

# **Fault Procedures**

## Introduction

This document contains information about which measures are to be taken when an alarm or trip occurs. It is of greatest importance to take measures as soon as possible when an alarm or trip occurs to maintain the operation of the plant

Alarm and trip signals are shown on your operator station.



Doc. kind: Fault-finding instruction Doc. B4555 & DC103 Ref.	
Title Fault Procedures Des. Des.	
Resp. dept. Order no. B4555	
CICA/CICA/COUNT Document number Lang. Revi	. Sheet 1
<b>DIEIVIEND</b> 1CS58182 en b	No. of sh. $Cont.$
Doc. kind:     Fault-Informing instruction     Doc.     B4353 & DC103     Ref.       Title     Fault Procedures     Des.     Resp. dept.     Order no.     B4555       SIEMENS     Document number     Lang.     Rev.       1CS58182     en     b	. Sheet No. of sh.

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06AHA32GS906 UCB2 BUSC. SYNC/OPEN			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06AHA42EG100XA03 EXTERNAL GCB TRIP		GCE TR	A Generator breaker protection relay in the 33kV switchgear has realesed		Acknowledge the alarm Check possible causes on BoP-alarms	
06AHA42EM901ZA01 EARTH SWITCH CLOSED		SB	The earth switch on the generator breaker is closed.	Malfuncktion in the instrument loops. Failure to indicate on/off.	Acknowledge the alarm. Check possible causes. Contact Siemens for further actions.	
06ALX00GS906 UCB1 6.3kV SYNC/OPEN			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06BAA10EG001XE01N MCB MEAS TRIPPED			One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BAC10EM901ZA01 GCB IN WRONG POS			The feedback indication indicates wrong position according to the ordered position.	Malfunction in switchgear failure to indicate on or off wiring faults.	Acknowledge the alarm. Check possible causes. Contact Siemens for further actions.	

Based On	db4555.mdb : 070212	Rev.date 2006-12-13								
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.			
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
Project	Yamama 6 Extension				Resp. dept.		Order no.	345:	55	
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06BAC10GS001 GCB SYNCH/OPEN			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06BFA10EG001XE01N TRIPPED MCB 400V		SB	One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BRA05EG001 UPS FAULT			There is a fault in the UPS installed in cubicle BPA10	Voltage supply failure See subsuppliers' documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06BRA05EG006 BYPASS IN SERVICE		SB	The UPS has switched over to battery operation.	Voltage supply failure.	Acknowledge the alarm. Check if correct incoming voltage.	
06BRA20EG001XE01N MCB UPS TRIP			One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BTL10EG001XE01N 440 SYST LL/HH VOLT		SB	The 440V battery charger internal supervision system has indicated highhigh or lowlow voltage	Voltage supply failure Battery charger failure See subsuppliers' documentation concerning fault tracing NOTE: No action can be taken that risks the function of the emergency oil cooling procedure	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BTL10EG002 440V SYST L/H VOLT		SB	The 440V battery charger internal supervision system has	Voltage supply failure Battery charger failure	Acknowledge the alarm Check possible causes	-

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Project	Yamama 6 Extension				Resp. dept.		Order r	no. B4:	555	
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Signal	FC Typ	e Alarm Description	Possible Causes	Operator Action	Automatic Action
		indicated high or low voltage	See subsuppliers' documentation concerning fault tracing	Contact SIEMENS for further actions	
			NOTE: No action can be taken that risks the function of the emergency oil cooling procedure		
06BTL10EG003 440V EARTH FAULT		The 440V battery charger internal supervision system has indicated earth fault	See subsuppliers' documentation concerning fault tracing NOTE: No action can be taken that risks the function of the emergency oil cooling procedure	Acknowledge the alarm Call SIEMENS before any fault tracing procedure is made Check possible causes	-
06BTL10EG004XE01N 440V CHARGE FAILURE	SB	The 440V battery charger internal supervision system has indicated a fault	Voltage supply failure See subsuppliers' documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06BUA10EG001XE01N MCCB 440V TRIPPED		One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BUE10EG001XE01N TRIPPED MCB CHA10	SB	One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06BUE10EG002XE01N TRIPPED MCB CJP20	SB	One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06CAA10EG001XE01N EMERGENCY STOP PB	TR	One of the emergency stop push buttons has been released manually to initiated a turbine shutdown	1. Manual order. 2. Wire break	Acknowledge the shutdown alarm Reset the safety system Investigate the reason why the push button was released Check possible causes	The turbine has shutdown automatically
06CAA10EG004XE01N EXTERNAL GT TRIP	TR	A shutdown order has been initiated from BOP safety system	Open signal circuit See BOP safety system for the reason of the	Acknowledge the shutdown alarm Reset the safety system	The turbine has shutdown automatically

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				shutdown	Check possible causes	
06CAA10EG010XE01N OVERSPEED PT CH.1	FC1	TR	The speed of the rotor has reached shutdown level	Load rejectionAcknowledge the shutdown alarmMalfunction in the instrument loopReset the safety systemMalfunction in the turbine governorCheck possible causesContact SIEMENS for further actions		The turbine has shutdown automatically
06CAA10EG011XE01N OVERSPEED PT CH.2	FC1	TR	The speed of the rotor has reached shutdown level	Load rejection Malfunction in the instrument loop Malfunction in the turbine governor	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CAA10EG012XE01N OVERSPEED GG CH.1	FC1	TR	The speed of the rotor has reached shutdown level	Load rejection Malfunction in the instrument loop Malfunction in the turbine governor	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CAA10EG013XE01N OVERSPEED GG CH.2	FC1	TR	The speed of the rotor has reached shutdown level	Load rejection Malfunction in the instrument loop Malfunction in the turbine governor	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CAA10EG018ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06CAA10EG018ZT01 WATCHDOG FAIL STN 2		TR	Watchdog signal from this control station have been lost	Open watchdog circuit Unhealthy control station (CPU should indicate P1)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CAA10EG019ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06CAA10EG019ZT01 WATCHDOGFAIL STN 3		TR Watchdog signal from this control station have been lost Open watchdog circuit Unhealthy control station (CPU should in		Open watchdog circuit Unhealthy control station (CPU should indicate P1)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CAA10EM901ZA01 BUS FAILURE AF100-02		SB	There is a fault in the Advant Fieldbus 100 communication between AC400 and this AC100 station	Malfunction of the AF100, check status and function with a engineering station	Acknowledge the alarm Check possible causes	-
06CAA10EM901ZA02 BUS FAILURE AF100-03		SB	There is a fault in the Advant Fieldbus 100 communication between AC400 and this AC100 station	Malfunction of the AF100, check status and function with a engineering station	Acknowledge the alarm Check possible causes	-
06CAA10EM901ZA03 SIMULATIONACTIVE		SB	The simulation test function is activated	-	Acknowledge the alarm Investigate the reason why the test function is activated Deactivate the test function	-
06CAA10EZ901ZT01 EMERGENCYSTOP PB		TR	One of the emergency stop push buttons has been released manually to initiated a turbine shutdown	1. Manual order. 2. Wire break	Acknowledge the shutdown alarm Reset the safety system Investigate the reason why the push button was released Check possible causes	The turbine has shutdown automatically
06CAA10EZ902ZT01 TRIP RELAY TRIPPED		TR	The hardwired back-up safety system has shutdown the turbine	A shutdown has been initiated from the control system, see seperate alarm for the reason. If no additional alarm appeare check the hard wired trip circuit in the circuit diagram for the reason of the shutdown	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06CAA10EZ903ZT01 BUS FAILURE AF100-02		S_TI	The unit has shutdown during start-up because of an Advant Fieldbus 100 fault	Malfunction of the AF100, check status and function with a engineering station	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06CAA10EZ904ZT01 TRIP RELAY NOT RESET		S_TI	The reset of the hardwired back-up safety system has failed	Check the alarm list for shutdown alarm indicationg the reason. If no shutdown alarm exists check the hard wired trip circuit in the circuit diagram for the reason of the shutdown	Acknowledge the shutdown alarm Reset the safety system Check possible causes	-
06CAA10EZ911ZT01 TRIP RELAY TRIPPED		TR	The hardwired back-up safety system has shutdown the turbine	A shutdown has been initiated from the control system, see seperate alarm for the reason. If no additional alarm appeare check the hard wired trip circuit in the circuit diagram for the reason of the shutdown	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06CAA10EZ912ZT01 BUS FAILURE AF100-03		S_TI	The unit has shutdown during start-up because of an Advant Fieldbus 100 fault	Malfunction of the AF100, check status and function with a engineering station	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06CAA10EZ914ZT01 TRIP RELAY NOT RESET		S_TI	The reset of the hardwired back-up safety system has failed	Check the alarm list for shutdown alarm indicationg the reason. If no shutdown alarm exists check the hard wired trip circuit in the circuit diagram for the reason of the shutdown	Acknowledge the shutdown alarm Reset the safety system Check possible causes	-
06CAA10EZ917ZT01 SHUT OFF DAMP NOT OP		TR	Some of the chimney dampers may have been closed in auxiliary room or the inlet.	Valve, solenoid or switch problem	<ol> <li>Check the dampers</li> <li>Check the actual switch and associated wiring</li> </ol>	
06CBP10EM901ZA01 SYNCHRONIZATIONFAIL			There has been too long time between initiation of automatic syncronization to breaker syncronization	No electric net availible to syncronize against Malfunction in the syncronizing check relay Malfunction in the measuring circuits	Acknowledge the alarm Check possible causes Try to sycronize again Make a manual syncronization, CAUTION: malsyncronization will lead to severe damage to the unit	-
06CBP10EM901ZA02 SYNCH SW NOT IN AUTO			The syncronizing switch has been put in manual mode Note: In this possition it is	-	Acknowledge the alarm Investigate why the switch has been put in manual mode Return the switch to auto mode	-

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Project	Yamama 6 Extension				Resp. dept.		Order no. B	4555	
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Signal	FC Type	Alarm Description	Possible Causes	Operator Action	Automatic Action
		possible to make a manual syncronization without the synchronization check relay		CAUTION: malsyncronization will lead to severe damage to the unit	
06CBP10EM901ZA03 SYNC SEL POS LOCAL		The sync. selector switch in cubicle CHA10 is put in wrong position.		Acknowledge the alarm change the switch to right postion. Try to synchronize again.	
06CBP10EM901ZA04 SYNC SEL POS SW.GEAR		The sync. selector switch in the switchgear is put in wrong postion.		Acknowledge the alarm change the switch to right position. Try to synchronize again.	
06CFA10CE001ZA03 SIGNAL ERROR		A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06CHA10CT005XH11N H TEMP CHA CUBICLE		High temperature in CHA Cubicles.	Malfunction of the aircondition. Door open to the control room. Malfunction of system in control room. Malfunction of temperature sensor.	Acknowledge the alarm. Investigate why there is high temperature in cubicle. Heat damage on control system can give malfunction and cause personal damage.	
06CHA10EG001 NEUTRAL P VOLTAGE1	GCE TR	The neutral point voltage relay has relased	One of the phases has an earth fault, this may originate in the stator terminals, the generator or the connecting grid	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The generator circuit breaker has opened automatically
06CHA10EG002 NEUTRAL P VOLTAGE2	TR	The neutral point voltage relay has relased	One of the phases has an earth fault, this may originate in the stator terminals, the generator or the connecting grid	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CHA10EG003 VOLT RESTRAINT O/C	TR	The voltage restraint output current relay has relased	The output current is to hight, this may originate from a shortcircuit in the stator terminals, the generator or the connecting grid	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally	The turbine has shutdown automatically

