



9th International
Abilympics
Bordeaux 2016

Vocational Skills Contest

V31 Bicycle Assembly

1. Task Assignment

The task consists in assembling a Women's city bike. Some of its parts may be pre-installed in order to facilitate contestants' work, for example the bicycle drive, the steering bearings or the fork.

Contestants will use the manufacturer's assembly instructions.

The brand of the bicycle will be revealed on the day of the competition.

The following image is an example of a Women's city bike. Be careful, this is not the one to be used for the competition.



Summary of the main assembly steps (*bear in mind that depending on the brand, the manufacturer's assembly instructions might come in a different order*):

- Installation of the derailleur gears,
- Installation of the chain,
- Installation of rim brakes on both the front and the back wheel,
- Installation of the stem and the handlebar,
- Installation of the seat post and the saddle

- Installation of the crankset and pedals,
- Adjustment of any buckling or axle problems,
- Installation of air chambers and tires,
- Installation of the cables and their sheaths,
- Installation of the lights, the mudguards and the carrier rack,
- Adjustment of all the systems.

2. Allocated time: 4h30

4 hours and 30 minutes of competition.



3. Requirements

- Contestants must respect hygiene and safety rules.
- A demonstration bike will be available for consultation to contestants for 30 minutes before the beginning of the competition. It will then be removed from the contestants' sight.
- Once they have adjusted the buckling of the wheels, contestants will notify the jury for evaluation and carry on with the installation of the remaining parts.
- Any contestant caught cheating, talking to someone from the public or using a communication device will suffer a penalty of 5 points for the first transgression. A second transgression will lead to an exclusion from the contest.

4. Procedure

Day -1 (March 24th): On the day before the competition, contestants will be welcomed by the members of the jury. A briefing about the organization of the competition and the safety rules will be arranged. Due to the large number of registered contestants, the competition will be organized in two groups. Contestants from a same delegation will inevitably be placed in the same group. Contestants will draw lots to be assigned to a work station, where they may drop off their tools.

Day 1 (March 25th): Group n°1 will have 4 hours and 30 minutes to compete while group n°2 is out of the competition site on a mandatory excursion.

Day 2 (March 26th): Group n°2 will have 4 hours and 30 minutes to compete while group n°1 is out of the competition site on a mandatory excursion.

5. List of the provided equipment

(The tools and equipment depicted below only serve for information purposes only.)

Non-exhaustive list.

N°	Tool	Photo	Specifications	Qty per contestant
01	Work station with 1 workbench		Height can be adapted if necessary	1
02	Bike repair stand			1
03	Bike parts			1 set
04	Cable and sheaths, cable stops			1 set
05	Set of tools specific to the type of bike to be worked on			1 set for all contestants
06	Truing stand			1
07	Wheel alignment gauge			1

08	Torque wrench 3-15 Nm			1
09	Torque wrench 10-60 Nm			1
10	Lubricant and other useful consumables			1 set
11	Bike presentation stand			1
12	Recycling bins		For selective sorting. 3 bins	1 set for all contestants
13	Industrial paper towels			1 roll



6. List of tools to be brought for each contestant

N°	Tool	Photo	Specifications	Qty
01	Toolbox: set of screwdrivers, different wrenches, tire levers, cutting pliers for cables and sheaths...		Set of standard tools for bicycle mechanics	1
02	Hammer			1
03	Spoke wrenches			1 set
04	Male hex keys			1 set
05	Monkey wrench			
06	Bicycle pump		Contestant's choice	1
07	Professional work clothes		Contestant's choice	1
08	Safety shoes		Contestant's choice	1 pair
09	Work gloves		Contestant's choice	1 pair
10	Safety glasses		Contestant's choice	1 pair

8. Evaluation Criteria



N°	Items to be Evaluated	Scoring Scale
01	Organization of the work station, respect of hygiene and safety rules	05
02	Installation of the derailleur gears and chain	10
03	Installation of the brakes system on both wheels	10
04	Installation of the stem, handlebars, seat post and saddle, and alignment of the elements	10
05	Installation of the crankset and pedals	05
06	Precision of the adjustment of any wheel buckling or axle problems	15
07	Installation of air chambers and tires	10
08	Installation of cables and sheaths	10
09	Installation of the lights, the mudguards and the carrier rack	05
10	Adjustment of gears and brakes	15
11	Assembly and adjustment of the bike within the allocated time	05
	Total	100