

# MITSUBISHI HEAVY INDUSTRIES ENGINE & TURBOCHARGER, LTD. 's Policy for CRSC

## How to fill out MHIET's information exchange sheet

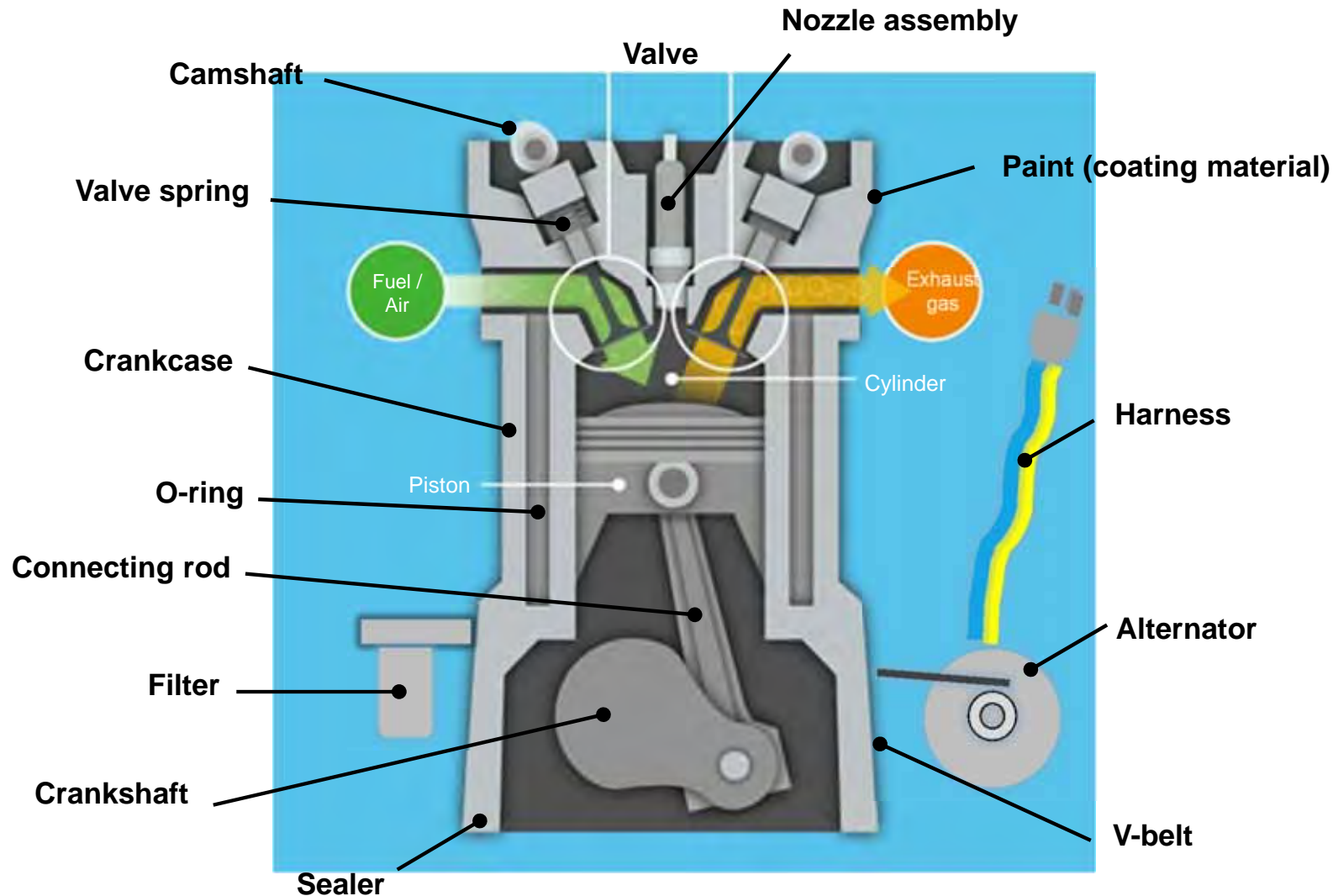
11.1.2016

**MITSUBISHI HEAVY INDUSTRIES  
ENGINE & TURBOCHARGER, LTD.**

- 1. Shifting from JAMA sheet to MHIET's information exchange sheet**
- 2. How to operate MHIET's information exchange sheet**
- 3. How to fill out MHIET's information exchange sheet**
- 4. Contact information**

# 1. Shifting from JAMA sheet to MHIET's information exchange sheet

The conventional survey method is based on **JAMA sheet** for each part (subsidiary material).



