

## Our Capabilities

- Made to Order capabilities, specializing in Roller Chain and Engineering Class sprockets.
- Short lead times.
- Expedited Same Day / Next Day shipping for breakdowns.
- Over 25 years of manufacturing experience.
- ISO Certified.
- Heat treating: Induction, flame, carburizing/case hardening, etc.
- CNC machining for special machined tooth profiles.
- Finishes including paint, powder coat, black oxide and plating.

## Custom Products

- Solid, welded, and custom machined sprockets.
- Mounting, Lightening, and Safety Lockout holes.
- Split and Segmental Rim Sprockets.
- Mounting methods including straight bores, taper bushing styles, drum mountings, splines, Power-Locks and other keyless devices, and much more.



Triple Strand Roller Chain Sprocket  
Machined solid web-style with mounting holes.



Triple Strand Roller Chain Sprocket with large finished bore and custom split design.



Large Roller Chain Sprocket with Finished Bore  
and with Lightening holes.

## Materials and Coatings

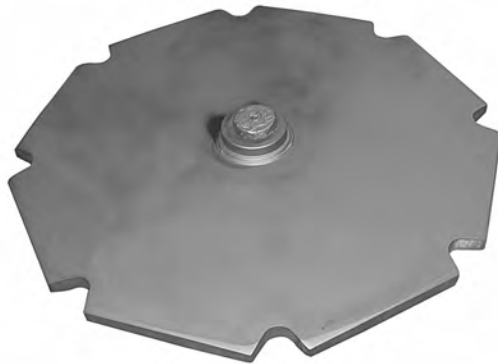
- On request, we can manufacture any sprocket from alloy steels, brass, bronze, plastics, and other materials.
- Coatings for anti-corrosion and anti-wear are available, including nickel, zinc, chrome, WP, Neptune and more.

## Shipping Methods

- Special Shipping methods can be provided, such as custom crates and kits.

## Engineering Class Sprocket Teeth Options

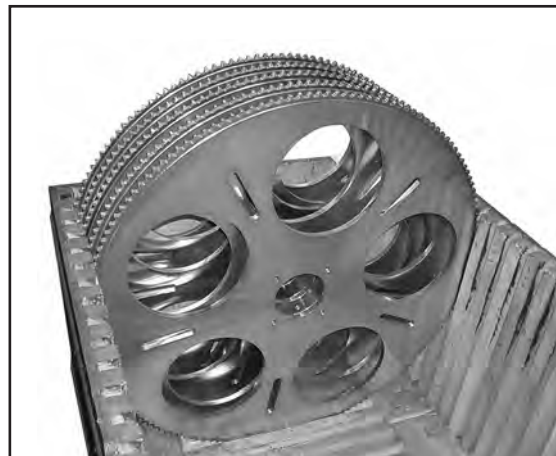
- All Engineering Class sprockets can be provided with “gap tooth” profiles in order to accommodate chain attachments.
- Tsubaki’s standard Engineering Class sprockets are manufactured with “Low Profile” teeth. The teeth are not higher than the chain sidebar height to allow for chain attachments. Special flat profile teeth can be designed to clear attachments on long pitch sprockets.
- “High Profile”, or “Long Tooth” sprockets are available on request. The sprocket teeth project out through the top of the chain.



