

## 1/1 Template (TEST PLAN)

Monday, June 26, 2023 8:48 PM

Copy and paste the entire grouping of tabs

Copy test overview from testing plan to here day of test

The screenshot shows a file management interface with the following details:

- Header:** Test day Data, Posts, Files, Training Plan, Training pathway.
- Toolbar:** + New, Upload, Edit in grid view, Share, Copy link, Sync, Add shortcut to OneDrive, Download.
- Breadcrumbs:** Test day Data > Combustion > KS8C > Template folder (Name of carlog).
- Table Headers:** Name, Modified, Modified By, Log info, + Add column.
- Table Data:**

Name	Modified	Modified By
CSV	A few seconds ago	Valerie Sonnichsen
gopro raw	A few seconds ago	Valerie Sonnichsen
Mcap	A few seconds ago	Valerie Sonnichsen
Carlog.url	A few seconds ago	Valerie Sonnichsen
Excels related to tests.xlsx	A few seconds ago	Valerie Sonnichsen

**Where to post data, and related excels and videos**

## Pre-check

Monday, May 27, 2024 11:27 PM

 Packing list VD EV Driveline LV Aero/Composites Tech Inspections**VD checklist**

SUSPENSION BOLTS CHECK

FRONT LEFT

 Bellcrank chassis Control arm Steering Tie rod Toe rod Toe rod shims Upright bolts**TORQUE WHEEL (40 ft/lb)**

FRONT RIGHT

 Bellcrank chassis Control arm Steering Tie rod Toe rod Toe rod shims Upright bolts**TORQUE WHEEL (40 ft/lb)**

RIGHT REAR

 Bellcrank chassis Control arm Toe rod Toe rod shims Upright bolts**TORQUE WHEEL (40 ft/lb)**

LEFT REAR

 Bellcrank chassis Control arm Toe rod Toe rod shims Upright bolts**TORQUE WHEEL (40 ft/lb)**

Toe Alignment:

 When you do this please record who did it:  Test Day Briefing Test Day Proposal Tools Loggings (excel or paper) Two Jack Stands Cones Tools Fire Extinguisher

Measurements before taking car out:

**Camber**

LF Weight:

RF Weight:

LR Weight:

RR Weight:

**NEED ONE FOR IC DRIVELINE****Driveline checklist**

Each main item should be checked off if it is present and ready to go. If any sub-checks apply when inspecting, also check off. It is assumed that if any of the sub-checks apply, they are written in the blank below and corrected before checking off the main item. Pictures of failures/more information beyond a basic description is not required, but recommended.

**Example:** Left emrax plate has a loose bolt on the top rear and bottom rear. Technician tightens the bolt and moves on.

**Bolt tightness (PUT A WORKON IT)**

Left emrax mounting plate  
3x 1/4-28 bolts  
7/16 wrench and 5/16 wrench  
 Loose?

Right emrax bearing mounting plate  
3x 1/4-28 bolts  
7/16 wrench and 5/16 wrench  
 Loose?

Yoke plate bolts (6x 8)  
6x 8/8  
1/4 and 1/2 wrench  
 Loose?

Left bearing carrier  
2x 1/4-28  
7/16 wrench and 5/16 wrench  
 Loose?

Right bearing carrier  
2x 1/4-28  
7/16 wrench and 5/16 wrench  
 Loose?

Rear sprocket bolts  
8x 10-32  
1/4 and 5/16 wrench  
 Loose?

**Bolt inspection (VISUALLY CHECK SAFETY WIRE)**

Emrax mounting bolts  
6x M8  
 Loose/missing safety wire?

Emrax sprocket adapter bolts  
6x M8  
 Loose/missing safety wire?

Inner/spool left tension cap  
3x 10-24  
 Loose/missing safety wire?

Outer/hub left tension cap  
3x 10-24  
 Loose/missing safety wire?

Inner/spool right tension cap  
3x 10-24  
 Loose/missing safety wire?

Outer/hub right tension cap  
3x 10-24  
 Loose/missing safety wire?

**Visual inspection items (LOOK AT ITEMS TO CONFIRM PRESENCE AND OTHER ASPECTS)****OTHER ASPECTS** Left emrax mounting plate  
 Bent? Right emrax bearing mounting plate  
 Bent? Front sprocket teeth  
 Missing? Front sprocket spacer  
 Bent/chipped? Rear sprocket teeth  
 Missing? Rear sprocket spacer  
 Bent/chipped?

Chain misalignment - looking from rear of car straight towards both spools - record estimate below appropriate checkbox

 0-10mm max width 11-20mm max width 21-30mm max width 31-40mm max width 41-50mm max width 51-60mm max width 61-70mm max width 71-80mm max width 81-90mm max width 91-100mm max width 101-110mm max width 111-120mm max width 121-130mm max width 131-140mm max width 141-150mm max width 151-160mm max width 161-170mm max width 171-180mm max width 181-190mm max width 191-200mm max width 201-210mm max width 211-220mm max width 221-230mm max width 231-240mm max width 241-250mm max width 251-260mm max width 261-270mm max width 271-280mm max width 281-290mm max width 291-300mm max width 301-310mm max width 311-320mm max width 321-330mm max width 331-340mm max width 341-350mm max width 351-360mm max width 361-370mm max width 371-380mm max width 381-390mm max width 391-400mm max width 401-410mm max width 411-420mm max width 421-430mm max width 431-440mm max width 441-450mm max width 451-460mm max width 461-470mm max width 471-480mm max width 481-490mm max width 491-500mm max width 501-510mm max width 511-520mm max width 521-530mm max width 531-540mm max width 541-550mm max width 551-560mm max width 561-570mm max width 571-580mm max width 581-590mm max width 591-600mm max width 601-610mm max width 611-620mm max width 621-630mm max width 631-640mm max width 641-650mm max width 651-660mm max width 661-670mm max width 671-680mm max width 681-690mm max width 691-700mm max width 701-710mm max width 711-720mm max width 721-730mm max width 731-740mm max width 741-750mm max width 751-760mm max width 761-770mm max width 771-780mm max width 781-790mm max width 791-800mm max width 801-810mm max width 811-820mm max width 821-830mm max width 831-840mm max width 841-850mm max width 851-860mm max width 861-870mm max width 871-880mm max width 881-890mm max width 891-900mm max width 901-910mm max width 911-920mm max width 921-930mm max width 931-940mm max width 941-950mm max width 951-960mm max width 961-970mm max width 971-980mm max width 981-990mm max width 991-1000mm max width 1001-1010mm max width 1011-1020mm max width 1021-1030mm max width 1031-1040mm max width 1041-1050mm max width 1051-1060mm max width 1061-1070mm max width 1071-1080mm max width 1081-1090mm max width 1091-1100mm max width 1101-1110mm max width 1111-1120mm max width 1121-1130mm max width 1131-1140mm max width 1141-1150mm max width 1151-1160mm max width 1161-1170mm max width 1171-1180mm max width 1181-1190mm max width 1191-1200mm max width 1201-1210mm max width 1211-1220mm max width 1221-1230mm max width 1231-1240mm max width 1241-1250mm max width 1251-1260mm max width 1261-1270mm max width 1271-1280mm max width 1281-1290mm max width 1291-1290mm max width