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Project	Yamama 6 Extension				Resp. dept.		Order no.	3455	55	
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action		
					Check possible causes Contact SIEMENS for further actions			
06CHA10EG004 ROTOR EARTH FAULT		SB	An earth fault has occured in the field circuit of the generator or in the diode bridge/AC circuit of the rotating exciter.		<ol> <li>Acknowledge the alarm</li> <li>Contact the technician</li> <li>Technical actions:         <ol> <li>If the tripping protection is not connected, the machine should be stopped at a suitable time. Because the field circuit is not earthed, operation can continue. If further earth faults occur, large currents and magnetic unbalance in the machine may appear.</li> <li>When the fault has been located and corrected, the whole field circuit must be voltage tested towards earth before attempting to start the machine again.</li> </ol> </li> </ol>			
06CHA10EG005 NEG SEQ CURRENT		TR	The negative sequence relay has released	High generator temperature Earth fault or short circuit on the grid	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06CHA10EG006 OVER VOLTAGE		TR	The stator over voltage relay has released	Malfunction in the voltage regulator	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06CHA10EG007 UNDER VOLTAGE		GCE TR	The stator under voltage relay has released	Malfunction in the voltage regulator Released MCB/fuses for measuring equipment	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The generator circuit breaker has opened automatically		
06CHA10EG008 LOSS OF EXCITATION		GCE TR	The loss of excitation relay has released	Malfunction in the voltage regulator Released MCB/fuses for measuring equipment	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes	The generator circuit breaker has opened automatically		

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Signal F	С Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Contact SIEMENS for further actions	
06CHA10EG009 GEN DIFF PROT	TR	The generator differential relay has released	Possible fault in the generator winding	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06CHA10EG010 SUPPLY FAILURE TUG1		One out of two auxiliary voltage supply to the generator protection relay has failed	Overload/shortcircuitin the equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06CHA10EG011 SUPPLY FAILURE TUG2		One out of two auxiliary voltage supply to the generator protection relay has failed	Overload/shortcircuitin the equipment Wiring faults	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06CHA10EG016 REVERSE POWER	GCE TR	The reverse power relay has released (the generator is consuming energy from the grid)	Malfunction in E04 position indication Wrong load control function in tubine governor	Acknowledge the shutdown alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	The generator circuit breaker has opened automatically
06CHA10EG020 STARTLOSS OF EXC		The loss of excitation relay has started	Malfunction in the voltage regulator Released MCB/fuses for measuring equipment	Acknowledge the alarm Ensure that the alarm disappeares, decrease load if necessary Reset the relay locally Check possible causes Contact SIEMENS for further actions	-
06CHA10EG021 START ROTOR EARTH F		The rotor earth fault relay has started	Rotor earth fault	Acknowledge the alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06CHA10EG022 ST REV POWER 2s del.			The reverse power relay has started since 2 seconds.	Malfunction GCB Position indicate wrong load control function in turbine governor.	Acknowledge the shutdown alarm. Ensure that the alarm disappeares. Reset the relay locally. Check possible causes. Contact SIEMENS for further actions.	
06CHA10EG023 START NEG SEQ CURR			The negative sequence relay has started	High generator temperature Earth fault or short circuit on the grid	Acknowledge the alarm Ensure that the alarm disappeares, decrease load if necessary Reset the relay locally Check possible causes Contact SIEMENS for further actions	-
06CHA10EG024 START NEUT P VOLTAGE			The neutral point voltage relay has started	One of the phases has an earth fault, this may originate in the stator terminals, the generator or the connecting grid	Acknowledge the alarm Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	-
06CHA10EG025 START OVER VOLTAGE			The stator over voltage relay has started	Malfunction in the voltage regulator	Acknowledge the alarm Check the voltage setpoint Ensure that the alarm disappeares Reset the relay locally Check possible causes Contact SIEMENS for further actions	-
06CHA10EG901ZT01 SUPPLY FAILURE TUG		GCE TR	Two out of two auxiliary voltage supply to the generator protection relay has failed	UPS supply failure Overload/shortcircuitin the equipment Wiring faults	Acknowledge the shutdown alarm Check possible causes Contact SIEMENS for further actions	The generator circuit breaker has opened automatically
06CHA10EM901ZA01 OVERCURRENT			High temperature in CJP cubicles.	Malfunction of the aircondition. Door open to the control room. Malfunction of system in control room. Malfunction of temperature sensor.	Acknowledge the alarm. Investigate why there is high temperature in cubicle. Heat damage on control system can give malfunction and cause personal damage.	
06CJP10CT005XH11N H TEMP CJP CUBICLE			High temperature in CJP cubicles.	Malfunction of the aircondition. Door open to the control room. Malfunction of system in control	Acknowledge the alarm. Investigate why there is high temperature in cubicle. Heat damage on control system can give malfunction and	

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				room. Malfunction of temperature sensor.	cause personal damage.	
06CJP10EG001XE01N AC DRIVE GAS NOT RDY			There is a fault in the MOOG servodrive	Voltage supply failure Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the alarm Check possible causes	-
06CJP10EG001ZT01 AC DRIVE GAS NOT RDY		S_TI	The unit has shutdown during start-up because of an MOOG servodrive fault	Voltage supply failure Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06CJP10EG002XE01N AC DRIVE BP NOT RDY			There is a fault in the MOOG servodrive	Voltage supply failure Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the alarm Check possible causes	-
06CJP10EG003XE01N AC DRIVE IGV NOT RDY			There is a fault in the MOOG servodrive	Voltage supply failure Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the alarm Check possible causes	-
06CJP10EG003ZT01 AC DRIVE IGV NOT RDY		S_TI	The unit has shutdown during start-up because of an MOOG servodrive fault	Voltage supply failure Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06CJP10EG006XE01N MEAS RACK 1 FAILURE		SB	An internal fault in the Bently-Nevada measuring rack has occurred	Malfunction in a B/N instument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06CJP10EG007XE01N AC DRIVES THERM LIM		SB	One of the MOOG servodrive controllers is limited by a torque limiter	High mechanical resistance Voltage supply failure Malfunction of the MOOG power supply ot the servodrive controller	Acknowledge the alarm Check possible causes	-
06CJP10EZ911ZT01 SURGE PROTECTION		TR	High surge risk. Surge occurs when the differential pressure over the	Malfunction of bleed valve 2 control Malfunction of inlet guide vane control Malfunction of related pressure. temperature or	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically

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FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
	compressor is too low in relation to the rotating speed	speed measurements	Contact SIEMENS for further actions	
	GCE TR Trepower turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON	Malfunction of speed measurements	Acknowledge the shutdown alarm Check previous load variations Check possible causes	The generator circuit breaker has opened automatically
	TR The power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON	Malfunction of speed measurements	Acknowledge the shutdown alarm Reset the safety system Check for abnormal sounds from gear, power turbine or AC generator Check previous load variations Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
	TR The speed of the rotor has reached shutdown level	Load rejection Malfunction in the instrument loop Malfunction in the turbine governor	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
	There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
	The unit control switch is in the OFF position. This switch is located at the back up panel	-	Acknowledge the alarm Investigate the reason for the OFF selection Reset the selection to REMOTE	-
		FCTypeAlarm DescriptionCompressor is too low in relation to the rotating speedCompressor is too low in relation to the rotating speedGCE TRThe power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ONTRThe power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ONTRThe power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ONTRThe power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ONTRThe power turbine speed of the rotor has reached shutdown levelThere is either a "Position fault" or a "Control mode fault" in the function groupThere is either a "Position fault" or a "Control mode fault" in the function groupThe unit control switch is in the OFF position. This switch is located at the back up panel	FC       Type       Alarm Description       Possible Causes         compressor is too low in relation to the rotating speed       speed measurements         GCE       The power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON       Malfunction of speed measurements         Image: TR       TR       The power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON       Malfunction of speed measurements         Image: TR       TR       The power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON       Malfunction of speed measurements         Image: TR       The speed of the rotor has reached shutdown level       Load rejection Malfunction in the instrument loop Malfunction in the turbine governor         Image: TR       There is either a "Position fault" or a "Control mode fault" in the function group       Malfunction in the instrument loop/s Failure to indicate on or off         Image: The unit control switch is in the OFF position. This switch is located at the back up panel       -	FC     Type     Alarm Description     Possible Causes     Operator Action       Image: Compressories tools on in relation to the rotating speed     speed measurements     Contact SIEMENS for further actions       Image: Contact SIEMENS for furthing speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON     Malfunction of speed measurements     Acknowledge the shutdown alarm Check previous load variations Check previous load variations       Image: True power turbine speed / AC generator frequency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON     Malfunction of speed measurements     Acknowledge the shutdown alarm Check previous load variations Check possible causes       Image: True power turbine speed / AC generator reguency has decreased to 90% of nominal value. This shutdown is only active when the generator circuit breaker is ON     Malfunction of speed measurements     Acknowledge the shutdown alarm Check possible causes Contact SIEMENS for further actions       Image: True power turbine speed / AC generator circuit breaker is ON     Load rejection Malfunction in the instrument loop Malfunction in the instrument loop/s Failure to indicate on or off     Acknowledge the shutdown alarm Check possible causes Contact SIEMENS for further actions       Image: The relater a "Position fault" function group     Malfunction in the instrument loop/s Failure to indicate on or off     Acknowledge the alarm Check possible causes Contact SIEMENS for further actions       Image: The unit control switch is in the located at the back up panel     -

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Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.				
Project	Yamama 6 Extension				Resp. dept.		Orde	erno. B45	555		
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06CJQ10EM901ZA02 BACKUP PANEL ACTIVE			The unit control mode switch is in the backup position.		Acknowledge the alarm. Investigate the reason for Backup selection and reset to Remote control mode if Backup is not needed.	
06CJQ10EM901ZA03 LOCAL CONTROL SELECT			The unit control mode switch is in local control position.		Acknowledge the alarm Investigate the reason for local control selection and reset to Remote control mode if Local control is not needed.	
06CJQ20EM901ZA01 TURBINE SEQ MAN MODE			The gas turbine start and stop sequence is in manual mode. It may only be put in manual mode from the Operator station.		Ascertain who put it in manual and why. Check working orders. Note: If the turbine is started, the sequence must be stopped manually during start. Before ignition the sequence must be put into auto. See Operators Safety.	
06CRB11EG001XE01N 24V FUSE DI1 CH1-16		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG001XE02N 24V FUSE DI1 CH17-32		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG002XE01N 24V FUSE DI2 CH1-16		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG002XE02N 24V FUSE DI2 CH17-32		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG003XE01N 24V FUSE DI3 CH1-16		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-

