

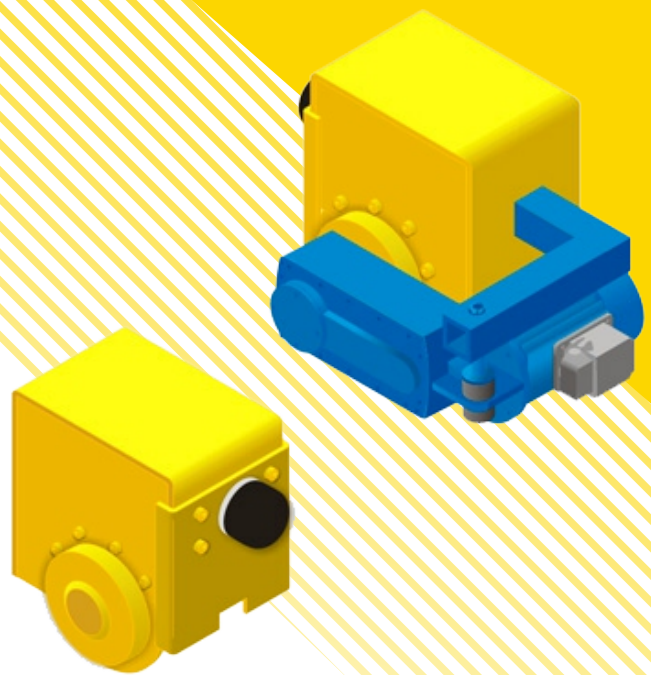
· GH ·

CRANES & COMPONENTS

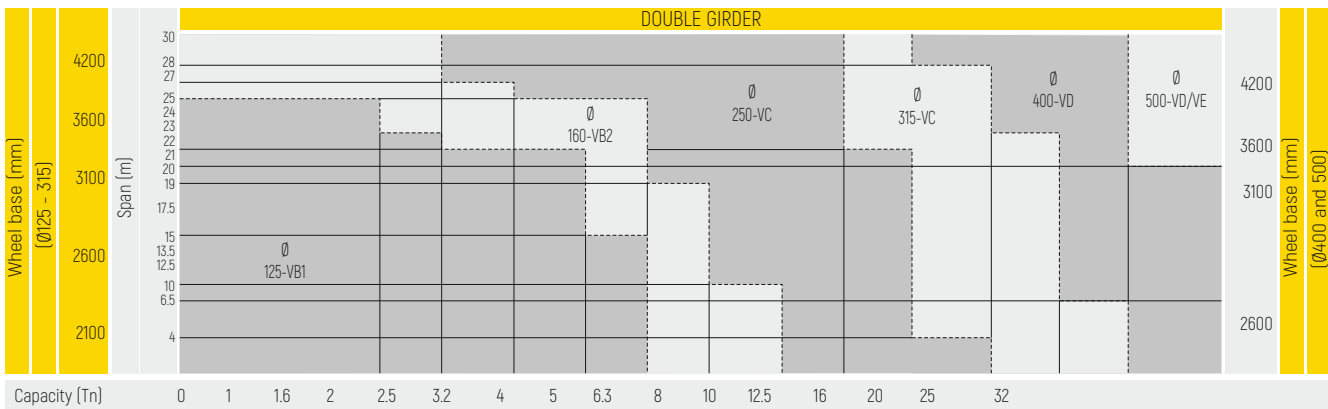
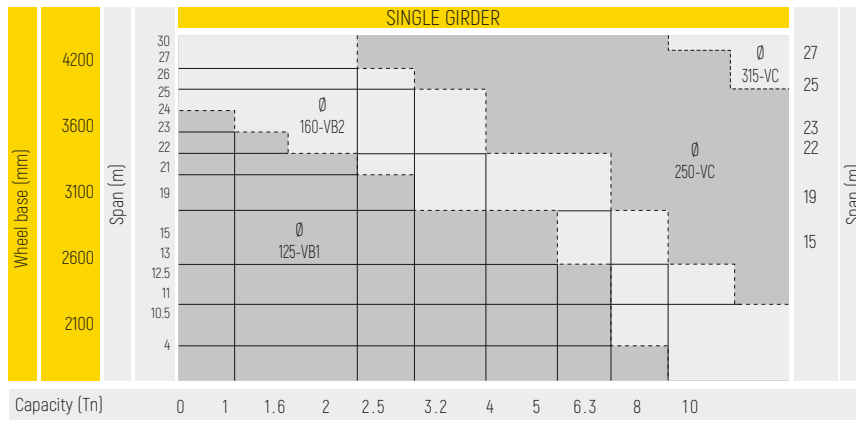


END CARRIAGES

—
CRANE
COMPONENTS

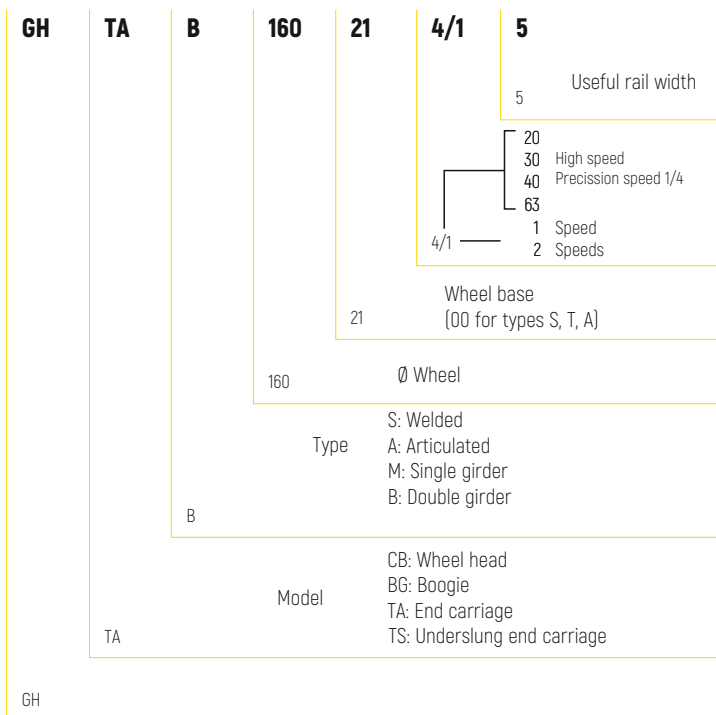


WHEEL SELECTION CHART *



* Given information is approximate. Final wheel diameter depends on speed, duty and rail width.

