

Warning Troubleshooting Guide

COIL	DYNAPUMP NICKNAME	SETTING	CAUSE	CORRECTIVE ACTION
C200	W-SUPPRESSOR TRIP	SWITCH X40 NC	VOLTAGE SPIKE ON MAIN POWER INPUT.	RESET
			WARNING STILL ON AFTER RESET.	SUPPRESSOR DAMAGED, PROTECTION LOST FOR 110V AND 24VDC CIRCUITS.
C201	W-CHANGE HYD FILTER	SWITCH X23 NO	DIRTY HYDRAULIC OIL FILTER.	CHANGE FILTER.
			COLD START WITH PARTLY CLOGGED FILTER.	RESET AFTER RUNNING WITH WARM OIL.
			FAULTY SWITCH OR OPEN CIRCUIT.	CHECK SWITCH AND WIRING, REFER TO WIRING SCHEMATIC.
C202	W-CWT LOW	V2042	LEAK IN CWT SYSTEM.	CHECK FOR LEAKS.
			SETTING TOO HIGH.	CHECK AND ADJUST SETTING.
			FAULTY PRESSURE TRANSDUCER.	REPLACE TRANSDUCER.
DEFAULT SETTING IS 20% LOWER THAN MINIMUM PRESSURE READING AT THE TOP OF THE STROKE.				
C203	W-CWT HIGH	V2043	ADD PRESSURE TO CWT AND DID NOT READJUST SETTING.	ADJUST SETTING.
			FAULTY PRESSURE TRANSDUCER.	REPLACE TRANSDUCER.
			INCREASE IN AMBIENT TEMPERATURE.	ADJUST SETTING.
DEFAULT SETTING IS 20% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE.				
C204	W-HYD PRESSURE UP	V2044	LOAD SPIKE ON PUMPING UNIT.	REVIEW DYNAMOMETER CARD AND CHECK FOR LOAD SPIKES.
			SETTING SET TOO LOW.	ADJUST SETTING.
			FLOW LINE CLOSED.	CHECK THAT ALL FLOW LINE VALVES ARE OPEN.
			FAULTY PRESSURE TRANSDUCER.	REPLACE TRANSDUCER.
DEFAULT SETTING IS 20% LOWER THAN ALARM "CYL UP PSI MAX" V2032.				
C205	W-HYD PRESSURE DN	V2045	LOSS OF LOAD ON PUMPING UNIT DURING DOWN STROKE.	PACKING TO TIGHT ON STUFFING BOX.
				EXCESSIVE FRICTION OR STICKING DOWN HOLE.
			SETTING SET TOO LOW	ADJUST SETTING.
			FAULTY PRESSURE TRANSDUCER.	REPLACE TRANSDUCER.
DEFAULT SETTING IS 20% HIGHER THAN ALARM "CYL DN PSI MAX" V2033.				
C206	W-SHORT DISCHARGE	V2037	EXTERNAL LEAK IN HYDRAULIC SYSTEM	CHECK FOR LEAKS.
			CLOGGED CWT RETURN FILTER	REPLACE OR CLEAN FILTER
			BALL VALVE ON CWT CLOSED	OPEN BALL VALVE.
			FAULTY LEVEL SWITCH OR CIRCUIT	CHECK SWITCH AND SIRING, REFER TO WIRING SCHEMATIC.
			FAULTY SOLENOID VALVE OR WIRING CIRCUIT	CHECK SOLENOID VALVE OR CIRCUIT, REFER TO WIRING SCHEMATIC.
C207	NOT USED			
C210	NOT USED			
C211	NOT USED			
C212	W-LOW COLUMN LOAD	V2036	LAZY OR PARTIALLY STUCK OPEN TRAVELING VALVE	PERFORM BHP VALVE TEST.
			LEAK IN TUBING	
			SETTING IMPROPERLY SET	CHECK SETTING.
SETTING 50% HIGHER THAN LOAD MEASURED ON THE DOWN STROKE				
C213	W-LOW CHARGE PUMP	SWITCH X22 NO	CHARGE PUMP RELIEF VALVE SETTING IS TOO LOW.	ADJUST RELIEF VALVE.
			AIR IN CYLINDER	BLEED CYLINDER.
			FAULTY OR LOOSE WIRING	CHECK WIRING. REFER TO WIRING SCHEMATIC.
