



Understanding Spey Lines

2009

by Simon Gawesworth

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A newcomer to spey casting would be forgiven for peeping into this sport, trying it out or talking to the many different opinions and then turning tail and running away from the mass of confusion that there is out there.

There is a mind boggling array of theories, techniques, tackle and styles and it is very difficult for the beginner to make head or tail out of the world of spey casting. To explain the subtleties and intricacies of this spey world would be like trying to explain the rules of cricket to the average American, or of baseball to the average Brit. However, as fly line manufacturers, we only need to make it easier to understand the fly line – the most important part of your tackle.

Weight

Let's start with a look at spey line weights. Perhaps the greatest confusion lies in the rating of two-handed rods and lines. Most fly fishers are familiar with the rating of a single handed rod – choose a #5 rod for trout, a #8 rod for bonefish and a #12 rod for tarpon. Two-handed rods also have a similar rating – somewhere between #5 and #12, but the 8 weight fly line that loads your bonefish rod will never get close to loading a #8 two handed rod. The reason for this is that two handed rods are far more powerful than an equivalent rated single handed rod.

A single handed rod, rated for a #8 line, loads effectively with between 200 and 300 grains. A #8 two-handed rod will take between 450 and 600 grains to load for spey casting. This large range is due to the spey casting style used. At this stage there is no need to confuse anyone more with the differences in these styles, just remember that the two-handed rod needs more weight to make it load. In other words, if you put a regular WF8 line on a #8 two-handed rod you will never get close to loading it.

One confusing thing about spey lines is that most of them have more than one line number as a “size”. RIO's WindCutter II lines have three numbers such as 7/8/9, 8/9/10 and 9/10/11. The reason for this triple numbering system is that the first WindCutter line designed by Jim Vincent, was made by taking the body of a #10 line, adding some of a #9 to the front end and then finishing it off with the full front taper of a #8, thus the line became an 8/9/10. The numbering system stuck. As a simple guideline, use the middle number of the three to find out what line size it is – the 8/9/10 is a good #9 line.

The AFS and PowerSpey lines only have two numbers – 7/8, 8/9 and 9/10 for example and in these cases, generally use the higher number. The 8/9 is, in effect a #9 line. To help choose the right line for your rod, we have compiled a chart on RIO's web site (www.rioproducts.com) that recommends the right line for hundreds of spey rods on the market.

AFTMA Standard

Okay, so how confused do you want to be? In an attempt to illustrate the difference in line weights between the single handed AFTMA standard and the two handed AFTMA standard the following charts might be helpful. On the other hand, they might cause you to go cross eyed and reach for the nearest bottle of Single Malt!

The *AFTMA standard* is an attempt to standardize line weights so that whichever line manufacturer you buy a fly line from you know that they will all weigh about the same and load the rod equally – that is, of course, assuming line manufacturers manufacture lines to the *AFTMA standard*.

Before you look at the charts you need to understand that the two handed standard actually has **four** different categories: **H, S, M** and **L**. More than regular casting the head length of the line in spey casting influences the weight. So, we have four standards (for ease of recognition RIO’s appropriate Spey line is listed after the category):

‘**H**’ is for shooting **H**eads and is measured at 40 ft. - **AFS head and AFS OutBound**

‘**S**’ is for **S**hort belly spey lines and is measured at 55 ft – **WindCutter II**

‘**M**’ is for **M**id length belly lines and is measured at 65 ft - **PowerSpey**

‘**L**’ is for **L**ong belly spey lines and is measured at 75 ft.

So, depending on how long the belly of the spey line is, the “weigh point” falls at different lengths. The AFTMA single handed designation is measured at 30 feet.

