

# 16

## Medium Heavy Duty Casters



16 Series casters are cold formed, heat treated steel and recommended for medium to medium heavy duty applications.

### TYPICAL APPLICATIONS

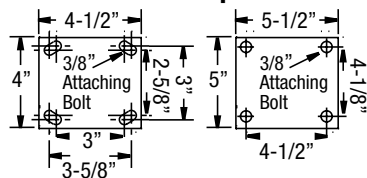
- Dollies
- Waste disposal trucks
- Warehouse trucks
- Floor Trucks
- Shop carts

### Swivel Cross Section

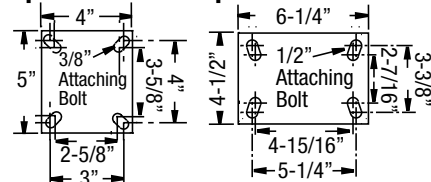


### MOUNTING OPTIONS

#### Standard Plate Optional D Plate



#### Optional J Plate Optional K Plate



### FEATURES

- **Top Plate & Yoke Base:** Cold formed from 1/4" steel plate. Yoke base is notched for factory or field-installable 4-position swivel lock
- **Swivel Section:** Heat treated, smooth formed, hardened, double ball bearing raceways minimize ball indentation and wear
- **Fork Legs:** 1/4" steel, formed to increase strength and welded to yoke base
- **King Pin:** 5/8" diameter orbitally spun steel rivet
- **Axle:** 1/2" diameter hollow axle complete with lock nut with straight roller and ball bearings. Axle is solid with Plain Bore, Delrin and Oilex bearings
- **Wheel seals:** Nylon seal retaining/thrust washers
- **Lubrication:** Zerk fitting in swivel section and in recessed head of hollow axle on straight roller and ball bearing wheels
- **Finish:** Rigs zinc plated to resist corrosion.
- **NSF Listed** for food service industry
- Alternate or custom caster configurations available

### BEARING OPTIONS



Note: Wheel capacities can change with each bearing type. Consult factory.

### RIG OPTIONS

- King bolt and nut. Specify **KB16**.
- Neoprene sealed swivel section. Specify **SS02**.
- NSF Listed for food service industry. Specify **NSF**.
- Notched seal kit. Specify **SD016001**.
- Unnotched seal kit. Specify **SD016002**.
- **Optional Overall Heights** see notes at end of 16 Series section.

### BRAKE OPTIONS

**Total Lock** specify **T** (4" to 8" models) specify optional 7 1/2" (HS-60) overall height model if ordering 6".

**Grip Lock** specify **GL1**

**Cam** specify **CB1**

**Face Brake** specify **FBA**

**Single Side** specify **SSB**. **Double Sided** specify **DSB**

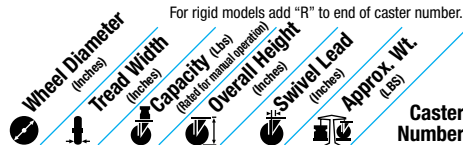
**NEW! Face Brake** specify **FBB**

**Swivel Lock** (welded) specify **L**

Hand operated field installable swivel lock specify **SL160000**

Foot operated field installable swivel lock specify **SL160002**

For swivel models add "S" to end of caster number.  
For rigid models add "R" to end of caster number.



### Moldon Rubber on Cast Iron (01 Roller Bearing)

|       |       |     |       |         |        |                  |
|-------|-------|-----|-------|---------|--------|------------------|
| 3 1/4 | 1 1/2 | 140 | 4 1/4 | 1 3/4   | 4 1/2  | <b>16MR03101</b> |
| 4     | 1 1/2 | 250 | 5 5/8 | 1 11/16 | 5 3/4  | <b>16MR04101</b> |
| 4     | 2     | 300 | 5 5/8 | 1 11/16 | 5 1/4  | <b>16MR04201</b> |
| 5     | 1 1/2 | 350 | 6 1/2 | 1 5/8   | 6      | <b>16MR05101</b> |
| 5     | 2     | 450 | 6 1/2 | 1 5/8   | 5 1/2  | <b>16MR05201</b> |
| 6     | 2     | 500 | 7 1/4 | 1 3/4   | 8      | <b>16MR06201</b> |
| 8     | 2     | 600 | 9 1/2 | 1 3/4   | 10 1/4 | <b>16MR08201</b> |

### Heavy Duty Moldon Rubber on Cast Iron (01 Roller Bearing)

|   |       |      |       |         |        |                  |
|---|-------|------|-------|---------|--------|------------------|
| 4 | 1 1/2 | 400  | 5 5/8 | 1 11/16 | 5 3/4  | <b>16MH04101</b> |
| 5 | 2     | 700  | 6 1/2 | 1 5/8   | 5 1/2  | <b>16MH05201</b> |
| 6 | 2     | 820  | 7 1/4 | 1 3/4   | 8      | <b>16MH06201</b> |
| 8 | 2     | 1000 | 9 1/2 | 1 3/4   | 10 1/4 | <b>16MH08201</b> |

**MH**

### Moldon Rubber on Aluminum (01 Roller Bearing)

|   |       |     |       |         |       |                  |
|---|-------|-----|-------|---------|-------|------------------|
| 4 | 1 1/2 | 250 | 5 5/8 | 1 11/16 | 4 3/4 | <b>16MD04101</b> |
| 5 | 1 1/2 | 300 | 6 1/2 | 1 5/8   | 5     | <b>16MD05101</b> |
| 6 | 2     | 550 | 7 1/4 | 1 3/4   | 6     | <b>16MD06201</b> |
| 8 | 2     | 600 | 9 1/2 | 1 3/4   | 6 1/2 | <b>16MD08201</b> |

**MD**

### Pneumatic (27 Radial Ball Bearing)

|   |   |     |       |       |       |                  |
|---|---|-----|-------|-------|-------|------------------|
| 6 | 2 | 200 | 7 1/4 | 1 3/4 | 5 1/2 | <b>16SF06227</b> |
| 8 | 2 | 210 | 9 1/2 | 1 3/4 | 6 1/2 | <b>16SF08227</b> |

Other sizes available. See Pneumatic Caster section.

**SF**

For swivel models add "S" to end of caster number.  
For rigid models add "R" to end of caster number.

Wheel Diameter (Inches) | Tread Width (Inches) | Capacity (Lbs) (rated for manual operation) | Overall Height (Inches) | Swivel Lead (Inches) | Approx. Wt. (Lbs) | Caster Number

For swivel models add "S" to end of caster number.  
For rigid models add "R" to end of caster number.

Wheel Diameter (Inches) | Tread Width (Inches) | Capacity (Lbs) (rated for manual operation) | Overall Height (Inches) | Swivel Lead (Inches) | Approx. Wt. (Lbs) | Caster Number

**X-tra Soft (Flat Tread) (01 Roller Bearing)\***

|   |   |     |      |        |      |                  |
|---|---|-----|------|--------|------|------------------|
| 4 | 2 | 350 | 55/8 | 111/16 | 51/4 | <b>16XS04201</b> |
| 5 | 2 | 375 | 61/2 | 15/8   | 51/2 | <b>16XS05201</b> |
| 6 | 2 | 600 | 71/4 | 13/4   | 6    | <b>16XS06201</b> |
| 8 | 2 | 675 | 91/2 | 13/4   | 61/2 | <b>16XS08201</b> |



**XS**

**X-tra Soft (Round Tread) (01 Roller Bearing)\***

|   |   |     |      |      |      |                  |
|---|---|-----|------|------|------|------------------|
| 6 | 2 | 600 | 71/4 | 13/4 | 51/2 | <b>16XR06201</b> |
| 8 | 2 | 675 | 91/2 | 13/4 | 61/2 | <b>16XR08201</b> |



