

AIRCRAFT APPLICATION DATA GUIDE

This guide provides a means to identify the applicability of the starters as they may pertain to certain aircraft, rotorcraft, and engines. The data compiled herein is to be used to help identify the specific installation on which the available Hartzell Engine Technologies starters may be applied as they pertain to Lycoming engines. *(See the Aircraft Starter Application Guide for Teledyne Continental Motors for that engine make.)* This application guide is listed in three categories. The aircraft/rotorcraft applications, engine applications, and vendor applications. The aircraft/rotorcraft are listed alphabetically by manufacturer and model designation followed by the engine applications and then the vendor data. The vendor listing is basically a cross reference by engine model series.

CAUTION:

Hartzell Engine Technologies has identified the potential applications of its starters in this guide. Not all aircraft, rotorcraft, or engines that currently exist or may have existed are listed in this application guide. While these starters are direct replacements for existing starter installations, unforeseen changes or modifications in an aircraft/rotorcraft or engine may necessitate modification to structure or may not allow installation. If you can not determine or if any difficulty occurs in installation, the applicable manufacturer of your aircraft/rotorcraft or engine must be contacted.

General

Model Identification **(E-Drive series)**

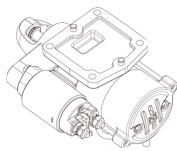


Figure 1

| | |
|--|--|
| ERB-8011 (24 Volt - 12/14 pitch gear) 9T | ERB-8012 (24 Volt - 10/12 pitch gear) 9T |
| ERZ-8011 (12 Volt - 12/14 pitch gear) 9T | ERZ-8012 (12 Volt - 10/12 pitch gear) 9T |

Solenoid to the Left: **(X-Drive series: see figure 1)**

| | |
|--|--|
| SRB-9021 (24 Volt - 12/14 pitch gear) 9T | SRB-9022 (24 Volt - 10/12 pitch gear) 9T |
| SRZ-9021 (12 Volt - 12/14 pitch gear) 9T | SRZ-9022 (12 Volt - 10/12 pitch gear) 9T |

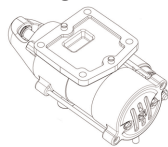


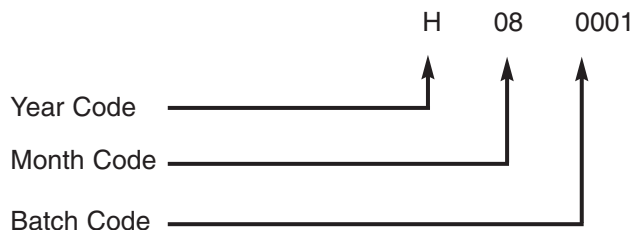
Figure 2

Solenoid to the Right: **(X-Drive series: see figure 2)**

| | |
|--|--|
| SRB-9031 (24 Volt - 12/14 pitch gear) 9T | SRB-9032 (24 Volt - 10/12 pitch gear) 9T |
| SRZ-9031 (12 Volt - 12/14 pitch gear) 9T | SRZ-9032 (12 Volt - 10/12 pitch gear) 9T |

(12/14 pitch works on a 149 tooth ring gear & 10/12 pitch works on a 122 tooth ring gear.)

Serial number Identification



Example above: 2007, August, first unit of the month (batch)

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AIRCRAFT APPLICATION DATA

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**AIRCRAFT STARTER
APPLICATION GUIDE
(LYCOMING ENGINES)**

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AIRCRAFT APPLICATION DATA

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|-------------------------------------|-----------------|---------------|---------------------|---------------------|---|
| A.M.F. | | | | | |
| MUSHSHAK | 17-D | IO-540-V4A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AERO BOREO | | | | | |
| | AB-115 BS | AEIO-540-8544 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | AB-180 RV & RVR | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| AERO COMMANDER | | | | | |
| LARK | 180 | O-360-A2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| SHRIKE | 500 U, S | IO-540-E1B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AERO FAB/LAKE | | | | | |
| | L4 | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BUCKANEER | LA-4-200 | IO-360-A1B | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| RENEGADE | LA250 | IO-540-C4B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| RENEGADE, TURBO | LA250 | TIO-540-AA1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AERO MERCANTIL | | | | | |
| | ALL MODELS | O-360-A1A | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 |
| AEROSTAR | | | | | |
| | 600 | IO-540-K1F5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AMERICAN BLIMP | | | | | |
| | ALL MODELS | IO-360-B1G6 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 SRB-9021 SRZ-9021 |
| AMERICAN CHAMPION (CHAMPION) | | | | | |
| CITABRIA | 7GCBC, 7GCAA | O-320-B2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| CITABRIA | 7ECA | O-235-C1 | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| CITABRIA | 7ECA | O-235-K2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| CITABRIA | 7KCAB | O-235-K2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| AVIAT | | | | | |
| | HUSKEY | O-360-A1P | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |



**AIRCRAFT
APPLICATION DATA (CONT'D)**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|--|--------------------------|---------------------|-------------------------|-------------------------|-------------------------|
| BEAGLE | | | | | |
| AIRDALE | D5-160 | O-320-B2B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| PUP | 200 | IO-360-A1C | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| | 150 | O-320-A2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BEECHCRAFT - SINGLE ENGINE SERIES | | | | | |
| MUSKETEER | A23 | O-320-D2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | 23A | IO-320-A4K | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | B23B | IO-320-A2G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | B23-19 | O-320-A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| MUSKETEER III | M 23 | O-360-E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| SPORT | B19 | O-320-E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| SUNDOWNER | C-23 | O-360-A4G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | C-23 | O-360-A4J | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | C-23 | O-360-A4K | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | C-23 | O-360-A4K | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| SIERRA | C-24R | IO-360-A1B6 | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| | C-24R | IO-360-A1B6 | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| SKIPPER | 77 | O-235-L2C | MMU-4001 | MMU-6001 | ERB-8012 SRB-9022 |
| BEECHCRAFT - TWIN ENGINE SERIES | | | | | |
| DUCHESS | 76 | O-360-A1G6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | LO-360-A1G6D | MZ-4220 | MZ-6220 | N/A N/A |
| | 76 | O-360-A1G6D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | LO-360-A1G6D | MZ-4014 | MZ-6014 | N/A N/A |
| DUKE | 60, A60, B60 81' - Up | TIO-541-E1A4 | MHB-4017 | | ERB-8011 SRB-9021 |
| | | TIO-541-G1AD | MHB-4017 | | ERB-8011 SRB-9021 |
| TRAVEL AIR | A95, B95 D95A, E95 | O-360-A1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | IO-360-B1B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| BELLANCA | | | | | |
| CHAMPION | 8KCAB-180 | AEIO-360-H1A | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| | 8GCAB | AEIO-320-E2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | 8KCBC | O--360-2E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| SUPERVIKING | 300A | IO-540-K1E5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BOLKOW | | | | | |
| | 207 | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BRANTLY | | | | | |
| | B2 | VO-360 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | B2B | IVO-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |



**AIRCRAFT
APPLICATION DATA (CONT'D)**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|--------------------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| BRITTEN NORMAN | | | | | |
| | BN-2 | O-540-E4B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | BN-2A | IO-540-K1B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | BN-2A & B | O-540-E4C5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| CESSNA - SINGLE ENGINE SERIES | | | | | |
| CARDINAL | 152, F152 | O-235-L2C | MMU-4001 | MMU-6001 | ERB-8012 SRB-9032 |
| | 177 | O-320-D3G | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 177 | IO-360-A1B6 | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| | 177 | O-360-A2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| CUTLASS RG | 177A | O-360-A1F6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 177RG | IO-360-A1B6D | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| SKYHAWK | 172RG | O-360-F1A6 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 172 I, J, K, L, M | O-320-E2D, D2J | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| SKYLANE | 172N | O-320-H2AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 172R, S | IO-360-L2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 182 | O-540-J3C5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| STATIONAIR | 182S, T | O-540-AB1A5 | | | ERB-8011 SRB-9031 |
| | TR182 | O-540-L3C5D | | | ERB-8011 SRB-9021 |
| | T-182 | TIO-540-AK1A | | | ERB-8011 SRB-9021 |
| | U206H | IO-540-AC1A5 | | | ERB-8011 SRB-9031 |
| CHRISTEN | | | | | |
| PITTS | S1-S | AEIO-360-B4A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| EAGLE II | S-2 | AEIO-360-A1D | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| PITTS | S-2A | AEIO-360-A1E | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| | S-2S | AEIO-540-D4A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| COMMANDER | | | | | |
| COMMANDER | 112, 112A | IO-360-C1D6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | TC-112 | TO-360-C1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 114 | IO-540-T4B5 | | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 114B | IO-540-T4B5 | MHB-6016 | | ERB-8011 SRB-9021 |
| | 114TC | TIO-540-AG1A | | | ERB-8011 SRB-9021 |
| DARTER | 100 | O-320-A2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | LARK | 180 | O-360-A1G6 | MZ-4222 | MZ-6222 |
| SHRIKE | | O-360-A2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 500 | O-540-A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 500B, U, S | IO-540-E1B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| SPARROW | 700 | TIO-540-R2AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | A9, A9A | O-540 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| QUAIL | A9B | IO-540 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |



**AIRCRAFT
APPLICATION DATA (CONT'D)**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|--------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| DEHAVILLAND | | | | | |
| | DH-114 | IO-540-K1C5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| DIAMOND | | | | | |
| | DA-40 | IO-360-M1A | MHB-4018 | | ERB-8011 SRB-9021 |
| EAGLE AIRCRAFT | | | | | |
| | ALL MODELS | IO-540-M1B5D | | MHB-6016 | ERB-8011 SRB-9021 |
| EMBRAER | | | | | |
| IPANEMA | EMB-201 | IO-540-K1J5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| IPANEMA | EMB-201A | O-540-K1F5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| IPANEMA | EMB-400 | IO-720-D1B | MHJ-4004 | MHB-4016A | |
| ENSTROM | | | | | |
| SNARK | F28 | HIO-360-E1AD | MZ-4225 | | ERZ-8011 SRZ-9031 |
| | F28A | HIO-360-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | F28C | HIO-360-E1BD | MZ-4225 | | ERZ-8011 N/A |
| FALCON | F28F | HIO-360-F1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| EXTRA-FLUGZEUGBAU | | | | | |
| | 300 | AEIO-540-L1B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| F.F.A. | | | | | |
| BRAVO | AS-202 | O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | AS-202-15 | O-320-E2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BRAVO | AS-202-18A | AEIO-360-B1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| FOUND BROS. | | | | | |
| CENTENNIAL | 100 | IO-720 | MHJ-4004 | MHB-4016A | N/A |
| | | IO-540 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| FUJI | | | | | |
| | FA-200 | O-360-A5AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | FA-200 | IO-360-B1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | FA-200 | IO-360-B1B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | FA-200-160 | O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| G.E.M.S. | | | | | |
| | ALL MODELS | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |



**AIRCRAFT
APPLICATION DATA (CONT'D)**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters | |
|--|---------------------|----------------------------|-------------------------|-------------------------|-------------------------|----------------------|
| GREAT LAKES | | | | | | |
| | ALL MODELS | IO-360-B1F6 IO-360-B1G6 | MZ-4222 MZ-4222 | MZ-6222 MZ-6222 | ERZ-8011 ERZ-8011 | SRZ-9021 SRZ-9021 |
| GROB | | | | | | |
| | G115 | O-320-E1 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | G115/G115A | O-235-H2C | MZ-4204 | MZ-6204 | ERZ-8012 | SRZ-9022 |
| | G115B/G115C | O-320-D1A | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| | G115C2 | O-360-A1F6 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| ACRO SPORT | G115D | AEIO-360-B1F | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| HERON | G115D2 | AEIO-320-D1B | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| | G120A | AEIO-540-D4D5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| GRUMMAN AMERICAN (AMERICAN GENERAL) | | | | | | |
| TRAVELER | AA-5 | O-320-E2G | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| CHEETAH | AA-5A | O-320-E2G | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| COUGAR | GA-7 | O-320-D1D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| TIGER | AA-5B | O-360-A4K | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| TIGER | AG-5B | O-360-A4K | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| TRAINER | AA-1C | O-235-L2C | MZ-4204 | MZ-6204 | ERZ-8012 | SRZ-9022 |
| YANKEE | TR-2 | O-235-C2C | MZ-4204 | MZ-6204 | ERZ-8012 | SRZ-9022 |
| GYROFLUG | | | | | | |
| SPEED CANARD | SC-01B | O-320-D1A | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| HELIO | | | | | | |
| | 700 | TIO-540-J2BD | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| | 800 | IO-720-A1B | MHB-4016A | | | |
| CABALLERO | | O-540-A | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| TWIN | | O-540-A | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| TWIN | | O-540-A | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| KING ENGINEERING | | | | | | |
| ANGEL | ALL MODELS | IO-540-M1C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| LANCAIR | | | | | | |
| KIT | ALL MODELS | IO-360 - - | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | 320 | IO-320-D1B | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| | 360 | IO-360-M1B | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| 360 TURBO | 360T | IO-360-F1A | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |



**AIRCRAFT STARTER
APPLICATION GUIDE
(LYCOMING ENGINES)**

**AIRCRAFT
APPLICATION DATA (CONT'D)**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters | |
|--------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------|
| M.B.B. / MONSON | | | | | | |
| FLAMINGO | 223 | IO-360-C1D6 | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 | |
| MONSUN | B-209 | IO-320-D1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | B-209B | O-320-E1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| MONSON | B-209C | IO-320-D1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| MAULE | | | | | | |
| LUNAR ROCKET | M5-180 | O-360-C1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| LUNAR ROCKET | M5-180 | O-360-C1F | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| LUNAR ROCKET | M5-235 | O-540-J1A5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| LUNAR ROCKET | M6-235 | O-540-W1A5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| STAR ROCKET | MX-7-235 | O-540-B4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | MX-7-260 | IO-540-V4A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| MOONEY | | | | | | |
| EXECUTIVE | M20 SERIES | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | | O-360-A1D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | | O-360-A1D | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 | |
| | M20D | O-360-A2D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | M20E, F | IO-360-A1A | | MZ-6222 | N/A SRZ-9031 | |
| | M20J | IO-360-A1B6D | | MZ-6222 | N/A SRZ-9021 | |
| | M20I | IO-360-A1B6D | | MZ-6222 | N/A SRZ-9021 | |
| | | IO-360-A1B6D | MHB-4018 | MHB-6018 | N/A SRB-9021 | |
| | TLS | M20M | TIO-540-AF1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MOROVAN | | | | | |
| ZLIN | 50L | AEIO-540-D4B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| ZLIN | 50L | AEIO-540-L1B5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| ZLIN | Z143L | O-540-J3A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| ZLIN | Z242L | AEIO-360-A1B6 | MHB-4016 | MHB-6016 | N/A SRB-9021 | |
| MUDRY | | | | | | |
| | CAP-10 | AEIO-360-B2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | CAP-20LS & 21 | AEIO-360-A1B | MZ-4222 | MZ-6222 | N/A SRZ-9021 | |
| | CAP-230 | AEIO-540-L1B5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| NEIVA | | | | | | |
| UNIVERSAL | 1PD 6201 | IO-540-K1D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| PACIFIC AEROSPACE | | | | | | |
| AIRTRAINER | CT4-E | AEIO-540-L1B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 | |
| FLETCHER | FU-24-954 | IO-720-A1B | MHB-4016A | | | |



