

## 15. OIL SYSTEM

The five items to be inspected are: the oil filter, the oil pan, the crank case vent cap/tube, the filler cap/tube, and the dip stick/tube. Points are evenly divided among the five items.

### 15.1. OIL FILTER

1953-55 did not have a factory oil filter.

Early 1956 may not have an oil filter because this was optional under FOA 104. The filter was transferred to base on AIM 3-5-56.

1956-62 had a metal oil filter cannister containing a replaceable filter element. It was mounted at the driver's rear lower corner of the block, painted semi-gloss black.

1956 thru mid 1958 had a longer canister than later ones. 1956-57 canisters had a rectangular stick-on label, black with white lettering.

### 15.2. DIPSTICK & TUBE

Tube: Beginning 1955, the tube is always natural finish because it was installed after the engine was painted. 1959-62 assembly manuals show the FI tube horizontal rather than vertical; none have surfaced.

The six cylinder dipstick tube is 6-3/4 inches long and mounts on pass side of the block behind the distributor.

The eight cylinder dipstick tube is 7-1/16 inches long and mounts on the driver side of the block.

Early 56 engines until about VIN -1725 have oil dipstick tube on passenger side and enters at the oil pan. Later the tube mounts on driver side of engine.

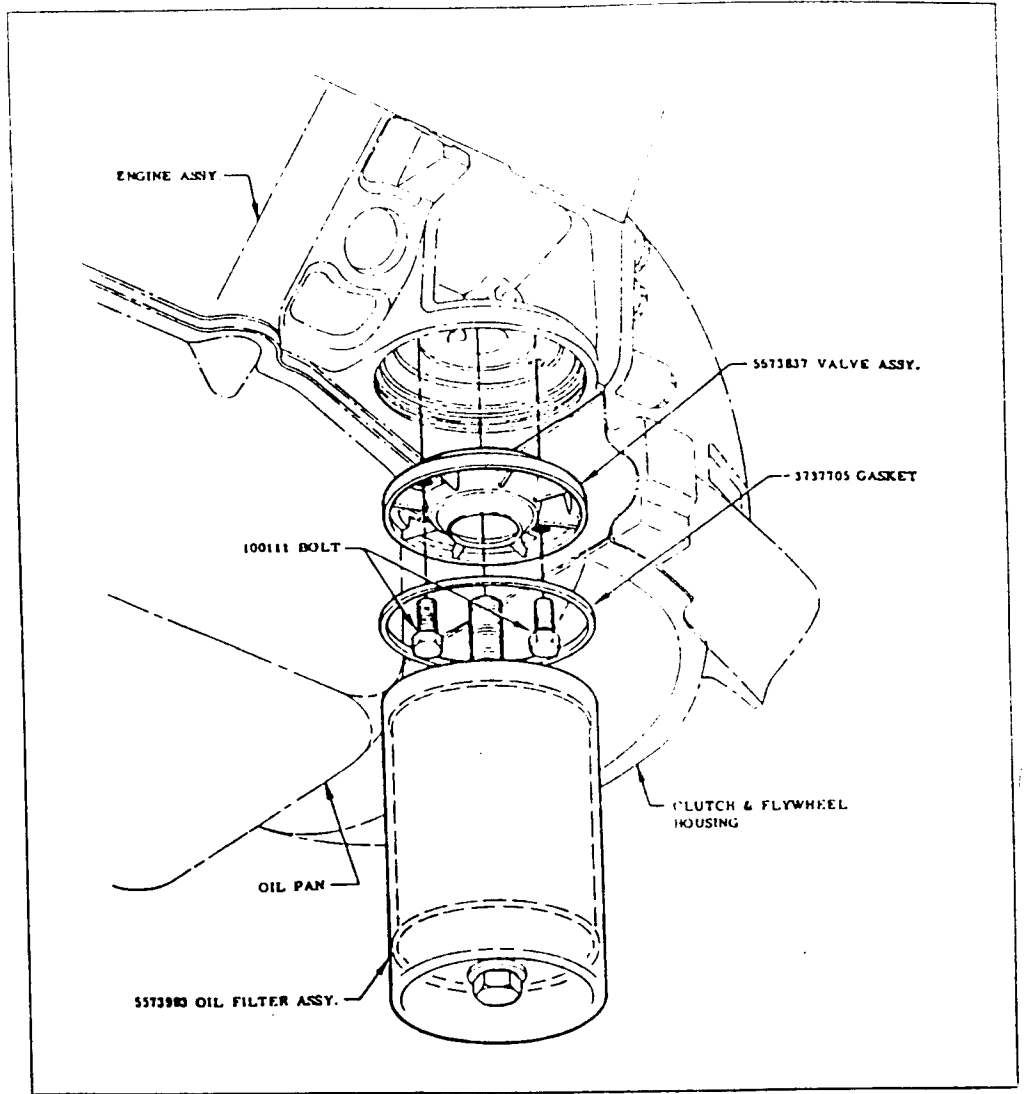
Dipstick: The dipstick is always natural finish, except 1961-62 which is painted semi-gloss black.

The six cylinder dipstick is a wire rod; the upper end bent in a circle to form a finger grip. Next to the finger grip is a washer stop, from which the dipstick measures 15-3/32 inches long.

The V-8 dipstick is flat steel; the upper end bent in a circle to form a finger grip. Next to the finger grip is a washer stop, from which the stick is 20-1/4 inches long.