**XR**

**High Modulus Rubber on Aluminum (28 Precision Ball Bearing)**

|   |   |     |      |      |      |                  |
|---|---|-----|------|------|------|------------------|
| 5 | 2 | 300 | 61/2 | 15/8 | 51/2 | <b>16RM05228</b> |
| 6 | 2 | 350 | 71/4 | 13/4 | 61/2 | <b>16RM06228</b> |
| 8 | 2 | 450 | 91/2 | 13/4 | 81/2 | <b>16RM08228</b> |



**RM**

**NEW MODEL!** For black tread specify "RL" wheel code (example 16RL05228).

**Solid Rubber (01 Roller Bearing)**

|   |   |     |      |        |      |                  |
|---|---|-----|------|--------|------|------------------|
| 4 | 2 | 220 | 55/8 | 111/16 | 6    | <b>16RR04201</b> |
| 5 | 2 | 325 | 61/2 | 15/8   | 61/2 | <b>16RR05201</b> |
| 6 | 2 | 350 | 71/4 | 13/4   | 63/4 | <b>16RR06201</b> |



**RR**

**Polypropylene (01 Roller Bearing)\***

|   |      |     |      |        |      |                  |
|---|------|-----|------|--------|------|------------------|
| 4 | 11/2 | 400 | 55/8 | 111/16 | 41/2 | <b>16PB04101</b> |
| 4 | 2    | 450 | 55/8 | 111/16 | 41/2 | <b>16PB04201</b> |
| 5 | 11/2 | 450 | 61/2 | 15/8   | 5    | <b>16PB05101</b> |
| 5 | 2    | 550 | 61/2 | 15/8   | 5    | <b>16PB05201</b> |
| 6 | 11/2 | 550 | 71/4 | 13/4   | 53/4 | <b>16PB06101</b> |
| 6 | 2    | 650 | 71/4 | 13/4   | 6    | <b>16PB06201</b> |
| 8 | 2    | 850 | 91/2 | 13/4   | 51/2 | <b>16PB08201</b> |



**PB**

\*Delrin (51) Bearings or plain bore (41) models available. Change "01" example: 16PB04251.

**Fiberglass Filled Polypropylene (01 Roller Bearing)\***

|   |   |      |      |        |      |                  |
|---|---|------|------|--------|------|------------------|
| 4 | 2 | 800  | 55/8 | 111/16 | 7    | <b>16GP04201</b> |
| 5 | 2 | 1000 | 61/2 | 15/8   | 8    | <b>16GP05201</b> |
| 6 | 2 | 1200 | 71/4 | 13/4   | 93/4 | <b>16GP06201</b> |
| 8 | 2 | 1250 | 91/2 | 13/4   | 10   | <b>16GP08201</b> |



**GP**

\*Delrin (51) Bearings or plain bore (41) models available. Change "01" example: 16GP04251.

**White Polypropylene (Plain Bore)**

|   |   |     |      |        |      |                  |
|---|---|-----|------|--------|------|------------------|
| 4 | 2 | 450 | 55/8 | 111/16 | 41/2 | <b>16PW04241</b> |
| 5 | 2 | 550 | 61/2 | 15/8   | 5    | <b>16PW05241</b> |
| 6 | 2 | 650 | 71/4 | 13/4   | 6    | <b>16PW06241</b> |



**PW**

**High Temp Polypropylene (Plain Bore)**

|   |   |     |      |        |      |                  |
|---|---|-----|------|--------|------|------------------|
| 4 | 2 | 500 | 55/8 | 111/16 | 5    | <b>16RW04241</b> |
| 5 | 2 | 650 | 61/2 | 15/8   | 51/2 | <b>16RW05241</b> |
| 6 | 2 | 700 | 71/4 | 13/4   | 6    | <b>16RW06241</b> |
| 8 | 2 | 900 | 91/2 | 13/4   | 61/2 | <b>16RW08201</b> |



**RW**

**Polyurethane on Aluminum Flat Tread (01 Roller Bearing)**

|   |      |      |      |        |      |                  |
|---|------|------|------|--------|------|------------------|
| 4 | 11/2 | 600  | 55/8 | 111/16 | 41/2 | <b>16PD04101</b> |
| 4 | 2    | 700  | 55/8 | 111/16 | 5    | <b>16PD04201</b> |
| 5 | 11/2 | 720  | 61/2 | 15/8   | 5    | <b>16PD05101</b> |
| 5 | 2    | 1050 | 61/2 | 15/8   | 51/4 | <b>16PD05201</b> |
| 6 | 2    | 1230 | 71/4 | 13/4   | 53/4 | <b>16PD06201</b> |
| 8 | 2    | 1250 | 91/2 | 13/4   | 7    | <b>16PD08201</b> |



**PD**

**Polyurethane on Cast Iron (01 Roller Bearing)**

|   |   |      |      |        |      |                  |
|---|---|------|------|--------|------|------------------|
| 4 | 2 | 700  | 55/8 | 111/16 | 7    | <b>16PI04201</b> |
| 5 | 2 | 1000 | 61/2 | 15/8   | 8    | <b>16PI05201</b> |
| 6 | 2 | 1200 | 71/4 | 13/4   | 93/4 | <b>16PI06201</b> |
| 8 | 2 | 1250 | 91/2 | 13/4   | 10   | <b>16PI08201</b> |



**PI**

**Polyurethane on Aluminum Round Tread (28 Precision Ball Bearing)**

|   |   |      |      |      |   |                  |
|---|---|------|------|------|---|------------------|
| 5 | 2 | 1000 | 61/2 | 15/8 | 6 | <b>16PM05228</b> |
| 6 | 2 | 1250 | 71/4 | 13/4 | 7 | <b>16PM06228</b> |
| 8 | 2 | 1250 | 91/2 | 13/4 | 9 | <b>16PM08228</b> |



**PM**

**Polyurethane on Cast Iron (01 Roller Bearing)**

|      |       |     |      |      |      |                  |
|------|-------|-----|------|------|------|------------------|
| 31/4 | 15/8  | 420 | 41/4 | 13/4 | 41/4 | <b>16PY03101</b> |
| 31/4 | 23/16 | 540 | 41/4 | 13/4 | 43/4 | <b>16PY03201</b> |
| 6    | 11/2  | 840 | 71/4 | 13/4 | 73/4 | <b>16PY06101</b> |



**PY**

Prevenz™ antimicrobial models available. Add PREV to end of caster number.

**Polyurethane on Polypropylene (01 Roller Bearing)**

|   |   |      |      |        |      |                  |
|---|---|------|------|--------|------|------------------|
| 4 | 2 | 700  | 55/8 | 111/16 | 41/4 | <b>16XA04201</b> |
| 5 | 2 | 750  | 61/2 | 15/8   | 43/4 | <b>16XA05201</b> |
| 6 | 2 | 900  | 71/4 | 13/4   | 51/2 | <b>16XA06201</b> |
| 8 | 2 | 1000 | 91/2 | 13/4   | 71/2 | <b>16XA08201</b> |



**XA**

Prevenz™ antimicrobial models available. Add PREV to end of caster number.

**X-Treme™ Solid Polyurethane (01 Roller Bearing)\***

|   |   |      |      |        |      |                  |
|---|---|------|------|--------|------|------------------|
| 4 | 2 | 1000 | 55/8 | 111/16 | 5    | <b>16XI04201</b> |
| 5 | 2 | 1000 | 61/2 | 15/8   | 51/2 | <b>16XI05201</b> |
| 6 | 2 | 1000 | 71/4 | 13/4   | 61/4 | <b>16XI06201</b> |
| 8 | 2 | 1000 | 91/2 | 13/4   | 8    | <b>16XI08201</b> |



**XI**

\*Drawn Cup Roller (02), Bronze (22), Pedestal Precision (29), Annular Ball (31) and Delrin (51) bearings available. Change "01" to other bearing code. Pedestal Precision example: 16XI04229.

