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Cycles—Terminology

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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 9101:1991** is replaced with this Standard.

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Cycles—Terminology

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 8090** published in 1990 with addition of some terms relevant to cycles taking the situations of use in Japan into consideration.

A list of modifications with explanations is given in Annex JB.

1 Scope

This Standard specifies the main terms relating to cycles¹⁾ and their definitions.

Note ¹⁾ For the purpose of this Standard, “cycles” is a generic term for vehicles for running on the ground, which are equipped with driving wheels, and steered manually by the human power of the rider by using pedals or hand cranks.

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

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

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

2 Classification

The terms are classified into the following categories.

- a) General
- b) Designations of cycles

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions apply.

In the “informative reference” column showing English equivalents, if more than one term is given, the preference shall be given in the order of appearance.

NOTE 1 Designations of respective parts of cycles are shown in Annex JA.

NOTE 2 For Japanese terms or English equivalent terms that are partially bracketed, the bracketed words may be omitted where confusion is not likely.

NOTE 3 The kana characters given in brackets under the terms indicate the reading of the term in Japanese.

NOTE 4 In the “definition” column, the bracketed numbers attached to terms indicate the term numbers in this Standard. This applies to the numbers given in figures as well.

NOTE 5 In the “English equivalent” column, the terms in bold-face are those specified in **ISO 8090**.

a) **General**

No.	Term (Japanese character)	Reading	Definition	English equivalent (informative reference)
1001	供用状態	KYÔYÔ ZYÔTAI	state in which the cycle is able to be ridden NOTE: The inflation pressure of tyre shall be the indicated inflation pressure (1008) or recommended inflation pressure (1009).	service condition
1002	正常な乗車姿勢	SEIZYÔ NA ZYÔSYA SISEI	posture of rider in which the rider can conduct smoothly the operations of steering, braking, etc., in the general running state	normal riding posture
1003	適応乗員	TEKIÔ ZYÔIN	rider having a physique to be able to take normal riding posture by adjusting the positions of the handle, saddle, or other parts	appropriate rider
1004	(自転車)の 右側	(ZITENSYA NO) MIGIGAWA	right hand side of the rider to the reference central surface of cycle when he/she has taken normal riding posture NOTE: For example, the crank and pedal to be mounted in right side of cycle are referred to as right crank and right pedal, respectively.	right side (of cycle)
1005	(自転車)の 左側	(ZITENSYA NO) HIDARIGAWA	left hand side of the rider to the reference central surface of cycle when he/she has taken the normal riding posture	left side (of cycle)
1006	サドル最大高さ	SADORU SAIDAI TAKASA	height from ground surface to the center of saddle seat surface when the seat post of the cycle standing upright in service condition has been raised up to the minimum insertion mark (1007)	maximum saddle height
1007	はめ合せ限界標識	HAMEAWASE GENKAI HYÔSIKI	mark indicating the minimum necessary insertion length of handle stem or seat post into the frame	minimum insertion mark
1008	表示空気圧	HYÔZI KÛKIATU	inflation pressure indicated on tyre for effective performance of the tyre	indicated inflation pressure
1009	(タイヤ)の 標準空気圧	(TAIYA NO) HYÔZYUN KÛKIATU	inflation pressure of tyre adequate for effective performance of the tyre This pressure is generally taken as the indicated inflation pressure.	recommended inflation pressure (of tyre)

No.	Term (Japanese character)	Reading	Definition	English equivalent (informative reference)
1010	(タイヤの) 最大負荷	(TAIYA NO) SAIDAI HUKA	maximum load up to which the tyre, under the condition inflated to the recommended pressure, can maintain durability	recommended maximum load (of tyre)
1011	タイヤの総幅	TAIYA NO SÔHABA	maximum width of a tyre in the state that it is mounted on an applicable rim and inflated to the recommended pressure and no load is being applied (not in contact with the ground) (see figure 1)	overall width of tyre
1012	タイヤ幅	TAIYA HABA	linear distance between side walls of a tyre, which is the overall width of the tyre without including the height of patterns, letters, etc. (see figure 1)	section width of tyre
1013	タイヤの外径	TAIYA NO GAIKEI	overall diameter of a tyre in the state that it is mounted on an applicable rim and inflated to the recommended pressure and no load is being applied (not in contact with the ground) (see figure 1)	overall diameter of tyre
1014	ペダルクリアランス	PEDARU KURIARANSU	general term combining the ground clearance (1015) and toe clearance (1016)	pedal clearance
1015	ペダル接地角 (ペダルせっちかく)	PEDARU SETTIKAKU	when the cycle in the service condition initially stood upright on the ground with one of the pedals in the undermost position such that its tread surface is parallel with the ground, is inclined until the pedal touches the ground, the angle formed by the central reference plane (1022) of the inclined cycle to that of the initially upright cycle (see figure 2)	ground clearance
1016	トゥクリアランス	TOU KURIARANSU	shortest distance measured in the direction perpendicular to the pedal axis from the center of pedal tread surface to the tyre or front mudguard (see figure 3)	toe clearance
1017	滑り止め踏面 (すべりどめとうめん)	SUBERIDOME TÔMEN	non-slip surfaces of pedals to be in contact with the soles of feet when under operation	tread surfaces (of pedal)
1018	歯数比 (はかずひ)	HAKAZU HI	value obtained by dividing the number of teeth of gear plate by the number of teeth of free wheel or small gear	gear ratio