Based On	db4555.mdb : 070212	Rev.date 2006-12-13									
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.				
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.				
Project	Yamama 6 Extension				Resp. dept.		Orde	erno. B45	555		
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Signal	FC	Туре	e Alarm Description	Possible Causes	Operator Action	Automatic Action
06CRB11EG003XE02N 24V FUSE DI3 CH17-32		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG004XE01N 24V FUSE DI4 CH1-16		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG004XE02N 24V FUSE DI4 CH17-32		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG005XE01N 24V FUSE DI5 CH1-16		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06CRB11EG005XE02N 24V FUSE DI5 CH17-32		SB	The presition fuse for the digital input board and channels is blown	Overload/shortcircuitin connected equipment Wiring faults	Acknowledge the alarm Check possible causes Replace the fuse with a new one	-
06EK_EG_AUTO BOP START READY		SB	The differential pressure between the exhaust duct (after the power turbine) and atmosphere has reached shutdown level	Clogged exhaust outlet Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	-
06MBB10CG005 AXIAL DISP PT LIM_1_TR_H			The axial displacement of the rotor has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBB10CG005 AXIAL DISP PT LIM_1_TR_L			The axial displacement of the rotor has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CG005ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CG005ZT01 LL AXIAL DISPL PT		TR	The axial displacement of the rotor has reached shutdown level	Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10CP005ZA01 ABNORMAL PRESS MEAS			The differential pressure between the air inlet and exhaust duct has reached alarm level	Clogged air inlet filter, clean/change filter elements according to maintenance manual Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBB10CP005ZA03 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CP010 EXHAUST DUCT DIFF P LIM_1_TR_H			The differential pressure between the exhaust duct (after the power turbine) and atmosphere has reached alarm level	Clogged exhaust outlet Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBB10CP010ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CP010ZT01 HI EXHAUST GAS PR SD		TR	The differential pressure between the exhaust duct (after the power turbine) and atmosphere has reached shutdown level	Clogged exhaust outlet Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	-
06MBB10CS901ZA01 PT NOT ZERO SPEED			The speed measurement still indicates rotation of the rotor when it should have stopped	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-

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				CIEMENIC	Document numb	ber	Lan	g.	Rev ind.	Sheet	16
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Signal FC Ty		Туре	Alarm Description	Possible Causes	Automatic Action				
06MBB10CS901ZA02 H PT SPEED DIFF		SB	A to big difference between the speed measurements is indicated	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-			
06MBB10CT005XE01ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT005XE02ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT005XE03ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT010XE01ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT010XE02ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT010XE03ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBB10CT015XE01ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			

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Project	Yamama 6 Extension				Resp. dept.		Order no. B4	555	
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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT015XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT015XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT020XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT020XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT020XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT025XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT025XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT025XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT030XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT030XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT030XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT035XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT035XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT035XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT040XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT040XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT040XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT045XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT045XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT045XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT050XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT050XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT050XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT055XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT055XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT055XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT060XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT060XE02ZA03 SIGNALERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT060XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT065XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT065XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT065XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT070XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT070XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT070XE03ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT075XE01ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT075XE02ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT075XE03ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT080XE01ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT080XE02ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT080XE03ZA03 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT085 BEAR 3 RAD TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBB10CT085 BEAR 3 RAD TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBB10CT085ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CT095 BEAR 4 AX TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBB10CT095 BEAR 4 AX TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBB10CT095ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
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Signal		Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10CT105 BEAR 4 RAD TEMP LIM_1_TR_H		The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBB10CT105 BEAR 4 RAD TEMP LIM_2_TR_H		The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBB10CT105ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CY005 VIBR BEARING 3 LIM_1_TR_H		The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBB10CY005ZA02 SIGNALERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CY005ZT01 HH VIBRATION BEAR 3		TR The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10CY010 VIBR BEARING4		The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature	Acknowledge the alarm Check possible causes	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.			
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
Project	Yamama 6 Extension				Resp. dept.		Order no.	B45	555	
				CIEMENIC	Document numb	ber	Lan	g.	Rev ind.	Sheet 24
				SIEIVIENS	1CS58182		er	1	b	No. of sh. Cont.

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
LIM_1_TR_H				Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Shutdown turbine Contact SIEMENS for further actions	
06MBB10CY010ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBB10CY010ZT01 HH VIBRATION BEAR 4		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10EM901ZA01 H T7MAX TO AVERAGE			Two T7 temperatures compared with average has reached alarm level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBB10EM901ZA02 H T7MIN TO AVERAGE			Two T7 temperatures compared with average has reached alarm level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBB10EM901ZA03 T7 RING 3 AV HIGH			The differential temperature between the T7 in the inner ring and T7 average has reached alarm level	Malfunction of the combustion chamber bypassvalves Malfunction of bleed valve 2 Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Conntact SIEMENS for further actions	-
06MBB10EZ901ZT11 HH T7 MAX TO AVERAGE		TR	Two T7 temperatures compared with average has reached shutdown level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10EZ901ZT12 LL T7 MIN TO AVERAGE		TR	Two T7 temperatures compared with average has reached shutdown level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.				
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.				
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
					Contact SIEMENS for further actions	
06MBB10EZ901ZT13 HH T7 DECREASE RATE		TR	The T7 temperature average has decreased to fast	Loss of flame in combustion chamber Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06MBB10EZ902ZT11 HH T7 MAX TO AV UL		U_T 90	Two T7 temperatures compared with average has reached unloading level.	Malfunction in the instrument loop. Malfunction in the burner, must be checked under the supervision of SIEMENS.	Acknowledge the shutdown alarm. Reset the safety system. Check Possible causes. Contact SIEMENS for further actions.	
06MBB10EZ902ZT12 LL T7 MIN TO AVG UL		U_T 90	Two T7 temperatures compared with average has reached unloading level.	Malfunction in the instrument loop. Malfunction in the burner, must be checked under the supervision of SIEMENS.	Acknowledge the shutdown alarm. Reset the safety system. Check Possible causes. Contact SIEMENS for further actions.	
06MBB10EZ911ZT11 HH T7 MAX TO AVERAGE		TR	Two T7 temperatures compared with average has reached shutdown level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10EZ911ZT12 LL T7 MIN TO AVERAGE		TR	Two T7 temperatures compared with average has reached shutdown level	Malfunction in the instrument loop Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10EZ911ZT13 HH T7 DECREASE RATE		TR	The T7 temperature average has decreased to fast	Loss of flame in combustion chamber Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06MBB10EZ912ZT11 HH T7 MAX TO AV UL		U_T 90	Two T7 temperatures compared with average has reached unloading level.	Malfunction in the instrument loop. Malfunction in the burner, must be checked under the supervision of SIEMENS.	Acknowledge the shutdown alarm. Reset the safety system. Check Possible causes. Contact SIEMENS for further actions.	

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	db4555.mdb : 070212 L. Folcker Nyberg Jonas Dicksen Yamama 6 Extension	db4555.mdb : 070212Rev.date 2006-12-13L. Folcker NybergJonas DicksenYamama 6 Extension	db4555.mdb : 070212     Rev.date 2006-12-13       L. Folcker Nyberg     Doc. kind:       Jonas Dicksen     Title       Yamama 6 Extension     Image: Constraint of the second sec	db4555.mdb : 070212       Rev.date 2006-12-13         L. Folcker Nyberg       Doc. kind:       Fault-finding instruction         Jonas Dicksen       Title       Fault Procedures         Yamama 6 Extension       SIEMENS	db4555.mdb : 070212       Rev.date 2006-12-13         L. Folcker Nyberg       Doc. kind:       Fault-finding instruction       Doc.         Jonas Dicksen       Title       Fault Procedures       Des.         Yamama 6 Extension       Resp. dept.       Document num         ICS58182       ICS58182	db4555.mdb : 070212       Rev.date 2006-12-13       Doc. kind:       Fault-finding instruction       Doc.       B4555 & DC103         Jonas Dicksen       Title       Fault Procedures       Des.       Resp. dept.         Yamama 6 Extension       SIEMENS       Document number         ICS58182       Document number       Document number	db4555.mdb : 070212       Rev.date 2006-12-13         L. Folcker Nyberg       Doc. kind:       Fault-finding instruction       Doc.       B4555 & DC103       Ref.         Jonas Dicksen       Title       Fault Procedures       Des.       Des.       Des.         Yamama 6 Extension       Itele       SIEMENS       Document number       Lang.         ICS58182       en	db4555.mdb : 070212       Rev.date 2006-12-13       Doc. kind:       Fault-finding instruction       Doc.       B4555 & DC103       Ref.       Image: Construction       Des.       Des.       Des.       Des.       Image: Construction       Des.       Des.       Des.       Des.       Des.       Image: Construction       Des.       Des.       Des.       Des.       Des.       Des.       Des.       Des.       Image: Construction       Des.       Des.

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBB10EZ912ZT12 LL T7 MIN TO AV UL		U_T 90	Two T7 temperatures compared with average has reached unloading level.	Malfunction in the instrument loop. Malfunction in the burner, must be checked under the supervision of SIEMENS.	Acknowledge the shutdown alarm. Reset the safety system. Check Possible causes. Contact SIEMENS for further actions.	
06MBB10FT901 T7 AVERAGE ST02 LIM_1_TR_H			The T7 temperature has reached alarm level	Malfunction in the instrument loop Malfunction in the turbine governor Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBB10FT901ZT01 HH T7 AVERAGE		TR	The T7 temperature has reached shutdown level	Malfunction in the instrument loop Malfunction in the turbine governor Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBB10FT902 T7 AVERAGEST03 LIM_1_TR_H			The T7 temperature has reached alarm level	Malfunction in the instrument loop Malfunction in the turbine governor Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBB10FT902ZT01 HH T7 AVERAGE		TR	The T7 temperature has reached shutdown level	Malfunction in the instrument loop Malfunction in the turbine governor Malfunction in the burner, must be checked under the supervision of SIEMENS	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBH10AN005 COOLING AIR FAN 1			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-

