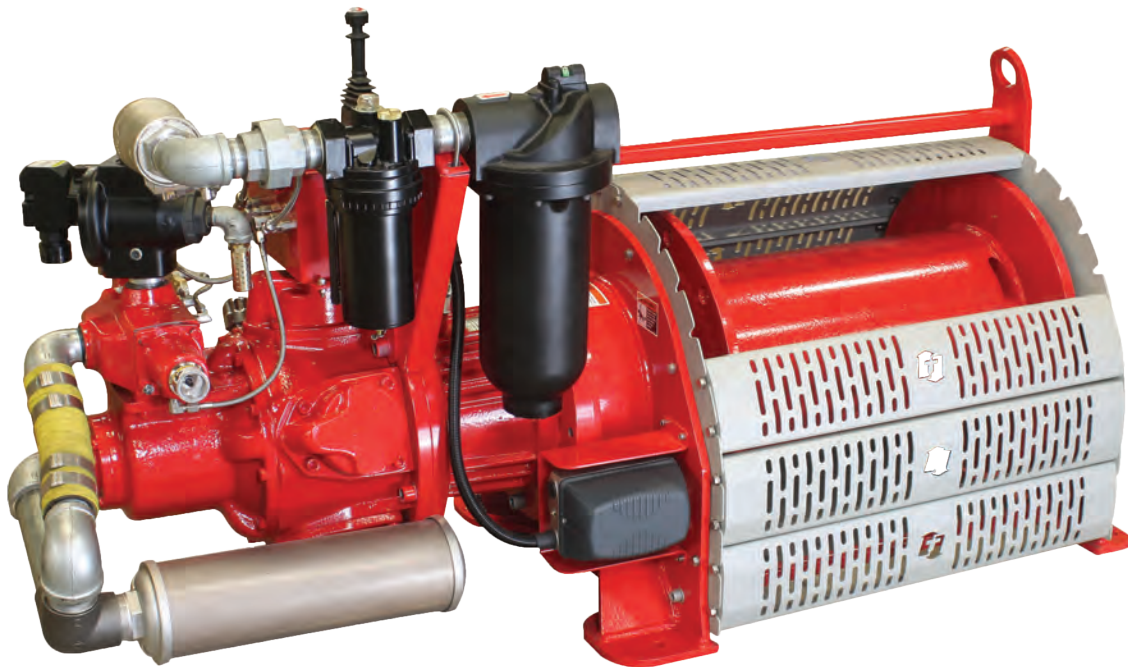




HEAVY-DUTY AIR WINCHES

C SERIES



thern.com
(507) 454-2996

C SERIES

HEAVY-DUTY AIR WINCHES

**ASME B30.7
Compliance Available**

- Contact Thern for details



DESIGNED TO DNV STANDARDS for Reliability, Safety & the Environment

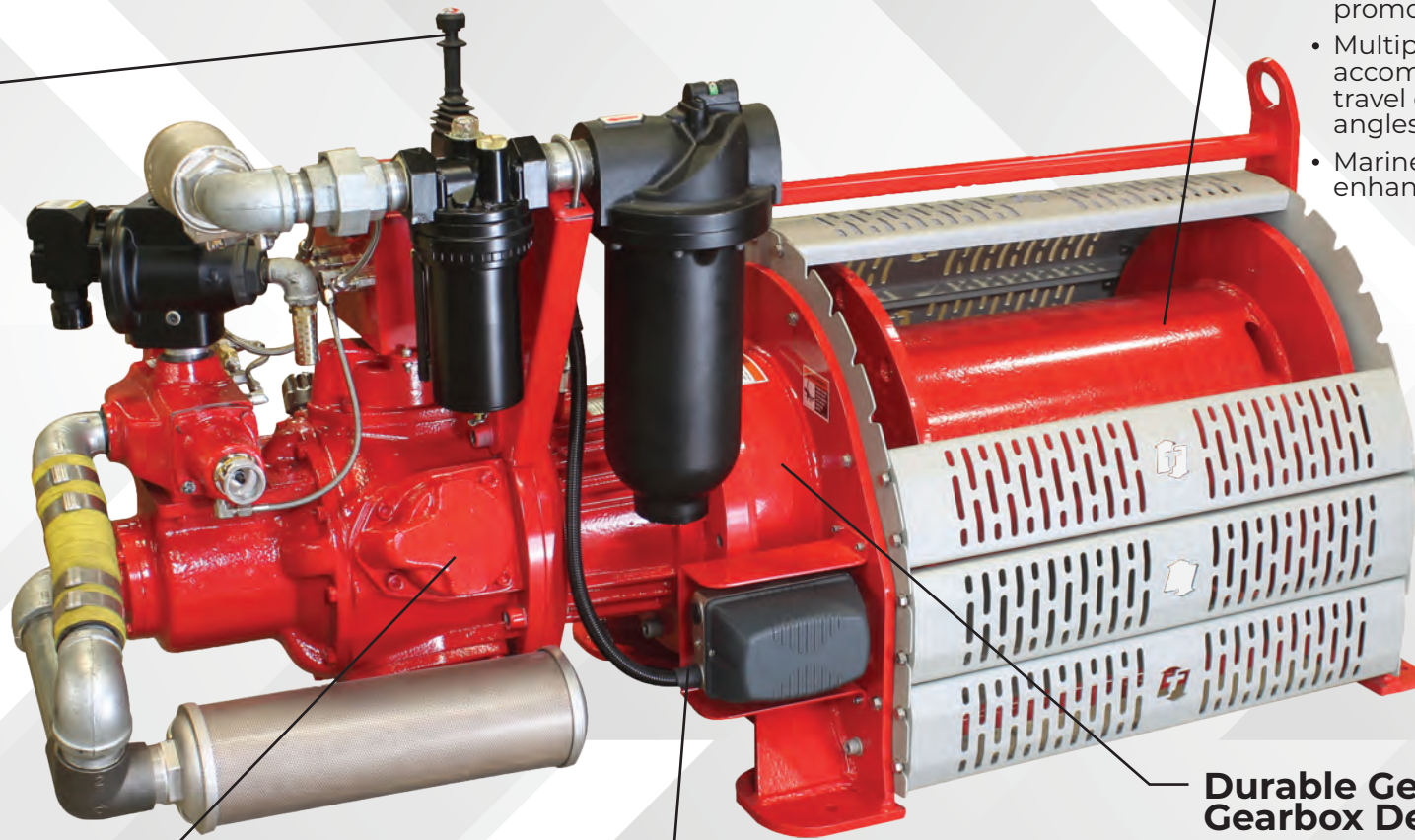
The C Series of air winches (up to 22,000 pounds) is designed for harsh offshore environments. Numerous pre-designed options and accessories allow for quick turnaround of orders and enhance versatility to meet a variety of needs. Specify the CE Package to meet European Union requirements. Lift, lower, pull, or position loads with precision and confidence. Perfect for marine and oil and gas applications.

Flexible Operation & Control

- Variable-speed control promotes smooth operation—perfect for precise spotting and long lifts
- Available winch/valve manual control lever with “lift-to-shift” latches into neutral position for safety
- Panel-mounted control lever with “lift-to-shift” and E-Stop reduces vibration at control, latches into neutral for safety and accommodates rotary travel limits
- Operator-friendly, remote pendant control (up to 50 feet) with E-Stop reduces operator fatigue (due to vibration), promotes freedom of movement for better load/task visibility and accommodates rotary travel limit switches

Power Dense Radial Piston Motor

- Internally lubricated for reliability and exceptionally long service life
- Reversible, high-torque design allows precise yet flexible operation
- Powerful performance allows high capacity and faster line speeds



Product Shown: TA 2.5 C

Automatic Disc Brake

- Spring-engaged, air-pressure released, and oil-cooled design enhance operator autonomy and promote extended duty cycles and long life
- Automatic brake releases upon activation and sets when power is removed or the controls are released for easier operation
- Sealed oil bath minimizes heat and prevents contamination for reliable operation

High-Strength Steel, Epoxy-Coated Construction

- Welded steel frame and drum components provide superior durability
- Large diameter drums promote long rope life
- Multiple drum widths accommodate various load travel distances and fleet angles
- Marine-grade epoxy enhances service life

