
Pull and hold trigger release for slingshot

Posted by moss - 07/02/2007 08:26am

Here are some photos of a Big Shot or Rogue Sidewinder (See Swamp Fox's folding slingshot) sling shot pull and hold trigger system that I cobbled together. I've been using it for a while and it's held up well.

It combines a Wichard snap release from Sherrill with a nylon sleeve and Klemheist hitch pull and hold. The big snap attached to the sleeve allows the pear screwlink on the Wichard to be easily hooked up to the pulldown. The orange cord is the trigger release. The pulldown can be used on a sectioned or single length pole.

Once the Wichard is hooked up to the sleeve it can be pushed down the full length of an 8-foot slingshot pole with the assist of the arms and body weight pushing down from above. This means a person of less than average or average strength can tension a Big Shot well enough for very high throws.

Pulldown and release on Rogue Sidewinder, view larger photos

http://farm2.static.flickr.com/1073/687935169_29ea332b54.jpg

http://farm2.static.flickr.com/1310/687930421_c847ab77d6.jpg

-moss

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Large Metal Pieces flying!

Posted by Oldtimer - 07/02/2007 10:17am

Is there ever a need for that much power on Big Shot? Are you guys climbing trees over 200 feet tall? Just wondering! Uhm... I hope no one is ever hit in the face by one of those heavy metal pieces.

I see the lower strap loop of the Big Shot is already ripping apart by so much tension. Suggest using a smaller weight and fishing line for those extra tall trees.

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Oh yea of little faith!

Posted by moss - 07/02/2007 10:41am

Originally posted by Oldtimer

Is there ever a need for that much power on Big Shot? Are you guys climbing trees over 200 feet tall? Just wondering! Uhm... I hope no one is ever hit in the face by one of those heavy metal pieces.

I see the lower strap loop of the Big Shot is already ripping apart by so much tension. Suggest using a smaller weight and fishing line for those extra tall trees.

Oldtimer! I'm surprised you have such low confidence in my safety awareness and technical abilities :-). I've waited a year after first developing this to test it thoroughly and verify the safety of the release before making it public. I'll demo it for you at the Rendezvous. You can stand at a distance and watch with binoculars if it makes you feel better.

No metal goes flying. When the Wichard snap release at the top of the system releases, only the slingshot pouch and rubber bands move upward, the "metal" stays put and drops down a few inches. The taped "strap" holding the brass snap is just a positioner to hold the snap vertical to make it easy to attach the pear link when loading the sling. The tape is not structural and is not bearing the tension of the sling. It is being stretched because the hitch cord which is bearing the tension is stretching a little and shifting the position of the snap upward slightly. The tape will be replaced with a small webbing strap but nothing happens if the tape comes off.

This is an extremely strong, redundant and safe system. I've fired it over a hundred times. The main advantage is that it allows people who are not muscle-bound arborists to use a large slingshot. And it allows anyone who uses a large slingshot to aim it carefully instead of struggling to hold the pouch down.

The tension on the slingshot can be set for whatever height is required whether it be 60 or 150 ft. I don't need to convince people who've used big slingshots of their usefulness. When you're in thick woods and there is absolutely no room to swing a thowbag by hand the slingshot can be used to shoot the bag through a narrow opening to reach a

branch. For the tall white pine in woods in my area it is the only way that I can reach a solid TIP.

A hand slingshot or crossbow with fishing line and reel is a proven way to access high branches, the downside is that it is a 3-step process to install the line since you have to step up to a regular weight throwline after installing the fishing line over the branch. It is also difficult to see where the fishing line is in the canopy after you fire it up there. The small slingshot is very good when the most portability is required.

Hitting 79ft. TIP on first shot in white pine in woods.

The pulldown/release hardware drops down about 5" when the trigger is released. All of the energy goes up with the throwbag and sling rubber. There is no recoil in the release hardware, it just goes slack.

I've fired 12oz bags with it but it is overkill for most situations, the 10oz bag flies nice and comes down most of the time :-)

Always wear eye protection and helmet when using large slingshots. The sling and hardware is positioned on the opposite side of the pole from the operator.

<http://www.47custer.com/bigShot/firingBigShot50.jpg>

-moss

Big Shot trigger Aid

Posted by Oldtimer - 07/03/2007 09:48am

Hello Moss

I saw a similar set up that Dan House put on his Big Shot. He used only the lower release part similar to what you have on yours. He used a Horse panic release from his local store and it worked fine.

I was just giving you a hard time . I am glad that you guys are bringing the BShot to Colorado. I would like to borrow it a couple of times to get up on a tree somewhere while there. I do not use mine as much since the trees I climb are easy to reach by hand throwing. I agree that the BS is a great tool. One time my right arm was hurting and weak from my Arthritis acting up and the BS was a saver to reach my target . Definitely cuts down on effort by the climber. Keep up the creative ideas flowing!

Posted by moss - 07/03/2007 11:20am

Originally posted by Oldtimer

I was just giving you a hard time .

Got me Oldtimer. Since we're often discussing the differences between safe and unsafe climbing practices it's challenging to parse humor at times. Since I've already been embroiled in a few "safety" discussions in my time on the boards I'm probably overreactive. The thing with the big slingshots is that they are potentially very dangerous if operated incorrectly. A trigger system has to be very well designed to minimize additional risk.

