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SERVICE INSTRUCTION

DATE: February 13, 2019

Service Instruction No. 1037V
(Supersedes Service Instruction No. 1037U)
Engineering Aspects are
FAA Approved

SUBJECT: Approved Pistons, Rings, Cylinders, and Gasket Set Application for Use on Lycoming Aircraft Engines

MODELS AFFECTED: All Lycoming opposed series aircraft engines in Table 2.

TIME OF COMPLIANCE: When installing new rings, pistons, valves and cylinders.

REASON FOR REVISION: Added seal and gasket sets, top overhaul gasket kits, and piston ring kits for single cylinders; Added Alternate Cylinder Assembly Number column; Added TEO-540-A1A, -C1A.

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction identifies part numbers for pistons, rings, cylinders and valve combinations currently available for use in Lycoming engines in Table 2.

CAUTION: CHROME PLATED PISTON RINGS (IDENTIFIED BY THE LOWERCASE LETTER “c” AFTER THE PART NUMBER) ARE USED IN PLAIN OR NITRIDED STEEL CYLINDER BARRELS, BUT NEVER IN CHROME PLATED BARRELS. SERIOUS ENGINE DAMAGE WILL OCCUR IF CHROME PLATED PISTON RINGS ARE INSTALLED IN CHROME PLATED CYLINDER BARRELS.

NOTICE: Chrome plated cylinder assemblies and kits containing chrome plated cylinders are no longer available from Lycoming Engines. However, compatible piston and ring combinations used with chrome plated cylinders are still available and identified herein.

NOTICE: For replacement piston rings, there could be different piston ring combinations for cylinders with different materials use for the barrel.

Engine models that have serial number suffix “A” or “E” are built with crankcase configurations for wide cylinder base mounting flanges, and consequently must be assembled with “wide deck” cylinders.

Engines with no serial number suffix require “narrow deck” cylinders. Refer to the latest revision of Lycoming Service Letter 220 for additional information on differences between Narrow Deck and Wide Deck Engines.



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SEAL AND GASKET SET SECTION

Seal and Gasket Set

Model Application

| | |
|----------|--|
| 61499-1 | O-235-C, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P |
| 69371-1 | O-290 Series |
| 69371-1 | O-320, IO-320 Narrow Deck |
| LW-16850 | O, IO, LIO, AEIO-320 Wide Deck |
| LW-12636 | O-320-D2J Wide Deck, AIO-320 Wide Deck |
| LW-14815 | O-320-H Series |
| 69371-1 | O-340 Series |
| 75439-1 | O-360-A, -B, -C, -D HO-360-A1A, -B1A, -B1B IO, HIO-360-B Narrow Deck O-360-A, -B, -C, -D, -F, -G, -J Wide Deck IO, HO-360-C1A, HIO-360-B IO-360-F1A, -L2A, -M1A LO-360-A1H6, -A1N6 Wide Deck AEIO-360-B, -H1A, -H1B Wide Deck |
| 05K28420 | IO-360-N1A |
| 75441-1 | IO, HIO-360 Narrow Deck IO-360-A, -C, -D, -K HIO-360-A, -C; LIO, LHIO-360-C Wide Deck AEIO-360-A, -C Wide Deck |
| LW-12937 | HIO-360-D1A |
| 05K23418 | HIO-360-G1A Wide Deck |
| LW-10964 | AIO-360-A1A, -A1B, -B1B |
| LW-12945 | O, LO-360 Wide Deck (Dual Magneto) |
| LW-12944 | IO-360 Wide Deck (Dual Magneto) |
| LW-14845 | HIO-360-E, -F Wide Deck (Dual Magneto) LHIO-360-F Wide Deck (Dual Magneto) |
| LW-14976 | TO-360-C, -F Wide Deck (Dual Magneto) |
| 78913-1 | TIO-360-A Wide Deck |
| LW-14815 | O, LO-360-E1A6D ('76 Series) |
| LW-16765 | TO, LTO-360-E1A6D ('76 Series) |
| 71187-1 | VO-360-A1A, -A1B, -B1B IVO-360-A1A Narrow Deck; IVO-360-A1A Wide Deck |
| 05K28420 | IO-390-A Series |
| 05K28818 | IO-390-C Series |
| 05K26640 | HIO-390-A Series, AEIO-390-A Series |

NOTE: N.L.A. Indicates "No Longer Available".

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SEAL AND GASKET SET SECTION (CONTINUED)

Seal and Gasket Set

Model Application

| | |
|----------|--|
| 68378-1 | O-435-A N.L.A. |
| 69448-1 | GO-435-C2, -C2B, -C2B1, -C2B2, -C2B26, -C2E |
| 70378-1 | GO-435-C2A, -C2A2 N.L.A. |
| 74038-1 | TVO-435-A, -B |
| 71900-1 | VO-435-A Series |
| 76911-1 | VO-435-B1A |
| 77203-1 | TVO-435-A, -B, -D, -G |
| LW-13494 | TVO-435-F |
| 69448-1 | GO-480-B, -F6 Series; GO-480-C2, -G2 Series |
| 69949-1 | GO-480-D1A, -D1B; GO-480-C1B6, -G1B6, -G1E6 |
| 71197-1 | GO-480-C1D6, -G1A6, -G1D6, -G1F6, -G1G6, -G1J6; IGO-480-A1B6 |
| 71181-1 | GSO, IGSO-480 Series |
| 71569-1 | O-540-A, -B, -E, -F, -G, -H, -J and IO-540-C, -D, -J, -N, -R, -T, -V, -W, -AB1A5, -AF1A5 Narrow Deck and Wide Deck (Parallel Valve Head) |
| 73185-1 | IO-540-A, -B, -E, -G, -H, -K, -L, -M, -P, -S Narrow Deck and Wide Deck (Angle Valve Head) |
| LW-13378 | O-540-B, -E, -G, -H Wide Deck (Dual Magneto) |
| LW-18072 | IO-540-AA1A5 Wide Deck |
| 05K22679 | IO-540-AC1A5 Wide Deck |
| 05K23341 | IO-540-AE1A5 Wide Deck |
| LW-13367 | IO-540-K, -L, -M, -U Wide Deck (Dual Magneto) AEIO-540-L1B5D Wide Deck (Dual Magneto) |
| LW-13377 | IO-540-C, -N, -T, -V, -W and O-540-J, -L Wide Deck (Dual Magneto) |
| LW-14476 | AEIO-540-D4A5, -D4B5, -D4D5 Wide Deck |
| 05K29134 | TEO-540 Series |
| 77175-1 | TIO-540-A Series Narrow Deck; TIO-540-A2C Wide Deck |
| LW-10683 | TIO-540-C1A, -E1A, -H1A Narrow Deck; TIO-540-C1A, -C1AD Wide Deck |
| LW-12971 | TIO-540-G1A Narrow Deck |
| LW-15381 | TIO, LTIO-540-R2AD Wide Deck (Dual Magneto) |
| LW-15903 | TIO-540-S1AD Wide Deck |

