



KAISER-FRAZER SALES CORPORATION

Willow Run, Michigan, U.S.A.



PARTS & ACCESSORIES

BULLETIN NO. 15-B

August 1, 1952

ALL DEALERS:

Subject: "KF" Chrome Oil Control Piston Ring Sets - All Models

In announcing the new "KF" Chrome Oil Control Piston Ring Sets for all Kaiser, Frazer and Henry J engines, we offer the most up-to-date, most durable and most effective piston rings known to the automotive industry.

Here is what this new set consists of:

1. A hard chrome plated top compression ring, the benefits of which have been well proven in thousands of installations and controlled tests. Experience has shown that the life of a hard chrome plated top compression ring is five (5) times greater - with scuffing virtually eliminated - than that of ordinary rings. Also cylinder bore wear is three (3) times less than when ordinary rings are used.
2. The two Swedish steel rails of the upper oil control ring are now hard chrome plated on the outer edge to prevent rapid wear and scuffing. Thus a long lived oil control ring is provided without sacrificing the flexibility and excellent oil drainage qualities of this all-steel unbreakable designed ring.
3. The outer edge of the steel rail in the second compression ring assembly is also hard chrome plated. Since the expander exerts pressure against both the steel rail and cast iron ring, the hard chrome plating on the outer edge of the rail reduces wear of both the rail and cast iron section of the ring assembly as well as providing an additional scuff resisting scraping edge.
4. The modern quick-seating lower oil control ring with its streamlined oil drainage channel and slots is retained in the fourth groove position in the new "KF" Chrome Oil Control Piston Ring Sets for Kaiser and Frazer engines.

Because of the hardness of the chrome plated surfaces, ALL chrome plated parts in the new "KF" chrome set are pre-lapped at the factory to ensure uniform quick seating in the engine. All cast iron parts are plated for protection against scuffing during the run-in period and for permanent rust-proofing.

The entire piston ring combination has been expressly designed for Kaiser-Frazer engines and represents the most modern conception of piston ring design to provide the maximum life of both piston rings and cylinder walls, with the maximum oil control effectiveness and resistance to scuffing and abrasion.

Below we are giving you complete ordering information, together with the prices of the complete ring sets and the individual rings which go to make up the complete set:

FOR KAISER AND FRAZER ENGINES

<u>Name</u>	<u>Part Numbers</u>					<u>List</u>	<u>Prices</u>	
	<u>Standard</u>	<u>.020 OS</u>	<u>.030 OS</u>	<u>.040 OS</u>	<u>.060 OS</u>		<u>Trade Net</u>	<u>Dealer Net</u>
Complete set for 6 pistons	213951	213952	213953	213954	213955	\$19.75	\$13.82	\$9.88
<u>Individual Rings</u>								
Top Groove	213956	213957	213958	213959	213960	1.35	1.01	.81
Second Groove	213961	213962	213963	213964	213965	.65	.48	.39
Third Groove	213966	213967	213968	213969	213970	.85	.63	.51
Fourth Groove	208677	208681	213023	208685	208689	.55	.41	.33

FOR HENRY J ENGINES

Complete Set for 4 pistons	213971	213972	213973	213974	213975	12.35	8.65	6.17
Complete Set for 6 pistons	213976	213977	213978	213979	213980	17.50	12.25	8.75
<u>Individual Rings</u>								
Top Groove	213981	213982	213983	213984	213985	1.35	1.01	.81
Second Groove	213986	213987	213988	213989	213990	.65	.48	.39
Third Groove	213991	213992	213993	213994	213995	.85	.63	.51

