



Engine Room Simulator

LM2500 Gas Turbine – GT22

Variable Lists

Department/Author:

Approved by:

Håkon Dyrvik

Arild Hermansen

© 2003 KONGSBERG MARITIME SHIP SYSTEMS AS

All rights reserved

No part of this work covered by the copyright
hereon may be reproduced or otherwise copied
without prior permission from
KONGSBERG MARITIME SHIP SYSTEMS AS



DOCUMENT STATUS

Issue No.	Date/Year	Inc. by	Issue No.	Date/Year	Inc. by
SO-1016-A	21-Sep-01	HD/beba			

CHANGES IN DOCUMENT

Issue No.	ECO No.	Paragraph No.	Paragraph Heading/ Description of Change

TABLE OF CONTENTS

Section	Page
1. DIRECTORY LIST.....	1
2. VARIABLE LIST PAGES.....	2
2.1 Page: 20000 MD200** GT1 Fuel Supply	2
2.2 Page: 20001 MD200** GT1 Fuel Supply Valves	2
2.3 Page: 20002 MD200** GT2 Fuel Supply	3
2.4 Page: 20003 MD200** GT2 Fuel Supply Valves	3
2.5 Page: 20100 MD201** GT1 Lube Oil System	4
2.6 Page: 20101 MD201** GT1 Lube Oil System	4
2.7 Page: 20102 MD201** GT1 Lube Oil Valves.....	5
2.8 Page: 20200 MD202** GT1 Starting System	5
2.9 Page: 20300 MD203** GT1 Fuel System	6
2.10 Page: 20400 MD204** GT1 Enclosure Ventilation	6
2.11 Page: 20401 MD204** GT1 Fire Extinguish	7
2.12 Page: 20500 MD205** GT1 Electric Generator (1 of 2)	7
2.13 Page: 20501 MD205** GT1 Electric Generator (2 of 2)	8
2.14 Page: 20502 MD205** GT1 Water Brake.....	8
2.15 Page: 20700 MD207** GT1 Speed Controller.....	9
2.16 Page: 20701 MD207** GT1 Speed Controller Feed Forward.....	9
2.17 Page: 20900 MD209** GT1 Miscellaneous	10
2.18 Page: 25100 MD251** GT2 Lube Oil System	10
2.19 Page: 25101 MD251** GT2 Lube Oil System	11
2.20 Page: 25102 MD251** GT2 Lube Oil Valves.....	11
2.21 Page: 25200 MD252** GT2 Starting System	12
2.22 Page: 25300 MD253** GT2 Fuel System	12
2.23 Page: 25400 MD254** GT2 Enclosure Ventilation	13
2.24 Page: 25401 MD254** GT2 Fire Extinguish	13
2.25 Page: 25500 MD255** GT2 Electric Generator (1 of 2)	14
2.26 Page: 25501 MD255** GT2 Electric Generator (2 of 2)	14
2.27 Page: 25502 MD255** GT2 Water Brake.....	15
2.28 Page: 25700 MD257** GT2 Speed Controller.....	15
2.29 Page: 25701 MD257** GT2 Speed Controller Feed Forward.....	16
2.30 Page: 25900 MD259** GT2 Miscellaneous	16
2.31 Page: 30000 MD300** GT1 Status (1 of 2).....	17
2.32 Page: 30001 MD300** GT1 Status (2 of 2).....	17
2.33 Page: 30010 MD300** GT2 Status (1 of 2).....	18
2.34 Page: 30011 MD300** GT2 Status (2 of 2).....	18
2.35 Page: 40000 MD400** Ambient Data	19
2.36 Page: 50000 MD500** Fuel Data	19
2.37 Page: 82000 MD820** GT1 Local Operating Panel no.1 (1 of 3) ...	20
2.38 Page: 82001 MD820** GT1 Local Operating Panel no.1 (2 of 3) ...	20
2.39 Page: 82002 MD820** GT1 Local Operating Panel no.1 (3 of 3) ...	21
2.40 Page: 82100 MD821** GT1 Local Operating Panel no.2 (1 of 8) ...	21
2.41 Page: 82101 MD821** GT1 Local Operating Panel no.2 (2 of 8) ...	22
2.42 Page: 82102 MD821** GT1 Local Operating Panel no.2 (3 of 8) ...	22
2.43 Page: 82103 MD821** GT1 Local Operating Panel no.2 (4 of 8) ...	23
2.44 Page: 82104 MD821** GT1 Local Operating Panel no.2 (5 of 8) ...	23



2.45	Page: 82105 MD821**	GT1 Local Operating Panel no.2 (6 of 8)....	24
2.46	Page: 82106 MD821**	GT1 Local Operating Panel no.2 (7 of 8)....	24
2.47	Page: 82107 MD821**	GT1 Local Operating Panel no.2 (8 of 8)....	25
2.48	Page: 92000 MD920**	GT2 Local Operating Panel no.1 (1 of 3)....	25
2.49	Page: 92001 MD920**	GT2 Local Operating Panel no.1 (2 of 3)....	26
2.50	Page: 92002 MD920**	GT2 Local Operating Panel no.1 (3 of 3)....	26
2.51	Page: 92100 MD921**	GT2 Local Operating Panel no.2 (1 of 8)....	27
2.52	Page: 92101 MD921**	GT2 Local Operating Panel no.2 (2 of 8)....	27
2.53	Page: 92102 MD921**	GT2 Local Operating Panel no.2 (3 of 8)....	28
2.54	Page: 92103 MD921**	GT2 Local Operating Panel no.2 (4 of 8)....	28
2.55	Page: 92104 MD921**	GT2 Local Operating Panel no.2 (5 of 8)....	29
2.56	Page: 92105 MD921**	GT2 Local Operating Panel no.2 (6 of 8)....	29
2.57	Page: 92106 MD921**	GT2 Local Operating Panel no.2 (7 of 8)....	30
2.58	Page: 92107 MD921**	GT2 Local Operating Panel no.2 (8 of 8)....	30
2.59	Page: 93000 MD930**	SCENARIO - FREE TAGS.....	31
2.60	A: X93001 - FREE TAG.....		31



1 DIRECTORY LIST

Page:20000	Fuel Supply System
Page:20100	GT1 Lube Oil System
Page:20200	GT1 Starting System
Page:20300	GT1 Fuel System
Page:20400	GT1 Enclosure Ventilation
Page:20401	GT1 Fire Extinguish
Page:20500	GT1 Load System
Page:20700	GT1 Speed Controller
Page:20900	GT1 Miscellaneous
Page:25100	GT2 Lube Oil System
Page:25200	GT2 Starting System
Page:25300	GT2 Fuel System
Page:25400	GT2 Enclosure Ventilation
Page:25401	GT2 Fire Extinguish
Page:25500	GT2 Load System
Page:25700	GT2 Speed Controller
Page:25900	GT2 Miscellaneous
Page:30000	GT1 Status
Page:30010	GT2 Status
Page:40000	Ambient Data
Page:50000	Fuel Data
Page:82000	GT1 Local Operating Panel no.1
Page:82100	GT1 Local Operating Panel no.2
Page:92000	GT2 Local Operating Panel no.1
Page:92100	GT2 Local Operating Panel no.2
Page:93000	SCENARIO - FREE TAGS

2 VARIABLE LIST PAGES

2.1 Page:20000 MD200** GT1 Fuel Supply

A:	R20001	<0-1>			GT1 Booster Pump Start/Stop
B:					
C:	L20001	%	L=10.0	H=98.0	GT1 Fuel Day Tank Level
D:	L20003	%	L=40.0	H=---	GT1 Fuel Exp.Tank Level
E:					
F:	P20001	bara	L=---	H=1.9	GT1 Fuel Supply Filter Diff Pressure
G:	P20005	bara	L=---	H=1.9	GT1 Suction Filter Diff Pressure
H:	P20007	bar	L=0.5	H=---	GT1 Fuel Supply Pressure
I:					
J:	G20001	kg/h			GT1 Fuel Supply Flow
K:					
L:					
M:					
N:					
O:					
P:					
Q:					
R:					
S:					
T:					

