



## Chapter 4-2

---

# Primary Air Fan

### Contact Address

For any question or any clarification required, please do not hesitate to contact Mitsubishi Heavy Industries, Ltd. (MHI) through the following address.

Mitsubishi Heavy Industries, Ltd.

Energy Transition & Power Headquarters, Energy Systems,

Steam Power Maintenance Innovation Business Division,

Nagasaki Solution Business Department, Overseas Business Group C,

1-1, Akunoura Machi, Nagasaki 850-8610.

Japan.

Tel. No: +81-80-9938-0035

Working Hours: 08.30 hrs. to 17.30 hrs. JPT (Except on Saturdays, Sundays and Holidays)

## 4-2 Primary Air Fan

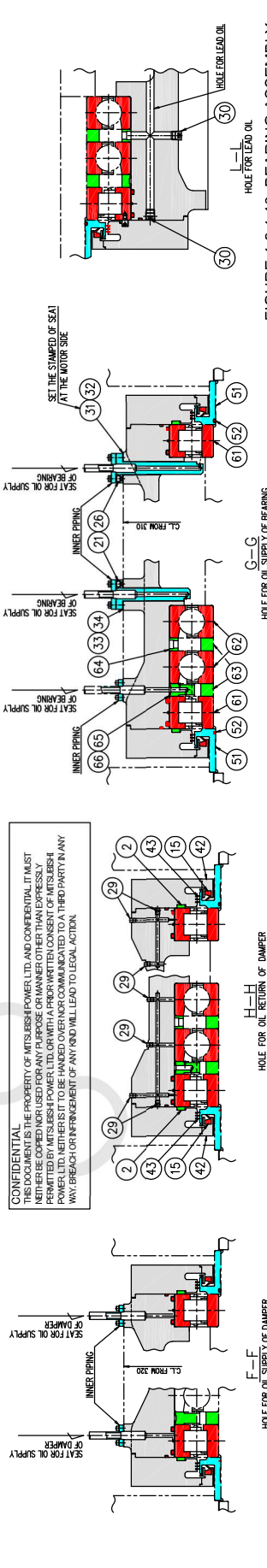
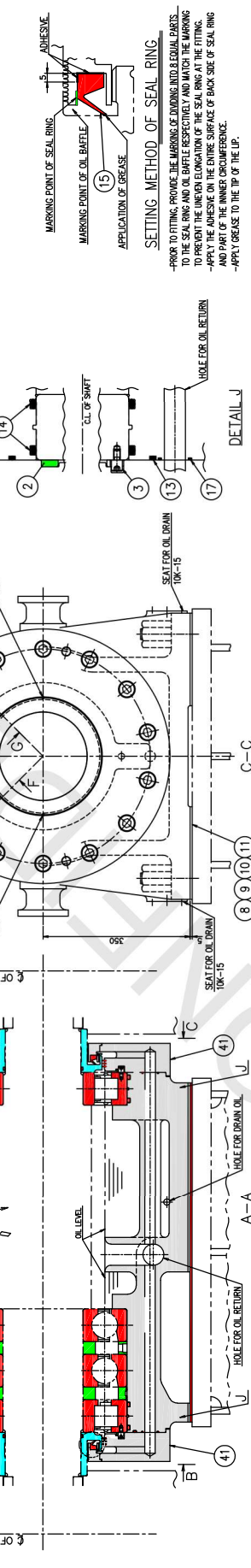
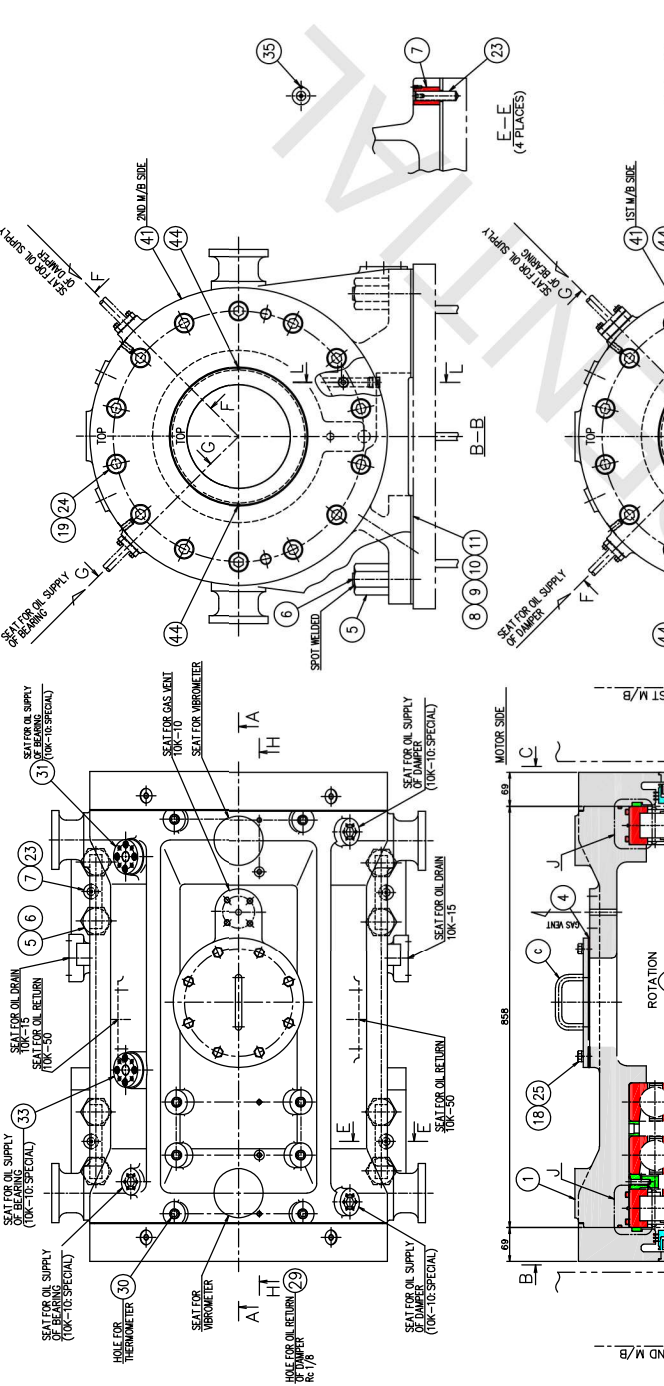
### 4-2.1 Fan Specification and Construction Details