# 1. Shifting from JAMA sheet to MHIET's information exchange sheet

By the new survey method, the survey items vary depending on the type of parts.

## Functional parts

(Parts not indicated in MHIET material drawings)

- Filter
- Harness
- Alternator
- V-belt
- Main metal
- Nozzle assembly
- Various kinds of gaskets
- Various kinds of bolts, etc.



Survey requested according to part number

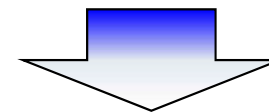
Survey request items

- Parts structure and names of material parts
- Components of material parts

## Material parts

(Parts indicated in MHIET material drawings)

- Valve
- O-ring
- Piston
- Connecting rod
- Camshaft
- Valve spring
- Crankcase
- Crankshaft
- Cylinder liner
- Material parts



Survey requested on material parts to be used

Survey request items

- Components of material parts

## Subsidiary materials

- Paint (coating material)
- Sealer
- Fuel
- Lubricant
- Grease
- Coolant
- Antirust/moisture-proof agents
- Weld wire

# 1. Shifting from JAMA sheet to MHIET's information exchange sheet



## Shifting from the conventional JAMA sheet to MHIET's "original information exchange sheet"

For the chemical content survey, the following two types of information exchange sheets are expected to use.

- (1) "Parts" information exchange sheet
- (2) "Material parts" information exchange sheet (used for the survey on primary and subsidiary material parts)

**(1)**

Supplier code: 8 digits (or 4 digits)		
Company name		
Name of person in charge		
Department		
Contact information	TEL	
	e-mail	
Fill-in date		

(Note) "0" indicates the part on which the survey is requested, followed by "1", "2" ... in the hierarchical order.

Structure (Note)	Part number	Part name	Quantity	Mass (g)	Material	Standard	Mass (g)
0							

For Parts

Space for MHIET

Space for Business partner

**(2)**

Supplier code: 8 digits (or 4 digits)		
Company name		
Name of person in charge		
Department		
Contact information	TEL	
	e-mail	
Fill-in date		

**\* Names of material parts shall be filled in the "Material parts" column by the business partner.**

Material parts	Standard	CAS No.	Chemical compounds	Content rate (%) (Minimum rate)	Content rate (%) (Maximum or fixed rate)