Durable Gears & Compact Gearbox Design

- Gearbox location within the drum and high-efficiency planetary gearing provides high torque and enhanced power in a compact envelope
- Oil bath, featuring double-lip seals, provides continuous lubrication for gears, minimizes heat, and increases service life while resisting contamination

PERFORMANCE

| Series | IMPERIAL | | | |
|----------|-------------|--------------|------------|---------------|
| | Load Rating | Power Supply | Line Speed | Drum Capacity |
| TA 2.5 C | 5,500 lbs | 23.5 hp | 111 fpm | 340 ft |
| TA 5 C | 11,000 lbs | 21.7 hp | 45 fpm | 690 ft |
| TA 10 C | 22,000 lbs | 27.64 hp | 24 fpm | 680 ft |

| Series | METRIC | | | |
|----------|-------------|--------------|------------|---------------|
| | Load Rating | Power Supply | Line Speed | Drum Capacity |
| TA 2.5 C | 2,490 kg | 17.5 kW | 33.8 mpm | 103 m |
| TA 5 C | 4,985 kg | 16.2 kW | 13.7 mpm | 210 m |
| TA 10 C | 9,975 kg | 20.6 kW | 7.3 mpm | 207 m |

Standard Safety & Convenience Features

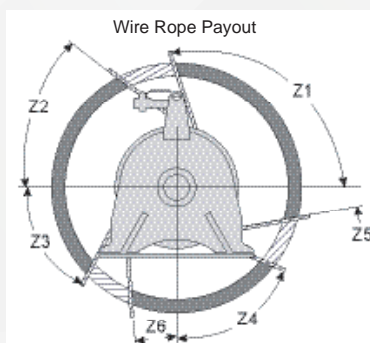
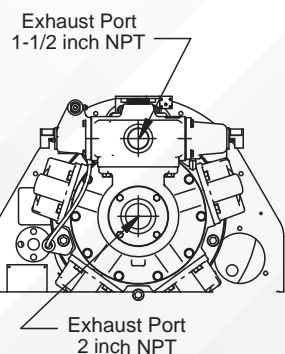
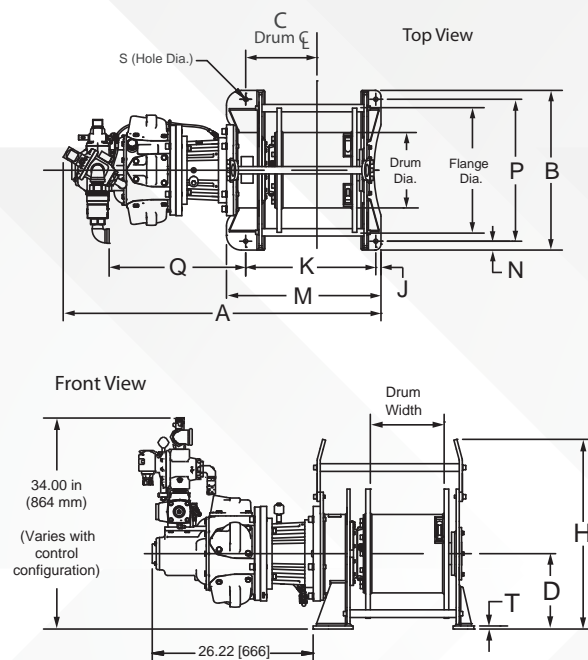
- E-Stop and mounted regulator overload protection enhance safe operation
- Nord-Lock® washers prevent fasteners from loosening during operation
- Easy-access oil drain and fill plug promote ease of maintenance
- Wedge-style rope anchor promotes easy on-site rope installation for under- or over-wound applications
- Removable lifting eyes reduce winch height for compact installation
- Removable cross bars provide improved wire rope exit angles

NOTICE: These products are not for lifting people or things over people.

Refer to technical pages for detailed performance information.

