

FAA-PMA Approved

Brake and Wheel Parts

Wheel Bearings Cups and Cones

FAA-PMA approved Timken wheel bearings for Goodyear, Cleveland, and McCauley wheels.

- Class 2 aviation grade bearings (Timken designates these with a -20629 suffix)
- When landing the wheel bearings must go from Zero RPM to 1384 RPM, or more, instantaneously. Automotive bearings aren't designed for this type of service
- Tighter tolerance and higher quality control than Class 4 automotive bearings
- Save \$\$\$



Don't be tempted to buy cheap automotive bearings

Because Timken uses the same part number for both the automotive and aviation versions of these bearings, many people mistakenly use the lower quality automotive bearings in their airplane. It is critical that the FAA-PMA Class 2 version be used for aircraft applications for two reasons:

- They are a higher class of bearing with tighter tolerance and have been subjected to more stringent quality control procedures. Due to the smaller diameter of aircraft wheels, at a given ground speed the bearings rotate at a much higher RPM and require the tighter tolerances to prevent premature failure. Example: At a 70 mph touchdown speed (equivalent to highway speed of a car), a typical 17 inch diameter airplane tire is rotating at 1384 RPM, whereas a typical 27 inch car tire is only rotating at 871 RPM. So even though the aircraft bearing is only subject to intermittent use, some of the performance demands are much higher than a typical automotive application.
- It is a violation of FAA regulations to use non-approved automotive bearings on certified aircraft.

See the table on the next page to find the correct bearing for your wheels.

Wheel Grease Seal Kits

Finally a low cost alternative! FAA-PMA approved for Cessna aircraft with Cleveland, and McCauley wheels.

Convenient Kits now available

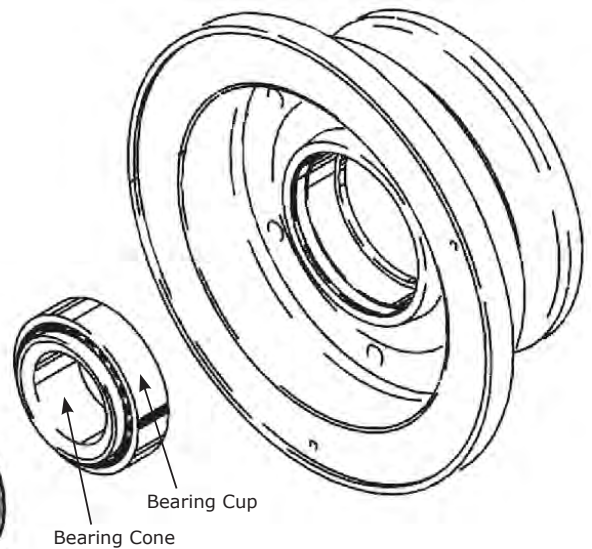
- Each kit contains everything required to service one wheel: grease seal rings, plates, snap rings and felts; even screws and washers when required
- We have done the research so you don't have to!
- Hard to find parts in stock
- Save \$\$\$



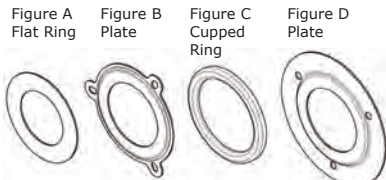
Not sure what wheel you have?

Go to www.mcfarlaneaviation.com/wheel-seals to find the original equipment wheels for your aircraft and its eligibility.

See the table on the next page to find the correct kit and components for your wheel.



Approval for Piper and Beechcraft coming soon!



Hard to find grease seal rings and plates!

| Grease Seal Rings and Plates | | | | |
|------------------------------|---------|---------|-----------|--------|
| Part Number | ID | OD | Thickness | Figure |
| MC153-00300 | 1-33/64 | 2-1/2 | 0.034 | A |
| MC153-00400 | 1-45/64 | 2-5/8 | 1/32 | A |
| 153-00500 | 1-3/4 | 2-3/4 | 5/32 | B |
| MC153-00800 | 1-53/64 | 2-23/64 | 1/32 | A |
| MC153-01000 | 2-1/16 | 2-3/4 | 1/8 | B |
| MC153-01500 | 2-1/16 | 2-5/8 | 13/64 | C |
| MC153-30013 | 1-11/16 | 2-39/64 | 1/32 | A |
| 153-30014 | 2-1/16 | 2-5/8 | 11/64 | C |
| MC153-30015 | 1-17/32 | 2-35/64 | 1/32 | A |
| MC156-00100 | 1-3/4 | 3-22/32 | 1/8 | D |

