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Service Bulletin

FILING INSTRUCTIONS	
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Family: STEIGER-4WD

Model: STX 275, STX 325, STX 375, and STX 440

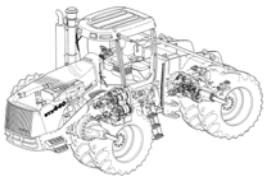
Subject: Fault Codes

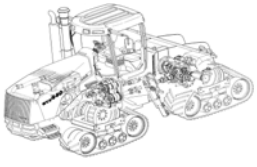
Background Information:

Attached is a copy of fault codes for the STX™ tractors. This information is provided to the field to assist in diagnosing the fault codes.

Automatic Temperature Control Fault Codes

Controller	Fault Code Id	Fault Code Description
ATC	01	Pressure too high.
ATC	02	Pressure too low.
ATC	04	Blower control pot resistance too high.
ATC	05	Temperature control pot resistance too high.
ATC	06	Recirculation control pot resistance too high.
ATC	07	Mode door control pot resistance too high.
ATC	08	Inside air temperature sensor open or shorted high.
ATC	09	Inside air temperature sensor shorted low.
ATC	10	Freeze sensor open or shorted high.
ATC	11	Freeze sensor shorted low.





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Armrest Fault Codes

Controller	Fault Code Id	Fault Code Description
ARM	19	Hand THROTTLE potentiometer is failed.
ARM	29	Aux 1st remote valve LEVER potentiometer is failed.
ARM	39	Aux 2nd remote valve LEVER potentiometer is failed.
ARM	49	Aux 3rd remote valve LEVER potentiometer is failed.
ARM	59	Aux 4th remote valve LEVER potentiometer is failed.
ARM	69	HITCH POSITION command potentiometer is failed.
ARM	79	Invalid STX Configuration - HITCH LOAD command potentiometer is failed.
ARM	89	Aux 1st remote valve FLOW potentiometer is failed.
ARM	99	Aux 2nd remote valve FLOW potentiometer is failed.
ARM	109	Aux 3rd remote valve FLOW potentiometer is failed.
ARM	119	Aux 4th remote valve FLOW potentiometer is failed.
ARM	129	Aux 5th remote valve FLOW potentiometer is failed.
ARM	139	Aux remote valve TIMER potentiometer is failed.
ARM	149	Hitch UPPER LIMIT potentiometer is failed.
ARM	159	Hitch DROP RATE potentiometer is failed.
ARM	169	Invalid STX Configuration - Hitch TRAVEL potentiometer is failed.
ARM	1019	Trans GEAR SELECTION switch is failed.
ARM	1029	Aux 5th remote valve control switch is failed.
ARM	1039	Invalid STX Configuration - PTO switch is failed.
ARM	1049	Hitch UP/DOWN switch is failed.
ARM	1059	Hitch SLIP switch is failed.
ARM	1069	Invalid STX Configuration - MFD switch is failed.
ARM	1079	Invalid STX Configuration - Diff lock switch is failed.
ARM	1099	Aux remote valve LIMIT SET switch is failed.
ARM	1109	Hand Throttle IDLE VALIDATION switch is failed.
ARM	8011	Battery Voltage is too Low.
ARM	9011	Controller Memory Error - Loss of Hitch Position Command Calibration.
ARM	9012	Controller Memory Error - Loss of Aux Remote Lever Calibrations.
ARM	9013	Controller Memory Error - Loss of Throttle Calibrations.
ARM	9014	Invalid STX Configuration - Loss of MFD switch Configuration.
ARM	9015	Invalid STX Configuration - Loss of Trans switches Configuration.
ARM	9021	Hitch position command potentiometer calibration results not acceptable.
ARM	9031	Hand throttle potentiometer calibration results not acceptable.
ARM	10091	Armrest Controller failure - 5 V regulator failure.
ARM	12013	Communications Lost with Data Bus and ALL other controllers.
ARM	65535	NO ERROR. Errors have not been cleared from factory.

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Remote Hydraulic Fault Codes

