



# PIROPE

RIDE  
SMOOTH

[www.pirope.net](http://www.pirope.net)



# PI ROPE RACE PROOVEN



## PASSION FOR CYCLING MEETS SCIENCE

Passion for cycling and science form the basis of PI ROPE and both fields are responsible for the idea to use an alternative spoke material, instead of steel or carbon.

PI ROPE is manufacturing innovative cycling wheels ready for the market since 2018. The brand PI ROPE was founded in 2017 by Ingo Berbig after five years of research at TU-Chemnitz university. In 2013 the idea showed up if it's possible to use a textile material as connection between hub and rim. Against the background that only tensile strength is transmitted in a conventional spoke/wheel - a rope seemed to be the perfect component.

During this time, Ingo and his colleagues proved if there is a possibility to use high tech textile fibers as an alternative material. And after several tests and studies, they found a working compromise in terms of durability, reliability and weight. The material that worked best was VECTRAN® from Kuraray. So, the PI ROPE journey started and after many small evolutionary steps and improvements we are holding a spoke in our hands, that works for most sportive cycling and bike intended uses. And even today every PI ROPE spoke is made of Vectran®.

In the beginning the PI ROPE team consisted of Ingo as head of PI ROPE, Steffi who is expert to textiles and braiding and last but not least David as bicycle mechanic and engineer. Today the PI ROPE crew contains about ten people from graduate engineer to highly motivated university students and is based in Einsiedel near Chemnitz (Germany). The old knitwear factory offers the right ambience for innovative and aspiring products, ready to conquer the world. And to assure a high level of quality each spoke goes through a large number of manual steps and is checked several times for its characteristics. All this passion and German engineering allows lightweight and heavy-duty wheels to be spoked, what is exactly the right product for the demanding and sporty customer. The flexibility and braided structure of the spoke results in an excellent compromise between damping, stiffness and weight.

This is how PI ROPE manufacture creates a top product for the following fields of application: mountain bike, road bike and gravel. Thanks to the textile structure of the spoke, it is possible to customize the wheels with different spoke colors according to your own ideas. Style is what you make of it!



# MANUFACTURING

**Vectran™ was developed in the 1990s by the company Kuraray and features exceptionally high strength while being extremely lightweight. With its high resistance to chemicals and temperatures, as well as an extremely low moisture absorption (<1%), Vectran™ has proven to be the ideal fiber for high-quality spokes based on our many years of experience with technical textiles. Despite the higher material costs and the complex manufacturing process, we consciously choose Vectran™ to ensure the highest quality and durability.**

The yarn consists of 300 individual filaments, which we process into an endless braid using our braiding machine. Yarn type, braiding angle, and braiding length—everything is optimally tailored to the function of the future spoke. Years of experience in university braiding technology, combined with close cooperation with the fiber yarn manufacturer, give us a clear advantage over our competitors.

After thermal treatment, the spoke is cut to length by hand and manually connected to the patented metallic end fitting. This ensures a secure connection that does exactly what you need: providing a firm hold under ideal conditions while sacrificing itself in case of mishaps to protect hubs and rims.

Every week, we handcraft around 600-800 spokes to give you an unparalleled riding experience. What initially looks like a spider is carefully handcrafted by our wheel builders into stunning masterpieces. Through tension, our spoke gains an oval cross-section, which we always align in the direction of travel for optimal aerodynamics.

In our in-house test laboratory, we test our own as well as third-party wheels according to DIN standards—and far beyond. Thanks to our expertise and close collaboration with research institutions, we continuously develop our test benches with the goal of replicating real-world conditions as accurately as possible. A diverse portfolio of test riders further complements our testing methods.



# IN HOUSE TESTING

**PI ROPE: more than a rope - So bring the evidence!**

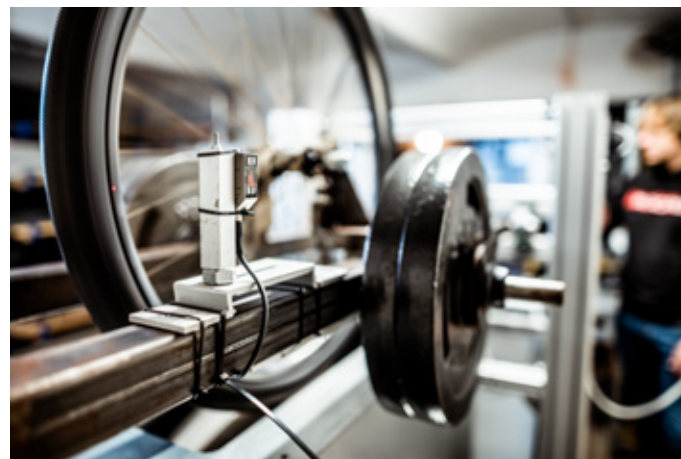
The creation of a completely new product demands an intensive process of development and even a well thought out plan for testing. PI ROPE decided to do its own inhouse testing. Over the years we built up an own testing area and after assembling new products we are able to proof them for durability and stability. This allows us to react fast and precise to issues and weak points.

This testing program and our gained knowledge is not only available for our own PI ROPE products. We offer our testing service to everybody who needs a proof for bike wheels.

UCI Impact test and durability test are the two main test procedures for spoked wheels. In case of UCI procedure, a front wheel must withstand an impact of 6-10kg mass at 40J energy. If the wheel passes the test without any harm, it can be registered at UCI.

Beyond this test we can increase the energy of fall step by step until the wheel collapses. This destructive testing can give you knowledge for the further development. A key challenge in testing technology is to reproduce the loads that a wheel experiences, some of which occur over decades, on a laboratory scale. We offer you both the service life test according to DIN EN ISO 4210-7, as well as testing according to our own standards. So, it is possible for us to make a statement about the expecting lifetime. Not only shock loads, but also the loads that occur during braking and acceleration can lead to the failure of a wheel and must therefore be taken into account in the development process. On our brake test bench, we put your wheels through their paces for all acceleration and braking processes. We simulate both the loads resulting from classic drives and the forces and moments resulting from electric motors.

