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**Cycles — Classification, terminology and
essential characteristics**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Bicycle Promotion Institute (JBPI)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently, **JIS D 9111:2010** is replaced with this Standard, and **JIS D 9101:2012** has been withdrawn and replaced with this Standard.

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Cycles — Classification, terminology and essential characteristics

Introduction

This Japanese Industrial Standard has been prepared based on ISO 4210-1 : 2014, Edition 1, and on ISO 8090 : 1990, Edition 1, with some modifications of the technical contents, including addition of related terms that are used in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies type classification, terms, definitions and essential characteristics of cycles.

NOTE : The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 4210-1 : 2014 *Cycles — Safety requirements for bicycles — Part 1 : Terms and definitions*

ISO 8090 : 1990 *Cycles — Terminology* (Overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and JIS are IDT (identical), MOD (modified), and NEQ (not equivalent) according to ISO/IEC Guide 21-1.

2 Type classification of cycles

Type classification and component classification of cycles shall be as follows.

- a) **Type classification** Cycles are classified as shown in Table 1. Types listed under sub-classification are cycle types. Examples of configurations of respective cycles are shown in Figures 1 to 10.

Table 1 Type classification

	Broad classification	Sub-classification (cycle types)	Japanese Industrial Standard
Cycle	Bicycle for general use	Sporty bicycle	JIS D 9301
		City bicycle	
		Compact bicycle	
		Roadster	
		Young adult bicycle	
	Bicycle for young children	Young children bicycle	JIS D 9302
	Bicycles for exclusive sports usage	Mountain bicycle	—
		Racing bicycle	
	Electric power assisted bicycle	Sporty bicycle	JIS D 9115
		City bicycle	
		Compact bicycle	
		Roadster	
	Trishaw	Tricycle (including those having a driving power assisting function)	—
	Special purpose cycle	Bicycle which is equipped with the seats for two children (including those having a driving power assisting function)	—
		Track racing bicycle	
		BMX bike	
		Cyclo-cross bicycle	
		Tandem bicycle	
		Recumbent bicycle	
		Camping bicycle	
		Other special purpose cycles	

- b) **Component classification** The component classification and constituent parts of bicycle shall be as shown in Table 2.

NOTE : The component classification means a classification of constituent parts of cycles according to the respective functions.

Table 2 Component classification and constituent parts

Component classification	Designation of constituent parts	Part number ^{a)}	Japanese Industrial Standard ^{b)}
Body unit	Frame assembly		JIS D 9301 Annex JA
	Frame body	1-1	
	Front fork	1-2	JIS D 9301 Annex JB
	Frame parts		
	Head parts	1-3	
	Bottom bracket parts	1-4	
	Seat parts	1-5	
Steering device	Handle		JIS D 9412
	Handlebar	2-1	
	Handle stem	2-2	
	Grip	3	JIS D 9413
	Bar tape	4	
	End cap (or end plug)	5	
Driving device	Chain wheel and cranks	6	JIS D 9415
	Pedal	8	JIS D 9416
	Toe clip or toe strap		—
	Chain	9	JIS D 9417
	Serrated toothed belt	10	—
	Free wheel and small gear	11	JIS D 9418
	Unit hub ^{c)}		JIS D 9419
	Serrated toothed pulley		—
	Front serrated toothed pulley	7	
	Rear serrated toothed pulley	12	
Running device	Hub (ordinary hub, quick release hub, unit hub, hub gear, back-pedal brake, hub brake and hub generator)		JIS D 9419
	Front hub	13-1	
	Rear hub	13-2	
	Spoke and nipple	14	JIS D 9420
	Rim	15	JIS D 9421
	Tyre	16	JIS K 6302
	Tube		JIS K 6304
	Tyre valve	17	
	Solid wheel		—
	Auxiliary wheel	18	
Change gear device	Deraillleur		JIS D 9428
	Rear deraillleur	19-1	
	Front deraillleur	19-2	
	Shift lever	19-3	
	Deraillleur cable	19-4	
	Hub gear ^{c)}		JIS D 9419
Braking device	Brake (rim-brake, calliper brake, band brake, internal expanding brake, roller brake and disk brake)		JIS D 9414
	Front brake body	20-1	
	Rear brake body	20-2	
	Brake lever	20-3	
	Brake cable (or rod)	20-4	
	Back-pedal brake ^{c)} and hub brake ^{c)}		JIS D 9419

