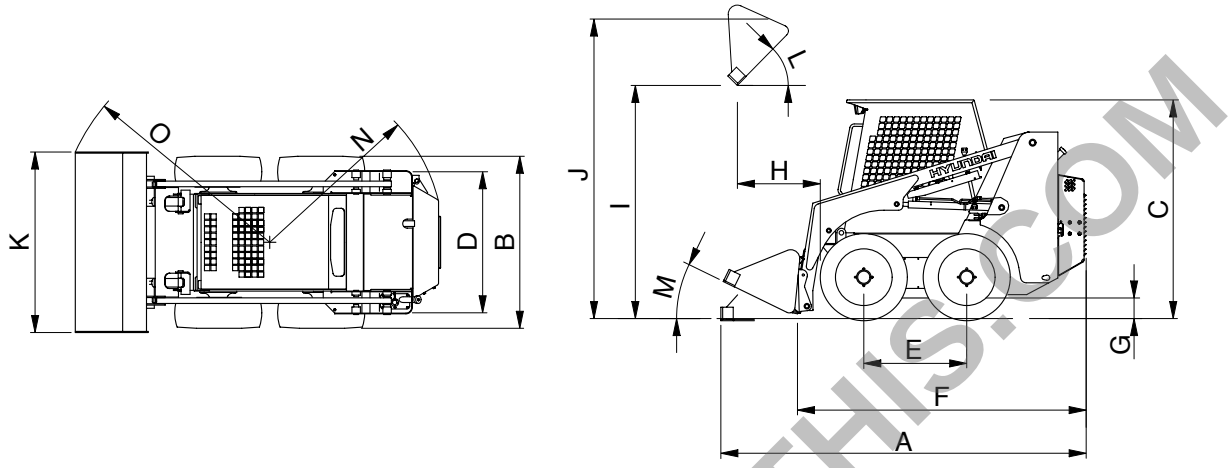
2. SPECIFICATIONS

· **WITH STANDARD BUCKET**

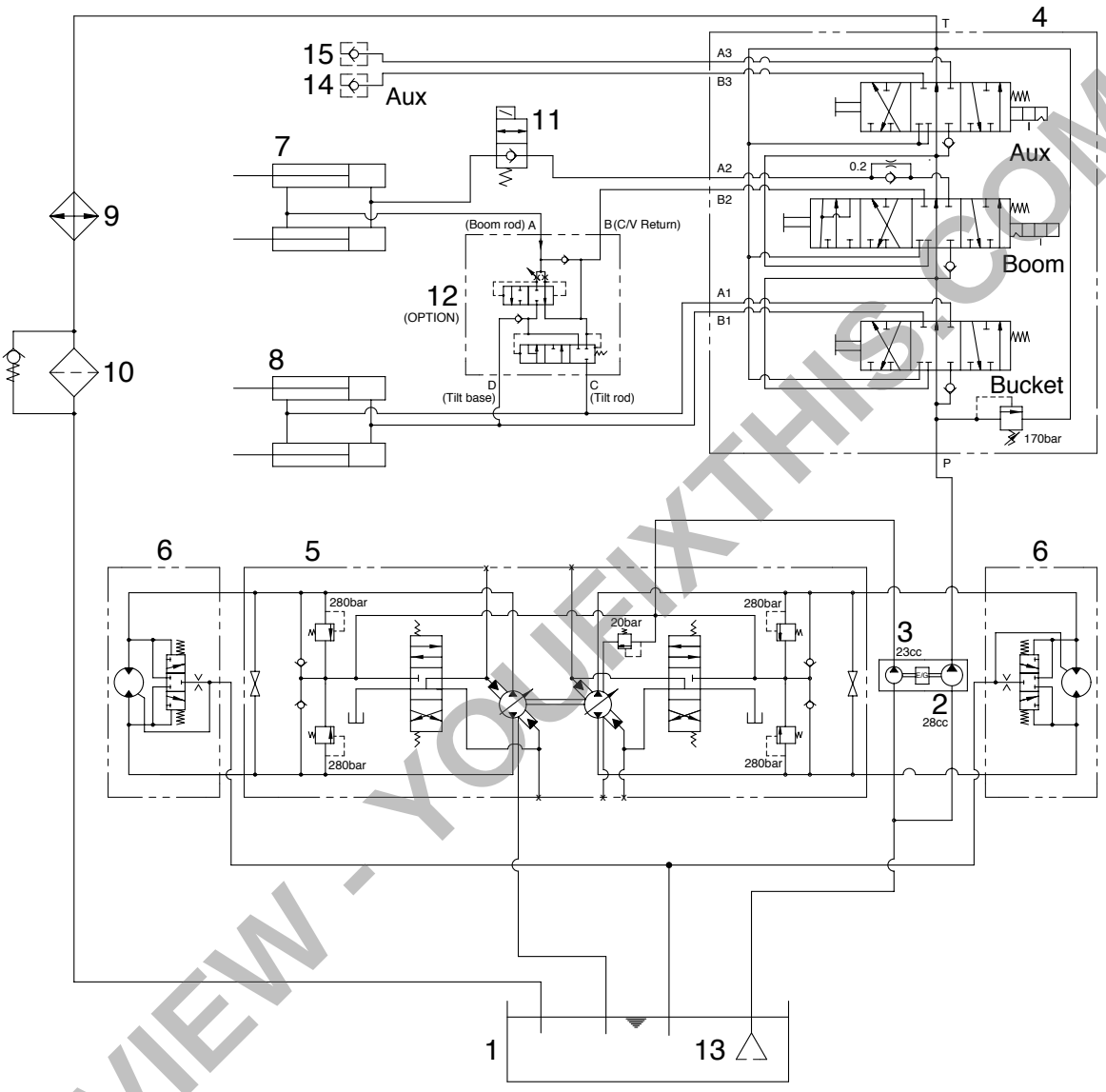


Description			Unit	Specification
Operating weight			kg(lb)	3260(7180)
Bucket capacity		Struck	$m^3(yd^3)$	0.27(0.35)
		Heaped		0.35(0.46)
Overall length		A	mm(ft-in)	3470(11' 5")
Overall width		B		1710(5' 7")
Overall height		C		2000(6' 7")
Tread		D		1377(4' 6")
Wheelbase		E		1045(3' 5")
Overall length(Less bucket)		F		2822(9' 3")
Ground clearance		G		218(0" 8")
Dump reach		H		568(1' 10")
Dump height		I		2550(8' 4")
Overall height(To hinge pin)		J		3150(10' 4")
Width bucket		K		1778(5' 10")
Clearance circle(Rear)		N		1680(5' 6")
Clearance circle(Front / bucket)		O		1989(6' 6")
Dump angle		L	Degree(°)	40
Roll back angle(Carry position)		M		27
Cycle time	Boom	Up	sec	4.0
		Down		3.5
	Tilt	Dump		2.3
		Roll back		2.2
Maximum travel speed			km/hr(mph)	11.7(7.3)
Minimum turning radius(Without bucket)			mm(ft-in)	1250(4' 1")
Gradeability			Degree(°)	30