| Grease Seal Felt | | | |
|------------------|-------|---------|-----------|
| Part Number | ID | OD | Thickness |
| 154-01400 | 1-3/4 | 2-5/8 | 1/8 |
| MC154-00300 | 1-5/8 | 2-5/8 | 1/8 |
| MC154-00600 | 1-3/4 | 2-13/32 | 1/8 |
| MC154-00900 | 2-1/8 | 2-7/16 | 1/8 |
| MC154-01300 | 2-1/8 | 2-1/2 | 3/16 |
| MC154-30010 | 2-1/8 | 2-17/32 | 1/8 |
| Snap Ring | | | |
| MC155-00100 | 9/64 | 2-3/4 | 1/32 |
| MC155-00200 | 9/64 | 2-1/2 | 0.025 |
| MC155-11800 | 5/32 | 2-1/2 | 1/32 |
| MC155-11900 | 5/32 | 2-3/4 | 1/32 |

| Bearing Cups | | | Bearing Cones | | |
|----------------|--------|--------|----------------|--------|------------------|
| P/N | OD | Width | P/N | Bore | Inner Ring Width |
| 07196-20629 | 1.9687 | 0.3750 | 07100-20629 | 1.0000 | 0.5614 |
| 07204-20629 | 2.0470 | 0.5000 | 08118-20629 | 1.1875 | 0.5937 |
| 08231-20629 | 2.3125 | 0.4219 | 08125-20629 | 1.2500 | 0.5937 |
| 13830-20629 | 2.5000 | 0.3750 | 13889-20629 | 1.5000 | 0.4688 |
| 13836-20629 | 2.5625 | 0.3750 | 18200-20629 | 2.0000 | 0.7190 |
| 18337-20629 | 3.3750 | 0.5000 | 19150-20629 | 1.5000 | 0.6504 |
| 19268-20629 | 2.6250 | 0.4688 | 39250-20629 | 2.5000 | 0.8661 |
| 39412-20629 | 4.1250 | 0.6250 | A4050-20629 | 0.5000 | 0.4326 |
| A4138-20629 | 1.3775 | 0.3437 | L217849-20629 | 3.5000 | 0.5938 |
| L217813-20629 | 5.0000 | 0.7500 | LL217849-20629 | 3.5000 | 0.5938 |
| LL217810-20629 | 4.7812 | 0.4375 | LM29710-20629 | 1.5000 | 0.7200 |
| LM29710-20629 | 2.5625 | 0.5500 | LM67048-20629 | 1.2500 | 0.6600 |
| LM67010-20629 | 2.3280 | 0.4650 | LM501349-20629 | 41.275 | 0.7800 |
| LM501310-20629 | 73.431 | 0.5800 | | | |

OD measurement does not include mounting tabs

Dimensions are approximate and for identification only. All dimensions are in inches.