Controller	Fault Code Id	Fault Code Description
AUX	1010	Aux remote valve EXTEND LIMIT SET switch is failed in the Armrest Controller.
AUX	1020	Aux remote valve RETRACT LIMIT SET switch is failed in the Armrest Controller.
AUX	1030	Aux 1st remote valve Timer Switch is failed in the Armrest Controller.
AUX	1040	Aux 2nd remote valve Timer Switch is failed in the Armrest Controller.
AUX	1050	Aux 3rd remote valve Timer Switch is failed in the Armrest Controller.
AUX	1060	Aux 4th remote valve Timer Switch is failed in the Armrest Controller.
AUX	1090	Aux 5th remote valve control switch (Extend) is failed in the Armrest Controller.
AUX	1100	Aux 5th remote valve control switch (Retract) is failed in the Armrest Controller.
AUX	8011	Battery Voltage is too Low.
AUX	8012	Battery Voltage is too High.
AUX	9009	Controller Memory Error - Loss of valve constants.
AUX	9019	Controller Memory Error - Loss of operator adjustment data.
AUX	9029	Controller Memory Error - Loss of valve calibration data.
AUX	11010	Aux 1st remote valve LEVER potentiometer is failed in the Armrest Controller.
AUX	11020	Aux 2nd remote valve LEVER potentiometer is failed in the Armrest Controller.
AUX	11030	Aux 3rd remote valve LEVER potentiometer is failed in the Armrest Controller.
AUX	11040	Aux 4th remote valve LEVER potentiometer is failed in the Armrest Controller.
AUX	11060	Aux 1st remote valve FLOW potentiometer is failed in the Armrest Controller.
AUX	11070	Aux 2nd remote valve FLOW potentiometer is failed in the Armrest Controller.
AUX	11080	Aux 3rd remote valve FLOW potentiometer is failed in the Armrest Controller.
AUX	11090	Aux 4th remote valve FLOW potentiometer is failed in the Armrest Controller.
AUX	11100	Aux 5th remote valve FLOW potentiometer is failed in the Armrest Controller.
AUX	11110	Aux remote valve TIMER potentiometer is failed in the Armrest Controller.
AUX	12011	Communications Lost with Armrest Controller.
AUX	12041	Communications Lost with Instrumentation Controller.
AUX	51011	Aux Remote Controller failure - Valve Supply Relay Open.
AUX	51012	Aux Remote Controller failure - Valve Supply Relay Voltage High.
AUX	51029	Valve supply voltage high before valve power relay is closed.
AUX	51031	Aux Remote Controller failure - Valve Current Enable Protection Low.
AUX	51032	Aux Remote Controller failure - Valve Current Enable Protection High.
AUX	51039	Aux Remote Controller failure - Valve Current Enable Protection Failed.
AUX	51041	Aux Remote Controller failure - Valve Current Limit Protection Low.
AUX	51042	Aux Remote Controller failure - Valve Current Limit Protection High.
AUX	51049	Aux Remote Controller failure - Valve Current Limit Protection Failed.
AUX	51053	Aux 1st Lower Coil solenoid shorted to 12 volts.

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Remote Hydraulic Fault Codes (continued)

AUX	51054	Aux 1st Raise Coil solenoid shorted to 12 volts.
AUX	51055	Aux 1st Lower solenoid failed open or short circuit.
AUX	51056	Aux 1st Raise solenoid failed open or short circuit.
AUX	51063	Aux 2nd Lower Coil solenoid shorted to 12 volts.
AUX	51064	Aux 2nd Raise Coil solenoid shorted to 12 volts.
AUX	51065	Aux 2nd Lower solenoid failed open or short circuit.
AUX	51066	Aux 2nd Raise solenoid failed open or short circuit.
AUX	51073	Aux 3rd Lower Coil solenoid shorted to 12 volts.
AUX	51074	Aux 3rd Raise Coil solenoid shorted to 12 volts.
AUX	51075	Aux 3rd Lower solenoid failed open or short circuit.
AUX	51076	Aux 3rd Raise solenoid failed open or short circuit.
AUX	51083	Aux 4th Lower Coil solenoid shorted to 12 volts.
AUX	51084	Aux 4th Raise Coil solenoid shorted to 12 volts.
AUX	51085	Aux 4th Lower solenoid failed open or short circuit.
AUX	51086	Aux 4th Raise solenoid failed open or short circuit.
AUX	51093	Aux 5th Lower Coil solenoid shorted to 12 volts.
AUX	51094	Aux 5th Raise Coil solenoid shorted to 12 volts.
AUX	51095	Aux 5th Lower solenoid failed open or short circuit.
AUX	51096	Aux 5th Raise solenoid failed open or short circuit.
AUX	51101	Invalid Software Instruction Executed.
AUX	51102	Invalid Software Instruction Executed.
AUX	51103	Invalid Software Instruction Executed.
AUX	51104	Invalid Software Instruction Executed.
AUX	51105	Invalid Software Instruction Executed.
AUX	51106	Invalid Software Instruction Executed.
AUX	51107	Invalid Software Instruction Executed.
AUX	51108	Invalid Software Instruction Executed.
AUX	51109	Invalid Software Instruction Executed.
AUX	51111	Invalid Software Instruction Executed.
AUX	51112	Invalid Software Instruction Executed.
AUX	51113	Invalid Software Instruction Executed.
AUX	51114	Invalid Software Instruction Executed.
AUX	51115	Invalid Software Instruction Executed.
AUX	51116	Invalid Software Instruction Executed.
AUX	51117	Invalid Software Instruction Executed.
AUX	51118	Invalid Software Instruction Executed.
AUX	51119	Invalid Software Instruction Executed.
AUX	51121	Invalid Software Instruction Executed.

