as-built crane specification

product range - Knuckle Boom Crane

product reference - EHC 200/4300 OS KB



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| **PERFORMANCE** |
|  | ***Lifting/Load Capacity*** |   | (heel/trim - 3°/2°) |
|  | *Main Hoist* |   | Onboard SWH=0m: 2-fall, 200t @ 20m // 1-fall, 100t @ 37m |
|  |  |   | 100t weight in air / 80t submerged weight, lifting from 3300m water depth  |
|  | *Aux. Hoist* |   | Offboard SWH=2m: 1-fall, 25t @ 47m  |
|  |  |   | 25t weight in air / 20t submerged weight, lifting from 100m water depth  |
|  | *Tugger Winch* |  | 2-off, 0-10t including constant tension, 1-fall |
|  |  |  |  |
|  | ***Hook Speeds*** |   | Variable load dependent speed, step-less from zero to maximum |
|  | *Main Hoist* |  | Offboard lifts | Onboard Lifts |
|  | *Fall arrangement* |  | 1-fall | 2-fall | 1-fall & 2-fall |
|  | *Speed @ max. SWL 1st layer [m/min]* |  | 29 m/min | 15 m/min | Reduced to 50% of normal speeds |
|  | *Speed @ max. SWL last layer [m/min]* |  | 45 m/min | 22.5 m/min | Reduced to 50% of normal speeds |
|  | *Speed @ empty hook last layer [m/min]* |  | 120 m/min | 60 m/min | Reduced to 50% of normal speeds |
|  |  |  |  |
|  | *Aux Hoist* |   |   |
|  | *Speed with maximum SWL [m/min]* |   | 40 m/min  |
|  | *Speed with empty hook [m/min]* |   | 100 m/min  |
|  | *Tugger Winch* |  | 75m/min constant tension speed |
|  |  |  |  |
|  | ***Active Heave Compensation***  |   |  |
|  | *Main hoist* |   | 100t weight in air / 80t submerged weight @ 60 m/min at 3300m water depth |
|  |  |   | Empty hook @ 90 m/min at 3300m water depth |
|  |  |   |   |
|  | ***Slewing*** |  | Three row roller-bearing |
|  | *Slewing Range* |   | n x 360°.  |
|  | *Slewing speed* |   | Up to 1.0 rpm |
|  |  |  |  |
|  | *Modes of operation* |   | Deck lift operations |
|  |  |  | Barge lift operations  |
|  |  |  | Supply boat operations |
|  |  |  | Personnel lift operations |
|  |  |  | Subsea operations |
|  |  |  |  |

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| **DESIGN CRITERIA** |
|  | ***Design*** |   |   |
|  | *Classification by* |   | Lloyds Register |
|  | *Main Design Codes* |   | LR CLAME, 2016 |
|  |  |   | NMA, DSB regulations concerning deck cranes on mobile offshore units |
|  |  |  |  |
|  | ***Crane Duty-Cycle Classification*** |   | according FEM 1.001 |
|  | *Class of Utilization* |   | U5 |
|  | *State of loading* |   | Q1 |
|  | *Group classification for Crane* |   | A4 |
|  |   |   |   |
|  | ***Classification of Mechanisms:*** |  | Aux. hoist | Main hoist | Slewing | Luffing | Folding | Tuggers |
|  | *Duration of use* |  | T5 | T5 | T6 | T6 | T6 | T2 |
|  | *Spectrum class* |  | L1 | L1 | L1 | L1 | L1 | L3 |
|  | *Group classification for Mechanism* |  | M4  | M4  | M5 | M5  | M5 | M3 |
| **INTERFACE DATA** |
|  | ***Weights*** |   |   |
|  | *Crane gross measured mass* |   | 443t (1000m wire, excluding factors) |
|  | *Delta 3380m – 1000m wire* |  | 64t |
|  | *Pedestal* |   | Subject to height, deck interface and access |
|  |  |  |  |
|  | ***Pedestal Dyn. Overturning moment*** |   | (at slew bearing level, 88t @ 25m, SWH2m Barge Lift, +/- 5%, factored load incl wind) |
|  | *Max. Dyn. Overturning moment* |   | 64000kNm |
|  | *Max. Dyn. Axial Force* |   | 7100kN |
|  | *Max. Dyn. Radial Force* |   | 1500kN |
|  | *Max. Dyn. Slewing Moment* |   | 9100kNm |
|  |  |  |  |
|  | ***Power Unit*** |  | S1 | S6 | Starting method |
|  | *Main Power* |  | 3 x 400kW (S1-100%) | 3 x 560kW (S6-10%) | Star/Delta |
|  | *Emergency Power* |  | 1 x 100kW (S1-100%) |  | DOL |
|  |  |  |  |
|  | ***Utilities*** |   |  Power and signals via slip ring |
|  | *Main Power* |   | 440V / 60Hz, 3-ph (3-off main driver motor) |
|  | *Auxiliary Power*  |   | 440V / 60Hz, 3-ph (for Lighting & heating, Air conditioner and Power socket) |
|  | *Emergency Power* |   | 440V / 60Hz, 3-ph (for Emergency pump motor and Crane control system) |
|  | *UPS* |   | 230V / 60Hz, 1-ph (Aircraft warning lights) |
|  |  |   |   |
|  | ***Power consumption*** |   |   |
|  | *Main* |   | 3 x 680kVA intermittent, 3 x 485kVA continuous |
|  | *Auxiliary* |   | 21kVA |
|  | *Emergency* |   | 125kVA |
|  | *UPS* |   | 72VA |