Table 2 (concluded)

Component classification	Designation of composing parts	Part number ^{a)}	Japanese Industrial Standard ^{b)}
Seating device	Saddle	21	JIS D 9431
	Seat-post		
Loading device	Front carrier		—
	Rear carrier	22	JIS D 9453
	Basket	23	—
	Touring bag		—
Standing device	Stand	24	JIS D 9453
Warning device	Bell	25	JIS D 9451
	Buzzer		—
	Reflex reflector	26-1	JIS D 9452
	Front reflector		
	Pedal reflector		
	Side reflector	26-2	
	Rear reflector	26-3	
	Reflective material e.g. reflective tyre, reflective tape		—
	Rear lump		JIS C 9502
Lighting system	Lighting device		JIS C 9502
	Head lump	27-1	JIS C 9502
	Generator	27-2	JIS D 9419
	Hub generator ^{c)}		—
	Battery lamp		—
Protecting device	Mudguard		JIS D 9411
	Front mudguard	28-1	
	Rear mudguard	28-2	
	Flap	29	—
	Chain case	30	JIS D 9454
	Spoke protector	31	—
	Pin cover		—
	Dress guard	32	—
	Safety cable hook		—
Accessories	Frame pump	33	JIS D 9455
	Lock	34	JIS D 9456
	Bottle and bottle cage		—
	Shoulder pad		—
Fasteners	Chain adjusting belt	35	JIS D 9432
	Crank pin	36	JIS D 9432
	Bolt, nut and machine screws		—
Driving power assisting device	Driving power assisting device	37	—
	Battery	38	—

Notes ^{a)} Part numbers shown in the table correspond to the numbers appearing in Figures 1, 2, 4, 6, 7 and 9.

^{b)} Japanese Industrial Standards in this column are those applicable to bicycles for general use or for young children.

^{c)} Unit hub, hub gear, back-pedal brake and hub brake are composite parts which, though mainly classified as a running device, also have a driving function, gear changing function, braking function and power generating function, respectively.

