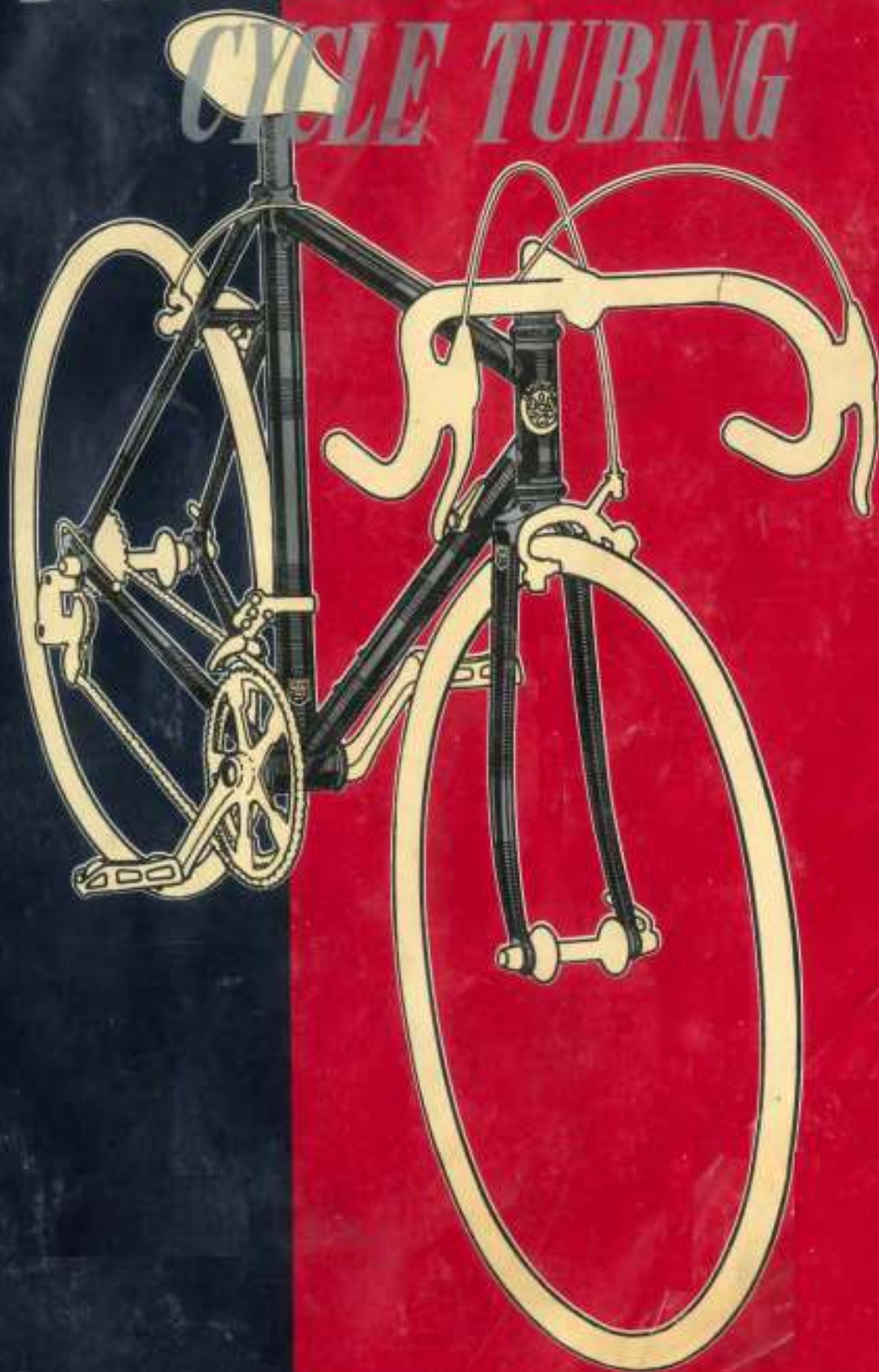


ISHIWATA

CYCLE TUBING



SECTION **1**

FRAME TUBE SETS

1. *Full set of CrMo butted tubes*..... 6~ 9
Full set of CrMo oval butted tubes..... 11~ 12
2. *Set of combination CrMo/Hi-ten tubes*..... 8
3. *Full set of Hi-tension butted tubes* 10
4. *Full set of tandem tubings*..... 13
5. *Set of Carbon fiber & Al-alloy tubes*..... 14~ 17
Carbon fiber & Al-alloy frame..... 18
6. *Mini cycle tubing*.....19

1. BRAZING NOTE

- 1) We approve of Brazing stick, All-States No.11 and U.T.C. No.16, both are low melting Braze.(750°C 860°C)
- 2) Befor Brazing, please remove the impurities of jointed surface, tube and lug.
- 3) Please keep the heat at melting point of braze to get the perfect brazing. Caution! Over-heating.
- 4) The place where brazing are about 18°C or over temperature and less windy.

- (1) ロウ材はオールステーツNO.11、又はU.T.C NO.16をご使用下さい。融点は750～860°Cです。
- (2) ロウ付前にはチューブおよびラッグの接合部の不純物を取り除いて下さい。
- (3) ラッグ付フレームをロウ付される場合ロウ材が溶解し始めるときの温度を平均に保ちながら行うことがコツです。オーバーヒートしないよう注意して下さい。
- (4) ロウ付する周囲の温度は18°C以上のところが良く、風通しの強いところは避け下さい。

2. REMARKS [記号解説]

記号 Mark	品名 Description	外径 Out Side Diameter	肉厚 Thickness T/T'	長さ Length
10 C	Top Tube	25.4	0.8/0.5 DB	580

C: CrMo クロモリ
 H: Hi-Tension ハイテン
 S: Low Carbon 普通鋼
 DB: Double Butted
 SB: Single Butted
 PG: Plain Gauge
 TG: Taper Gauge

Tube Item Number 仕組番号

UTILITY [使用用途]

☆☆☆ Best ☆☆ Better ☆ Good

	1. Time Trial 2. hard course	1. Time Trial 2. Track and fine road flat course	1. Pursuit 2. Road for light weight athlete	1. Sprint 2. American Cross Country	1. Sprint 2. Cycle figure 3. Road for heavy weight athlete
015(a)		☆ ☆	☆ ☆ ☆		
017	☆	☆ ☆ ☆	☆ ☆ ☆	☆ ☆	☆ ☆
019	☆ ☆ ☆	☆ ☆ ☆	☆ ☆	☆ ☆ ☆	
022	☆ ☆ ☆	☆ ☆	☆ ☆	☆ ☆ ☆	☆ ☆ ☆
024	☆ ☆ ☆	☆ ☆	☆	☆ ☆ ☆	☆ ☆ ☆
025	☆	☆ ☆	☆	☆ ☆	☆

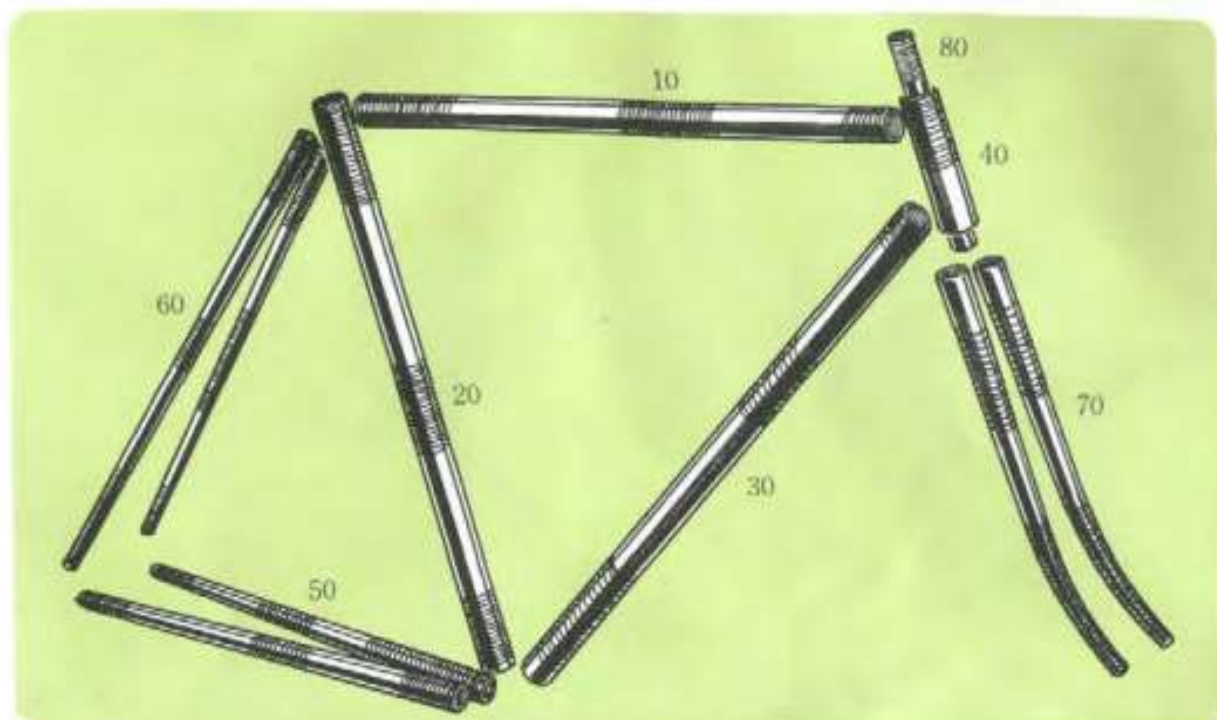
COMPARISON [比較]

