

## SINGLE CARBURETTOR ENGINE—Short Engine—U.S.A.

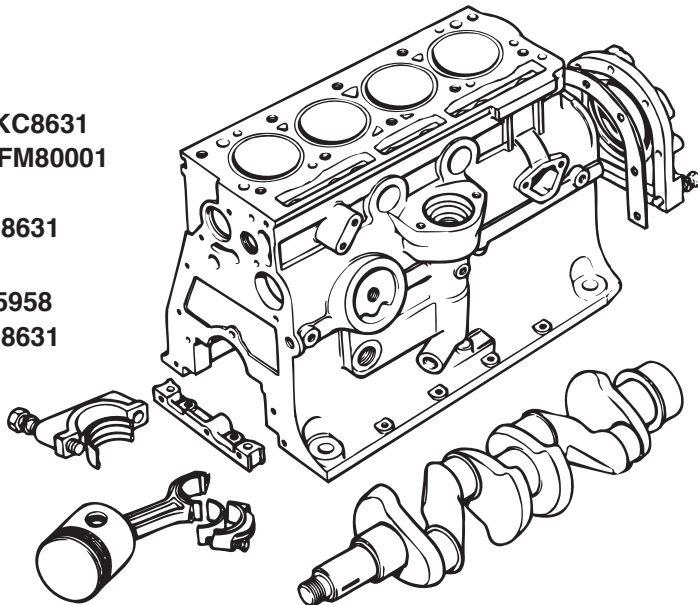


### Federal Models:

UP TO COMMISSION NO. FM40001UE USE UKC8631  
FROM COMMISSION NO. FM40001UE UP TO FM80001  
USE UKC8628  
AFTER COMMISSION NO. FM80001 USE UKC8631

### California Models:

UP TO COMMISSION NO. FM59324 USE UKC5958  
AFTER COMMISSION NO. FM59324 USE UKC8631



## REBUILT ENGINE UNITS

The Roadster Factory offers its own factory rebuilt engines and cylinder heads (see p. 6), and we believe that these units are the best solution available to most enthusiasts who need an engine overhaul. At TRF, we know every part of the Spitfire 1500 engine intimately, and rebuild them to exacting standards

When rebuilding an engine, we start by disassembling the old unit and sandblasting the outside surfaces free of all paint, rust, and other dirt. We then hot tank the blocks and have all of the cylinders rebored on every engine. We then hand-clean everything, scrubbing with brushes and using lots of water rinses and compressed air to thoroughly clean all passages. Crankshafts are magnafluxed for cracks, checked for straightness, and reground, nearly always to just .010 inch undersize. New bearings and thrust washers are always fitted, of course, and great care is taken to insure that all tolerances are perfect. We fit new pistons and rings every time, and all connecting rods are checked for straightness and rebushed. Reground camshafts are fitted, and timing gears are replaced or reused, depending upon condition. We always include new timing chains, tensioners and valve tappets, and we fit new oil pump assemblies. Our “short engines” are rebuilt complete with oil pans, timing covers, and new front and rear seals. When everything is assembled with new gaskets, holes are blanked off, and the engine is spray painted with a durable black enamel. Short engines do not include cylinder heads, flywheels, front pulleys, or any bolt-on accessories.

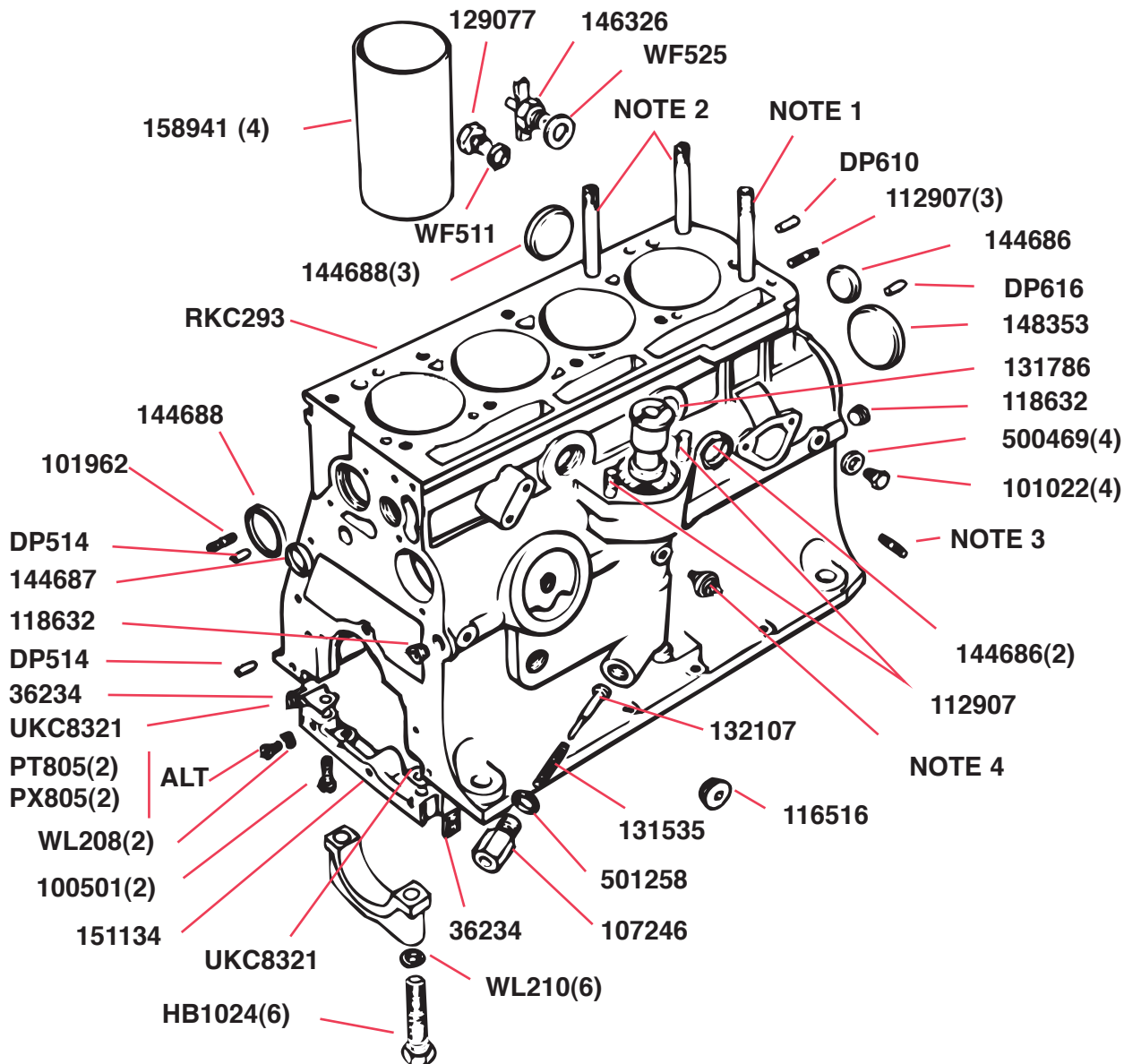
If customers wish to have their own engines rebuilt rather than exchanging them for rebuilt units in order to keep original serial numbers or for any other reason, we are able to accommodate them with a turn-around time of around six to eight weeks.

Quality is the watchword throughout our engine rebuilding process, and we guarantee our units to be free from defects in material or workmanship for six months or six thousand miles from the date of purchase, provided that the unit is properly serviced and not used in competition. Please be sure to fill the unit with oil upon installation!

For more information about engine rebuilding, please call Tom Spadafora of C.A.R. Components at (814) 446-4423 x 3029 or email him at [tsroadster@gmail.com](mailto:tsroadster@gmail.com). The Car Components web site can be accessed through the menu link on The Roadster Factory website [www.the-roadster-factory.com](http://www.the-roadster-factory.com).

Part No.	Description
RBE95	Rebuilt Engine, high compression
RBE96	Rebuilt Engine, low compression

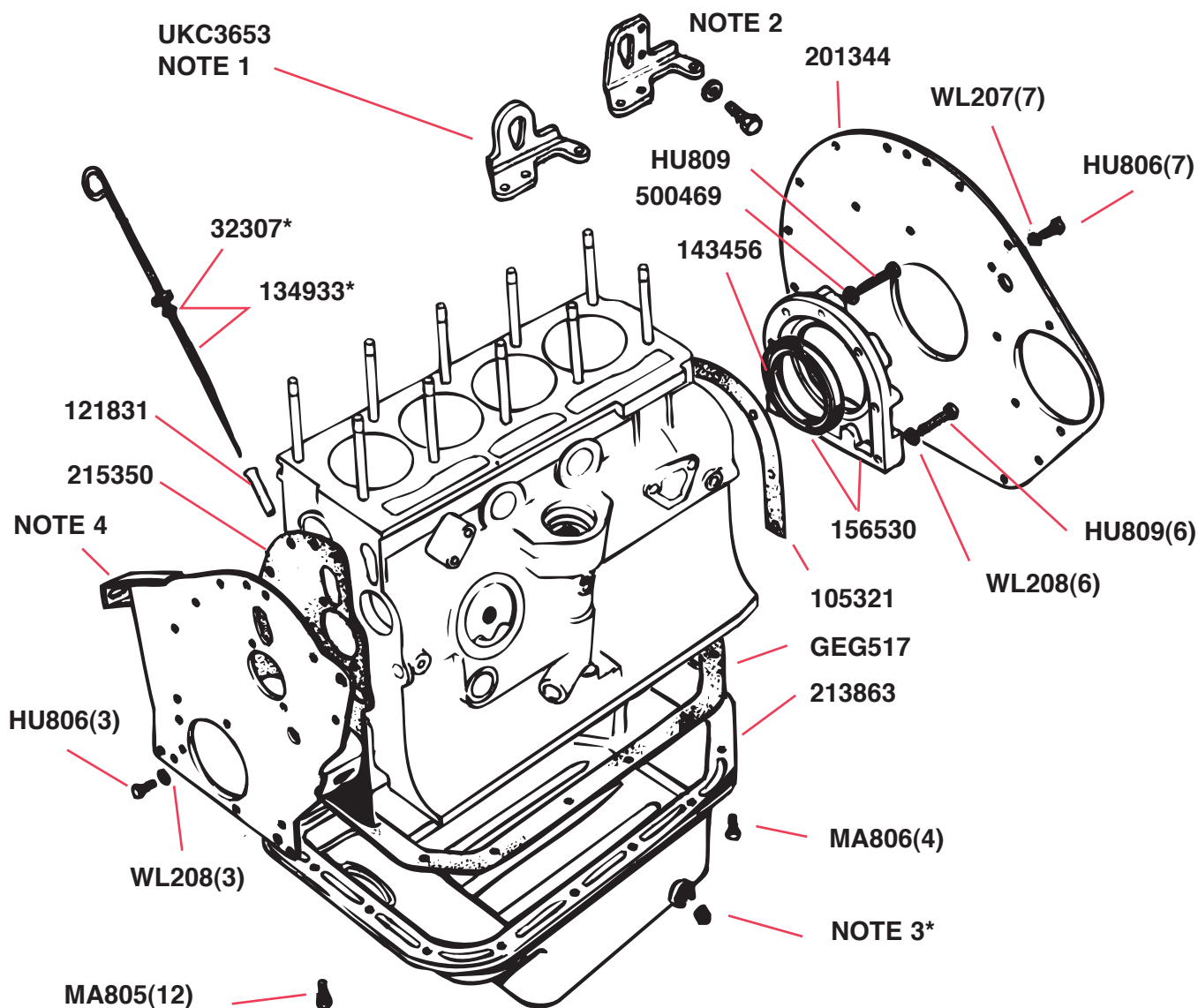
## SINGLE CARBURETTOR ENGINE—Cylinder Block—U.S.A.



1. Low compression use 121217(8): high compression use 105121(8)
2. Low compression use 119758(2): high compression use 121217(2)
3. Up to engine no. FM93157 use 101962(2): later models use TE605141(2)
4. Oil Pressure Sending Units:
 

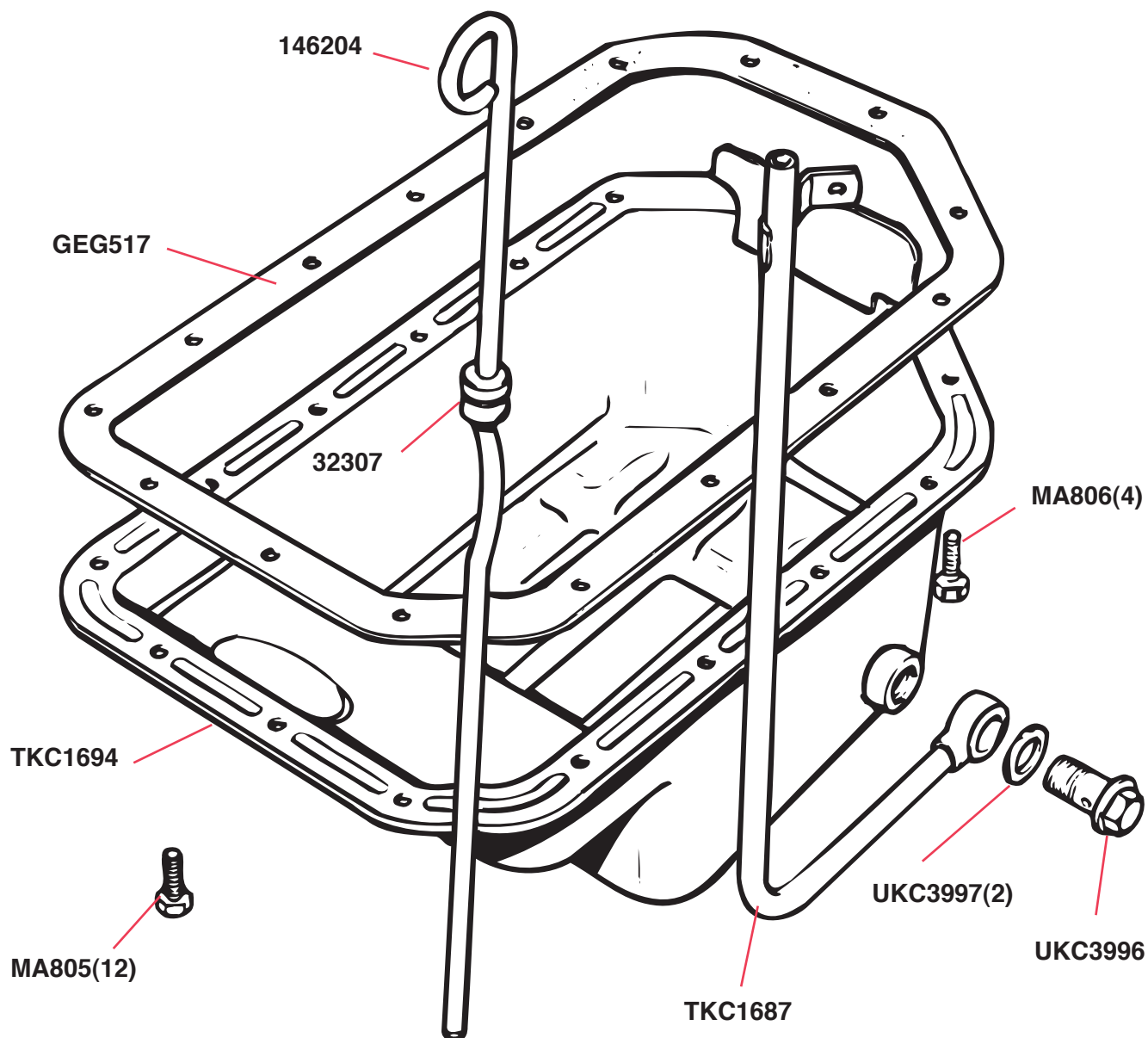
Federal Models:	Up to comm. no. FM80001 use 159784
	From FM80001 up to FM110001 use IM5050
	After comm. no. FM110001 use GPS123
California Mod.:	Up to comm. no. FM103690UCE use 159784
	After comm. no. FM103690UCE use GPS123

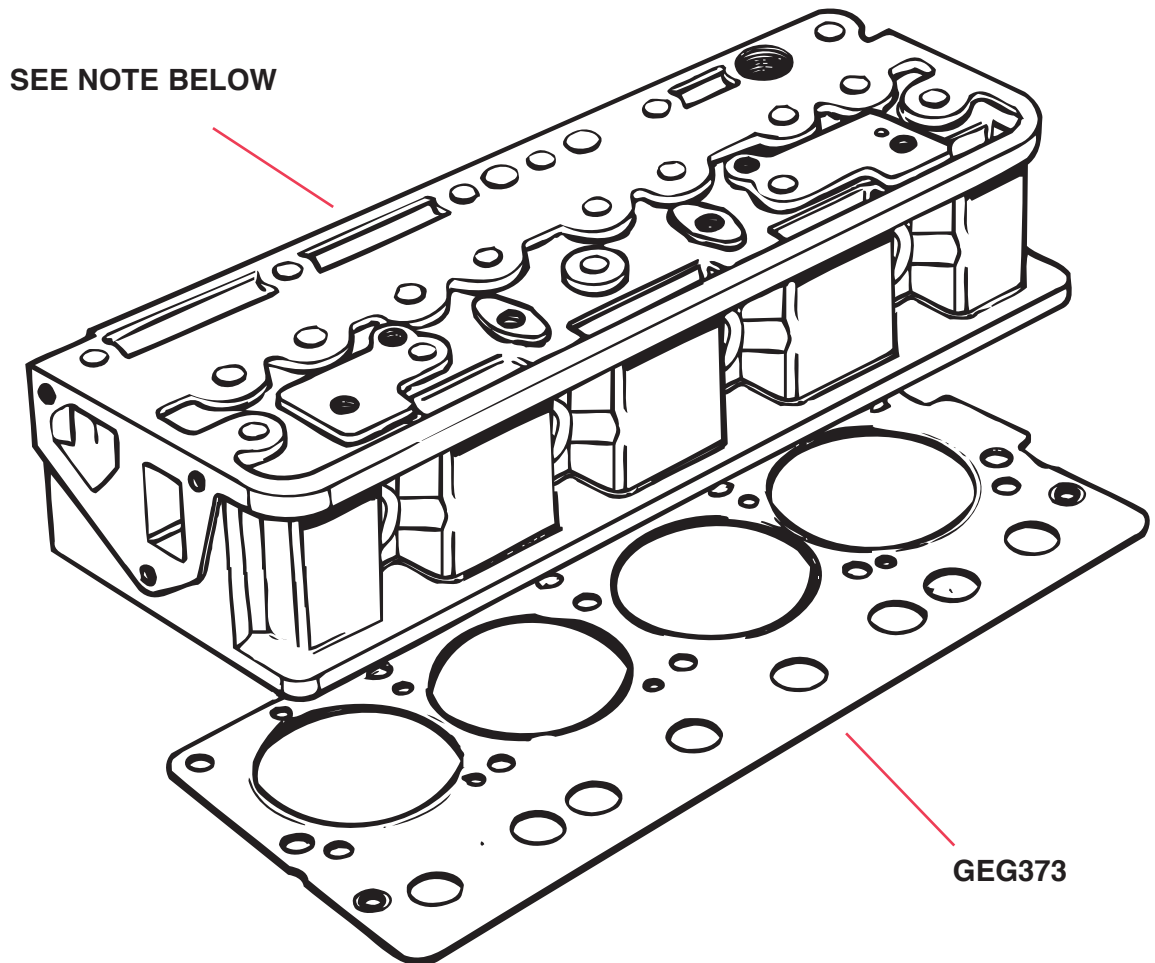
## SINGLE CARBURETTOR ENGINE—Engine Plates and Sump



1. As used on Federal models up to comm. no. FM110001 and California models up to FM109890UCE
2. Calif. models after comm. no. FM109890UCE and on Federal models after FM110001: TKC5227 Bracket; SH604041(2) Set Screws; WL600041 Lock Washers.
3. Oil Drain Plugs: Square Head (as pictured) (can be used on Federal Models) 114774; Hex Head (takes sealing ring) (Must be used on Calif. models after comm. no. FM59324UCE) ULC1999, sealing ring ULC1998. See next drawing for oil drain plug used on Calif. models up to FM59324UCE.
4. The front engine plate fitted to the earliest 1500's, at least up to and including 1974, seems to have been pt. no. 215372; later cars used TKC1830

## SINGLE CARBURETTOR ENGINE—Sump and Dipstick—California Models up to Engine No. FM59324UCE.



**SINGLE CARBURETTOR ENGINE—Cylinder Head Assembly****CYLINDER HEAD APPLICATIONS ARE AS FOLLOWS:****Early cars (up to 1974)**

With valves, springs: UKC1426

Less valves, springs: 218139

**Later cars (after 1974), Federal Models:**

Up to engine no. FM40,000UE: TKC1409

From engine no. FM40,000UE up to FM80,000UE: TKC2748

From engine no. FM80,000UE up to FM110,001UE: TKC3239

From engine no. FM110,001UE on: TKC1410

**Later cars (after 1974), California Models:**

Up to engine no. FM80,000UCE: TKC1410

From engine no. FM80,000UCE up to FM109890UCE: TKC3239

From engine no. FM109890UCE on: TKC1410

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## SINGLE CARBURETTOR ENGINE—Rebuilt Cylinder Head.

### THE ROADSTER FACTORY'S REBUILT CYLINDER HEADS



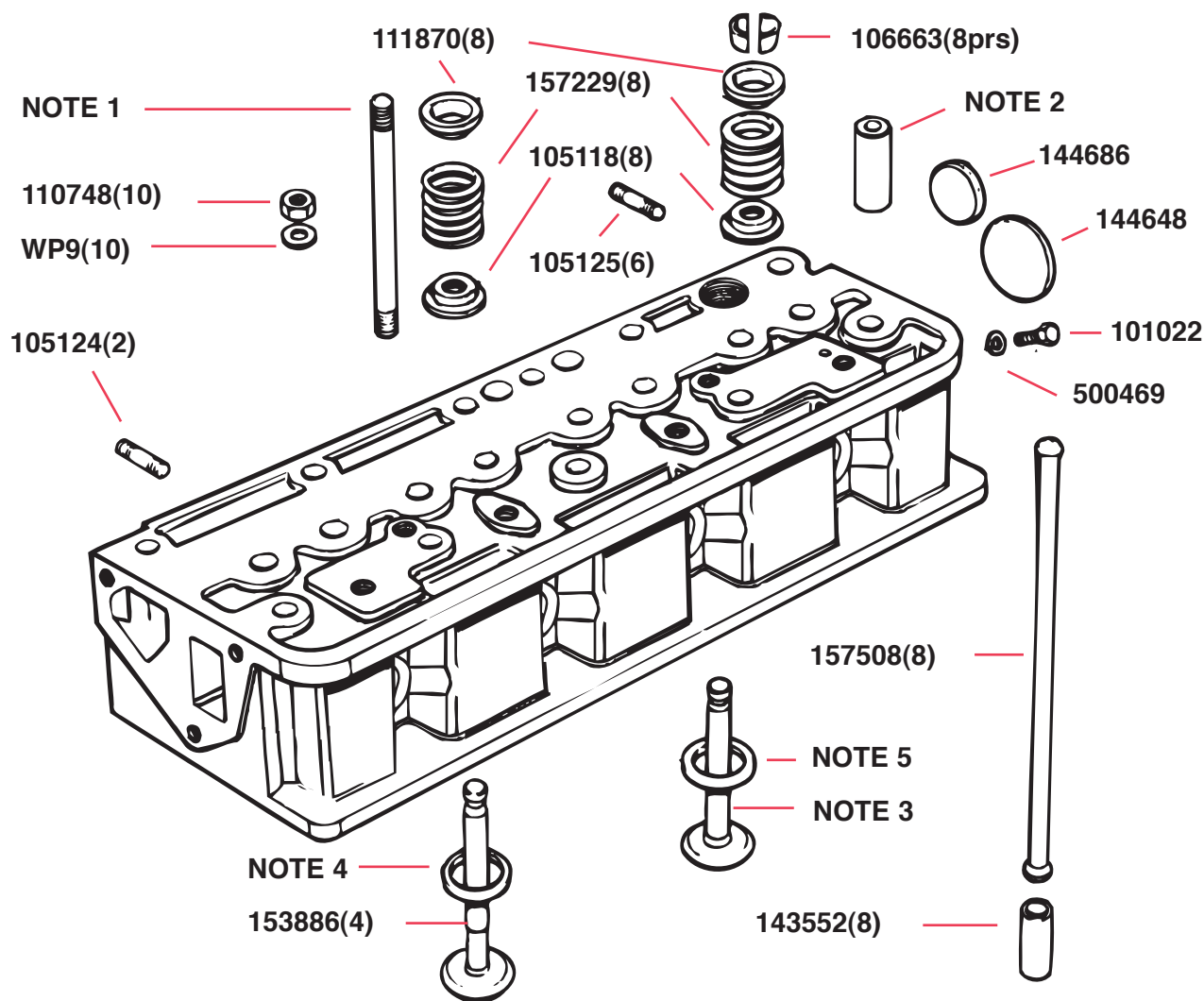
We rebuild our own cylinder heads at The Roadster Factory, following the same rigid procedures we do for our rebuilt engine blocks. Cylinder heads are first stripped and thoroughly cleaned. New valve guides are then fitted, and they are given a precision valve job. New valve springs are fitted every time, of course, along with new valves, although we also offer heads which have been rebuilt with good used valves, when available, at a reduced price. The following rebuilt cylinder heads for Spitfire 1500 are listed with the corresponding original cylinder head part number in parentheses to aid the customer in choosing the correct component.

For more information about engine rebuilding, please call Tom Spadafora of C.A.R. Components at (814) 446-4423 x 3029 or email him at [tsroadster@gmail.com](mailto:tsroadster@gmail.com). The Car Components web site can be accessed through the menu link on The Roadster Factory website [www.the-roadster-factory.com](http://www.the-roadster-factory.com).

Part No.	Application/Description	
RBCH91/N	1973 only; rebuilt cylinder head with new valves and springs	(UKC1426)
RBCH91/U	Same as above, only with good, used valves.	
RBCH92/N	1974 to engine no. FM40,000, with new springs and valves	(TKC1409)
RBCH92/U	Same as above, only with good, used valves.	
RBCH93/N	Engine no. FM40,000 to FM80,000, with new valves and springs	(TKC2748)
RBCH93/U	Same as above, only with good, used valves.	
RBCH94/N	Engine no. FM80,000 to FM110,000, new valves and springs	(TKC3239)
RBCH94/U	Same as above, only with good, used valves.	
RBCH95/N	Engine no. FM110,000 on, with new valves and springs	(TKC1410)
RBCH95/U	Same as above, only with good, used valves.	
<b>California Models:</b>		
RBCH95/N	Up to engine no. FM80,000, with new valves and springs	(TKC1410)
RBCH95/U	Same as above, only with good, used valves.	
RBCH94/N	Engine no. FM80,000 to FM109989, new valves and springs	(TKC3239)
RBCH94/U	Same as above, only with good, used valves.	
RBCH95/N	Engine no. FM109989 on, with new valves and springs	(TKC1410)
RBCH95/U	Same as above, only with good, used valves.	