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Remote Hydraulic Fault Codes (continued)

AUX	51122	Invalid Software Instruction Executed.
AUX	51123	Invalid Software Instruction Executed.
AUX	51124	Invalid Software Instruction Executed.
AUX	51125	Invalid Software Instruction Executed.
AUX	51126	Invalid Software Instruction Executed.
AUX	51127	Invalid Software Instruction Executed.
AUX	51128	Invalid Software Instruction Executed.
AUX	51129	Invalid Software Instruction Executed.
AUX	51131	Invalid Software Instruction Executed.
AUX	51132	Invalid Software Instruction Executed.
AUX	51133	Invalid Software Instruction Executed.
AUX	51134	Invalid Software Instruction Executed.
AUX	51135	Invalid Software Instruction Executed.
AUX	51136	Invalid Software Instruction Executed.
AUX	51137	Invalid Software Instruction Executed.
AUX	51138	Invalid Software Instruction Executed.
AUX	51139	Invalid Software Instruction Executed.
AUX	51141	Invalid Software Instruction Executed.
AUX	51142	Invalid Software Instruction Executed.
AUX	51143	Invalid Software Instruction Executed.
AUX	51144	Invalid Software Instruction Executed.
AUX	51145	Invalid Software Instruction Executed.
AUX	51146	Invalid Software Instruction Executed.
AUX	51147	Invalid Software Instruction Executed.
AUX	51148	Invalid Software Instruction Executed.
AUX	51149	Invalid Software Instruction Executed.
AUX	51200	Aux remote valve LIMIT SET switch is failed in the Armrest Controller.
AUX	51250	Aux 5th remote valve control switch is failed in the Armrest Controller.
AUX	51261	Implement Sensor supply out of range Low.
AUX	51262	Implement Sensor supply out of range High.
AUX	51401	Implement feedback #1 out of range Low.
AUX	51402	Implement feedback #1 out of range High.
AUX	51411	Implement feedback #2 out of range Low.
AUX	51412	Implement feedback #2 out of range High.
AUX	65535	NO ERROR. Errors have not been cleared from factory.

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Engine Fault Codes

Controller	Fault Code Id	Fault Code Description	8.3/9.0 Liter	15 Liter
ENG	111	Engine Controller Failure - Hardware Failure.	X	X
ENG	115	Engine Speed Sensor (8.3, 9 Liter) or Cam Sensor (15 Liter) is failed.	X	X
ENG	121	Engine Position Sensor(8.3, 9 Liter) or Crankshaft Sensor (15 Liter) is failed.	X	X
ENG	122	Boost Pressure Sensor voltage is too high.	X	X
ENG	123	Boost Pressure Sensor voltage is too low.	X	X
ENG	124	Boost Pressure level has exceeded the warning limit	X	
ENG	131	Decelerator or Hand Throttle (STD cab) Position potentiometer voltage is too high.	X	X
ENG	132	Decelerator or Hand Throttle (STD cab) Position potentiometer voltage is too low.	X	X
ENG	133	Decelerator (STD cab) Position potentiometer voltage is too high.	X	X
ENG	134	Decelerator (STD cab) Position potentiometer voltage is too low.	X	X
ENG	135	Oil Pressure Sensor voltage is too high.	X	X
ENG	141	Oil Pressure Sensor voltage is too low.	X	X
ENG	143	Oil Pressure level has fallen below the warning limit.	X	X
ENG	144	Coolant Temperature Sensor voltage is too high.	X	X
ENG	145	Coolant Temperature Sensor voltage is too low.	X	X
ENG	146	Coolant Temperature level has exceeded the warning limit.	X	
ENG	147	Frequency Throttle Signal shorted high.		X
ENG	148	Frequency Throttle Signal shorted low.		X
ENG	151	Coolant Temperature level has exceeded the warning limit.	X	X
ENG	153	Intake Manifold Temperature Sensor voltage is too high.	X	X
ENG	154	Intake Manifold Temperature Sensor voltage is too low.	X	X
ENG	155	Intake Manifold Temperature level has exceeded the warning limit.	X	X
ENG	187	Sensor Supply 2 Voltage is too low.		X
ENG	211	Communications problem with Armrest, Instrumentation, or Transmission Controllers.	X	X
ENG	212	Oil Temperature Sensor Voltage is too high.		X
ENG	213	Oil Temperature Sensor Voltage is too low.		X
ENG	214	Oil Temperature Sensor Voltage is above normal range.		X
ENG	219	Oil Level - remote reservoir is too low. Add oil.		X
ENG	221	Ambient Air Pressure Sensor Voltage is too high.	X	X
ENG	222	Ambient Air Pressure Sensor Voltage is too low.	X	X
ENG	223	CORS - Burn Valve Solenoid is shorted either low or high.		X
ENG	227	Sensor Supply 2 Voltage is too high.		X
ENG	234	Engine Speed has exceeded the overspeed warning limit.	X	X
ENG	235	Engine Coolant Level is low. Add coolant fluid.	X	X
ENG	237	External Speed Multi Unit Sync Command Input Data Incorrect.		X
ENG	241	Vehicle Speed Signal lost.		X
ENG	242	Vehicle Speed Signal intermittent / tampering.		X
ENG	245	Fan Clutch Voltage too low.		X
ENG	254	Fuel Shutoff Valve Voltage too low.		X

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Engine Fault Codes (continued)

