



The Southwest Chapter-Antique & Classic Boat Society serving Arkansas, New Mexico, Oklahoma, and Texas.

In this issue:

The President's Message	p.2	Conroe Rendezvous	p.24
Keels and Wheels	p.3	Masthead	p.38
Safety Corner...TRAILERS	p.21	Upcoming Events	p.38



A message from your Southwest Chapter President,

Greetings Southwest Chapter Members,

The spring boating season for 2024 is now behind us. Many thanks to those who participated in the Lake Conroe Rendezvous in April and Keels and Wheels in May. Summer is now here and the mercury is rising, so be careful out there. The fall show season is just around the corner so start planning your schedule now if you haven't already.

The International ACBS Show will be at Gull Lake, Brainerd, Minnesota September 6-14. You can check the ACBS website for more information.

Our Lake LBJ Show will be at the beautiful Horseshoe Bay Resort on October 6th. Get your reservations for accommodations made soon. For those arriving early, we will be making runs up to Kingsland on Thursday and again on Friday for lunch. Diners will be arranged for Friday and Saturday evenings. I will be sending out more detailed information as we get closer to the event. The show will be on Saturday from 10am to 4pm and will be open to the public. We will also most likely do a breakfast run on Sunday morning,



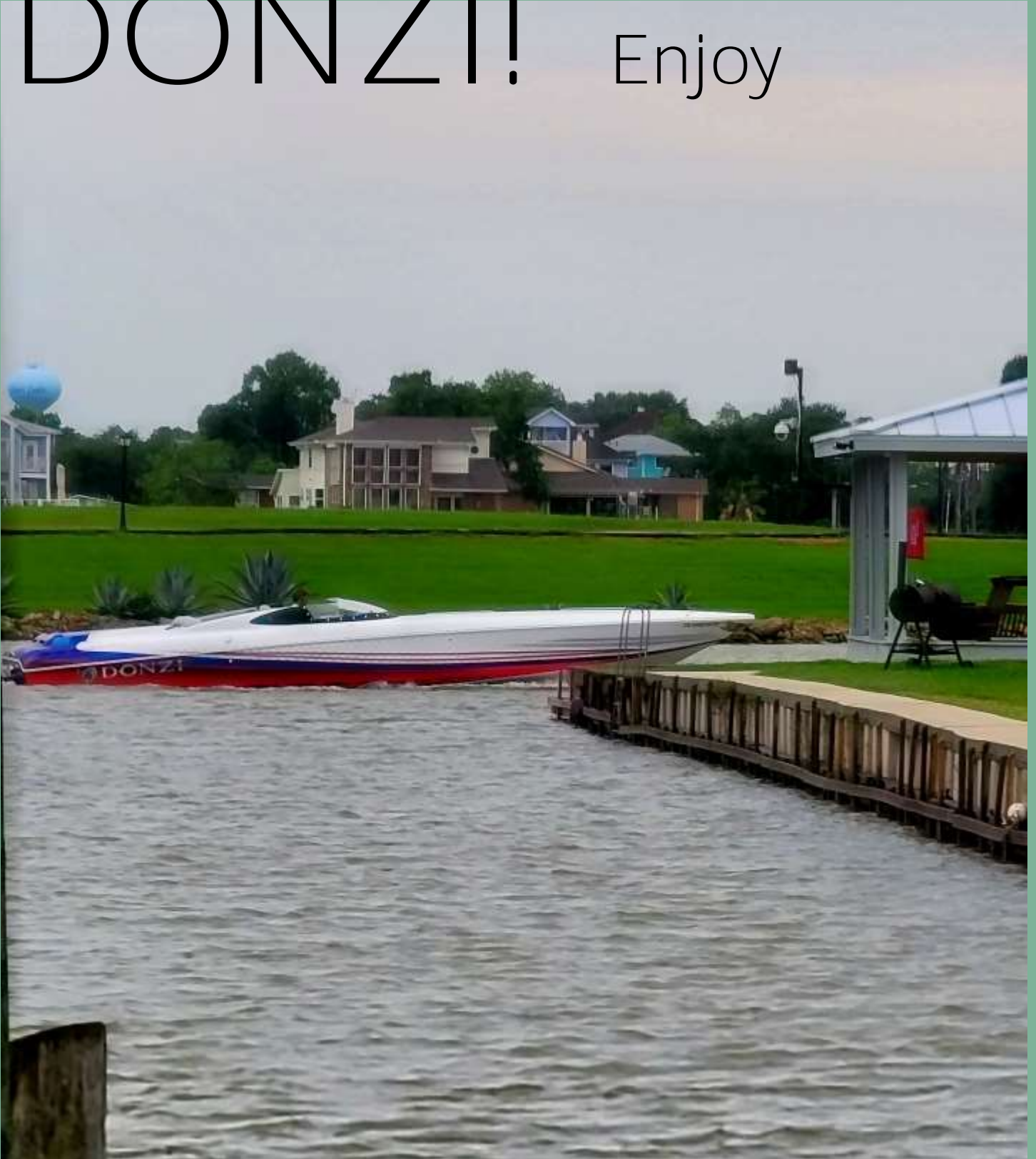
Both the Wooden Boat Club of North Texas and the Heartland Chapter ACBS have events on their fall calendars. You can check their respective websites for schedules and information.