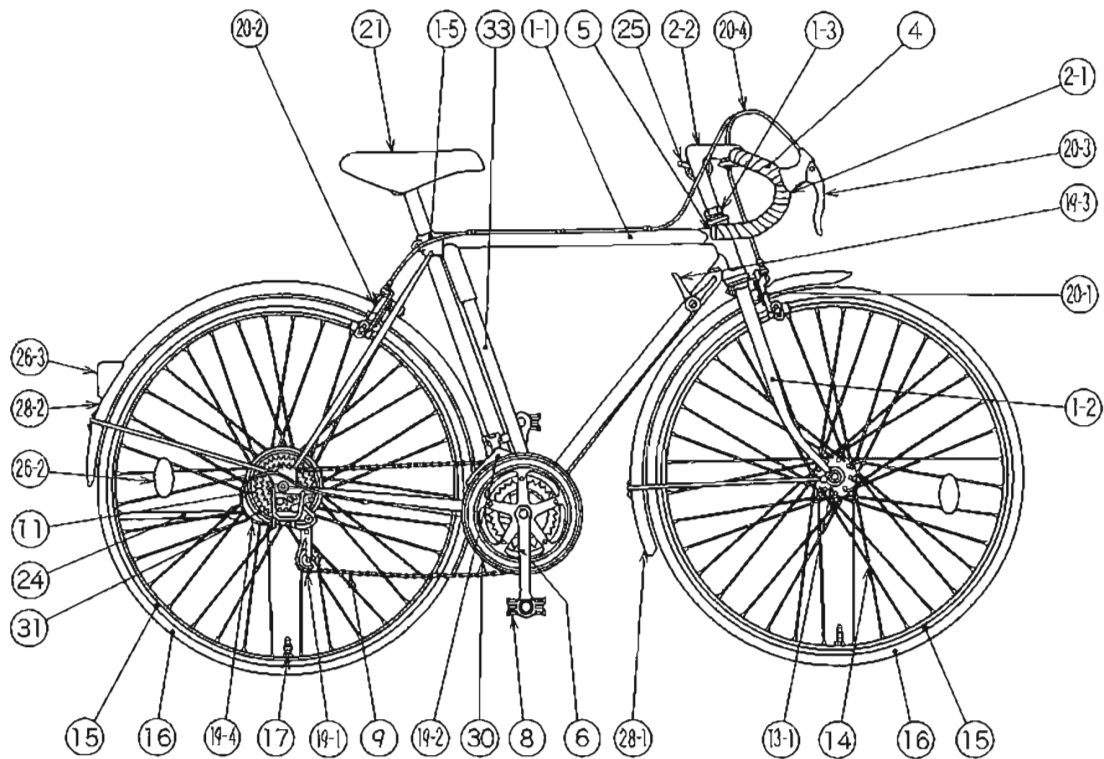


Figure 1 Example of sporty bicycle

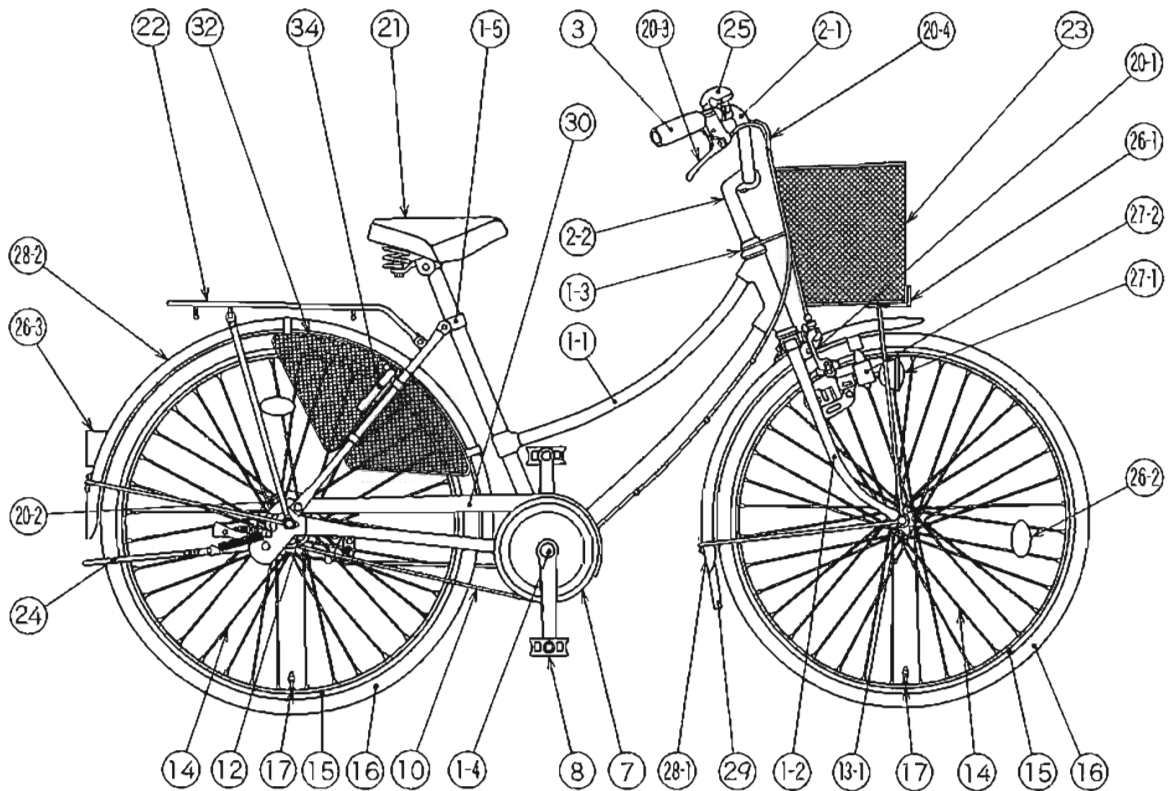


Figure 2 Example of city bicycle

