



**Marlene Royle & Rebecca Caroe**

**Episode 5: Drills & Exercises for  
Developing Racing Starts & Speedwork**

**TRANSCRIPT**



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### **[TRANSCRIPT]**

REBECCA: Hello everybody!

Welcome to Episode 5 of Faster Masters with Marlene Royle.

I'm Rebecca Caroe from Rowperfect and today we're getting on to the fast stuff.

We're going to be talking drills and exercises for rowing starts and speed work when you're racing.

Marlene, let's kick off.

How do you make a boat go fast? What is speed work?

MARLENE: Well, our main purpose in speed work is to help us work a little bit faster than base pace.

We need to develop speed work, for example, if we're going to perfect our final sprint in a thousand-metre race or if you're rowing a short race like a 500-metre dash. But our speed work, isn't so much to raise our base pace – our average pace for the middle of the race- that's more our endurance work. But there are times when we have to make transitions and we have to raise the stroke rates when we have to really try to push, say, the final 150 or 200 metres. You're getting fatigued at that part of the race so in order to maintain your speed or, hopefully, gain some speed, you have to be able to go up and above the base pace that you're at.

Some of the components we look at with speed work in practice is most often we do it faster than we do our regular base race pace. You wouldn't row your whole race at this pace necessarily. It's going to be push things a little bit higher and that's important because you have to learn how to make transitions so that you can raise your stroke rate effectively so that, when your stroke rate goes up, hopefully your speed goes up. But, again, in later stages of the race, you may simply have to take more strokes to maintain your speed. It just depends on what's happening in the race.



You use speed work to learn how to make clean transitions – to go from one rating up to another rating up to another rating. If you're in a team boat, you know, you have to do that altogether – hopefully in one transition stroke. That has to be practiced well before race day.

You also have to develop the coordination ability to take more fast strokes. You have to kind of develop yourself from a neuromuscular point of view. You have to develop higher reaction times, better coordination to simply move faster, and also you have to bring your blade work with you. When you start to move faster, that means everything with your blade work – and we've talked about clean blade work already – has to be faster and has to be able to happen at a higher tempo. All of these things, there's lots of different types of speed work and ways you can develop this but all of this has to be practiced well before race day.

03:32

REBECCA: Yeah, it's not easy, is it? It's definitely a different way of moving.

Let's talk about the different types of workout that help to train speed work.

MARLENE: Well, training for speed work can actually be a lot of fun.

There's a type called "speed play" or "fartlek." This is one – we'll talk about a few different types here.

Speed play would be something like you're rowing at, say, a base stroke rate of 18 and, every ten minutes, you're going to take your stroke rate up near your race pace or let's just say arbitrarily you're going to take it up to stroke rate 28. Do 20 strokes then you're going to drop back down to 18. And so, you may have in your practice a certain number of minutes you're rowing that every ten minutes, you're going to go up to that 28 and then come down to base pace.

If you want to do it fartlek style – fartlek is a Swedish term and it's the type of acceleration where it's not quite as structured in the sense of time – you may be doing the same rowing stroke rate 18 but you're planning those 20 strokes at 28 or 20 strokes at 30 strokes a minute and you can just put those in whenever you feel like.

Say you're going to row for 60 minutes. When you feel like doing that speed burst, you do that speed burst. And then, you row until you feel like doing the next one because it's really based on how you feel and maybe you have certain curves in your river, it's better to do it one place versus another place. But it's unstructured and those are kind of fun to do.



Another style is what we call “speed bursts” which is a little different from speed play. This is a little bit more structured where you may do your warmup and then you designate a certain period of time – let’s just say arbitrarily it’s 20 minutes – within that 20 minutes of time, you’re going to repeat 30 second at your maximum stroke rate and then you’re going to row easy for 90 seconds. And then, you build it back up.

If we define our race pace as the best pace that you can race maintaining good technique, maybe that’s for you 32 strokes a minutes, or maybe for your crew 35 strokes a minute, for those bursts, you would want to build right up to that 35 for that 30 seconds and then drop back down.

Those are short bursts but they have a set time and a set rest period.

Acceleration drills are a little bit different. They’re more for practicing high turnover – by that, we mean quick ratings, quick transitions, in out of the water cleanly. It’s a little bit like spinning if you want to think of it this way. We focus more on turnover than power. You know, we’re concerned more about the coordination and the speed that things happen and then we’ll build power on that afterwards.