AIRCRAFT ENGINE APPLICATION DATA

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|--|-----------------|--------------|------------------|------------------|-------------------|
| PARTENAVIA | | | | | |
| | P-64B | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| OSCAR | P-66 | O-235-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| OSCAR | P-66B | O-320-E2A | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 |
| | P-66C | O-320-H2AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| OBSERVER | P-68 SERIES | IO-360-A1B6 | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| | P-68B | IO-360-A1B | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| | P-68C-TC | TO-360-C1A6D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| PIPER AIRCRAFT - SINGLE ENGINE SERIES | | | | | |
| SUPER CRUISER | PA-12-105 | O-235-C1 | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| CUB / COLT | PA-18-108 | O-235-C1B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| SUPER CUB | PA-18-150 | O-320-A2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| TRI-PACER | PA-22-108 | O-235-C1B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| TRI-PACER | PA-22 | O-320-E3D | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| TRI-PACER | PA-22-160 | O-320-B2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| COMANCHE | PA-24-180 | O-320-B2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | PA-24-250 | O-360-A1D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | O-540-A1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | PA-24-250 | O-540-A1C5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | O-540-A1D5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | PA-24-260 | IO-540-D4A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | IO-540-N1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | PA-24-260 TURBO | IO-540-R1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | IO-540-R1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| PAWNEE | PA-25-180 | O-360-A1D, | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | PA-25-235 | O-540-B2C5, | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | PA-25-260 | O-540-G1A5, | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| CHEROKEE | PA-28-140 | O-320-E2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| | PA-28-150 | O-320-A2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| WARRIOR | PA-28-151 | O-320-E3D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | PA-28-160 | O-320-B2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| WARRIOR III | PA-28-161 | O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | O-320-D3G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | PA-28-161 | O-320-D3G | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| CHEROKEE | PA-28-180 | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| CHALLENGER | PA-28-180 | O-360-A4A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| ARROW | PA-28R-180 | IO-360-B1E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| ARCHER | PA-28-181 | O-360-A4M | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| ARCHER III | PA-28-181 | O-360-A4M | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| ARROW | PA-28R-200 | IO-360-C1C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | PA-28R-200 | IO-360-C1C6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| ARROW III | PA-28R-201 | IO-360-C1C6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| CHEROKEE | PA-28-235 | O-540-B2B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | PA-28-235 | O-540-B4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |



**AIRCRAFT STARTER
APPLICATION GUIDE
(LYCOMING ENGINES)**

**AIRCRAFT ENGINE
APPLICATION DATA**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters | |
|---|--------------|----------------|------------------|-------------------|-------------------|-------------------|
| PIPER AIRCRAFT - SINGLE ENGINE SERIES (Cont'd) | | | | | | |
| DAKOTA | PA-28-236 | O-540-J3A5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| CHEROKEE SIX | PA-32-260 | O-540-E4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | PA-32-300 | IO-540-K1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| LANCE | PA-32-300 | IO-540-K1A5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| SARATOGA | PA-32-301 | IO-540-K1G5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | PA-32-301 | IO-540-K1G5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 | |
| SARATOGA TC | PA-32-301T | TIO-540-AH1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 | |
| | PA-32R-301T | TIO-540-S1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| LANCE | PA-32R-300 | IO-540-K1G5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | PA-32RT-300 | IO-540-K1G5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| LANCE TURBO | PA-32RT-300T | TIO-540-S1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| SARATOGA TURBO | PA-32R-301T | TIO-540-S1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| BRAVE | PA-36 -300 | IO-540-K1G5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 | |
| | PA-36 -375 | IO-720-D1C | MHB-4016A | | | |
| TOMAHAWK | PA-38-112 | O-235-L2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 | |
| | | O-235-L2C | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 | |
| MIRAGE | PA-46-350P | TIO-540-AE2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| PIPER AIRCRAFT - TWIN ENGINE SERIES | | | | | | |
| APACHE | PA-23-150 | O-320-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | | O-320-A3B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | | PA-23-160 | O-320-B1A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | | O-320-B3B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | | O-320-B3B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| PA-23-235 | O-540-B1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | | |
| AZTEC | PA-23-250 | IO-540-C4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| | | IO-540-C4B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| | | IO-540-J4A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | | IO-540-J4A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 | |
| | | TIO-540-C1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| AZTEC TURBO | | TIO-540-C1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| | | IO-320-B1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| TWIN COMANCHE COMANCHE CR | PA-30-160 | IO-320-C1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |
| | PA-39 | LIO-320-C1A | MZ-4220 | MZ-6220 | N/A | |
| NAVAJO | PA-31-300 | IO-540-M1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| | PA-31-310 | TIO-540-A2B | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 | |
| NAVAJO-CR | | PA-31-325 | TIO-540-A2C | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| | TIO-540-F2BD | | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 | |
| CHIEFTAIN | PA-31-350 | LTIGO-540-F2BD | MHB-4014 | MHB-6014 | | |
| | | TIO-540-J2B | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 | |
| | | LTIO-540-J2B | MHB-4014 | MHB-6014 | | |
| | | TIO-540-J2BD | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 | |
| | | LTIO-540-J2BD | MHB-4014 | MHB-6014 | | |
| MOJAVE | PA-31P | TIGO-541-E1A | MHB-4016A | N/A | | |
| | PA-31P-350 | TIO-540-B2AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 | |
| | | LTIO-540-V2AD | MHB-4014 | MHB-6014 | | |



**AIRCRAFT ENGINE
APPLICATION DATA**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|---|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| PIPER AIRCRAFT - TWIN ENGINE SERIES (Cont'd) | | | | | |
| SENECA | PA-34-200 | IO-360-C1E6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | LIO-360-C1E6 | MZ-4220 | MZ-6220 | N/A |
| SEMINOLE | PA-44-180 | O-360-A1H6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | LTO-360-A1H6 | MZ-4220 | MZ-6220 | N/A |
| | | O-360-E1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | LTO-360-E1A6D | MZ-4220 | MZ-6220 | N/A |
| TURBO SEMINOLE | PA-44-180T | TO-360-E1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | LTO-360-E1A6D | MZ-4220 | MZ-6220 | N/A |
| PIPER AEROSTAR | PA-60-600A | IO-540-K1J5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | PA-60-601 | IO-540-P1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | PA-60-601B | IO-540-S1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | PA-60-601P | IO-540-S1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | PA-60-602P | IO-540-AA1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | PA-60-700P | TIO-540-U2B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | LTIO-540-U2A | MHB-4014 | | |
| ROBIN | | | | | |
| DAUPHIN | DR 221 | O-235-C2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| | DR 300 | O-235-J2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| CADET | DR 300/108 | O-235-H2C | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| PETIT PRINCE | DR 300/140 | O-320-E2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | DR 300/18R | O-360-A2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | DR 400 | O-235-F2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| DAUPHIN | DR 400/120 | O-235-L2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| MAJOR | DR 400/160 | O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| RALLYE | DR-400/180-180R | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | DR400/180 | IO-360-A1B6 | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| | HR-100 | IO-540-C4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| ROYALE | HR-100/200 | IO-360-A1D6 | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| AIGLON | R1180 | O-360-A3AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| ROBINSON | | | | | |
| | R22B | O-320-B2C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| BETA II | R22B II | O-360-J2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | R44 | O-540-F1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | R44 II | IO-540-AE1A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| ROCKWELL | | | | | |
| | 114 | O-540-T4A5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 710 | TIGO-541-D1B | MHB-4005 | MHB-4016A | |
| SAAB | | | | | |
| | MFI-15 & MFI-17 | IO-360-A1B6 | MHB-4016 | MHB-6016 | N/A SRB-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA**

