

## **Bonneville Car Preparation Checklist**

## Car Class – GT

The car is a 1969 Opel GT.

#	Ref.	OK?	Description	Comments			
	General Requirements						
1	5.E.3	Yes	2-seat production sports car (no jump seats)				
2	5.E.3	Yes	Production of at least 500, available for sale to the general public				
			Stock Items Retained				
3	5.E.3	Yes	Frame				
4	5.E.3	Yes	Floor pan				
5	5.E.3	Yes	Fenders				
6	5.E.3	Yes	Hood				
7	5.E.3	Yes	Grill				
8	5.E.3	Yes	Drip Rails	This car never had any drip rails.			
9	5.E.3	No	Windows	Side and rear windows have been removed.			
10	5.E.3	Yes	Door handles				
11	5.E.3	No	Window trim	Side and rear window trim has been removed.			
12	5.E.3	Yes	Headlights				
13	5.E.3	Yes	Tail lights				
14	5.E.3	Yes	Turn signals				
15	5.E.3	Yes	Brake lights				

16	5.E.3	Yes	Parking lights	
17	5.E.3	Yes	Radiator	
18	5.E.3	Yes	Front and rear bumpers	
19	5.E.3	Yes	Horn	
20	5.E.3	Yes	Gas Tank (retained, need not be used)	
21	5.E.3	No	Side Panel upholstery must be maintained	Not possible with roll a cage installed.
			Modifications Allowed	
22	5.E.3	Yes	Wheel openings radiused, to allow for clearance	Front fenders have been rolled.
23	5.E.3	Yes	Generator/alternator removed	The alternator will not be removed.
24	5.E.3	Yes	Exhaust system capable of being closed	Not applicable
25	5.E.3	No	Air dam (4.CC.1) and spoiler (4.CC.8) identical to factory originals	We have a Lenke air dam and an aftermarket rear wing.
26	5.E.3	Yes	Racing seat (required, see 3.D.1)	Kirkey seat.
27	5.E.3	Yes	Minor chrome trim may be removed	Done
28	5.E.3	Yes	OEM intake may be used	Aftermarket carburetor (Weber 32/36) and air cleaner are used.
29	5.E.3	Yes	Stock windshield may be removed or lowered	Stock windshield is used.
30	5.E.3	Yes	Engine swaps are allowed as long as the engine is from the same manufacturer.	We're running with an Opel motor, a slightly modified version of the original 1.9L CIH motor
			Modifications That Are Not Allowed	d
31	5.E.3	Yes	Streamlining	Not done.
32	5.E.3	Yes	Air Ducts	None installed.
33	5.E.3	Yes	Air Vents	None installed.
34	5.E.3	Yes	Headlight Air Intake	Not done.
35	5.E.3	Yes	Chopping	Not chopped.
36	5.E.3	Yes	Channeling	What is channeling?

## **Section 2. Car Competition Specifications**

#	Ref.	OK?	Description	Comments		
	Engine					
1	2.A	Yes	Any internal combustion engine is allowed, with some restrictions on vintage class.	The engine is an inline 4, iron block and head, cam-in-head, carbureted.		
2	2.A	Yes	Non-Otto type engine run in the $\Omega$ class	This is an Otto-type engine		
3	2.A	Yes	Of Otto cycle engines, class is by displacement. For G Class the displacement range is 1.524 to 2.015 L displacement where displacement = $0.7854 B^2 S n$ where $B = \text{bore}$ , $S = \text{stroke}$ , $n = \text{number}$ of cylinders.	B = 95  mm S = 69.6  mm n = 4 Displacement = 1.973 cc		
			Fuels			
4	2.B	Yes	Gasoline – Certain additives are prohibited. Fuels may be tested by the Contest Board.			
5	2.B	Yes	"Event Gasoline" – If established, that is what we use.			
6	2.B	n/a	"Event Diesel" – If established, that is what diesel motors will use. USDA Food Grade vegetable oil may be used instead or blended.			
			Frame/Chassis			
7	2.C	Yes	Must be strong enough to withstand the loads and flexing.	Stock chassis, strengthened with a roll cage		
8	2.C	Yes	Burden of proof is on the entrant.	The car's 2+ years of road racing demonstrates that the strength is sufficient.		
			Shocks			
9	2.D	Yes	A functioning shock is required for each sprung wheel.	We've got good shocks on all four corners.		
			Hubs			
10	2.E	No	Non-retained axle bearing assembly (non-Hotchkiss type) must use an approved hub to prevent loss of wheel and axle.	Ours is the Non-retained type. We need to replace it with the rear end from a later model.		
11	2.E	n/a	Semi or full floating rear axle assemblies, as used in most late model production cars, are sufficient.	We don't have this.		