There are a few different types that I like to use and, again, I think these are fun to do and they’re not overly stressful because they’re short but they’re really good for building skills and it gives you a lot of variety in your weekly workouts.

For example, say we’re rowing 30 minutes and we’re at a base stroke rate of 18 – just a low intensity row – you might have a session that, at every five-minute mark, you would include 20 strokes at half slide. At that half slide, you just try to build up your rate really high. Some of my master single scullers, I have them try to hit 50 strokes a minute.

08:05

REBECCA: Wow!

MARLENE: You know, they go out and it’ll take them all 20 strokes but, by the time they’re 15 to 20 strokes, they can hit 40, 45, 47, 48. But that’s just high turnover, high coordination. It’s not necessarily high power. Then, they drop back down, row 18, again for another five minutes then they do another acceleration at half slide like that.

The next variation then we build on that. They may do the same rowing stroke rate 18 and then, every five minutes, they do an acceleration 20 but this time we’ll do the first ten at half slide and the second ten at full slide. We’ll try to pick up the pace at half slide for ten and then carry that and then start to extend and lengthen the strokes so that they’re at full slide for the second ten.



The third building block to that would be building right up to an acceleration 20 that's just full slide but they're starting to have that kind of quick turnover with the blade work that they had when they were practicing at half slide.

09:24

REBECCA: What you've got there is three different drills that each build on each other and so you can either do all three in sequence or you could do just one until you feel you've mastered it and then you can introduce the more sophisticated, more challenging.

MARLENE: Right, exactly.

How I typically use it is, when they start doing it, we'll start doing them at half slide and they may practice that for a couple of weeks. Then, in the next phase, they'll go to combined half slide, full slide, then we'll go, you know, as the season progresses, full slide or to the next combination which then starts to blend accelerations with making stroke rate transitions.

We'll take that same acceleration 20 but now we'll start saying, "Okay, every five strokes, you have to go up two strokes per minute." You may go from 30, 32, 34, 36, then you drop back down to your base pace. Then, the next time you do it, you may start at 32, 34, 36, 38, or you may start lower and, as you practice these 20s through the workout, you can build them up – just ultimately to see what's the best you can do. How far can you go keeping the blade work under control? Keeping things relatively clean? Improving the boat? If you start to see that you're taking the rates up really high but the boat speed isn't moving again, then maybe stay at those rates you were working at and try to take the stroke rate up two every five strokes but keep nudging the speed up, too.

Those are fun and those kind of start to move. As we're actually in the racing season, those are nice because they start to combine both making transitions from one stroke to another and the acceleration and the coordination.

11:36

REBECCA: I find those really helpful because, at the beginning of the racing season, you'll find that your blade work starts to deteriorate maybe at rate 31, 32. And then, a few weeks later, you practice this and you find that it doesn't start to deteriorate at maybe your 33, 34. It gives you a very clear margin for this is where we're at now and then you can progress past that which is a very good measure of progress.

MARLENE: Yes, exactly.



You can see that, “Oh, we can get up to 34,” and everything is okay. When we get to 36, you know, the crew is not quite ready to go there.” And so, over the course of the season, you can adjust those depending on what you’re working on and how you feel and what your target is for your race.

Our next type of speed work are just short racing pieces which can be either by set time or by a set number of metres. For speed work, I usually look at it as being one minute to two minutes of work, 250 metres to 500 metres. If we get into longer pieces, that already starts to be a different type of interval session if we start getting to three minutes, four minutes. I don’t really look at that as our pure speed work because I would categorize pure speed work as something that’s faster – a little bit faster – than our race pace. When we start to lengthen, say, to longer pieces, we’re going to be working maybe closer to what our race pace is if you’re doing it several times in a practice.

You could do something like four times 500 metres and you rest three minutes, but you want to practice, for example, the first two, you practice the first 500 metres of your race, your start and your transition to your base. The second two, you practice rowing into it at your base pace and then you practice your final sprint because it’s important when you’re doing straight pieces whether it’s by time or by metres, that you always incorporate little parts of your race, that you’re always practicing some element of your race. Even if it’s just your middle base pace, you’re still practicing, “In my mind, this is what I’m going to be doing in the middle of my race. This is what I’m aiming for.” You want them to help build your racing skills as well as give you a good workout.

14:23

**REBECCA:** That’s really helpful to directly relate the training practice with an actual race so that the crew is very focused on the reason we are doing this is because...