			FAULTY SWITCH	CHECK SWITCH AND ADJUSTMENT.
C214	W-OIL RECOVERY SYSTEM	V2020	TIME BETWEEN OIL RECOVERY WAS 25 MINUTES OR LESS	OIL LEVEL IN FRONT COUNTERBALANCE VESSEL WAS BELOW SIGHT GLASS.
				THE IN-LINE HIGH PRESSURE NEEDS CLEANING OR REPLACEMENT.
				ONE OF THE BALL VALVES WAS CLOSED.
				ELECTRICAL CIRCUIT PROBLEM.

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COIL	DYNAPUMP NICKNAME	SETTING	CAUSE	CORRECTIVE ACTION	
C300	CWT MAX	V2030	INCREASE IN AMBIENT TEMPERATURE DUE TO SEASONAL CHANGES. (LITTLE TO NO LEAKAGE GOING INTO SUMMER MONTHS).	BLEED SOME PRESSURE OFF. SETTING SHOULD BE 30% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE.	
			INCREASE IN PRESSURE DUE TO AFTERNOON TEMPERATURES NOT BEING CONSIDERED WHEN ADDING GAS.		
			CWT SYSTEM WAS OVER FILLED.	DEFAULT SETTING IS 30% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE	
			"A-CWT MAX PSI LIMIT" V2030 SET INCORRECTLY.		SET 30% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE.
			FILLING SYSTEM TOO FAST WHILE PUMP IS RUNNING.		RESET, FILL AT A SLOWER RATE
			PRESSURE TRANSDUCER CIRCUIT FAILURE.		REPAIR LOOSE OR SHORTED CONNECTIONS. REFER TO WIRING SCHEMATIC. REPLACE TRANSDUCER. REFER TO WIRING SCHEMATIC. REPLACE ANALOG CARD. REFER TO WIRING SCHEMATIC.
C301	CWT MIN	V2031	EXTERNAL LEAK.	CHECK ALL GAS CONNECTIONS WITH A SOAPY SOLUTION FOR LEAKS.	
			INTERNAL LEAK IN CYLINDER BETWEEN NITROGEN AND OIL CHAMBERS.	BLEED CYLINDER TO CHECK FOR NITROGEN ACCUMULATION IN OIL CHAMBERS.	
			CWT OIL RETURN SYSTEM OUT OF CALIBRATION (LOW OIL LEVEL IN CWT).	SERVICE COUNTERWEIGHT OIL RECOVERY SYSTEM.	
			DECREASE IN AMBIENT TEMPERATURE DUE TO SEASONAL CHANGES. (LITTLE TO NO LEAKAGE GOING INTO WINTER MONTHS)	ADD NITROGEN	
			DECREASE IN PRESSURE DUE TO COLD TEMPERATURES.		
			"A-CWT MIN PSI LIMIT" V2031 IS NOT SET CORRECTLY.	SET 30% LOWER THAN MINIMUM PRESSURE READING AT THE TOP OF THE STROKE.	
			PRESSURE TRANSDUCER CIRCUIT FAILURE.	REPAIR LOOSE OR SHORTED CONNECTIONS. REFER TO WIRING SCHEMATIC. REPLACE TRANSDUCER. REFER TO WIRING SCHEMATIC. REPLACE ANALOG CARD. REFER TO WIRING SCHEMATIC.	
C302	CYL UP PSI MAX	V2032	COUNTERBALANCE PRESSURE LEAK.	CHECK FOR LEAKS, ADD NITROGEN TO BALANCE.	
			INCREASE IN COLUMN LOAD (LOWER CASING LEVEL).	ADD NITROGEN TO BALANCE	
			"A-CYL UP PSI LIMIT" V2032 IS NOT SET CORRECTLY.	FACTORY SET TO 2300 PSI. WHEN SYSTEM IS OPERATING AT A STEADY STATE LOWER TO 25% HIGHER THAN MAXIMUM PRESSURE READING AT THE TOP OF THE STROKE.	
			STICKING OF THE BHP OR STRING ON THE UP STROKE.	MONITOR LOAD, LOOK FOR PRESSURE SPIKES ON THE UP STROKE.	
			WELL PACKING CHANGE, EXCESSIVE FRICTION IN STUFFING BOX.	HAVE FIELD OPERATOR RE-ADJUST.	
