

» 8 WINCHES TESTED, 6 WINCHES DESTROYED

# FOUR WHEELER

ELECTRONICALLY REPRINTED FROM JULY 2011

THE WORLD'S LEADING 4x4 AUTHORITY

## BRING IT BACK ALIVE

**VEHICLE  
RECOVERY  
WITHOUT  
TEARS**

**PICK THE  
RIGHT WINCH**  
WE SHOW WHAT'S  
BEST FOR YOU



# MULTI-WINCH SHOOTOUT

## Eight winches, ten tests, one winner

By **Robin Stover** Photos: Robin Stover

**G**ETTING UNSTUCK WHILE FOUR WHEELING is a rite of passage everyone must experience to be considered a trail veteran. Whether mired in deep mud or wedged between two rocks, the vehicle extraction process can induce feelings of frustration, humility, and even desperation. However, even in the worst stuck scenario, one can avoid all of those displeasures by deploying the pulling power of a trusty winch. No 4x4 is complete without one, and no other mechanical contraption comes close to accomplishing the job a winch is designed for.

Historically, winches were considered implements of necessity, rarely used by the average person, and the last thing anybody would associate with vehicular mobility. However, that all changed in 1945 when brothers Claude and Rayburn Ramsey of Ramsey Tool and Die Company figured out how to package their Model 101 winch, a shaft-powered unit, to the front of World War II-era Jeeps. The concept was simple and effective, allowing drivers the ability to self-extract a stuck vehicle from snow and mud with a one-direction pull. Fast forward some 70 years, and winching technology has come a long way. Millions own and operate winches regularly, and they come in hundreds of configurations and intended uses. However, not all were created equal, and consumers must face the task of figuring out what specific type and size is best for their 4x4. Generally, we recommend picking a winch that is capable of pulling one and a half times the weight of the vehicle it's mounted to. This allows a margin of safety for the winch and operator, plus it ensures capability as each additional layer of cable is spooled to the drum.

Among the most popular class of electric

winches, are those that are rated between 8,000 and 9,500 pounds—perfect for popular midsize vehicles such as pickups, Jeeps, and Blazers. We set out to evaluate a group of eight to see which model was the most recommendable. Our goal is to provide you with the most comprehensive information available to simplify the task of winch selection. As such, we developed an arsenal of tests that would push each unit well beyond the manufacturers' recommendations and specifications. Think of this shootout as the Top Truck Challenge of winches.

### The Players (in alphabetical order)

**Bulldog Alpha 9300** (9,300-lb electric)  
**Engo E9000** (9,000-lb electric)  
**Harbor Freight Badland 9000** (9,000-lb electric)  
**Kodiak Bruin** (9,500-lb electric)  
**Summit Racing SUM-930002** (9,000-lb electric)  
**Superwinch EP9.0** (9,500-lb electric)  
**T-Max EW19500** (9,500-lb electric)  
**Warn 9.5xp** (9,500-lb electric)

(Editor's note: Mile Marker and Ramsey were also invited to submit winches for this shootout; both declined our invitation.)

### The Testing

Each unit would be scored on the following ten categories:

1. **Packaging** (Was unit adequately protected for shipping?)
2. **Exterior labeling** (Are visual warnings easy to comprehend?)
3. **Instructions** (Content, clarity, pictures, and detail)
4. **Power-to-weight ratio** (Actual stall weight vs. weight as tested)
5. **Ease of use** (Clutch engagement, plug quality, remote control feel and function)
6. **Noise during operation** (decibel level @ no load)
7. **Submersion** (How does water effect operation?)
8. **Power wire quality** (Strand count, size, coloring, insulation)
9. **Speed and efficiency** (How fast and how far?)
10. **Stall test** (Where do they stop pulling?)

### Multi-Mounts for All

We picked Warn to supply the Multi-Mounts because they are manufactured in the U.S., and come fully assembled with electrical pigtailed that make wiring hookup a snap. The Warn units feature robust construction that virtually eliminates the possibility of deflection. The unit shown here is rated for a 9,500-pound winch and weighs just over 23 pounds fully assembled.







## Our Power Source

We assigned a brand new, fully charged, deep-cycle, BlueTop Optima battery to each winch. While the Optima BlueTop is offered in both a deep-cycle and a starting version, we chose the deep-cycle version because it supplies 750 cold cranking amps and features a 120-minute reserve capacity, which helps it handle hundreds of deep discharges without cutting into the lifespan of the battery—perfect for heavy winching scenarios.

