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How I tie a stronger Prussik knot.

Ex Umbra · Oct 6, 2016

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Ex Umbra

Member

Joined: Oct 1, 2016

Messages: 89

Oct 6, 2016

#1

(Before I say anything let me preface it with this. Seems like everyone here is using overkill rope dia. and have no want or feel the need to preserve lost tensile strength of their lines. That's great and Im totally happy because you are.

However my personal goal is to keep my saddle gear as light as possible and in doing so I'm using far lighter lines, at my own risk and thusly I look to save or replace ALL the tensile strength of my lines I can. I make this post in case someone now or in the future wishes to do the same. So in the light of working with sufficient rope rather than overkill:)

Yey! My BlueWater 4mm Titan (Dyneema) prusik cord came in the mail today. It's 1000 lb. Test.

How I tie a prussik compared to most:

The vast majority of people just tie the line they are gonna use as a prussik into a loop. Then they loop the prussik onto the main line, clip a biner to it and call it good. And it works! But....you have a

1:1ish bend in the rope where it wraps around the biner costing you, in my estimation a shocking amount of tensile strength.

What I do is simple, but has you clipped to double lines from the knot to the biner. And where I'm from in vert. rope rescue- we at minimum double everything.

To form a double anchor prussik...instead of tying your prussik cord into a loop, just instead tie a fig. 8 loop on both ends of the prussik cord.

Loop the prussik on the main line as per normal. Adjust the anchor loops that go to your biner so they are even and clip to both loops.

Presto! Your prussik is twice as strong over the covention looped cord prussik.

Ex. 1081
Crüzr v. Tethrd



Ex. 1081
Crůžr v. Tethrd

Hope this helps someone somewhere.

Umbra

Addendum: FYI No I'm not sitting high in a tree clipped to one, double anchor 4mm prussik.

Im clipped to two separate double anchor 4mm 1k lb. Test prussiks. My weight on one with another above it totally snug. If the main begins to slip or if there's somehow a big shock load introduced into the the system the secondary will add friction or help take the strain of the shock near instantly and automatically.

 d_rek and MCDM

Last edited: Oct 6, 2016



huck72412

Well-Known Member

Vendor Rep

SH Member

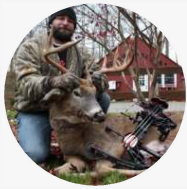
Joined: Nov 27, 2014

Messages: 3,436

Oct 6, 2016

 #2

Slick!!!!



MCDM

Well-Known Member

Vendor Rep

Joined: Apr 18, 2014

Messages: 2,457

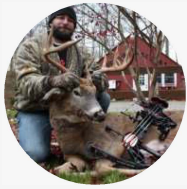
Location: Connecticut

Oct 6, 2016

 #3

That is really cool. I have been paying attention to your knot posts and they are really interesting it definitely is beyond my knowledge and am learning ways to do different things. Thanks for the knowledge man!!

 Ex Umbra and d_rek



MCDM

Well-Known Member

Vendor Rep

Joined: Apr 18, 2014

Messages: 2,457

Location: Connecticut

Oct 6, 2016

 #4

When your tying this your figure 8 loops are supposed to be exactly the same size correct?? More or less they should not be visual larger or smaller if that makes sense.

 Ex Umbra

Ex. 1081
Crüzr v. Tethrd

**Ex Umbra**

Member

Joined: Oct 1, 2016

Messages: 89

Oct 6, 2016

#5

MCDM said:

When your tying this your figure 8 loops are supposed to be exactly the same size correct?? More or less they should not be visual larger or smaller if that makes sense.

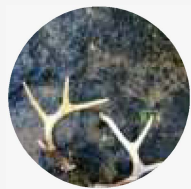
Good thinking bro but not quite.

It totally doesn't matter if the two fig. 8 loops are the same size.

The only thing that matters is that you adjust the very *end* of the two loops so the both lines are sharing the load evenly.

In fact I prefer to make the loops different sizes. That way instead of the fig. 8 knots being jammed together side by side, they are one behind the other. No this does not increase strength...it just gives you more style points!!!