OIL FILTER



DECAL

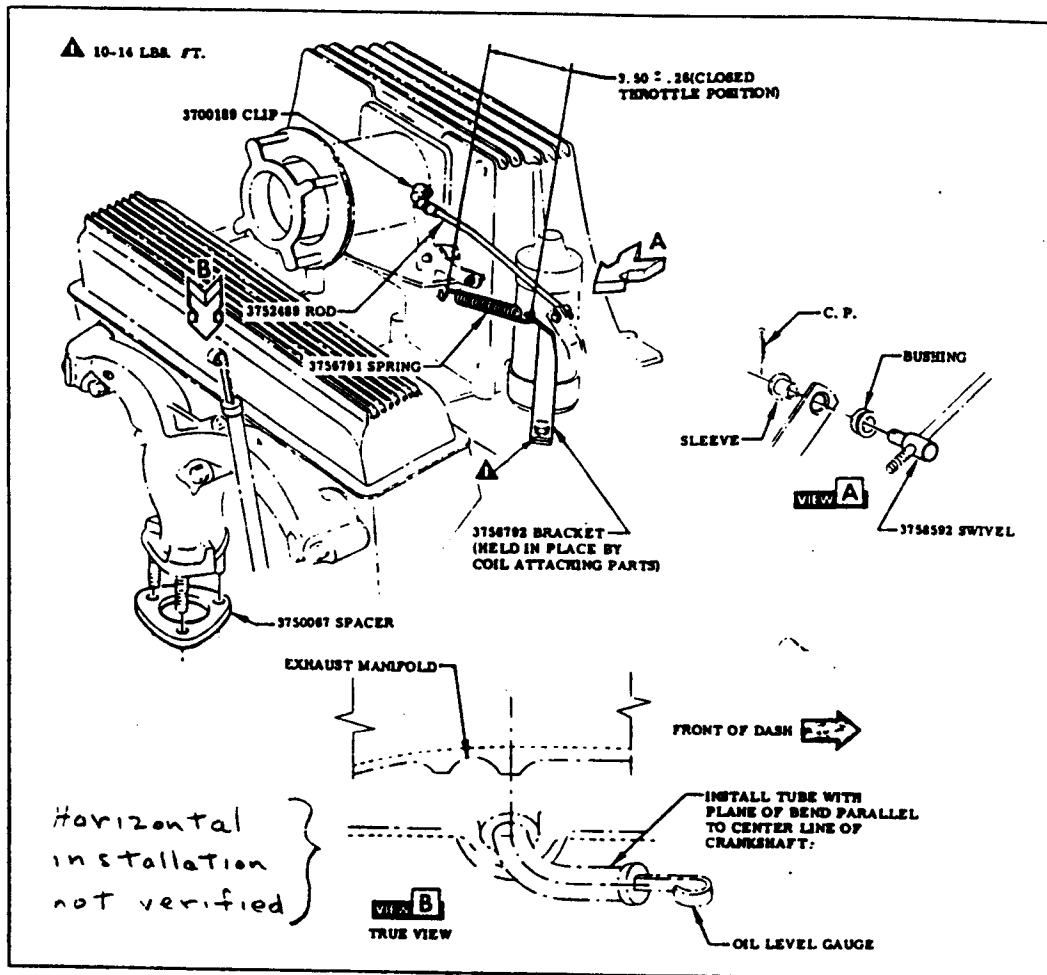
**AC** OIL FILTER

FULL FLOW  
TYPE PM-11  
REPLACE ELEMENT  
EVERY  
**6000 MILES**  
ON PASSENGER CARS

EVERY  
**4000 MILES**  
ON TRUCKS  
WITH AC  
**TYPE PF-131**

A black and white decal for AC Oil Filters. It features the AC logo in a circle, followed by the text 'OIL FILTER'. Below this, it provides maintenance schedules for two types of filters: Type PM-11 (Full Flow) for passenger cars, which should be replaced every 6000 miles, and Type PF-131 for trucks with AC, which should be replaced every 4000 miles.

DIPSTICK & TUBE



### 15.3. OIL PAN

The oil pan is always a five-quart capacity and painted to match the engine color. The drain plug is located at the lower rear center, with a marking of TR or a circled "m".

Six cylinder pans differs from passenger cars because of the front relief to give clearance to the large central steering arm below. The pan has four steps.

Eight cylinder pans have both sides rounded in rear with three steps and are identical to 1955 passenger cars.

1956-57 oil pan has smooth bottom, three steps.

### 15.4. CRANKCASE VENT TUBE & CAP

This tube is also called the crankcase ventilator road draft pipe.

Six cylinder: engines had the vent tube located on the passenger side, just forward of the engine mount. 1953 breather cap may be plain or with reinforcing X as for 1954-55.

Six cylinder tubes are painted engine color.

Eight cylinder: 1955 engines had the vent mounted internally and it drafts at the driver rear of the block, held in place with pan head screws.

1956-57 the vent pipe attaches at top rear center of block, passing down along the passenger side of the flywheel housing. The top area was rounded and held by long hex-head bolt. It is painted sem-gloss black.

Early 58 (until AIM 12-2-57) had their tubes attached to the upper starter motor mounting bolt. On that date the vent tube clamp became attached under the lower starter motor bolt.

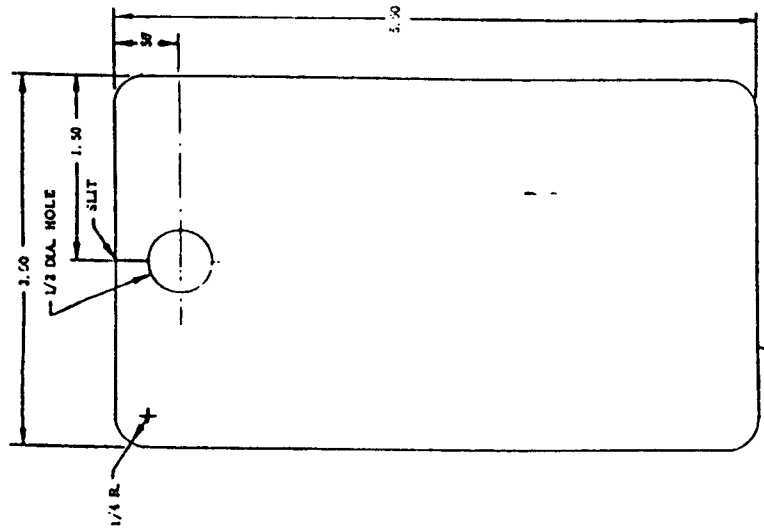
1961-62 options included RPO 242, special crankcase vent system. A slotted tag was placed on the base of the inside rear-view mirror; it provided positive crankcase ventilation (pcv) valve service instructions. In 1962 it was available only in Calif.

This system vented the crankcase by a hose connected from the intake manifold (near distributor) to the rear of the FI plenum or carb (if dual, to front carb). During 61-62 several minor changes were made, one is note worthy. In early 61, all engines had the pcv valve located at the manifold end of the hose. On AIM 4-3-61 base engines moved it to the other end, but optional engines kept it at the manifold end until 1962.



RPO 242  
CRANKCASE  
VENT SYSTEM  
1961-62

TAG



TRIM EDGE LINES ARE NOT TO APPEAR ON  
CLOSEST PRINT OR ON PRINTED SHEET.

**CAUTION TAG**  
PART NO. 3781283

INTERMEX, S.A.  
12-17-59

(Continued)

If improper action of spring is suspected due to spring being distorted, bent or stretched from corrosive action, valve assembly should be replaced.