Visit mcfarlaneaviation.com for aircraft eligibility



Wheel to Seal Kit and Bearing Cross Reference

| Wheel Manufacturer | Wheel Manufacturer P/N | Cessna Wheel P/N | Wheel Seal Kit P/N | Bearing Cone P/N | Bearing Cup P/N |
|--------------------|-------------------------|-------------------------------------------------------------------|--------------------|-------------------|-------------------|
| CLEVELAND | 040-07502 | C163001-0301 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-101 | C163001-0601 | WH-KT-22 | LM29749 | LM29710 |
| CLEVELAND | 40-101A | | WH-KT-22 | LM29749 | LM29710 |
| CLEVELAND | 40-113 | C163001-0104 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-12 | 0441179-2 | WH-KT-15 | 08125 | 08231 |
| CLEVELAND | 40-135A | 9910393-2, 9910393-6 | WH-KT-28 | LM29749 and 07100 | LM29710 and 07204 |
| CLEVELAND | 40-138A | | WH-KT-17 | LM29749 and 07100 | LM29710 and 07204 |
| CLEVELAND | 40-140A | 9910194-8 | WH-KT-39 | 13889 | 13836 |
| CLEVELAND | 40-142 | C163001-0701 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-177A | C163001-0901 | WH-KT-42 | 13889 | 13836 |
| CLEVELAND | 40-179 | 040-17900 | WH-KT-42 | LM29749 | LM29710 |
| CLEVELAND | 40-18 | 0441179-14 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-19 | 0441156-13 | WH-KT-15 | 08125 | 08231 |
| CLEVELAND | 40-20 | 0441156-14 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-21 | 0441156-15 | WH-KT-11 | 13889 | 13836 |
| CLEVELAND | 40-32 | 0741026-3 | WH-KT-8 | 13889 | 13836 |
| CLEVELAND | 40-35 | 0743001-4 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-40A | 5041016-3 | WH-KT-28 | LM29749 and 07100 | LM29710 and 07196 |
| CLEVELAND | 40-40D | 5041016-5 | WH-KT-28 | LM29749 and 07100 | LM29710 and 07204 |
| CLEVELAND | 40-55 | 0441156-16 | WH-KT-38 | 13889 | 13836 |
| CLEVELAND | 40-57 | 0441156-17 | WH-KT-8 | 13889 | 13836 |
| CLEVELAND | 40-57A | | WH-KT-11 | | |
| CLEVELAND | 40-66 | 0441156-18 | WH-KT-8 | 13889 | 13836 |
| CLEVELAND | 40-67 | 0441156-19 | WH-KT-11 | 13889 | 13836 |
| CLEVELAND | 40-68 | 0441156-20 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-73 | 1241156-11 | WH-KT-39 | | |
| CLEVELAND | 40-75 | 1241156-10 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-75B | 040-07502, 1241156-10, C163001-0301 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-75D | C163001-0302 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-75T | 040-07518-1 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-76 | 1241156-11 | WH-KT-39 | 13889 | 13836 |
| CLEVELAND | 40-76A | 1241156-11, 1241156-43 | WH-KT-39 | 13889 | 13836 |
| CLEVELAND | 40-76B | 0441156-16 | WH-KT-42 | 13889 | 13836 |
| CLEVELAND | 40-77 | 1241156-12, 0441156-14, 0441156-20, 0441179-14, 0743001-4 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-78 | 1241156-13 | WH-KT-34 | 08125 | 08231 |
| CLEVELAND | 40-79 | 1241156-14 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-79A | 1241156-14 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-96E | C163001-0401 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-97 | C163001-0102 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-97A | C163001-0102, C163001-0103 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-98A | C163001-0501 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-98H | C163001-0801 | WH-KT-2 | 13889 | 13836 |
| CLEVELAND | 40-127, 40-137, 40-174 | | | 18200 | 18337 |
| CLEVELAND | 40-211, 40-279, 40-279A | | | 39250 | 39412 |
| GOODYEAR | 9532522 | 0541183-9 | | 13889 | 13830 |
| GOODYEAR | 9532673 | 0541160-13 | | 13889 | 13830 |
| GOODYEAR | 511960S | 0441101-1 | | 13889 | 13830 |
| GOODYEAR | 95-3472 | 0441016-1 | | 13889 | 13830 |
| MCCAULEY | C30480 | C163003-0401 | WH-KT-35 | LM67048 | LM67010 |
| MCCAULEY | D30065 | C163002-0101 | | LM29749 | LM29710 |
| MCCAULEY | D30256 | C163003-0101 | | LM29749 | LM29710 |
| MCCAULEY | D30291-1 | C163004-0101 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30291-2 | C163004-0102 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30291-3 | C163004-0103 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30291-6 | C163004-0104 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30500 | C163002-0201, C163003-0201, C163005-0201 | WH-KT-35 | LM67048 | LM67010 |
| MCCAULEY | D30580 | C163003-0102 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30660-1 | C163002-0101, C163003-0101, C163005-0101, C163006-0101 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30660-2 | C163006-0102 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30660-3 | C163006-0103 | WH-KT-5 | LM29749 | LM29710 |
| MCCAULEY | D30665 | 9910194-1, C163002-0301, C163003-0301, C163003-0302, C163006-0201 | WH-KT-47 | LM29749 | LM29710 |
| | | 95-3472 | | 13889 | 13830 |
| | | 3244 | | A4050 | A4138 |
| | | 0441150-6, 0441150-7 | | LL217849 | LL217810 |
| GOODYEAR | | 0441150-8, 0441150-9, 0541116-2, 0541116-3 | | LL217849 | LL217810 |