NOTE: N.L.A. Indicates "No Longer Available".

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SEAL AND GASKET SET SECTION (CONTINUED)

Seal and Gasket Set

Model Application

| | |
|----------|--|
| LW-12956 | TIO, LTIO-540-F, -J, -N (Dual Magneto) |
| LW-18072 | TIO, LTIO-540-U2A Wide Deck |
| LW-19180 | TIO-540-K1AD, -AA1AD Wide Deck |
| LW-18656 | TIO, LTIO-540-J2B Wide Deck |
| LW-18786 | TIO, LTIO-540-V2AD Wide Deck |
| LW-19259 | TIO, LTIO-540-W2A Wide Deck |
| 05K19387 | TIO-540-AB1AD, -AB1BD Wide Deck |
| 05K21002 | TIO-540-AE2A Wide Deck |
| 05K21173 | TIO-540-AF1A, -AF1B, -AG1A Wide Deck |
| 05K22781 | TIO-540-AJ1A Wide Deck |
| 05K22599 | TIO-540-AH1A Wide Deck |
| 05K23204 | TIO-540-AK1A |
| 73203-1 | IGO-540-A Series |
| 73345-1 | IGO-540-B Series |
| 73203-1 | IGSO-540-A, -B Series |
| 71900-1 | VO-540-A, -B, -C; IVO-540-A1A |
| 74445-1 | TIVO-540-A2A, -A2B |
| 77816-1 | TIO-541-E Series |
| LW-11365 | TIGO-541-E |
| LW-15583 | TIGO-541-D1B N.L.A. |
| 05K23258 | IO-580-B1A |
| 05K26549 | AEIO-580-B1A |
| 75181-1 | O-720-A, -B, -C, -D Series Narrow Deck |
| LW-15423 | IO-720-A1B, -B1B, -B1BD, -D1B, -D1C, -D1CD Wide Deck |

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TOP OVERHAUL GASKET KITS

ALL CYLINDERS

SINGLE CYLINDERS

| | | |
|----------|----------|---|
| LW-12040 | 05K22948 | Four Cylinder Parallel Valve Head Engines – O-235 Series |
| LW-12038 | 05K22946 | Four Cylinder Parallel Valve Head Engines – O-290; O, IO, LIO-320; AIO, AEIO-320; O-340; O-360-A, -B, -C, -D, -F, -J; IO-360-B, -E, -F, -L; LO-360-A; AEIO-360-B, -H; HO-360-A, -B; HIO-360-B; VO, IVO-360 |
| 05K22949 | 05K22950 | Four Cylinder Parallel Valve Head Engine– IO-360-M1A |
| LW-12039 | 05K22947 | Four Cylinder Angle Valve Head Engines – IO-360-A, -C, -D, -J, -K; AIO-360-A, -B; AEIO-360-A; HIO-360-A, -C, -D, -E, -F; LIO-360-C; LHIO-360-C, -F; TO, LTO-360-A; TIO-360-A |
| LW-15838 | 05K22967 | Four Cylinder Angle Valve Head Engines – TO, TIO-360-C1A6D, -F1A6D |
| LW-16916 | 05K22968 | Four Cylinder “76” Series Engines – O-320-H; O, LO, TO, LTO-360-E |
| 05K26565 | 05K26564 | Kit – Gasket – Top overhaul IO-390 Series |
| LW-12032 | 05K22940 | Six Cylinder Parallel Valve Head Engines – O-540-A, -B, -E, -F, -G, -H, -J, -L, -V; AEIO-540-D; IO-540-C, -D, -J, -N, -R, -T, -W, -V, -AB; TIO-540-C, -E, -G, -H, -K, -AA, -AB, -AF, -AG; LTIO-540-K |
| LW-12036 | 05K22944 | Six Cylinder Parallel Valve Head Engine – O-435-A |
| LW-12033 | 05K22941 | Six Cylinder Angle Valve Head Top Exhaust Engines – IO-540-B, -E, -M, -U; TIO-540-A, -S, -T; TIO, LTIO-540-F, -J, -N, -R; TIO-541-A; IGO, IGSO-540-B |
| LW-12034 | 05K22942 | Six Cylinder Angle Valve Head Down Exhaust Engines – GO, VO, TVO-435; GO, GSO, IGSO-480; IO-540-A, -G, -K, -L, -P, -S, -AA; AEIO-540-L; TIO-540-W, -AE, -AH; TIO, LTIO-540-U, -V, -W; VO, IVO, TVO, TIVO-540; IGO, IGSO-540-A |
| LW-12035 | 05K22943 | Six Cylinder Angle Valve Head Engines – IO-540-AC1A5; TIO-540-AJ1A; TIO, TIGO-541-D, -E |
| LW-12036 | 05K22944 | Six Cylinder Parallel Valve Head engine – O-435-A |
| LW-12037 | 05K22942 | Eight Cylinder Angle Valve Head Down Exhaust Engines – IO-720-A, -D |
| LW-18758 | 05K22941 | Eight Cylinder Angle Valve Head Top Exhaust Engines – IO-720-B, -C |