Failure to service valve properly, can result in valve becoming inoperative, due to accumulation of sludge and carbon.

Where complete plugging of valve occurs, it is possible that crankcase pressure will increase and blow thru oil filter tube.

**VENTILATOR CONNECTION HOSE & INTAKE MANIFOLD ADAPTOR:** Clean with any good solvent and blow dry with compressed air.

**OIL FILLER CAP FILTER-Check** with any good solvent. After cleaning, oil the mesh lightly with engine oil.

**CRANKCASE OIL LEVEL:** must be correct. If maintained and NOT overfilled.

**CAUTION**  
READ CAREFULLY AND RETURN

REAR OF TAG

**DEALER:** Hang on inside rear view mirror bracket.

**OWNER:** Read and place in glove box for future reference.

**CRANKCASE VENT VALVE SERVICE INSTRUCTION**

Crankcase ventilation system requires cleaning every 1000 miles (at oil change)

**VALVE UNIT-**Disassemble valve and clean parts with any good solvent and blow dry with compressed air.

**BODY SPRING VALVE CONNECTOR**

When reassembling valve parts, be sure to attach spring to valve by pushing end of coil over tapered end of valve and into groove machined just under head of valve. It is very important that spring be properly assembled, or valve will not contact valve seat squarely, and will not ride properly. Use to advantage of two-inch air into intake manifold. If spring has been stretched the same trouble may occur.

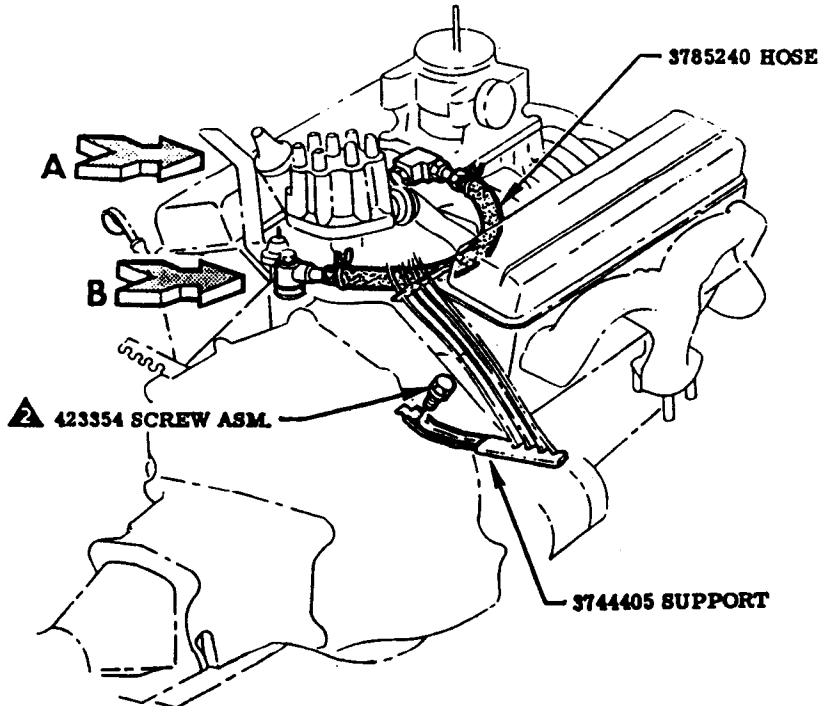
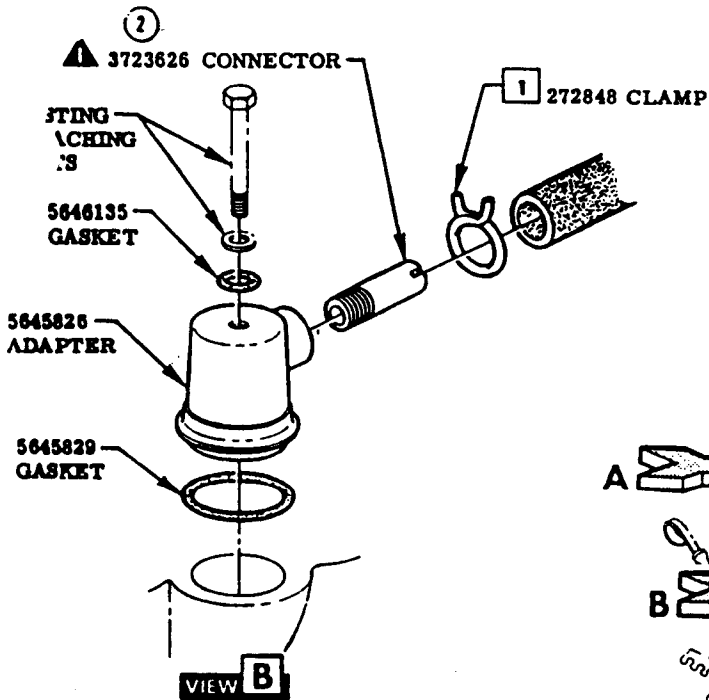
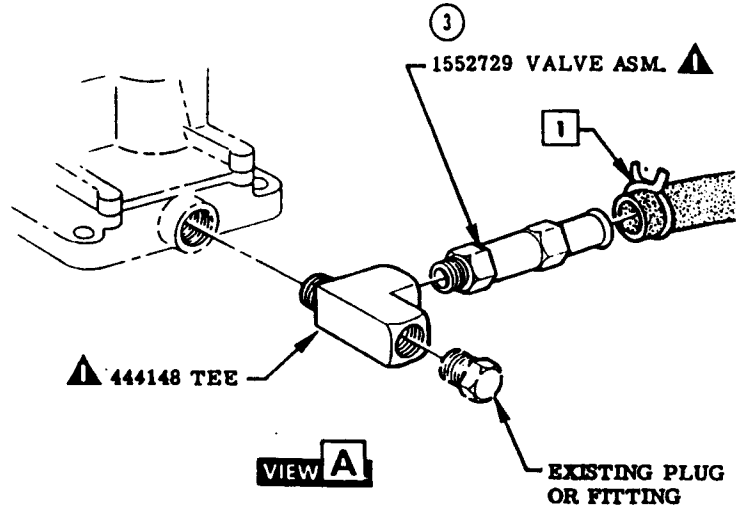
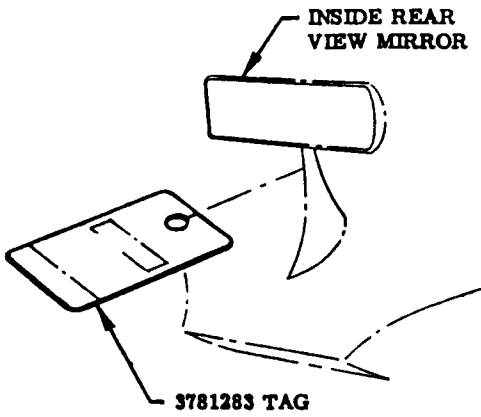
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**CAUTION**  
READ CAREFULLY AND RETURN