Engineering Class Sprocket with Flat Sided Teeth



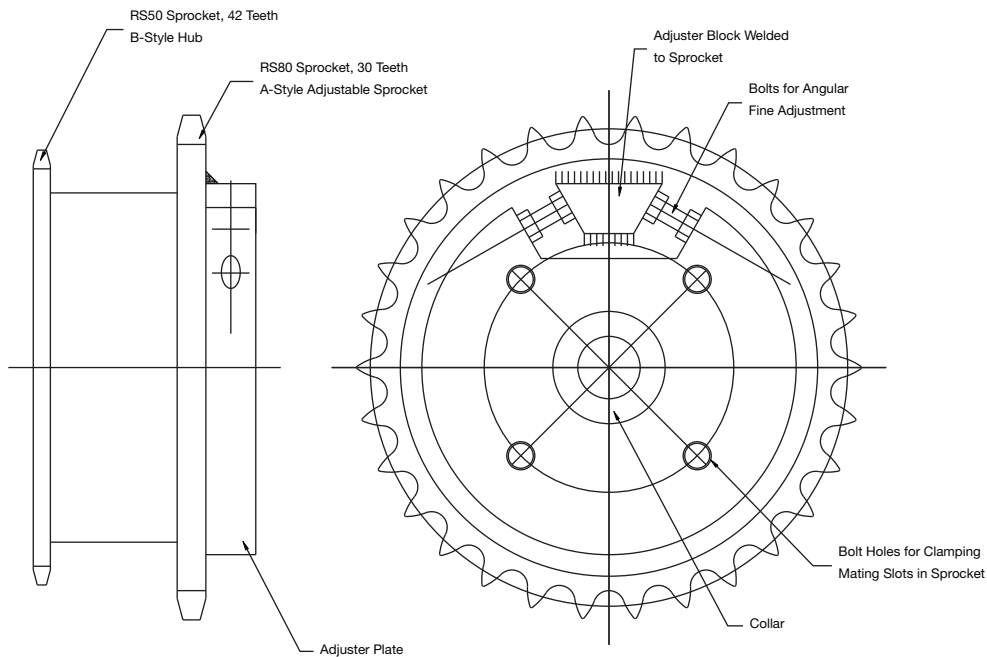
Large Engineering Class Sprocket  
 “Gap Tooth” for Chain Attachments.



Single Strand Roller Chain Sprocket  
 Yellow Zinc Dichromate Plated  
 LASER Cut Lightening and Safety Lockout Holes.

## Engineering Class Traction Wheels

- The same bore mountings that can be put in sprockets are also available in Traction Wheels.
- Made to your specifications.



Custom Adjustable Roller Chain Sprocket Assembly



Custom Engineering Class Sprocket  
Bolt-Together 2-piece Assembly.



Custom Engineering Class Sprocket Assembly  
With Shrink Disc to Clamp Hub to Shaft.

## Bore Options

### Plain Bore and Finished Bore Sprockets

- Plain Bore Sprockets: Straight bore or straight bore with set screws.

#### Options:

- Inch and metric bore sizes.
- Set screws: Quantity, type, location and size.

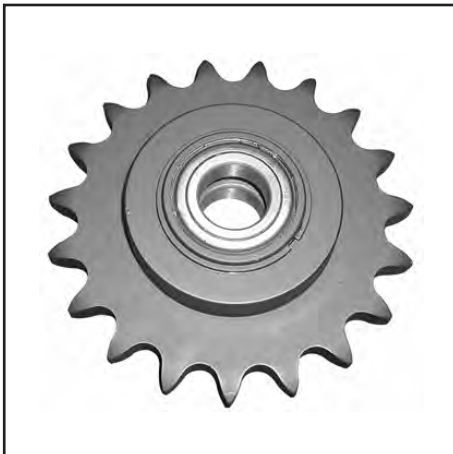


Finished Bore Sprocket

- Finished Bore Sprockets: Straight bore with standard keyway and two (2) set screws.

#### Options:

- Inch and metric bore sizes.
- Non-standard keyways and setscrews.
- Non-standard set screw positions.
- Multiple Keyways and tapered keyways.
- Cup, Cone, or Dog point setscrews.



Bearing Idler Sprocket

## Bore Options

### Power-Locks and Spline Bore Sprockets (for high torque applications)

- Power-Lock Sprockets: Supplied with or to suit Tsubaki Power-Lock Keyless Locking System.

#### Options:

- Inch or Metric series Power-Locks.
- Self-centering Power-Locks.
- Spline Bore Sprockets:
- Made-To-Order: ANSI series and custom splines can be made-to-order for heavy-duty power transmission applications.

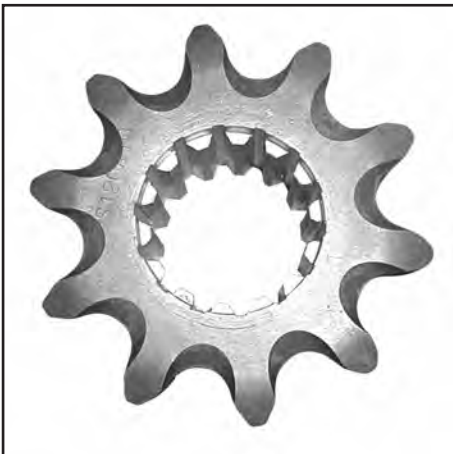


Power-Lock Sprocket

## Bore Options Custom Bores

#### Options:

- Tapered Bores.
- Square Bores.
- Hex Bores.
- Other custom combination bores.