Lisa and I are looking forward to stopping by the Heartland Chapter's Grand Lake Show on our way back from Minnesota.

We look forward to seeing you in September and October.

Lindy Robinson

A pictorial essay of Keels and
Wheels 2024. The year of the
DONZI! Enjoy





Keels
&
Wheels,
Sit back
and enjoy!





Lots of
horsing
around at
the show
and after



Keels and Wheels









Keels and Wheels



Keels and Wheels



Keels and Wheels



Keels and Wheels



Rivas, Chris Crafts, Donzis, Centurys, Gar-Woods, Elcos, Crosbys, Heltons, Yellow Jackets, you name it and they were represented.



Keels and Wheels



The two Chris Crafts above, separated from birth by 10 years. One a v-drive sbc, one a bbc straight drive.

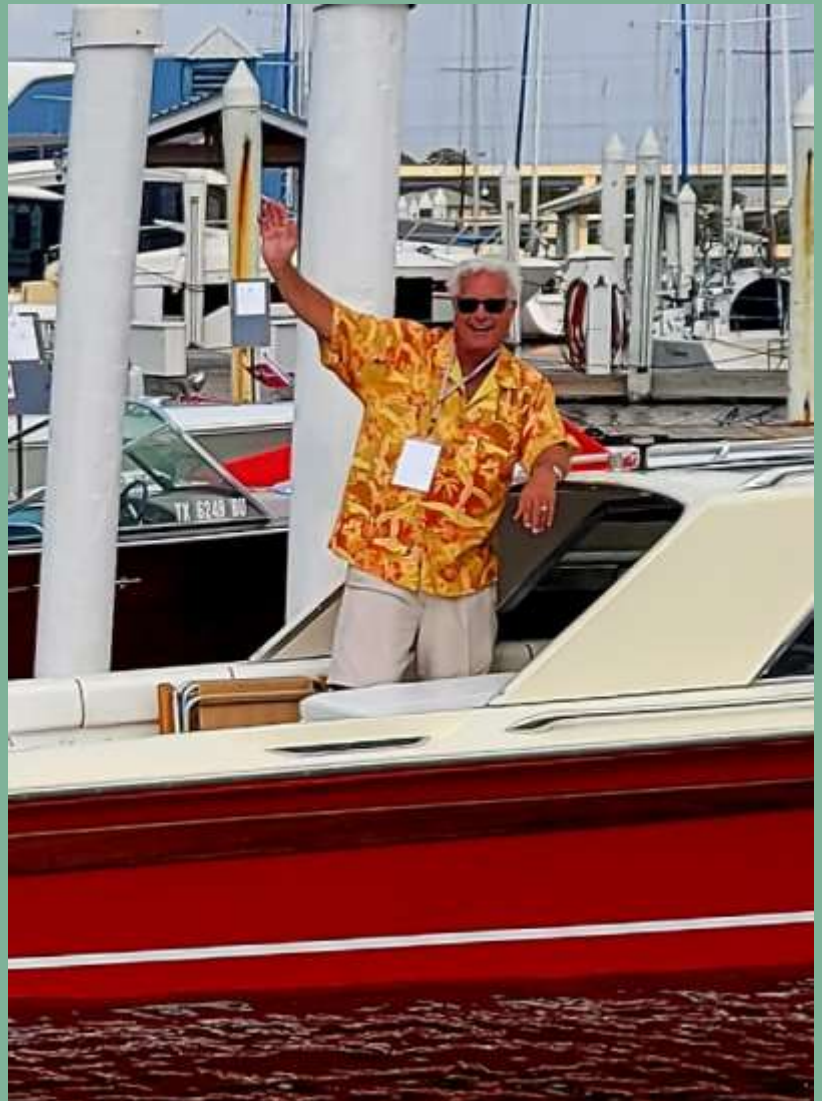




Keels and Wheels



Keels and Wheels



Keels and Wheels







It was a bit wet. But a good time was had by all! Cant wait for 2025 and what is chosen as the Marque of the year!



Southwest's Safety Corner

TRAILER BRAKES ON MID SIZED BOATS—DO WE REALLY NEED THEM? HOW LUCKY DO YOU FEEL?

Bill Nalle

A few years ago, I wrote an article titled, “**The Sixty Thousand Dollar Boat on a Two Hundred Dollar Trailer**”. In that article I covered the number of axles, types of brakes, couplers and chains that might be needed. Now I see a need to visit something far more basic, trailer brakes. Some very intelligent guys have asked me if they really need trailer brakes. A few of my friends have opined that for many years they have no trailer brakes, got along fine on long trips and therefore, see no need for brakes on mid-sized boat trailers. Well, not so fast. With that question on the table, I want to get into the nitty gritty of stopping one of our rigs with and without trailer brakes.