FRONT OF TAG

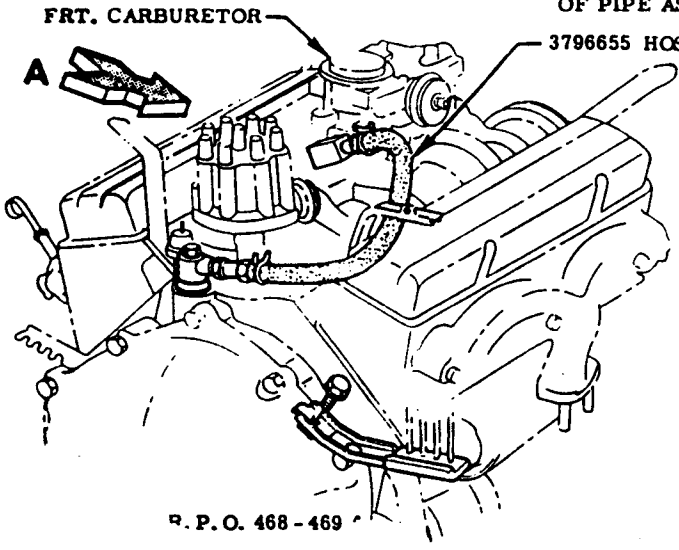


RPO 242 CRANKCASE VENT SYSTEM 1961

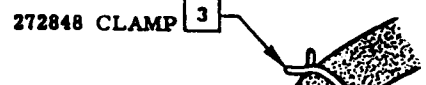
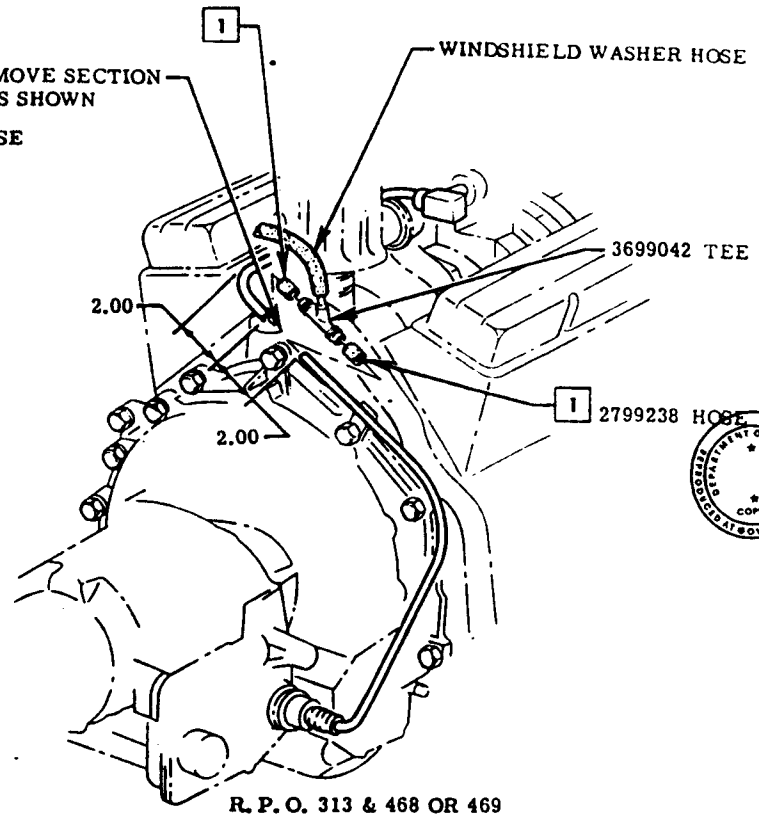


RPO 242 CRANKCASE VENT SYSTEM 1961

- ▲ 100-125 LBS. IN.
- ▲ 14-18 LBS. FT.
- ▲ 75-95 LBS. IN.

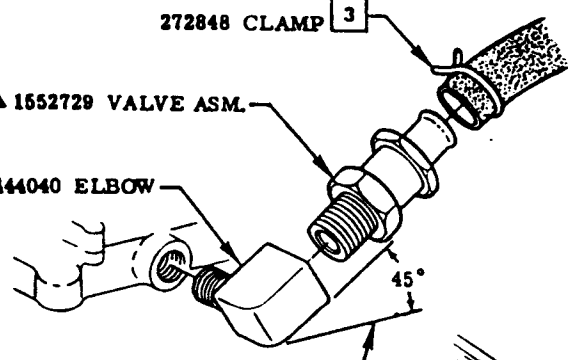


CUT & REMOVE SECTION OF PIPE AS SHOWN

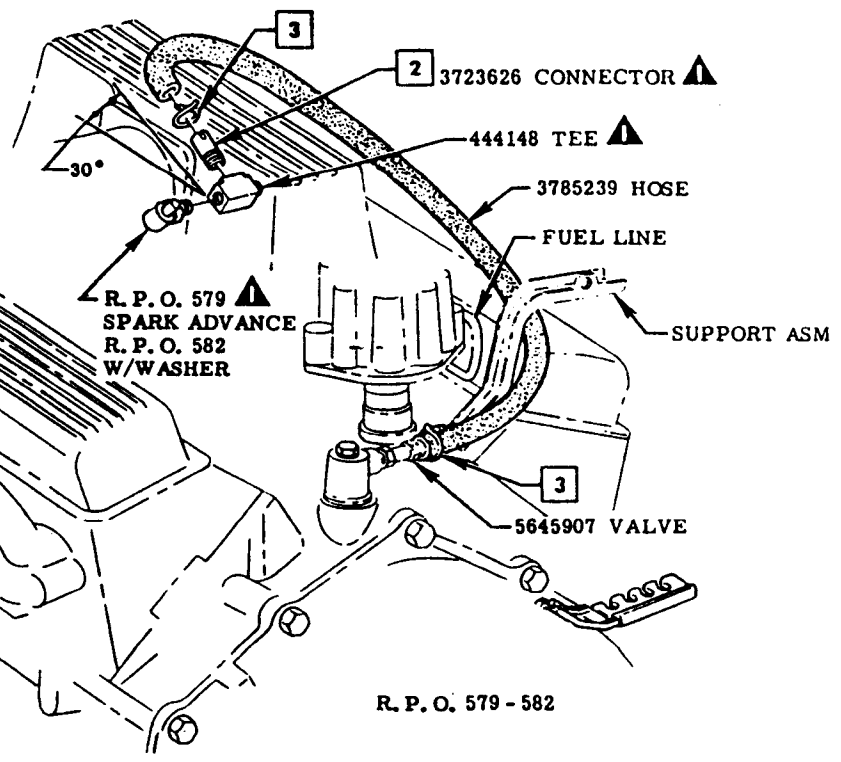


▲ 1552729 VALVE ASM.