**MARLENE:** Yeah, and they have to, especially as a crew. You know, you have to get to know each other and, hopefully, you row together often enough but that doesn’t always happen. But, still, even within a club practice, if there’s a general strategy of how we’re going to approach the race, people practice it and they’re prepared for the different transitions in their race. They know at each stage of the race where they are, what to expect, what’s coming up next.

If we did a workout, one workout like a speed workout, we could do by time and this is a pretty challenging one but one of my favourites is you do three sets of four times one minute. The first set, we do four times one minute and you rest one minute between each one-minute piece.

Let’s say your base race pace but it’s still pretty challenging. You do one minute, one minute off. The next set, you do four times one minute but you rest only 45 seconds



between each one minute. And then, between the sets, you rest about six minutes. So, between each set, you have a really complete rest because this type of work you want to really make sure the quality is high.

It's very important that these be done with the best quality you can, the best concentration. The third set, you do four times one minute but you have only 30 seconds rest between each one minute. After that, you're done. But that's quite a challenging workout but it's one of those workouts before you start to get to your taper period that you have to be pushing the envelope a little bit before you're going into that final taper for your most important event of the summer.

Those are some of the ways that I like to work on speed work. You may have some favourites of your own, too. There's lots of fun things to do.

16:53

REBECCA: There are. I have a favourite which is called a "speed-up" which is 15 strokes where you take the rate up one point in rate every stroke. So, you would start at 20 and go through to 35 or start at 22 and go to 37. So, you're learning to move together as a crew, but it also requires you to get past that challenging rate of around 26, 27, where you cannot make the rate go up by working harder. You have to move faster.

MARLENE: Now, that's a great drill, and it keeps people really focused on the transitions and every time there's a transition stroke, if you think, "This should be 110 percent leg drive," you know, everybody completes the leg drive together, that's a good place to time as a reference point. You know, everybody has to emphasize that last quarter of the leg drive and bring that handle speed up together but you have to "push" the handle speed up with the momentum, you know, with the legs and with the swing versus trying to "pull" it up.

I think, if you're trying to, as you said, work too hard and try to "pull" the rating up, there's a point where it's just not going to go anymore and you have to really keep that focus of the crew in the leg drive together. But those are really fun drills, too, because it kind of challenges them. It pushes the envelope a little technically. It keeps people really concentrated on working together and that's the name of the game in a race when, all of a sudden, you have to do something unexpectedly perhaps as you approach your final sprint. So, they have a lot of chance to practice that.

18:51

REBECCA: Good. That's great summary of how to practice moving faster with a high rating.



Now, let's get onto the really challenging bit – how do you get a boat from completely stationary to up to these rates? How do you do racing starts, Marlene?

MARLENE: Carefully.

Well, I think the first thing is that you will never win a race at the start but you can certainly cause problems at the start if you're not careful.

But what are some of the elements of a good start?

I think to get off the line cleanly and quietly with no major disturbances. When we're talking about that first stroke, we just want to get the boat moving. We don't want things to be too abrupt. You don't want to kick the boat backwards or kick the boat sternward. If that first stroke is too aggressive, especially in a big boat like an eight, you know, you can actually push it towards the starting line instead of towards the finish line.

It's important to try and stay on course in those first, say, we'll define our start as the first five or six strokes. It's important to stay on course, especially if you're in a blind boat – like a single or a double – and it's important to stay on par with your competitors. Maybe you're not the fastest person out of the blocks but you have to stay in touch as you're getting out of the blocks.

A good start gets you off cleanly, starts to get your boat so you're up to full slide by your fifth or sixth stroke, and then you start to transition into your rhythm. There are various transitions in terms of how many strokes people take high and then they settle to their base and we'll be talking about this a little bit when we talk about race planning of what are some of the different ways to approach the start of the race.

When you start to practice starts, first, you can start simply by just practicing a series. You know, maybe you do five times with the first stroke at half slide. Maybe you do five times the first two strokes. You can practice just the basic sequences of what your start sequence is. Some crews may do three-quarters (slide), half (slide), three-quarters (slide) full (slide); some might do half (slide), half (slide), half (slide); some might not have a defined particular slide length, just everybody follows the stroke and they feel for the boat. It depends how your coach wants you to do it.

You can start simply by just practicing one stroke, the first two strokes, the first three strokes. That's kind of the simple way to work up to say the first ten strokes.

