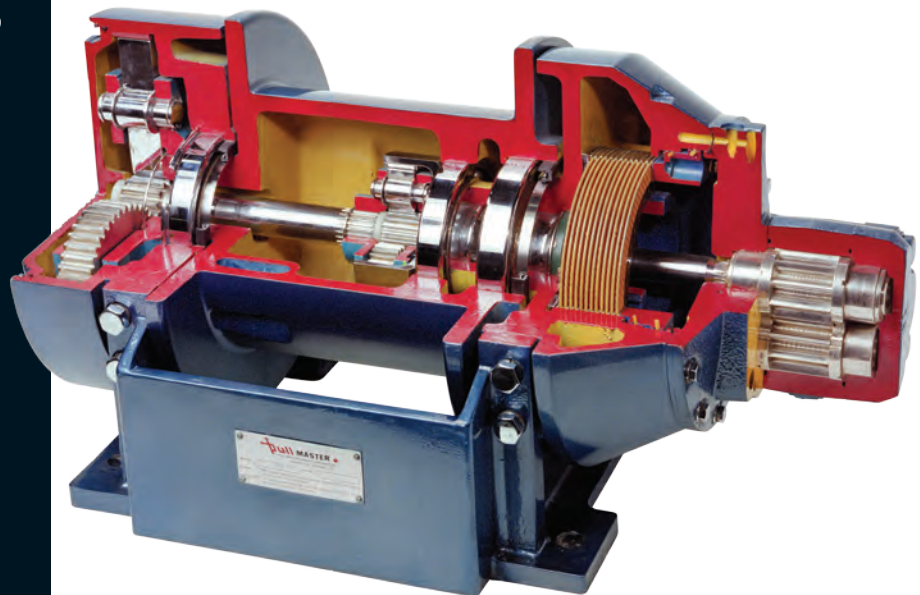


# **Pull** **MASTER**®

Winch **Power**. Built to Order.



Experience  
the **Power** of  
Pullmaster  
Planetary  
Winches



# Strength You Can Depend On



Pullmaster® planetary winches are backed by the strength of TWG, a global leader in the development and manufacture of standard and engineered winch, gearbox and load information systems for worldwide industries.

Headquartered in Tulsa, Oklahoma, TWG is comprised of five companies that specialize in industry-specific winches and supporting electronic systems. They include Tulsa Winch, Inc., dp Winch, Pullmaster Winch, Greer Company and LANTEC Winch & Gear, Inc.

TWG is part of the Dover Corporation, an NYSE-traded, multi-billion dollar corporation that manufactures a diverse range of engineered products and components for commercial and industrial use through more than 50 independent operating companies.





# Total Winch Power.

## On Land and Sea.



*In the inland waterways of Louisiana, a 12-inch dredge excavates sand and gravel that will later be used to make concrete.*

*A thousand miles away, a tower crane swings a two-ton slab of concrete into position—the beginning of a mile-long bridge that will link towns with cities.*

*In the woods of British Columbia, a grapple loader lifts and loads bundles of raw timber and transports them to a sawmill, where the wood will be used to construct a fishing dock.*

*Off the coast of Prince Edward Island, a fishing crew springs to life, hoisting up their catch of bluefin before pulling up anchor and heading to shore.*



Wherever the world needs lifting and pulling, Pullmaster is there—providing the winch power global industries depend on to work safer, smarter and more efficiently.

Pullmaster Winch Corporation is one of the world's leading manufacturers of planetary hydraulic winches built to order for the commercial fishing, logging, heavy construction, drilling, mining, dredging, and marine construction industries. From our computer-controlled manufacturing facility in Vancouver, British Columbia, Pullmaster builds winches for specific applications using the finest materials, superior engineering and the highest quality craftsmanship. Pullmaster's applied computer technology, integrated manufacturing and computerized production machinery are used in conjunction with our ISO 9001:2000 Quality Management System to produce world-class planetary products.

With one of the industry's most knowledgeable teams of engineers, service technicians, and worldwide distributors, Pullmaster delivers the reliable, high-performance operation and long equipment life you need to get the job done—no matter where you are.



