



AIRCRAFT ENGINES

MODEL
6A4-165-B3

SERVICE PARTS LIST



UNIVAIR AIRCRAFT CORPORATION

PLANT, OFFICES AND WAREHOUSES: RT. 3, BOX 59, AURORA, COLORADO 80011

TELEPHONE: (303) 364-7661

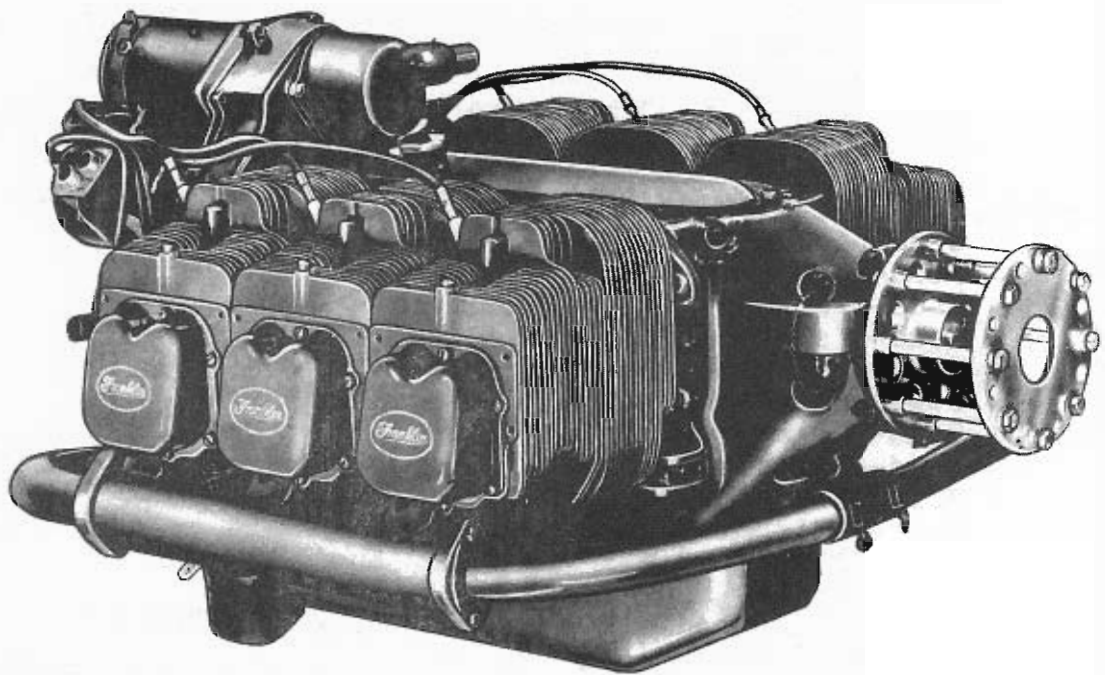
UNIVAIR

SERVICE PARTS LIST

FRANKLIN AIRCRAFT ENGINES

MODEL

6A4-165-B3



Your Authorized
Franklin Distributor



UNIVAIR AIRCRAFT CORPORATION

PLANT, OFFICES AND WAREHOUSES: ROUTE 3, BOX 59, AURORA, COLORADO

TELEPHONE (303) 364-7661



Univair

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|------------------|---|-------------|
| <u>CAMSHAFT</u> | | |
| 17923 | Camshaft (steel) Not available | 1 |
| 17796 | Camshaft ✓ | 1 |
| 17543 | Gear - Camshaft (For Use On Steel Camshafts Only) | 1 |
| 17655 | Gear - Camshaft | 1 |
| 6x15 | Key - Woodruff #6, Camshaft Gear to Shaft | 1 |
| 17707 | Bushing - Camshaft | 8 |
| <u>CRANKCASE</u> | | |
| 18925 | Crankcase Assembly | 1 |
| 18906 | Crankcase Half, Cyl. 2-4-6)Not Furnished | |
| 18905 | Crankcase Half, Cyl. 1-3-5)(Separately | |
| #18719 | Stud-C'shaft Brg., Inside Front Upper With Dowel | 1 |
| #18718 | Stud-C'shaft Brg., Inside Front Lower And Center | 5 |
| #17714 | Stud-C'shaft Brg., Upper Rear With Dowel | 1 |
| #17713 | Stud-C'shaft Brg., Lower Rear | 1 |
| #17712 | Stud-Crankcase, Front Tie | 1 |
| #17711 | Stud-C'shaft Brg., Outside Front | 2 |
| #17710 | Stud-Camshaft Bearing | 4 |
| 17709 | Dowel-Crankcase 3, Engine Mtg. Bracket 4 | 7 |
| #17661 | Stud-Cylinder Holddown 7/16 | 24 |
| #17660 | Stud-Cylinder Holddown 3/8 | 24 |
| 12201 | Nut-Sltd. 3/8-24, Inside C'shaft Bearing Stud | 6 |
| 19021 | Washer-C'shaft Bearing Stud | 10 |
| 7x31 | Plug-Sltd. Headless Pipe 1/8, Fuel Pump Pad, Propeller End | 3 |
| 7x36 | Plug-Sltd. Headless Pipe 3/8, Plug Oil Holes In Rear Crankcase | 3 |
| 23x63 | Nut-Elastic Stop 3/8-24, Outside C'shaft Brg. Studs | 4 |
| 23x62 | Nut-Elastic Stop 5/16-24, Tie Bolt & Brg. Studs | 7 |
| 5x22 | Washer-Plain 5/16, Tie Bolt & Camshaft Brg. Stud | 17 |
| 3x84 | Nut-Castle 5/16-24, Camshaft Bearing Stud | 4 |
| 31x21 | Thread-Silk | 15" |
| 19725 | Screw-Hex Hd. 5/16-24x7 3/16) Bottom Tie | 3 |
| 2x232 | Screw-Hex Hd. 5/16-24x1 3/8) Bolt | 3 |
| 18243 | Dowel-Crankshaft Thrust Washer | 8 |
| 8x114 | Pin-Cotter 1/16x5/8, Camshaft Bearing Stud | 4 |
| 28x83 | Dowel-1/4x3/4, Crankcase to Timing Gear Case | 2 |