▲ 444040 ELBOW

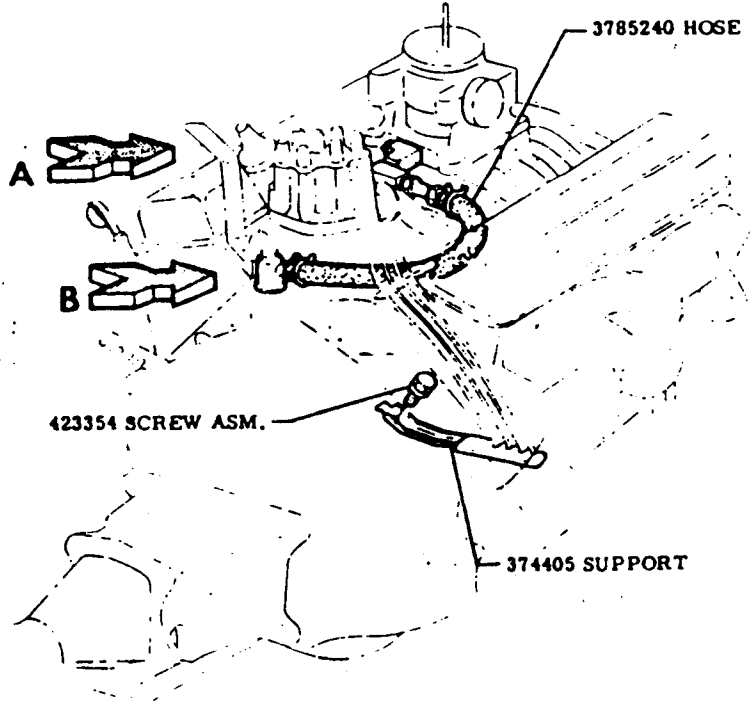
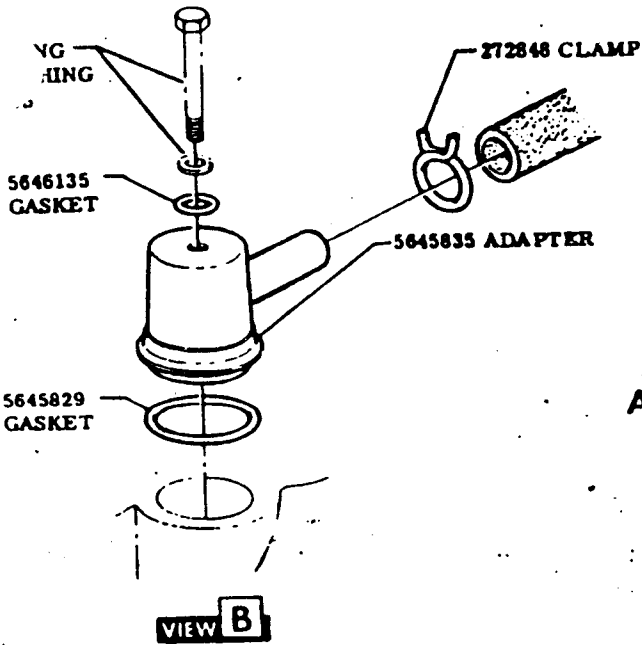
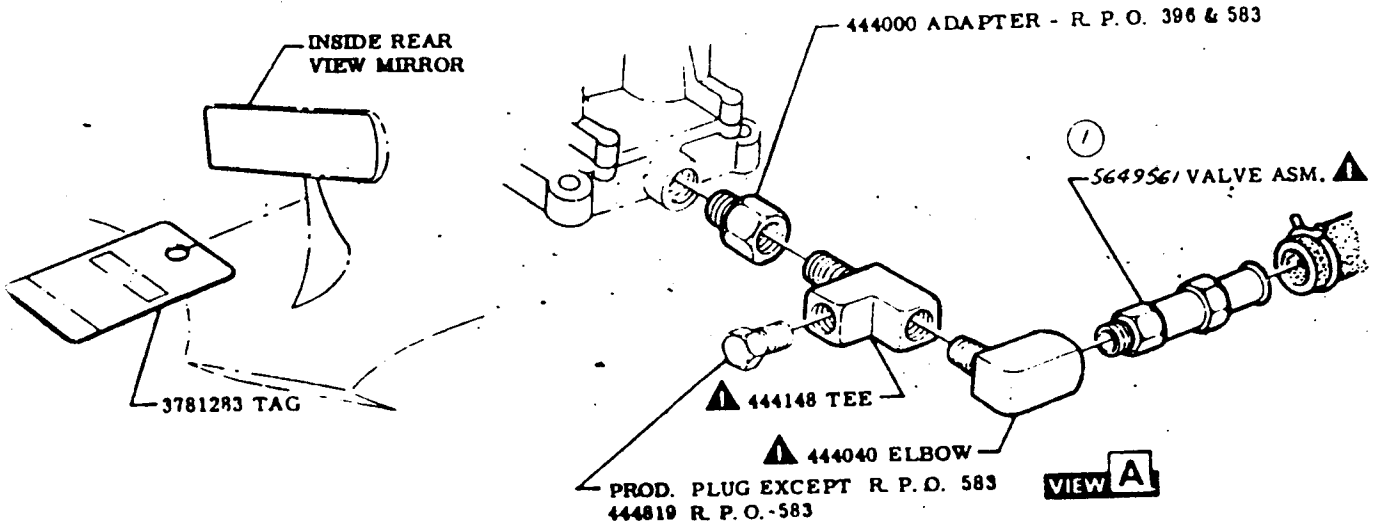