## Advanced Features and Superior Benefits for All Pullmaster Hydraulic Planetary Winches

### Planetary gearing

*Greater efficiency and long equipment life*

### Anti-friction bearings on all turning components

*Trouble-free service, minimum maintenance*

### Stainless steel drum seal surfaces and rubber coated seals

*Corrosion-resistant sealing surface promotes long seal life*

### Automatic disc brakes

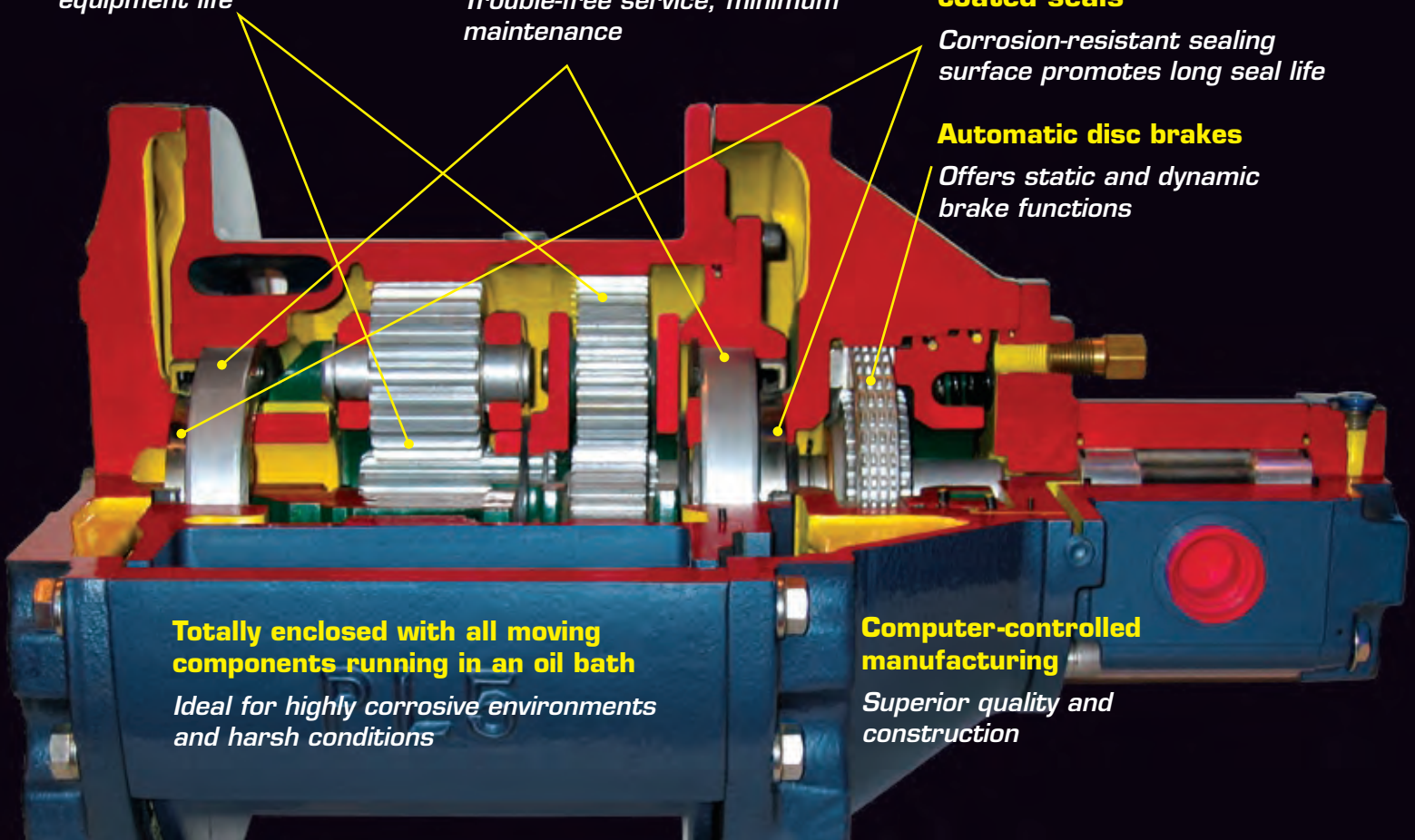
*Offers static and dynamic brake functions*

### Totally enclosed with all moving components running in an oil bath

*Ideal for highly corrosive environments and harsh conditions*

### Computer-controlled manufacturing

*Superior quality and construction*

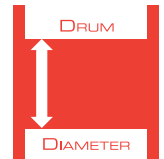


# Power That's Built to Order.

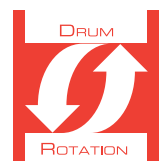
And when we say **built to order**, we mean it. Pullmaster Winch Corporation manufactures a comprehensive line of planetary hydraulic winches that are built for your specific application. Whether you need equal speed, rapid reverse, recovery or free fall, Pullmaster winches deliver the quality, performance and outstanding reliability you can depend on.

