T190
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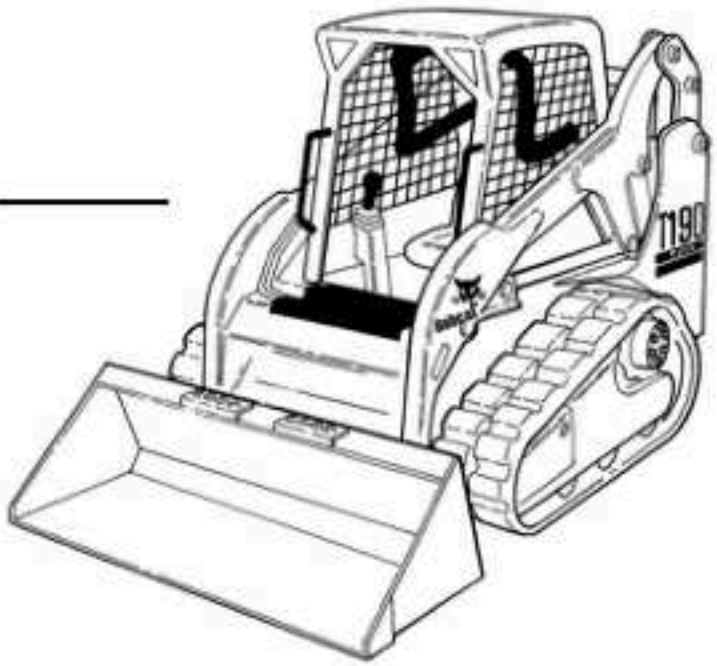
T190
TURBO
HIGH FLOW

Bobcat®

Service Manual

G Series

S/N 527011001 & Above
S/N 527911001 & Above
S/N 527711001 & Above
S/N 527811001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

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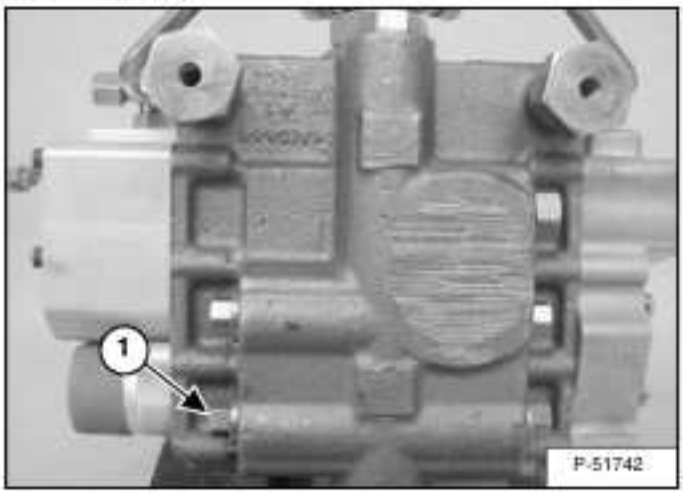
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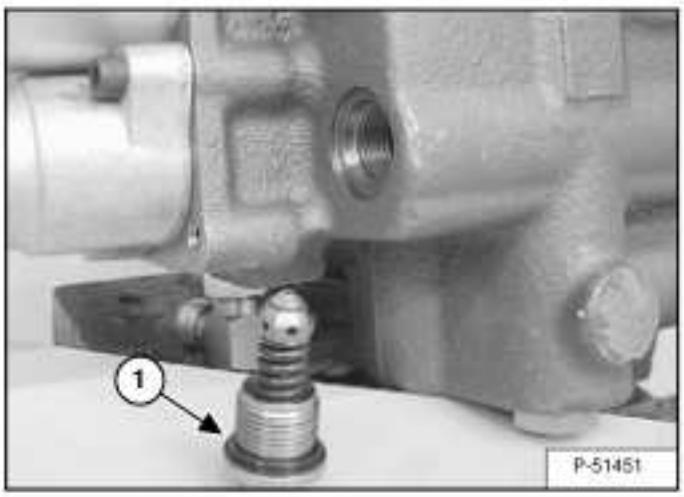
Port Relief/Anti-Cavitation Valve (Lift, Base End)

Figure 20-43-38



Loosen the lift circuit port relief/anti cavitation valve (Item 1) **[Figure 20-43-38]**.

