MITSUBISHI HITACHI POWER SYSTEMS

Chapter 4-3

Induced Draft Fan

Contact Address

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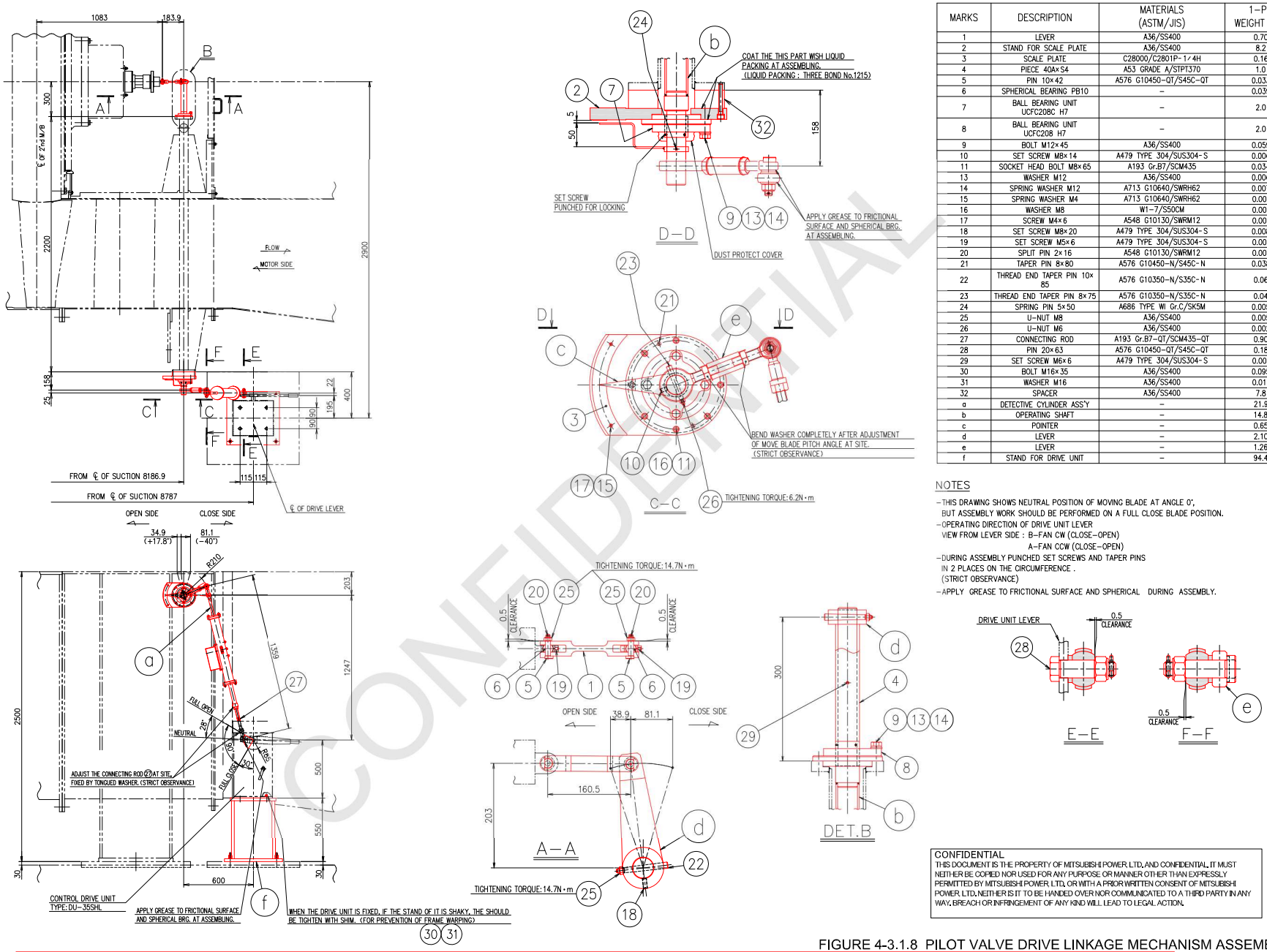
4-3 Induced Draft Fan