## Select Your Options

**Cable Drums** | Choose from Pullmaster's wide range of optional drum sizes to accommodate larger wire rope storage and conform with prevailing safety regulations as they relate to the ratio between wire rope diameter and drum diameter.



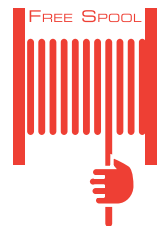
**Drum Rotation** | Because the automatic disc brake on all Pullmaster winches is activated only when a load is lowered, or in reverse rotation, a definite direction of rotation for hoisting is established. The direction of rotation is determined by looking at the motor side of the winch. Standard rotation for hoisting on all PL and R series models is counterclockwise. Standard rotation for hoisting on all M and H series models is clockwise. As an option, Pullmaster winches are also offered with the direction of rotation for hoisting a load opposite to the standard rotation.



**Drum Grooving** | All cable drums on Pullmaster planetary winches can be built with wire rope grooving. Please specify the wire rope size that's right for your application.



**Free Spool** | A mechanism that permits the wire rope to be pulled off the cable drum by hand. On Pullmaster R series winches, free spooling is a standard feature offered with manual or hydraulically actuated free spool control. Most Pullmaster M and H series winches offer hydraulically actuated free spool.



**Free Fall** | Several Pullmaster winch models offer a free fall attachment. Choose the free fall option that is right for your application:

- **Emergency Free Fall** enables the full release of a load. Once the emergency free fall function is engaged, the load cannot be stopped before reaching the ground. Much like an emergency load release function on a hydraulic crane, this option is important in applications where a load needs to be dropped at a high velocity.
- **Controlled Free Fall** allows one-third of the winch's rated line pull capacity to be released in a controlled free fall where the load can be brought to a smooth stop at any point on the way down.
- **Combination Emergency and Controlled Free Fall** offers both free fall options.



**External Brake Release** | All Pullmaster planetary winches offer a disc brake that functions automatically. The external brake release option enables brake release independently and is available on most Pullmaster planetary winch models.



**Hydraulic Motor** | Pullmaster planetary winches are powered by hydraulic gear motors for systems up to 2500 psi. For applications in high-pressure hydraulic systems, Pullmaster winch models are offered with hydraulic piston motors.

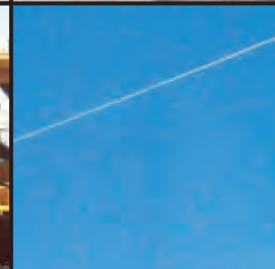




# Equal Speed

Pullmaster Equal Speed planetary winches offer maximum torque in both directions of rotation and give operators maximum control over the load. In applications that require precise lifting and lowering and load suspension, Pullmaster Equal Speed winches deliver the industry's most reliable performance. Ideal for a wide range of applications or special operations.

- Pulling capacities from 1,100 to 85,000 lbs (4.9 to 374.0 kN)
- Static and dynamic integral brake
- Optional hydraulic motors
- Ideal for a wide range of applications





# Rapid Reverse



Pullmaster Rapid Reverse planetary winches provide reverse speeds that are 4.5 times faster than forward speeds. In applications that include lighter loads or swing functions, Pullmaster's Rapid Reverse winches create less resistance and increase cycle times and productivity. Ideal for a variety of applications including fishing, dredging and marine applications.

- Pulling capacities from 3,800 to 85,000 lbs (16.9 to 374.0 kN)
- Static and dynamic integral brake
- Ideal for a wide range of applications and special operations



# Free Fall

Pullmaster hydraulic planetary winches with Free Fall enable operators to lift and lower loads at controlled speeds or lower at high velocities. Pullmaster's Free Fall option is available in Emergency Free Fall, Controlled Free Fall or Combination Emergency and Controlled Free Fall on several Pullmaster Equal Speed or Rapid Reverse winch models.