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PISTON RING KITS FOR SINGLE CYLINDER

05K22034 Kit – Piston Ring (Does 1 Cylinder)

For Nitrided Cylinders Using the Following Pistons: 14B23917, 14B23918.

| Contains: | <u>Part No.</u> | <u>Part Name</u> | <u>Qty.</u> |
|-----------|-----------------|------------------------------|-------------|
| | 78862 | Ring – Piston Compression | 2 |
| | 78864 | Ring – Piston Oil Regulating | 1 |

05K22035 Kit – Piston Ring (Does 1 Cylinder)

For Nitrided Cylinders Using the Following Pistons: 14D23912, 14D23915, 14D23908, LW-10208-S, 14D23907, 14D28056 14D23909, 14D23913, 14D23910, 14D23916, 14D23914.

| Contains: | <u>Part No.</u> | <u>Part Name</u> | <u>Qty.</u> |
|-----------|-----------------|------------------------------|-------------|
| | 74241 | Ring – Piston Compression | 2 |
| | 14H21950 | Ring – Piston Oil Regulating | 1 |

05K22036 Kit – Piston Ring (Does 1 Cylinder)

For Plain Steel Cylinders Using the Following Pistons: 14D23912, 14D23915, 14D23913

| Contains: | <u>Part No.</u> | <u>Part Name</u> | <u>Qty.</u> |
|-----------|-----------------|------------------------------|-------------|
| | 74989 | Ring – Piston Compression | 2 |
| | 14H21950 | Ring – Piston Oil Regulating | 1 |

05K22037 Kit – Piston Ring (Does 1 Cylinder)

For Nitrided Cylinders on the TIO-540-AE2A, -AF1B, -AH1A Engines Only.

| Contains: | <u>Part No.</u> | <u>Part Name</u> | <u>Qty.</u> |
|-----------|-----------------|------------------------------|-------------|
| | 74241 | Ring – Piston Compression | 2 |
| | 14H21990 | Ring – Piston Oil Regulating | 1 |

05K26564 Kit – Piston Ring (Does 1 Cylinder)

For Nitrided Cylinders on the IO-390-A1A6, -A3A6; IO-580-B1A, AEIO-580-B1A,

| Contains: | <u>Part No.</u> | <u>Part Name</u> | <u>Qty.</u> |
|-----------|-----------------|------------------------------|-------------|
| | 14G22050 | Ring – Piston Compression | 2 |
| | 14H23148 | Ring – Piston Oil Regulating | 1 |

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Table 2 uses alphabetical symbols to identify various components as follows:

- C* - Chrome plated steel cylinder barrel
- FW - Full-Wedge compression ring
- HW - Half-Wedge compression ring
- N - Nitride hardened steel cylinder barrel
- P - Plain steel cylinder barrel
- S - Suffix to piston P/N to indicate service application
- a - 3/16 inch “wide” oil regulating ring
- c - Chrome plated piston ring
- d - Cold forged piston
- e - Requires long reach spark plugs
- h - 7/16 inch diameter sodium cooled exhaust valve
- j - 1/2 inch diameter chrome plated sodium cooled stem exhaust valve
- k - Solid stem exhaust valve
- p - Plain steel ring
- r - Angle valve cylinder head (cylinders not marked “r” have parallel valves)

* - If choked chrome cylinder assemblies are used in any of the engine applications in Table 2, the compression ring gap must be increased to 0.045/0.055 inch (1.143 to 1.397 mm) which is the same for nitrided cylinder assemblies. Refer to the latest revision of SSP-1776, Table of Limits.

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NOTICE:

IN TABLE 1, PISTON RINGS LISTED IN THE PISTON RING PART NUMBER AND ALTERNATE PISTON RING PART NUMBER COLUMNS ARE INTERCHANGEABLE, AND CAN BE INSTALLED ON EACH APPLICABLE ENGINE OR INCLUDED IN CYLINDER KITS IN ANY COMBINATION. TABLE 2, UNDER OIL REG. RING LISTS ONLY ONE PART NUMBER, FOR FULL PART NUMBER INFORMATION REFER TO TABLE 1.

Table 1 - Current and Alternate Piston Ring Part Numbers

| Piston Oil Regulator Ring Part Number | Alternate Piston Oil Regulator Ring Part Number |
|--|--|
| 74984 | 14G28723 |
| 68196 | 14G28715 |
| 75985 | 14H28724 |
| 74241 | 14G28717 |
| 14H21990 | 14H28719 |
| 78864 | 14H28718 |
| 14G22050 | 14G28716 |
| 78862 | 14G28720 |
| LW-16867 | 14H28721 |
| 60072 | 14G28722 |
| LW-13883 | 14G28725 |
| 74989 | 14G28726 |
| 14H23148 | 14H28727 |
| 73934 | 14H28728 |
| 62916 | 14G28729 |
| 69401 | 14H28730 |
| 73933 | 14G28214 |
| 69235 | 14G28215 |
| 68338 | 14H28216 |
| 73998 | 14H28217 |
| LW-14233 | 14G28218 |
| LW-18352 | 14H28219 |
| LW-14235 | 14H28220 |
| 74673 | 14G28221 |

NOTICE:

IN TABLE 2, CYLINDERS LISTED IN THE CYL. ASSY. NO. AND ALT. CYL. ASSY. NO. COLUMNS ARE INTERCHANGEABLE, AND CAN BE INSTALLED ON EACH APPLICABLE ENGINE OR INCLUDED IN CYLINDER KITS IN ANY COMBINATION.