I am a Professional Engineer specializing in accident reconstruction. In addition, I carry a USCG 100 ton, Master's License. For more than 30 years I have practiced in the field of accident reconstruction and have seen many trailer accidents. The results are frequently deadly serious. Admittedly, my bias is towards safety and guess what? Yours should be also!

In the Great State of Texas, the Transportation Code Section 547.401 requires trailer brakes on any trailer with a gross weight of 4,500 pounds or more. With that in mind, we will deal with the mid-size units, between the little jet ski trailer and the big boat trailers that are required to have brakes. Your state may have slightly different regulations, and you should check out what your state requires.

In other articles, I have opined that any boat capable of pulling much of anything (tuber, boarder, skier...) needs to be on a two-axle trailer. This is for both balance issues and emergency control during tire failures. I have also opined that any boat over 2,000 pounds should be on two axles. My conservative nature now thinks 1,200 to 1,500 pounds might be a better threshold number. I also think that a two-axle trailer should have brakes on at least one of the axles, preferably the front axle. Reasonable minds may differ on these issues, but those are my thoughts.

The *Reader's Digest* overview is simple. As long as you do not encounter a need for maximum braking, you may not need trailer brakes. If you drive carefully, aim high, keep a good lookout and **remain lucky**, you may be OK, as some of you have been for many years. The need for moderate deceleration on wet pavement or emergency braking changes everything. If you have good brakes on your trailers or just plan on continued good luck, read no further. If you think there is a chance your luck might wear thin, read on. In the next few pages, I will get into the numbers on braking and why we need brakes. If you are not a numbers nerd, just skip over to the conclusion.