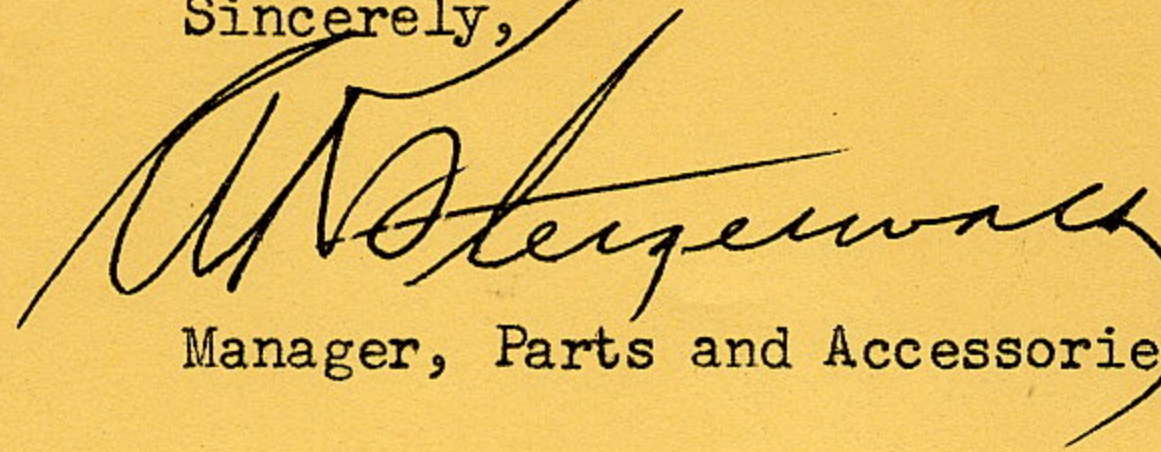
PRICES INCLUDE FEDERAL EXCISE TAX AND ARE SUBJECT TO CHANGE WITHOUT NOTICE

"KF" Chrome Oil Control Piston Ring Sets are packaged in complete sets. The sealed box contains six (6) envelopes (four (4) for Henry J 4-cylinder). Each envelope contains a complete set of rings for one (1) piston, with each ring in a separate compartment. Each compartment is plainly identified to ensure installation of the correct ring in each ring groove. To obtain maximum performance from the Chrome Ring Sets, the installation instructions printed on each envelope should be carefully followed.

The "KF" Chrome Oil Control Piston Ring Sets do not supersede our regular "KF" Oil Control Piston Ring Sets which have proven so satisfactory during the past four years and we will continue to supply the regular sets. Rather, the introduction of the Chrome Sets gives you full market coverage at prices - both list and dealer net - which are well below competition.

Place your order with your distributor for your requirements of the "KF" Chrome Oil Control Piston Ring Sets. Please do not send your order to us.

Sincerely,



Manager, Parts and Accessories Division

AKSteigerwalt:rb

FOR OWNER SATISFACTION - USE ONLY FACTORY APPROVED PARTS AND ACCESSORIES

Announcing!



Oil Control

PISTON RING SETS



KAISER-FRAZER SALES CORPORATION

KAISER-FRAZER CORPORATION

WILLOW RUN, MICHIGAN, U.S.A.

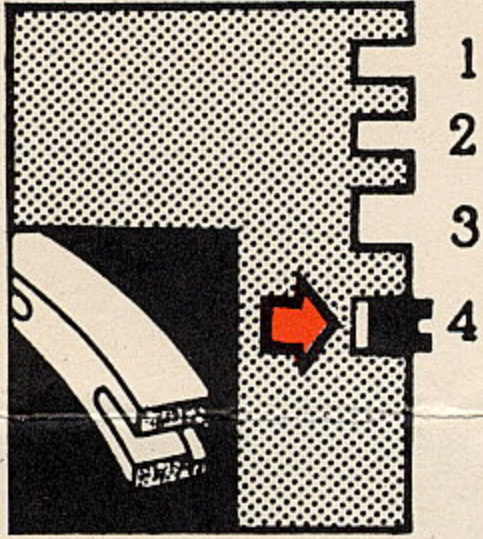
1st

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.