Now that everyone is clear on that, let’s look at the *AFTMA Standards* (the numbers represent the weight in grains at the “weigh point”):

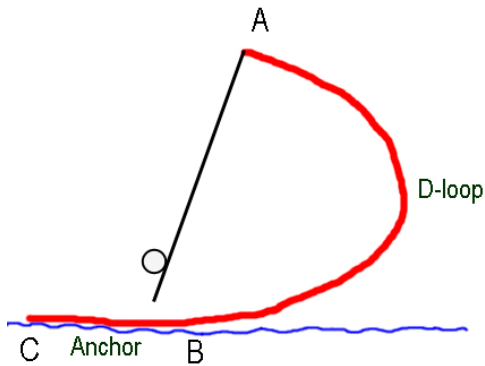
Size	Single Handed	H	S	M	L
#5	140	-	380	-	-
#6	160	250	420	460	600
#7	185	300	470	510	650
#8	210	360	530	570	710
#9	240	430	600	640	780
#10	280	510	680	720	860
#11	330	600	770	810	950
#12	380	700	870	910	1050

Oh, a final thing to remember is that the two handed standard has a plus or minus tolerance of 30 grains, while the single handed standard has a tolerance of plus or minus 6 to 12 grains (depending on the size). Thus you could have a spey line labeled S8 and it would be acceptable if it weighed between 500 and 560 grains.

As yet, there is no *AFTMA Standard* for Skagit type lines.

Taper

Most spey lines follow a simply designed taper. There needs to be weight in the back of the belly to load the rod effectively as a “D-loop”. There also needs to be a long fine front taper, so that the line lying on the water (“The Anchor”) at the start of the forward cast has as little drag as possible.



In a spey cast the “D-loop” (from A to B) loads the rod and needs to be the heaviest part of the line. The “Anchor” (B to C) lies on the water. The more line there is lying on the water, the more energy is lost during the forward cast as it tries to tear itself off the surface film.

A typical spey line design will have most of the weight in the back end of the head and a long, fine front taper to make the most of these casting requirements:



Within the basic spey line design are numerous variations, but the main one to compare is the head length. At RIO we make three different head lengths of spey lines. These are the AFS (Advanced Flight Spey) line, both as a shooting head and as an integrated shooting head, with a head length between 31 ft and 40 ft, the WindCutter[®] II, with a head length of between 45 ft and 56 ft and the PowerSpey[™], with a head length of between 57 ft and 71 ft.

The longer the head of the spey line, the more line there needs to be outside the rod to make a cast. Longer belly lines, like the PowerSpey, really need plenty of room behind them to create a big enough D-loop for the line to load the rod – say 30 ft of room for an effortless cast. With the short to medium head length of the WindCutter II, you may only need around 15 ft of room behind and with a short head line like the AFS, even less; perhaps only 8 ft of space is needed.

Of course, space behind isn't the only factor. There are five other factors that influence your choice of head length:

1. **Casting Ability** - you need to be a better caster to handle the longer head length lines.
2. **River Size** – small rivers don't need long head spey lines
3. **Rod Length** – a short rod does not have the same lift as a long rod, so the shorter the rod is, the shorter the line head length must be.
4. **Sinking Tip** – with sink tips or heavy flies it can be really tricky to get the sunken line to the surface with a long belly line. A short head line means that the sink tip is closer to you and easier to get out of the water.
5. **Stripping flies** – some fishing techniques require you to strip the fly in to entice a fish to take. The short head lines are perfect for this as you must strip the start of the head up to the rod tip before making a cast.

If you don't need to strip line, the short belly lines are more of a problem and a good caster will have to manage the slack coils of running line hanging in the water before each cast. They will also waste good fishing time having to strip the line into the casting length.

Line Taper Comparisons

AFS Shooting Head



Head Length 31 ft to 40 ft

AFS OutBound Integrated Head



Head Length 31 ft to 40 ft

WindCutter Line



Head Length 45 ft to 56 ft

PowerSpey Line



Head Length 57 ft to 71 ft

Generally, if you start with a WindCutter II line and, with practice, get to a skill level where you can cast the whole head at the tip of the rod, without stripping anything in, you are ready to move up to a PowerSpey line. When you do, make sure you start with the head about 12 feet inside the rod tip; this will be similar to the WindCutter II you are used to.

SKAGIT CASTING

The most recent style of spey casting is called Skagit casting (pronounced **ska-jit**) and named after the Skagit River in Washington.

This style of spey casting utilizes an even shorter head length spey line than the WindCutter - something in the region of 27 ft. This exceptionally short head length allows the fly caster to make long casts in extremely tight situations. Even the most basic of spey casters can make a 70 ft cast with no more than 3 ft of room behind. Added to the shortness of the line is the fact that the head weighs about the same amount as the corresponding WindCutter II, but at half the length. This means that the Skagit line has almost twice the weight per inch of the WindCutter II line. This extra weight per inch is an immense asset for lifting out deeply sunken tips or heavy, large flies. Nothing will pick up big flies or fast sinking tips as easily as a Skagit line will.