2.2 Page:20001 MD200** GT1 Fuel Supply Valves

A:	V20001	<0-1>			GT1 Fuel Day Tank Suction Valve
B:	V20002	%			GT1 Fuel Booster Pump Suction Valve
C:	V20003	%			GT1 Fuel Booster Pump Discharge Valve
D:	V20004	%			GT1 Fuel Filter Drain Valve
E:	V20005	%			GT1 Fuel Filter Discharge Valve
F:	V20006	<0-1>			GT1 Fuel Main Supply Valve
G:	V20007	%			GT1 Fuel Exp.Tank Overflow Valve
H:	V20008	<0-1>			GT1 Fuel Booster Pump Relief Valve
I:	V20009	<0-1>			GT1 Fuel Exp.Tank Drain Valve
J:	V20010	%			GT1 Fuel Day Tank Make Up Valve
K:					
L:	V20011	%			Fuel Day Tanks Crossover Valve
M:	V20012	%			Fuel Supply Crossover Valve
N:					
O:					
P:					
Q:					
R:					
S:					
T:					



2.3 Page:20002 MD200** GT2 Fuel Supply

A:	R20021	<0-1>			GT2 Booster Pump Start/Stop
B:					
C:	L20002	%	L=10.0	H=98.0	GT2 Fuel Day Tank Level
D:	L20004	%	L=40.0	H=---	GT2 Fuel Exp.Tank Level
E:					
F:	P20002	bara	L=---	H=1.9	GT2 Fuel Supply Filter Diff Pressure
G:	P20006	bara	L=---	H=1.9	GT2 Suction Filter Diff Pressure
H:	P20008	bar	L=0.5	H=---	GT2 Fuel Supply Pressure
I:					
J:	G20002	kg/h			GT2 Fuel Supply Flow
K:					
L:					
M:					
N:					
O:					
P:					
Q:					
R:					
S:					
T:					

2.4 Page:20003 MD200** GT2 Fuel Supply Valves

A:	V20021	<0-1>			GT2 Fuel Day Tank Suction Valve
B:	V20022	%			GT2 Fuel Booster Pump Suction Valve
C:	V20023	%			GT2 Fuel Booster Pump Discharge Valve
D:	V20024	%			GT2 Fuel Filter Drain Valve
E:	V20025	%			GT2 Fuel Filter Discharge Valve
F:	V20026	<0-1>			GT2 Fuel Main Supply Valve
G:	V20027	%			GT2 Fuel Exp.Tank Overflow Valve
H:	V20028	<0-1>			GT2 Fuel Booster Pump Relief Valve
I:	V20029	<0-1>			GT2 Fuel Exp.Tank Drain Valve
J:	V20030	%			GT2 Fuel Day Tank Make Up Valve
K:					
L:	V20011	%			Fuel Day Tanks Crossover Valve
M:	V20012	%			Fuel Supply Crossover Valve
N:					
O:					
P:					
Q:					
R:					
S:					
T:					

2.5 Page:20100 MD201** GT1 Lube Oil System

A:	R20101	rpm			GT1 LO Scavenge Pump
B:	R20102	rpm			GT1 LO Supply Pump
C:					
D:	L20101	%	L=10.0	H=98.0	GT1 LO Storage Tank Level
E:					
F:	T20101	degC	L=---	H=100.0	GT1 LO Temp after cooler
G:	T20103	degC	L=---	H=120.0	GT1 LO Temp before cooler
H:	T20104	degC	L=---	H=100.0	GT1 LO Temp out of Storage Tank
I:					
J:	P20101	bara	L=---	H=1.4	GT1 LO Scavenge Filter1 Diff Pressure
K:	P20102	bara	L=---	H=1.4	GT1 LO Scavenge Filter2 Diff Pressure
L:	P20103	bara	L=---	H=1.4	GT1 LO Supply Filter1 Diff Pressure
M:	P20104	bara	L=---	H=1.4	GT1 LO Supply Filter2 Diff Pressure
N:	P20105	bar	L=1.3	H=---	GT1 LO Supply Pressure
O:					
P:	G20101	kg/h			GT1 LO Supply Pump Flow
Q:	G20102	kg/h			GT1 LO Scavenge Pump Flow
R:					
S:					
T:					

2.6 Page:20101 MD201** GT1 Lube Oil System

A:	T20111	degC	L=---	H=120.0	GT1 LO Scavenge Temp A
B:	T20112	degC	L=---	H=120.0	GT1 LO Scavenge Temp B
C:	T20113	degC	L=---	H=120.0	GT1 LO Scavenge Temp C
D:	T20114	degC	L=---	H=120.0	GT1 LO Scavenge Temp D
E:	T20115	degC	L=---	H=120.0	GT1 LO Scavenge Temp E (gearbox)
F:					
G:					
H:					
I:					
J:					
K:					
L:					
M:					
N:					
O:					
P:					
Q:					
R:					
S:					
T:					



2.7 Page:20102 MD201 ** GT1 Lube Oil Valves

A: V20101	%			GT1 LO Storage Tank Make Up Valve
B: V20102	%			GT1 LO Storage Tank Drain Valve
C:				
D: V20103	%			GT1 LO Scavenge Filter1 Valve
E: V20104	%			GT1 LO Scavenge Filter2 Valve
F: V20105	%			GT1 LO Supply Filter1 Valve
G: V20106	%			GT1 LO Supply Filter2 Valve
H:				
I:				
J:				
K:				
L:				
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				

2.8 Page:20200 MD202 ** GT1 Starting System

A: V20201	<0-1>			GT1 Start Air Valve
B: V20202	<0-1>			GT1 Fuel Supply Valve
C: X20201	<0-1>			GT1 Starter Running
D: X30001	<0-1>			GT1 Ignitor on
E:				
F: X20202	<0-1>			GT1 Water Wash Start
G: X20203	<0-1>			GT1 Water Wash In Progress
H: X20204	<0-1>			GT1 Water Wash Finished
I:				
J: P20201	bar	L=2.0	H=---	GT1 Start Air Pressure
K: N20201	rpm	L=---	H=9900.0	GT1 GG Speed
L: N20202	rpm	L=---	H=4000.0	GT1 PT Speed
M: P20202	bar	L=---	H=80.0	GT1 Fuel Manifold Pressure
N: T20201	degC	L=---	H=885.0	GT1 PT Inlet Gas Temperature (T 5.4)
O: P20203	bar			GT1 HP Air Pressure
P:				
Q:				
R:				
S:				
T:				

2.9 Page:20300 MD203** GT1 Fuel System

A: V20301	<0-1>			GT1 Fuel Shut Off Valve 1
B: V20302	<0-1>			GT1 Fuel Shut Off Valve 2
C: V20303	<0-1>			GT1 Fuel Pressurizing Valve
D: V20304	<0-1>			GT1 Fuel None Return Valve 1
E: V20305	<0-1>			GT1 Fuel None Return Valve 2
F: V20306	<0-1>			GT1 Fuel Purge Valve
G:				
H: R20301	<0-1>			GT1 Fuel Pump Running
I: P20301	bar	L=---	H=1.9	GT1 Fuel Filter Diff. Pressure
J:				
K: X20301	%			GT1 Variable Stator Vane Position
L: T20301	degC	L=---	H=55.0	GT1 Fuel Suction Temperature
M: T20302	degC	L=---	H=50.0	GT1 Air Inlet Temperature (T 2)
N:				
O: X20304	<0-1>			GT1 Fuel Valve Test1
P: X20305	<0-1>			GT1 Fuel Valve Test2
Q:				
R:				
S:				
T:				

