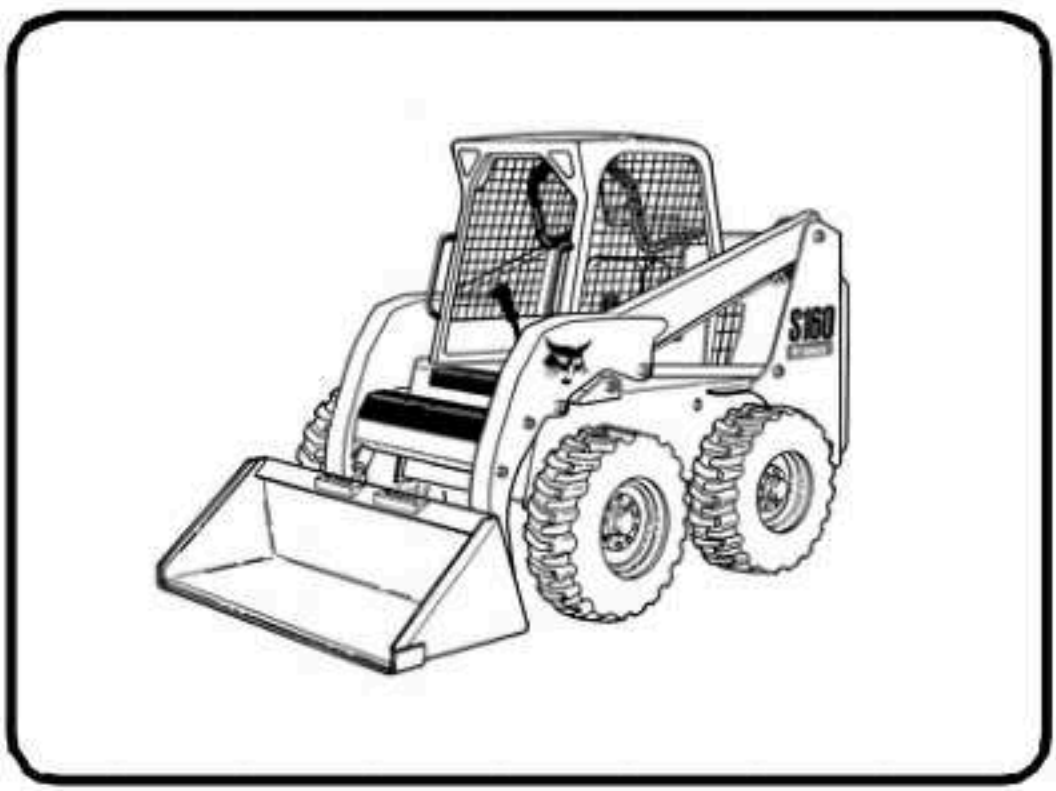
Bobcat®

Service Manual

S150, S160 Skid-Steer Loader

S/N 529711001 & Above
S/N 529811001 & Above
S/N A8M011001 - A8M059999
S/N 529911001 - 529959999
S/N 530011001 - 530059999
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S/N AC3211001 - AC3259999



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

6904126 (7-09)

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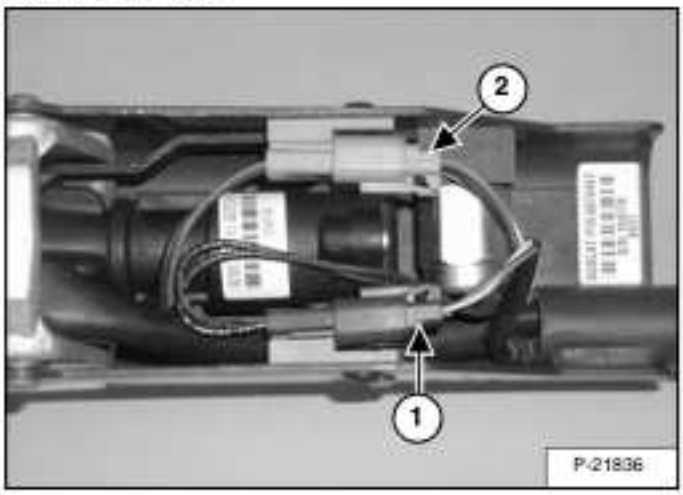
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Handle Lock Solenoid Removal And Installation