Service Oversize Only

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 17765 | Cover Assembly-Crankcase | 1 |
| 17086 | Cover-Crankcase) Not Furnished | |
| 17198 | Neck-Oil Filler) Separately | |
| 18532 | Gasket-Crankcase Cover | 1 |
| 19x17 | Washer-Shakeproof Lock 5/16, C'case Cover Screws, Mtg. Brkt. 8, Prop. Control Pad Cover 3 | 27 |
| 2x169 | Screw-Hex Hd. 5/16-18x5/8, C'case Cover to Crankcase | 16 |
| 18474 | Gasket-Propeller Control Pad Cover | 1 |
| 18475 | Cover-Propeller Control Pad | 1 |
| 17862 | Plate-Oil By-pass (17x26 Nipple Must Be Included) | 1 |
| 17613 | Gasket-Oil By-pass Plate | 1 |
| 19x14 | Washer-Shakeproof Lock 1/4, Oil By-pass Plate Screw | 5 |
| 2x164 | Screw-Hex Hd. 1/4-20x1, By-pass Plate to Crankcase | 5 |
| 17831 | Tube-Crankcase Breather, Flexible | 1 |
| 17884 | Bracket-Engine Mounting | 4 |
| 10501 | Washer-Engine Mounting Bracket (| 8 |
| 2x190 | Screw-Hex Hd., 5/16-18x7/8, Eng. Mtg. Bracket & Prop. Control Pad Cover | 11 |
| 10246 | Bushing-Engine Mounting Rubber | 8 |
| 18344 | Seal-Oil Header | 1 |
| 18333 | Washer-Oil Header Seal | 1 |
| 10371 | Packing-Crankcase Bearing Stud | 3 |
| 10105 | Packing-Crankcase Bolt and Stud | 5 |
| 25x12 | Screw-Name Plate, Parker Kalon #4x3/16 Drive | 4 |

CRANKSHAFT

| | | |
|--------|---|---|
| 18487 | Crankshaft Assembly | 1 |
| 18486 | Crankshaft - Not Furnished Separately | |
| #17536 | Bushing-Crankshaft Flange | 8 |
| 17643 | Plug-Crankshaft | 1 |
| 7x31 | Plug-1/8, Hex Socket Pipe, In Plug | 1 |
| 9x110 | Screw-#10-32x5/16 Set, Plug to Crankshaft | 1 |
| 19180 | Key-Gear to Crankshaft | 2 |
| 17725 | Gear-Crankshaft, 29 Straight Teeth | 1 |
| 19x14 | Washer-Shakeproof Lock 1/4, Oil Seal Retainer to C'case | 2 |
| 2x166 | Screw-Hex Hd. 1/4-20x1/2, C'shaft Oil Seal Retainer | 2 |
| 17718 | Retainer-Crankshaft Oil Seal | 2 |
| 17036 | Seal-Crankshaft Oil | 1 |
| 17808 | Washer-Crankshaft Thrust (Use in Pairs Only) | 4 |
| 17577 | Plate-Propeller Hub, Front | 1 |
| 17662 | Bolt-Propeller Hub | 8 |
| 17751 | Washer-Crankshaft Gear Nut Lock | 1 |
| 17750 | Nut-Crankshaft Gear | 1 |

Service Oversize Only

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 8x120 | Pin-Cotter 3/32x3/4, Inside Bearing Stud | 6 |
| 5x23 | Washer-Plain 3/8, Propeller to Hub | 8 |
| ##17666 | Bushing-Crankshaft, Propeller End 2-4-6 | 1 |
| ##17665 | Bushing-Crankshaft, Propeller End 1-3-5 | 1 |
| ##17724 | Bushing-Crankshaft, Propeller End Nose 2-4-6 | 1 |
| ##17723 | Bushing-Crankshaft, Propeller End Nose 1-3-5 | 1 |
| ##17722 | Bushing-Crankshaft, Gear End 2-4-6 | 1 |
| ##17721 | Bushing-Crankshaft, Gear End 1-3-5 | 1 |
| ##17720 | Bushing-Crankshaft, Center 2-4-6 | 2 |
| ##17719 | Bushing-Crankshaft, Center 1-3-5 | 2 |

CYLINDER

| | | |
|--------|--|----|
| 18549 | Cylinder Assembly | 6 |
| 17519 | Cylinder - Not Furnished Separately | |
| 17518 | Liner-Cylinder | 6 |
| 14248 | Screw-Cylinder Liner Lock | 12 |
| 18391 | Pin-Cylinder Liner Lock | 6 |
| #19517 | Guide-Exhaust Valve | 6 |
| #18498 | Insert-Inlet Valve Seat | 6 |
| #18499 | Insert-Exhaust Valve Seat | 6 |
| 17475 | Insert-Spark Plug Helicoil | 12 |
| #17563 | Stud-Exhaust Pipe Flange | 12 |
| #18424 | Guide-Inlet Valve | 6 |
| 23x12 | Palnut-7/16-20, Cylinder to Crankcase | 24 |
| 23x11 | Palnut-3/8-24, Cylinder to Crankcase | 24 |
| 19484 | Nut-Hex 3/8-24, Cylinder to Crankcase | 24 |
| 19485 | Nut-Hex 7/16-20, Cylinder to Crankcase | 24 |
| 17729 | Ring-Cylinder Seal | 6 |
| 19022 | Washer-Plain 7/16, Cylinder Holddown | 24 |
| 19021 | Washer-Plain 3/8, Cylinder Holddown | 24 |