Using these test tools, we can make solid and reliable statements about the durability and service life of our products. Of course, we always strive to design the test procedures according to the latest state of the art and to incorporate iterative improvement processes. This means you can be sure that PI ROPE products are tested according to current quality standards.





# CHARACTERISTICS OF PIROPE SPOKES



## SPACE AGE MATERIAL

PI ROPE spokes treading completely new paths through the use of alternative material in wheel building. Vectran® is the keyword! A very suitable and potential synthetic fiber with right properties for spokes.



## MADE FOR ALL CONDITIONS

The fiber properties make the spokes insensitive to water, as they do not bind water. And dirt is only superficial. A coating protects the fiber from UV radiation and in the case of colored spokes, the coating also protects. The spoke is also insensitive to temperature fluctuations as long as it is used on planet earth.



## LIGHT BUT STRONG

One of the lightest spokes in the world with 2.2g but with a tensile strength of 3.000N also one of the strongest spokes in the market. Light is very important because the lower the weight of rotating masses the easier is the acceleration of your wheels.



## LESS MAINTENANCE

PI ROPE spokes do not have elongation behavior over time. This means no need to center the wheel due to elongation of PI ROPE spokes.



## SMOOTH AND STIFF

High damping characteristics due to its material and braiding technique, allows your body to stay calm, relaxed and reducing muscular fatigue. But also, stiff enough for precise steering and to win the finish sprint.



## DESIGN AND LOOK

No need to explain this point! Ever seen a braided rope as a spoke?! One of the most unique selling points for our wheels - an extraordinary look and many colorful options make your bike a unique.



## HANDMADE IN GERMANY

Each spoke is braided in Chemnitz and the subsequent work steps are also carried out by hand, from cutting the spokes to length up to dyeing it.

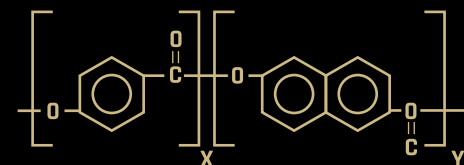


## SPECIAL HUBS AND RIMS

According to the force transmission between rim-spoke and spoke-hub a special interface is necessary. The spoke holes in our used rims are bigger than conventional drillings. Same for hubs. A special flange with a threaded hole is necessary to assemble PI ROPE spokes. That's the only way to secure a reliable and durable transmission of forces. PI ROPE spokes are not retrofittable to conventional wheels.

# ABOUT VECTRAN™

## FIVE TIMES STRONGER THAN STEEL, TEN TIMES STRONGER THAN ALUMINUM.



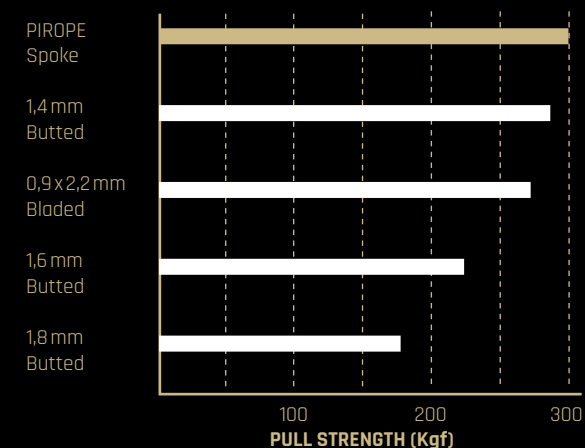
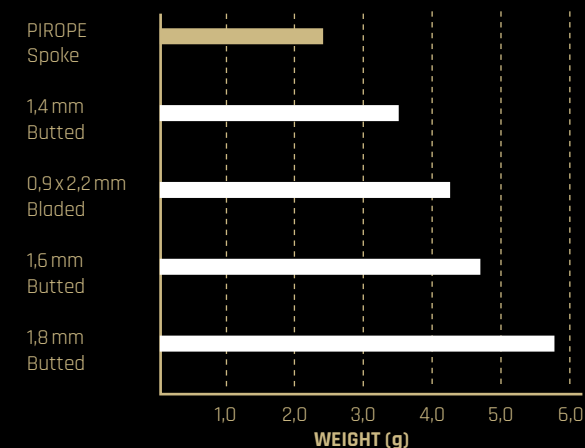
### FIBRE CHEMISTRY

Vectran is a manufactured fiber, spun from a liquid-crystal polymer (LCP) created by Celanese Corporation and now manufactured by Kuraray. Chemically it is an aromatic polyester produced by the polycondensation of 4-hydroxybenzoic acid and 6-hydroxynaphthalene-2-carboxylic acid.

Vectran™ offers a balance of properties unmatched by other high performance fibers. LCP polymer molecules are stiff, rod-like structures organized in ordered domains in both solid and melt states. These oriented domains lead to anisotropic behavior in the melt state, thus the term "liquid crystal polymer."