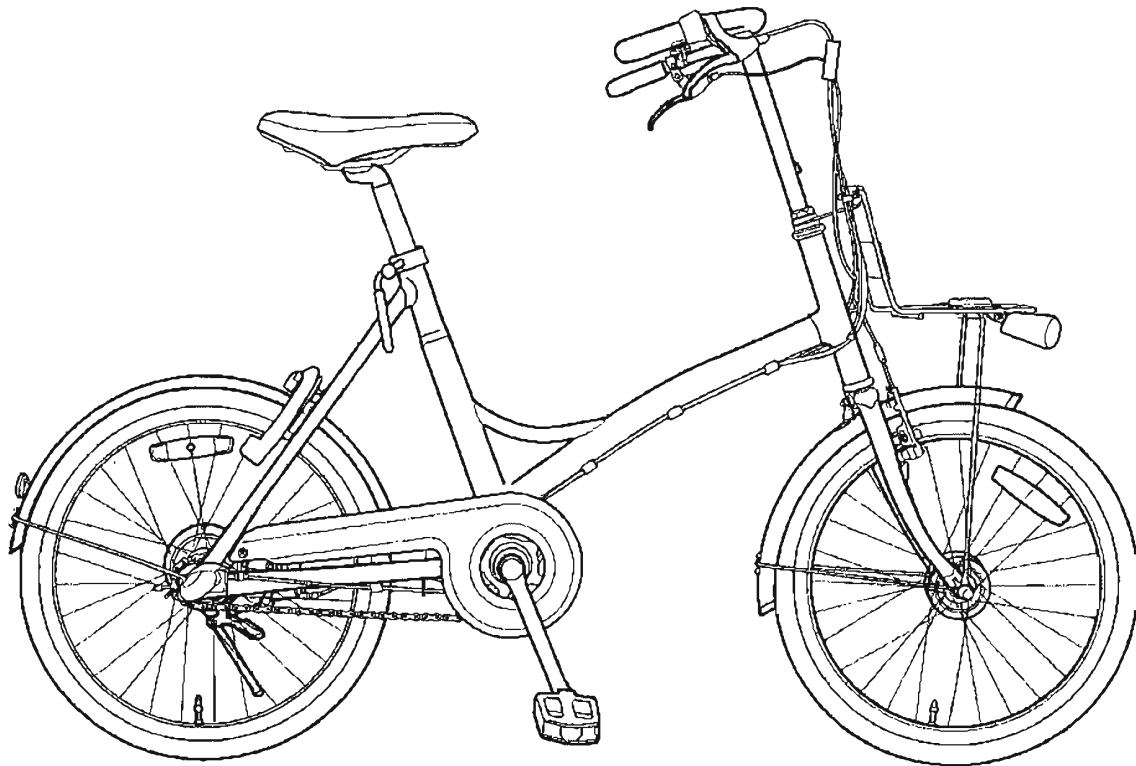


Figure 3 Example of compact bicycle

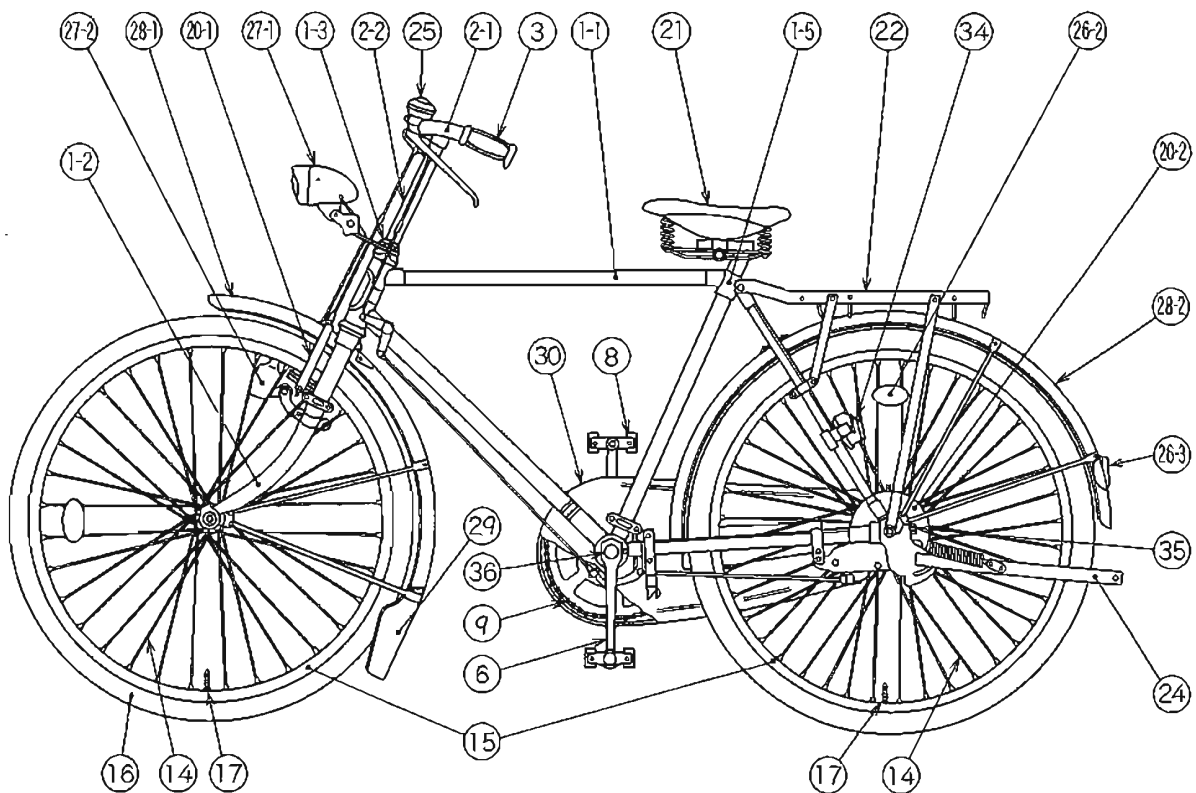


