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## Sidemount Diving

What is it and  
why would  
you want to  
do it?

Oliver Hazard Perry's  
1811 shipwreck  
finally discovered

**USS Revenge**

The  
"Black  
Swan"

Magnificent treasure  
and international conflict

ISSUE 24 \$7.95



Issue 24  
A Quarterly Publication



Text By *WDM's* Joe Porter  
Photographs by Gene Page  
unless otherwise noted



Lamar Hires (center) explains the welding process of Dive Rite's BC bladder to WDM's Joe Porter (left) and TDI/SDI's Brian Carney (right), and how it prevents bacteria growth.  
Photograph by Heidi Porter



Dive Rite's Pete Nawrocky shows the class how to apply collars to the cylinder clips that will assist in cinching-up the cylinders tightly under the arms for better streamlining and less drag in the water. Left to right, Phil Porter, Joe Porter, Pete Nawrocky, Brian Carney and Mike Hanna.  
Photograph by Heidi Porter



Pete Nawrocky gives Joe and Phil Porter some finer points of setting up a side mount rig.  
Photograph by Heidi Porter



**Main Photo:** The class in pairs, beginning to put the skills learned in class into practice. Joe (2nd from the right) is seen removing one of his cylinders to prepare for a swim drill while holding one cylinder.

**Inset:** Brian Carney (left) and Mike Hanna (right) demonstrate the proper way to attach cylinders while topside as if they were on a boat.





# Sidemount Diving – What is it and why would you want to do it?

It all started when I was at the *Beneath The Sea* dive convention in New Jersey and as my taxi pulled up to our hotel, I reached around to lift a box of magazines. As I turned, I felt an all-too-familiar pain in my lower back. I had once again pulled a muscle that I knew was going to nag me for at least the next week or two.





The next day at the convention (assisted by Tylenol), I was walking by the Dive Rite booth to say hello to their National Field Manager, Pete Nawrocky. As I was sharing my misery with Pete and talking about diving with heavy dive equipment such as a set of doubles, he enlightened me with what was to become a wonderful option for me while diving open circuit. Pete said, "What you need to do is switch to a sidemount system in which you only need to carry one cylinder at a time until you are ready to enter the water, yet in the water you have your same set of doubles. They're just independently mounted on each side of your harness under your arms." As Pete was describing the system, it was as if my aching back was quietly saying, "Do it!"

In addition to being able to carry independent doubles, there were several other benefits to this alternative diving rig that really appealed to me. Each cylinder is removable under water if the need arises with removing your BC. If you've ever banged the back of your head on your tank valves or manifold, with side mount you now have full freedom of unrestricted head movement. If you have a valve or 1<sup>st</sup> stage regulator problem while diving, you don't have to blindly reach over behind your shoulders to manage this issue. With side mount it can be managed right where you can easily see what you are doing. The position of the tanks in a sidemount configuration also yields a different weight distribution which provides as close to a perfect horizontal profile as you can get. Another nice feature is that when your travel plans don't permit you to take your tanks along, you can use practically any size and style of tank that happens to be available at your dive destination.

At this point in our discussion, the idea of sidemount diving made good sense to me in theory and I just had to try it as soon as possible.

Pete graciously offered to teach me in an upcoming class on open water sidemount diving so that I could become familiar with it. We chose Ginnie Springs in High Springs, Florida, and Troy Springs in Branford, Florida to do the in-water part of the class due to the obvious benefits of calm, crystal-clear water and easy access to the water so that we could focus on the skills needed. One major side benefit of diving in the springs is that they are very close to Dive Rite's headquarters in Lake City, and before we started the class, we were able to take a tour of their facilities.

Accompanying me in the class was my son, Philip, Brian Carney, Group President of TDI/SDI, and Mike Hanna, Dive Rite and TDI/SDI's Florida representative. Dive Rite's CEO, Lamar Hires, gave us the tour personally and it didn't take long to become impressed with his quality control system, which is something that is imperative when you are producing hundreds of units such as BCs, lights, etc. each week. His facility meets all of the requirements of ISO standards, and almost all of the raw materials or sub-assemblies that go into his products are made in America, something that's very hard to find in the dive industry these days. All of Dive Rite's products are 100% inspected and tested after assembly, including pressure testing if applicable. Another unique attribute is the fact that if a



Divers Brian Carney (left) and Mike Hanna (right) begin a drill of circling Troy Springs with one cylinder removed.