ENG	255	Fuel Shutoff Valve Voltage too high.		X
ENG	259	Fuel Shutoff Valve mechanically stuck open.		X
ENG	263	Fuel Temperature Sensor voltage is too high.	X	
ENG	265	Fuel Temperature Sensor voltage is too low.	X	
ENG	268	Fuel Pressure in pump is not changing with operating conditions.	X	
ENG	271	Front Pumping Control Valve current is low during "click test".	X	
ENG	272	Front Pumping Control Valve current is high.	X	
ENG	273	Rear Pumping Control Valve current is low during "click test".	X	
ENG	274	Rear Pumping Control Valve current is high .	X	
ENG	275	Front Pumping element is failed.	X	
ENG	276	Injection Control Valve current is out of range.	X	
ENG	277	Injection Control Valve is failed.	X	
ENG	278	Fuel Lift Pump is failed.	X	
ENG	279	Injection Control Valve current is out of range.	X	
ENG	281	Front Pumping element is failed.	X	
ENG	282	Rear Pumping element is failed.	X	
ENG	283	Engine Speed/Position Sensor supply voltage is too high.	X	
ENG	284	Engine Speed/Position Sensor supply voltage is too low.	X	X
ENG	285	J1939 Parameter was set to be multiplexed, but was not received (timeout error).		X
ENG	286	J1939 Parameter was set to be multiplexed, but was not available from all sources (config error).		X
ENG	287	Multiplexing throttle parameter and a data error was received - data invalid.		X
ENG	288	Multiplexing remote throttle parameter and a data error was received - data invalid.		X
ENG	293	OEM Temperature Sensor Voltage is too high.		X
ENG	294	OEM Temperature Sensor Voltage is too low.		X
ENG	295	Ambient Air Pressure data invalid.		X
ENG	297	OEM Pressure Sensor Voltage is too high.	X	X
ENG	298	OEM Pressure Sensor Voltage is too low.	X	X
ENG	299	Engine Shutdown by other than keyswitch (i.e. via data bus command).		X
ENG	319	Real Time Clock in controller has lost power.	X	X
ENG	328	Rear Pumping element is failed.	X	
ENG	329	CAPS Pump has an overpumping failure.	X	
ENG	338	Idle Shutdown Vehicle Accessory Relay Voltage is too high.		X
ENG	339	Idle Shutdown Vehicle Accessory Relay Voltage is too low.		X
ENG	341	All data written during powerdown cycle was lost (checksum error).		X
ENG	343	Engine Controller Failure - Hardware Failure.		X
ENG	349	Measured Speed is too high.		X
ENG	352	5 Volt Sensor Supply voltage is too low.	X	X
ENG	378	Front Fueling current is too low.		X
ENG	379	Front fueling current is too high.		X
ENG	385	5 Volt Sensor Supply voltage is too high.	X	
ENG	386	5 Volt Sensor Supply voltage is too high.	X	X
ENG	387	Decelerator or Hand Throttle (STD cab) 5 Volt Supply voltage is too high.	X	X
ENG	388	Engine Brake driver 1 circuit failure.		X
ENG	392	Engine Brake driver 2 circuit failure.		X
ENG	393	Engine Brake driver 3 circuit failure.		X

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Engine Fault Codes (continued)

ENG	394	Front Timing current is too low.		X
ENG	395	Front Timing current is too high.		X
ENG	396	Rear Fueling current is too low.		X
ENG	397	Rear Fueling current is too high.		X
ENG	398	Rear Timing current is too low.		X
ENG	399	Rear Timing current is too high.		X
ENG	412	J1708 data link cannot transmit.		X
ENG	414	J1708 data link not fast enough.		X
ENG	415	Oil Pressure level has fallen below the very low warning limit.	X	X
ENG	418	Water in Fuel sensor indicates the water in the fuel filter needs to be drained.	X	X
ENG	419	Boost Pressure data invalid.		X
ENG	422	Engine Coolant Level Sensor (optional) is failed or the jumper plug is missing.	X	X
ENG	426	J1939 data link cannot transmit.		X
ENG	427	J1939 data link not fast enough.		X
ENG	428	Water in Fuel Sensor voltage is too high.		X
ENG	429	Water in Fuel Sensor voltage is too low.	X	X
ENG	431	Hand Throttle (STD cab) Idle Validation Switches are both closed.	X	X
ENG	432	Hand Throttle (STD cab) position potentiometer and switches disagree.	X	X
ENG	433	Boost Pressure level disagrees with engine operation conditions (speed & power).	X	X
ENG	434	Unswitched 12 volt supply voltage disconnected without normal key off sequence.	X	X
ENG	435	Oil Pressure data invalid.		X
ENG	441	Battery Voltage is too Low (less than 6 volts).	X	X
ENG	442	Battery Voltage is too High.	X	X
ENG	443	Decelerator or Hand Throttle (STD cab) 5 Volt Supply voltage is too low.	X	X
ENG	449	Fuel Pressure level has exceeded the warning limit.	X	X
ENG	451	Fuel Pressure Sensor voltage is too high.	X	X
ENG	452	Fuel Pressure Sensor voltage is too low.	X	X
ENG	465	Wastegate 1 voltage is too high.		X
ENG	466	Wastegate 1 voltage is too low.		X
ENG	482	Fuel Pressure Sensor voltage low.		X
ENG	483	Rear Bank Post Actuactor Pressure voltage high.		X
ENG	484	Rear Bank Post Actuactor Pressure voltage low.		X

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Engine Fault Codes (continued)