Spline Bore Drive Sprockets

## Split Sprockets

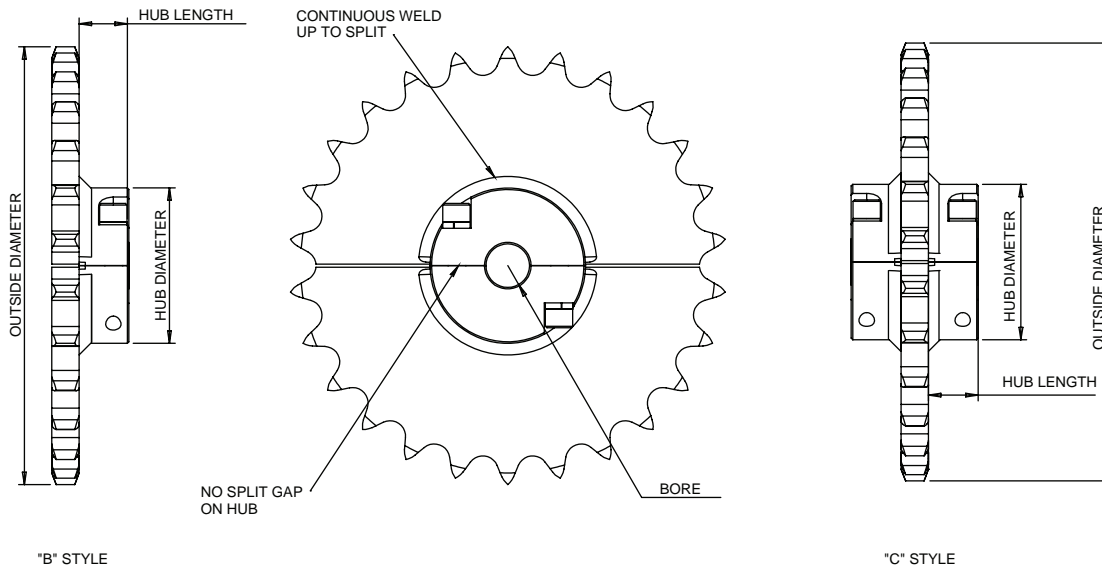
Split sprockets allow for easy maintenance of sprockets and machinery, since the sprocket can be removed from the shaft without having to disassemble everything around the sprocket.

Most Tsubaki sprockets can be supplied as A, B or C Style (hub combinations) split sprockets. Split A Style sprockets (without hubs) can be supplied with bolt holes or mounting brackets to attach to shafts or drums. B and C style (with one or two hubs) are supplied with Tsubaki standard split hubs, or custom MTO hubs.

Split sprockets that cannot be welded are made with oversized hubs to allow for the bolts that hold the sprocket together. Welded split sprockets are manufactured with Tsubaki standard S-Type Split Hubs, shown in Split Hub Size Table (on next page).



## Split Sprockets (CONTINUED)



Steel Split Sprockets are available in "B" and "C" styles.

### Split Hub Sizes

All dimensions in inches unless otherwise stated.

Hub Number	Bore	Hub Outside Diameter	Hub Length	Bolts	Weight Pounds
S-1B	3/4 - 1 1/2	3 1/8	1	3/8 x 1 1/2	1.80
S-2B	1 3/8 - 2 1/4	4 3/8	1 1/4	1/2 x 2	4.00
S-3B	2 - 3	6	1 3/8	5/8 x 2 1/2	8.40
S-4B	2 3/4 - 4	7 5/8	1 1/2	3/4 x 3 1/4	14.40
S-5B	3 3/4 - 5	9 1/4	2	1 x 4	27.70
S-6B	4 3/4 - 6	10 1/4	2 1/4	1 x 4 1/4	35.40
S-7B	5 3/4 - 7	12 1/2	2 1/2	1 x 5	64.00
S-8B	6 1/4 - 8	14 1/2	3	1 x 5 1/4	98.00

NOTE: Length through bore can be determined by adding plate thickness to hub length.