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|--------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| SCHWEIZER (HUGES) | | | | | |
| | 269 & 300 | HIO-360-D1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | 300 | HIO-360-D1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | 300CB | HO-360-C1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | H-269 | HIO-360-A1A | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| SIAI MARCHETTI | | | | | |
| | S-205 | O-360-A1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | IO-360-A1B6D | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| | S-208 & SF-260 | O-540-E4A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | SF-260 | IO-540-D4A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | | AEIO-540-D4A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| SLINGSBY | | | | | |
| FIREFLY | T67 | O-320-D1F | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | T67B | O-235-N2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| | | O-235-L2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| | T67C | O-320-D2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| FIREFLY 160 | T67M | AEIO-320-D2B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| FIREFLY 200 | | AEIO-360-A1E | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| FIREFLY 160 | | AEIO-360-D1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| SOCATA | | | | | |
| RALLYE | 180GT and RS | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| RALLYE 110 | MS-885 | O-235-L2A | MZ-4204 | MZ-6404 | ERZ-8012 SRZ-9022 |
| RALLYE 150 | MS-892 | O-320-E2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| COMMODORE | MS-893 | O-360-A2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| RALLYE | MS893A | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| GUERRIER | R-235 | O-540-B4B5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TAMPICO | TB-9 | O-320-D2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| TOBAGO | TB-10 | O-360-A1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | O-360-A1AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| TRINIDAD | TB-20 | IO-540-C4D5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | IO-540-C4D5D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| TRINIDAD TC | TB-21 | TIO-540-AB1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TRINIDAD TC | TB-21 | TIO-540-AB1AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TOBAGO XL | TB-200 | IO-360-A1B6 | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| EPSILON | TB-30 | AEIO-540-L1B5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |



AIRCRAFT ENGINE APPLICATION DATA

| Model Name | Model Number | Engine Model | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| SPORTAVIA | | | | | |
| | RS-180 | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| STODDARD HAMILTON | | | | | |
| | GLASTAR | O-320-D1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| SWEARINGEN AIRCRAFT | | | | | |
| | SX-300 | IO-540-L1C5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| TAYLORCRAFT | | | | | |
| | F-21 | O-235-L2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| VANS AICRAFT | | | | | |
| | RV-3,4,6,OR 6A | O-320-D1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | RV-6 OR RV-6A | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | RV-6,7or 8 | IO-360-M1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| VARGA | | | | | |
| KACHINA | 2150A | O-320-A2C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| WASSMER | | | | | |
| | WA-40 | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| EUROPA | WA-52 | O-360-A1LD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | O-320-D1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| WACO | | | | | |
| METEOR | MK.1 | O-540 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| WING | | | | | |
| DERRINGER | D-1 | IO-320 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| ZENAIR | | | | | |
| KIT | CH 2000 | O-235-N2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| ZEPPLIN | | | | | |
| | ALL MODELS | O-360-C1G6 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |



**AIRCRAFT ENGINE
APPLICATION DATA**

| | Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|-------------------------|----------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING | O-235-C1 | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-C1B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-235-C1C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-C2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-C2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-F2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | MMU-4001 | MMU-6001 | ERB-8012 SRB-9022 |
| | O-235-F2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-235-H2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-J2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-K2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-K2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-K2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-L2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-L2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | MMU-4001 | MMU-6001 | ERB-8012 SRB-9022 |
| | | MMU-4001 | MMU-6001 | ERB-8012 SRB-9032 |
| | O-235-M1 | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-N2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-N2C | MMU-4001 | MMU-6001 | ERB-8012 SRB-9022 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-235-P2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | O-290-D | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-290-D2 | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-290-D2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-290-D2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | AEIO-320-D1B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | AEIO-320-D2B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | AEIO-320-E1B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | AEIO-320-E2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | AEIO-320-E2B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | AIO-320-B1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | AIO-320-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-320-B1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | IO-320-B1C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-320-C1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | IO-320-D1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 | |
| IO-320-D1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 | |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING (CONT'D) | | | |
| IO-320-E1A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| IO-320-E1B | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| IO-320-E2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| IO-320-E2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| LIO-320-B1A | N/A | N/A | N/A N/A |
| LIO-320-C1A | MZ-4220 | N/A | N/A N/A |
| O-320-A2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-A2B | MZ-4204 | MZ-6204 | ERZ-8011 SRZ-9022 |
| | MZ-4204 | MZ-6204 | ERZ-8011 SRZ-9032 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-A2C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-A2D | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| O-320-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-A3B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-A3C | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-B1A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| O-320-B2A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| O-320-B2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9032 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-320-B2C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MZ-4224 | MZ-6224 | ERZ-8011 SRZ-9021 |
| O-320-B3A | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-B3B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-320-B3C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-D1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-320-D1D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-D1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-320-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MZ-4204 | MZ-6204 | ERZ-8012 SRZ-9022 |
| O-320-D2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-320-D2C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| | Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|----------------------|--------------------------------|--------------------------------|----------------------------------|
| TEXTRON LYCOMING (CONT'D) | | | | |
| | O-320-D2G | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 SRB-9021 |
| | O-320-D2J | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | O-320-D3G | MZ-4222 MZ-4222 MHB-4016 | MZ-6222 MZ-6222 MHB-6016 | ERZ-8011 ERZ-8011 ERB-8011 |
| | O-320-E1A | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E1F | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E2A | MZ-4204 MZ-4222 MHB-4018 | MZ-6204 MZ-6222 MHB-6018 | ERZ-8012 ERZ-8011 ERB-8011 |
| | O-320-E2B | MZ-4204 MZ-4222 | MZ-6204 MZ-6222 | ERZ-8012 ERZ-8011 |
| | O-320-E2C | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E2D | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 |
| | O-320-E2F | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E2G | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E2H | MZ-4222 | MZ-6222 | ERZ-8011 |
| | O-320-E3D | MZ-4204 MZ-4222 MZ-4222 | MZ-6204 MZ-6222 MZ-6222 | ERZ-8012 ERZ-8011 ERZ-8011 |
| | O-320-E3H | MZ-4204 MZ-4222 | MZ-6204 MZ-6222 | ERZ-8012 ERZ-8011 |
| | O-320-H2AD | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 |
| | O-340 Series | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 |
| | AEIO-360-A1E | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A ERB-8011 |
| | AEIO-360-B1B | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AEIO-360-B1F | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 |
| | AEIO-360-B1G6 | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AEIO-360-B2F | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AEIO-360-B4A | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AEIO-360-D1B | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AEIO-360-H1A | MZ-4222 | MZ-6222 | ERZ-8011 |
| | AIO-360-A1A | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A N/A |
| | AIO-360-A1B | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A N/A |
| | AIO-360-B1B | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 |
| | HIO-360-A1A | MZ-4226 MHB-4020 | MZ-6226 N/A | N/A SRZ-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING (CONT'D) | | | |
| HIO-360-B1A | MZ-4226 MHB-4020 | MZ-6226 | ERZ-8011 SRZ-9021 |
| HIO-360-C1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| HIO-360-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| HIO-360-D1A | MZ-4226 MHB-4020 | MZ-6226 | ERZ-8011 SRZ-9021 |
| HIO-360-E1AD | MZ-4225 | | ERB-8011 SRB-9021 |
| HIO-360-E1BD | MZ-4225 | | ERZ-8011 SRZ-9021 |
| HIO-360-F1AD | MHB-4016 MZ-4225 | MHB-6016 | ERB-8011 SRB-9021 |
| HO-360-B1A | MZ-4226 | MZ-6226 | ERZ-8011 SRZ-9021 |
| HO-360-B1B | MZ-4226 | MZ-6226 | ERZ-8011 SRZ-9021 |
| HO-360-C1A | MZ-4226 MHB-4016 | MZ-6226 MHB-6016 | ERZ-8011 SRZ-9021 |
| LO-360-A1G6D | MZ-4220 MHB-4014 | MZ6220 | N/A N/A |
| LO-360-A1H6 | MZ-4220 | MZ6220 | N/A N/A |
| LO-360-E1A6D | MZ-4220 | MZ6220 | N/A N/A |
| LTO-360-E1A6D | MZ-4220 | MZ6220 | N/A N/A |
| LIO-360-C1E6 | MZ-4220 | MZ6220 | N/A N/A |
| IO-360-A1A | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A SRZ-9031 |
| IO-360-A1B | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A SRB-9031 |
| IO-360-A1B6 | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A SRZ-9021 |
| IO-360-A1B6D | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A SRB-9021 |
| IO-360-A1C | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A SRZ-9021 |
| IO-360-A1D | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| IO-360-A1D6 | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| IO-360-A2A | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| IO-360-A2B | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| IO-360-A3A | MZ-4222 | MZ-6222 | N/A SRZ-9021 |
| IO-360-A3B6D | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | N/A ERB-8011 |
| IO-360-B1B | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | SRB-9021 ERZ-8011 |
| IO-360-B1D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| IO-360-B1E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| IO-360-B1F | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 SRZ-9021 |
| IO-360-B1F6 | MZ-4222 | MZ-6222 | ERB-8011 SRB-9021 |
| IO-360-B1G6 | N/A | | ERZ-8011 SRZ-9021 |
| | N/A | | ERB-8011 SRB-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| | Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|----------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING (CONT'D) | | | | |
| | IO-360-B2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-360-B2F6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-360-B4A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-360-C1A | MHB-4016 | MZ-6016 | ERZ-8011 SRB-9021 |
| | IO-360-C1B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | IO-360-C1C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | IO-360-C1C6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | IO-360-C1D6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | IO-360-C1E6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-360-C1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | IO-360-C1G6 | N/A | N/A | ERB-8011 SRB-9031 |
| | IO-360-F1A | N/A | N/A | ERZ-8011 SRZ-9031 |
| | IO-360-L2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | IO-360-M1A | N/A | N/A | ERB-8011 SRB-9021 |
| | IO-360-M1B | N/A | N/A | ERB-8011 SRZ-9021 |
| | IO-360-J1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | O-360-A1AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | O-360-A1C | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | O-360-A1F6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | O-360-A1F6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1G6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1G6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | O-360-A1H6 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1LD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A1P | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A2D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A2E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A2F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A2G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A3A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | O-360-A3AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | O-360-A4A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| | O-360-A4G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING (CONT'D) | | | |
| O-360-A4J | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| O-360-A4K | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| O-360-A4M | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| O-360-A4N | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-A5AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-B2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-B2C | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-360-C1A | MZ-4226 | MZ-6226 | ERZ-8011 SRZ-9021 |
| O-360-C1C | MHB-4016 | MZ-6016 | ERB-8011 SRB-9021 |
| | MZ-4226 | MZ-6226 | ERZ-8011 SRZ-9021 |
| O-360-C1E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-C1F | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-360-C1G | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-C2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-C2C | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-C2D | MZ-4226 | MZ-6226 | ERZ-8011 SRZ-9021 |
| O-360-C2E | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-D2A | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| O-360-D2B | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-E1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| O-360-F1A6 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-360-A1B | MHB-4016 | MHB-6016 | N/A SRB-9021 |
| TIO-360-C1A6D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TO-360-C1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TO-360-E1A6D | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9031 |
| AEIO-540-8544 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| AEIO-540-D4A5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AEIO-540-D4B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| AEIO-540-D4D5 | N/A | N/A | ERB-8011 SRB-9031 |
| AEIO-540-L1B5 | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| AEIO-540-L1B5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| IO-540-AA1A5 | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| IO-540-AA1B5 | N/A | N/A | ERB-8011 SRB-9031 |
| IO-540-AB1A5 | N/A | N/A | ERB-8011 SRB-9021 |
| IO-540-AC1A5 | N/A | N/A | ERB-8011 SRB-9031 |
| IO-540-AE1A5 | N/A | N/A | ERZ-8011 SRZ-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------|-------------------------|-------------------------|-------------------------|
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TEXTRON LYCOMING (CONT'D)

| | | | | |
|--------------|---------------------|---------------------|----------------------|----------------------|
| IO-540-A1A5 | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 | SRZ-9021 SRB-9021 |
| IO-540-B1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-B1C5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-C1B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-C4B5 | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 | SRZ-9021 SRB-9021 |
| IO-540-C4C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-C4D5D | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 | SRZ-9021 SRB-9021 |
| IO-540-D4A5 | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 | SRZ-9031 SRB-9031 |
| IO-540-E1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-E1B5 | MZ-4222 MHB-4016 | MZ-6222 MHB-6016 | ERZ-8011 ERB-8011 | SRZ-9021 SRB-9021 |
| IO-540-G1A5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9021 SRZ-9021 |
| IO-540-G1B5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9021 SRZ-9021 |
| IO-540-G1C5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-G1D5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-G1E5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-G1F5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-J4A5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9031 SRZ-9031 |
| IO-540-K1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| IO-540-K1A5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-K1B5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9021 SRZ-9021 |
| IO-540-K1C5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1D5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1E5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-K1F5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1F5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1G5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9031 SRZ-9031 |
| IO-540-K1G5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| IO-540-K1H5 | MHB-4016 MZ-4222 | MHB-6016 MZ-6222 | ERB-8011 ERZ-8011 | SRB-9021 SRZ-9021 |
| IO-540-K1J5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1J5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-K1K5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-L1B5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-L1C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-M1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-M1B5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------|-------------------------|-------------------------|-------------------------|
|----------------------|-------------------------|-------------------------|-------------------------|

TEXTRON LYCOMING (CONT'D)

| | | | | |
|--------------|----------|----------|----------|----------|
| IO-540-M1C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-N1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-P1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-R1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-S1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9031 |
| IO-540-T4A5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-T4B5 | MHB-4016 | MZ-6016 | ERB-8011 | SRB-9021 |
| | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-T4B5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-T4C5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-V4A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| IO-540-W1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-W1A5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| IO-540-W3A5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-A1A | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-A1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-A1B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-A1C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-A1D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-A1D5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| O-540-A2B | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-A3D5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-B1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-B1B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-B2B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| O-540-B2C5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-B4B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-E4A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-E4B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9031 |
| | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-E4C5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-F1A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-F1B5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-G1A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-G2A5 | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-H1B5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-H2B5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-J1A5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-J3A5 | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |
| O-540-J3A5D | MZ-4222 | MZ-6222 | ERZ-8011 | SRZ-9021 |
| O-540-J3C5D | MHB-4016 | MHB-6016 | ERB-8011 | SRB-9021 |



