# DAVID Round 

Engineered Handling Solutions Since 1869



# Winches \& Capstans 

Air | Electric | Custom

## Engineered Winches

## 203 Series

High-performance engineered winches meet demanding application requirements.

## Unlimited Capability

Each 203 Series winch is specifically designed for its intended application.

- Single line capacities from $1 / 4$ to over 50 tons.
- Cable drums sized to meet the rope storage requirements, fleet angle restrictions and space limitations of each application.
- Modular sealed gear sets, sized for intended service factor, develop almost any required line speed from less than 1 FPM to over 300 FPM.
- Motor, band, fan, disc and Weston-style brakes as well as vector drives are just some of the available load holding options.
- Free-spooling drum clutches, powered level winds, special drum grooving patterns and fairleads are easily integrated with 203 Series winches to maximize rope handling and spooling efficiency.



## Builł to Specifications

203 Series winches are either built to OEM, government, military and industrial specifications or David Round's own standards.

- Upon request, winch designs may be certified by a registered professional engineer.
- In-the-field reverse engineering is available to design drop-in replacement winches.
- All winches are load tested and certified prior to shipment.


## Electric | Air | Hydraulic



1 Pendant- Various button configurations available for pendants and remote controls.
(2) Controls- Single and two-speed control packages available with a standard reversing starter or choose variable speed winch operation with an AC inverter or vector drive. Weather-resistant, marine grade and explosion-proof enclosures available.
(3) Gearing- $100 \%$ sealed gearing with oil bath lubrication unless otherwise specified. Right angle, in-line and planetary gear sets accommodate all reduction and space limitation requirements.
4 Wire Rope- Available upon request, wire rope is sized for winch capacity and application.
(5) Motor Brake-Provided unless otherwise specified to hold suspended or unstable loads.
(6) Cable Drum- Sized to meet loading, cable, fleet angle and space restriction requirements.

7 Motor- Electric motor properly sized for starting and running loads and configured for environmental conditions.

8 Bearings- Precision self-aligning pillow block or flange cartridge bearings with grease fittings.
(9) Mounting- Space-saving frame layouts may be sized to match existing mounting requirements.
10 Fittings- Swivel hooks, blocks, clevis fittings and other rope attachments are available.

11 Spooling Aids- Pressure rollers, fairleads, level winds and sheaves available for cable control.

Finish- Winches painted safety yellow unless otherwise specified. Epoxy paint is available.

Safety-Devices- Hook travel limit switches, drum guards, overload detection / auto-shutdown systems, audible / visible alarms and other safeguards are available.

## Specialty Applications

## 203 Series



## Base-Mounted Lifting Winch

Frequently used in processing applications for conveyor positioning and for hatch, grate and pump lifting, this base-mounted lifting winch is available as a stand-alone unit or as part of an integrated system with sheaves and jib cranes.

- Motor brake holds load in position
- Rotary limit switch restricts hook travel
- Grooved drum for consistent cable take-up



## Marine-Grade Winch

Weather resistant components make this winch ideal for shipboard use including anchor, ladder and gangway lifting as well as buoy handling.

- Sealed and accessible gearing
- Optional free-spooling capability
- Electric, air and hydraulic units available


## Electric | Air | Hydraulic



## Cart-Pulling Winch

Used under power to pull trailers and mobile homes through production, this winch is also available in push-pull and traction style designs.

- Free-spooling drum for quick manual payout
- Variable speed air lever controls
- Sealed gearing provides years of reliable service



## Line Tensioning Winch

Unlike other winches with load holding brakes, this winch releases cable at a preset line tension, making it ideal for cable stringing applications.

- Adjustable bank brake
- Manual operation
- Often integrated with other cabling equipment


## Furnace Door Lifting Winch

Available in single or dual line configurations, this furnace door lifting winch features high starting torque to pull doors free from seals.

- High-torque electric motor
- Sealed gearing with oil batch lubrication
- Single, two and variable speed models


## Radial Gate Hoist

Double-drum base-mounted winch lifts radial gate with two cables, instead of one, to balance and stabilize the wide gate more effectively. Winch positions gates found in irrigation and flood canals in order to control water flow.