(CAMPAGNOLO ROADENDS, NERVEX LUGS and FORK CROWN)
without head and bottom fitting total : 630g

Illustration fram size : 540mm Square

	015(a)	017	019	022	024	025
frame and fork フレーム ホーク	1350g	1500g	1670g	1880g	2000g	2110g
brazing parts ロウ付部品	630g	630g	630g	630g	630g	630g
Max total weight 総重量	1980g	2130g	2300g	2510g	2630g	2740g

ISHIWATA FULL SET OF CrMo BUTTED TUBES



017 RECORD BREAKER

Mark	Description	Out Side Diameter	Thickness T/T	Length
17C	Top Tube	25.4	0.7/0.4 DB	580
20C	Seat Tube	28.6	0.7/0.4 DB	610
20C	Down Tube	28.6	0.7/0.4 DB	610
40C	Head Tube	31.8	1.0 PG	180
50C	Chain Stays	22.2/12.0	0.8 PG	410
60C	Seat Stays	14.5/10.0	0.6 PG	610
70C	Fork Blades	29x16/12.0	1.0/0.8 TC	400
80C	Column	25.4 (Spline)	2.2/1.6 SB	200

Set of 11pcs
gr. 1,855

BLADES MARK



019 GLORIES VICTORY

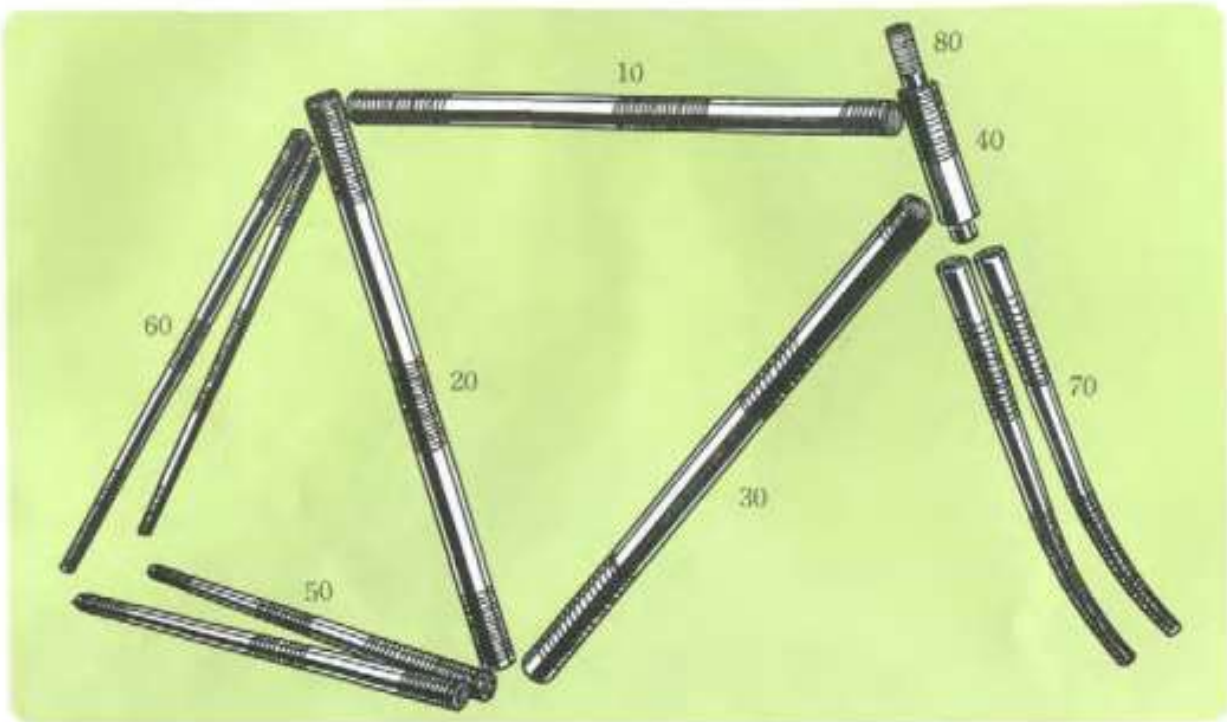
Mark	Description	Out Side Diameter	Thickness T/T	Length
10C	Top Tube	25.4	0.8/0.5 DB	580
27C	Seat Tube	28.6	0.8/0.5 SB	610
30C	Down Tube	28.6	0.8/0.5 DB	610
40C	Head Tube	31.8	1.0 PG	180
50C	Chain Stays	22.2/12.0	0.8 PG	410
60C	Seat Stays	14.5/10.0	0.6 PG	610
71C	Fork Blades	29x16/12.0	1.0 PG	400
80C	Column	25.4	2.2/1.6 SB	200

Set of 11pcs
gr. 1,990

BLADES MARK



ISHIWATA FULL SET OF CrMo BUTTED TUBES



015 (α) ALPHA

Mark	Description	Out Side Diameter	Thickness T/T'	Length
15C	Top Tube	25.4	0.6/0.4 DB	580
25C	Seat Tube	28.6	0.7/0.4 SB	670
35C	Down Tube	28.6	0.6/0.35 DB	670
41C	Head Tube	31.8	0.7 PG	180
51C	Chain Stays	22.2/12.0	0.55PG	410
60C	Seat Stays	14.5/10.0	0.6 PG	670
70C	Fork Blades	29x16/12.0	1.0/0.8 TG	400
80C	Column	25.4 (Spline)	2.2/1.6 SB	200

Set of 11pcs
gr. 1,595

BLADES MARK



022 SPEED GALLANT

Mark	Description	Out Side Diameter	Thickness T/T'	Length
11C	Top Tube	25.4	0.9/0.6 DB	580
22C	Seat Tube	28.6	0.9/0.6 SB	670
31C	Down Tube	28.6	0.9/0.6 DB	670
40C	Head Tube	31.8	1.0 PC	180
50C	Chain Stays	22.2/12.0	0.8 PG	410
61C	Seat Stays	14.5/10.0	0.8 PG	670
71C	Fork Blades	29x16/12.0	1.0 PG	400
80C	Column	25.4	2.2/1.6 SB	200

Set of 11pcs
gr. 2,185

BLADES MARK





ISHIWATA FULL SET OF CrMo BUTTED TUBES



024 ULTRA STRONG

Mark	Description	Out Side Diameter	Thickness T/T'	Length
13C	Top Tube	25.4	1.0/0.7 DB	580
23C	Seat Tube	28.6	1.0/0.7 SB	610
32C	Down Tube	28.6	1.0/0.7 DB	610
40C	Head Tube	31.8	1.0 PG	180
50C	Chain Stays	22.2/12.0	0.8 PG	410
61C	Seat Stays	14.5/10.0	0.8 PG	610
73C	Fork Blades	28x20/12.0	1.2 PG	400
81C	Column	25.4	2.2/1.6 SB	200