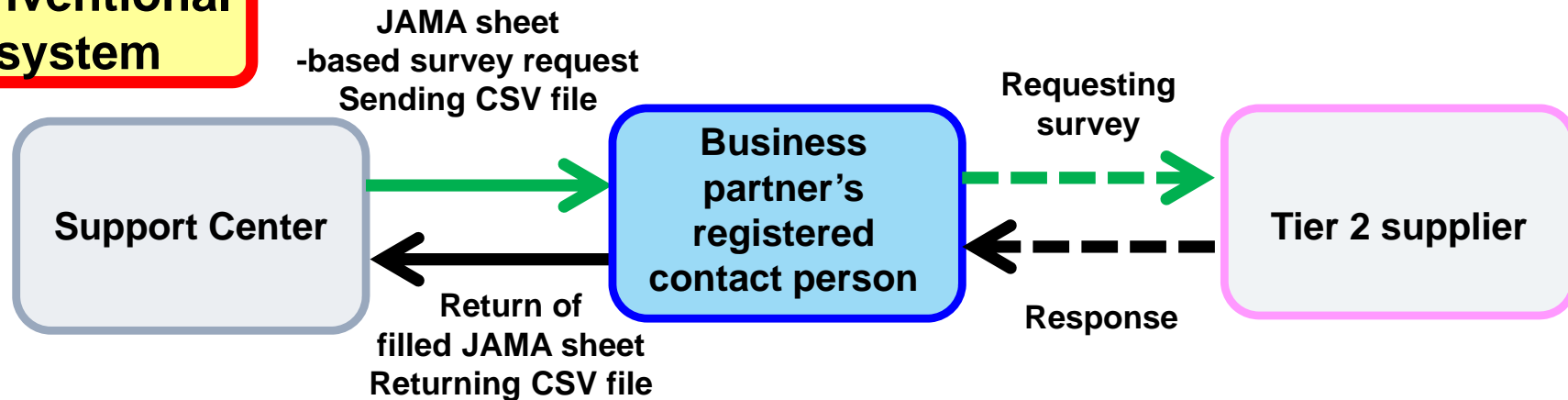
For Material parts

## Requests from MHIET

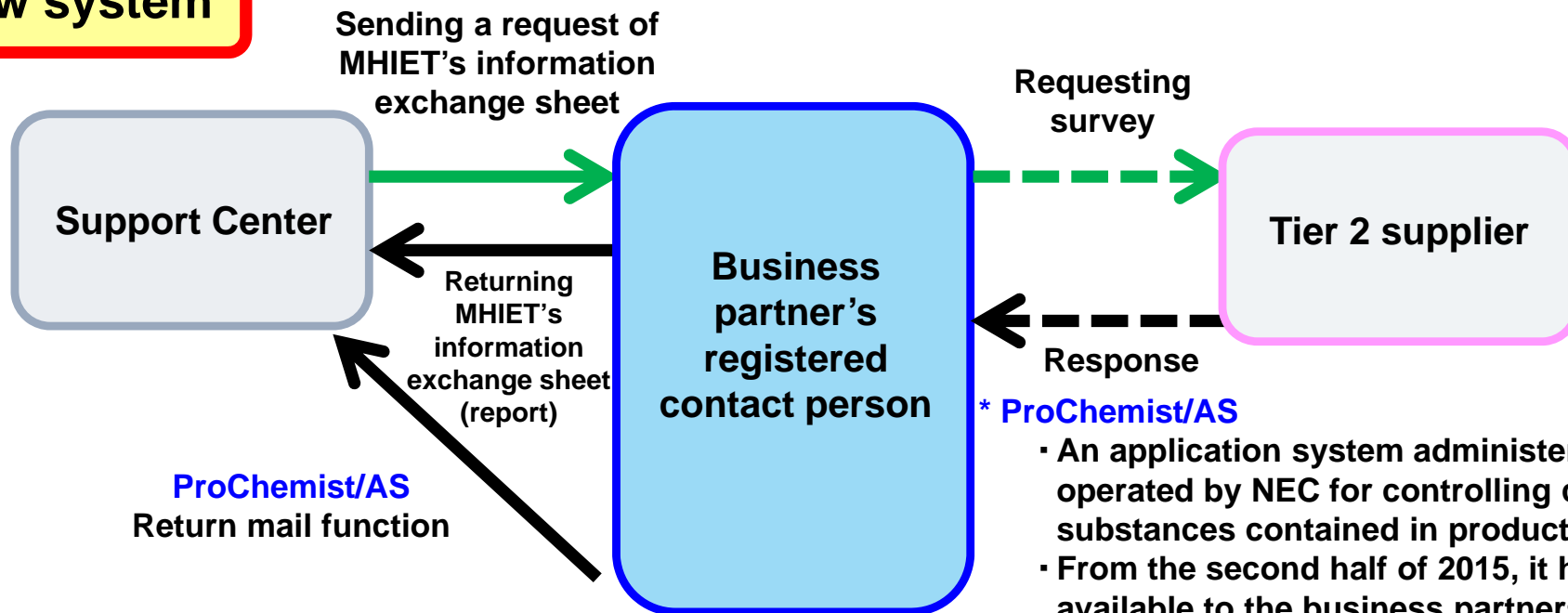
- (1) For any prohibited and/or controlled substance specified in “Guideline for CRSC” of MHIET, if its content exceeds 0.1% (or threshold amount, if designated), be sure to specify it. The content rate shall be calculated based on “homogeneous material”.
- (2) Other substances than those mentioned in (1) shall be also specified as far as possible. Residual substances are specified as “Others”.
- (3) For substances related to **business secret**, it is **allowed to specify them as “Others” only if the content is within 10% in weight.**  
(Prohibited/controlled substances are excluded from the case.)
- (4) **The prohibited/controlled substances are renewed** on a regular basis. In the case that **a substance, which is newly designated** as a prohibited/controlled one, has been specified as “Others” in an information exchange sheet already sent to us according to “(2)”, immediately send us a **revised information exchange sheet** (by correcting the previous sheet).
- (5) Even for **standard materials, components of the material parts** used by the business partner shall be **specified** as far as possible.
- (6) For the chemical contents report, MHIET do not request you to measure the substances by yourself, but ask you to request your suppliers to conduct the survey and also ask you **to establish an information network through your supply chain.**

## 2. How to operate MHIET's information exchange sheet

### Conventional system



### New system



\* ProChemist/AS

- An application system administered and operated by NEC for controlling chemical substances contained in products
- From the second half of 2015, it has been available to the business partners who request it.