**X-Treme™ Plus Solid Polyurethane (01 Roller Bearing)\***

|   |   |      |      |        |      |                  |
|---|---|------|------|--------|------|------------------|
| 4 | 2 | 1250 | 55/8 | 111/16 | 5    | <b>16XP04201</b> |
| 5 | 2 | 1200 | 61/2 | 15/8   | 51/2 | <b>16XP05201</b> |
| 6 | 2 | 1250 | 71/4 | 13/4   | 61/4 | <b>16XP06201</b> |
| 8 | 2 | 1200 | 91/2 | 13/4   | 8    | <b>16XP08201</b> |



**XP**

Prevenz™ antimicrobial models available. Add PREV to end of caster number. \*Drawn Cup Roller (02), Bronze (22), Pedestal Precision (29), Annular Ball (31) and Delrin (51) bearings available. Change "01" to other bearing code. Pedestal Precision example: 16XP04229.

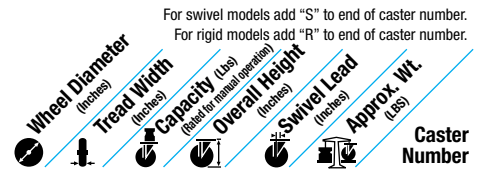
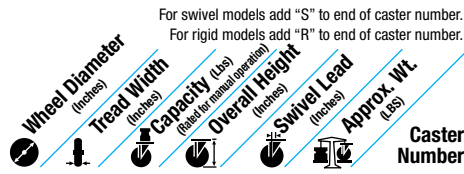
**V-Grooved Polyurethane (02 Drawn Cup Roller Bearing)\***

|   |   |     |      |        |      |                  |
|---|---|-----|------|--------|------|------------------|
| 4 | 2 | 300 | 55/8 | 111/16 | 41/2 | <b>16XV04202</b> |
| 5 | 2 | 300 | 61/2 | 15/8   | 5    | <b>16XV05202</b> |
| 6 | 2 | 300 | 71/4 | 13/4   | 51/4 | <b>16XV06202</b> |
| 8 | 2 | 300 | 91/2 | 13/4   | 53/4 | <b>16XV08202</b> |



**XV**

\*Delrin (52) Bearings models available. Change "02" example: 16XV04252.



### Phenolic (01 Roller Bearing)

|       |       |      |       |         |       |                  |
|-------|-------|------|-------|---------|-------|------------------|
| 3 1/4 | 1 1/2 | 600  | 4 1/4 | 1 3/4   | 4 1/2 | <b>16TM03101</b> |
| 3 1/4 | 2     | 700  | 4 1/4 | 1 3/4   | 4 1/2 | <b>16TM03201</b> |
| 4     | 1 1/2 | 600  | 5 5/8 | 1 11/16 | 4 1/2 | <b>16TM04101</b> |
| 4     | 2     | 800  | 5 5/8 | 1 11/16 | 5     | <b>16TM04201</b> |
| 5     | 1 1/2 | 600  | 6 1/2 | 1 5/8   | 5 1/4 | <b>16TM05101</b> |
| 5     | 2     | 1000 | 6 1/2 | 1 5/8   | 5 1/4 | <b>16TM05201</b> |
| 6     | 1 1/2 | 800  | 7 1/4 | 1 3/4   | 5 1/2 | <b>16TM06101</b> |
| 6     | 2     | 1200 | 7 1/4 | 1 3/4   | 6 1/4 | <b>16TM06201</b> |
| 8     | 2     | 1250 | 9 1/2 | 1 3/4   | 8     | <b>16TM08201</b> |

TM

### Straight Sided Phenolic (01 Roller Bearing)

|   |   |      |       |         |       |                  |
|---|---|------|-------|---------|-------|------------------|
| 4 | 2 | 800  | 5 5/8 | 1 11/16 | 5     | <b>16TH04201</b> |
| 5 | 2 | 1000 | 6 1/2 | 1 5/8   | 5 1/2 | <b>16TH05201</b> |
| 6 | 2 | 1250 | 7 1/4 | 1 3/4   | 6 1/4 | <b>16TH06201</b> |

TH

### Maxim® (01 Roller Bearing)\*

|       |   |      |       |         |       |                  |
|-------|---|------|-------|---------|-------|------------------|
| 3 1/4 | 2 | 800  | 4 1/4 | 1 11/16 | 5     | <b>16NG03201</b> |
| 4     | 2 | 800  | 5 5/8 | 1 11/16 | 5     | <b>16NG04201</b> |
| 5     | 2 | 1000 | 6 1/2 | 1 5/8   | 5 1/2 | <b>16NG05201</b> |
| 6     | 2 | 1200 | 7 1/4 | 1 3/4   | 6 1/4 | <b>16NG06201</b> |
| 8     | 2 | 1250 | 9 1/2 | 1 3/4   | 8     | <b>16NG08201</b> |

NG

NG

### Maxim® NR Noise Reduction (01 Roller Bearing)\*

|   |   |      |       |         |       |                  |
|---|---|------|-------|---------|-------|------------------|
| 4 | 2 | 800  | 5 5/8 | 1 11/16 | 5     | <b>16NR04201</b> |
| 5 | 2 | 1000 | 6 1/2 | 1 5/8   | 5 1/2 | <b>16NR05201</b> |
| 6 | 2 | 1200 | 7 1/4 | 1 3/4   | 6 1/4 | <b>16NR06201</b> |
| 8 | 2 | 1250 | 9 1/2 | 1 3/4   | 8     | <b>16NR08201</b> |

NR

NR

### Hi-Temp Nylon (01 Roller Bearing)

|   |   |      |       |         |       |                  |
|---|---|------|-------|---------|-------|------------------|
| 4 | 2 | 800  | 5 5/8 | 1 11/16 | 5 1/4 | <b>16HE04201</b> |
| 5 | 2 | 1000 | 6 1/2 | 1 5/8   | 6     | <b>16HE05201</b> |
| 6 | 2 | 1200 | 7 1/4 | 1 3/4   | 6 1/2 | <b>16HE06201</b> |
| 8 | 2 | 1250 | 9 1/2 | 1 3/4   | 7     | <b>16HE08201</b> |

HE

### Trionix™ High Impact Polymer (28 Precision Ball Bearing)

|   |   |      |       |       |   |                  |
|---|---|------|-------|-------|---|------------------|
| 8 | 2 | 1250 | 9 1/2 | 1 3/4 | 8 | <b>16NY08228</b> |
|---|---|------|-------|-------|---|------------------|

NY

NY

### Trionix™ NX High Impact Polymer (28 Precision Ball Bearing)

|   |   |      |       |         |       |                  |
|---|---|------|-------|---------|-------|------------------|
| 4 | 2 | 1250 | 5 5/8 | 1 11/16 | 7     | <b>16NX04228</b> |
| 5 | 2 | 1250 | 6 1/2 | 1 5/8   | 8     | <b>16NX05228</b> |
| 6 | 2 | 1250 | 7 1/4 | 1 3/4   | 9 3/4 | <b>16NX06228</b> |
| 8 | 2 | 1250 | 9 1/2 | 1 3/4   | 10    | <b>16NX08228</b> |

NX

### White Nylon (01 Roller Bearing)\*

|   |   |      |       |       |       |                  |
|---|---|------|-------|-------|-------|------------------|
| 5 | 2 | 600  | 6 1/2 | 1 5/8 | 6     | <b>16NW05201</b> |
| 6 | 2 | 900  | 7 1/4 | 1 3/4 | 7     | <b>16NW06201</b> |
| 8 | 2 | 1100 | 9 1/2 | 1 3/4 | 8 1/2 | <b>16NW08201</b> |