- **Emergency Free Fall** enables the full release of a load much like an emergency load release function on a hydraulic crane. Ideal in applications where a load needs to be dropped at a high velocity.
- **Controlled Free Fall** allows one-third of the winch's rated line pull capacity to be released in a controlled free fall where the load can be brought to a smooth stop at any point on the way down.
- **Combination Emergency and Controlled Free Fall** offers both free fall options.
- Pulling capacities from 2,000 to 50,000 lbs (8.9 to 222.4 kN)
- Static or dynamic integral brake
- Optional hydraulic motors



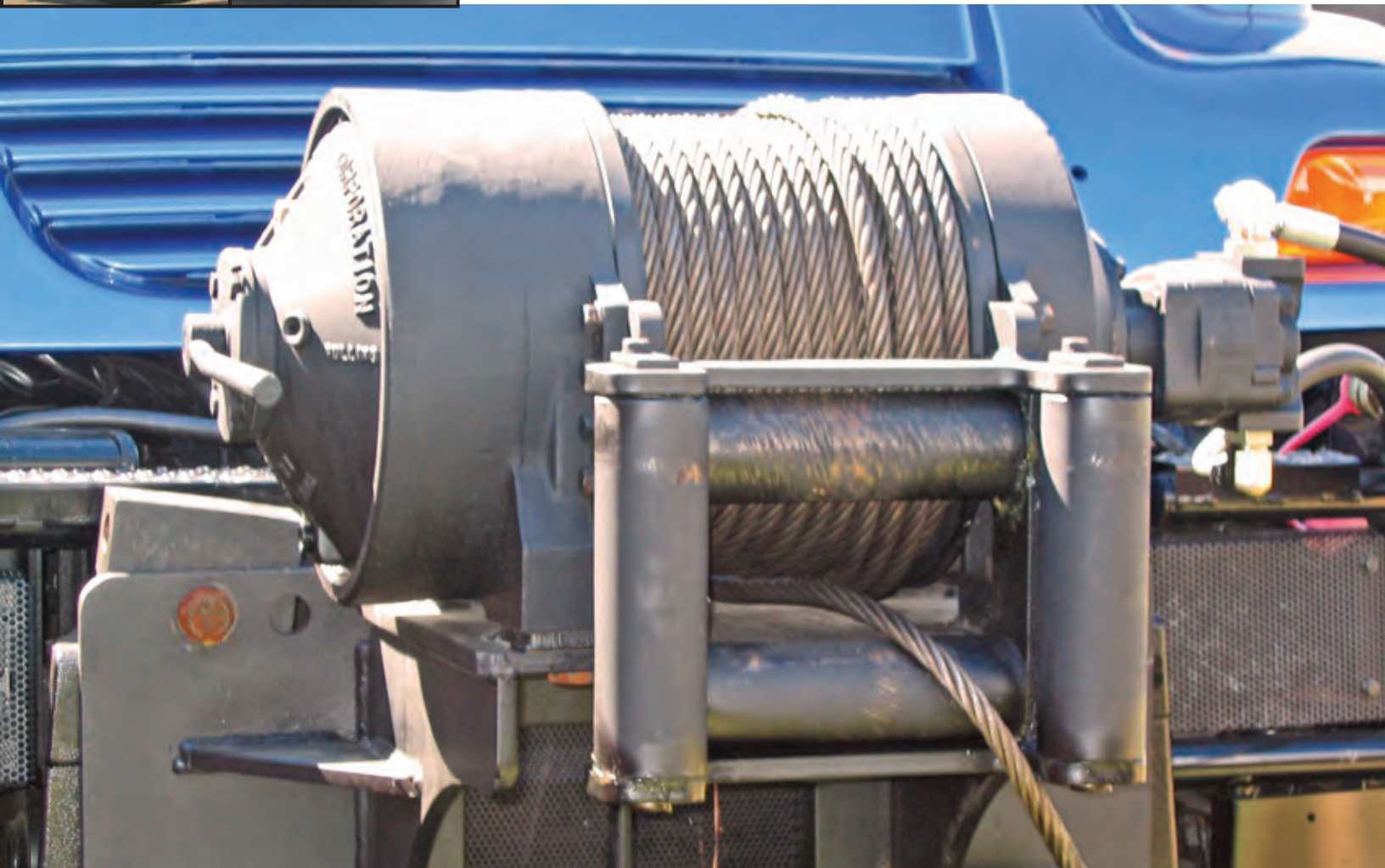


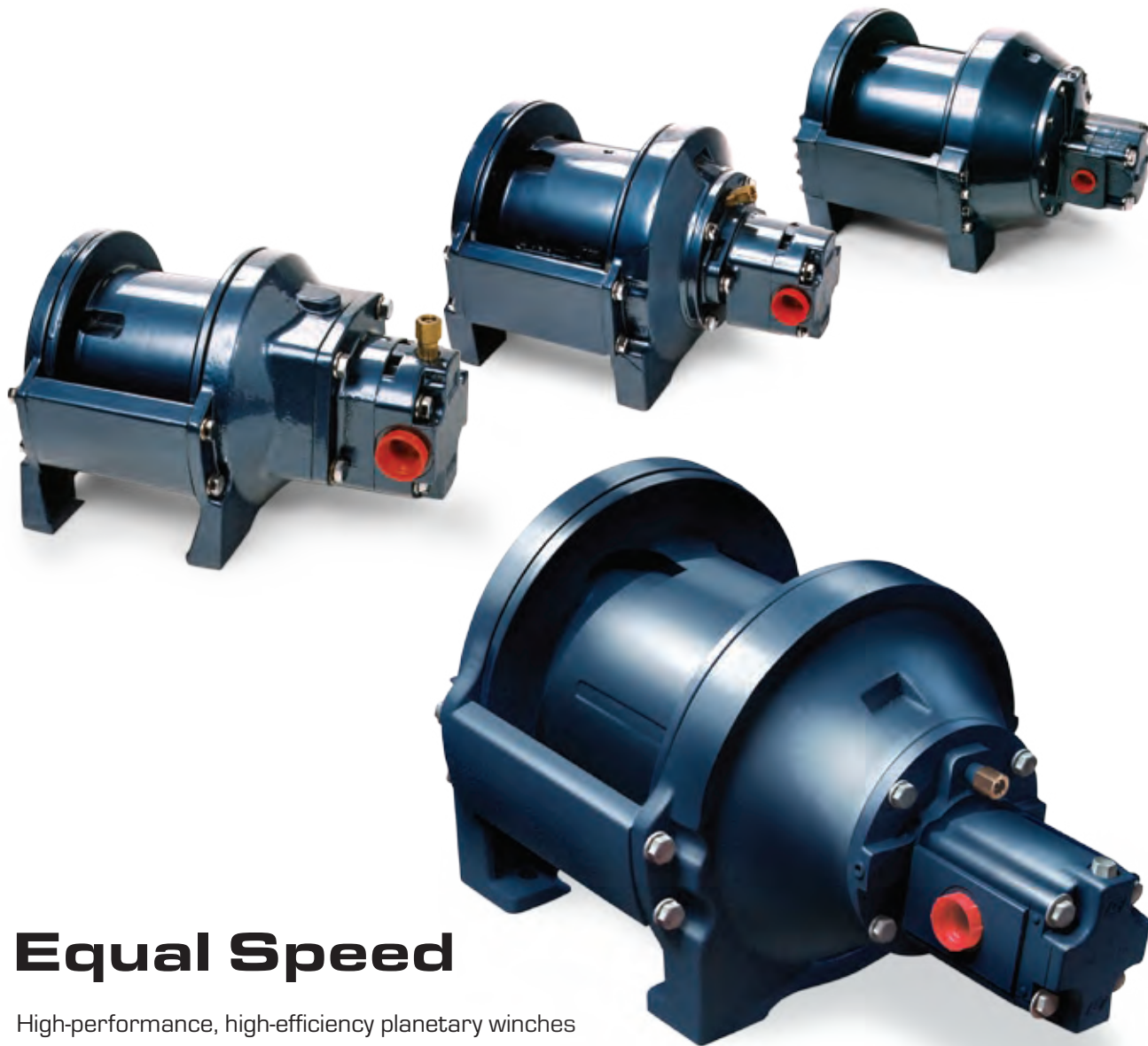
# Recovery



Pullmaster Recovery winches are ideal for pulling and recovering heavy equipment and vehicles. Pullmaster offers four winch models specifically designed for heavy-duty recovery operations.