LONG TRAVEL COMPONENTS



STANDARD END CARRIAGES

| ∅ Wheel | Gear box Type | Possible speeds in m/min. | | | | | | |
|---------|---------------|---------------------------|----|----|----|----|----|----|
| | | 10 | 15 | 20 | 25 | 30 | 40 | 60 |
| 125 | RFS/125 | ✗ | ✗ | ✗ | | | | |
| 160 | RFS/160 | | | | | | | |
| 250 | RFS/250 | | | | | | 3T | |
| 315 | RFS/315 | | | | | | | |
| 400 | RFS/400 | | | | | | | |
| 500 | RFS/500 | ✗ | | 4T | | | | |
| 630 | RFS/630 | ✗ | | | | | | |

UNDERSLUNG END CARRIAGES

| ∅ Wheel | Gear box Type | Possible speeds in m/min. | | | | | |
|---------|---------------|---------------------------|----|----|----|----|----|
| | | 10 | 15 | 20 | 25 | 30 | 40 |
| 125 | RFS/125 | | | | | | ✗ |
| 160 | RFS/160 | | | | | | ✗ |
| 200 | RFS/250 | | | 3T | | | ✗ |
| 250 | | | | | | | ✗ |

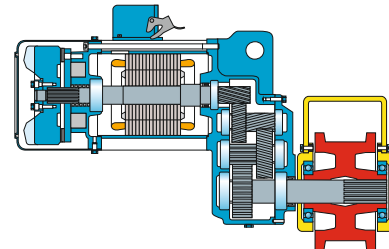
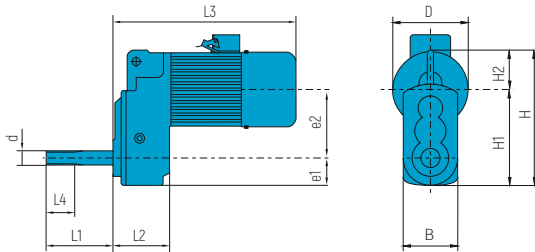
TRAVEL GEAREDMOTORS

Specially designed by GH for use on cross travel and long travel motions.

Gradual acceleration, smooth brakes, all with minimum noise.

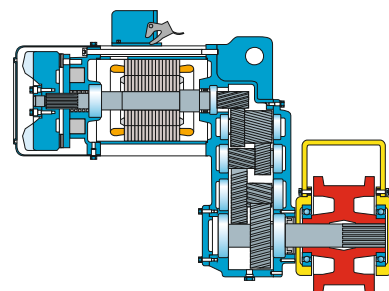
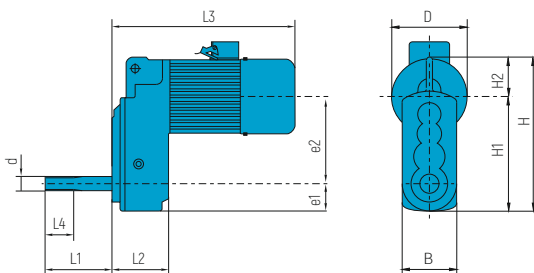
Travel wheels with double flanges with mounted bearings. Drive to the wheels is direct via splined shaft.

THREE STAGE MOTOR-GEARBOXES



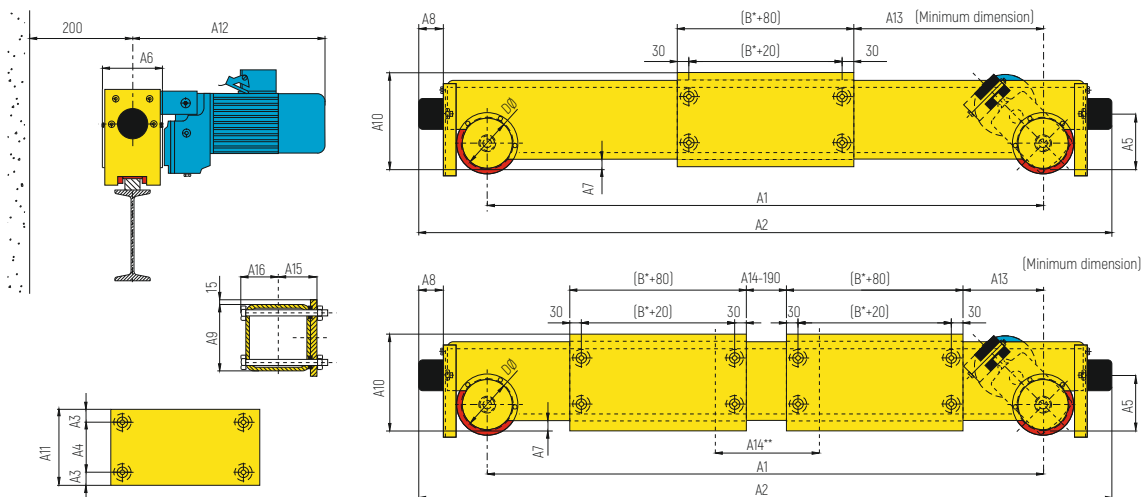
| Weight Kg | Motor type | Gearbox type | Motor Power (Kw) F=50 Hz | | Ø d mm. | L1 mm. | L2 mm. | L3 mm. | L4 mm. | e1 mm. | e2 mm. | B mm. | Ø D mm. | H1 mm. | H2 mm. | H mm. |
|-----------|------------|--------------|--------------------------|-----------|---------|--------|--------|--------|--------|--------|--------|-------|---------|--------|--------|--------|
| | | | 3000 Var | 3000/750 | | | | | | | | | | | | |
| 24 | VB1-60 | RFS / 125-3T | 0,85 | 0,40/0,10 | 34,9 | 152 | 112 | 389 | 60 | 60 | 134,2 | 120 | 157,5 | 194,2 | 78 | 273,2 |
| 32 | VB2-60 | RFS / 160-3T | 0,85 | 0,75/0,18 | 34,9 | 166 | 134 | 448,5 | 70 | 67 | 168,25 | 134 | 157,5 | 235,25 | 90 | 325,25 |
| 34 | VB2-100 | | | | | | | | | | | | | | | |
| 50 | VC-85 | RFS / 250-3T | 1,5 | 1,5/0,37 | 49,9 | 240 | 146 | 492 | 60 | 90 | 218,05 | 180 | 218 | 308,05 | 109 | 417,05 |
| 54 | VC-110 | | | | | | | | | | | | | | | |
| 50 | VC-85 | RFS / 315-3T | 1,5 | 1,5/0,37 | 49,9 | 250 | 146 | 492 | 60 | 90 | 218,05 | 180 | 218 | 308,05 | 109 | 417,05 |
| 54 | VC-110 | | | | | | | | | | | | | | | |
| 150 | VD-110 | RFS / 400-3T | 5 | 3/0,75 | 64,9 | 316 | 235 | 592 | 65 | 130 | 323,7 | 250 | 265 | 453,7 | 135 | 588,7 |
| 150 | VD-110 | RFS / 500-3T | 5 | 3/0,75 | 79,9 | 332 | 235 | 592 | 65 | 130 | 323,7 | 250 | 265 | 453,7 | 135 | 588,7 |
| 205 | VE-110 | RFS / 500-3T | 7,5 | 5,1/1,3 | 79,9 | 332 | 235 | 672 | 65 | 130 | 323,7 | 250 | 327 | 453,7 | 135 | 617 |
| 320 | VE-110 | RFS / 630-3T | 7,5 | 5,1/1,3 | 89,9 | 399 | 262 | 700 | 55 | 200 | 440,9 | 400 | 327 | 640,9 | 166 | 806,9 |