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GROUP 1 HYDRAULIC CIRCUIT

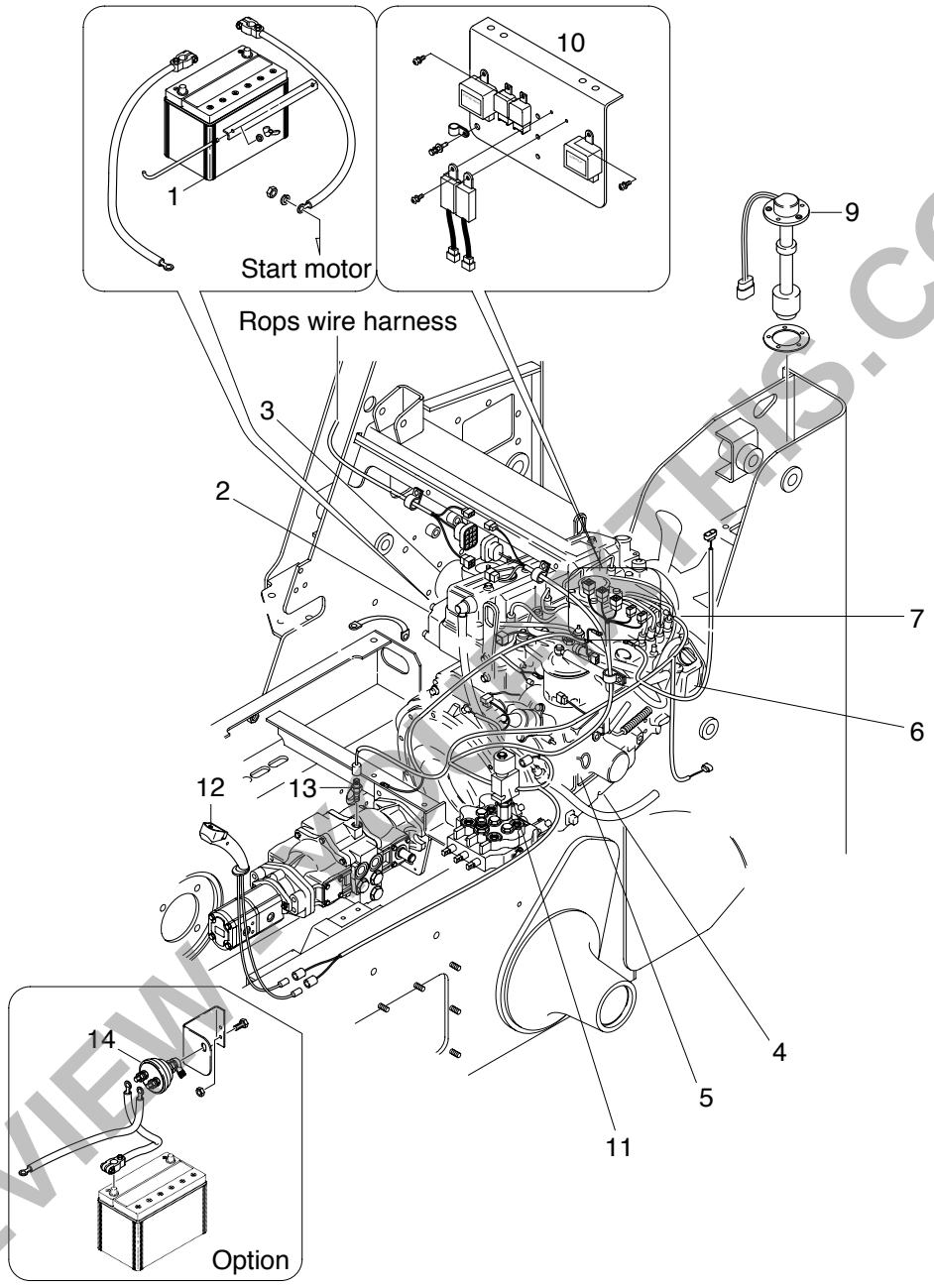


1	Oil tank	6	Travel motor	11	Solenoid valve
2	Gear pump(Auxiliary)	7	Lift cylinder	12	Self level valve
3	Gear pump(Charge)	8	Tilt cylinder	13	Suction stainer
4	Main control valve	9	Oil cooler	14	Quick coupler(Female)
5	Main pump	10	Oil filter	15	Quick coupler(Male)

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LOCATION 2



1	Battery	6	Air heater(Preheating)	11	Safety solenoid valve
2	Starter	7	Water temperature switch	12	Horn switch
3	Alternator	9	Fuel sender	13	Hydraulic oil temperature switch
4	Engine oil pressure switch	10	Relay board	14	Disconnector switch(Option)
5	Engine stop solenoid				

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2. REMOVAL AND INSTALL

1) REMOVAL

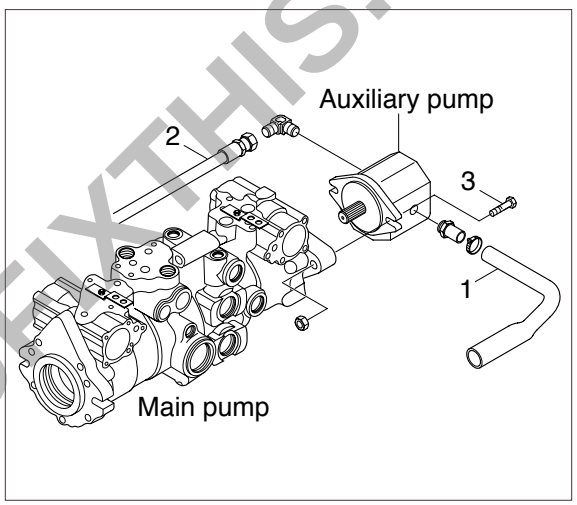
⚠ If engine is running or full up pressure into hydraulic system, absolutely does not repair or tighten hose, fitting.
As hydraulic line explode, dangerous accident may occur.



(1) Lowered the bucket on the ground.

(2) Shut off engine and raise the seat bar and move pedals until both pedal lock.

(3) Tilt canopy and remove the front cover.
※ For tilting and lowering of the canopy, refer to page 4-14 of the operator's manual.



(4) Disassemble inlet hose(1) of auxiliary pump and oil tank.

(5) Disassemble outlet hose(2) of auxiliary pump.

(6) Loose two bolts(3) joined main pump and gear pump.

(7) Disassemble gear pump from main pump.

2) INSTALL

(1) Join gear pump to main pump, tighten with bolt(3).
· Tightening torque : 3.7~4.2kgf · m

(2) Assemble hose inlet hose(1) and outlet hose(2).