Set of 11pcs
gr. 2,360

BLADES MARK



ISHIWATA SET OF COMBINATION CrMo/HI-TEN TUBES

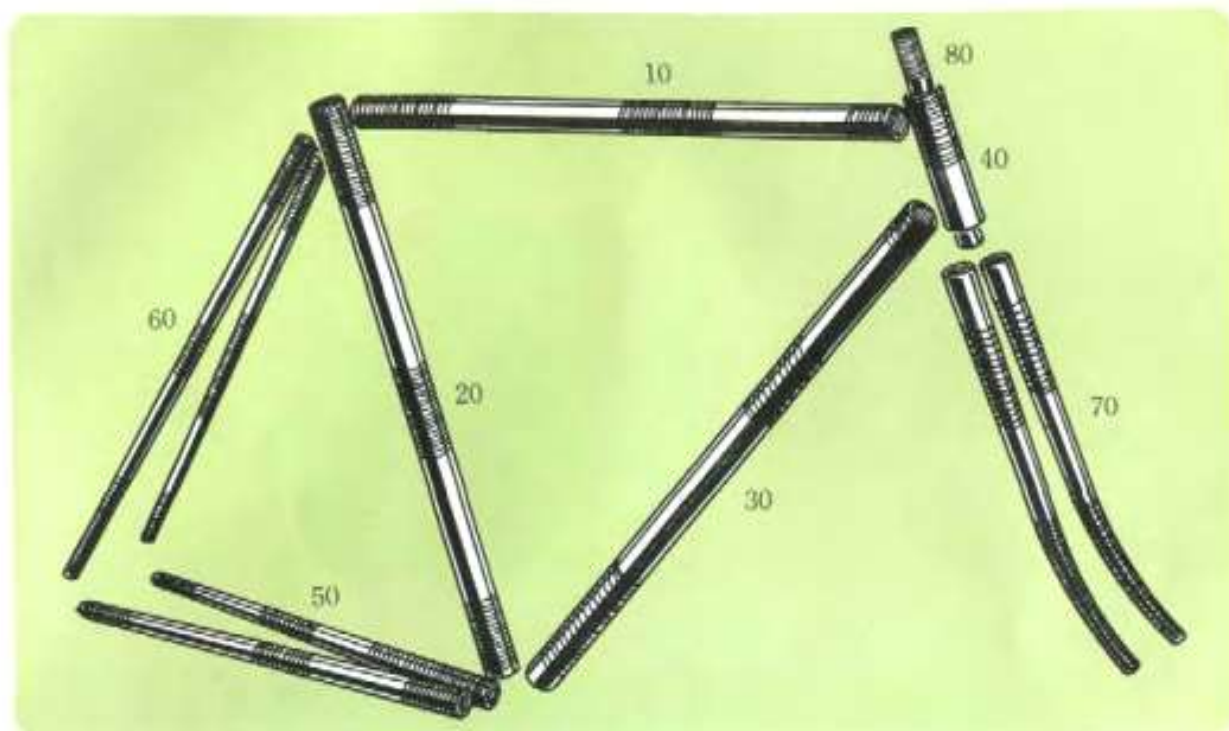


025 SUPER CYCLIST

Mark	Description	Out Side Diameter	Thickness T/T'	Length
11C	Top Tube	25.4	0.8 PG	580
22C	Seat Tube	28.6	0.8 PG	610
31C	Down Tube	28.6	0.9/0.6 DB	610
40H	Head Tube	31.8	1.2 PG	180
50H	Chain Stays	22.0/12.0	1.0 PG	410
60H	Seat Stays	14.5/10.0	1.0 PG	610
70H	Fork Blades	29x16/12.0	1.2 PG	400
82H	Column	25.4	2.7/1.6 SB	200

Set of 11pcs
gr. 2,470

ISHIWATA FULL SET OF CrMo BUTTED TUBES FRANCH TYPE



017F RECORD BREAKER

Mark	Description	Out Side Diameter	Thickness T/T'	Length
18C	Top Tube	26.0	0.7/0.4 DB	580
26C	Seat Tube	28.0	0.7/0.4 DB	610
26C	Down Tube	28.0	0.7/0.4 DB	610
42C	Head Tube	32.0	1.0 PC	180
53C	Chain Stays	22.0/12.0	0.8 PC	410
60C	Seat Stays	14.5/10.0	0.6 PC	610
70C	Fork Blades	29x16/12.0	1.0/0.8 TC	400
82C	Column	25.0 (Spline)	2.2/1.5 SB	200

Set of 11pcs
gr. 1,830

BLADES MARK



022F SPEED GALLANT

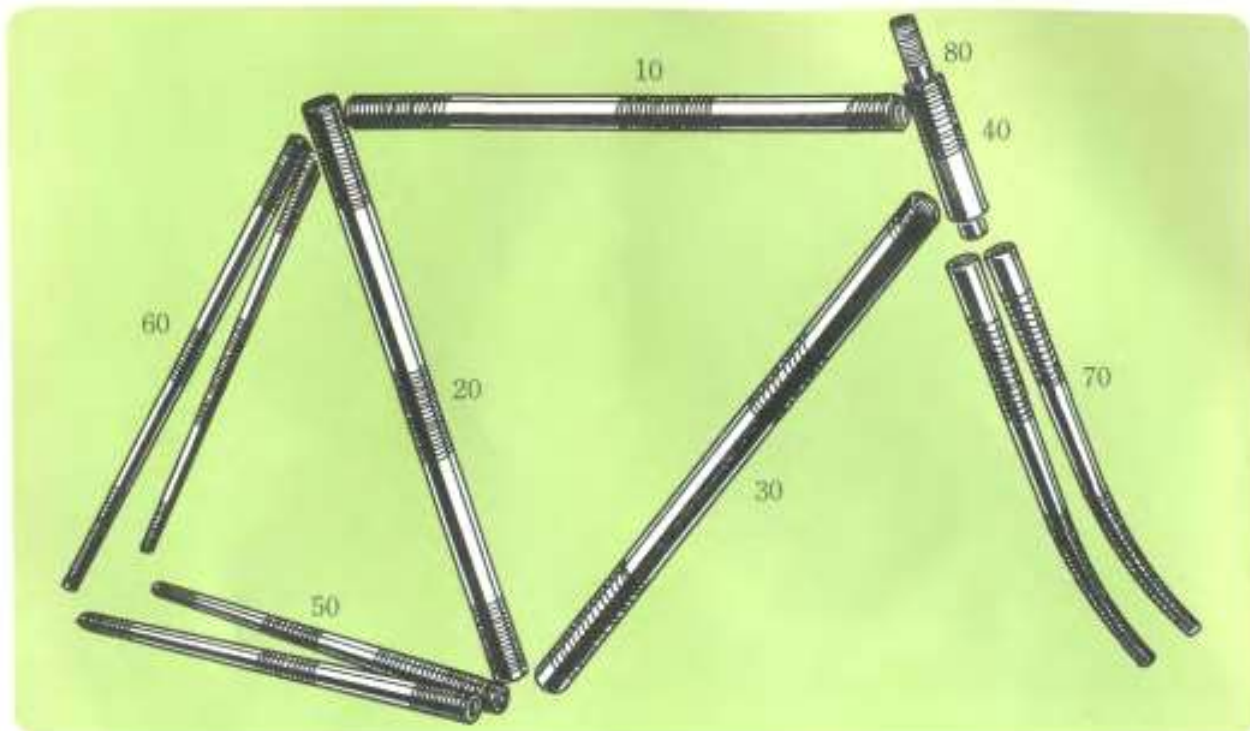
Mark	Description	Out Side Diameter	Thickness T/T'	Length
19C	Top Tube	26.0	0.9/0.6 DB	580
27C	Seat Tube	28.0	0.9/0.6 SB	610
36C	Down Tube	28.0	0.9/0.6 DB	610
42C	Head Tube	32.0	1.0 PC	180
53C	Chain Stays	22.0/12.0	0.8 PC	410
61C	Seat Stays	14.5/10.0	0.8 PC	610
71C	Fork Blades	29x16/12.0	1.0 PC	400
82C	Column	25.0 (Spline)	2.2/1.5 SB	200

Set of 11pcs
gr. 2,160

BLADES MARK



ISHIWATA FULL SET OF HI-TEN TUBES



0245 SET

Mark	Description	Out Side Diameter	Thickness T/T'	Length
11H	Top Tube	25.4	1.2/0.85 SB	580
20H	Seat Tube	28.6	1.0 PG	610
23H	Down Tube	28.6	1.2/0.85 SB	610
40H	Head Tube	31.8	1.2 PG	180
50H	Chain Stays	22.2/ 12.0	1.0 PG	410
60H	Seat Stays	14.5/ 10.0	1.0 PG	610
70H	Fork Blades	29x16/ 12.0	1.2 PG	400
82H	Column	25.4	2.7/ 1.6 SB	200

Set of 11pcs



0265 SET

Mark	Description	Out Side Diameter	Thickness T/T'	Length
10H	Top Tube	25.4	1.2/0.85 DB	580
20H	Seat Tube	28.6	1.2/0.85 SB	610
30H	Down Tube	28.6	1.2/0.85 DB	610
40H	Head Tube	31.8	1.2 PG	180
50H	Chain Stays	22.2/ 12.0	1.0 PG	410
60H	Seat Stays	14.5/ 10.0	1.0 PG	610
70H	Fork Blades	29x16/ 12.0	1.2 PG	400
82H	Column	25.4	2.7/ 1.6 SB	200

Set of 11pcs



オーバル バテット チュービング コンボ OVAL BUTTED TUBING COMP.