**->“MUCH TO OUR SURPRISE—TWO OF THE UNITS DID NOT WORK RIGHT OUT OF THE BOX, THE SUMMIT AND HARBOR FREIGHT MODELS—REQUIRING US TO RETIRE THEM FROM THE COMPETITION.”**



## Packaging

As each of the ten winches arrived at our test facility, we took notes on how each brand prepared the unit for shipping. Winches are heavy objects, and proper packaging techniques can make the difference between the unit working as intended or filing a damage claim. We were surprised with how well thought-out some of the packages were, while others arrived with damaged boxes and jumbled contents.

## Weigh-In

Prior to operation, each winch was inspected for anomalies. Next, each unit was weighed with and without cable to see how manufacturing variances affected overall mass. With each unit's weight recorded, we then mounted each unit to a Warn multi-mount cradle for ease of transport and testing. Some modifications were necessary to allow some of the winches to bolt up to the Warn Multi-Mounts, but with a little drilling and grinding, we were able to make each winch fit.

### Winch Weight (without cable)

| Brand          | Weight As Tested (lb) |
|----------------|-----------------------|
| Bulldog        | 50.9                  |
| Engo           | 49.4                  |
| Harbor Freight | 52                    |
| Kodiak         | 56.7                  |
| Summit Racing  | 68.5                  |
| Superwinch     | 62.8                  |
| T-Max          | 54                    |
| Warn           | 53.9                  |



## Safe and Sound

In the effort to keep ourselves safe, and to ensure apples-to-apples evaluations, we installed a 100-foot length of  $\frac{3}{16}$ -inch Master-Pull synthetic Superline. This rope has a 21,000-pound rating and would ensure the safety of our staff. Superline installs in place of the standard steel wire cable supplied by most manufacturers. Next, while spooling in the rope on the drum of each winch, we used a decimal meter to see how much noise each unit produced while operating at no load. Sound levels varied significantly between the different units, and where you might associate quietness with quality, the next part of our test would prove otherwise.

### Noise Level As Tested

| Brand          | dB level (no load) |
|----------------|--------------------|
| Bulldog        | 80                 |
| Engo           | 83                 |
| Harbor Freight | N/A                |
| Kodiak         | 79                 |
| Summit Racing  | N/A                |
| Superwinch     | 90                 |
| T-Max          | 79                 |
| Warn           | 81                 |



## Submersion Test

Submergibility is a factor we believe is paramount to a trusty winch. As such, we wanted to test each unit under water to see if any ill effects would surface during and after a dunking. To do so, each winch was connected to its corresponding Optima battery to power out the drum of steel cable. This would allow each drum to spin freely with no interference. Much to our surprise—two of the units did not work right out of the box, the Summit and Harbor Freight models—requiring us to retire them from the competition. Next, we lowered each winch into a large stainless-steel water tank, one at a time, and ran each continuously, at no load, for a period of ten minutes. We took notes on the amount of air bubbles that came from each unit and we took notes on changes in both sound and water color. Most of the units tested emerged unscathed from the bath, but one model, the Kodiak Bruin, would no longer spool in or out after the test.

## Results

| Brand               | Observations  |
|---------------------|---|
| Bulldog .....       | No ill effects  |
| Engo .....          | No ill effects  |
| Harbor Freight .... | Failed prior to test                                    |
| Kodiak .....        | No ill effects during test, failed to operate afterward |
| Summit Racing ...   | Failed prior to test                                    |
| Superwinch .....    | No ill effects  |
| T-Max .....         | Made unusual sounds during first two minutes of test    |
| Warn .....          | Contaminated water with bronze-colored substance        |



## Speed and Efficiency Test

Our next order of operation was to see how well each winch could convert electrical energy into mechanical effort. The idea was simple: Hook up each winch with corresponding battery to our test vehicle, and time how long and how far each winch could pull the rig up a 15-percent grade. Using our resident project rig, the Baja Bomber, we set out to the private property where we conducted our testing. There, we assembled our test on a section of land that was absolutely saturated by recent rains. The land was slated for the construction of a new home, so there wasn't any concern for tearing up the topsoil and creating ruts. The entire hillside was blanketed by a thin layer of grass and other low-lying vegetation. We knew the soft virgin soil underneath would allow our 8,800-pound pickup truck to sink in as the vehicle crested the hill. The 15-percent slope would provide a real-world pull that increased with difficulty towards the top. The plan was to evaluate how far each winch could pull the vehicle while connected to one Optima BlueTop and the truck's 195-amp charging system.