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|---|------------------|------------------|----------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| O-235-C1, -C1B, -C1C, -C2A, -C2B, -C2C, -E2A, -H2C (low compression) (Narrow Deck) | P | FW | 14B28072 | 68196c | 68196c | | LW-16867c | 60072p | 16A26616 | 16A30060-02 | 17B23940h | 17A23939 | 05K23039 |
| | P | FW | 14B28072 | 68196c | 68196c | | LW-16867c | 60072p | 16A26616 | N/A | 17B23940h | 17A23939 | N/A |
| | C | FW | | LW-14233p | LW-14233p | | LW-18352p | 60072p | N/A | N/A | | | N/A |
| O-235-F1B, -F2A, -F2B, -G1A, -G2A, -J2A (high compression) (Narrow Deck) | N | HW | 14B23917 | 78862c | 78862c | | 78864c | | 16A26616 | 16A30060-01 | 17B23940h | 17A23939 | 05K23040 |
| | N | HW | 14B23917 | 78862cc | 78862c | | 78864c | | 16A26616 | N/A | 17B23940h | 17A23939 | N/A |
| | C | HW | | N/A | N/A | | LW-14235p | | N/A | N/A | | | N/A |
| O-235-K2A, -K2B, -K2C, -L2A, -L2C, -M1, -M2C, -M3C (high compression) (Narrow Deck) | N | HW | 14B23918 | 78862c | 78862c | | 78864c | | 16A26616 | 16A30060-01 | 17B23940h | 17A23939 | 05K23037 |
| | N | HW | 14B23918 | 78862c | 78862c | | 78864c | | 16A26616 | N/A | 17B23940h | 17A23939 | N/A |
| | C | | | N/A | N/A | | LW-14235p | | N/A | N/A | | | N/A |
| O-235-N2A, -N2C, -P1, -P2A, -P2C, P3C (high compression) (Narrow Deck) | N | HW | 14B23918 | 78862c | 78862c | | 78864c | | 16A26618 | 16A30061-01 | 17B23940h | 17A23939 | 05K23038 |
| | N | HW | 14B23918 | 78862c | 78862c | | 78864c | | 16A26616 | N/A | 17B23940h | 17A23939 | N/A |
| O-290-D (low compression) (Narrow Deck) Cylinder Assemblies No Longer Available | P | FW | N/A | 62916c | 62916c | | 69401 | | N/A | N/A | 17B19712k | 17A23939 | N/A |
| | C | FW | N/A | LW-13883p | LW-13883p | | 75985pa | | N/A | N/A | 17B19712k | 17A23939 | N/A |
| O-290-D2 (high compression) (Narrow Deck) Cylinder Assemblies No Longer Available | P | FW | 69841 | 62916c | 62916c | | 69401 | | N/A | N/A | 17B19712k | 17A23938 | N/A |
| | C | FW | 69841 | LW-13883p | LW-13883p | | 68338pa | | N/A | N/A | 17B19712k | 17A23938 | N/A |
| O-290-D2B, -D2C (low compression) (Narrow Deck) Cylinder Assemblies No Longer Available | P | FW | N/A | 62916c | 62916c | | 68338pa | | N/A | N/A | 17B19712k | 17A23938 | N/A |
| | C | FW | N/A | LW-13883p | LW-13883p | | 68338pa | | N/A | N/A | 17B19712k | 17A23938 | N/A |
| O-320-A, -E (low compression) (Wide Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12416 | 16A30080-02 | 17B23936j | 17A23938 | ❖05K21237-A |
| | P | HW | 14D23915 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | HW | 14D23915 | N/A | N/A | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-320-A, -E (low compression) (Narrow Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | 16B21508 | 16A30080-05 | 17B23936j | 17A23938 | ❖05K21423-A |
| | P | HW | 14D23915 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | HW | 14D23915 | N/A | N/A | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-320-B, -D; IO-320-B1A, -B1C, -B1D, -B1E, -B2A, -D1A, -D1AD, -D1B, -D1C; LIO-320-B1A; AIO-320-A1B, -B1B, -C1B; AEIO-320-D1B, -D2B (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12416 | 16A30080-02 | 17B23936j | 17A23938 | 05K21100 |
| | C | HW | | | | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|---|------------------|------------------|----------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| O-320-B, -D1A, -D2A, -D2B (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12413 | 16A30080-06 | 17B23936j | 17A23938 | 05K21101 |
| | P | HW | 14D23912 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-320-E2A, -E2C; IO-320-E1A, -D1B, -E2A, -E2B; AEIO-320-E1A, -E1B, -E2A, -E2B (low compression) (Wide Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12416 | 16A30080-02 | 17B23936j | 17A23938 | ❖05K21237-A |
| O-320-H2AD, -H3AD (76 Series) | N | HW | 14D23914 | 74241c | 74241c | | 14H21950cb | | LW-15318 | 16A30120-01 | 17B23936j | 17A23945 | 05K21119 |
| | C | HW | | | | | 73998pb | | N/A | N/A | | | N/A |
| IO-320-B1A; LIO-320-B1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12413 | 16A30080-06 | 17B23936j | 17A23938 | 05K21101 |
| IO-320-C1A, -C1B, -C1F; LIO-320-C1A (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12418e | 16A30100-04 | 17B23936j | 17A23938 | 05K21242 |
| O-340-A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | P | HW | 14D23912 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | FW | 14D23912 | | | | | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-360-A, -C (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21102 |
| | P | HW | 14D23912 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | HW | 14D23912 | | | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-360-A, -C, -F1A6, -G1A6; IO-360-B, -L2A, -M1A, -M1B; HO-360-C1A; HIO-360-B1A; LO-360-A1G6D, -A1H6; AEIO-360-B, -H1A, -H1B (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21104 |
| | C | HW | 14D23912 | | | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| IO-360-P1A LIO-360-B1G6 (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21104 |
| O-360-B, -D (low compression) (Narrow Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21103 |
| | P | HW | 14D23915 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | HW | 14D23915 | | | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-360-B2C (low compression) (Wide Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21192 |
| O-360-C4P (high compression) (Long Reach) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K22926 |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|------------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| O-360-E1A6D (76 Series) LO-360-E1A6D (76 Series) | N | HW | 14D23914 | 74241c | 74241c | | 14H21950cb | | LW-15322 | 16A30120-02 | 17B23936j | 17A23945 | 05K21121 |