- Grooved double drums
- Shaft encoder for drum position feedback
- Winch design certified by professional engineer


## Powered 4,000 lb. to 10,000 lb.

## 202 Series

Reliable winch for larger loads and more demanding applications

Storing over 400 feet of $1 / 2$ inch diameter wire rope, this 5 ton single line load capacity winch is proven in many industrial, marine and construction applications. A 2 ton unit is also available.

By adding free-spooling and grooved drums, emergency hand cranks, divider flanges and limit switches, specific requirements are easily addressed.
While a single mechanical load brake is standard, a secondary motor brake is available for lifting applications.


Electric

Technical Specifications

| Model No. | Load Capacity (lbs.) | Line Speed (ft./min.) | Drum Capacity |  | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rope Size (in.) | Length (ft.) |  |
| 202JR | 4,000 | 19 | 3/8 | 230 | 350 |
| 硶 202SR | 10,000 | 14 | 1/2 | 420 | 550 |
| A202JR | 4,000 | 15 | 3/8 | 230 | 275 |
| A202SR | 10,000 | 11 | 1/2 | 420 | 425 |

[^0]
## Powered 500 lb . to $1,000 \mathrm{lb}$.

## Electric | Air | Hydraulic

## Rocket 51 Series

## Versatile utility winch well-suited for industrial and construction projects

With some models weighing just 100 pounds, this 1,000 pound single line capacity winch is ideal for various pulling and lifting projects.

This winch offers line speeds up to 40 feet per minute while storing up to 170 feet of $1 / 4$ inch diameter wire rope.


While a mechanical load brake is standard, an optional motor brake is available to provide additional security on lifting applications.
An optional block and hook assembly is commonly used to double the capacity of this winch.


Technical Specifications


[^1]
## Powered 500 lb . to $1,000 \mathrm{lb}$.

## M55 Series

High-speed winch ideal for base-mounted lifting applications

Efficient spur gearing powers line speeds up to 100 feet per minute with single line load capacities up to 1,000 pounds.

The grooved drum ensures consistent rope take-up and precise load placement while accepting up to 175 feet of $1 / 4$ inch diameter wire rope.

With a standard electric motor brake, mechanical load brake and push-button controls, this winch is ideal for lifting applications.

Limit switches, emergency hand cranks and drum divider flanges are available.


| Technical Specifications |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model No. | Load Capacity (lbs.) | Line Speed (ft./min.) | $\begin{array}{r} \text { Drum C } \\ \text { Rope Size (in.) } \end{array}$ | acity <br> Length (ft.) | Weight (lbs.) |
| 4W | 500 | 70 | 1/4 | 175 | 130 |
| 5W | 500 | 100 | 1/4 | 175 | 140 |
| 8W | 1,000 | 35 | 1/4 | 175 | 145 |
| 10W | 1,000 | 50 | 1/4 | 175 | 145 |
| A3W | 500 | 70 | 1/4 | 175 | 130 |
| \& A8W | 1,000 | 35 | 1/4 | 175 | 145 |

## Powered Capstans



## Capstan Horizontal

## Horizontal capstan reduces operator strain

 by powering difficult loads into positionEliminates tedious, and even dangerous, manual load handling by adding powered assistance to a variety of lifting and pulling operations.
Quickly free and reposition rope or drum as necessary for different applications since rope is not stored on drum.
Pull oversized pallets and equipment from trailers with the ease of push-button control.
Advance modular homes and trailers through production stations and pull weldments into sand blasting and painting booths.


## Capstan Vertical

## Vertical capstan for railway, marine and industrial pulling applications

Commonly used to pull rail cars along sidings, each vertical drum capstan features high starting torque to enable an initial load pulling capacity double the rated capacity.
Incorporating sealed components to withstand outdoor applications, these units may even be deck-mounted on marine vessels to pull water-soaked lines, nets and equipment on board.
With various drum diameters, motor styles and line speeds, vertical capstans may be customized to fit specific requirements.