			PUMPING UNIT NOT SIZED PROPERLY FOR WELL CONFIGURATION.	REFER TO WELL DETAILS AND RESIZE TO ANOTHER PUMPING MODEL.	
			PRESSURE TRANSDUCER CIRCUIT FAILURE.	REPAIR LOOSE OR SHORTED CONNECTIONS. REFER TO WIRING DIAGRAM. REPLACE TRANSDUCER. REFER TO WIRING DIAGRAM. REPLACE ANALOG CARD. REFER TO WIRING DIAGRAM.	

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COIL	DYNAPUMP NICKNAME	SETTING	CAUSE	CORRECTIVE ACTION
C303	CYL DN PSI MAX	V2033	ADDED TOO MUCH NITROGEN WHEN BALANCING SYSTEM.	BLEED OFF SOME CWT, BLEED SOME OFF UNTIL PROPERLY BALANCED,
FACTORY SETTING IS 2300 PSI. WHEN SYSTEM IS OPERATING AT A STEADY STATE LOWER TO 25% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE.			WELL PACKING CHANGED OR TIGHTENED, EXCESSIVE FRICTION IN STUFFING BOX.	HAVE FIELD OPERATOR RE-ADJUST.
			"A-CYL DN PSI LIMIT" V2033 IS NOT SET CORRECTLY.	FACTORY SET TO 2300 PSI. WHEN SYSTEM IS OPERATING AT A STEADY STATE LOWER TO 25% HIGHER THAN MAXIMUM PRESSURE READING AT THE BOTTOM OF THE STROKE.
			STICKING OF THE BHP OR STRING ON THE DOWN STROKE.	MONITOR LOAD, LOOK FOR PRESSURE SPIKES ON THE DOWN STROKE.
			PRESSURE TRANSDUCER CIRCUIT FAILURE.	REPAIR LOOSE OR SHORTED CONNECTIONS. REFER TO WIRING SCHEMATIC.
				REPLACE TRANSDUCER. REFER TO WIRING SCHEMATIC. REPLACE ANALOG CARD. REFER TO WIRING SCHEMATIC.
C304	NOT USED			
C305	UNDER LOAD	V2035	STUFFING BOX TOO TIGHT CAUSING EXCESSIVE FRICTION ON DOWN STROKE.	ADJUST PACKING
50% OF LOAD DOWN			"A-MIN LOAD IN CYCLE" V2035 IS NOT SET CORRECTLY.	CHECK SETTING AND ADJUST.
			EXCESSIVE FRICTION ON DOWN STROKE.	JOG UNIT UP AND DOWN AND COMPARE TO WELL DATA.
			FLOATING, HEAVY OIL.	CHANGE SPEED DOWN TO A SLOWER SPEED.
C306	MIN LOAD UP	V2163	200 STROKES AFTER RESET THE COLUMN LOAD WAS LESS THAN "A-MIN LOAD UP" V2163	A-MIN LOAD UP ALARM NOT SET CORRECTLY.
	10% HIGHER THAN LOAD DOWN			WELL IS NOT BUILDING COLUMN LOAD, BHP PROBLEM.
C307	CYCLE UP TIME	V2066	TIME SET TOO SHORT.	INCREASE TIME.
TIME SHOULD BE SET 10% HIGHER THAN TIME TO TRAVEL UP			COUPLING ASSEMBLY BETWEEN MOTOR(S) AND THE PUMP(S) DISENGAGED.	CHECK COUPLER ASSEMBLY(S).
			OCCURRED AS A SECONDARY ALARM.	CHECK FOR OTHER ALARMS.
			OIL CHAMBERS COMMUNICATING IN CYLINDER.	TEST CYLINDER
			INVERTER SET TO LOCAL	CHANGE TO REMOTE
C310	CYCLE DN TIME	V2067	TIME SET TOO SHORT.	INCREASE TIME.
TIME SHOULD BE SET 10% HIGHER THAN TIME TO TRAVEL DOWN AT THE SLOWEST SPEED.			COUPLING ASSEMBLY BETWEEN MOTOR(S) AND THE PUMP(S) DISENGAGED.	CHECK COUPLER ASSEMBLY(S).
			OCCURRED AS A SECONDARY FAILURE	CHECK FOR OTHER ALARMS.
