



8th International Abilympics

Vocational Skills Contest

V3. Bicycle Assembly

1. Task Assignment

Contestants shall disassemble, assemble and adjust a 24-speed mountain bike (26 inch, rim break, Korean Made) using general and professional bike tools.


2. Allocated Time




Maximum 3 Hours 30 Minutes

3. Requirements








- Contestants shall disassemble a mountain bike (70% pre-assembled), then re-assemble accurately and make adjustments to the assembled bike. A sample mountain bike that has been assembled by professionals shall be displayed on site for reference.
 - No measuring instruments/tools are permitted for use.
 - Electric tools (using batteries) are permitted for use.
 - Contestants are not permitted to borrow or lend tools during the contest.
 - Contestants must notify the judge when they complete the task.

4. List of Materials to be Provided

No.	Material	Picture	Specification	Unit	Qty per person	Qty for joint-use	Note
1	Cable wire cap			Each	4		

No.	Material	Picture	Specification	Unit	Qty per person	Qty for joint-use	Note
2	Chain link pin			Each	2		
3	Rim spoke nipple			Each	5		
4	Rim tape			Each	1		


5. List of Tools to be Brought

No.	Tool	Picture	Specification	Unit	Qty	Note
1	Rubber hammer			Each	1	
2	Nipple driver			Each	1	
3	Screw driver			Each	1	
4	Spoke wrench			Each	1	
5	Sprocket remover		1/2 pitch	Each	1	
6	Allen wrench			Each	1	
7	Mechanic tool kit			Each	1	



No.	Tool	Picture	Specification	Unit	Qty	Note
8	Adjustable wrench			Each	1	
9	Master chain tool			Each	1	
10	Pedal wrench			Each	1	
11	Frame type stand			Each	1	
12	Freewheel remover		8-speed For freewheel	Each	1	
13	Wheel truing stand			Each	1	
14	Wheel center gauge			Each	1	

※ Refer to the attached photographs and prepare tools to be brought.

6. List of Facilities Installed at Contest Site

No.	Equipment	Picture	Specification	Unit	Qty	Note
1	Mountain bike		26 inches 24-speed	Each	1	For displaying

No.	Equipment	Picture	Specification	Unit	Qty	Note
2	Frame type stand	 Frame type Stand	General	Each	1	For contest
3	Worktable		For 1 person	Each	1	For contest
4	Chair		For 1 person	Each	1	For contest
5	Wheel truing stand		Standard	Each	1	For displaying
6	Air compressor		3 house power	Each	1	For contestants who cannot use pumps
7	Rim set		26 inches	Each	1	For displaying
8	Sample component		Same materials provided	Each	1	For displaying
9	Spoke tension meter		Dial	Each	1	For measuring (Evaluation)
10	Dial indicator			Each	1	For measuring (Evaluation)

No.	Equipment	Picture	Specification	Unit	Qty	Note
11	Air pressure gauge			Each	1	For measuring (Evaluation)
12	Tool kit (small)				10	

7. Evaluation Criteria

Skills of contestants shall be evaluated based on the final product.

No	Items to be Evaluated	Marks
1	State of the front & rear wheels, and assembly of rear wheel	30
2	Assembly of the handle system, handle bars and saddle	13
3	Assembly of front and rear brakes & cables	20
4	Assembly of pedals, front & rear gearshift and chain	20
5	Assembly of the crank, pedals	10
6	Degree of completion	7
Total		100

Materials



Veepipe



Control Shift Lever



nipple



Rear Derailleur



Rear Hub



Break Set



Gear Crank



Break shoe



Front Derailleur



Front Hub



Stainless Wire



Chain Pin



Chain



cable wire cap



Frame type Stand



Free Gear



Hub Type Stand



QR Lever

Tools to be Brought



Rubber Hammer



Nipple Driver



Screw driver



Spoke Wrench



Sprocket Remover



Allen Wrench



Mechanic Tool Kit



Adjustable Wrench



Master Chain Tool



Tire Lever Set



Freewheel Remover



Cable and Housing Cutter



Pump



Wheel Center Gauge



Crank Bolt Decollate Wrench



Pedal Wrench



Crank Decollate Wrench



Wheel Truing Stand