RIO Skagit Spey Line

Overall Length: 120' (36m)



Head Length: 27' (8.2m)

Skagit Cheaters

The most confusion with Skagit lines comes with something called “Skagit Cheaters”, which are 2½ ft, 5 ft and 7½ ft extension pieces for a Skagit line.

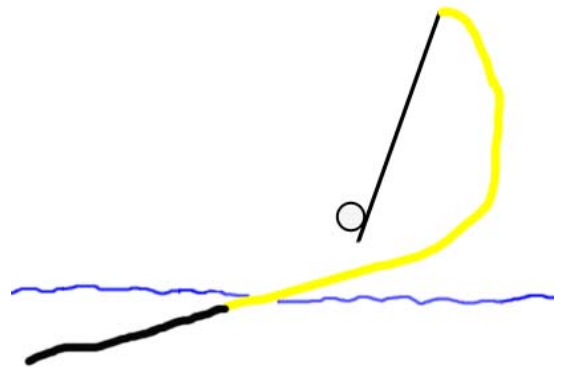
One of the ideas behind Skagit casting is that you want to maintain a constant ratio between the rod length and the head length of the line. It maybe 3 times the rod length, it maybe 4 times the rod length; each caster will find their happy ratio.

For the purpose of this example, let’s say a caster likes a ratio of 3½:1. A 12 ft rod would require 42 ft of line and a 15 ft rod will require 52½ ft. By following this ratio, it means that the caster never needs to adjust their casting stroke, regardless of which outfit they pick up.

If a caster likes this ratio and uses a 12 ft rod, they are going to need 42 ft of line to feel comfortable. The Skagit line has a 27 ft head. Add a 15 ft sink tip and you get 42 ft, which means there is no cheater needed. The next day, the same caster casts a 14 ft rod - $14 \times 3\frac{1}{2} = 49$ ft. So, to keep the same casting stroke, the caster needs a total head length around 49 ft. A 27 ft Skagit line, plus the 15 ft sink tip is only 42 ft. Plug in the 7½ ft cheater and the head length becomes 49½ ft and much closer to the required ratio.

The whole idea is pretty confusing to a novice, but once the concept is grasped, it is easy to understand and allows for a caster to develop a consistent style, regardless of the size of rod used.

A final note to mention on the Skagit lines is that the sink tip **does not** form part of the calculation for line weight. If you look at the spey line recommendation chart and decide on a Skagit line for your rod make sure you use the weight of the Skagit body. If the chart suggests you need a 550 grain Skagit line, it does not matter which size sink tip you add on to the front end of this (as long as it is not heavier than the Skagit body). The reason for this is that the sink tip usually does not form part of the D-loop and, therefore, plays no role in loading the rod. A typical example is that someone is told that they need a 550 grain Skagit line. They know they are going to use a 150 grain sink tip, so they buy a 400 grain Skagit line (thinking that the two added together will give them the correct load). This is very wrong and will result in an under-loaded outfit. Make sure the Skagit body weight is correct, regardless of the sink tip.



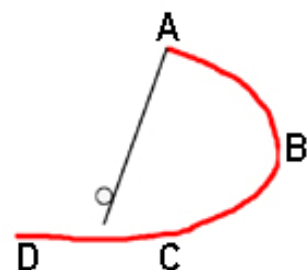
SALTWATER

More and more people are using two-handed rods for overhead casting in the surf these days. The length and power of these rods are great for throwing big flies out against a wind and over incoming surf.

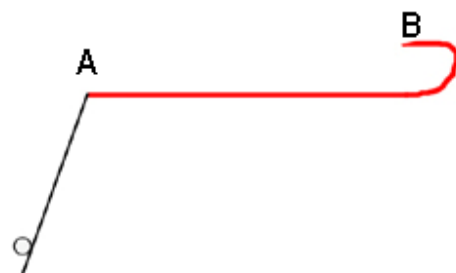
When choosing a line for overhead casting a two-handed rod there are two important considerations.