VIEW A



R. P. O. 579 - 582

RPO 242 CRANKCASE VENT SYSTEM 1962





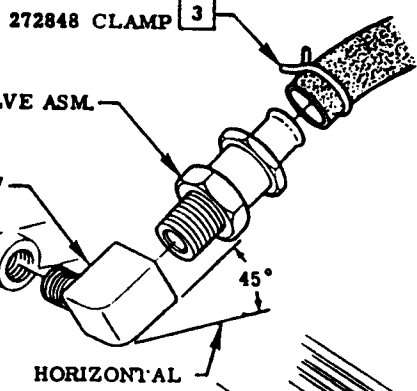
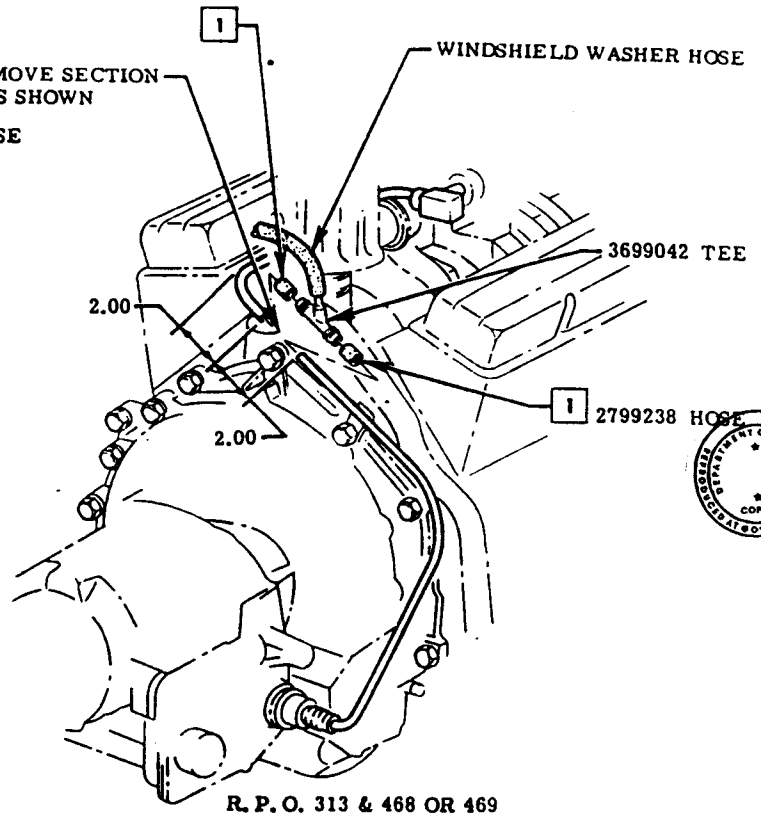
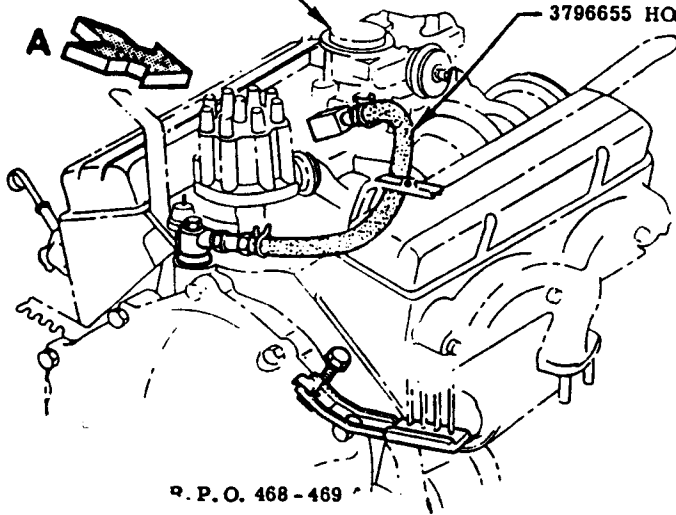
RPO 242 CRANKCASE VENT SYSTEM 1961

▲ 100-125 LBS. IN.

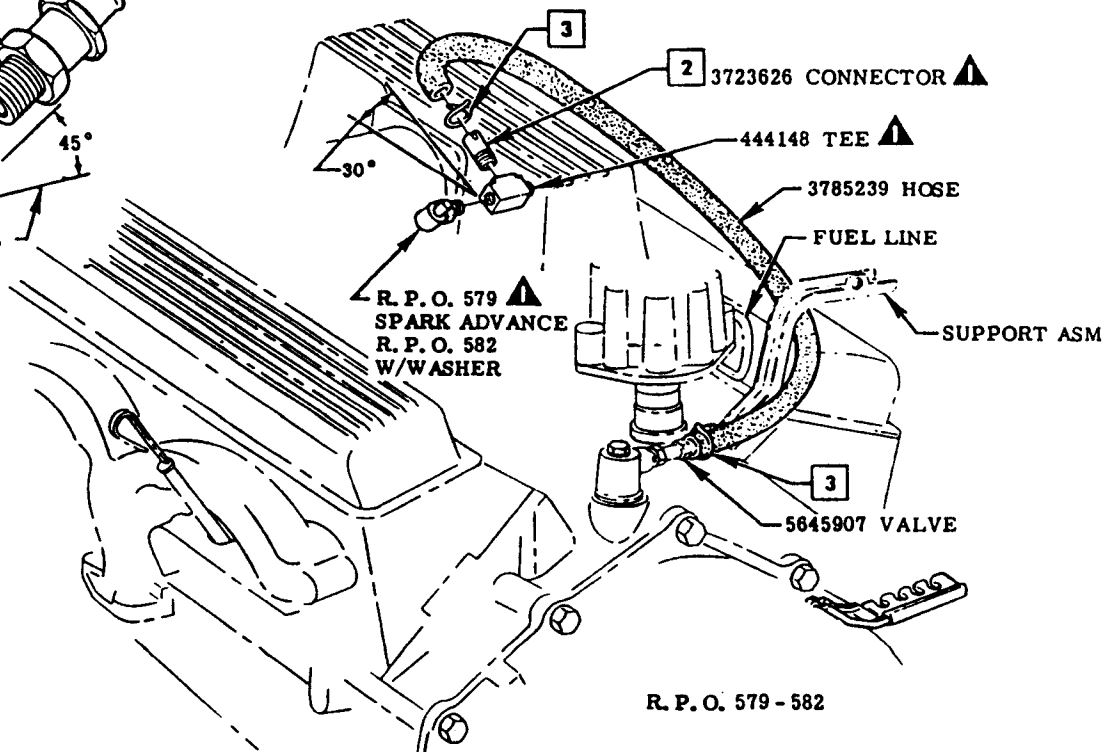
▲ 14-18 LBS. FT.