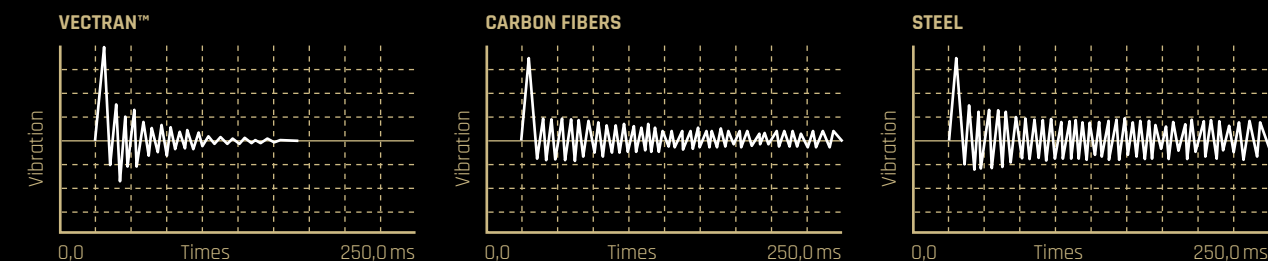
## WEIGHT VS. STRENGTH

Vectran™ is a manufactured fiber, spun from a liquid-crystal polymer (LCP) created by Celanese Corporation and now manufactured by Kuraray.



## VIBRATION DAMPING

Vectran™ provides excellent damping properties making it ideal for sporting good and audio component applications.



# OPINIONS & FEEDBACKS

"... DAMPING, TRACTION, CORNERING AND BRAKING ARE IMPROVED WITH PI ROPE WHEELS. THIS MAKES FOR A SAFER RIDE AND AN IMPROVED BIKING EXPERIENCE."

**Roger Schütz | MTB Coach**

"... STIFFNESS WAS VERY GOOD EVEN WITH LUGGAGE AND NO TWISTING WAS NOTICEABLE."

**Cycle your way | YouTube Channel**

"... VERY GOOD ACCELERATION OF THE WHEELS. NOTICEABLY MORE TRACTION AND DAMPING DUE TO TEXTILE SPOKES ..."

**Sacha Steiner | Ride MTB Magazine**

"TECHNICALLY VERY INNOVATIVE PRODUCT WITH REGIONAL REFERENCE AND ADDED VALUE IN SAXONY."

**Udo Stein | Source: Europa fördert Sachsen EFRE: PI ROPE GmbH**

"TOTAL WEIGHT OF 951G PER WHEELSET IS OUTSTANDING. IMPROVED ACCELERATION IS NOTICEABLE ..."

**BikeRadar | YouTube Channel**

"... WHEELS SIGNIFICANTLY MORE COMFORTABLE THAN CONVENTIONAL CARBON WHEELS (SUBJECTIVELY DUE TO HANDLING). GREAT LOOK! SPARE SPOKE CAN BE TRANSPORTED IN SADDLE BAG (ALSO SEVERAL SPOKES)."

**Enjoyyourbike | YouTube Channel**



# COLORFUL CUSTOM OPTIONS



PI ROPE wheels are a great playground for you as customer! There are several possibilities for you to make PI ROPE wheels to your individual wheels! Bright pink, dark green, medium blue – what's often not possible with system wheels is no problem for us! On request, we can equip your wheel with spokes in different colors. Even different patterns are possible and only one e-mail away from you. Our employees are happy to give you advice and support about the look of your wheel.

But we PIROPBIES are not only available to help you choose the color, but also when it comes to the product selection itself. Which gravel set suits you? Aluminum or carbon rim? Questions that we are happy to help with and help you make a decision.

Our support does not end with the shipping of your order: You've always had a ready-made bike and have no idea how to install your new wheels? No problem! Our bike mechanics are here to help with any issue. We're only happy when you are! Riding with PI ROPE wheels is an unparalleled experience. Whether on an e-bike, enduro, marathon, road bike, or gravel bike – the PI ROPE spoke is designed for every purpose.





# PORTE

## PORTE COMPONENTS

Porte is a small company from Belgium. The brand is still young but nevertheless shows up with a wide portfolio of products. Hubs, rims, seatposts and even frames belong to their product range. Their goal is to manufacture extraordinary light components for XC/ marathon racing. The mission of PORTE is simple: Creating the best parts for racing to an affordable price.

For PI ROPE the developed rim is a gem in wheel building! It allows us to lift mtb wheels to a new level! PORTE is the right choice for pilots looking for that last bit of weight saving. You should go for PORTE if you are an ambitious XC or marathon racer in good shape.



# NEWMEN

## NEWMEN COMPONENTS

NEWMEN Components supports PI ROPE since their first steps in wheel building. They developed in cooperation with us the first ready for series hubs and rims and today they are still a reliable partner for us. NEWMEN is known for high quality components such as hubs, rims and also bars or stems.

Based in Wiggensbach/Germany they are able to develop new products to the latest standards and tests. Due to the inhouse test lab they can bring products to a mature stage and as customer you can rely on NEWMEN components.





# DUKE

## DUKE RACING WHEELS

DUKE Racing Wheels is a specialist in terms of hubs, rims and wheel assembling. Founded 2011 in France; DUKE is known for a large number of technical finesses and innovations. They are a real pro in developing light and durable components made for racing and high-performance use. Their rims come along with technical features such as hookless sidewalls, asymmetrical profile for a balanced spoke tension or an anti-burp feature to prevent loss of pressure. The technical know-how and the ability in knowing what's good for racers;

shows up in a large number of top athletes that trusts in DUKE Wheels or rims and the high count of victories in national and international competitions speaks its own language. Duke is mostly for riders who seek for light and competitive wheels. When you are riding XC or marathon races, DUKE is your partner! Further offers DUKE a wide selection for gravel and road racers. No matter if you are looking for the last grams to save on your wheelset or if your focus is a durable partner for your long and heavy bikepacking tour.



# NEW

## NONPLUS COMPONENTS

As second hub deliverer we trust in NonPlus components. A small company with focus on high-tech bicycle components, NON+ sets focus on wheels and hubs and is in first league about weight, technical finesse and durability. NON+ mission is to provide the best conditions for cycling enthusiasts around the world. With NON+ hubs we are able to build one of the lightest wheelsets on the market. A combination of Bike Ahead rims, PI ROPE spokes and NON+ hubs got under the 900g limit!