Service Oversize Only
Available In Undersize

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|------------------------|---|-------------|
| <u>VALVE MECHANISM</u> | | |
| 10202 | Washer-Valve Spring Shim (1/64) | As Req. |
| 18285 | Valve-Exhaust | 6 |
| 18444 | Valve-Inlet | 6 |
| 15117 | Spring-Valve | 12 |
| 18425 | Washer-Valve Spring, Upper | 12 |
| 15118 | Washer-Valve Spring, Bottom | 12 |
| 14667 | Key-Valve Spring Washer Retaining | 24 |
| 10770 | Washer-Valve Spring Shim (1/32) | As Req. |
| 19524 | Rocker Assembly-Exhaust Valve | 6 |
| 19522 | Bushing-Exhaust Valve Rocker | 6 |
| 18649 | Rocker-Exhaust Valve 3/8 - Not Furnished Separately | |
| 19523 | Rocker Assembly-Inlet Valve | 6 |
| 19522 | Bushing-Inlet Valve Rocker | 6 |
| 18648 | Rocker-Inlet Valve 3/8 - Not Furnished Separately | |
| 18297 | Support-Valve Rocker, Center | 6 |
| 18298 | Support-Valve Rocker, Outer | 12 |
| 2x1103 | Screw-Hex Hd. 5/16-18x2 1/2, Valve Rocker Support | 18 |
| 14872 | Washer-Lock, Rocker Support | 18 |
| 3x214 | Nut-Hex Jam 5/16-24, Valve Rocker Adj. Screw | 12 |
| 17409 | Screw-Valve Rocker Adjusting (5/16) | 12 |
| 17654 | Screw-Valve Rocker Adjusting (3/8) | 12 |
| 3x210 | Nut-Hex Jam 3/8-24, Valve Rocker Adj. Screw | 12 |
| 19392 | Pin-Valve Rocker | 6 |
| 18561 | Cover-Valve | 6 |
| 17727 | Gasket-Valve Cover | 6 |
| 12x28 | Screw-Fill. Hd. 1/4-20x3/8) Valve Cover ^{AN 116901} AN 550-416-6 | 36 |
| 19x14 | Washer-Shakeproof Lock 1/4) to Cylinder ^{AN 936A 416} | 36 |
| 18662 | Valve-Hydraulic Lifter) | 12 |
| 18688 | Ring-Hydraulic Lifter Valve Retaining) For 18419 Lifter | 12 |
| 18169 | Unit-Valve Lifter) | 12 |
| 19571 | Body-Valve Lifter) For 17477 Lifter | 12 |
| 19521 | Lifter-Valve | 12 |
| 19570 | Unit-Valve Lifter | 12 |
| 19571 | Body-Valve Lifter | 12 |
| 17864 | Packing-Valve Lifter Rod Tube, Cyl. End (small) | 12 |
| 17794 | Packing-Valve Lifter Rod Tube, C'case End (large) | 12 |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 18394 | Rod Assembly-Valve Lifter | 12 |
| 18393 | Rod-Valve Lifter) Not | |
| 14130 | Button-Valve Lifter Rod) Furnished | |
| 14129 | Cup-Valve Lifter Rod) Separately | |
| 18178 | Tube Assembly-Valve Lifter Rod | 12 |
| 17657 | Tube-Valve Lifter Rod - Not Furnished Separately | |
| 18072 | Circlet-Valve Lifter Rod Tube Guide | 12 |
| <u>MANIFOLD</u> | | |
| 17756 | Pipe Assembly-Manifold Equalizer | 2 |
| 17755 | Pipe-Manifold Equalizer) Not Furnished | |
| 17754 | Adapter-Manifold Equalizer Pipe) Separately | |
| 17771 | Bracket-Manifold Equalizer Pipe | 1 |
| 23x53 | Nut-#10-32, Welding - Not Furnished Separately | |
| 18572 | Zone Assembly-Distributing | 1 |
| 18198 | Zone-Distributing - Not Furnished Separately | |
| #11139 | Stud-Carburetor | 4 |
| 18418 | Manifold-Inlet, Even Side | 1 |
| 18417 | Manifold-Inlet, Odd Side | 1 |
| 18199 | Pipe-Manifold Distributing | 2 |
| 17544 | Flange-Exhaust Pipe | 6 |
| 17545 | Gasket-Exhaust Pipe | 6 |
| 17671 | Gasket-Inlet Manifold | 6 |
| 11252 | Flange-Equalizer Pipe | 2 |
| 5456 | Packing-Equalizer Pipe | 2 |
| 13644 | Packing-Distributing Zone Pipe | 4 |
| 13551 | Flange-Distributing Zone Pipe | 4 |
| 2x13 | Screw-Inlet Manifold | 12 |
| 19487 | Nut-Exhaust Stud | 12 |
| 18396 | Hose-Manifold Equalizer Pipe | 1 |
| 19227 | Clamp-Hose | 2 |
| 19x17 | Washer-Shakeproof Lock, Pipes to Manifold, Zone and Cylinders | 24 |
| 19x15 | Washer-Shakeproof Lock #10, Front Pipe to Bracket | 1 |
| 12x120 | Screw-Rd. Hd. #10-32 1/2, Front Pipe to Bracket | 1 |
| 7x31 | Plug-Sltd. Headless Pipe 1/8, Primer Holes | 2 |
| 2x335 | Screw-Hex Dr. Hd. 1/4-20x3, Zone to Timing Case | 2 |
| 2x169 | Screw-Hex Hd. 5/16-18x5/8, Pipes to Manifold | 12 |
| 15169 | Washer-Dist. Zone Screw Lock | 2 |

Service Oversize Only

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------------------------|--------------------------------------|-------------|
| <u>OIL COOLER</u> | | |
| 18554 | Cooler Assembly-Oil | 1 |
| 18655 | Cooler-Oil (Not Furnished Separately | |
| 19481 | Valve-Oil Cooler Thermostatic | 1 |
| 18647 | Gasket-Oil Cooler Thermostatic Valve | 1 |
| 18231 | Bracket-Oil Cooler, Odd Side | 1 |
| 18232 | Bracket-Oil Cooler, Even Side | 1 |
| 17694 | Bumper-Oil Cooler Bracket | 2 |
| 2x237 | Screw-Hex Hd. 1/4-28x1/2 | 4 |
| 5x21 | Washer-Plain 1/4 | 4 |
| 23x611 | Nut-Elastic Stop 1/4-28 | 4 |
| 18230 | Bracket-Oil Cooler Bumper | 2 |
| <u>OIL LEVEL GAUGE</u> | | |
| 18473 | Gauge Assembly-Oil Level | 1 |
| 10727 | Sleeve-Oil Level Gauge | |
| 10556 | Collar-Oil Gauge | |
| |) Not Furnished Separately | |
| 10508 | Cap-Oil Filler (8 3/4 Qt.) | 1 |
| 14688 | Gasket-Oil Filler Cap | 1 |
| <u>OIL PUMP AND OIL PIPES</u> | | |
| 17998 | Pump Assembly-Oil | 1 |
| 17740 | Body-Oil Pump | 1 |
| 18329 | Cover Assembly-Oil Pump | 1 |
| 18275 | Cover-Oil Pump | |
| 18328 | Pipe-Oil Inlet | |
| 15095 | Stop-Inlet Float | |
| |) Not Furnished Separately | |
| 19887 | Gear-Oil Pump Drive | 1 |
| 19886 | Gear-Oil Pump Driven | 1 |
| 18180 | Gear-Oil Pump Shaft | 1 |
| 17734 | Shaft-Oil Pump Drive | 1 |
| 17735 | Shaft-Oil Pump Stationary | 1 |
| 6x114 | Key-Woodruff #212, Gear to Shaft | 2 |
| 17949 | Bracket-Oil Inlet Pipe | 1 |
| 15234 | Clamp-Oil Inlet Pipe | 1 |
| 14520 | Float-Oil Inlet | 1 |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 15114 | Washer-Relief Valve Nut Lock | 2 |
| 17932 | Ball-Oil Cooler Relief Valve | 1 |
| 17921 | Cage-Oil Cooler Relief Valve Ball. | 1 |
| 17913 | Spring-Oil Cooler Relief Valve | 1 |
| 18536 | Nut-Oil Pump & Oil Cooler Relief Valve | 2 |
| 15169 | Washer-Oil Pipe Bracket Screw Lock | 2 |
| 18277 | Washer-Oil Pump Screw Lock | 2 |
| 18976 | Plunger-Oil Pump Relief Valve | 1 |
| 10997 | Spring-Oil Pump Relief Valve | 1 |
| 2x182 | Screw-Hex Hd. 1/4-20x2 3/4, Pump to Crankcase | 3 |
| 14936 | Screw-Oil Inlet Pipe Clamp | 1 |
| 14946 | Clip-Oil Inlet Float | 1 |
| 8x114 | Pin-Cotter, Oil Float 1/16x1/2 | 1 |
| 2x1104 | Screw-Hex Hd. 1/4-20x2 1/2, Pump to Crankcase | 1 |
| 5x25 | Washer-Plain #10, Clamp to Bracket | 1 |
| 8x116 | Pin-Cotter 1/8x1, Oil Inlet Float to Pipe | 1 |
| 2x149 | Screw-Hex Hd. 1/4-20x5/8, Bracket to Crankcase | 2 |
| 3x86 | Nut-Castle #10-32 Clamp to Bracket | 1 |
| 18182 | Pipe-Oil Cooler Return | 1 |
| 18209 | Pipe-Oil Cooler Inlet (To Engine 30566 Incl.) | 1 |
| 17x26 | Nipple-Pipe Thread 1/2" (To Engine 30566 Incl.) | 1 |
| 17564 | Clamp-Hose | 8 |
| 12369 | Hose-Oil Cooler | 4 |
| 17x28 | Nipple-Pipe Thread 3/8", In By-pass Plate Ret. | 1 |
| 17x26 | Nipple-Pipe Thread 1/2", In By-pass Plate Ret. (Use 17x28 or 17x26 To Fit By-pass Plate 17862 As Required) | 1 |
| 17x26 | Nipple-Pipe Thread 1/2", In By-pass Plate Inlet)Eng. 30567 & Up)Also Eng. 30555 | 1 |
| 18404 | Pipe-Oil Cooler Inlet)30563, 30564 | 1 |

