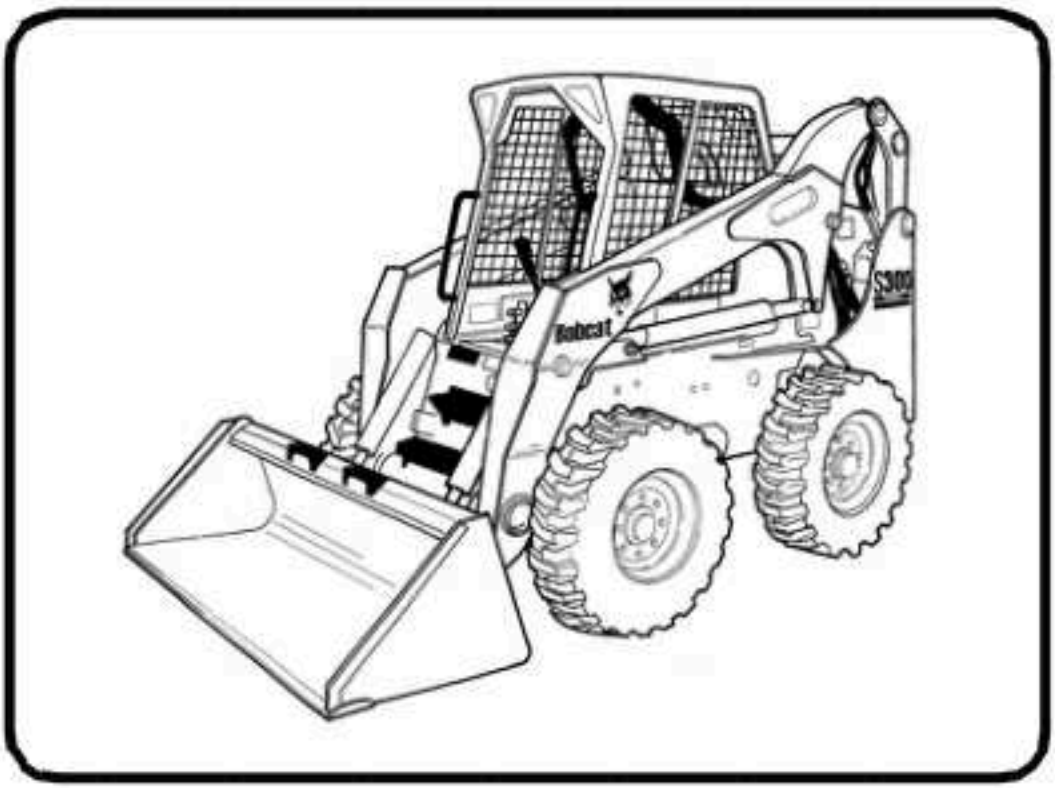
Bobcat

Service Manual
S300 Skid-Steer Loader

S/N AJ4M11001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6989455 (9-09)

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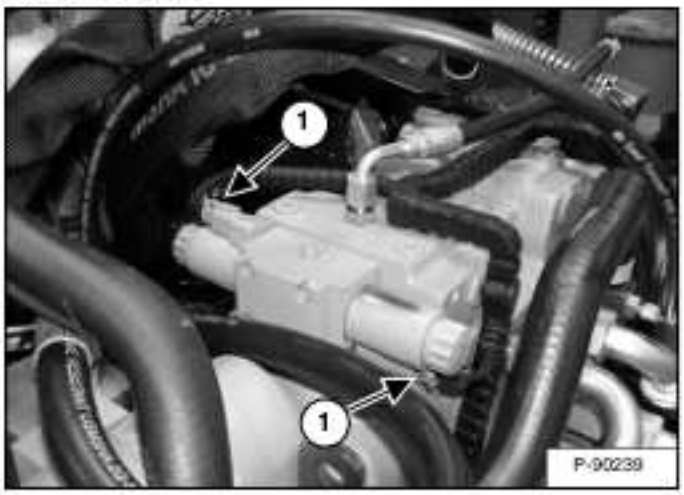
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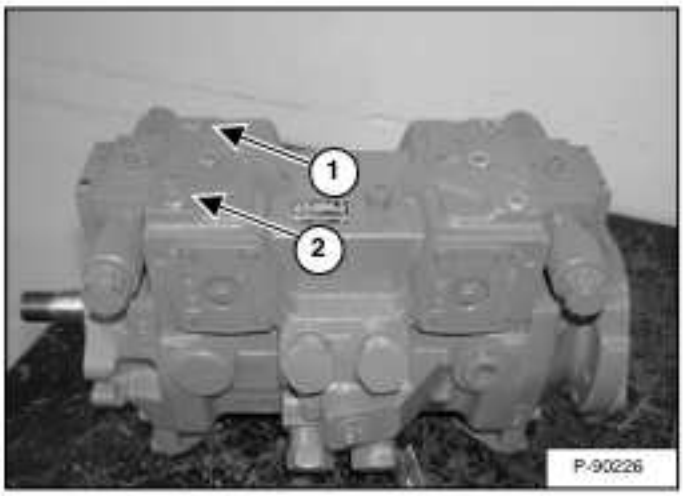
Hydraulic Controller Neutral Adjustment (Cont'd)