▲ 75-95 LBS. IN.

FRT. CARBURETOR



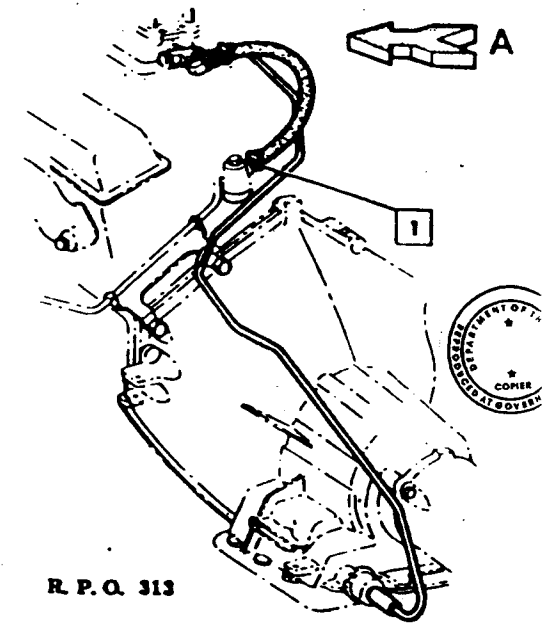
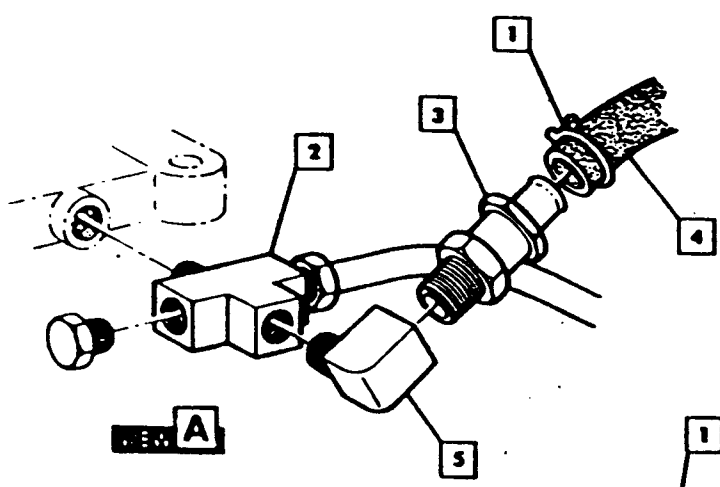
VIEW A



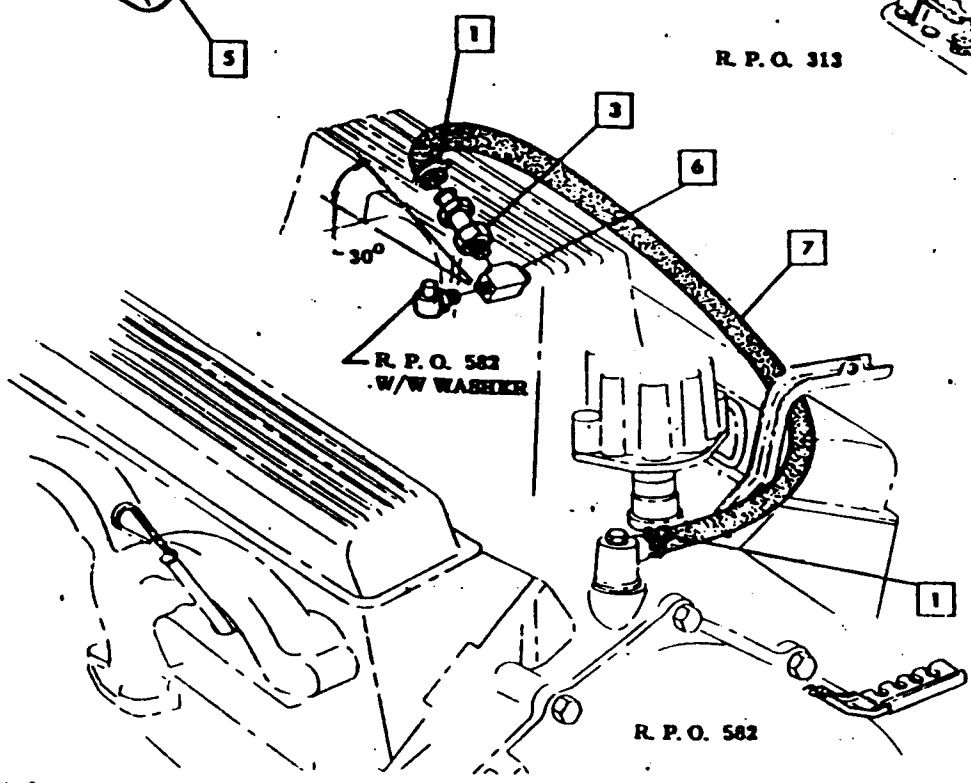
RPO 242 CRANKCASE VENT SYSTEM 1962

- 1 372848 CLAMP
- ▲ 2 3813853 TEE
- ① ▲ 3 5649561 VALVE ASM.
- 4 3785240 HOSE
- ▲ 5 444040 ELBOW

- ▲ 6 444148 TEE
- 7 3781078 HOSE



R. P. O. 313



R. P. O. 582



## 15.5. OIL FILLER TUBE &amp; CAP (OR ENGINE SIDE COVER)

Six cylinder filler and cap (PN 3836242) are in the valve cover and judged elsewhere, so substitute the engine side cover here. The side cover is attached with slotted pan head screws except one slotted hex head screw behind the motor mount. It is painted engine color.

Filler Tube: Eight cylinder engines.

1955 tubes are painted semi-gloss black.

1956-57 filler tube was painted silver baking dulux, an enamel paint. The paint is "Dupont N164-65751, Silver Baking Dulux".