Figure 4 Example of roadster

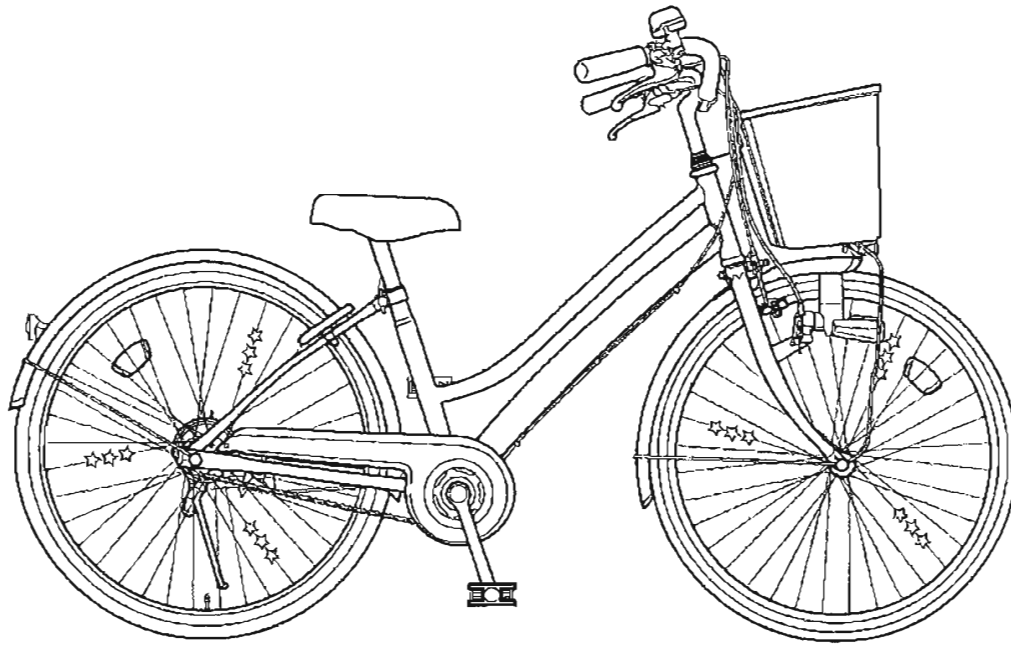


Figure 5 Example of young adult bicycle

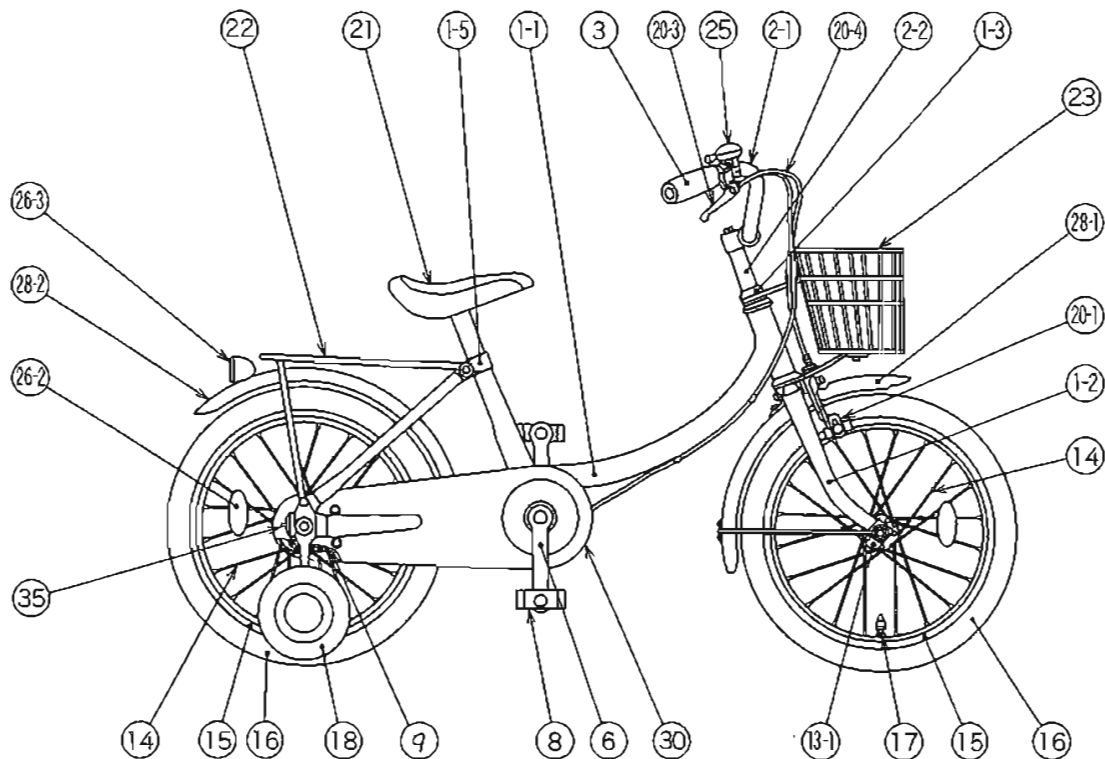