One thing I think is really good advice is, every time you start rowing, pretend you go through a little mini-start. You know, it doesn't have to be at starting pressure but, if you do three-quarters (slide), half (slide), three-quarters (slide), full (slide), full (slide), every time your boat is about to start a paddle or a piece, start at three-quarters slide and





then just go through those motions slowly so that it just becomes familiar. It becomes second nature and then the start isn't something special that you do; it's something that's just integrated to your everyday life so you get to know it and I think it becomes a lot less stressful that way because, if you don't practice starts enough, they can be quite stressful if all of a sudden you're faced with doing it and you don't do them all the time.

Another fun way to really practice starts is "moving starts" or "flying starts" some people call them. This is a fun way from a paddle that you row into your start sequence. You can do these at various intensities. You could go through your five- or six-(stroke) start sequence at a low stroke rate. You could do it at your racing speed. There's a lot of variation here but moving starts are nice to practice because they're a little bit less stressful on your back. If you're doing a lot of standing starts where the boat stops, they sit up, they do it from a dead start, after a certain number, you can get tired because of picking up this load all the time for many repeats in a practice. So, I think that's something you have to be attentive to, especially with masters, as we've talked about keeping our posture really strong and our core strong.

It's important for starts but moving starts give you a way to practice many starts without kind of having that load. They're a little bit lighter on the body but you can still practice the blade work and the timing of the slide and the crew working together so you can have fun with those in a lot of different variations.

The other things you can just practice as part of your warm-up for a given practice, different variations – the first 15 strokes, the first 20 strokes, transitioning to your base pace. All of these elements of going from your faster stroke rate part slide in the start transitioning to your base pace because you want to find what works for you – how to step that down and get to your base pace without sort of dramatically changing the stroke rating abruptly so you don't drop a lot of speed or just finding what's going to get you into that rhythm to get going that you can maintain your best base pace.

The last way for (practicing) starts is to work with the bungee cord and we talked about doing stroke power work with the bungee cord in our previous talk. You can do bungee cord starts to really work on that explosiveness of that first five strokes. The bungee cord gives you a lot of resistance so it's really good for working on starting power if you do, for example, your first 30 seconds and then you just rest for about three minutes and then you do another 30 seconds which isn't too long anaerobically but it's long enough to really try to recruit a lot of muscle fibres. You know, the boat's going to have a lot of resistance with the bungee cord on it but it really gives you a strengthening workout in a rowing-specific way and that's another really nice way to bolster your starts and they're fun.

26:35



REBECCA: When you take the bungee cord off for your last couple of starts, you feel strong and fast!

MARLENE: Right! You fly! The boat's going much faster than you'd expect it to!

REBECCA: I think that's reward enough.

MARLENE: Yeah. Well, it is and, you know, you train this kind of explosiveness with the bungee cord on because you've got the resistance that, when we're talking about building the stroke power, it's moving the load but it's also moving the load at the best speed that you can.

27:14

REBECCA: Fabulous, Marlene. That's a great rundown of the beginnings of racing starts and speed work and I think you've given us all a lot to work on and plenty of good tips and ideas of ways to vary what we do so you don't get stale and it's always fun, as you say, to try something new, to have a new challenge.

MARLENE: Great! Yes, I hope everyone tries these and enjoys them – with not too much splashing.

REBECCA: Indeed!



## **Faster Masters Rowing: 12 Exercises for Speedwork and Starts**

1. Speed Play session
2. Speed Burst session
3. Acceleration sessions
4. Stroke Transitions: 40-strokes
5. Stroke Transitions: 20-strokes
6. Session: Set Distance
7. Session: Set time
8. Practicing Start Sequences
9. Moving Starts
10. Variations: Starts and Sprints
11. Starting Power Session
12. Article: Skills to Sharpen Your Starts

### **Exercise #1**

Speed Play Session:

60 minutes with speed play or fartlek-style

Rest: Short duration; only to rehydrate

Rating/Pace: Stroke rate 18 to 20. Every 10 minutes take the stroke rate up to 28 for 20 strokes. For Fartlek-style include the 20 strokes at stroke rate 28 when you want to sprint; it's unstructured so insert the sprints as you feel like it.

Notes: Comfortable distance row. Use this exercise to develop a sense of easy speed by increasing the stroke rate with a strong leg drive and releasing at the correct point to keep the handle flowing without interruption around the release turn.