&lt;input

## Details

Monday, May 27, 2024 11:28 PM

### Critical Issues:

How did the test go?

### Future to-do:

### Full description & sequence of events:

Full description & sequence of events:

# FEBURARY 2025

Monday, February 17, 2025 7:49 PM

## Week of 2/16 - 2/22:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			<a href="#"><u>First Drive</u></a>			

## Week of 2/23 - 3/1:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				<a href="#"><u>Suspension Alignment Check</u></a>	<a href="#"><u>Small Test</u></a>	<a href="#"><u>Benchmark Testing</u></a>

# 02/19 First Drive

Wednesday, February 19, 2025 10:44 AM

## Testing Brief:

- First drive for combustion car!
- Run through a brakes test on the car
- Drive a couple laps around east parking lot to shakedown mechanical side
- Easy on the engine, before driving couple of issues with the engine (leaking oil)



when metal in oil

## Results:

- During first drive we did a mini shakedown in the east lot
- After Running the car, issues with the coolant loop arose and requires further investigation to verify it is functioning as intended
- Car was half shifting and not properly going into gear
- Oil coolant line running near the headers partially melted
- Vapor or smoke coming from the crankcase vent and accumulating in the catch-can, so after going back to shop we checked oil and we potentially had a mix of water, and metal in our oil.
- In summary engine no happy :(





# 02/19 Pre-Check

Wednesday, February 19, 2025 7:06 PM

Checklist for Tech Inspection Items before Test [HERE](#)

## Other Notes

- First ever run of the KS8C
- Has bad motor (non-rebuilt/comp running) in it currently
- Had issues with trying to find positive locking solution and cascaded into problems and solutions. The conversation can be followed [HERE](#)
- Other parts to note:
  - o Old Hubs
  - o Old 13deg Caster Uprights (KS5)

# 02/28 Mini Shakedown

Monday, February 24, 2025 10:18 PM

# 02/24 Work Day

Monday, February 24, 2025 10:18 PM

Week of 2/23 - 3/1:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<input type="checkbox"/> Take old motor out <input type="checkbox"/> <b>New motor built</b> <input type="checkbox"/> Fix broken Cooling lines <input type="checkbox"/> Put oil in car <input type="checkbox"/> Zip tie Seat belt ends so they don't drag or burn	<input type="checkbox"/> puts new one in	<input type="checkbox"/> Run Thu a tech sheet after new motor is in <input type="checkbox"/> Work on fixing items that aren't really legal on IC <b>Sound test with Old muffler New headers</b>		<b>Suspension Alignment Check</b> vs	Small Test	Benchmark Testing

# 02/27 Suspension Alignment + Pre Check

Monday, February 24, 2025 10:19 PM

-----MARCH 2025-----

Monday, February 24, 2025 10:11 PM

Week of 3/2 - 3/8:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Week of 3/9 - 3/15:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Week of 3/16 - 3/22:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Week of 3/23 - 3/29:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		<a href="#">Dyno 1</a>	<a href="#">Tuning Plan Review</a> <a href="#">Shakedown</a>	<a href="#">CG Testing</a>	<a href="#">Dyno 2</a>	<a href="#">GTMS DYN0</a>