1. **The head length needs to be shorter than for spey casting so that the back loop does not drop and line speed is retained to shoot big distances.**
2. **The line weight should be less with an overhead cast, than with a spey cast. Here's why:**

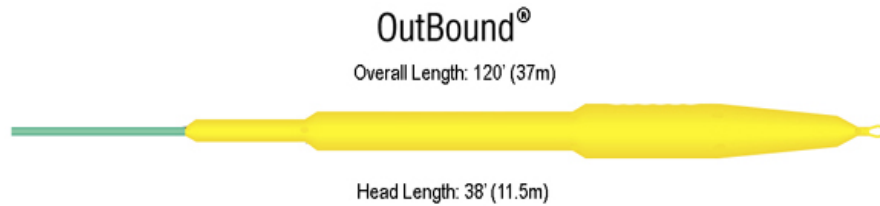
With a spey cast, only part of the line weight loads the rod. In this example the load really comes from A to B, though B to C also helps load the rod. The piece of line from C to D really has no effect on the load of the rod.



With an overhead cast, the entire weight of the line serves to load the rod at the end of the back cast. This means that a lighter line can be used when overhead casting, as opposed to when spey casting, because the entire line length (A to B) loads the rod.



An ideal line for overhead casting a two-handed rod is RIO's OutBound®



The OutBound is available in several densities and sizes, but the most popular one for overhead casting, particularly in the surf, is the intermediate version. Check out the link on the RIO web site **“2008 RIO Spey Line Recommendations (PDF)”** to find the right OutBound line for a number of two-handed rods.

T-8, T-11 & T-14

T-8, T-11, T-14 & T-17 are level shooting head materials. T-8 weighs 8 grains per foot, T-11 weighs 11 grains per foot, T-14 weighs 14 grains per foot and T-17 weighs 17 grains per foot. T-8 has a sink rate of 7 inches per second, T-11 at 8 inches per second, T-14 around 9 inches per second and T-17 is a rapid 10 inches per second.

The material is usually sold in a 30 ft pack. Anglers simply cut this level material to the length they need for a variety of fishing conditions, and then add a braided loop to each end to easily attach to the spey line. The most useful tip lengths from a 30 ft pack are 15 ft, 10 ft and 5 ft, though some anglers prefer 15 ft, 9 ft and 6 ft lengths.

The weight of T-14 and T-17 makes them pretty heavy for lighter lines to lift out. Most of the Skagit line sizes will not have a problem with 15 ft of T-14, but attaching that to the lighter WindCutter and PowerSpey lines can result in poor turnover and inefficient casts. In simple terms if you are going to use one of these tungsten impregnated tips and the tip is going to be longer than 12 ft, use a Skagit line. Don't try to cast that length and that weight on a regular spey line.

Which Spey line should I choose?

With the array of spey lines on the market it is a little baffling to know which one to choose. Hopefully this document has at least given you an idea behind the different line designs. Following is a description of each line we make and their particular advantages:

OutBound®

Overhead casting: Particularly useful in the salt or in lakes. It is available in 6 densities: Floating, Hover (1" per second), Intermediate, Sink 3 (3" per second), Sink 6 (6" per second) and Sink 8 (8" per second). Three adaptable versions with a level T-8, T-11 and T-14 head are designed to be cut to the perfect head weight and length for individual casting styles. The intermediate OutBound is made up to a WF14 (600 grains) size and is perfect for the larger rods of #10 and bigger.

AFS Shooting Head

An excellent presentation line that is very easy to cast. There are four different densities available:

1. **F.** A full floating line between a 4/5 weight (300 grains, 19 grams - 31 ft, 9.5 m in length) and a 10/11 weight (640 grains, 42 grams – 40 ft, 12.2 m in length). The head is a subtle olive color that will not spook fish in clear water, but the rear 15 ft is yellow so the angler can gauge the line's swing. For anglers needing an easier color line to see there is also a Steelhead Orange floating AFS head in sizes 5/6 to 8/9.
2. **F/I.** A floating line with a 15 ft intermediate sinking tip. This line starts at a 6/7 (400 grains, 26 grams – 36 ft, 11 m in length) and goes to 10/11.
3. **S1.** A slow sinking head. The same weight range as the F/I but the whole head has a very slow sink rate of 1" per second. This is an excellent choice for cooler water conditions when fishing for Atlantic salmon. It is also a very good fish catching line for summer run steelhead, particularly on the Deschutes. Sizes 6/7 to 10/11.
4. **S4.** A full sinking head with a sink rate of 4" per second. This fast sinking head is a great line for early season and back-end Atlantic salmon and particularly good for winter steelhead. It is one of the easiest casting and fishiest sinking lines ever made. It comes in the same sizes as the "F/I" and the "I" heads. Sizes 7/8 to 10/11.

