

Shark
Hunter
Firearm
s Group
Member
☆☆
■ Online



Penn 6500 ss

« on: October 17, 2014, 09:33:56 AM »

Quote

I bought a 6500 ss and it has the aluminum gear. I ran across a brand new Bronze gear and thought this would be an easy swap. It is not compatible. It looks like it even uses different bearings, not to mention, the pinion would have to be changed too to work.

Aluminum gear on the left. 650 Bronze on the right and 750 ss gear and pinion on top.

Posts:
5399



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« Last Edit: October 17, 2014, 11:47:13 AM by Shark Hunter »

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foakes
Firearms Group
Member

☆☆
Online

Posts: 1232



Sierra National
Forest



 **Re: Penn 6500 ss**
« Reply #1 on: October 17, 2014, 10:07:29 AM »

 **Quote**

That is what is so important about working on your own reels -- you gain an understanding of how they work, and what to be careful about.

In this case, aluminum is perfectly adequate for a gear material (it is a harder aluminum alloy -- not soft or pot-metaled) -- and it will do well.

And, you have the knowledge to not let the gear strip at high speed by not using the drag properly -- or the natural buffer drag-action of your rod.

Good work on those Penns, Daron!

Best,

Fred

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“Do not follow the beaten path where the herd mindlessly trods -- Instead go where there is no path and leave a trail.”

"AT THE OFFICE"



Doug
Member

 **Re: Penn 6500 ss**
« Reply #2 on: October 17, 2014, 10:37:11 AM »

 **Quote**

★
Online

Posts: 208



Daron I think the original 650ss was the only 650 class / type spinner that had the brass main gear and their may have been some aluminum ones for that reel as well so that is very likely what you have a brass main gear for the 650ss. Don't feel too bad Penn made many engineering changes during the manufacture of these reels .The original 750ss has a least 2 different main gears that require different handles and related parts not everything is interchangeable. Fred is right about learning the advantages and limitations of your own reels . I know I treat the reels I have rebuilt with a lot more TLC than I did before I started working on my own equipment Doug

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Alto Mare
Moderator
Member

★★★★
Online

Posts: 7388



Southeastern
Pennsylvania

[Report to moderator](#) [Logged](#)

[Re: Penn 6500 ss](#)
« Reply #3 on: October 17, 2014, 11:36:19 AM »

[Quote](#)

Daron, be careful mismatching gears, the aluminum main gear gets a different pinion than the one you're showing, check over by Scotts to get an idea. When you try your gears and are not sure if the mesh, don't force them if they feel hard to turn, usually the first thing that will fail is the post that holds the crosswind gear and that would be very hard to fix.



Shark Hunter
Firearms
Group
Member

★★★
Online

Posts: 5399

Forget about all the reasons why something may not work. You only need to find one good reason why it will.

[Re: Penn 6500 ss](#)
« Reply #4 on: October 17, 2014, 11:51:29 AM »

[Quote](#)

Yes,
You are right Doug. I meant to say 650 ss. Its still a great find. that gear looks new.
Fred, Thanks for the comments buddy. it means a lot, coming from a wiz like you. 😊
Sal, I think I get it now on the different gears and pinions, I did a lot of research before I even opened this reel.
The Brass gears have finer teeth and require the bulbous pinion like the 750 one



I showed on top. The Alloy main gear pinion is straighter looking.

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Cone Firearms Group Member

☆☆
 Offline

Posts: 1174



[Re: Penn 6500 ss](#)
« Reply #5 on: October 17, 2014, 11:58:48 AM »

[Quote](#)

I looked at Scotts. They have the pinion you need still in stock. No main gears though. They do not list the brass main as an option in a 6500ss. I am pretty sure it should work. Maybe Sal can clear it up? 😊

Bob

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Shark Hunter Firearms Group Member

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 Online

Posts: 5399

"Quemadmoeum gladuis neminem occidit, occidentis telum est." (A sword is never a killer, it is a tool in the killer's hands.)