During this test, we also wanted to record the maximum operating temperature of each winch motor. To do so, we purchased a digital temperature gauge that recorded the maximum temperature in a given period of time. The unit came with small thermal couplers that could be affixed to the exterior of the winch motor using a rubber band. What we learned from this exercise was that the faster a winch pulls, the more power it consumes. To us, speed is an important part of the equation; however, more so is efficiency. Our test would prove that some winch models are significantly more efficient than others. Efficiency is paramount when winching exercises require extended operation intervals—such as you might find when freeing a stuck vehicle from deep mud or snow.

## Conclusion

The Superwinch made the most work happen on a given amount of electrical energy supplied.



The Warn model was faster than the rest but demanded more electrical energy than our test arrangement could supply, so it depleted the battery and ceased forward momentum halfway up the hill.



◀ This is the Omega digital temperature recorder we used for the shootout. The two-channel unit displays the temperature of two wired thermal couplers. We attached one thermal coupler to the exterior of the winch motor and another to the gear case on the opposite side.



▶ Each winch was tested with a fully charged Optima BlueTop deep-cycle battery. The batteries were wired into the vehicle's charging system using Warn's quick-disconnect harnesses. An isolation switch ensured that the existing batteries installed in the truck would not skew our results. The Premier Power Welder alternator supplied each test battery with 195 amps of charging power.

## Results

| Brand            | Results  | Motor Temp (deg. F) |
|------------------|--|---------------------|
| Bulldog .....    | Stopped pulling with 16' 8" of line left ..... | 146.0               |
| Engo .....       | Stopped pulling with 22' 4" of line left ..... | 151.8               |
| Superwinch ..... | Stopped pulling with 8' 2" of line left .....  | 218.0               |
| T-Max .....      | Stopped pulling with 40' 3" of line left ..... | 138.0               |
| Warn .....       | Stopped pulling with 57' 1" of line left ..... | 91.2                |

(Summit Racing, Harbor Freight, and Kodiak models inoperative)



## Stall Test

After the speed and efficiency test, we returned to our shop space to wrap up our objective testing. We borrowed a 20,000-pound analog load cell from our good friends at King Crane in Scotts Valley, California. The unit displays, in pounds, how much force is being applied to the device and featured shackle attachment points on each end. We fabricated a test platform that would allow us the ability to secure a winch in a multi-mount at one end,



while the load cell was affixed to the other end. The system was massive and could only be moved using a forklift. We used a 10-foot section of ½-inch steel cable to ensure that cable stretch or breakage would not be an issue. The arrangement would allow each winch to reach its maximum pulling power or stall point, while the gauge recorded the maximum pound rating. As you might expect, many of the winches did not survive this torture test.

## Results

| Winch         | Max Pull (lb) | Result  |
|---------------|---------------|---|
| Bulldog.....  | 10,000 .....  | Broke internal parts, would not work after test |
| Engo.....     | 12,000 .....  | All functions still worked after test           |
| Superwinch... | 15,900 .....  | Would not spool out after test                  |
| T-Max .....   | 16,000 .....  | All functions still worked after test           |
| Warn .....    | 16,000 .....  | Broke internal parts, would not work after test |

(Summit Racing, Harbor Freight, Kodiak units inoperative.)

◀ Here you can see our stall test contraption. Comprised of a 3x4-foot section of ¾-inch-thick steel plate, with a rectangular tubing outrigger supported by a piece of 1x2-inch solid stock steel, the arrangement could handle upwards of 20,000 pounds of force without issue. We borrowed the analog load cell from King Crane in Scotts Valley, California.

## Subjective Testing

With all of our empirical testing completed, we assembled a panel of judges that represented a cross-section of the average winch consumer. Included were three males, ages 24, 42, and 65. Each person was given a set of questions related to various aspects of the winches tested. We asked our judges to grade each unit on a scale of one to ten. The idea here was to get feedback from a consumer's point of view. Items such as remote control quality and feel, clutch engagement, and labeling were all considered. This

experiment was interesting because our younger judge liked some aspects that our older judges did not. Our oldest judge pointed out areas of concern regarding plug type and location, another noted difficulty on the subject of clutch engagement. One area each judge seemed to agree on was the clarity and visibility of labeling. Some winches made warnings and operation procedures clear as day, while others were small and illegible from an arm's length away. When it came to the printed instruction manual included with each unit, quality varied drastically. Some were very complete, offering both wiring sche-

matics and exploded views of parts diagrams, while others looked as if they were thin, photocopied, one-size-fits-all manuals that were barely interpretable. Each brand received a score for its printed manual.