First, we need to settle on some terminology:

Braked Weight—The number of pounds of your rig that are on braked axles

Unbraked Weight—The number of pounds of your rig that are on non-braked axles

Braking Force—The horizontal force from braking measured at the tire/road interface

Coefficient of Friction—The maximum braking force available on a given surface (The ratio of horizontal braking force divided by the braked weight on the wheel)

Governing Equation-- Speed (mph) = Square Root of (30 x Stopping Distance x Coeff. of Friction)



First, let us consider your tow truck with no trailer. As an example, say your loaded truck weighs 4,000 pounds and the ultimate coefficient of friction on a good, dry road is 0.75. The entire 4,000 pounds are *braked weight* and the stopping force, we shall call "F" is simply 4,000 times 0.75 or 3,000 pounds. If the road is wet the ultimate coefficient of friction will fall to around 0.50. Note, these are very general numbers and they vary with the road surface material, speed, water depth and on and on. The stopping force on wet pavement falls to around 2,000 pounds. Your 60 mph, emergency stopping distance with a coefficient of friction at 0.75 is 160 feet (neglecting perception/reaction). Your emergency wet road stopping distance is 240 feet.

Now, let us consider your trailer has no brakes and has a total weight of 4,000 pounds (maybe a 3,000 pound boat on a 1,000 pound trailer). If we neglect the tongue weight, which will have only a small effect on our final numbers, we have 4,000 pounds *braked weight* and 4,000 pounds *unbraked weight*. With an available stopping force of 3,000 pounds (dry pavement) our deceleration rate is now 3,000 divided by 8,000 or 0.375 g's. As long as you have no need for more braking force you are OK, for now. This simple analysis is the reason so many people have made it this far without trailer brakes!

In the previous example, pulling a 4,000 pound, unbraked trailer the most braking force we can get is around 3,000 pounds. The result is a maximum deceleration rate of 0.375 g's. Now your emergency, dry street stopping distance is 320 feet compared to 160 feet without the trailer. Just know, this is really bad. As long as you, as the driver, never let the need arise for maximum braking then you might be OK. BUT, you do not have control over everything that occurs around you on the highway. Using these simplified numbers, if you keep the demand for deceleration below 0.375 g's, which most of us do most of the time, we are fine.... Most of the time!

But wait, there is more. Let us consider the same example, but in the rain. The maximum brake force we have available is only 2,000 pounds (4,000 pounds at 0.5 g's). We still have the rig's total weight at 8,000 pounds. The resulting maximum stopping rate is now 0.250 g's (2,000 divided by 8,000). Now your 60 mph, wet street, emergency stopping distance is 480 feet. Recall we started at 240 feet for just the truck on wet pavement. Unless you have exceptional following distance, almost every stop you make will be approaching the maximum limits. Once the maximum limits are exceeded, you run a serious risk of collision.

In the following chart I have presented some minimum stopping data for your consideration. Note, these are general numbers and every rig will be a bit different. I have neglected tongue weight which should be around 10-15 % of the trailer weight, but most of our units have much less, usually around 5% tongue weight. Thus, shifting a bit of the unbraked trailer weight onto the braked truck will have a small effect on the final calculations.



My assumptions for all these calculations are as follows:

Speed	60 mph in all cases
Tow truck	4,000 lbs., good brakes, good tires
Trailer	4,000 lbs. total, good tires (Not aged out)
Truck braking efficiency	100%
Trailer braking efficiency	75% on braked axles and 0 % on unbraked axles

Note: Electric disc trailer brakes will have the highest performance followed by surge disc brakes.

Conventional electric drum brakes and surge drum brakes generally have lower performance

Dry street max. coefficient of friction	0.75
Wet street max. coefficient of friction	0.50

Safety

Trailer

A quick comment on trailer brake maintenance. Disc brakes are easy to examine. It is very easy to determine uniform wheel performance of disc brakes by checking for equivalent disc temperature with your finger (lick your finger first to avoid burns!). Drum brakes are very susceptible to rust, electric or hydraulic issues. In my opinion, drum brakes are a poor choice for boat trailers. If you have drum brakes, with an annual tear down, they can be kept in serviceable condition, but it takes a lot of diligence.

The takeaway from the attached chart is reasonably clear. On a wet street the truck stopping distance goes from 240 feet with no trailer to 273 feet with two braked axles. That is good. With no trailer brakes the stopping distance goes from 240 feet to 480 feet. That is just dangerous.