- Lucius Annaeus Seneca, circa 4 BC – 65 AD

[Re: Penn 6500 ss](#)
« Reply #6 on: October 17, 2014, 12:13:06 PM »

[Quote](#)

I checked it out Bob. The pinion they have is the one that is already in my reel. I need a 650 ss pinion which they don't have in stock.

<http://store.scottsb.com/19-650-Gear-Pinion-Gear-P4959.aspx>

« Last Edit: October 17, 2014, 12:17:47 PM by Shark Hunter »

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Cone
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Member

☆☆
 Offline

Posts: 1174



basto
Member

☆
 Online

Posts: 531



 **Re: Penn 6500 ss**
« Reply #7 on: October 17, 2014, 12:46:47 PM »

 **Quote**

Duh! I must be dyslexic. 😏

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"Quemadmoeum gladius neminem occidit, occidentis telum est." (A sword is never a killer, it is a tool in the killer's hands.)

- Lucius Annaeus Seneca, circa 4 BC – 65 AD

 **Re: Penn 6500 ss**
« Reply #8 on: October 17, 2014, 07:12:48 PM »

 **Quote**

Quote from: foakes on October 17, 2014, 10:07:29 AM

In this case, aluminum is perfectly adequate for a gear material (it is a harder aluminum alloy -- not soft or pot-metaled) -- and it will do well.



I agree entirely!!
Basto

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Any reel is only as good as it`s drag

Alto Mare
Moderator
Member

☆☆☆
 Online

Posts: 7388



Southeastern
Pennsylvania



[Re: Penn 6500 ss](#)
« Reply #9 on: October 17, 2014, 07:28:13 PM »

[Quote](#)

I hear you guys and I agree, But, as long as I know that there are better gears out there, I will keep hunting them down 😊. The brass gears are much better gears, I've seen it myself on a few occasions.
Sal

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Forget about all the reasons why something may not work. You only need to find one good reason why it will.

basto
Member

☆
 Online

Posts: 531



[Re: Penn 6500 ss](#)
« Reply #10 on: October 18, 2014, 02:15:13 AM »

[Quote](#)

Hi Sal

I just got a 7500ss and it looks like it`s done a lot of work, but I guess I really don`t know that for sure....might have just been neglected.
The dogs are in good cond` and the gears look new., but the pinion bearing is proving near impossible to remove.
About the gear material, I just thought that PENN would not have used an inferior metal for the main gear in such a quality reel, well not back then anyway.
cheers
Basto

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Any reel is only as good as it`s drag

Cone



[Re: Penn 6500 ss](#)

[Quote](#)

Firearms
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Member

☆☆
Offline

Posts: 1174



« Reply #11 on: October 18, 2014, 12:50:44 PM »

basto, I feel your pain. I love the ss series reels. Penn made quite a few changes over the years in them. Too bad they weren't always what we consider improvements. The first brass gears were great. You had to change the handle pivot to change the handle from the left side to the right side of the reel. Later the brass gears were changed so a stepped pivot on the handle allowed it to screw in either side of the reel. Then they changed to the aluminum main gear. It was still a good gear but not as strong as the older brass ones in my opinion.

I have a few ss reels. All of them have the brass gears. I swapped the ones that had the aluminum gears with the older brass ones. You can still find used brass gears for sale on Ebay. If it was mine I probably would buy a used set and fish it like it is. If the aluminum gears stripped I would put in the brass ones. If I can help you in any way let me know. Bob

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"Quemadmoeum gladius neminem occidit, occidentis telum est." (A sword is never a killer, it is a tool in the killer's hands.)