As NEWMEN is NON+ also based in Germany. They got their headquarters in Winnenden and all the members and coworkers can be described as bike crazy guys. Otherwise, you would be not able to develop such a masterpiece of engineering! NON+ guarantees the function of the hub with five promises: Non Abrasion, Non Stop, No Vacuum, Non Gap, Non Play





## BIKE AHEAD COMPOSITES

Bike Ahead is part of all ahead composites GmbH, an innovative company in research, construction and manufacturing of fiber-reinforced plastics. All Ahead is able to map the entire product cycle from development through to series production.

Founder Christian Gemperlein is what you can call a bike nerd. With his first mountain bike he was addicted to two wheels and his goal: creating own CFK components got shape.

In 2010 the dream came true an all ahead composites was founded. Two passions merged and became a profession – bike technology and the work with composite materials. The goal of all ahead composites GmbH to this day is to develop and manufacture high-quality and innovative carbon products "Made in Germany" and to make customers happy with them. Bike AHEAD Composites is the right choice for you as a marathon or XC racer. Understatement, black and fast as an arrow.



# LILIENTHAL

## LILIENTHAL (COPRO TECHNOLOGY)

Lilienthal is another small brand from Germany specialized in the manufacture of carbon rims and wheels. Based in Brunswick/Germany Lilienthal is able to develop and produce rims on highest standards and prove the durability according to the latest quality checks.

Like Bike AHEAD, Lilienthal offers you the right choice for XC and marathon racing. But with a maximum system weight of 120kg there is a good portion of safety for botched landings and roots crossing your way.





**SON**  
NABENDYNAMO

**SON DYNAMO HUB**

For years, „Schmidt's Original Hub Dynamo“ has stood for high-quality and durable products „Made in Germany“ and, above all, for top-class hub dynamos. Lightweight, durable, efficient and stylish are just some of the attributes that apply to this mechanical engineering and any-one who chooses a SON dynamo gets a product of the highest quality. As a specialist for light and innovative products in the wheel segment, we are pleased to have SON as a production partner and to have jointly realized an interface for our spokes. It is now possible to equip PI ROPE spokes with SON dynamos and thus implement the next evolutionary step on the ladder of efficiency and lightweight construction.

# WHEELSETS FOR MOUNTAINBIKES

PI ROPE offers a wide range on mountain bike wheels. From super light Cross Country wheels to heavy duty E-bike models. With two different hub models, there is a choice in terms of price and weight, depending on your budget and area of use.

Our "E-ready" hub is characterized by a good and balanced compromise between stability and weight. With an approval of up to 175 kg system weight, e-bike riders also get their money's worth. Our "E-ready" hubs are available with SRAM XD, Shimano Microspline and HG freewheel.

Our PI ROPE light hub is the right choice for all weight freaks and technical nerds. Great and innovative technology meets durable light-weight construction. The patented toothed pulley freehub system produces a great hub sound and shines with long durability.

Here too, you can choose between the common freehub standards - SRAM XD, Shimano Microspline and HG.

Our range of rims allows a wide selection based on the desired area of application. DUKE and NEWMEN offer a wide range on possible models for nearly every kind of mountain biking. Our extended range also includes models from PORTE, LILIENTHAL and Bike Ahead, made for the fast and ambitious racer.

Any wheelset can be individualized through a wide range of color and pattern. It's your choice to take spokes in inconspicuous black or going on the bright and colorful side of biking. Our suggestion list will give you a brief insight and our sales partner will be happy to advise you on very special combinations.

LUCKY JACK 31 SLS5 350



**KEYFACTS**  
Hub PI ROPE E-ready\*  
Rim DUKE Lucky Jack 6ters SLS4 Ultra 30  
Wheel size 29"  
Weight 1230 g  
Inner width 30,5 mm  
Max. system weight 120 kg



**TECHNICAL DETAILS HUB**  
Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost - 15 x 110 / 12 x 148  
Hub weight 114 g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

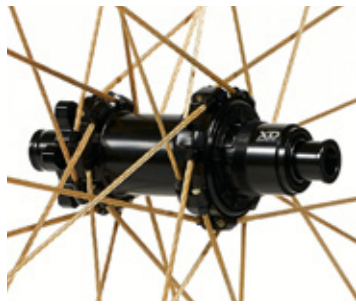
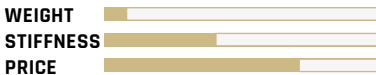


**TECHNICAL DETAILS RIM**  
Rim Material Carbon  
Spoke holes 28  
Inner width 28 mm  
Height 20,5 mm  
Tire range 1.9" - 2.6"  
Finish UD  
Profile Asymmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 280 g

LUCKY JACK 28 SLS5 242



**KEYFACTS**  
Hub PI ROPE light  
Rim DUKE Lucky Jack 6ters SLS4 Ultra 30  
Wheel size 29"  
Weight 880 g  
Inner width 28 mm  
Max. system weight 100 kg



**TECHNICAL DETAILS HUB**  
Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost - 15 x 110 / 12 x 148  
Hub weight 90 g front / 160 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline



**TECHNICAL DETAILS RIM**  
Rim Material Carbon  
Spoke holes 28  
Inner width 30 mm  
Height 19 mm  
Tire range 2.1" - 2.8"  
Finish UD  
Profile Asymmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 255 g



PORTE RATHE UL



KEYFACTS

Hub PI ROPE light  
Rim PORTE Rathe UL  
Wheel size 29"  
Weight 900g  
Inner width 30 mm  
Max. system weight 90kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 90g front / 160 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB XC  
Marathon