-moss

Posted by aussietreclimber - 07/06/2007 04:53am

hey moss,

Just a quick question. I think i may have overlooked something here.

Why don't you have the snap release connected directly to the brass snap hook and remove the pear marl all together?

I don't own a big shot myself but am trying to throw ideas around about making something of the like in my workshop, and love to see peoples different adaptations to theirs.

Cheers
Matt

Posted by moss - 07/06/2007 10:52am

Originally posted by aussietreeclimber
hey moss,

Just a quick question. I think i may have overlooked something here.

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Cheers
Matt

That would work fine on a single length pole since you could attach to the brass snap and pulldown sleeve without stretching the sling. For a two section pole you need to tension the sling to make the connection, the pear screwlink makes a good handle to grab and pull down and easily hook into the brass snap which will be at the top of the lower section of the pole. The swivel eye on the bottom of the Wichard is small enough that you wouldn't want to be trying to find the "target" brass snap while the sling was under any tension.

-moss

Posted by moss - 07/06/2007 11:04am

Originally posted by Oldtimer

I saw a similar set up that Dan House put on his Big Shot. He used only the lower release part similar to what you have on yours. He used a Horse panic release from his local store and it worked fine.

Yep, that's the standard way to do it. You can buy the Wichard release from Sherrill and the hold-down prusik is included. For a two sectioned pole that system won't work because the Wichard is hard connected to the prusik. Ok, so if you create an easy connect/disconnect (where the brass snap comes in) between the Wichard and the prusik then you're good to go on a two-section pole. But... I've found that when pulling down the sling that the prusik can grab the pole in the wrong direction. I added the sleeve to solve that, the sleeve releases the prusik when you push down, just like DdRT descent with a hitch. The sleeve is also nice to grab and push down. And lastly you can attach a short footloop to the sleeve and use leg power to push the sleeve down and load the sling, if you're good at standing on one leg :-). I've found that just putting my weight over the sleeve and using my arms works quite well so I took the footloop off.

I'd like to see Dan's dog leash snap quick release, sounds good. The Wichard is designed for this type of heavily loaded release system, I feel confident using it multiple times and with other people in the vicinity, in other words I have confidence that it will not release accidentally or otherwise fail.

-moss

Posted by T. Sherrill - 07/06/2007 11:44am

Holy smokes, that's a lot of hardware. I'm currently working with a friend to design a trigger system for the BS. (Yes I said BS; it's just so much more flexible. If you're not familiar with the tool then you can at least entertain yourself.) This friend (designer of the Trango Cinch) is in the final stages and should provide a prototype soon. I hope something will surface by spring.

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Posted by moss - 07/06/2007 01:08pm

Originally posted by T. Sherrill
Holy smokes, that's a lot of hardware.

:-) It works well. I overbuilt it to be conservative. Hardware cost besides the Wichard is minimal. It's one of those things, when you use it you say, aha! I get it. It's functionally very simple and effective.

Originally posted by T. Sherrill
I'm currently working with a friend to design a trigger system for the BS. ...This friend (designer of the Trango Cinch) is in the final stages and should provide a prototype soon. I hope something will surface by spring.

Sounds promising, I've been thinking that the Petzl Mini Traxion combined with the Wichard is very close to doing the trick simply, ie: a 2:1 MA pull, hold and release system. The only problem being that yer now talking over \$100 U.S. for an advanced trigger system.
-moss

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Posted by Leon - 07/07/2007 12:55am

That's good to hear Tobe. I hope it incorporates a 2:1, like moss referred to.

Moss, I get the grab and hold action on my 2:1 trigger setup. I run a cord from the bottom of the pole up through and over the becket of the snap shackle. Pulling on the tail end gives me the 2:1 advantage. I then have a small knut hitch tied directly to the becket that grabs and holds the cord after each pull down. It works well, with very minimal hardware.

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Posted by moss - 07/07/2007 08:51am

Originally posted by Leon
Moss, I get the grab and hold action on my 2:1 trigger setup. I run a cord from the bottom of the pole up through and over the becket of the snap shackle. Pulling on the tail end gives me the 2:1 advantage. I then have a small knut hitch tied directly to the becket that grabs and holds the cord after each pull down. It works well, with very minimal hardware.

Nicely done, clean and simple. I'll definitely try and set it up.
-moss

TreeTramp's ULTIMATE Big Shot Trigger

Posted by TreeTramp - 07/07/2007 04:37pm

OK Already-- the panic snap prototype that you may have seen in the past is history due to designing the ultimate device to draw and fire sling shots.

I guess I will have to add demonstrating my slider-trigger for your sling shots at this years Rendezvous.

So to not to waste everyone time is \$42 an acceptable price to spend on a trigger assembly?

See you at the Rendezvous,
dan

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Posted by moss - 07/07/2007 04:57pm

Originally posted by TreeTramp

So to not to waste everyone time is \$42 an acceptable price to spend on a trigger assembly?

Sounds very fair to me for an effective device but we know that tree climbers HATE to spend money. Is this a MA pull and hold release as well as a trigger? I'm still holding back my \$11 no MA trigger :-)

This is great, we've managed to flush out some top secret trigger development projects! Great news Tree tramp, looking forward to seeing what you've got.

-moss

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