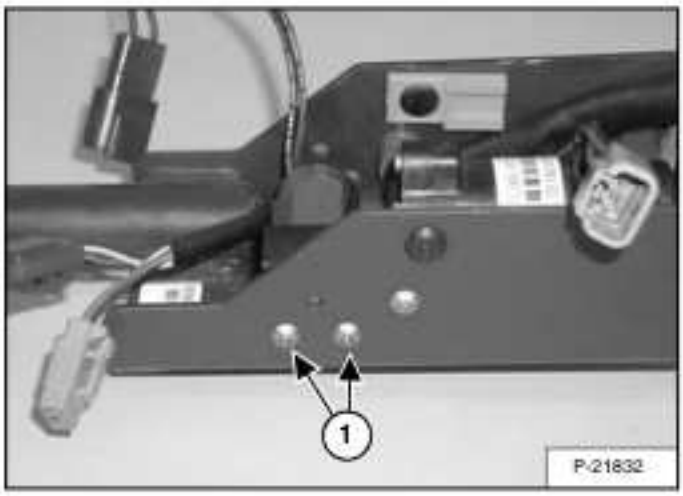
Figure 60-130-24



Disconnect the harness connector (Item 1) **[Figure 60-130-24]** from the handle sensor connector.

Disconnect the harness connector (Item 2) **[Figure 60-130-24]** from the handle lock solenoid connector.

Figure 60-130-25



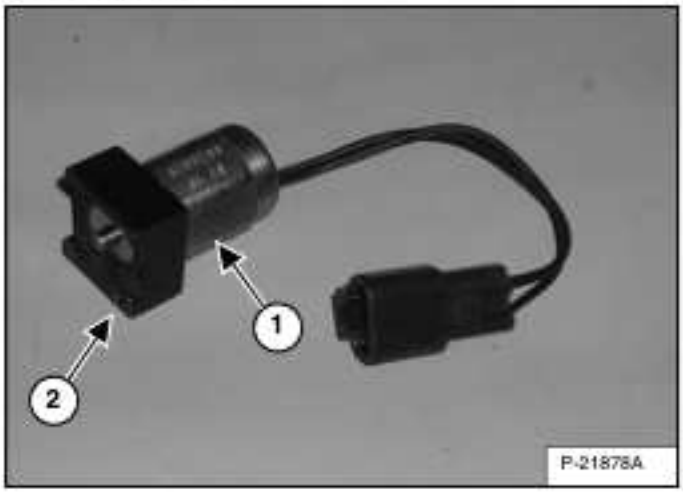
Remove the two screws (Item 1) **[Figure 60-130-25]** holding the handle lock solenoid to the handle.

Installation: Tighten the screws to 32 - 38 in.-lb. (3,6 - 4,3 N•m) torque.

Remove handle lock solenoid assembly from handle.