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GROUP 1 TRAVEL HYDRAULICS

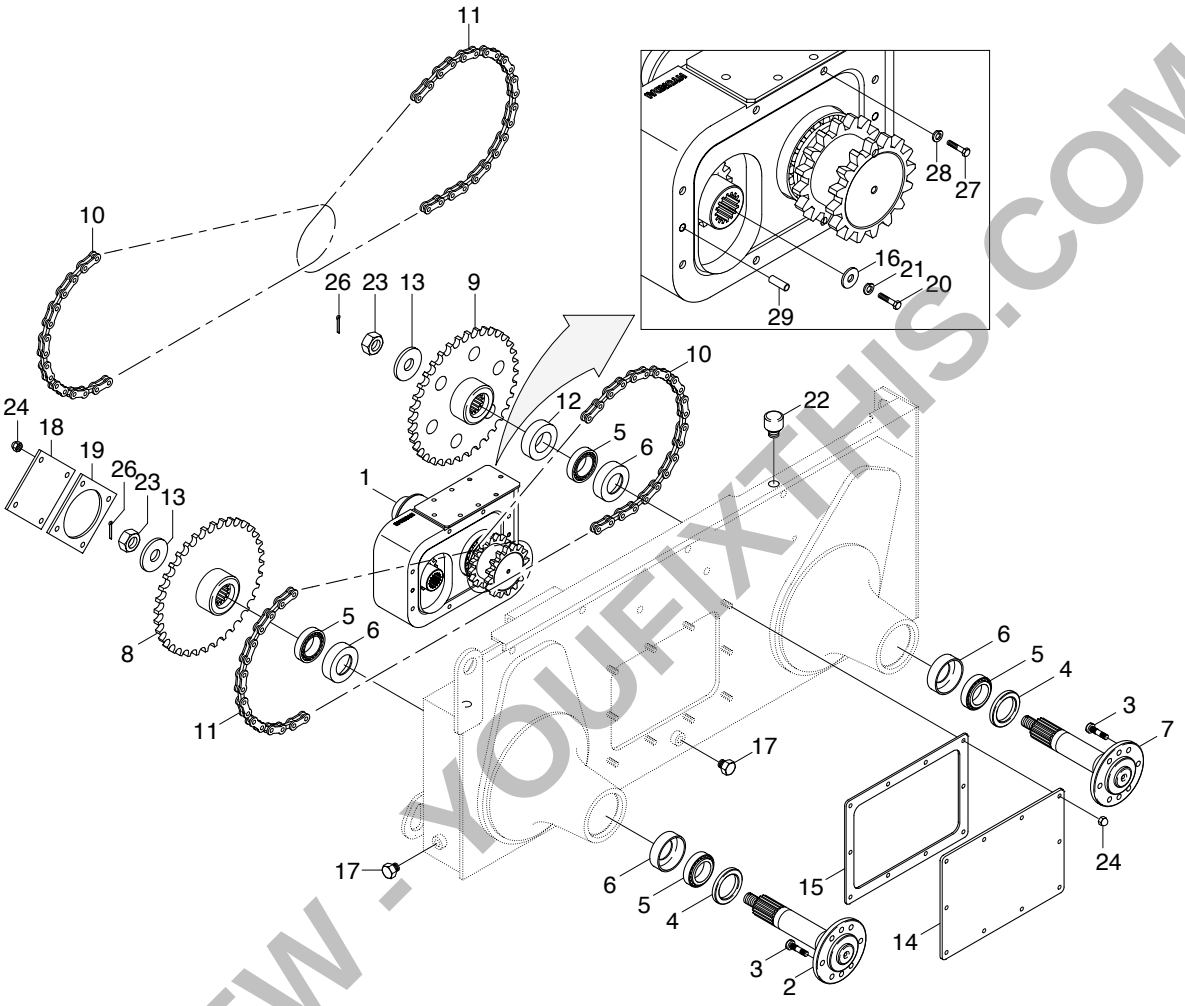
1. TRAVEL HYDRAULICS

Trouble	Probable cause	Remedy
Loss of drive power on one side - both directions	· Reservoir low on oil	· Check for leaks. Fill reservoir
	· Disconnected steering control linkage	· Reconnect and adjust steering control linkage
	· Bolts sheared on pump neutral bracket	· Replace. Check neutral bracket for loose bolt or excessive play.
	· High pressure line failure	· Replace line. Check travel motor and control pump mounting bolts.
	· Drive chain failure	· Inspect chain and connection links. Replace damaged parts.
	· Travel motor shaft failure	· Inspect and repair defective parts. Check motor mounting bolts.
	· Main pump failure. Drive may initially appear to be lost on one side only, but after a few moments, drive will be lost on both sides	· Inspect and repair defective parts.
	· Excessive internal leakage or damage in control pumps and/or travel motor	· Inspect and repair defective unit. Flush all lines and reservoir. Replace filter, check on type of fluid used and engine rpm.
Loss of drive power on one side-one direction only	· Defective valve block relief valves	· Replace relief valves.
	· Damaged or seized travel motor shuttle valve	· Inspect and replace defective parts.
Loss of drive power-both side(No hydraulic power)	· Reservoir low on oil	· Check for leaks. Fill reservoir.
	· Universal joint between engine and pump failure	· Inspect and replace damaged parts. Check for misalignment.
	· Main pump not functioning	· Inspect and replace damaged parts.
Loss of drive power-both sides(No hydraulic power)	· Loader control pump shaft failure	· Inspect and replace damaged parts.