Figure 20-43-39

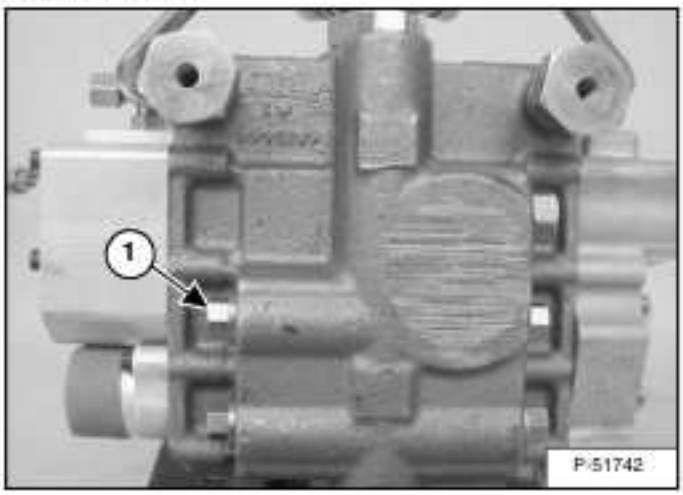


Replace the O-ring (Item 1) **[Figure 20-43-39]** before installation.

Installation: Lightly lubricate with oil and tighten to 38 - 45 ft.-lb. (52 - 61 N•m) torque.

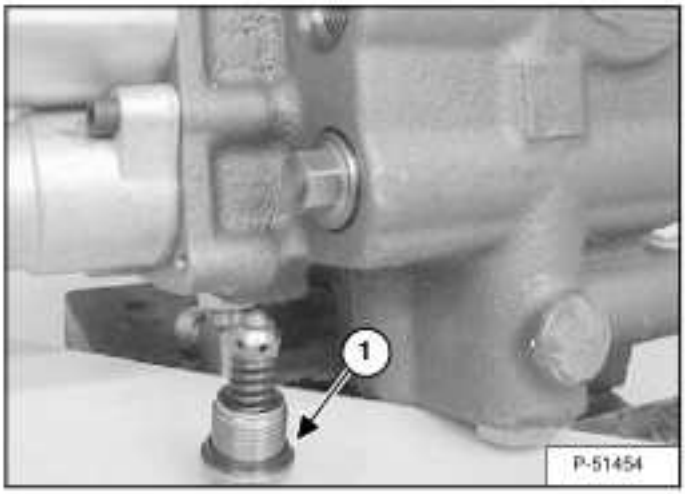
Port Relief/Anti-Cavitation Valve (Tilt, Base End)

Figure 20-43-40



Remove the tilt port relief/anti cavitation valve (Item 1) **[Figure 20-43-40]** from the base end of the tilt section.

Figure 20-43-41



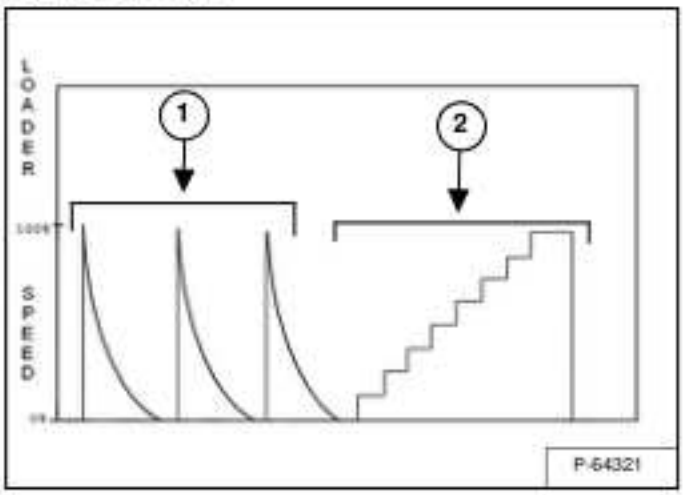
Replace the O-ring (Item 1) **[Figure 20-43-41]** before installation.