No.	Term (Japanese character)	Reading	Definition	English equivalent (informative reference)
1019	歯数比距離, GD	HAKAZU HI KYORI, ZÎDÊ	distance of advancement of a cycle by one rotation of chain wheel and cranks, expressed by the value of the length of the outer circumference of wheel multiplied by the gear ratio	gear development
1020	ブレーキレバーの開き	BURÊKI REBÂ NO HIRAKI	shortest distance between the outside of brake lever and outside of handle grip when no operating physical force is applied (see figure 4)	brake lever grip dimension
1021	制動距離	SEIDÔ KYORI	distance in which the cycle moves from the point the rider operates the brake to the point where the cycle stops	braking distance
1022	(自転車)の基準中心面	(ZITENSYA NO) KIZYUN TYÛSINMEN	plane determined by the center line of head tube, top tube, seat tube and down tube or parts corresponding to these in the central surface of frame body of cycle (<i>P</i> in figure 5)	central reference plane (of cycle)
1023	チェーンライン	TYÊN RAIN	line connecting the center of tooth thickness or bearing width of free wheel (or small gear) and the center of tooth thickness or bearing width of gear plate (<i>L</i> in figure 5)	chain line
1024	前チェーンライン寸法	MAE TYÊN RAIN SUNPÔ	distance from chain line to central reference plane of cycle on the center line of crank shaft (<i>b</i> ₁ in figure 5)	chain wheel chain line distance
1025	後チェーンライン寸法	USIRO TYÊN RAIN SUNPÔ	distance from chain line to central reference plane of cycle on center line of rear axle (<i>b</i> ₂ in figure 5)	rear sprocket chain line distance
1026	フレームサイズ	HURÊMU SAIZU	distance from center of crank shaft to upper extreme of seat tube or part corresponding to seat tube (<i>h</i> ₁ in figure 6)	frame size
1027	ハンガ下り (はंगाさがり)	HANGA SAGARI	distance from the surface parallel to the ground surface and passing through the center line of rear axle, to the center line of crank shaft when the cycle is stood upright on a plane ground surface (<i>h</i> ₂ in figure 6)	bottom bracket displacement
1028	ハンガ地上高さ	HANGA TIZYÔ TAKASA	distance from the center line of crank shaft to the ground surface when the cycle in service condition is stood upright on a plane ground surface (<i>h</i> ₃ in figure 6)	bottom bracket height

No.	Term (Japanese character)	Reading	Definition	English equivalent (informative reference)
1029	ヘッド角	HEDDO KAKU	angle between the ground surface and the center line of head tube or the center line of steering axis when the cycle in service condition is stood upright on a plane ground surface (θ_1 in figure 6) NOTE: The angle between the ground surface and the center line of steering axis may also be referred to as “KYASUTA KAKU”.	head angle
1030	シート角	SÎTO KAKU	angle between the ground surface and the center line of seat tube or part corresponding to seat tube when the cycle in service condition is stood upright on a plane ground surface (θ_2 in figure 6)	seat angle
1031	ホイールベース	HOÎRU BÊSU	when the cycle in service condition is stood upright on a plane ground surface and the center line of front wheel axle and the center line of rear wheel axle are projected onto the ground surface, the distance between these two projected center lines (l_1 in figure 6)	wheel base
1032	ホークオフセット	HÔKU OHUSETTO	distance between the fork stem center line and the front wheel axle center line (l_2 in figure 6)	offset
1033	フロントセンタ	HURONTO SENTA	distance from the crank shaft center line to the front wheel axle center line when the cycle in service condition is stood upright on a plane ground surface (l_3 in figure 6)	front center
1034	リヤセンタ	RIYA SENTA	distance from the crank shaft center line to the rear wheel axle center line when the cycle in service condition is stood upright on a plane ground surface (l_4 in figure 6)	rear center
1035	トレール	TORÊRU	distance from the projection of the front wheel axle center line on the ground to the intersection of steering axis and ground surface when the cycle in service condition is stood upright on a plane ground surface (l_5 in figure 6) The trail is positive when the intersection is in the forward position with respect to the projection of the front wheel axle center line, and negative when it is in the backward position.	trail