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Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBH10AN005XN11 SEAL/COOLFAN 1 NSF		There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBH10AN010 COOLING AIR FAN 2		There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBH10AN010XN11 SEAL/COOLFAN 2 NSF		There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBH10CT005 SEAL AIR SUPPLY TEMP LIM_1_TR_H		The seal air temperature has reached alarm level	Clogged seal air cooler Malfunction of cooling fans/water Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBH10CT005ZA02 SIGNALERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBH10CT005ZT01 HH SEAL AIR TEMP		U_T 30 The seal air temperature has reached shutdown level	Clogged seal air cooler Malfunction of cooling fans/water Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBH20AA010ZA01 VALVE IN WRONG POS		SB The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
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Signal FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBH20AA015ZA01 VALVE IN WRONG POS	SB	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBH20AA020ZA01 VALVE IN WRONG POS	SB	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBH20AA215ZA01 VALVE IN WRONG POS	SB	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBH20CT005 PURGE AIR T AFT COOL LIM_1_TR_H		The purge air temperature after the cooler exceeds the H1 limit		<ol> <li>Acknowledge the alarm.</li> <li>Check for correct function of the temperature control valve.</li> <li>Safety: Se Operators Safety</li> </ol>	
06MBH20CT005ZA02 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBH20CT005ZT01 HH PURGE AIR TEMP	U_T 90	Very high purging and flushing air temperature.		<ol> <li>Reset the trip.</li> <li>Check for correct function of the temp. control valve.</li> <li>Technical actions:         <ol> <li>At first opportunity, check for contaminated heatexchanger.</li> <li>Check the temperature transmitter and associated measuring circuit.</li> </ol> </li> <li>Warning:         <ol> <li>Consult Operating Safety instruction before performing any work or service on the seal air system.</li> </ol> </li> </ol>	

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBJ10AE005XN11 START MOTOR NSF		SB	There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBJ10AE005ZT01 START MOTOR FAILURE		S_TI	The start motor SFC has indicated an internal error	Malfunction in the switchgear/SFC	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06MBJ10CG005XP11N BARRING TOOL INSERT		SB	The hand barring tool is inserted in the turbine	Malfunction in the instrument loop	Acknowledge the alarm Investigate why the barring tool is inserted in the turbine Check possible causes	-
06MBJ10EA901 PURGING FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBJ10EA903 BARRING FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBJ10EM901ZA01 BARRING FAILURE			The start motor has lost barring indication for more then 10 minutes during warm turbine/cooling down	Malfunction in the switchgear/SFC Low lube oil pressure Malfunction in the SSS-coupling Malfunction in the speed instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Signal FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBJ10EM901ZA02 STARTMOTORFAILED	SB The start motor has failed to rotate the gas generator	Malfunction in the switchgear/SFC Low lube oil pressure Malfunction in the SSS-coupling Malfunction in the speed instrument loop	Acknowledge the alarm Check possible causes	-
06MBJ10EZ911ZT03 START MOTOR FAILED	S_TI The start motor has failed to rotate the gas generator during start-up	Malfunction in the switchgear/SFC Low lube oil pressure Malfunction in the SSS-coupling Malfunction in the speed instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBK10CT005 GEAR BEAR 1 RAD TEMP LIM_1_TR_H	The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBK10CT005 GEAR BEAR 1 RAD TEMP LIM_2_TR_H	The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBK10CT005ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBK10CT010 GEAR BEAR 2 RAD TEMP LIM_1_TR_H	The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBK10CT010 GEAR BEAR 2 RAD TEMP	The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature	Acknowledge the alarm Check possible causes	-

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Project	Yamama 6 Extension				Resp. dept.		Orde	erno. B45	555		
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
LIM_2_TR_H				Low lube oil pressure High vibration level Malfunction in the instrument loop	Shutdown turbine Contact SIEMENS for further actions	
06MBK10CT010ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBK10CT025 GEAR BEAR 3 RAD TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBK10CT025 GEAR BEAR 3 RAD TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBK10CT025ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBK10CT030 GEAR BEAR 4 RAD TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBK10CT030 GEAR BEAR 4 RAD TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-

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Signal	FC	Туре	e Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBK10CT030ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBK10CY005 GEAR VIBRATION LIM_1_TR_H			The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBK10CY005ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBK10CY005ZT01 HH VIBRATION GEAR		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBK10CY006ZT01 HH VIBRATION GEAR		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBK10CY007ZT01 HH VIBRATION GEAR		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBL10CP905 DP INTAKE FILTER LIM_1_TR_H			Differential pressure across filter stage no. 1 and 2 has increased to the alarm level. The filter can be		<ol> <li>Check the trendcurve.</li> <li>Change filter stage no. 1 and / or stage 2 depending on the trendcurve</li> </ol>	

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
			clogged with dust or ice.		Technical actions 1. Change clogged filter stage no. 1 and 2 at next stop. 2. Make sure that all filter cassettes are locked tight through. Look for leakage behind the filter casettes.	
06MBL10CP905ZT01 HH DP AIR INT FILTER		U_T 90	The differential pressure across the air intake filter has reached shutdown level.	Clogged air intake filter Malfunction in the instrument loop.	Acknowledge the shutdown alarm Check possible causes Contact SIEMENS for further actions	The turbine has shut down automatically
06MBL20CP015 AIR FILT DP LIM_1_TR_H			The differential pressure across the air intake filter has reached alarm level.	Clugged air intake filter. Malfunction in the instrument loop.	Acknowledge the alarm. Check possible causes.	
06MBL20CP015ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBL20CP015ZT01 HI DP FILT SD		TR	The differential pressure across the air intake filter has reached shutdown level	Clogged air intake filter Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBL30AA005ZT01 OPEN BLOW IN DOOR		U_T 90	Excessive high differtial pressure across filter stage cause unloading trip start cooling down period		1. After necessary technical actions: reset trip	
06MBL30CG005 AIR INT DOOR NOT CL		SB	The air inlet door has been opened	Malfunction in the instrument loop	Acknowledge the alarm Investigate why the door has been opened, close the door and keep it closed during operation. Check possible causes.	
06MBL30CM005ZA03 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow	Acknowledge the alarm Check possible causes	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				or other fault		
06MBL30CP015 AIR INTAKE DP LIM_1_TR_L			The differential pressure between the air intake plenum and atmosphere has reached alarm level	Clogged air intake or air intake filter Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBL30CP015ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBL30CP015ZT01 DP INLET PLENUM		TR	The differential pressure between the air intake plenum and atmosphere has reached shutdown level	Clogged air intake or air intake filter Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBL30CT005ZA03 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBL30EG001XE01N AIR FILT MCB FAULT			The control box on the air intake has indicated an electrcal fault	Overload/shortcircuitin connected equipment Wiring faults See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06MBM10AA015XG01ZA03 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBM10EA901 EMISSION CONTROL FG			A signal indicates the function group for combustor is set to manual		Acknowledge the alarm Set function group to auto	

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Signal	FC T	ype Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBM10EM901ZA01 DEVIATION VALVE POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBM10EM901ZA02 LOAD LIMITATION		One combustion chamber bypass valve is indicates deviation between setpoint and feedback. The gas turbine load will be limited by the gasgenerator acceleration controller, GAC	-	Acknowledge the alarm Check alarmlist for malfunctioning bypass valve	-
06MBN10AA005ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN10AA025ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN10AA030ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN10AA040ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN10AP005 LIQ FUEL HP PUMP 1		There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action			
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			type circuit	Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO				
06MBN10AP005XN11 LIQ FUEL HP PUMP NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-			
06MBN10CF005ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06MBN10CL005XH11N LIQ FUEL TANK LEV H			The level in liquid fuel tank has reached alarm level	Malfunction in the tank level control valve Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-			
06MBN10CL005XL11N LIQ FUEL TANK LEV L			The level in liquid fuel tank has reached alarm level	Malfunction in the tank level control valve Malfunction in the instrument loop Malfunction of the external liquid fuel pump	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-			
06MBN10CL005XL21N LIQ FUEL TANK LEV LL			The level in liquid fuel tank has reached alarm level	Malfunction in the tank level control valve Malfunction in the instrument loop Malfunction of the external liquid fuel pump	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-			
06MBN10CL005ZA21N FUEL TANK LEV LL		SB	LL level of the liquid fuel tank generates an alarm if there is a gas fuel start or if the start phase is over. Inhibits change over to liquid fuel operation		<ol> <li>Acknowledge the alarm</li> <li>Check external fuel system</li> <li>Technical actions:         <ol> <li>A through check of the external fuel system must be done.</li> </ol> </li> <li>Warning: Consult the Operating Safety instructions before performing any work or service on the fuel oil system.</li> </ol>	-			

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBN10CP005 LIQ FUEL FILTER DP LIM_1_TR_H			The differential pressure over the filter has reached alarm level	Clogged filter, change to other filter half and clean/change filter elements according to maintenance manual Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBN10CP005ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBN10CP035ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBN10CT005ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBN10EA901 LIQUID FUEL	5MBN10EA901 IQUID FUEL There is either a "Position faulor or a "Control mode fault" in the function group		There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBN10EG005XP11 MBN PUMP OVERHEATING			High winding temp. in liquid fuel pump engine.	Continuously running at low speed. Malfunction in the instrument loop.	Acknowledge the alarm check possible causes.	
06MBN10EM901ZA01 LIQ FUEL SEQ STEP AL			A time out is indicated in one of the steps in the liquid fuel sequence.		<ol> <li>Acknowledge the alarm</li> <li>Investigate which step is indicating at the Operator's station display.</li> <li>Check which conditions apply to this step.</li> <li>Clear any fault. The sequence will continue as soon as all</li> </ol>	

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
				conditions in the step are met.	
06MBN10EM901ZA02 STARTPOSITIONFAULT		The ignition speed check of the liquid fuel pump indicates that the pump is outside allowed startposition	Malfunction with the liquid fuel pump (incl. SFC)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	-
06MBN10EM901ZA03 SFC CTRL CHECK FAIL		The function check of the liquid fuel pump speed indicates that the pump speed deviates from its setpoint	Malfunction with the liquid fuel pump (incl. SFC)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	-
06MBN10EZ911ZT01 STARTPOSITIONFAULT		S_TI The ignition speed check of the liquid fuel pump indicates that the pump is outside allowed startposition	Malfunction with the liquid fuel pump (incl. SFC)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBN10EZ911ZT02 SFC CTRL TEST FAIL		S_TI The function check of the liquid fuel pump speed indicates that the pump speed deviates from its setpoint	Malfunction with the liquid fuel pump (incl. SFC)	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBN30AA015ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN30AA025ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN30AA030ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Broken valve stem		
06MBN30AA035ZA01 VALVE IN WRONG POS			The feedback indication indicates wrong position according to the ordered position	tes Failing instrument air supply Acknowledge the alarm Solenoid valve malfunction Check possible causes Position feedback malfunction Broken valve stem		-
06MBN30CP005 CLEANING AIR PRESS LIM_1_TR_H			The cleaning air pressure has reached alarm level	Malfunction pressure instrument loop Bad tight-fitting in cleaning air shut-off valve 1 or cleaning air shut-off valve 2	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN30CP005ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBN30CP010 PURGE AIR PRESSURE LIM_1_TR_H			The purge gas pressure has reached alarm level	Malfunction pressure instrument loop Bad tight-fitting in purge gas startup valve, purge gas shut-off valve or manifolder purge shut-off valve	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBN30CP010ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBN30EZ901ZT01 MBN LEAK TEST1 FAIL		S_TI	The cleaning air shut-off valve 1 is leaking	Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBN30EZ901ZT02 MBN LEAK TEST2 FAIL		S_TI	The cleaning air shut-off valve 2 is leaking	Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically

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Signal FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBN30EZ901ZT03 MBN LEAK TEST3 FAIL	S_TI The purge gas startup valve, purge gas shut-off valve or manifolder purge shut-off valve is leaking	Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBP05AA015ZA01 VALVE IN WRONG POS	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP05AA015ZT01 VALVE IN WRONG POS	S_TI The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBP05CF005ZA03 SIGNAL ERROR	A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP05CP005 GAS FUEL FILTER DP LIM_1_TR_H	The differential pressure over the filter has reached alarm level	Clogged filter, clean/change filter elements according to maintenance manual Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBP05CP005ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP10AA025ZA01 VALVE IN WRONG POS	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10AA025ZT01 VALVE IN WRONG POS	S_TI The feedback indication indicates wrong position according to the	Failing instrument air supply Solenoid valve malfunction	Acknowledge the shutdown alarm Reset the safety system	The turbine has shutdown automatically

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Signal	FC Тур	e Alarm Description	Possible Causes	Operator Action	Automatic Action
		ordered position	Position feedback malfunction Broken valve stem	Check possible causes Contact SIEMENS for further actions	
06MBP10AA030ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10AA030ZT01 VALVE IN WRONG POS	S_T	I The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBP10AA035XG01ZA03 SIGNAL ERROR		A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP10AA205ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10AA205ZT01 VALVE IN WRONG POS	S_T	I The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBP10AA230ZA01 VALVE IN WRONG POS		The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10AA230ZT01 VALVE IN WRONG POS	S_T	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Broken valve stem	Contact SIEMENS for further actions	
06MBP10CP015 GAS FUEL PRESSURE LIM_1_TR_H			The gas pressure has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact the gas supplier for adjustment of the pressure	-
06MBP10CP015 GAS FUEL PRESSURE LIM_1_TR_L			The gas pressure has reached alarm level	Clogged filter Manual valves not opened Malfunction in pneumatic valves Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBP10CP015 GAS FUEL PRESSURE LIM_2_TR_H			The gas pressure has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact the gas supplier for adjustment of the pressure	-
06MBP10CP015 GAS FUEL PRESSURE LIM_2_TR_L			The gas pressure has reached alarm level	Clogged filter Manual valves not opened Malfunction in pneumatic valves Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBP10CP015ZA03 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP10CP015ZT01 L/H GAS PRESSURE		S_TI	The gas pressure has reached shutdown level	-	Acknowledge the shutdown alarm Reset the safety system Check additional alarm for possible causes Contact the gas supplier for adjustment of the pressure	The turbine has shutdown automatically
06MBP10CP015ZT02 LL GAS PRESSURE		U_T 30	The gas pressure has reached shutdown level	Gas supply failure	Acknowledge the shutdown alarm. Reset the safety system. Check additional alarm for possible causes. Contact the gas supplier for adjustment of the pressure.	

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBP10CP050ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP10CP050ZT01 MAIN GAS CTRLV PR HI		S_TI	The pressure after main gas ctrl valve has reached shutdown level.	Malfunction in the instrument loop. To high gas supply pressure.	Acknowledge the shutdown alarm. Reset the safety system. Check additional alarm for possible causes. Contact the gas supplier for adjustment of the pressure.	
06MBP10CT005 GAS FUEL TEMP LIM_1_TR_H			The gas temperature has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact the gas supplier for adjustment of the temperature	-
06MBP10CT005 GAS FUEL TEMP LIM_1_TR_L			The gas temperature has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact the gas supplier for adjustment of the temperature	-
06MBP10CT005 GAS FUEL TEMP LIM_2_TR_L			The gas temperature has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact the gas supplier for adjustment of the temperature	-
06MBP10CT005ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBP10CT005ZA04 GAS FUEL TEMP LOW			The gas temp. has reached low level.	Malfunction in the instrument loop. Gas heating system does not work.	Acknowledge the alarm. Check possible causes.	
06MBP10CT005ZT01 LL FUEL GAS TEMP		U_T 30	The gas temperature has reached shutdown level	Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact the gas supplier for adjustment of the temperature	The turbine has shutdown automatically

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Signal	FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBP10EA901 GAS FUEL		There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBP10EM901ZA01 LEAKING CHECK VALVE		The gas fuel safety shut-off valv is leaking	e Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10EM901ZA02 LEAKING SOV/VENT V		One of the gas fuel shut-off valves or vent valves is leaking	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the alarm Check possible causes ContactSIEMENS for further actions	-
06MBP10EM901ZA03 GAS FUEL CTRL FAILED		The function check of the gas fuel control valves indicates that the valves deviates from its setpoint	Position feedback malfunction Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBP10EM901ZA04 GAS FUEL SEQ STEPAL		A time out is indicated for one of the steps in the gas fuel sequence	f -	Acknowledge the alarm Check additional alarm to establish why the sequence has stuck Clear any faults, the sequence will continue as soon as allconditions for the step is fullfilled	-
06MBP10EM901ZA05 STARTPOSITIONFAULT		The ignition position check of the gas fuel control valves indicates that the valve is outside allowed startposition	Position feedback malfunction Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. $B$	4555	
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Signal	FC 1	Гуре	Alarm Description	Possible Causes	Operator Action	Automatic Action		
06MBP10EZ901ZT01 STARTPOSITIONFAULT		S_TI	The ignition position check of the gas fuel control valves indicates that the valve is outside allowed startposition	Position feedback malfunction Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBP10EZ911ZT01 START POSITION FAULT		S_TI	The ignition position check of the gas fuel control valves indicates that the valve is outside allowed startposition	Position feedback malfunction Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBP10EZ911ZT02 LEAKAGETEST 1		S_TI	The gas fuel shut-off valve 1 or vent valve 1 is leaking	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBP10EZ911ZT03 LEAKAGETEST 2		S_TI	The gas fuel shut-off valve 2 or vent valve 2 is leaking	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem Malfunction pressure instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBP10EZ911ZT04 CTRL VLVS TEST FAIL		S_TI	The function check of the gas fuel control valves indicates that the valves deviates from its setpoint	Position feedback malfunction Malfunction of the MOOG power supply or the servodrive controller	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBP20AA005XG01ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-		
06MBP20CP005ZA03 SIGNALERROR	Prio 1		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-		

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. B	4555	
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBP20CP050ZT01 PRIM GAS CTRLV PR HI	MBP20CP050ZT01 IM GAS CTRLV PR HI S_TI The pressure after prim gas ctrl valve has reached shutdown level. Malfu		Malfunction of the instrument loop. To high gas supply pressure.	Acknowledge the alarm. Reset safety system. Check gas supply pressure.		
06MBQ20AA010ZA01 VALVE IN WRONG POS			The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBQ20AA015ZA01 VALVE IN WRONG POS			The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBQ20AA020ZA01 VALVE IN WRONG POS			The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBT10AA005ZA01 BV 1 NOT CLOSED			The bleed valve is not closed during barring or turbine operation	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes	-
06MBT10AA005ZT01 BV1 NOT OPEN		S_TI	The bleed valve is not completly open and the startmotor is running	Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBT10AA010XG01ZA03 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. B	4555	
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action		
06MBT10AA010ZA01 BV 2 POS FAULT			There is a control error of the positioner (deviation between the set value and measured value)	Orderoutput/actuatormalfunction Position feedback malfunction	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-		
06MBT10AA010ZT01 BV2 NOT OPEN		S_TI	The bleed valve is not completly open and the startmotor is running	Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		
06MBT10AE005XG01ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-		
06MBT10AE005ZA01 IGV POS FAULT		SB	There is a control error of the positioner (deviation between the set value and measured value)	Orderoutput/actuator malfunction Position feedback malfunction	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-		
06MBT10CG005 AXIAL DISP GG LIM_1_TR_H			The axial displacement of the rotor has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-		
06MBT10CG005 AXIAL DISP GG LIM_1_TR_L			The axial displacement of the rotor has reached alarm level	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-		
06MBT10CG005ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-		
06MBT10CG005ZT01 LL AXIAL DISPL GG		TR	The axial displacement of the rotor has reached shutdown level	Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically		

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L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Yamama 6 Extension				Resp. dept.		Order no. $B$	4555	
			CIEMENIC	Document num	nber	Lang.	Rev ind.	Sheet 48
			SIEIVIENS	1CS58182	2	en	b	No. of sh. Cont.
d L J J	b4555.mdb : 070212 Folcker Nyberg onas Dicksen Tamama 6 Extension	Ib4555.mdb : 070212     Rev.date 2006-12-13       Folcker Nyberg        onas Dicksen        Tamama 6 Extension	Ib4555.mdb : 070212     Rev.date 2006-12-13       Folcker Nyberg     Doc. kind:       onas Dicksen     Title       Tamama 6 Extension     Title	Ib4555.mdb : 070212       Rev.date 2006-12-13         Folcker Nyberg       Doc. kind:       Fault-finding instruction         onas Dicksen       Title       Fault Procedures         Vamama 6 Extension       SIEMENS	Ib4555.mdb : 070212       Rev.date 2006-12-13         Folcker Nyberg       Doc. kind:       Fault-finding instruction         onas Dicksen       Title       Fault Procedures         Zamama 6 Extension       Resp. dept.         Document num         SIEMENS	Ib4555.mdb : 070212       Rev.date 2006-12-13         Folcker Nyberg       Doc. kind:       Fault-finding instruction         onas Dicksen       Title       Fault Procedures         Zamama 6 Extension       Resp. dept.         Document number         Document number         ICS58182	Ib4555.mdb : 070212       Rev.date 2006-12-13         Folcker Nyberg       Doc. kind:       Fault-finding instruction         onas Dicksen       Title       Fault Procedures         Zamama 6 Extension       Des.       Des.         Document number       Order no. B         ICS58182       en	Ib4555.mdb : 070212       Rev.date 2006-12-13        Folcker Nyberg       Doc. kind:       Fault-finding instruction         onas Dicksen       Title       Fault Procedures         Zamama 6 Extension       Doc. kind:       Fault Procedures         Doc. kind:       Fault Procedures       Des.         Des.       Des.       Des.         Variance       Des.       Des.         Variance       Document number       Lang.         Rev ind.       Document number       Document number         1CS58182       en       b

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBT10CP005ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CP010ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CP015ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CP025ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CP901ZA01 DEV P3 PRESSURE			There is a control error of the maesurement (deviation between the individual and average value)	Malfunction in one of the instrument loops	Acknowledge the alarm Reduce the load Check possible causes Contact SIEMENS for further actions	-
06MBT10CQ005ZA01 MAIN FLAME STN02		SB	The flame detector is indicating the oposite of what can be expected	Malfunktion in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBT10CQ005ZA02 MAIN FLAME STN03		SB	The flame detector is indicating the oposite of what can be expected	Malfunktion in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBT10CQ005ZT01 MAIN FLAME FAILED		TR	The main flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Durty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make a nother start attempt Note: If start up attempt failed when running on liquid fuel, drain the	The turbine has shutdown automatically

