

/// Race Louvers

Professional R&D - Wind Tunnel Tested - Track Proven

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Race Louvers Track Testing 5/19/19

Special thanks to Matt Wasilewski and his ST/TT4 - GTS2 BMW for testing our new Nasa ST/TT3-6 Spec Race Louver extractor kit.

Wasilewski is a top running ST/TT4 - GTS2 with his well sorted BMW. Testing was at Nasa Mid Atlantics Hyperfest held at VIR in May and some comparisons were made from a previous event at VIR in March. The only changes to the car were replacing the existing unknown brand hood louvers with some of Our new ST/TT3-6 Spec Race Louvers designed to meet the new ST/TT hood vent rules as well as adding some front grill tape. The rear wing was not changed in anticipation of added front downforce as the car has always had some understeer. The car performed well, was fast and seemed to be more neutral.

Results:

- **Added Race Louvers.** Our new Nasa ST/TT4 spec Race Louvers replaced the unknown brand louvers.
- **Added some front grill tape.** Front grill tape was added to control cooling airflow to only what is needed to increase front downforce. 50 sqin of grill restriction yielded 190-200 deg coolant temps in 90 deg ambient temps.
- **Car balance improved.** Front grip increased curing a previous understeering condition.
- **Improved Lap times.** Set and reset VIR's TT4 lap record, now 2:02.745. Lap times remained similar to a previous 65 deg VIR event while the rest of the field seemed to slow in the 90 deg heat.

Race Louvers Track Test Data

Driver Matthew Wozniak Test date 19-MAY-19
 Racing class TT4 / GTS-2 Test track VIA
 Car year/make/model 93/ BMW / 325i Weather 90° High Sunny
 Thermostat rating 25°C Splitter type/size Hi Full Flat ^{to front side} Front of radiator sealed to nose yes Back of radiator open to engine bay yes Wing type/size Bimmer World 60" width
 Other brand hood vent N/A Other aero aids N/A
 Race Louver part(s) being tested: NASA ST Logal Mid and Center Louvers
 Primary objective (circle): more cooling / more front downforce / combination

*Baseline
Data
From
TT4
GTS-2*

Baseline session 1 or previous track data (No Race Louvers or Grill Blockers)
 Average coolant temps 2-190-200 Front grill opening size (sq in) Full open 7-180 in²
 Best lap 2:03.07 2nd best lap 2:03.5 3rd best lap 2:03.5 Average lap 2:03.3

Session 2 Blocked to about 120 in²
 Car setup changes (circle): Race Louvers Grill Blockers Other
 Front grill opening size (sq in) 120 in² Wing angle 0° Suspension adjustments N/A Average coolant temps 190-200 Best lap 2:02.7
 2nd best lap 2:02.7 3rd best lap 2:02.1 Average lap 2:02.8

*GTS-2
Subj*

Session 3
 Car setup changes (circle): Race Louvers Grill Blockers Other
 Front grill opening size (sq in) 120 in² Wing angle 0° Suspension adjustments All Front Average coolant temps 190-200 Best lap 2:02.7
 2nd best lap 2:02.1 3rd best lap 2:02.7 Average lap 2:02.2

Session 3
 Car setup changes (circle): Race Louvers/Grill Blockers/Other _____
 Front grill opening size (sq in) _____ Wing angle _____ Suspension adjustments _____
 Average coolant temps _____ Best lap _____
 2nd best lap _____ 3rd best lap _____ Average lap _____

Conclusion/comments A Super Hot Weather and Where Everyone was a few seconds off Pace from March. I was able to match my personal Best TT/ST4 lap time. even!! The car did feel more neutral, as I have always suffered from under-steer. Also, even w/ the R/L blocked off I ran my consistent 190-200°F. It not for the winds I know I would be running better. Will Test more in July @ Pitt Race

Race Louvers Track Test Post Event Download

Driver Matt Wasilewski Test date 5/19/19
 Racing class TT4 / GTS2 Test track VFR
 Car year/make/model BMW E36 Weather 90° Sunny

Interviewer/Date 5/21/19 Al Watson

Session/comments Sat TT4 session, set record 2:02.789. P1.
New ST/TT3-6 spec louvers and some front grill restriction
was seemed to cure some understeer the car traditionally
had.

Session/comments Sat GTS2 race car was maintaining 190-200°F
temps with louvers and some grill restriction in 90° sunny
temps. Took lead of race but oil on track caused a wreck
which ended the race and took a DNF.

Session/comments Sun TT4 session, car repaired, reset record
2:02.785. No understeer, car neutral, coolant temps maintained
around 200° w/grill restriction.

Session/comments Sun GTS2 race. Louvers + grill restriction
maintained 190-200°F temps all race. Understeer gone.
Front grill opening about 50 sq in less than previous in 90° heat

Conclusions 1) Added center and side ST/TT3-6 spec Race Louvers and
grill restriction.
2) 200° Temps maintained even with front grill restriction in 90° heat
3) Understeer ceased indicating added front downforce
4) Lap times similar to 65 mph VFR quiet, while the field
seemed to be slower in the heat, 90°, indicating faster
lap times.