Handle Lock Solenoid Disassembly And Assembly

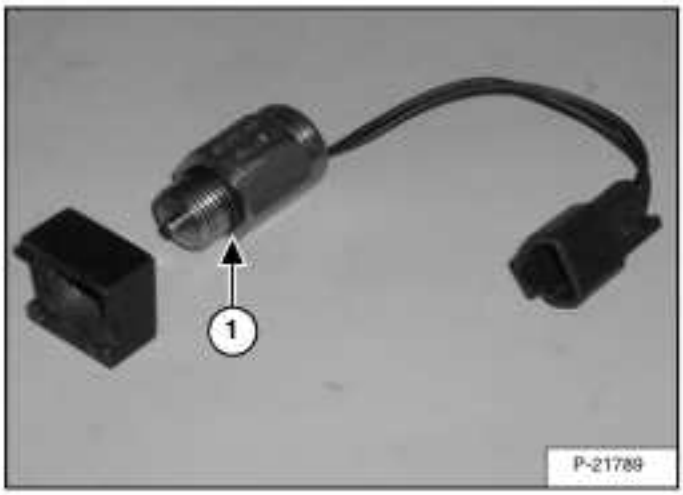
Figure 60-130-26



Remove solenoid (Item 1) from the solenoid mount (Item 2) **[Figure 60-130-26]**.

Installation: Apply a drop of oil to the solenoid threads and tighten solenoid to 35 - 40 ft.-lb. (47 - 54 N•m) lubed torque.

Figure 60-130-27



Check the O-ring (Item 1) **[Figure 60-130-27]** for damage. Replace as necessary.

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Specifications (Kubota V2003-M-DI-T (Turbo) (Cont'd)

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

Crankshaft

Crankshaft Alignment Limit Permitted	0.00079 (0,02)
Oil Clearance Between Journal & Bearing #1	0.0016 - 0.0046 (0,04 - 0,118)
Limit Permitted	0.0079 (0,2)
Journal O.D. #1	2.3591 - 2.3598 (59,921 - 59,940)
Bearing I.D. #1	2.3614 - 2.3637 (59,98 - 60,039)
Oil Clearance Between Journal & Bearing #2	0.0016 - 0.0041 (0,04 - 0,104)
Limit Permitted	0.0079 (0,2)
Journal O.D. #2	2.3591 - 2.3598 (59,921 - 59,940)
Bearing I.D. #2	2.3614 - 2.3632 (59,98 - 60,025)
Oil Clearance Between Crank Pin & Bearing	0.0010 - 0.0034 (0,025 - 0,087)
Limit Permitted	0.0079 (0,2)
Crank Pin O.D.	1.8488 - 1.8494 (46,96 - 46,97)
Crank Pin Bearing I.D.	1.8504 - 1.8522 (47,0 - 47,046)
Crankshaft Side Clearance	0.0059 - 0.0138 (0,15 - 0,35)
Limit Permitted	0.0197 (0,5)