**AIRCRAFT ENGINE
APPLICATION DATA (CONT'D)**

| Engine Models | Org/OEM Starters | E-Drive Starters | X-Drive Starters |
|----------------------------------|-------------------------|-------------------------|-------------------------|
| TEXTRON LYCOMING (CONT'D) | | | |
| O-540-L3C5D | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-A1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-A1B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-A2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-A2B | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| TIO-540-A2C | MHB-4016 | MHB-6016 | ERB-8011 SRB-9031 |
| | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| TIO-540-AA1AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-AB1AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| TIO-540-AE2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-AF1A | N/A | N/A | ERB-8011 SRB-9021 |
| TIO-540-AF1B | N/A | N/A | ERB-8011 SRB-9021 |
| TIO-540-AG1A | N/A | N/A | ERB-8011 SRB-9021 |
| TIO-540-AH1A | N/A | N/A | ERB-8011 SRB-9031 |
| TIO-540-AJ1A | N/A | N/A | ERB-8011 SRB-9031 |
| TIO-540-AK1A | N/A | N/A | ERB-8011 SRB-9021 |
| TIO-540-C1A | MZ-4222 | MZ-6222 | ERB-8011 SRZ-9021 |
| | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-E1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-F2BD | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| TIO-540-G1A | MZ-4222 | MZ-6222 | ERB-8011 SRZ-9021 |
| TIO-540-H1A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-J2B | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| TIO-540-J2BD | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| TIO-540-N2BD | MHB-4018 | MHB-6018 | ERB-8011 SRB-9031 |
| TIO-540-R2AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 |
| TIO-540-S1AD | MZ-4222 | MZ-6222 | ERZ-8011 SRZ-9021 |
| | MHB-4018 | MHB-6018 | ERB-8011 SRB-9021 |
| TIO-540-U2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-V2AD | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIO-540-W2A | MHB-4016 | MHB-6016 | ERB-8011 SRB-9021 |
| TIGO-541-E1A | MHB-4005 | MHB-4016A | N/A N/A |
| TIO-541-E1A4 | MHB-4017 | N/A | ERB-8011 SRB-9021 |
| TIO-541-E1B4 | MHB-4017 | N/A | ERB-8011 SRB-9021 |
| TIO-541-E1C4 | MHB-4017 | N/A | ERB-8011 SRB-9021 |
| | MHB-4016A | N/A | N/A N/A |
| LTIO-540-F2BD | MHB-4014 | MHB-6014 | N/A N/A |
| LTIO-540-J2B | MHB-4014 | MHB-6014 | N/A N/A |
| LTIO-540-J2BD | MHB-4014 | MHB-6014 | N/A N/A |
| LTIO-540-U2A | MHB-4014 | MHB-6014 | N/A N/A |
| LTIO-540-V2AD | MHB-4014 | MHB-6014 | N/A N/A |



**LYCOMING PART NUMBER
CROSS REFERENCE DATA**

| Lycoming Model Number | KAPS Model Number | Engine Series | E-Drive Starters | X-Drive Starters |
|----------------------------------|------------------------------|--------------------------|-----------------------------|-----------------------------|
| 76211 | MZ-4206 | 235 | ERZ-8011 | SRZ-9021 |
| LW-14207 | MZ-4218 | 235 | ERZ-8011 | SRZ-9021* |
| LW-15571 | MZ-4222 | 235 | ERZ-8011 | SRZ-9021* |
| LW-15483 | MHB-4015 | 235 | ERB-8012 | SRB-9022 |
| LW-16207 | MMU-4001 | 235 | ERB-8012 | SRB-9022* |
| 31A22470 | MZ-6222 | 235 | ERZ-8011 | SRZ-9021* |
| 31A22472 | MZ-6204 | 235 | ERZ-8012 | SRZ-9022* |
| <hr/> | | | | |
| 76211 | MZ-4206 | 290 | ERZ-8011 | SRZ-9021 |
| LW-14207 | MZ-4218 | 290 | ERZ-8011 | SRZ-9021* |
| LW-15571 | MZ-4222 | 290 | ERZ-8011 | SRZ-9021* |
| 31A22470 | MZ-6222 | 290 | ERZ-8011 | SRZ-9021* |
| 31A22472 | MZ-6204 | 290 | ERZ-8012 | SRZ-9022* |
| <hr/> | | | | |
| 76211 | MZ-4206 | 320 | ERZ-8011 | SRZ-9021 |
| LW-14207 | MZ-4218 | 320 | ERZ-8011 | SRZ-9021* |
| LW-15571 | MZ-4222 | 320 | ERZ-8011 | SRZ-9021* |
| LW-16460 | MZ-4224 | 320 | ERZ-8011 | SRZ-9021* |
| 76212 | MHB-4001 | 320 | ERB-8011 | SRB-9021* |
| LW-14208 | MHB-4010 | 320 | ERB-8011 | SRB-9021* |
| LW-15572 | MHB-4016 | 320 | ERB-8011 | SRB-9021* |
| 31A22470 | MZ-6222 | 320 | ERZ-8011 | SRZ-9021* |
| 31A22471 | MZ-6224 | 320 | ERZ-8011 | SRZ-9021* |
| 31A22472 | MZ-6204 | 320 | ERZ-8012 | SRZ-9022* |
| 31B22475 | MMU-6001 | 320 | ERB-8012 | SRB-9022* |
| <hr/> | | | | |
| 76211 | MZ-4206 | 340 | ERZ-8011 | SRZ-9021 |
| 76212 | MHB-4001 | 340 | ERB-8011 | SRB-9021* |
| LW-14207 | MZ-4218 | 340 | ERZ-8011 | SRZ-9021* |
| LW-14208 | MHB-4010 | 340 | ERB-8011 | SRB-9021* |
| LW-15571 | MZ-4222 | 340 | ERZ-8011 | SRZ-9021* |
| LW-15572 | MHB-4016 | 340 | ERB-8011 | SRB-9021* |
| 31A22470 | MZ-6222 | 340 | ERZ-8011 | SRZ-9021* |
| 31B22475 | MMU-6001 | 340 | ERB-8012 | SRB-9022* |
| <hr/> | | | | |
| 76211 | MZ-4206 | 360 | ERZ-8011 | SRZ-9021 |
| 76212 | MHB-4001 | 360 | ERB-8011 | SRB-9021* |
| 76213 | MZ-4205 | 360 | ERB-8011 | SRZ-9021 |
| 76214 | MHB-4003 | 360 | ERB-8011 | SRB-9021 |
| LW-14207 | MZ-4218 | 360 | ERZ-8011 | SRZ-9021* |
| LW-14208 | MHB-4010 | 360 | ERB-8011 | SRB-9021* |
| LW-14209 | MZ-4217 | 360 | ERB-8011 | SRZ-9021 |
| LW-14210 | MHB-4012 | 360 | ERB-8011 | SRB-9021 |
| LW-15571 | MZ-4222 | 360 | ERZ-8011 | SRZ-9021* |
| LW-15572 | MHB-4016 | 360 | ERB-8011 | SRB-9021* |

* May use right or left hand solenoid, check specific engine/aircraft application.