	· Spline coupling between front and rear control pump failure	· Inspect and replace damaged parts.

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GROUP 1 POWER TRAIN COMPONENT



1	Gear box assembly	11	Chain assembly	21	Spring washer
2	Front axle shaft	12	Rear sprocket spacer	22	Air breather
3	Wheel bolt	13	Washer	23	Slotted nut
4	Seal	14	Cover	24	Self locking nut
5	Taper roller bearing	15	Gasket	26	Split pin
6	Bearing cup	16	Washer	27	Hexagon bolt
7	Rear axle shaft	17	Hexagon plug	28	Spring washer
8	Front sprocket	18	Cover	29	Dowel pin
9	Rear sprocket	19	Gasket		
10	Chain assembly	20	Hexagon bolt		

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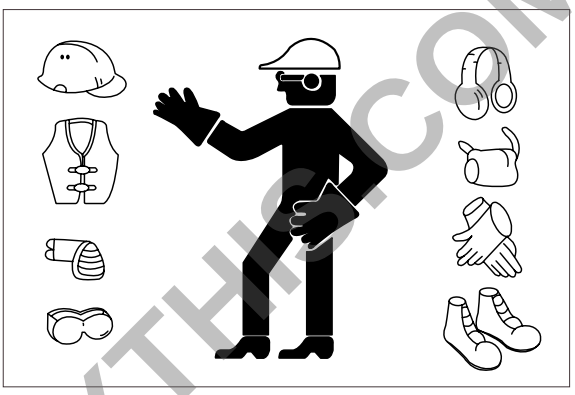
GROUP 1 SAFETY HINTS

FOLLOW SAFE PROCEDURE

Unsafe work practices are dangerous. Understand service procedure before doing work; do not attempt shortcuts.

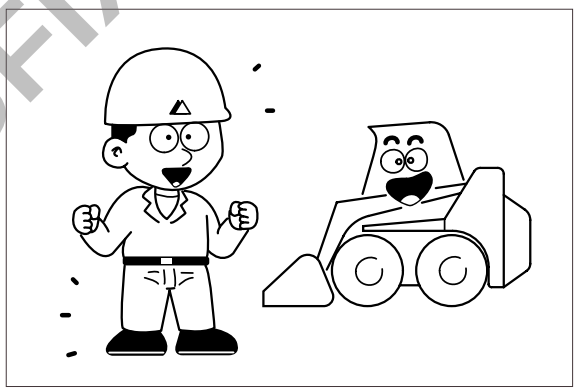
WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.



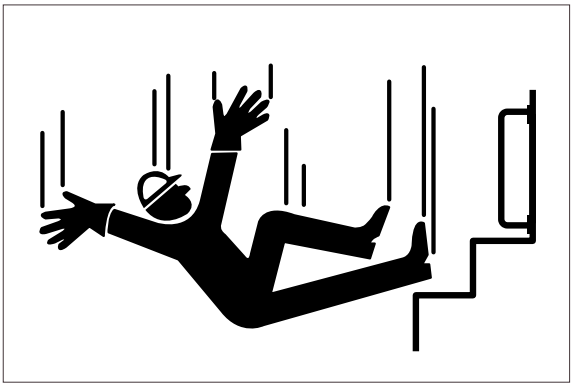
WARN OTHERS OF SERVICE WORK

Unexpected machine movement can cause serious injury.
Before performing any work on the machine, attach a 「**Do Not Operate**」 tag on the right side steering control lever.



USE HANDHOLDS AND STEPS

Falling is one of the major causes of personal injury.
When you get on and off the machine, always maintain a three point contact with the steps and handrails and face the machine. Do not use any controls as handholds.
Never jump on or off the machine. Never mount or dismount a moving machine.
Be careful of slippery conditions on platforms, steps, and handrails when leaving the machine.