FOUR STAGE MOTOR-GEARBOXES



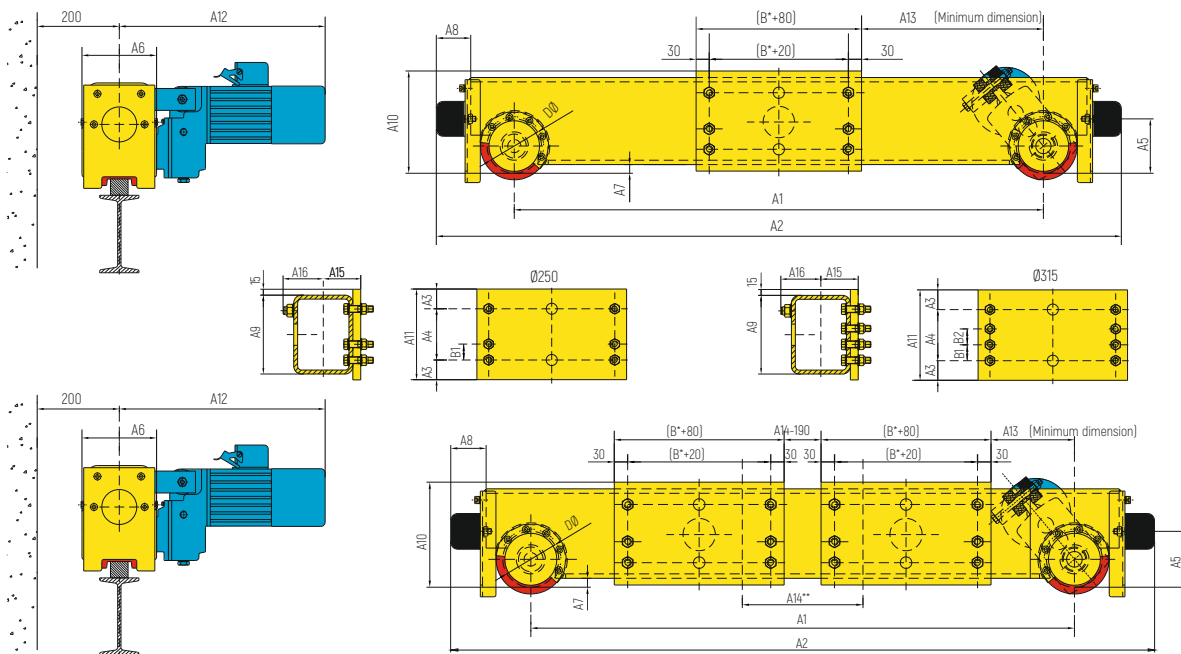
| Weight Kg | Motor type | Gearbox type | Motor Power (Kw) F=50 Hz | | Ø d mm. | L1 mm. | L2 mm. | L3 mm. | L4 mm. | e1 mm. | e2 mm. | B mm. | Ø D mm. | H1 mm. | H2 mm. | H mm. |
|-----------|------------|--------------|--------------------------|-----------|---------|--------|--------|--------|--------|--------|--------|-------|---------|--------|--------|-------|
| | | | 3000 Var | 3000/750 | | | | | | | | | | | | |
| 36 | VB2-60 | RFS / 160-4T | 0,85 | 0,75/0,18 | 34,9 | 166 | 154 | 463 | 70 | 75 | 240,8 | 150 | 157,5 | 315,8 | 90 | 405,8 |
| 38 | VB2-100 | | | | | | | | | | | | | | | |
| 56 | VC-85 | RFS / 250-4T | 1,5 | 1,5/0,37 | 49,9 | 240 | 160,5 | 495 | 60 | 100 | 289 | 200 | 218 | 389 | 109 | 498 |
| 60 | VC-110 | | | | | | | | | | | | | | | |
| 56 | VC-85 | RFS / 315-4T | 1,5 | 1,5/0,37 | 49,9 | 250 | 160,5 | 495 | 60 | 100 | 289 | 200 | 218 | 389 | 109 | 498 |
| 60 | VC-110 | | | | | | | | | | | | | | | |
| 160 | VD-110 | RFS / 400-4T | 5 | 3/0,75 | 64,9 | 316 | 235 | 592 | 65 | 145 | 447,7 | 290 | 265 | 592,7 | 135 | 727,7 |
| 160 | VD-110 | RFS / 500-4T | 5 | 3/0,75 | 79,9 | 332 | 235 | 592 | 65 | 145 | 447,7 | 290 | 265 | 592,7 | 135 | 727,7 |
| 215 | VE-110 | RFS / 500-4T | 7,5 | 5,1/1,3 | 79,9 | 332 | 235 | 672 | 65 | 145 | 447,7 | 290 | 327 | 592,7 | 135 | 756 |