ENG	485	Rear Fueling actuator overfueling.		X
ENG	486	Rear Fueling actuator underfueling.		X
ENG	488	Intake Manifold Temperature level has exceeded the warning limit.	X	
ENG	489	Measured Speed Sensor data low.		X
ENG	491	Wastegate 2 voltage is too high.		X
ENG	492	Wastegate 2 voltage is too low.		X
ENG	493	The Injection Control Identifier Circuit in the harness has failed.	X	
ENG	496	Engine Speed / Position Sensor #2 supply is too low.		X
ENG	527	Cab pressurization/Ether relay coil circuit shorted high or open.	X	X
ENG	529	Output B driver shorted high or open.	X	X
ENG	539	The Injection Control Valve Transorb in the harness has failed. (open circuit).	X	
ENG	546	Fuel Pressure sensor voltage is too high.		X
ENG	547	Fuel Pressure sensor voltage is too low.		X
ENG	551	Hand Throttle (STD cab) Idle Validation Switches are both open.	X	X
ENG	553	Front fueling actuator overfueling.		X
ENG	559	Front fueling actuator underfueling.		X
ENG	581	Fuel inlet Pressure Sensor voltage is too high.		X
ENG	582	Fuel inlet Pressure Sensor voltage is too low.		X
ENG	583	Fuel Inlet Pressure Sensor voltageout of range high or low.		X
ENG	595	Turbo overspeed protection fault.		X
ENG	596	Battery voltage is too high.		X
ENG	597	Battery voltage is too low.		X
ENG	598	Battery voltage is very low.		X
ENG	611	Engine turned off under high load. Recommend that engine is allowed to cool before shutdown.	X	X
ENG	697	Engine Controller internal temperature too high.		X
ENG	698	Engine Controller internal temperature too low.		X
ENG	731	Engine Speed / Position #2 - Mechanical misalignment.		X
ENG	753	Synchronization has been lost.		X
ENG	755	Front Bank injector is bad.		X
ENG	758	Rear Bank injector is bad.		X
ENG	951	A power imbalance between the cylinders was detected by the controller hardware.		X
ENG	983	Unused A/D input channel out of range.		X

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Hitch Fault Codes

Controller	Fault Code Id	Fault Code Description
HITCH	1010	Hitch Up/Down Switch failed in the Armrest controller.
HITCH	1020	Hitch Slip Select Switch failed in the Armrest controller.
HITCH	1030	Hitch Slip Set Switch failed in the Armrest controller.
HITCH	3010	Transmission Output Speed Sensor is failed in the Instrumentation Controller.
HITCH	3020	Slip Sensor (radar or wheel speed) is failed in the Instrumentation Controller.
HITCH	3030	Engine Speed Sensor is failed in the Engine Controller.
HITCH	4019	Invalid STX Configuration - Right Draft Pin voltage is outside the normal operating range.
HITCH	4029	Invalid STX Configuration - Left Draft Pin voltage is outside the normal operating range.
HITCH	4039	Invalid STX Config.- Left and Right Draft Pin voltages are outside the normal operating range.
HITCH	4049	Invalid STX Configuration - Single draft pin is outside the normal operating range.
HITCH	6014	Hitch Lower Solenoid is failed open or shorted to the ground.
HITCH	6015	Hitch Lower Solenoid is failed shorted to the 12 volts.
HITCH	6024	Hitch Raise Solenoid is failed open or shorted to the ground.
HITCH	6025	Hitch Raise Solenoid is failed shorted to the 12 volts.
HITCH	8001	Battery Voltage is too Low.
HITCH	8002	Battery Voltage is too High.
HITCH	9301	Raise Valve calibration value is too high. (valve problem).
HITCH	9302	Raise Valve calibration value is too low. (valve problem).
HITCH	9303	Raise Valve current measurement problem during calibration.
HITCH	9304	Hitch position at top of travel is not within specification during calibration.
HITCH	9306	Lower Valve calibration value is too high. (valve problem).
HITCH	9307	Lower Valve calibration value is too low. (valve problem).
HITCH	9308	The time allowed for hitch calibration has expired.
HITCH	9309	Hitch position at bottom of travel is not within specification during calibration.
HITCH	9310	Hitch position range from top to bottom is not within spec during calibration.
HITCH	9311	Hitch position to hitch rockershaft position ratio is not within spec during calibration.

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Hitch Fault Codes (continued)

