



Technical Bulletin - Fluid Leaks - 3/7/10

The Bremerton Motorsports Park management has mandated to NWR SCCA Drift that we must take steps to eliminate fluid leaks in order to continue to use the facility. In the past the grid area has suffered from excessive fluid leaks from our cars. Despite our best efforts to thoroughly clean the site after the event the amount of fluid leaked made it impossible to fully clean it to an acceptable level.

In order to be allowed the privilege to continue to use the BMP site NWR SCCA Drift will adopt a zero tolerance policy on fluid leaks.

SCCA Drift Rule 7.1.12 reads - "No excessive fuel, oil, water or brake fluid leaks should be observed when the engine is running."

To enforce this rule the following changes will be made:

1. Every car will receive a through examination of the entire drivetrain and chassis (engine, transmission, differential, power steering system, engine bay, transmission tunnel, and rear differential area) in tech. If there is **ANY** evidence of a fluid leak found in the form of dirty or oily deposits a secondary inspection will be performed.
2. The secondary inspection will consist of having the car pulled over a metal or cardboard drip pan free of previous stains that is large enough to cover the entire engine and transmission. The car must be at full operating temperature prior to the start of the test and remain running for 5 minutes. The engine shall be run at least 2000 RPM's for no less than 30 seconds at least twice during the 5 minute test. If any amount of fluid leakage is detected the car will fail tech. The driver will have the opportunity to correct the issue and re-test. If the driver is unable to pass tech and has not taken any runs they will be refunded their entry fee.
3. Cars will be gridded in a way that you will use the same parking spot for the entire session. After your run you must return to the exact grid spot you started the session with. If any fluid leaks are found in your grid spot you must immediately proceed to the pit area in a manner that will spill the least amount of fluid and park off the pavement.
4. The leak must be fully fixed and the repair approved by a tech inspector prior to returning to grid and being allowed to take additional runs. The driver will not be entitled to any re-runs and will not be refunded if any runs have been previously taken.
5. The driver must clean any fluid leaks they cause to the satisfaction of the Chief of Grid and they must complete their work assignment for the last session run prior to leaving the site. Drivers may not skip their work assignment to work on their car.
6. Drivers who do not report to their work assignment or leave prior to completing their work assignment without permission from the Event Chair will be banned from the next event on the calendar.

If a driver makes any repairs on site they must properly contain any fluids and pack them home with them for responsible or recycling. Automotive fluids of any kind are not allowed to be disposed of in the BMP dumpsters. Any driver caught improperly disposing automotive fluid on site will be banned from the next SCCA Drift Event on the schedule.

Not only do fluid leaks make the site managers unhappy, they pose an increased risk of fire or sudden and catastrophic drivetrain component failure. Plus, it makes working on your car less enjoyable.

Please do your part to make it easy for the tech and grid volunteers by properly repairing fluid leaks and keeping your drivetrain clean before events. No one likes to be forced to tell some one they can't run so please come prepared.

Tips - Fluid leaks can be difficult to repair so here are some tips to help you out.

1. Closely inspect your drivetrain, chassis, power steering, and coolant systems and check your regular parking spots. Be sure to check your transmission tunnel and rear differential area. If they are clean with no evidence of fluid leaks you are set. If you see any grime or drips there's work to do!
2. Fluid leaks are often caused by overfilled fluid levels. Check your fluids and fill to factory recommended specifications. If there is a fill range it's best to start in the middle. Too full and it will boil over at the track (but not during daily driving) and too low you may break something.
3. Next, thoroughly clean your car and drivetrain until all dirt and grime is gone. You won't find the leak unless your car is clean and you'll have to pass the secondary leak test at tech. Oil Eater degreaser, carb cleaner, and elbow grease are your friends.
4. Once the car is clean you can pinpoint the source of the leakage. You may have to spiritedly drive around and get the car up to temperature to find small leaks. After you identify which seal, gasket, hose, plug, etc. is offending fix it and clean up the area again.
5. Drive around some more and make sure your car stays clean. As a bonus you'll stay cleaner when you have to fix your car!
6. Once you fixed all your leaking gaskets and hoses if you want to be extra safe install 1 quart sized metal or high temp plastic catch cans on your transmission and differential breather vents. You can use Nalgene bottles or used aluminum cans to save money. Make sure your radiator overflow bottle is hooked up and in good condition as you will fail tech without it.

Common Issues with Nissan 240sx models

Since 99.9% of drift cars are 240sx's here are a couple of common items to look for on this model.

- If you have any grime around your power steering reservoir or pump area it is likely your 20 year old hoses leaking. Replace the low pressure hoses and take the chance to change your power steering fluid as it has likely never been done! If the big banjo bolt on you high pressure power steering pump line is missing the copper washers on either side of the banjo you'll want to replace them. Make sure to only fill the reservoir half way up as it will overflow and make a mess when you are drifting.
- If you transmission and tunnel is all dirty check the rubber boot that seals up the shift lever. It usually is ripped and fluid will spray out making a mess. The boots are \$11 at your Nissan dealer. Don't use a ziptie to tighten the top as it often will cut your new boot!
- If you see oil drips from the back of the transmission your tailshaft seal is likely leaking. You'll have to remove the driveshaft but it is a quick and easy fix.
- When you fill your transmission or differential do not overfill. Make sure you only put in the recommended amount and let the fluid settle and extra drain out of the fill level hole. Overfilled trans and diffs will often puke gear fluid out on the track after the car gets nice and hot.
- If you see coolant weeping from the small hole on the bottom of your waterpump it means it's time to replace your pump! Fix it before it fails potentially causing you to overheat and blow a headgasket.
- If the front of your engine is a mess you'll likely have to replace your front main seal. It is not that hard to do but it does take a couple of special tools like a pulley puller, impact wrench, and a 200 ft.lb. torque wrench. If you don't have the tools ask a buddy for help or rent from a parts store.

It is the drivers responsibility to ensure their vehicle is properly maintained and all components are in safe and serviceable condition to withstand the rigors of driving on track. Your cooperation in this matter is vital to ensure the availability of drift events at Bremerton Motorsports Park.

Please take the time to fully fix all fluid leaks to reduce the burden on your fellow drivers who volunteer for tech and grid positions and ensure yourself a fun filled day of drifting.

See you at the track!

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