4-3.1 Fan Specification and Construction Details

4-3.1.1 Specification

TABLE 4-3.1.1 INDUCED DRAFT FAN

Subject		Specifications
Equipment number		Unit5:50HNC01AN101,50HNC11AN101 Unit6:60HNC01AN101,60HNC11AN101
Quantity		Two (2) per unit
Fan	Manufacturer	MHPS
	Model	ML-H2-R208/390
	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 steel
	Rotor	Forged steel
	Main Shaft	Forged steel
	Bearing (Box/Body)	Cast iron/bearing steal & carburizing steel
	Coupling	General carbon steel
Synchronous speed		750 min^{-1}
Blades/stage		16/2
Design performance characteristics		
Direction of Rotation		Clockwise (Viewed from motor side)
Capacity (each fan)		51,700 m^3/min
Suction Press		-45.1.mbar (g)
Discharge Press		60.8 mbar (g)
Fluid		GAS
Fluid temperature at inlet (design)		150°C
Fluid density (design)		0.7925 kg/m^3



MARKS	DESCRIPTION	MATERIALS (ASTM/JIS)	1−PC WEIGHT (kg)
1	LEVER	A36/SS400	0.70
2	STAND FOR SCALE PLATE	A36/SS400	8.2
3	SCALE PLATE	C28000/C2801P−1/4H	0.16
4	PIECE 40A×S4	A53 GRADE A/STPT370	1.0
5	PIN 10×42	A576 G10450−QT/S45C−QT	0.033
6	SPHERICAL BEARING PB10	−	0.039
7	BALL BEARING UNIT UCFC208C H7	−	2.0
8	BALL BEARING UNIT UCFC208 H7	−	2.0
9	BOLT M12×45	A36/SS400	0.059
10	SET SCREW M8×14	A479 TYPE 304/SUS304−S	0.006
11	SOCKET HEAD BOLT M8×65	A193 Gr.B7/SCM435	0.034
13	WASHER M12	A36/SS400	0.006
14	SPRING WASHER M12	A713 G10640/SWRH62	0.007
15	SPRING WASHER M4	A713 G10640/SWRH62	0.001
16	WASHER M8	W1−7/S50CM	0.001
17	SCREW M4×6	A548 G10130/SWRM12	0.001
18	SET SCREW M8×20	A479 TYPE 304/SUS304−S	0.008
19	SET SCREW M5×6	A479 TYPE 304/SUS304−S	0.001
20	SPLIT PIN 2×16	A548 G10130/SWRM12	0.001
21	TAPER PIN 8×80	A576 G10450−N/S45C−N	0.038
22	THREAD END TAPER PIN 10×85	A576 G10350−N/S35C−N	0.06
23	THREAD END TAPER PIN 8×75	A576 G10350−N/S35C−N	0.04
24	SPRING PIN 5×50	A686 TYPE WI Gr.C/SK5M	0.005
25	U−NUT M8	A36/SS400	0.005
26	U−NUT M6	A36/SS400	0.002
27	CONNECTING ROD	A193 Gr.B7−QT/SCM435−QT	0.90
28	PIN 20×63	A576 G10450−QT/S45C−QT	0.18
29	SET SCREW M6×6	A479 TYPE 304/SUS304−S	0.001
30	BOLT M16×35	A36/SS400	0.095
31	WASHER M16	A36/SS400	0.011
32	SPACER	A36/SS400	7.8
a	DETECTIVE CYLINDER ASS'Y	−	21.9
b	OPERATING SHAFT	−	14.8
c	POINTER	−	0.65
d	LEVER	−	2.10
e	LEVER	−	1.26
f	STAND FOR DRIVE UNIT	−	94.4

NOTES

−THIS DRAWING SHOWS NEUTRAL POSITION OF MOVING BLADE AT ANGLE 0°,
BUT ASSEMBLY WORK SHOULD BE PERFORMED ON A FULL CLOSE BLADE POSITION.
−OPERATING DIRECTION OF DRIVE UNIT LEVER
VIEW FROM LEVER SIDE : B−FAN CW (CLOSE−OPEN)
A−FAN CCW (CLOSE−OPEN)
−DURING ASSEMBLY PUNCHED SET SCREWS AND TAPER PINS
IN 2 PLACES ON THE CIRCUMFERENCE .
(STRICT OBSERVANCE)
−APPLY GREASE TO FRICTIONAL SURFACE AND SPHERICAL DURING ASSEMBLY.

FIGURE 4-3.1.8 PILOT VALVE DRIVE LINKAGE MECHANISM ASSEMBLY