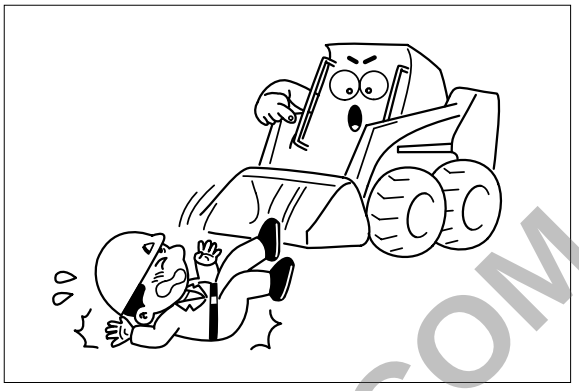
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KEEP RIDERS OFF MACHINE

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

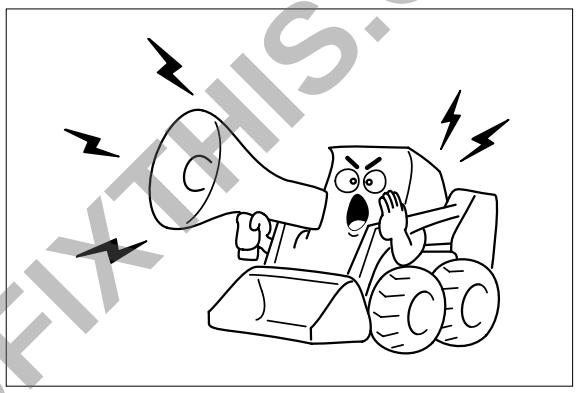


MOVE AND OPERATE MACHINE SAFELY

Bystanders can be run over. Know the location of bystanders before moving, steering, or operating the machine.

Always keep the travel alarm in working condition. It warns people when the machine starts to move.

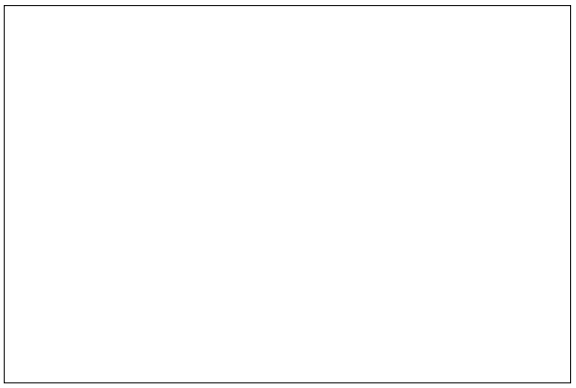
Use a signal person when moving, turning, or operating the machine in congested areas. Coordinate hand signals before starting the machine.



OPERATE ONLY ON OPERATOR'S SEAT

Avoid possible injury and machine damage. Do not start engine by shorting across starter terminals.

NEVER start engine while standing on ground. Start engine only on operator's seat.



PARK MACHINE SAFELY

Before working on the machine:

- Park machine on a level surface.
- Lower bucket to the ground.
- Run engine at 1/2 speed without load for 2 minutes.
- Turn key switch to OFF to stop engine. Remove key from switch.
- Allow engine to cool.
- Raise seat bar and chock the wheels.
- Put jackstands under the rear frame.

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5. HYDROSTATIC CONTROL PUMP FLOW

