

KAISER-FRAZER SALES CORPORATION



Willow Run, Michigan, U.S.A.

PARTS & ACCESSORIES

BULLETIN NO. 72

ALL DEALERS:

March 22, 1948

(Except in the State of Texas)

Subject: KF Oil Control Piston Ring Set

For many months, we have been working on the development of an "All Purpose" Piston Ring Set, and after extensive tests we are pleased to announce the availability of the KF Oil Control Piston Ring Set.

Good engine performance is so dependent on proper piston rings that no effort has been spared in the development of a ring set which will give maximum gas and oil mileage and minimum cylinder wall wear.

The new KF Oil Control Ring Set is fully described in the attached illustrated folder. Each ring has been individually selected and proven for a specific purpose and together comprise the most efficient ring set for Kaiser-Frazer engines, regardless of mileage, on the market today.

KF Oil Control Ring Sets are packaged in complete sets. The sealed box contains six envelopes, each containing a complete set of four rings for one piston, each in a separate compartment. Each compartment is plainly identified to ensure installation of the correct ring in each ring groove.

Complete ordering information, together with suggested list and net prices follow:

| Part No. | Part Name | Suggested List Price | Net Price Each |
|----------|---|-------------------------|----------------|
| 203145 | Piston Ring Set - Standard (for cylinders Std. to .009 0.S.) | \$11.95 | \$5.98 |
| 203146 | Piston Ring Set020" 0.S. (for cylinders .010" to .029" 0.S.) | 11.95 | 5.98 |
| 203147 | Piston Ring Set040" 0.S. (for cylinders .030" to .049" 0.S.) | 11.95 | 5.98 |
| 203148 | Piston Ring Set060" 0.S. (for cylinders .050" to .069" 0.S.) | 11.95 | 5.98 |

All Prices are F.O.B. Shipping Point and Include Federal Excise Tax.
PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

From a sales standpoint, you will have no competition in selling KF Oil Control Piston Ring.

The ring sets are made for us by a company who has for many years supplied piston rings to car and engine manufacturers and never has marketed its product

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through any outlet other than through car manufacturers. You can, therefore, merchandise KF Oil Control Piston Ring Sets to your owners and others in the trade with <u>full assurance</u> that the same set - <u>under a different label</u> - is not being offered to your customers by competition. This ring set is <u>exclusively</u> yours for Kaiser and Frazer cars.

Place your order with your distributor for your initial stock today. Use and sell only KF Oil Control Piston Ring Sets to ensure owner satisfaction.

Sincerely,

Manager,
Parts and Accessories Div.

AKSteigerwalt; mb

Enclosure

FOR OWNER SATISFACTION - USE ONLY FACTORY APPROVED PARTS AND ACCESSORIES

Oil Control PISTON RING SETS

Announcin



KAISER-FRAZER SALES CORPORATION

WILLOW RUN, MICHIGAN, U.S.A.

1st

INSTALL THIS SLOTTED OIL RING

IN LOWER OIL RING GROOVE NO. 4

Install slotted cast iron oil control ring in bottom groove.

Make sure groove and drain holes are clean.



Use care in handling rings to prevent distortion.

2nd

STEEL SECTION OIL CONTROL RING

IN UPPER OIL RING GROOVE NO. 3

First install steel oil ring expander notched side down.

Next, spiral lower steel segment into



Spiral steel crimped unbreakable spacer into position.

Then spiral upper steel segment above spacer.



SLOTTED OIL RING

The slotted oil ring has a metering effect on the amount of oil distributed from the bores and lower piston surfaces to the upper rings. Its slotted construction and narrow lands control the amount of oil in such a manner as to assure the proper location of the upper rings, and prevents oil in excess of that which it is designed to dispose of. The excess oil is sent back through grooves or holes in the bottom of the fourth groove to the inside of the piston.



STEEL SECTION OIL CONTROL RING

The all steel oil control ring embodies the latest engineering and piston ring design. Due to the independent and very flexible action of the two steel rails, each rail conforms readily to irregularities of cylinder contour. The spacer is of unbreakable steel, and plugging or clogging is practically an impossibility. The expander is provided with openings to permit the excess oil to drain through the holes in the piston ring groove.

PACKAGED IN GROOVE-BY-GROOVE INSTALLATION ORDER

The piston rings are packaged in complete sets. The package contains six individual envelopes, each containing a piston ring set for one piston. Within the envelope, the four rings are separated in individual compartments. Each compartment is clearly identified to insure installation of the proper ring in each ring groove. Instructions for installing each ring are given

on the envelope compartment containing the particular ring. These instructions should be carefully followed to obtain proper installation.

The piston ring combination was developed only after extensive road and dynamometer tests. This engineered set has been found best for economy and durability on Kaiser-Frazer engines.



