

# Routine Readings for YAMAMA GT6 - GT9

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## Appendix A Log Sheets

# 1 Introduction

## 1.1 Before reading this document

Make sure that you are familiar with the following documents in this manual:

- *Operating Safety*  
Deals with the safety precautions concerning GT10B and its auxiliary systems.
- *Human-Machine Interface (HMI)*  
Describes the basic principles in working with the computerized control system.

## 1.2 Purpose of this document

The document describes the routine readings that is to be performed by the user during start-up and operation of the gas turbine unit.

**NOTE:** It is advisable to arrange the readings into a log book in order to keep figures about the gas turbine unit easy accessible for Siemens Industrial Turbomachinery AB (SIT) service personnel as well as for the owner himself.

The document contains a chapter describing different subjects concerning the readings. This is followed by descriptions of the different types of readings.

## 2 General information about readings

### 2.1 Safety



#### **Warning!**

Before entering the enclosure inform personnel in control room and deactivate the CO<sub>2</sub>-equipment.

After performed readings, inform personnel and activate the CO<sub>2</sub>-equipment

### 2.2 Exhaust temperature check

If a combustion problem is indicated, it is most likely that it can be detected very early by observing the exhaust temperature distribution.

The control system also performs the automatic supervision of the temperature spread to protect the turbine from any damage due to this problem.

### 2.3 Performance check

The purpose of the performance check is to analyse the gas generator compressor, the gas generator turbine and the power turbine with reference to fouling, efficiency and power output.

## 3 Readings

### 3.1 Start-up readings

There are two different types of readings during start-up of the gas turbine unit:

- Start up reading part 1 (Printout of log display)\*  
This is done immediately after completed start up sequence
- Start up reading part 2 (Printout of log display)\*  
This is done after a performed walk-around check

### 3.2 Continuous operation readings

During continuous operation of the turbine the following routine readings shall be performed

- Continuous operation reading, daily (Printout of log display)\*
- Continuous operation local reading, daily (Local reading according to attached log sheets)

**Caution!** If you are observing abnormal values and/or trends, please contact SIT Service Department for further measures.

### 3.3 Software dumps

Record all the performed program dumps in the attached table of program dumps. For more information please see page 4 of this document.

- \* if no hardcopy printer is included in the delivery, the values of the log page have to be written by hand.

### 3.4 Memory backup and software dumps

#### ADVANT CONTROLLER 410

The memory in the ABB Advant Controller 410 equipment is secured against program loss as a result of a power cut off. The memory is backed up by battery and will hold the program for 8 hours (new battery) for the Advant Controller system. The batteries are chargeable. Abnormal ambient air temperatures can decrease the capacity.

#### ADVANT STATION/AC110/AC160

The Advant station programs are stored on hard disc and the AC110/AC160 programs are stored on PROM at the CPU boards.

#### DUMPS

The software program can be lost due to reasons such as external influences or component faults. Therefore it is of great importance that a copy of the program (a dump) is available at a reasonable distance to be able to reload the program if necessary.

A new program dump shall be done when the number of changes have increased to such level that a reload will cause considerable time loss *and* also as a regularly safety back up once a year.

All changes such as tuning of times, control parameters, alarm limits, program changes, display changes etc. have to be logged in the table of software dumps, wherein it shall be noted when the last program dump was done and what changes have been done since that time.

For more information how a program dump is performed see the document dump/load of advant station/advant controller in the maintenance Instructions. All changes such as tuning of times, control parameters, alarm limits, program changes, display changes etc. have to be logged in the table of software dumps, wherein it shall be noted when the last program dump was done and what changes have been done since that time.

#### Note!

For more information how a program dump is performed see the document dump/load of advant station/advant controller in the maintenance instructions.

Unit	Reading	Sheet No	Year-Week (YY-WW)
GT10B	Table of Local Readings		-

**Table of Local Readings (continued on next page)**

Syst	Measuring Point	Unit	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
MBP Gas fuel	MBP05CP010 / MBP05CP025 Gas fuel pressure	kPa							
	MBQ100CP005 Ignition gas pressure	kPa							
MBQ Ignition gas	MBQ100CP405 Air pressure	MPa							

Unit	Reading	Sheet No	Year-Week (YY-WW)
GT10B	Table of Local Readings		-

Syst	Measuring Point	Unit	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
MBV Lube oil	MBV100CL005 Tank level	mm								
	MBV100CP005 Pressure in tank	kPa								
	MBV100CP010 Diff. Pressure oil mist filter	mmWG								
	MBV100CT005 Temp tank	°C								
	MBV40CT010 Temp after filter	°C								
	MBV54CP010 Pressure before bearing 2	kPa								
	MBV54CP005 Diff. Pressure bearing 2	kPa								
	Readers signature									



Unit	Reading	Sheet No	Year-Week (YY-WW)
GT10B	Table of Local Readings		-

### Table of Software Dumps

Software Dump Number	Date	Signature	Remarks
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			