Installation: Lightly lubricate with oil and tighten to 38 - 45 ft.-lb. (52 - 61 N•m) torque.

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Hydrostatic Pump Calibration (SJC) (Cont'd)

Figure 60-160-26



The loader speed will "ramp up" quickly (Item 1) **[Figure 60-160-26]** and slow down 3 times in a row.

The loader will then "stair step" the speed (Item 2) **[Figure 60-160-26]** until it reaches full speed and then come to a stop.

Continue to hold the left joystick in the reverse position until the loader tracks come to a stop and an audible beep is heard.

Reverse calibration is complete.

NOTE: If the tracks do not stop moving in Full Speed Reverse in 2 minutes or less, there was an error in the calibration procedure. The operator must shut the loader OFF, and start the calibration procedure from the beginning.

There will be an audible beep and the PRESS TO OPERATE LOADER and TRACTION lights will go out. The SEAT BAR and LIFT AND TILT lights will remain on. The **75-98** error code will clear. There should be no other codes in the display area.

Allow the joystick to go to the neutral position.

The calibration procedure is completed.

Press the *PRESS TO OPERATE LOADER* button. Move the left joystick to forward position **[Figure 60-160-23]** and check for normal forward track rotation.

Move the left joystick to the reverse position **[Figure 60-160-25]** and check for normal reverse track rotation.

Stop the engine, and remove the loader from jackstands.

Start the loader, press the PRESS TO OPERATE LOADER button and return to normal loader operation.

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LOADER SPECIFICATIONS (CONT'D)

Performance

Engine Make/Model	KUBOTA V2003-M-DI-T	KUBOTA V2403-M-DI-T
Rated Operating Capacity	1900 lb. (863 kg)	
Tipping Load	5430 lb. (2465 kg)	
Operating Weight	7244 lb. (3289 kg)	
SAE Breakout Force -Lift	4450 lb. (19794 N)	
-Tilt	3550 lb. (15790 N)	
Travel Speed	7.4 MPH (11,9 km/hr.)	7.1 MPH (11,4 km/hr.)

Controls

Vehicle Steering	Direction and speed controlled by two hand levers
Loader Hydraulics Lift and Tilt	Controlled by separate foot pedals or optional hand controls
Front Auxiliary	Controlled by electrical switch on RH steering lever.
Rear Auxiliary (Option)	Controlled by electrical switch on LH steering lever.
Engine	Hand lever throttle: Key-type starter switch and shutdown. Keyless start and shutdown with deluxe instrumentation.
Starting Aid	Glow Plugs – Activated by standard or deluxe instrumentation.
Service Brake	Two independent hydraulic circuits controlled by two hand levers.
Secondary Brake	One of the hydrostatic transmissions.
Parking Brake	Mechanical Disc, switch in control panel.