TECHNICAL DETAILS RIM

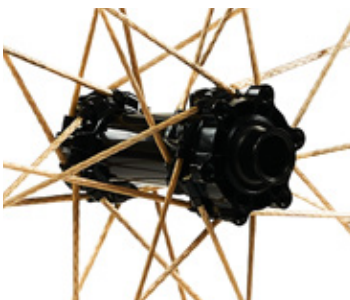
Rim Material Carbon  
Spoke holes 28  
Inner width 30 mm  
Height n. a.  
Tire range 2,2" - 2.7"  
Finish UD  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 265g

BIKE AHEAD TWO SIX



KEYFACTS

Hub PI ROPE light  
Rim BIKE AHEAD Two Six  
Wheel size 29"  
Weight 900g  
Inner width 26 mm  
Max. system weight 100 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 90g front / 160 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB XC  
Marathon



TECHNICAL DETAILS RIM

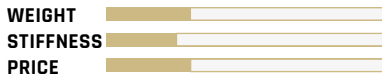
Rim Material Carbon  
Spoke holes 28  
Inner width 26 mm  
Height 19 mm  
Tire range 2,0" - 2.5"  
Finish UD  
Profile Asymmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 265g

NEWMEN EVOLUTION SL A.30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim NEWMEN Evolution SL A.30  
Wheel size 27,5" / 29"  
Weight 1590g  
Inner width 30 mm  
Max. system weight 150 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB AM | Enduro  
Gravity



TECHNICAL DETAILS RIM

Rim Material Aluminum  
Spoke holes 28  
Inner width 30 mm  
Height 20 mm  
Tire range 2,0" - 3.0"  
Finish Brushed  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 480 g / 510 g

NEWMEN ADVANCED SL A.30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim NEWMEN Advanced SL A.30  
Wheel size 27,5" / 29"  
Weight 1480g  
Inner width 30 mm  
Max. system weight 175 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB AM | Enduro  
Gravity



TECHNICAL DETAILS RIM

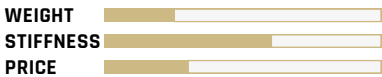
Rim Material Carbon  
Spoke holes 28  
Inner width 30 mm  
Height 20 mm  
Tire range 2,0" - 3.0  
Finish UD  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 440 g / 460 g

NEWMEN EVOLUTION SL E.G. 30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim NEWMEN Evolution SL E.G. 30  
Wheel size 29"  
Weight 1720g  
Inner width 30 mm  
Max. system weight 175 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB AM | Enduro  
Gravity



TECHNICAL DETAILS RIM

Rim Material Aluminum  
Spoke holes 28  
Inner width 30 mm  
Height 20 mm  
Tire range 2,0" - 3.0"  
Finish Brushed  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 540 g / 560 g



DUKE LUCKY JACK 6TERS SLS4 30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim DUKE Lucky Jack 6ters SLS4 30  
Wheel size 29"  
Weight 1620 g  
Inner width 30 mm  
Max. system weight 110 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114 g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB E-Bike



TECHNICAL DETAILS RIM

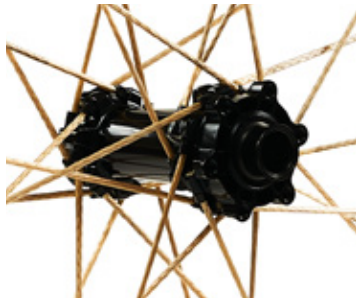
Rim Material Carbon  
Spoke holes 28  
Inner width 30 mm  
Height 20 mm  
Tire range 2,0" - 3,0"  
Finish Brushed  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 480 g / 510 g

CRAZY JACK SLS5 33/30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim DUKE Crazy Jack SLS4 33/30  
Wheel size 29"  
Weight 1207 g  
Inner width 32,5 mm / 30,5 mm  
Max. system weight 120 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114 g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB E-Bike



TECHNICAL DETAILS RIM

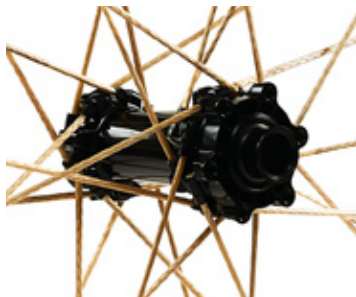
Rim Material Carbon  
Spoke holes 28  
Inner width 32,5 mm / 30 mm  
Height 20 mm  
Tire range 2,0" - 3,0"  
Finish UD  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 440 g / 460 g

NEWMEN EVOLUTION SL E.G. 30



KEYFACTS

Hub PI ROPE E-ready\*  
Rim DUKE Lucky Jack 6ters SLS4 Ultra 30  
Wheel size 29"  
Weight 1620 g  
Inner width 30 mm  
Max. system weight 175 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 28  
Axe width Boost – 15 x 110 / 12 x 148  
Hub weight 114 g front / 240 g rear  
Color Black  
Freewheel XD/Shimano HG/Microspline

INTEND OF USE

MTB E-Bike



TECHNICAL DETAILS RIM

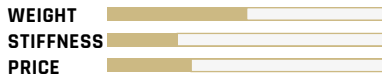
Rim Material Aluminium  
Spoke holes 28  
Inner width 30 mm  
Height 20 mm  
Tire range 2,0" - 3,0"  
Finish Brushed  
Profile Symmetric rim profile  
Tubeless ready Yes  
Hookless Yes  
Rim weight 540 g / 560 g

DUKE WORLD RUNNER X25 AL



KEYFACTS

Hub PI ROPE road  
Rim Duke World Runner X25 AL  
Wheel size 700C  
Weight 1355 g  
Inner width 25 mm  
Max. system weight 120 kg



TECHNICAL DETAILS HUB

Disc mount standard 6 bolt  
Spoke holes 24  
Axe width 12 x 100 / 12 x 142  
Hub weight 96 g front / 196 g rear  
Color Black  
Freewheel XDR/Shimano HG/N3W