#### 4-2.1.1 Specification

**TABLE 4-2.1.1 PRIMARY AIR FAN**

Subject		Specifications
Equipment number		Unit5:50HFE01AN101,50HFE11AN101 Unit6:60HFE01AN101,60HFE11AN101
Quantity		Two (2) per unit
Fan	Manufacturer	MHPS
	Model	ML-H2-R125/204
	Type	Indoor type Axial Fan with Blade Pitch Control
Coupling	Manufacturer	KTR
	Type	Flexible Coupling
Bearing	Manufacturer	JTEKT Corporation
	Type	Anti-Friction bearing (MHPS special type)
Major Material	Casing	General carbon steel
	Moving Blade	Forged aluminum
	Rotor	Forged steel
	Main Shaft	Forged steel
	Bearing (Box/Body)	Cast iron/bearing steal & carburizing steel
	Coupling	General carbon steel
Synchronous speed		1,500min <sup>-1</sup>
Blades/stage		16/2
<b>Design performance characteristics</b>		
Direction of Rotation		Clockwise (Viewed from motor side)
Capacity (each fan)		11,400 m <sup>3</sup> /min
Suction Press		-4.9 mbar (g)
Discharge Press		162.8 mbar (g)
Fluid		Air
Fluid temperature at inlet (design)		35°C
Fluid density (design)		1.128 kg/m <sup>3</sup>