Timing Gear

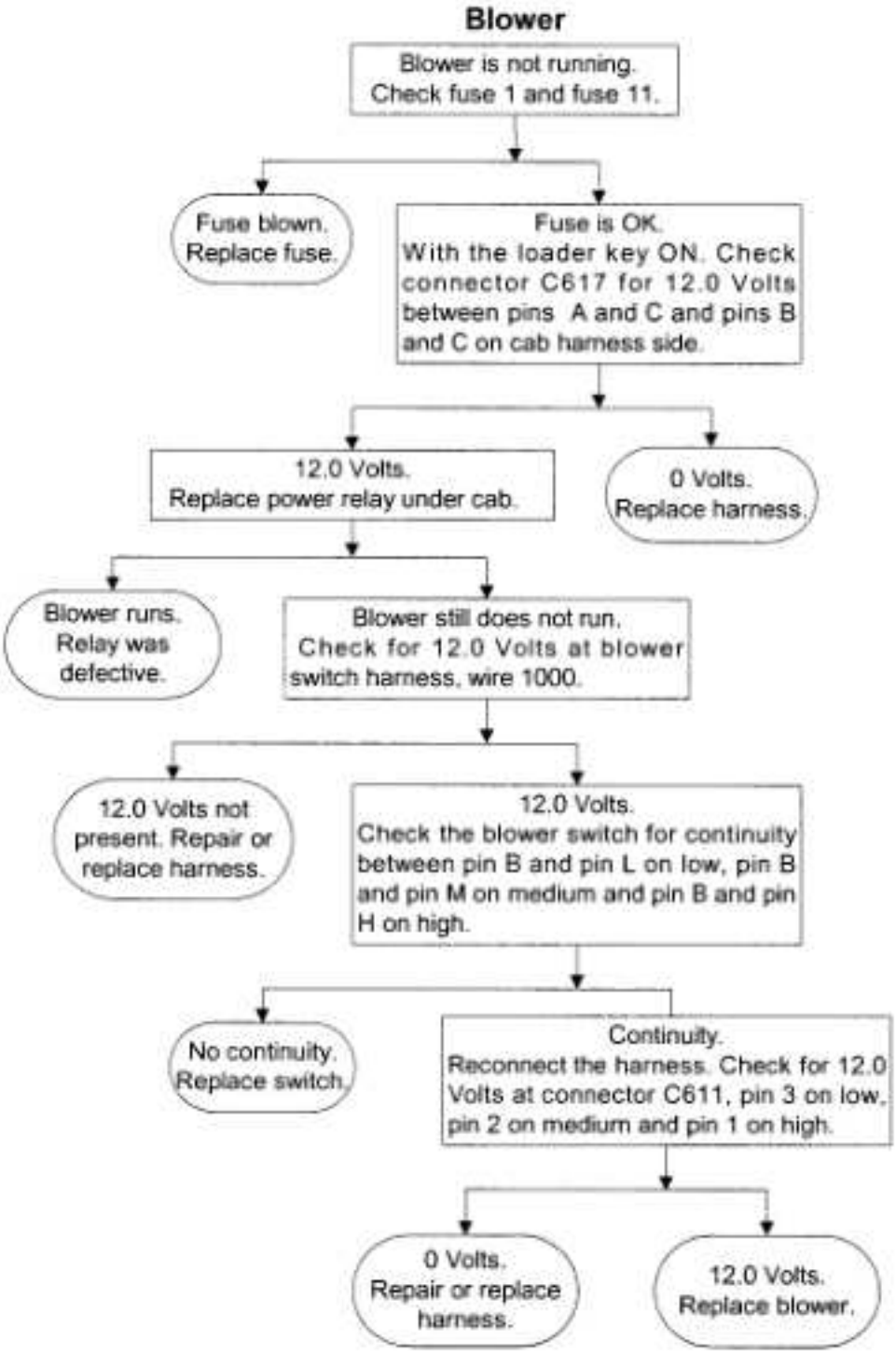
Timing Gear Backlash:	
Crank Gear-Idle Gear	0.0016 - 0.0044 (0,0415 - 0,1122)
Allowable Limit	0.0059 (0,15)
Idle Gear-Cam Gear	0.0016 - 0.0045 (0,0415 - 0,1154)
Allowable Limit	0.0059 (0,15)
Idle Gear-Injection Pump Gear	0.0016 - 0.0045 (0,0415 - 0,1154)
Allowable Limit	0.0059 (0,15)
Crank Gear-Oil Pump Gear	0.0016 - 0.0043 (0,0415 - 0,109)
Allowable Limit	0.0059 (0,15)
Clearance Between Idle Gear Shaft & Idle Gear Bushing:	
Idle Gear	0.001 - 0.0026 (0,025 - 0,066)
Allowable Limit	0.0039 (0,10)
Idle Gear Bushing I.D.	1.4961 - 1.4970 (38,0 - 38,025)
Allowable Limit	0.0039 (0,10)
Idle Gear Shaft O.D.	1.4944 - 1.4951 (37,959 - 37,975)
Idle Gear Side Clearance Idle Gear	0.0079 - 0.020 (0,2 - 0,51)
Allowable Limit	0.0315 (0,8)

Thermostat

Valve Opening Temperature	176.9° - 182.3° F (80.5° - 83.5° C)
Valve Fully Open	203° F (95° C)

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Troubleshooting Tree (Cont'd)