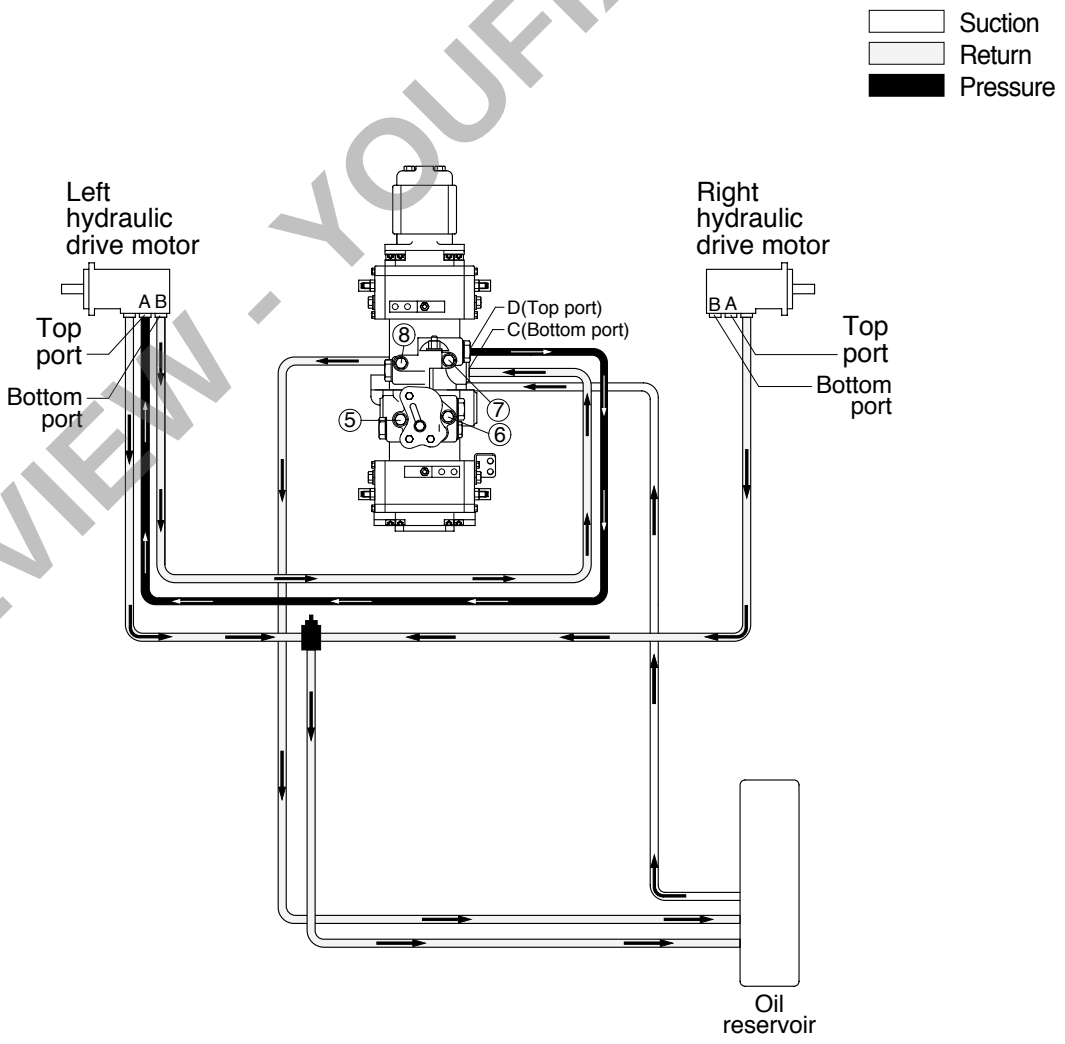
The loader must be raised and set on jack stands or blocks with all four wheels off the ground to perform the following tests.

There are four hydrostatic flow displacement tests to check the displacement of oil from the right and left hydrostatic control pumps.

Example : Oil flow shown is for testing the oil flow displacement of the right control pump in forward drive as shown in the shaded area of the travel circuit oil flow chart below. With a flow meter and a load valve installed at test location ⑥ and engine at 2650±50rpm under 2500psi(170bar) load ; The flow meter reading should be 31gpm(1.96ℓ/sec). You must move the right travel lever forward to get flow reading.

Follow the travel circuit oil flow chart to test the oil flow displacement of the right control pump in reverse drive and the left control pump in forward and reverse drive by installing a flow meter at the other test locations ⑤,⑦,⑧. With engine at 2650±50rpm under a 2500psi(170bar) load; The flow meter reading should be 31gpm(1.96ℓ/sec). You must move the right or left travel lever forward or backward as shown in the chart to get flow reading.

If the flow meter reading is approximately 28gpm(1.17ℓ/sec) or less in any of the tests, the drive pump is showing considerable wear and should be repaired or replaced.



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(3) Start the prime mover and slowly accelerate to normal operating rpm.

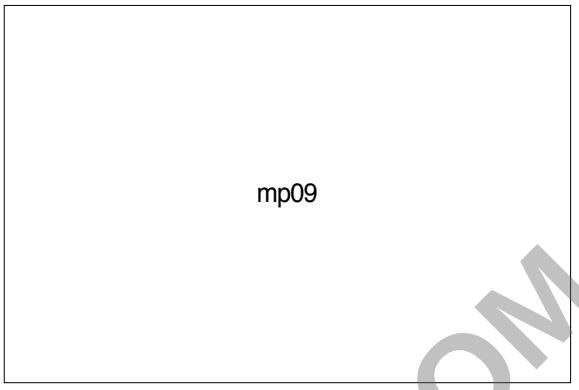
(4) Insert phillips screwdriver into the 1/4" clearance hole and engage the slot of the neutral adjust bracket. Slowly rotate the neutral adjust bracket, using the phillips screwdriver, until the pressure is equal on both servo gauges.

(5) Slowly rotate the neutral adjust bracket until one of the servo gauges starts to increase in pressure. Mark the position of the neutral adjust bracket.

