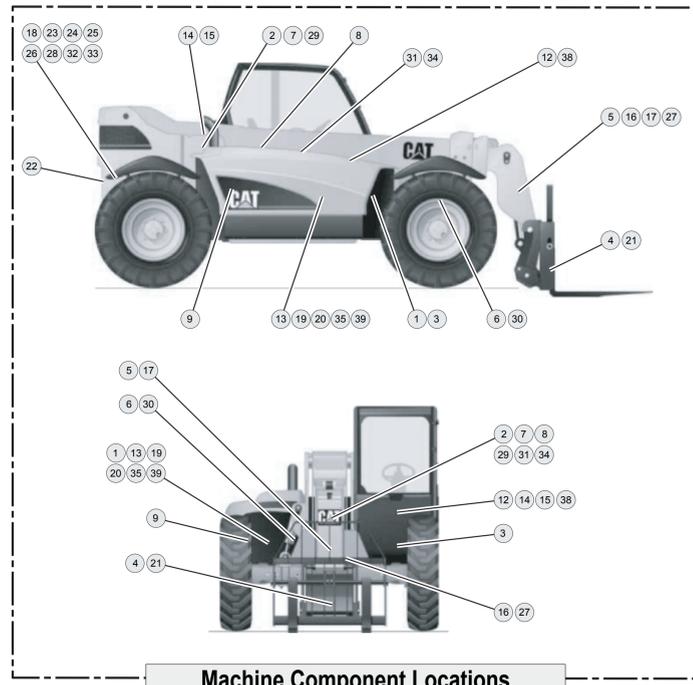


Component Locations			
Description	Part Number	Machine Location	Schematic Location
Cooler & Mtg Gp - Hydraulic Oil (Xman) (Option)	(12kW) 206-5502 (20kW) 194-0652	1	A-5
Cylinder Gp - Boom (Raise)	(220) 278-2112 (330) 253-2574	2	G-4
Cylinder Gp - Brake (Master)	295-3424	3	B-2
Cylinder Gp - Coupler	(220/330) 295-3374 (340) 295-3419	4	H-6, H-7
Cylinder Gp - Tilt	(220) 187-3694 (330) 295-3372	5	G-5
Cylinder Gp - Hydraulic (Compensating)	(220) 187-3695 (330) 187-3699	7	G-5
Cylinder Gp - Telescoping	(220) 283-6315 (330) 295-3463	8	G-7
Filter Gp - Oil (Power Train)	191-1050	9	B-5
Motor Gp - Fan (Reversing Motor)	(220/330) 256-2843	10	I-10
Pump Gp - Fan (Reversing Fan)	(220/330) 256-7160	11	I-9
Pump Gp - Steering (Steering - HMU)	233-6072	12	F-9
Pump Gp - Piston (Main)	295-3467	13	B-10
Strainer - (Tank Filter)	202-5350	14	A-8
Tank As - Hydraulic	(202/330) 216-2258	15	A-8
Valve & Mtg Gp - Divertor (Dual Auxiliary)	222-4662	16	H-8
Valve As - (Tilt Cylinder Lock) (Cartridge)	295-3372	17	F-6
Valve Gp - Bank 4 (Implement)	295-3450	18	B-7
Valve Gp - Check (Xman)	257-4830	19	B-6
Valve Gp - Check (Back Pressure)	225-1912	20	B-9
Valve Gp - Check (Coupler Cylinder Check)	(220/330) 190-3611	21	H-5, H-6
Valve Gp - Combination (Trailer Services Valve) (Option)	(202/330) 215-2303	22	H-2
Valve Gp - Control (Aux)	227-1207	23	D-6
Valve Gp - Control (Boom Extend, Retract)	227-1206	24	D-7
Valve Gp - Control (Boom Raise, Lower)	227-1209	25	D-5
Valve Gp - Control (Quick Coupler Tilt)	227-1208	26	D-6
Valve Gp - Divertor (Single Auxiliary)	295-3437	27	H-8, I-5
Valve Gp - Electronic Pilot	247-7829	28	B-4
Valve Gp - Load Control (Boom Raise Lock)	(220/330) 229-2004	29	G-3
Valve Gp - Load Control (Tilt Cylinder)	252-4652	31	F-6
Valve Gp - Manifold (Inlet)	227-1203	32	D-8
Valve Gp - Manifold (Outlet)	227-1205	33	D-4
Valve Gp - Pilot (Anti Kick)	218-4237	34	G-5
Valve Gp - Relief (Reversing Fan)	(220/330) 264-0047	36	H-9
Valve Gp - Solenoid (Reversing Fan)	(220/330) 264-0048	37	I-10
Valve Gp - Solenoid (Steer Mode Select)	210-7217	38	E-10
XMAN Gp - (Option)	(56Psi) 206-4386 (44Psi) 206-4387 (44Psi) 206-4388	39	A-6

Tap Locations Pressure, Sampling, and Sensor		
Tap Number	Description	Schematic Location
AA	Main Pump Pressure	C-9
BB	Load Sensor Pressure	C-9
CC	Implement Pilot Pressure	C-3
DD	SOS Oil Sample Port	B-9