| O-360-J2A (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-13870 | 16A30080-03 | 17B23936j | 17A23938 | 05K21745 |
| HO-360-A1A, -B1A, -B1B HIO-360-B1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21102 |
| HIO-360-A1A (high compression) (Narrow Deck) | C | HW | 14D23912 | | | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| HIO-360-A1A (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-19046 | 16A30160-04 | 17B23935j | 17A23943 | 05K21224 |
| HIO-360-A1A, -A1B, -C1A, -C1B ; LHIO-360-C1A (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-19047 | 16A30160-02 | 17B23935j | 17A23943 | 05K21281 |
| HIO-360-D1A (high compression) (Wide Deck) | C | HW | 14D23908d | | | | 73998pb | | N/A | N/A | LW-16740j | LW-12949 | N/A |
| HIO-360-D1A (high compression) (Wide Deck) | N | HW | 14D23909d | 74241c | 74241c | | 14H21950cb | | LW-19047r | 16A30160-02 | 17B23935j | 17A23946 | 05K21124 |
| HIO-360-E1AD, -E1BD, -F1AD (high compression) (Wide Deck) | N | HW | 14D23910 | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | 05K21274 |
| IO-360-A1A (Narrow Deck) | N | HW | LW-14610Sd | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | N/A |
| IO-360-A1A (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13530r | 16A30160-03 | 17B23935j | 17A23937 | 05K21112 |
| IO-360-A, -C, -D1A, -J1A6D, -K2A; AIO-360-A1A, -A1B, -B1B; AEIO-360-A1A, -A1B, -A1B6, -A1D, - A1E, -A1E6, -A2B; LIO-360-C1E, -C1E6, -C1E6D (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-12993r | 16A30160-01 | 17B23935j | 17A23937 | 05K21120 |
| | C | HW | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | 17B23935j | LW-13622 | N/A |
| | C | HW | 14D23908d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | LW-13622 | N/A |
| IO-360-A3B6D, -C1F (for turbocharging) (Narrow Deck) | N | HW | 14D23908 | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | 05K21118 |
| IO-360-B1A, -B1B (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21102 |
| IO-360-F1A (high compression) (Wide Deck) (Long Reach) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K22926 |
| IO-360-N1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-13870 | 16A30080-03 | 17B23936j | 17A23938 | 05K28650 |
| IVO-360-A1A (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-15682e | 16A30102-01 | 17B23936j | 17A23938 | 05K22294 |
| IVO-360-A1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12432 | N/A | N/A | 17A23938 | N/A |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|-------------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| TO-360-C1A6D, -F1A6D; TIO-360-C1A6D (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | LW-13964r | 16A30260-01 | 17B23944j | 17A23942 | 05K21276 |
| TO-360-E1A6D; LTO-360-E1A6D (76 Series) | N | HW | 14D23913 | 74241c | 74241c | | 14H21950cb | | LW-16290e | 16A30140-01 | 17B23936j | 17A23945 | 05K21122 |
| TIO-360-A1B, -A3B6 (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | 77544er | 16A30161-05 | 17B23935 | 17A23943 | N/A |
| VO-360-A1A, -A1B, -B1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | N/A | N/A | N/A | N/A | N/A |
| | C | HW | 14D23912 | N/A | N/A | | 73998pb | | N/A | N/A | N/A | 17A23938 | N/A |
| IO-390-A1A6, -A3A6, -A1B6, -A3B6, - C1A6, -C3A6, -C1B6, -C3B6; AEIO-390-A1A6, -A3A6, -A1B6, -A3B6 (Wide Deck) | N | HW | 14E23911 | 14G22050c | 14G22050c | | 14H23148cb | | 16A26081 | 16A30180-02 | 17B23935j | 17A23946 | 05K26625 |
| HIO-390-A1A (Wide Deck) | N | HW | 14E23911 | 14G22050c | 14G22050c | | 14H23148cb | | 16A26081 | 16A30180-02 | 17B23935j | 17A23946 | 05K26625 |
| O-435-A (low compression) (Narrow Deck) | P | FW | N/A | 62916c | 62916c | | 69401ca | | N/A | N/A | 17A23947 | 17A23939 | N/A |
| GO-435-C2 (high compression) (Narrow Deck) | N | HW | 75984-S | 73933c | 73933c | | 73934cb | | LW-19035r | 16A30165-01 | 17B23935j | 17A23947 | 05K21229 |
| | C | HW | 75984-S | 74984p | 74984p | | 75985pb | | N/A | N/A | 17B23935j | 17A23947 | N/A |
| | P | FW | N/A | 62916c | 62916c | | 69401ca | 69322c | 16A30165-03r | 16A30165-03 | 17B23935j | 17A23947 | N/A |
| VO-435-A1B, -A1C, -A1D, -A1E, -A1F TVO-435-A1A (low compression) (Narrow Deck) | N | HW | 75984-S | 73933c | 73933c | | 73934cb | | LW-19036r | 16A30165-02 | 17B23935j | 17A23947 | 05K21214 |
| | N | HW | 75984-S | 73933c | 73933c | | 73934cb | | LW-19036r | 16A30165-02 | 17B23935j | 17A23947 | ●05K21215-A |
| | C | HW | 75984-S | 74984p | 74984p | | 75985pb | | N/A | N/A | 17B23935j | 17A23947 | N/A |
| VO-435-A1D, -A1E, -A1F; TVO-435-A1A, -B1A, -B1B, -D1A, - D1B, -F1A, -G1A, -G1B (low compression) (Narrow Deck) | N | HW | 75984-S | 73933c | 73933c | | 73934cb | | 74218er | 16A30162-01 | 17B23935j | 17A23947 | 05K21212 |
| | N | HW | 75984-S | 73933c | 73933c | | 73934cb | | 74218er | 16A30162-01 | 17B23935j | 17A23947 | ●05K21213-A |
| | C | HW | 75984-S | 74984p | 74984p | | 75985pb | | N/A | N/A | 17B23935j | 17A23947 | N/A |
| VO-435-B1A (high compression) (Narrow Deck) | N | HW | **14C28324 | 73933c | 73933c | | 73934cb | | 74218er | 16A30162-01 | 17B23935j | 17A23947 | N/A |
| GO-480-B, -D, -F (low compression) (Narrow Deck) | N | HW | LW-10208-Sd | 74241c | 74241c | | 14H21950cb | | LW-19037 | 16A30164-01 | 17B23935j | 17A23947 | 05K21273 |
| | P | FW | N/A | 74989c | 74989c | | N/A | N/A | 16A21005r | N/A | 17B23935j | 17A23947 | N/A |
| | C | HW | LW-10208-Sd | N/A | N/A | N/A | 73998pb | | N/A | N/A | 17B23935j | 17A23947 | N/A |