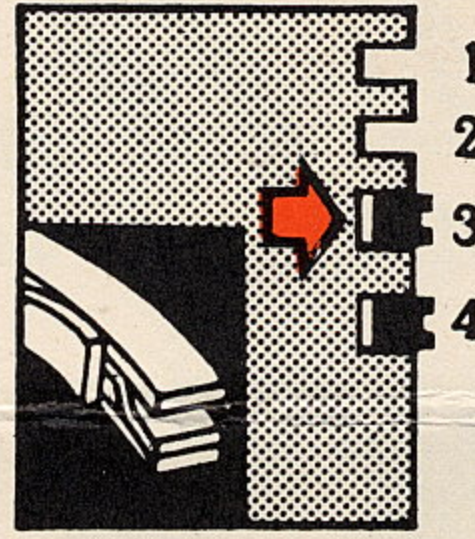
2nd

INSTALL THIS STEEL SECTION OIL CONTROL RING

IN UPPER OIL RING GROOVE NO. 3

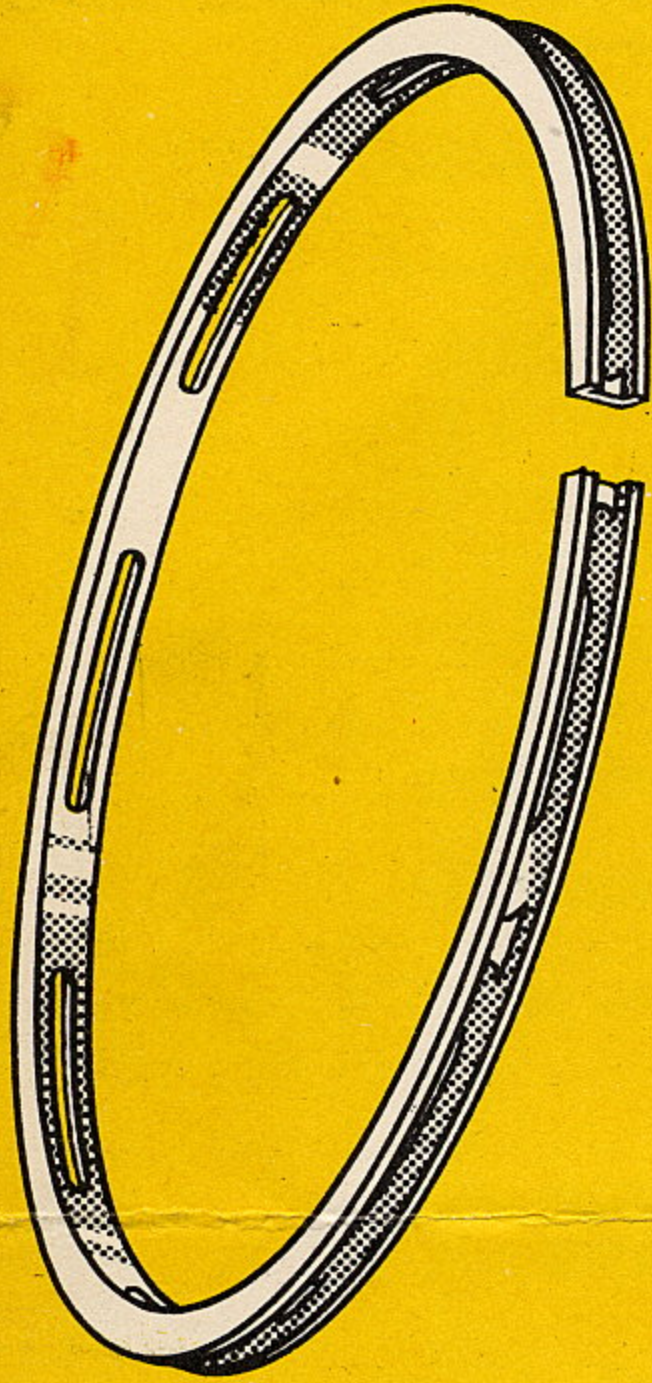
First install steel oil ring expander notched side down.

Next, spiral lower steel segment into groove.



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.

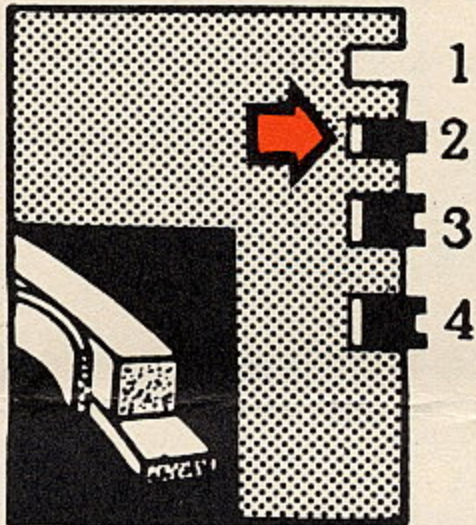


ASSURE BEST PERFORMANCE . .

3rd INSTALL THIS STEEL SECTION COMPRESSION RING IN SECOND COMPRESSION RING GROOVE NO. 2

Install steel compression expander
in second groove.