C SERIES AIR WINCHES

Model TA2.5C



TA2.5C Load Rating

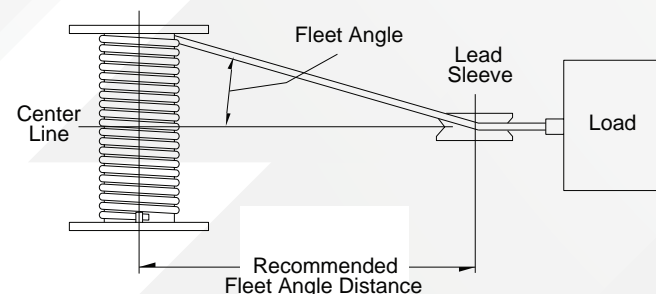
| | | |
|-----------------------------|------------|-------------|
| Load Rating 1st Layer | 5,500 lb | 2,500 kg |
| Load Rating Mid Drum | 5,500 lb | 2,500 kg |
| Load Rating Full Drum | 5,500 lb | 2,500 kg |
| Line Speed 1st Layer* | 115 fpm | 35.1 m/min |
| Line Speed Mid Drum* | 121 fpm | 36.9 m/min |
| Line Speed Full Drum* | 130 fpm | 39.6 m/min |
| Input HP | 23.5 hp | 17.5 kw |
| Max. Stall Pull 1st Layer** | 14,000 lbs | 6,350 kg |
| Pressure | 83 psi | 5.7 bar |
| Flow | 700 scfm | 19.8 m3/min |
| Pipe Inlet Size | 1.5 NPT | - |
| Hose Size | 1.5 in | 38.1 mm |
| Minimum Design Temp | -4° F | -20° C |

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

** Estimated value

TA2.5C Minimum Fleet Angle Distances

| Model | Drum Diameter | | Flange Diameter | | Drum Width | | Fleet Angle Distance | |
|-----------|---------------|-------|-----------------|-------|------------|-------|----------------------|-----|
| | (in) | (mm) | (in) | (mm) | (in) | (mm) | (ft) | (m) |
| TA2.5C-12 | 12.75 | 323.9 | 21 | 533.4 | 12 | 304.8 | 20 | 6 |
| TA2.5C-16 | 12.75 | 323.9 | 21 | 533.4 | 16 | 406.4 | 26 | 8 |
| TA2.5C-24 | 12.75 | 323.9 | 21 | 533.4 | 24 | 609.6 | 39 | 12 |



TA2.5C Drum Capacities*

| Rope Diameter | 12 in (305 mm) | | | 16 in (406 mm) | | | 24 in (610 mm) | | | | | | | | | | | | | | |
|---------------|----------------|----------|-----------|----------------|----------|-----------|----------------|----------|-----------|----|----|-----|----|-----|-----|-----|----|-----|----|-----|-----|
| | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum | | | | | | | | | | | | |
| (in) (mm) | (lb) (kg) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | | | | | | | | | | | | |
| 5/8 | 16 | 41,200 | 18,688 | 50 | 16 | 150 | 45 | 340 | 102 | 71 | 21 | 200 | 60 | 450 | 137 | 110 | 32 | 300 | 91 | 670 | 205 |

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.

** Values based on 6x37 IWRC EIPS wire rope.

| | #Bolts | Bolt Size | Weight ¹ |
|-----------|--------|----------------|---------------------|
| Series | - | (inch)(metric) | (lb) (kg) |
| TA2.5C-12 | 4 | .625 M16 | 1,166 528.9 |
| TA2.5C-16 | 4 | .625 M16 | 1,199 543.9 |
| TA2.5C-24 | 4 | .625 M16 | 1,267 574.7 |