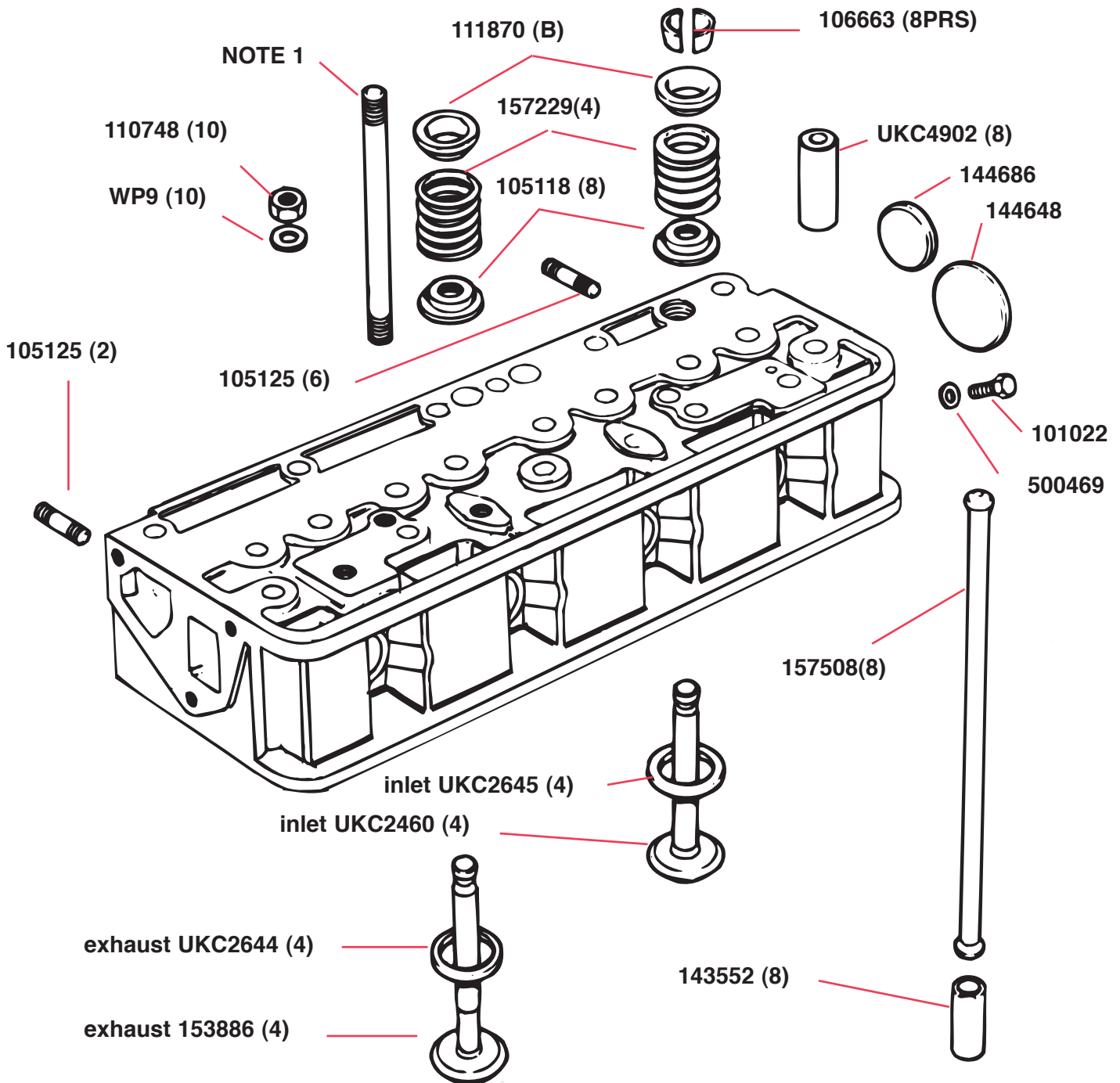


## SINGLE CARBURETTOR ENGINE—Valve Gear, Valve Springs —Federal Models (For California models, see p. 8)



1. Rocker cover studs changed at engine no. FM80001. Previous to that number 105123(2) was the part no. of the stud; after that number either ULC1578(2) or UKC7851(2) was used alternatively.
2. Valve guide numbers were superseded at engine no. FM80001. Engines previous to that number used 58923(8); later engines used UKC4902(8).
3. Inlet valves were superseded, apparently, after 1974. Earlier, 145328(4) was used; later it was UKC2460(4).
4. Exhaust valve seats were superseded at commission no. FM110,001. Earlier, UKC2334 was used; later, it was UKC2644
5. Inlet valve seats were superseded at commission no. FM110,001. Before that, UKC2335 was used; later UKC2645 was used.

## SINGLE CARBURETTOR ENGINE—Valve Gear, Valve Springs —California Models (See p. 7 for Federal Models)

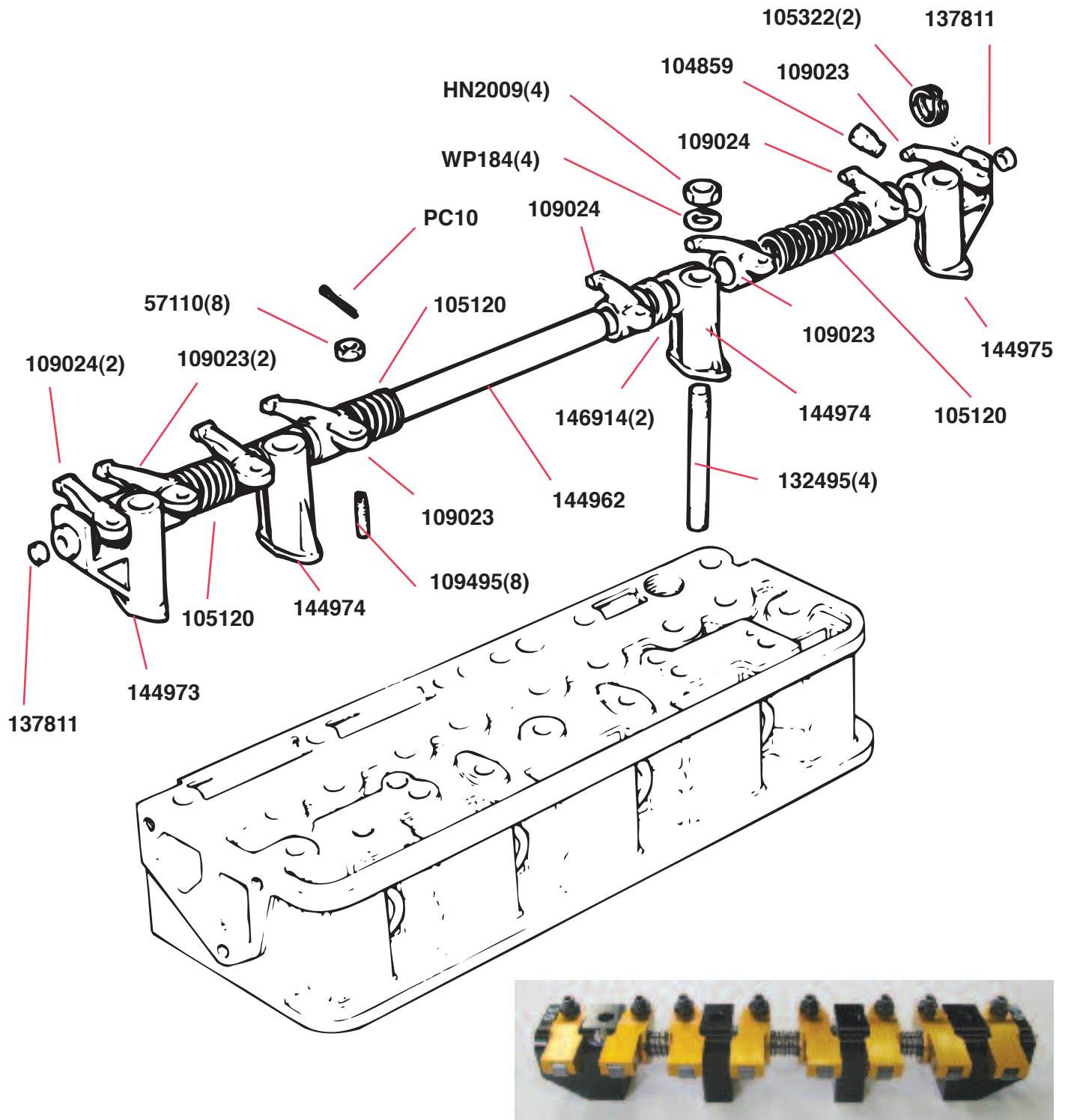


From the factory publications, it appears that the earliest California models would be identical to the earliest Federal models as listed in the previous drawing on page 7.

1. Rocker cover studs changed at engine no FM80001. Previous to that number, 105123 (2) was used; afterward, either ULC1578 (2) or UKC7851 (2) was used alternatively.



## SINGLE CARBURETTOR ENGINE—Rocker Shaft and Gear—All Models



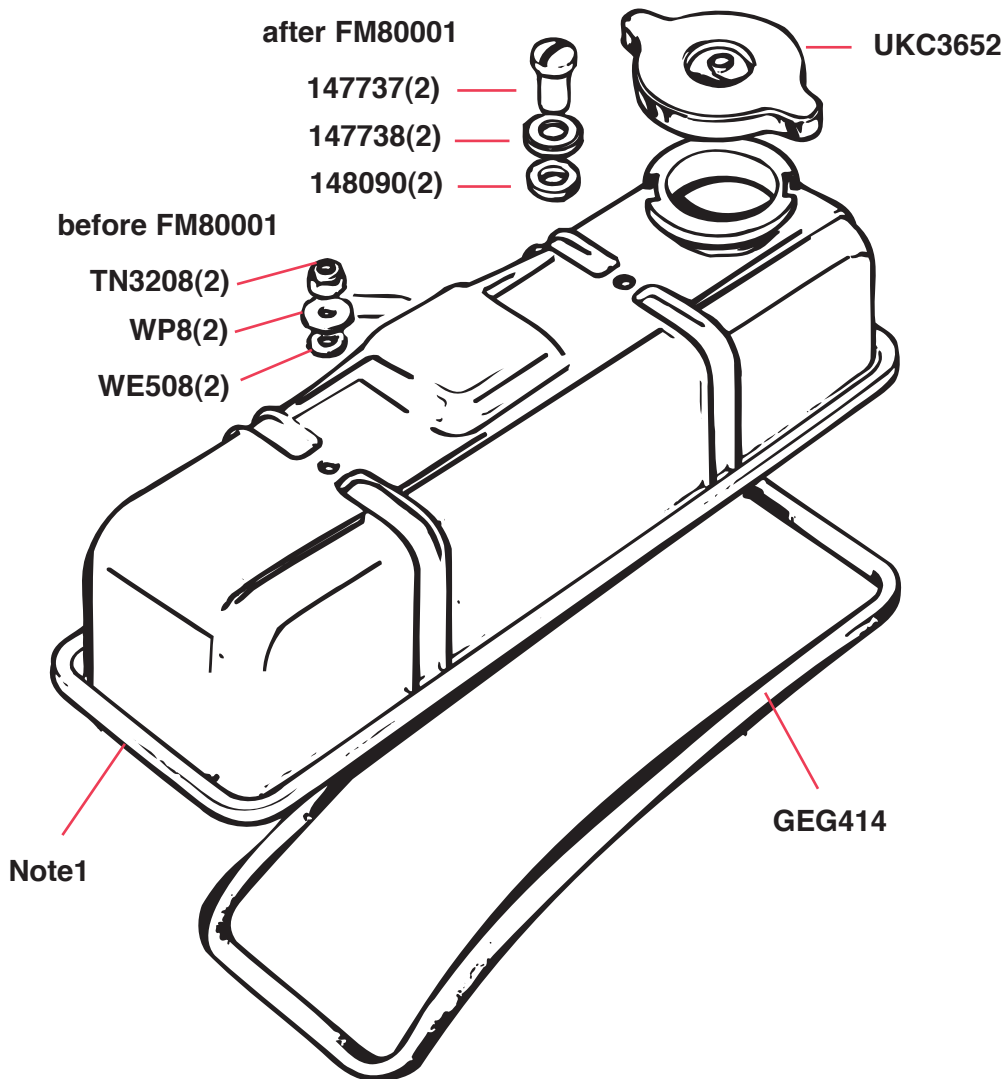
### HIGH-PERFORMANCE ROLLER ROCKER ASSEMBLIES

ROLLER ROCKER ASSEMBLIES, Spitfire mks.3, 4, 1500

HP267 Roller Rocker Assembly, 1.55:1 ratio

HP268 Roller Rocker Assembly, 1.65:1 ratio

## SINGLE CARBURETTOR ENGINE—Rocker Cover—U.S.A. Federal and California Models



1. Rocker covers (valve covers) were superseded a number of times over the years of production of U.S. Federal and California models. Applications are as follows:

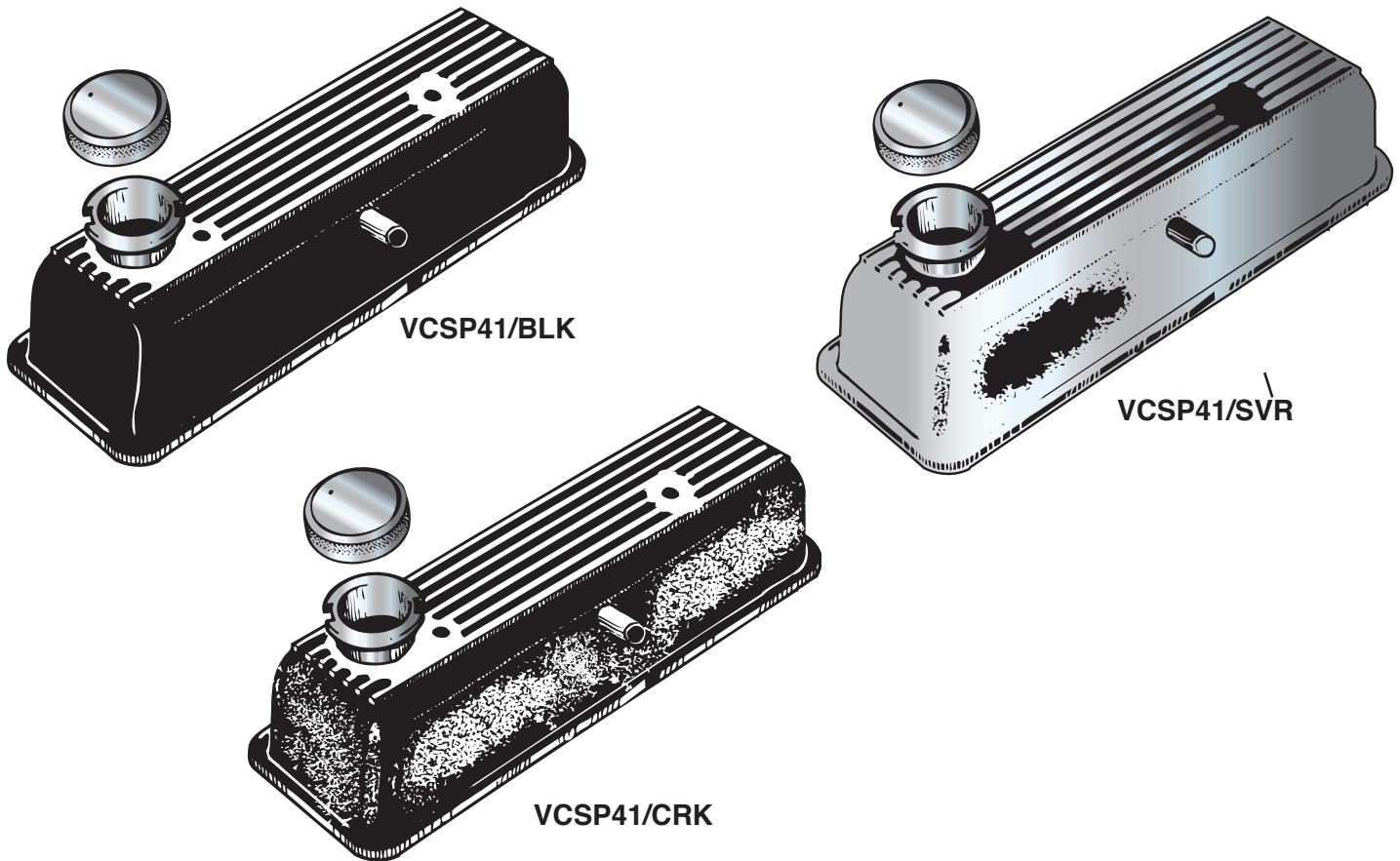
### Federal Models:

Up to 1974:	214814
Later to engine no. FM8001:	TKC1466
From engine no. FM8001 up to engine no FM100.001:	TKC3238
From engine no FM100.001 on:	RKC3775

### California Models:

Up to 1974:	214814
Later to engine no. FM8001:	TKC1466
From engine no. FM8001 on:	TKC3775

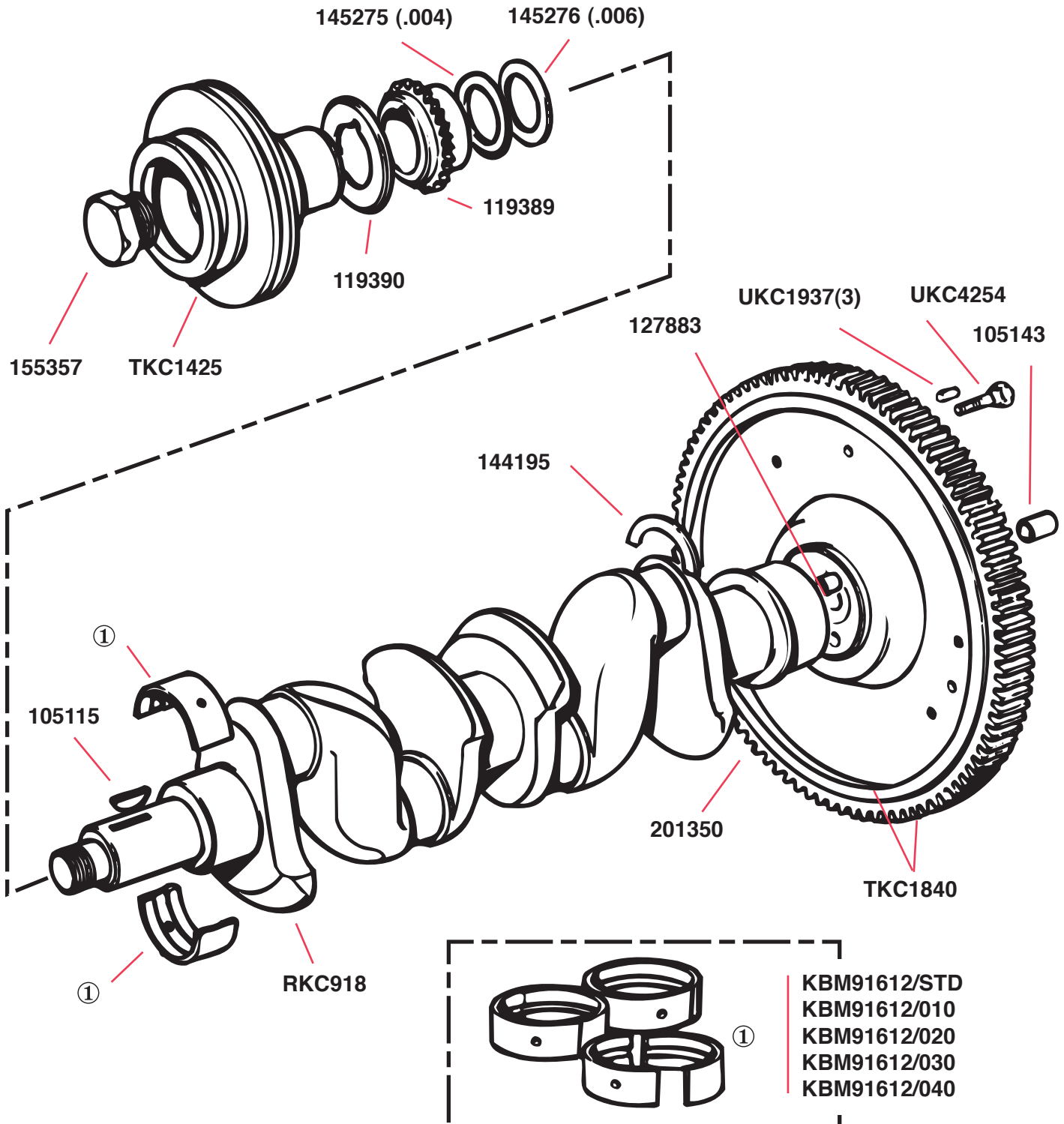
## SINGLE CARBURETTOR ENGINE—Cast Alloy Valve Covers



Some of the early Triumphs were equipped with cast aluminum valve covers as optional equipment. There are a number of advantages to cast aluminum valve covers over the pressed steel valve covers fitted to most models as original equipment. The quiet valve noise, they do not bend when the securing nuts are tightened, and they are very attractive. Although the cast aluminum covers listed here are not original equipment, they do include all of the advantages described, and they make a striking addition to your Spitfire's engine compartment.

Part No.	Description
VCSP41/BLK	<b>Cast Aluminum Valve Cover</b> , black finish with polished alloy details
VCSP41/SVR	<b>Cast Aluminum Valve Cover</b> , polished silver alloy finish
VCSP41/CRK	<b>Cast Aluminum Valve Cover</b> , black crackle finish with polished alloy details

## SINGLE CARBURETTOR ENGINE—Crankshaft, Flywheel—U.S.A. Federal and California Models



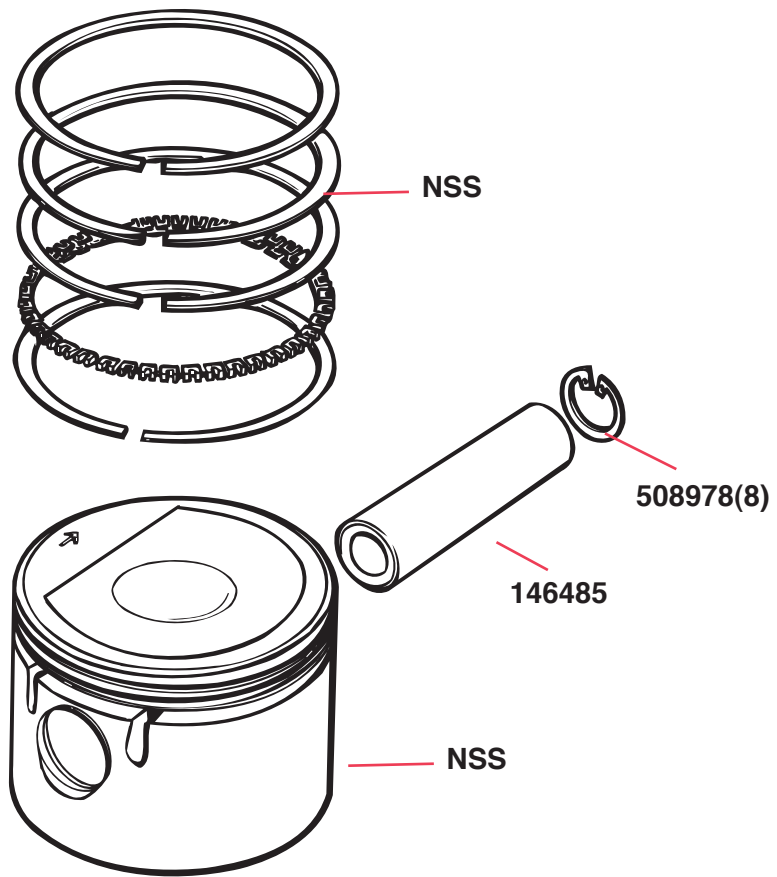
**SINGLE CARBURETTOR ENGINE—Piston Assembly—U.S.A. Federal and California Models**

Piston rings are not supplied separately for one piston

Piston rings are available in sets (enough for one car) as follows:

Std size      BHM1175  
.020 in O/S   BHM1175/020

A piston assembly includes all of the items pictured on this page.



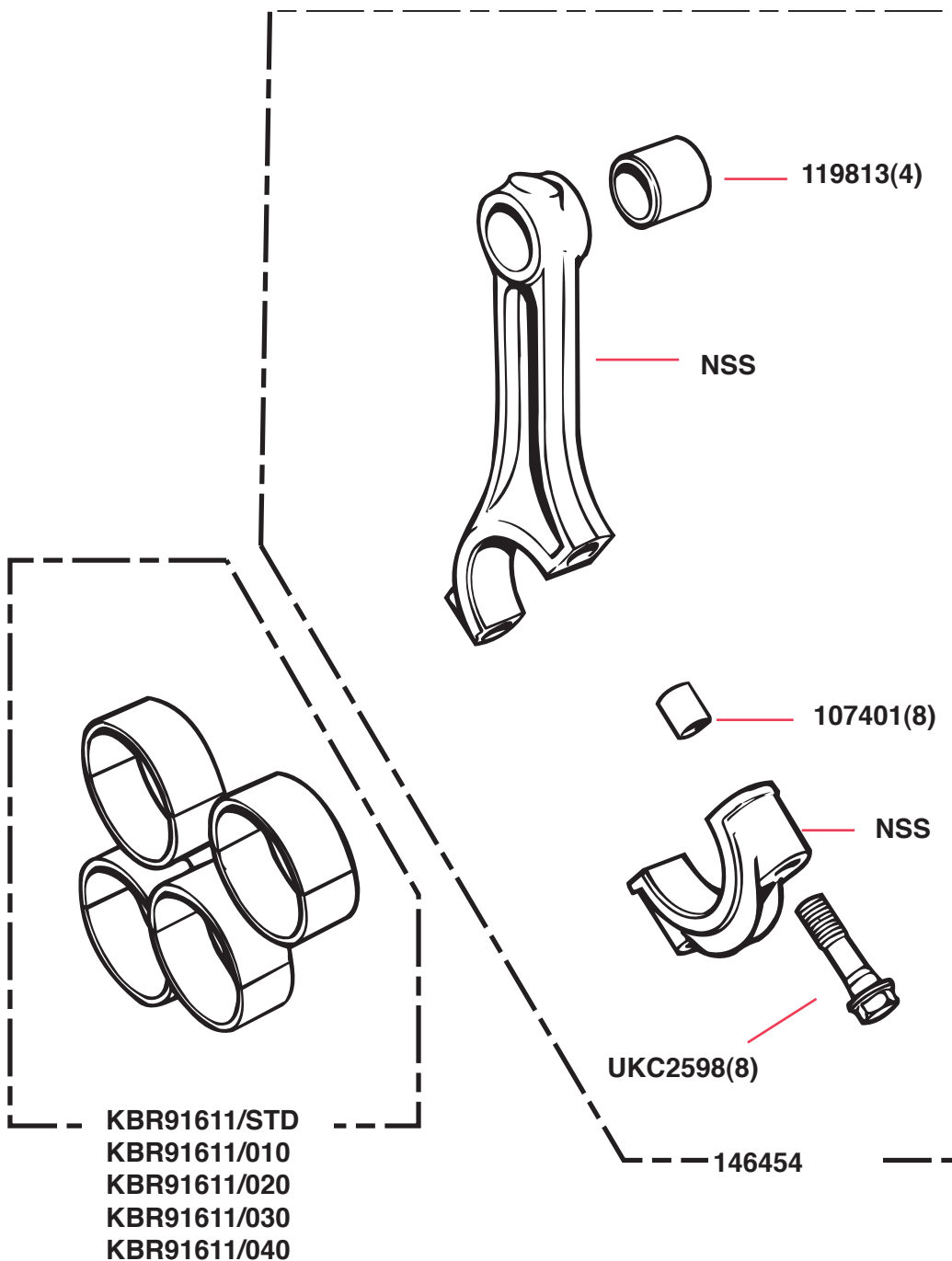
Pistons were available in two types: low compression (dish top) and high compression (flat top). The low compression pistons were fitted to U.S. Federal models up to engine no. FM40000UE and after FM80000UE, and to all California models. High compression pistons were fitted to U.S. Federal models between engine no. FM40000UE and FM80000UE. Low compression pistons create a compression ratio of 7.5:1. High compression pistons create a compression ratio of 9:1. Parts numbers are as follows:

**HIGH COMPRESSION PISTONS**

Piston (standard size)	CBP20139/STD
Piston (010 in. oversize)	CBP20139/010
Piston (020 in. oversize)	CBP20139/020
Piston (030 in. oversize)	CBP20139/030
Piston (040 in. oversize)	CBP20139/040

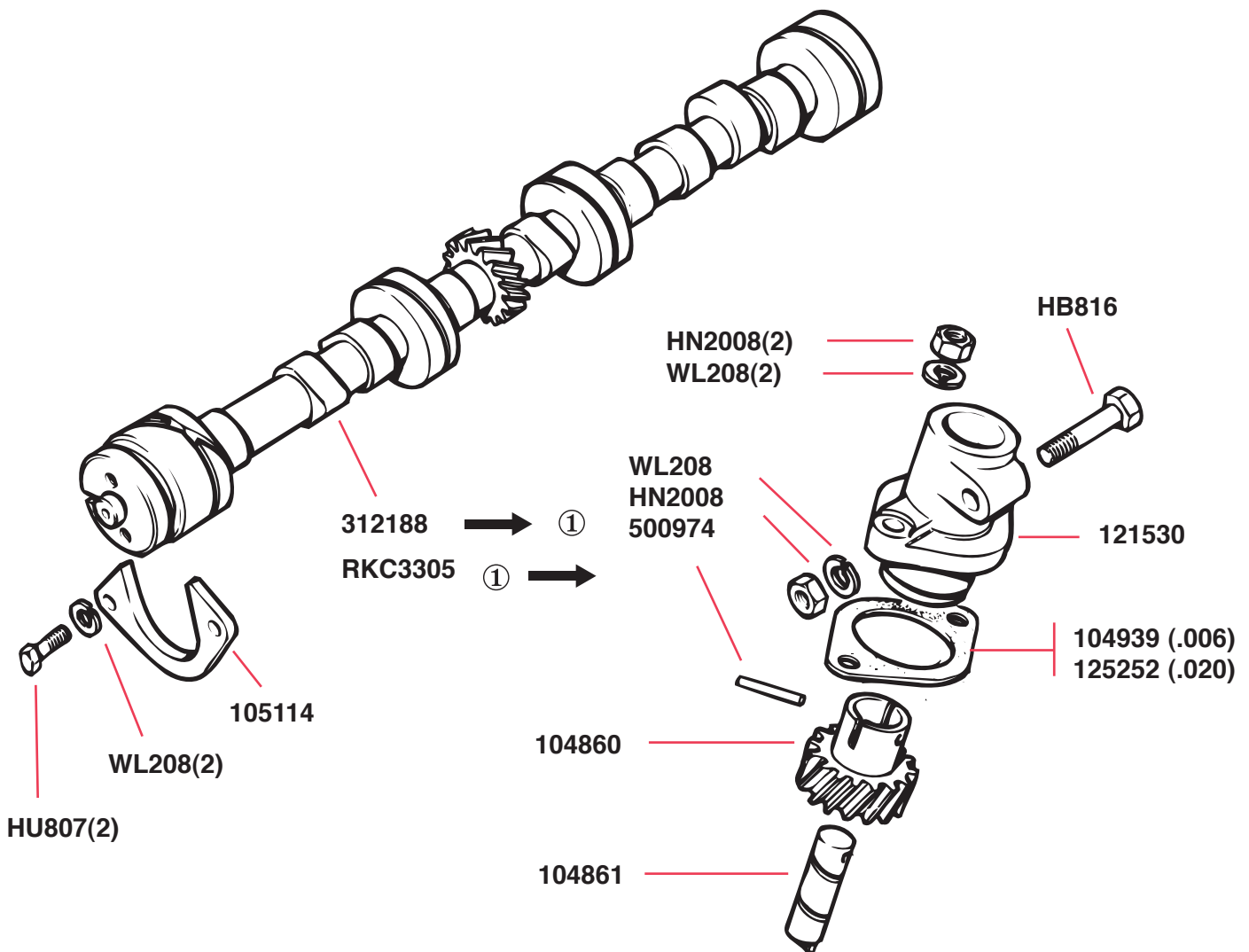
Pistons are sold in sets (of 4) only.