- Lucius Annaeus Seneca, circa 4 BC – 65 AD

basto
Member

☆
Online

Posts: 531



Re: Penn 6500 ss

« Reply #12 on: October 18, 2014, 10:15:58 PM »

[Quote](#)

Hi Bob

I'm actually not too worried about fishing this reel. I collect older PENN reels to restore them to original condition where I can. I have plenty of newer reels to fish. I have a 6500ss that I bought new about 1990's. It is in great condition and I have retired it. They are a thing of beauty.

all the best

Basto

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Shark Hunter
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Re: Penn 6500 ss

« Reply #13 on: November 05, 2014, 10:52:11 PM »

[Quote](#)

I have the Brass main gear and the correct pinion to replace the alloy gears. I also had to find different bearings. I will tackle this come the weekend. I found the main gear on ebay, and then realized the pinion would be a feat. Thanks to the Boss. I have it! The 6500 and the 550 use the same main bearings.

Posts: 5399

I will see if it comes together, I know they fit on the main gear, just have to see if they fit the case.



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[Shark
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[Re: Penn 6500 ss](#)

« Reply #14 on: November 08, 2014, 03:41:46 PM »



[Quote](#)

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This gear swap is more challenging than I expected. I have the bearings, New brass main gear and pinion. The 650 has a smaller ID Bearing. The 6500 has a larger OD bearing. I don't know if any of you have tried this, but it is going to take some special bearings to complete. 8mm ID and 17mm OD.

Posts:
5399



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I don't think this was meant to be done, that's why I'm doing it. Worst case, I'll put a sleeve on the gear to take up the slack. It will also require a new handle. 650 on the left, 6500 on the right.



Shark
Hunter
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Member



Re: Penn 6500 ss

« Reply #15 on: November 08, 2014, 07:42:12 PM »



Quote

After tearing into the 650. I definitely see the design changes. The older gear has the screw on the cap side. Two different animals.

☆☆
Online

Posts:
5400



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Alto Mare
Moderator
Member

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Posts: 7389



Southeastern
Pennsylvania



Shark Hunter
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Online

Posts: 5400



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MFB
Member

☆

 [Re: Penn 6500 ss](#)
« Reply #16 on: November 08, 2014, 11:07:49 PM »

 [Quote](#)

Yes Daron you're right about being two different animals, but that screw is not it. The bigger brothers also have one of those.

The 650 has a different design with the rotor, if you take a closer look at the ratchet, part # 10-, you will notice that it is keyed. The bigger brothers have the ratchet sitting on the rotor itself, part #27-. I like the ratchet on the rotor, but still enjoy using the 650 😊.

If you are comparing the 6500 to the 650...never mind, you're right.

« Last Edit: November 08, 2014, 11:36:27 PM by
Alto Mare »

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Forget about all the reasons why something may not work. You only need to find one good reason why it will.

 [Re: Penn 6500 ss](#)
« Reply #17 on: November 08, 2014, 11:50:17 PM »

 [Quote](#)

Yes,
Comparing the two. Adam offered up some shims to make this happen. I'm throwing in the towel on this one. I think I'll just hold on to this set of 650 gears and keep the 6500 stock. The bearings needed to complete this are not available. I appreciate the words of wisdom. 😊

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 [Re: Penn 6500 ss](#)
« Reply #18 on: November 09, 2014, 12:12:56 AM »

 [Quote](#)

Online

Hi Sharkie,

Posts: 646

8 x 12mm (MR128) & 8 x 14mm (MR148) are standard. Either of these would give you enough room to make a bush.

Rgds

8lb brown

Mark



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No man can lose what he never had.

Isaac Walton

Shark Hunter
Firearms
Group
Member



Re: Penn 6500 ss

« Reply #19 on: November 09, 2014, 09:52:20 AM »

[Quote](#)



Online

Thanks Mark. I didn't even think about bushing the outside.

Posts: 5400



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Shark
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Re: Penn 6500 ss

« Reply #20 on: November 09, 2014, 11:10:22 PM »

[Quote](#)

I cleaned all the parts and bearings and regreased it, leaving the alloy gear in. I need to move on. I have a lot more reels to go through. 😊

☆☆
Online

Posts:
5400



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