| | C | HW | N/A | N/A | N/A | | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23947 | N/A |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|-------------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| GO-480-C1B6, -C1D6, -C2 Series, -G1A6, -G1B6, -G1D6, -G2D6, -G1E6, -G1F6, -G2F6, -G1G6, -G1J6 (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 75215er | 16A30163-01 | 17B23935j | 17A23947 | 05K21272 |
| | C | HW | 14D23908d | N/A | N/A | N/A | 73998pb | | N/A | N/A | 17B23935j | 17A23947 | N/A |
| | C | HW | 73947Sd | N/A | N/A | | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23947 | N/A |
| GO-480-G1A6 (Helio) IGO-480-A1B6 (Helio); (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-19038er | 16A30167-01 | 17B23935j | 17A23947 | N/A |
| GO-480-G1D6 (Helio) (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 75215er | 16A30163-01 | 17B23935j | 17A23947 | ◆05K21272 |
| GSO-480-A, -B; IGSO-480-A (low compression) (Narrow Deck) | N | HW | LW-10208-Sd | 74241c | 74241c | | 14H21950cb | | 75215er | 16A30163-01 | 17B23935j | 17A23947 | 05K21270 |
| | C | FW | 71545 | N/A | N/A | | N/A | 69235p | N/A | N/A | 17B23935j | 17A23947 | N/A |
| O-540-A, -F (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21102 |
| | P | HW | 14D23912 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | FW | 14D23912 | N/A | N/A | | 72454pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-540-A; IO-540-C (high compression) (Narrow Deck) | C | HW | 14D23912 | N/A | N/A | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-540-A4D5, A4E5, -E, -G, -H; IO-540-A4D5, -C, -D, -N, -T, -V; AEIO-540-D4A5, -D4B5, -D4D5 (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21104 |
| O-540-B (low compression) (Wide Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21192 |
| | N | HW | 75413 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | N/A |
| | P | HW | 75413 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-540-B (high compression) (Narrow Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21103 |
| | P | HW | 14D23915 | 74989c | 74989c | | 14H21950cb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| | C | HW | 14D23915 | N/A | N/A | | 73998pb | | N/A | N/A | 17B23936j | 17A23938 | N/A |
| O-540-E1A, -E4B5, -E4C5, -G1A5, -G2A5; IO-540-C, -D4A5, -D4B5, -N1A5 (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12425 | 16A30080-04 | 17B23936j | 17A23938 | 05K21102 |
| O-540-E4A5 (high compression) (Long Reach) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K22926 |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|------------------------|------------------|----------------------------|----------------------------|--------------------------|------------------|------------------------|----------------------------|------------------------|----------------------|--------------------------------|
| O-540-F1B5 (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-13870 | 16A30080-03 | 17B23936j | 17A23938 | 05K21745 |
| O-540-J1A5D, -J1C5D, -J2A5D, -J3A5, -J3A5D, -J3C5D; IO-540-AB1A5, -W1A5, -W1A5D, -W3A5D (high compression) (Wide Deck) | N | HW | 14D23916 | 74241c | 74241c | | 14H21950cb | | LW-13870 | 16A30080-03 | 17B23936j | 17A23938 | 05K21117 |
| O-540-L3C5D (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-15605e | 16A30100-02 | 17B23936j | 17A23938 | 05K21231 |
| IO-540-A, -G, -K, -L; HIO-540-A1A (high compression) (Narrow Deck) | N C | HW HW | 14D23908d 14D23908d | 72421c N/A | 74241c N/A | | 14H21950cb 73998pb | | LW-13530r N/A | 16A30160-03 N/A | 17B23935j 17B23935j | 17A23937 17A23937 | 05K21112 N/A |
| IO-540-AA1A5, -AA1B5; TIO-540-U2A; LTIO-540-U2A (low compression) (Wide Deck) | N | HW | 14D23907 | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | 05K21966 |
| IO-540-AC1A5 (high compression) (Wide Deck) | N N | HW HW | 14D23908d 14D23908d | 74241c 74241c | 74241c 74241c | | 14H21950cb 14H21950cb | | 16A22541e 16A22541c | 16A30240-01 16A30240-01 | 17B23944j 17B23944j | 17A26621 17A23942 | 05K22672 N/A |
| IO-540-AF1A5 (high compression) (Wide Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12427 | 16A30080-01 | 17B23936j | 17A23938 | 05K21104 |
| IO-540-AG1A5 (low compression) (Narrow Deck) | N | HW | 14D23907 | 74241c | 74241c | | 14H21990cb | | LW-19048 | 16A30221-02 | 17B23935j | 17A23937 | 05K28094 |
| IO-540-B, -E (high compression) (Narrow Deck) | N C | HW HW | 14D23908d 14D23908d | 74241c N/A | 74241c N/A | | 14H21950cb 73998pb | | LW-13532r N/A | 16A30222-01 N/A | 17B23935j 17B23935j | 17A23937 17A23937 | 05K21110 N/A |
| IO-540-E1B5 IO-540-M1A5; (for turbocharging) (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13533er | 16A30221-01 | 17B23935j | 17A23937 | 05K21226 |
| IO-540-G, -K, -P, -S (high compression) (Narrow Deck) | N C | HW HW | 14D23908d 14D23908d | 74241c N/A | 74241c N/A | | 14H21950cb 73998pb | | LW-13534er N/A | 16A30161-02 N/A | 17B23935j 17B23935j | 17A23937 17A23937 | 05K21204 N/A |
| IO-540-G1D5, -K1B5, -K1C5, -K1E5, -K1E5D, -S1A5; AEIO-540-L1B5, -L1B5D, -L1D5 (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | 05K21118 |
| IO-540-J4A5, -R1A5; TIO-540-G1A (high compression) (Narrow Deck) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | LW-12433e | 16A30100-03 | 17B23936j | 17A23938 | 05K21241 |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|-------------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| IO-540-J4A5, -R1A5 (high compression) (Wide Deck) (Long Reach) | N | HW | 14D23912 | 74241c | 74241c | | 14H21950cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K22926 |