NW

NW

### Cast Iron (01 Roller Bearing)

|       |       |      |       |         |        |                  |
|-------|-------|------|-------|---------|--------|------------------|
| 3 1/4 | 1 1/2 | 400  | 4 1/4 | 1 3/4   | 4 1/2  | <b>16CA03101</b> |
| 3 1/4 | 2     | 700  | 4 1/4 | 1 3/4   | 6 3/4  | <b>16CA03201</b> |
| 4     | 1 1/2 | 600  | 5 5/8 | 1 11/16 | 6      | <b>16CA04101</b> |
| 4     | 2     | 1000 | 5 5/8 | 1 11/16 | 7      | <b>16CA04201</b> |
| 5     | 1 1/2 | 600  | 6 1/2 | 1 5/8   | 6 3/4  | <b>16CA05101</b> |
| 5     | 2     | 1250 | 6 1/2 | 1 5/8   | 8      | <b>16CA05201</b> |
| 6     | 1 1/2 | 800  | 7 1/4 | 1 3/4   | 7 3/4  | <b>16CA06101</b> |
| 6     | 2     | 1250 | 7 1/4 | 1 3/4   | 9 3/4  | <b>16CA06201</b> |
| 8     | 2     | 1250 | 9 1/2 | 1 3/4   | 12 1/2 | <b>16CA08201</b> |

CA

### Heavy Duty Cast Iron (01 Roller Bearing)

|   |   |      |       |       |    |                  |
|---|---|------|-------|-------|----|------------------|
| 5 | 2 | 1250 | 6 1/2 | 1 5/8 | 9  | <b>16CH05201</b> |
| 6 | 2 | 1250 | 7 1/4 | 1 3/4 | 11 | <b>16CH06201</b> |
| 8 | 2 | 1250 | 9 1/2 | 1 3/4 | 14 | <b>16CH08201</b> |

CH

### Dropped Forged Steel (01 Roller Bearing)\*

|   |       |      |       |         |       |                  |
|---|-------|------|-------|---------|-------|------------------|
| 4 | 1 1/2 | 1250 | 5 5/8 | 1 11/16 | 7     | <b>16FS04101</b> |
| 5 | 1 3/4 | 1250 | 6 1/2 | 1 5/8   | 8 3/4 | <b>16FS05201</b> |
| 6 | 2     | 1250 | 7 1/4 | 1 3/4   | 9 3/4 | <b>16FS06201</b> |

FS

### V-Grooved Cast Iron (01 Roller Bearing)\*

|   |   |      |       |         |       |                  |
|---|---|------|-------|---------|-------|------------------|
| 4 | 2 | 800  | 5 5/8 | 1 11/16 | 7     | <b>16VG04201</b> |
| 5 | 2 | 800  | 6 1/2 | 1 5/8   | 8 3/4 | <b>16VG05201</b> |
| 6 | 2 | 1000 | 7 1/4 | 1 3/4   | 9 3/4 | <b>16VG06201</b> |

VG

### Ductile Iron Crowned Tread (01 Roller Bearing)

|   |   |      |       |       |    |                  |
|---|---|------|-------|-------|----|------------------|
| 5 | 2 | 1250 | 6 1/2 | 1 5/8 | 9  | <b>16FR05201</b> |
| 6 | 2 | 1250 | 7 1/4 | 1 3/4 | 11 | <b>16FR06201</b> |
| 8 | 2 | 1250 | 9 1/2 | 1 3/4 | 14 | <b>16FR08201</b> |

FR, FM

FR, FM

### Prevenz™ Antimicrobial Wheels

The EPA registered and FDA compliant antimicrobial additive used in Prevenz™ wheels is designed to suppress the growth of a variety of destructive and odor causing microbes including bacteria, molds, mildew and fungi. To order add "PREV" to end of caster number.



### Optional Overall Heights all 16 Series Models:

| Wheel Diameter | Overall Height | Swivel Lead | Swivel Specify | Rigid Specify |
|----------------|----------------|-------------|----------------|---------------|
| 3-1/4"         | 5-1/4"         | 1-11/16"    | HS42           | HR42          |
| 4"             | 5-1/4"         | 1-11/16"    | HS86           | HR86          |
| 5"             | 6-1/8"         | 1-11/16"    | HS50           | HR50          |
| 5"             | 6-3/4"         | 1-3/4"      | HS54           | HR54          |
| 6"             | 6-7/8"         | 2-1/2"      | HS56           | HR56          |
| 6"             | 7-3/8"         | 1-3/4"      | HS59           | HR59          |
| 6"             | 7-1/2"         | 1-7/8"      | HS60           | HR60          |
| 8"             | 10"            | 1-3/4"      | HS81           | HR81          |

# Wheel Bearing Selection Guide



## **Roller (01,05,07)**

Roller bearings are the standard bearing in most caster applications. 1-1/2 and 2 inch width wheels feature a cage separating hardened steel rollers and a hardened steel split outer race. These bearings must be used on a hardened bushing or shaft. Maximum temperature range is 350°F. All Casters and wheels are rated up to 2.5 mph operation per the Institute of Caster & Wheel Manufacturers Guidelines.



## **Precision Sealed Ball (28)**

Completely sealed, these precision ground ball bearings are held in a metal spacer ring between two hardened raceways. This bearing never needs to be lubricated, and with the lowest rolling resistance of all bearings offers the most ergonomic situation available. Maximum temperature range is 250°F.



## **Drawn Cup Roller (02)**

These are roller bearings as described above except they have metal cages holding the precision ground rollers. The outer race is a one-piece construction, giving added rigidity to the wheel bore. These bearings must be used on a hardened bushing or shaft. Maximum temperature range is 400°F.



## **Pedestal Precision Ball (29)**

These sealed precision ball bearings include an integral spanner which eliminates need for separate spanner. Maximum temperature range is 250°F.



## **Precision Tapered Roller (09)**

The tapered roller is the most effective bearing for heavy or towed loads. The taper allows for some thrust loading, while the heat-treated inner and outer race allow for maximum load capacity. Maximum temperature range is 400°F.



## **Annular Ball (31)**

A precision type bearing where the machined outer race and inner race are held together by the bearings. This option offers easy rolling and quiet operation for light to medium duty loads. This bearing must be factory installed in the wheel. Maximum temperature range is 250°F.



## **Bronze (22)**

Excellent for wash-down or steam cleaning applications. Bearings is designed for temperatures up to 525°F.



## **Plain Bore (41)**

In this option, no bearing material is used. The wheel runs directly on the axle or spanner bushing. This is the least expensive bearing option, but also results in a higher rolling resistance.



## **Oilex (23)**

These bearings are made of oil-impregnated sintered iron. Completely self-lubricating, these are ideal for situations where rolling force is less critical and accessibility for lubrication is difficult. Maximum temperature range is 450°F.



## **Two Piece Delrin (51)**

A DuPont™ engineered material, Delrin is designed for use in situations in which a self-lubricating material is optimal and corrosion cannot be tolerated. Ideal for wash-down or steam-cleaning applications as well as total immersion. Maximum temperature range is 160°F.



## **Radial Ball (Industrial Ball) (27)**

Shielded ball bearings are often referred to as "industrial grade" bearings. Pressed into the hub of lower capacity wheels, these low cost bearings decrease the effort required to move a load. Maximum temperature range is 250°F.



## **One Piece Delrin (52)**

This is a one-piece version of the Delrin bearing listed above. Good for use where thrust washers are needed or to add rigidity to a soft wheel which might cause the two piece bearing to be ejected from the bore of the wheel. Maximum temperature range is 160°F.

# Optional Features

We carry top plates with optional dimensions and bolt hole patterns. As shown in the chart, these will interchange with standard top plates. For an optional top plate not listed please consult factory. To order, begin with ST (swivel) or RT (Rigid) followed by the caster series number (i.e. 16) then end with the alpha designation (i.e. J).