			CYLINDER DOWN CHAMBER MAKE-UP VALVE STUCK OPEN.	CHECK FOR PROPER DOWN DUMP VALVE OPERATION.
			OIL CHAMBERS COMMUNICATING IN CYLINDER.	TEST CYLINDER
			INVERTER SET TO LOCAL	CHANGE TO REMOTE
C311	LOW CHARGE PUMP PSI	SWITCH	SUDDEN LOSS OF OIL FROM HYDRAULIC SYSTEM.	CHECK FOR SIGNS OF HYDRAULIC LEAKS.
PRESSURE SWITCH IS SET TO 35 PSI AT THE FACTORY AND NOT FIELD ADJUSTABLE.			NITROGEN ACCUMULATION IN CYLINDER OIL CHAMBERS.	BLEED CYLINDER.
			ELECTRICAL CIRCUIT PROBLEM	CHECK WIRE CONNECTIONS TO PRESSURE SENSOR.
			COUPLER BETWEEN MOTOR AND CHARGE PUMP DISCONNECTED.	REMOVE COVER GUARDS AND EXAMINE.
			PUMP TURNING IN WRONG DIRECTION.	CHECK PUMP ROTATION
			PRESSURE SWITCH FAILURE.	REPLACE
			WORN OR DAMAGED PUMP	REPLACE
C312	NOT USED, DISABLED			
C313	NOT USED, DISABLED			

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COIL	DYNAPUMP NICKNAME	SETTING	CAUSE	CORRECTIVE ACTION
C314	INVERTER	SWITCH	INVERTER FAILED	READ FAILURE ON INVERTER, MAKE ADJUSTMENTS. REFER TO INVERTER MANUAL.
			LOOSE OR BURNED WIRES	CHECK WIRING
C315	MAKE-UP STARTER	CONTACT	FAULTY WIRING, LOOSE OR OPEN CIRCUIT	CHECK WIRING
			FAULTY STARTER, WORN CONTACTS.	TEST AND REPLACE
C316	MAKE-UP HEATER	CONTACT	AMPERAGE SETTING TOO LOW	CHECK AND ADJUST TO MOTOR RATING.
			LOW INPUT VOLTAGE	CHECK INCOMING VOLTAGE
			MOTOR DEGRADING	TEST MOTOR/CHECK VOLTAGE.
			PSI SET TOO HIGH FOR MOTOR OVERLOADING MOTOR.	ADJUST RELIEF VALVE SETTING, SHOULD NOT EXCEED 150 PSI.
			CIRCUIT FAILURE	CHECK WIRING, REFER TO WIRING SCHEMATIC.
		COMPONENT FAILURE	REPLACE CHECK FOR CAUSE	
C317	FAN MOTOR HEATER	CONTACT	AMPERAGE SETTING TOO LOW	CHECK AND ADJUST TO MOTOR RATING.
			LOW INPUT VOLTAGE	CHECK INCOMING VOLTAGE
			MOTOR DEGRADING	TEST MOTOR/CHECK VOLTAGE.
			CIRCUIT FAILURE	CHECK WIRING, REFER TO WIRING SCHEMATIC.
			COMPONENT FAILURE	REPLACE CHECK FOR CAUSE
C320	CABLE BREAK	SWITCH	CABLE FAILURE.	REPLACE BOTH CABLES, CHECK & ADJUST CYLINDER ALIGNMENT
			LOSS OF LOAD DUE TO HEAVY OIL OR FRICTION ON THE DOWN STROKE.	CHANGE TO A LOWER SPEED DOWN. RE-STEAM WELL
			SENSOR FAILURE.	TEST SENSOR / REPLACE REFER TO WIRING SCHEMATIC.
			SENSOR CIRCUIT FAILURE.	CHECK WIRING, REFER TO WIRING SCHEMATIC.
C321	NOT USED, DISABLED			
C322	BRAKE SYSTEM	V2040	OUT OF BALANCE CONDITION EXCEEDED BRAKE CAPACITY.	BALANCE SYSTEM.
			BRAKE FAILED	REFER TO INVERTER MANUAL
			LOOSE WIRING BETWEEN BRAKE AND INVERTER	CHECK WIRING REFER TO WIRING SCHEMATIC.