### **Exercise #2**

Speed Burst Session:

60 minutes as follows:

20 minutes shifting the stroke rate every 5 minutes @ 18 and at 20

+

20 minutes @ 10 x 30 seconds

Rest between: 90 seconds

Rating: Maximum tempo

+

20 minutes shifting the stroke rate every 5 minutes @ 18 and at 20



Notes: Attention is on technique and bladework. Focus on correct blade depth and also practice some half-blade depth rowing. Half-blade means the shaft stays just above the water surface-no deeper.

### **Exercise #3**

Acceleration Session:

2 x 25 minutes

Rest: 5 minutes between

Rating/Pace: Stroke rate 18 to 20. At every 5-minute mark include 20 strokes at half slide to pick up the stroke rate to a race pace, then return to base pace at full slide again.

Notes: The half slide pieces are to work on high-speed coordination. Keep the bladework clean and maintain the correct blade depth when the rate goes up. Try to reach above 40 stroke per minute on the half slide pieces; 50 stroke per minute is ideal.

### **Exercise #4**

Acceleration Session:

3 x 20 minutes

Rest: 5 minutes between

Rating/Pace: Stroke rate 18 to 20. At every 5-minute mark include an Acceleration 20 at maximum tempo; 10 strokes at half slide, then 10 strokes at full slide.

Notes: Focus is more on high-speed coordination than power. Keep the bladework clean and maintain the correct blade depth when the rate goes up.

### **Exercise #5**

Acceleration Session:

2 x 25 minutes

Rest: 5 minutes between

Rating/Pace: Stroke rate 18 to 20. At every 7-minute mark include an Acceleration 20 raising the stroke rate 2 stroke per minute every 5 strokes.

For example: 26-28-30-32, 28-30-32-34, 30-32-34-36. The best you can do.

Notes: Work on making transitions in one stroke with a strong leg drive and quick release. Focus more on high-speed coordination than power. Keep the bladework clean and maintain the correct blade depth when the rate goes up.



## Exercise #6

### Stroke Transitions

Transitions are the changes from one stroke rate to another. They should be precise and happen in one designated stroke. The following are some varieties of transitions you can practice.

### 40-stroke Pieces:

1. Full Pressure 20, up 2 for 20- Row at a base stroke for 20 strokes. Increase the rating by 2 strokes per minute for the last 20. (Target rates: 24-26, 26-28, 28-30, 30-32, 32-34).
2. 2. Full Pressure 20, down 2 for 20- Row at a higher stroke for 20 strokes. Settle rating down 2 stroke per minute for 20 strokes. (Target rates: 30-28, 32-30, 34-32).
3. 3. Full Pressure 20, up 2 for 10, up 2 for 10- Row at a base stroke for 20 strokes. Increase the rate 2 strokes per minute for 10, increase again 2 strokes per minute for 10. (Target rates: 26-28-30, 28-30-32, 30-32-34).
4. 4. Full Pressure 20 high, down 2 for 10, down 2 for 10. Row at a higher rating for 20 strokes, settle rating 2 strokes per minute for 10, settle again 2 strokes per minute for 10. (Target rates: 34-32-30, 32-30-28, 30-28-26, 28-26-24).

### 20-stroke Pieces:

1. 10 High, settle 4 for 10- Sprint for 10 strokes, take the stroke rate down 4 stroke per minute for 10 strokes. (Target rates: 36-32, 34-30, 32-28).
2. Full Pressure 10, up 2 for 10- Row 10 strokes at a base rate, increase rate 2 strokes per minute for a second 10. (Target rates: 30-32, 31-33, 32-34).
3. Full Pressure 10, Acceleration 10- Row full pressure at a lower base rate and then up 1 stroke per minute every other stroke for the second 10. (Target base rates: 26, 27, - 28, 29, 30, 31).

## Exercise #7

Session: Set distance:

4 x 500 meters

Rest between: 2 minutes

Rating/Pace: Race pace.

#1 & #3 first 500 meters of your race from a start.

#2 & #4 second 500 meters of your race, row into the piece and finish with a sprint.

Notes: Practice your race plan.



## Exercise #8

Session: Set time:

3 sets of (4 x 1 minute)

Rest between:

Set #1: rest 1 minute between each 1 minute piece with easy rowing

Set #2: rest 45 seconds between each 1 minute with easy rowing

Set #3: rest 30 seconds between each 1 minute with easy rowing

Between each set rest 6 minutes

Rating/Pace: Your target base stroke rate for the middle 500 meters of your race.

