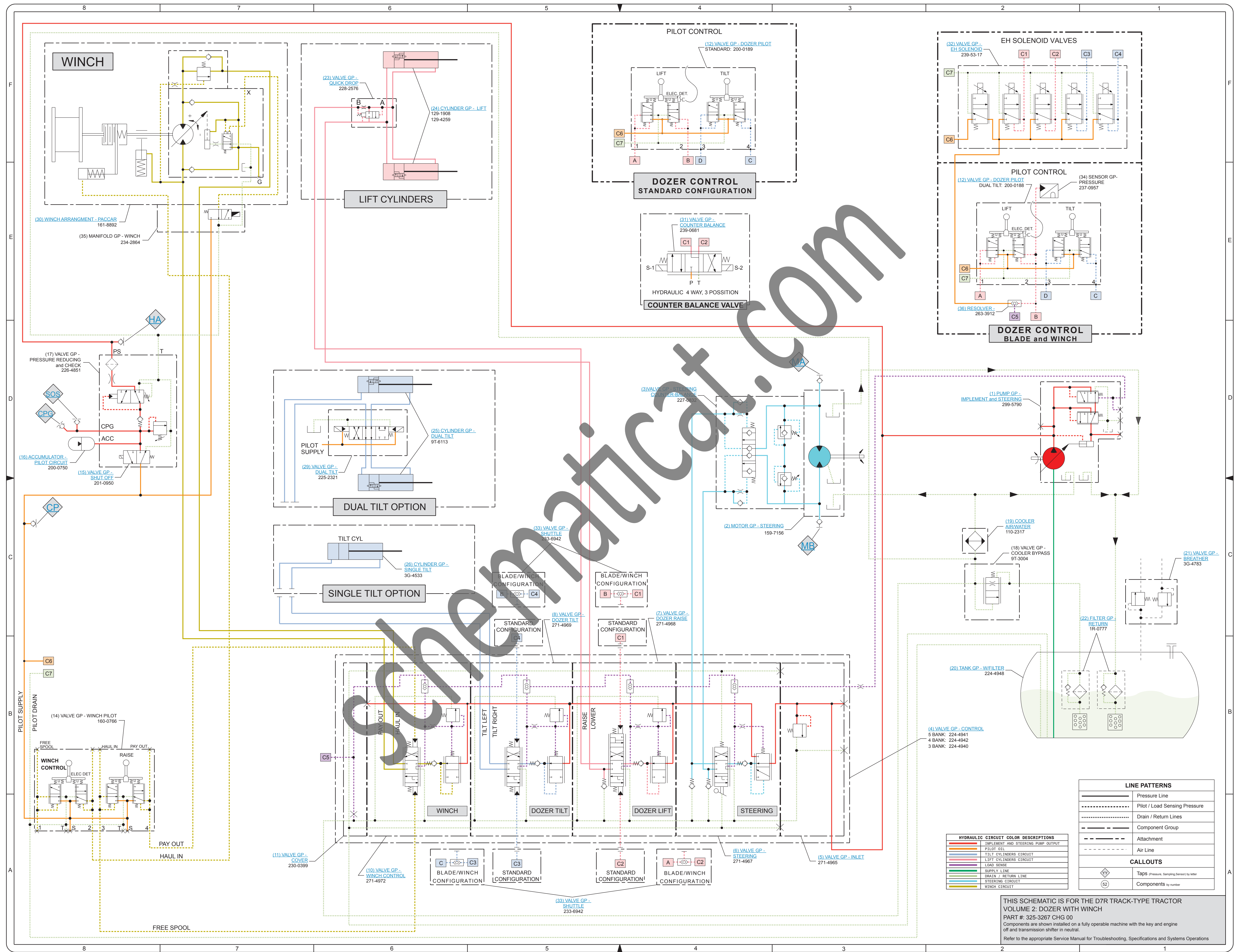
SchematicCat.com



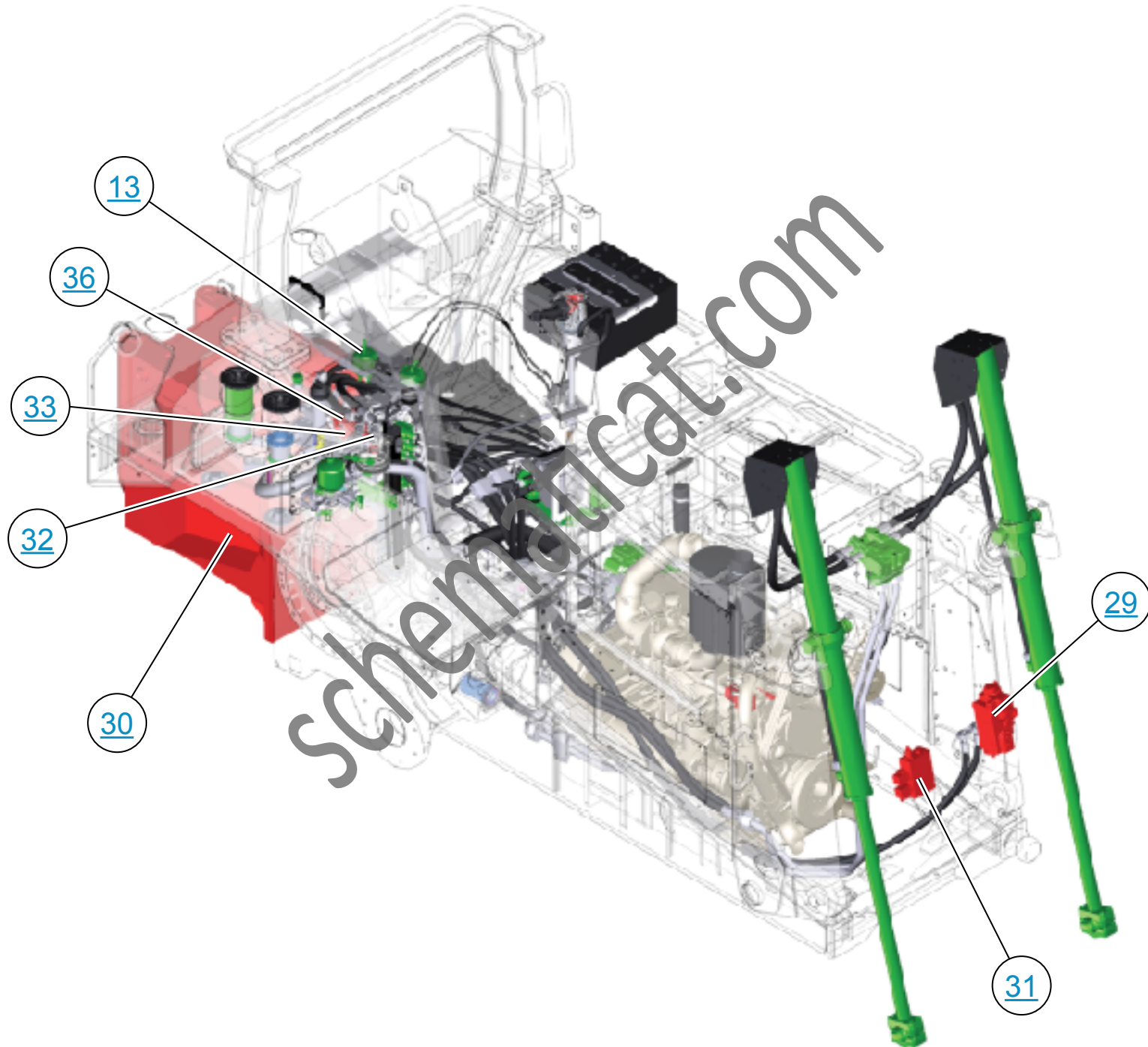
LINE PATTERNS	
	Pressure Line
	Pilot / Load Sensing Pressure
	Drain / Return Lines
	Component Group
	Attachment
	Air Line

