## TAMSERIFG

 Air WinchesThern's C-Series Air Winches feature new innovations that make them faster, lighter, safer, more versatile, and more corrosionresistant than ever before. The new winches are designed in accordance with DNV standards, and DNV Type Approval and Certifications are available across the new range.


- Welded Steel Frame
- Removable Lifting Eyes
- Radial Piston Motor
- Automatic Disc Brake
- E-Stop as Standard
- Planetary Gears
- Neutral Lock Control Valve
- NORD-LOCK Washers
- Dual Direction Cable Anchor
- Meets ASME B30.7 Requirements
- Overload Protection
- Excellent Corrosion Resistance
- Industry-Leading 2-Year Limited Warranty
- DNV Type Approval and Certifications Available
- CE Packages Available

TI THERN
WINCHES AND CRANES
WINCHES - HAND / POWER / HYDRAULIC / AIR • DAVIT CRANES
5712 Industrial Park Road, Winona, MN 55987 | www.thern.com

## ■ OPTIONS \& ACCESSORIES

## DNV TYPE APPROVAL PACKAGE

Compliant with DNV OS-E101 drilling plant.
Individual product certification (available as an option). Includes: 3.1 Material traceability, $-20^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right)$ design and a choice of emergency lowering devices.

CE PACKAGE
Compliance with European machinery directive 2006/42/EC. Includes: single muffler, drum guard and travel limits.

## ATEX CLASSIFICATION

Specially rated for use in explosive settings. This custom option is available upon request.

ADJUSTABLE DRUM GUARD
Protects operators yet allows visibility of wire rope winding. Fasteners and drum guard are coated with Magni 567 or are stainless steel for corrosion protection.

DRUM LOCK
Locks out the drum securely in desired position when winch is not in use.

## EMERGENCY LOWERING OPTIONS

Load lowering capability in case of power failure. Options include power diversion and emergency brake release.

LINE GUIDE Steel construction and hand operated to help wire rope unwind uniformly.

## MUFFLERS

Reduce operation noise. Single or double available.


## TACAFRIFSMPIONG

## ■OPTIONS \& ACCESSORIES



## FILTER and LUBRICATOR

Maintains air quality to the winch. Required for warranty compliance.

## PENDANT or REMOTE CONTROL

Pendant or Remote control configurations are hold-to-run and come standard with E-stop.

## PRESSURE ROLLER BAR

Maintains uniform winding of wire rope.

## GROOVED DRUM

For more uniform wire rope winding. A custom option available upon request.

## ELECTRIC-OVER-AIR CONTROLS

Electric proportional control. This option not available on standard DNV type approved winches.

HEAT GUARD FOR BRAKE
Prevents unintended contact with brake.

## CONSTRUCTION CAGE

Protects motor and winch during operation. Movable with forklift.

## MOUNTING PATTERN

ADAPTER PLATE
Match requested existing bolt patterns for convenient winch installation.

## TRAVEL LIMITS

Pneumatic rotary travel limits with quick response time, limits travel in both directions.

## WIRE ROPE ASSEMBLIES

Sold separately. A wide variety of assemblies and fittings are available per customer request.


## TMFA P ヨiNORMMMAF

## ■ PERFORMANCE CHARACTERISTICS



TA2.5C Load Rating

| Load Rating 1st Layer | $5,500 \mathrm{lb}$ | 2500 kg |
| :--- | :---: | :---: | :---: |
| Load Rating Mid-Drum | $5,500 \mathrm{lb}$ | 2500 kg |
| Load Rating Full Drum | $5,500 \mathrm{lb}$ | 2500 kg |
| Line Speed 1st Layer* | 115 fpm | $35.1 \mathrm{~m} / \mathrm{min}$ |
| Line Speed Mid Drum |  |  |
| Line Speed Full Drum | 121 fpm | $36.9 \mathrm{~m} / \mathrm{min}$ |
| Input HP | 130 fpm | 39.6 mmin |
| Max. Stall Pull 1st Layer | 23.0 hp | 17.2 kw |
| Pressure | $10,800 \mathrm{lbs}$ | $4,899 \mathrm{~kg}$ |
| Flow | 83 psi | 5.7 bar |
| Pipe Inlet Size | 700 scfm | $19.8 \mathrm{m3} / \mathrm{min}$ |
| Hose Size | 1.5 NPT | - |
| Minimum Design Temp | 1.5 | 38.1 mm |

