

Forget the others and switch to Karver winches!

NEW



KSW

SPEED RANGE



KPW

POWER RANGE



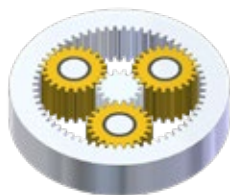
KCW

COMPACT RANGE

WINCHES

THE GREATEST WINCH INNOVATION IN OVER 40 YEARS!

Karver winches are equipped with a double gear mechanism, a classic first stage identical to current winch design and a second consisting of an epicyclic gear. This patented technology is used for the first time on a winch and has the effect of multiplying efforts. Thus and according to its original set up, our winches are either 6 times faster than any other winch on the market (Speed Range), or 3 times more powerful (Power Range).



Planetary or Epicyclic gear



The Pontos company was the originator of this major innovation in sheet winches. It sought a way to drastically reduce the physical effort to operate on a sailboat and make the practice of sailing accessible to the greatest number of people. Bought by Karver in 2018 and taking advantage of their 15 years of boating experience, these winches have evolved into even more performance and reliability.

Apart from the Compact (2 speeds), all winches are equipped with 4 automatic speeds. As soon as the efforts are too much, simply operate the handle in the opposite direction. Speeds pass instinctively from one to the other without activating any extra mechanism. Once the tension on the rope is released, the winch will return to the initial speed. It's very fast and efficient.

Designed to last: Aluminum hard anodized drum, 17-4PH stainless steel gearboxes and clutch, triple polyoxymethylene needle bearing cage, plus full 5 year warranty.

Karver winches have been tested successfully in extreme conditions and proven their efficiency in the toughest races like the Route du Rhum, 20% of Class 40 have already adopted it.

Make your own opinion and contact your nearest dealer to find out where to try it.

© Vincent Riou on PRB, credit Benoit Stichelbaut





IP53

KSW

+PERFORMANCE

- 6 times faster: Trim in faster. Trim for extraspeed and acceleration out of the tack.
- 4 automatic speeds: 2 standard speeds + 2 extra fast speeds.
- The sails are not blowing free longer in the tack and end up less damaged.

+SECURITY

- No need to take the slack by hand. Use the handle from A to Z.

+SIMPLE

- Instinctive shift in gears. No mechanism to operate.
- Dimensioned to replace most standard winches.



© Loick Peyron on Happy, credit: Jean-Marie Liot

WINCH-RANGE SPEED

6 TIMES FASTER THAN A TRADITIONAL WINCH

"Be careful, it's going to be fast! Very very very fast!"

The extra speeds of the KSW provide the ability to trim much faster than standard winches. In first gear, a single handle turn embeds 6 times the length of rope of a two-speed winch. The gear change is simple. When the load on the handle becomes too much, simply reverse the direction to change gears automatically.

The simplicity and speed of the maneuvers will certainly make you save accurate seconds for the overall leader board.

To hoist a main sail with a 20m halyard requires 142 turns of crank with a traditional winch against 29 turns with a Speed Karver!

4 SPEEDS 4 FIRST PLACES - THE WINCH THAT WINS!

| MODEL | KSW 40 | | | | KSW 46 | | | | KSW 52 | | | |
|----------------|-----------|-------|-------|------|-----------|-------|-------|--------|-----------|-------|-------|------|
| PART NUMBER | PF1205830 | | | | PF1205831 | | | | PF1205832 | | | |
| BASE | 171 mm | | | | 206 mm | | | | 220 mm | | | |
| ROPE DIAMETER | 8-12 mm | | | | 8-14 mm | | | | 8-14 mm | | | |
| WEIGHT | 5,7 Kg | | | | 8,1 Kg | | | | 8,8 Kg | | | |
| MAX LOAD | 850 Kg | | | | 1 300 Kg | | | | 1 500 Kg | | | |
| SPEED | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| POWER RATIO | 2,3 | 8 | 11,6 | 40 | 2,3 | 9,3 | 11,7 | 46,6 | 2,3 | 10,6 | 11,6 | 52,8 |
| TAILING LENGTH | 70 cm | 20 cm | 14 cm | 4 cm | 68 cm | 17 cm | 14 cm | 3,5 cm | 69 cm | 15 cm | 14 cm | 3 cm |



WINCH-RANGE POWER

3 TIMES MORE POWERFUL = 3 TIMES LESS EFFORT

Re-discover the pleasure of setting a sail without effort!

IP53

KPW

+PERFORMANCE

- 3 times more powerful: Trim at your fingertips and save your strength..
- 4 automatic speeds: 2 standard speeds + 2 extra ultra-powerful speeds.
- Our superior working load capacity makes it possible to use a smaller size.

+COST EFFECTIVE

- A real alternative to electric winches.

+CONVENIENT

- KWPs are so powerful that you can use a shorter handle, useful for winches under roof cover.



© Gustus 1^{er} on Maeva

What delights KPW users is the multiplication ratio that converts minimal effort on the handle into maximum effort on the line. The maneuvers become accessible to the whole family.

This winch is really dedicated to cruisers but racers will also have noted that at similar sizes our winches are 20% stronger than the others. This allows you to come down in winch size if needed.

On a 38-foot, with a 40 m² genoa, in 25 knots of wind, a standard winch will require 13 kg to tuck the sail. The effort required with a KARVER Power will be only 4.7 Kg!