| IO-540-K1A5, -K1A5D, -K1B5, -K1D5, -K1F5, -K1F5D, -K1G5, -K1G5D, -K1H5, -K1J5, -K1J5D, -K1K5, -K2A5, -L1A5D, -L1B5D, -L1C5, -AE1A5; AEIO-540-L1B5, -L1B5D, -L1D5 (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-12993r | 16A30160-01 | 17B23935j | 17A23937 | 05K21120 |
| IO-540-M1A5, -M1A5D, -M1B5, - M1B5D, -M1C5, -U1A5D, -U1B5D (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-19048er | 16A30221-02 | 17B23935j | 17A23937 | 05K21263 |
| IGO-540-B1A, -B1C (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 76187er | 16A30221-03 | 17B23935j | 17A23943 | N/A |
| | N | HW | N/A | 74241c | 74241c | | 14H21950cb | | 76187er | 16A30221-03 | 17B23935j | 17A23943 | N/A |
| | C | HW | 14D23908d | N/A | N/A | N/A | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23943 | N/A |
| | C | HW | 14D23908d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23943 | N/A |
| IGO-540-A1A, -A1C (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 76261er | 16A30161-04 | 17B23935j | 17A23943 | N/A |
| | N | HW | N/A | 74241c | 74241c | | 14H21950cb | | 76261er | 16A30161-04 | 17B23935j | 17A23943 | N/A |
| | C | HW | 14D23908d | N/A | N/A | N/A | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23943 | N/A |
| | C | HW | 14D23908d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23943 | N/A |
| IVO-540-A1A (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 74236er | 16A30161-03 | 17B23935j | 17A23943 | 05K21220 |
| IGSO-540-A1A, -A1C, -A1D, -A1E, - A1H (low compression) (Narrow Deck) | N | HW | LW-10208-Sd | 74241c | 74241c | | 14H21950cb | | LW-12714er | 16A30163-02 | 17B23935j | 17A23937 | 05K21264 |
| | C | HW | LW-10208-Sd | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23937 | N/A |
| | C | HW | LW-10208-Sd | N/A | N/A | N/A | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23937 | N/A |
| IGSO-540-B1A, -B1C (low compression) (Narrow Deck) | N | HW | LW-10208-Sd | 74241c | 74241c | | 14H21950cb | | LW-13447er | 16A30220-02 | 17B23935j | 17A23937 | 05K21269 |
| | C | HW | LW-10208-Sd | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23937 | N/A |
| | C | HW | LW-10208-Sd | N/A | N/A | N/A | 73998pb | 69235p | N/A | N/A | 17B23935j | 17A23937 | N/A |
| TEO-540-A1A, -C1A (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21990 | | 16A26347 | 16A30200-01 | 17B23935j | 17A23937 | 05K26774 |
| TIO-540-A1A, -A1B, -A2A, -A2B, -A2C (low compression) (Narrow Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | LW-13447er | 16A30220-02 | 17B23935j | 17A23937 | 05K21109 |
| | C | HW | 14D23907d | N/A | N/A | | 73998pb | | N/A | N/A | LW-16710j | 17A23937 | N/A |
| TIO-540-A1A (low compression) (Narrow Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | N/A | N/A | 17B23935j | 17A23946 | N/A |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|---|------------------|------------------|-------------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| TIO-540-A2B, -A2C, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -S1AD; LTIO-540-F2BD, -J2B, -J2BD, -N2BD, -R2AD (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | LW-12966er | 16A30220-01 | 17B23935j | 17A23937 | 05K21108 |
| | N | HW | 14D23907d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23937 | N/A |
| | C | HW | 14D23907d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23937 | N/A |
| TIO-540-AE2A, -AH1A (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21990cb | | LW-12988er | 16A30161-01 | 17B23935j | 17A23937 | 05K21262 |
| TIO-540-AF1B (Oil Cooled Valve Guides) (low compression) (Wide Deck) | N | HW | 14D23913 | 74241c | 74241c | | 14H21990cb | | 16A22023er | 16A30101-01 | 17B23936j | 17A23938 | 05K22177 |
| TIO-540-AJ1A (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | 16A22541e | 16A30240-01 | 17B23944j | 17A26621 | 05K22680 |
| TIO-540-AK1A (low compression) (Wide Deck) | N | HW | 14D23913 | 74241c | 74241c | | 14H21990cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K23161 |
| TIO-540-C1A, -C1AD (low compression) (Wide Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | 16A22130e | 16A30100-01 | 17B23936j | 17A23938 | 05K22128 |
| TIO-540-C1A, -E1A, -H1A (low compression) (Narrow Deck) | N | HW | 14D23915 | 74241c | 74241c | | 14H21950cb | | LW-12433e | 16A30100-03 | 17B23936j | 17A23938 | 05K21234 |
| TIO-540-K1AD, -AA1AD, -AB1AD, -AB1BD, -AF1A, -AG1A (low compression) (Wide Deck) | N | HW | 14D23913 | 74241c | 74241c | | 14H21950cb | | 16A22130er | 16A30100-01 | 17B23936j | 17A23938 | 05K22129 |
| TIO-540-V2AD; LTIO-540-V2AD (low compression) (Wide Deck) | N | HW | 14D23907d | 74241c | 74241c | | 14H21950cb | | 16A19516er | 16A30241-01 | 17B23944j | 17A26621 | 05K21260 |
| TIO-540-W2A (low compression) (Wide Deck) | N | HW | 14D21953-Sd | 74241c | 74241c | | 14H21950cb | | 16A19516er | 16A30241-01 | 17B23944j | 17A26621 | 05K21261 |
| TIVO-540-A2A, -A2B (low compression) (Narrow Deck) | N | HW | LW-10208Sd | 74241c | 74241c | | 14H21950cb | | 74236er | 16A30161-03 | 17B23935j | 17A23943 | 05K21219 |
| | N | HW | N/A | 74241c | 74241c | 74241c | 14H21950cb | N/A | 74236er | 16A30161-03 | 17B23935j | 17A23943 | N/A |
| VO-540-A, -B; TVO-540-A1A (low compression) (Narrow Deck) | N | HW | LW-10208Sd | 74241c | 74241c | | 14H21950cb | | 75137er | 16A30166-01 | 17B23935j | 17A23943 | 05K21228 |
| | N | HW | N/A | 74241c | 74241c | 74241c | 14H21950cb | N/A | 75137er | 16A30166-01 | 17B23935j | 17A23943 | N/A |
| | C | HW | LW-10208Sd | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23943 | N/A |
| VO-540-C (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | 75137er | 16A30166-01 | 17B23935j | 17A23943 | 05K21223 |
| | C | HW | 14D23908d | N/A | N/A | | 73998pb | | N/A | N/A | 17B23935j | 17A23943 | N/A |