## SINGLE CARBURETTOR ENGINE—Connecting Rod—U.S.A. Federal and California Models



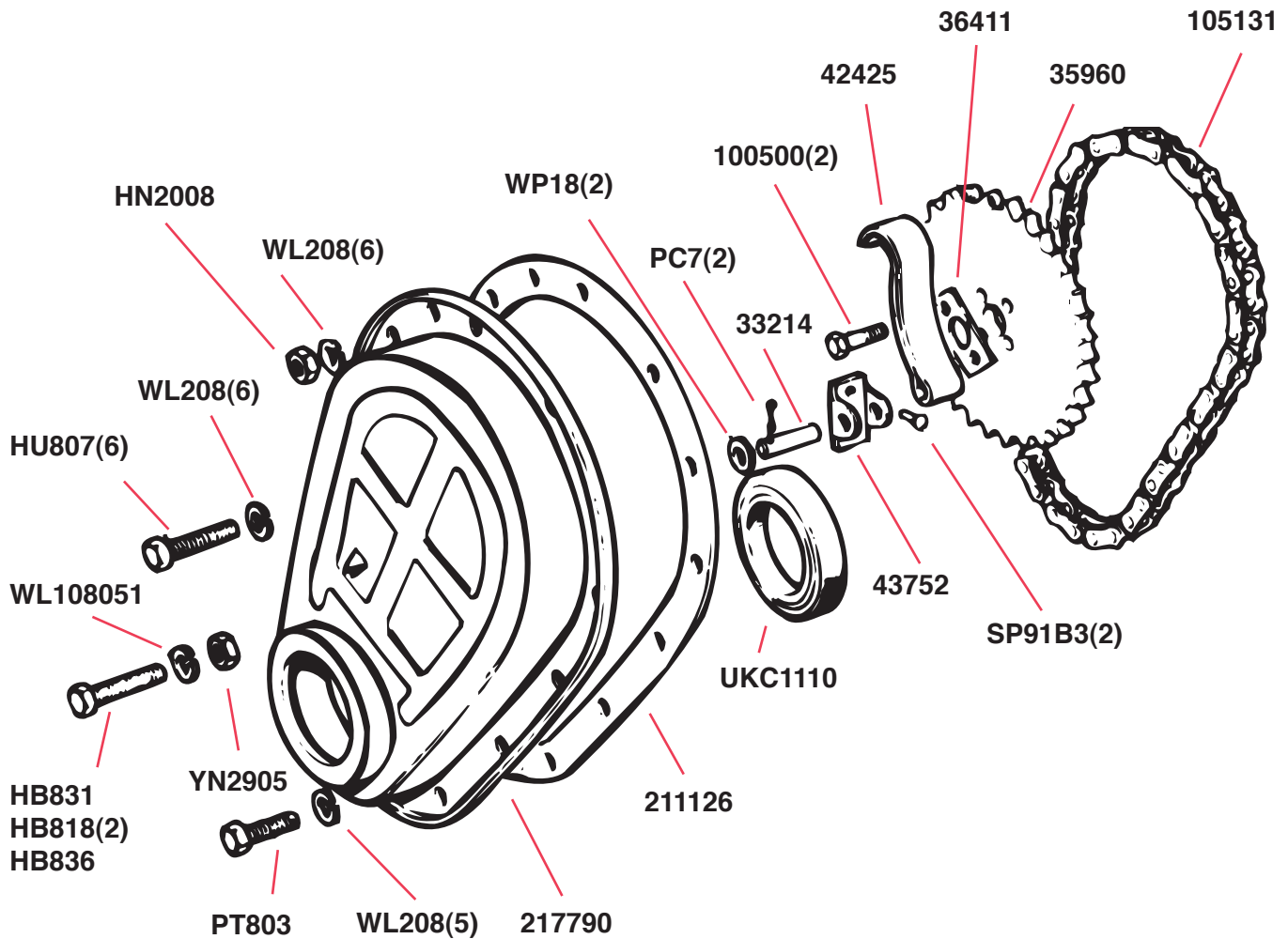


## SINGLE CARBURETTOR ENGINE—Camshaft and Distributor Pedestal—U.S.A. federal and California Models



1. Spitfire 1500 camshafts were superseded at engine no.FM93157. Previous to this engine no. use camshaft 312188. After that point, use RKC3305

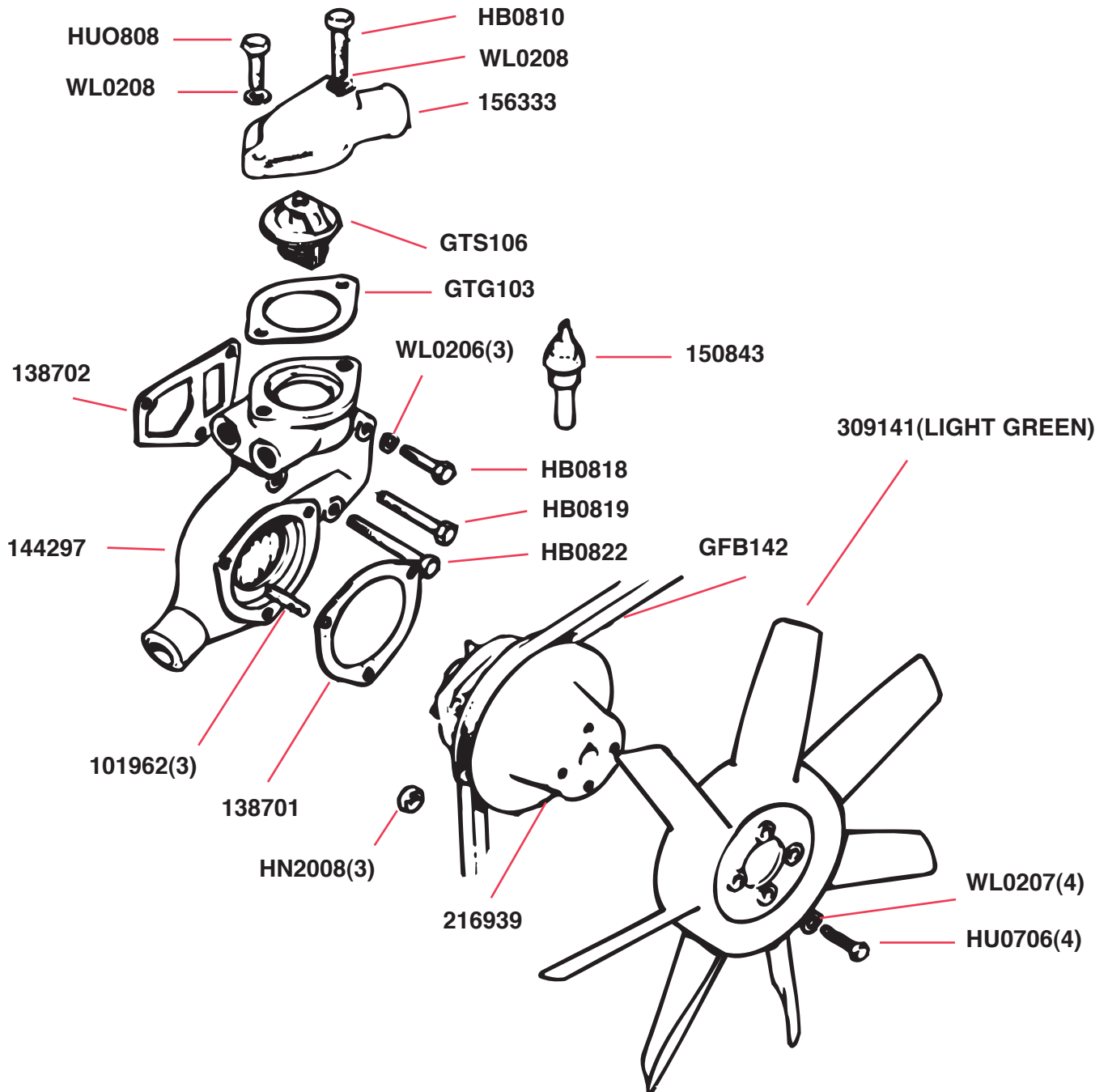
## SINGLE CARBURETTOR ENGINE—Timing Details—U.S.A. Federal and California Models



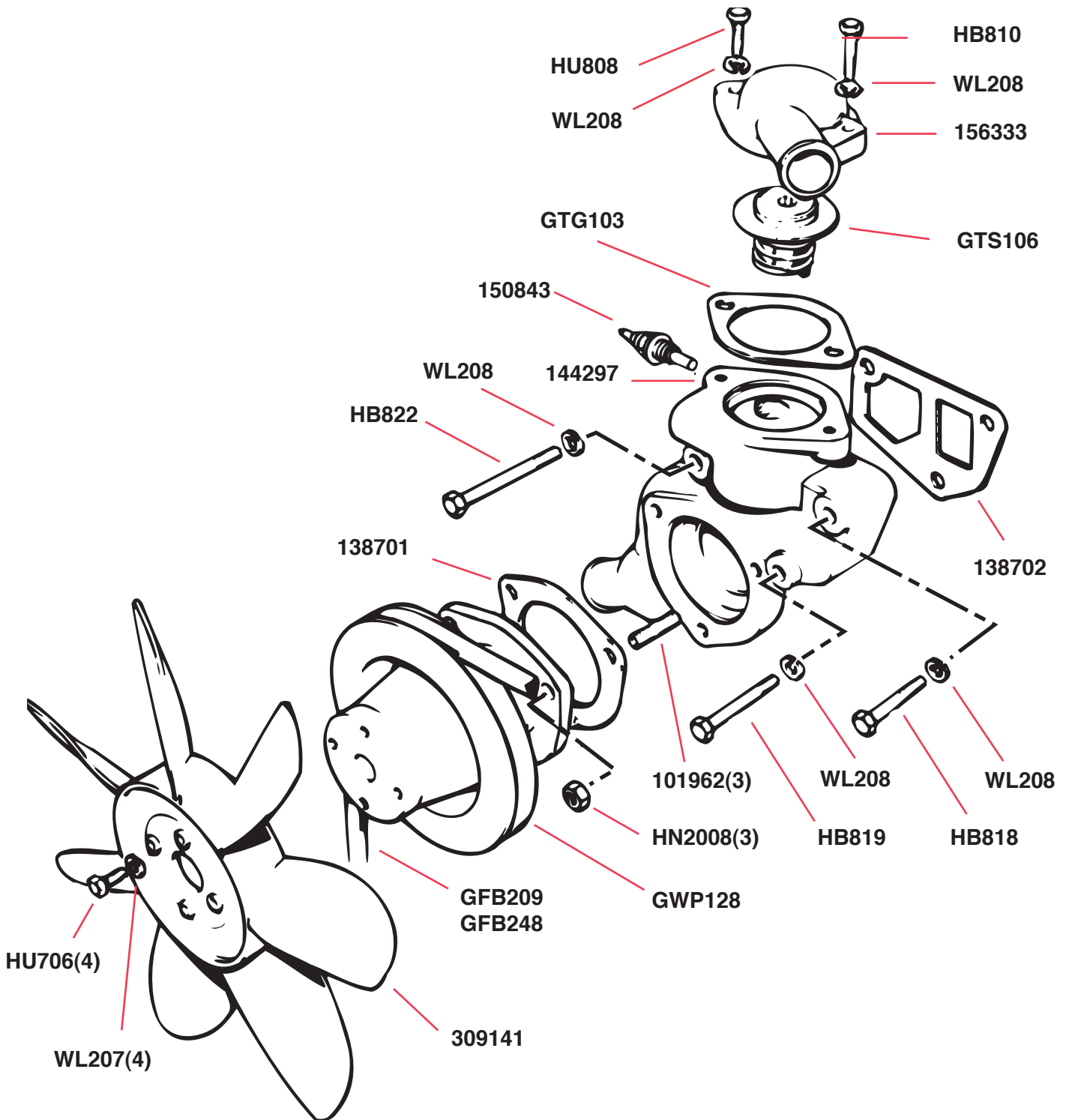
## RENOLD TIMING CHAINS

REN105131 Timing Chain, Renold brand, all Spitfires, all GT6

## SINGLE CARBURETTOR ENGINE—Water Pump and Fan—U.S.A. —All 1973-1974 Cars

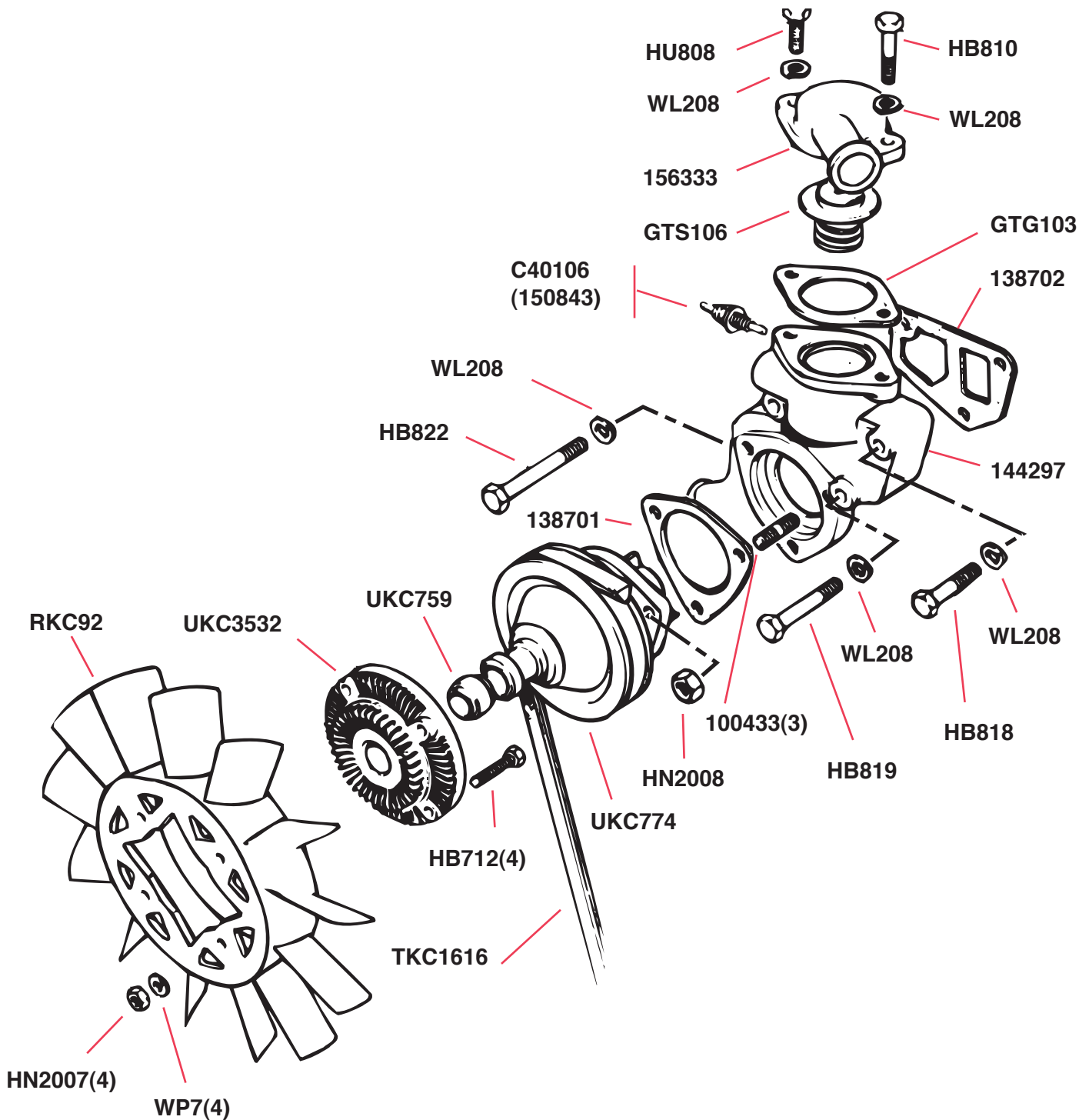


## SINGLE CARBURETTOR ENGINE—Water Pump and Fan—Some 1975 Cars (See note below.)



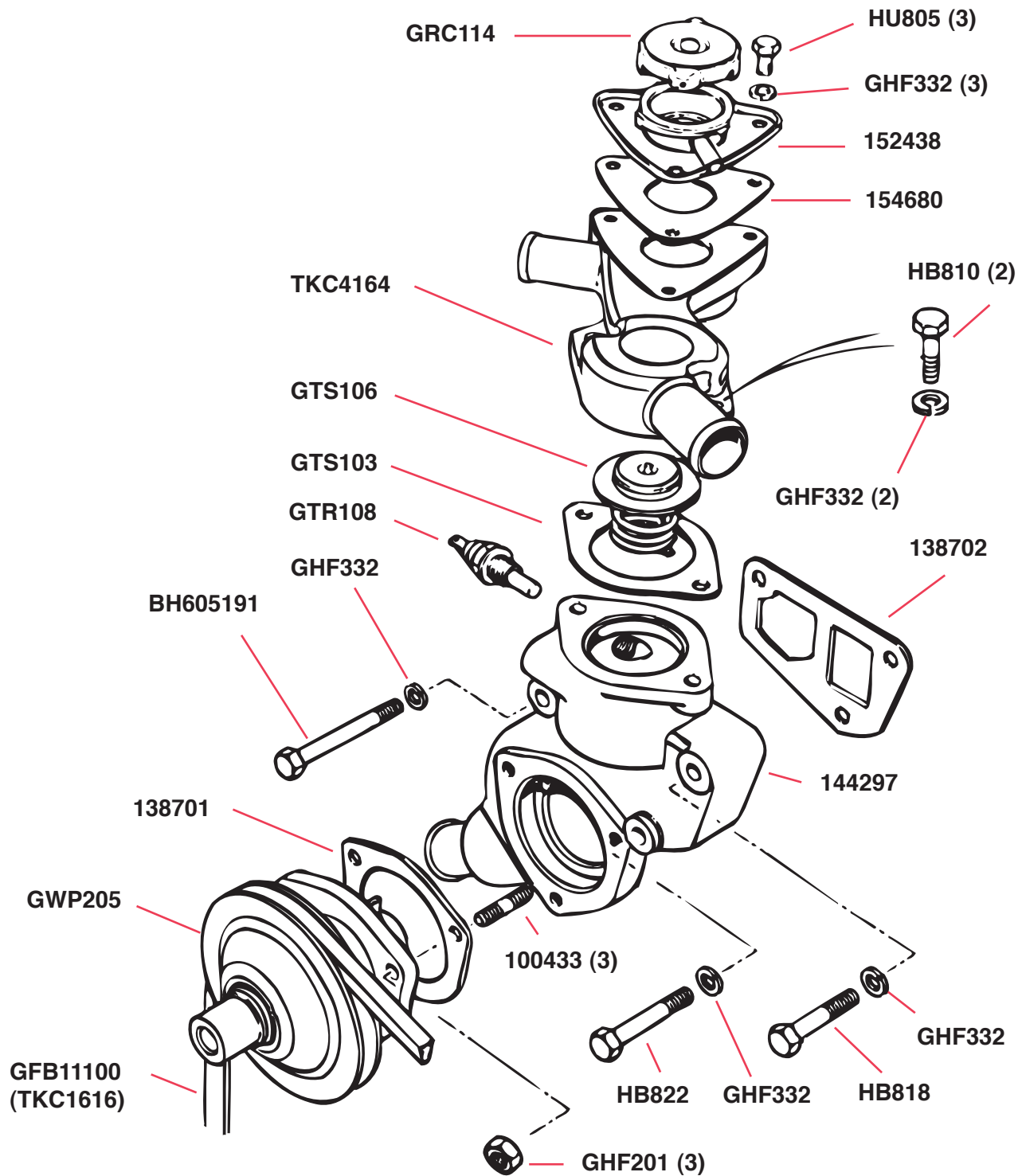
Although this water pump and fan arrangement was used on non-U.S. twin carburettor models, it appears from factory publications that this setup was also possibly used on at least some 1975 U.S.A cars.

## SINGLE CARBURETTOR ENGINE—Water Pump and Fan—U.S.A. Federal and California Models—Later Cars (from 1975?) up to Commission No. FM95001



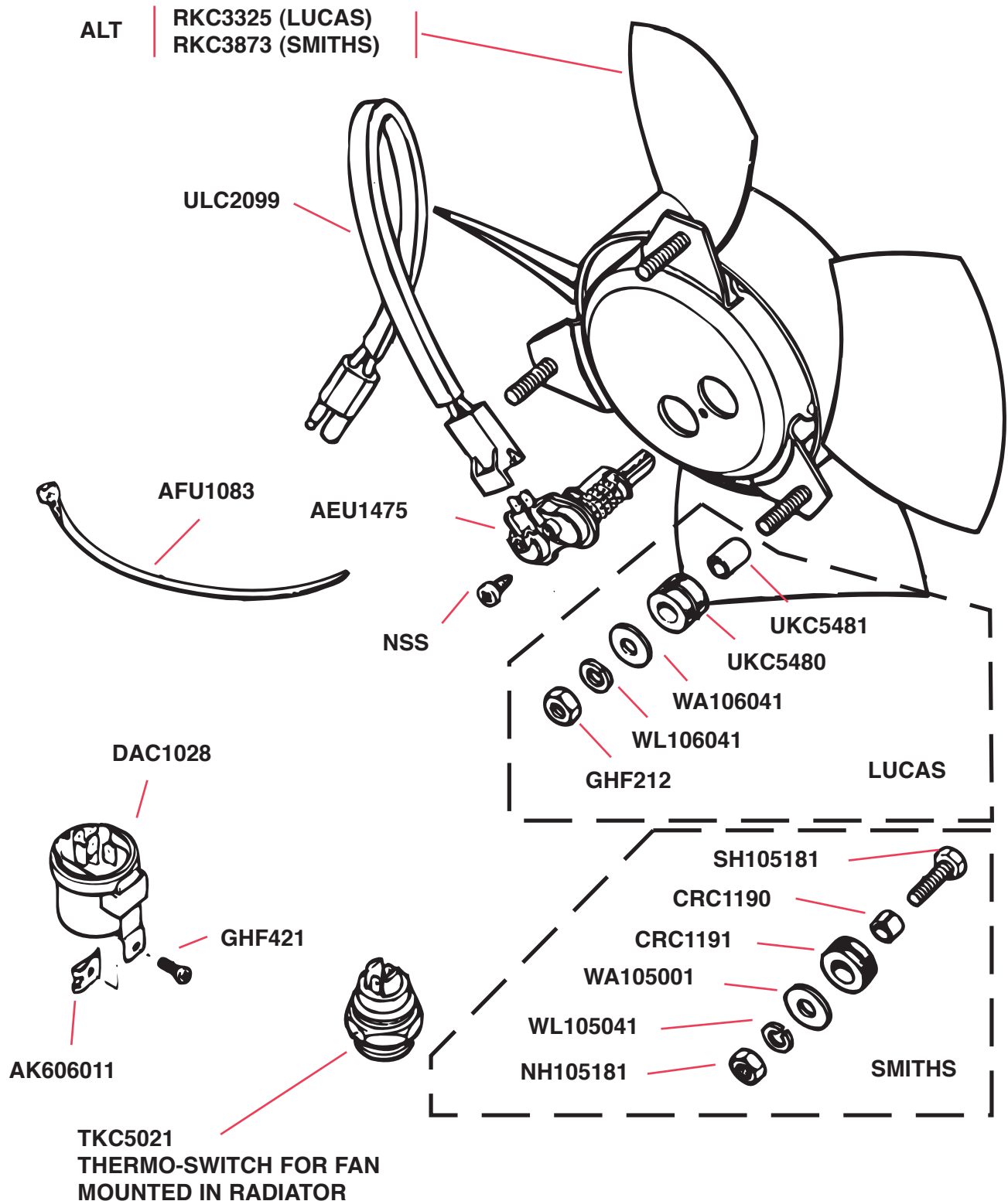
Compare with other water pump and fan drawings to be certain you order correct parts for your particular car.