◀ Human interfaces such as remote controllers require a bit of thought to manufacture. Some winch companies take great pride in developing remotes with thoughtful features such as trigger guards or wireless options. Others take the cookie-cutter approach, using remote controllers developed by third-party manufacturers. These typically feel inferior and do not provide a quality user experience. Of the units tested, the Warn, Superwinch, and Kodiak models provided the added safety we've come to expect. The Bulldog model was unique because it was the only one with lighted switchgear. All others were a lackluster clamshell design that left our judges asking for more.



▶ Considering that each winch we tested was rated between 9,000 and 9,500 pounds, we thought it was odd how much variation there was between each brand's power cables. Some were large 1 AWG type with soft flexible insulation, while others featured less expensive 5 AWG cable with stiff insulation. The best battery cable of the bunch was that of the Superwinch model. Of the units tested, only Warn and Bulldog provided a protective sheath surrounding the battery cables. Our trio of judges agreed on a numeric value for each type of wire tested, and that became the point score we assigned to each winch mode for wire quality.



◀ Another important aspect of winch remote controllers is the end plug. Just as the size and shape of human hands vary, so do the remote control's plug arrangements. Where one person might like how one type of plug feels at the moment of contact with the connector, others may not. Our judges focused on what makes a plug good for extreme environments and discussed the positives and negatives of each type. A numeric score was assigned to each plug type, and those numbers were added to the remote control.

## 8<sup>th</sup> Place

### Summit Racing SUM-930002

Summit Racing was eager to be involved in our winch shootout. They shipped the 9,000-lb rated unit to our door within two days of our request. The unit came double boxed with styrofoam inserts surrounding and protecting areas of mass. The solenoid pack was tucked inside a smaller cardboard box along with the roller fairlead. The origin of this unit was China, and we noticed a date code stamped on the box, telling us that this winch had been warehoused for several years after making its trek across the Pacific Ocean. Upon initial inspection, we thought the Summit model would be a strong contender with its 6.6hp series-wound motor that outweighed all others sans cable. After photographing and weighing the unit, we hooked up the solenoid box wiring as shown by a difficult-to-decipher wiring diagram in the instruction manual. We tightened the connectors and attached the positive and negative cables to the unit's assigned Optima BlueTop battery. We spooled out the steel cable without issue and mounted the unit to the Warn Multi-Mount. Then, as we taped the trigger of the remote control in preparation for the submergence test, the drum began turning unusually slow, and smoke began pouring from the motor side of the unit. We double checked our wiring connections and found no discrepancy from the diagram inside the manual. We're not sure why, but something inside the unit decided to give up, causing a direct short, rendering the winch useless and out of the physical testing portion of our shootout. **INFO:** Summit Racing, 800/230-3030, www.summitracing.com



#### THE DETAILS

##### GENERAL

**Model:** Summit Racing SUM-930002  
**Price as tested:** \$449.95  
**Pull rating (lb):** 9,000  
**Remote:** 12-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 172:1  
**Motor (hp):** 6.6  
**Cable diameter (in):** 2<sup>3</sup>/<sub>64</sub>  
**Cable length (ft):** 94  
**Shipping weight (lb):** 81  
**Battery cables (AWG):** 5  
**No-load line speed (ft/min):** 37

◀ Houston, we have a problem. As we attempted to run the Summit winch for the submersion test, smoke began to pour from the unit. After double-checking our wiring, we knew we received a faulty unit.

◀ The Summit winch comes with a non-integrated solenoid pack that attaches to the top of the winch using a series of bolt-together brackets.



The Badland winch features an externally mounted solenoid pack that attached directly to the two tie bars on top of the unit.