Figure 6 Example of young children bicycle

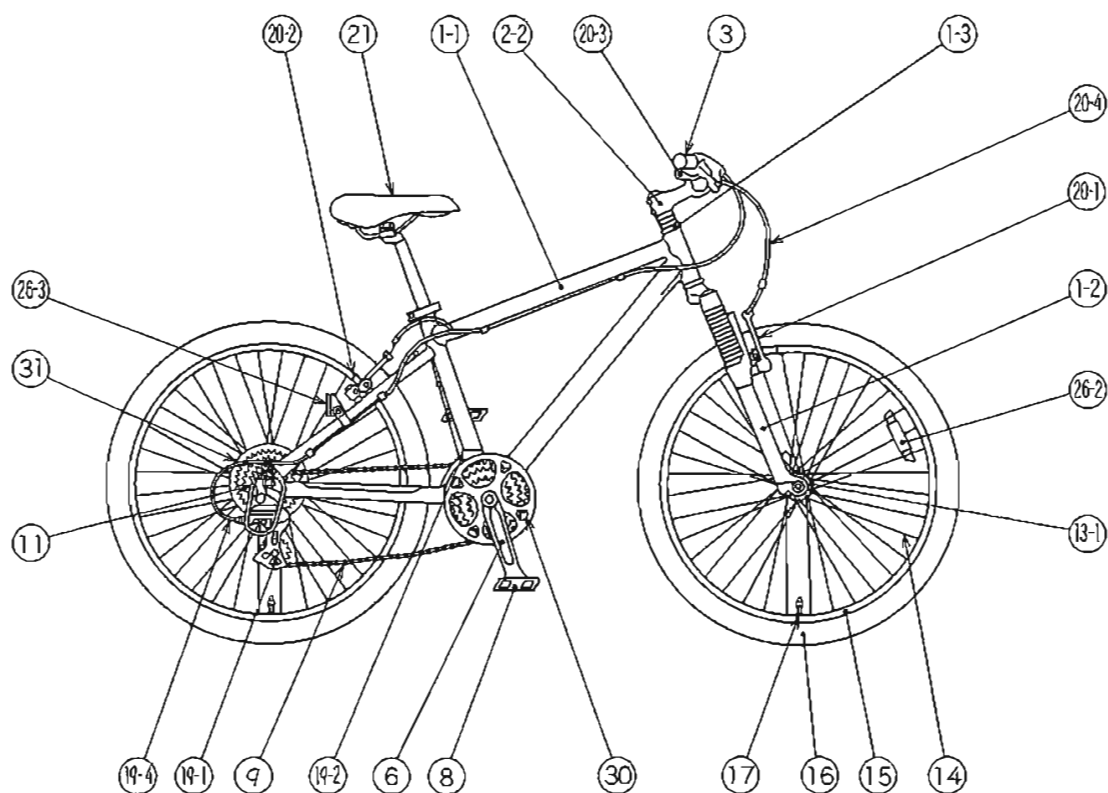


Figure 7 Example of mountain bicycle