## SINGLE CARBURETTOR ENGINE—Water Pump and Housings—U.S.A. Federal and California Models—After Commission No. FM95.001

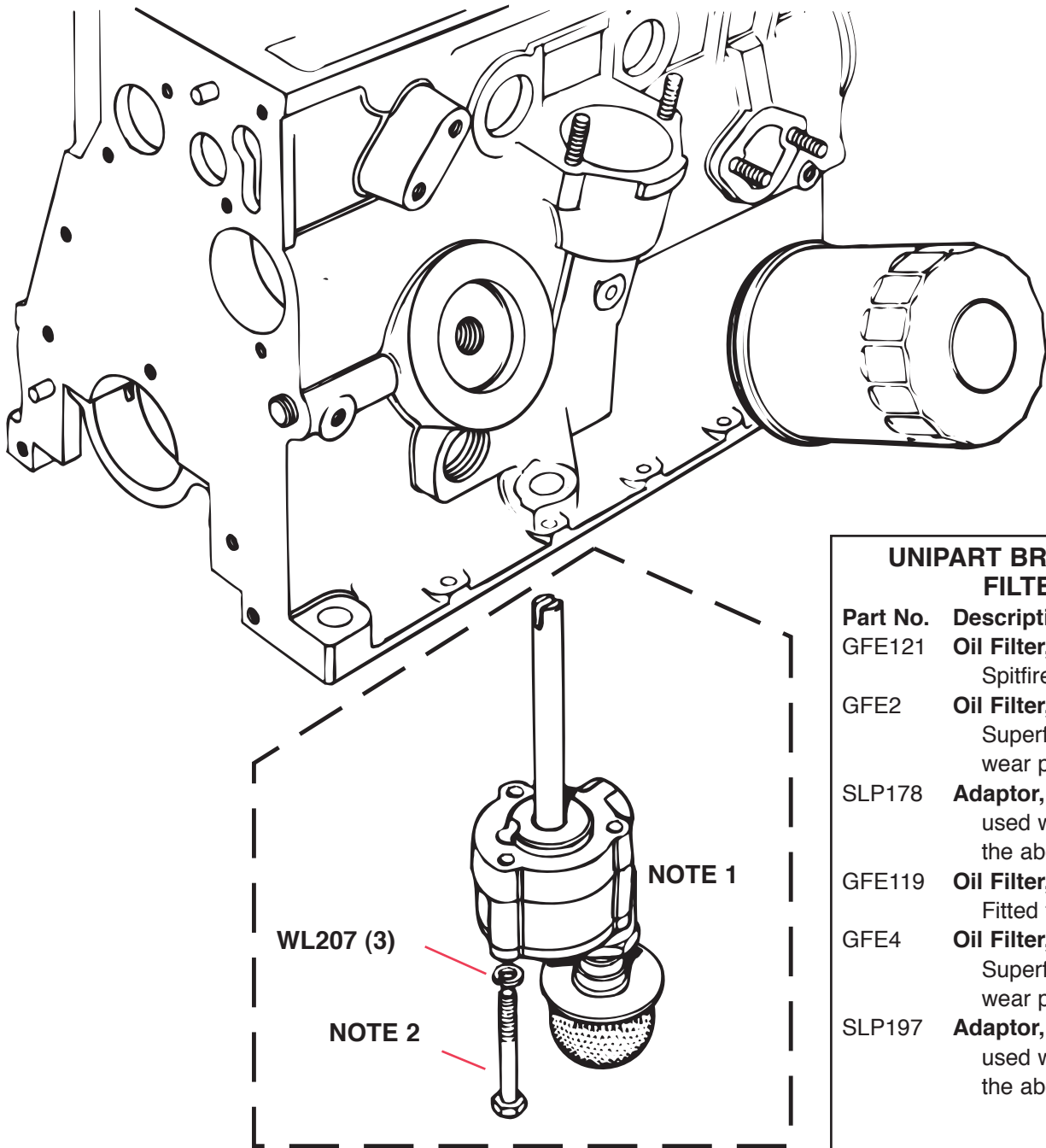




## SINGLE CARBURETTOR ENGINE—Cooling Fan and Fixings—U.S.A. Federal and California Models—After Commission No. FM95.001

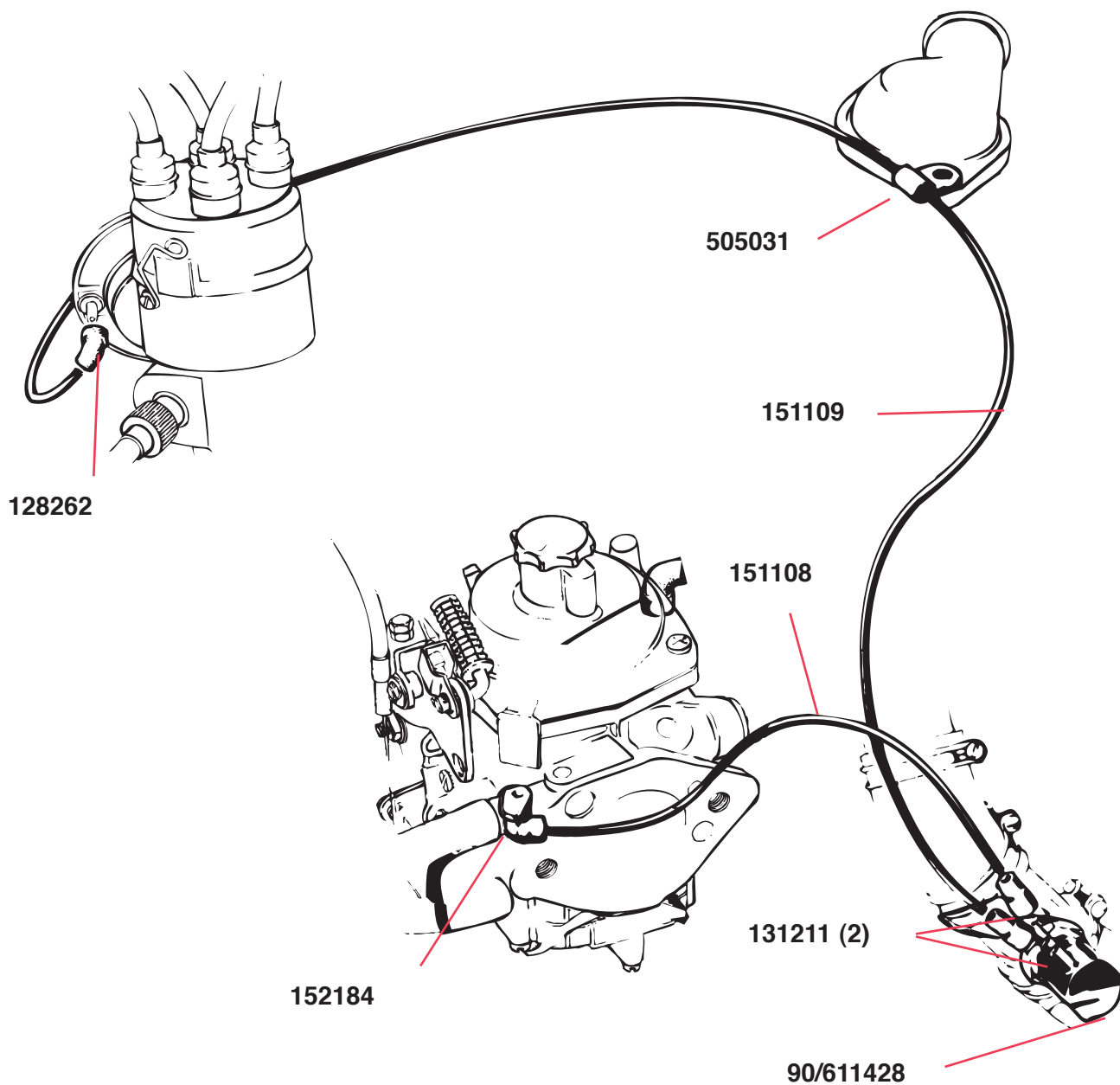


## SINGLE CARBURETTOR ENGINE—Oil Pump and Filter—All U.S.A.

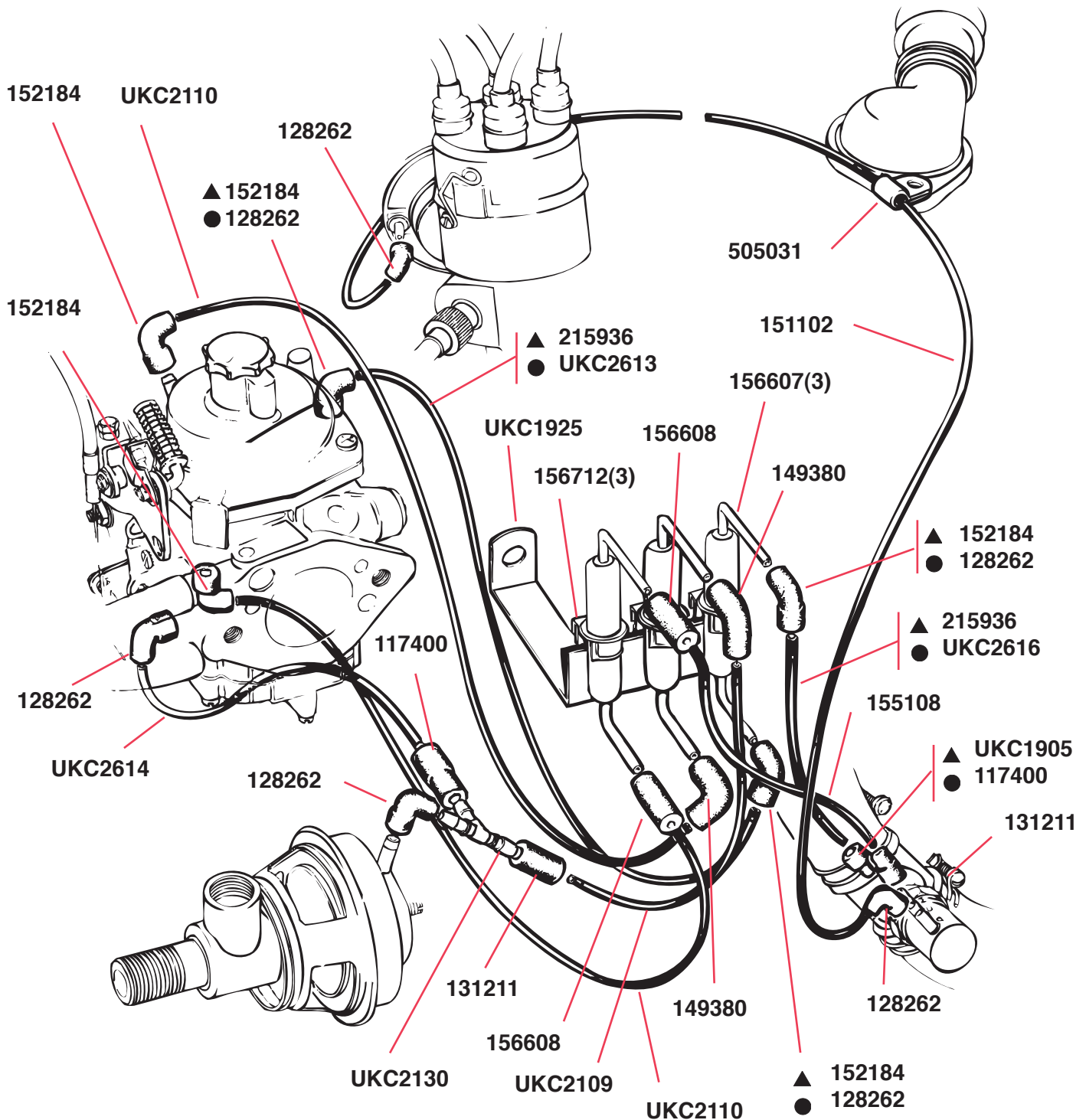


1. Oil pumps were superseded at engine no FM59899. Use 217058 before that point, and TKC1974 after.
2. Use HB721 (3) with the earlier oil pump, and HB723 (3) with the later pump.

## SINGLE CARBURETTOR ENGINE—Auto Ignition Vacuum Pipes —All U.S.A. Models—Up to Engine No. FM10.000UE

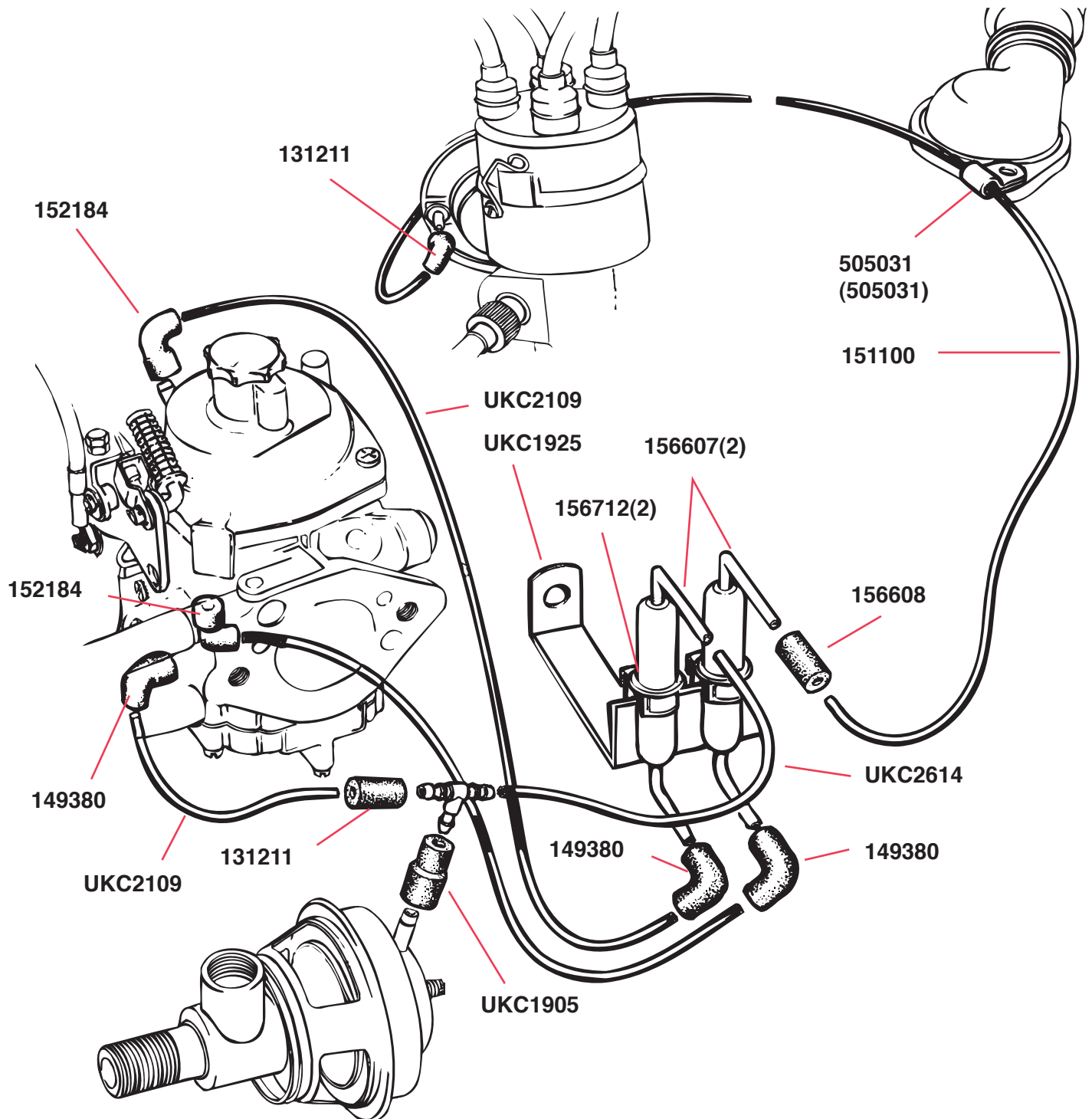


## SINGLE CARBURETTOR ENGINE—Auto Ignition Vacuum Pipes—All U.S.A. Models—From Engine No. FM10001UE up to the End of 1974

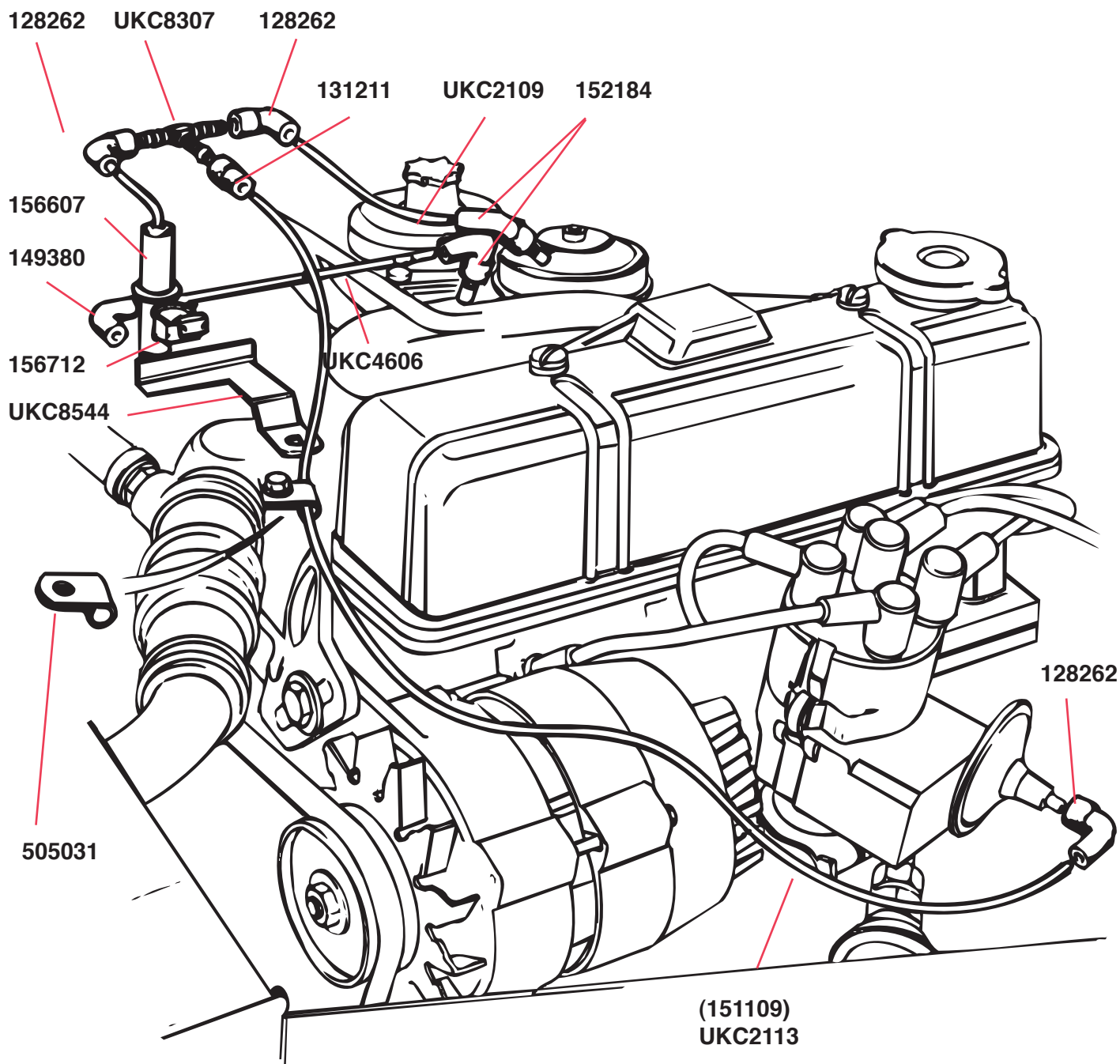


- ▲ Fitted up to engine no. FM10083UE.
- Fitted from engine no. FM10084UE

## SINGLE CARBURETTOR ENGINE—Auto Ignition Vacuum Pipes —U.S.A. Federal Models—From the Beginning of 1975 up to Commission no. FM80,000

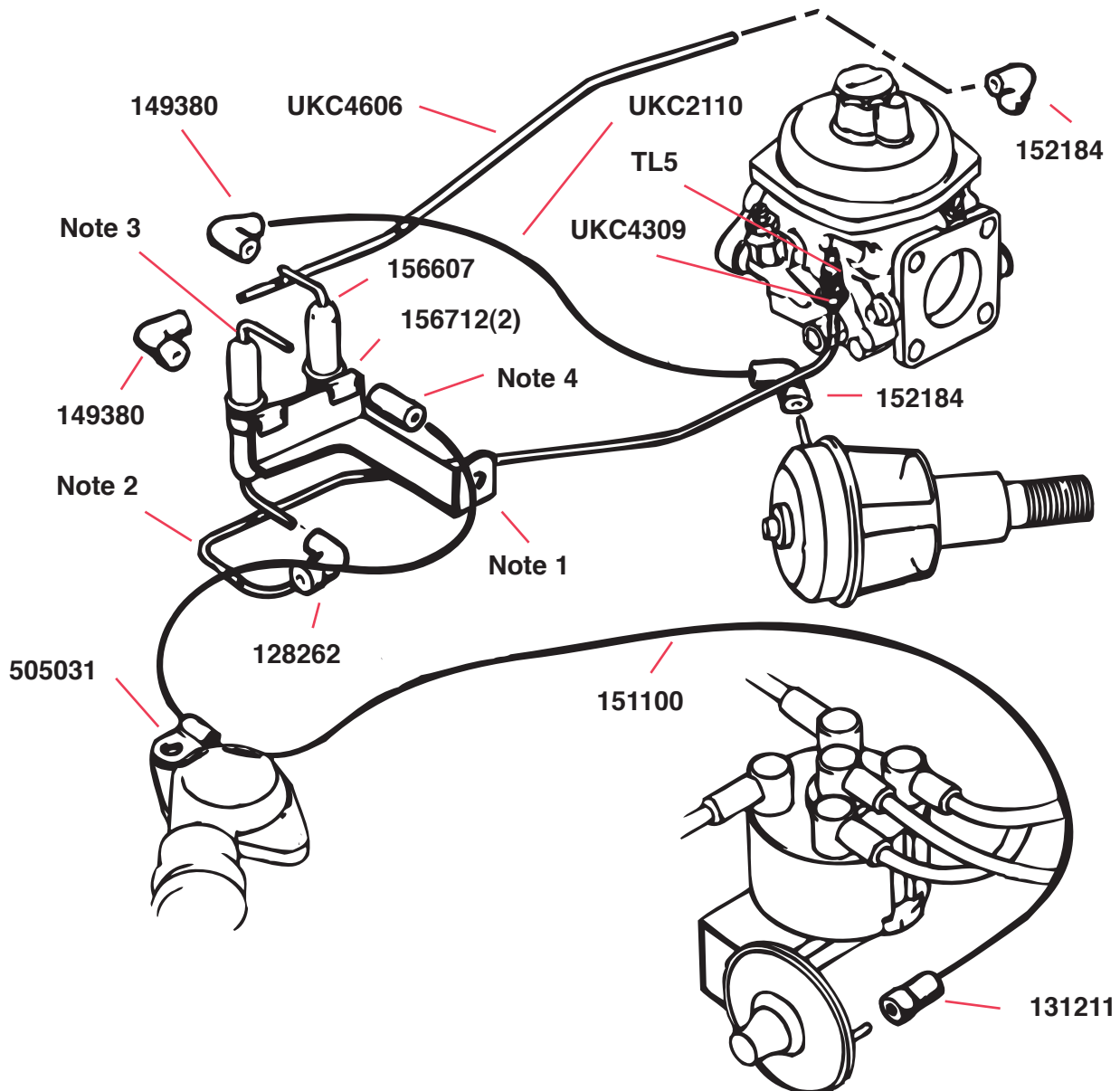


## SINGLE CARBURETTOR ENGINE—Auto Ignition Vacuum Pipes —U.S.A. Federal Models—From Commission No. FM80,001 to FM110,000



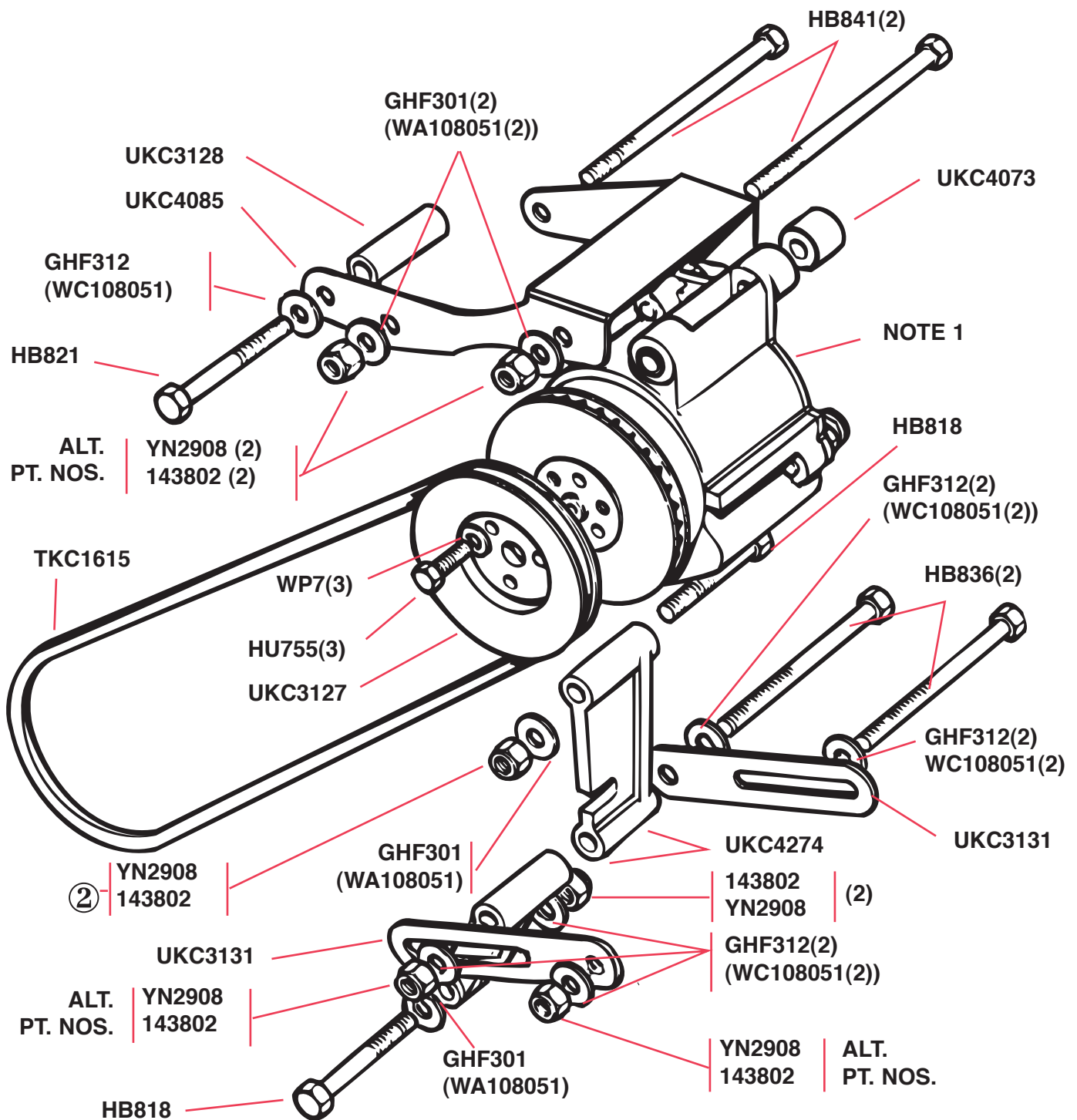


## SINGLE CARBURETTOR ENGINE—Auto Ignition Vacuum Pipes —U.S.A. Federal Models After Commission No. FM110,001 —All California Models After 1974



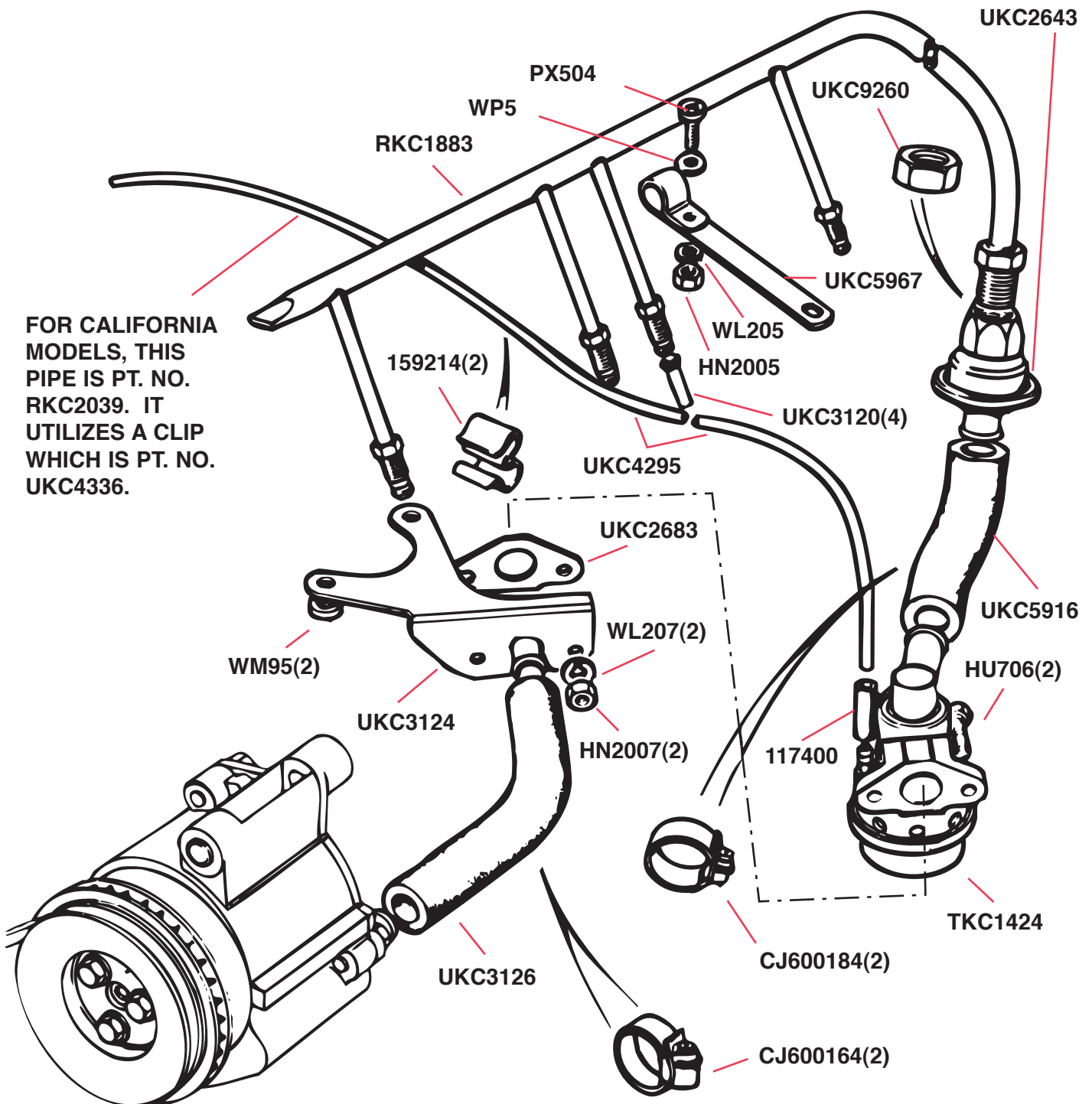
1. Fuel trap mounting bracket: use UKC5045 up to engine no. FM80,001, and use UKC8544 after that point.
2. Vacuum pipe between the carburettor and fuel trap: use UKC9751 up to comm. no. FM95001, and use ULC1278 after that point.
3. Fuel trap: use 156607 up to Comm. no. FM95001, and use ULC1272 after that.
4. Vacuum fitting: use 156608 up to comm. no. FM95001, and use 149380 after that point.