OIL PAN

| | | |
|-------|---|----|
| 18000 | Pan-Oil | 1 |
| 18001 | Bushing-Oil Drain Plug - Not Furnished Separately | 1 |
| 17579 | Plate-Oil Pan Flange | 1 |
| 10366 | Gasket-Oil Pan | 1 |
| 10239 | Plug-Oil Drain | 1 |
| 3x93 | Nut-Hex 5/16-24, Oil Pan Stud | 3 |
| 12x29 | Screw-Fill. Hd. 5/16-18x3/4)To Crankcase and | 24 |
| 19x17 | Washer-Shakeproof Lock 5/16)Timing Case | 27 |
| 32x17 | Wire-Steel Lacing .041, On Oil Drain Plug | 5" |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------------------------|--|-------------|
| <u>CONNECTING RODS</u> | | |
| 19751 | Connecting Rod Assembly | 6 |
| 17540 | Rod-Connecting - Not Furnished Separately | |
| 17738 | Bushing-Connecting Rod, Lower | 6 |
| 19750 | Bolt-Connecting Rod | 12 |
| 12201 | Nut-Slotted 3/8-24 | 12 |
| 19632 | Bolt-Connecting Rod (For 19633 Rod Assy.) | 12 |
| ##17739 | Bushing-Connecting Rod, Lower | 12 |
| 8x120 | Pin-Cotter 3/32x3/4, Connecting Rod Bolts | 12 |
| <u>PISTON, PINS AND RINGS</u> | | |
| 17554 | Piston | 6 |
| @17658 | Pin-Piston | 6 |
| 17685 | Plug-Piston Pin | 12 |
| 18761 | Ring-Piston, Top Groove | 6 |
| 18762 | Ring-Piston, Second Groove | 6 |
| 18763 | Ring-Piston, Third Groove | 6 |
| |) Order In Sets #15061 | |
| <u>TIMING GEAR CASE</u> | | |
| 18447 | Case Assembly-Timing Gear, Crankcase End | 1 |
| 18203 | Case-Timing Gear - Not Furnished Separately | |
| #17865 | Stud-Oil Pan to Timing Case | 1 |
| #18006 | Stud-Oil Pan to Timing Case | 2 |
| 18448 | Case Assembly-Timing Gear, Accessory End | 1 |
| 18204 | Case-Timing Gear - Not Furnished Separately | |
| #10369 | Stud-Magneto | 4 |
| #5136 | Stud-Generator | 4 |
| #17746 | Stud-Starting Motor | 2 |
| 10085 | Gasket-Timing Gear Case, Inner | 1 |
| 10120 | Gasket-Timing Gear Case, Outer | 1 |
| 18313 | Washer-Lock, Timing Gear Case (Sides) | 6 |
| 14508 | Washer-Lock, Timing Gear Case (Top) | 1 |
| 2x149 | Screw-Hex Hd. 1/4-20x5/8, Timing Gear Cases Together | 10 |
| 2x168 | Screw-Hex Hd. 5/16-18x2 1/4, Timing Gear Case to Crankcase | 2 |
| 2x183 | Screw-Hex Hd. 5/16-18x7/8, Timing Case to Crankcase | 8 |
| @ | Available In Oversize | |
| # | Service Oversize Only | |
| ## | Available In Undersize | |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 5x21 | Washer-Plain 1/4, Timing Gear Case Dowel Bolt | 2 |
| 19x14 | Washer-Shakeproof Lock 1/4, Timing Gear Cases Together | 10 |
| 19x17 | Washer-Shakeproof Lock 5/16, Timing Gear to Crankcase | 2 |
| 18202 | Bolt-Timing Gear Case Dowel | 2 |
| 23x61 | Nut-Elastic Stop 1/4-28, Timing Gear Case Dowel Bolt | 2 |

CARBURETOR

| | | |
|-------|--|---|
| 18489 | Carburetor-Marvel #10-3148, MA 4-5 | 1 |
| 14702 | Gasket-Carburetor | 1 |
| 23x62 | Nut-Elastic Stop 5/16-24, Carburetor to Zone | 4 |
| 5x22 | Washer-Plain 5/16 | 4 |

STARTER AND GENERATOR

| | | |
|-------|---|---|
| 19318 | Connector-Switch, Delco #1885036 | 1 |
| 10750 | Motor-Starting, Delco #1109651 | 1 |
| 11019 | Switch-Solenoid, Delco | 1 |
| 19233 | Gasket-Starting Motor | 1 |
| 18351 | Cover Assembly-Starter Drive Shaft | 1 |
| 17888 | Cover-Starting Shaft - Not Furnished Separately | |
| 5573 | Tube-Crankcase Breather, Rigid | 1 |
| 8x17 | Pin-Cotter 3/32x1/2 | 1 |
| 17015 | Gear and Hub Assembly-Starter | 1 |
| 17014 | Hub-Starting Gear) Not Furnished | |
| 17748 | Gear-Starting Ring) Separately | |
| 10603 | Gear-Generator | 1 |
| 17996 | Hub-Generator Gear | 1 |
| 19314 | Absorber-Generator Gear Shock | 1 |
| 17911 | Housing-Tachometer | 1 |
| 17414 | Gasket-Tachometer Drive Housing | 1 |
| 17743 | Gear-Tachometer Driven | 1 |
| 17745 | Sleeve-Tachometer Connector | 1 |
| 17744 | Connector-Tachometer Drive | 1 |
| 19389 | Seal-Tachometer Drive | 1 |
| 17556 | Generator, Delco #1101877 | 1 |
| 5637 | Gasket-Generator | 1 |
| 17559 | Regulator-Voltage, Delco #1118384 | 1 |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|---|-------------|
| 17741 | Gasket-Starter Drive Shaft Cover | 1 |
| 8x17 | Pin-Cotter 3/32x1/2, Rigid Tube to Starter Shaft Cover | 1 |
| 2x150 | Screw-Hex Hd. 1/4-20x3/4, Starter Shaft Cover to Timing Gear Case | 2 |
| 2x166 | Screw-Hex Hd. 1/4-20x1/2, Tachometer Housing to Timing Case | 2 |
| 23x61 | Nut-Elastic Stop 1/4-20 ⁸ , Generator to Timing Case | 4 |
| 23x63 | Nut-Elastic Stop 3/8-24, Starter to Timing Case | 2 |
| 19x14 | Washer-Shakeproof Lock 1/4, Starter Cover and Tachometer Housing to Timing Case | 4 |