**LYCOMING PART NUMBER
CROSS REFERENCE DATA**

| Lycoming Model Number | KAPS Model Number | Engine Series | E-Drive Starters | X-Drive Starters |
|----------------------------------|------------------------------|--------------------------|-----------------------------|-----------------------------|
| LW-15574 | MHB-4019 | 360 | ERB-8011 | SRB-9021 |
| LW-18047 | MZ-4225 | 360 | ERZ-8011 | SRZ-9031* |
| LW-18989 | MZ-4226 | 360 | ERZ-8011 | SRZ-9021 |
| LW-18990 | MHB-4020 | 360 | ERB-8011 | SRB-9021 |
| 31A22470 | MZ-6222 | 360 | ERZ-8011 | SRZ-9021* |
| 31B22475 | MMU-6001 | 360 | ERB-8012 | SRB-9022* |
| 31B22476 | MHB-6018 | 360 | ERB-8011 | SRB-9021* |
| <hr/> | | | | |
| 76211 | MZ-4206 | 540 | ERZ-8011 | SRZ-9021 |
| 76212 | MHB-4001 | 540 | ERB-8011 | SRB-9021* |
| LW-11936 | MHB-4007 | 540 | ERB-8011 | SRB-9021* |
| LW-14207 | MZ-4218 | 540 | ERZ-8011 | SRZ-9021* |
| LW-14208 | MHB-4010 | 540 | ERB-8011 | SRB-9021* |
| LW-14213 | MHB-4013 | 540 | ERB-8011 | SRB-9021* |
| LW-15572 | MHB-4016 | 540 | ERB-8011 | SRB-9021* |
| LW-15577 | MHB-4018 | 540 | ERB-8011 | SRB-9021* |
| LW-15571 | MZ-4222 | 540 | ERZ-8011 | SRZ-9021* |
| 31A22470 | MZ-6222 | 540 | ERZ-8011 | SRZ-9021* |
| 31B22475 | MMU-6001 | 540 | ERB-8012 | SRB-9022* |
| <hr/> | | | | |
| 78791 | MHB-4005 | TGIO-541 | MHB-4016A | |
| <hr/> | | | | |
| 75699 | MZ-4207 | TIO-541-A | ERZ-8011 | SRZ-9021 |
| LW-14211 | MZ-4219 | TIO-541-A | ERZ-8011 | SRZ-9021 |
| LW-15575 | MZ-4223 | TIO-541-A | ERZ-8011 | SRZ-9021 |
| 75700 | MHB-4002 | TIO-541-E | ERB-8011 | SRB-9021 |
| LW-14212 | MHB-4011 | TIO-541-E | ERB-8011 | SRB-9021 |
| LW-15576 | MHB-4017 | TIO-541-E | ERB-8011 | SRB-9021 |

* May use right or left hand solenoid, check specific engine/aircraft application.



**VENDOR NUMBER
CROSS REFERENCE DATA**

| Lycoming Model No. | Sky-Tec Model No. | Lamar Model No. | Engine Series | E-Drive Starters | X-Drive Starters | |
|-------------------------------|------------------------------|----------------------------|--------------------------|-----------------------------|-----------------------------|-----------|
| 31A21198 | 149-12PM | or 149-NL | | 235 | ERZ-8011 | SRZ-9031 |
| 31A21198 | 149-12LS | or 149-NL | | 235 | ERZ-8011 | SRZ-9021 |
| 31A21210 | 122-12PM | or 122-NL | PM1203 | 235 | ERZ-8012 | SRZ-9032 |
| 31A21210 | 122-12LS | or 122-NL | | 235 | ERZ-8012 | SRZ-9022 |
| 31A22100 | 149-12PM | or 149-NL | | 235 | ERZ-8011 | SRZ-9031 |
| 31A22102 | 122-12PM | or 122-NL | | 235 | ERZ-8012 | SRZ-9032 |
| 31A22104 | 149-12LS | or 149-NL | | 235 | ERZ-8011 | SRZ-9021 |
| 31A22106 | 122-12LS | or 122-NL | | 235 | ERZ-8012 | SRZ-9022 |
| 31A22110 | 149-12HT | | | 235 | N/A | N/A |
| 31A22112 | 122-12HT | | | 235 | N/A | N/A |
| 31A22361 | | 122-NL | PM1203 | 235 | ERZ-8012 | SRZ-9032* |
| 31B21064 | 149-24PM | or 149-NL | | 235 | ERB-8011 | SRB-9031 |
| 31B21064 | 149-24LS | or 149-NL | | 235 | ERB-8011 | SRB-9021 |
| 31B21211 | 122-24PM | or 122-NL | PM2403 | 235 | ERB-8012 | SRB-9032 |
| 31B21211 | 122-24LS | or 122-NL | | 235 | ERB-8012 | SRB-9022 |
| 31B22101 | 149-24PM | or 149-NL | | 235 | ERB-8011 | SRB-9031 |
| 31B22103 | 122-24PM | or 122-NL | | 235 | ERB-8012 | SRB-9032 |
| 31B22105 | 149-24LS | or 149-NL | | 235 | ERB-8011 | SRB-9021 |
| 31B22107 | 122-24LS | or 122-NL | | 235 | ERB-8012 | SRB-9022 |
| 31B22111 | 149-24HT | | | 235 | ERB-8011 | SRB-9021 |
| 31B22113 | 122-24HT | | | 235 | N/A | N/A |
| 31B22362 | | | PM2403 | 235 | ERB-8012 | SRB-9032* |
| <hr/> | | | | | | |
| 31A21198 | 149-12PM | or 149-NL | PM1204 | 320 | ERZ-8011 | SRZ-9031 |
| 31A21198 | 149-12LS | or 149-NL | | 320 | ERZ-8011 | SRZ-9021 |
| 31A21210 | 122-12PM | or 122-NL | PM1203 | 320 | ERZ-8012 | SRZ-9032 |
| 31A21210 | 122-12LS | or 122-NL | | 320 | ERZ-8012 | SRZ-9022 |
| 31A22100 | 149-12PM | or 149-NL | | 320 | ERZ-8011 | SRZ-9031 |
| 31A22100 | 149-12LS | or 149-NL | | 320 | ERZ-8011 | SRZ-9021 |
| 31A22102 | 122-12PM | or 122-NL | | 320 | ERZ-8012 | SRZ-9032 |
| 31A22106 | 122-12LS | or 122-NL | | 320 | ERZ-8012 | SRZ-9022 |
| 31A22110 | 149-12HT | | | 320 | N/A | N/A |
| 31A22112 | 122-12HT | | | 320 | N/A | N/A |
| 31A22206 | | 149-NL | PM1201 | 320 | ERZ-8011 | SRZ-9031* |
| 31A22361 | | 122-NL | PM1203 | 320 | ERZ-8012 | SRZ-9032* |
| 31B21064 | 149-24PM | or 149-NL | PM2401 | 320 | ERB-8011 | SRB-9031 |
| 31B21064 | 149-24LS | or 149-NL | | 320 | ERB-8011 | SRB-9021 |
| 31B21211 | 122-24PM | or 122-NL | PM2403 | 320 | ERB-8012 | SRB-9032 |
| 31B21211 | 122-24LS | or 122-NL | | 320 | ERB-8012 | SRB-9022 |
| 31B22101 | 149-24PM | or 149-NL | | 320 | ERB-8011 | SRB-9031 |
| 31B22103 | 122-24PM | or 122-NL | | 320 | ERB-8012 | SRB-9032 |
| 31B22105 | 149-24LS | or 149-NL | | 320 | ERB-8011 | SRB-9021 |
| 31B22107 | 122-24LS | or 122-NL | | 320 | ERB-8012 | SRB-9022 |
| 31B22111 | 149-24HT | | | 320 | ERB-8011 | SRB-9021 |

* May use right or left hand solenoid, check specific engine/aircraft application.