ALL CrMo TUBES 《DBO》



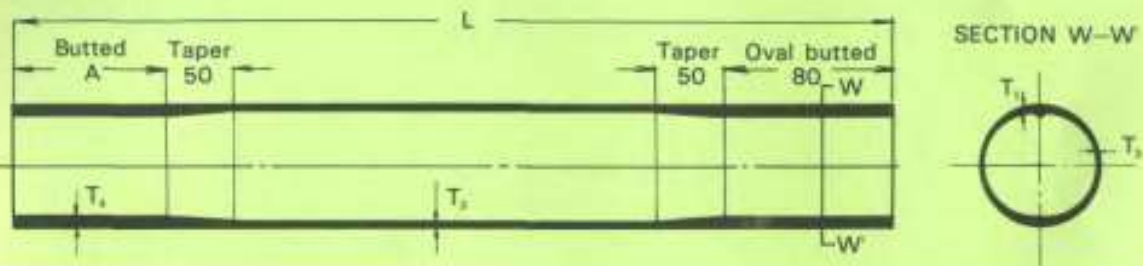
ゼロ ニ オウ
020



ISHIWATA analyzes the bicycle frame scientifically. We developed an unique tubing, on which an ideal stress-distribution are loaded, and less flexibility which increase the motive power. 020 are an unique products, oval butted tubing and taper gauge stays. See bellow fig.

イシワタはあらゆる面から挑戦し、ニ・に鉄鋼の限界と自転車の応力分布を理想的に配合した軽量でタフミの少ないオーバルバテット+テーパージョイントをミックスした世界にも類のない製品を開発しました。チューブ群の中から自由にコンポーネント出来るセットにして発売することになりました。

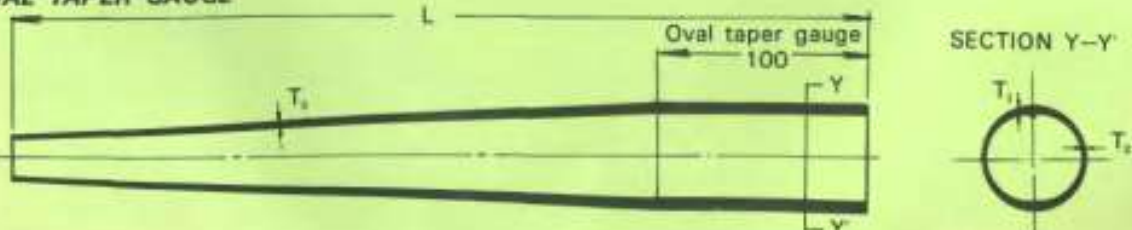
TOP AND DOWN OVAL BUTTED TUBES



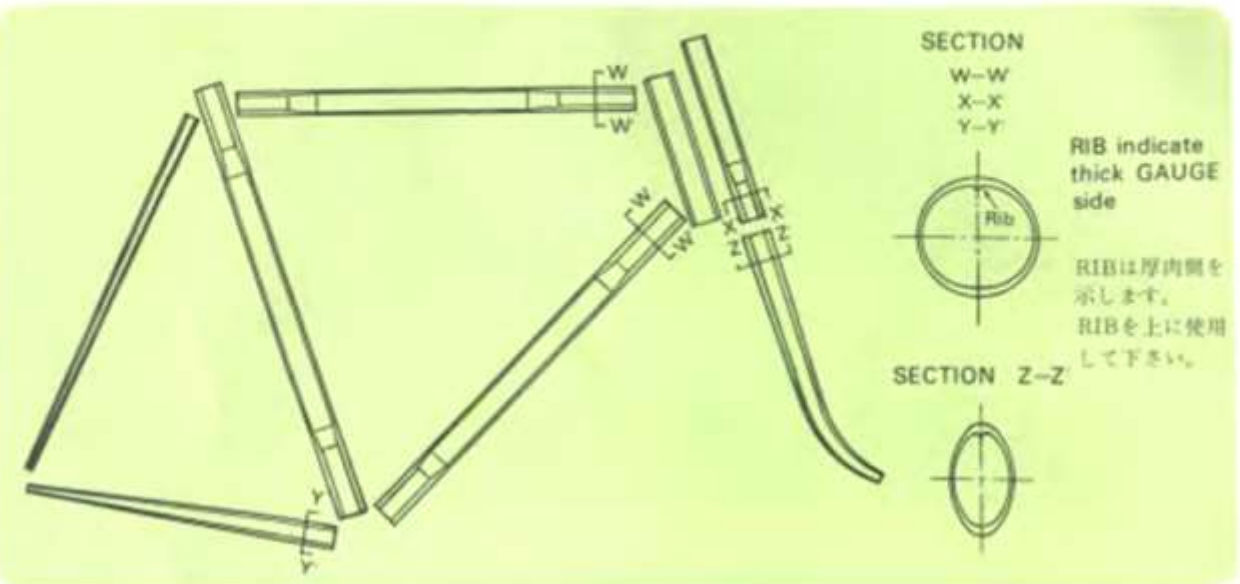
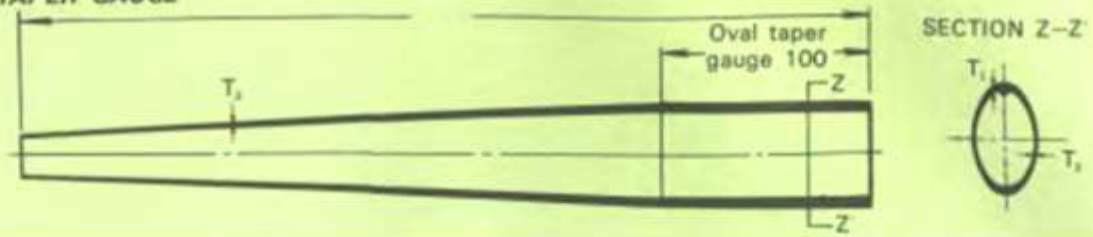
OVAL BUTTED STEERING COLUMNS