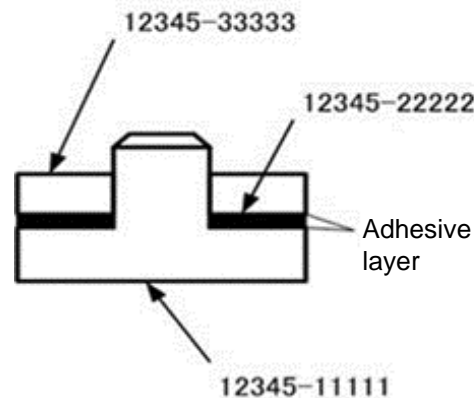


### 3. How to fill out MHIET's information exchange sheet

## Functional parts data collection

(1) Collect the following data to fill out the information exchange sheet of functional parts.

- BOM of Functional parts (parts structure)
- Names and standards of material parts
- Surface treatment name
- Mass of part/material
- Mass of surface treated layer is also intended.



**View of part structure**

Master item	Slave item	Slave item name of material parts
Delivered master part No. and name	Component part No. and name	Constitutional material name and standard
Part No.12345-67890 Part name: BLOCK ASSY Mass: 158.61 g	Part No.12345-11111 Part name: PIN PLATE Mass: 103.51 g	SPHC (JISG3131) Mass : 100 g
		Zinc plating (JISH8610) Mass: 3.5 g
		Trivalent chromate film Mass: 0.01 g
	Part No.12345-22222 Part name: RUBBER Mass: 5 g	NBR rubber Mass: 5 g
		○△□ steel (manufacturer name: ○○) Mass: 50 g
	Part No.12345-33333 Part name: BLOCK Mass: 50 g  (Dummy part No. and name setting)	Acrylic adhesive Mass: 0.1 g



### 3. How to fill out MHIET's information exchange sheet

#### Example of description

- For the Functional parts, submit the both survey reports of the Parts and Material parts.
- For the manufacturer's standard (non-official standard), specify the names of material parts and standard set by the manufacturer.

#### For Parts

Supplier code: 8 digits (or 4 digits)		XK***** (****)
Company name		****, Ltd.
Name of person in charge		Quality Good
Department		Quality Assurance Dept.
Contact information	TEL	***_***_****
	e-mail	*****@***.co.jp
Fill-in date		November 5, 2015

(Note) "0" indicates the part on which survey is requested, followed by "1", "2" ... in the hierarchical order.

Structure (Note)	Part number	Part name	Quantity	Mass (g)	Material parts	Standard	Mass (g)
0	12345-67890	BLOCK ASSY		158.52			
1	12345-11111	PIN PLATE	1	103.51	SPHC	JISG3131	100
1	12345-11111	PIN PLATE	1		Zinc plating	JISH8610	3.5
1	12345-11111	PIN PLATE	1		Trivalent chromate film	Manufacturer's standard A	0.01
1	12345-22222	RUBBER	1	5	NBR rubber	Manufacturer's standard B	5
1	12345-33333	BLOCK	1	50	○△□ steel	Manufacturer's standard C	50
1	12345-00000-1	Adhesive PAK	1	0.01	Acrylic adhesive	Manufacturer's standard D	0.01

### 3. How to fill out MHIET's information exchange sheet

**Material parts data collection**

Constitutional material name and standard

SPHC (JISG3131)  
Mass : 100 g

Zinc plating (JISH8610)  
Mass: 3.5 g

Trivalent chromate film  
Mass: 0.01 g

NBR rubber  
Mass: 5 g

○△□ steel  
(manufacturer name: ○○)  
Mass: 50 g

Acrylic adhesive  
Mass: 0.1 g

**For JIS materials, collect the component data from the relevant JIS.**

**For non-JIS materials, contact the manufacturing department or the company (supplier) which you purchase them.**

**Examples of component data sheets**

- Mill Sheet
- Manufacturer's specification table
- Material Safety Data Sheet (SDS)
- JAMP MSDSplus

▪ This is a data sheet specifying substances controlled by various foreign regulations other than those not covered by SDS. Since it is arbitrarily issued, it may not be suitable for every situation.