## Applications

- Trailer off-loading / pallet-pulling
- Oil skimmer pontoon boat positioning
- Web threading through processing machinery
- Overhead cable and line stringing
- Furnace and spray booth cart pulling
- Pump, motor and blower lifting
- Tower \& antenna installation and service
- Transformer lifting


## Applications

- Rail car positioning along sidings
- Marine vessel mooring assistance and line recovery
- Dredging and work barge load handling
- Cart shuttling
- Cable tensioning

| Technical Specifications |  |  |  |
| :--- | :---: | :---: | :---: |
| Model No. | Load Capacity <br> Starting (lbs.) | Line Speed <br> Runing (lbs.) <br> (ft./min.) |  |
| C-1 | 2,000 | 1,000 | 50 |
| C-2 | 5,000 | 2,500 | 45 |
| C-3 | 6,000 | 3,000 | 45 |
| C-4 | 8,000 | 4,000 | 30 |

[^2]
## Manual 150 lb . to $3,000 \mathrm{lb}$.

## MSeries

Compact spur gear hand winches for lifting and pulling

All manual winches feature an integrated load brake and are well-suited for both lifting and pulling.

Drive gears, ratchet assembly and brake discs are fully enclosed to protect the operator and to prevent contamination.

An adjustable crank with roller handle increases operator efficiency while an optional ratchet handle permits lifting and pulling from almost any winch mounting location.

Mechanical brake automatically engages to hold load
Weston-style ratchet brake is automatically engaged once pressure is removed from the crank handle.
A brake release lever is not required since the holding brake automatically disengages as the winch is operated.

## Free spooling option ideal for repetitive pulling

By engaging the optional free spooling mechanism, cable may be manually pulled from the drum.

## Optional stainless steel upgrade for superior corrosion-resistance

External components, including the side frames, drum, gear cover and fasteners are constructed from stainless steel.

Technical Specifications

| Model <br> No. | Load Capacity | Gear | Hand | Drum Capacity |  | Drum |  | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (lbs.) | Ratio | Force (lbs.) | Rope Size (in.) | Length (ft.) | Width (in.) | Diameter (in.) | (lbs.) |  |
| M-1 | 150 | $1: 1$ | 25 | $3 / 16$ | 125 | $4-5 / 8$ | $1-7 / 8$ | 15 |
| M-4 | 400 | $2.88: 1$ | 20 | $3 / 16$ | 125 | $5-7 / 8$ | $2-3 / 8$ | 25 |
| M-6 | 600 | $4.33: 1$ | 24 | $1 / 4$ | 95 | $5-7 / 8$ | $2-3 / 4$ | 30 |
| M-12 | 1,200 | $12.2: 1$ | 22 | $5 / 16$ | 95 | 6 | $3-1 / 2$ | 40 |
| M-20* | 2,000 | $22.2: 1$ | 22 | $3 / 8$ | 95 | $7-1 / 2$ | $4-5 / 16$ | 55 |
| M-30* | 3,000 | $28.2: 1$ | 33 | $1 / 2$ | 65 | 8 | $5-1 / 2$ | 100 |

[^3]
## Ergonomic Solutions for Material Handling



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## Stainless

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| Portable design lifts loads almost anywhere for greater versatility. |  |  |  |
| No foundation required to maximize available floor space. |  |  |  |
| Self-contained liffing mechanism does not require electricity or air. |  |  |  |
| Integrated lifting frame supports raised load for use in open areas. |  |  |  |
| Services multiple liffing applications in a wide variety of locations. |  |  |  |
| Fits through standard door openings, narrow aisles and onto elevators. |  |  |  |
| Adjustable height and reach to negotiate obstructions. |  |  |  |
| Cantilever lifting boom permits the extraction of recessed objects. |  |  |  |
| No installation, assembly or setup required prior to operation. |  |  |  |
| Suspended loads held in place without a motor or mechanical brake. |  |  |  |
| Standard unit includes overload sensing for greater operator safety. |  |  |  |
| No motors or gearing to service. |  |  |  |


[^0]:    Information on other models available from a David Round representative.

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[^2]:    Information on other models available from a David Round representative.

[^3]:    *The M-20 and M-30 are not available with the stainless steel upgrade. Information on other models available from a David Round representative.