Notes: For example set #2 will be (1 minute on/ rest 45 seconds / 1 minute on/ rest 45 seconds / 1 minute on/ rest 45 seconds / 1 minute on) 6 minutes rest. Sharp strokes, high quality, and concentration for the entire workout.

## Start Drills

A start is the first 5 strokes of a race taken from either a stationary or moving position. It is usually followed by a sprint of 20 to 30 strokes and then a settle to a base rate that a rower can maintain for the body of the race. The drills in this section focus on the first 5 strokes of the race from a stand still; moving starts are briefly addressed.

## Exercise #9

Practicing Start Sequences

Starts are practiced by devoting attention to each stroke; thus, a sculler will practice repetitions of only the first stroke and then the first 2 strokes, building up to the first 5 strokes of the race and the initial sprint that follows. Starts are comprised of 1/2 slide, 3/4 slide, and full slide strokes. Most scullers experiment with their starts to find the one most suitable. An example of a 5 stroke start is 1 stroke each at 1/2 slide, 1/2 slide, 3/4 slide, full slide, full slide or 3/4 slide, 1/2 slide, 3/4 slide, full slide, full slide. A great deal of care must be taken with the first stroke. To send the boat forward the sculler must apply force gradually, smoothly, yet with speed, to pry the boat away from the starting line. Since the boat is at a standstill extreme rapid force may kick the boat sternward.

Start from the entry position, top of the slide, blades squared and anchored below the surface of the water. Row the first stroke with 90% pressure then build to full pressure. Practice the following sequences:

Sequence 1:

5 x 1 stroke: 1/2 slide

5 x 2 strokes, 1/2 slide, 1/2 slide

5 x 3 strokes: 1/2, 1/2, 3/4 slide



5 x 4 strokes: 1/2, 1/2, 3/4, full slide  
5 x 5 strokes: 1/2, 1/2, 3/4, full, full slide  
5 x 10 strokes: 1/2, 1/2, 3/4, full, full, paddle 5

#### Sequence 2:

5 x 1 stroke: 3/4 slide  
5 x 2 strokes: 3/4, 1/2 slide  
5 x 3 strokes: 3/4, 1/2, 3/4 slide  
5 x 4 strokes: 3/4, 1/2, 3/4, full slide  
5 x 5 strokes: 3/4, 1/2, 3/4, full, full slide  
5 x 10 strokes: 3/4, 1/2, 3/4, full, full paddle 5

Initially, practice these sequences with light pressure. Decide which start seems to be more comfortable for you and then work up to full pressure. Take your time. Practice the motions and then the speed. Learn to be effective. Sharp bladework at the entry and release, smooth coordination, and quickness are the keys to successful starts.

## Exercise #10

### Moving Starts

Moving starts are starts practiced from a paddle rather than a standstill. Row continuously, on the count of 3, 1-2-3 strokes, row into a 5-stroke start, after the fifth stroke continue paddling for 20 strokes and then repeat.

## Exercise #11

### Variations: Starts and Sprints

1. 5-stroke start, 10 strokes high, paddle
2. Start, 10 strokes high, settle 10, paddle
3. Start, 20 strokes high, settle 10, paddle
4. Start, 20 strokes high, settle 20 paddle
5. Start, 20 high, settle 10, down 2 SPM for 10, paddle
6. Start, 10 high, settle 10, acceleration 10, paddle
7. Start, 20 high, settle 20, acceleration 20, paddle

## Exercise #12

### Starting Power Session:

Bungee row 10 x 30-seconds from a start

Rest: 3 minutes between each start-do not cut the rest short.

Rating/Pace: Row each start with explosive power at your best rating possible.



Notes: Row a good warm up and cool-down. This is an important workout for starting power. The extended recovery between pieces will allow you to focus on recovery then explosiveness for each 30-second start though there will be high resistance.

**How to attach the bungee:**

Wrap a rope or clip a bungee cord with some extra rope attached to one end around the boat to the stern of your footstretcher. Make it easy to untie one side while in the boat so you can make your stop as short as possible. When you need to get the bungee tied back on, stick one end under the boat and turn your boat a little to float the end under and to the other side where you can reach it.