The numbers on a dry street are almost as dramatic. On a dry street the truck stopping distance goes from 160 feet with no trailer to 182 feet with two braked axles. Again, this is good. With no trailer brakes, the stopping distance goes from 160 feet to 320 feet and that is dangerous.

On another day we will discuss the handling characteristics with different braking systems. You guessed it, having good brakes will improve your emergency handling. In the meantime, luck does not hold out forever. Even if the law does not require it; put brakes on your trailers. It might just save your life or your boat!!



Speed	Truck Braked Weight	Trailer Weight	Trailer Braked Axle 1	Trailer Braked Axle 2	Brake Force Truck	Brake Force Trailer	Decel. Rate	Stopping Dist.
DRY, NO Trailer—Truck ONLY								
60	4,000	No trailer	N/A		3,000	N/A	0.75	160 Ft
WET, NO Trailer—Truck ONLY								
60	4,000	No trailer	N/A		2,000	N/A	0.50	240 Ft
DRY, With Trailer, NO Trailer Brakes								
60	4,000	4,000	0	0	3,000	0	0.375	320 Ft
WET, With Trailer, NO Trailer Brakes								
60	4,000	4,000	0	0	2,000	0	0.25	480 Ft
DRY, With Trailer, ONE Braked Axle								
60	4,000	4,000	2,000	0	3,000	1,125	0.52	231 Ft
DRY, With Trailer, TWO Braked Axles								
60	4,000	4,000	2,000	2,000	3,000	2,250	0.66	182 Ft
WET, With Trailer, ONE Braked Axle								
60	4,000	4,000	2,000	0	2,000	750	0.34	353 Ft
WET, With Trailer, TWO Braked Axles								
60	4,000	4,000	2,000	2,000	2,000	1,500	0.44	273 Ft

The Lake Conroe Rendezvous. A great time to run the boats and spend the weekend with friends.







Lake Conroe

Three days of using our boats. Going to restaurants by water, socializing in the evening, and an open and casual boat show on Saturday. The Host Hotel, The Landing at Seven Coves, was great again. Good ramp and ok slips. They are also situated on the lake in close proximity to nearby waterfront restaurants. All boats ran like a top. Only one trailer mishap showed for the weekend. A good time in April.





Lake Conroe



We were even lucky enough to have a Sunday morning dedicated to photo opportunities. Here are two Chris Crafts dating from about 1960. Some folks stayed at the host hotel seen in the background, a few came locally, and others stayed at nearby VRBOs.





