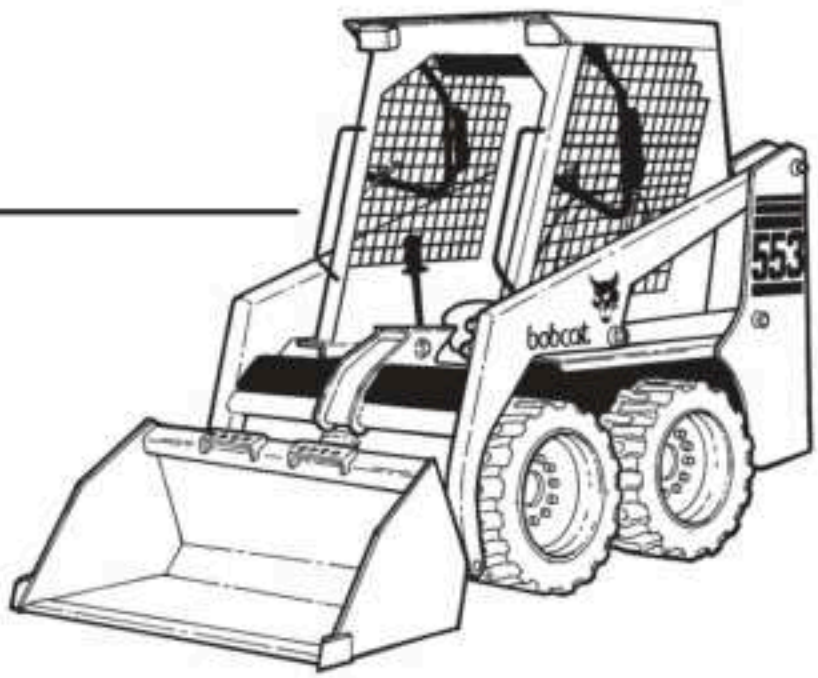
553

Service Manual

S/N 516311001 & Above
S/N 516411001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6900450(1-98)

Bobcat

Printed in U.S.A.

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CALIFORNIA
PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

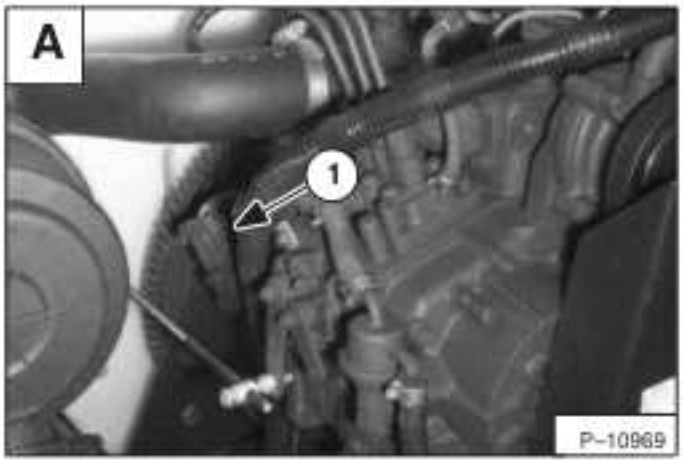
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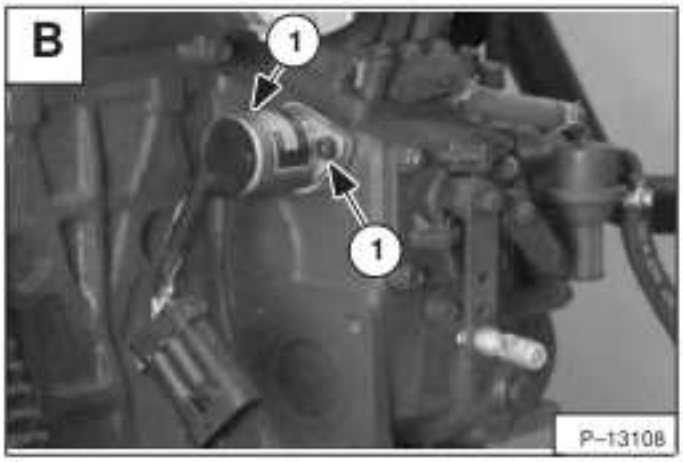
FUEL SHUT–OFF SOLENOID

Removal And Installation

Disconnect the engine wiring harness (Item 1) **[A]** from the fuel shut–off solenoid.