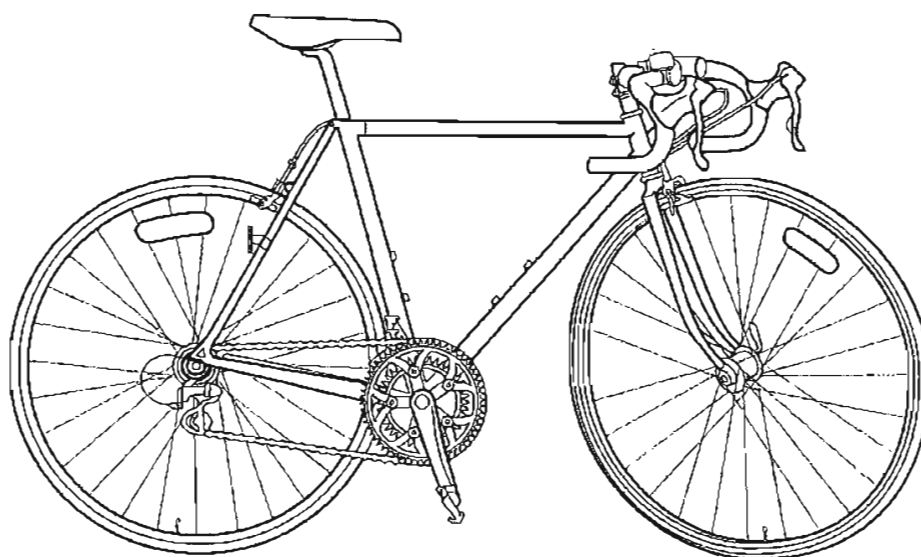


Figure 8 Example of racing bicycle

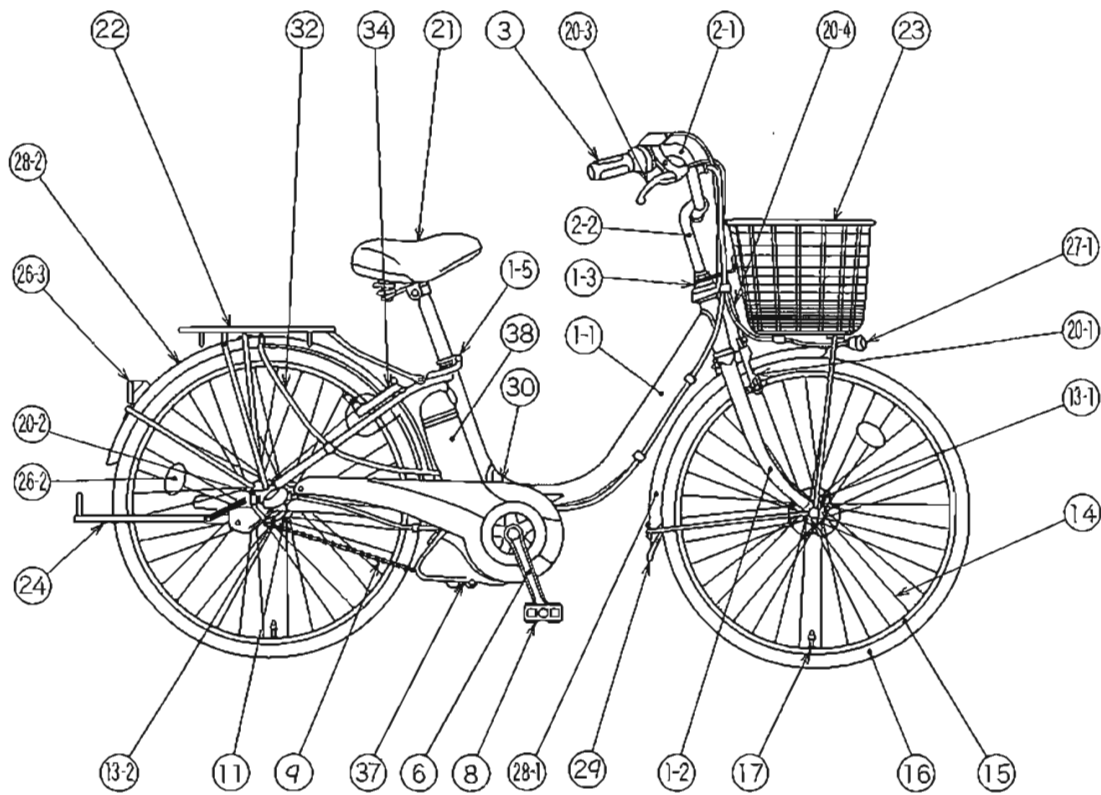


Figure 9 Example of electric