END CARRIAGES FOR SINGLE AND DOUBLE GIRDER CRANES



| DØ | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | Single Girder A15 | Double Girder A15 | A16 | Single Girder Weight (Kg) | Double Girder Weight (Kg) |
|-----|------|------|----|-----|-----|-----|------|----|-----|-------|-----|-----|----------------------|-----|----------------------|----------------------|-----|------------------------------|------------------------------|
| 100 | 1600 | 1932 | 50 | 130 | 118 | 152 | 13 | 58 | 200 | 228 | 230 | 469 | 185 | 330 | 80 | 80 | --- | 96 | 113 |
| | 2100 | 2432 | | | 118 | | | | | | | | | 115 | | | | 132 | |
| | 2600 | 2932 | | | 118 | | | | | | | | | 134 | | | | 151 | |
| | 3100 | 3432 | | | 160 | | | | | | | | | 153 | | | | 170 | |
| | 3600 | 3932 | | | 160 | | | | | | | | | 172 | | | | 189 | |
| 125 | 1600 | 1960 | 50 | 130 | 125 | 171 | 20 | 80 | 200 | 235 | 230 | 475 | 185 | 900 | 97 [20] 107 [30] | 97 | 103 | 135 | -- |
| | 2100 | 2460 | | | 185 | | | | | | | | | 160 | | | | 185 | |
| | 2600 | 2960 | | | 185 | | | | | | | | | 210 | | | | 210 | |
| | 3100 | 3460 | | | 210 | | | | | | | | | 235 | | | | 235 | |
| | 3600 | 3960 | | | 235 | | | | | | | | | -- | | | | -- | |
| 160 | 1600 | 2035 | 50 | 180 | 160 | 175 | 37.5 | 97 | 250 | 302.5 | 280 | 536 | 205 (3T) 295 (4T) | 107 | 97 | 103 | 175 | -- | |
| | 2100 | 2535 | | | 205 | | | | | | | | | | | | 205 | | |
| | 2600 | 3035 | | | 235 | | | | | | | | | | | | 235 | | |
| | 3100 | 3535 | | | 265 | | | | | | | | | | | | 265 | | |
| | 3600 | 4035 | | | 295 | | | | | | | | | | | | 295 | | |
| | 4200 | 4635 | | | 330 | | | | | | | | | | | | 330 | | |

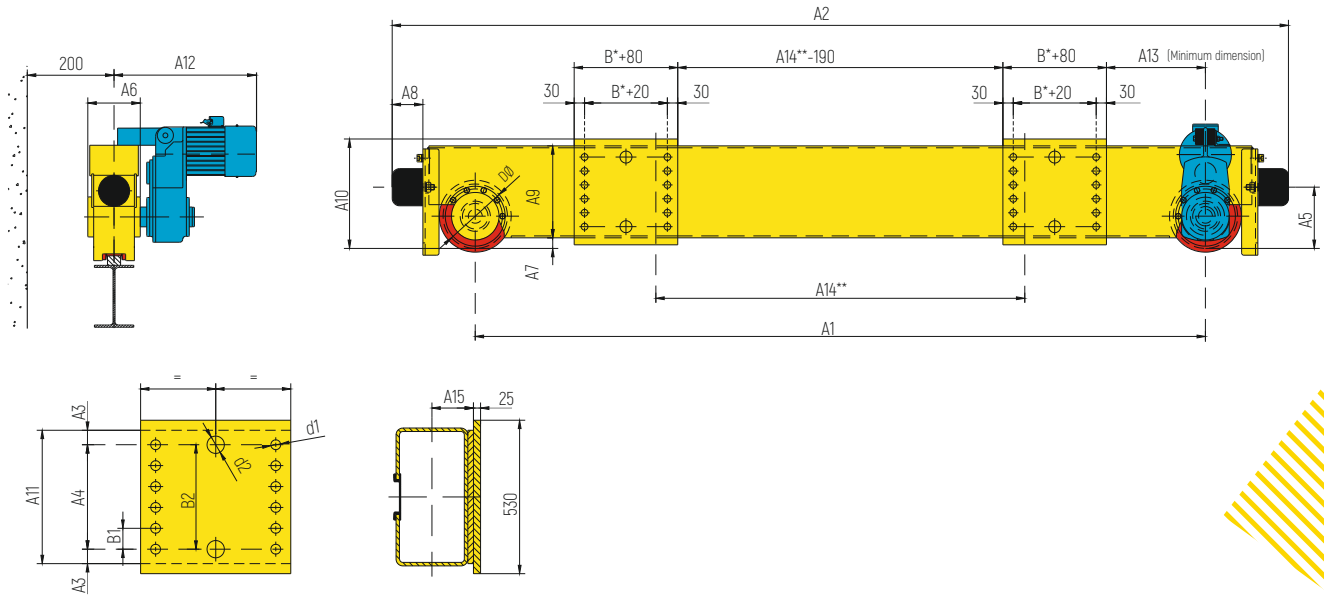
* Dimension "B" corresponds to the measurement of the base of the girder. ** Dimension A14 corresponds to the span of the trolley.