## 7<sup>th</sup> Place

### Harbor Freight Badland 9000

We've always had a soft spot in our hearts for the Harbor Freight brand. Nothing beats the deals that can be found on over 7,000 items sold at companies numerous nationwide storefronts. Manufactured in China, the Badland electric winch is sold exclusively through Harbor Freight and is backed by their awesome 30-day, 100 percent satisfaction guarantee. Our test unit came via Fed Ex and was well packaged to protect the contents inside. The most noteworthy observation we made during our initial inspection was that of the high-quality charcoal-gray finish covering all exterior surfaces, including the roller fairlead. The Badland 9000 has a 5.5hp series-wound motor with a duty cycle of 5 percent. That means it can pull 9,000 pounds for 45 seconds followed by a 15-minute period of inactivity to cool down. Unfortunately, we did

not get to test this unit because it failed to operate right out of the box. Despite double-checking the wiring between the control box and winch motor, we were unable to resolve the issue and were forced to set it aside for the physical testing. **INFO:** Harbor Freight, 800/444-3353, www.harborfreight.com

◀ We like the fact that the Badland 9000 comes with cooling fins to help carry heat away from the electric motor.

#### THE DETAILS

##### GENERAL

**Model:** Harbor Freight Badland 9000 (p/n 68143)  
**Price as tested:** \$499.99  
**Pull rating (lb):** 9,000  
**Remote:** 12-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 218:1  
**Motor (hp):** 5.5  
**Cable diameter (in):** 2<sup>3</sup>/<sub>64</sub>  
**Cable length (ft):** 100  
**Shipping weight (lb):** 87  
**Battery cables (AWG):** 3.5  
**No-load line speed (ft/min):** 19.7







The Kodiak Bruin comes pre-wired and ready to work right out of the box.

**6<sup>th</sup> Place**

**Kodiak Bruin**

Kodiak Winches by Quality Gear is a fairly new player in the winch market, as such, they take strides to add value to their product offerings. Items you would normally have to pay extra for with competing brands are automatically included in Kodiak's Bear Essentials kit—including with every winch model. The kit is comprised of a universal mounting plate designed to fit a large-cross section of vehicles, a snatch block, two shackles, a 3-foot tree saver strap, gloves, and a handy carrying bag to stash everything in. Originating in China, each Kodiak winch travels through Quality Gear's headquarters in Alberta, Canada, before making the trip to U.S. consumers, so it's safe to say that Kodiak winches found Stateside are well traveled. Our test sample was no exception. The box it arrived in was badly beaten but still intact. Inside, we found the unit in perfect condition amongst a deluge of busted Styrofoam dividers. Once unboxed, we tested the unit and found everything functioned properly. We immediately took notice of the high-quality fasteners included with the winch. It appeared that Quality Gear spent some time figuring out exactly what consumers needed to ensure a trouble-free installation. All nuts and bolts featured shoulders or flanges with serrations and locking mechanisms

to aid torque retention. Even the two-roller fairlead mounting bolts were special, featuring minimized bolt heads to ensure fitment between the winch legs and the fairlead mounting surface. We especially like the robust overhead structure that spanned the drum to house the solenoids. With the steel cable removed from the unit, we mounted the Bruin to a Warn Multi-Mount cradle. We lowered the unit into our large stainless-steel water tank and taped the remote control switch to start the submersion test. After a 10-minute period, the winch seemed unphased by the swim. However, when it came time to install the Master-Pull Superline, the Bruin had different plans. As it turned out, water found its way inside the winch and did whatever it takes to kill the Bruin's 4.8hp permanent magnetic motor. After this occurrence, the solenoids continued to click when the buttons on the remote were pressed, but nothing happened with the drum. **INFO:** Kodiak Winches, 888/452-7979, www.qualitygear.com

**▶▶ THE DETAILS**

**GENERAL**

**Model:** Kodiak Bruin 9500  
**Price as tested:** \$615.50  
**Pull rating (lb):** 9,500  
**Remote:** 15-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 212:1  
**Motor (hp):** 4.8  
**Cable diameter (in):** 3/8  
**Cable length (ft):** 100  
**Shipping weight (lb):** 93  
**Battery cables (AWG):** 3  
**No-load line speed (ft/min):** N/A



▶ All Kodiak winches come with a kill switch mounted to the body of the winch. This allows users the ability to isolate the power to the winch for periods of inactivity or storage. We like this feature because it can prevent accidental winch operation in instances such as front-end collisions.