Machine Component Locations

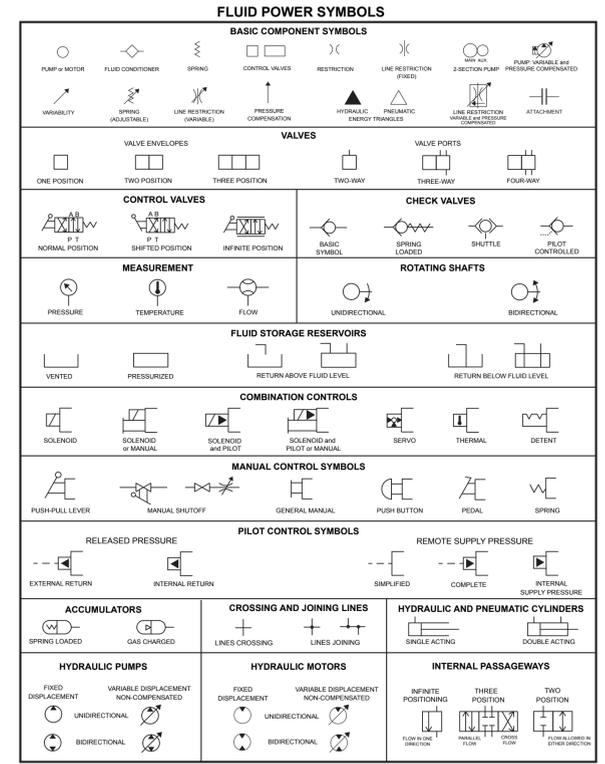


31200275  
December 15, 2006

# Schematic

## TH220B & TH330B Telehandler Hydraulic System

TH220B:  
S/N TFB00100 & After  
TH330B:  
S/N TBG00100 & After



©2006 Caterpillar  
All Rights Reserved  
Printed in U.S.A.

The hydraulic system for the trailer and the towing hitch contains the following items: towing Hitch Group, electrically controlled Combination Valve Group, hitch control Cable Group, trailer socket, additional oil lines, and control switch that is mounted in the cab.

### Towing Hitch Group

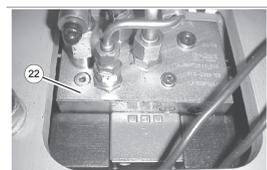


The Towing Hitch is mounted to the rear frame. Hitch control Cable Group moves the hooks that release the hitch. A cylinder, that is located inside the Towing Hitch Group, lowers the hitch when the operator activates the control switch that is mounted inside the cab. The cylinder also raises the hitch when the operator activates the control switch in the opposite direction.

### Combination Valve Group

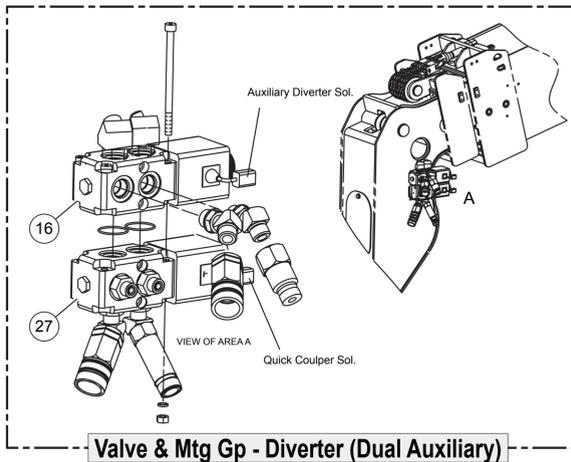


Combination Valve Group is mounted to the rear of the frame. The oil lines attach to the outlet manifold of the main control valve. The oil lines route pressure oil, load sensing oil, and return oil to the combination valve.

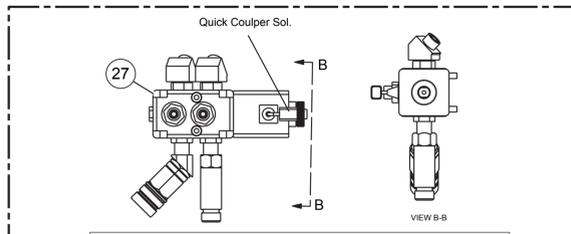


The brake oil for the trailer is supplied by an oil line that is connected to the front axle brake.

