

	Confidential		Mitsubishi-Hitachi
	Non-Confidential		
Equipment Category	Subject		No.
Hydraulic Push Up Controller	The report of a sales end of the plant controller made from the MHI, and the proposal of renewal of system.		2006/08/21

1. Outline

The plant controller made from the Mitsubishi Heavy Industries was allowed to supply your company the following systems.

No	Facility name	Quantity	Delivery date
①			

A facility of your company does not have a big problem and is working until now.

They are a facility of your company and the favor of a maintenance engineer's every day, and we appreciate them. Our company became independent from Mitsubishi Heavy Industries and Hitachi in April, 2001, and was newly inaugurated as Mitsubishi-Hitachi Metals Machinery, Inc. The management of the maintenance of the control system stored by then was transferred to our company. From that time, the property and technology of Mitsubishi Heavy Industries and Hitachi are succeeded.

And a new control system as Mitsubishi Hitachi was developed, and adaptation to an steel making machine is begun. Therefore, MPC-32A series stops new manufacture and is carrying out only correspondence of spare parts or a maintenance. In recent years, electric parts, such as IC chip, become high performance and high accumulation, and specification change and a manufacture stop are performed by development of electronics technology the very early cycle.

A sales end and form change have generated many electric parts currently used with our control system.

Although our company did timely information gathering and examination of an exchange article, supplying spare parts and maintenance are difficult.

MPC-32A series consists of a Fuji Electric controller (HDC500), a controller of our company, and a special card. The Fuji Electric controller (HDC500) is already a sales end, and only repair and spare-parts supply are performing it. Spare-parts supply is already difficult for a part. (The manufacture stop information on the Fuji Electric controller (HDC500) is shown in appendices 1.) Our company examined the easy method of updating a control system together with Fuji Electric in such a situation.

However, it turned out that it cannot update only by exchange of only a board. It becomes late to connect this information to your company, and it apologizes. The manufacture situation of parts which are used with the control system and the future after service plan are shown below.

Since the updating proposal of a control device was also indicated, please consider updating early.

2. The part manufacture situation of the control system of our company.

The supply and the maintenance situation of parts which are used for control system of our company are shown in Table 1.

In addition, since the following table is limited to the parts of a CPU panel, it is necessary to check the situation of a sensor and a servo valve individually.

Table 1 Part supply and maintenance situation of control system of our company

Part name	Manufacture maker	No	After service plan		
			Spare-parts manufacture	Repair correspondence	Remarks
HDC500 (sales end)	Fuji Electric	①	1)5years after sales end. 2)There are also spare parts currently manufactured. The board which cannot be manufactured serves as a reuse one. (Board which cannot be manufactured will increase from now on.)	1)10years after sales end. 2)Although repair is performed, depending on the broken parts, it is unfixable.	The exchange with the urgent loan board of Fuji Electric is possible.
M32-CPU386 (sales end)	Mitsubishi-Hitachi	①	Possible. (A term is based on a part manufacture situation.)	Possible. (A term is based on a part manufacture situation.)	
M32-I/O Board	Mitsubishi-Hitachi	①	Possible. (A term is based on a part manufacture situation.)	Possible. (A term is based on a part manufacture situation.)	
DC-FAIL ITF	Mitsubishi-Hitachi	①	Possible. (Appearance is different although the function is the same.)	Possible.	
MP-SCALE UNIT	Mitsubishi-Hitachi	①	Possible. (Appearance is different although the function is the same.)	Possible.	
Program Loader	IBM	①	Possible. (It is a new personal computer. Since OS is different, loader S/W needs to be upgraded.)	Impossible	
Monitoring System	NEC	①	Possible. (It is a new personal computer. Since OS is different, loader S/W needs to be upgraded.)	Impossible	

Notes)

A top table may be changed by restrictions of the manufacture situation of parts, or quantity of inventory of our company.

In that case, the contents are corrected and it reports to your company timely.

3. Updating proposal of control system.

Below, the proposal updated to the control system by Mitsubishi Hitachi is shown.

(1) Specification of the control system by Mitsubishi Hitachi

Our company is manufacturing systems shown in the following table.

Item		MHPC-M	
Feature		Special REF generation and FBK operation are possible.	
FBK Operation CPU	Form	MELSEC-Q (MELCO)	
	Quantity	1set	
	Function	1) Cylinder position control	2 Loop: Control cycle 2ms
		2) Cylinder force control	2 Loop: Control cycle 2ms
Sequence CPU	Form	MELSEC-Q (MELCO)	
	Quantity	1set	
	Function	1) Control mode management	
		2) Error detection / Error operation	
The example of system		Hydraulic cylinder control system of Skinpass mill, Down coiler, and Bender.	