## SINGLE CARBURETTOR ENGINE—Air Pump—U.S.A Federal and California Models—1975 and Later

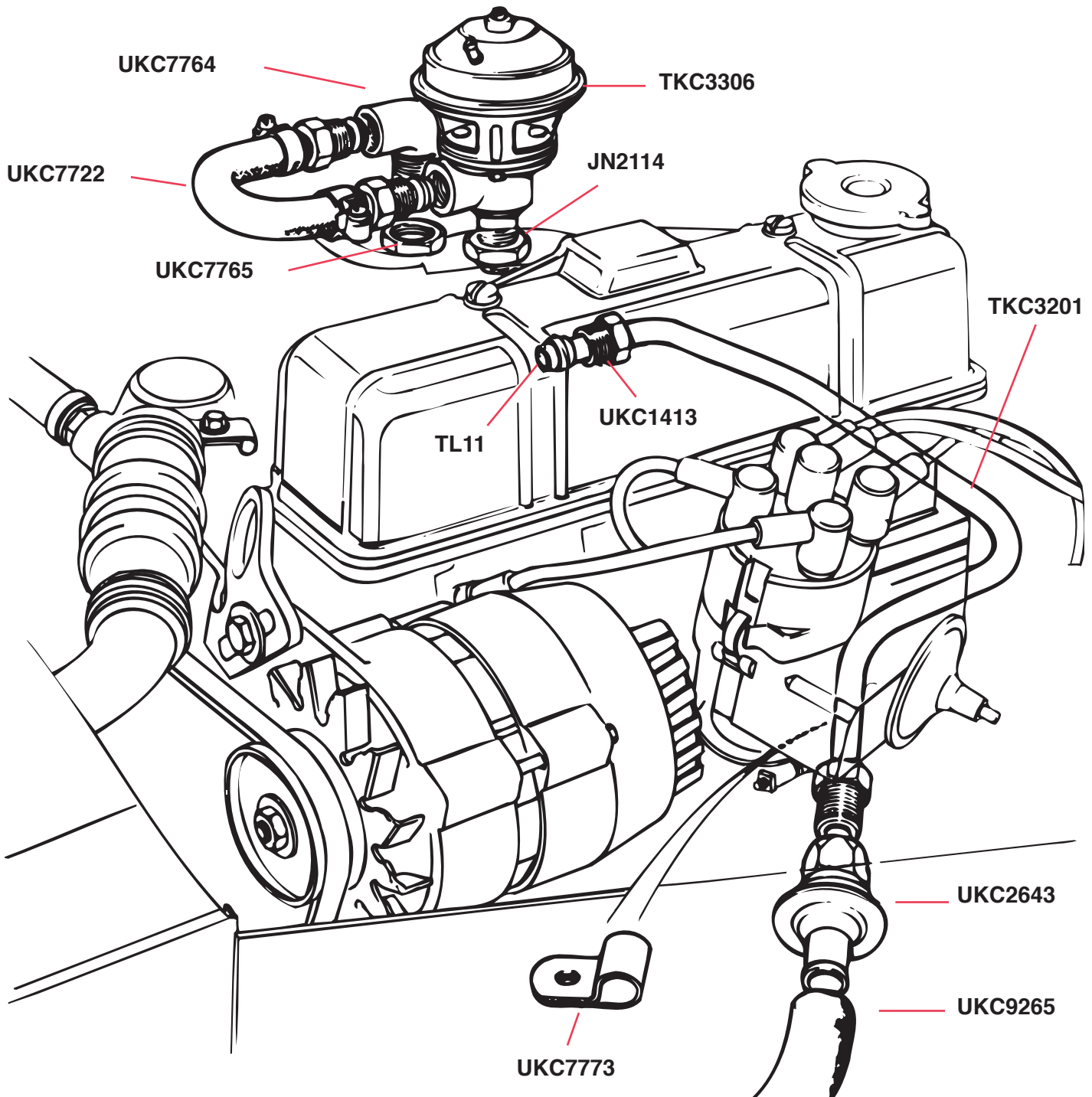


1. Air pump: use RKC698 up to commission no. FM80,001, and use RKC3137 after that point.

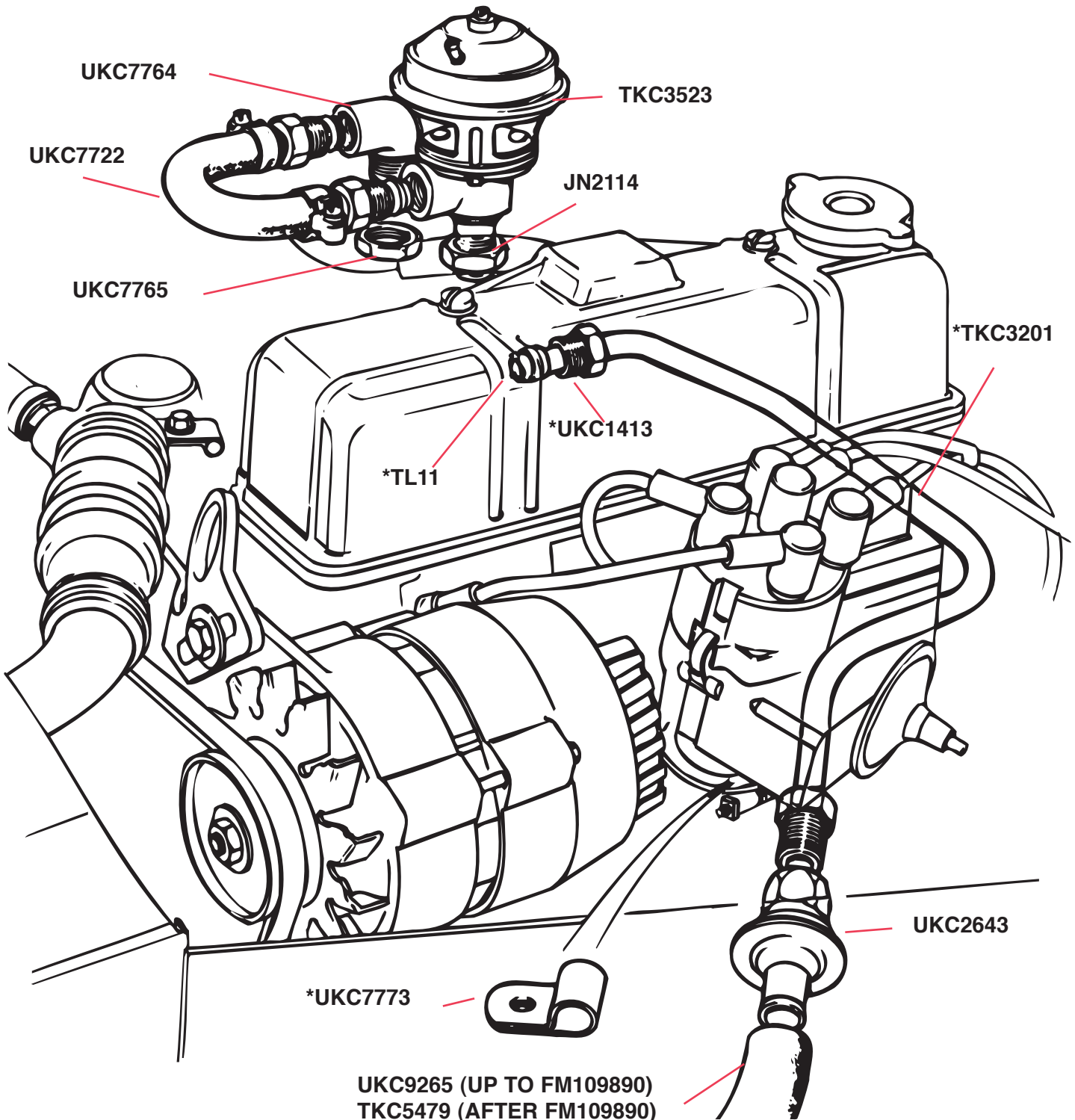
## SINGLE CARBURETTOR ENGINE—Diverter Valve, Non-Return Valve, Air Manifold—U.S.A. Federal and California Models—Up to Commission No, FM80,001



**SINGLE CARBURETTOR ENGINE**—E.G.R. Valve, Non-Return Valve, Air Manifold—U.S.A. Federal Models—From Commission No. FM80,001 up to FM110,001

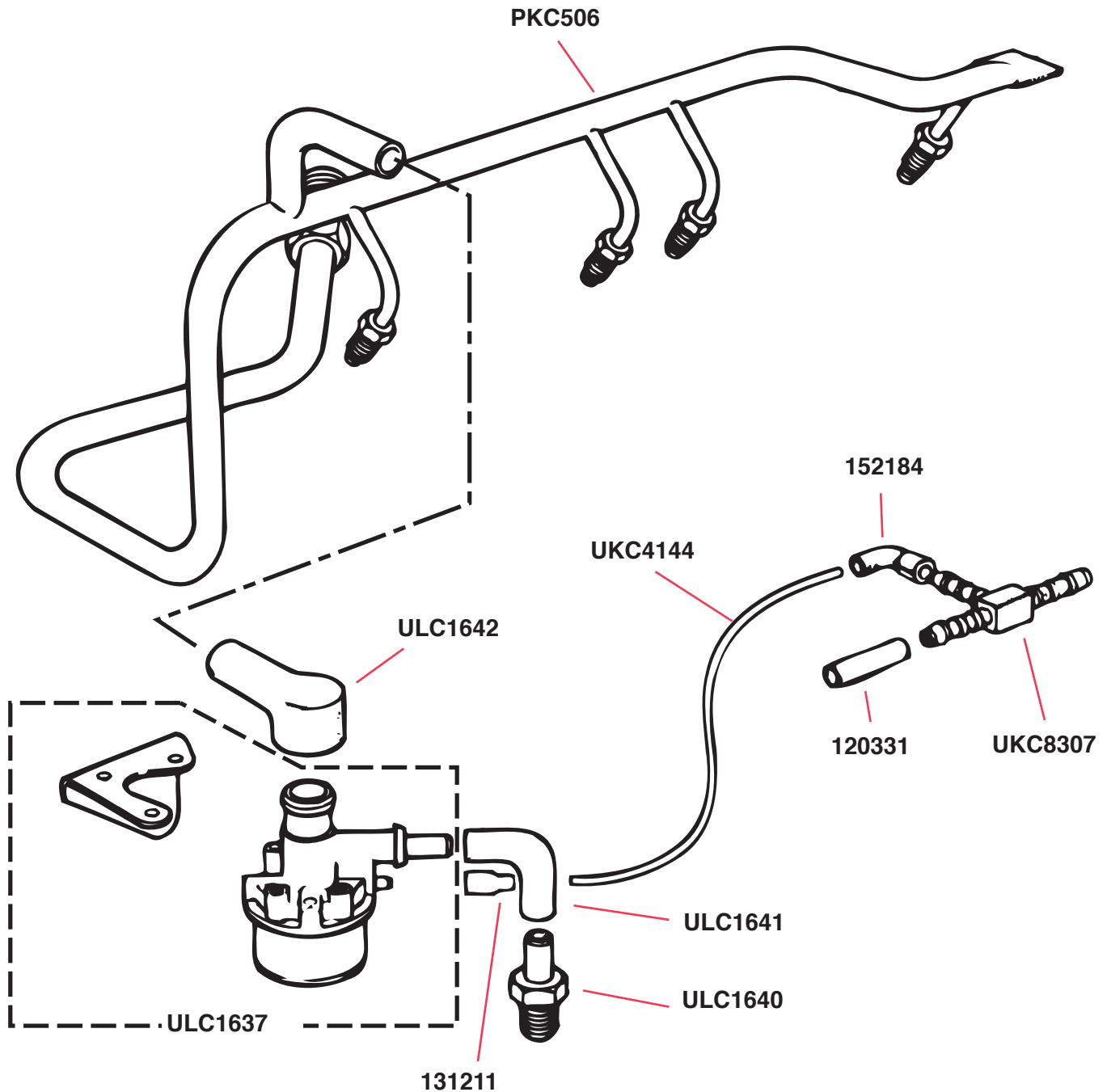


**SINGLE CARBURETTOR ENGINE**—E.G.R. Valve, Non-Return Valve,  
Air Manifold—U.S.A. Federal Models After Commission No. FM10,001  
—California Models After Engine No. FM80,001



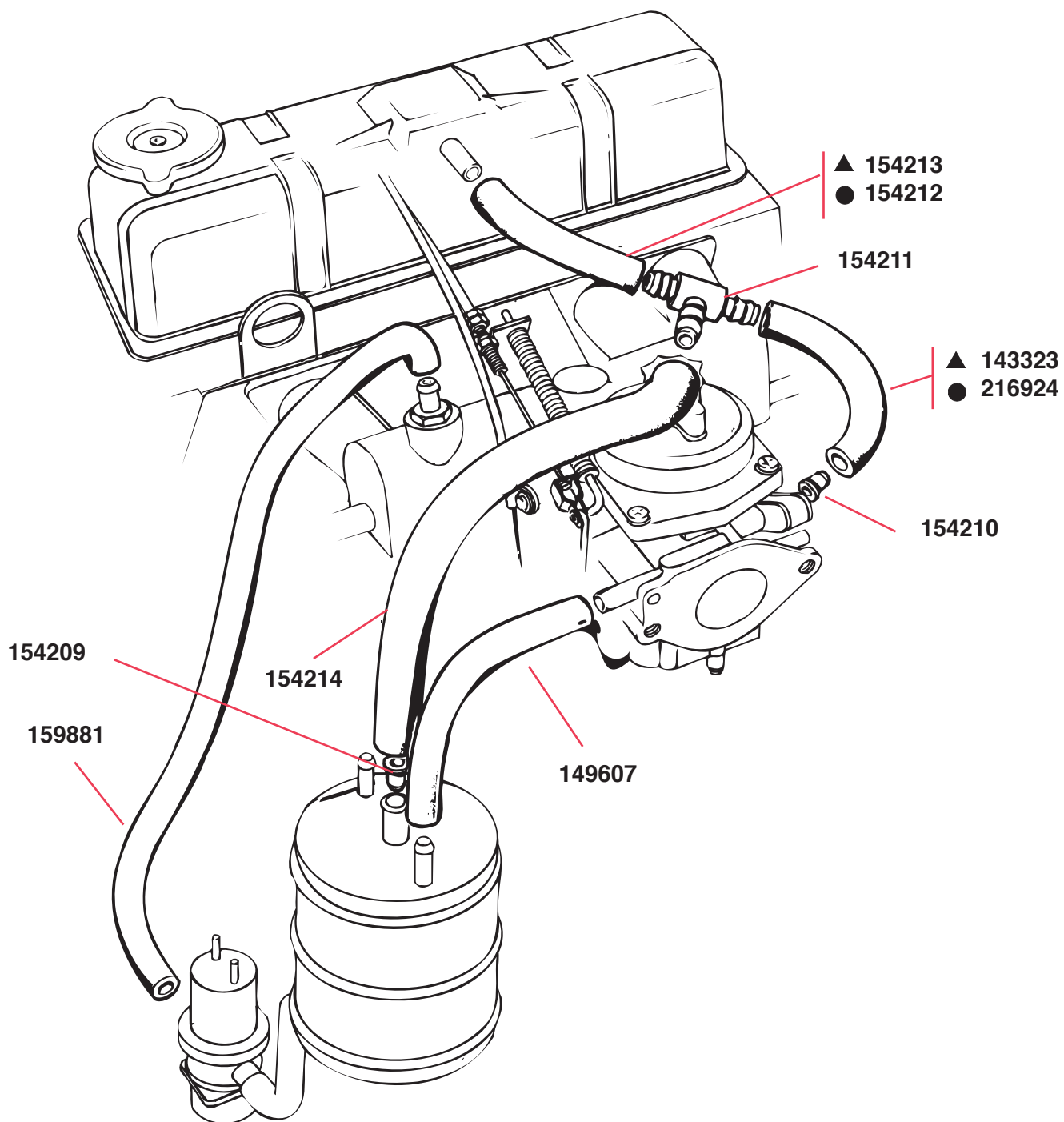
\*Part numbers with asterisks were fitted up to engine no. FM109090. For future applications, see next drawing.

## SINGLE CARBURETTOR ENGINE—Air Manifold, Air Intake Valve and Hoses—U.S.A. Models After Commission No. FM110,001 —California Models After Engine No. FM109890



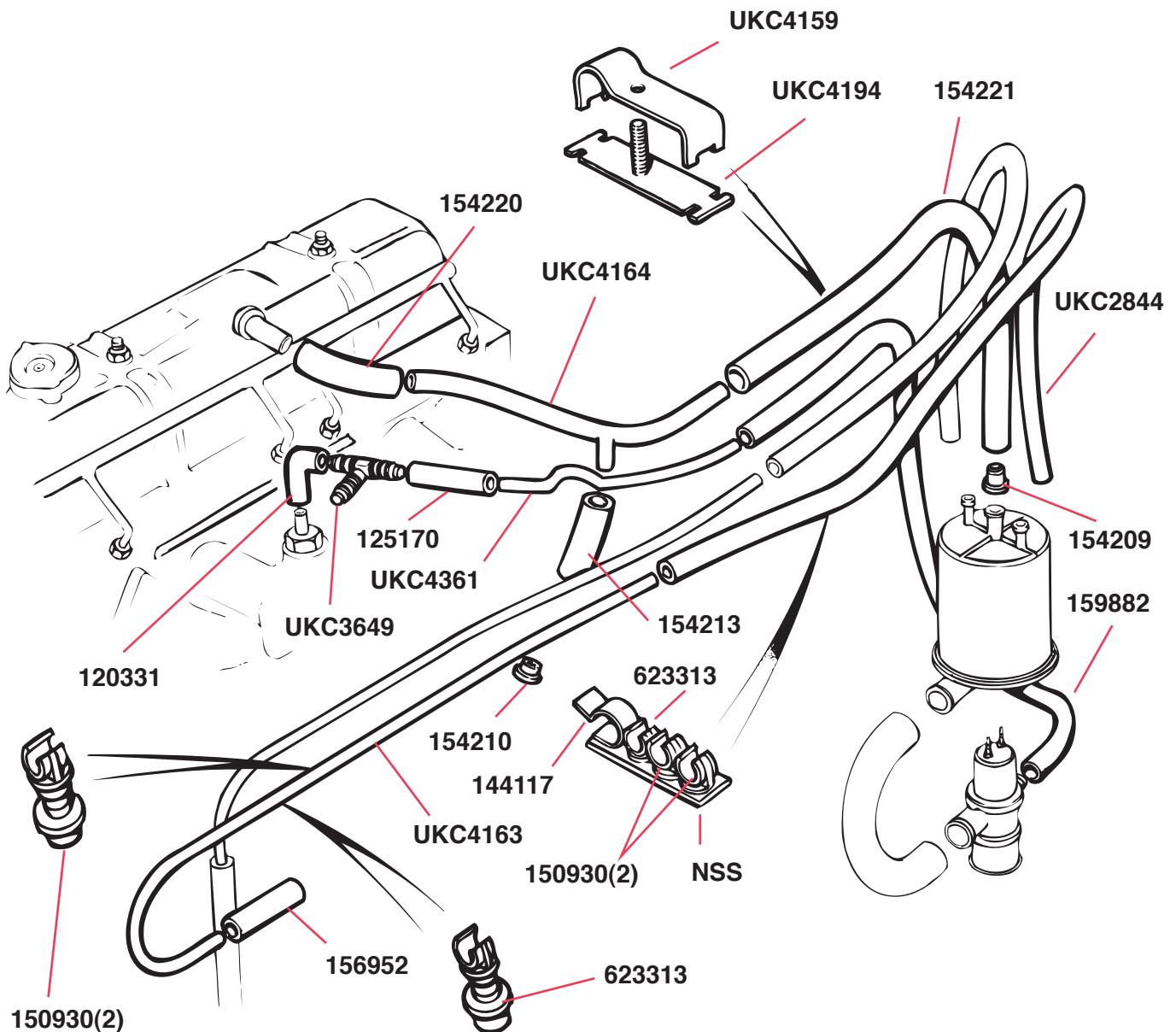


## SINGLE CARBURETTOR ENGINE—Emission Breathing Details—All U.S.A. Models up to the End of 1974



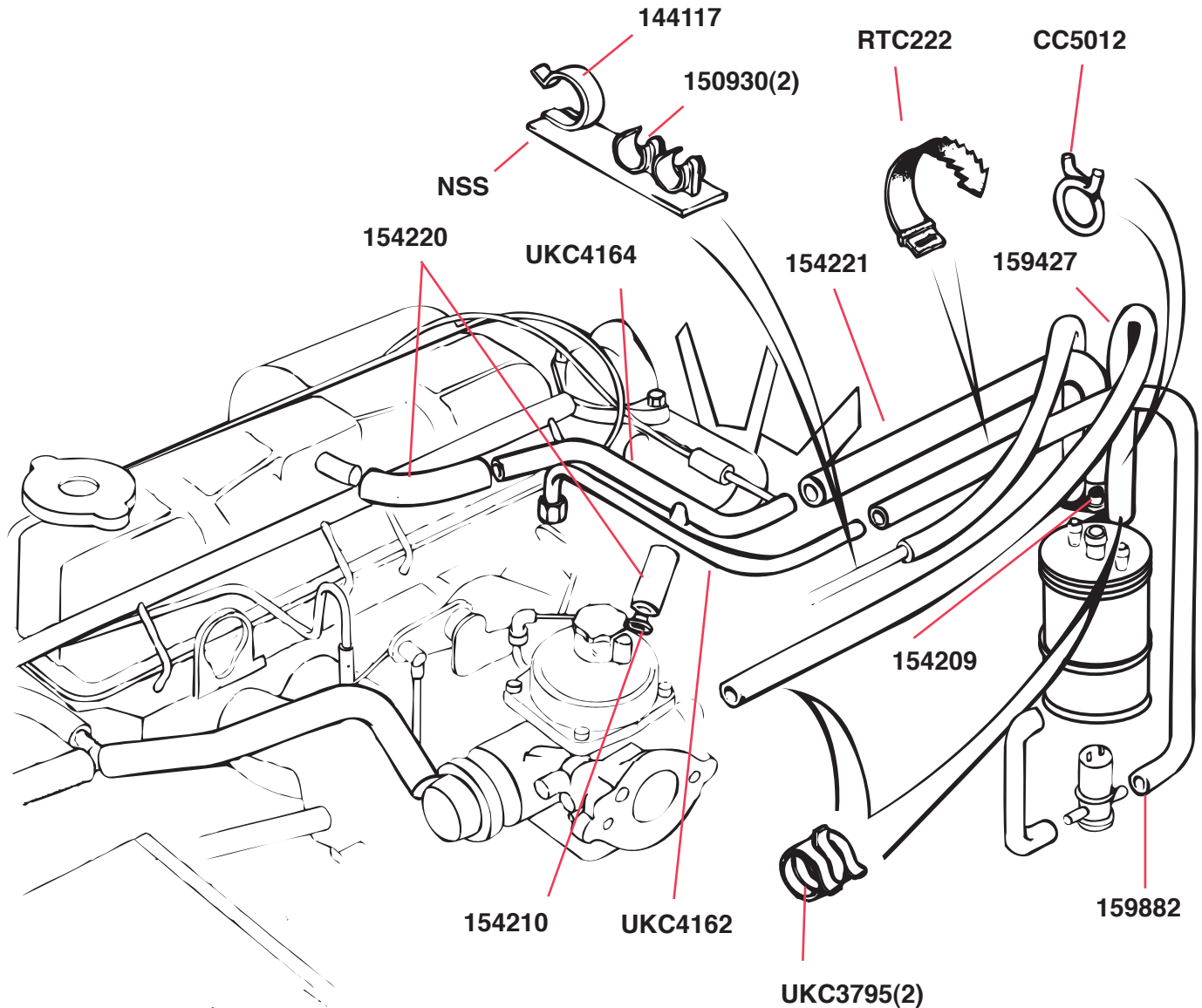
- ▲ Fitted up to engine no. FM10083UE.
- Fitted from engine no. FM10084UE on.