Figure 30-51-79



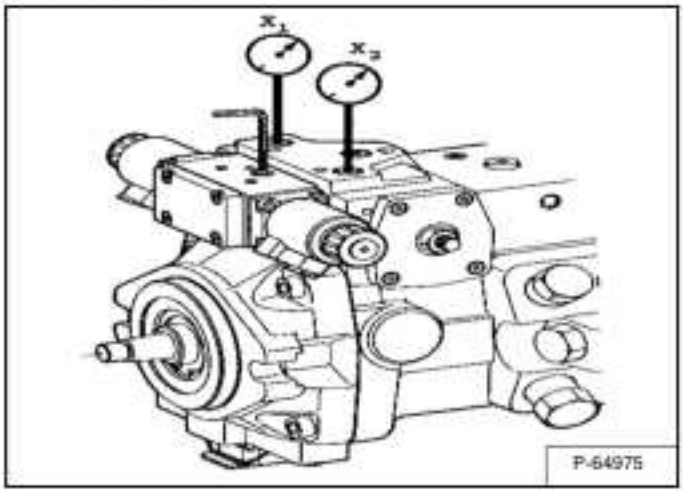
Disconnect the hydraulic controller connectors (Item 1) **[Figure 30-51-79]** from the loader wiring harness for the hydraulic controller you are adjusting.

Figure 30-51-80



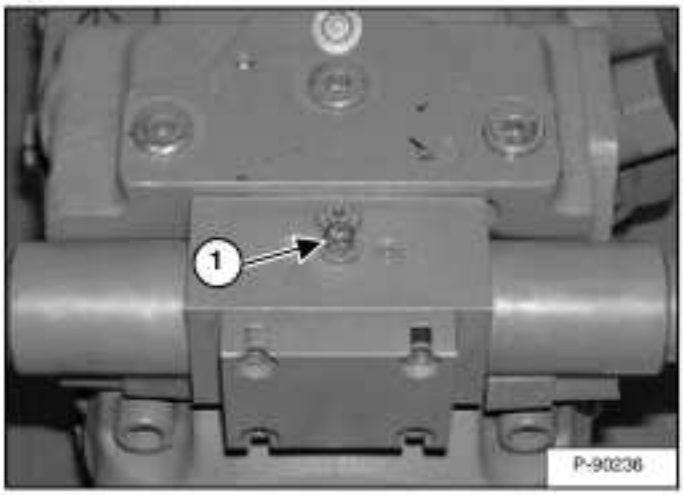
Remove the X1 plug (Item 1) and X2 plug (Item 2) **[Figure 30-51-80]** pertaining to the side of the hydrostatic pump you are adjusting.

Figure 30-51-81



Install 500 PSI pressure gauges in the X1 and X2 ports pertaining to the side of the hydrostatic pump you are adjusting.

Figure 30-51-82



Loosen the locking screw (Item 1) **[Figure 30-51-82]**.

Start the loader using the remote start tool and run at an idle.

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Specifications (Cont'd)

All dimensions are given in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.