MAGNETO

| | | |
|-------|--|----|
| 11669 | Gear Assembly-Magneto Drive | 1 |
| 10130 | Gear-Magneto Drive) Not Furnished | |
| 17752 | Hub-Magneto Drive Gear) Separately | |
| 17742 | Gear-Tachometer Drive | 1 |
| 6x19 | Key-Woodruff #61, Magneto Drive Gear to Hub | 1 |
| 18543 | Gear-Magneto Driven (Use #19313 Absorber) | 2 |
| 18088 | Magneto Scintilla #10-51365-2 | 2 |
| 10134 | Adapter-Magneto | 2 |
| 5512 | Gasket-Magneto | 4 |
| 10601 | Absorber-Magneto Gear Shock (To Eng. 32083 Incl.) | 16 |
| 5x19 | Washer-Plain 5/16 (Magneto to Timing) | 4 |
| 23x62 | Nut-Elastic Stop 5/16-24 (Gear Case) | 4 |
| 19313 | Absorber-Magneto Gear Shock (Engine #32084 and up or with #18543 Gear) | 2 |
| 11047 | Magneto (Eisemann RFJHPE 35) #H24-651 | 2 |
| 19148 | Shim-Magneto Drive Absorber (Not to be used with Gear Marked "C" #18543 | 2 |

IGNITION WIRES

WIRES FROM EVEN SIDE SCINTILLA MAGNETO AS FOLLOWS:

| | | |
|--------|---|---|
| 14x472 | Wire Assembly-High Tension, #1 Top, #4 Bottom | 2 |
| 14x466 | Wire Assembly-High Tension, #2 Bottom | 1 |
| 14x478 | Wire Assembly-High Tension, #3 Top | 1 |
| 14x484 | Wire Assembly-High Tension, #5 Top | 1 |
| 14x480 | Wire Assembly-High Tension, #6 Bottom | 1 |

Franklin Engine Company, Inc.

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|--|---|-------------|
| WIRES FROM ODD SIDE SCINTILLA MAGNETO AS FOLLOWS: | | |
| 14x415 | Wire Assembly-High Tension, #1 Bottom | 1 |
| 14x420 | Wire Assembly-High Tension, #2 Top | 1 |
| 14x421 | Wire Assembly-High Tension, #3 Bottom | 1 |
| 14x423 | Wire Assembly-High Tension, #4 Top | 1 |
| 14x429 | Wire Assembly-High Tension, #5 Bottom | 1 |
| 14x431 | Wire Assembly-High Tension, #6 Top | 1 |
| 19557 | High Tension Wire Assembly (Shielded - Eisemann) | 1 |
| 19558 | High Tension Wire Assembly (Shielded - Scintilla) | 1 |
| 25x41 | Screw-#4x3/8 Parker Kalon Type A, Terminal | 12 |
| 5x121 | Washer-#4 Plain, Terminal | 12 |
| 18191 | Terminal-High Tension Wire, Plug End 90° | 3 |
| 5551 | Terminal-High Tension Wire, Plug End Straight | 9 |
| 15029 | Grommet-High Tension Wire | 2 |
| 15030 | Plate-Magneto Outlet | 2 |
| 4x115 | Washer-Lock) Magneto Outlet Plate | 8 |
| 12x42 | Screw-Fill. Hd.) to Magneto | 8 |
| NOTE: High Tension Wire Terminals Are Included In High Tension Wire Assemblies, Magneto No. 18088 Does Not Include Above Listed Parts. | | |
| 5546 | Plug-Spark, Champion J-43 (Non-shielded) | 12 |
| 10542 | Plug-Spark, Champion REJ-38 (Shielded) | 12 |
| 18225 | Wire Assembly-Ground Terminal (Scintilla) | 2 |
| 14x3 | Wire-Shielded Low Tension) | |
| 18436 | Sleeve-Ground Wire) Not | |
| 18220 | Terminal-Ground Wire) Furnished | |
| 18222 | Ferrule-Ground Wire, Inner) Separately | |
| 18223 | Ferrule-Ground Wire, Outer) | |
| 18224 | Nut-Ground Wire) | |
| FOLLOWING WIRES AND TERMINALS FOR EISEMANN MAGNETO: | | |
| 14x538 | Wire Assembly-High Tension 41", #4 Top | 1 |
| 14x528 | Wire Assembly-High Tension 47", #6 Top | 1 |
| 14x57 | Wire Assembly-High Tension 38", #5 Top | 1 |
| 14x56 | Wire Assembly-High Tension 35", #6 Bottom, #3 Top | 2 |
| 14x55 | Wire Assembly-High Tension 38", #5 Bottom | 1 |
| 14x54 | Wire Assembly-High Tension 31", #4 Bottom, #1 Top | 2 |
| 14x53 | Wire Assembly-High Tension 34", #3 Bottom, #2 Top | 2 |
| 14x52 | Wire Assembly-High Tension 23", #2 Bottom | 1 |
| 14x51 | Wire Assembly-High Tension 28", #1 Bottom | 1 |

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| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-----------------|--|-------------|
| 18191 | Terminal-High Tension Wire, Plug End 90° | 7 |
| 11073 | Terminal-High Tension Wire, Magneto End | 12 |
| 5551 | Terminal-High Tension Wire, Plug End | 5 |
| 18164 | Wire Assembly-Magneto Ground (Eisemann) Less Adapter | 2 |

SERVICE KITS

The following kits are obtainable but are not listed in the Group Parts List.

| <u>Part Number</u> | <u>Part Name</u> |
|--------------------|-----------------------------------|
| 18570 | Gasket and Packing Assembly |
| 19644 | Kit - Crankshaft Bushing Std. |
| 19645 | Kit - Crankshaft Bushing .010 u/s |
| 19646 | Kit - Crankshaft Bushing .020 u/s |

Franklin Engine Company, Inc.

NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|--|------------------------|
| 2x13 | Screw-Hex Hd. 5/16-18x1, Inlet Manifold | 12 |
| 2x149 | Screw-Hex Hd. 1/4-20x5/8, Bracket to Crankcase Timing gear Cases Together | 12 |
| 2x150 | Screw-Hex Hd. 1/4-20x3/4, Starter Shaft Cover to Timing gear Case | 2 |
| 2x164 | Screw-Hex Hd. 1/4-20x1, By-pass Plate to Crankcase | 5 |
| 2x166 | Screw-Hex Hd. 1/4-20x1/2, Tachometer Housing to Timing Case | 4 |
| 2x168 | Screw-Hex Hd. 5/16-18x2-1/4, Timing Gear to Crankcase | 2 |
| 2x169 | Screw-Hex Hd. 5/16-18x5/8, Pipes to Manifold Crankcase Cover to Crankcase | 28 |
| 2x182 | Screw-Hex Hd. 1/4-20x2-3/4, Pump to Crankcase | 3 |
| 2x183 | Screw-Hex Hd. 5/16-18x7/8, Timing Case to Crankcase | 8 |
| 2x190 | Screw-Hex Hd. 5/16-18x7/8, Engine Mounting Bracket and Propeller Control Pad Cover | 11 |
| 2x232 | Screw-Hex Hd. 5/16-24x1 3/8, Bottom Tie Bolt | 3 |
| 2x237 | Screw-Hex Hd. 1/4-28x1/2, Bracket to Oil Cooler | 4 |
| 2x335 | Screw-Hex Dr. Hd. 1/4-20x3, Zone to Timing Case | 2 |
| 2x1103 | Screw-Hex Hd. 5/16-18x2 1/2, Valve Rocker Support | 18 |
| 2x1104 | Screw-Hex Hd. 1/4-20x2 1/2, Pump to Crankcase | 1 |
| 3x84 | Nut-Castle 5/16-24, Camshaft Bearing Stud | 4 |
| 3x86 | Nut-Castle #10-32, Clamp to Bracket | 1 |
| 3x93 | Nut-Hex 5/16-24, Oil Pan Stud | 3 |
| 3x210 | Nut-Hex Jam 3/8-24, Valve Rocker Adjusting Screw | 12 |
| 3x214 | Nut-Hex Jam 5/16-24, Valve Rocker Adjusting Screw | 12 |
| 4x115 | Washer-Lock, Magneto Outlet Plate to Magneto | 8 |
| 5x19 | Washer-Plain 5/16, Magneto to Timing Gear Case | 4 |
| 5x21 | Washer-Plain 1/4, Bracket to Oil Cooler | 8 |
| 5x22 | Washer-Plain 5/16, Tie Bolt & Camshaft Brgs. Studs | 17 |
| 5x23 | Washer-Plain 3/8, Propeller to Hub | 8 |
| 5x25 | Washer-Plain #10, Clamp to Bracket | 1 |
| 5x121 | Washer-#4 Plain, Terminal | 12 |
| 6x15 | Key-Woodruff #6, Camshaft Gear to Shaft | 1 |
| 6x19 | Key-Woodruff #61, Magneto Drive Gear to Hub | 1 |
| 6x114 | Key-Woodruff #212, Gears to Shaft | 2 |
| 7x31 | Plug-Sltd. Headless Pipe 1/8, Primer Holes, Fuel Pump Pad Propeller End, Crankshaft | 6 |
| 7x36 | Plug-Sltd. Headless Pipe 3/8, Plug Oil Holes In Rear Crankcase | 3 |

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NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|---|------------------------|
| 8x17 | Pin-Cotter 3/32x1/2, Rigid Tube to Starter Shaft Cover | 2 |
| 8x114 | Pin-Cotter 1/16x1/2, Oil Float and Camshaft Brg. Stud | 5 |
| 8x116 | Pin-Cotter 1/8x1, Oil Inlet Float to Pipe | 1 |
| 8x120 | Pin-Cotter 3/32x3/4, Connecting Rod Bolts | 18 |
| 9x110 | Screw-#10-32x5/16, Set, Plug to Crankshaft | 1 |
| 12x28 | Screw-Fill. Hd. 1/4-20x3/8, Valve Cover to Cylinder | 36 |
| 12x29 | Screw-Fill. Hd. 5/16-18x3/4, To Crankcase and Timing Case | 24 |
| 12x42 | Screw-Fill. Hd., Magneto Outlet Plate to Magneto | 8 |
| 12x120 | Screw-Rd. Hd. #10-32x1/2, Front Pipe to Bracket | 1 |
| 14x415 | Wire Assembly-High Tension, #1 Bottom | 1 |
| 14x420 | Wire Assembly-High Tension, #2 Top | 1 |
| 14x421 | Wire Assembly-High Tension, #3 Bottom | 1 |
| 14x423 | Wire Assembly-High Tension, #4 Top | 1 |
| 14x429 | Wire Assembly-High Tension, #5 Bottom | 1 |
| 14x431 | Wire Assembly-High Tension, #6 Top | 1 |
| 14x466 | Wire Assembly-High Tension, #2 Bottom | 1 |
| 14x472 | Wire Assembly-High Tension, #1 Top, #4 Bottom | 2 |
| 14x478 | Wire Assembly-High Tension, #3 Top | 1 |
| 14x480 | Wire Assembly-High Tension, #6 Bottom | 1 |
| 14x484 | Wire Assembly-High Tension, #5 Top | 1 |
| 14x51 | Wire Assembly-High Tension 28", #1 Bottom | 1 |
| 14x52 | Wire Assembly-High Tension 23", #2 Bottom | 1 |
| 14x53 | Wire Assembly-High Tension 34", #3 Bottom, #2 Top | 2 |
| 14x54 | Wire Assembly-High Tension 31", #4 Bottom, #1 Top | 2 |
| 14x55 | Wire Assembly-High Tension 38", #5 Bottom | 1 |
| 14x56 | Wire Assembly-High Tension 35", #6 Bottom, #3 Top | 2 |
| 14x57 | Wire Assembly-High Tension 38", #5 Top | 1 |
| 14x528 | Wire Assembly-High Tension 47", #6 Top | 1 |
| 14x538 | Wire Assembly-High Tension 41", #4 Top | 1 |
| 17x26 | Nipple-Pipe Thread 1/2", In By-pass Plate Inlet (Eng. 30567 & Up. Also Eng. 30555, 30563, 30564) | 1 |
| 17x28 | Nipple-Pipe Thread 3/8", In By-pass Plate Return | 1 |
| 19x14 | Washer-Shakeproof Lock 1/4, Valve Cover to Cylinder | 57 |
| 19x15 | Washer-Shakeproof Lock #10, Front Pipe to Bracket | 1 |
| 19x17 | Washer-Shakeproof Lock 5/16, To C'case and Timing Case | 80 |

Franklin Engine Company, Inc.

NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|---|------------------------|
| 23x11 | Palnut-3/8-24, Cylinder to Crankcase | 24 |
| 23x12 | Palnut-7/16-20, Cylinder to Crankcase | 24 |
| 23x61 | Nut-Elastic Stop 1/4-28, Generator to Timing Case | 6 |
| 23x62 | Nut-Elastic Stop 5/16-24, Carburetor to Zone | 15 |
| 23x63 | Nut-Elastic Stop 3/8-24, Starter to Timing Case | 6 |
| 23x611 | Nut-Elastic Stop 1/4-28, Bracket to Oil Cooler | 4 |
| 25x12 | Screw-Name Plate, Parker Kalon #4x3/16 Drive | 4 |
| 25x41 | Screw-#4x3/8, Parker Kalon Type A, Terminal | 12 |
| 28x83 | Dowel-1/4x3/4, Crankcase to Timing Gear Case | 2 |
| 31x21 | Thread-Silk | 15" |
| 5456 | Packing-Equalizer Pipe | 2 |
| 5512 | Gasket-Magneto | 4 |
| 5546 | Plug-Spark, Champion J-43 | 12 |
| 5551 | Terminal-High Tension Wire Plug End, Straight (Scin.) | 9 |
| 5551 | Terminal-High Tension Wire (Eisemann) | 5 |
| 5573 | Tube-Crankcase Breather, Rigid | 1 |
| 5637 | Gasket-Generator | 1 |
| 10085 | Gasket-Timing Gear Case Inner | 1 |
| 10105 | Packing-Crankcase Bolt and Stud | 5 |
| 10120 | Gasket-Timing Gear Case Outer | 1 |
| 10134 | Adapter-Magneto | 2 |
| 10202 | Washer-Valve Spring Shim (1/64) | As Req. |
| 10246 | Bushing-Engine Mounting Rubber | 8 |
| 10366 | Gasket-Oil Pan | 1 |
| 10371 | Packing-Crankcase Bearing Stud | 3 |
| 10501 | Washer-Engine Mounting Bracket | 8 |
| 10508 | Cap-Oil Filler | 1 |
| 10542 | Plug-Spark, Champion REJ-38 (Shielded) | 12 |
| 10601 | Absorber-Magneto Gear Shock (To Eng. 32083 Incl.) | 16 |
| 10603 | Gear-Generator | 1 |
| 10770 | Washer-Valve Spring Shim (1/32) | As Req. |
| 10750 | Motor-Starting, Delco #1109651 | 1 |
| 10997 | Spring-Oil Pump Relief Valve | 1 |
| 11019 | Switch, Solenoid, Delco | 1 |
| 11047 | Magneto-Eisemann | 2 |
| 11073 | Terminal-High Tension Wire | 12 |
| 11252 | Flange-Equalizer Pipe | 2 |
| 11669 | Gear Assembly-Magneto Drive | 1 |
| 12201 | Nut-Slotted 3/8-24 | 18 |
| 12369 | Hose-Oil Cooler Pipe | 4 |

Franklin Engine Company, Inc.

NUMERICAL PARTS LIST

| <u>PARTS NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|------------------|---|------------------------|
| 13551 | Flange-Distributing Zone Pipe | 4 |
| 13644 | Packing-Distributing Zone Pipe | 4 |
| 14248 | Screw-Cylinder Liner Lock | 12 |
| 14508 | Washer-Timing Gear Case Lock (Top) | 1 |
| 14520 | Float-Oil Inlet | 1 |
| 14667 | Key-Valve Spring Washer Retaining | 24 |
| 14688 | Gasket-Oil Filler Cap | 1 |
| 14702 | Gasket-Carburetor | 1 |
| 14872 | Washer-Lock, Rocker Support | 18 |
| 14936 | Screw-Oil Inlet Pipe Clamp | 1 |
| 14946 | Clip-Oil Inlet Float | 1 |
| 15029 | Grommet-High Tension Wire | 2 |
| 15030 | Plate-Magneto Outlet | 2 |
| 15061 | Piston Ring Set | 1 |
| 15114 | Washer-Relief Valve Nut Lock | 2 |
| 15117 | Spring-Valve | 12 |
| 15118 | Washer-Valve Spring, Bottom | 12 |
| 15169 | Washer-Dist. Zone & Oil Pump Bracket Lock | 4 |
| 15234 | Clamp-Oil Inlet Pipe | 1 |
| 17015 | Gear & Hub Assembly-Starter | 1 |
| 17036 | Seal-Crankshaft Oil | 1 |
| 17409 | Screw-Valve Rocker Adjusting 5/16 | 12 |
| 17414 | Gasket-Tachometer Drive Housing | 1 |
| 17475 | Insert-Spark Plug Helicoil | 12 |
| 17518 | Liner-Cylinder | 6 |
| 17543 | Gear-Camshaft (For Use On Steel Camshafts Only) | 1 |
| 17544 | Flange-Exhaust Pipe | 6 |
| 17545 | Gasket-Exhaust Pipe | 6 |
| 17554 | Piston | 6 |
| 17556 | Generator-Delco #1101877 | 1 |
| 17559 | Regulator-Voltage, Delco #1118358 | 1 |
| 17564 | Clamp-Hose | 8 |
| 17577 | Plate-Propeller Hub Front | 1 |
| 17579 | Plate-Oil Pan Flange | 1 |
| 17613 | Gasket-Oil By-pass Plate | 1 |
| 17643 | Plug-Crankshaft | 1 |
| 17654 | Screw-Valve Rocker Adjusting 3/8 | 12 |
| 17655 | Gear-Camshaft | 1 |
| 17658 | Pin-Piston | 6 |
| 17662 | Bolt-Propeller Hub | 8 |

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NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|--|------------------------|
| 17665 | Bushing-Crankshaft, Propeller End 1-3-5 | 1 |
| 17666 | Bushing-Crankshaft, Propeller End 2-4-6 | 1 |
| 17671 | Gasket-Manifold | 6 |
| 17685 | Plug-Piston Pin | 12 |
| 17694 | Bumper-Oil Cooler Bracket | 2 |
| 17707 | Bushing Camshaft | 8 |
| 17709 | Dowel-Crankcase 3 Engine Mounting Bracket 4 | 7 |
| 17718 | Retainer Crankshaft Oil Seal | 2 |
| 17719 | Bushing-Crankshaft, Center 1-3-5 | 2 |
| 17720 | Bushing-Crankshaft, Center 2-4-6 | 2 |
| 17721 | Bushing-Crankshaft-Gear End 1-3-5 | 1 |
| 17722 | Bushing-Crankshaft-Gear End 2-4-6 | 1 |
| 17723 | Bushing-Crankshaft, Propeller End Nose 1-3-5 | 1 |
| 17724 | Bushing-Crankshaft, Propeller End Nose 2-4-6 | 1 |
| 17725 | Gear-Crankshaft, 29 straight Teeth | 1 |
| 17727 | Gasket-Valve Cover | 6 |
| 17729 | Ring-Cylinder Seal | 6 |
| 17734 | Shaft-Oil Pump Drive | 1 |
| 17735 | Shaft-Oil Pump Stationary | 1 |
| 17738 | Bushing-Connecting Rod, Upper | 6 |
| 17739 | Bushing-Connecting Rod, Lower | 12 |
| 17740 | Body-Oil Pump | 1 |
| 17741 | Gasket-Starter Drive Shaft Cover | 1 |
| 17742 | Gear-Tachometer Drive | 1 |
| 17743 | Gear-Tachometer Driven | 1 |
| 17744 | Connector-Tachometer Drive | 1 |
| 17745 | Sleeve-Tachometer Connector | 1 |
| 17750 | Nut-Crankshaft Gear | 1 |
| 17751 | Washer-Crankshaft Gear Nut Lock | 1 |
| 17756 | Pipe Assembly Manifold Equalizer | 2 |
| 17765 | Cover Assembly Crankcase | 1 |
| 17771 | Bracket-Manifold Equalizer Pipe | 1 |
| 17794 | Packing Valve Lifter Rod Tube Crankcase End | 12 |
| 17796 | Camshaft | 1 |
| 17808 | Washer-Crankshaft Thrust (Use In Pairs Only) | 4 |
| 17831 | Tube-Crankcase Breather, Flexible | 1 |
| 17862 | Plate-Oil By-pass (17x26 Nipple Must Be Incl.) | 1 |
| 17864 | Packing-Valve Lifter Rod Tube Cylinder End | 12 |
| 17884 | Bracket-Engine Mounting | 4 |
| 17911 | Housing-Tachometer Drive | 1 |
| 17913 | Spring-Oil Cooler Relief Valve | 1 |
| 17921 | Cage-Oil Cooler Relief Valve Ball | 1 |
| 17932 | Ball-Oil Cooler Relief Valve | 1 |

