



CONCOURS *de* MACHINES

5TH EDITION

10TH → 14TH JUNE 2020

Les Baronnie

RULES & SPECIFICATIONS



ASSOCIATION *des* ARTISANS *du* CYCLE

The “Concours”

The aim of the Concours de Machines is to promote the design and manufacturing of handmade bicycles, by inviting framebuilders to challenge and imagine the multiple uses of the bicycle, in order to foster its' further evolution.

Our underlying hope is to tweak the bicycle, to trigger creative thinking at the fringes of the bicycle industry by making small significant deviations to the existing designs. Observe what has been done, ask ourselves how it could be improved, further existing designs, propose new ones, finally implement an alternative (which might not be necessarily disruptive) that requires starting from a clean sheet of paper and building a bicycle, by hand.

The Concours de Machines hosts mainly French bicycle builders, but those of other nationalities and a few beginners or “rookies”, are welcome too.



Theme

The guiding principle for this edition is a self-sufficient trip between friends on a 2-3 days ride basis, among medium and high mountains of the Pyrénées, on the French border with Spain.

It always start around a drink...

“Who’s up for a couple of days riding among the mountains?”

DATES: 11th & 12th of June 2020
(attendance required from the 10th)

LOCATION: Meet at the Escaladieu Abbey

SCHEDULE: 10h ride per day

REQUIREMENTS: being self-sufficient in food, shelter, electricity... Being animated by a spirit of conviviality, favour a environmentally-friendly approach.

The scene being set, you are asked to design and built the most suitable bike for such a program.

The specifications to respect are therefore the following guidelines...

The presented solution must...

– ride day and night on all type of terrain (road, dual and single tracks), including hilly environment (staires, rocks, dirt, roots, scree...) among the mountains with your friends

– take the essentials to :

- fix his bike
- treat wounds of a rider
- manage your waste / reduce the environment impact of your ride
- keep a memento of this experience (photo, video, drawing, painting, writing, sound, ...) , and therefore being able to get access to it as simply as possible.
- orient yourself with a GPS track
- contact rescue services
- get 48h of electric autonomy
- ride and set the camp by night
- keep yourself dry and warm during the bivouac
- boil water
- carry 4L of water including 1.5L easily accessible when riding

– be compacted easily to facilitate a car-free arrival on site, that is to say, fit the french train policy (SNCF) : the bike must fit in a 1200mm long and 900mm high suitcase or bag, and minimise the width.

– protect the cables and brake hose from aggressive environment and get access for maintenance

– have bicycle bags quickly removable but firmly tied up.

– avoid friction and abrasion of the frame and the components

– making bike carrying easier during hike-a-bike sections, allowing a free hand available during the progression.

– integrate multiple features of the bike

– recycle second-hand parts and components

– suggest additional feature at your own discretion

– maintain the spirit of conviviality and mutual aid

And since not everyone has several bikes, this bike adapted to bivouac in the mountains must remain efficient stripped out of all its bivouac equipment.

Mandatory equipment

(ABSENCE = ELIMINATION)

.....

MECHANICS

- frame and fork
- handlebar and stem, or substitute
- a seat attached to the frame in such a way as to allow adjustment and removal
- two wheels with rim, hub axle, and a quick-release mechanism
- a drivetrain including a crank and arms
- multi-speed, and the ability to freewheel
- independent front and rear brakes
- equipment required to carry out these five repair or maintenance operations:
 - Repair a puncture or a gash in a tire, and inflate it, whether tubed or tubeless.
 - Repair a chain, a coupling, replace a belt, ...
 - Adjust the drivetrain, replace a component to keep it operational, for example a cable.
 - Adjust the position on the bike (raising and lowering the seat, tightening the handlebar, stem, brake levers) and adjust the headset.
 - Replace and tension a spoke, including the ones on the driveside, re-true a wheel.

.....

SAFETY FIRST

- front and rear lights in order to see and be seen at night, even at low speeds (5 km/h)
- a portable light (for use when off, or carrying the bike!): 2h capacity
- a device to contact rescue services
- a first-aid kit including a survival blanket
- these details must appear prominently on the frame as well as on the rider's helmet:
 - last name & first name
 - blood type and known allergy (s)
 - number of a contact person in case of an emergency

.....

NAVIGATION

GPS / smartphone: 24h capacity

.....

BIVOUAC / FOOD / COMFORT

- 3 meals including 1 picnic, 1 warm meal and 1 breakfast
- a shelter to keep the rain and wind out, and prepare meals in it
- a zero degree (Celcius) sleeping solution, including a mattress
- a puffy jacket
- a headdress
- a trousers
- a raincoat
- a solution to boil 1L of water
- carry 4L of water including 1.5L easily accessible when riding

Backpack and hipbags are allowed within the limit of 12L capacity, 3kg overall weight, and 3L water maximum capacity in a water bag.