CHAIN STAYS OVAL TAPER GAUGE



**FORK BLADES
OVAL TAPER GAUGE**

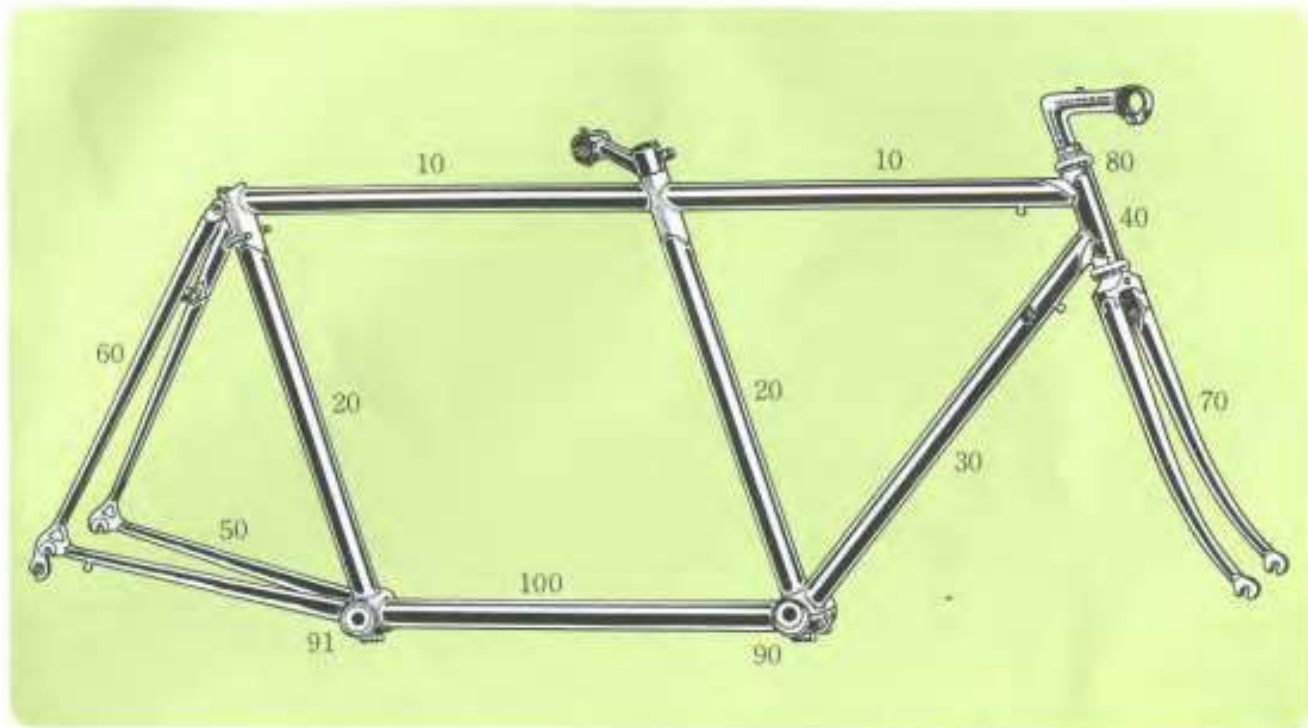


OVAL BUTTED. TAPER TUBING GROUP

Discription	Out Side Diameter	Thickness $T_1 / T_2 \times T_3 \times T_4$	Length	Weight
Top Tube	25.4	0.8/0.6x0.4x0.7 DBO	580	gr. 195
	25.4	0.9/0.7x0.5x0.8 DBO	580	gr. 230
Seat Tube	28.6	0.8x0.5 — SB	610	gr. 250
	28.6	0.9x0.6 — SB	610	gr. 305
	28.6	0.8x0.5x0.8 DB	610	gr. 280
	28.6	0.9x0.6x0.9 DB	610	gr. 325
Down Tube	28.6	0.8/0.6x0.45x0.7DBO	610	gr. 220
	28.6	0.9/0.7x0.5x0.8 DBO	610	gr. 275
Head Tube	31.8	— 1.0 — PG	180	gr. 140
Chain Stays	22.2	0.9/0.7x0.6 — TGO	410	gr. 320
Seat Stays	14.5	— 0.6 — PG	610	gr. 230
	14.5	— 0.8 — PG	610	gr. 280
Fork Blades	29x16/ 12.0	1.1/0.9x0.8 — TGO	400	gr. 330
	28x20/ 12.0	1.1/0.9x0.8 — TGO	400	gr. 365
Column	25.4	2.1/1.9x1.6 — SBO	200	gr. 190
		2.3/2.0x1.6 — SBO	200	gr. 205

TANDEM TUBING SET

FULL SET OF CrMo TUBES



Mark	Description	Out Side Diameter	Thickness T/ T'	Length	Q'ty
10	Top Tube	28.6	1.0/0.7 DB	610	2PCS
20	Seat Tube	28.6	1.0 PG	610	2PCS
30	Down Tube	31.8	1.0 PG	610	1PCS
40	Head Tube	34.0	2.0 PG	200	1PCS
50	Chain Stays	24.0/ 12.0	1.0 PG	400	2PCS
60	Seat Stays	16.0/ 10.0	0.8 PG	610	2PCS
70	Fork Blades	28.0x20.0/ 14.0	1.5 PG	400	2PCS
80	Column	25.4	2.7/ 1.6 SB	240	1PCS
100	Oval Bottom Tube	49.0/ 32.0	1.25 PG	610	1PCS
90	Eccentric B.B. Front Shell Set				1SET
91	B.B. Rear Shell Set				1SET
	B.B. Clamp Bolts and Brazing Parts				4PCS

On order

- 1) Down Tube 31.8x2.0x610 PG
Seat Tube 31.8x2.0x610 PG with Top End of Seat
Post Squeezing 28.6x0.9x80
- 2) Central Stays 16.0x0.8~PG
- 3) Seat Tube Bending for Short Wheel Base
- 4) Seat Stays Double Taper ϕ 22.2xt0.8~

SECTION 2

BUTTED TUBES **AND TAPER TUBES**

1. *Butted frame tubes*..... 21, 22
Single (SB) and double (DB)
CrMo — Hi-tension — Low carbon
2. *Butted steering columns*..... 23
Single (SB) and straight gauge
3. *Fork blades*..... 24
4. *Chain stays*..... 25
5. *Seat stays*..... 26

BUTTED FRAME TUBES

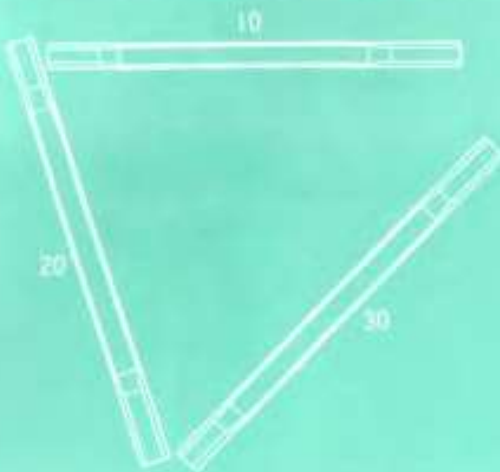
While bicycle are moving, at the frame tubing the strain apper proportionaly the stress. When the strain over the fatigue strength limit, frame tubing are damaged. The value of the strain are vary with materials, volum and forming.

However the stress loades section is limited to the near of joint. ISHIWATA butted tubing endure that extremity stress. End of tubing are thicken, and to get the light weight tubing, central of tubing are thin.

Please you choice a double or single butted tubing for your design or formation.

走行中フレームに生ずる応力の度合に比例しヒズミが現われ、チューブ疲労限界を越すとき、歪曲破損をひき起す。その度合は材料、寸法、フレーム形態のちがいにより大きく変わってくるが、応力の集中する個所はチューブの結合部付近が最も多い。バテットチューブの特徴はこうした極端な応力を緩和させるために使用されている。結合部（管端）の肉厚を増し、反対に中央部の肉厚を薄くし、応力とのバランスを良くし、フレームウエートの面からも重要といえる。フレームの設計、構造上からダブル、シングルバテットの2種類が使分けられる。

DOUBLE BUTTED FRAME TUBES



- (1) Should be put long thicken butted side of top,down tube beside head. And long thicken butted side of seat tube beside bottom.
- (2) In case of cutting tube, please cut the enamel-marked side of tube.

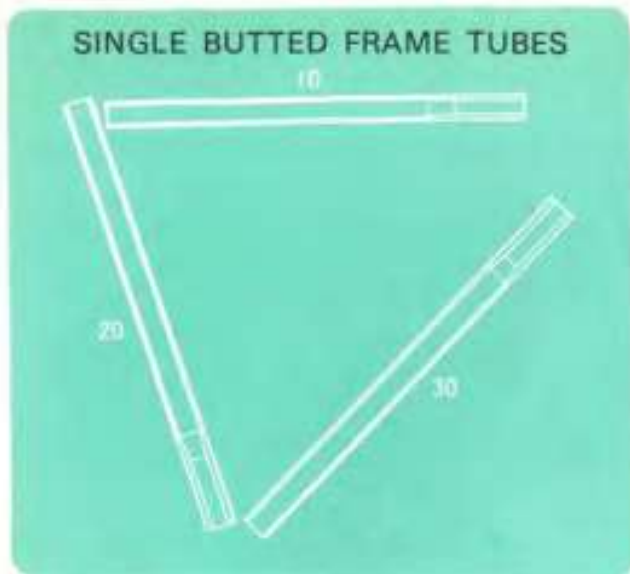
- (1) Top down tube はバテットシロの長い方をそれぞれ Head 側にする Seat tube はバテットシロの長い方を Bottom 側にする。
- (2) チューブをカットするときは、エナメル側をカットして下さい。



List-1 Dimensions in mm

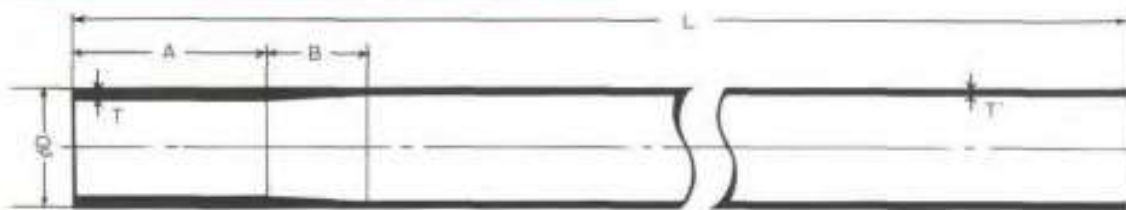
Material	Mark	Diameter ϕD	Thickness T/T'	Butted A (Enamel side)	Length L	Weight
CrMo steel	10C	25.4	0.8/0.5 DB	130	580	gr. 240
	11C	25.4	0.9/0.6 DB	130	580	gr. 250
	13C	25.4	1.0/0.7 DB	130	580	gr. 305
	15C	25.4	0.6/0.4 DB	130	580	gr. 170
	17C	25.4	0.7/0.4 DB	130	580	gr. 205
	20C	28.6	0.7/0.4 DB	150	610	gr. 230
	30C	28.6	0.8/0.5 DB	150	610	gr. 280
	31C	28.6	0.9/0.6 DB	150	610	gr. 325
	32C	28.6	1.0/0.7 DB	150	610	gr. 350
	35C	28.6	0.6/0.35 DB	150	610	gr. 150
Hi-tension steel	10H	25.4	1.2/0.85 DB	120	580	
	30H	28.6	1.2/0.85 DB	150	610	

SINGLE BUTTED FRAME TUBES



(1) In case of cutting tube, please cut the thin-gauge (enamel-marked side) of tube.