			LOOSE WIRING BETWEEN BRAKE AND PLC X37	
C323	NOT USED, DISABLED			
C324	CWT CHANNEL	WIRING	FAULTY WIRING (OPEN CIRCUIT).	CHECK CIRCUIT, REFER TO WIRING DIAGRAM
			COMPONENT FAILURE (OPEN CIRCUIT).	TEST AND REPLACE TRANSDUCER.
C325	UP CHANNEL	WIRING	FAULTY WIRING (OPEN CIRCUIT).	CHECK CIRCUIT, REFER TO WIRING DIAGRAM
			COMPONENT FAILURE (OPEN CIRCUIT).	TEST AND REPLACE TRANSDUCER.
C326	DN CHANNEL	WIRING	FAULTY WIRING (OPEN CIRCUIT).	CHECK CIRCUIT, REFER TO WIRING DIAGRAM
			COMPONENT FAILURE.	TEST AND REPLACE TRANSDUCER.
C327	POSITION CHANNEL	WIRING	FAULTY WIRING (OPEN CIRCUIT).	CHECK CIRCUIT, REFER TO WIRING DIAGRAM
			COMPONENT FAILURE (OPEN CIRCUIT).	TEST AND REPLACE POSITION SENSOR.
C330	NOT USED, DISABLED			
C331	HYD OIL LEVEL LOW	SWITCH	EXTERNAL LEAK	CHECK FOR LEAKS.
			CWT DISCHARGE BALL VALVE CLOSED.	MAKE SURE CWT VALVE IS OPEN.
			CWT OIL RETURN FILTER DIRTY.	REPLACE OR CLEAN FILTER.
			CWT OIL SYSTEM WAS NOT CHECKED AFTER A REPAIR INVOLVING A HYDRAULIC LEAK.	CHECK FOR PROPER OIL LEVEL IN COUNTERWEIGHT
			SOLENOID VALVE FAILURE (ELECTRICAL).	CHECK WIRING, REFER TO WIRING SCHEMATIC.
			SOLENOID VALVE FAILURE (MECHANICAL).	REPLACE CARTRIDGE

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C332	OIL TEMP SENSOR	WIRING	FAULTY WIRING, OPEN OR SHORTED CIRCUIT BETWEEN PLC AND TEMPERATURE TRANSMITTER.	CHECK CIRCUIT, REFER TO WIRING SCHEMATIC.
			FAULTILY TEMPERATURE TRANSMITTER.	TEST AND REPLACE
			THERMOCOUPLE GROUNDING IN HYD TANK FITTING	DISCONNECT THERMOCOUPLE WIRES FROM TEMPERATURE TRANSMITTER AND TEST FOR CONTINUITY TO GROUND. IF GROUNDED REPOSITION PROBE.
C333	HYD OIL TEMPERATURE	ANALOG	EXCESSIVE FRICTION IN SYSTEM	CHECK COMPONENTS FOR EXCESSIVE HEAT
			FAN MOTOR DID NOT START	CHECK FAN MOTOR CIRCUIT, REFER TO WIRING SCHEMATIC.
			TEMPERATURE TRANSMITTER OUT OF ADJUSTME	REFER TO TEMPERATURE TRANSMITTER INSTRUCTIONS
			HYDRAULIC COOLER FAN RUNNING WITH LOOSE FAN BLADE	CHECK FOR LOOSE FAN BLADE.
C334	FAN MOTOR STARTER	CONTACT	FAULTY WIRING, LOOSE OR OPEN CIRCUIT	CHECK WIRING
			FAULTY STARTER, WORN CONTACTS.	TEST AND REPLACE
C335	LINEAR TRANSDUCER	N/A	POSITION TRANSDUCER FAILED	CHECK WIRING
			POOR GROUNDING OF POWER AND PUMPING UNIT.	REPLACE
			LOOSE WIRING IN POSITION SENSOR CIRCUIT.	CHECK WIRING REFER TO WIRING SCHEMATIC.
			LOSS OF CHAIN OR OUT OF ADJUSTMENT.	REPAIR OR ADJUST.
C336	NOT USED, DISABLED			
C337	MULTIPLE TRIPS	N/A	ANY COMBINATION OF THE FOLLOWING ALARMS, 3 IN 3 MINUTES: INVERTER, TANK OVER TEMP, HYD PSI DOWN.	CHECK ALARM HISTORY TO FIND CAUSE FOR ALARM. REFER TO THIS GUIDE FOR REMEDY.