| DØ | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | Single Girder A15 | Double Girder A15 | A16 | B1 | B2 | Single Girder Weight (Kg) | Double Girder Weight (Kg) |
|-----|------|------|----|-----|-----|-----|------|-----|-----|-------|-----|-----|----------------------|-----|----------------------|----------------------|-----|----|----|------------------------------|------------------------------|
| 250 | 2100 | 2665 | 65 | 200 | 250 | 258 | 30 | 117 | 300 | 345 | 330 | 621 | 295 (3T) 375 (4T) | 900 | 120 [20] 130 [30] | 120 | 128 | 60 | -- | 335 | 335 |
| | 2600 | 3165 | | | | | | | | | | | | 380 | | | | | | 380 | |
| | 3100 | 3665 | | | | | | | | | | | | 425 | | | | | | 425 | |
| | 3600 | 4165 | | | | | | | | | | | | 470 | | | | | | 470 | |
| | 4200 | 4765 | | | | | | | | | | | | 525 | | | | | | 525 | |
| 315 | 2100 | 2725 | 70 | 290 | 315 | 268 | 62.5 | 117 | 400 | 477.5 | 430 | 626 | 205 (3T) 310 (4T) | 900 | 130 | 120 | 128 | 65 | 65 | 505 | 505 |
| | 2600 | 3225 | | | | | | | | | | | | 565 | | | | | | 565 | |
| | 3100 | 3725 | | | | | | | | | | | | 625 | | | | | | 625 | |
| | 3600 | 4225 | | | | | | | | | | | | 685 | | | | | | 685 | |
| | 4200 | 4825 | | | | | | | | | | | | 760 | | | | | | 760 | |

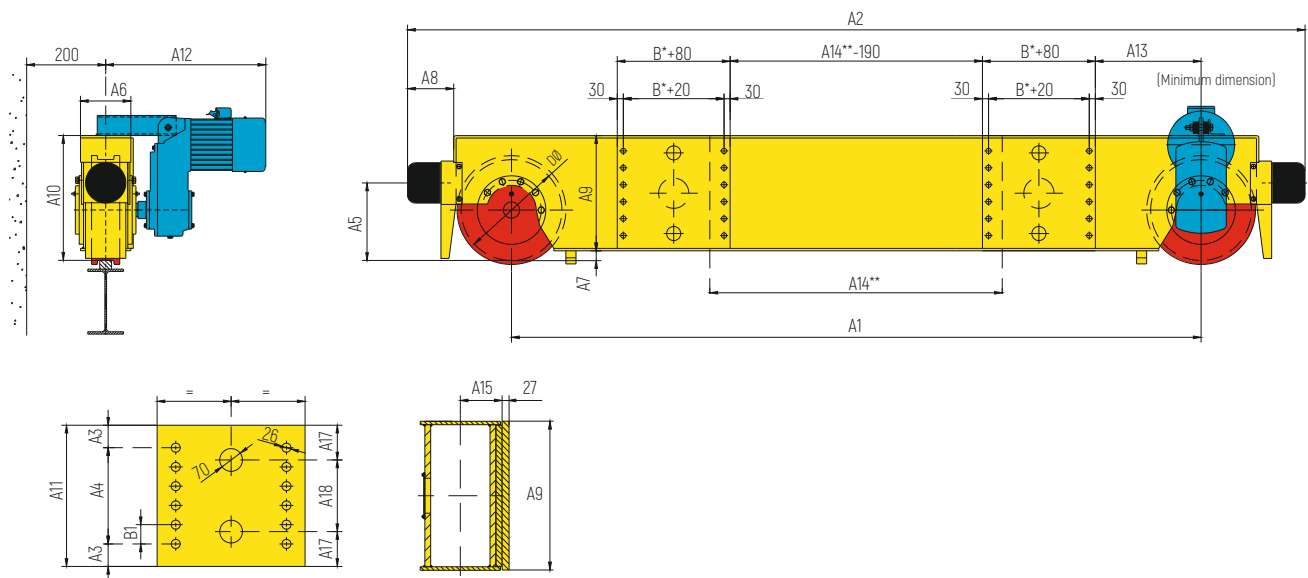
* Dimension "B" corresponds to the measurement of the base of the girder. ** Dimension A14 corresponds to the span of the trolley.

END CARRIAGES FOR DOUBLE GIRDER CRANES



| DØ | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | B1 | B2 | Ød1 | Ød2 | Weight (Kg) |
|-----|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|----|-----|-----|-----|-------------|
| 400 | 3100 | 3900 | 50 | 390 | 335 | 285 | 50 | 130 | 500 | 565 | 490 | 785 | 275 | 1500 | 120 | 78 | 390 | 24 | 40 | 930 |
| | 3600 | 4400 | | | | | | | | | | | | 1500 | | | | | | 990 |
| | 4200 | 5000 | | | | | | | | | | | | 1800 | | | | | | 1065 |
| 500 | 3100 | 4070 | 40 | 410 | 385 | 301 | 100 | 165 | 500 | 615 | 490 | 795 | 320 | 1500 | 120 | 82 | 380 | 26 | 70 | 1220 |
| | 3600 | 4570 | | | | | | | | | | | | 1500 | | | | | | 1290 |
| | 4200 | 5170 | | | | | | | | | | | | 1800 | | | | | | 1395 |

* Dimension "B" corresponds to the measurement of the base of the girder. ** Dimension A14 corresponds to the span of the trolley.