Last edited: Oct 7, 2016

**ImThere**

Well-Known Member

Joined: Oct 20, 2015

Messages: 6,595

Location:

Lewisburg, TN

Oct 7, 2016

#6

So you have two prussik knots? Is that because of the small rope your using?

Sent from my

Sit drag, Ernie's outdoors linesman belt,

At 20' up

**boone0**

Well-Known Member

Joined: Sep 28, 2014

Messages: 423

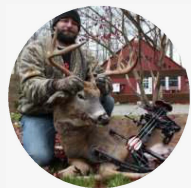
Oct 7, 2016

#7

What kind of rescue do you do? Just curious.

On this subject, wouldn't it use less rope and bulk to use a fisherman's knot or something? I usually use figure 8s and alpines, but you seem to focus on reducing bulk.

Sent from my SM-G920V using Tapatalk

**MCDM**

Well-Known Member

Vendor Rep

Joined: Apr 18, 2014

Messages: 2,457

Location: Connecticut

Oct 7, 2016

#8

boone0 said:

What kind of rescue do you do? Just curious.

On this subject, wouldn't it use less rope and bulk to use a fisherman's knot or something? I usually use figure 8s and alpines, but you seem to focus on reducing bulk.

Sent from my SM-G920V using Tapatalk

Yes it would use less rope to tie a fishermans knot but his goals are really to reduce Ex. 1081 Crüzr v. Tethrd

weight/bulk while increasing or perserving the max amount of tensile strength. I could be wrong with my statement it is just what I am gathering from his prior posts.

 Ex Umbra and monvalleybow



Ex Umbra

Member

Joined: Oct 1, 2016

Messages: 89

Oct 7, 2016

#9

boone0 said: 

What kind of rescue do you do? Just curious.

On this subject, wouldn't it use less rope and bulk to use a fisherman's knot or something? I usually use figure 8s and alpiners, but you seem to focus on reducing bulk.

Sent from my SM-G920V using Tapatalk

Ummm.....

The only place to use a fishermans knot in a prussik is to make a loop out of the prussik cord...which im saying in this post not to do...

Im not sure I understand you. Sorry.



Ex Umbra

Member

Joined: Oct 1, 2016

Messages: 89

Oct 7, 2016

#10

MCDM said: 

Yes it would use less rope to tie a fishermans knot but his goals are really to reduce weight/bulk while increasing or perserving the max amount of tensile strength. I could be wrong with my statement it is just what I am gathering from his prior posts.

Yes exactly, thank you.



Ex Umbra

Member

Joined: Oct 1, 2016

Messages: 89

Oct 7, 2016

#11

ImThere said: 

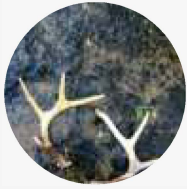
So you have two prussik knots? Is that because of the small rope your using?

Sent from my
Sit drag, Ernie's outdoors linesman belt,
At 20' up

I have two prussik knots yes...

Not because of the smaller rope im using but rather its always good to have at least one back up to your primary.

But yes as a by product it does bring more tensile strength on board.

**ImThere**

Well-Known Member

Joined: Oct 20, 2015

Messages: 6,595

Location:

Lewisburg, TN

Oct 7, 2016

#12

Ex Umbra said: 🗨️

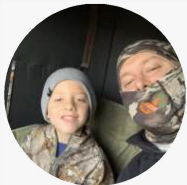
I have two prussik knots yes...

Not because of the smaller rope im using but rather its always good to have at least one back up to your primary.

But yes as a by product it does bring more tensile strength on board.

So in my case we are talking 1 on my sitdrag and one on my lineman?
Or do you have 2 on your tether?

Sent from my
Sit drag, Ernie's outdoors linesman belt,
At 20' up

**d_rek**

Well-Known Member

Joined: Sep 25, 2014

Messages: 2,495

Location:

SELP Michigan

Oct 7, 2016

#13

Interesting. So you just hook your two figure eights through your biner?