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Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. $B^2$	555	
				CIEMENIC	Document numb	ber	Lang.	Rev ind.	Sheet 49
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
					exhaust duct before starting the gas turbine	
06MBT10CQ005ZT02 MAIN FLAME STN02		S_TI	The main flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Durty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make a nother start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CQ005ZT03 MAIN FLAME STN03		S_TI	The main flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Durty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make a nother start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CQ010ZA01 PILOT FLAME STN02		SB	The pilot flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Dirty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make another start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CQ010ZA02 PILOT FLAME STN03		SB	The pilot flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Dirty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make another start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CQ010ZT01 PILOT FLAME FAILED		TR	The pilot flame has failed to ignite during startup	Insufficient ignition gas supply/pressure Wrong mixture of air and ignition gas Malfunction in the instrument loop Durty sight glass/lens Malfunction in the ignition spark circuit	Acknowledge the shutdown alarm Reset the safety system Check possible causes Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically

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Project	Yamama 6 Extension				Resp. dept.		Order no. B4	555	
				CIEMENC	Document num	iber	Lang.	Rev ind.	Sheet 50
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Signal FC	Тур	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBT10CQ010ZT02 PILOT FLAME STN02	S_T	I The pilot flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Dirty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make another start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CQ010ZT03 PILOT FLAME STN03	S_T	I The pilot flame has failed to ignite or flamed out	Insufficient fuel supply Malfunction in the instrument loop Dirty sight glass/lens	Acknowledge the shutdown alarm Reset the safety system Check possible causes Failure during startup: Make another start attempt Note: If start up attempt failed when running on liquid fuel, drain the exhaust duct before starting the gas turbine	The turbine has shutdown automatically
06MBT10CS901ZA01 GG NOT ZERO SPEED		The speed measurement still indicates rotation of the rotor when it should have stopped	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBT10CS901ZA02 H GG SPEED DIFF	SB	A to big difference between the speed measurements is indicated	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBT10CT005ZA03 SIGNAL ERROR		A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT010 BEAR 1 AX TEMP LIM_1_TR_H		The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBT10CT010 BEAR 1 AX TEMP LIM_2_TR_H		The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Malfunction in the instrument loop		
06MBT10CT010ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT020 BEAR 1 RAD TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBT10CT020 BEAR 1 RAD TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBT10CT020ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT020ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT030ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT035ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Project	Yamama 6 Extension				Resp. dept.		Order no	B45	555		
				CIEMENIC	Document num	ber	La	ng.	Rev ind.	Sheet 52	
				SIEIVIENS	1CS58182	2	e	n	b	No. of sh. $Cor$	ıt.

Signal	FC	Туре	e Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBT10CT040ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT045 BEAR 2 RAD TEMP LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MBT10CT045 BEAR 2 RAD TEMP LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBT10CT045ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT055ZA03 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT060ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBT10CT901ZA01 DEV T2 TEMP			There is a control error of the maesurement (deviation between the individual and average value)	Malfunction in one of the instrument loops	Acknowledge the alarm Reduce the load Check possible causes Contact SIEMENS for further actions	-

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Project	Yamama 6 Extension				Resp. dept.		Order no.	B45	555	
				CIEMENIC	Document numb	ber	Lan	g.	Rev ind.	Sheet 53
				SIEIVIENS	1CS58182	,	eı	1	b	No. of sh. Cont.
				SIEMENS	Document numb 1CS58182	per	Lan e1	g. 1	Rev ind. b	Sheet 53 No. of sh. Cont

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBT10CY005 VIBR BEARING 1 LIM_1_TR_H			The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBT10CY005ZT01 HH VIBRATION BEAR 1		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBT10CY010 VIBR BEARING2 LIM_1_TR_H			The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBT10CY010ZT01 HH VIBRATION BEAR 2		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBT10EA901 PILOT IGNITION FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBT10EA901ZA01 FLAME DETECT. FAULT		SB	One of the flame detectors has indicated flame before ignition	Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-

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Project	Yamama 6 Extension				Resp. dept.		Order no.	B45:	55	
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
			order			
06MBT10EA902 COMPR WASH FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBT10EM901ZA01 BARRING BLOCKED		SB	The gas generator axel has lost barring indication for more then 10 minutes during warm turbine/cooling down	Malfunction in the switchgear/SFC Low lube oil pressure Malfunction in the SSS-coupling Malfunction in the speed instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	The barring, purge, startmotor functions are blocked until the cooling down period has expired
06MBT10EM901ZA02 WASH MODE SELECTED		SB	The compressor washing mode is selected	-	Acknowledge the alarm Investigate the reason for this selection Deactivate the compressor washing mode	-
06MBT10EM901ZA03 T3 H DEVIATION			There is a control error of the maesurement (deviation between the individual and average value)	Malfunction in one of the instrument loops	Acknowledge the alarm Reduce the load Check possible causes Contact SIEMENS for further actions	-
06MBV10AN005 L/O MIST FAN 1			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-

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Project	Yamama 6 Extension				Resp. dept.		Order no. B4	555	
I				CIEMENIC	Document num	ber	Lang.	Rev ind.	Sheet 55
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Signal	FC	Туре	e Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV10AN005XN11 L/O MIST FAN 1 NSF		SB	There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBV10AN010 L/O MIST FAN 2			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBV10CL010 L/O TANK LEVEL LIM_1_TR_H			The lubrication oil tank level has reached high alarm level	Too much oil in oil tank Malfunction in the instrument loop	Acknowledge the alarm Check level in tank sight glass Check possible causes	-
06MBV10CL010 L/O TANK LEVEL LIM_1_TR_L			The lubrication oil tank level has reached low alarm level	Low on oil in oil tank Malfunction in the instrument loop	Acknowledge the alarm Check level in tank sight glass If the level is low, replenish the oil system Check possible causes	-
06MBV10CL010 L/O TANK LEVEL LIM_2_TR_L			The lubrication oil tank level has reached low alarm level	Low on oil in oil tank Malfunction in the instrument loop	Acknowledge the alarm Check level in tank sight glass If the level is low, replenish the oil system Check possible causes	Startinterlock on the lubrication oil heaters.
06MBV10CL010ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV10CP015 L/O TANK PRESSURE LIM_1_TR_H			The lubrication oil tank under pressure has reached alarm level	Clogged oil mist filter Malfunction with the L/O fan (incl. SFC) Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

Based On	db4555.mdb : 070212	Rev.date 2006-12-13			-				
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. B4	555	
				CIEMENIC	Document numb	ber	Lang.	Rev ind.	Sheet 56
				SIEIVIENS	1CS58182	2	en	b	No. of sh. $Cont.$

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV10CP015ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV10CP015ZT01 HH PRESSURE L/O TANK		U_T 90	The lubrication oil tank under pressure has reached shutdown level	Clogged oil mist filter Malfunction with the L/O fan (incl. SFC) Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check the under pressure trend Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBV10CT010 L/O TANK TEMP LIM_1_TR_H			The lubrication oil temperature in the oil tank has reached high alarm level	Malfunction in the temperature control valve Clogged L/O cooler Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBV10CT010 L/O TANK TEMP LIM_2_TR_L		SB	The lubrication oil temperature in the oil tank has reached low low alarm level	Malfunction in the temperature control valve Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	The lube oil system and turbine is startblocked
06MBV10CT010ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV10EA901 LUBRICATIONOIL FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-

Based On	db4555.mdb : 070212	Rev.date 2006-12-13								
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.			
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
Project	Yamama 6 Extension				Resp. dept.		Order no	. B4:	555	
				CIEMENIC	Document num	ber	Li	ang.	Rev ind.	Sheet 57
				SIEIVIENS	1CS58182	2		en	b	No. of sh. Cont.

Signal	FC Ty	pe Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV10EG901ZA01 24V DC/DC FAILURE		One of the 24V DC Power supply has failed.	Malfunction in the DC Power supply.	Acknowledge the alarm check possible causes.	
06MBV10EM901ZA01 2/3 L/O GROUPS FAIL	S	3 Lube oil group is in manual mode or only one group is selected AUTO	-	Acknowledge the alarm Investigate the reason for this selection Reset the selection to AUTO	-
06MBV10EM901ZA02 SEL GRP NOT IN SERV	S	3 Selected lube oil group is not in service	Malfunction in the pressure switches after pumps Malfunction with the L/O pumps (incl. SFC) Manual valves before/after pump is closed	Acknowledge the alarm Check possible causes	-
06MBV10EM901ZA03 L/O COOL INIT FAILED		Cooling down mode is not indicated from I/o group PLC when this has been initiated	Open circuit or short circuit wiring between AC400 & PLC Malfunction of the PLC	Acknowledge the alarm Check possible causes	-
06MBV10EZ901ZT01 LONG DC RUN TIME	U 90	T Lube oil pumps running on battery supply for more than 10 minutes	-	Acknowledge the shutdown alarm Reset the safety system Turbine can be restarted when the AC supply to lube oil pumps is back	The turbine has shutdown automatically
06MBV10EZ901ZT02 2/3 GRPS NOT IN SERV	U 90	_T 2 out of 3 lube oil groups is out of service	Malfunction in the pressure switches after pumps Malfunction with the L/O pumps (incl. SFC) Manual valves before/after pump is closed	Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically
06MBV21EA901 L/O GROUP 1		There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
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Based On	db4555.mdb : 070212	Rev.date 2006-12-13									
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.				
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.				
Project	Yamama 6 Extension				Resp. dept.		Orde	erno. B45	555		
				CIEMENIC	Document num	ber		Lang.	Rev ind.	Sheet	58
				SIEIVIENS	1CS58182	2		en	b	No. of s	h. Cont.

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV21EA901ZA01 L/O GRP.1 MODE ALARM			Lube oil group is in manual mode or only one group is selected AUTO	-	Acknowledge the alarm Investigate the reason for this selection Reset the selection to AUTO	-
06MBV21EG002 L/O GRP 1 ALARM			Fault in lube oil group, alarm created in I/o group PLC	Malfunction with the L/O pumps (incl. SFC) Manual valves before/after pump is closed Malfunction in the pressure switches after pumps Malfunction of the PLC	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBV22EA901 L/O GROUP 2			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBV22EA901ZA01 L/O GRP.2 MODE ALARM			Lube oil group is in manual mode or only one group is selected AUTO	-	Acknowledge the alarm Investigate the reason for this selection Reset the selection to AUTO	-
06MBV22EG002 L/O GRP 2 ALARM			Fault in lube oil group, alarm created in I/o group PLC	Malfunction with the L/O pumps (incl. SFC) Manual valves before/after pump is closed Malfunction in the pressure switches after pumps Malfunction of the PLC	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBV23EA901 L/O GROUP 3			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection	-

Based On	db4555.mdb : 070212	Rev.date 2006-12-13						
Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc. B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.	Des.		
Project	Yamama 6 Extension				Resp. dept.	Order no. $B^2$	1555	
				CIEMENIC	Document number	Lang.	Rev ind.	Sheet 59
				SIEIVIENS	1CS58182	en	b	No. of sh. $Cont.$

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
					Reset the selection to AUTO	
06MBV23EA901ZA01 L/O GRP.3 MODE ALARM			Lube oil group is in manual mode or only one group is selected AUTO	-	Acknowledge the alarm Investigate the reason for this selection Reset the selection to AUTO	-
06MBV23EG002 L/O GRP 3 ALARM			Fault in lube oil group, alarm created in l/o group PLC	Malfunction with the L/O pumps (incl. SFC) Manual valves before/after pump is closed Malfunction in the pressure switches after pumps Malfunction of the PLC	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBV30AN015 L/O COOLING FAN 1			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBV30AN015XN11 L/O COOL FAN 1 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBV30AN020 L/O COOLING FAN 2			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBV30AN020XN11 L/O COOL FAN 2 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.			
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
Project	Yamama 6 Extension				Resp. dept.		Order no.	B45	555	
				CIEMENIC	Document num	ber	Lar	g.	Rev ind.	Sheet 60
				SIEIVIENS	1CS58182	2	e	ı	b	No. of sh. Cont.