INTEND OF USE

Gravelbike



TECHNICAL DETAILS RIM

Rim Material Aluminium  
Spoke holes 24  
Inner width 25 mm  
Height 25 mm  
Tire range 28 mm –61 mm  
Finish Brushed  
Profile Asymmetric rim profile  
Tubeless ready Yes  
Hookless No  
Rim weight 480 g

DUKE BACCARA ULTRA SLR2 36



KEYFACTS

Hub PI ROPE road light  
Rim DUKE Baccara Ultra SLR2 36  
Wheel size 700C  
Weight 985 g  
Inner width 21 mm  
Max. system weight 95 kg



TECHNICAL DETAILS HUB

Disc mount standard Centerlock  
Spoke holes 24  
Axe width 12 x 100 / 12 x 142  
Hub weight 71 g front / 151 g rear  
Color Black  
Freew. XDR/Shimano HG/MicrosplineN3W

INTEND OF USE

Roadbike



TECHNICAL DETAILS RIM

Rim Material Carbon  
Spoke holes 24  
Inner width 21 mm  
Height 36 mm  
Tire range 25 mm – 32 mm  
Finish UD  
Profile Asymmetric rim profile  
Tubeless ready Yes  
Hookless No  
Rim weight 365 g

If you are riding on the road or gravel, you can also rely on a wide range of rim-hub combinations. Here, too, there is a choice between light and extra light!

NEWMEN has designed a modified version of the FADE Road for PI ROPE, which boasts a particularly streamlined hub body and comes with the proven pawl design. Anyone who wants a particularly light hub can opt for the NON+ light hub, which is equipped with patented sprocket technology similar to the mountain bike version. This results in the typical NON+ hub sound and perfect power transmission.

As a rim manufacturer, we also rely on the proven models from DUKE, NEWMEN and BEAST.



DUKE BACCARA WRX 27



KEYFACTS

**Hub** PI ROPE road light  
**Rim** DUKE World Runner SLR2 27R  
**Wheel size** 700C  
**Weight** 1020 g  
**Inner width** 25 mm  
**Max. system weight** 120 kg



TECHNICAL DETAILS HUB

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 71g front / 151g rear  
**Color** Black  
**Freew.** XDR/Shimano HG/MicrosplineN3W

**INTEND OF USE**

Gravelbike



TECHNICAL DETAILS RIM

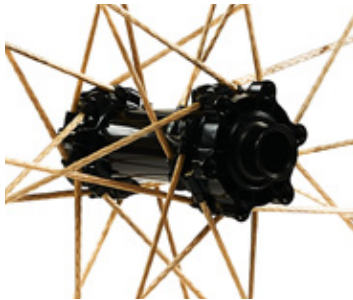
**Rim Material** Carbon  
**Spoke holes** 24  
**Inner width** 25 mm  
**Height** 27,5 mm  
**Tire range** 28 mm – 61 mm  
**Finish** UD  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** No  
**Rim weight** 335 g

DUKE BACCARA X36



KEYFACTS

**Hub** PI ROPE road light  
**Rim** DUKE Baccara X36  
**Wheel size** 700C  
**Weight** 1060g  
**Inner width** 23 mm  
**Max. system weight** 120 kg



TECHNICAL DETAILS HUB

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 71g front / 151g rear  
**Color** Black  
**Freew.** XDR/Shimano HG/MicrosplineN3W

**INTEND OF USE**

Roadbike



TECHNICAL DETAILS RIM

**Rim Material** Carbon  
**Spoke holes** 24  
**Inner width** 23 mm  
**Height** 36 mm  
**Tire range** 28 mm – 53 mm  
**Finish** UD  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** No  
**Rim weight** 345 g

DUKE BACCARA SLR RX36



KEYFACTS

**Hub** PI ROPE road light  
**Rim** DUKE Baccara SLR RX36  
**Wheel size** 700C  
**Weight** 1160g  
**Inner width** 25 mm  
**Max. system weight** 125 kg



TECHNICAL DETAILS HUB

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 71g front / 151g rear  
**Color** Black  
**Freew.** XDR/Shimano HG/MicrosplineN3W

**INTEND OF USE**

Gravelbike



TECHNICAL DETAILS RIM

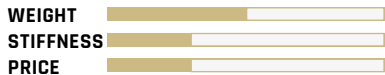
**Rim Material** Carbon  
**Spoke holes** 24  
**Inner width** 25 mm  
**Height** 36 mm  
**Tire range** 28 mm – 61 mm  
**Finish** UD  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** No  
**Rim weight** 360 g

DUKE WORLD RUNNER X25 | SON 295



KEYFACTS

**Hub** SON 295 | PI ROPE road  
**Rim** DUKE World Runner X25  
**Wheel size** 700C  
**Weight** 1640 g  
**Inner width** 25 mm  
**Max. system weight** 120 kg



TECHNICAL DETAILS HUB

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 388 g front / 196 g rear  
**Color** Black  
**Freewheel** XDR/Shimano HG/N3W

**INTEND OF USE**

Gravelbike



TECHNICAL DETAILS RIM

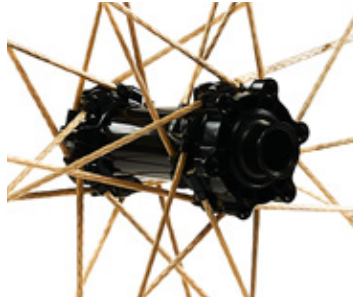
**Rim Material** Aluminium  
**Spoke holes** 24  
**Inner width** 25 mm  
**Height** 25 mm  
**Tire range** 28 mm – 61 mm  
**Finish** Brushed  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** No  
**Rim weight** 480 g

