

Ballast?

Posted by loftygoals - 20 Mar 2011 11:00

So I've been pulling weight out of the car. Looks like I'm going to need 40lbs of ballast. Reading the rules, I can only put the weight in the passenger floorboard forward or even with the front seat bolts. That's a weird rule. I was hoping to mount the ballast more towards the rear of the car. Looks like I may be using fuel to make weight.

My idea is to weigh the car with almost no fuel in the car and then add fuel until I'm 5-10lbs over weight. Then mark the reading on the fuel gauge. This will be my new "empty" mark.

Does that make sense? At 6 lbs per gallon, I should need around 7-7.5 gallons of extra fuel in the tank at all times to make weight.

-bj

=====

Re: Ballast?

Posted by B1BFlyer - 20 Mar 2011 17:40

I definitely agree that the weight would be high by adding it to the cage and not ideal. I was just throwing BJ another option since he wanted weight over the rear axle.

Personally I'm content with ballast low on the floorpan since every time I drive with passenger, I notice a significant improvement in corner stability.

=====

Re: Ballast?

Posted by loftygoals - 20 Mar 2011 17:52

B1BFlyer wrote:

Personally I'm content with ballast low on the floorpan since every time I drive with passenger, I notice a significant improvement in corner stability.

I agree, even though I have my car corner balanced for just me, I think it feels better with a passenger and a near full tank of gas.

The problem is, the ballast location is forward of the passenger weight. The seats in the car sit right over the center line.

-bj

=====

Re: Ballast?

Posted by loftygoals - 20 Mar 2011 18:05

Big Dog wrote:

Put your car on scales and see what the affect is of adding your ballast in the legal position. It is not as far rearward as you would like but is still better, IMO, than weight that moves around during cornering, braking, etc.

Agreed. I'm going to through it on the scales and play with weight placement. That should tell me a lot.

Big Dog wrote:

...and between the axles is better than higher and behind them. For that reason, putting the spare tire back in is a poor solution.

This isn't always true. I've seen many cases where adding weight to the end of the car is beneficial. The biggest problem with the spare is that it adds the weight relatively high--higher than additional fuel in fact.

An example of using weight at the end of a car to improve handling is the BMW E30 Convertible. That was the first convertible BMW had made in 50 years. They wanted it to handle as well as the coupe. In the back passenger corner of the trunk there is a 50 lbs (yep 50!) weight. This was added there to improve the handling. It is actually called a suspension component.

Big Dog wrote:

At the end of the day, how much it matters I do not know. It matters some but????? The driver is more important than much of what we do to our cars so the important thing is to do what gives you confidence and go out and have FUN!

Agreed. Honestly I think with the limited suspension and aero on our Spec cars, a lot of these things aren't worth a lot. I still need more work on the driver than I do on the car.

-bj

=====

Re: Ballast?

Posted by Sterling Doc - 20 Mar 2011 20:15

IF you don't already have a passenger seat, put one in.

=====

Re: Ballast?

Posted by loftygoals - 20 Mar 2011 20:33

Sterling Doc wrote:

IF you don't already have a passenger seat, put one in.

Yeah, that's good for 20+ lbs. I guess I could just leave it in, now. I get tired taking it in and out for races vs HPDEs, but that was when I was over weight. I've pulled 104 lbs out so far and I still have the heater core installed. I should be 30-40 lbs under, now. can't wait to get this car back on the scales!

-bj

=====

Re: Ballast?

Posted by joepaluch - 21 Mar 2011 05:12

loftygoals wrote:

So I've been pulling weight out of the car. Looks like I'm going to need 40lbs of ballast. Reading the rules, I can only put the weight in the passenger floorboard forward or even with the front seat bolts. That's a weird rule. I was hoping to mount the ballast more towards the rear of the car. Looks like I may be using fuel to make weight.

Rule is in place to limit the effectiveness of ballast as tool to change weight distribution. We do not intend guys who run ballast due to either a light car or light driver to have a significant edge on weight balance on the car.

However there are ways to be creative in how to strip a chassis to leave the weight where you may need it.

BTW... Fuel to make weight works, but is problematic in long races. You could run out of fuel and be DQ'ed for being underweight. Personally I set-up my car to try to be at minimum weight with zero fuel. This should I run out of fuel I will not be DQ'ed.

=====