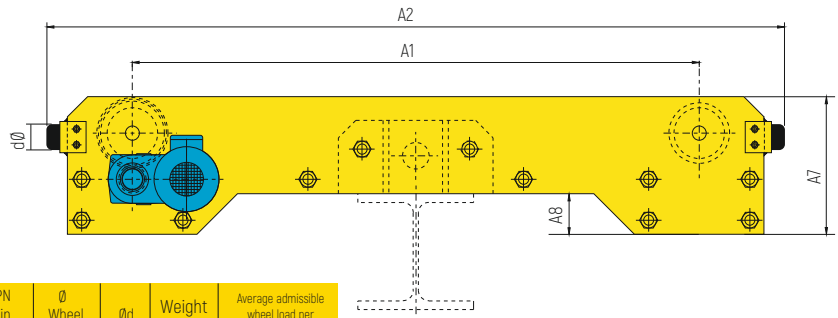


| DØ | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A17 | A18 | B1 | Weight (Kg) |
|-----|------|------|------|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|----|-------------|
| 500 | 3100 | 3900 | 66,5 | 410 | 385 | 301 | 48 | 230 | 571 | 619 | 543 | 795 | 320 | 1500 | 137 | 81,5 | 380 | 82 | 1490 |
| | 3600 | 4400 | | | | | | | | | | | | 1500 | | | | | 1590 |
| | 4200 | 5000 | | | | | | | | | | | | 1800 | | | | | 1700 |
| 630 | 3100 | 4070 | 33 | 540 | 495 | 383 | 45 | 268 | 640 | 685 | 606 | 930 | 390 | 1500 | 180 | 133 | 340 | 90 | 2435 |
| | 3600 | 4570 | | | | | | | | | | | | 1500 | | | | | 2595 |
| | 4200 | 5170 | | | | | | | | | | | | 1800 | | | | | 2790 |

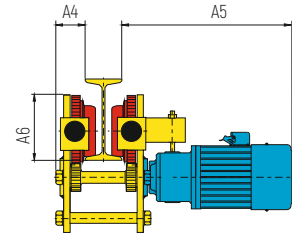
* Dimension "B" corresponds to the measurement of the base of the girder. ** Dimension A14 corresponds to the span of the trolley.

END CARRIAGES FOR UNDERSLUNG CRANES

SINGLE GIRDER MODEL TS - M

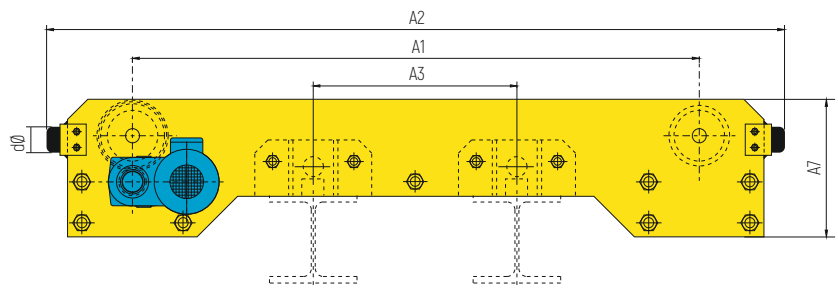


| Span m | A1 mm. | A2 mm. | A4 mm. | A5 mm. | A6 min. mm. | A7 mm. | A8 mm. | IPN min. mm. | Ø Wheel mm. | Ød mm. | Weight Kg. | Average admissible wheel load per 2 wheels (daN) |
|----------|--------------|--------------|--------|--------|-------------|--------|--------|--------------|-------------|--------|------------|--|
| 9 15 | 1200 2100 | 1600 2500 | 66 | 472 | 160 | 340 | 100 | 180 | 125 | 63 | 205 260 | 3600 |
| 9 15 | 1200 2100 | 1640 2540 | 71 | 522 | 198 | 390 | 105 | 220 | 160 | 63 | 275 360 | 5300 |
| 15 22 | 2100 3100 | 2630 3630 | 85 | 595 | 245 | 440 | 110 | 260 | 200 | 100 | 460 565 | 9300 |
| 15 22 | 2100 3100 | 2710 3710 | 95 | 595 | 287 | 540 | 130 | 320 | 250 | 100 | 730 885 | 13300 |

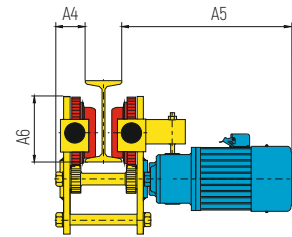


Note: End carriages with dimension A1 less than 2100 are only available as loose item.

DOUBLE GIRDER MODEL TS - B

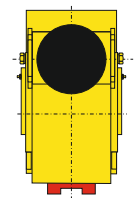
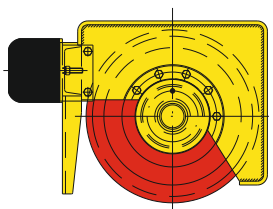
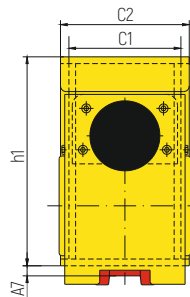
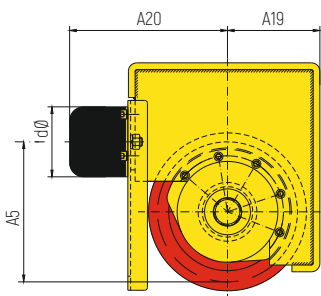


| Span m | A1 mm. | A2 mm. | A3 mm. | A4 mm. | A5 mm. | A6 min. mm. | A7 mm. | A8 mm. | IPN min. mm. | Ø Wheel mm. | Ød mm. | Weight Kg. | Average admissible wheel load per 2 wheels (daN) |
|----------|--------------|--------------|-------------|--------|--------|-------------|--------|--------|--------------|-------------|--------|------------|--|
| 9 15 | 1600 2100 | 2000 2500 | 900 900 | 66 | 472 | 160 | 340 | 100 | 180 | 125 | 63 | 230 260 | 3600 |
| 9 15 | 1600 2100 | 2040 2540 | 900 900 | 71 | 522 | 198 | 390 | 105 | 220 | 160 | 63 | 310 360 | 5300 |
| 15 22 | 2100 3100 | 2630 3630 | 900 1200 | 85 | 595 | 245 | 440 | 110 | 260 | 200 | 100 | 460 565 | 9300 |
| 15 22 | 2100 3100 | 2710 3710 | 900 1200 | 95 | 595 | 287 | 540 | 130 | 320 | 250 | 100 | 730 885 | 13300 |



Note: End carriages with dimension A1 less than 2100 are only available as loose item.