- Pulling capacities from 11,021 to 15,492 lbs (49.0 to 68.6 kN)
- Hydraulic or manual free spool feature comes standard. Free spool feature permits the wire rope to be pulled off the cable drum by hand.
- Ideal for mobile pulling operations





## Equal Speed

High-performance, high-efficiency planetary winches offering equal speed in both directions. Ideal for hoisting and lowering applications.

- Hydraulic gear motor
- Spring-applied, pressure-released, automatic multi-disc brake
- Over-running clutch enables free rotation in the hoisting direction without affecting the brake.
- During lower operations, the over-running clutch locks causing the disc brakes to rotate between a series of divider discs. Dynamic braking is then achieved by modulation of the winch control valve handle. When the control is returned to neutral position, the brake applies automatically.
- A counter-balance valve is not required for smooth and positive “Down” control.





## PL Series

## Equal Speed in Both Directions

| Model         | Bare Drum |            | Full Drum |            | Drum Capacity  |
|---------------|-----------|------------|-----------|------------|----------------|
|               | Line Pull | Line Speed | Line Pull | Line Speed |                |
| PL1-12-227-1  | 1,100 lb  | 78 fpm     | 821 lb    | 104 fpm    | 1/4" - 87 ft   |
|               | 4.9 kN    | 24 m/min   | 3.7 kN    | 32 m/min   | 27 m           |
| PL2-12-228-1  | 2,204 lb  | 83 fpm     | 1,633 lb  | 111 fpm    | 5/16" - 122 ft |
|               | 9.8 kN    | 25 m/min   | 7.3 kN    | 34 m/min   | 37 m           |
| PL2A-12-228-1 | 1,285 lb  | 142 fpm    | 952 lb    | 189 fpm    | 5/16" - 122 ft |
|               | 5.7 kN    | 43 m/min   | 4.2 kN    | 58 m/min   | 37 m           |
| PL5A-12-212-1 | 5,000 lb  | 60 fpm     | 3,698 lb  | 82 fpm     | 7/16" - 110 ft |
|               | 22.2 kN   | 18 m/min   | 16.4 kN   | 25 m/min   | 34 m           |
| PL5-12-210-1  | 4,500 lb  | 135 fpm    | 3,328 lb  | 183 fpm    | 7/16" - 110 ft |
|               | 20.0 kN   | 41 m/min   | 14.8 kN   | 56 m/min   | 34 m           |
| PL5-12-211-1  | 4,000 lb  | 72 fpm     | 3,098 lb  | 92 fpm     | 7/16" - 110 ft |
|               | 17.8 kN   | 22 m/min   | 13.8 kN   | 28 m/min   | 34 m           |
| PL5-12-213-1  | 2,000 lb  | 142 fpm    | 1,479 lb  | 191 fpm    | 7/16" - 110 ft |
|               | 8.9 kN    | 43 m/min   | 6.6 kN    | 58 m/min   | 34 m           |
| PL8-3-30-1    | 7,000 lb  | 122 fpm    | 5,202 lb  | 164 fpm    | 1/2" - 196 ft  |
|               | 31.1 kN   | 37 m/min   | 23.1 kN   | 50 m/min   | 60 m           |

### ⚠ CAUTION:

The last 5 wraps of cable must be left on the drum to assist the cable clamp in holding the load.

### ⚠ WARNING:

Winches and capstans are not intended to be used for lifting or moving of persons.



### **M Series: Equal Speed**

High-performance, high-efficiency planetary winch with equal speed in both directions. The M series offers exceptionally smooth lowering control of the maximum rated load in a step-less operation.

- Hydraulic gear motor
- Spring-applied, pressure-released, automatic multi-disc brake
- Over-running clutch enables free rotation in the hoisting direction without affecting the brake.
- During lower operations, the over-running clutch locks causing the disc brakes to rotate between a series of divider discs. Dynamic braking is then achieved by modulation of the winch control valve handle. When the control is returned to neutral position, the brake applies automatically.
- A counter-balance valve is not required for smooth and positive “Down” control.

### **H Series: Rapid Reverse**

High-performance, high-efficiency planetary winch with rapid reverse speed 4.5 times faster than forward speed. In reverse rotation (lowering), the maximum load can be positively controlled at a line speed equal to the hoisting speed.