I switched to the ropeman1 this year and am loving it for my tree strap over prussik cord,
but that would be nice to setup my linemans belt like that.

👍 Ex Umbra

**Ex Umbra**

Member

Joined: Oct 1, 2016

Messages: 89

Oct 7, 2016

#14

ImThere said: 🗨️

So in my case we are talking 1 on my sitdrag and one on my lineman?
Or do you have 2 on your tether?

Sent from my
Sit drag, Ernie's outdoors linesman belt,
At 20' up

Yes sir, I have two on my tether. A primary and a back up.
Good to go,
Umbra

**Ex Umbra**

Oct 7, 2016

#15

d_rek said: 🗨️

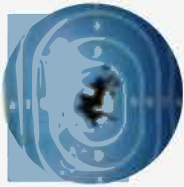
Interesting. So you just hook your two figure eights through your biner?

Yes you definantly want to hook both loops to your biner.

Ex. 1081
Crüzr v. Tethrd

Member

Joined: Oct 1, 2016
Messages: 89

**kenn1320**

Well-Known Member

Joined: Sep 15, 2015
Messages: 2,753

Oct 7, 2016

#16

Very clever, never thought of that when I used the prussic. Do you ever splice your ropes or strictly a knot guy? How much does your tether weigh by the time your done adding all the secondary precautions and double loops? Are you at a point where defeating your purpose yet?

**Ex Umbra**

Member

Joined: Oct 1, 2016
Messages: 89

Oct 7, 2016

#17

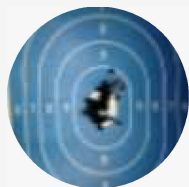
kenn1320 said:

Very clever, never thought of that when I used the prussic. Do you ever splice your ropes or strictly a knot guy? How much does your tether weigh by the time your done adding all the secondary precautions and double loops? Are you at a point where defeating your purpose yet?

Thanks on the clever compliment.

Yes my 14' (total rope length before knots) 5.5mm dyneema tether line and the 2' worth of 4mm dyneema for the 2 prussiks are wonderfully light.

Im undefeated and happy as a pig in slop!
LoL.

**kenn1320**

Well-Known Member

Joined: Sep 15, 2015
Messages: 2,753

Oct 7, 2016

#18

Ex Umbra said:

Thanks on the clever compliment.

Yes my 14' (total rope length before knots) 5.5mm dyneema tether line and the 2' worth of 4mm dyneema for the 2 prussiks are wonderfully light.

Im undefeated and happy as a pig in slop!
LoL.

I found 5.5mm dyneema, but not sure which line your using. However the brand I found comes in at 1.24 lbs per 100ft. Wow that is light!!!!!!

**Ex Umbra**

Member

Oct 7, 2016

#19

kenn1320 said:

I found 5.5mm dyneema, but not sure which line your using. However the brand I found comes in at 1.24 lbs per 100ft. Wow that is light!!!!!!

Ex. 1081
Crüzr v. Tethrd

Joined: Oct 1, 2016
Messages: 89

I'm on BlueWater Titan 5.5mm in the color of black, 14' worth before knots for the tether...

And BlueWater Titan 4mm in camo...2 maybe 2.5 ft for my two prussiks.

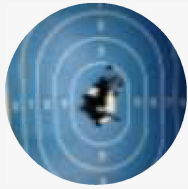
Yes it's wonderfully light and plenty strong in my opinion.

Dyneema is just another company's trademarked name for UHMWPE which is what AmSteel is.

If I'm doing my math right and the manufacturer's claims are accurate about what this stuff weighs....

My whole tether rope with the two prussiks on it weighs in at 3.21 ounces.

Last edited: Oct 7, 2016



kenn1320

Well-Known Member

Joined: Sep 15, 2015
Messages: 2,753

Oct 7, 2016

#20

Yes Titan is the product I found. Seems everything I read suggest triple fishermans knot for making loops. Is that what your doing, or are you using the figure 8?

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