**5<sup>th</sup> Place**

**Bulldog Alpha 9300**

Bulldog Winch Company is another new player in the winching industry. Founded in 2006 on the principle of quality innovation, and value, Bulldog offers an extensive line of vehicle recovery winches with 2,000- to 12,000-pound ratings. The China-sourced Alpha 9300 model we tested came packaged in a double-wall cardboard box. The internals were well protected by two die-cut clamshell Styrofoam inserts. Some assembly was required, as the solenoid pack was not attached to the winch prior to shipping. However, Bulldog makes the unit super-easy to connect, thanks to large red labels attached directly to the wires in question. The Alpha 9300 comes with unique features such as a waterproof 500-amp contactor, a lighted remote control, and heat-resistant sheathing to protect the positive and negative battery cables. We especially like the fact that the Alpha comes with thermal overload protection that includes a green LED for status feedback. Our testing proved that ten minutes submerged under water would not affect the unit's ability to pull. Additionally, the Alpha 9300 came in second place in our speed and efficiency test, with just under 17 feet of rope remaining when

the unit's thermal protection circuitry activated. We recorded a maximum motor operating temperature of 146 degrees during the pull. During the our stall test, the Alpha 9300 pulled to a respectable 10,000 pounds before a loud bang erupted from within the gear case. The unit would not spool in or out afterwards, which unfortunately would not be covered by Bulldog's limited lifetime warranty. **INFO:** Bulldog Winch, 623/581-0121, www.bulldogwinch.com

**▶▶ THE DETAILS**

**GENERAL**

**Model:** Bulldog Alpha 9300 (p/n 10013)  
**Price as tested:** \$999.99  
**Pull rating (lb):** 9,300  
**Remote:** 12-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 216:1  
**Motor (hp):** 6.0  
**Cable diameter (in):** 3/8  
**Cable length (ft):** 100  
**Shipping weight (lb):** 86  
**Battery cables (AWG):** 1  
**No-load line speed (ft/min):** 35.4



◀ Here you can see how Bulldog goes the extra mile to ensure that electrical hookup is as straightforward as they come. Note the extra color-coded heat sheathing that surrounds all power cabling.

◀ Our judges favored the attractive good looks of the Alpha 9300 over all others in the test. The glossy body accented in chrome gave the winch an aggressive yet elegant appearance.



## 4<sup>th</sup> Place

### Engo E9000

Spawned from the former CFO of Mile Marker winches, Engo is a new up-and-coming winch manufacturer with an emphasis quality, value, and customer service. Engo has a full line of recovery winches available from 3,000 to 12,000 pounds, offering both hydraulic and electric-powered versions for regular consumers and military clients. The E9000 model we tested originated in China, but came securely boxed with two plastic straps and plenty of ribbon tape to keep contents secured inside. Additionally, two robust clamshell Styrofoam inserts minimized movement within the parcel. The unit weighed just 49.4 pounds without cable, securing the ultra-lightness award of the all the units we tested. The 5.5hp series-wound motor is offered in both 12- and 24-volt versions. The most noteworthy observation we made during our testing of the E9000 model was how easy the drum free-spooled when the clutch was disengaged. Where some winches required our staff to pull cable from the drum using significant upper body weight, the Engo required just one arm. During our speed and efficiency test, the E9000 took third place, leaving just over 22 feet of rope unspooled. The motor reached a maximum operating temperature of 151 degrees during the pull. During the stall test, the E9000 pulled to 12,000 pounds and stopped *sans* drama.

Once removed from the stall test, the unit continued to work flawlessly in either direction. It's important to note that this was one of only two winches that survived the stall test unscathed. Considering that it survived our thrashing and can be bought at the very affordable price of just \$329.99, we had to award the Engo E9000 as the best value of the group. **INFO:** Engo Industries, 360/642-0079, [www.engousa.com](http://www.engousa.com)

#### THE DETAILS

##### GENERAL

**Model:** Engo E9000 (p/n 77-09000)  
**Price as tested:** \$329.99  
**Pull rating (lb):** 9,000  
**Remote:** 12-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 235:1  
**Motor (hp):** 5.5  
**Cable diameter (in):** 2<sup>1</sup>/<sub>64</sub>  
**Cable length (ft):** 92  
**Shipping weight (lb):** 84  
**Battery cables (AWG):** 3.5  
**No-load line speed (ft/min):** 24



► The Engo E9000 requires some assembly, as the solenoid pack is not installed to the winch at the factory.

→ Engo takes great care in ensuring that the winch and all of its accompanying componentry survives shipment.