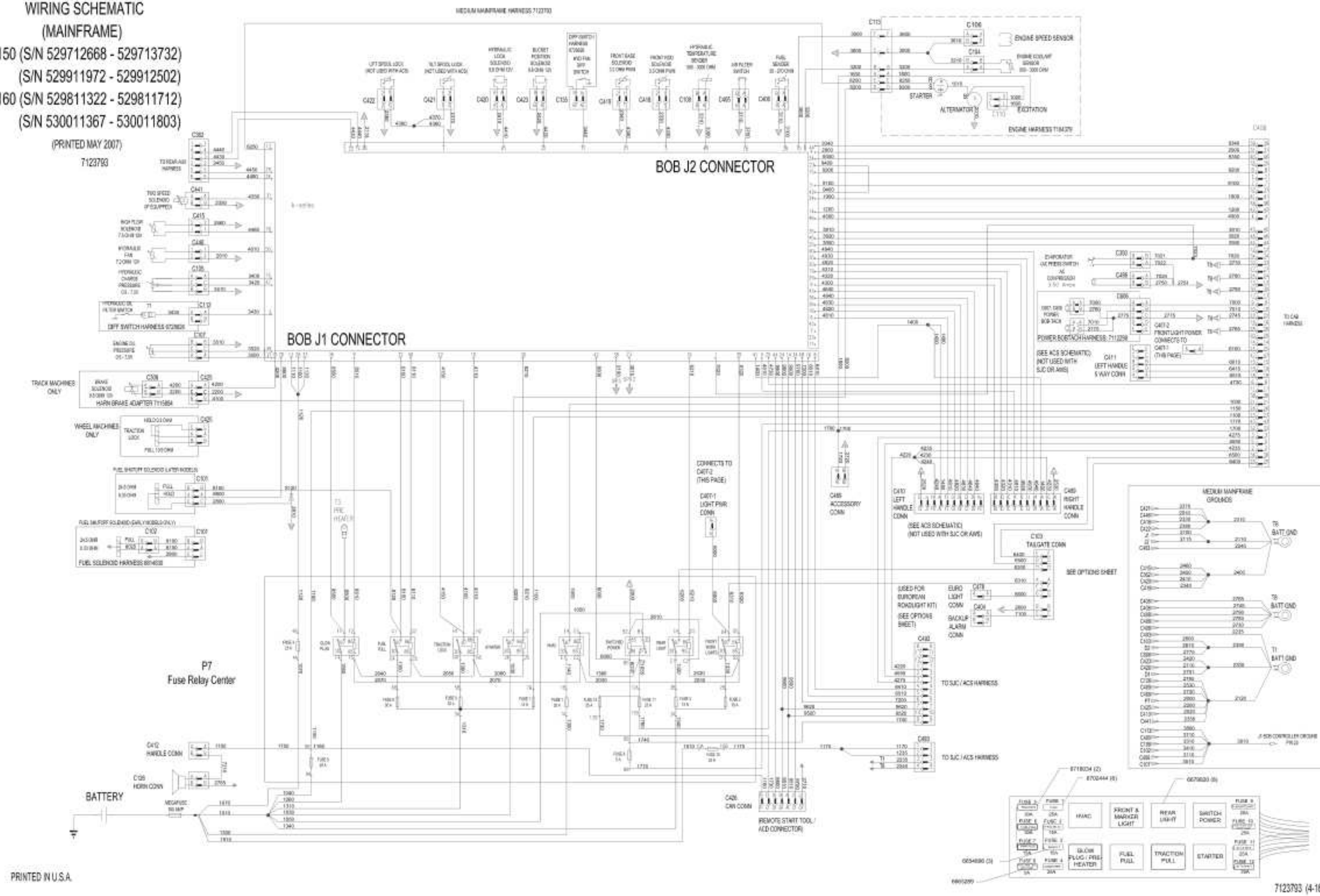
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WIRING SCHEMATIC
(MAINFRAME)
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(S/N 529911972 - 529912502)
S160 (S/N 529811322 - 529811712)
(S/N 530011367 - 530011803)

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