Example: 16TM0620IS

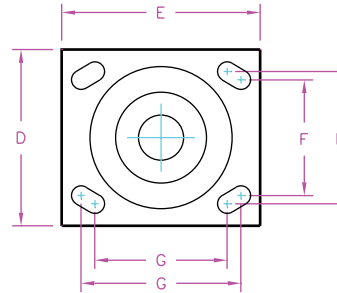
ST16J

Swivel top(ST), 16 series (16), bolt hole center (J)

Example: 272PD0620IR

RT272D

Rigid top (RT), dual wheel (2), 72 series (72), bolt hole center (D)



## Top Plate and Bolt Hole Center Chart

| F & G Bolt Hole Centers (Inches)              | D & E Top Plate Size (Inches)   | Attaching Bolt (Inches) | Series 12, 16 | Series 71 | Series 72 | Series 81 | Series 94 | Series 95 | Series 18, 100, 110 | Series 310, 410 | Series 400 |
|---|---------------------------------|-------------------------|---------------|-----------|-----------|-----------|-----------|-----------|---------------------|-----------------|------------|
| Slotted for 3 x 4 to 2-5/8 x 3-5/8            | 4 x 5                           | 3/8                     | J             | J         |           |           |           |           |                     |                 |            |
| Slotted for 3-3/8 x 5-1/4 to 2-7/16 x 4-15/16 | 4-1/2 x 6-1/4                   | 1/2                     | K             |           |           |           |           |           | K                   |                 |            |
| 2-1/8 x 4                                     | 4 x 5                           | 3/8                     |               | G         |           |           |           |           |                     |                 |            |
| 3 x 3   | 4 x 4                           | 3/8                     |               | H         |           |           |           |           |                     |                 |            |
| 3-1/4 x 6                                     | 4-1/2 x 7-1/4                   | 1/2                     |               |           | W         | W         |           |           |                     |                 |            |
| 4-1/8 x 4-1/2                                 | 5 x 5-1/2                       | 3/8                     | D             |           | D         | D         |           |           | D (110 only)        |                 |            |
| 4-7/8 x 6-3/4                                 | Swivel 6-1/2 x 8<br>Rigid 6 x 8 | 5/8                     |               |           |           |           | C         |           |                     |                 |            |
| 7 x 9-3/4                                     | 8-1/2 x 11                      | 5/8                     |               |           |           |           |           | T         |                     |                 |            |
| Slotted for 4-5/8 x 5-1/2 to 4-3/8 x 5-5/8    | 6 x 7                           | 1/2                     |               |           |           |           |           |           |                     | S               | N          |

## Optional Overall Heights

| Series     | Wheel Diameter (Inches) | Optional Height (Inches) | Swivel Lead (Inches) | Swivel Option Number | Rigid Option Number |
|------------|-------------------------|--------------------------|----------------------|----------------------|---------------------|
| 12, 16, 33 | 3-1/4                   | 5-1/4                    | 1-11/16              | HS42                 | HR42                |
| 12, 16, 33 | 4                       | 5-1/4                    | 1-11/16              | HS86                 | HR86                |
| 12, 16, 33 | 5                       | 6-1/8                    | 1-11/16              | HS-50                | HR50                |
| 12, 16, 33 | 5                       | 6-3/4                    | 1-3/4                | HS54                 | HR54                |
| 12, 16, 33 | 6                       | 6-7/8                    | 2-1/2                | HS56                 | HR56                |
| 12         | 6                       | 7-1/4                    | 1-3/4                | HS82                 | HR82                |
| 16         | 6                       | 7-3/8                    | 1-3/4                | HS59                 | HR59                |
| 16         | 6                       | 7-1/2                    | 1-7/8                | HS60                 | HR60                |
| 62         | 6                       | 7-3/4                    | 1-3/4                | HS85                 | HR85                |
| 12, 16     | 8                       | 10                       | 1-3/4                | HS81                 | HR81                |
| 34, 62     | 8                       | 9-1/2                    | 2-1/4                | HS76                 | HR76                |
| 34, 62     | 8                       | 9-3/4                    | 1-3/4                | HS83                 | HR83                |
| 63         | 8                       | 9-1/2                    | 2-1/4                | HS84                 | HR84                |
| 100        | 8                       | 9-1/2                    | 2-1/2                | HS89                 | HR89                |

# Replacement Parts

## Axle and Bearing Components for Standard Models (Consult factory for parts not in this chart)

| Caster Series                      | Wheel Hub Length (Inches) | Axle Hollow        | Axle Solid | NUT      | Spanner Bushing      | Lock Washer | Roller Bearing     | Plain Retaining Washer | Sealed Retaining Washer | Nylon sealed combo-washer | Metal combo-washer | Thrust Washer      |
|------------------------------------|---------------------------|--------------------|------------|----------|----------------------|-------------|--------------------|------------------------|-------------------------|---------------------------|--------------------|--------------------|
| DC, PC, P2, 02 Series              | 1.25"                     | ZJ063502, ZJ063504 |            | NL061600 | ZF060824, ZF060826   |             | ZB081718           | WA081703               |                         |                           |                    | WA082400, WA082406 |
| 04 Series                          | 1.25"                     | ZJ063510           |            | NJ061600 | ZF06082401           |             |                    |                        |                         |                           |                    |                    |
| 05 Series                          | 2.188"                    | ZJ085600           | ZJ085603   | NJ081311 | ZF081240             | WA081401    | ZB12193001         | WA121904               | WA121990                | WA121905                  |                    | WA122603           |
| 12,16,18,40, 61,62,71,72 110,100   | 2.188"                    | ZJ085400           | ZJ085403   | NL082000 | ZF081239             |             | ZB121930           | WA121900               | WA121990                | WA121905                  | WA121999           | WA122600           |
| 42,61,62,72, 78 Series             | 2.75"                     | ZJ086400           | ZJ086403   | NL082000 | ZF081248             |             | ZB121940           | WA121900               | WA121990                | WA121905                  | WA121999           | WA122600           |
| 63 Series                          | 2.75"                     | ZJ126800           |            | NL121001 | ZF121648             |             | ZB163140           | WA163103               | WA163190                |                           | WA163199           | WA163900           |
| 44,81,84,90, 92, 300,310, 400, 410 | 3.25"                     | ZJ127600           |            | NL121001 | ZF121657, ZF12162057 |             | ZB163148, ZB203948 | WA163103, WA203103     | WA163190, WA203190      |                           | WA163199,          | WA163900, WA204800 |
| 330 Series                         | 3.25"                     | ZJ12760009         | ZJ128010   | NJ121000 | ZF12165703           | WA122006    | ZB16314803         | WA16310304             | WA16319001              |                           | WA163199           | WA16390001         |
| 600 Series                         | 3.25"                     |                    | ZJ161496   | NL161403 | ZF162057             |             | ZB203148, ZB203948 | WA203103, WA203903     | WA203190, WA203950      |                           | WA163199,          | WA163900, WA204800 |
| 90,92, 600 Series                  | 4.25"                     | ZJ169601           | ZJ161496   | NL161403 | ZF162073             |             | ZB203964           | WA203903               | WA203990                |                           |                    | WA204800           |

## Axle and Bearing Components for Standard Models (Consult factory for parts not in this chart) (Continued)

| Caster Series                        | Wheel Hub Length (Inches) | Precision Ball Bearing | Delrin Bearing (2 pieces) | Delrin Bearing (1 piece) | Bronze Bearing | Oilex Bearing | Drawn Cup Roller Bearing | Top Hat Spacer |
|--------------------------------------|---------------------------|------------------------|---------------------------|--------------------------|----------------|---------------|--------------------------|----------------|
| DC, PC, P2, 02 Series                | 1.25"                     |                        |                           |                          |                |               |                          |                |
| 04 Series                            | 1.25"                     |                        |                           |                          |                |               |                          |                |
| 05 Series                            | 2.188"                    |                        | TF121912                  | TF121934                 | 0I121908       | Z0121935      |                          |                |
| 12,16,18,40, 61,62,71,72, 78,110,100 | 2.188"                    | ZA081903, ZA081904,    | TF121912                  | TF121934                 | 0I121908       | Z0121935      | ZX121930                 | ZY0812001      |
| 42,61,62,72, 78 Series               | 2.75"                     |                        | TF121912                  |                          | 0I121908       |               |                          |                |