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NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|---|------------------------|
| 17949 | Bracket-Oil Inlet Pipe | 1 |
| 17996 | Hub-Generator Gear | 1 |
| 17998 | Pump Assembly-Oil | 1 |
| 18000 | Pan-Oil | 1 |
| 18072 | Circlet-Valve Lifter Rod Tube Guide | 12 |
| 18088 | Magneto-Scintilla #10-51365-2 | 2 |
| 18164 | Wire Assembly-Mag. Ground (Eisemann), Less Adapter | 2 |
| 18169 | Unit-Valve Lifter | 12 |
| 18178 | Tube Assembly-Valve Lifter Rod | 12 |
| 18180 | Gear-Oil Pump Shaft | 1 |
| 18182 | Pipe-Oil Cooler Return | 1 |
| 18191 | Terminal-High Tension Wire Plug End 90° (Scintilla) | 3 |
| 18191 | Terminal-High Tension Wire (Eisemann) | 7 |
| 18199 | Pipe-Manifold Distributing | 2 |
| 18202 | Bolt-Timing Gear Case Dowel | 2 |
| 18209 | Pipe-Oil Cooler Inlet (To Eng. 30566 Incl.) | 1 |
| 18225 | Wire Assembly-Ground Terminal | 1 |
| 18230 | Bracket-Oil Cooler Bumper | 2 |
| 18231 | Bracket-Oil Cooler, Odd Side | 1 |
| 18232 | Bracket-Oil Cooler, Even Side | 1 |
| 18243 | Dowel-Crankshaft Thrust Washer | 8 |
| 18277 | Washer-Oil Pump Screw Lock | 2 |
| 18285 | Valve-Exhaust | 6 |
| 18297 | Support-Valve Rocker, Center | 6 |
| 18298 | Support-Valve Rocker, Outer | 12 |
| 18313 | Washer-Lock, Timing Gear Case (Sides) | 6 |
| 18329 | Cover Assembly-Oil Pump | 1 |
| 18333 | Washer-Oil Header Seal | 1 |
| 18344 | Seal-Oil Header | 1 |
| 18351 | Cover Assembly-Starter Drive Shaft | 1 |
| 18359 | Screw-Inlet Manifold | 12 |
| 18391 | Pin-Cylinder Liner Lock | 6 |
| 18394 | Rod Assembly-Valve Lifter | 12 |
| 18396 | Hose-Manifold Equalizer Pipe | 1 |
| 18404 | Pipe-Oil Cooler Inlet | 1 |
| 18417 | Manifold-Inlet, Odd Side | 1 |
| 18418 | Manifold-Inlet, Even Side | 1 |
| 18425 | Washer-Valve Spring, Upper | 12 |
| 18444 | Valve-Inlet | 6 |
| 18447 | Case Assembly-Timing Gear, Crankcase End | 1 |
| 18448 | Case Assembly-Timing Gear, Accessory End | 1 |
| 18473 | Gauge Assembly-Oil Level | 1 |

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NUMERICAL PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY. PER ENGINE</u> |
|-----------------|--|------------------------|
| 18474 | Gasket-Propeller Control Pad Cover | 1 |
| 18475 | Cover-Propeller Control Pad | 1 |
| 18487 | Crankshaft Assembly | 1 |
| 18489 | Carburetor-Marvel #10-3148 MA 4-5 | 1 |
| 18532 | Gasket-Crankcase Cover | 1 |
| 18536 | Nut-Oil Pump & Oil Cooler Relief Valve | 2 |
| 18543 | Gear-Magneto Driven (Use 19313 Absorber) | 2 |
| 18549 | Cylinder Assembly | 6 |
| 18554 | Oil Cooler Assembly | 1 |
| 18561 | Cover-Valve | 6 |
| 18570 | Gasket & Packing Assembly | 1 |
| 18572 | Zone Assembly-Distributing | 1 |
| 18647 | Gasket-Oil Cooler Thermostatic Valve | 1 |
| 18662 | Valve-Hydraulic Lifter (For 18419 Lifter) | 12 |
| 18688 | Ring-Hydraulic Lifter Valve Retaining | 12 |
| 18761 | Ring-Piston | 6 |
| 18762 | Ring-Piston | 6 |
| 18763 | Ring-Piston | 6 |
| 18925 | Crankcase Assembly | 1 |
| 18976 | Plunger-Oil Pump Relief Valve | 1 |
| 19021 | Washer-Plain 3/8, Cylinder Holddown | 34 |
| 19022 | Washer-Plain 7/16, Cylinder Holddown | 24 |
| 19148 | Shim-Magneto Drive Absorber | 2 |
| 19180 | Key-Crankshaft | 1 |
| 19227 | Clamp-Hose | 2 |
| 19233 | Gasket-Starter | 1 |
| 19313 | Absorber-Magneto Gear Shock (Eng. #32084 & Up) | 2 |
| 19314 | Absorber-Generator Gear Shock | 1 |
| 19389 | Seal-Tachometer Drive Oil | 1 |
| 19392 | Pin-Valve Rocker | 6 |
| 19481 | Valve-Oil Cooler Thermostatic | 1 |
| 19484 | Nut-Hex 3/8-24, Cylinder to Crankcase | 24 |
| 19485 | Nut-Hex 7/16-20, Cylinder to Crankcase | 24 |
| 19487 | Nut-Exhaust Stud | 12 |
| 19521 | Lifter-Valve | 12 |
| 19523 | Rocker Assembly-Inlet | 6 |
| 19524 | Rocker Assembly-Exhaust | 6 |
| 19570 | Unit-Valve Lifter | 12 |
| 19571 | Body-Valve Lifter | 12 |
| 19632 | Bolt-Connecting Rod (For #19633 Rod Assy.) | 12 |
| 19723 | Screw-Hex Hd. 5/16-24x7 3/16, Bottom Tie Bolt | 3 |
| 19750 | Bolt-Connecting Rod (For #19751 Rod Assy.) | 12 |
| 19751 | Rod Assembly-Connecting | 6 |
| 19886 | Gear-Oil Pump Driven | 1 |
| 19887 | Gear-Oil Pump Drive | 1 |