WHEEL HEADS



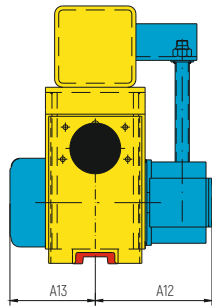
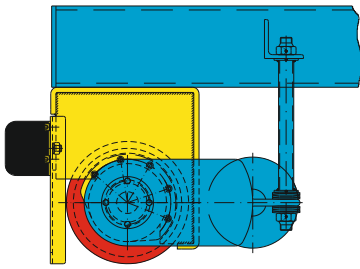
Weld-on wheel head

Ø125 Ø160 Ø250 Ø315 Ø400 Ø500

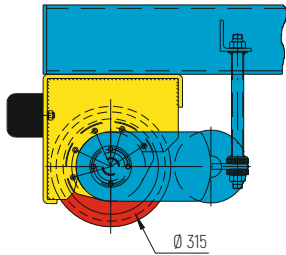
| Welded wheel-head | Ø Wheel | Dimensions | | | | | | | Ød |
|-------------------|---------|------------|-----|-----|-----|------|-----|-----|-----|
| | | C1 | C2 | H1 | A5 | A7 | A19 | A20 | |
| | 125 | 150 | 180 | 205 | 125 | 10 | 100 | 179 | 80 |
| | 160 | 150 | 180 | 255 | 160 | 27.5 | 120 | 217 | 100 |
| | 250 | 200 | 230 | 373 | 250 | 18 | 165 | 282 | 125 |
| | 315 | 200 | 230 | 373 | 305 | 50.5 | 195 | 312 | 125 |
| | 400 | 225 | 250 | 506 | 335 | 38 | 262 | 400 | 160 |
| | 500 | 220 | 250 | 546 | 385 | 48 | 312 | 486 | 200 |
| | 630 | 305 | 345 | 645 | 495 | 45 | 373 | 645 | 250 |

Weld-on wheel head Ø 630

WHEEL HEADS FOR GANTRY CRANES



| Ø Wheel | Gearbox type | Motor type | Dimensions | |
|---------|--------------|------------|------------|-----|
| | | | A12 | A13 |
| 160 | RFS/160-4T | VB2 | 234 | 222 |
| 250 | RFS/250-4T | VC | 282 | 215 |
| 315 | RFS/315-4T | VC | 287 | 210 |
| 400 | RFS/400-4T | VD | 420 | 172 |
| 500 | RFS/500-4T | VD | 428 | 165 |
| 630 | RFS/630-3T | VE | 928 | 192 |

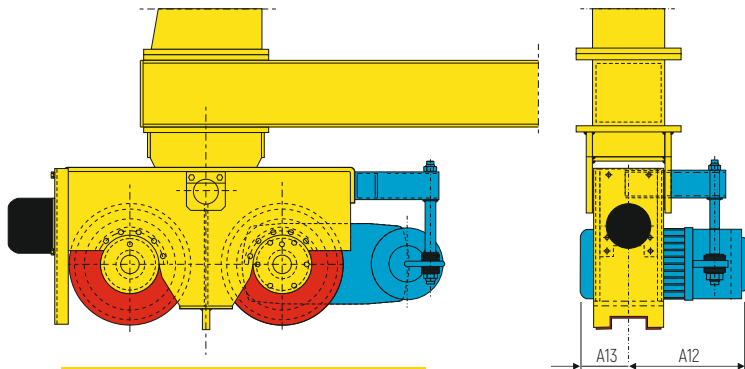


| Maximum admissible wheel loads GGG70 (daN) Acc. with FEM/UNE M4 group | | | | | | |
|--|-----------------------------|----------------------|-------|-------|-------|-------|
| Ø Wheel | Cross travel speed in m/min | Rail width in K (mm) | | | | |
| | | 40 | 50 | 60 | 70 | 80 |
| 125 | 20 | 4500 | 5000 | | | |
| | 40 | 3600 | 4000 | | | |
| | 63 | 3200 | 3400 | | | |
| 160 | 20 | 5900 | 7000 | 8300 | | |
| | 40 | 5000 | 6200 | 7400 | | |
| | 63 | 4400 | 5400 | 6400 | | |
| 250 | 20 | 9800 | 12200 | 14400 | | |
| | 40 | 8900 | 11100 | 13400 | | |
| | 63 | 8000 | 10000 | 12000 | | |
| 315 | 20 | 12700 | 15800 | 18600 | 18600 | |
| | 40 | 11600 | 14500 | 17400 | 18600 | |
| | 63 | 10900 | 13500 | 16200 | 17600 | |
| 400 | 20 | 16500 | 20700 | 24800 | 28900 | 30000 |
| | 40 | 15200 | 18900 | 22700 | 26500 | 30000 |
| | 63 | 14200 | 17800 | 21400 | 24900 | 27800 |
| 500 | 20 | | 26200 | 31500 | 36800 | 40000 |
| | 40 | | 24400 | 29300 | 34200 | 39000 |
| | 63 | | 23000 | 27600 | 32200 | 36800 |
| 630 | 20 | | | 40500 | 47200 | 52800 |
| | 40 | | | 38000 | 44300 | 50600 |
| | 63 | | | 35800 | 41800 | 47700 |

Loads for ratio $R_{min} / R_{max} = 0.35$
Rolling track minimum quality S355 (St52)

BOOGIES FOR GANTRY CRANES

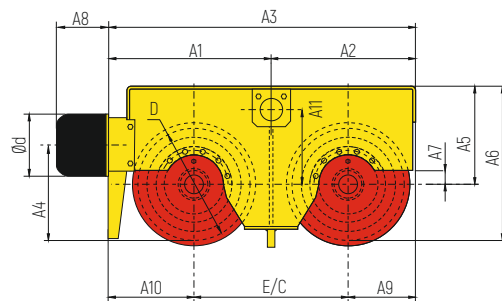
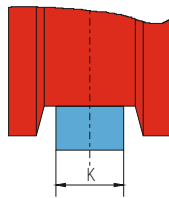
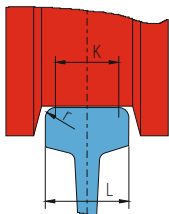
| DIN | Rail Type | Dimensions | |
|-----|-----------|------------|-----|
| | | L | K |
| 536 | A 45 | 45 | 37 |
| | A 55 | 55 | 45 |
| | A 65 | 65 | 53 |
| | A 75 | 75 | 59 |
| | A 100 | 100 | 80 |
| | A 120 | 120 | 100 |