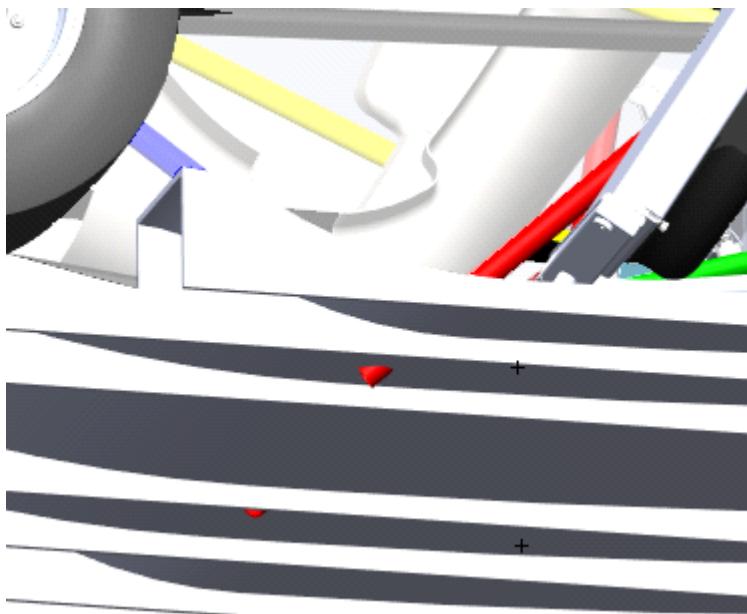
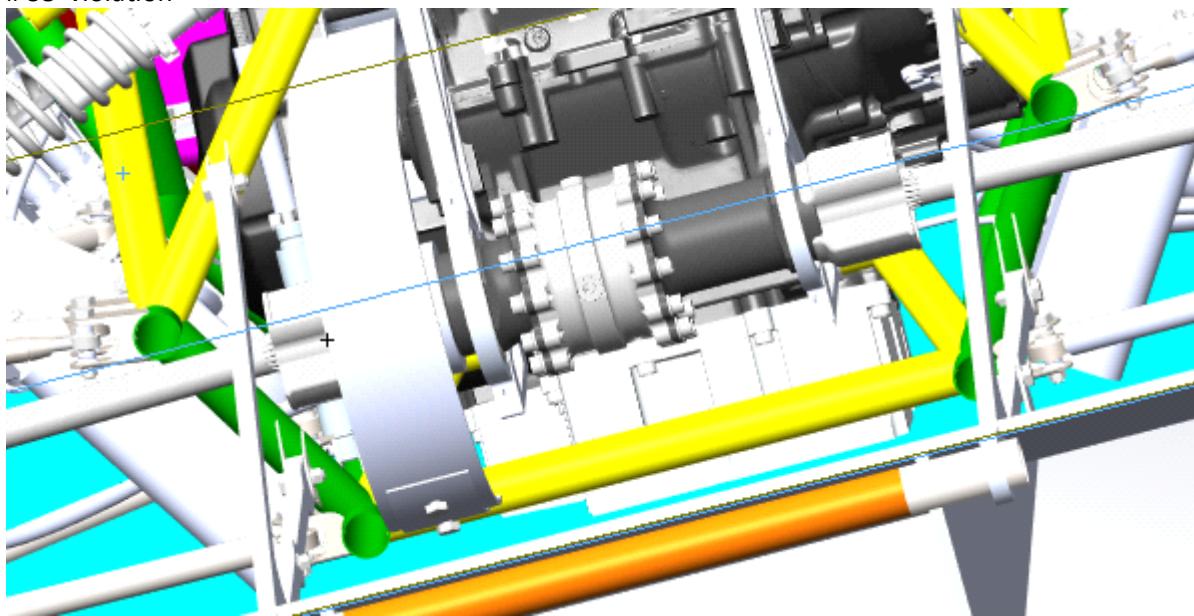
# 03/01 Benchmark Test

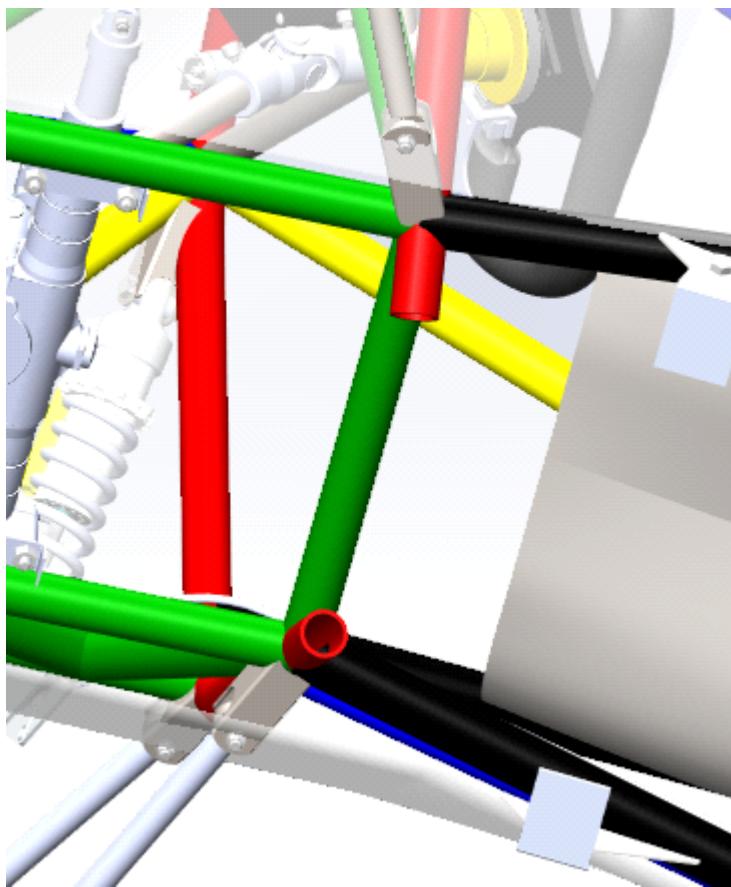
Monday, February 24, 2025 10:13 PM

3/9/25 IC tech

Sunday, March 9, 2025 9:42 PM

# S8 violation





## 3/14/25 Tech Inspection (IC)

Friday, March 14, 2025 1:25 AM

Cut date for the KS8-C is 3/15, we got the car together and ran a tech inspection today and this was everything that is not rules legal on the car. This will all need to be fixed by the deadline (use your best discretion for some of these, obviously we will not cut the car for a transponder but it is something that we need to do):

VE 1.5 - Transponder/RFID Tag Missing

VE 1.1 - Wrong Car #'s on body

VE 1.3 - SAE Decals missing on rear wing

T.7.2 - Bodywork has holes

T.1.8 - Missing cover for fuel system, missing radiator covers (Garrett)

T.1.7 - Missing front floorpan (Jordan), and gaps in floorpan

T.1.3 - Cover sharp objects on steering column (safety wire/socket heads on ujoints)

T.2.5.8, T.2.6.4, T.2.7.5 - Not enough threads sticking out of lap belt tab on one side, must be a critical fastener as well (Wasim)

V.3.2.8 - Left front steering pickup missing bolt (David)

T.3.1 - Brake lines under frame, should be fixed once floorpan went on (Jordan), Critical fasteners need replaced on caliper mounts, currently nylock needs to be switched to non flanged DT hardware. (David)

IC.7.2 - Exhaust outlet too high - max 60cm measured behind axle rear centerline. Will require some cutting and rewelding to fix this. (tentative, please verify height-DO, JM)(Measure from exhaust center or top?)