2.10 Page:20400 MD204** GT1 Enclosure Ventilation

A: T30001	degC	L=---	H=175.0	GT1 Enclosure Temperature
B:				
C: X82004	<0-1>			GT1 Vent Damper Open
D: X82016	<0-1>			GT1 Post Shutdown Fan On
E:				
F: X82027	<0-1>			GT1 Enclosure Heater On
G: X20401	<0-1>			GT1 Enclosure Heater Thermostat
H: X20402	<0-1>			GT1 Enclosure Air Blower
I:				
J:				
K:				
L:				
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				



2.11 Page:20401 MD204** GT1 Fire Extinguish

A: X20410	<0-1>			GT1 Enclosure Fire
B:				
C: X20411	<0-1>	L=---	H=1.0	GT1 Fire Alarm
D: X20417	<0-1>	L=---	H=1.0	GT1 Fire Flame Detector (UV)
E: X20418	<0-1>	L=---	H=1.0	GT1 Fire Temperature Switch
F: X20412	<0-1>	L=---	H=1.0	GT1 Fire Alarm Switch (manual)
G:				
H: X20413	<0-1>			GT1 Fire Extinguisher (1=full, 0=empty)
I: X20414	<0-1>			GT1 Fire Extinguisher Valve
J: X82131	<0-1>	L=---	H=1.0	GT1 Fire Exting. Release Inhibit
K: X82132	<0-1>			GT1 Fire Exting. Release Unit Power On
L: X20415	<0-1>			GT1 Fire Extinguisher Manual Release
M: X20416	<0-1>			GT1 Fire Extinguisher Auto Release
N:				
O: X82133	<0-1>	L=---	H=1.0	GT1 Flame Detector Failure
P:				
Q: X20419	<0-1>			GT1 Fire Alarm Reset
R:				
S:				
T:				

2.12 Page:20500 MD205** GT1 Electric Generator (1 of 2)

A: V20501	V			GT1 El. Bus Bar Voltage
B: F20501	Hz			GT1 El. Bus Bar Frequency
C:				
D: V20502	V			GT1 El. Generator Voltage
E: F20502	Hz			GT1 El. Generator Frequency
F:				
G: E20501	kW	L=---	H=20000.0	GT1 El. Generator Active Power
H: E20502	kW			GT1 El. Generator Reactive Power
I: I20501	A	L=---	H=15000.0	GT1 El. Generator Current
J:				
K: X20501	<0-3>	L=---	H=1.0	GT1 El. Breaker Trip
L: X20502	<0-1>			GT1 El. Breaker
M: X20503	<0-1>			GT1 El. Generator Clutch
N: X20504	<0-1>			GT1 El. Generator Magnetization Switch
O: X20505	%			GT1 El. Generator Magnetization Setting
P:				
Q:				
R:				
S:				
T:				

2.13 Page:20501 MD205** GT1 Electric Generator (2 of 2)

A: X20510	<0-1>	GT1 El. Generator Increase Command
B: X20511	<0-1>	GT1 El. Generator Decrease Command
C:		
D: X20512	%/sec	GT1 El. Generator INC/DEC Rate
E:		
F: I20502	A	GT1 El. Breaker Overload Limit
G: I20503	A	GT1 El. Breaker Rev.Power Limit
H:		
I: V20503	V	GT1 El. Generator Nominal Voltage
J: F20503	Hz	GT1 El. Generator Nominal Frequency
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		

2.14 Page:20502 MD205** GT1 Water Brake

A: X20514	<0-1>	GT1 Water Brake Clutch
B: N20501	rpm	GT1 Water Brake Speed
C: E20511	kW L=--- H=20000.0	GT1 Water Brake Power
D: Q20512	kNm L=--- H=55.0	GT1 Water Brake Torque
E:		
F: Q20511	kNm	GT1 Water Brake Torque Setpoint
G: Q20513	kNm	GT1 Water Brake Intermed. Torque Signal
H:		
I: X20521	<0-1>	GT1 Brake Variable Torque Start Switch
J: X20522	<1-3>	GT1 Brake Type (1=Const/2=Ramp/3=Sine)
K: Q20523	kNm	GT1 Brake Max Torque
L: Q20524	kNm	GT1 Brake Min Torque
M: X20525	sec	GT1 Brake Cyclic Period (Ramp or Sine)
N: X20526	%	GT1 Brake Relative Noise
O:		
P: X20530	sec	GT1 Brake Transfer function 1 T1
Q: X20531	sec	GT1 Brake Transfer function 1 T2
R: X20532	sec	GT1 Brake Transfer function 2 T1
S: X20533	sec	GT1 Brake Transfer function 2 T2
T:		



2.15 Page:20700 MD207** GT1 Speed Controller

A: X20730	<0-1>	GT1 Speed Contr On
B: X20731	<0-1>	GT1 Speed Contr Auto
C: Z20732	-	GT1 Speed Contr Setpoint
D: Z20733	-	GT1 Speed Contr Feed Back
E: Z20734	%	GT1 Speed Contr PID Output
F: Z20735	%	GT1 Speed Contr Deviation
G: C20736	-	GT1 Speed Contr Gain
H: C20737	sec	GT1 Speed Contr Integration Time
I: C20738	sec	GT1 Speed Contr Derivation Time
J:		
K: Z20770	%	GT1 Speed Contr Output
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		

2.16 Page:20701 MD207** GT1 Speed Controller Feed Forward

A: Z20740	%	GT1 Speed Contr Feed Forward 1 Input
B: C20741	-	GT1 Speed Contr Feed Forward 1 Gain
C: C20742	sec	GT1 Speed Contr Feed Forward 1 TC 1
D: C20743	sec	GT1 Speed Contr Feed Forward 1 TC 2
E: Z20744	%	GT1 Speed Contr Feed Forward 1 Output
F:		
G: Z20750	%	GT1 Speed Contr Feed Forward 2 Input
H: C20751	-	GT1 Speed Contr Feed Forward 2 Gain
I: C20752	sec	GT1 Speed Contr Feed Forward 2 TC 1
J: C20753	sec	GT1 Speed Contr Feed Forward 2 TC 2
K: Z20754	%	GT1 Speed Contr Feed Forward 2 Output
L:		
M: Z20760	%	GT1 Speed Contr Feed Forward 3 Input
N: C20761	-	GT1 Speed Contr Feed Forward 3 Gain
O: C20762	sec	GT1 Speed Contr Feed Forward 3 TC 1
P: C20763	sec	GT1 Speed Contr Feed Forward 3 TC 2
Q: Z20764	%	GT1 Speed Contr Feed Forward 3 Output
R:		
S:		
T:		

2.17 Page:20900 MD209** GT1 Miscellaneous

A: X30003 <0-1> GT1 Torque Limit High Select Signal
 B:
 C: T30001 degC L=--- H=175.0 GT1 Enclosure Temperature
 D:
 E:
 F:
 G:
 H:
 I:
 J:
 K:
 L:
 M:
 N:
 O:
 P:
 Q:
 R:
 S:
 T:

2.18 Page:25100 MD251** GT2 Lube Oil System

A: R25101 rpm GT2 LO Scavenge Pump
 B: R25102 rpm GT2 LO Supply Pump
 C:
 D: L25101 % L=10.0 H=98.0 GT2 LO Storage Tank Level
 E:
 F: T25101 degC L=--- H=100.0 GT2 LO Temp after cooler
 G: T25103 degC L=--- H=120.0 GT2 LO Temp before cooler
 H: T25104 degC L=--- H=100.0 GT2 LO Temp out of Storage Tank
 I:
 J: P25101 bara L=--- H=1.4 GT2 LO Scavenge Filter1 Diff Pressure
 K: P25102 bara L=--- H=1.4 GT2 LO Scavenge Filter2 Diff Pressure
 L: P25103 bara L=--- H=1.4 GT2 LO Supply Filter1 Diff Pressure
 M: P25104 bara L=--- H=1.4 GT2 LO Supply Filter2 Diff Pressure
 N: P25105 bar L=1.3 H=--- GT2 LO Supply Pressure
 O:
 P: G25101 kg/h GT2 LO Supply Pump Flow
 Q: G25102 kg/h GT2 LO Scavenge Pump Flow
 R:
 S:
 T:



2.19 Page:25101 MD251 ** GT2 Lube Oil System

A: T25111 degC L=--- H=120.0 GT2 LO Scavenge Temp A
 B: T25112 degC L=--- H=120.0 GT2 LO Scavenge Temp B
 C: T25113 degC L=--- H=120.0 GT2 LO Scavenge Temp C
 D: T25114 degC L=--- H=120.0 GT2 LO Scavenge Temp D
 E: T25115 degC L=--- H=120.0 GT2 LO Scavenge Temp E (gearbox)

F:

G:

H:

I:

J:

K:

L:

M:

N:

O:

P:

Q:

R:

S:

T:

2.20 Page:25102 MD251 ** GT2 Lube Oil Valves

A: V25101 % GT2 LO Storage Tank Make Up Valve

B: V25102 % GT2 LO Storage Tank Drain Valve

C:

D: V25103 % GT2 LO Scavenge Filter1 Valve

E: V25104 % GT2 LO Scavenge Filter2 Valve

F: V25105 % GT2 LO Supply Filter1 Valve

G: V25106 % GT2 LO Supply Filter2 Valve

H:

I:

J:

K:

L:

M:

N:

O:

P:

Q:

R:

S:

T:

2.21 Page:25200 MD252** GT2 Starting System

A:	V25201	<0-1>			GT2 Start Air Valve
B:	V25202	<0-1>			GT2 Fuel Supply Valve
C:	X25201	<0-1>			GT2 Starter Running
D:	X40001	<0-1>			GT2 Ignitor on
E:					
F:	X25202	<0-1>			GT2 Water Wash Start
G:	X25203	<0-1>			GT2 Water Wash In Progress
H:	X25204	<0-1>			GT2 Water Wash Finished
I:					
J:	P25201	bar	L=2.0	H=---	GT2 Start Air Pressure
K:	N25201	rpm	L=---	H=9900.0	GT2 GG Speed
L:	N25202	rpm	L=---	H=4000.0	GT2 PT Speed
M:	P25202	bar	L=---	H=80.0	GT2 Fuel Manifold Pressure
N:	T25201	degC	L=---	H=885.0	GT2 PT Inlet Gas Temperature (T 5.4)
O:	P25203	bar			GT2 HP Air Pressure
P:					
Q:					
R:					
S:					
T:					

2.22 Page:25300 MD253** GT2 Fuel System

A:	V25301	<0-1>			GT2 Fuel Shut Off Valve 1
B:	V25302	<0-1>			GT2 Fuel Shut Off Valve 2
C:	V25303	<0-1>			GT2 Fuel Pressurizing Valve
D:	V25304	<0-1>			GT2 Fuel None Return Valve 1
E:	V25305	<0-1>			GT2 Fuel None Return Valve 2
F:	V25306	<0-1>			GT2 Fuel Purge Valve
G:					
H:	R25301	<0-1>			GT2 Fuel Pump Running
I:	P25301	bar	L=---	H=1.9	GT2 Fuel Filter Diff. Pressure
J:					
K:	X25301	%			GT2 Variable Stator Vane Position
L:	T25301	degC	L=---	H=55.0	GT2 Fuel Suction Temperature
M:	T25302	degC	L=---	H=50.0	GT2 Air Inlet Temperature (T 2)
N:					
O:	X25304	<0-1>			GT2 Fuel Valve Test1
P:	X25305	<0-1>			GT2 Fuel Valve Test2
Q:					
R:					
S:					
T:					



2.23 Page:25400 MD254** GT2 Enclosure Ventilation

A: T40001	degC	L=---	H=175.0	GT2 Enclosure Temperature
B:				
C: X92004	<0-1>			GT2 Vent Damper Open
D: X92016	<0-1>			GT2 Post Shutdown Fan On
E:				
F: X92027	<0-1>			GT2 Enclosure Heater On
G: X25401	<0-1>			GT2 Enclosure Heater Thermostat
H: X25402	<0-1>			GT2 Enclosure Air Blower
I:				
J:				
K:				
L:				
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				

2.24 Page:25401 MD254** GT2 Fire Extinguish

A: X25410	<0-1>			GT2 Enclosure Fire
B:				
C: X25411	<0-1>	L=---	H=1.0	GT2 Fire Alarm
D: X25417	<0-1>	L=---	H=1.0	GT2 Fire Flame Detector (UV)
E: X25418	<0-1>	L=---	H=1.0	GT2 Fire Temperature Switch
F: X25412	<0-1>	L=---	H=1.0	GT2 Fire Alarm Switch (manual)
G:				
H: X25413	<0-1>			GT2 Fire Extinguisher (1=full, 0=empty)
I: X25414	<0-1>			GT2 Fire Extinguisher Valve
J: X92131	<0-1>	L=---	H=1.0	GT2 Fire Exting. Release Inhibit
K: X92132	<0-1>			GT2 Fire Exting. Release Unit Power On
L: X25415	<0-1>			GT2 Fire Extinguisher Manual Release
M: X25416	<0-1>			GT2 Fire Extinguisher Auto Release
N:				
O: X92133	<0-1>	L=---	H=1.0	GT2 Flame Detector Failure
P:				
Q: X25419	<0-1>			GT2 Fire Alarm Reset
R:				
S:				
T:				

2.25 Page:25500 MD255** GT2 Electric Generator (1 of 2)

A:	V25501	V			GT2 El. Bus Bar Voltage
B:	F25501	Hz			GT2 El. Bus Bar Frequency
C:					
D:	V25502	V			GT2 El. Generator Voltage
E:	F25502	Hz			GT2 El. Generator Frequency
F:					
G:	E25501	kW	L=---	H=20000.0	GT2 El. Generator Active Power
H:	E25502	kW			GT2 El. Generator Reactive Power
I:	I25501	A	L=---	H=15000.0	GT2 El. Generator Current
J:					
K:	X25501	<0-3>	L=---	H=1.0	GT2 El. Breaker Trip
L:	X25502	<0-1>			GT2 El. Breaker
M:	X25503	<0-1>			GT2 El. Generator Clutch
N:	X25504	<0-1>			GT2 El. Generator Magnetization Switch
O:	X25505	%			GT2 El. Generator Magnetization Setting
P:					
Q:					
R:					
S:					
T:					

2.26 Page:25501 MD255** GT2 Electric Generator (2 of 2)

A:	X25510	<0-1>			GT2 El. Generator Increase Command
B:	X25511	<0-1>			GT2 El. Generator Decrease Command
C:					
D:	X25512	%/sec			GT2 El. Generator INC/DEC Rate
E:					
F:	I25502	A			GT2 El. Breaker Overload Limit
G:	I25503	A			GT2 El. Breaker Rev.Power Limit
H:					
I:	V25503	V			GT2 El. Generator Nominal Voltage
J:	F25503	Hz			GT2 El. Generator Nominal Frequency
K:					
L:					
M:					
N:					
O:					
P:					
Q:					
R:					
S:					
T:					



2.27 Page:25502 MD255** GT2 Water Brake

A: X25514	<0-1>			GT2 Water Brake Clutch
B: N25501	rpm			GT2 Water Brake Speed
C: E25511	kW	L=---	H=20000.0	GT2 Water Brake Power
D: Q25512	kNm	L=---	H=55.0	GT2 Water Brake Torque
E:				
F: Q25511	kNm			GT2 Water Brake Torque Setpoint
G: Q25513	kNm			GT2 Water Brake Intermed. Torque Signal
H:				
I: X25521	<0-1>			GT2 Brake Variable Torque Start Switch
J: X25522	<1-3>			GT2 Brake Type (1=Const/2=Ramp/3=Sine)
K: Q25523	kNm			GT2 Brake Max Torque
L: Q25524	kNm			GT2 Brake Min Torque
M: X25525	sec			GT2 Brake Cyclic Period (Ramp or Sine)
N: X25526	%			GT2 Brake Relative Noise
O:				
P: X25530	sec			GT2 Brake Transfer function 1 T1
Q: X25531	sec			GT2 Brake Transfer function 1 T2
R: X25532	sec			GT2 Brake Transfer function 2 T1
S: X25533	sec			GT2 Brake Transfer function 2 T2
T:				