(1) チューブをカットするときは肉薄側(エナメル)をカットして下さい。

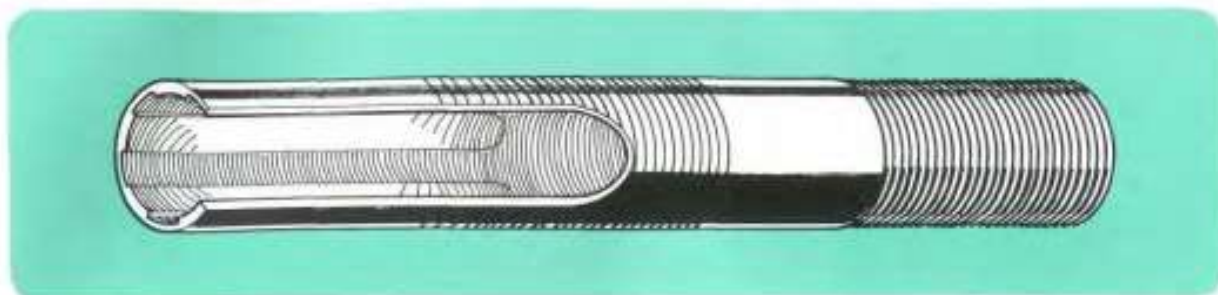


List-2 Dimensions in mm

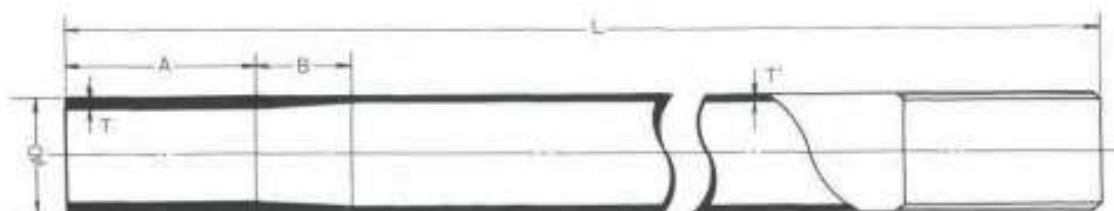
Material	Mark	Diameter ϕD	Thickness T/T'	Butted A	Taper B	Length L	Weight
CrMo steel	12C	25.4	0.9/0.6 SB	100	50	580	gr. 260
	21C	28.6	0.8/0.5 SB	100	50	610	gr. 250
	22C	28.6	0.9/0.6 SB	100	50	610	gr. 305
	23C	28.6	1.0/0.7 SB	100	50	610	gr. 360
	25C	28.6	0.7/0.4 SB	100	50	610	gr. 195

Material	Mark	Diameter ϕD	Thickness T/T'	Butted A	Taper B	Length L	
Hi-tension steel	11H	25.4	1.2/0.85 SB	100	50	580	
	20H	28.6	1.2/0.85 SB	100	50	610	
	21H	28.6	1.6/1.2 SB	100	50	610	
	22H	28.6	1.8/1.2 SB	100	50	610	
Low carbon steel	10S	25.4	1.4/0.95 SB	70	40	Max 580	
	11S	25.4	1.6/1.2 SB	90	37	Max 580	
	12S	25.4	1.8/1.2 SB	90	37	Max 580	
	13S	25.4	2.2/1.2 SB	80	50	Max 580	
	14S	25.4	1.8/1.2 SB	270	50	Max 580	
	20S	25.4	1.6/1.2 SB	220	30	Max 610	
	21S	25.4	1.8/1.2 SB	230	37	Max 610	
	22S	25.4	2.4/1.2 SB	230	50	Max 610	
	23S	28.6	1.6/1.2 SB	230	30	Max 610	
	24S	28.6	1.8/1.2 SB	250	50	Max 610	
	25S	28.6	2.4/1.2 SB	250	50	Max 610	
	30S	28.6	1.4/0.9 SB	60	37	Max 610	
	31S	28.6	1.6/1.2 SB	90	37	Max 610	
32S	28.6	1.8/1.2 SB	90	37	Max 610		
33S	28.6	1.8/1.4 SB	90	37	Max 610		

BUTTED STEERING COLUMNS



ISHIWATA CrMo 80C spline butted steering column.
Length of thread 60mm. Nominal. 24-1" gr. 170
φ25.4x2.2-20/1.6x200-300



(CrMo)

Dimensions in mm

Mark	Diameter φD	Thickness T/T'	Butted A	Taper B	Length L	Thread	Weight
80C	25.4	2.2/1.6(spline)	50	25	Max 300	Nominal	gr. 170
81C	25.4	2.2/1.6	50	25	Max 300	60	gr. 205

(Hi-tension)

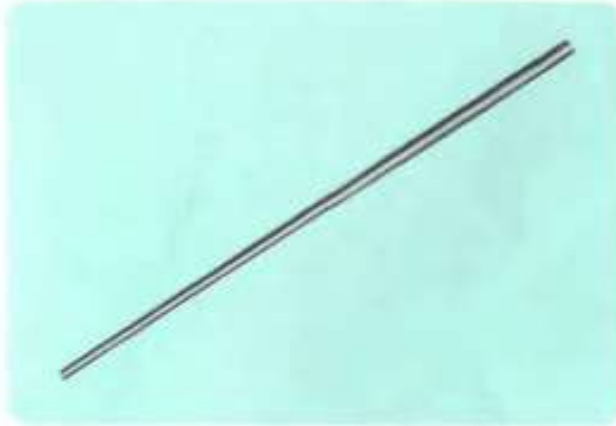
Mark	Diameter φD	Thickness T/T'	Butted A	Taper B	Length L	Thread
82H	25.4	2.7/1.6	50	25	Max 300	Max 60
83H	25.4	2.7/1.6	30	25		
84H	25.4	2.7/2.1	50	25		

(Low carbon)

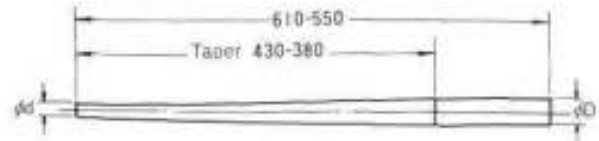
Mark	Diameter φD	Thickness T/T'	Butted A	Taper B	Length L	Thread
80S	25.4	2.7/1.6	50	25	Max 300	Max 60
81S	25.4	2.7/1.6	30	25		
82S	25.4	2.7/2.1	50	25		
83S	25.4	2.9/1.9	50	25		
88S	25.4	1.6	Straight Gage			

On order: Inch size, French size (mm)

SEAT STAYS



NOMINAL DIMENSION



Mark	Diameter D/d	Thickness	Weight
60C	14.5/10.0	0.6	gr. 230
61C	14.5/10.0	0.8	gr. 280
62C	16.0/10.0	0.8	gr. 320
60H	14.5/10.5	1.0	
61H	14.0/10.5	1.0	

TOP END FORMING

DOUBLE TAPER



FLAT WITH BRAZED



END FORMING ILLUSTRATION See page 24

STRAIGHT CUT



DOMED



ENDMILLED

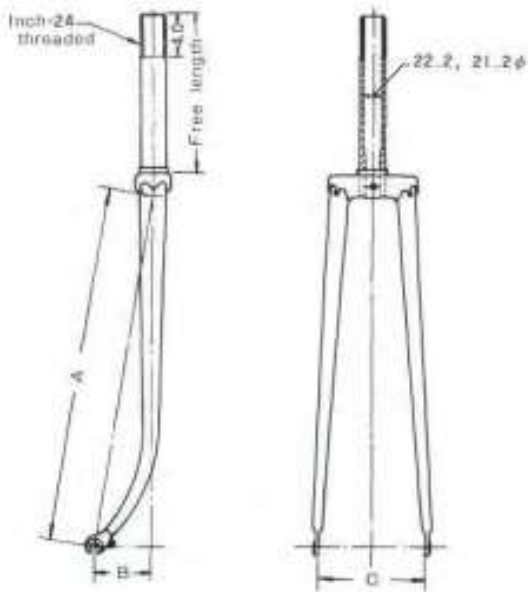


DIA-CUT



SECTION-3

FRONT FORKS



ISHIWATA produce the Front Fork 250,000-300,000 pcs./month. In this section we introduce our special hand-made forks. Our another products model are for child, mini, and light-weight.

■Please show A, B, C, length and the kind of plating at your order.