Boogie Ø 315 - 400

Burbach rail:
Curved rail wheel head:
Square rail:

$k = L - 2r$
 $k = L - 4 / 3r$
 $k = L$



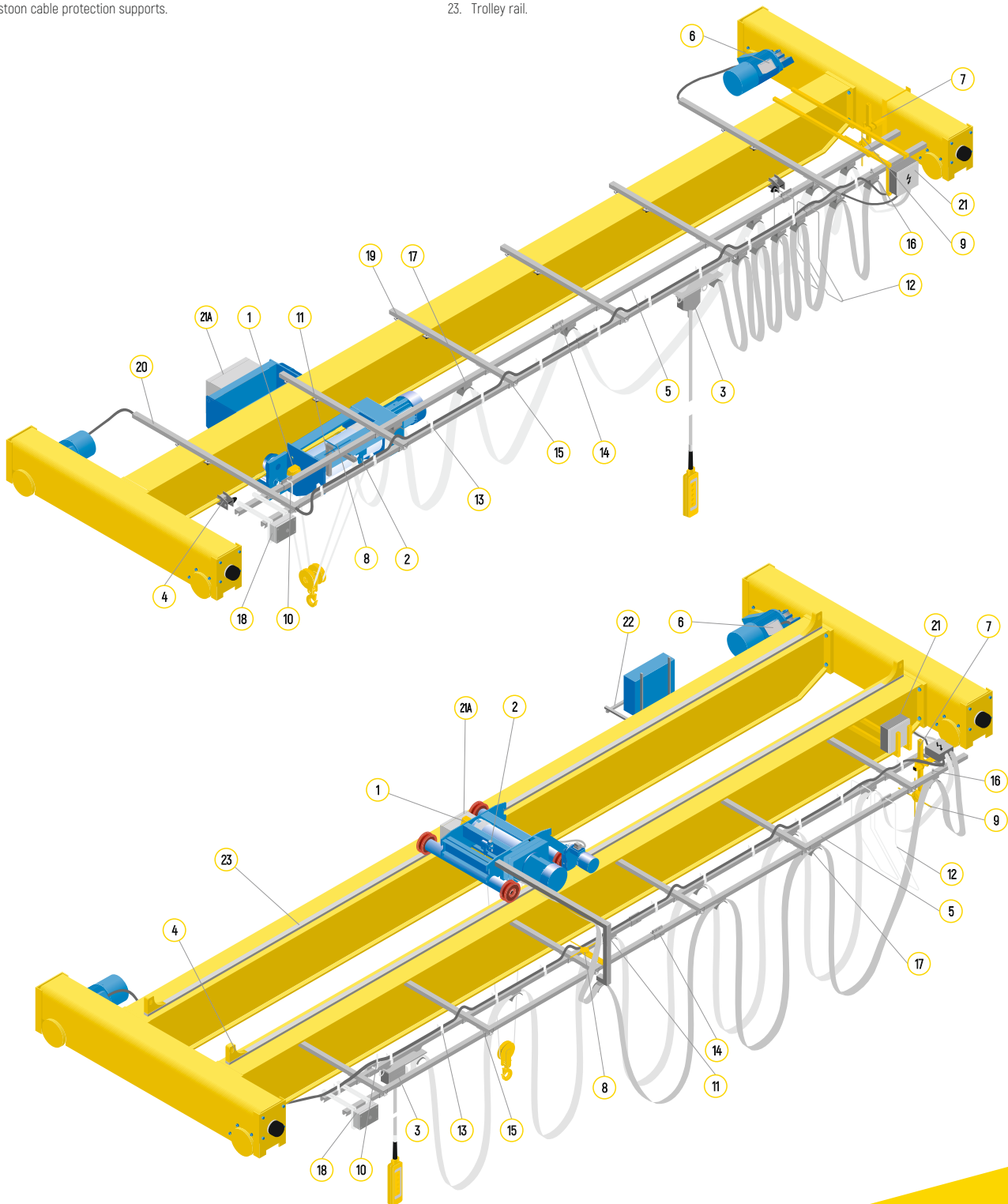
Boogie Ø 500 - 630

| Wheel Ø | E/C | D | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | Ød |
|---------|-----|-----|-----|-----|------|-----|-----|-------|------|-----|-----|-----|-----|-----|-----|-----|
| 315 | 500 | 315 | 458 | 457 | 915 | 315 | 266 | 423,5 | 42,5 | 131 | 207 | 208 | 184 | 287 | 210 | 160 |
| 400 | 550 | 400 | 545 | 537 | 1082 | 335 | 344 | 544 | 50 | 166 | 262 | 270 | 262 | 420 | 172 | 200 |
| 500 | 650 | 500 | 675 | 612 | 1287 | 385 | 369 | 619 | 30 | 208 | 287 | 350 | 277 | 428 | 165 | 250 |
| 630 | 800 | 630 | 848 | 773 | 1621 | 495 | 385 | 700 | 65 | 265 | 373 | 448 | 278 | 928 | 192 | 250 |

ELECTRICAL COMPONENTS

1. Hoist limit switch.
2. Load limit device.
3. Pendant plug-in connector.
4. Cross travel limit switch actuator.
5. Supports for cross travel and pendant power feed systems.
6. Motor plug-in connectors.
7. Towing arm.
8. Cross travel limit switch.
9. Long travel limit switch.
10. Long travel limit switch actuator.
11. Current collector arm.
12. Festoon cable protection supports.

13. Cable clips.
14. Profile connection.
15. Sliding support.
16. End limit.
17. Cable trolleys.
18. Remote control.
19. Girder support.
20. Profile support.
21. Long travel cabinet.
- 21A. Hoist cabinet.
22. Ladder support.
23. Trolley rail.



Sede Central

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GH
 CRANES & COMPONENTS