2.28 Page:25700 MD257** GT2 Speed Controller

A: X25730	<0-1>			GT2 Speed Contr On
B: X25731	<0-1>			GT2 Speed Contr Auto
C: Z25732	-			GT2 Speed Contr Setpoint
D: Z25733	-			GT2 Speed Contr Feed Back
E: Z25734	%			GT2 Speed Contr PID Output
F: Z25735	%			GT2 Speed Contr Deviation
G: C25736	-			GT2 Speed Contr Gain
H: C25737	sec			GT2 Speed Contr Integration Time
I: C25738	sec			GT2 Speed Contr Derivation Time
J:				
K: Z25770	%			GT2 Speed Contr Output
L:				
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				

2.29 Page:25701 MD257** GT2 Speed Controller Feed Forward

A: Z25740	%	GT2 Speed Contr Feed Forward 1 Input
B: C25741	-	GT2 Speed Contr Feed Forward 1 Gain
C: C25742	sec	GT2 Speed Contr Feed Forward 1 TC 1
D: C25743	sec	GT2 Speed Contr Feed Forward 1 TC 2
E: Z25744	%	GT2 Speed Contr Feed Forward 1 Output
F:		
G: Z25750	%	GT2 Speed Contr Feed Forward 2 Input
H: C25751	-	GT2 Speed Contr Feed Forward 2 Gain
I: C25752	sec	GT2 Speed Contr Feed Forward 2 TC 1
J: C25753	sec	GT2 Speed Contr Feed Forward 2 TC 2
K: Z25754	%	GT2 Speed Contr Feed Forward 2 Output
L:		
M: Z25760	%	GT2 Speed Contr Feed Forward 3 Input
N: C25761	-	GT2 Speed Contr Feed Forward 3 Gain
O: C25762	sec	GT2 Speed Contr Feed Forward 3 TC 1
P: C25763	sec	GT2 Speed Contr Feed Forward 3 TC 2
Q: Z25764	%	GT2 Speed Contr Feed Forward 3 Output
R:		
S:		
T:		

2.30 Page:25900 MD259** GT2 Miscellaneous

A: X40003	<0-1>	GT2 Torque Limit High Select Signal
B:		
C: T40001	degC L=--- H=175.0	GT2 Enclosure Temperature
D:		
E:		
F:		
G:		
H:		
I:		
J:		
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		



2.31 Page:30000 MD300* * GT1 Status (1 of 2)

A: E30001 MW L=--- H=20.5 GT1 Power
 B: Q30001 kNm L=--- H=55.0 GT1 Torque
 C:
 D: N20201 rpm L=--- H=9900.0 GT1 GG Speed
 E: N20202 rpm L=--- H=4000.0 GT1 PT Speed
 F:
 G: X30010 mils L=--- H=6.0 GT1 GG Vibration (Self Induced)
 H: X30011 mils L=--- H=6.0 GT1 GG Vibration (PT Induced)
 I: X30012 mils L=--- H=7.0 GT1 PT Vibration (Self Induced)
 J: X30013 mils L=--- H=7.0 GT1 PT Vibration (GG Induced)
 K:
 L: T20302 degC L=--- H=50.0 GT1 Air Inlet Temperature (T 2)
 M: T20201 degC L=--- H=885.0 GT1 PT Inlet Gas Temperature (T 5.4)
 N:
 O: T20111 degC L=--- H=120.0 GT1 LO Scavenge Temp A
 P: T20112 degC L=--- H=120.0 GT1 LO Scavenge Temp B
 Q: T20113 degC L=--- H=120.0 GT1 LO Scavenge Temp C
 R: T20114 degC L=--- H=120.0 GT1 LO Scavenge Temp D
 S: T20115 degC L=--- H=120.0 GT1 LO Scavenge Temp E (gearbox)
 T:

2.32 Page:30001 MD300* * GT1 Status (2 of 2)

A: P30001 bara L=--- H=1.2 GT1 Air Inlet Pressure (PT2)
 B: P30002 bara L=--- H=4.3 GT1 PT Gas Inlet Pressure (PT 5,4)
 C:
 D: P30003 bara L=--- H=20.0 GT1 Compr Discharge Press
 E:
 F: P20202 bar L=--- H=80.0 GT1 Fuel Manifold Pressure
 G: P20105 bar L=1.3 H=--- GT1 LO Supply Pressure
 H:
 I: X30001 <0-1> GT1 Ignitor on
 J: X30002 <0-1> GT1 Self Sustaining
 K: X30004 <0-1> GT1 Ignited
 L:
 M: X30020 <0-1> L=--- H=1.0 GT1 Fire - Emergency Stop
 N: X30021 <0-1> L=--- H=1.0 GT1 Fuel Leak Indicator
 O:
 P: X30022 min GT1 Elapsed Runtime
 Q:
 R: G30001 g/kWh GT1 Specific Fuel Consumption
 S:
 T:

2.33 Page:30010 MD300** GT2 Status (1 of 2)

A: E40001 MW L=--- H=20.5 GT2 Power
 B: Q40001 kNm L=--- H=55.0 GT2 Torque
 C:
 D: N25201 rpm L=--- H=9900.0 GT2 GG Speed
 E: N25202 rpm L=--- H=4000.0 GT2 PT Speed
 F:
 G: X40010 mils L=--- H=6.0 GT2 GG Vibration (Self Induced)
 H: X40011 mils L=--- H=6.0 GT2 GG Vibration (PT Induced)
 I: X40012 mils L=--- H=7.0 GT2 PT Vibration (Self Induced)
 J: X40013 mils L=--- H=7.0 GT2 PT Vibration (GG Induced)
 K:
 L: T25302 degC L=--- H=50.0 GT2 Air Inlet Temperature (T 2)
 M: T25201 degC L=--- H=885.0 GT2 PT Inlet Gas Temperature (T 5.4)
 N:
 O: T25111 degC L=--- H=120.0 GT2 LO Scavenge Temp A
 P: T25112 degC L=--- H=120.0 GT2 LO Scavenge Temp B
 Q: T25113 degC L=--- H=120.0 GT2 LO Scavenge Temp C
 R: T25114 degC L=--- H=120.0 GT2 LO Scavenge Temp D
 S: T25115 degC L=--- H=120.0 GT2 LO Scavenge Temp E (gearbox)
 T:

2.34 Page:30011 MD300** GT2 Status (2 of 2)

A: P40001 bara L=--- H=1.2 GT2 Air Inlet Pressure (PT2)
 B: P40002 bara L=--- H=4.3 GT2 PT Gas Inlet Pressure (PT 5,4)
 C:
 D: P40003 bara L=--- H=20.0 GT2 Compr Discharge Press
 E:
 F: P25202 bar L=--- H=80.0 GT2 Fuel Manifold Pressure
 G: P25105 bar L=1.3 H=--- GT2 LO Supply Pressure
 H:
 I: X40001 <0-1> GT2 Ignitor on
 J: X40002 <0-1> GT2 Self Sustaining
 K: X40004 <0-1> GT2 Ignited
 L:
 M: X40020 <0-1> L=--- H=1.0 GT2 Fire - Emergency Stop
 N: X40021 <0-1> L=--- H=1.0 GT2 Fuel Leak Indicator
 O:
 P: X40022 min GT2 Elapsed Runtime
 Q:
 R: G40001 g/kWh GT2 Specific Fuel Consumption
 S:
 T:



2.35 Page:40000 MD400** Ambient Data

A: T30031	degC	Ambient Air Temperature (outside)
B: X30031	%	Ambient Air Humidity (outside)
C: P30031	bara	Ambient Air Pressure (outside)
D:		
E:		
F:		
G:		
H:		
I:		
J:		
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		

2.36 Page:50000 MD500** Fuel Data

A: C30031	kJ/kg	Nom Fuel Oil Heat Value
B: C30032	kg/cm ³	Nom Fuel Oil Density (at 15 degC)
C: W30031	cSt	Nom Fuel Oil Viscosity (at 40 degC)
D:		
E:		
F:		
G:		
H:		
I:		
J:		
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		

2.37 Page:82000 MD820** GT1 Local Operating Panel no.1 (1 of 3)

A: X82001	<0-1>	GT1 GG Motoring
B: X82002	<0-1>	GT1 Fuel Purge Valve
C:		
D: X82003	<0-1>	GT1 Vent Damper Open/Close Command
E: X82004	<0-1>	GT1 Vent Damper Open
F: X82005	<0-1>	GT1 Vent Damper Closed
G:		
H: X82006	<0-1>	GT1 Post Shutdown Damper Closed
I:		
J: X82007	<0-1>	GT1 Bleed Air Open/Close Command
K: X82008	<0-1>	GT1 Bleed Air Open
L: X82009	<0-1>	GT1 Bleed Air Closed
M:		
N: X82010	<0-1>	GT1 PT Brake In/Out Command
O: X82011	<0-1>	GT1 PT Brake In
P: X82012	<0-1>	GT1 PT Brake Out
Q:		
R: X82013	<0-1>	GT1 Emergency Stop Command
S: X82014	<0-1> L=--- H=1.0	GT1 Emergency Stop
T:		

2.38 Page:82001 MD820** GT1 Local Operating Panel no.1 (2 of 3)

A: X82015	<0-1>	GT1 Post Shutdown Fan On Command
B: X82016	<0-1>	GT1 Post Shutdown Fan On
C: X82017	<0-1>	GT1 Post Shutdown Fan Off Command
D: X82018	<0-1>	GT1 Post Shutdown Fan Off
E:		
F: X82025	<0-1>	GT1 Enclosure Heater On Command
G: X82027	<0-1>	GT1 Enclosure Heater On
H: X82026	<0-1>	GT1 Enclosure Heater Off Command
I: X82028	<0-1>	GT1 Enclosure Heater Off
J:		
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		



2.39 Page:82002 MD820** GT1 Local Operating Panel no.1 (3 of 3)

A: X82019	<0-1>	GT1 AECM Mode in Manual Command
B: X82020	<0-1>	GT1 AECM Mode in Manual
C:		
D: X82021	<0-1>	GT1 AECM Mode in Auto Command
E: X82022	<0-1>	GT1 AECM Mode in Auto
F:		
G: X82023	<0-1>	GT1 AECM Mode in Aux Command
H: X82024	<0-1>	GT1 AECM Mode in Aux
I:		
J: X82029	<0-1>	GT1 Demister Bypass Flaps Open
K: X82030	<0-1>	GT1 LOP OK (24V OK)
L:		
M: X82031	<0-1>	GT1 Vibration Test Command
N: X82032	<0-1>	GT1 Vibration Test
O:		
P: X82033	%	GT1 Power Lever Input
Q: X82034	%	GT1 Power Lever
R:		
S:		
T:		

2.40 Page:82100 MD821** GT1 Local Operating Panel no.2 (1 of 8)

A: N20201	rpm	L=---	H=9900.0	GT1 GG Speed
B: X82101	deg			GT1 PLA Actuator Position
C: P20202	bar	L=---	H=80.0	GT1 Fuel Manifold Pressure
D: T20201	degC	L=---	H=885.0	GT1 PT Inlet Gas Temperature (T 5.4)
E: N20202	rpm	L=---	H=4000.0	GT1 PT Speed
F:				
G: X82102	mils			GT1 GG Vibration Indicator
H: P82101	bar			GT1 LO Supply Pressure
I: T82101	degC			GT1 LO Supply Temperature
J: T82102	degC	L=---	H=175.0	GT1 Encl. cooling Air Outlet Temp.
K: T82103	degC			GT1 Selected LO Scav. Temperature
L: X82103	mils			GT1 PT Vibration Indicator
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				

2.41 Page:82101 MD821** GT1 Local Operating Panel no.2 (2 of 8)

A: X82104	<0-1>			GT1 Ready for Start
B: X82105	<0-1>	L=---	H=1.0	GT1 Fail to Reach 1200 rpm
C: X82106	<0-1>	L=---	H=1.0	GT1 Fail to Reach 4500 rpm
D: X82107	<0-1>	L=---	H=1.0	GT1 Fail to Light Off
E: X82108	<0-1>	L=---	H=1.0	GT1 GG Inlet Air Icing
F:				
G: X82109	<0-1>	L=---	H=1.0	GT1 PT Inlet Temp High (shut down)
H: X82110	<0-1>	L=---	H=1.0	GT1 PT O/S Switch (Shut down)
I: X82111	<0-1>	L=---	H=1.0	GT1 Lube Oil Low Press.(Shut down)
J: X82112	<0-1>	L=---	H=1.0	GT1 PT Inlet Temp High (T5,4)
K: X82113	<0-1>	L=---	H=1.0	GT1 LO Supply Press Low
L:				
M: X82114	<0-1>			GT1 Normal Stop Initiated
N: X82115	<0-1>	L=---	H=1.0	GT1 Stop Failure
O: X82116	<0-1>			GT1 Normal Stop Completed
P:				
Q:				
R:				
S:				
T:				

2.42 Page:82102 MD821** GT1 Local Operating Panel no.2 (3 of 8)

A: X82117	<0-1>	L=---	H=1.0	GT1 LO Temp Sump A High
B: X82118	<0-1>	L=---	H=1.0	GT1 LO Temp Sump B High
C: X82119	<0-1>	L=---	H=1.0	GT1 LO Temp Sump C High
D: X82120	<0-1>	L=---	H=1.0	GT1 LO Temp Sump D High
E: X82121	<0-1>	L=---	H=1.0	GT1 LO Temp Sump Gear High
F: X82122	<0-1>	L=---	H=1.0	GT1 Starter Failure
G:				
H: X82123	<0-1>	L=---	H=1.0	GT1 GG Vibra High
I: X82124	<0-1>	L=---	H=1.0	GT1 PT Vibra High
J: X82125	<0-1>	L=---	H=1.0	GT1 PLA Actuator Failure
K: X82126	<0-1>	L=---	H=1.0	GT1 Fuel Valves No Current
L: X82127	<0-1>	L=---	H=1.0	GT1 Overtorque Indication
M: X82128	<0-1>	L=---	H=1.0	GT1 PT Speed Limit
N: X82129	<0-1>	L=---	H=1.0	GT1 GT Cooling Air Temp High
O:				
P:				
Q:				
R:				
S:				
T:				



2.43 Page:82103 MD821** GT1 Local Operating Panel no.2 (4 of 8)

A: X82005	<0-1>			GT1 Vent Damper Closed
B: X82130	<0-1>	L=---	H=1.0	GT1 Enclosure Heater Overtemp
C: X82131	<0-1>	L=---	H=1.0	GT1 Fire Exting. Release Inhibit
D: X82132	<0-1>			GT1 Fire Exting. Release Unit Power On
E: X82133	<0-1>	L=---	H=1.0	GT1 Flame Detector Failure
F: X82134	<0-1>	L=---	H=1.0	GT1 Enclosure Fire Indication
G:				
H: X82135	<0-1>			GT1 LO Tank Low Level
I: X82136	<0-1>			GT1 LO Tank High Level
J: X82137	<0-1>			GT1 LO Cooler Outlet High Temp.
K:				
L:				
M:				
N:				
O:				
P:				
Q:				
R:				
S:				
T:				