T.5.2 - Chain guard hardware doesn't have enough threads sticking out. (David)

T.5.6 Both Catch Cans missing (Jordan)

(Borderline passing items)

T.7.5.8 - Front Mounted Aero (FW Aero Box) (Alexander, David)

Final Tech Inspection: PASS but fix following small things

- VE 1.5 - Transponder/RFID Tag Missing
- VE 1.1 - Wrong Car #'s on body
- VE 1.3 - SAE Decals missing on rear wing
- T.7.2 - Bodywork has holes
- VE.2.2 Pushbar, always with car, push and pull, usable by 2 people standing behind car.
- S11.F.8.5.6 Bottom leading edge of IA must be lower than 220 mm above lowest point of top surface of lower SIS tube (I think)
- T.1.3 Covers inside cockpit over sharp points or moving suspension and steering components. (Steering Column U-Joint Pinch points)
- T.3.1 Critical Fasteners- Brake Calipers, need smaller height DT nut for fronts
- T.5.6 Catch Cans- Missing Tubes

**Not related, Pneumatics need to get finished.**

Running Bolt List

Rule	Part	Item	Qty	Notes
T.2.5.8	Sub Belt	7/16-20 x 2" Bolt	2	
• T.3.2.1	Front Left Caliper	3/8-24 DT Nut	8	3/8-24 x 1.75 or 2" to meet 2 threads, maybe dt's are smaller than nylock and will show thread just fine, 8 just in case all are nylocoks, please verify before purchase if concerned.

3/24/25 "Shakedown"

Monday, March 24, 2025 10:03 PM

## Prep

- Fluids checked
- Weight: 466 lbs
- Not Corner Balanced or ride height adjusted
- Idle good
  - Fine for first engine start
  - Smoke from oil and grime burning
- Potential Exhaust leak?
  - One startup, fireball was produced from muffler exit and Primary Secondary connector.
    - Leak from P-S connector?
    - Found the leak in primary muffler bottom bolt holes, towards headers. (Bolts fell out)(NEED TO PUT IN!!!)
- First gear engaged, wheels spinning
  - Chain extremely tight, no slack, still spun wheels
  - Ben fixing chain tension
    - Shims After Fix
      - Top Right: .54"
      - Top Left: .56"
      - Bottom Right: .57"
      - Bottom Left: .54"
- Rolling car back in for shim fix, Clutch cable pulled too hard and broke
  - Positive stop is advised
  - Moloney Fixing
- Ecu mount bracket bolts loose

March 25, 2025

 Valerie S. 2:10 AM  
For later notes : battery's were dieing , measured voltage out from rectifier, nothing was outputting  
Measured the stator fases , inconsistent to the middle "white" connector  
Measured ac to stator output. White had 5 v other 2 had -15 -16 v . Measured internal resistance of the coils and compared to spec sheet , middle didn't match . Measured the spare from dyno resistances were fine  
Concluiong from that is stator bad , replacing tonight

 Valerie S. 3:25 PM  
Forwarded  
For documentation purposes, the resistance between each of the phases of the new stator are all 0.27 ohms  
#lv-general • 3:25 PM >

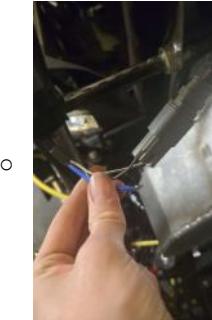
 Valerie S. For later notes : battery's were dieing , measured voltage out from rectifier, nothing was outputting ...  
Chance | Coup Master 4:28 PM  
Oh and the values i remember from this were that the middle "white" phase was giving 4-5 amps, and had a potential unconnected of like milliVolts, while the other 2 phases where like 15-16 amps with a potential of 23-30 volts, the resistance between the two outer guys where .36 ohms but the resistance of the middle fella to the outers was like .12 ohms

 1 

# 3/26/2025 Dyno 1

Wednesday, March 26, 2025 2:55 AM

- TPS Was not functioning for this dyno, and caused significant issues with vehicle performance
  - Very poor throttle response
  - Consistent stalling at high throttle
  - REV Bouncing at low throttle position



- Results of the Dyno Pulls:

Test	HP
Pull 1:	19
Pull 2:	25
Pull 3:	25

- During the first pull, the master link in the chain broke and had to be replaced.
  - Damage was done to the lower engine motor mount when the chain broke



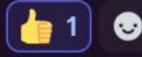
Valerie S. 7:41 PM

Are we going to have to replace that tube @BigPapiMihai | SailorMouth ?



**BigPapiMihai | SailorMouth** 7:43 PM

lol I think that's how the last one looked after we slung a few chains at it, it should be fine



# 3/26/2025 Shake Down

Wednesday, March 26, 2025 7:45 PM



## Test Plan :

Shake down the Car in the lot with aero

## Items we are checking during testing:

- Temp stickers on the Aero to the muffler ( What temp is bad?)  
Seth was here to help us get the temps on the car. Once we have the temps we can prob test car tonight and get muffler and RNN temperatures  
Marco Papi Dulce 7:45 PM

	Off driver off diff motor	Off driver on diff motor	Off passenger off diff motor	Off passenger on diff motor	Front wheel	Rear wheel	Off driver off diff motor	Off driver on diff motor	Off passenger off diff motor	Off passenger on diff motor	Front wheel	Rear wheel
1	80	80	80	80	80	80	80	80	80	80	80	80
2	80	80	80	80	80	80	80	80	80	80	80	80
3	80	80	80	80	80	80	80	80	80	80	80	80
4	80	80	80	80	80	80	80	80	80	80	80	80
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97	80	80	80	80	80	80	80	80	80	80	80	80
98	80	80	80	80	80	80	80	80	80	80	80	80
99	80	80	80	80	80	80	80	80	80	80	80	80
100	80	80	80	80	80	80	80	80	80	80	80	80