## SINGLE CARBURETTOR ENGINE—Emission Breathing Details —U.S.A. Federal and California Models—up to FM80001\*

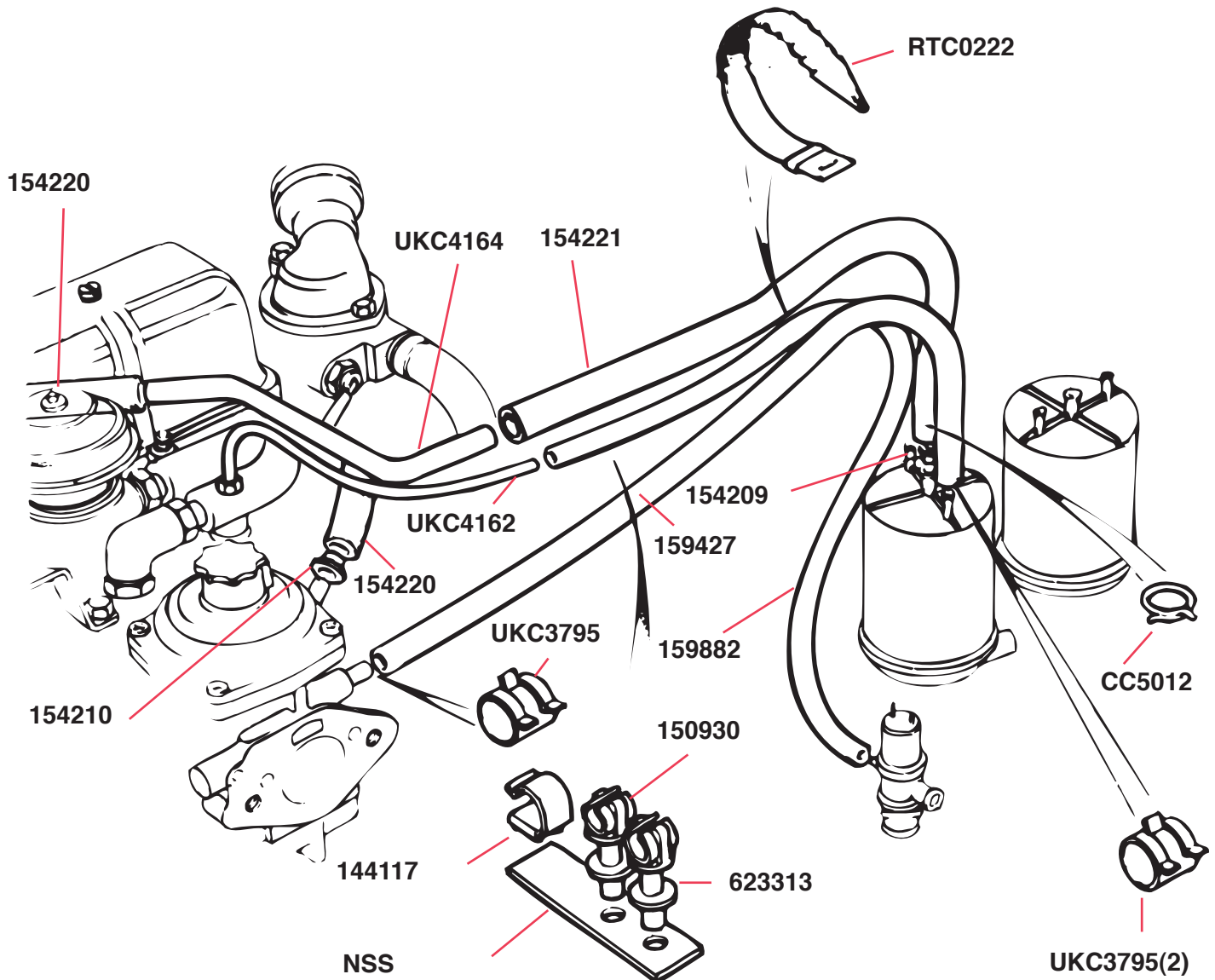


\*There is possibly a different change point for California models; compare the components in this drawing with those in the next few drawings and with the components on your car before ordering.

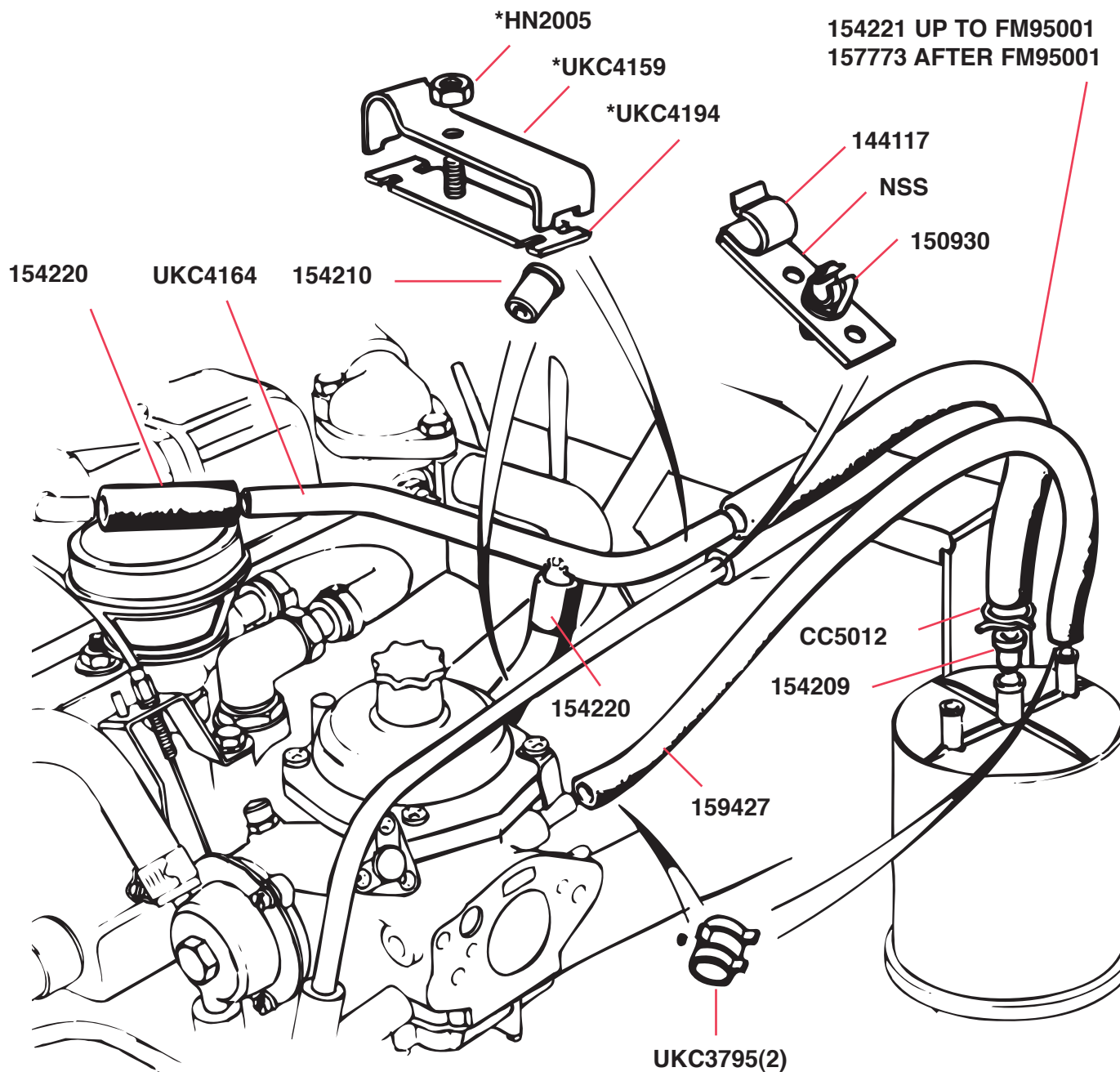
## SINGLE CARBURETTOR ENGINE—Emission Breathing Details —U.S.A. California Models—From Commission No. FM60,006 to FM70,001



## SINGLE CARBURETTOR ENGINE—Emission Breathing Details —U.S.A. California Models—From Commission No. FM70,0001 up to FM109890.



## SINGLE CARBURETTOR ENGINE—Emission Breathing Details—U.S.A. Federal Models—From Commission No. FM70,0001 up to FM109890.

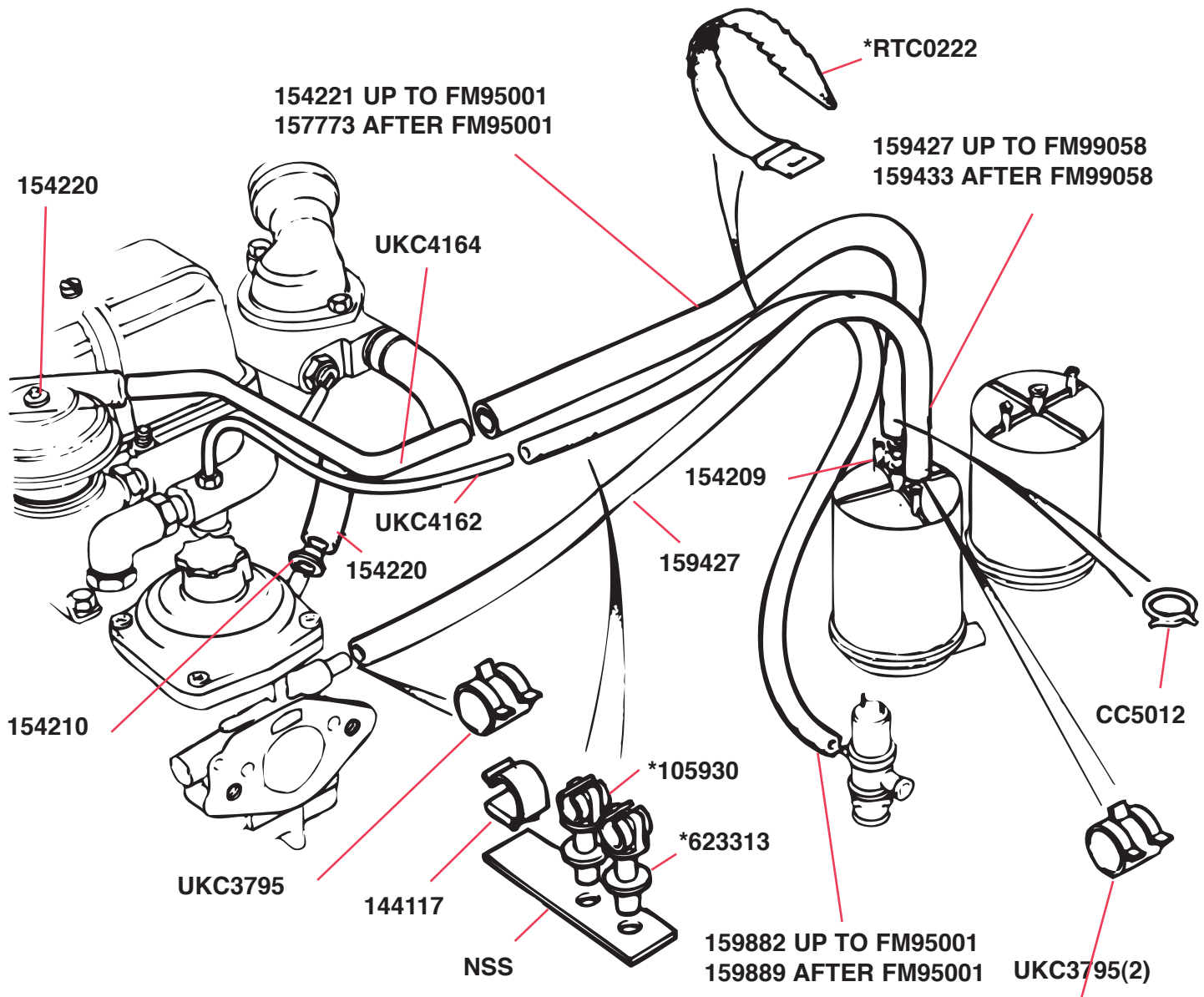


\*Asterisked part numbers were fitted only up to comm. no. FM95001.  
See the next drawing for later applications.

## SINGLE CARBURETTOR ENGINE—Emission Breathing Details

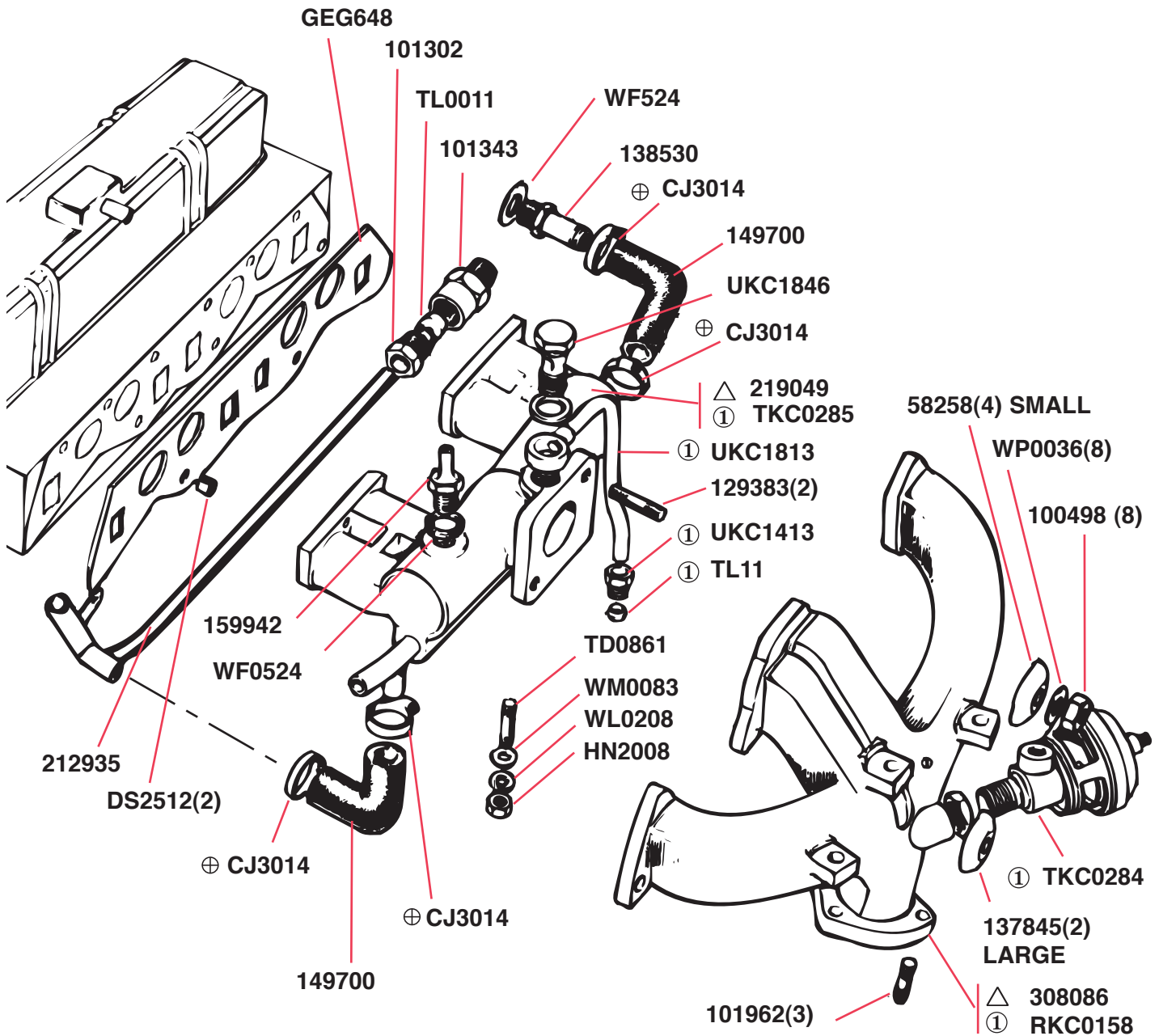
—U.S.A. Federal Models—After Commission No. FM70,0001

—California Models After Engine No. FM109890.



\*Asterisked part numbers were fitted only up to commission. no. FM95001.

## SINGLE CARBURETTOR ENGINE—Manifolds—Up to the End of the 1974 Model Year.



- ⊕ 156736 ALTERNATIVE TO CJ3014
- △ FITTED UP TO ENGINE NUMBER FM10000UE
- ① FITTED FROM ENGINE NUMBER FM10001UE



WF524 UKC4209 ① →

UKC6723

138530 →

149700 → ①

UKC7375 ① →

101302

101343

TL11

UKC6723

129383(2)

TKC285 → ①

RTC2318 ① →

HB811(2) → ②

TD861 → ②

WM83 → ②

WL208 → ②

HN2008 → ②

UKC5285 → ①

UKC7376 ① →

GEG648

159942

WF524

DS2512(2)

212935

CJ3014 → ①

CJ3018 ① →

CJ3014 → ①

CJ3018 ① →

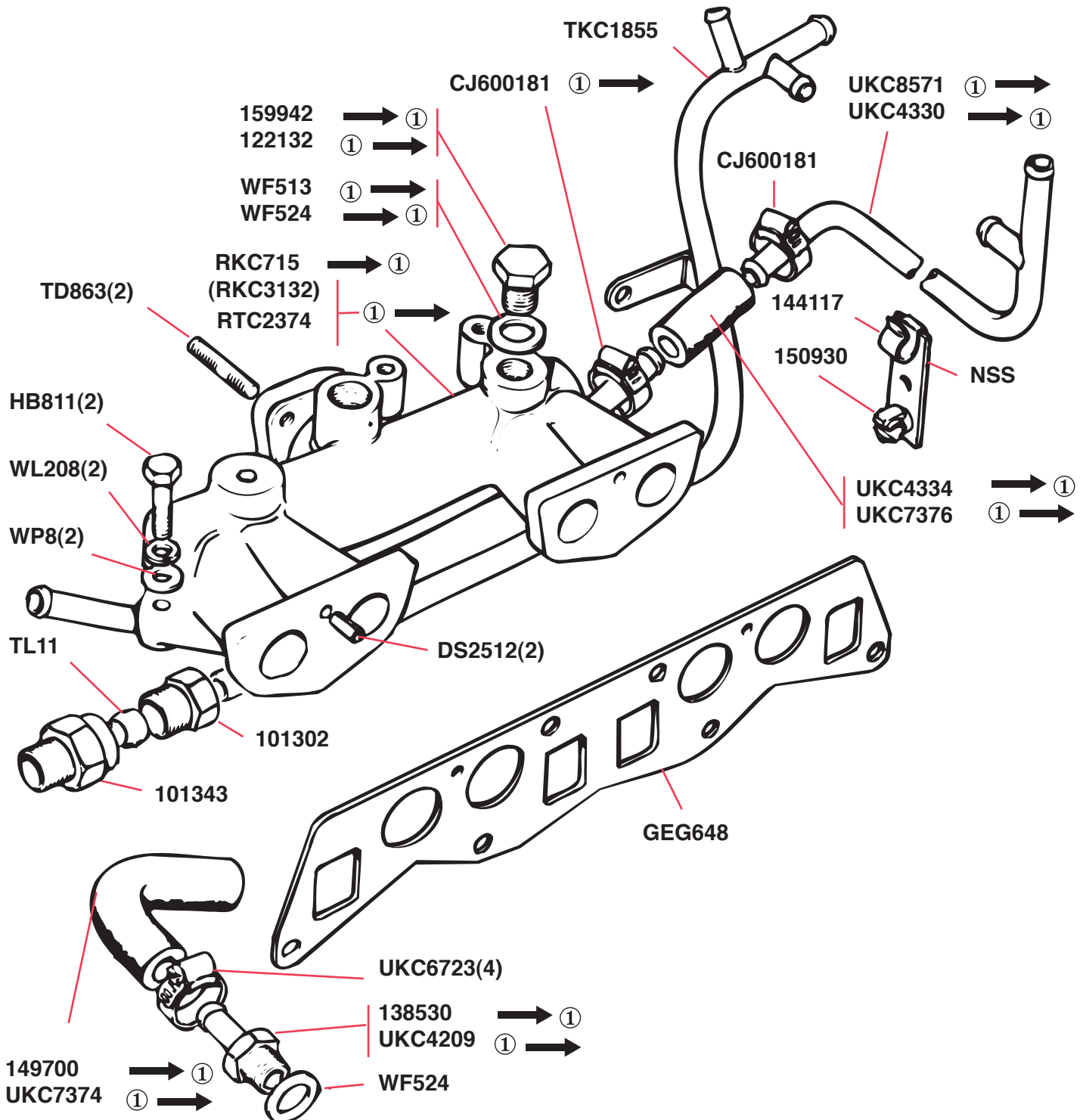
➡ ① Means “up to FM80001.”

① ➡ Means “after FM80001.”

➡ ② Means “up to commission no. FM70001.”

② ➡ Means “after commission no. FM70001.”

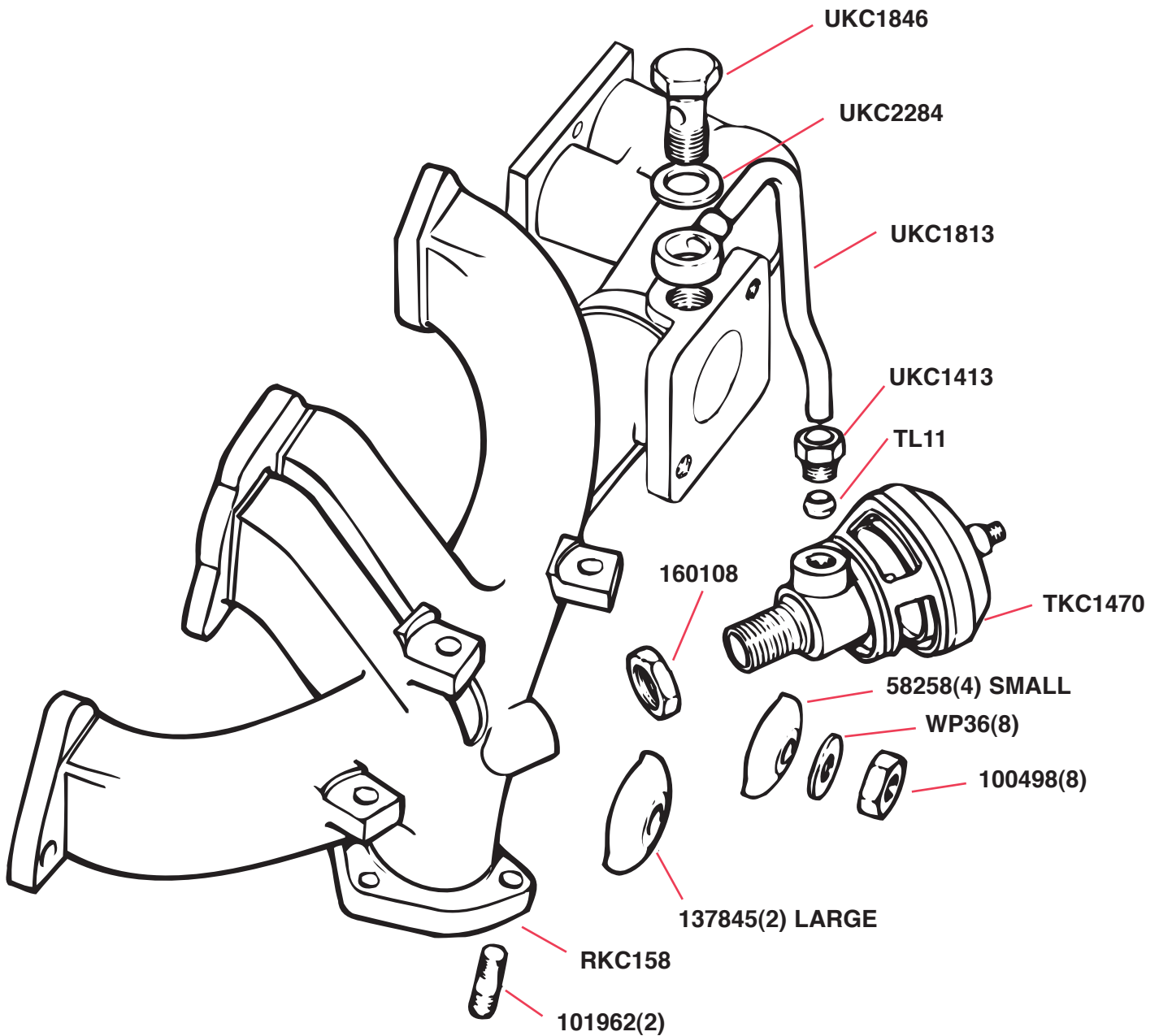
## SINGLE CARBURETTOR ENGINE—Intake Manifold, Pipes—U.S.A. California Models—From 1975 On.



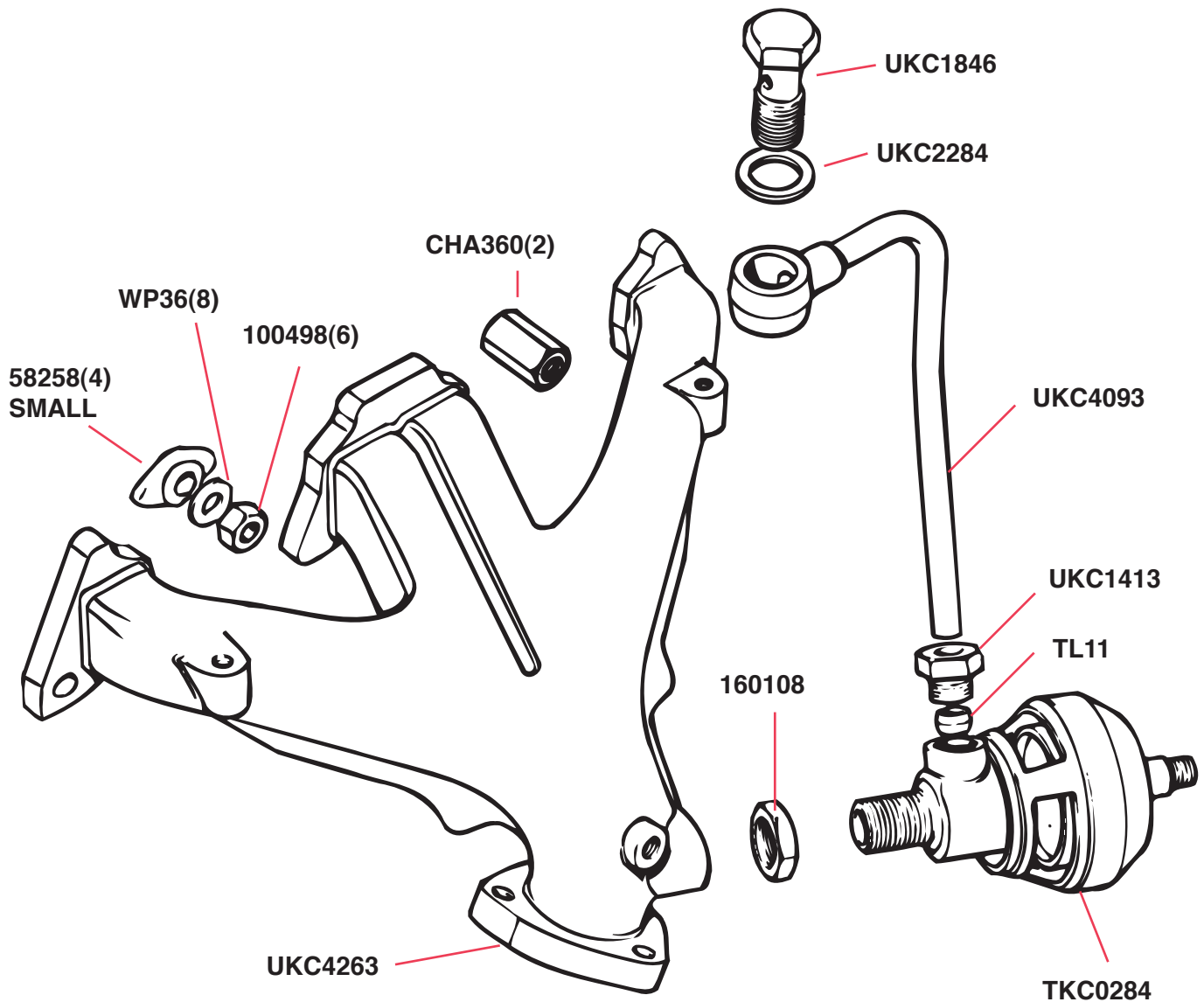
Explanations of symbols used in this drawing:

- ① Means "up to FM80001."  
① → Means "after FM80001."