12	2.E	No	Late model GM rear ends using "C" clip type axle retainers are not allowed.	We'll have to replace ours with the rear end from the parts car (1971 Opel GT)			
	Tires						
13	2.F	Yes	It looks like the standard speed ratings apply.	We are using Z and W rated tires			
14	2.F	n/a	Non-rated tires my be approved.				
15	2.F	n/a	Inner tubes are required for all racing tires unless designed for use without tubes.				
16	2.F	Yes	Recommend staying within the manufacturer's recommended tire pressure limits				
17	2.F	No	Metal caps on valve stems.	We need to get some.			
18	2.F	No	Metal valve stems for tubeless tires.	We need to get some.			
			Wheels				
19	2.G		Wheel Nuts for sub-200 mph classes must cover at least 5/8" of stud's thread.				
20	2.G	Yes	Closed end/acorn-type wheel nuts are not allowed.	We use only the open-type lug nuts.			
21	2.G	Yes	Rules apply for non-ferrous wheels, such as steel plates or washers between the lug nuts and wheel.	We are using steel wheels.			
22	2.G	Yes	Magnesium wheels are not recommended and may require certificates.	We are using steel wheels.			
23	2.G	Yes	Wheel covers and/or hub caps must be removed. Full-wheel discs are allowed.	We don't have these.			
24	2.Н	Yes	Thread width is measured as the distance between the centers of two stacked tires.				
			Push Bars				
25	2.I	n/a	Required for cars that need a push.				
26	2.I	n/a	Push bars cannot provide aerodynamic advantages.				
	Ballast						

27	2.J	Yes	Ballast is allowed.	We aren't using ballast.		
28	2.J	Yes	Ballast must be secured.			
	Appearance					
29	2.K	Yes	Must look reasonably OK.	The Tinyvette is nothing if not pretty.		
			Number/Chassis Designation			
30	2.L	?	Numbers 1-25 are reserved	Darn. Will we have to remove our "8"?		
31	2.L	Yes	Numbers with three identical digits are reserved for Streamliners.	OK.		
32	2.L	Yes	Numbers will be 3" tall.	There is plenty of room for this on the rear fender.		
33	2.L	Yes	Numbers do not stay with the car when sold.	We'll never sell the Tinyvette!		
			Canopies			
34	2.M	Yes	Allowed in streamliner class only.			
	Replica Bodies and Panels					
35	2.N	Yes	Must be accurate.	We don't have any replica body panels.		
			Tarps			
36	2.O	Yes	Must be non-flammable.	We won't be using a tarp.		
37	2.O	Yes	On pick-up trucks, must be at the level of the sides of the bed.			
			4-Wheel Drive			
38	2.P	Yes	Allowed in the "Special Construction" category	The Opel GT is RWD.		
			Computers			
39	2.Q	Yes	Computers can only be used for engine management	This car has no ECU/computer		
40	2.Q	Yes	Exceptions can be made for vintage cars.			
			Data Loggers			
41	2.R	Yes	Data loggers are allowed.	Maybe I should bring my Gtech Pro.		