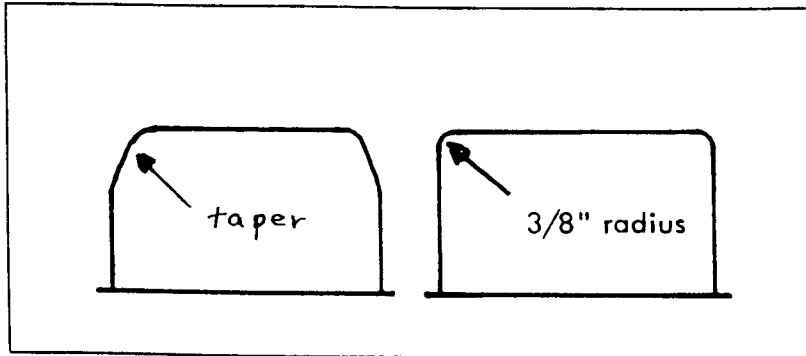
1958-60: all engines with aluminum intakes (2-carb) have the filler tube painted with argent silver and caps cadmium plated. Iron intakes may have silver tubes with cadmium caps or semi-gloss black tubes and caps.

1961-62: all engines had the tube painted pewter silver.



**Filler Cap:** Eight cylinder engines. 1955 and early 1956 caps have the tapered upper edge like passenger cars. On 2 Feb 56 the taper on the outer housing was eliminated.

UNTIL  
2 FEB 56

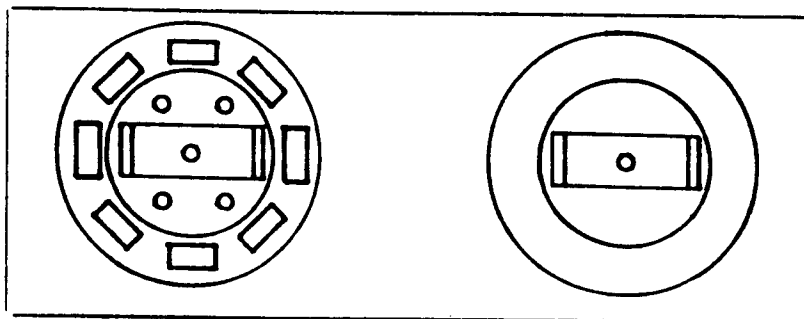


AFTER  
2 FEB 56

Two types of filler caps were used, vented and nonvented. The difference is visible by looking at the bottom (flat surface); the vented type has holes for "breathing".



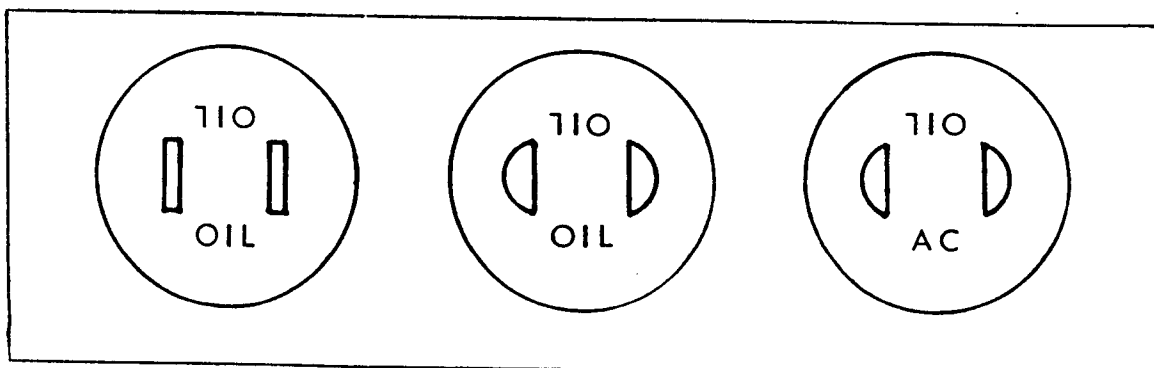
VENTED  
OPEN  
BREATHER



NONVENTED  
CLOSED  
NONBREATHER

The outer housing of both vented and nonvented had minor changes:  
 original OIL-OIL with rectangles  
 16 Oct 57 OIL-OIL with half moons  
 20 Apr 61 OIL-AC with half moons

NOTE: There are a variety of other depressions in the cap, long/deep/rectangular dimples or short/shallow dimples. These appear to be the result of variations among the vendors, not design changes.



The following changes were made to both vented/nonvented caps at the same time.

21 Jan 60 the inner housing, a clip, and rivet were combined into a subassembly PN 5646619 (changes not visible).

8 Nov 61 plating changed from cadmium to chromium

27 Nov 61 name changed on drawings

1552719: This PN started as a vented cap; it switched to nonvent.

29 Nov 55 first made as a vented type, painted semi-gloss black.

2 Feb 56 changed to nonvented: copper mesh filter was deleted, the 1 round and 8 rectangular openings were removed from the inner housing, the taper on the outer housing was eliminated, and it was cadmium plated.

It was used on all engines until AIM 7-16-56; afterward it was used only on solid lifter engines.

1552940: This cap was vented type; inner housing very similar to vented version above; outer housing similar to nonvented. It's the same cap as used on 56 pass cars except it is cadmium plated.

25 Apr 56 first made; the outer housing had taper eliminated; the inner housing contained 8 rectangular openings, four 7/32 in holes and a copper filter element.

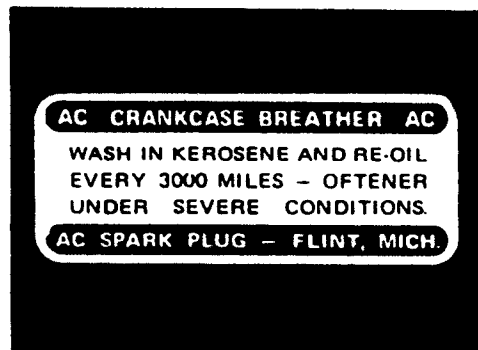
Used on all hydraulic lifter engines after AIM 7-16-56.

Decals: Closed caps did not have decals.

1956-60: vented caps had a decal with cleaning instructions; an orange decal before early 59; a black/gold decal afterward.

1961: decals may appear on some early vented caps.

DECAL  
1956-60



## 15.6. OIL SYSTEM REFERENCES:

Adams 1953-55 pages 52-4, 56  
1956-57 pages 123-5, 127, 165-6  
1958-60 pages 230, 232, 234, 279-82, 287  
1961-62 pages 334, 358-60, 368, 371-2, 382, 404, 407, 417-8

GM Assy Manual 1956-57 Sect 6 Sheet 2.00, 4.00 & 11.00  
1958-61 Sect 6 Sheet 2.00, 4.00 & 9.00  
1962 Sect 6 Sheet 2.00 & 4.00  
1961-62 RPO 242 Sheet 1.00 & 2.00

NCRS Judging Manual 1953-55, page 33-4  
1956-57, page 35-6  
1958-6