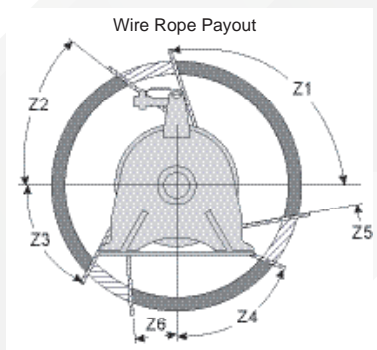
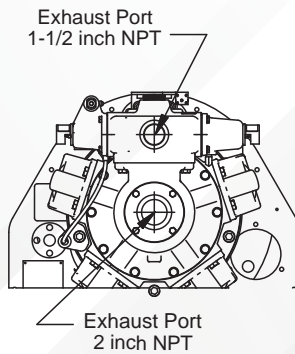
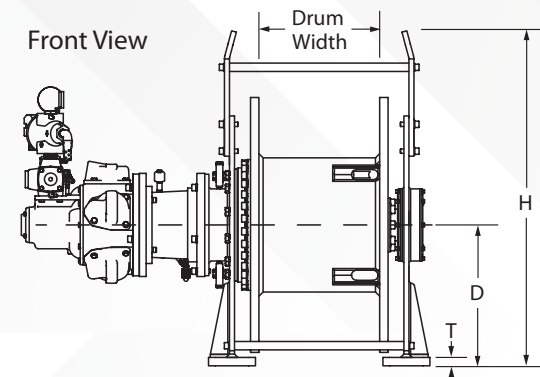
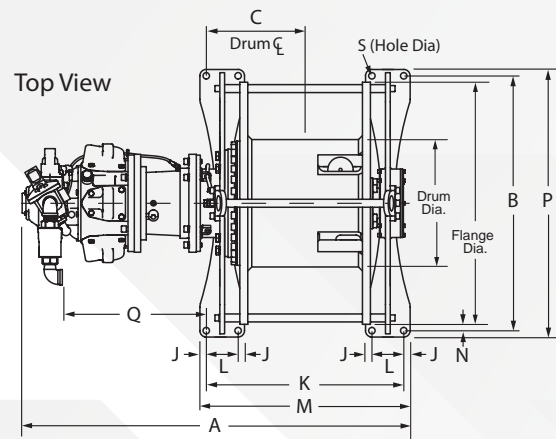
¹ NK1 Models are 2-3 lbs less (0.9-1.4 kg)

TA2.5C Series Winch Dimensions

| | A (Model NK) | | A (Model NK) | | B | | C | | D | | H | | L | | M | | N | | O | |
|-----------|--------------|---------|--------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|-------|------|------|------|------|
| Series | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) |
| TA2.5C-12 | 53.72 | 1,364.5 | 54.06 | 1,373.0 | 27.00 | 685.8 | 12.03 | 305.6 | 12.25 | 311.2 | 30.84 | 783.3 | 3.25 | 82.6 | 26.125 | 663.6 | .875 | 22.2 | 1.5 | 38.1 |
| TA2.5C-16 | 53.72 | 1,466.1 | 58.06 | 1,474.8 | 27.00 | 685.8 | 14.03 | 356.4 | 12.25 | 311.2 | 30.84 | 783.3 | 3.25 | 82.6 | 30.125 | 765.2 | .875 | 22.2 | 1.5 | 38.1 |
| TA2.5C-24 | 65.72 | 1,669.3 | 66.06 | 1,678.0 | 27.00 | 685.8 | 18.03 | 458.0 | 12.25 | 311.2 | 30.84 | 783.3 | 3.25 | 82.6 | 38.125 | 968.4 | .875 | 22.2 | 1.5 | 38.1 |

| | P | | Q | | S (hole diameter) | | T | | Z1 | Z2 | Z3 | Z4 | Z5 | Z6 |
|-----------|------|-------|-------|-------|-------------------|------|------|------|-----------|-----------|-----------|-----------|-----------|-----------|
| Series | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) |
| TA2.5C-12 | 24 | 609.6 | 19.84 | 504.0 | .69 | 17.5 | .5 | 12.7 | 114° | 39° | 66° | 70° | 6° | 2° |
| TA2.5C-16 | 24 | 609.6 | 19.84 | 504.0 | .69 | 17.5 | .5 | 12.7 | 114° | 39° | 66° | 70° | 6° | 2° |
| TA2.5C-24 | 24 | 609.6 | 19.84 | 504.0 | .69 | 17.5 | .5 | 12.7 | 114° | 39° | 66° | 70° | 6° | 2° |

Models TA5C and TA10C



TA5C Load Rating

| | | |
|-----------------------------|------------|-------------|
| Load Rating 1st Layer | 11,000 lb | 5,000 kg |
| Load Rating Mid Drum | 11,000 lb | 5,000 kg |
| Load Rating Full Drum | 11,000 lb | 5,000 kg |
| Line Speed 1st Layer* | 48 fpm | 14.6 m/min |
| Line Speed Mid Drum* | 54 fpm | 16.4 m/min |
| Line Speed Full Drum* | 59 fpm | 17.9 m/min |
| Input HP | 21.75 hp | 16.2 kw |
| Max. Stall Pull 1st Layer** | 29,500 lbs | 13,381 kg |
| Pressure | 77 psi | 5.3 bar |
| Flow | 700 scfm | 19.8 m3/min |
| Pipe Inlet Size | 1.5 in | 38.1 mm |
| Hose Size | 1.5 in | 38.1 mm |
| Minimum Design Temp | -4° F | -20° C |

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are rated winch capacity.