## Full description & sequence of events:

## Future to-Do:

### - Feedback:

#### Total laps:

- o Car response:
  - 83.1 db idle
  - P = 86.6 db running

Really bad engine noise:  
Shit to do after:

- Drain engine and flip car on side

- o Inspect internals

- o Likely pull motor again

- Leaking oil from stator cover

- o Stator was leaking more, was using gasket and not RTV

- o Prob do both

- o Clutch cover was seeping not dripping

DAM

I saw the fluid last night and told Alexander, it was unclear if it was spilled oil or not, saw it from the "headers" side of the motor

- o Driver thoughts(Emil):
  - Stuck throttle, would stay at high rpm after driver let go
  - Significant jump in power before shifting around 9000rpm, no torque or power right before this moment
  - Slugging along
  - Weird shift delay, has to press then hold in order to shift

- o Anything broke?:
  - Leaking oil from stator case
  - Evil noise while running mid lap after about 6 laps
    - Gear oil exiting out the side of the drexler
    - Tulip cup came out of the drexler, causing leak
    - Left diff carrier

# 03/26/2025 Damage Report

Thursday, March 27, 2025 1:21 AM

1. Car drove for a couple of laps around parking lot, stator plate was leaking oil
  - a. <https://discord.com/channels/@me/1028121665294573588/1354688364393267302>
2. Car was stopped in the middle of a run, heard a really really bad noise
3. Immediately noticed differential carrier was cracked



4.

5. Oil leaking from clutch cover



a.

6. Got back to shop, engine was having a really bad noise
7. Drained oil, bucket was very metallic
8. Opened oil pan



1.

1. When trying to remove engine, motor sprocket would not turn, is seized
2. Decided to remove engine from car
3. Noticed bent valve



2.

1. Decided to take engine to dyno and open it
2. Loose bolt on the cam gear

## David's Theory

Cam gear bolt not tightened (12) > Backs out enough to eat at the head wall (13b) > Cam gear skips timing > Valve slaps, bends and gets stuck (10, 14a, b) > Contamination introduced to oil (7) > Engine fucked

Shit that happened to it:

- Drilled into the head
- Welded the head
- Ran without oil
  - Multiple times
- Ran hard with new bearings
- Off and on
- Reused hardware, torque to yield
- Used a different top for different bottom



3.

4. In the head



a.

Bent valve was stuck down



a.

5. "that's why we're making 25 hp"



a.

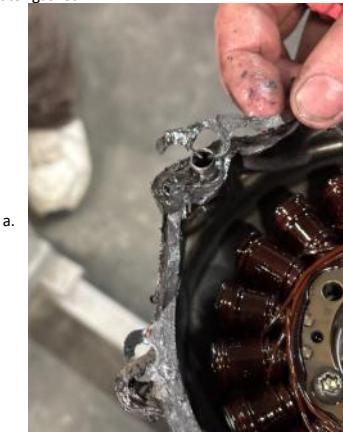


b.



a. Pistons 1 - 4 Respectively

1. Stator gasket



Notes:

- Bolts holding cams were loose, threads were completely stripped
  - o Pulled one of bolts out and threads had completely left
- Bolt on the oil pan is completely stripped

What we have current:

- Pulled one of bolts out and threads had completely fell  
- Bolt on the oil pan is completely stripped

What we have current:

- Pistons (non big bore)
- Valves
- Block is fine (couple of bottom ends)
- Timing chain
- **Clutch cover gasket**
- **Stator gasket**
- Chains
- Cams

3/27 Plan  
Sam call deck shop  
Sam call UGA  
Inform parties involved  
Board meeting

Need to check:

- Bottom end
- Bearings
- Con rod
- Wrist pin
- Head gasket
- Oil pump chain



IMG\_1665

Need to get/ make a plan for:

- Hardware
- Top end
  - o Deck the head
    - Sam will call
  - o Buy new (last resort)

-----April 2025-----

Wednesday, March 26, 2025 7:55 PM

NEEDS REVIEW NOT FINAL

Week of 3/30 - 4/5:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Engine in car and ready for dyno	Day dyno  dyno	dyno  Check suspension alignment	dyno  Shakedown?	dyno  Benchmark (run all events)	endurance  Hella skidpad

4/7

4/8

4/9

4/10

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	IC: Mech Tech Dyno Brakes Shakedown	Shakedown Autocross	Accel Skidpad	No car run-Prep	<b>INVITATIONAL</b>	

# 04/07 Dyno

Tuesday, April 8, 2025      3:00 AM

- Heat cycled the car up to 180 F and let it heat soak/slow cool back down to 90 F.
- After heat cycling the engine we did a compression test
  - o Results are questionable, batteries kept dying and seemed to be lacking in adequate power output to turn the starter
- o 

Cylinder	Pressure
1	155
2	145
3	150
4	150
- Pneumatics has a small air leak, not sure where it is coming from but it can be heard
- Started to run but ran into redlining issue
  - o Car would redline at a 8k-9k rpm, at which the crankshaft and camshaft position sensor de-synced
  - o Discovered that the Crankshaft position sensor was missing the 10k pullup resistor
  - o Couldn't find a 10k so we used a 10.1k resistor
  - o Replaced the resistor and solved this issue
- - o Due to the very low ride height and the compressed suspension from the dyno straps, the axles are contacting the chassis
- Starter solenoid got stuck in between one of the runs but was fixed with a good ol' smack
- Both batteries died so then had to try to start off a jump pack.
  - o Worked surprisingly well. Could use another time
- Attempted two different dyno pulls
  - o Due to the very low ride height and the compressed suspension from the dyno straps, the axles are contacting the chassis
  - o During both dyno pulls the tripods popped out again and one came off the axle splines
  - o We tried pushing the tripod back onto the spine and run it again but it just came back off during the pull
  - o Axle splines might be cooked hard to tell without pulling them out
- Current plan is to swap the new hubs on the front to the rear and to install the new axles and tripods and continue dyno testing tomorrow (4/8/25)
  - o Press the hubs out of the uprights, swap fronts and rears