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

TA2.5C Minimum Fleet Angle Distances

|  | Drum <br> Diameter |  | Flange <br> Diameter |  | Drum <br> Width |  | Fleet <br> Angle Dist. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | (in) | (mm) | (in) | (mm) | (in) | (mm) | (tt) | (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*



## TMOFGMIIAI DIMANGIONE



|  | \#Bolts | Bolt Size |  | Weight ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Series | - | (inch) | (metric) | (lb) | (kg) |
| TA2.5C-12 | 4 | .625 | M16 | 1166 | 528.9 |
| TA2.5C-16 | 4 | .625 | M16 | 1199 | 543.9 |
| TA2.5C-24 | 4 | .625 | M16 | 1267 | 574.7 |


${ }^{1}$ NK1 Models are 2-3 lbs less ( $0.9-1.4 \mathrm{~kg}$ )

|  | A (Model NK) |  | $\begin{gathered} \text { A } \\ \text { (Model NK1) } \end{gathered}$ |  | B |  | C |  | D |  | H |  | L |  | M |  | N |  | 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 1364.5 | 54.06 | 1373.0 | 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 | 57.72 | 1466.1 | 58.06 | 1474.8 | 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 | 1669.3 | 66.06 | 1678.0 | 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 |  | $\begin{gathered} \text { S } \\ \text { (hole diameter) } \end{gathered}$ |  | T |  | Z1 | 22 | 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 | $114^{\circ}$ | $39^{\circ}$ | $66^{\circ}$ | $70^{\circ}$ | $6^{\circ}$ | $2^{\circ}$ |
| TA2.5C-16 | 24 | 609.6 | 19.84 | 504.0 | . 69 | 17.5 | . 5 | 12.7 | $114^{\circ}$ | $39^{\circ}$ | $66^{\circ}$ | $70^{\circ}$ | $6^{\circ}$ | $2^{\circ}$ |
| TA2.5C-24 | 24 | 609.6 | 19.84 | 504.0 | . 69 | 17.5 | . 5 | 12.7 | $114^{\circ}$ | $39^{\circ}$ | $66^{\circ}$ | $70^{\circ}$ | $6^{\circ}$ | $2^{\circ}$ |

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

# MAFP 

## ■ PERFORMANCE CHARACTERISTICS



## TA5C Load Rating

| Load Rating 1st Layer | $11,000 \mathrm{lb}$ | $4,989 \mathrm{~kg}$ |
| :--- | :---: | :---: |
| Load Rating Mid-Drum | $11,000 \mathrm{lb}$ | $4,989 \mathrm{~kg}$ |
| Load Rating Full Drum | $11,000 \mathrm{lb}$ | $4,989 \mathrm{~kg}$ |
| Line Speed 1st Layer* | 48 fpm | $14.6 \mathrm{~m} / \mathrm{min}$ |
| Line Speed Mid Drum* | 54 fpm | $16.4 \mathrm{~m} / \mathrm{min}$ |
| Line Speed Full Drum* | 59 fpm | $17.9 \mathrm{~m} / \mathrm{min}$ |
| Input HP | 21.3 hp | 15.88 kw |
| Max. Stall Pull 1st Layer | $27,100 \mathrm{lb}$ | $12,292 \mathrm{~kg}$ |
| Pressure | 75 psi | 5.2 bar |
| Flow | 700 scfm | $19.8 \mathrm{m3} / \mathrm{min}$ |
| Pipe Inlet Size | 1.5 in | 38.1 mm |
| Hose Size | 1.5 in | 38.1 mm |
| Minimum Design Temp | $-4^{\circ} \mathrm{F}$ | $-20^{\circ} \mathrm{C}$ |