MARKS	DESCRIPTION	MATERIALS (ASTM / JIS)	1-PC WEIGHT (kg)
1	BEARING BOX	A536 G185-45-12/F0450	850
2	ADJUSTABLE RING	A193 GRADE B7/SMA35-Q1	0.17
3	HEX SOCKET HEAD BOLT M8x12	A193 GRADE B7/SMA35-Q1	0.047
4	PACKING	NON ASBESTOS	0.07
5	SPECIAL BOLT M8x90	A576 G10250-N/S29C-N	1.68
6	STOPPER	A576 G10250-N/S29C-N	0.088
7	BRUSH	A576 G10350-N/S36C-N	0.17
8	ADJUSTABLE LINER	A576 G10350-N/S36C-N	5.22
9	ADJUSTABLE LINER	C29000 (B135-86)/C2901P	0.17
10	ADJUSTABLE LINER	C29000 (B135-86)/C2901P	0.23
11	ADJUSTABLE LINER	C29000 (B135-86)/C2901P	0.58
12	O RING	RUBBER	0.03
13	O RING	RUBBER	0.068
14	SEAL RING (V RING)	RUBBER	0.46
15	SEAL RING (V RING)	RUBBER	0.46
16	SPACER WASHER	A576 G10350-N/S36C-N	0.046
17	HEX SOCKET HEAD BOLT M24x90	A193 GRADE B7/SMA35	0.618
18	HEX SOCKET HEAD BOLT M8x20	A193 GRADE B7/SMA35	0.105
19	PARALLEL PIN	A576 G10350-N/S36C-N	0.110
20	WASHER M24	W1-7/S500M	0.008
21	SPRING WASHER M12	A713 G16840/SWHR6Z	0.007
22	WASHER M8	W1-7/S500M	0.001
23	PLUS R17/8	A576 G10250-N/S29C-N	0.004
24	SEAT FOR OIL SUPPLY	A576 G10250/S29C	1.23
25	SEAT FOR OIL SUPPLY	NON ASBESTOS	0.008
26	PACKING	A576 G10250/S29C	1.07
27	PACKING	NON ASBESTOS	0.008
28	SET SCREW M2x8	A193 GRADE B7/SMA35	0.003
29	SEAL RING	A576 G10250-N/S29C-N	0.009
30	BEARING BOX COVER	A536 G185-45-12/F0450	109
31	OIL BAFFLE	B584 UNS No.C26000/C26020	5.4
32	SEAL PIN	A193 GRADE B7/SMA35	0.009
33	SET SCREW M6x8	A193 GRADE B7/SMA35	0.002
34	SLLEEVE FOR BRG.	A576 G10400-07/S45C-Q1	11.4
35	O-RING G180	RUBBER	0.014
36	ROLLER BEARING	—	—
37	BALL BEARING	—	—
38	BEARING SPACER-INNER	—	—
39	BEARING SPACER-OUTER	—	—
40	OIL DISTRIBUTOR RING	—	—
41	INSPECTION HOLE COVER	—	3.98



MARKING POINT OF SEAL RING  
MARKING POINT OF OIL BAFFLE  
APPLICATION OF GREASE  
SETTING METHOD OF SEAL RING

—PRIOR TO FITTING, PROVIDE THE MARKING OF DIMMING INTO & EQUAL PARTS TO THE SEAL RING AND OIL BAFFLE RESPECTIVELY AND WATCH THE MARKING TO PREVENT THE UNEVEN ELONGATION OF THE SEAL RING AT THE FITTING.  
—APPLY THE ADHESIVE ON THE ENTIRE SURFACE OF BACK SIDE OF SEAL RING AND PART OF THE INNER CIRCUMFERENCE.  
—APPLY GREASE TO THE TOP OF THE PIN.

FIGURE 4-2.1.10 BEARING ASSEMBLY

Uncontrolled when printed or downloaded. Verify that this is the correct version before use.  
Reproduction of part or all the contents of the document is prohibited without written permission from P.T. Bhumi Jepara Service