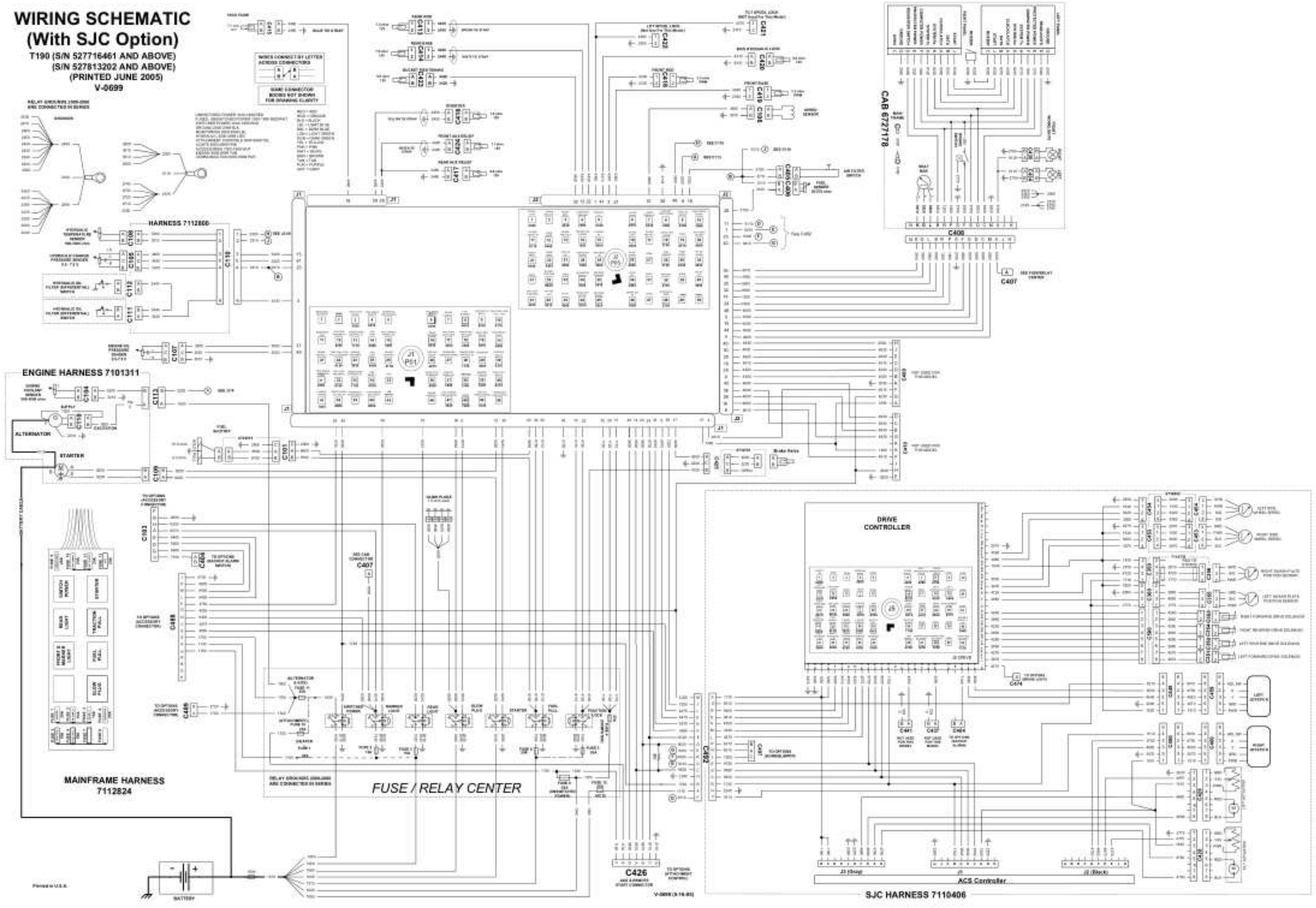
Engine

Make/Model	KUBOTA V2003-M-DI-T	KUBOTA V2403-M-DI-T
Fuel/Cooling	Diesel/Liquid	
Horsepower (SAE Net)	56 HP (42 kW) @ 2800 RPM	61 HP (45,5 kW) @ 2700 RPM
Torque (SAE Net)	120.8 ft.-lb. (164 N•m) @ 1825 RPM	155.6 ft.-lb. (211 N•m) @ 1475 RPM
Number of Cylinders	Four	
Displacement	122 cu. in. (2,0 L)	148.5 cu. in. (2,4 L)
Bore/Stroke	3.268/3.638 (83.0/92.4)	3.43/4.03 (87,1/92,5)
Lubrication	Pressure System W/Filter	
Crankcase Ventilation	Open Breathing	
Air Induction	Turbocharged	
Air Cleaner	Dry replaceable cartridge w/safety element	
Ignition	Diesel-Compression	
High Idle RPM	2860-3000	2760-2900
Low Idle RPM	1075-1225	
Maximum Governed RPM	2800 RPM	2700 RPM

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WIRING SCHEMATIC
(With SJC Option)

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