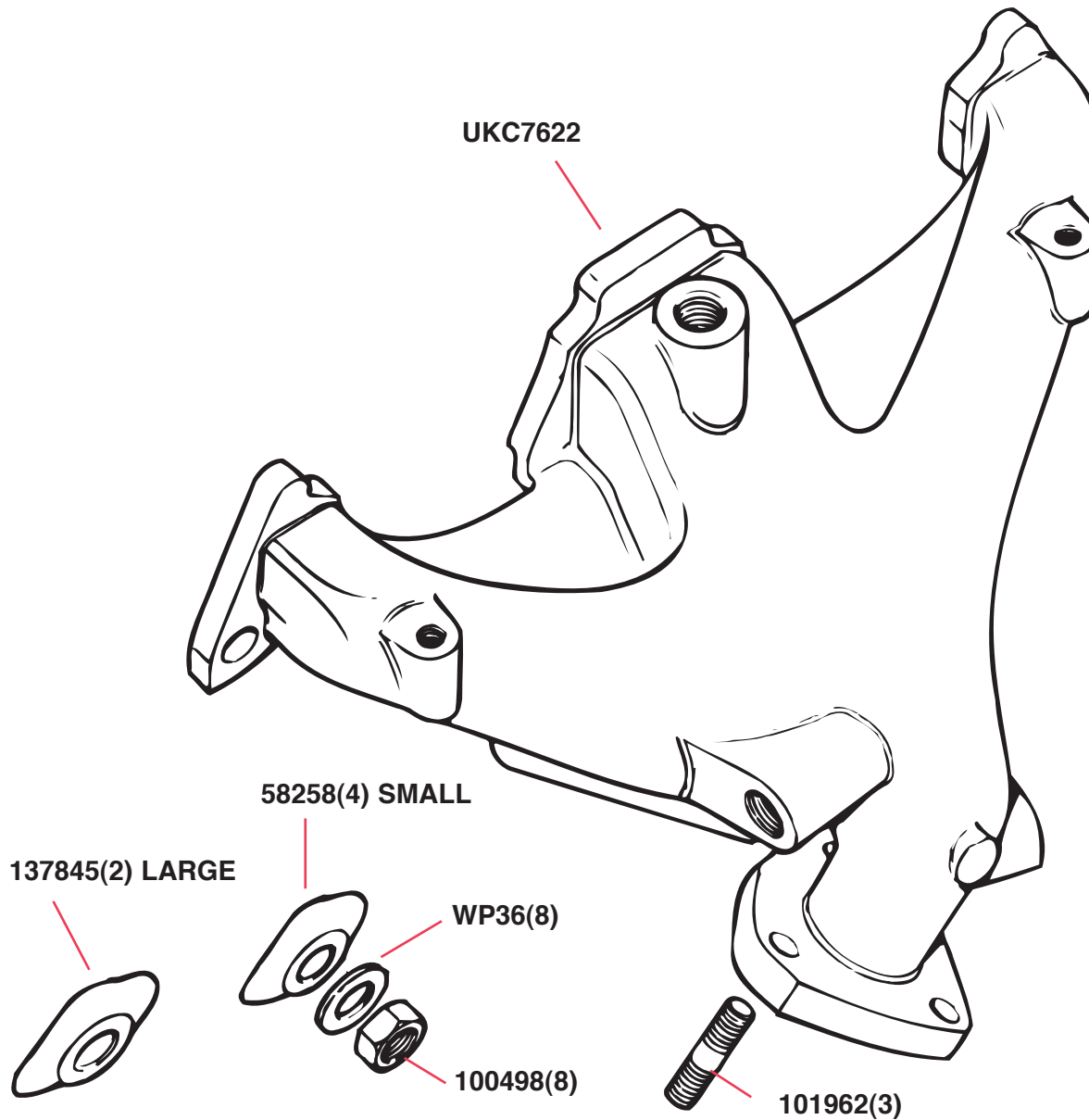
**SINGLE CARBURETTOR ENGINE**—Exhaust Manifold and E.G.R. Valve—U.S.A. Federal Models—From Beginning of 1975 Model Year up to Engine No. FM80001.



**SINGLE CARBURETTOR ENGINE**—Exhaust Manifold and E.G.R. Valve—U.S.A. California Models—From Beginning of 1975 Model Year up to Engine No. FM80001.

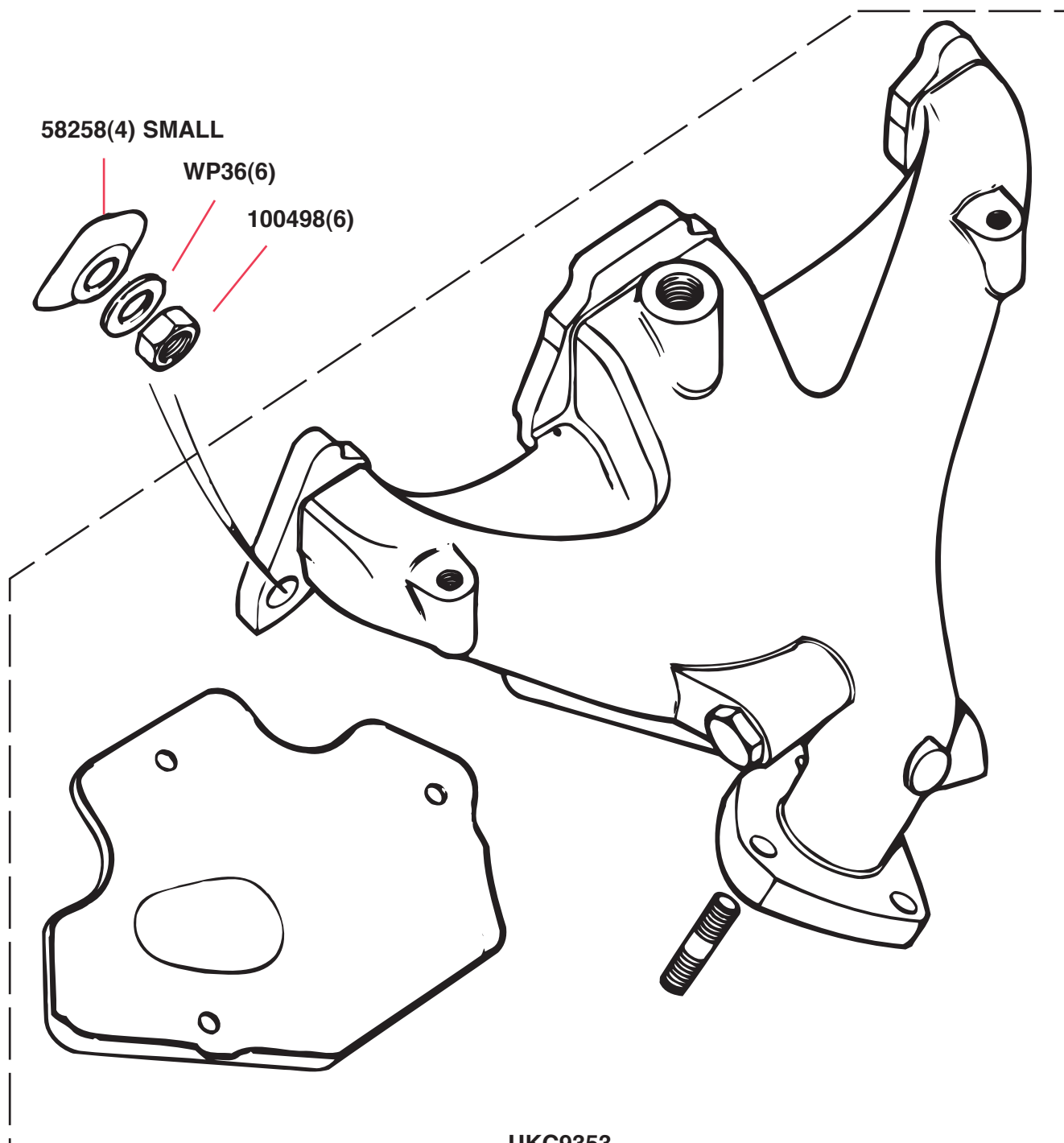


**SINGLE CARBURETTOR ENGINE**—Exhaust Manifold—U.S.A. Federal Models From Engine No. FM800001 to Commission No. FM110,000 —California Models from Engine No. FM800001 to FM109890UCE.

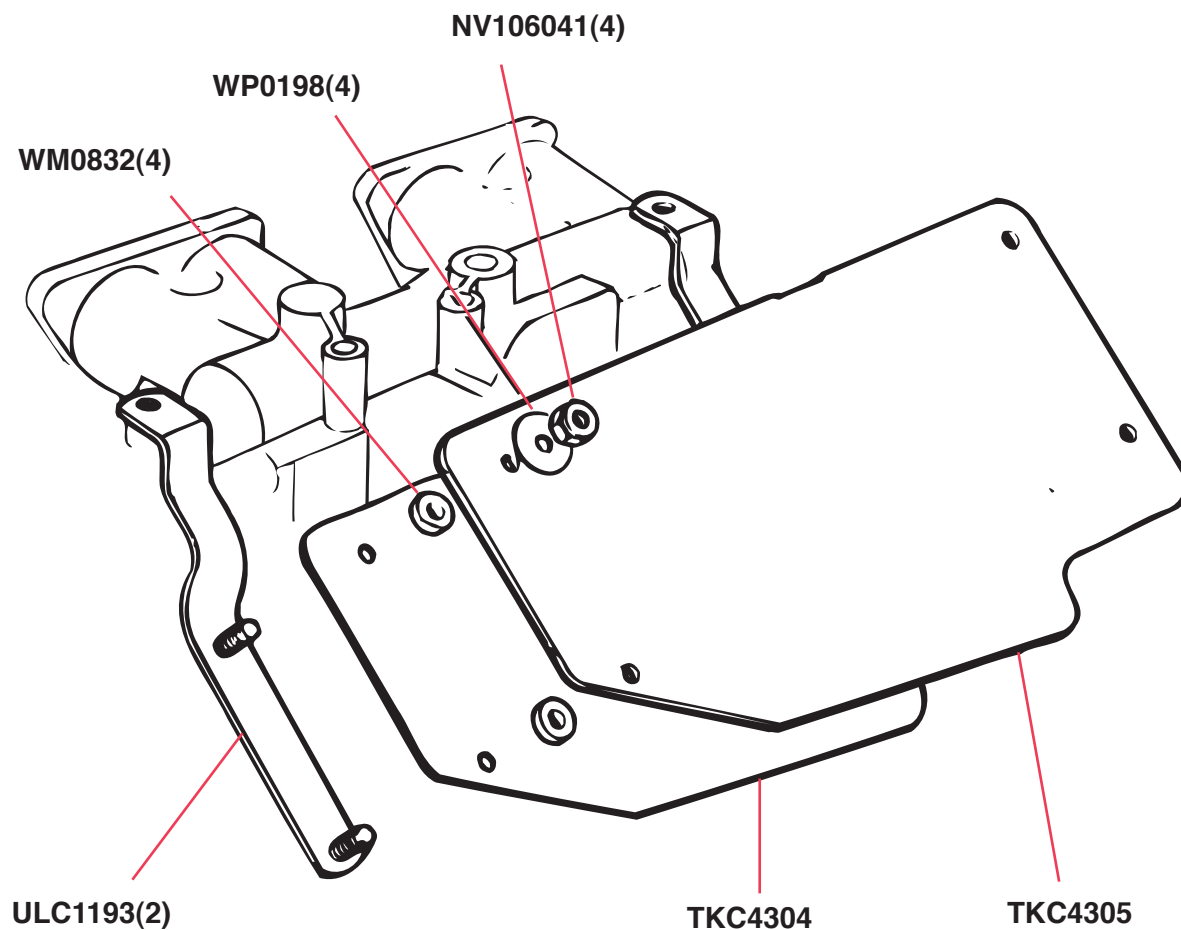


## SINGLE CARBURETTOR ENGINE—Exhaust Manifold and Pre-Heater

- U.S.A. Federal Models After Commission No. FM110,001
- California Models after Engine No. FM109890UCE.

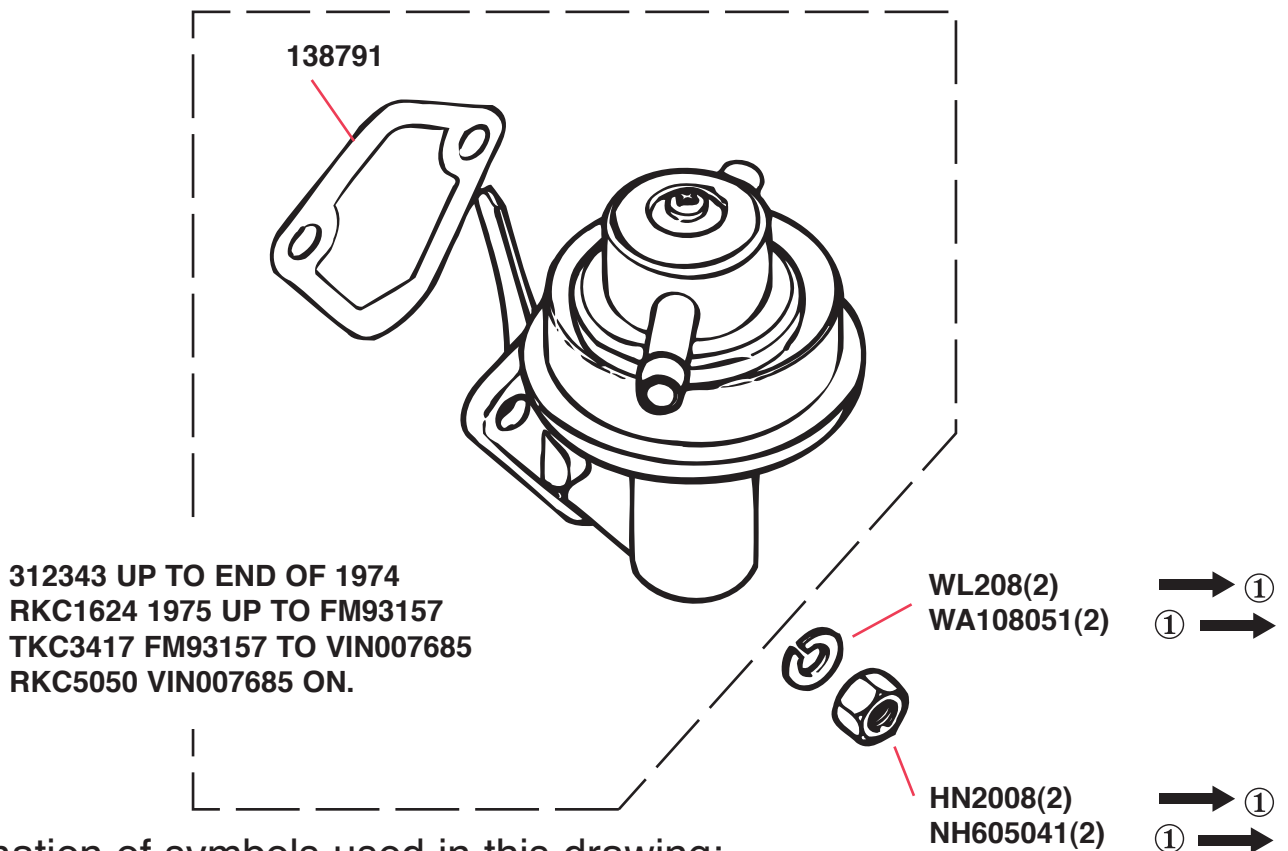
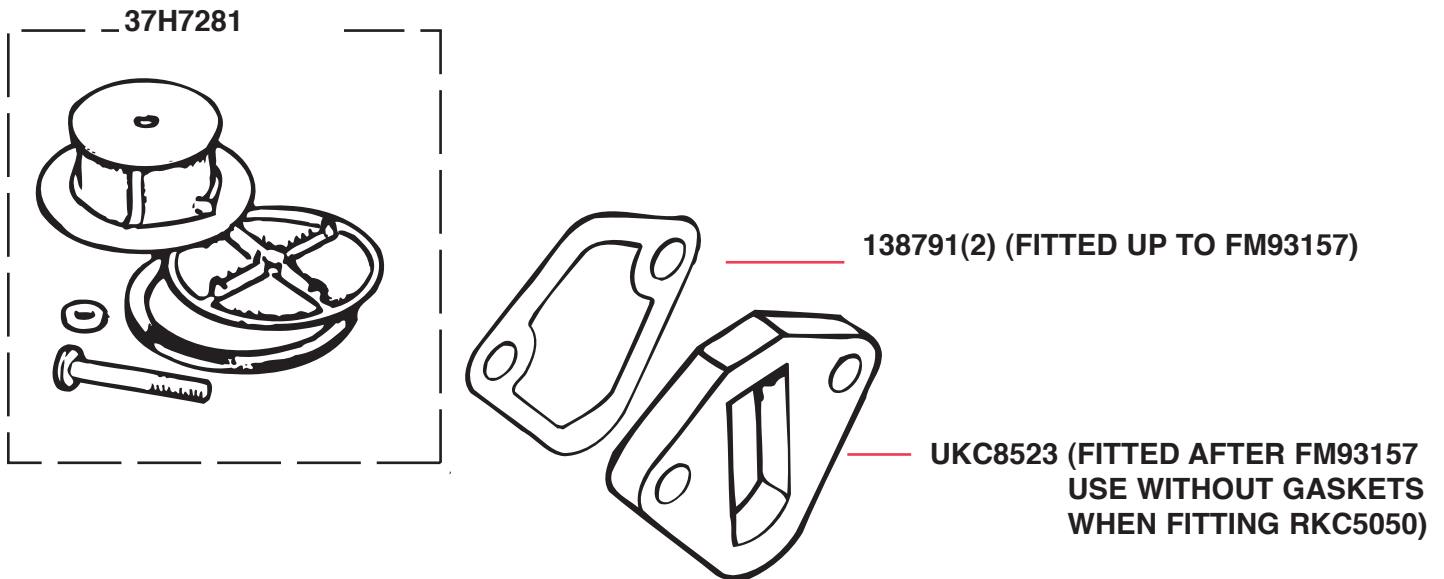


## SINGLE CARBURETTOR ENGINE—Heat Shield—U.S.A. Federal and California Models—After Commission No. FM70001.





## SINGLE CARBURETTOR ENGINE—Fuel Pump—U.S.A. Federal and California Models.

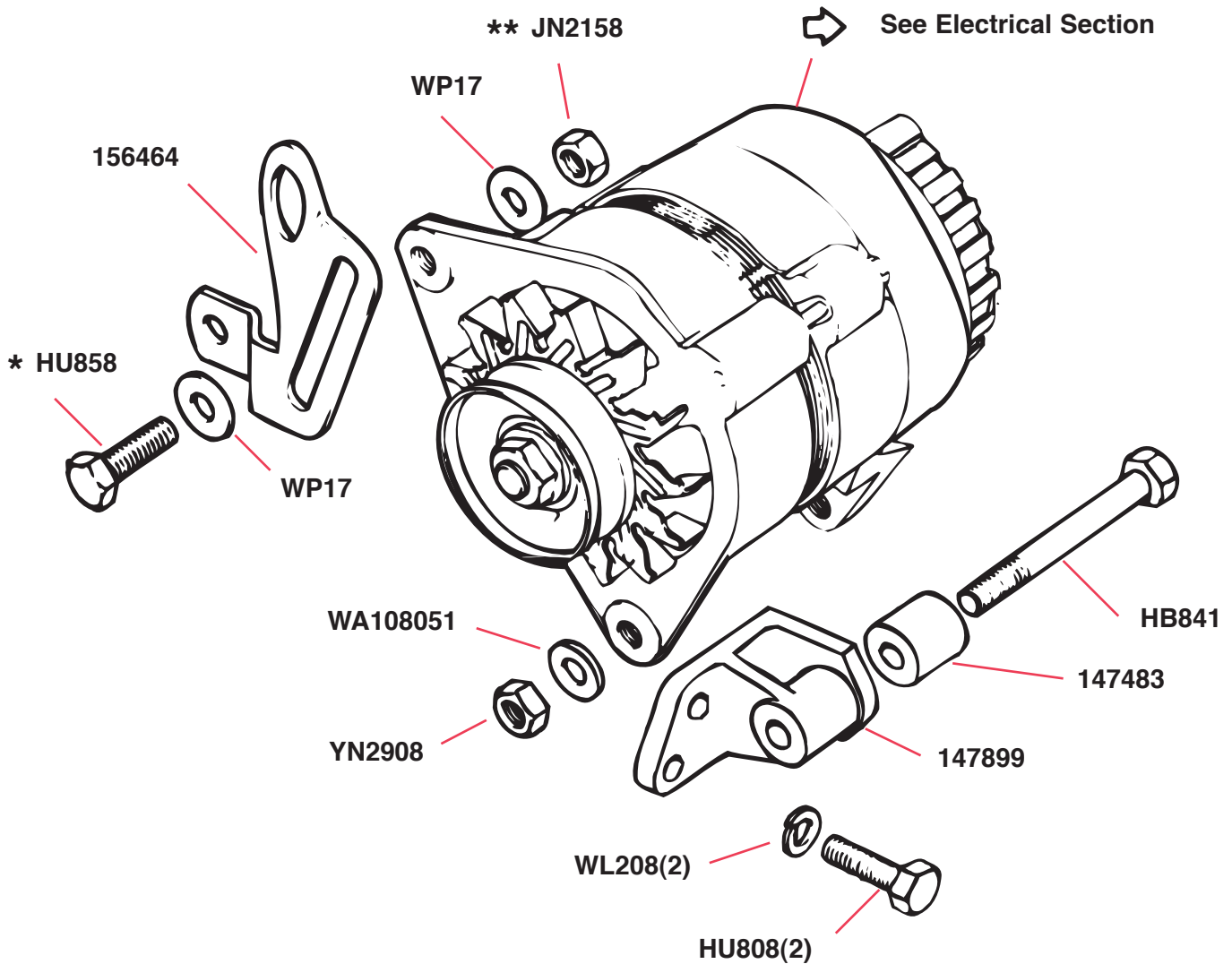


Explanation of symbols used in this drawing:

➡ ① Means "fitted up to engine no. FM93157."

① ➡ Means "fitted after engine no. FM93157."

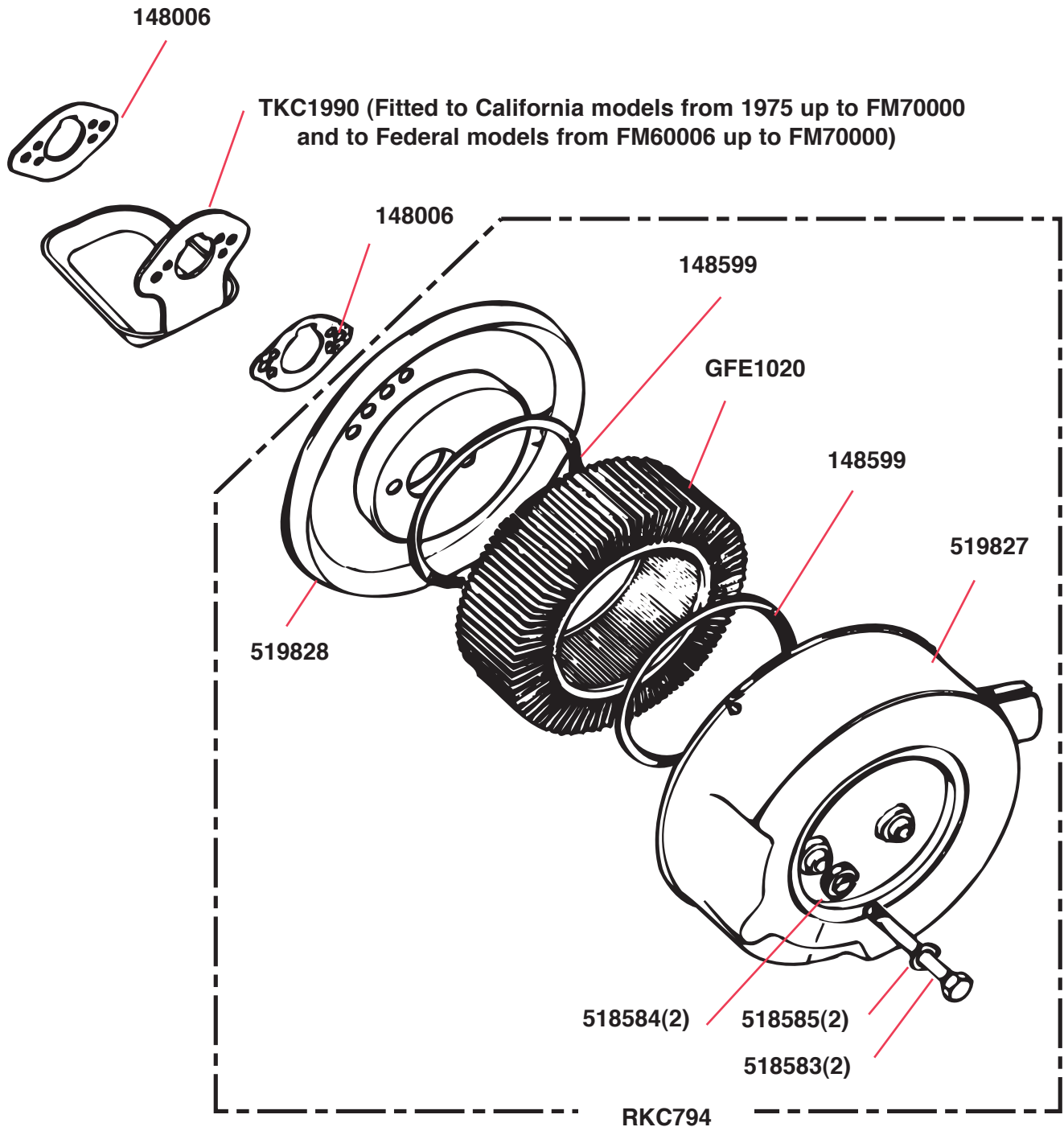
## SINGLE CARBURETTOR ENGINE—Alternator Mounting—All U.S.A. Models



\*HU858 is standard (English or "Imperial," as they call it) thread (like our SAE fine thread) with diameter measured in inches. Some cars used a metric bolt (SH108251), which, naturally, requires a metric nut (see following note)

\*\*JN2158 is English thread. Cars which used a metric bolt must use a metric nut (NT10841).

