



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

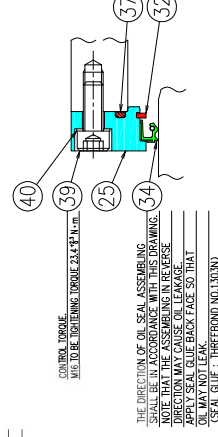
TABLE 4-3.1.1 INDUCED DRAFT FAN

| 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 | CYLINDER | A27 G-70-36/SS480 | 413 |
| 2 | CYLINDER COVER | A576 G10250-N/S25C-N | 702 |
| 3 | PISTON | A576 G10250-N/S25C-N | 93.1 |
| 4 | PISTON PIN | A576 G10250-N/S25C-N | 4.6 |
| 5 | PLATE FOR MV PACKING | A576 G10250-N/S25C-N | 4.76 |
| 6 | PLATE FOR MV PACKING | A576 G10250-N/S25C-N | 5.47 |
| 7 | BOLT M30X104 | A193 G8-B7/SOM435-QT | 0.72 |
| 8 | PISTON RING | RFLON | - |
| 9 | MV PACKING | RUBBER | - |
| 10 | MV PACKING | RUBBER | - |
| 11 | MV PACKING | RUBBER | - |
| 12 | MV PACKING | RUBBER | - |
| 13 | O RING | RUBBER | 0.134 |
| 14 | RETAINING RING | A866 TYPE W-GC/SSKM | 0.001 |
| 15 | BOLT M10X25 | A193 G8-B7/SOM435 | 0.028 |
| 16 | PISTON SHIRT | A193 G8-B7/SOM435-QT | 140 |
| 17 | HARD ROCK NUT M10 | A193 G8-B7/SOM435 | 0.018 |
| 18 | SLOTTED SCREW BOLT M10 | A193 G8-B7/SOM435 | 0.02 |
| 19 | PARALLEL PIN 10X42 | A576 G10250-N/S25C-N | 0.026 |
| 20 | PARALLEL PIN 12X1.25 | A576 G10250-N/S25C-N | 0.008 |
| 21 | PARALLEL PIN 8X20 | A295 S2100/SU2 | 0.012 |
| 22 | WASHER M20 | A576 G10250-N/S25C-N | 0.054 |
| 23 | PISTON PIN | A29 G4118/SOM420 | 3.0 |
| 24 | PISTON PIN | A29 G4118/SOM420 | 3.0 |
| 25 | PISTON PIN | A29 G4118/SOM420 | 3.0 |
| 26 | PISTON PIN | A29 G4118/SOM420 | 3.0 |
| 27 | WASHER M16 | W1-7/SS02M | 0.003 |
| 28 | PLUG R3/8 | A576 G10250-N/S25C-N | 0.02 |
| 29 | PLUG M12X1.5 | A576 G10250-N/S25C-N | 0.02 |
| 30 | PLUG M12X1.5 | A576 G10250-N/S25C-N | 0.02 |
| 31 | PLUG M12X1.5 | A576 G10250-N/S25C-N | 0.02 |
| 32 | RETAINING RING | A866 TYPE W-GC/SSKM | 0.004 |
| 33 | RETAINING RING | A866 TYPE W-GC/SSKM | 0.008 |
| 34 | OIL SEAL | NBR | - |
| 35 | BEARING | A295 S2100/SU | 0.13 |
| 36 | O RING F50A | RUBBER | 0.004 |
| 37 | O RING F75 | RUBBER | 0.002 |
| 38 | O RING F75 | RUBBER | 0.001 |
| 39 | O RING F75 | RUBBER | 0.001 |
| 40 | WASHER M8 | W1-7/SS02M | 0.001 |
| 41 | SCREW M8X12 | A248 G10150/SWRM12 | 0.005 |
| 42 | SPRING WASHER M6 | A713 G10640/SWRM62 | 0.001 |
| a | DRAIN COVER | - | 1.1 |
| b | MACHINING OF BUSH | - | 1.38 |
| c | MACHINING OF BSPT | - | 0.88 |