** Estimated value

TA10C Load Rating

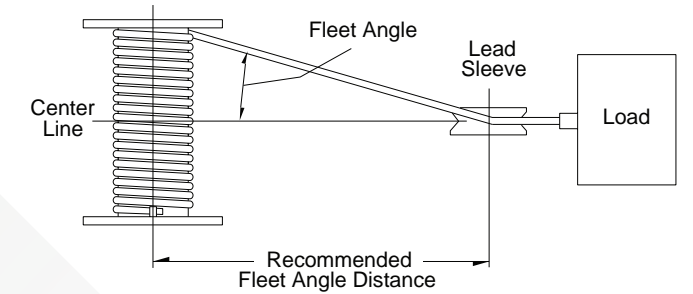
| | | |
|-----------------------------|------------|-------------|
| Load Rating 1st Layer | 22,000 lb | 10,000 kg |
| Load Rating Mid Drum | 22,000 lb | 10,000 kg |
| Load Rating Full Drum | 22,000 lb | 10,000 kg |
| Line Speed 1st Layer* | 24 fpm | 7.3 m/min |
| Line Speed Mid Drum* | 28 fpm | 8.5 m/min |
| Line Speed Full Drum* | 32 fpm | 9.8 m/min |
| Input HP | 27.64 hp | 20.61 kw |
| Max. Stall Pull 1st Layer** | 74,000 lbs | 33,565 kg |
| Pressure | 90 psi | 6.2 bar |
| Flow | 900 scfm | 25.5 m3/min |
| Pipe Inlet Size | 1.5 in | 38.1 mm |
| Hose Size | 2.0 in | 50.8 mm |
| Minimum Design Temp | -4° F | -20° C |

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are rated winch capacity.

** Estimated value

TA5C and TA10C Minimum Fleet Angle Distances

| Model | Drum Diameter | | Flange Diameter | | Drum Width | | Fleet Angle Distance | |
|----------|---------------|------|-----------------|------|------------|-------|----------------------|-----|
| | (in) | (mm) | (in) | (mm) | (in) | (mm) | (ft) | (m) |
| TA5C-16 | 16.00 | 407 | 28.00 | 711 | 16.00 | 407 | 26 | 8 |
| TA5C-24 | 16.00 | 407 | 28.00 | 711 | 24.00 | 610 | 39 | 12 |
| TA5C-30 | 16.00 | 407 | 28.00 | 711 | 30.00 | 762 | 48 | 15 |
| TA10C-18 | 20.00 | 508 | 38.00 | 965 | 18.00 | 457 | 29 | 9 |
| TA10C-24 | 20.00 | 508 | 38.00 | 965 | 24.00 | 610 | 39 | 12 |
| TA10C-30 | 20.00 | 508 | 38.00 | 965 | 30.00 | 762 | 48 | 15 |
| TA10C-40 | 20.00 | 508 | 38.00 | 965 | 40.00 | 1,016 | 64 | 20 |



TA5C Drum Capacities*

| Rope Diameter | Breaking Strength** | 16 in (406 mm) | | | 24 in (610 mm) | | | 30 in (762 mm) | | |
|---------------|---------------------|----------------|----------|-----------|----------------|----------|-----------|----------------|----------|-----------|
| | | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum |
| (in) (mm) | (lb) (kg) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) |
| 3/4 | 19.1 58,800 26,671 | 72 21 | 310 94 | 690 210 | 120 36 | 470 143 | 1,040 317 | 150 45 | 590 180 | 1,300 396 |

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.