While these lines are exceptionally easy to cast and give incredible presentation, the very best results will be achieved if a Spey VersiLeader is attached to the front end. RIO has 6 different densities of these leaders in two lengths – 10 ft and 15 ft. Use the 10 ft leaders with rods of 12' 6" and less, and the 15 ft leaders with rods of 13 ft or more. The leader densities are:

1. **Floating (olive)**
2. **Intermediate (1.5 inches per second)**
3. **Slow sink (2.4 inches per second)**
4. **Medium sink (3.9 inches per second)**
5. **Fast sink (5.6 inches per second)**
6. **Super fast sink (7.0 inches per second)**

Attach the back of the shooting head to a hard nylon like RIO's SlickShooter (35 lb or 50 lb) for the ultimate in distance, or to a floating Powerflex core shooting line (0.030" or 0.035") for something a little more manageable.

AFS OutBound® Integrated Shooting Head

Built with a thin, hard running line this line is the integrated version of the AFS head. It is an excellent choice of line for casters that do not want a loop to loop connection running through their guides. The short head is very easy to cast and particularly useful in tight situations and the long front taper gives a beautiful presentation. These lines are only available with a floating head and in sizes 4/5 to 10/11.

Like the AFS head these lines will cast even better with one of RIO's Spey VersiLeaders.

Skagit Line

The Skagit lines are, quite simply, the easiest way to cast large flies or fast sinking tips. The mass of the head and the short body length result in incredible lifting power, making it child's play to cast otherwise "nasty" rigs. It is a very easy line to learn to cast with and also extremely useful for casting in tight situations. The Skagit line is available in: 300, 350, 400, 450, 500, 550, 600, 650, 700 and 750 grain head weights. For 2009 RIO has added the XS Technology for a slicker and longer casting line.

The Skagit lines have a thin running line extending from the 27 ft long head that aids in easy distance and shooting ability. The front end finishes with a loop and to this loop you will need to attach some kind of tip. The line does not come with a front tip of any kind, so if you purchase this you will need to add a tip to your purchases. As explained earlier, you may also need a Skagit cheater, depending on your rod length, casting style and size of sink tip used. RIO makes five 15 ft tips to chose from:

- 1. Floating**
- 2. Intermediate (1.5 to 2 ips)**
- 3. Type 3 (3-4 ips)**
- 4. Type 6 (6-7 ips)**
- 5. Type 8 (8-9 ips)**

In addition you can purchase T-8, T-11, T-14 or T-17 and cut to the desired length and weight.

Skagit Short

Skagit Short fly lines are new to RIO for 2009. They are similar in design to regular Skagit lines, but have a shorter head length. The heads of these lines are only 20ft long and they are designed for the shorter rods – rods between 9ft and 11ft in length. These lines are ideal for casting on single handed and the modern Switch rods as the usual Skagit lines have too much body length for such short rods. The lines are available as light as a 275 grain (great for a #5 Switch rod) and right up to 475 grains, which is ideal for the #8 Switch rods.

Skagit VersiTip®

The Skagit VersiTip is a Skagit line, packaged with a 5 ft floating Skagit cheater, a 15 ft Type 6 tip, a 15 ft Type 8 tip and one of RIO's shooting head wallets. For those that don't know much about the Skagit technique and tackle it is a good purchase as it has pretty well everything you need to start with. The only possible add on would be a 15 ft floating tip, for conditions when you don't need to be deep. The Skagit VersiTip is available in 450, 550, 650 and 750 grain sizes.

Skagit Shooting Head

The Skagit shooting head is the head from the Skagit line. It is 27 ft long and has a loop in both ends. To the front end you attach a tip as recommended for the regular Skagit line, while the back end loop is ideal for attaching your favorite RIO shooting line. These heads are available in 350, 400, 450, 500, 550, 600, 650, 700 and 750 grain sizes.