## **Section 3. Technical Specifications and Requirements**

#	Ref.	OK?	Description	Comments		
	Driver's Clothing (for vehicles under 175 mph)					
1	3.A.1	No	Suit: SFI 3.2A/10 or SFI 3.2A/5 with Nomex underwear	Sparco X-Lite, SFI 3-2A/5 I need to get udnerwear.		
2	3.A.1	Yes	Shoes: SFI 3.3/5	Sparco, SFI 3.3/5		
3	3.A.1	?	Gloves: SFI 3.3/5	Sparco, ISO 6940		
4	3.A.1	?	Head sock: SFI 3.3	Damn it, I can't find it.		
			Driver's Helmet			
5	3.A.2	Yes	SA2005 or better	Helmet is Bell Racer M.4 Series (SA2010)		
6	3.A.2	Yes	SA2010, SAH2010 or FIA8860-2010 recommended	Helmet is SA2010.		
7	3.A.2	Yes	Closed-face only, full visor	Helmet is full face.		
8	3.A.2	Yes	Eyeglasses - shatterproof	Glasses not worn.		
			Driver's Helmet Support			
9	3.A.3		Forward, rear, and side support system shall be used.	I need this one explained better.		
10	3.A.3	Yes	Forward movement: SFI 38.1 neck restraint or better.	Defender neck restraint device, SFI 38.1.		
11	3.A.3	?	Lateral movement, maximum 2" side-to-side, can use restraint, net, swing-away bar, etc.	Will the Defender serve this purpose?		
12	3.A.3	-	Where is the description of requirements for rear support?			
			Roll Cages - General			
13	3.B	Yes	Low carbon steel tubing recommended. Steel pipe, aluminum magnesium etc. are not allowed.	We used low carbon DOM tubing.		
14	3.B	Yes	Bolted structures - 5/5" bolts and grade 5 minimum	We have a welded cage.		

15	3.B	No	For monocque cars, , use 1/4" plate pads above and below (sandwich style). 18" perimeter (i.e. 5" x 4") for cars under 2500 pounds.	I think this might apply to us.		
16	3.B.1	?	Cage design should protect the driver from any angle, including rear and bottom.	Bottom!		
17	3.B.1	Yes	Tubing - 1.5" diameter x 0.095" wall for class G and others.	1.5" x 0.xxx" DOM tubing (Check with John)		
18	3.B.1	?	4-point gage if front hoop is continuous	I'm confused. Talk to John.		
19	3.B.1	No	Gussets, required at the tube junctions of hoop and shoulder rails and at all shoulder bar attachment points.	We don't have a gusseted cage.		
20	3.B.1	No	Plate gussets – mild steel, 0.125" minimum thickness, minimum 4" per side, maximum 6" (requires approval)	We don't have a gusseted cage.		
21	3.B.1	No	Tube gussets, 1" OD and 0.120" wall minimum, 4" length minimum, 6" maximum.	We don't have a gusseted cage.		
22	3.B.1	No	Stitch welded on the outside of the tube junction.	We don't have a gusseted cage.		
23	3.B.1	No	Front hoop, at least 3" in front of driver's helmet.	We don't have a front hoop for the driver's helmet.		
24	3.B.2	Yes	Padding - SFI 45.1 for round tubing	We have this.		
			Head Rest			
25	3.C	Yes	Head rest – at least 2" from back of driver's helmet, to prevent whiplash.	Our Kirkey seat provides this.		
			Seats			
26	3.D.1	Yes	Racing seats only.	Kirkey		
27	3.D.1	Yes	Composite seats require approval.	Not applicable.		
28	3.D.1	Yes	Plastic seats not allowed.	Not applicable.		
29	3.D.1	Yes	Maximum 1" padding.	Kirkey padding		
30	3.D.1	Yes	Must be supported in the rear.	Secured to the roll cage.		
	Seat Belts					
31	3.D.2	Yes	SFI 16.1	Autopower PC-100, SFI 16-1		