# 04/08 Dyno

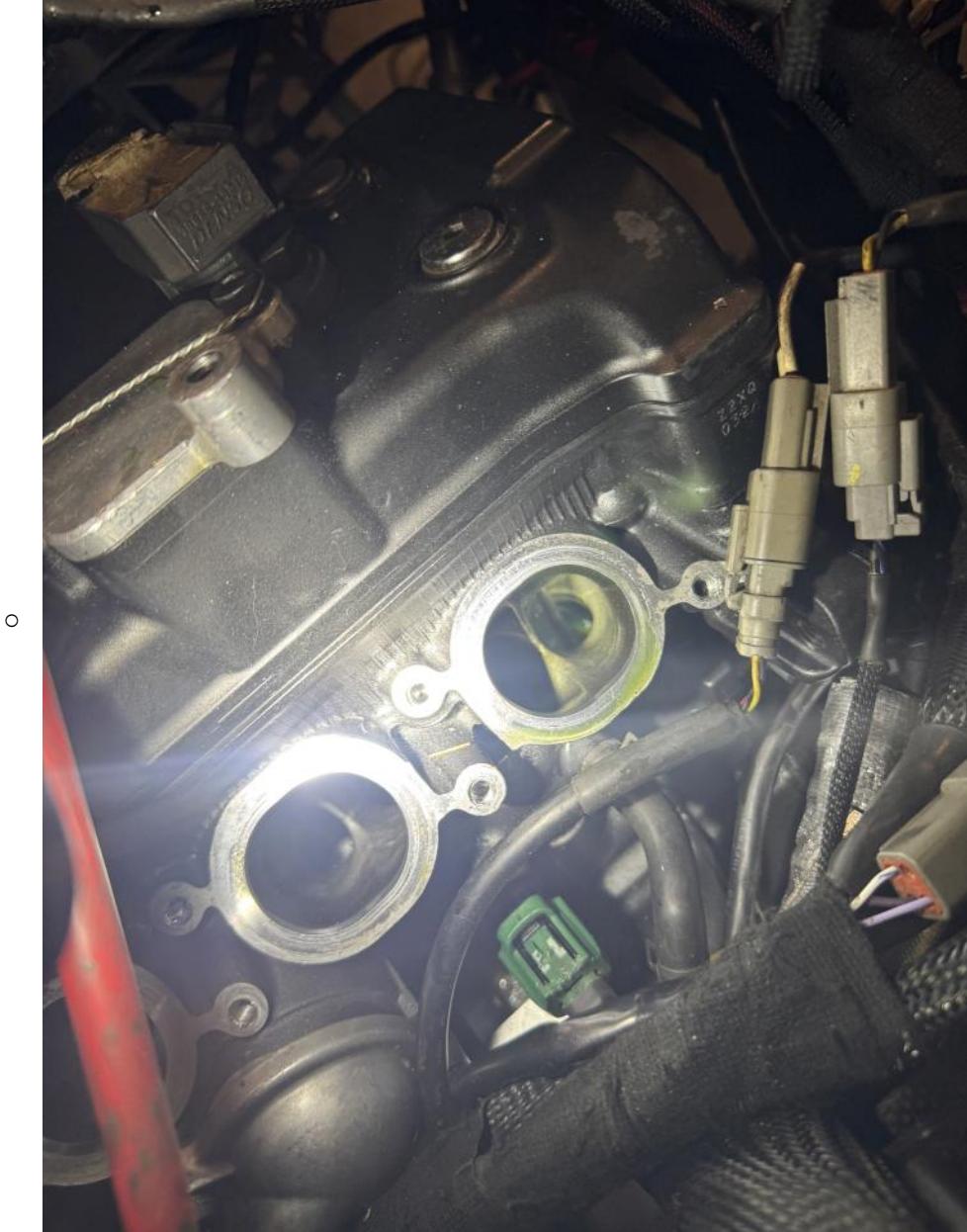
Wednesday, April 9, 2025      3:04 AM

- Replaced IC axles
- Swapped hubs from the front to the rear so that the issue where the tripods fall out does not happen anymore.
- Found the diff to be sitting at an angle with equal shims on all 4 corners.
  - o Temp fix of adding shims to the right side to even out the diff
  - o Looks like the bearing carrier is oriented backwards & should be spun 180 degrees
  - o Need to check the left to right diff carrier alignment
  - o Bearing carrier has significant misalignment with diff carrier on the right side, probably pretty bad for the bearing



- When ready to start dyno testing we found that the motor would crank over but would not start.
  - o Further testing led to checking spark, coils, and the crank sensor

- Was getting very sporadic readings from the crank sensor
  - Have not solved this issue
- Conducted a compression test.
  - Found that cylinder 1 was not getting any compression.
  - Thought it was just a head gasket but upon further inspection we found that one of the intake valves dropped.
  - Unknown if the headgasket is blown or not





- Current plan is to pull the motor and inspect for further damage

-----MAY 2025-----

Tuesday, May 6, 2025 12:13 AM

Skidpad - Dom + Chance

Accel - Chance + Micah

Autocross- Emil + Mihai

Endurance- Emil + Mihai

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			Preliminary Dyno	Val gone Skidpad Setup - On/Off		Mock Comp / Continuous Autocross
			Accel and Skidpad	GTMS Dyno No Sam, Emil, Seth	Skidpad Setup	Stop Driving
			Mock Endurance	No Emil		Final Mech Tech

Who can lead a test:

- Sam
- Val
- Emil
- Mihai\*
- Bailey\*
- Train Carter
- Train Seth

	A	B	C	D	E	F	G	H	I	J
1	Wednesday Morning	Wednesday Afternoon	Wednesday Night	Thursday Morning	Thursday Afternoon	Thursday Night	Friday Morning	Friday Afternoon	Friday Night	Saturday Morning
2	Emil	Emil	Sam Y.	Seth	Carter (GTMS Dyno)	Sam Y.			Sam Y.	Sam Y.
3	Micah*	Chance**	Emil*	Emil		Emil*			Chance*	Emil*
4	David	Dom*	Mihai*	Adi		Tyler B.			Dom*	Chance*
5		Carter	Tyler B.	Chance*		Adi			Carter	Dom*
6		Seth	Adi	Dom*		Mitchell			Wasim	Tyler B.
7		Micah*	Cooper	James M.		James			Tyler B.	James
8		Adi	Jordan	Micah		David			Adi	David
9		Noah	Seth						Mitchell	Seth
10			Carter							Cooper
11			Val							Adi
12										Wasim
13										
14										
15										
16										

# Preliminary Dyno

Tuesday, May 6, 2025 12:13 AM

Lead: Emil

Goal:

- Benchmark car with new motor
- Slowly warm up engine in new car

People / Jobs:

- Emil
- Micah (Driving)
- David

# Prep and Tech

Wednesday, May 7, 2025 12:55 AM

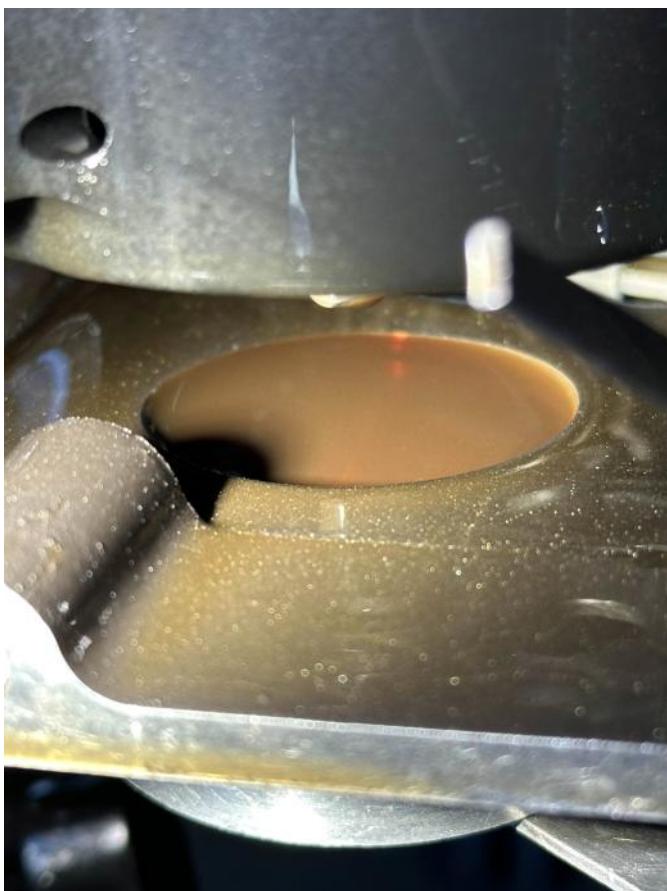
New engine Oil



## Maintenance stuff done while installing motor

- Greased rear axles
  - Both rear hubs
  - All tripods
  - Tulip cups
- Swapped right rear upright
- Replaced Rear Brake pads
- FR Steering Pickup Bent
  - Bent back into place, temp fix
- Front Right Motor Mount Stripped
  - Adding 10x1.5 helicoil
- Rear Bell Crank-Shock Bolt/Hole bent (bent back so 1 washer and 1 thin washer fits), need remanufacturing
- 3 qts Mobil1 Racing 10w-40 4T Oil bought and added.
  - No Engine oil in pan from shipping
  - 1 Little ferrous bit found in pan along with a coupe hard plastics
  - Pickup clear, no oil on glitter or in filter.
- Lots of time spent trying to find out why crank position sensor and coolant tmeep sensor was not working. The fuscking connections were swapped
  - Coolant temp was spiking abnormally while cranking. Like it was a crtank snesor





## 5/7 Tech Inspection

Wednesday, May 7, 2025 9:50 AM

Check Boxes on To-do list when resolved

Inspector: Emil

I skipped frame and aero stuff, no aero on car and we know what frame stuff is close from FS but I mostly skipped for the sake of time, someone should do another one soon cause the car was not really in a complete enough state for me to do a full inspection

- Brake Light Missing
- Ujjoint screws need padding (hold off on this for a little while)
- Jacking Bar Missing
- Pneumatic Cylinder Missing
- Headrest Missing
- Intake missing safety wire
- Rack mount hardware on left side has a debatable amount of thread
- Camber shim bolts are really sus
- Catch cans missing
- Chain guard missing
- Master switch has a ton of play in it1
- Double check for nylocks on all harness bolts
- IA missing
- RR Outboard UCA bolt too short

Items that are legal but very close:

Steering wheel to front hoop vertical height  
FL upper caliper bolt is a little long

Other notes:

Major lack of consistency in washer usage on suspension components, lots of bolts that should have washers under the head that didnt

Things that were just loose:

Jam nuts on FL/FR toe rods  
Toe shim bolts on the FL

Seth's Inspection:

- Seal firewall with aluminum tape
- Tape floor pan with gaff tape
- Lap Belt bolts need shoulder bolts
-

# Accel and Skidpad

Tuesday, May 6, 2025 12:55 AM

Lead: Emil

Goal:

- Make Micah and chance not stall
- Get a benchmark for accel time
- Get chance and Dom ready to run Skidpad at comp
- Move standard deviation below 0.5

## **START USING FLAGS FOR DAY TESTING, LIGHTS AREN'T EFFECTIVE**

People:

- Emil (Lead)
- Micah (Driver) (Corner)
- Chance (Driver)
- Dom (Driver)
- Seth (Track Setup)
- Adi (Timing) (Track Setup)
- Noah

Run Order:

Brakes Test

- Chance

Accel

- Chance (5 Runs)
- Micah (5 Runs)

**\*Check for Damage / Bolts on Car\***

**Adi - Suspension**

**Dom - Driveline**

**Seth - Aero (If Applicable)**

Skidpad (Would not do setup changes yet)

- 15 Run Intervals and Switch off
- Monitor Standard Deviation

# Mock Endurance 1

Tuesday, May 6, 2025 12:56 AM

Lead: Sam

Goal:

- Get emil and mihai seat time in car
- Monitor car for any failures during
- Test car reliability

# Autocross Testing 1

Tuesday, May 6, 2025 12:58 AM

Lead: Sam

Goal:

- Get Mihai most amount of seat time in the car
- Stress car after endurance testing

# Autocross Testing 2

Tuesday, May 6, 2025 12:59 AM

Lead: Sam

Goal:

- Identity setup issues on the car
- Create a tested autocross setup for comp

# 5/8/25 Ebay Engine Possible Damage Report

Thursday, May 8, 2025 2:12 AM

1. Ebay motor purchased by Paul Scarpinato (Last name possibly spelled incorrectly, to be corrected later)
2. Some material (ferrous metallic and also plastic) was found in oil pan upon initial inspection following delivery
3. Break-in and warm-up procedure that was provided by seller was followed
4. No significant noise was noticed
5. Oil pressure was not measured due to not having a working oil pressure sensor since Barnesville 2024
6. The engine developed a knocking sound when the car was being warmed up to take down to dyno
7. An email was sent to Paul describing the situation, more details will be added once a response has been received
8. Add pictures/videos (remove later)

# 5/11 Full Endurance

Sunday, May 11, 2025 15:49

## Mechanical Issues to Fix

- Throttle cable loose
  - Soldering barrel connector on
- Radiator shroud off
- Broken intake filter
  - Concern with solution: foam filter may get damp with water
- Brake pedal slop
  - Brakes bled, but slop looks to be from busing compliance
- No-lift shift issue
- Brake Light
  - Sensor replaced with EV, DTC may be wrong, does not light up
- (Side Note) Wheels not torqued
- Chain Guard tab needs re-welding

## Tech Inspection Fails

- Name of School
- Number on Body
- SAE Sticker on Body
- Safety wire throttle body bolt

Garrett notes for his Mech Tech

Missing driver head padding for roll bar -done

Rear left bell crank bottom bolt should get swapped for longer

If possible flip shims for toe adjustment around da car

Swiss cheese needs some good tape

Metal tape for firewall

Muffler Packing

# 5/12/25 Car prep for Tech

Tuesday, May 20, 2025 11:33 AM

What was fixed in the parking lot

# 5/15/25 Comp Dynamics

Tuesday, May 20, 2025 11:31 AM

## **Aero Problems (From entire comp)**

- Left FW inner EP de-bond
- UT mounts de-bond
- FW INNER EP too close to tire!! Damage to FW and contact with body on right side
- UT front scraped, cut about 3/4" to raise clearance
- RW struts added a two nuts to two rod ends to make
- FW Bottom, holes in Kevlar center piece

# 5/16/25 Comp Endurance

Saturday, May 17, 2025 12:35 PM

After Endurance:

- LR shock might've blown
  - o Lifting a wheel in corner
- Clutch cable was tensioned by safety wire, safety wire came loose and lost tension cable
- Revisit rectifier and stator
  - o Battery dies
- Co2 tank was leaking
  - o Check full pneumatic system for leaks
- Delays for the no lift shift are still not working
- Baffles for fuel tank are broken (known issue)
- Cock pit is tight - emil and dom
- FW clearance and tire endplate are very close
- FW mounts were bent when car was dropped on the FW

----- NOVEMBER 2025 -----

Tuesday, November 4, 2025      1:40 AM

# 11/3/25 IC Prep Plan for Barnesville

Monday, November 3, 2025 9:12 PM

Plan is to have car ready to drive at Barnesville.

To-do:

Motor back in chassis:

- Pulling off ETS
- David T. and Micah

Brakes:

- Pedal Box needs parts machined
- Emil will take a look on Tuesday, making list for Sam and Cameron
  - o Jacob's pedal spacer
- Put Pedal Box together (Mihai, Emil)
- Check reservoir to MC fittings

Parts list-

- Pedal box attachment to chassis c clips (getting cut at GT)
- brake light sensor (arriving today)
- MC to brake line woven hose.



- Splitter thing for front brakes (mc to brake line)(pic below of ev car) (found)



- All the necessary brake fittings (all are on pedal box)
- Pedal Box Mounting Hardware ( found in fuckit bucket :skull emoji:)

Shocks:

- Needs to be picked up
- Richard needs to get payment or at least confirmation of payment process thru to traxxion, ASAP.

IA

- Needs IA bonded on
  - o David O.

Regulator

-  
Fuel Tank Issues? Mentioned by Emil, but need more info

# 11/5/25 Shakedown

Thursday, November 6, 2025 4:43 AM

Broke a toe rod end before going out trying to adjust. Replaced.

Emil drove down and did a few laps. Said car feels fine mechanically but low on power and setup is horrible

David drove a few laps. No real notes, still getting used to car. Pedal box too close (3rd from the front)  
Micah drove for a few laps. Brake bias too far rear, super easy to spin out under breaking. No lift shift  
not working, setup really bad, Near the end started to have high idle.

Need to fix:

No lift shift

Brake bias

Setup

Set belts properly

Set pedal box further forward for David, Micah can use seat insert.

Body pogos broken

Not as necessary but should get a spring for brake pedal before the weekend.

Need to check:

Chain tensioning

There might be a bit of dynamic chain tensioning

Maybe high idle