3rd

INSTALL THIS STEEL SECTION COMPRESSION RING

IN SECOND COMPRESSION RING GROOVE NO. 2

Install steel compression expander in second groove.

Then spiral steel segment into groove.



Then place cast iron ring above steel segment.

4th

INSTALL THIS COMPRESSION RING

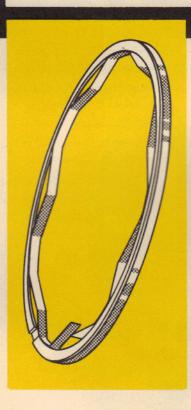
IN TOP RING GROOVE NO. 1

Install top compression ring with chamfer toward top of piston.



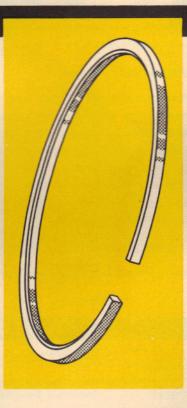
Make sure grooves are free from carbon deposits.

Stagger all ring gaps on piston so they are NOT in line.



STEEL SECTION COMPRESSION RING

The second compression ring features a steel and cast iron bearing combination. This ring is especially designed to compensate for piston and cylinder wear. Its greatest advantage is in the extreme flexibility of the smaller cross sections. This ring follows the out-of-round and tapered cylinder walls so readily that it provides more effective sealing. Both sections of the ring are supported by a crimped steel expander which tends to stabilize the piston and to prevent piston slap. It also holds sufficient oil to assure top cylinder lubrication, so important to ring and bore



COMPRESSION RING

A positive bottom edge contact is assured in the design of this compression ring due to the slight twist provided by the inside bevel. Small bottom edge contact produces a high pressure area which seats in quickly, thus assuring positive control of compression, blowby, and aids oil control. The ring, being fully tin plated, is provided with an assured protection against initial scuffing or scoring and is completely rust proofed.

COMPLETE INSTALLATION INSTRUCTIONS ON EACH SET

Detailed installation instructions are given on the envelope in which the rings are received. Briefly, these instructions are as follows:

- Remove the ridge at the top of the ring travel before removing the piston.
- 2. Remove or break the glaze in the cylinders.
- Wash the cylinder thoroughly with plenty of soap and warm water.
- Clean the pistons thoroughly being sure that all carbon is removed.
- Check the ring gap at the bottom of the bore below the ring travel. The minimum gap clearance is .007".
- 6. Inspect the main and connecting rod bearings.
- 7. Inspect the valve guides.



For Best Performance in

KAISER-FRAZER ENGINES

EFFECTIVE OIL CONTROL

Effective oil control is obtained by the use of an especially designed steel section compression ring. This ring retains sufficient oil to assure top cylinder lubrication. The flexibility of this ring makes it possible for it to follow the cylinder walls very closely, thereby maintaining a more effective seal.

ADEQUATE LUBRICATION

A spacer in the steel section oil control ring is of an exceptionally open design which prevents clogging or plugging. The expander is provided with openings to allow the oil to return through the holes in the bottom of the groove to the inside of the piston.

BLOW-BY SEALED OFF

Maximum blow-by control is assured with the special type top compression ring. The corner bevel gives the ring a controlled twisting action in the groove. This action has the effect of sealing the groove to prevent the flow of blow-by gasses passed all around the ring. The contact on the outside diameter face of the ring is more pronounced on the bottom edge, thus assuring rapid seating of the ring.

MAXIMUM COMPRESSION

The two compression rings, in combination, assure

maximum compression. The hardened steel section of the second compression ring assures the maintenance of a sharp bottom edge. The expander in this ring has fourteen points of support around the inside surface of the ring, assuring evenly distributed pressure.

TIN-PLATED SEAT FASTER

All cast iron rings are fully tin-plated, effecting protection against initial scuffing or scoring, and at the same time assuring maximum protection from rust. This is another feature of this set of piston rings which provides durability and long life.

"RUN-IN" TAGS

After installing new piston rings, the engine should



be operated in the manner of a NEW engine. This tag should be attached to the car in a conspicuous place so that the owner will be sure to see it. By providing this warning, you may save yourself the necessity of reservicing the job. Do not let a new piston ring job leave your shop without this tag.

PISTON RING SETS

| Part Number | Size | Suggested List Price |
|-------------|--|----------------------|
| 203145 | Standard for cylinders—standard to .009 O. S. | \$11.95 |
| 203146 | .020 oversize for cylinders—.010 to .029 O. S. | \$11.95 |
| 203147 | .040 oversize for cylinders—.030 to .049 O. S. | \$11.95 |
| 203148 | .060 oversize for cylinders—.050 to .059 O. S. | \$11.95 |

Prices and specifications subject to change without notice.

Federal Excise Tax Included.

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