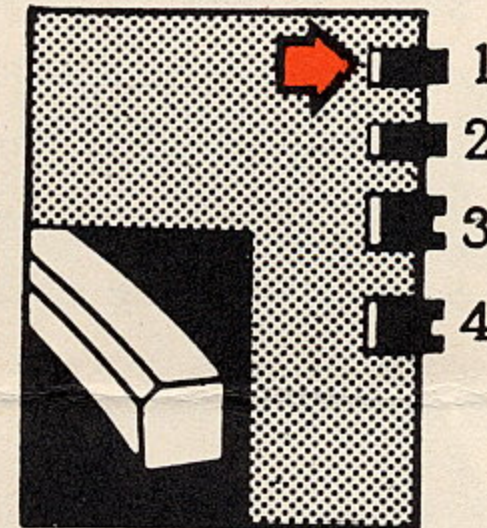
Then spiral steel segment into
groove.



Then place cast
iron ring above
steel segment.

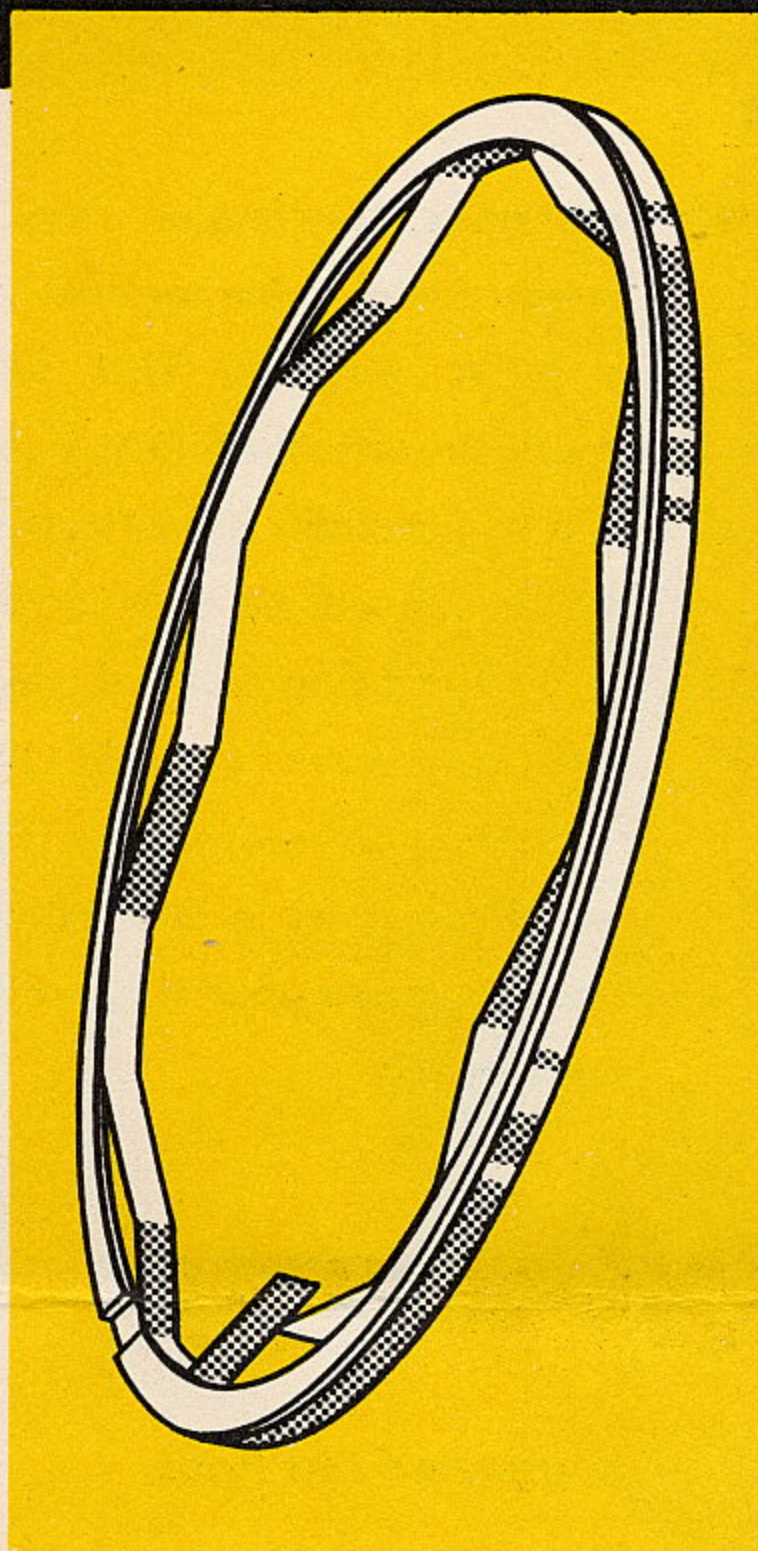
4th INSTALL THIS COMPRESSION RING IN TOP RING GROOVE NO. 1

Install top compression ring
with chamfer toward top of
piston.