Cylinder Head

Cylinder Head Surface Flatness - Allowable Limit	0.0019 in. (0,05 mm)
Compression Pressure	498 - 526 PSI / 250 RPM 3.43 - 3.63 MPa / 250 RPM 35 - 37 kgf/cm² / 250 RPM
Compression Ratio	19.3
Variance Among Cylinder - Allowable Limit	10% or less
Firing Order	1-3-4-2

Piston And Piston Ring

Piston Pin Bore I.D.	1.1811 - 1.1816 in. (30,000 - 30,013 mm)
Allowable Limit	1.1831 in. (30,05 mm)
Clearance Between Compression Ring 1 and Ring Groove	0.0020 - 0.0028 in. (0,05 - 0,07 mm)
Allowable Limit	0.0059 in. (0,15 mm)
Clearance Between Compression Ring 2 and Ring Groove	0.0037 - 0.0047 in. (0,093 - 0,120 mm)
Allowable Limit	0.0079 in. (0,20 mm)
Clearance Between Oil Ring And Ring Groove	0.0008 - 0.0023 in. (0,02 - 0,06 mm)
Allowable Limit	0.0059 in. (0,15 mm)
Ring Gap	
Compression Ring 1	0.0118 - 0.0177 in. (0,30 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)
Compression Ring 2	0.0118 - 0.0177 in. (0,30 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)
Oil Ring	0.0098 - 0.0177 in. (0,25 - 0,45 mm)
Allowable Limit	0.0492 in. (1,25 mm)

Connecting Rod

Connecting Rod Alignment - Allowable Limit	0.0020 in. (0,05 mm)
Clearance Between Piston Pin And Small End Bushing	0.0008 - 0.0016 in. (0,02 - 0,040 mm)
Allowable Limit	0.0059 in. (0,15 mm)
Piston Pin O.D.	1.1813 - 1.1815 in. (30,006 - 30,011 mm)
Small End Busing I.D.	1.1823 - 1.1829 in. (30,031 - 30,046 mm)

Cylinder Bore

Cylinder Bore I.D.	3.8582 - 3.8591 in. (98,000 - 98,022 mm)
Allowable Limit	3.8642 in. (98,15 mm)
Oversized Cylinder Liner I.D.	3.8780 - 3.8788 in. (98,500 - 98,522 mm)
Allowable Limit	3.8839 in. (98,65 mm)

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Temperature / Pressure Chart

NORMAL EVAPORATOR RANGE	
TEMP F	PSIG
16	15.69
18	17.04
20	18.43
22	19.87
24	21.35
26	22.88
28	24.47
30	26.10
32	27.79
34	29.52
36	31.32
38	33.17
40	35.07
42	37.03
44	39.05
45	40.09
50	45.48
55	51.27
60	57.47
65	64.10
70	71.19
75	78.75
80	86.80
85	95.40
90	104.40
91	106.30
92	108.20

NORMAL CONDENSER RANGE	
TEMP F	PSIG
93	110.20
94	112.10
95	114.10
100	124.30
102	128.50
104	132.90
106	137.30
108	141.90
110	146.50
112	151.30
114	156.10
116	161.10
118	166.10
120	171.30
122	176.60
124	182.00
126	187.50
128	193.10
130	198.90
135	213.70
140	229.40
145	245.80
150	263.00
155	281.10
160	300.10
165	320.10
170	340.80

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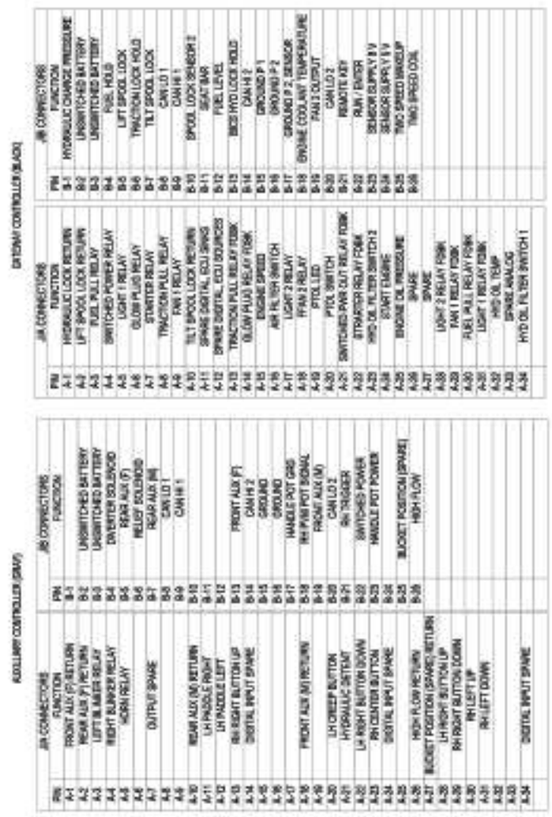
WIRING SCHEMATIC
(MAINFRAME)
S300 (S/N AJ4M11001 AND ABOVE)

(PRINTED AUGUST 2008)

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LARGE FRAME
MAINFRAME
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