Wheel Seal Kits

| Kit P/N | Qty | Part Number | Description |
|----------|-----|-------------|--------------------------|
| WH-KT-2 | 1 | MC154-00300 | Felt, Grease Seal |
| | 1 | MC154-01300 | Felt, Grease Seal |
| | 1 | MC153-00300 | Ring Grease Seal, Flat |
| | 2 | MC153-00400 | Ring Grease Seal, Flat |
| WH-KT-5 | 1 | MC153-01500 | Ring Grease Seal, Cupped |
| | 2 | MC155-00100 | Ring, Snap |
| WH-KT-8 | 1 | MC154-00300 | Felt, Grease Seal |
| | 1 | MC154-30010 | Felt, Grease Seal |
| | 2 | MC153-30013 | Ring Grease Seal, Flat |
| | 1 | 153-30014 | Ring Grease Seal, Cupped |
| WH-KT-11 | 1 | MC153-30015 | Ring Grease Seal, Flat |
| | 2 | MC155-11900 | Ring, Snap |
| | 1 | 154-00400 | Felt, Grease Seal |
| | 1 | 153-00500 | Plate, Grease Seal |
| | 1 | MC156-00100 | Plate, Grease Seal |
| | 6 | MS35265-45 | Screw, Drilled |
| WH-KT-15 | 6 | MS35333-38 | Lock Washer |
| | 1 | 154-00400 | Felt, Grease Seal |
| | 1 | MC154-00900 | Felt, Grease Seal |
| | 1 | MC153-00300 | Ring Grease Seal, Flat |
| | 1 | 153-00500 | Plate, Grease Seal |
| | 1 | MC153-01000 | Plate, Grease Seal |
| WH-KT-17 | 1 | MC156-00100 | Plate, Grease Seal |
| | 6 | MS35265-45 | Screw, Drilled |
| | 6 | MS35333-38 | Lock Washer |
| | 1 | MC154-00600 | Felt, Grease Seal |
| | 2 | MC153-00800 | Ring Grease Seal, Flat |
| | 2 | MC155-00200 | Ring, Snap |
| WH-KT-22 | 1 | 154-00800 | Felt, Grease Seal |
| | 2 | 153-00900 | Ring Grease Seal, Flat |
| WH-KT-28 | 1 | MC155-00100 | Ring, Snap |
| | 1 | 155-00600 | Ring, Snap |
| WH-KT-34 | 1 | 154-01400 | Felt, Grease Seal |
| | 2 | 153-00900 | Ring Grease Seal, Flat |
| WH-KT-35 | 2 | MC155-00200 | Ring, Snap |
| | 1 | 154-03000 | Molded Seal |
| WH-KT-38 | 1 | MC155-00100 | Ring, Snap |
| | 1 | 155-00600 | Ring, Snap |
| WH-KT-39 | 2 | MC154-00600 | Felt, Grease Seal |
| | 4 | MC153-00800 | Ring Grease Seal, Flat |
| | 2 | MC155-00200 | Ring, Snap |
| | 2 | MC154-00600 | Felt, Grease Seal |
| WH-KT-42 | 2 | MC154-00900 | Felt, Grease Seal |
| | 2 | MC153-00300 | Ring Grease Seal, Flat |
| | 2 | MC153-01500 | Ring Grease Seal, Cupped |
| | 2 | MC155-00100 | Ring, Snap |
| WH-KT-47 | 2 | 154-03000 | Molded Seal |
| | 2 | MC155-00100 | Ring, Snap |
| WH-KT-49 | 2 | MC154-30010 | Felt, Grease Seal |
| | 2 | 153-30014 | Ring Grease Seal, Cupped |
| | 2 | MC153-30015 | Ring Grease Seal, Flat |
| | 2 | MC155-11900 | Ring, Snap |

Brake and Wheel Parts

FAA-PMA Piper Wheel Felt grease seals, retainer plates, and retainers will be available this year!

Please check our website for progress on these items.

Note:
For FAA-PMA approved aircraft model eligibility, see www.mcfarlaneaviation.com.
■ Cone P/N LM29749 and Cup P/N LM29710 are used on the outboard of the wheel and Cone P/N 07100 and Cup P/N 07196 or P/N 07204 are used on the inboard of the wheel.