DUKE WORLD RUNNER SLR2 27R | SON 295



KEYFACTS

**Hub** SON 295 | PI ROPE road light  
**Rim** Duke World Runner SLR2 27R  
**Wheel size** 700C  
**Weight** 1340 g  
**Inner width** 25 mm  
**Max. system weight** 120 kg



TECHNICAL DETAILS HUB

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 388 g front / 196 g rear  
**Color** Black  
**Freew.** XDR/Shimano HG/MicrosplineN3W

**INTEND OF USE**

Gravelbike



TECHNICAL DETAILS RIM

**Rim Material** Carbon  
**Spoke holes** 24  
**Inner width** 25 mm  
**Height** 27,5 mm  
**Tire range** 28 mm – 61 mm  
**Finish** UD  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** No  
**Rim weight** 335 g

# SPECIAL WHEELSETS

In order to be able to cover special areas of use and applications, we at PI ROPE have expanded our product range from the 2024 season. This includes the area of children's and youth bikes, as well as wheels with hub dynamos. We are particularly proud of the latter category, as it is a real innovation and unique selling point.

In cooperation with SON, we have adapted the proven 29S hub dynamo and optimized it for PI ROPE wheelsets. This allows gravel and touring cyclists to enjoy the benefits of a power supply, even far away

from the nearest power bank or socket. The wheelsets are available with DUKE or BEAST rims, which are optimized for gravel use. As rear hub you can choose between our proven "PI ROPE road" and "PI ROPE road light".

For children's bikes, we offer wheels in sizes 24", 26" and 27.5". This means that even the little ones can rely on proven PI ROPE wheel technology. The wheelsets are available in aluminum at an affordable price or as carbon versions, which offer an ambitious, sporty basis.



## JUNIOR ULTRA 23.5

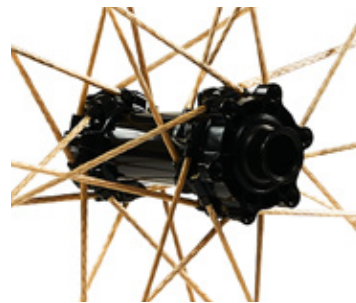
**KEYFACTS**

**Hub** PI ROPE road  
**Rim** Junior Ultra 23.5  
**Wheel size** 24"  
**Weight** 1070 g  
**Inner width** 23,4mm  
**Max. system weight** 95 kg

**WEIGHT**

**STIFFNESS**

**PRICE**

**TECHNICAL DETAILS HUB**

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 96 g front / 196 g rear  
**Color** Black  
**Freewheel** XDR/Shimano HG/N3W

**INTEND OF USE**

MTB XC

**TECHNICAL DETAILS RIM**

**Rim Material** Aluminium  
**Spoke holes** 24  
**Inner width** 23,4mm  
**Height** 16mm  
**Tire range** 1,2" - 2,35"  
**Finish** Brushed  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** Yes  
**Rim weight** 305 g

## JUNIOR ULTRA 26"

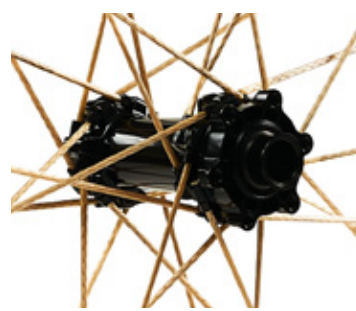
**KEYFACTS**

**Hub** PI ROPE road  
**Rim** Junior Ultra 26"  
**Wheel size** 26"  
**Weight** 1140g  
**Inner width** 23,5mm  
**Max. system weight** 95 kg

**WEIGHT**

**STIFFNESS**

**PRICE**

**TECHNICAL DETAILS HUB**

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 96 g front / 196 g rear  
**Color** Black  
**Freewheel** XDR/Shimano HG/N3W

**INTEND OF USE**

MTB XC

**TECHNICAL DETAILS RIM**

**Rim Material** Aluminium  
**Spoke holes** 24  
**Inner width** 23,5mm  
**Height** 16mm  
**Tire range** 1,2" - 2,35"  
**Finish** Brushed  
**Profile** Asymmetric rim profile  
**Tubeless ready** Yes  
**Hookless** Yes  
**Rim weight** 340 g

## JUNIOR 30 CARBON

**KEYFACTS**

**Hub** PI ROPE road light  
**Rim** Junior 30 Carbon  
**Wheel size** 27,5"  
**Weight** 1268g  
**Inner width** 30mm  
**Max. system weight** 120 kg

**WEIGHT**

**STIFFNESS**

**PRICE**

**TECHNICAL DETAILS HUB**

**Disc mount standard** Centerlock  
**Spoke holes** 24  
**Axe width** 12 x 100 / 12 x 142  
**Hub weight** 71g front / 151g rear  
**Color** Black  
**Freew.** XDR/Shimano HG/MicrosplineN3W

**INTEND OF USE**

MTB XC

**TECHNICAL DETAILS RIM**

**Rim Material** Carbon  
**Spoke holes** 24  
**Inner width** 30mm  
**Height** 22mm  
**Tire range** 2,1"-2,7"  
**Finish** UD  
**Profile** Symmetric rim profile  
**Tubeless ready** Yes  
**Hookless** Yes  
**Rim weight** 335 g

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 RACING TEAM.