### Sprocket Size (Minimum Number of Teeth) for Instant Hubs

Split Hub Number	Bore (Inches)	Chain Number									
		40	50	60	80	100	120	140	160	180	200
S-1B	3/4 - 1 1/2	28	23	20	16	-	-	-	-	-	-
S-2B	1 3/8 - 2 1/4	38	30	26	20	17	15	13	-	-	-
S-3B	2 - 3	46	37	32	25	21	18	16	14	13	-
S-4B	2 3/4 - 4		47	39	30	25	21	19	17	16	14
S-5B	3 3/4 - 5				36	30	25	22	20	18	17
S-6B	4 3/4 - 6					32	28	24	22	20	18
S-7B	5 3/4 - 7					38	33	28	25	23	21
S-8B	6 1/4 - 8						39	34	30	27	25

"C" style split sprockets require two split hubs.

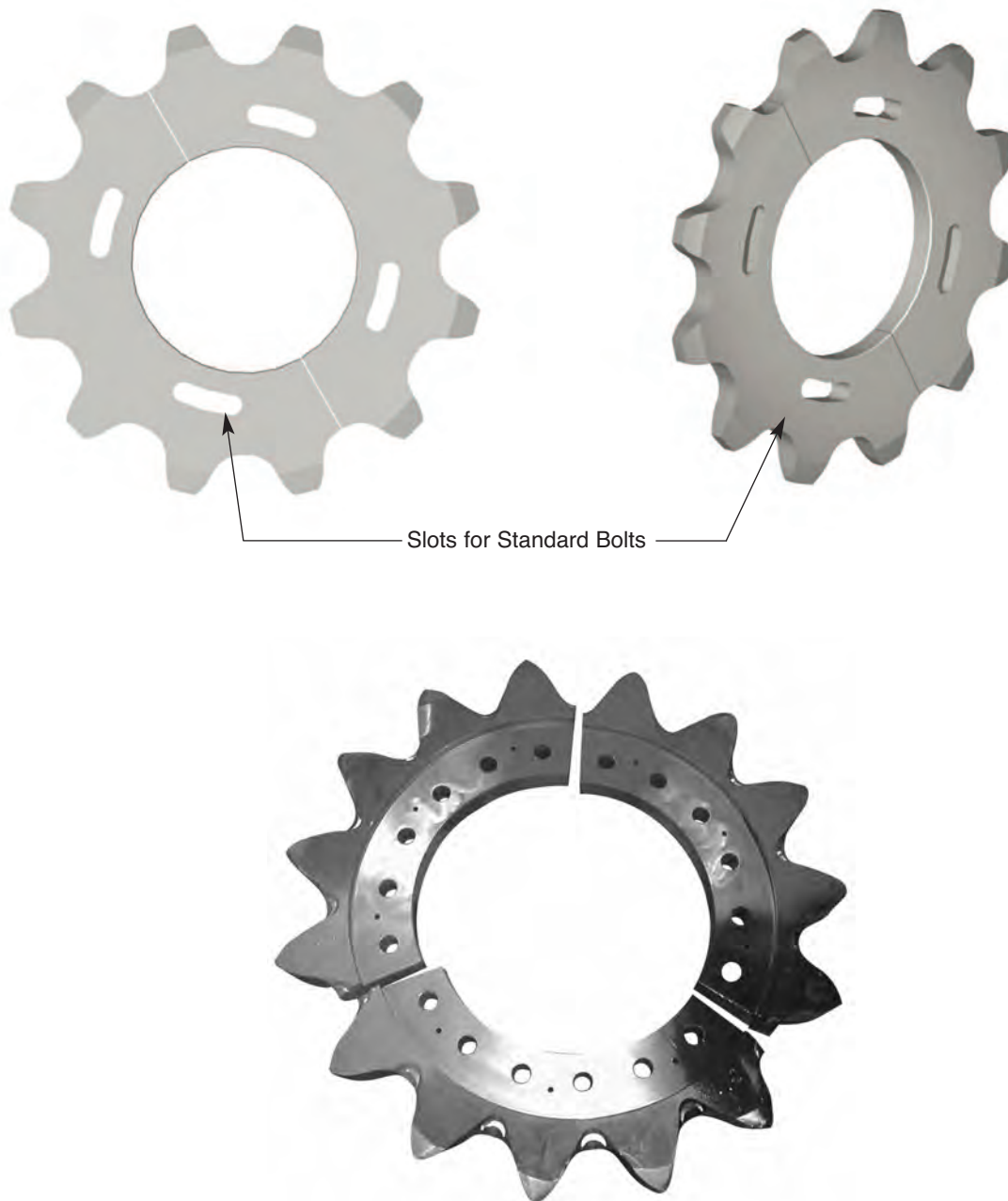
For safety, multi-strand sprockets should always be "C"-Style construction. During assembly, ensure that the gap between sprocket halves is uniform. Bolts should never be over-torqued at assembly. Previously torqued bolts should not be reused to prevent over-torquing. Modifications to hub dimensions or bolt sizes may result in a weaker sprocket that may not be suitable for the application.