(6) Slowly rotate the neutral adjust bracket in the opposite direction until the other servo gauge begins to increase in pressure. Mark the position of the neutral adjust bracket.

(7) Rotate the neutral adjust bracket to a position between the two marks and hold while torquing the washer head screw to 95 to 132in · lbs(10.8 to 14.9Nm).

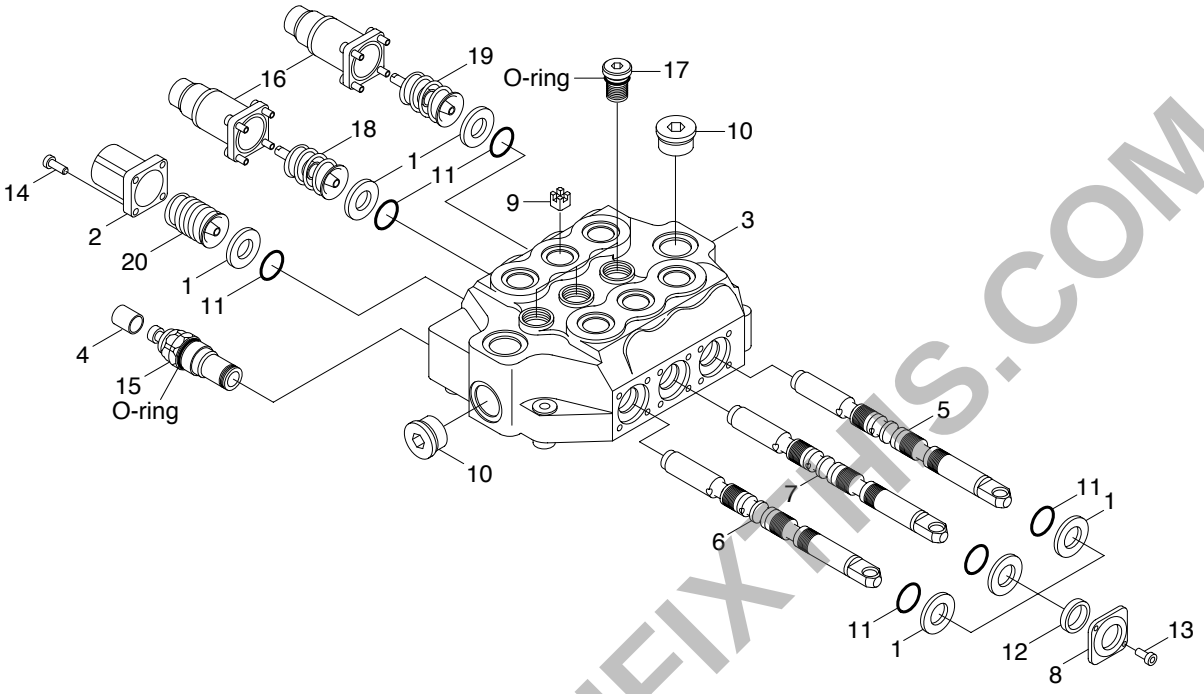
(8) Stop the prime mover. Remove the gauges and install the gauge port plugs. Install and adjust, if necessary, the external control linkage.



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5) MAIN RELIEF VALVE



(1) Disassembly

① Remove the main relief valve(15).

② Remove and discard the O-ring from the main relief valve assy(15).

(2) Assembly

① Lubricate the new O-ring with clean oil and install onto the main relief valve(15).

② Install the main relief valve into the valve body(3) and tighten torque to 4.3kgf · m(3.1lbf · ft).

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Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
· Lamp					
CL-1	SHUR	1	Rear lamp	S822-014004	S822-104004
CL-2	AMP	1	Beacon lamp	170183-2	-
CL-3	SHUR	1	Work lamp LH	S822-014004	S822-114004
CL-4	SHUR	1	Work lamp RH	S822-014004	S822-114004
CL-5	KET	1	Room lamp	MG610070	-
· Relay					
CR-1	FASTEN	2	Engine stop solenoid relay	S810-002202	-
CR-2	FASTEN	2	Engine stop solenoid relay	S810-002302	-
CR-3	FASTEN	2	Glow relay	S810-002202	-
CR-4	FASTEN	2	Glow relay	S810-002302	-
CR-5	FASTEN	4	Safety solenoid relay	S810-004202	-
CR-6	FASTEN	4	Horn relay	S810-004202	-
· Sensor, sender					
CD-1	AMP	1	Hydraulic temperature switch	1-150656	-
CD-2	AMP	1	Engine oil pressure switch	1-150656	-
CD-3	SWP	2	Fuel sender	S814-002100	S814-102100
CD-4	AMP	1	Water temperature switch	1-150656	-

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