

実例と基準値-2

片持ち送風機の外輪周期

NITE.NO.0442

諸元 / (約 1.0h稼働) 主因...半割軸受部の締結ボルト締め過ぎで外輪疵周期が発生!

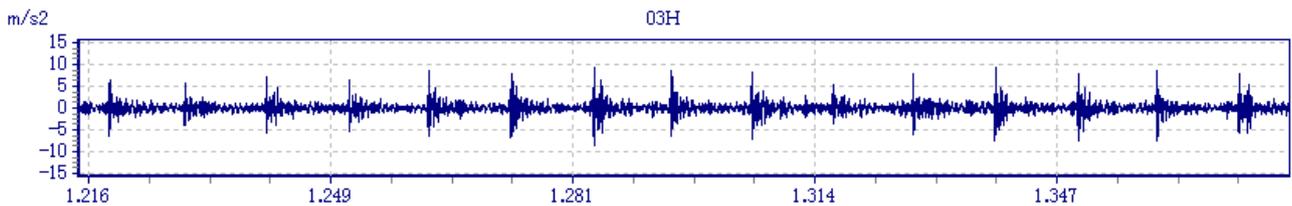
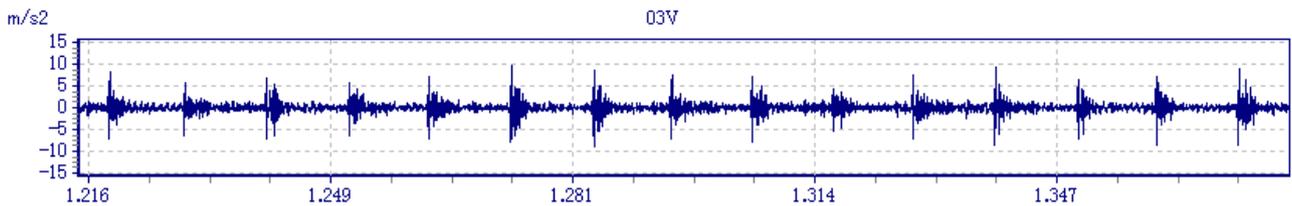
- ・ 1 1.0 kW 4P/12Z モータ直結 1775rpm 150
- ・ インペラ (鋼製)・66.20m<sup>3</sup>/min×300mmAq
- ・ 6 3 1 4 C3 (軸径 = 70φ)・ゴム弾性体と柔性架台



測定値

| 部位 | 方向 | mm/s | m/s <sup>2</sup> /5P | m/s <sup>2</sup> -R | P/R   |
|----|----|------|----------------------|---------------------|-------|
|    | V  | 1.48 | 1.72                 | 1.20                | 1.43  |
|    | H  | 1.28 | 1.76                 | 1.19                | 1.48  |
|    | V  | 1.90 | 1.29                 | 1.00                | 1.29  |
|    | H  | 2.03 | 1.12                 | 0.68                | 0.164 |

【波形トピックス】... 部位の VH 方向の加速度波形は、衝撃性が明瞭!



03V

|   |                         |        |       |        |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
|---|-------------------------|--------|-------|--------|-------|------|-----|-------|-------|-------|--------|----|-------|-------|-------|------|----|----|----|-----|----|-----|-------|--------|-------|--------|-------|----|-------|------|-------|------|-------|
| <p>ACC</p>  | <p>ACC Spectrum</p>     |        |       |        |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| <p>VEL</p>  | <p>VEL Spectrum</p>     |        |       |        |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| <p>ACC-ENV</p>  | <p>ACC-ENV Spectrum</p> |        |       |        |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| <p>VEL Corr</p>   | <p>ACC-ENV Corr</p>     |        |       |        |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| <p>ベアリング 6314C3 回転数 1765</p> <table border="1"> <tr> <td>fr</td> <td>2fr</td> <td>3fr</td> <td>fp</td> <td>12 数</td> </tr> <tr> <td>周波数</td> <td>29.42</td> <td>58.83</td> <td>88.25</td> <td>353.00</td> </tr> <tr> <td>周期</td> <td>33.99</td> <td>17.00</td> <td>11.33</td> <td>2.83</td> </tr> <tr> <td>fo</td> <td>fi</td> <td>fb</td> <td>2fb</td> <td>fc</td> </tr> <tr> <td>周波数</td> <td>90.50</td> <td>144.84</td> <td>60.30</td> <td>120.60</td> <td>11.31</td> </tr> <tr> <td>周期</td> <td>11.05</td> <td>6.90</td> <td>16.58</td> <td>8.29</td> <td>88.40</td> </tr> </table> |                         | fr     | 2fr   | 3fr    | fp    | 12 数 | 周波数 | 29.42 | 58.83 | 88.25 | 353.00 | 周期 | 33.99 | 17.00 | 11.33 | 2.83 | fo | fi | fb | 2fb | fc | 周波数 | 90.50 | 144.84 | 60.30 | 120.60 | 11.31 | 周期 | 11.05 | 6.90 | 16.58 | 8.29 | 88.40 |
| fr  | 2fr                     | 3fr    | fp    | 12 数   |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| 周波数   | 29.42                   | 58.83  | 88.25 | 353.00 |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| 周期  | 33.99                   | 17.00  | 11.33 | 2.83   |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
| fo  | fi                      | fb     | 2fb   | fc     |       |      |     |       |       |       |        |    |       |       |       |      |    |    |    |     |    |     |       |        |       |        |       |    |       |      |       |      |       |
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