**AIRCRAFT STARTER
APPLICATION GUIDE
(LYCOMING ENGINES)**

**VENDOR NUMBER
CROSS REFERENCE DATA**

| Lycoming Model No. | Sky-Tec Model No. | Lamar Model No. | Engine Series | E-Drive Starters | X-Drive Starters | |
|--------------------|--------------------|-----------------|---------------|------------------|------------------|-----------|
| 31B22113 | 122-24HT | | 320 | N/A | N/A | |
| 31B22207 | | 149-NL | PM2401 | 320 | ERB-8011 | SRB-9031* |
| 31B22362 | | 122-NL | PM2403 | 320 | ERB-8012 | SRB-9032* |
| 31B22552 | | 149-NL | PM1204 | 320 | ERZ-8011 | SRZ-9021* |
| 31A21198 | 149-12PM or 149-NL | PM1201 | 360 | ERZ-8011 | SRZ-9031 | |
| 31A21198 | 149-12LS or 149-NL | PM1204 | 360 | ERZ-8011 | SRZ-9021 | |
| 31A21210 | 122-12PM or 122-NL | | 360 | ERZ-8012 | SRZ-9032 | |
| 31A21210 | 122-12LS or 122-NL | | 360 | ERZ-8012 | SRZ-9022 | |
| 31A22100 | 149-12PM or 149-NL | | 360 | ERZ-8011 | SRZ-9031 | |
| 31A22100 | 149-12LS or 149-NL | | 360 | ERZ-8011 | SRZ-9021 | |
| 31A22102 | 122-12PM or 122-NL | | 360 | ERZ-8012 | SRZ-9032 | |
| 31A22106 | 122-12LS or 122-NL | | 360 | ERZ-8012 | SRZ-9022 | |
| 31A22110 | 149-12HT | | 360 | N/A | N/A | |
| 31A22112 | 122-12HT | | 360 | N/A | N/A | |
| 31A22206 | | PM1201 | 360 | ERZ-8011 | SRZ-9031* | |
| 31B22103 | 122-24PM or 122-NL | | 360 | ERB-8012 | SRB-9032 | |
| 31B22107 | 122-24LS or 122-NL | | 360 | ERB-8012 | SRB-9022 | |
| 31B22113 | 122-24HT | | 360 | N/A | N/A | |
| 31B21211 | 122-24PM or 122-NL | | 360 | ERB-8012 | SRB-9032 | |
| 31B21211 | 122-24LS or 122-NL | | 360 | ERB-8012 | SRB-9022 | |
| 31B21064 | 149-24PM or 149-NL | PM2401 | 360 | ERB-8011 | SRB-9031 | |
| 31B21064 | 149-24LS or 149-NL | | 360 | ERB-8011 | SRB-9021 | |
| 31B22101 | 149-24PM or 149-NL | | 360 | ERB-8011 | SRB-9031 | |
| 31B22105 | 149-24LS or 149-NL | | 360 | ERB-8011 | SRB-9021 | |
| 31B22111 | 149-24HT | | 360 | ERB-8011 | SRB-9021 | |
| 31B22207 | | PM2401 | 360 | ERB-8011 | SRB-9031* | |
| 31B22552 | | PM1204 | 360 | ERB-8011 | SRZ-9031* | |
| 31A21198 | 149-12PM or 149-NL | PM1201 | 540 | ERZ-8011 | SRZ-9031 | |
| 31A21198 | 149-12LS or 149-NL | PM1204 | 540 | ERZ-8011 | SRZ-9021 | |
| 31A21210 | 122-12PM or 122-NL | | 540 | ERZ-8012 | SRZ-9032 | |
| 31A21210 | 122-12LS or 122-NL | | 540 | ERZ-8012 | SRZ-9022 | |
| 31B21064 | 149-24PM or 149-NL | PM2401 | 540 | ERB-8011 | SRB-9031 | |
| 31B21064 | 149-24LS or 149-NL | | 540 | ERB-8011 | SRB-9021 | |
| 31B21211 | 122-24PM or 122-NL | | 540 | ERB-8012 | SRB-9032 | |
| 31A22100 | 149-12PM or 149-NL | | 540 | ERZ-8011 | SRZ-9031 | |
| 31A22100 | 149-12LS or 149-NL | | 540 | ERZ-8011 | SRZ-9021 | |
| 31A22102 | 122-12PM or 122-NL | | 540 | ERZ-8012 | SRZ-9032 | |
| 31A22106 | 122-12LS or 122-NL | | 540 | ERZ-8012 | SRZ-9022 | |
| 31A22110 | 149-12HT | | 540 | N/A | N/A | |
| 31A22112 | 122-12HT | | 540 | N/A | N/A | |
| 31A22206 | | PM1201 | 540 | ERZ-8011 | SRZ-9031* | |
| 31B21211 | 122-24LS or 122-NL | | 540 | ERB-8012 | SRB-9022 | |

* May use right or left hand solenoid, check specific engine/aircraft application.



**VENDOR NUMBER
CROSS REFERENCE DATA**

| Lycoming Model No. | Sky-Tec Model No. | Lamar Model No. | Engine Series | E-Drive Starters | X-Drive Starters | |
|-------------------------------|------------------------------|----------------------------|--------------------------|-----------------------------|-----------------------------|-----------|
| 31B22101 | 149-24PM or | 149-NL | 540 | ERB-8011 | SRB-9031 | |
| 31B22103 | 122-24PM or | 122-NL | 540 | ERB-8012 | SRB-9032 | |
| 31B22105 | 149-24LS or | 149-NL | 540 | ERB-8011 | SRB-9021 | |
| 31B22107 | 122-24LS or | 122-NL | 540 | ERB-8012 | SRB-9022 | |
| 31B22111 | 149-24HT or | 149-NL | 540 | ERB-8011 | SRB-9021 | |
| 31B22113 | 122-24HT or | 122-NL | 540 | N/A | N/A | |
| 31B22207 | | 149-NL | PM2401 | 540 | ERB-8011 | SRB-9031* |
| 31B22552 | | 149-NL | PM1204 | 540 | ERZ-8011 | SRZ-9021* |
| 31B22553 | | 149-NLR | PM2404 | LTIO-540 | N/A | N/A |
| 31B22462 | | 122-NL | | 720 | N/A | N/A |

* May use right or left hand solenoid, check specific engine/aircraft application.



**KAPS DIRECT EXCHANGE NUMBER
CROSS REFERENCE**

| KAPS Original Model Number | Replacement Model Number |
|---------------------------------------|-------------------------------------|
|---------------------------------------|-------------------------------------|

(24 Volt)

| | | | |
|-----------|----------|----------|----------|
| MHB-4001 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4002 | ERB-8011 | SRB-9021 | |
| MHB-4003 | ERB-8011 | SRB-9021 | |
| MHB-4007 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4010 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4011 | ERB-8011 | SRB-9021 | |
| MHB-4012 | ERB-8011 | SRB-9021 | |
| MHB-4013 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4015 | ERB-8012 | SRB-9022 | |
| MHB-4016 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4016A | N/A | N/A | |
| MHB-4017 | ERB-8011 | SRB-9021 | |
| MHB-4018 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-4019 | ERB-8011 | SRB-9021 | |
| MHB-4020 | ERB-8011 | SRB-9021 | |
| MMU-4001 | ERB-8012 | SRB-9022 | SRB-9032 |
| MHB-6016 | ERB-8011 | SRB-9021 | SRB-9031 |
| MHB-6018 | ERB-8011 | SRB-9021 | SRB-9031 |
| MMU-6001 | ERB-8012 | SRB-9022 | SRB-9032 |

(12 Volt)

| | | | |
|---------|----------|----------|----------|
| MZ-4204 | ERZ-8012 | SRZ-9022 | SRZ-9032 |
| MZ-4205 | ERZ-8011 | SRZ-9021 | |
| MZ-4206 | ERZ-8011 | SRZ-9021 | |
| MZ-4207 | ERZ-8011 | SRZ-9021 | |
| MZ-4217 | ERZ-8011 | SRZ-9021 | |
| MZ-4218 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-4219 | ERZ-8011 | SRZ-9021 | |
| MZ-4222 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-4223 | ERZ-8011 | SRZ-9021 | |
| MZ-4224 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-4225 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-4226 | ERZ-8011 | SRZ-9021 | |
| MZ-6204 | ERZ-8012 | SRZ-9022 | SRZ-9032 |
| MZ-6222 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-6224 | ERZ-8011 | SRZ-9021 | SRZ-9031 |
| MZ-6226 | ERZ-8011 | SRZ-9021 | |