MAKE SAILING EASY - THE END OF HUGE EFFORT

| MODEL | KPW 110 | | | | KPW 130 | | | | KPW 150 | | | |
|----------------|-----------|------|--------|------|-----------|--------|--------|------|-----------|------|--------|------|
| PART NUMBER | PF1205833 | | | | PF1205834 | | | | PF1205835 | | | |
| BASE | 171 mm | | | | 206 mm | | | | 220 mm | | | |
| ROPE DIAMETER | 8-12 mm | | | | 8-14 mm | | | | 8-14 mm | | | |
| WEIGHT | 5,5 Kg | | | | 7,9 Kg | | | | 8,6 Kg | | | |
| MAX LOAD | 1 000 Kg | | | | 1 500 Kg | | | | 1 800 Kg | | | |
| SPEED | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| POWER RATIO | 11,6 | 40 | 112,9 | 32,7 | 11,7 | 46,6 | 131,3 | 33 | 11,6 | 52,8 | 148,7 | 32,7 |
| TAILING LENGTH | 14 cm | 4 cm | 1,4 cm | 5 cm | 14 cm | 3,5 cm | 1,2 cm | 5 cm | 14 cm | 3 cm | 1,1 cm | 5 cm |



+PERFORMANCE

- Ultra Compact (size of a Winch 20).
- 2 times faster (24 cm per handle round).
- Unbeatable weight / power ratio and dimensions / power ratio.



© Claude to the maneuvers

WINCH COMPACT

THE BEST OF KARVER TECHNOLOGY

Two speeds: The first ultra fast and the second ultra powerful!



Size with equivalent power.

Total concentrated innovation in a two-speed self-tailing winch. By transposing the technology of its 4-speed winches, Karver invented the most powerful small winch.

The winch Compact has the size of a winch 20 but the power of a winch 45. In first gear, you enjoy a tailing speed twice the speed of a conventional winch, and in second gear, you benefit from the power of a winch 45.

The unique combination of a small size and a workload of 850 Kg makes the Compact an extremely versatile winch.

The Compact winch can replace any winch up to and including size 40 and accepts 8 to 11 mm ropes, providing increased comfort and improved performance.



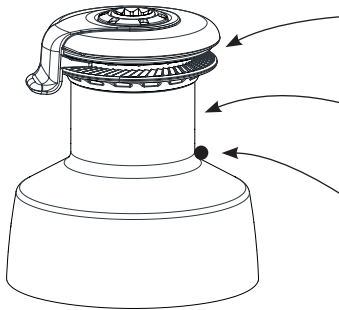
Multiple rope angle entries. Replace all winches up to size 40

| | | |
|-------------------|-----------|--------|
| PART NUMBER | PF1205836 | |
| BASE | 130 mm | |
| HEIGHT | 142 mm | |
| ROPE ENTRY HEIGHT | 58 mm | |
| ROPE DIAMETER | 8-11 mm | |
| WEIGHT | 3,4 Kg | |
| MAX LOAD | 850 Kg | |
| SPEED | 1 | 2 |
| POWER RATIO | 6,05 Kg | 45 Kg |
| TAILING LENGTH | 26,4 cm | 3,5 cm |

HELP TO SELECTION: UNDERSTAND WINCH SPECIFICATIONS

KARVER[®]PEDIA

The major efforts required on the sailboats forced sailors to find solutions to pull loads which exceeded their own strength. Since ancient times, until today, many devices have been used (capstan, windlasses,...), to finally arrive today at the widespread use of modern winches.



Self tailing: Device invented in the 1970s, which capture the line in a clamp of jaws and allows the use of the winch with one hand for the handle.

Drum: Cylinder which is the outer body of the winch on which the rope is wound and which will receive a handle in its upper part. The **grip** is the surface of the drum which can be smooth to very aggressive. It's always a compromise between holding a line without damaging it.

Height and line entry angle: The height is used to define line angle that should generally be between 5 and 8° from last roller. Respect of this angle guarantees good operation use and specially for fast winches.

In order to compare winches and select which one will be the best adapted to your needs, it is necessary to understand the technical characteristics:

• **Maximum working load (MWL):** each winch must be able to withstand the loads involved. Boat builders and Designers define these values. In the case of a winch replacement, you will find this information in the documentation of your current winch.

• **Power ratio:** represents the pulling force generated by the winch for 1 kg applied on a standard handle (254 mm).

It usually defines the size of the winch: a **size 40** = 40 kg of traction for 1 kg in the handle (1:40).

The bigger this number, the less you have to force on the handle.

A 40ST2A is a winch of max 1:40 power equipped with a self-tailing (ST), 2 speeds (2) and equipped with an aluminum drum (A).

• **Gear ratio:** define the number of turns of crank to give to realize 1 complete turn of drum. Conversely, and depending on the diameter of the doll drum, this ratio will define the length of rope extracted at each turn of the handle. Example: 6.28: 1 = 6.28 handle turns for a drum turn. A ratio of less than 1 means that handle turn rotates the doll drum several times.

• **Output length or speed:** this is a more realistic data to interpret than the speed ratio since it is the length of rope trimmed in for a handle turn. This data is very rarely provided and must be calculated: speed ratio x μ (3.14) x drum diameter.

• **Dimension:** compare winches of equivalent size as well as load capacity. The reference values are base and drum foot print as well as the total height of the winch.

• **Weight:** significant to racers, more less so commune to cruisers, but always a sensible subject depending on the boat type.

• **How many speed :** 95% of winches have 1 or 2 speeds. Like a car a winch can have several possible gear ratios. The speed change is made by reversing rotation of the handle.

• **Material:** the drum can be aluminium (A), chromed bronze (C), stainless steel,... Aluminium drums are more common and lighter.

• **Price:** an important criteria for most sailors of course, but must be related to the technical features above.

The Karver winches present a very special positioning since we are the only ones to use 4 fully automatic speeds and a planetary drive system which offers a rotation speed 5 to 6 times higher than our competitors (KSW models) or 3 times more power. (KPW models).

FIND MORE KARVERPEDIA ARTICLES ON OUR WEBSITE WWW.KARVER-SYSTEMS.COM