Weighing configurations

.....

BIKEPACKING

Bike ready to ride + lightning + GPS/smartphone + electric storage + bike bags

- stove + fuel + pan
- shelter
- water container : if water bag, add the backpack or the hipbag
- waste management
- tools

Will be removed the food, clothing, sleeping bag, mattress and first-aid kit.

.....

EMPTY

Bike ready to ride without all the bags

Note: second-hand parts

There will be no specific mark assigned on this requirement but the Jury will take them into account in their overall assessment.

Scoring scale

		points	%	notes	
STATIC EVALUATION	Technical committee	weight (bikepacking configuration)	300	3%	the lightest gets all the points, the heaviest gets none, in between : pro-rata
		weight (bike alone)	300	3%	the lightest gets all the points, the heaviest gets none, in between : pro-rata
		frame builder = rider	100	1%	
		"compactness" for transportation ¹	250	2,5%	The bike and gear should fit in a 1200x900xP mm ³ box. Attributed points are a function of measured P : the thinnest box gets all the points, the widest gets 150 pts if the bike does not fit in the box : none
	jury	in-house frame parts or components	500	5%	left up to the jury
		modified components	250	2,5%	left up to the jury
		in-house fork	500	5%	left up to the jury
		friendship / mutual assistance function	300	3%	left up to the jury
		housing routing	200	2%	left up to the jury
		packing gear ²	300	3%	left up to the jury
		packing /unpacking of the bike (demonstration) ¹	250	2,5%	left up to the jury
		leave no trace / environmental friendly	100	1%	left up to the jury
		keep a record of the riding	200	2%	left up to the jury
		building report	100	1%	left up to the jury
		carrying (demonstration) ³	100	1%	left up to the jury
multi purpose equipment	500	5%	left up to the jury		
in-house VS off the shelf	300	3%	left up to the jury		
additional function(s)	900	9%	left up to the jury		
FIELD EVALUATION	jury	carrying device (relevance) ³	150	1,5%	left up to the jury
		packing gear ² (stability / does not interfere with the bike handling)	100	1%	left up to the jury
		lights (efficiency)	200	2%	left up to the jury
		shelter (capacity, efficiency) ⁴	200	2%	left up to the jury
CT	shelter coefficient ⁴ (volume x price x set up time x weight)	300	3%	volume : packed up volume of the shelter price : retail price if off the shelf solution / supplies cost if in-house solution time : set-up time weight : only the shelter specific elements will be weighted (multi purpose elements won't) The lowest coefficient gets all the points, the highest gets none. In-between: pro-rata	
	heating device coefficient (heating time x volume x price x weight)	300	3%	volume: packed up volume of the heating device price : retail price if off the shelf solution / supplies cost if in-house solution time: heating time of 1L of water (up to boiling) weight: only the shelter specific elements will be weighted (multi purpose elements won't) The lowest coefficient gets all the points, the highest gets none. In-between : pro-rata"	



		nombre de points	% sur vote final
¹	the whole points as for the packing of the bike itself	500	5,00%
²	the whole points as for the packing gear	500	5,00%
³	the whole points as for the carrying device	250	2,50%
⁴	the whole points as for the shelter	500	5,00%

			points	%	notes
AFTER RIDE INSPECTION	jury	packing gear (no damage on the frame)	100	1%	left up to the jury
		overall assessment of the bike and gear	450	4,5%	left up to the jury
	Technical committee /technical inspection	frame and fork	500	5%	
		transmission	100	1%	
		crankset	100	1%	
		lights	50	0,5%	
		headset	100	1%	
		packing gear	300	3%	
		wheels	200	2%	
		free wheel	100	1%	
		saddle and seat post	100	1%	
		bolts	200	2%	
VOTES	audience	500	5%		
	builders		5%		
TOTAL			10 000	100,0%	

SUM UP OF THE WEIGHTING OF EACH CRITERION CATEGORY ON THE OVERALL MARK	weight	600	6%
	technical inspection + building report + "builder = rider"	1950	19,5%
	bivouac integration (shelter, packing gear, carrying device, heating device) + relevance and efficiency + overall evaluation of the work of the builder	6 450	64,5%
	audience vote	500	5%
	builders vote	500	5%

Contact

If you have any question regarding these rules or the associated evaluation grid, feel free to contact Paul Rhoné, member of the technical commission.

paul@paulrhone.net

+33 (0)7 67 88 31 06