2.44 Page:82104 MD821** GT1 Local Operating Panel no.2 (5 of 8)

A: X82138	<0-1>			GT1 Starter Valve Open
B: X82139	<0-1>			GT1 Starter Valve Closed
C:				
D: X82143	<0-1>			GT1 PT O/S Reset Command/Lamp
E:				
F: X82141	<0-1>			GT1 Sequence Reset Command
G: X82142	<0-1>			GT1 Sequence Reset
H:				
I: X82144	<0-1>			GT1 Auto Start Permissive Command
J: X82145	<0-1>			GT1 Auto Start Permissive
K:				
L: X82146	<0-1>			GT1 Auto Start Command
M: X82147	<0-1>			GT1 Auto Start
N:				
O: X82148	<0-1>			GT1 Auto Normal Stop Command
P: X82149	<0-1>			GT1 Auto Normal Stop
Q:				
R:				
S:				
T:				

2.45 Page:82105 MD821** GT1 Local Operating Panel no.2 (6 of 8)

A: X82150 <0-1>	GT1 Manual Starter On/Off Command
B: X82151 <0-1>	GT1 Manual Starter On/Off
C:	
D: X82152 <0-1>	GT1 Manual Ignition On Command
E: X82153 <0-1>	GT1 Manual Ignition On
F:	
G: X82154 <0-1>	GT1 Manual Fuel On Command
H: X82155 <0-1>	GT1 Manual Fuel On
I:	
J: X82156 <0-1>	GT1 Manual Normal Stop Command
K: X82157 <0-1>	GT1 Manual Normal Stop
L:	
M:	
N:	
O:	
P:	
Q:	
R:	
S:	
T:	

2.46 Page:82106 MD821** GT1 Local Operating Panel no.2 (7 of 8)

A: X82158 <0-1>	GT1 Emergency Run
B: X82159 <0-1>	GT1 Shut Down Bypass
C: X82160 <0-1>	GT1 PT Loss Of Speed Signal Override
D:	
E: X82161 <0-1>	GT1 GG Vibr. Display Select Self Comm.
F: X82162 <0-1>	GT1 GG Vibr. Display Select Self
G:	
H: X82163 <0-1>	GT1 GG Vibr. Display Select Ind Comm.
I: X82164 <0-1>	GT1 GG Vibr. Display Select Ind
J:	
K: X82165 <0-1>	GT1 PT Vibr. Display Select Self Comm.
L: X82166 <0-1>	GT1 PT Vibr. Display Select Self
M:	
N: X82167 <0-1>	GT1 PT Vibr. Display Select Ind Comm.
O: X82168 <0-1>	GT1 PT Vibr. Display Select Ind
P:	
Q:	
R:	
S:	
T:	



2.47 Page:82107 MD821** GT1 Local Operating Panel no.2 (8 of 8)

A: X82169	<0-1>	GT1 LO Sump Temp. Select A Command
B: X82170	<0-1>	GT1 LO Sump Temp. Select A
C:		
D: X82171	<0-1>	GT1 LO Sump Temp. Select B Command
E: X82172	<0-1>	GT1 LO Sump Temp. Select B
F:		
G: X82173	<0-1>	GT1 LO Sump Temp. Select C Command
H: X82174	<0-1>	GT1 LO Sump Temp. Select C
I:		
J: X82175	<0-1>	GT1 LO Sump Temp. Select D Command
K: X82176	<0-1>	GT1 LO Sump Temp. Select D
L:		
M: X82177	<0-1>	GT1 LO Sump Temp. Select Gear Command
N: X82178	<0-1>	GT1 LO Sump Temp. Select Gear
O:		
P:		
Q:		
R:		
S:		
T:		

2.48 Page:92000 MD920** GT2 Local Operating Panel no.1 (1 of 3)

A: X92001	<0-1>	GT2 GG Motoring
B: X92002	<0-1>	GT2 Fuel Purge Valve
C:		
D: X92003	<0-1>	GT2 Vent Damper Open/Close Command
E: X92004	<0-1>	GT2 Vent Damper Open
F: X92005	<0-1>	GT2 Vent Damper Closed
G:		
H: X92006	<0-1>	GT2 Post Shutdown Damper Closed
I:		
J: X92007	<0-1>	GT2 Bleed Air Open/Close Command
K: X92008	<0-1>	GT2 Bleed Air Open
L: X92009	<0-1>	GT2 Bleed Air Closed
M:		
N: X92010	<0-1>	GT2 PT Brake In/Out Command
O: X92011	<0-1>	GT2 PT Brake In
P: X92012	<0-1>	GT2 PT Brake Out
Q:		
R: X92013	<0-1>	GT2 Emergency Stop Command
S: X92014	<0-1> L=--- H=1.0	GT2 Emergency Stop
T:		

2.49 Page:92001 MD920** GT2 Local Operating Panel no.1 (2 of 3)

A: X92015	<0-1>	GT2 Post Shutdown Fan On Command
B: X92016	<0-1>	GT2 Post Shutdown Fan On
C: X92017	<0-1>	GT2 Post Shutdown Fan Off Command
D: X92018	<0-1>	GT2 Post Shutdown Fan Off
E:		
F: X92025	<0-1>	GT2 Enclosure Heater On Command
G: X92027	<0-1>	GT2 Enclosure Heater On
H: X92026	<0-1>	GT2 Enclosure Heater Off Command
I: X92028	<0-1>	GT2 Enclosure Heater Off
J:		
K:		
L:		
M:		
N:		
O:		
P:		
Q:		
R:		
S:		
T:		

2.50 Page:92002 MD920** GT2 Local Operating Panel no.1 (3 of 3)

A: X92019	<0-1>	GT2 AECM Mode in Manual Command
B: X92020	<0-1>	GT2 AECM Mode in Manual
C:		
D: X92021	<0-1>	GT2 AECM Mode in Auto Command
E: X92022	<0-1>	GT2 AECM Mode in Auto
F:		
G: X92023	<0-1>	GT2 AECM Mode in Aux Command
H: X92024	<0-1>	GT2 AECM Mode in Aux
I:		
J: X92029	<0-1>	GT2 Demister Bypass Flaps Open
K: X92030	<0-1>	GT2 LOP OK (24V OK)
L:		
M: X92031	<0-1>	GT2 Vibration Test Command
N: X92032	<0-1>	GT2 Vibration Test
O:		
P: X92033	%	GT2 Power Lever Input
Q: X92034	%	GT2 Power Lever
R:		
S:		
T:		



2.51 Page:92100 MD921 ** GT2 Local Operating Panel no.2 (1 of 8)

A:	N25201	rpm	L=---	H=9900.0	GT2 GG Speed
B:	X92101	deg			GT2 PLA Actuator Position
C:	P25202	bar	L=---	H=80.0	GT2 Fuel Manifold Pressure
D:	T25201	degC	L=---	H=885.0	GT2 PT Inlet Gas Temperature (T 5.4)
E:	N25202	rpm	L=---	H=4000.0	GT2 PT Speed
F:					
G:	X92102	mils			GT2 GG Vibration Indicator
H:	P92101	bar			GT2 LO Supply Pressure
I:	T92101	degC			GT2 LO Supply Temperature
J:	T92102	degC	L=---	H=175.0	GT2 Encl. cooling Air Outlet Temp.
K:	T92103	degC			GT2 Selected LO Scav. Temperature
L:	X92103	mils			GT2 PT Vibration Indicator
M:					
N:					
O:					
P:					
Q:					
R:					
S:					
T:					