**Roller Bearing**  
ZB121930  
Shown



**Spanner Bushing**  
ZF081239  
Shown



**Metal Step Retaining Thrust Washer**



**Nylon Sealed Retaining Thrust Washer**  
WA121905  
Shown



**Sealed Retaining Thrust Washer**



**Solid Axle & Nut**  
ZJ085409  
Shown



**Hollow Axle & Nut**  
ZJ085408  
Shown

# Replacement Parts



**Tapered Roller Bearing**

## Tapered Roller Bearings and Spacers

| Kit Number | Cup Only Part Number* | Cone Only Part Number* | Bearing ID (Inches) | Bearing OD (Inches) | Notes    | Spacer Number | Spacer ID (Inches) | Spacer OD (Inches) | Spacer Length (Inches) |
|------------|-----------------------|------------------------|---------------------|---------------------|----------|---------------|--------------------|--------------------|------------------------|
| ZT082200   | ZT082201              | ZT082202               | 0.500               | 1.375               |          | ZM082800      | 0.500              | 1.750              | 0.000                  |
| ZT122800   | ZT122801              | ZT122802               | 0.750               | 1.780               |          | ZY121600      | 0.750              | 1.000              | 0.231                  |
| ZT123100   | ZT123101              | ZT123102               | 0.750               | 1.938               |          | ZY121600      | 0.750              | 1.000              | 0.231                  |
| ZT163200   | ZT163202              | ZT163101               | 1.000               | 1.979               |          | ZY162004      | 1.000              | 1.250              | 0.281                  |
| ZT163900   | ZT163901              | ZT163902               | 1.000               | 2.438               |          | ZY162005      | 1.000              | 1.250              | 0.313                  |
| ZT203900   | ZT163901              | ZT203911               | 1.250               | 2.438               | Wider    | ZY202406      | 1.250              | 1.500              | 0.348                  |
| ZT203920   | ZT203901              | ZT203902               | 1.250               | 2.438               | Narrower | ZY202404      | 1.250              | 1.500              | 0.281                  |
| ZT203940   | ZT203901              | ZT203802               | 1.250               | 2.438               | Sealed   | SD203013      | 1.250              | 1.875              | 0.000                  |
| ZT205000   | ZT205001              | ZT205002               | 1.250               | 3.125               |          | ZY202606      | 1.250              | 1.625              | 0.375                  |
| ZT244100   | ZT244102              | ZT244101               | 1.500               | 2.563               |          | ZY242806      | 1.500              | 1.750              | 0.375                  |
| ZT245000   | ZT205001              | ZT245001               | 1.500               | 3.125               |          | ZY242806      | 1.500              | 1.750              | 0.375                  |

\* Purchased as kit only.

## Other Bearing Types

| Bearing Part Number | Description of Bearing  | Bearing ID (Inches) | Bearing OD (Inches) | Bearing Length (Inches) | Notes/Suggestions  | Requires Part Number |
|---------------------|-------------------------|---------------------|---------------------|-------------------------|--------------------|----------------------|
| ZA081900            | Industrial Ball         | 0.500               | 1.188               | 1.875                   |                    |                      |
| ZA081902            | Industrial Ball         | 0.500               | 1.188               | 2.438                   | Butt Bearing       |                      |
| ZA081903            | Pedestal Precision Ball | 0.500               | 1.188               | 2.438                   | Pedestal Bearing   |                      |
| ZA081904            | Precision Ball          | 0.500               | 1.188               | 2.438                   | Pedestal Bearing   |                      |
| ZA122500            | Precision Ball          | 20mm                | 40mm                | Any                     | 6203-2RS           | ZY0812001            |
| TF121912            | Delrin                  | 0.750               | 1.188               | Any                     | Not with Cam Brake |                      |
| TF121934            | Delrin                  | 0.750               | 1.188               | 2.438                   |                    | WA122600 or WA122603 |
| OI121912            | Bronze                  | 0.750               | 1.188               | Any                     |                    |                      |
| ZO081722            | Oil impregnated iron    | 0.500               | 1.063               | 1.250                   |                    |                      |
| ZO081926            | Oil impregnated iron    | 0.500               | 1.188               | 1.875                   |                    |                      |
| ZO081935            | Oil impregnated iron    | 0.500               | 1.188               | 2.438                   |                    |                      |
| ZO101926            | Oil impregnated iron    | 0.625               | 1.188               | 1.875                   |                    |                      |
| ZO101935            | Oil impregnated iron    | 0.625               | 1.188               | 2.438                   |                    |                      |
| ZO121926            | Oil impregnated iron    | 0.750               | 1.188               | 1.875                   |                    |                      |
| ZO121935            | Oil impregnated iron    | 0.750               | 1.188               | 2.438                   |                    |                      |



**Oilex Bearing**  
(Oil impregnated iron)

# Replacement Parts

## Straight Roller Bearing and Retaining Washers



**Roller Bearing**

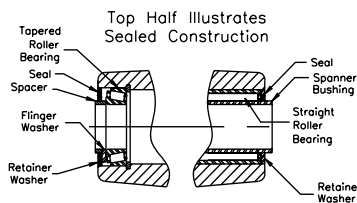


**Nylon Sealed Retaining Thrust Washer**



**Powdered Iron Step Retaining Thrust Washer**

Line drawing (below) section view shows typical wheel hub construction with sealed straight and tapered roller bearings. Note spacer tubes are used with tapered roller bearings which increases hub length 1/4" and facilitates proper loading of cup to cone. For non-sealed construction, seal is replaced with retainer and flinger washers.