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Table 2 - Part Numbers for Pistons, Rings, Cylinders and Valve Combinations

| ENGINE MODEL | CYL. BARREL TYPE | PISTON RING TYPE | PISTON | TOP COMP. RING | 2 nd COMP. RING | 3 rd COMP. RING | OIL REG. RING | OIL SCRAPER RING | CYL. ASSY. NO. | ALT. CYL. ASSY. NO. | EXHAUST VALVE | INTAKE VALVE | CYL. PISTON AND RING ASSY. KIT |
|--|------------------|------------------|-----------|----------------|----------------------------|----------------------------|---------------|------------------|----------------|---------------------|---------------|--------------|--------------------------------|
| TIO-541-A1A (low compression) (Narrow Deck) | N | HW | 14D28056d | 74241c | 74241c | | 14H21950cb | | N/A | N/A | 17B23935 | 17A23946 | N/A |
| TIO-541-E1A4, -E1B4, -E1C4, -E1D4; TIGO-541-E1A (low compression) (Narrow Deck) | N | HW | 14D28056d | 74241c | 74241c | | 14H21950cb | | LW-14116er | 16A30280-01 | 17B23941j | 17A23942 | 05K21116 |
| TIGO-541-D1B (low compression) (Narrow Deck) | N | HW | 14D28056d | 74241c | 74241c | | 14H21950cb | | LW-13121er | 16A30261-01 | LW-18498j | 17A23942 | N/A |
| IO-580-A1A, -B1A; AEIO-580-B1A (high compression) (Wide Deck) | N | HW | 14E23911 | 14G22050c | 14G22050c | | 14H23148cb | | 16A22887er | 16A30180-01 | 17B23935j | 17A23937 | 05K23259 |
| IO-720-A1A, -D1B (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13530r | 16A30160-03 | 17B23935j | 17A23937 | 05K21112 |
| IO-720-A1B (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13530r | 16A30160-03 | 17B23935j | 17A23937 | 05K21112 |
| | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13534er | 16A30161-02 | 17B23935j | 17A23937 | 05K21204 |
| IO-720-A1B, -D1B, -D1C, -D1CD (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-12988er | 16A30161-01 | 17A23935j | 17A23937 | 05K21118 |
| IO-720-B1B, -C1B (high compression) (Narrow Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13532r | 16A30222-01 | 17B23935j | 17A23937 | 05K21110 |
| | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-13533er | 16A30221-01 | 17B23935j | 17A23937 | 05K21226 |
| IO-720-B1B, -B1BD (high compression) (Wide Deck) | N | HW | 14D23908d | 74241c | 74241c | | 14H21950cb | | LW-19048er | 16A30221-02 | 17B23935j | 17A23937 | 05K21263 |

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NOTE

- ❖ - O-320, IO-320 (low compression) – Kits having a suffix “A” employ heavy piston pin P/N LW-13445. Plugs unchanged. Interchangeable in complete engines sets only.
 - - VO, TVO-435 – Kits with P/N having a suffix “A” employ heavy piston pin P/N LW-13445 (1) and plugs P/N 77856 (2). Interchangeable in complete engine sets only.
 - ◆ - 05K21272 Kit is for use with P/N 71265 and P/N 71266 high lift rocker assemblies to be used with P/N 77134 camshaft assembly. New engines serial number L-425-37 and up. Rebuilt engines – Built after 12-14-66.
- ** Piston P/N 76172 is replaced by piston P/N 14C28324 and is available for purchase at Scotts Bell - phone: 1 + (507) 665-4064, Fax 1 + (507) 665-0038

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