## Segmental Rim Sprockets

Segmental rim sprockets and traction wheels are split rings (two or more pieces) that generally fasten by bolting to a standard hub body. Segmental rims are usually applied when ease of replacement is desired because the chain, shaft, and bearings do not have to be disturbed during sprocket replacement. When downtime is critical in an operation, consider segmental rim sprockets and traction wheels. Adjustable rim sprockets are also available from Tsubaki. The adjustability of these sprockets allows for precise alignment of multiple sprockets along a shaft.

Segmental rims are made of special steel plate material and may be heat treated (option) to high hardness levels to achieve long service life. Hardened teeth resist abrasive wear common in operation. Consult Tsubaki Technical Support when material being conveyed is cement, ash, or other high MOH hardness material. Special sprocket tooth hardness is necessary to resist wear from such hard abrasivants.

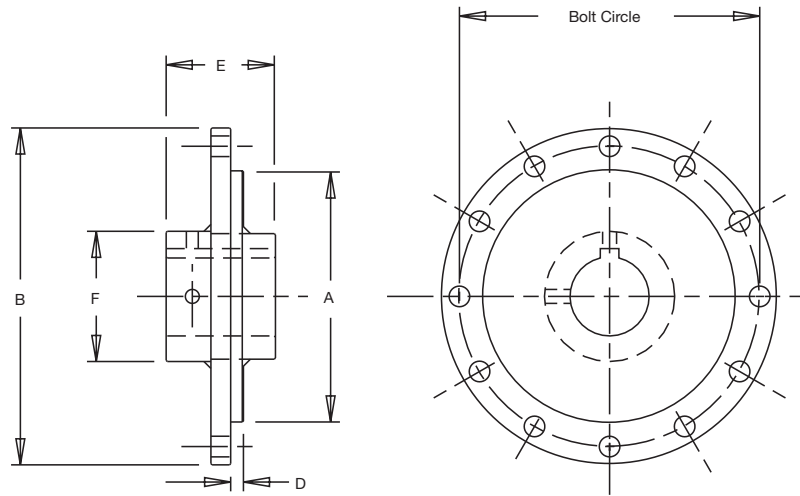
Adjustable Segmental Rim Sprockets



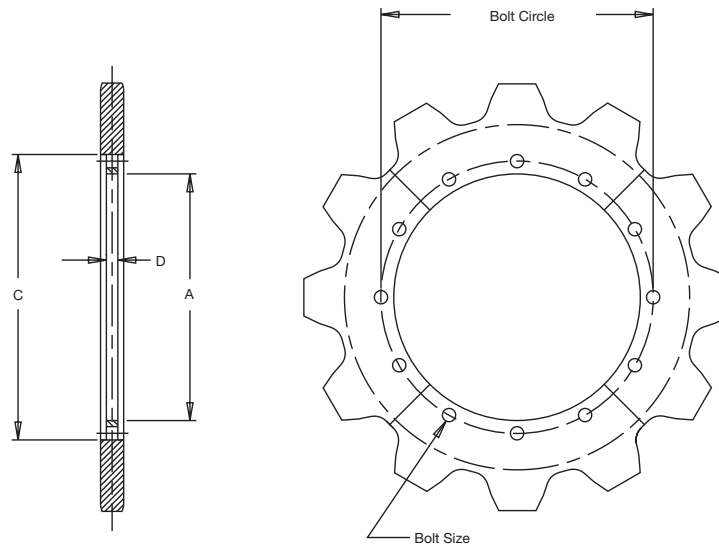


## Segmental Rim Sprocket Specifications

### Hub Body



### Segmental Rim



All dimensions are in inches unless otherwise specified.