イシワタの前ホークは月産20~30万の生産をしております。ここにのせたものは、手造りの高級前ホークの一部です。この他、幼児用からミニサイクル、輸出用、スポーツ車に至るまで数多くのもを作っております。

■ご注文のとき、左図のA, B, C寸法、又メッキの種類をご明記下さい。

SPECIAL FORK HAND MAKE



Model 255

—Road type—
26; 27' Wheels
CrMo butted column
and blades
Model 555 lost-wax crown

Cp or self color finish
to order

**Special Fork
Hand Make**



Model 252

—Track Type—
26; 27" Wheels
CrMo Butted Column and Blades
Model 512 Cold Forging Crown
Cp or Self Color Finish to Order



Model 235

—Touring Type—
26; 27" Wheels
Hi-tension Butted Column
and Blades. Model 535
Pressed Steel Crown.

**Special Fork
Hand Make**



Model 245

—Road Type—
26; 27" Wheels.
CrMo Butted Column and Blades.
Model 514 Crown
Cp or Self Color Finish to Order

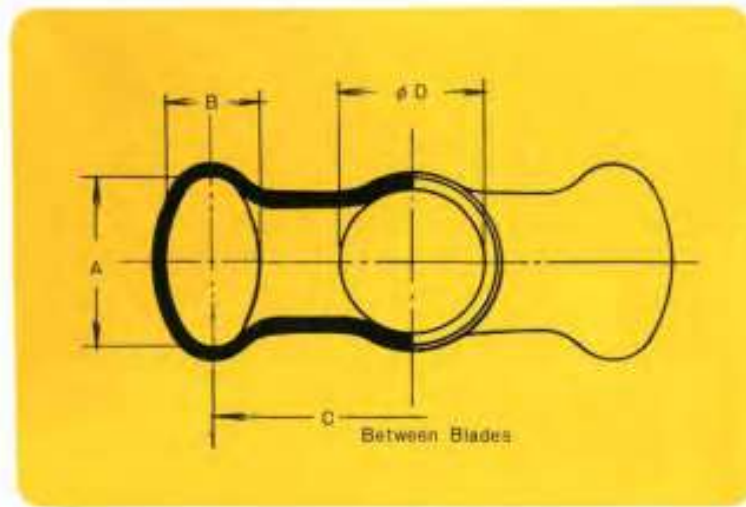


Model 225

—Touring Type—
26; 27" Wheels
Hi-tension Butted Column
and Blades. Model 525
Pressed Steel Crown.

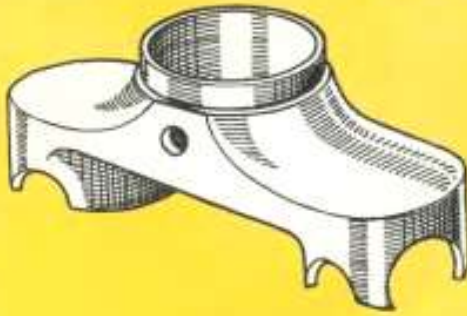
SECTION-4

FORK CROWNS AND COVERS



Model No.	A	B	C	φD	Gauge
555	28	20	60	25.4	
565	29	16	62	25.4	
512	23.0-22.2Round		60	25.4	
514	29	16	60	25.4	
515	29	16	60	25.4	2.6
525	29	16	60	25.4	2.6
535	29	16	61	25.4	2.3
503	29	16	62	25.4	2.3
505	29	16	60	25.4	2.3
504	29	16	60	25.4	2.3
508	29	16	61	25.4	2.3
501	29	16	60	25.4	3.2