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

TA5C Minimum Fleet Angle Distances

|  | Drum <br> Diameter |  | Flange <br> Diameter |  | Drum <br> Width |  | Fleet <br> Angle Dist. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | (in) | $(\mathrm{mm})$ | (in) | $(\mathrm{mm})$ | (in) | $(\mathrm{mm})$ | $(\mathrm{ft})$ | $(\mathrm{m})$ |
| 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 |



## TA5C Drum Capacities*



## TMMA DERADRMMMAZ

## - PERFORMANCE CHARACTERISTICS



## TA10C Minimum Fleet Angle Distances

|  | Drum <br> Diameter | Flange <br> Diameter |  | Drum <br> Width |  | Fleet <br> Angle Dist. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | (in) | (mm) | (in) | (mm) | (in) | (mm) | ( ft$)$ | (m) |
| TA5C-18 | 20.00 | 508 | 38.00 | 965 | 18.00 | 457 | 29 | 9 |
| TA5C-24 | 20.00 | 508 | 38.00 | 965 | 24.00 | 610 | 39 | 12 |
| TA5C-30 | 20.00 | 508 | 38.00 | 965 | 30.00 | 762 | 48 | 15 |
| TA5C-40 | 20.00 | 508 | 38.00 | 965 | 40.00 | 1016 | 64 | 20 |



TA10C Load Rating

| Load Rating 1st Layer | $22,000 \mathrm{lb}$ | $9,979 \mathrm{~kg}$ |
| :--- | :---: | :---: |
| Load Rating Mid-Drum | $22,000 \mathrm{lb}$ | $9,979 \mathrm{~kg}$ |
| Load Rating Full Drum | $22,000 \mathrm{lb}$ | $9,979 \mathrm{~kg}$ |
| Line Speed 1st Layer* | 24 fpm | $7.3 \mathrm{~m} / \mathrm{min}$ |
| Line Speed Mid Drum | 28 fpm | $8.5 \mathrm{~m} / \mathrm{min}$ |
| Line Speed Full Drum |  |  |
| Input HP | 32 fpm | $9.8 \mathrm{~m} / \mathrm{min}$ |
| Max. Stall Pull 1st Layer (estimate) | 25.84 hp | 19.27 kw |
| Pressure | $58,000 \mathrm{lb}$ | $26,308 \mathrm{~kg}$ |
| Flow | 85 psi | 5.9 bar |
| Pipe Inlet Size | 900 scfm | $25.5 \mathrm{~m} 3 / \mathrm{min}$ |
| Hose Size | 1.5 in | 38.1 mm |
| Minimum Design Temp | 2.0 in | 50.8 mm |

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

| Drum Width |  | 18 in (458 mm) |  |  |  |  |  | 24 in (610 mm) |  |  |  |  |  | 30 in (762 mm) |  |  |  |  |  | 40 in (1016 mm) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rope Diameter | Breaking <br> Strength** | 1st Layer |  | Mid <br> Drum |  | Full Drum |  | 1st Layer |  | Mid <br> Drum |  | Full Drum |  | 1st Layer |  | Mid <br> 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 |

[^0]These products are not for lifting people or things over people.