Hub Body <sup>1</sup> Number	Bolt Circle Diameter	Bolt Size/ Quantity	Nominal A	B	C	D	Standard E	Standard F	Maximum Bore	Approx. Weight (lbs.)
10	10	.500/12	8.50	11.75	12.25	.625	6.00	7.0	4.44	78
12	12	.625/12	10.50	13.75	14.25	.750	6.25	8.0	5.44	115
16	16	.750/12	14.50	17.75	18.25	.750	6.50	9.0	5.94	175
20	20	.750/12	18.50	21.75	22.25	.875	7.75	11.0	7.00	325
25	25	1.000/12	23.00	27.75	28.25	1.000	9.00	13.0	9.00	570

<sup>1</sup>Hub body number indicates bolt circle diameter and does not ensure interchangeability between manufacturers. Call Tsubaki for details.

## Segmental Rim Sprockets Traction Wheel Rims<sup>1, 2</sup> (with nuts, bolts and washers)

All dimensions are in inches unless otherwise specified.

Chain Number	Outside Diameter	Equivalent <sup>3</sup> Sprocket Size (Teeth)	Use Hub Body Number	Face Width	Bolt Diameter	Maximum Bolt Torque (lbs./ft.)	Approximate Weight per Set (lbs.)
110	16.29	9	12	1.75	.63	180	46
	18.17	10	12	1.75	.63	180	77
	21.93	12	16	1.75	.75	320	93
	23.82	13	16	1.75	.75	320	134
	24.00	-	16	1.75	.75	320	137
	29.51	16	16	1.75	.75	320	212
4856 & 4857	17.67	10	12	2.75	.63	180	97
	20.00	-	12	2.75	.63	180	149
	21.43	12	16	2.75	.75	320	116
	22.00	-	16	2.75	.75	320	124
	23.32	13	16	2.75	.75	320	178
	24.00	-	16	2.75	.75	320	186
	26.00	-	20	2.75	.75	320	155
	27.11	15	20	2.75	.75	320	209
	28.00	-	20	2.75	.75	320	228
29.01	16	20	2.75	.75	320	287	
4859	20.81	12	16	3.25	.75	320	101
	22.70	13	16	3.25	.75	320	165
	24.00	-	16	3.25	.75	320	197
	26.00	-	20	3.25	.75	320	164
	26.48	15	20	3.25	.75	320	182
	28.38	16	20	3.25	.75	320	276
	30.28	17	20	3.25	.75	320	331
4864	24.67	12	16	3.25	.75	320	238
	26.00	-	20	3.25	.75	320	164
	26.88	13	20	3.25	.75	320	196
	30.00	-	20	3.25	.75	320	325
	31.29	15	20	3.25	.75	320	413
	33.51	16	20	3.25	.75	320	525
	35.72	17	25	3.25	.75	320	540

<sup>1</sup>Caution: Do not use traction wheels where ambient conditions are potentially flammable.

<sup>2</sup>Avoid use of traction wheels where: A) heavy digging exists, B) conveyed material inhibits traction, C) conveyed material has heavy density.

<sup>3</sup>Many sizes listed above are equal to sprockets and would not effect elevator capacity when changing from sprocket to traction wheel.

## Sprocket Rims (with nuts, bolts and washers)

All dimensions are in inches unless otherwise specified.

Chain Number	Number of Teeth	Pitch Diameter	Use Hub Body Number	Face Width	Bolt Diameter	Maximum Bolt Torque (lbs./ft.)	Approximate Weight per Set (lbs.)
110	9	17.543	12	1.75	.63	180	56
	10	19.416	12	1.75	.63	180	83
	12	23.182	16	1.75	.75	320	100
	13	25.071	16	1.75	.75	320	136
	16	30.755	20	1.75	.75	320	206
4856 & 4857	10	19.416	12	2.75	.63	180	132
	12	23.182	16	2.75	.75	320	157
	13	25.071	16	2.75	.75	320	218
	15	28.858	20	2.75	.75	320	256
4859	16	30.755	20	2.75	.75	320	332
	12	23.182	16	3.25	.75	320	169
	13	25.071	16	3.25	.75	320	235
	15	28.858	20	3.25	.75	320	275
	16	30.755	20	3.25	.75	320	357
4864	17	32.653	20	3.25	.75	320	444
	12	27.046	16	3.25	.75	320	309
	13	29.250	16	3.25	.75	320	399
	15	33.668	20	3.25	.75	320	493
	16	35.881	20	3.25	.75	320	604
	17	38.095	25	3.25	.75	320	534

Sprocket rims other than those listed are available upon request.