Signal FC Type	e Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV30AN025 L/O COOLING FAN 3	There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06MBV30AN025XN11 L/O COOL FAN 3 NSF	There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06MBV40CP010 L/O FILTER DP LIM_1_TR_H	The differential pressure over the filter has reached alarm level	Clogged filter, change to other filter half and clean/change filter elements according to maintenance manual Malfunction in the instrument loop	Acknowledge the alarm Check possible causes	-
06MBV40CP010ZA02 SIGNAL ERROR	A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV40CP015 L/O SUPPLY PRESSURE LIM_1_TR_L	The lubrication oil pressure has reached alarm level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CP015ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV40CP015ZT01 TR LL LUBE OIL PRESSURE	The lubrication oil pressure has reached shutdown level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC)	Acknowledge the shutdown alarm Reset the safety system	The turbine has shutdown automatically

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no.	4555	
				CIEMENIC	Document numb	ber	Lang.	Rev ind	Sheet 61
				SIEIVIENS	1CS58182		en	b	No. of sh. $Cont.$

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Check the pressure trend Check possible causes Contact SIEMENS for further actions	
06MBV40CP025 L/O SUPPLY PRESSURE LIM_1_TR_L			The lubrication oil pressure has reached alarm level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CP025ZA03 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV40CP025ZT01 LL LUBE OIL PRESSURE		TR	The lubrication oil pressure has reached shutdown level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check the pressure trend Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBV40CT005 L/O SUPPLY TEMP LIM_1_TR_H			The lubrication oil temperature has reached alarm level	Malfunction in the temperature control valve Clogged L/O cooler Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CT005 L/O SUPPLY TEMP LIM_1_TR_L			The lubrication oil temperature has reached alarm level	Malfunction in the temperature control valve Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CT005ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. $B$	4555	
				CIEMENIC	Document numb	per	Lang.	Rev ind.	Sheet 62
				SIEIVIENS	1CS58182		en	b	No. of sh. Cont.

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV40CT005ZT01 HH LUBE OIL TEMP		TR	The lubrication oil temperature has reached shutdown level	Malfunction in the temperature control valve Clogged L/O cooler Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBV40CT015 L/O SUPPLY TEMP LIM_1_TR_H			The lubrication oil temperature has reached alarm level	Malfunction in the temperature control valve Clogged L/O cooler Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CT015 L/O SUPPLY TEMP LIM_1_TR_L			The lubrication oil temperature has reached alarm level	Malfunction in the temperature control valve Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV40CT015ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV40CT015ZT01 HH LUBE OIL TEMP		TR	The lubrication oil temperature has reached shutdown level	Malfunction in the temperature control valve Clogged L/O cooler Malfunction of cooling fans/water Malfunction of the L/O heaters Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBV54CP015 BEARING2 DP LIM_1_TR_H			The lubrication oil pressure has reached alarm level	Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV54CP015 BEARING 2 DP LIM_1_TR_L			The lubrication oil pressure has reached alarm level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control value	Acknowledge the alarm Check possible causes Shutdown turbine	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
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					10050100		0.00	h	

Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
				Manual valves before/after pump is closed Malfunction in the instrument loop	Contact SIEMENS for further actions	
06MBV54CP015ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV54CP015ZT01 LL LUBE OIL DP BEAR2		TR	The lubrication oil pressure has reached shutdown level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check the pressure trend Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MBV54CP020 BEARING 2 DP LIM_1_TR_H			The lubrication oil pressure has reached alarm level	Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV54CP020 BEARING 2 DP LIM_1_TR_L			The lubrication oil pressure has reached alarm level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MBV54CP020ZA03 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MBV54CP020ZT01 LL LUBE OIL DP BEAR2		TR	The lubrication oil pressure has reached shutdown level	Clogged L/O supply filter Malfunction with the L/O pumps (incl. SFC) Malfunction in the pressure control valve Manual valves before/after pump is closed Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check the pressure trend Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.				
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.				
Project	Yamama 6 Extension				Resp. dept.		Order no.	B45	555		
				CIEMENIC	Document num	iber	La	ng.	Rev ind.	Sheet	64
				SIEIVIENS	1CS58182	2	e	n	b	No. of s	h. Cont.
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MBV60AA015ZA01 VALVE IN WRONG POS		SB	The feedback indication indicates wrong position according to the ordered position	Failing instrument air supply Solenoid valve malfunction Position feedback malfunction Broken valve stem	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MBV60CL005ZT01 HH LEV BEAR 2 TANK		TR	The lubrication oil level in bearing 2 drain tank has reached shutdown level	Malfunction in the tank level control valve Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MKA10CT005 GEN DE BEARING T LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT005 GEN DE BEARING T LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MKA10CT005ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT010 GEN NDE BEARING T LIM_1_TR_H			The temperature in the bearing has reached alarm level 1	High bearing temperature High lube oil temperature Low lube oil pressure High vibration level Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT010 GEN NDE BEARING T LIM_2_TR_H			The temperature in the bearing has reached alarm level 2	High bearing temperature High lube oil temperature Low lube oil pressure	Acknowledge the alarm Check possible causes Shutdown turbine	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.		
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.		
Project	Yamama 6 Extension				Resp. dept.		Order no. B	4555	
				CIEMENIC	Document num	ber	Lang.	Rev ind.	Sheet 65
					10050100			1	<b>A</b> (

Signal FC	Type Alarm Description	Possible Causes	Operator Action	Automatic Action
		High vibration level Malfunction in the instrument loop	Contact SIEMENS for further actions	
06MKA10CT010ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT015 GEN COOL AIR DE T LIM_1_TR_H	The generator air temperature has reached alarm level	High coolingair/coolingwatertemperature High generator load Malfunction in the instrument loop	Acknowledge the alarm Check possible causes If possible reduce the reactive power output Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT015ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT020ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT025 GEN COOL AIR NDE T LIM_1_TR_H	The generator air temperature has reached alarm level	High coolingair/coolingwatertemperature High generator load Malfunction in the instrument loop	Acknowledge the alarm Check possible causes If possible reduce the reactive power output Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT025ZA02 SIGNAL ERROR	A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT030 GEN STAT TEMP PH1 LIM_1_TR_H	The temperature in the generator stator has reached alarm level	High coolair/coolwatertemperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes If possible reduce the reactive power output Unload the turbine manually and wait for the temperature to decrease	-

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Author	L. Folcker Nyberg		Doc. kind:	Fault-finding instruction	Doc.	B4555 & DC103	Ref.			
Appr.	Jonas Dicksen		Title	Fault Procedures	Des.		Des.			
Project	Yamama 6 Extension				Resp. dept.		Order n	10. B45	555	
				CIEMENIC	Document num	ber	L	_ang.	Rev ind.	Sheet 66
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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
					Contact SIEMENS for further actions	
06MKA10CT030 GEN STAT TEMP PH1 LIM_2_TR_H	Prio 1		The temperature in the generator stator has reached alarm level 2	High coolair/coolwater temperature. Malfunction in the instrument loop.	Acknowledge the alarm. Check possible causes. If possible reduce the reactive power output. Unload the turbine manually and wait for the temperature to decrease. Contact SIEMENS for further actions.	
06MKA10CT030ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT030ZT01 HH STATOR TEMP PH1		U_T 90	The temperature in the generator stator has reached shutdown level	High coolair/coolwater temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MKA10CT035 GEN STAT TEMP PH2 LIM_1_TR_H			The temperature in the generator stator has reached alarm level	High coolair/coolwater temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes If possible reduce the reactive power output Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT035 GEN STAT TEMP PH2 LIM_2_TR_H	Prio 1		The temperature in the generator stator has reached alarm level 2	High coolair/coolwater temperature. Malfunction in the instrument loop.	Acknowledge the alarm. Check possible causes. If possible reduce the reactive power output. Unload the turbine manually and wait for the temperature to decrease. Contact SIEMENS for further actions.	
06MKA10CT035ZA02 SIGNALERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT035ZT01 HH STATOR TEMP PH2		U_T 90	The temperature in the generator stator has reached shutdown level	High coolair/coolwater temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically

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Signal	FC	Туре	Alarm Description	Possible Causes Operator Action		Automatic Action
06MKA10CT040 GEN STAT TEMP PH3 LIM_1_TR_H			The temperature in the generator stator has reached alarm level	High coolair/coolwater temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes If possible reduce the reactive power output Unload the turbine manually and wait for the temperature to decrease Contact SIEMENS for further actions	-
06MKA10CT040 GEN STAT TEMP PH3 LIM_2_TR_H	Prio 1		The temperature in the generator stator has reached alarm level 2	High coolair/coolwatertemperature. Malfunction in the instrument loop.	Acknowledge the alarm. Check possible causes. If possible reduce the reactive power output. Unload the turbine manually and wait for the temperature to decrease. Contact SIEMENS for further actions.	
06MKA10CT040ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CT040ZT01 HH STATOR TEMP PH3		U_T 90	The temperature in the generator stator has reached shutdown level	High coolair/coolwater temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MKA10CY005 VIBR GENERATOR DE LIM_1_TR_H			The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MKA10CY005ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06MKA10CY005ZT01 HH VIBRATION GEN DE		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically

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Signal	nal FC Type Alarm Description Possible Causes Operator Activ	Operator Action	Automatic Action			
06MKA10CY010 VIBR GENERATOR NDE LIM_1_TR_H			The vibration in the bearing has reached alarm level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the alarm Check possible causes Shutdown turbine Contact SIEMENS for further actions	-
06MKA10CY010ZT01 HH VIBRATION GEN NDE		TR	The vibration in the bearing has reached shutdown level	High vibration level High lube oil temperature Low lube oil pressure High bearing temperature Malfunction in the instrument loop	Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06MKY10EG001XE01N STN 5 FAULTY			The digital voltage regulator has indicated serious fault of internal function		Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MKY10EM901ZA01 FCR CONTROL			The votage regulator has been switch to field current regulator (manual) control. This can have been done manually or automatically	Malfunction of measuring loops	Acknowledge the alarm Monitor and adjust the generator voltage with the field current regulator Investigate why the field current regulator has been selected Check possible causes	-
06MKY10EM901ZA02 BUS FAILURE AF100-54			There is a fault in the Advant Fieldbus 100 communication between AC400 and this AC100 station	Malfunction of the AF100, check status and function with a engineering station	Acknowledge the alarm Check possible causes	-
06MKY10EM901ZA03 AVR STARTBLOCKED		SB	A summary fault alarm from the voltage regulator	See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes The generator should be stopped at a suitable time for fault tracing	-
06MKY10EM901ZA04 TRIPPED MCB PMG		SB	The miniature circuit breaker of "permanent excited generator" has released	Overload/shortcircuitin connected equipment Wiring faults See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MKY10EM901ZA05 ERROR I/O BOARD		SB	The voltage regulator internal supervision of I/O boards has indicated a fault	Voltage supply failure See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06MKY10EM901ZA06 DSTY NOT OK		SB	The DSTY has indicated a internal fault	See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06MKY10EM901ZA07 TRIPPED MCB PT		SB	One of the miniature circuit breakers has released	Overload/shortcircuitin connected equipment Wiring faults See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06MKY10EM901ZA08 IF MAX			The field current limiter in the voltage regulator is engaged	It is tryed to operat the generator at a point outside the allowed operation condition See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Reduce the excitation by adjusting the voltage reulator setpoint	-
06MKY10EM901ZA09 STATOR CURRENT LIMIT			The stator under current limiter in the voltage regulator is engaged	It is tryed to operat the generator at a point outside the allowed operation condition See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check load control setpoint Check possible causes Contact SIEMENS for further actions	-
06MKY10EM901ZA10 TRIPPED MCB CONV 1		SB	The miniature circuit breaker for power supply to converter no 1 has released	Overload/shortcircuitin connected equipment (DSTS 106) Wiring faults See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes	-
06MKY10EM901ZA11 UNDER EXCITATION			The under excitation limiter in the voltage regulator is engaged	It is tryed to operat the generator at a point outside the allowed by operation condition See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Increase the excitation by adjusting the voltage reulator setpoint	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06MKY10EM901ZA12 MAX V/HZ			The voltage/frequency limiter in the voltage regulator is engaged The limiter reduces the voltage when the frequency is below nominal frequency. The purpose is to protect equipment connected to the generator voltage from over-fluxing	Low frequency Malfunction in the voltage regulator See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Decrease the excitation by adjusting the voltage reulator setpoint	-
06MKY10EM901ZA13 SETP OUT OF RANGE			A setpoint in the voltage regulator is out of range	-	Acknowledge the alarm Adjust the setpoint to correct value	-
06MKY10EM901ZA15 ERROR DSTS		SB	A trigger pulse equipment fault has tripped the voltage regulator	Overload/shortcircuitin connected equipment Wiring faults See subsupliers documentation concerning fault tracing	Acknowledge the alarm Check possible causes Check that no fault remains in the voltage regulator Resychronize to the net	-
06MKY10EM901ZA16 BACK UP IN OPERATION		SB	Back up regulator is in operation due to a fault in the digital voltage regulator	-	Acknowledge the alarm Monitor and adjust the generator voltage with manual control at the back up panel Check additional alarm to establish the reason	-
06MKY10EM901ZT01 ROTATING DIODE FAULT		TR	The diode failure supervision relay has been activated	Malfunction of the diodes in the rotation rectifier for the exciter	Acknowledge the shutdown alarm Stop the turbine unit Check possible causes	The generator circuit breaker has opened automatically
06MKY10EM901ZT02 EXCITATIONTRIP		TR	The generator lose its excitation.	Internal error in AVR-equipment.	Acknowledge the alarm. Stop the turbine unit. Check possible causes.	
06MKY10GS001 FIELD BREAKER			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault:	-

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Signal	FC T	уре	Alarm Description	Possible Causes	Operator Action	Automatic Action
					Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	
06SAA 10AN005 AUX ROOM FAN 1			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06SAA10AN005XN11 AUX ROOM FAN 1 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06SAA10AN010 AUX ROOM FAN 2			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06SAA10AN010XN11 AUX ROOM FAN 2 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06SAA10CP005 AUX ROOM VENT FAN DP LIM_1_TR_L			The diff. pressure has reached alarm level.	Malfunction in the instr. loop. Aux. room door not closed.	Acknowledge the alarm. Check possible causes.	

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action			
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06SAA10CP005ZA02 SIGNALERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06SAE40CP015 FILT DIFF PRESS GEN LIM_1_TR_H			The differential pressure between the AC-generator room and the air intake has reached alarm level.		<ol> <li>Acknowledge the alarm</li> <li>Contact the technician</li> <li>Technical actions</li> <li>Check the filter and change/clean when necessary</li> <li>Check the differential pressure transmitter.</li> </ol>				
06SAE40CP015ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-			
06SAG10AB001ZP01 SHUT OFF DAMP GG CL			Some of the chimney dampers may have been closed in auxiliary room or the inlet.	Valve, solenoid or switch problem	<ol> <li>Acknowledge the alarm</li> <li>Check the dampers</li> <li>Check the actual switch and associated wiring</li> </ol>	Interlocks start of fans in GG-room and auxiliary apparatus room.			
06SAG10AN005 GG ROOM FAN 1			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the type circuit	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Acknowledge the alarm Check the event list for reason of the alarm Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-			
06SAG10AN005XN11 GG ROOM FAN 1 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-			
06SAG10AN010 GG ROOM FAN 2			There is either a "Position fault", a "Motor control center fault" or a "Control mode fault" in the	Position fault: Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm	-			

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
			type circuit	Motor control center fault: Malfunction in the instrument loop/s Malfunction in the switchgear	Position fault: & Motor control center fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	
06SAG10AN010XN11 GT ROOM FAN 2 NSF			There is an abnormal switchgear function for this object	Overload/shortcircuitin connected equipment Malfunction in the switchgear for this object	Acknowledge the alarm Check possible causes	-
06SAG10CP005 DIFF PRESS GT ROOM LIM_1_TR_H			The differential pressure between the gas turbine room and outside the enclosure has reached alarm level	Clogged air filter Wrong position of the shutters in the ventilation channels Malfunction in the instrument loop	Make sure that no one is inside the enclosure (dorr is hard to open at high dp) Acknowledge the alarm Check possible causes	-
06SAG10CP005 DIFF PRESS GT ROOM LIM_1_TR_L			The differential pressure between the gas turbine room and outside the enclosure has reached alarm level	Clogged air filter Wrong position of the shutters in the ventilation channels Malfunction in the instrument loop Malfunction of the ventilation fan	Acknowledge the alarm Check possible causes	-
06SAG10CP005ZA02 SIGNAL ERROR			A signal error of analogue measurement has been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06SAG10CP010 GT VENT FAN DP LIM_1_TR_L			The pressure difference across the ventilation fan has reached alarm level	Malfunction in the instrument loop Malfunction of the ventilation fan	Acknowledge the alarm Check possible causes	-
06SAG10CP010ZA02 SIGNAL ERROR			A signal error of analogue measurementhas been detected.	Check the measurement loop of the analogue signal The error can be short circuit, open circuit, overflow or other fault	Acknowledge the alarm Check possible causes	-
06SAG10CP010ZT01 LL GG VENT FAN DP		TR	The pressure difference across the ventilation fan has reached	Malfunction in the instrument loop Malfunction of the ventilation fan	Acknowledge the shutdown alarm Reset the safety system	The turbine has shutdown automatically

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
			shutdown level		Check possible causes	
06SAG10EA901 GG-ROOM VENT FG			There is either a "Position fault" or a "Control mode fault" in the function group	Malfunction in the instrument loop/s Failure to indicate on or off	Acknowledge the alarm Check the event list for reason of the alarm Position fault: Check possible causes Control mode fault: Investigate the reason for this selection Reset the selection to AUTO	-
06SFY10CQ005ZT01 GAS DET TRIP		TR	The gas detector has reached shutdown level (>25%LEL)	Leakage from the fuel pipes and hoses Malfunction in the instrument loop	Make sure that no one is inside the enclosure Acknowledge the shutdown alarm Reset the safety system Check possible causes Contact SIEMENS for further actions	The turbine has shutdown automatically
06SFY10EG005XE01N GAS DET FAULT		SB	Fault in gas detection equipment or loss of power supply	Overload/shortcircuitin gas detection equipment Malfunktion in one of the instrument loop	Acknowledge the alarm Check possible causes Reset alarm on the gas detection rack	-
06SFY10EG005XH11N H LEVEL GAS DET			The gas detector has reached alarm level (>10%LEL)	Leakage from the fuel pipes and hoses Malfunction in the instrument loop	Make sure that no one is inside the enclosure Acknowledge the alarm Check possible causes Contact SIEMENS for further actions	-
06SGJ10EE001XE01N FIRE SYST BLOCKED		SB	The fire fighting system has been blocked	Malfunction in the fire fighting equipment	Acknowledge the alarm Investigate the reason why the fire fighting system is manually blocked Check possible causes	-
06SGJ10EE002XE01N FIRE WARNING		SB	The fire system indicates fire from one section	Malfunction in the instument loops High temperature in the enclosure due to lack of ventilation	Make sure that no one is inside the enclosure Check for possible fire and extinguish it if nessecary Acknowledge the alarm Check possible causes	-

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Signal	FC	Туре	Alarm Description	Possible Causes	Operator Action	Automatic Action
06SGJ10EE003ZT01 FIRE (ALARM)TRIP		TR	The fire system indicates fire from more then one section	Malfunction in the instument loops High temperature in the enclosure due to lack of ventilation	Make sure that no one is inside the enclosure Check for possible fire and extinguish it if nessecary Acknowledge the shutdown alarm Reset the safety system Check possible causes	The turbine has shutdown automatically The CO2 system will be released unlees it is manually blocked
06SGJ10EE004XE01N FIRE EQ FAULT		SB	Fault signal from fire fighting detectors or alarm initiating circuit	Malfunction in one of the instrument loop Power supply fault / empty battery	<ol> <li>Acknowledge the alarm</li> <li>Investigate the nature of the fault at the central fire alarm panel (CYE19) and rectify if possible by using of sub suppliers documentation.</li> <li>If the fault tracing is unsuccessful and futher action is required, contact Siemens</li> </ol>	-
06SGJ10EE004XP11N CO2 VALVE RELEASED			The pressure switch in the CO2 manifold is activated	Fire inside the enclosure Malfunction in the instument loops High temperature in the enclosure due to lack of ventilation	Make sure that no one is inside the enclosure, CO2 is released Acknowledge the alarm Verify that the CO2 system is released Check possible causes Change CO2 bottles Trace the source of the fire	The CO2 bottles has been released

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