| Part Number | Roller Bearing ID (Inches) | Roller Bearing OD (Inches) | Roller Bearing Length (Inches) | Plain Retaining Washer Number | Rubber Sealed Retaining Washer | Nylon Combo Washer Number | Sintered Iron Combo Washer Number | Washer ID (inches) | Washer OD (inches) |
|-------------|----------------------------|----------------------------|--------------------------------|-------------------------------|--------------------------------|---------------------------|-----------------------------------|--------------------|--------------------|
| ZB081718    | 0.500                      | 1.063                      | 1.125                          | WA081703                      | WA081790                       |                           |                                   | 0.500              | 1.063              |
| ZB081922    | 0.500                      | 1.188                      | 1.375                          | WA121900                      |                                |                           |                                   | 0.500              | 1.188              |
| ZB081930    | 0.500                      | 1.188                      | 1.875                          | WA121900                      |                                |                           |                                   | 0.500              | 1.188              |
| ZB081932    | 0.500                      | 1.188                      | 2.000                          | WA121900                      |                                |                           |                                   | 0.500              | 1.188              |
| ZB101922    | 0.625                      | 1.188                      | 1.375                          | WA121900                      | WA101990                       |                           |                                   | 0.625              | 1.188              |
| ZB101930    | 0.625                      | 1.188                      | 1.875                          | WA121900                      | WA101990                       |                           |                                   | 0.625              | 1.188              |
| ZB101932    | 0.625                      | 1.188                      | 2.000                          | WA121900                      | WA101990                       |                           |                                   | 0.625              | 1.188              |
| ZB101940    | 0.625                      | 1.188                      | 2.500                          | WA121900                      | WA101990                       |                           |                                   | 0.625              | 1.188              |
| ZB121920    | 0.750                      | 1.188                      | 1.250                          | WA121900                      | WA121990                       | WA121905                  | WA121999                          | 0.750              | 1.188              |
| ZB121930    | 0.750                      | 1.188                      | 1.875                          | WA121900                      | WA121990                       | WA121905                  | WA121999                          | 0.750              | 1.188              |
| ZB12193001* | 0.750                      | 1.188                      | 1.875                          | WA121904                      |                                | WA121905                  |                                   | 0.750              | 1.188              |
| ZX121930    | 0.750                      | 1.188                      | 1.875                          | WA121900                      | WA121990                       | WA121905                  | WA121999                          | 0.750              | 1.188              |
| ZB121940    | 0.750                      | 1.188                      | 2.438                          | WA121900                      | WA121990                       | WA121905                  | WA121999                          | 0.750              | 1.188              |
| ZB142332    | 0.875                      | 1.438                      | 2.000                          | WA162303                      | WA142390                       |                           |                                   | 0.875              | 1.438              |
| ZB162328    | 1.000                      | 1.438                      | 1.750                          | WA162303                      | WA162390                       |                           |                                   | 1.000              | 1.438              |
| ZB162332    | 1.000                      | 1.438                      | 2.000                          | WA162303                      | WA162390                       |                           |                                   | 1.000              | 1.438              |
| ZB163136    | 1.000                      | 1.938                      | 2.250                          | WA163103                      | WA163190                       |                           | WA163199                          | 1.000              | 1.938              |
| ZB163140    | 1.000                      | 1.938                      | 2.500                          | WA163103                      | WA163190                       |                           | WA163199                          | 1.000              | 1.938              |
| ZB163148    | 1.000                      | 1.938                      | 3.000                          | WA163103                      | WA163190                       |                           | WA163199                          | 1.000              | 1.938              |
| ZB163164    | 1.000                      | 1.938                      | 4.000                          | WA163103                      | WA163190                       |                           | WA163199                          | 1.000              | 1.938              |
| ZB183148    | 1.125                      | 1.938                      | 3.000                          | WA203103                      |                                |                           | WA203199                          | 1.250              | 1.938              |
| ZB203140    | 1.250                      | 1.938                      | 2.500                          | WA203103                      | WA203190                       |                           | WA203199                          | 1.250              | 1.938              |
| ZB203148    | 1.250                      | 1.938                      | 3.000                          | WA203103                      | WA203190                       |                           | WA203199                          | 1.250              | 1.938              |
| ZB203164    | 1.250                      | 1.938                      | 4.000                          | WA203103                      | WA203190                       |                           | WA203199                          | 1.250              | 1.938              |
| ZB203948    | 1.250                      | 2.438                      | 3.000                          | WA203903                      | WA203990                       |                           |                                   | 1.250              | 2.438              |
| ZB203964    | 1.250                      | 2.438                      | 4.000                          | WA203903                      | WA203990                       |                           |                                   | 1.250              | 2.438              |
| ZB203980    | 1.250                      | 2.438                      | 5.000                          | WA203903                      | WA203990                       |                           |                                   | 1.250              | 2.438              |
| ZB243948    | 1.500                      | 2.438                      | 3.000                          | WA243903                      | WA243990                       |                           |                                   | 1.500              | 2.438              |
| ZB243964    | 1.500                      | 2.438                      | 4.000                          | WA243903                      | WA243990                       |                           |                                   | 1.500              | 2.438              |
| ZB243980    | 1.500                      | 2.438                      | 5.000                          | WA243903                      | WA243990                       |                           |                                   | 1.500              | 2.438              |
| ZB284964    | 1.625                      | 3.063                      | 4.000                          | WA284903                      |                                |                           |                                   | 1.750              | 3.063              |
| ZB284980    | 1.625                      | 3.063                      | 5.000                          | WA284903                      |                                |                           |                                   | 1.750              | 3.063              |
| ZB325264    | 2.000                      | 3.250                      | 4.000                          | WA325203                      |                                |                           |                                   | 2.000              | 3.250              |
| ZB325280    | 2.000                      | 3.250                      | 5.000                          | WA325203                      |                                |                           |                                   | 2.000              | 3.250              |

\* Stainless Steel

Note: Straight roller bearings include roller assembly with split outer race but does not include the retaining washers. Retaining washers are ordered separately in quantities of 2 per wheel.

## Axles and Nuts



**Solid Axle & Nut**  
ZJ085409  
Shown



**Hollow Axle & Nut**  
ZJ085408  
Shown

| Axle Part Number | Type   | Matching Nut | Matching Lock Washer | Diameter (Inches) | Length (Inches) | Threads (Per Inch) | Notes           |
|------------------|--------|--------------|----------------------|-------------------|-----------------|--------------------|-----------------|
| ZJ063502         | Hollow | NL061600     |                      | 0.375             | 2.188           | 16                 | No Grease Zerk  |
| ZJ063504         | Hollow | NL061600     |                      | 0.375             | 2.188           | 16                 |                 |
| ZJ083510         | Solid  | NJ061600     |                      | 0.375             | 2.188           | 16                 | Stainless Steel |
| ZJ084500         | Hollow | NL082000     |                      | 0.500             | 2.813           | 20                 |                 |
| ZJ085400         | Hollow | NL082000     |                      | 0.500             | 3.375           | 20                 |                 |
| ZJ085403         | Solid  | NL082000     |                      | 0.500             | 3.375           | 20                 |                 |
| ZJ085600         | Hollow | NJ081311     | WA081401             | 0.500             | 3.500           | 13                 | Stainless Steel |
| ZJ085603         | Solid  | NJ081311     | WA081401             | 0.500             | 3.500           | 13                 | Stainless Steel |
| ZJ086400         | Hollow | NL082000     |                      | 0.500             | 4.000           | 20                 |                 |
| ZJ086403         | Solid  | NL082000     |                      | 0.500             | 4.000           | 20                 |                 |
| ZJ087200         | Solid  | NL082000     |                      | 0.500             | 4.500           | 20                 |                 |
| ZJ105610         | Hollow | NL101800     |                      | 0.625             | 3.500           | 18                 |                 |
| ZJ126802         | Hollow | NL121001     |                      | 0.750             | 4.250           | 12                 |                 |
| ZJ127600         | Hollow | NL121001     |                      | 0.750             | 4.750           | 12                 |                 |
| ZJ127603         | Solid  | NL121001     |                      | 0.750             | 4.750           | 12                 |                 |
| ZJ168000         | Solid  | NL161403     |                      | 1.000             | 5.000           | 14                 |                 |
| ZJ169601         | Hollow | NL161403     |                      | 1.000             | 6.000           | 14                 |                 |
| ZJ169602         | Solid  | NL161403     |                      | 1.000             | 6.000           | 14                 |                 |

Hollow axles have zerk fitting for lubrication and solid axles are without lubrication fitting. All axles come complete with lock nut. Consult factory for optional slotted nuts and lock pins.