HITCH	9312	Invalid STX Configuration - Draft pin connected to left vs right for single pin setup.
HITCH	9313	Invalid STX Configuration - Hitch setup for position only due to Armrest configuration.
HITCH	9314	Invalid STX Config. - Right Draft Pin voltage is not within spec for 'no load' condition.
HITCH	9315	Invalid STX Config. - Left Draft Pin voltage is not within spec for 'no load' condition.
HITCH	9316	Invalid STX Config. - Both Draft Pin voltages are not within spec for 'no load' condition.
HITCH	9317	The Hitch Controller Calibration procedure must be performed.
HITCH	9318	Engine speed must be set above 1600 rpm during calibration of lower valve.
HITCH	9319	Invalid STX Config.- Hitch calibrated for position only but Armrest calibrated for draft mode.
HITCH	9320	Hitch calibration aborted due to tractor movement.
HITCH	9321	Hitch calibration attempted when the engine is not running or engine speed signal is failed.
HITCH	10030	Controller Memory Error - Loss of hitch calibration data. Re-calibrate hitch.
HITCH	10060	Internal controller relay failed or hitch valves shorted to 12 volts.
HITCH	10061	Internal controller relay failed or hitch valves open circuit or shorted to ground.
HITCH	10071	Controller failure - Lower valve driver is shorted to 12 volts.
HITCH	10072	Controller failure - Raise valve driver is shorted to 12 volts.
HITCH	10090	Controller failure - 5 volt regulator has failed.
HITCH	11010	Invalid STX Configuration-Hitch Load Command potentiometer is failed in the Armrest Controller.
HITCH	11020	Hitch Drop Rate potentiometer is failed in the Armrest Controller.
HITCH	11030	Invalid STX Configuration - Hitch Travel potentiometer is failed in the Armrest Controller.
HITCH	11050	Hitch Upper Limit potentiometer is failed in the Armrest Controller.
HITCH	11069	Hitch Rockshaft Position potentiometer is outside normal operating range.
HITCH	11070	Hitch Position Command potentiometer failed in the Armrest controller.
HITCH	12011	Communications Lost with Armrest Controller.
HITCH	12031	Communications Lost with Data Bus and ALL other controllers.
HITCH	12041	Communications Lost with Instrumentation Controller.
HITCH	52230	Upper Limit control is set below the position of the hitch.
HITCH	52260	Remote hitch UP and DOWN switch failure.
HITCH	65535	NO ERROR. Errors have not been cleared from factory.

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Instrumentation Controller Fault Codes

Controller	Fault Code Id	Fault Code Description
INST	1015	Seat Switch may be stuck closed.
INST	3010	Invalid STX Configuration - PTO Shaft Speed Sensor is failed in PTO Controller.
INST	3020	Engine Speed sensor is failed in the Engine Controller.
INST	5010	Engine Oil Pressure sensor is failed in the Engine Controller.
INST	5011	Invalid STX Configuration - Engine Oil Pressure sensor voltage is too low.
INST	10031	Controller Memory Error - Loss of Engine Hours information.
INST	10032	Controller Memory Error - Loss of Vehicle Configuration information.
INST	10033	Controller Memory Error - Loss of Customer Configuration information.
INST	10034	Controller Memory Error - Loss of Fuel Tank Configuration information.
INST	11011	Fuel Level Sensor voltage is too low (open circuit, short to ground).
INST	12011	Communications Lost with Armrest Controller.
INST	12021	Communications Lost with Auxiliary Controller.
INST	12031	Communications Lost with Hitch Controller.
INST	12043	Communications Lost with Data Bus and ALL other controllers.
INST	12051	Invalid STX Configuration - Communications Lost with PTO Controller.
INST	12061	Communications Lost with Steering Controller.
INST	12071	Communications Lost with Transmission Controller.
INST	12081	Communications Lost with Performance Controller.
INST	12091	Communications Lost with Engine Controller.
INST	13010	Engine Coolant Temperature sensor is failed in the Engine Controller.
INST	13011	Invalid STX Configuration - Engine Coolant Temperature sensor voltage is too low.
INST	13012	Invalid STX Configuration - Engine Coolant Temperature sensor voltage is too high.
INST	13021	Transmission Oil Temperature sensor voltage is too low (short to ground).
INST	13022	Transmission Oil Temperature sensor voltage is too high (open circuit, short to +V).
INST	13031	Hydraulic Oil Temperature sensor voltage is too low (short to ground).
INST	13032	Hydraulic Oil Temperature Sensor voltage is too high (open circuit, short to +V).
INST	13040	Air to Air Intake Temperature sensor is failed in the Engine Controller.
INST	13051	Invalid STX Configuration - Air to Air Intake Temperature sensor voltage is too low.
INST	13052	Invalid STX Configuration - Air to Air Intake Temperature sensor voltage is too high.
INST	53001	Instrumentation Controller Configuration is Incorrect.
INST	53002	Invalid STX Configuration - Air to Air Intake sensor does not match Tractor Model Configuration.
INST	65535	NO ERROR. Errors have not been cleared from factory.

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Performance Monitor Fault Codes

Controller	Fault Code Id	Fault Code Description
PERF	10031	Controller Memory Error - Loss of Service Interval information.
PERF	10032	Controller Memory Error - Loss of Stored Fault Code information.
PERF	10033	Controller Memory Error - Loss of Area, Distance, etc. information.
PERF	10034	Controller Memory Error - Loss of Implement Width information.
PERF	10035	Controller Memory Error - Loss of Fuel Tank Configuration information.
PERF	12011	Communications Lost with Armrest Controller.
PERF	12031	Communications Lost with Hitch Controller.
PERF	12041	Communications Lost with Instrumentation Controller.
PERF	12061	Communications Lost with Steering Controller.
PERF	12083	Communications Lost with Data Bus and ALL other controllers.
PERF	12091	Communications Lost with Engine Controller.
PERF	65535	NO ERROR. Errors have not been cleared from factory.