Remove the two mounting bolts (Item 1) **[B]** from the fuel shut–off solenoid.



Remove the solenoid from the engine **[C]** and replace if needed.



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BICS™ (Without Press To Operate Button)

Troubleshooting Chart

The following list shows the effects which can happen to the loader, and the probable causes when the BICS Controller lights are off or flashing. Have the service procedure performed ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL.

Indicator Light	Light ON	Light OFF	Effect on Operation of Loader When Light Is OFF	Flashing Indicator Means System Problem (See Your Bobcat Dealer for Service)	
				Number of Flashes	Cause
Seat 	Operator in Seat	No Operator in Seat	Lift and tilt functions will not operate.	2	Seat sensor circuit shorted to battery voltage*.
				3	Seat sensor circuit shorted to ground
Seat Bar 	Seat Bar Down	Seat Bar Up	Lift, tilt and traction functions will not operate.	2	Seat bar sensor circuit shorted to battery voltage*.
				3	Seat bar sensor circuit shorted to ground.
Valve 	Control Valve Can Be Used	Control Valve Cannot Be Used	Lift and tilt functions will not operate.	1	Valve output circuit is open.
				2	Valve output circuit shorted to battery voltage*.
				3	Valve output circuit shorted to ground.
				3	Valve output circuit is not grounded.
Traction 	Loader can be moved forward & backward.	Loader cannot be moved forward and backward.	Loader cannot be moved forward and backward.	1	Traction lock hold coil circuit is open.
				2	Traction lock hold coil circuit shorted to battery voltage*.
				3	Traction lock hold coil circuit shorted to ground.
				4	Traction lock pull coil circuit is open.
				5	Traction lock pull coil circuit is shorted to battery voltage*.
				6	Traction lock pull coil circuit is shorted to ground.
Power 	BICS Controller is operating correctly.	BICS Controller is not operating correctly.	Lift, tilt and traction functions will not operate.		

NOTES:

(1) If the seat and/or seat bar sensor circuits are open, the corresponding lights will be OFF. If one of the lights stay OFF, check the circuit for continuity. See Inspection & Maintenance Instructions in Preventive Maintenance section.

(2) If all five lights flash repeatedly, the voltage supply is greater than 16 volts or less than 9 volts.

(3) Flashing patterns will repeat every 3.25 seconds.

(4) If seat indicator light does not go ON, check for debris, dirt or objects under or behind the seat.

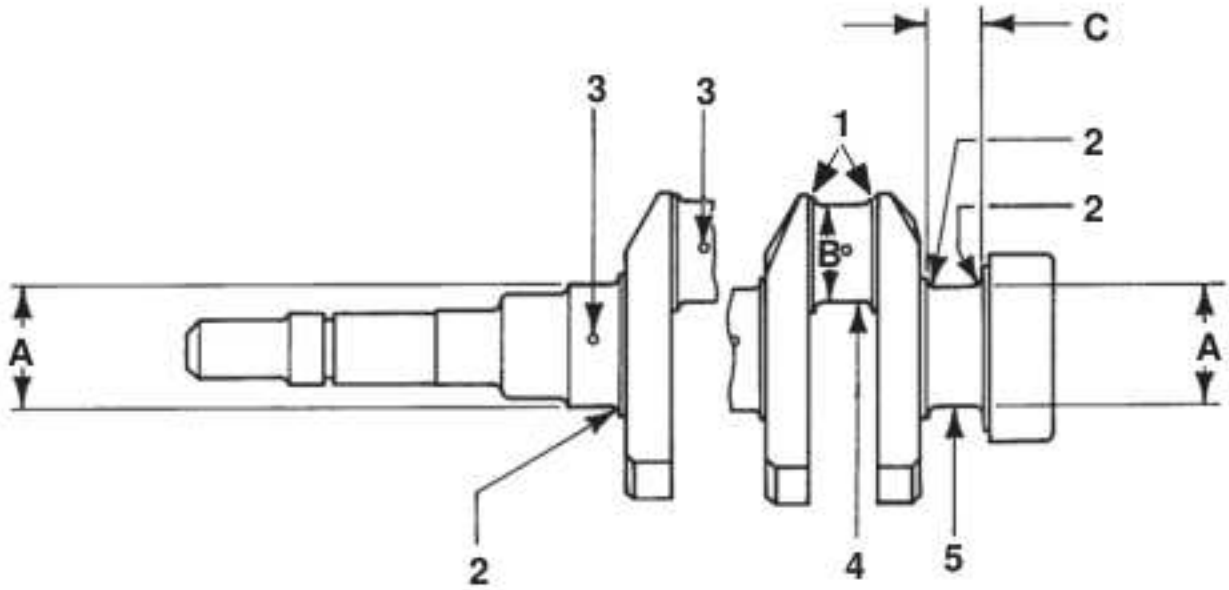
NOTE: On some early models with BICS controller S/N 200,000 and Above only, if the Seat Bar is lowered before the seat sensor is activated, a 10 second delay will occur before the valve and traction lights come on.