# Replacement Parts

## Spanner Bushings & Thrust Washers



Spanner Bushing



Nylon Sealed Retaining Thrust Washer



Powdered Iron Step Retaining Thrust Washer

| Part Number | Spanner Bushing ID (Inches) | Spanner Bushing OD (Inches) | Spanner Bushing Length (Inches) | Spanner Material | Lubrication Holes | Matching Thrust Washers | Washer I.D. (Inches) | Washer O.D. (Inches) |
|-------------|-----------------------------|-----------------------------|---------------------------------|------------------|-------------------|-------------------------|----------------------|----------------------|
| ZF060824    | 0.375                       | 0.500                       | 1.500                           | Stainless        | 1                 | WA082406                | 0.500                | 1.500                |
| ZF06082401  | 0.375                       | 0.500                       | 1.500                           |                  | 1                 |                         |                      |                      |
| ZF060826    | 0.375                       | 0.500                       | 1.625                           |                  | 1                 | WA082400                | 0.500                | 1.500                |
| ZF081030    | 0.500                       | 0.625                       | 1.875                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081033    | 0.500                       | 0.625                       | 2.063                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081036    | 0.500                       | 0.625                       | 2.250                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081038    | 0.500                       | 0.625                       | 2.375                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081039    | 0.500                       | 0.625                       | 2.438                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081046    | 0.500                       | 0.625                       | 2.875                           |                  | 2                 | WA102400                | 0.625                | 1.500                |
| ZF081230    | 0.500                       | 0.750                       | 1.875                           |                  | Stainless         | 2                       | WA122600             | 0.750                |
| ZF081236    | 0.500                       | 0.750                       | 2.250                           | 2                |                   | WA122600                | 0.750                | 1.625                |
| ZF081238    | 0.500                       | 0.750                       | 2.375                           | 2                |                   | WA122600                | 0.750                | 1.625                |
| ZF081239    | 0.500                       | 0.750                       | 2.438                           | 2                |                   | WA122600                | 0.750                | 1.625                |
| ZF081240    | 0.500                       | 0.750                       | 2.438                           | 2                |                   | WA122603                | 0.750                | 1.625                |
| ZF081248    | 0.500                       | 0.750                       | 3.000                           | 2                |                   | WA122600                | 0.750                | 1.625                |
| ZF081264    | 0.500                       | 0.750                       | 4.000                           | none             |                   | WA122600                | 0.750                | 1.625                |
| ZF101239    | 0.625                       | 0.750                       | 2.438                           | 2                |                   | WA122600                | 0.750                | 1.625                |
| ZF121648    | 0.750                       | 1.000                       | 3.000                           | 2                |                   | WA163900                | 1.000                | 2.438                |
| ZF121657    | 0.750                       | 1.000                       | 3.500                           | 2                |                   | WA163900                | 1.000                | 2.438                |
| ZF121664    | 0.750                       | 1.000                       | 4.000                           | none             |                   | WA163900                | 1.000                | 2.438                |
| ZF121677    | 0.750                       | 1.000                       | 4.812                           | none             |                   | WA163900                | 1.000                | 2.438                |
| ZF162057    | 1.000                       | 1.250                       | 3.563                           | none             |                   | WA203903                | 1.250                | 2.438                |
| ZF162073    | 1.000                       | 1.250                       | 4.563                           | none             |                   | WA204800                | 1.250                | 3.000                |
| ZF162089    | 1.000                       | 1.250                       | 5.563                           | none             |                   | WA204800                | 1.250                | 3.000                |
| ZF202458    | 1.250                       | 1.500                       | 3.563                           | none             |                   | WA245600                | 1.500                | 3.500                |
| ZF202473    | 1.250                       | 1.500                       | 4.563                           | none             |                   | WA245600                | 1.500                | 3.500                |
| ZF202489    | 1.250                       | 1.500                       | 5.563                           | none             |                   | WA245600                | 1.500                | 3.500                |

All spanner bushings are hardened to form precision inner race for roller bearings. Except as noted by "none", all spanner bushings are cross drilled for lubrication through hollow axle. Thrust washers are hardened. They are not part of the spanner bushing assembly and must be ordered separately. Thrust washers are not required with ball bearings, 2 piece delrin bearings, or with combo washers.

## PARTS FOR EMPIRE 15 AND 60 SERIES RIGS

### AXLES AND NUTS



Hollow Axle & Nut

Solid Axle & Nut

| Axle Number | Type   | Matching Nut | Diameter (inches) | Length (inches) | Threads (per inch) |
|-------------|--------|--------------|-------------------|-----------------|--------------------|
| ZJ085400    | Hollow | NL082000     | 0.500             | 3.375           | 20                 |
| ZJ085403    | Solid  | NL082000     | 0.500             | 3.375           | 20                 |

### SPANNERS AND THRUST WASHERS



Spanner Bushing

| Spanner Number | Spanner ID (inches) | Spanner OD (inches) | Spanner Length (inches) | Lubrication Holes | Matching Thrust Washers | Washer ID (inches) | Washer OD (inches) |
|----------------|---------------------|---------------------|-------------------------|-------------------|-------------------------|--------------------|--------------------|
| ZF081239       | 0.500               | 0.750               | 2.438                   | 2                 | WA122600                | 0.750              | 1.625              |

### ROLLER BEARINGS & RETAINER WASHERS



| Bearing Number | Bearing ID (inches) | Bearing OD (inches) | Bearing Length (inches) | Plain Retaining Washer | Rubber Sealed Retaining Washer | Nylon Combo Washer | Sintered Iron Combo Washer | Washer ID (inches) | Washer OD (inches) |
|----------------|---------------------|---------------------|-------------------------|------------------------|--------------------------------|--------------------|----------------------------|--------------------|--------------------|
| ZB121930       | 0.750               | 1.188               | 1.875                   | WA121900               | WA121990                       | WA121905           | WA121999                   | 0.750              | 1.188              |

### DELIN BEARINGS (IB POLYPROPYLENE WHEELS ONLY)

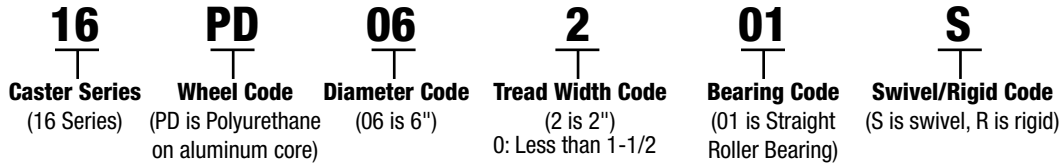


| Bearing Number | Bearing ID (inches) | Bearing OD (inches) | Bearing Length (inches) | NOTE: Two piece Delrin bearing (spanner not included) |
|----------------|---------------------|---------------------|-------------------------|---|
| TF121912       | 0.750               | 1.188               | .75                     |   |

# Product Numbering System

## CASTERS

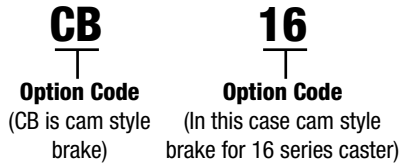
16PD06201S is a 16 Series 6" x 2" swivel top plate caster with Polyurethane/Aluminum core wheel and straight roller bearing. See below for caster number breakdown.



- 0: Less than 1-1/2  
1: 1-1/2 to 1-5/8  
2: 1-3/4 to 2  
3: 2-1/8 to 2-7/16  
4: 2-1/2 to 2-3/4  
5: 2.8 to 3-3/8  
6: 3-1/2 to 3-7/8  
7: 4 to 4-7/8  
8: 5 to 5-1/2  
9: Over 5-1/2  
X: 3-1/2 Dia. Wheel

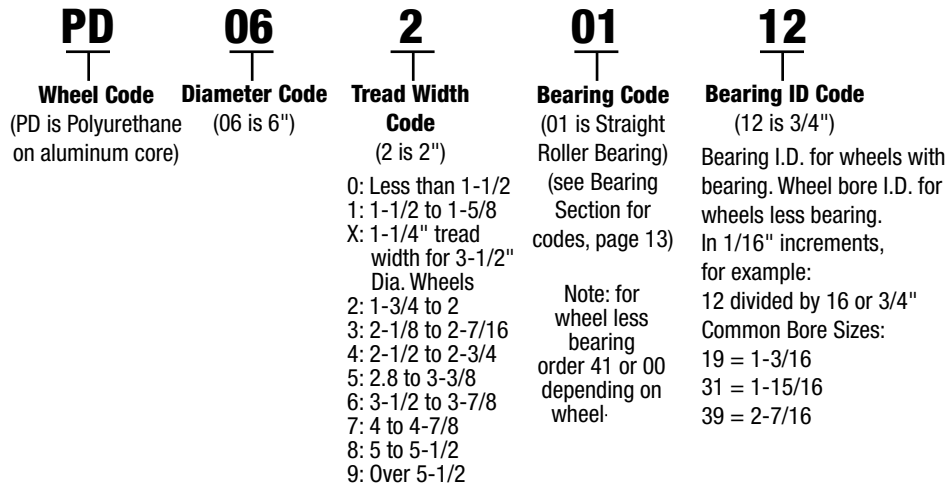
## OPTIONAL FEATURES

To be listed under the caster model number when ordering. Note: Some brake and swivel lock options are now placed at the end of the part number. Please see individual series for option designation.



## WHEELS

PD0620112 is a 6" x 2" Polyurethane/Aluminum core with 3/4" straight roller bearing.



## RIGS

16YA06201S is a Medium-heavy duty swivel rig that would accommodate the above 6" x 2" PD wheel.