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Steering Fault Codes

Controller	Fault Code Id	Fault Code Description
STEER	3010	Transmission Output Speed Sensor is failed in the Instrumentation Controller.
STEER	8011	Battery voltage is too low.
STEER	8012	Battery voltage is too high.
STEER	9011	Controller Memory Error - Configuration / Calibration Checksum is incorrect.
STEER	9012	Controller Memory Error - Stored calibration value for ARTICULATION_CENTER is out of range.
STEER	9013	Controller Memory Error - Stored calibration value for FRONT_STEER_CENTER is out of range.
STEER	9014	Controller Memory Error - Stored calibration value for FRONT_STEER_LEFT is out of range.
STEER	9015	Controller Memory Error - Stored calibration value for FRONT_STEER_RIGHT is out of range.
STEER	10091	Steering Controller Failure - Internal +5V regulator is out of range.
STEER	11011	Voltage measured on the ARTICULATION potentiometer is out of range low.
STEER	11013	Voltage measured on 'low side' of the ARTICULATION potentiometer is out of range.
STEER	11021	Voltage measured on the FRONT_STEER potentiometer is out of range low.
STEER	11023	Voltage measured on 'low side' of the FRONT_STEER potentiometer is out of range.
STEER	12061	Communications Lost with Instrumentation Controller.
STEER	12063	Communications Lost with Data Bus and ALL other controllers.
STEER	55010	Steering Controller Failure - Internal output enable latch failed on.
STEER	55011	Voltage is detected on the solenoid power pin when not expected.
STEER	55012	Voltage is detected on the ARTIC_BYPASS driver pin when not expected.
STEER	55014	Voltage is detected on the FRONT_STEER_RIGHT driver pin when not expected.
STEER	55015	Voltage is detected on the FRONT_STEER_LEFT driver pin when not expected.
STEER	55017	Voltage is detected on the MAKEUP_RIGHT driver pin when not expected.
STEER	55018	Voltage is detected on the MAKEUP_LEFT driver pin when not expected.
STEER	55019	Voltage is detected on the RELAY driver pin when not expected.
STEER	55021	Voltage is not detected on the solenoid power pin when expected.

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Steering Fault Codes (continued)

STEER	55022	Voltage is not detected on the ARTIC_BYPASS driver pin when expected.
STEER	55024	Voltage is not detected on the FRONT_STEER_RIGHT driver pin when expected.
STEER	55025	Voltage is not detected on the FRONT_STEER_LEFT driver pin when expected.
STEER	55027	Voltage is not detected on the MAKEUP_RIGHT driver pin when expected.
STEER	55028	Voltage is not detected on the MAKEUP_LEFT driver pin when expected.
STEER	55029	Voltage is not detected on the RELAY driver pin when expected.
STEER	55032	Current is sensed flowing through the ARTIC_BYPASS driver pin when not expected.
STEER	55034	Current is sensed flowing through the FRONT_STEER_RIGHT driver pin when not expected.
STEER	55035	Current is sensed flowing through the FRONT_STEER_LEFT driver pin when not expected.
STEER	55042	No current is sensed flowing through the ARTIC_BYPASS driver pin when expected.
STEER	55047	No current is sensed flowing through the MAKEUP_RIGHT driver when expected.
STEER	55048	No current is sensed flowing through the MAKEUP_LEFT driver pin when expected.
STEER	55049	No current is sensed flowing through the RELAY driver pin when expected.
STEER	55052	Too much current is sensed flowing through the ARTIC_BYPASS driver pin.
STEER	55054	Too much current is sensed flowing through the FRONT_STEER_RIGHT driver pin.
STEER	55055	Too much current is sensed flowing through the FRONT_STEER_LEFT driver pin.
STEER	55057	Too much current is sensed flowing through the MAKEUP_RIGHT driver pin.
STEER	55058	Too much current is sensed flowing through the MAKEUP_LEFT driver pin.
STEER	55059	Too much current is sensed flowing through the RELAY driver pin.
STEER	55061	Hand pump pressure signal is out of range.
STEER	55062	Encoder movement does not match hand pump pressure sensor signal.
STEER	55081	FRONT_STEER movement does not match FRONT_STEER command.
STEER	55082	ARTICLUATION movement does not match ARTICULATION makeup command (ARTIC_BYPASS valve on).
STEER	55083	ARTICULATION movement does not match steering wheel movement (ARTIC_BYPASS valve off).
STEER	55091	FRONT_STEER movement with no command.
STEER	55092	ARTICULATION movement with no command (ARTIC_BYPASS valve on).
STEER	55093	ARTICULATION movement with no steering wheel movement (ARTIC_BYPASS valve off).
STEER	65535	NO ERROR. Errors have not been cleared from factory.