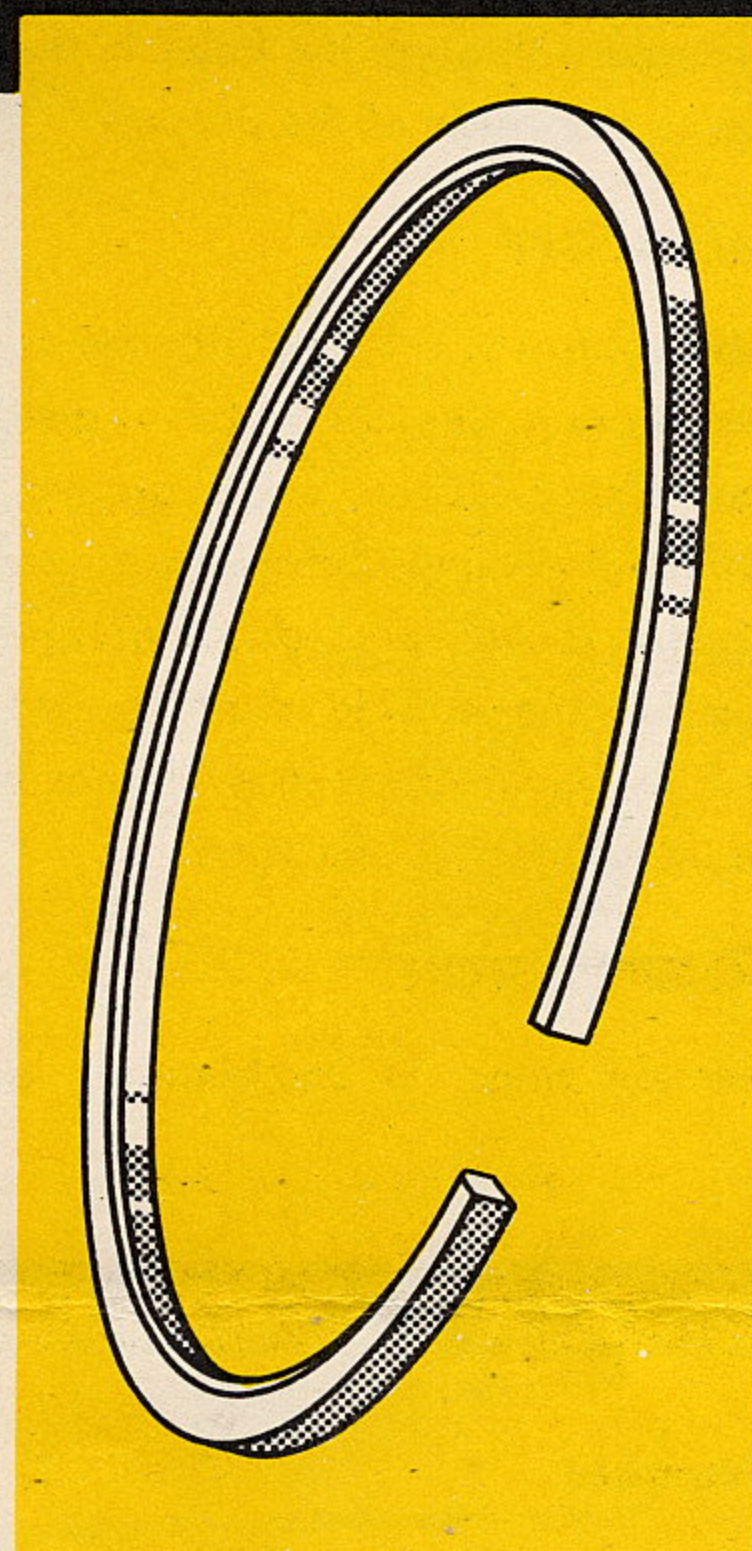
Make sure grooves
are free from
carbon deposits.

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 life.



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, blow-by, 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:

1. Remove the ridge at the top of the ring travel before removing the piston.
2. Remove or break the glaze in the cylinders.
3. Wash the cylinder thoroughly with plenty of soap and warm water.
4. Clean the pistons thoroughly being sure that all carbon is removed.
5. 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.

FROM RE-RING OR RE-BORE JOBS



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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