One very simple fishing set-up is a reel loaded up with either SlickShooter or a floating Powerflex core shooting line and have a wallet with a couple of AFS heads (floating, slow intermediate and Sink 4 for steelhead fishers and floating, slow intermediate and intermediate sink tip for Atlantic salmon fishers) and a Skagit shooting head with some tips. With a rig like this, each fly fisher would be primed for everything and any situation they would encounter.

WindCutter® II

The original and still the best all round and the most versatile spey line developed. This line is available in a full floating version in sizes; 4/5, 5/6, 6/7/8, 7/8/9, 8/9/10, 9/10/11 and 10/11/12. The head length varies according to the size. It is also available as a VersiTip line, packaged with a wallet of tips including a floating tip, a 15 ft clear intermediate tip, a 15 ft Type 3 tip, a 15 ft Type 6 tip and a 15 ft Type 8 tip. The VersiTip line is available in 5/6, 6/7/8, 7/8/9, 8/9/10, 9/10/11 and 10/11/12 sizes, though the 5/6 VersiTip does not have a Type 8 sink tip, a sink tip compensator or a floating Tip 2. For 2009 RIO has added the XS Technology for a slicker and longer casting line.

PowerSpey™

RIO's PowerSpey has a medium length head between 57 ft and 71 ft (depending on the size) and with its revolutionary taper design is the easiest mid to long belly line to cast. The longer head is ideal for longer rods, larger rivers and for casters that prefer to do less stripping of the fly between casts. Fishing with the PowerSpey line catches more fish - as there is little need to strip the head in between casts, the fly fisher will make more casts in a day, thus increasing the odds.

Another advantage with the longer head lines is when winter fishing with air temperatures below freezing. As there is no need to strip the line in between casts, the rod guides do not get iced up.

The PowerSpey is available in 5/6, 6/7, 7/8, 8/9, 9/10 and 10/11 sizes and either as a full floating line or as a VersiTip version. For 2009 RIO has added the XS Technology for a slicker and longer casting line.

Accessories

There are a few accessories RIO makes that are worth mentioning here.

The **Skagit floating tip** is a 15 ft floating tip designed to be added to the Skagit lines to make a full floater, it is also a good replacement for the WindCutter floating tip. Here is a guideline of which floating (or sinking tip) tip to choose for which Skagit line or shooting head:

#6	Below 300 grains	#10	550 to 650 grains
#7	300 to 400 grains	#11	600 to 700 grains
#8	400 to 500 grains	#12	650 to 750 grains
#9	500 to 600 grains		

The **Skagit Cheaters** are “plug-in” extensions as mentioned earlier. Each selection packet comes with a 2½ ft, a 5 ft and a 7½ ft floating cheater as well as a 5 ft intermediate cheater. RIO also sells the 5 ft floating cheater on its own. Here is a guideline of which Cheater to choose for which Skagit line or shooting head:

6/7/8	300 to 350 grains	9/10/11	550 to 650 grains
7/8/9	350 to 450 grains	10/11/12	650 to 750 grains
8/9/10	450 to 550 grains		

The **Big Boy** is a 24 ft long sinking tip, ideal for really getting deep and staying deep. It is great on the end of a Skagit line. They are available in sizes 150, 200, 250, 300, 400, 500 and 600 grains and the sink rate of each is as follows:

150	4.8 ips	400	8.4 ips
200	5.5 ips	500	9.0 ips
250	6.4 ips	600	9.5 ips
300	7.3 ips		

Here’s a rough guideline to the maximum weight Big Boy that each Skagit line will take. This does depend on the rod, current speed, fly size and caster’s skill!

Skagit	Big Boy	Skagit	Big Boy
300	150	550	400
350	200	600	400
400	250	650	500
450	300	700	500
500	300	750	600

Modern Spey Casting is the best instructional DVD on spey casting ever produced. Learn the basics as well as these casts: roll cast, switch cast, single spey, double spey, snap T, snake roll, wombat cast, perry poke, jelly roll, skagit casts, underhand cast, spiral spey, overhead cast, single handed spey casts and using the two-handed rods in the salt. It also includes fault recognition, a glossary of terms and a very useful biokinetic section.

Hopefully, this document will help to give you a better understanding of Rio’s spey line assortment and when to use what. If you are still in doubt, or confused, do not hesitate to contact us, either by phone; 208 524 7760, or email; rio@rioproducts.com