power assisted city bicycle

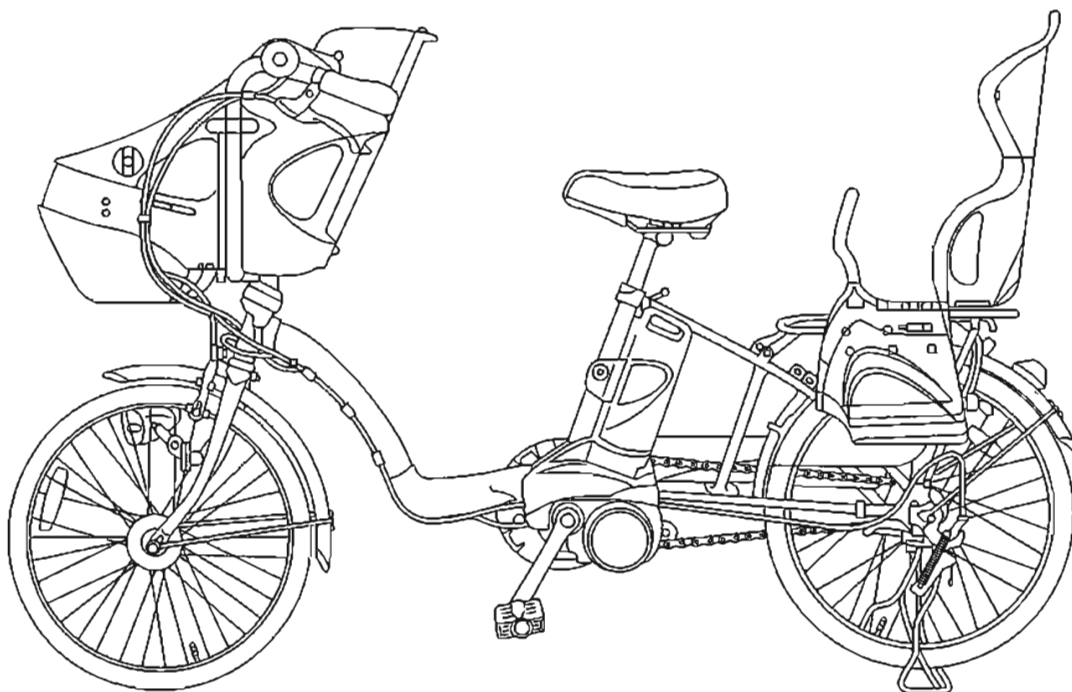


Figure 10 Example of bicycle equipped with the seats for two children