# TAFG AND TMAM DIMFRGIONE 



|  | A |  | B |  | C |  | D |  | H |  | L |  | M |  | N |  | P |  | $\begin{array}{\|c} \mathrm{S} \\ \text { (hole diameter) } \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) | (in) | (mm) |
| TA5C-16 | 57.4 | 1467 | 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 | 1671 | 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 | 1823 | 35.0 | 889 | 27.6 | 703 | 16 | 406 | 38.6 | 981 | 4 | 102 | 43.7 | 1110 | 1.25 | 32 | 32 | 813 | . 84 | 21.5 |
| TA10C-18 | 60.9 | 1547 | 42 | 1067 | 15.5 | 394 | 21 | 533 | 49.9 | 1268 | 5 | 127.0 | 33 | 838 | 1 | 25 | 40 | 1016 | 1.03 | 26 |
| TA10C-24 | 66.9 | 1699 | 42 | 1067 | 18.5 | 470 | 21 | 533 | 49.9 | 1268 | 5 | 127.0 | 39 | 991 | 1 | 25 | 40 | 1016 | 1.03 | 26 |
| TA10C-30 | 72.9 | 1852 | 42 | 1067 | 21.5 | 547 | 21 | 533 | 49.9 | 1268 | 5 | 127.0 | 45 | 1143 | 1 | 25 | 40 | 1016 | 1.03 | 26 |
| TA10C-40 | 82.9 | 2106 | 42 | 1067 | 26.5 | 674 | 21 | 533 | 49.9 | 1268 | 5 | 127.0 | 55 | 1397 | 1 | 25 | 40 | 1016 | 1.03 | 26 |


|  | T |  | Z1 | Z2 | Z3 | Z4 | Z5 | Z6 | \#Bolts | Bolt Size |  | Weight |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | (in) | (mm) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | (Degrees) | - | (inch) | (metric) | (lb) | (kg) |
| TA5C-16 | . 75 | 19 | $108^{\circ}$ | $38^{\circ}$ | $62^{\circ}$ | $68^{\circ}$ | $10^{\circ}$ | $3^{\circ}$ | 8 | M20 | G10.9 | 1600 | 726 |
| TA5C-24 | . 75 | 19 | $108^{\circ}$ | $38^{\circ}$ | $62^{\circ}$ | $68^{\circ}$ | $10^{\circ}$ | $3^{\circ}$ | 8 | M20 | G10.9 | 2046 | 788 |
| TA5C-30 | . 75 | 19 | $108^{\circ}$ | $38^{\circ}$ | $62^{\circ}$ | $68^{\circ}$ | $10^{\circ}$ | $3^{\circ}$ | 8 | M20 | G10.9 | 2149 | 834 |
| TA10C-18 | 1.25 | 31.8 | $111^{\circ}$ | $34^{\circ}$ | $64^{\circ}$ | $64^{\circ}$ | $5^{\circ}$ | $5^{\circ}$ | 8 | M20 | G10.9 | 3309 | 1501 |
| TA10C-24 | 1.25 | 31.8 | $111^{\circ}$ | $34^{\circ}$ | $64^{\circ}$ | $64^{\circ}$ | $5^{\circ}$ | $5^{\circ}$ | 8 | M20 | G10.9 | 3463 | 1571 |
| TA10C-30 | 1.25 | 31.8 | $111{ }^{\circ}$ | $34^{\circ}$ | $64^{\circ}$ | $64^{\circ}$ | $5^{\circ}$ | $5^{\circ}$ | 8 | M20 | G10.9 | 3618 | 1641 |
| TA10C-40 | 1.25 | 31.8 | $111^{\circ}$ | $34^{\circ}$ | $64^{\circ}$ | $64^{\circ}$ | $5^{\circ}$ | $5^{\circ}$ | 8 | M20 | G10.9 | 3876 | 1758 |

## Thern, Incorporated

Corporate Headquarters \& Manufacturing
5712 Industrial Park Road, Winona, MN USA TF: 1-800-843-7648 P: 1-507-454-2996 www.thern.com

Thern Europe
Bedrijvenpark Twente 454e 7602 KM Almelo, Netherlands P: +31-546-898-380 europe@thern.com


[^0]:    * 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 $6 \times 37$ IWRC EIPS wire rope.