Model 555



Model 555 Road type lost-wax for oval blades -28/20

565 Road type lost-wax for oval blades -29/16

512 Track type cold forging for round blades - $\phi 23.0, \phi 22.2$

514 Casting iron for oval blades -29/16

525 Pressed steel crown top 535 well-shaped edge for oval blades -29/16

515 Casting iron for oval blades -29/16

Model 565



Model 525



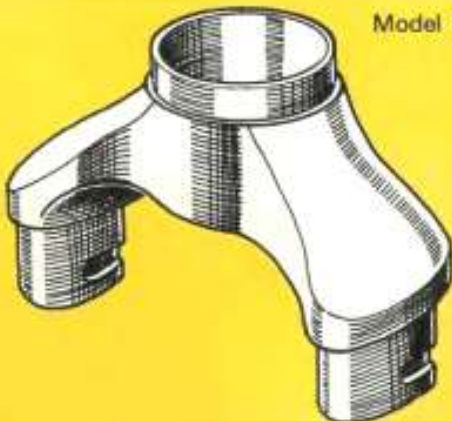
Model 512



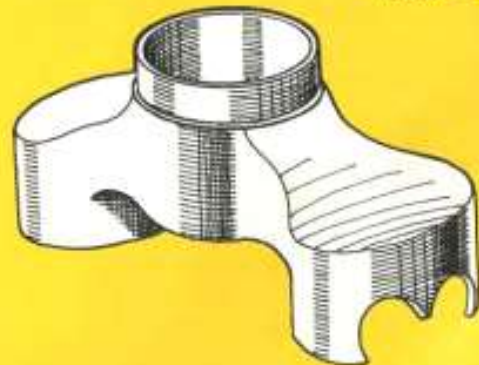
Model 535



Model 514



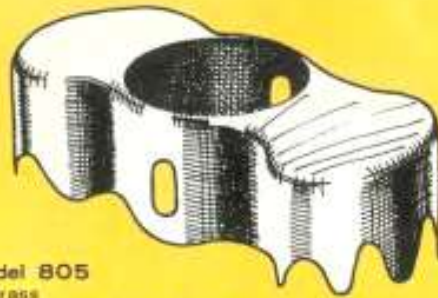
Model 515



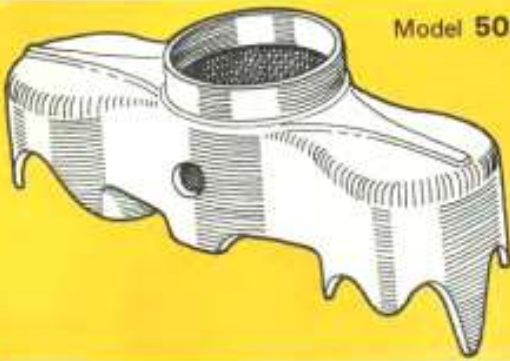
Model 501



Model 805
Brass
Full cover-chrome plated



Model 503



Model 801
Steel or brass, chrome plated
half cover-double center hole



Model 504



Model 802
Steel chrome plated
half cover-single center hole



Model 508



Model 804
Brass
Half cover-single center hole
for Model 508



Model 505

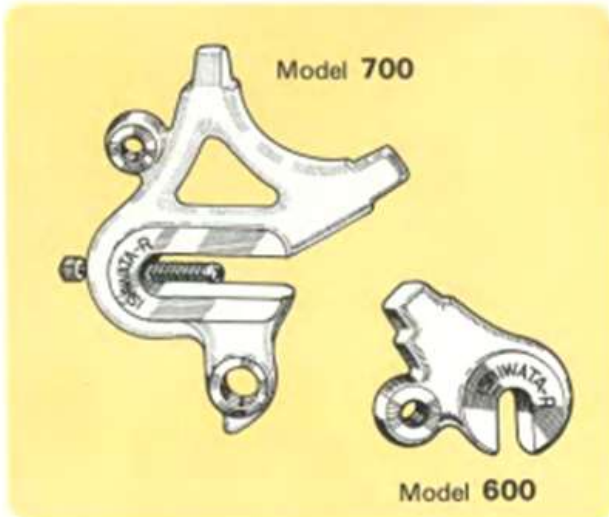


Model 807
Steel chrome plated
half covers

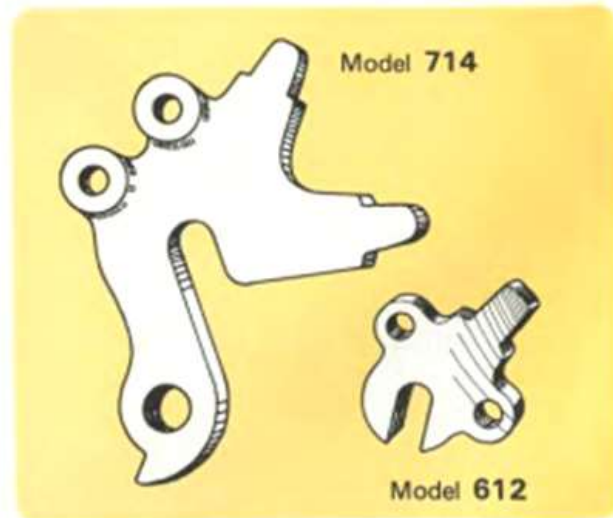
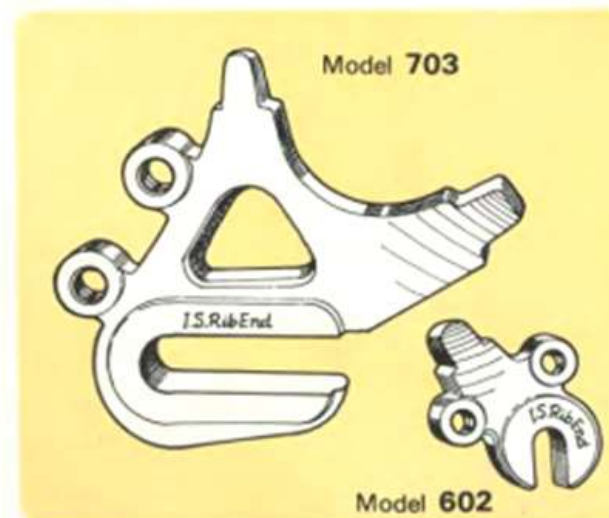
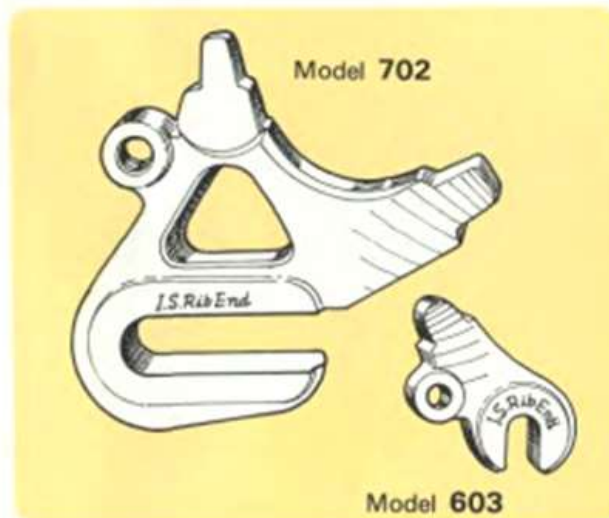


SECTION-5

FORK AND STAY ENDS



- Model
700 Cold forging gauge 5.5 single eye
600 M6P1 Angle 70°
F-Ends 8.5
- 702 Rib ends gauge 4.5 single eye
603 M6P1 Angle 65° pressed
F-Ends 9.2 - 8.5
- 703 Rib ends gauge 4.5 double eye
602 M6P1 Angle 65°
F-Ends 9.2-8.5
- 713 Gauge 5.0 single eye
610 M6P1 Angle 65°
Gauge 5.0 9.2-8.5
- 714 Gauge 5.0 double eye
612 M6P1 Angle 65°
Gauge 5.0 9.2-8.5



Model 705
Single eye M6P1
Gauge 4.0
Angle 60°



Model 706
Single eye M6P1
Gauge 4.0
Angle 65°-68°



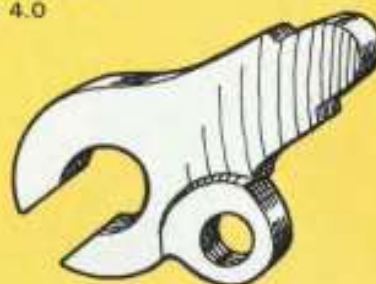
Model 707
Single eye M5P0.8
Gauge 4.0
Angle 60°



Model 604
Double eye M6P1
Gauge 4.0



Model 607
Single eye $\phi 5.5$
Gauge 4.0



Model 708
Double eye M6P1xM5P0.8
Gauge 4.0
Angle 62°



Model 608
Single eye $\phi 5.5$
Gauge 4.5



SECTION-8

FRAME FITTING PARTS

PARTS FOR DERAILLEUR Braze-on



2010



2011



2012



2014



2013



2015



2016



2017



2018



2019

- 2010 Change lever stop
- 2011 Change lever boss
- 2012 Cable ferrule-R
- 2013 Cable ferrule-F
- 2014 Cable nipple
- 2015 Cable stop
- 2016 Cable stop
- 2017 Cable stop
- 2018 Double cable stop
- 2019 Cable stop

- 2050 Adjusting screws
- 2051 Braze-on inner tube
- 2052 Braze-on inner tube reinforcement
- 2053 Wire ling
- 2054 Braze-on brake boss for allen-key

PARTS FOR CALIPER BRAKE

2050



2051



2053



2052



2054



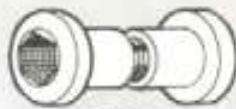
2200



2201



2202



2203



2204



2205



2206

PARTS FOR AFT-TRIANGLE-1

- 2200 Seat pin boss
Ref. 2203, 2204
- 2201 Seat pin boss L. 25-31
Ref. 2205, 2206
- 2202 Seat pin boss L. 23
Ref. 2204
- 2203 CrMo seat pin
M6xP1.0 \varnothing 8x19-21
- 2204 Titanium seat pin
M6xP1.0 \varnothing 8x22
- 2205 CrMo seat pin
M6xP1.0xL.18
- 2206 CrMo seat pin
M6xP1.0xL.25



2250



2251



2252



2253



2254

PARTS FOR AFT-TRIANGLE-2

- 2250 Seat topper
- 2251 Seat topper
- 2252 Seat topper

- 2253 Seat top flap
- 2254 Seat top flap



2300



2301



2302



2303



2304

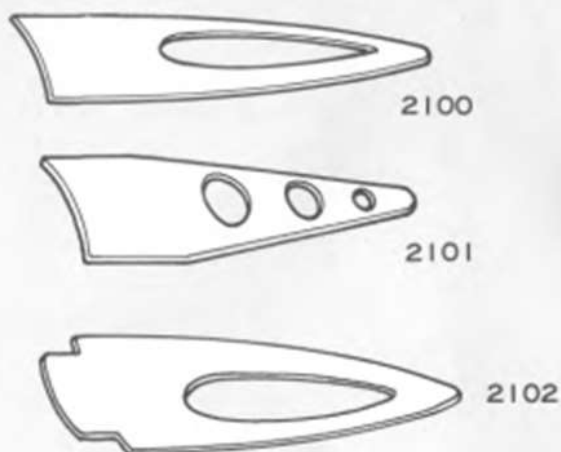


2305

PARTS FOR AFT-TRIANGLE-3

- 2300 Bridge reinforcement
- 2301 Bridge reinforcement
- 2302 Boss for brake bolt
- 2303 Upper bridge
- 2304 Lower bridge
- 2305 Upper bridge

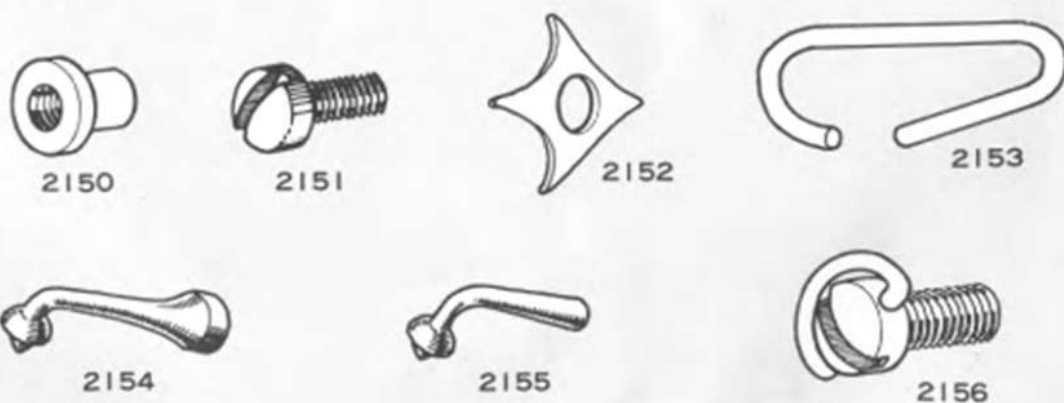
PARTS FOR FRONT FORK—Braze on



- 2100 Tongues
- 2101 Tongues
- 2102 Tongues
- 2103 Canti brake boss
- 2104 Canti brake boss
- 2105 Canti brake boss
- 2106 Allen-key
for brake bolt
M6xP1.0
- 2107 Dynamo brakel
- 2108 Dynamo brakel
- 2109 Dynamo brakel
- 2110 Dynamo brakel
- 2111 Dynamo brakel

- 2150 Bottle cage boss
- 2151 Bottle cage bolts
- 2152 Bottle cage
reinforcement
- 2153 Chain guide
- 2154 Pump peg
- 2155 Pump peg
- 2156 Wing nut
M5xP0.8

OTHER PARTS





ISHIWATA SEISAKUSHO CO., LTD.

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TELEX 3042-608

CABLE: KAWAISH