In case of an out of air situation with another diver, it is necessary to route regulators so that a long hose is available to give to the troubled diver, and a secondary regulator is easily accessible under your chin. Here, Pete Nawrocky shows how this is done.



Pete proves that an Etch-A-Sketch is an invaluable way of communicating in an in-water class environment.



In this skill, divers Phil Porter and Joe Porter prepare to circle Troy Springs using only secondary drysuit buoyancy. All air in the BC must be exhausted.





Although WDM's Heidi Porter did not take the class, she observed it and wanted to at least see how the equipment felt in the water. Heidi is not a technical diver and has very little body weight, yet she was amazed at how comfortable the sidemount rig was.



Between the deep bowl of Troy Springs and the Suwannee River, is a very shallow section of water containing what is left of wreck of the *Madison*, a steamboat scuttled during the civil war to prevent it from falling into the hands of the Union Navy. Here, Joe Porter demonstrates the benefit of using side mount rigging when there is not much vertical space. In this situation Joe was able to glide over the ribs of the *Madison* without touching them; something that may be difficult with back-mounted tanks.





Phil Porter (foreground) strikes off on his tank swimming skill while holding a tank. This is more difficult than it looks because of the shift in balance since the other tank is still mounted on his side.



Here Joe Porter demonstrates one of the most important skills in any class; marker bag deployment (without tangles).



Photographer extraordinaire Gene Page (left) joined us to photograph the class.  
Photograph by Heidi Porter


product is returned for repair and there is any doubt about the effectiveness of the repair, a member of the Dive Rite team will take the unit on an actual test dive!

After the tour, we went into the class room where Pete reviewed the syllabus and the skills we would be doing. In reality, sidemount diving is not new but has been employed by cave divers for several years. And as a cave diver himself, Lamar has had the ability to utilize the best of the design perfections in his "Nomad" system, and Pete has adopted the most up-to-date procedures in the syllabus he wrote for the class. But this is an open water class and is not meant to be a cave diving class, nor am I a cave diver, but there is no reason why a wreck diver cannot employ similar kit rigging and techniques as a cave diver or vice versa if they make sense.

The skills themselves seemed easy enough in the classroom but in practice they were not quite as easy as they first appeared. They weren't overly difficult, but did require some technique and practice to master. For example, removing and then re-attaching a steel 85 cylinder while treading water on the surface can leave you looking like a dog chasing its tail in a circle due to the temporary weight imbalance, at least until you have practiced it a few times. Some of the other skills required for this class were: proper weighting and trim, finning techniques (frog kick or modified bicycle kick work best), valve shutdowns in different positions, air sharing with an out-of-air diver, swimming for long distances with the removal of a cylinder while maintaining consistent depth, shooting a lift bag or surface marker, maintaining consistent depth for a long distance using a back up buoyancy system instead of the BC for 15 minutes.

Another consideration is that sidemount rigging is not just a simple matter of attaching a set of tanks under your arms. Proper training is crucial to understand how the rigging works in relation to your body size. The technique of using bungee cords specifically designed for strapping the tanks under your arms along with special tank collars that move the tanks tightly under your arms close to your body, allow for a nice profile through the water. In addition, the length of hose may be different for each tank to afford you the ability to offer one of your regulators to an out-of-air diver. Regulator hose swivels also make breathing and movement more comfortable since the regulators are run from the tanks differently than in a normal rig on your back.

While we did not become experts at all of the skills, we did an acceptable job. Both Philip and I thoroughly loved sidemount diving and are happy that we now have a new way of diving. WDM's Heidi Porter, who was also observing the class, was so curious about our enjoyment of this system that she wanted to give it a test dive. She, too, was amazed at how she was able to achieve an almost perfect horizontal profile in the water on her very first sidemount dive.

I highly encourage anyone who has a desire to perfect their trim and profile in the water, or, if like me you are just tired of carrying the weight of doubles on your back, to give sidemount diving a try. You may never go back! 



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