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# SERVICE & CARE

## GENERAL SAFETY INSTRUCTIONS

- 1. Check that wheels are properly secured in the frame
- 2. Check the wheel for damage before and after each ride
- 3. Check the spokes are in good condition and not loose
- 4. Regularly check the wheel for spoke tension, true running and wear
- 5. Check that the tires are inflated with the correct air pressure and are completely undamaged

- 6. Do not use metal levers
- 7. Only use valves of suitable diameter, modification of the valve hole is permitted
- 8. Do not expose the wheel to temperatures above 60°C (140°F)
- 9. Only use spokes, wheel rims, hubs and attaching parts which are provided by PI ROPE GmbH for the available wheels and which fits to its dimensions
- 10. do not use any PI ROPE wheel parts with components of other manufactures
- 11. Only use tires, wheel rims and inner tubes that fit the wheel or match its dimensions
- 12. Check that the tire is fitted properly to the rim

## CARE INSTRUCTIONS PI ROPE FLUID

The spokes of PI ROPE are special textile spokes. These are already provided with a protective film on delivery. This protection is intended to prevent damage when in contact with sharp objects. By mechanical charge or intensive washing (especially by hard water jet), the protective film can be removed. In order to enjoy your wheelset for a long time, it is necessary to preserve the protection of the spokes and to re-apply the care product when worn. This ensures the longevity of the spoke.

- 1. Preparation: Clean spokes with water to remove dust and dirt. Then let the spokes dry briefly. Stir/shake PI ROPE protective and care products well. Wear suitable protective clothing. Observe safety instructions. Do not inhale, do not swallow, avoid contact with skin.
- 2. The PI ROPE protection and care product is an aqueous liquid. Apply with sponge or small brush thinly in the appropriate places. Then let it dry.

## SAFETY INSTRUCTIONS PI ROPE FLUID:

- Precaution: Ensure good ventilation. Outdoor use is recommended.
- Avoid contact with skin and eyes.
- Wear impervious gloves.
- Wash hands before eating, drinking, smoking and immediately after handling the PI ROPE Protective and care product.
- Keep away from sources of ignition. No naked lights. No smoking

**WARNING!**  
Keep out of reach of children.  
Highly flammable. Corrosive.  
Storage temperature: 5°C - 35°C

## MAINTENANCE INTERVALS

The following maintenance intervals are to be followed.

ACTION	INTERVAL
Check the wheel mounting	Before and after every ride
Hub service for normal use	Yearly
Hub service for extreme use (frequent rides in rain, mud, snow, dirt)	As needed
Service if something is unusual (e.g. bearing play, spokes or in the freewheel body)	Immediately
Check the wheel for damage or irregularities	Before and after every ride
Check the spoke tension, wear and true running of the wheel	After 20 hours of use
Clean the wheel with a soft towel and suitable cleaning fluid (no aggressive fluids or pressure washers)	After every ride
Protection and care of the textile spoke	As needed, at the latest 1 time per year

## WARRANTY/CRASH REPLACEMENT

In addition to high-quality products, we also offer first-class service. That is why PI ROPE GmbH provides not only the legally required warranty on all PI ROPE products, but also an additional three-year warranty on all material and manufacturing defects. Otherwise provided or extended domestic customer right is not affected by this warranty. Place of venue and execution is Chemnitz / Germany. German right is valid. Deficits which are defined as a subject of the warranty claim by the PI ROPE GmbH, were fixed or replaced by the PI ROPE GmbH. We also offer a fair and uncomplicated crash replacement.

### WARRANTY REQUIREMENTS

- All components must be installed and used according to the assembly instructions.
- To all third-party parts the respective manufacturer 's warranty applies.
- Improper use, not following the instructions for use, incorrect repair, assembly or maintenance, as well as damages caused by incorrect wheel assembly (spoke pattern, spoke cross, spoke tension, incorrect torque, incorrect lubrication, etc.) are not covered under the warranty.
- Ball bearings are working parts and therefore not included in the 3-year warranty.
- The PI ROPE GmbH fixes and replaces only the questionable subject in one's own discretion. Replacement is made with the same model or an alternative product of the same value.
- Warranty claims can only be processed with a valid invoice or copy of them.
- The PI ROPE GmbH takes no responsibility for damage compensation, especially not for indirect damage, oblique damage and subsequent damage.

## CRASH REPLACEMENT

In addition to the legal guarantee, the PI ROPE GmbH also offers a Crash Replacement service for all PI ROPE components. This service is available for all parts damaged as a result of a fall or accident for which the owner was not at fault. It includes a special discount of the official list price of the same or an equivalent product.

## TERMS AND CONDITIONS

- Within 4 weeks after the date of purchase of the initial purchase, a registration must be made. This registration is done through a form provided on [pirope.net](#). This form must be filled out and sent together with the copy of the purchase receipt by mail to [service@pirope.net](mailto:service@pirope.net). Subsequently, a confirmation will be sent by mail.
- The offer is valid for two years from the date of purchase.
- It can also be transferred to the next owner.
- Damages must affect functionality (visual damages are excluded).
- Replacement is made with the same model. However, PI ROPE GmbH reserves the right to replace the damaged article with an alternative product of the same value.
- You have no legal claim to the damaged product, which will become the property of PI ROPE GmbH.
- PI ROPE GmbH will not pay for costs related to assembly, shipping or customs.
- The Crash Replacement is not a substitute for any warranty stipulations that apply in the individual countries.
- Components such as tires, cassettes, brake discs, brake calipers, etc. must be removed.
- The wheel must be sent to PI ROPE GmbH in a cleaned condition.

## DISCLAIMER OF WARRANTY

The following is a list of reasons why the Warranty and the Crash Replacement service guarantee benefits may not apply:

- Damages caused by incorrect installation of the components.
- Damages caused by incorrect repairs of the components.
- Improper use, e.g. a cross-country wheelset used for downhill riding.
- Modification of the components.
- Maintenance or repairs that were either incorrectly done or not carried out.
- Normal wear and tear from use of the components.
- Transport and delivery damages.
- Improper use and/or mishandling.
- Commercial use, leasing or use in competitions.
- Changed, garbled or removed serial numbers.



A decorative graphic on the right side of the page. It features a vertical gold bar on the far right. To its left, a square area contains a pattern of parallel diagonal lines, alternating between black and gold, creating a striped effect.

**PI**ROPE

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