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Transmission Fault Codes

Controller	Fault Code Id	Fault Code Description
TRANS	3010	Engine Speed sensor is failed in the Engine Controller.
TRANS	3011	Engine has stalled causing the Transmission to disengage.
TRANS	3012	Engine Speed is too high. (Greater than 4000 rpm).
TRANS	3020	Transmission Output Speed sensor is failed in the Instrumentation Controller.
TRANS	3030	Invalid Tractor Model configured in the Instrumentation Controller.
TRANS	5041	Park Brake not engaged when in Park.
TRANS	5042	Park Brake engaged when not in Park.
TRANS	6115	Lube Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	6116	Lube Valve Coil circuit is open or shorted to ground.
TRANS	8011	Battery Voltage is too Low.
TRANS	8012	Battery Voltage is too High.
TRANS	10082	Transmission Controller Failure - Internal short in the lube valve coil circuit.
TRANS	10083	Transmission Controller Failure - Internal short in the Trans Neutral Latch Relay Coil circuit.
TRANS	10091	Transmission Controller Failure - Internal 5 volt supply voltage is too high.
TRANS	10092	Transmission Controller Failure - Internal 5 volt supply voltage is too low.
TRANS	11011	Clutch Pedal Position potentiometer voltage is too Low.
TRANS	11012	Clutch Pedal Position potentiometer voltage is too High.
TRANS	12011	Communications Lost with Armrest Controller.
TRANS	12041	Communications Lost with Instrumentation Controller.
TRANS	12091	Communications Lost with Engine Controller.
TRANS	13010	Transmission Oil temperature sensor is failed in the Instrumentation Controller.
TRANS	56001	Shuttle Shift attempted from gear higher than shuttle shifting allowed.
TRANS	56002	The Transmission Controller Calibration procedure must be performed.
TRANS	56003	Controller Memory Error - Loss of Forward Gear Pre-selection information.
TRANS	56004	Measured transmission output speed does not match the commanded transmission output speed.
TRANS	56014	The Transmission Control Lever is NOT in Park, Neutral, Forward or Reverse.
TRANS	56016	Clutch Pedal Position Sensor does not agree with Bottom of Clutch Pedal Switch.

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Transmission Fault Codes (continued)

TRANS	56022	Battery Voltage below valve operational limit (9V).
TRANS	56023	1F Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56024	1M Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56025	1R Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56026	2F Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56027	2R Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56028	4F Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56029	4R Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56030	5F Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56031	5R Valve Coil circuit is shorted to 12 volts when the valve is ON.
TRANS	56032	System Pressure Valve Coil circuit is shorted to 12 volts when valve is ON.
TRANS	56033	1F Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56034	1M Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56035	1R Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56036	2F Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56037	2R Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56038	4F Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56039	4R Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56040	5F Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56041	5R Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56042	System Pressure Valve Coil circuit is open or shorted to ground when valve is ON.
TRANS	56043	1F Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56044	1M Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56045	1R Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56046	2F Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56047	2R Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56048	4F Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56049	4R Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56050	5F Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56051	5R Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56052	System Pressure Valve Coil circuit is open or shorted to ground when valve is OFF.
TRANS	56064	The Neutral Lever Switch and either the Forward or Reverse Lever Switch are both turned ON.
TRANS	56065	The Forward Lever Switch and the Reverse Lever Switch are both turned ON.

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Transmission Fault Codes (continued)

TRANS	56070	Transmission Valve Calibration failed to find the clutch engagement value.
TRANS	56071	No Power to 4F or 4R Valves due to Neutral Relay or Bottom of Clutch Relay Fault.
TRANS	56072	No Voltage detected on output of Transmission Neutral Latch Relay when it is ON. (Relay Fault).
TRANS	56073	Unwanted Power to 4F or 4R Valves due to short to 12 volts.
TRANS	56074	Voltage detected on output of Transmission Neutral Latch Relay when it is OFF. (Relay Fault).
TRANS	56075	Unexpected vehicle motion during transmission calibration.
TRANS	56082	Transmission Gear Selection Switch is failed.
TRANS	56086	The Park Lever Switch does not agree with the Neutral Lever Switch.
TRANS	56087	Trans Neutral Latch Relay Coil circuit is shorted to 12 volts when commanded ON.
TRANS	56088	Trans Neutral Latch Relay Coil circuit is open or shorted to ground when commanded ON.
TRANS	56090	Trans Neutral Latch Relay Coil circuit is open or shorted to ground when commanded OFF.
TRANS	56091	Transmission Controller Failure - Internal ouput enable latch failed ON.
TRANS	56092	Diff Lock Relay Coil circuit is shorted to 12 volts when commanded ON.
TRANS	56093	System pressure is out of range high.
TRANS	56094	System pressure is out of range low.
TRANS	56095	Calibration average system pressure at cal point is out of range.
TRANS	56096	Calibration system pressure slope is out of range.
TRANS	56097	Calibration system pressure point is not reached.
TRANS	56098	The Select Shift Switch is ON at power up.
TRANS	56109	Transmission engagement aborted due to the Operator NOT being SEATED.
TRANS	56111	Trans Controller Failure - Internal short in the 1F Valve Coil circuit.
TRANS	56112	Trans Controller Failure - Internal short in the 1M Valve Coil circuit.
TRANS	56113	Trans Controller Failure - Internal short in the 1R Valve Coil circuit.
TRANS	56114	Trans Controller Failure - Internal short in the 2F Valve Coil circuit.
TRANS	56115	Trans Controller Failure - Internal short in the 2R Valve Coil circuit.
TRANS	56116	Trans Controller Failure - Internal short in the 4F Valve Coil circuit.
TRANS	56117	Trans Controller Failure - Internal short in the 4R Valve Coil circuit.
TRANS	56118	Trans Controller Failure - Internal short in the 5F Valve Coil circuit.
TRANS	56119	Trans Controller Failure - Internal short in the 5R Valve Coil circuit.
TRANS	56120	Trans Controller Failure - Internal short in the System Pressure Valve Coil circuit.
TRANS	56123	Engine Torque signal is failed in the Engine Controller or Communications lost with Engine.
TRANS	65535	NO ERROR. Errors have not been cleared from factory.