## 3<sup>rd</sup> Place

### T-Max EWI-9500

The China-sourced T-Max EWI-9500 is part of Westin's Outback series of electrical recovery winches. Unfortunately, the lack of interior support structure surrounding the winch enabled the unit to move around inside the box during shipping. This allowed some of the components to come loose and migrate within the parcel, and the shipping process damaged the plastic bulkhead fitting that attaches the power cable to the exterior housing of the unit. Comprised of a quiet-running 6.6hp series-wound motor, the unit features an integrated solenoid module with a standard-wired and wireless remote control. Rated at 28.7 feet per minute at no load, the unit is one of the faster winches we tested. A bright red light illuminates above the motor housing whenever the unit is powered. Throughout our physical testing, the T-Max shined against, and in some cases, outshined all other winches in the shootout. The EWI-9500 was one of only two models to survive our brutal stall test. The unit produced the second-highest power to weight ratio of the bunch, and considering the fact that Westin offers a three-year warranty on all mechanical parts, it packs a clear edge in terms of value. Additionally, it was bested only by Warn as the judges' most favored winch to own. **INFO:** Westin Automotive, 800/345-8476, [www.westinautomotive.com](http://www.westinautomotive.com)

► The T-Max EWI-9500 features a stylish cast aluminum structure that houses the integrated solenoid module. The added surface area also contributes to heat dissipation while in use.

◄ The T-Max remote control features a wireless option that enables operation from up to 25-feet away.

◄ Here you can see the damage the unit sustained during the shipping process. The plastic bulkhead fitting that attaches the power cable to the exterior housing of the unit broke off allowing the cord to come loose.



#### THE DETAILS

##### GENERAL

**Model:** T-Max EWI-9500  
**Price as tested:** \$999.99  
**Pull rating (lb):** 9,500  
**Remote:** Wireless Multi-Controller with 12-ft cord  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 235:1  
**Motor (hp):** 5.5  
**Cable diameter (in):** 2<sup>1</sup>/<sub>64</sub>  
**Cable length (ft):** 92  
**Shipping weight (lb):** 94  
**Battery cables (AWG):** 5  
**No-load line speed (ft/min):** 28.7





The Superwinch EP9.0 features super flexible 2 AWG battery cables and an elegant gloss-black finish.

**“THE BLAZING-FAST, NO-LOAD LINE SPEED OF 44 FEET PER MINUTE WAS THE FASTEST OF THE MODELS TESTED.”**



Our panel of judges gave mixed reviews on the unit's unique stainless steel T-handle clutch lever.

## 2<sup>nd</sup> Place

### Superwinch EP9.0

Superwinch is another American company that manufactures winches in China. Despite the long boat ride from overseas, our unit came to us in excellent condition, thanks to smart packaging practices. The unit was ready to run right out of the box, and came with a 12-foot corded remote control that our panel of judges thought was second only to Warn in terms of feel and function. The blazing-fast, no-load line speed of 44 feet per minute was the fastest of the models tested. It ranked the highest overall in our speed and efficiency test, leaving just over 8 feet of rope unspooled when forward momentum ceased. In doing so, however, the EP9.0 produced the high-est motor temperature of the group at 218 degrees. The stall test would prove that the 9,000-pound-rated Superwinch could greatly exceed manufacturer specifications, but as it turned out, pulling to 15,900 pounds affected the contactor unit, rendering the spool out function useless after the test. The sound levels produced by this model were also the highest of the group, at 90 decibels at no load. Impressive performance usually comes at a price, and it is in this case that price is motor heat and noise level. However, when you consider that the EP9.0 had the third-highest power to weight ratio of the group and at a very competitive price of just \$966.23, it's a great deal of winch for the dollar. **INFO:** Superwinch, 860/928-7787, [www.superwinch.com](http://www.superwinch.com)

### THE DETAILS

#### GENERAL

**Model:** Superwinch EP9.0  
**Price as tested:** \$999.99  
**Pull rating (lb):** 9,500  
**Remote:** 12-ft hand-held remote switch  
**Drive gear:** 3-stage planetary  
**Gear reduction:** 156:1  
**Motor (hp):** 4.6  
**Cable diameter (in):** 2<sup>3</sup>/<sub>64</sub>  
**Cable length (ft):** 100  
**Shipping weight (lb):** 108  
**Battery cables (AWG):** 2  
**No-load line speed (ft/min):** 44