CAS No.	Chemical compounds	Content rate %
7440-44-0	Carbon	0.12 or less
7439-96-5	Manganese	0.6 or less
7723-14-0	Phosphorus	0.045 or less
7704-34-9	Sulphur	0.035 or less
7439-89-6	Iron	Residual

7440-66-6	Zinc (metal)	Residual
-	Others	0.5 or less

1308-38-9	Chromium(III)oxide	11
1308-14-1	Chromium(III)-hydroxide	4.0~7.0
7732-18-5	Water	9~11
59178-46-0	Dichromium tris (hydrogen phosphate)	48~58
20427-58-1	Zinc-hydroxide	18~22
-	Others	2.0 or less

9003-18-3	NBR	50
117-81-7	DEHP, DOP	8
1333-86-4	Carbon black	25
15468-32-3	Silica (crystalline-tridymite)	10
-	Others	7

7440-02-0	Nickel	1.0
7440-47-3	Chromium	1.0
7439-89-6	Iron	97
-	Others	1.0

-	Basic Polymer: PAK	97
108-05-4	Acetic acid ethenyl ester	0.05
-	Others	2.95

### 3. How to fill out MHIET's information exchange sheet

#### Example of description

**For Materials  
parts**

Supplier code: 8 digits (or 4 digits)	XK***** (****)		
Company name	*****, Ltd.		
Name of person in charge	Quality Good		
Department	Quality Assurance Dept.		
Contact information	TEL	***_***_****	
	e-mail	*****@***.co.jp	
Fill-in date	November 5, 2015		

Material parts	Standard	CAS No.	Chemical compounds	Content rate (%) (Minimum rate)	Content rate (%) (Maximum or fixed rate)
SPHC	JISG3131	7440-44-0	Carbon	0	0.12
SPHC	JISG3131	7439-96-5	Manganese	0	0.60
SPHC	JISG3131	7723-14-0	Phosphorus	0	0.045
SPHC	JISG3131	7704-34-9	Sulphur	0	0.035
SPHC	JISG3131	7439-89-6	Iron		Residual
Zinc plating	JISH8610	7440-66-6	Zinc (metal)		Residual
Zinc plating	JISH8610	-	Others	0	0.5
Trivalent chromate film	Manufacturer's standard A	1308-38-9	Chromium(III)oxide		11
Trivalent chromate film	Manufacturer's standard A	1308-14-1	Chromium(III)-hydroxide	4.0	7.0
Trivalent chromate film	Manufacturer's standard A	7732-18-5	Water	9	11
Trivalent chromate film	Manufacturer's standard A	59178-46-0	Dichromium tris(hydrogen phosphate)	48	58
Trivalent chromate film	Manufacturer's standard A	20427-58-1	Zinc-hydroxide	18	22
Trivalent chromate film	Manufacturer's standard A	-	Others	0	2
NBR rubber	Manufacturer's standard B	9003-18-3	NBR		50
NBR rubber	Manufacturer's standard B	117-81-7	DEHP, DOP		8
NBR rubber	Manufacturer's standard B	1333-86-4	Carbon black		25
NBR rubber	Manufacturer's standard B	15468-32-3	Silica (crystalline-tridymite)		10
NBR rubber	Manufacturer's standard B	-	Others		7
... steel	Manufacturer's standard C	7440-02-0	Nickel		1.0
... steel	Manufacturer's standard C	7440-47-3	Chromium		1.0
... steel	Manufacturer's standard C	7439-89-6	Iron		97
... steel	Manufacturer's standard C	-	Others		1.0
Acrylic adhesive	Manufacturer's standard D	-	Basic Polymer: PAK		97
Acrylic adhesive	Manufacturer's standard D	108-05-4	Acetic acid ethenyl ester		0.05
Acrylic adhesive	Manufacturer's standard D	-	Others		2.95

For more information about the chemical content survey and the relevant information exchange sheet, contact the following:

Environmental Substances Control Support Center,  
MITSUBISHI HEAVY INDUSTRIES ENGINE &  
TURBOCHARGER, LTD.

[j\\_reach\\_helpdesk@mhiet.mhi.co.jp](mailto:j_reach_helpdesk@mhiet.mhi.co.jp)

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