|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **AXA 型轴式吊耳强度计算** | | 计算单位 |  | | |
| 计算所依据的标准 | | | **HG/T 21574-2008 附录 A** | | |
| **计 算 条 件** | | | **吊 耳 简 图** | | |
| 管轴材料标准号 | **$$001** | | $03  $02  $01  15°  吊索方向 | | |
| 管轴材料牌号/名称 | **$$002** | |
| 管轴外直径, Do | mm | **$$003** |
| 管轴厚度, δn | mm | **$$004** |
| 长度, L | mm | **$$005** |
| 管轴腐蚀裕量, C2 | mm | **$$006** |
| 单个吊耳吊重, m | kg | **$$007** |
| **材 料 特 性** | | | | | |
| 密度, ρ | kg/m³ | **$$008** | 常温屈服点, ReL | MPa | **$$009** |
| 材料负偏差, C1 | mm | **$$010** | / | | |
| **过 程 参 数** | | | | | |
| 厚度附加量, C | mm | C = C1 + C2 | | | **$$011** |
| 有效厚度, δe | mm |  | | | **$$012** |
| 许用拉应力, [σ] | MPa | [σ] = ReL/1.6 | | | **$$013** |
| 综合影响系数, K | / | 考虑动载荷冲击,多个吊耳吊装时的不均匀性, K = 1.65 | | | **1.65** |
| **强 度 计 算** | | | | | |
| 竖向载荷, Fv | N | FV = m×9.81×K | | | **$$015** |
| 横向载荷, FH | N | FH = FV×tan15° | | | **$$016** |
| 经向弯矩, M | N·mm | M = Fv×L | | | **$$017** |
| 管轴横截面积, A | mm2 |  | | | **$$018** |
| 系数, α | / | α = (Do-2δe)/Do | | | **$$019** |
| 截面系数, J | mm4 |  | | | **$$020** |
| 管轴抗弯模量, W | mm3 | W = J/0.5Do | | | **$$021** |
| 管轴拉应力, σLt | MPa | σLt = FH/A | | | **$$022** |
| 管轴弯曲应力, σLb | MPa | σLb = M/W | | | **$$023** |
| 管轴组合应力, σL | MPa | σL = σLt +σLb | | | **$$024** |
| 管轴组合应力校核 | / | σL ≤ [σ] | | | **$$025** |

注：必要时，壳体尚应按 WRC-107 进行局部应力校核.