## Final Scores

| Subjective data                          | Bulldog | Engo | Harbor Freight | Kodiak | Summit Racing | Superwinch | T-Max | Warn |
|--|---------|------|----------------|--------|---------------|------------|-------|------|
| <b>Packaging</b> (10 pts.)               | 8       | 9    | 6              | 2      | 6             | 8          | 3     | 5    |
| <b>Ease of use</b> (30 pts.)             | 25      | 25   | 25             | 26     | 14            | 25         | 28    | 23   |
| <b>Remote control function</b> (60 pts.) | 33      | 33   | 28             | 47     | 36            | 41         | 44    | 57   |
| <b>Power wire quality</b> (30 pts.)      | 24      | 12   | 12             | 21     | 15            | 27         | 15    | 21   |
| <b>Exterior labeling</b> (30 pts.)       | 18      | 30   | 23             | 20     | 14            | 18         | 22    | 30   |
| <b>Instruction manual</b> (30 pts.)      | 24      | 21   | 24             | 30     | 12            | 27         | 27    | 30   |
| <b>Total score</b>                       | 132     | 130  | 118            | 146    | 97            | 146        | 139   | 166  |
| Emperical data                           | Bulldog | Engo | Harbor Freight | Kodiak | Summit Racing | Superwinch | T-Max | Warn |
| <b>Stall</b> (10 pts.)                   | 6       | 9    | 0              | 0      | 0             | 7          | 10    | 8    |
| <b>Noise</b> (10 pts.)                   | 7       | 8    | 0              | 7      | 0             | 6          | 10    | 9    |
| <b>Water</b> (10 pts.)                   | 10      | 10   | 0              | 5      | 0             | 10         | 10    | 10   |
| <b>Power/Weight</b> (10 pts.)            | 5       | 6    | 0              | 0      | 0             | 7          | 9     | 10   |
| <b>Speed &amp; Efficiency</b> (20 pts.)  | 18      | 16   | 0              | 0      | 0             | 20         | 14    | 12   |
| <b>Total score</b>                       | 46      | 49   | 0              | 12     | 0             | 50         | 53    | 49   |
| <b>Combined scores</b>                   | 178     | 179  | 118            | 158    | 97            | 196        | 192   | 215  |



The Warn 9.5xp requires a lot of battery power to get the job done, but in the process, it provides the best user experience.

**1<sup>st</sup> Place**

**Warn 9.5xp**

Warn has been building vehicle-recovery winches since 1948. As such, they have had ample time to figure out what works and what doesn't. The 9.5xp is no exception. It came boxed with the best provisions to prevent damage during shipping. It had the second-fastest no-load line speed of the models tested (38 feet per minute). It had the only parallel series-wound motor of the group, which happened to be the second quietest as well. It had the best power-to-weight ratio of the group, and it flat out killed the competition in terms of labeling, instruction manual quality, and ease of use. The fact that it's produced right here in the U.S. makes service easier, too, with an extensive network of authorized dealers and ample parts availability. During our submersion test, the 9.5xp was the only model to leave behind a layer of golden bronze lubricant called Aeroshell #17. It literally coated every exposed surface of our test tank, requiring us to flush and re-fill the tank to continue with photography. On the speed and efficiency test, the 9.5xp proved to be faster than it was efficient, discharging the BlueTop Optima battery with



▶ Here you can see how Warn Industries protects the heavy motor from shipping accidents.

◀ This photo shows the thin film of Aeroshell #17 lubricant left behind after running the unit under water for a ten-minute period.

40 feet of rope still unspooled—faster than all others in the group. However, it did so while producing the least amount of motor heat (91.2 degrees) and in the quickest time of all the units tested. On the brutal stall test, the Warn managed to match the T-Max, but decided to grenade a portion of the planetary assembly in the process.

Priced at \$1,484.99, it is the most expensive winch we tested, but as we said before, all the little idiosyncrasies we found with other brands have been thought through and addressed by Warn engineers with innovative solutions.

In conclusion, while all of the winches in this test have strengths that distinguish them, the Warn 9.5xp is the most recommendable winch of the group we tested.

**INFO:** Warn Industries, 800/543-9276, [www.warn.com](http://www.warn.com) **FW**



**THE DETAILS**

**GENERAL**

- Model: Warn 9.5xp (p/n 68500)
- Price as tested: \$1,484.99
- Pull rating (lb): 9,500
- Remote: 12-ft hand-held remote switch
- Drive gear: 3-stage planetary
- Gear reduction: 156:1
- Motor (hp): 6.0
- Cable diameter (in): 5/16
- Cable length (ft): 100
- Shipping weight (lb): 87
- Battery cables (AWG): 2
- No-load line speed (ft/min): 38