## Skills to Sharpen Your Starts

*Develop the skills that create stability, strength, and smooth coordinated movements on your racing starts.*

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To improve your starts for 1000-meter events you have to develop skills that create stability, strength, and smooth coordinated movements. The basic purpose of a racing start is to get the boat moving from a still position up to race pace in the most efficient way. A well-executed racing start is calm, composed, the bladework is clean, and the hull tracks straight. A series of approximately five part-slide strokes eases the boat away from the stake boats and minimizes kicking the boat sternward with the initial force application of the legs. By the sixth stroke, full slide is achieved followed by a series of ten to 20 strokes at a rate that is higher than the base rate for the middle of the race. For example, ten strokes at 38 strokes per minute, then ten strokes at 36 strokes per minute, then a base rating of 34 is reached for the body of the race. The goal of the higher tempo strokes is to get to full speed and to find your rhythm for the duration of the race. A good start gives you the advantage of getting out in front and being able to see your competitors. Few races are won in the first 50 meters but a poor start can cause you to tense up, go off course, or lose critical seconds that can be difficult to make up especially in a 1000-meter race. There is no cookbook recipe for the perfect start. Experiment and try different combinations. Much depends on what you or your crew feels is most effective. Some rowers use very structured sequences such as three-quarter, half, three-quarter, full slide, full slide others start sitting at half-slide and just build the slide length to full over the course of five strokes without a strict pattern allowing more room for adjustments to water or wind conditions.

Once you back your boat into the blocks you might have to sit in your start position for a few minutes while the boats are being aligned before you actually take off. This is when you need to maintain your stability. Focus on keeping your core muscles firm, riggers even and level by maintaining equal pressure into the pin in the direction of the blade. Subtle changes of pressure of the collar against the pin can tilt your boat, if there is unequal pressure the rigger with less pressure will rise up. If there is not enough pressure on the port side the boat will tip to starboard. Applying slight pressure to port to “bring the rigger down” and the boat will level. This can be particularly helpful if there is a crosswind and you feel it is pushing you over to one side. Practice by sitting at half-slide position, blades squared, and visualize that you have a carpenter’s level across the gunnels of your boat; keep the bubble centered and hold still, then progress to three-quarter and seven-eighths slide. Get comfortable staying set in this position.

On your initial stroke, you want to make sure that your collars are snug against the pin and your blades are firmly set in the water at the proper blade depth. Avoid digging deep or washing out which can cause you to go off course at the drop of the flag. A valuable drill for developing the feeling of the blades



loaded and for mastering that first stroke is the *Joy of Backing*. Sit at the finish with your legs flat and blades squared. Back by pushing your hands away and let them draw you up the slide with relaxed legs and soft hands. As you approach the front end, feel the water pull the blades toward the bow and the handles into your finger tips, then press your legs as for the first quarter of the drive. Keep your hands light. The blades stay squared in the water the entire time, but the water pressure changes from the back of the blade to filling the spoon as you essentially stay in place. Start with half distance, finish position to half slide, then progress to three-quarter slide and to full. Repeat the movement several times. Attend to the feeling of the water drawing on your blades and the stable, secure feel of the blades locked into the water. This gives the idea of how the drive develops without ripping and by working with the water with soft hands and relaxed legs. Tense hands or legs will give you a very unstable feeling and you could roll your boat. Again, for greater stability and security, apply pressure against the pins toward the blades.

To add strength to your first 100 meters power up with a bungee cord or rope around your boat for added resistance. Wrap a rope or clip a bungee cord with some extra rope attached to one end around the boat to the stern of your footstretcher. Make it easy to unhook one side while in the boat so you can take it off easily. Row your race warm up without the bungee cord; after your warm up put the bungee on. Row ten 30-second pieces from a standing start with 90-seconds rest between. Do each start with explosive power at the maximum rating that you can row effectively. Another session is two 10-minute pieces alternating 20-seconds at maximum power and rating with 40-seconds easy then rest for five minutes between pieces.

Develop smooth coordinated movements at higher speeds. Train your bladework and fine motor handling reactions to be sharp. During your steady rows add in 20-stroke accelerations at one-quarter slide and then half-slide every five minutes. Take some risks on these short pieces aiming for stroke rates over 50 strokes per minute during half-slide, over 60 strokes per minute during one-quarter slide. Keep the handle moving without stress and maintain precise blade depth; envisage half blade. For fun try some moving starts during your steady rows when the boat is already moving and you blast off into your start sequence.