CALLOUTS	
	Taps Pressure, Sampling, Remote by letter
	Components by number

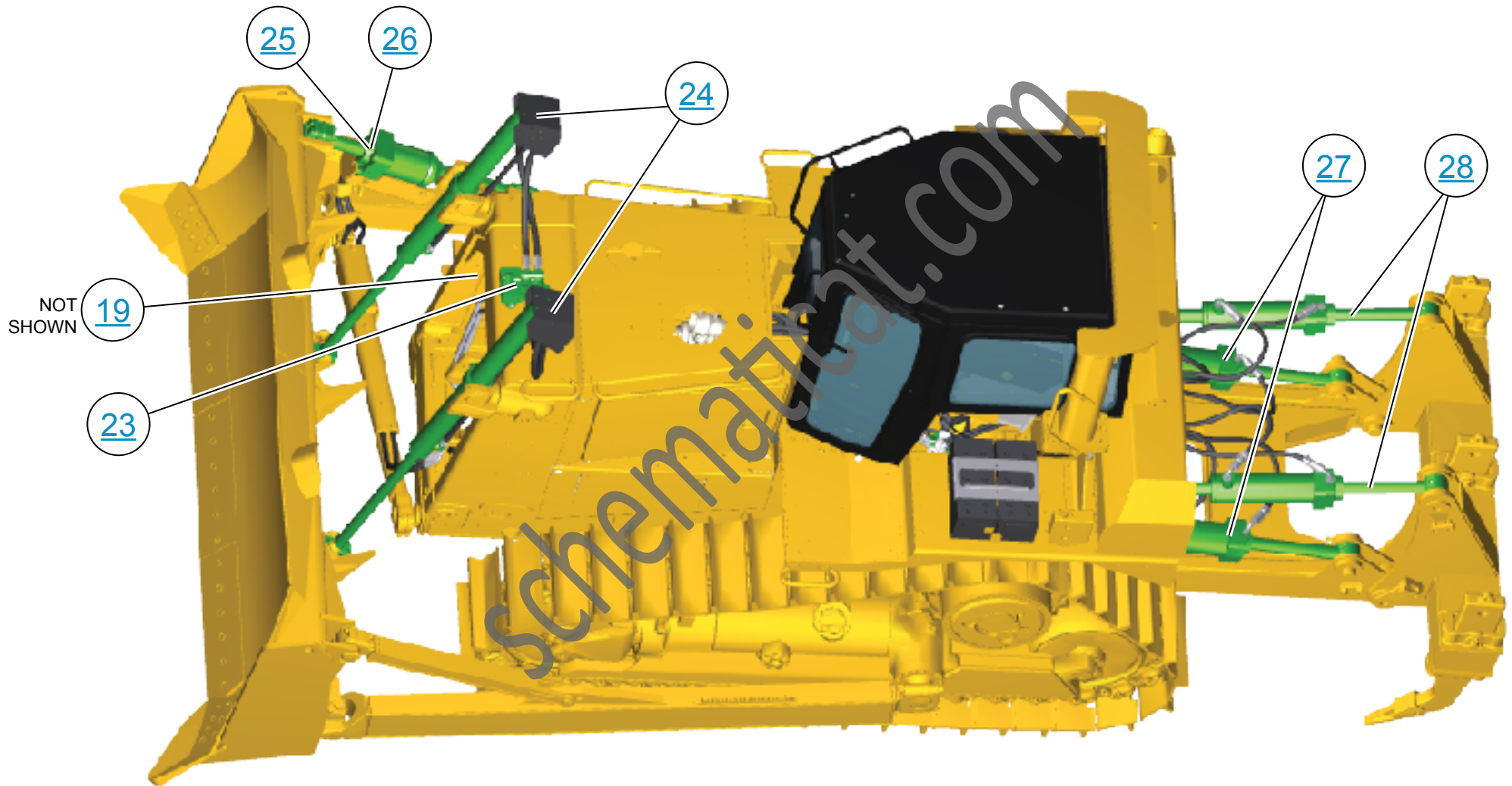
THIS SCHEMATIC IS FOR THE DTR TRACK-TYPE TRACTOR
 VOLUME 1: DOZER WITH RIPPER
 PART #: 325-3267 CHG 00
 Components are shown installed on a fully operable machine with the key and engine off and transmission shifter in neutral.
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations



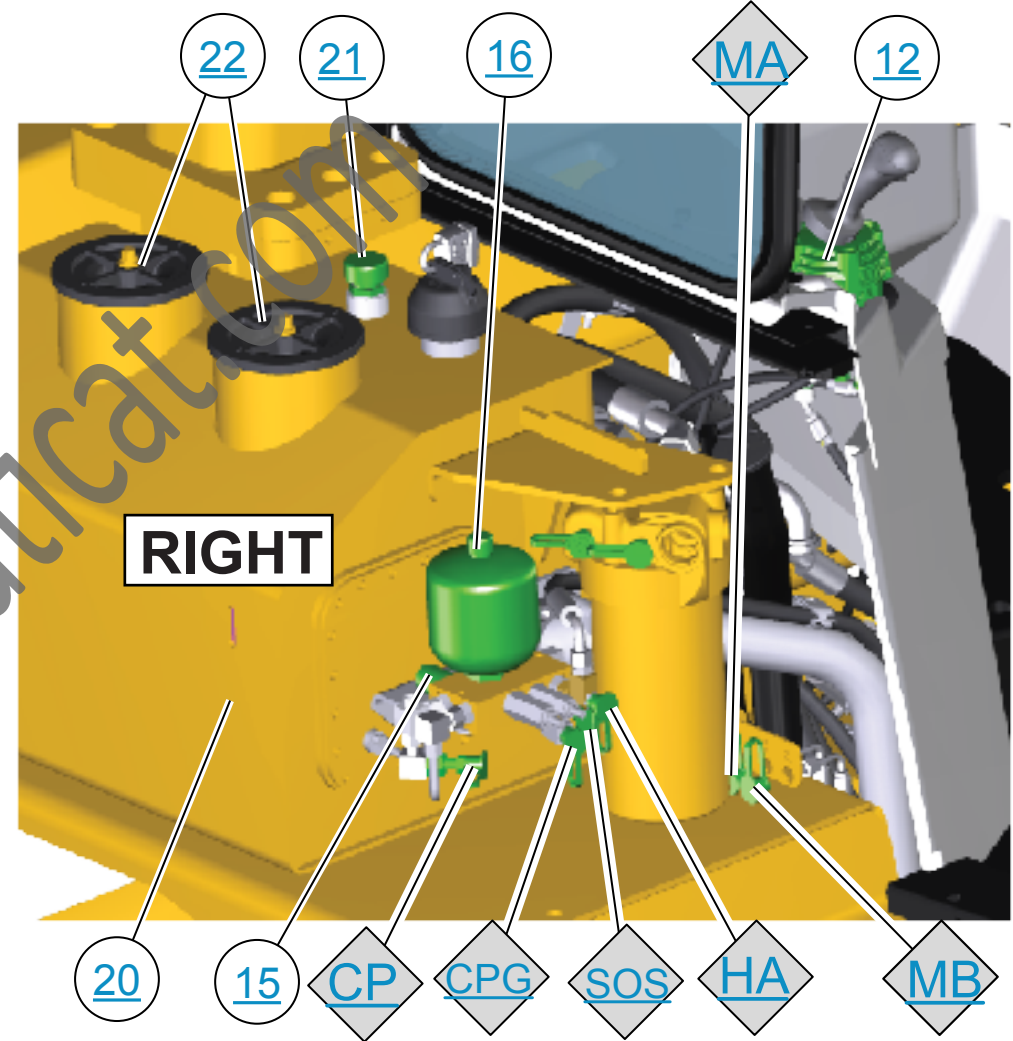
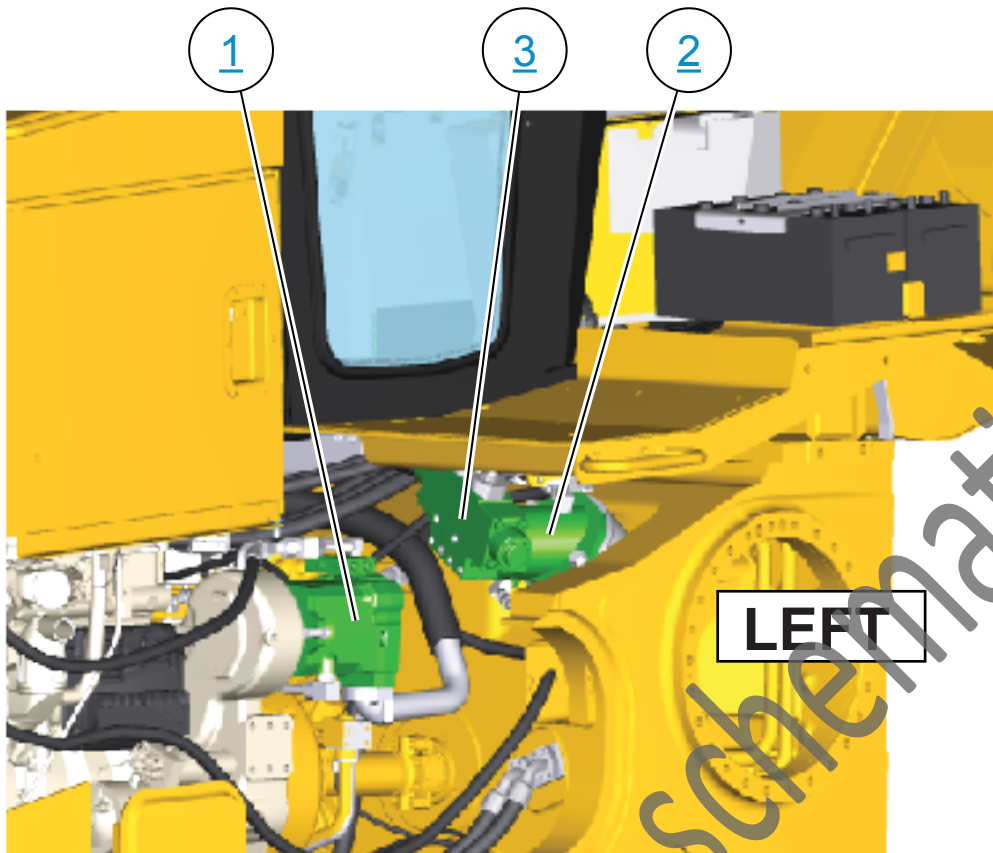
RIGHT SIDE



LEFT SIDE



LEFT AND RIGHT FENDER



CONTROL VALVE