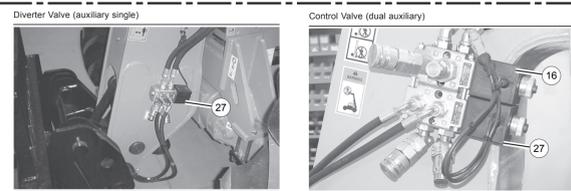
### Trailer and Towing Hitch Hydraulic System (Option)



Valve & Mtg Gp - Divertor (Dual Auxiliary)

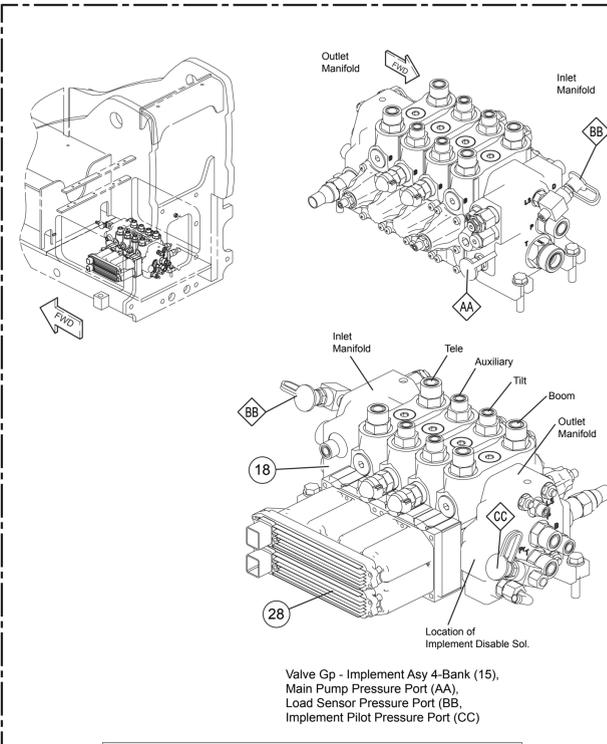


Valve Gp - Divertor (Single Auxiliary)

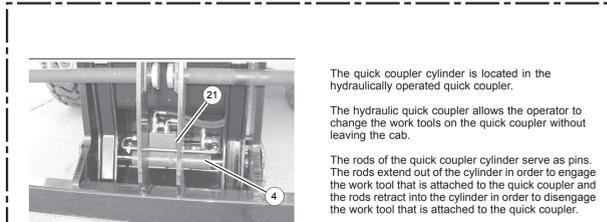


On TH220B standard machines, a single Divertor Valve (auxiliary single) is installed. A dual Control Valve (dual auxiliary) is installed as an option on the TH220B machines. The single Divertor Valve (auxiliary single) and the dual Control Valve (dual auxiliary) are available options on the TH330B machines.

### Diverter Valve

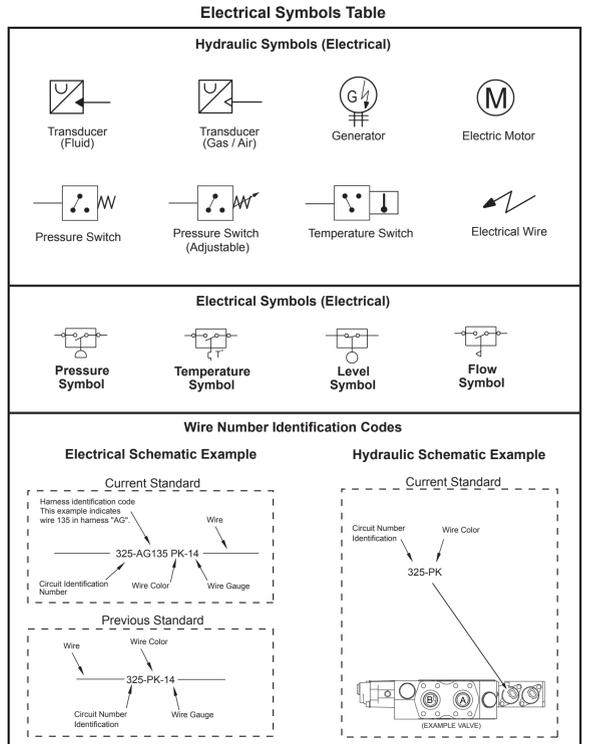


Valve Gp - Bank 4 (Implement)

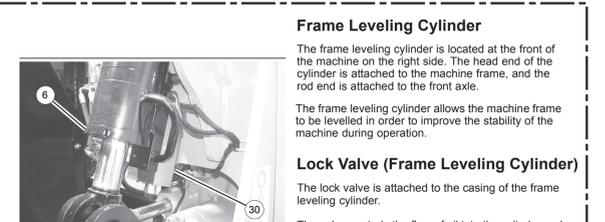


The quick coupler cylinder is located in the hydraulically operated quick coupler. The hydraulic quick coupler allows the operator to change the work tools on the quick coupler without leaving the cab. The rods of the quick coupler cylinder serve as pins. The rods extend out of the cylinder in order to engage the work tool that is attached to the quick coupler and the rods retract into the cylinder in order to disengage the work tool that is attached to the quick coupler.

### Quick Coupler Cylinder



Last Modified: 10/15/2003



The frame leveling cylinder is located at the front of the machine on the right side. The head end of the cylinder is attached to the machine frame, and the rod end is attached to the front axle. The frame leveling cylinder allows the machine frame to be leveled in order to improve the stability of the machine during operation. The lock valve is attached to the casing of the frame leveling cylinder. The valve controls the flow of oil into the cylinder and out of the cylinder. The valve also locks oil into both sides of the cylinder in order to hold the cylinder in position when the frame leveling system is in HOLD.

### Frame Leveling