- Hydraulic gear motor
- Spring-applied, pressure-released multi-disc brake with static and dynamic functions
- During hoisting, the hydraulic motor drives direct into the planetary reductions without affecting the brake assembly. When forward rotation is stopped, an over-running clutch will lock and the multi-disc brake will positively hold the maximum load.
- During lowering, the brake is released automatically and then modulated for the desired lowering speed by a single control lever.
- A counter-balance valve is not required for smooth and positive “Down” control.



| <b>M Series</b>                          |           | <b>Equal Speed in Both Directions</b> |           |              |                 |
|--|-----------|---------------------------------------|-----------|--------------|-----------------|
| <b>H Series</b>                          |           | <b>Rapid Reverse</b>                  |           |              |                 |
| Model                                    | Bare Drum |                                       | Full Drum |              | Drum Capacity   |
|  | Line Pull | Line Speed *                          | Line Pull | Line Speed * |                 |
| <b>M5-3-230-1</b>                        | 6,000 lb  | 69 fpm                                | 4,091 lb  | 101 fpm      | 1/2" - 152 ft   |
|  | 26.7 kN   | 21 m/min                              | 18.2 kN   | 31 m/min     | 46 m            |
| <b>M8-3-30-1</b><br><b>H8-3-30-1</b>     | 8,500 lb  | 116 fpm                               | 5,795 lb  | 170 fpm      | 1/2" - 152 ft   |
|  | 37.8 kN   | 35 m/min                              | 25.8 kN   | 52 m/min     | 46 m            |
| <b>M8A-3-30-1</b><br><b>H8A-3-30-1</b>   | 7,000 lb  | 135 fpm                               | 4,773 lb  | 199 fpm      | 1/2" - 152 ft   |
|  | 31.1 kN   | 41 m/min                              | 21.2 kN   | 61 m/min     | 46 m            |
| <b>M8B-3-30-1</b><br><b>H8B-3-30-1</b>   | 3,790 lb  | 249 fpm                               | 2,584 lb  | 366 fpm      | 1/2" - 152 ft   |
|  | 16.9 kN   | 76 m/min                              | 11.5 kN   | 111 m/min    | 46 m            |
| <b>M12-3-97-1</b><br><b>H12-3-97-1</b>   | 12,121 lb | 104 fpm                               | 7,143 lb  | 176 fpm      | 5/8" - 222 ft   |
|  | 53.9 kN   | 32 m/min                              | 31.8 kN   | 54 m/min     | 68 m            |
| <b>M12B-3-97-1</b><br><b>H12B-3-97-1</b> | 6,120 lb  | 205 fpm                               | 3,606 lb  | 348 fpm      | 5/8" - 222 ft   |
|  | 272 kN    | 63 m/min                              | 16.0 kN   | 106 m/min    | 52 m            |
| <b>M18-3-101-1</b><br><b>H18-3-101-1</b> | 18,000 lb | 122 fpm                               | 11,288 lb | 195 fpm      | 3/4" - 170 ft   |
|  | 80.1 kN   | 37 m/min                              | 50.2 kN   | 59 m/min     | 43 m            |
| <b>M25-7-86-1</b><br><b>H25-7-86-1</b>   | 25,000 lb | 140 fpm                               | 16,860 lb | 207 fpm      | 7/8" - 140 ft   |
|  | 111.2 kN  | 43 m/min                              | 75.0 kN   | 63 m/min     | 43 m            |
| <b>M25B-7-86-1</b><br><b>H25B-7-86-1</b> | 12,698 lb | 273 fpm                               | 8,564 lb  | 405 fpm      | 7/8" - 140 ft   |
|  | 56.5 kN   | 83 m/min                              | 38.1 kN   | 124 m/min    | 43 m            |
| <b>M50-7-86-1</b><br><b>H50-7-86-1</b>   | 50,000 lb | 69 fpm                                | 33,889 lb | 102 fpm      | 1 1/4" - 177 ft |
|  | 222.4 kN  | 21 m/min                              | 150.7 kN  | 31 m/min     | 54 m            |
| <b>M75-7-191-1</b><br><b>H75-7-191-1</b> | 75,000 lb | 72 fpm                                | 41,748 lb | 129 fpm      | 1 1/8" - 727 ft |
|  | 333.3 kN  | 22 m/min                              | 185.6 kN  | 39 m/min     | 222 m           |