- NOTES:
- CHECK PISTON STROKE (OPEN 18.8mm, CLOSE 81.1mm).
 - CHECK STROKE OF PILOT VALVE (14.4mm).
 - ON ASSY, USE CARE NOT TO DAMAGE MV PACKINGS @A AND OIL SEAL @B.
 - MOUNTING POINT AND ORIENTATION OF THE MV-PACKING IS INSERTED AND AS SHOWN ABOVE.
 - STAMP AT THE MOUNTING SCREWS OF THE PILOT VALVE, FLEXIBLE HOSE CONNECTION, OIL SEAL, AND OIL SEAL AS FOLLOWS:
 - NO STAMP (NO PAINT)
 - PILOT LEAK : STAMP "C" (GREEN PAINT)
 - OIL SEAL LEAK : STAMP "W" (WHITE PAINT)

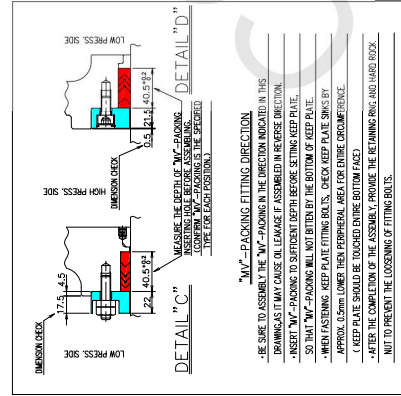
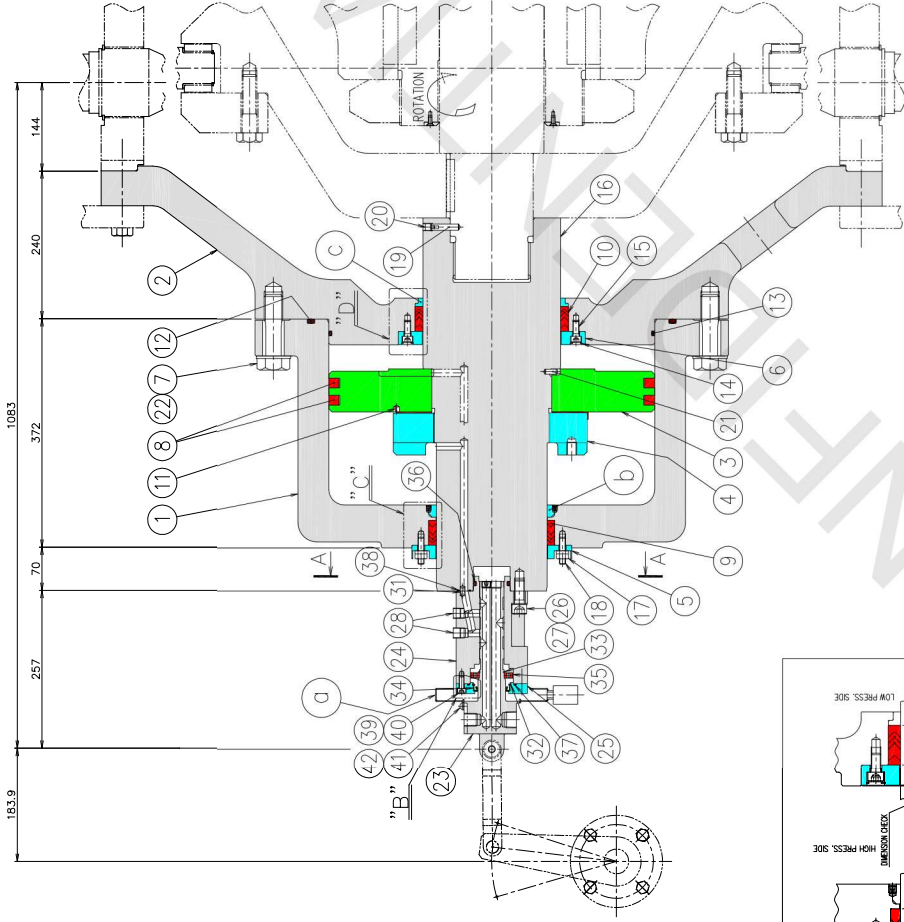
WHEN ASSY, CONFIRM PLUG IS NOT STICKING OUT FROM SURFACE OF PILOT VALVE. APPLY SEAL GLUE ALL AROUND SO THAT OIL MAY NOT LEAK. PUNCHING AT 2 PLACES ON CIRCUMFERENCE AFTER TIGHTING.
(SEAL GLUE : THREEBOND NOT1303N)



DETAIL "B"

FIGURE 4-3.1.6 HYDRAULIC MECHANISM ASSEMBLY

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