32	3.D.2	Yes	Quick-release	Yes
33	3.D.2	Yes	2" minimum belts (lap, shoulder and crotch)	3" belts except for the crotch belt.
34	3.D.2	Yes	In good condition, less than 5 years old, still has the manufacturer's tag.	Less than 2 years old, look like new.
35	3.D.2	Yes	Mounting – per manufacturers specifications, grade 5 bolts or better, factory mounting through the floor board is inadequate.	Factory seat belt mounts in the side rail and transmission tunnel are used. Shoulder belts attach to the roll cage, crotch belt attaches to the floor via steel plate.
			Arm/Leg Restraints	
36	3.D.3	No	Arm restraints required, SFI 3.3, 2006 or later	I need to get these.
37	3.D.3	No	Legs restrained by net, tethers, bars, panels, to keep limbs inside the car.	We need to get a window net.
38	3.D.3	No	Controls should be mounted close to the steering wheel to keep lengths as short as possible.	
39	3.D.3	No	Shall be combined with the drive belt system so that they release in conjunction with the driver's belts.	
40	3.D.3	No	Mounting tabs for nets should be inside the roll cage structure.	
41	3.D.3	No	Window nets should be mounted such that they fall from the top and out of the driver's way.	
42	3.D.3	No	Nets should be such that the driver can exit the car without assistance.	
43	3.D.3	No	Nets should be effective even with the door removed. These would be "full door" nets.	
44	3.D.3	No	Nets should attach with a positive locking system.	
			Driver's Compartment	
45	3.E	Yes	Designed for good driver vision and easy exit.	It is.
46	3.E	Yes	Door locks, steering locks, etc. must be inoperative.	We don't have locks on our doors or steering.
47	3.E	Yes	Compartment should be free of sharp edges, etc.	It is.
48	3.E	Yes	Driver should be able to reach all controls while strapped in.	We can.

49	3.E	Yes	For front-engine cars, the flywheel must be forward of the driver's	It is.		
			knees.			
50	3.E	Yes	Forward pointing air intakes should provide adequate ventilation.	We have that.		
51	3.E	Yes	Compressed oxygen breathing systems are prohibited.	We don't have that.		
52	3.E	Yes	A suitable cross-member shall be installed to protect any portion of the driver's body that extends below the frame rail.	We don't need this.		
			Firewall			
53	3.F	Yes	A full firewall, water tight, no holes, shall be between the driver and engine compartments.			
			Secondary Flooring			
54	3.G	Yes	Secondary flooring, made of metal, is required for cars having modified floor pans.	We still have the original floor pans, though they have been patched somewhat.		
	Transmission Shields					
55	3.H	Yes	All cars with automatic or planetary-type transmissions shall use ballistic transmission blankets.	We have a manual non-planetary type transmission.		
56	3.H.1	Yes	Any type of transmission can be used.	We have a manual non-planetary type transmission.		
57	3.H.1	Yes	Automatic transmission must have a positive reverse lock-out	We have a manual non-planetary type transmission.		
			Fueling Systems			
58	3.I	Yes	Securely mounted	Yes, OEM tank in OEM location.		
59	3.I	Yes	Plastic fuel lines are not permitted.	Aluminum lines and rubber hose.		
60	3.I	Yes	Metal screw-type hose clamps are required at every connection to rubber hoses.	Yes		
61	3.I	Yes	The fuel system must be isolated from the driver's compartment.	It is, per LeMons rules.		
62	3.I	No	Fuel lines passing by the clutch/flywheel must be protected by heavy steel tubing or be outside of the frame rail.	We need to fix this.		
63	3.I	Yes	Fuel tanks must be vented to prevent spillage in the event of a roll-over.	It is.		