\*For H Series reversing speeds, multiply the line speeds listed by a factor of 4.5.

| <b>HL Series</b>   |           | <b>Rapid Reverse &amp; 2-Speed Forward</b> |           |            |            |            |           |            |               |
|--------------------|-----------|--|-----------|------------|------------|------------|-----------|------------|---------------|
| Model              | Low Speed |  |           |            | High Speed |            |           |            | Drum Capacity |
|                    | Bare Drum |  | Full Drum |            | Bare Drum  |            | Full Drum |            |               |
|                    | Line Pull | Line Speed                                 | Line Pull | Line Speed | Line Pull  | Line Speed | Line Pull | Line Speed |               |
| <b>HL25-7-86-1</b> | 25,000 lb | 140 fpm                                    | 16,860 lb | 207 fpm    | 5,357 lb   | 651 fpm    | 3,613 lb  | 965 fpm    | 7/8" - 140 ft |
|                    | 111.2 kN  | 43 m/min                                   | 75.0 kN   | 63 m/min   | 23.8 kN    | 198 m/min  | 16.1 kN   | 294 m/min  | 43 m          |

|   |  |
|---|--|
| <b>⚠ CAUTION:</b>   | <b>⚠ WARNING:</b>  |
| The last 5 wraps of cable must be left on the drum to assist the cable clamp in holding the load. | Winches and capstans are not intended to be used for lifting or moving of persons. |



## Recovery

High-performance, high-efficiency recovery winch with power in both directions. Standard free spool feature can be manually or automatically engaged. Ideal for tough mobile pulling applications or operations that require maximum control when lifting and lowering loads.

- Spring-applied, pressure-released multi-disc brake with dynamic and static function
- A counter-balance valve or hydraulic brake valve is not required for dynamic braking.
- Free spool feature permits the wire rope to be pulled off the cable drum by hand.

| R Series     |           | Planetary Recovery Winches |           |            |               |
|--------------|-----------|----------------------------|-----------|------------|---------------|
| Model        | Bare Drum |                            | Full Drum |            | Drum Capacity |
|              | Line Pull | Line Speed                 | Line Pull | Line Speed |               |
| R5-12-70-1M  | 11,020 lb | 37 fpm                     | 5,573 lb  | 74 fpm     | 1/2" - 209 ft |
| R5-12-70-1F  | 49 kN     | 11 m/min                   | 24.8 kN   | 23 m/min   | 63 m          |
| R7-15-135-1M | 15,429 lb | 28 fpm                     | 9,000 lb  | 49 fpm     | 5/8" - 124 ft |
| R7-15-135-1F | 68.6 kN   | 9 m/min                    | 40.0 kN   | 15 m/min   | 38 m          |

|  |   |
|--|---|
| <b>⚠ CAUTION:</b><br>The last 5 wraps of cable must be left on the drum to assist the cable clamp in holding the load. | <b>⚠ WARNING:</b><br>Winches and capstans are not intended to be used for lifting or moving of persons. |
|--|---|





[www.team-twg.com](http://www.team-twg.com)

## Pullmaster Model Code

XX XX - XXX - XX - XX X

### Basic Unit Series

PL = Equal speed in both directions  
 M = Equal speed in both directions  
 H = Rapid reverse  
 HL = Low forward, rapid forward,  
 rapid reverse  
 R = Recovery winch

### Size of Unit

### Reduction Ratio

Only used for non-standard  
 reduction ratios

### Other Options

M = Manually controlled freespooling  
 F = Hydraulically controlled freespooling  
 C = Controlled free fall  
 D = Emergency free fall  
 G = Controlled and emergency free fall

### Drum Size

### Hydraulic Motor

### Type of Brake

Contact Pullmaster for a full list of brake options



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 Voice: 604-594-4444  
 Fax: 604-591-7332  
 Email: sales@pullmaster.com  
[www.team-twg.com](http://www.team-twg.com)

Contact your Pullmaster sales representative for more information on winch options and features.

As a leader in product innovation, Pullmaster is committed to the ongoing improvement of its equipment. Pullmaster Winch Corporation reserves the right to make changes to our products without notice.

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