2.52 Page:92101 MD921 ** GT2 Local Operating Panel no.2 (2 of 8)

A:	X92104	<0-1>			GT2 Ready for Start
B:	X92105	<0-1>	L=---	H=1.0	GT2 Fail to Reach 1200 rpm
C:	X92106	<0-1>	L=---	H=1.0	GT2 Fail to Reach 4500 rpm
D:	X92107	<0-1>	L=---	H=1.0	GT2 Fail to Light Off
E:	X92108	<0-1>	L=---	H=1.0	GT2 GG Inlet Air Icing
F:					
G:	X92109	<0-1>	L=---	H=1.0	GT2 PT Inlet Temp High (shut down)
H:	X92110	<0-1>	L=---	H=1.0	GT2 PT O/S Switch (Shut down)
I:	X92111	<0-1>	L=---	H=1.0	GT2 Lube Oil Low Press.(Shut down)
J:	X92112	<0-1>	L=---	H=1.0	GT2 PT Inlet Temp High (T5,4)
K:	X92113	<0-1>	L=---	H=1.0	GT2 LO Supply Press Low
L:					
M:	X92114	<0-1>			GT2 Normal Stop Initiated
N:	X92115	<0-1>	L=---	H=1.0	GT2 Stop Failure
O:	X92116	<0-1>			GT2 Normal Stop Completed
P:					
Q:					
R:					
S:					
T:					

2.53 Page:92102 MD921** GT2 Local Operating Panel no.2 (3 of 8)

A: X92117 <0-1> L=--- H=1.0 GT2 LO Temp Sump A High
 B: X92118 <0-1> L=--- H=1.0 GT2 LO Temp Sump B High
 C: X92119 <0-1> L=--- H=1.0 GT2 LO Temp Sump C High
 D: X92120 <0-1> L=--- H=1.0 GT2 LO Temp Sump D High
 E: X92121 <0-1> L=--- H=1.0 GT2 LO Temp Sump Gear High
 F: X92122 <0-1> L=--- H=1.0 GT2 Starter Failure
 G:
 H: X92123 <0-1> L=--- H=1.0 GT2 GG Vibra High
 I: X92124 <0-1> L=--- H=1.0 GT2 PT Vibra High
 J: X92125 <0-1> L=--- H=1.0 GT2 PLA Actuator Failure
 K: X92126 <0-1> L=--- H=1.0 GT2 Fuel Valves No Current
 L: X92127 <0-1> L=--- H=1.0 GT2 Overtorque Indication
 M: X92128 <0-1> L=--- H=1.0 GT2 PT Speed Limit
 N: X92129 <0-1> L=--- H=1.0 GT2 GT Cooling Air Temp High
 O:
 P:
 Q:
 R:
 S:
 T:

2.54 Page:92103 MD921** GT2 Local Operating Panel no.2 (4 of 8)

A: X92005 <0-1> GT2 Vent Damper Closed
 B: X92130 <0-1> L=--- H=1.0 GT2 Enclosure Heater Overtemp
 C: X92131 <0-1> L=--- H=1.0 GT2 Fire Exting. Release Inhibit
 D: X92132 <0-1> GT2 Fire Exting. Release Unit Power On
 E: X92133 <0-1> L=--- H=1.0 GT2 Flame Detector Failure
 F: X92134 <0-1> L=--- H=1.0 GT2 Enclosure Fire Indication
 G:
 H: X92135 <0-1> GT2 LO Tank Low Level
 I: X92136 <0-1> GT2 LO Tank High Level
 J: X92137 <0-1> GT2 LO Cooler Outlet High Temp.
 K:
 L:
 M:
 N:
 O:
 P:
 Q:
 R:
 S:
 T:



2.55 Page:92104 MD921 ** GT2 Local Operating Panel no.2 (5 of 8)

A: X92138 <0-1>	GT2 Starter Valve Open
B: X92139 <0-1>	GT2 Starter Valve Closed
C:	
D: X92143 <0-1>	GT2 PT O/S Reset Command/Lamp
E:	
F: X92141 <0-1>	GT2 Sequence Reset Command
G: X92142 <0-1>	GT2 Sequence Reset
H:	
I: X92144 <0-1>	GT2 Auto Start Permissive Command
J: X92145 <0-1>	GT2 Auto Start Permissive
K:	
L: X92146 <0-1>	GT2 Auto Start Command
M: X92147 <0-1>	GT2 Auto Start
N:	
O: X92148 <0-1>	GT2 Auto Normal Stop Command
P: X92149 <0-1>	GT2 Auto Normal Stop
Q:	
R:	
S:	
T:	

2.56 Page:92105 MD921 ** GT2 Local Operating Panel no.2 (6 of 8)

A: X92150 <0-1>	GT2 Manual Starter On/Off Command
B: X92151 <0-1>	GT2 Manual Starter On/Off
C:	
D: X92152 <0-1>	GT2 Manual Ignition On Command
E: X92153 <0-1>	GT2 Manual Ignition On
F:	
G: X92154 <0-1>	GT2 Manual Fuel On Command
H: X92155 <0-1>	GT2 Manual Fuel On
I:	
J: X92156 <0-1>	GT2 Manual Normal Stop Command
K: X92157 <0-1>	GT2 Manual Normal Stop
L:	
M:	
N:	
O:	
P:	
Q:	
R:	
S:	
T:	

2.57 Page:92106 MD921** GT2 Local Operating Panel no.2 (7 of 8)

A: X92158 <0-1>	GT2 Emergency Run
B: X92159 <0-1>	GT2 Shut Down Bypass
C: X92160 <0-1>	GT2 PT Loss Of Speed Signal Override
D:	
E: X92161 <0-1>	GT2 GG Vibr. Display Select Self Comm.
F: X92162 <0-1>	GT2 GG Vibr. Display Select Self
G:	
H: X92163 <0-1>	GT2 GG Vibr. Display Select Ind Comm.
I: X92164 <0-1>	GT2 GG Vibr. Display Select Ind
J:	
K: X92165 <0-1>	GT2 PT Vibr. Display Select Self Comm.
L: X92166 <0-1>	GT2 PT Vibr. Display Select Self
M:	
N: X92167 <0-1>	GT2 PT Vibr. Display Select Ind Comm.
O: X92168 <0-1>	GT2 PT Vibr. Display Select Ind
P:	
Q:	
R:	
S:	
T:	

2.58 Page:92107 MD921** GT2 Local Operating Panel no.2 (8 of 8)

A: X92169 <0-1>	GT2 LO Sump Temp. Select A Command
B: X92170 <0-1>	GT2 LO Sump Temp. Select A
C:	
D: X92171 <0-1>	GT2 LO Sump Temp. Select B Command
E: X92172 <0-1>	GT2 LO Sump Temp. Select B
F:	
G: X92173 <0-1>	GT2 LO Sump Temp. Select C Command
H: X92174 <0-1>	GT2 LO Sump Temp. Select C
I:	
J: X92175 <0-1>	GT2 LO Sump Temp. Select D Command
K: X92176 <0-1>	GT2 LO Sump Temp. Select D
L:	
M: X92177 <0-1>	GT2 LO Sump Temp. Select Gear Command
N: X92178 <0-1>	GT2 LO Sump Temp. Select Gear
O:	
P:	
Q:	
R:	
S:	
T:	



2.59 Page:93000 MD930 SCENARIO - FREE TAGS**

A: X93001 -	FREE TAG
B: X93002 -	FREE TAG
C: X93003 -	FREE TAG
D: X93004 -	FREE TAG
E: X93005 -	FREE TAG
F: X93006 -	FREE TAG
G: X93007 -	FREE TAG
H: X93008 -	FREE TAG
I: X93009 -	FREE TAG
J: X93010 -	FREE TAG
K: X93011 -	FREE TAG
L: X93012 -	FREE TAG
M: X93013 -	FREE TAG
N: X93014 -	FREE TAG
O: X93015 -	FREE TAG
P: X93016 -	FREE TAG
Q: X93017 -	FREE TAG
R: X93018 -	FREE TAG
S: X93019 -	FREE TAG
T:	