** Values based on 6x37 IWRC EIPS wire rope.

TA10C Drum Capacities*

| Rope Diameter | Breaking Strength** | 18 in (458 mm) | | | 24 in (610 mm) | | | 30 in (762 mm) | | | 40 in (1016 mm) | | |
|---------------|---------------------|----------------|----------|-----------|----------------|----------|-----------|----------------|----------|-----------|-----------------|----------|-----------|
| | | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum | 1st Layer | Mid Drum | Full Drum |
| (in) (mm) | (lb) (kg) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) | (ft) (m) |
| 1-1/8 | 28.6 58,800 26,671 | 62 19 | 310 94 | 680 207 | 91 28 | 410 125 | 910 277 | 120 37 | 510 155 | 1,140 348 | 170 52 | 680 207 | 1,520 463 |

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.

** Values based on 6x37 IWRC EIPS wire rope.

TA5C and TA10C Series Winch Dimensions

| Model | A | | B | | C | | D | | H | | L | | M | | N | | P | | S (hole dia.) | |
|----------|------|-------|------|-------|------|------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|---------------|------|
| | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | | |
| TA5C-16 | 57.4 | 1,467 | 35.0 | 889 | 13.6 | 347 | 16 | 406 | 38.6 | 981 | 4 | 102 | 29.7 | 754 | 1.25 | 32 | 32 | 813 | .84 | 21.5 |
| TA5C-24 | 65.4 | 1,671 | 35.0 | 889 | 21.6 | 550 | 16 | 406 | 38.6 | 981 | 4 | 102 | 37.7 | 957 | 1.25 | 32 | 32 | 813 | .84 | 21.5 |
| TA5C-30 | 71.4 | 1,823 | 35.0 | 889 | 27.6 | 703 | 16 | 406 | 38.6 | 981 | 4 | 102 | 43.7 | 1,110 | 1.25 | 32 | 32 | 813 | .84 | 21.5 |
| TA10C-18 | 60.9 | 1,547 | 42 | 1,067 | 15.5 | 394 | 21 | 533 | 49.9 | 1,268 | 5 | 127.0 | 33 | 838 | 1 | 25 | 40 | 1,016 | 1.03 | 26 |
| TA10C-24 | 66.9 | 1,699 | 42 | 1,067 | 18.5 | 470 | 21 | 533 | 49.9 | 1,268 | 5 | 127.0 | 39 | 991 | 1 | 25 | 40 | 1,016 | 1.03 | 26 |
| TA10C-30 | 72.9 | 1,852 | 42 | 1,067 | 21.5 | 547 | 21 | 533 | 49.9 | 1,268 | 5 | 127.0 | 45 | 1,143 | 1 | 25 | 40 | 1,016 | 1.03 | 26 |
| TA10C-40 | 82.9 | 2,106 | 42 | 1,067 | 26.5 | 674 | 21 | 533 | 49.9 | 1,268 | 5 | 127.0 | 55 | 1,143 | 1 | 25 | 40 | 1,016 | 1.03 | 26 |

| Model | T | | Z1 | Z2 | Z3 | Z4 | Z5 | Z6 | #Bolts | Bolt Size | | Weight | |
|----------|------|------|-----------|-----------|-----------|-----------|-----------|-----------|--------|-----------|----------|--------|-------|
| | (in) | (mm) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | | (inch) | (metric) | (lb) | (kg) |
| TA5C-16 | .75 | 19 | 108° | 38° | 62° | 68° | 10° | 3° | 8 | M20 | G10.9 | 1,600 | 726 |
| TA5C-24 | .75 | 19 | 108° | 38° | 62° | 68° | 10° | 3° | 8 | M20 | G10.9 | 2,046 | 788 |
| TA5C-30 | .75 | 19 | 108° | 38° | 62° | 68° | 10° | 3° | 8 | M20 | G10.9 | 2,149 | 834 |
| TA10C-18 | 1.25 | 31.8 | 111° | 34° | 64° | 64° | 5° | 5° | 8 | M20 | G10.9 | 3,309 | 1,501 |
| TA10C-24 | 1.25 | 31.8 | 111° | 34° | 64° | 64° | 5° | 5° | 8 | M20 | G10.9 | 3,463 | 1,571 |
| TA10C-30 | 1.25 | 31.8 | 111° | 34° | 64° | 64° | 5° | 5° | 8 | M20 | G10.9 | 3,618 | 1,641 |
| TA10C-40 | 1.25 | 31.8 | 111° | 34° | 64° | 64° | 5° | 5° | 8 | M20 | G10.9 | 3,876 | 1,758 |



MADE IN USA 

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