*** Normal BICS operating voltage is less than the electrical system voltage. If voltage is more, the circuit is shorted to system voltage.**

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Grinding Specifications for the Crankshaft

If the standard–size bearing cannot be used due to excessive wear of the crankpin and crank journals, use undersize or oversize bearings.



Undersize and Oversize Bearings

If the standard size bearing cannot be employed due to excessive wear of the crankpin and crank journal, employ undersize or oversize bearings.

For under size or oversize bearing use, the following precautions noted below.

1. Grind the crankpin corner (1) and journal corner (2) with a wheel which has specified round corner and width without shoulder.

   Item 1 .1102 – .1260 inch (2.8–3.2 mm)
   Item 2 .0906 – .1063 inch (2.3–2.7 mm)

2. Be sure to chamfer the oil hole (3) circumference to .04–.06 inch (1,5 mm) radius with an oil stone.

3. The crankpin (4) must be fine–finished to higher than ∇∇∇∇ (.8–S).

4. The crank journal (5) must be fine–finished to higher than ∇∇∇∇ (.8–S).

5. The crank journal side surface (**C**) must be fine–finished to higher than ∇∇∇∇ (.8–S).

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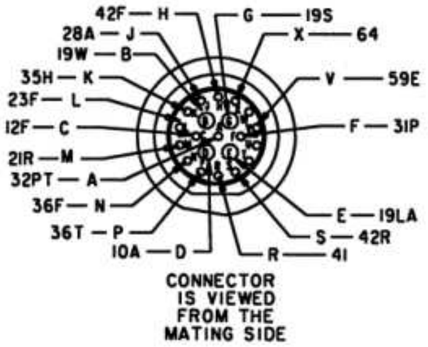
ENGINE WIRING DIAGRAM - SHEET 1

(Harness 6714771 Rev. A)

553 BICS ™ (S/N 516311001 and Above)

(S/N 516411001 and Above)

(Printed January 1998)



CONNECTOR IS VIEWED FROM THE MATING SIDE

DOMESTIC OPTION

EUROPEAN STANDARD

→ Denotes Ground

[A] Connects To [A] Cab Wiring Diagram - Refer To Index

[C] Connects To [C] Controls Wiring Diagram - Refer To Index

[D] Connects To [D] Controls Wiring Diagram - Refer To Index

[E] Connects To [E] Controls Wiring Diagram - Refer To Index

[F] Connects To [F] BICS Wiring Diagram - Refer To Index

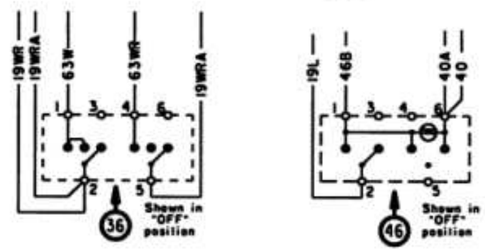
[G] Connects To [G] Accessory Wiring Diagram - Refer To Index

[H] Connects To [H] Attachments Wiring Diagram - Refer To Index

[J] Connects To [J] Attachments Wiring Diagram - Refer To Index

[K] Connects To [G] This Page if machine does NOT have the Accessory Wiring Harness

[M] Connects To [G] This Page if machine does NOT have the Accessory Wiring Harness



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