Lake Conroe



Lake Conroe





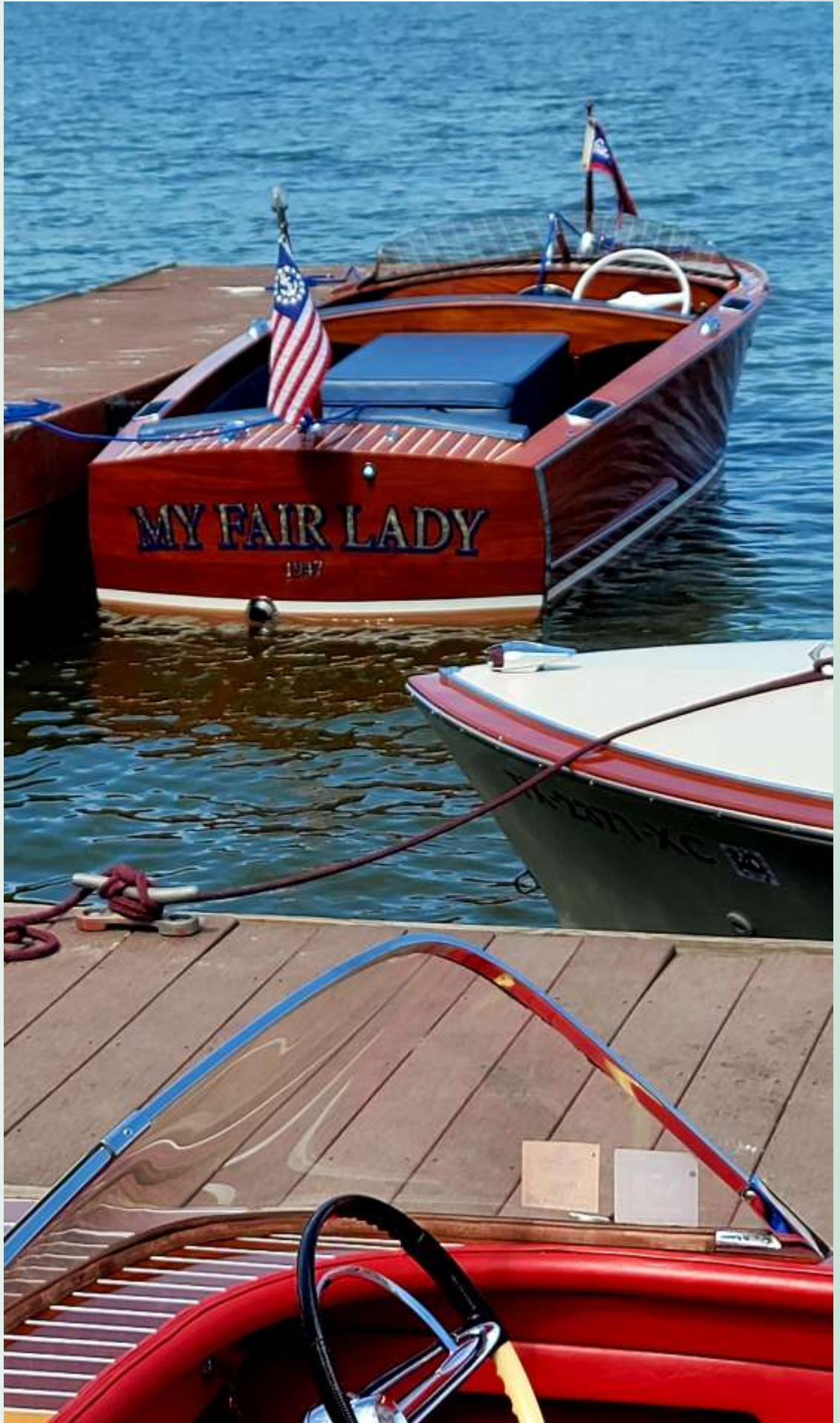


A big thanks to Lisa and Lindy for contributing photos of this event, allowing me to combine with what was on my phone.





Lake Conroe



Lake Conroe



Upcoming Events

August 8-10, 2024

Heartland Classics 2024 Beaver Lake
Rendezvous

Rodgers, AR

August 9-10, 2024

Lake Tahoe Concours D'Elegance

Homewood, CA

September 8-15, 2024

ACBS Annual Meeting/International
Show

Gull Lake, MN

September 19-21, 2024

Heartland Classics Mahogany &
Chrome

Grand Lake, Ok

October, 4-6 2024,

Lake LBJ Hillcountry Ride n Show

Horseshoe Bay, Texas

October 19, 2024

WBA Cruisin' Lake Lewisville

Lewisville, Texas

October 19-20, 2024

Wooden Boat Festival

Madisonville, LA

The Board:

President	Lindy Robinson
Vice President	Brian Fielder
Treasurer	Robert Macaluso
Secretary	Robert Black
NewsLetter Ed	Craig Stanfield

Directors:

Ray Balsam
Trey Bull
David Kanally
Steve McCune
Dave Person
Clay Thompson

Data:

Members
Current 77
fb members 1000
ig followers 199

For individual contact information, go to

Southwest-acbs.org

For detailed information and vision of the Antique and Classic

*Boat Society, go to **ACBS.org**.*

We're also on Facebook as

ACBS Southwest Chapter - Vintage Boating

Musings from the editor...

Roses are red,
violets proud
How about all them Donzis
Flexing their engines LOUD!

At the shows and events
Its good to see
So many active
attendees

However its that time
For me to beg
Another story
Without pulling my leg

Nalle's the guy from Austin,
He stepped up
Writing a trailer article
A big thanks this bud.

So now the bar
Has been raised
Please email me more
For the next issue to be saved!