64	3.I	Yes	NOS and other types of tanks will be considered as fuel tanks.	We are not using NOS.
65	3.I.1	Yes	A fuel shutoff is required for all non-stock fuel systems.	Ours is a stock system, but we added a fuel cutoff valve anyway.
66	3.I.1	Yes	The driver must be able to reach this cutoff.	Ours is in the rear, outside of the car.
67	3.I.1	Yes	Cars with electric fuel pumps must provide a cutoff switch that disables the pump.	Our fuel pump is mechanical.
68	3.I.1	Yes	Cars with electric fuel pumps must include an inertial switch.	Our fuel pump is mechanical.
69	3.I.1	?	All rotating fuel shutoff valves shall have a positive stop to prevent reopening the valve.	
70	3.I.2	Yes	Additional rules apply to cars that use nitrous oxide systems.	We are not using NOS.
71	3.I.3	Yes	Additional rules apply to cars that use diesel engines.	We are not using diesel.
			Throttles	
72	3.J	Yes	All cars shall include a redundant, self-closing, throttle control system, with two return springs.	Yes, and we have two springs.
73	3.J	Yes	There shall be a positive stop to prevent sticking in the over-center position.	Our throttle does not over-center.
74	3.J	Yes	Accelerator pedal toe straps are required except in OEM cable or hydraulic throttle systems.	Our system is stock/OEM.
75	3.J	Yes	Using plastic-line throttle cables are strongly discouraged.	We are not using a cable.
			Batteries	
76	3.K	Yes	Properly secured in metal framework and fasteners.	It is in a steel frame.
77	3.K	Yes	Plastic tie-downs are not allowed.	We are using steel tie-downs.
78	3.K	Yes	Batteries located in the driver's compartment must be in a sealed acid spill-proof box.	Our battery is not in the driver's compartment.
79	3.K	Yes	A battery disconnect switch is required.	We have two. One is a battery cut-off and the other is a kill-switch
80	3.K	Yes	The location battery kill switch must be clearly marked.	It is.

81	3.K	Yes	The battery kill switch be able to be operated from outside the vehicle.	It can be.				
	Steering							
82	3.L	Yes	All steering systems must be gear or link type.	Our is.				
83	3.L	Yes	The steering wheel shall have adequate clearance.	It does.				
84	3.L	Yes	The steering column shall be rigidly mounted.	It is.				
85	3.L	Yes	The moving parts shall operate with out excessive play.	They are good.				
86	3.L	Yes	The steering linkage shall have sufficient clearance between the body and chassis.	It does.				
87	3.L	Yes	Steering shall be assured by at least two front wheels.	It is.				
88	3.L	Yes	Frequent inspections of critical steering components is recommended.	We do this.				
89	3.L	Yes	Additional rules apply to Heim joints.	We don't use Heim joints.				
90	3.L	Yes	Long steering columns should be collapsible.	Our is collapsible.				
91	3.L	Yes	Non-metallic steering wheel hub release mechanisms are not permitted.	Ours is metal.				
92	3.L	Yes	The use of wagon wheel-type steering on FWD cars is prohibited.	What the heck it that?				
93	3.L	Yes	Cable steering systems such as those used in the Ford Pinto are not allowed.	Ours is a gear/link type.				
			Parachute					
94	3.H							

	Parachute Release	
3.N		
T	Flywheels, Flywheel Shields, and Bell Ho	usings
3.O		
ı	Exhaust Systems	
3.P		

	Fire Extinguishing Systems				
	3.Q				
	Cooling System				
	3.R				
I			Drive Lines		
	3.S				

Front End and Suspension					
	3.T				
Windows and Windshields					
	3.U				
Hoods					
	3.V	Yes	Hoods are required in all classes except Special Construction.	We're using the original hood.	
	3.V	Yes	Hoods must be secured using metal fasteners, leather, or webbing straps.	We are using steel hood pins.	
	3.V	Yes	Production hood latches are not adequate unless they open from the rear.	Ours opened from the rear, but they have been removed.	
	3.V	Yes	Hood side-panels may be removed.	We don't have these.	

	3.V	Yes	Early type hood hold downs (spring type) are inadequate.	We don't have these.	
	3.V	Yes	Visible hood release fasteners (.i.e. Hood pins and Druz fasteners) do not need to be marked. All other types, such as factory hood releases, must be clearly marked.	We are using hood pins.	
	Brakes				
	3.W	Yes	Adequate brakes are required in all classes.	We've got great brakes.	
	3.W	Yes	Brake controls shall be within the driver's reach while strapped in.	Why does this even have to be stated? I am trying to imagine the incident that prompted this.	
Blower Restraint System					
	3.X	Yes	SFI-type blower restraint systems shall be used on cars equipped with positive-displacement blowers.	We aren't using a blower.	
	3.X	Yes	Blowers where the driver's body is in the place of the blower shall be contained in an SF-type restraint bag.	We aren't using a blower.	