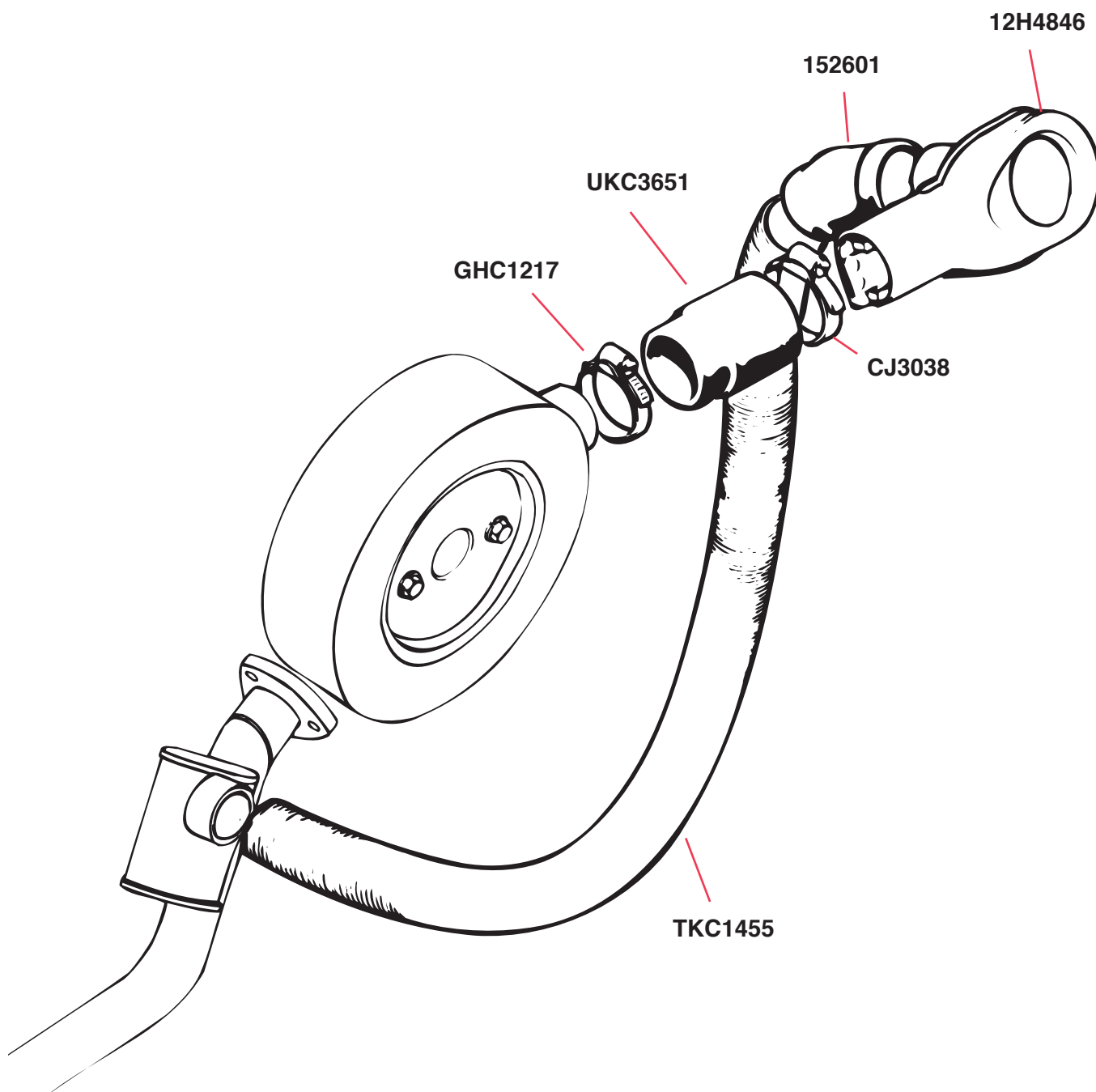
## SINGLE CARBURETTOR ENGINE—Air Cleaner—U.S.A. Federal and California Models



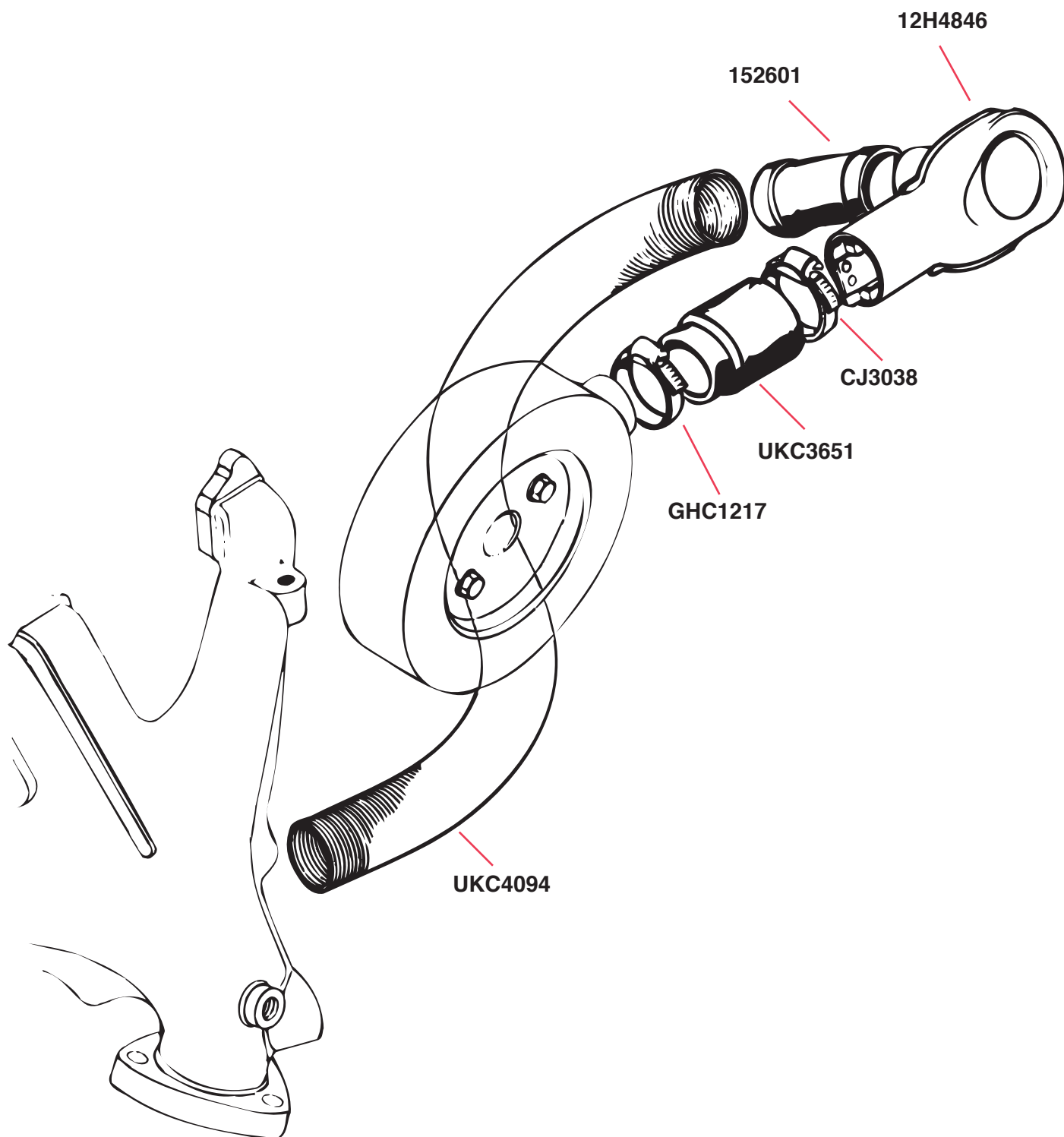
## HIGH-PERFORMANCE AIR FILTERS

TRFCD214	<b>Element</b> , air cleaner, Spitfire, 1970–80
TRFCD20	<b>Cleaner</b> , for washing K & N filter elements; 32 oz. plastic bottle
TRFCD10	<b>Filter Oil</b> , for re-oiling K & N filter elements; 6.5 oz. aerosol can

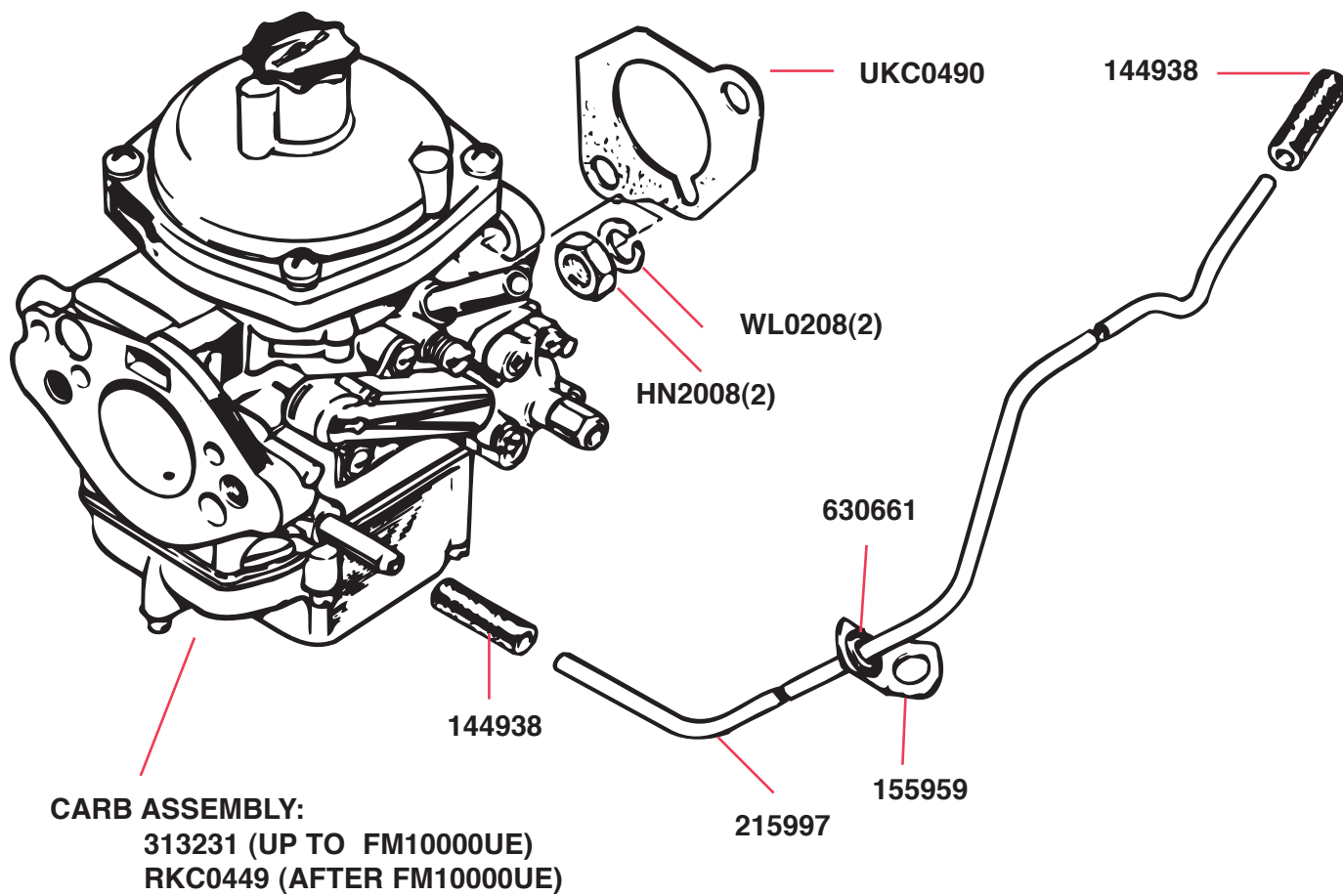
## SINGLE CARBURETTOR ENGINE—Hot Air Intake—U.S.A. Federal Models—Up to Engine No. FM80000



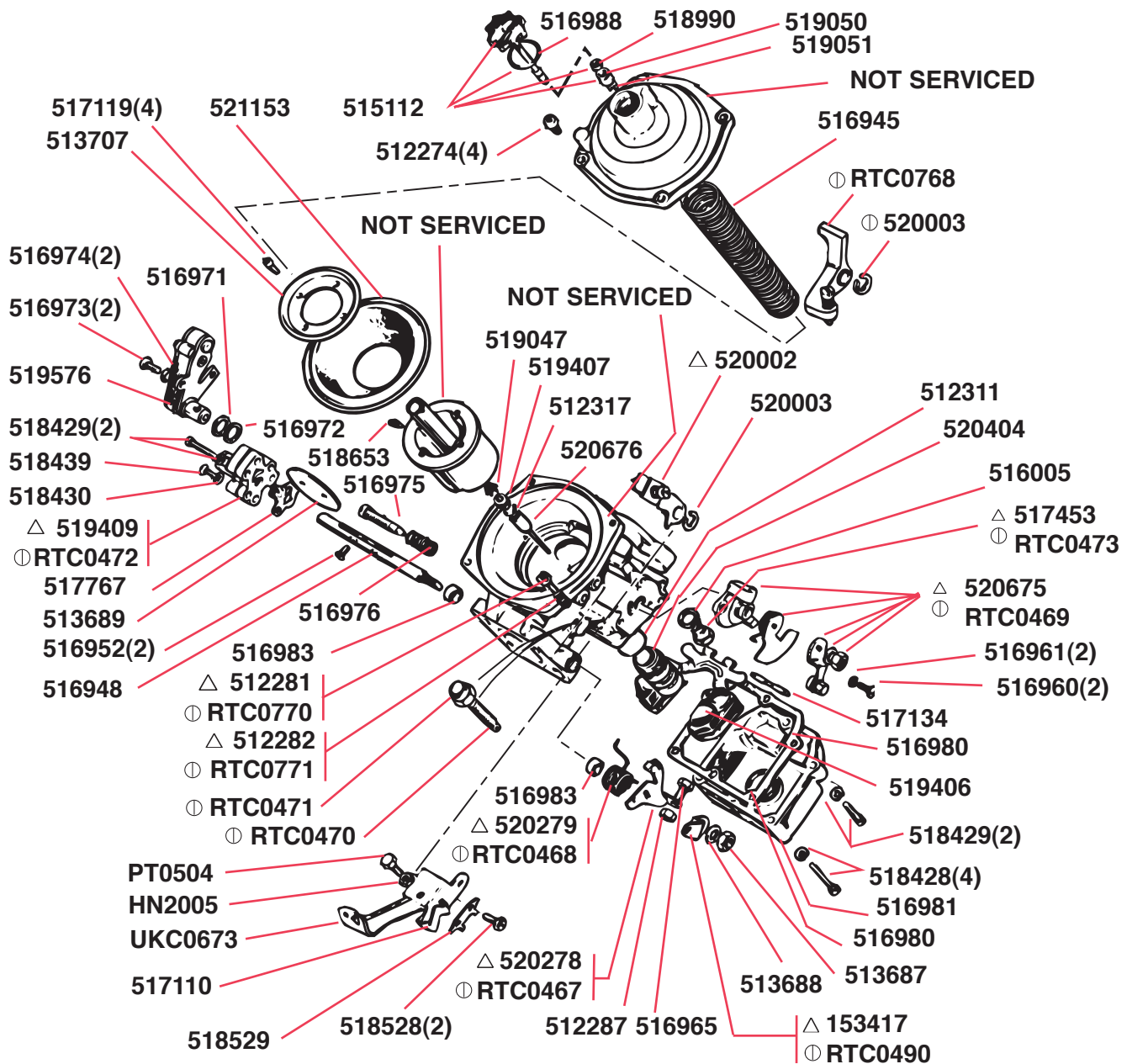
**SINGLE CARBURETTOR ENGINE**—Hot Air Intake—U.S.A. Federal Models After Engine No. FM80000—California Models After 1974



## SINGLE CARBURETTOR ENGINE—Carburettor Assembly—U.S.A. Models—Up to End of 1974 Model Year



## SINGLE CARBURETTOR ENGINE—Carburettor Details—U.S.A. Models—Up to End of 1974 Model Year



### EXPLANATIONS OF SYMBOLS USED IN THIS DRAWING:

- ± 518434 SERVICE KIT-'A' PACK (YELLOW) COMPRISING ±
- ± 516005 WASHER, NEEDLE VALVE
- ± 512311 'O' RING, SEALING PLUG
- ± 516980 GASKET, FLOAT CHAMBER

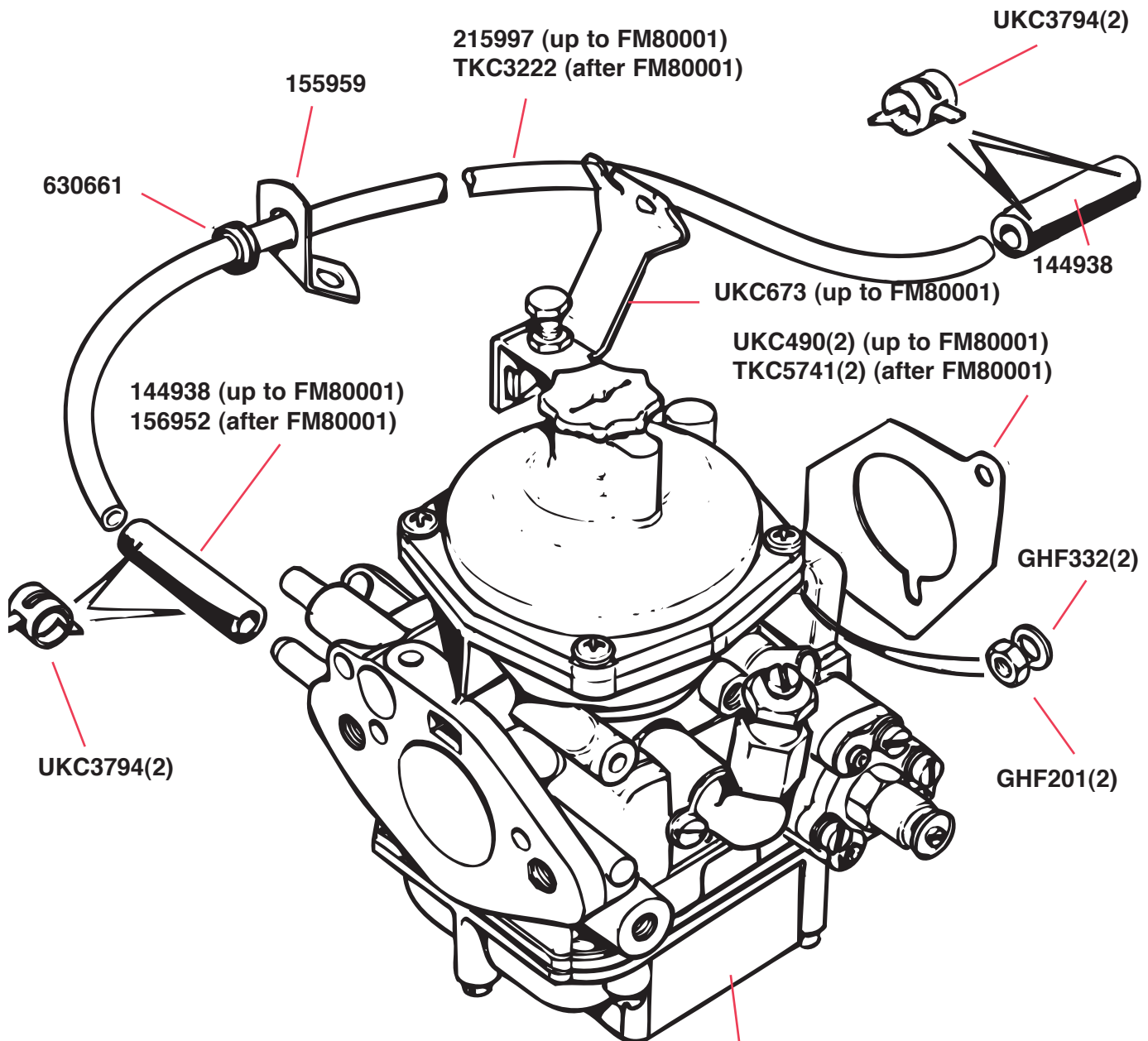
- ⊙ 518842
- ⊙ 517767
- ⊙ 516971
- ⊙ 516972
- ⊙ 516005
- ⊙ 512311
- ⊙ 516980
- ⊙ 516983
- ⊙ 521153
- ⊙ 517453
- ⊙ 516988
- ⊙ 516989

- SERVICE KIT-'B' PACK (RED) COMPRISING
- GASKET, BYPASS VALVE
  - WASHER, SEALING TEMPERATURE COMPENSATOR
  - WASHER, SEALING TEMPERATURE COMPENSATOR
  - WASHER, NEEDLE VALVE
  - 'O' RING, FLOAT CHAMBER SEALING PLUG
  - GASKET, FLOAT CHAMBER
  - SEAL, THROTTLE SPINDLE (2)
  - DIAPHRAGM (2)
  - NEEDLE VALVE
  - 'O' RING, DAMPER
  - LUBRICATING PACK

△ FITTED UP TO ENGINE NO. FM10000UE  
⊕ FITTED FROM ENGINE NO. FM10001UE



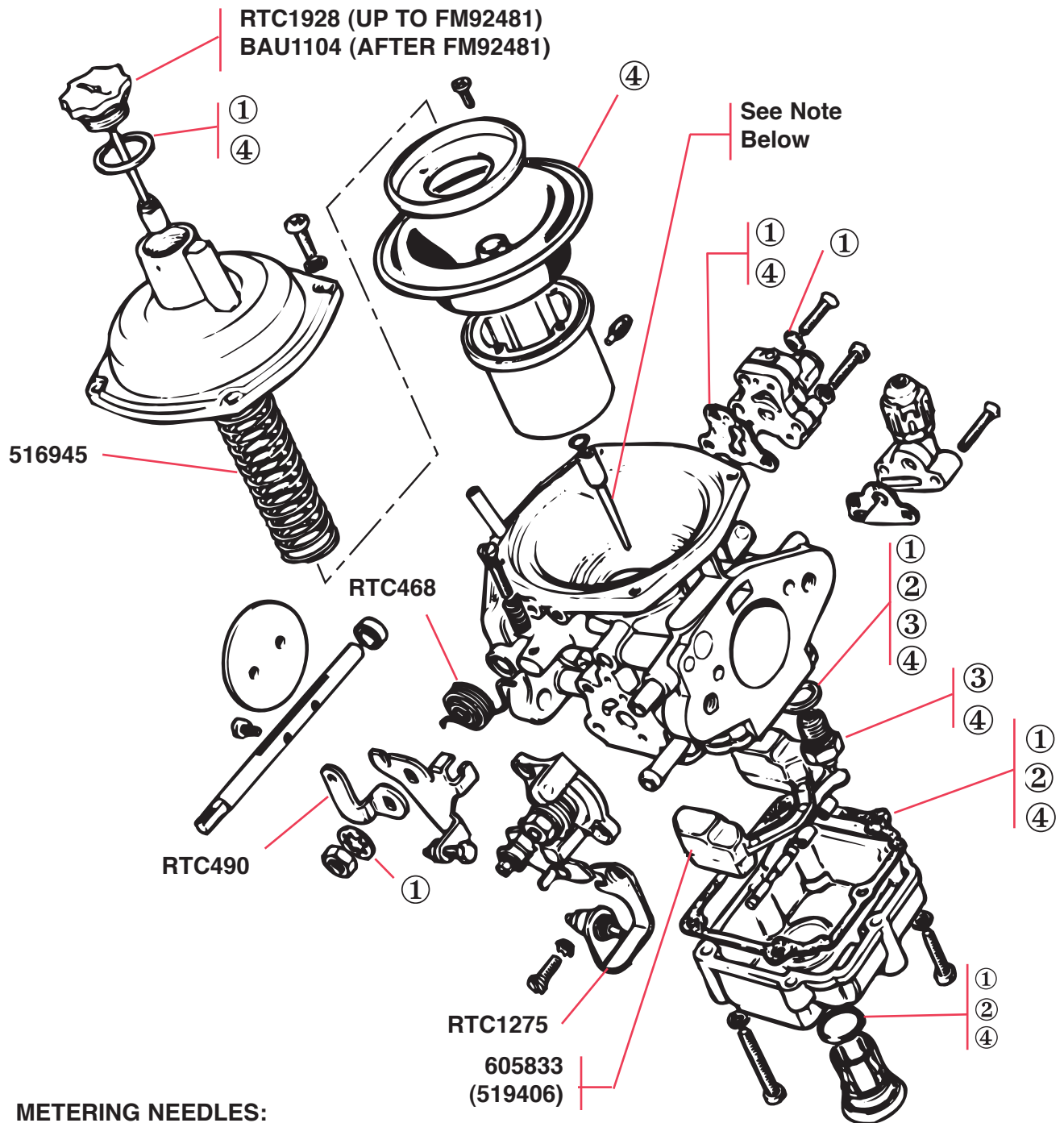
## SINGLE CARBURETTOR ENGINE—Carburettor Assembly —U.S.A. Federal Models—Up to Commission No. FM110,000



### CARB ASSEMBLY:

RKC771 (up to FM80001)  
RKC3167 (FM80001 up to FM92481)  
RKC3894 (FM92481 up to FM110,000)

## SINGLE CARBURETTOR ENGINE—Carburettor Details —U.S.A. Federal Models—Up to Commission No. FM110,000



### NOTE: METERING NEEDLES:

RTC1927 (UP TO FM80001)

AEU1240 (FROM FM80001 UP TO FM92481)

AEU1148 (FROM FM92481 UP TO FM110,000)

Items marked ①, ②, ③, or ④ are included in kits illustrated in the upper left drawing on page 56.

## SINGLE CARBURETTOR ENGINE—Carburettor Gasket Kits —U.S.A. Federal Models—Up to Commission No. FM110,000

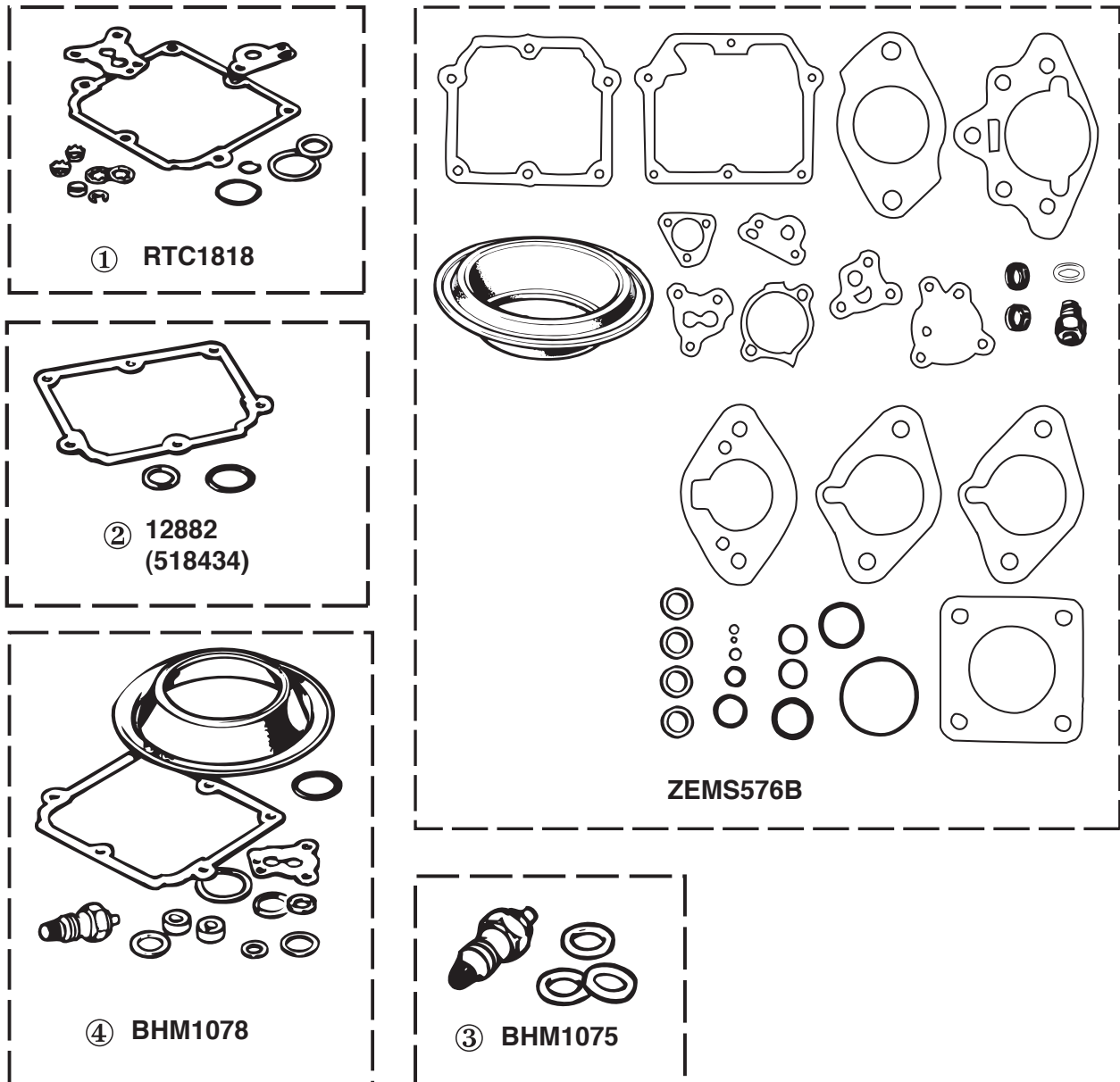


Illustration of exact applications of items included in kits may be found by examining the drawing on page 55.

Additional information on Zenith Stromberg carbs is available on page 60, as well as additional repair kits.

### CARBURETTOR REBUILD KITS

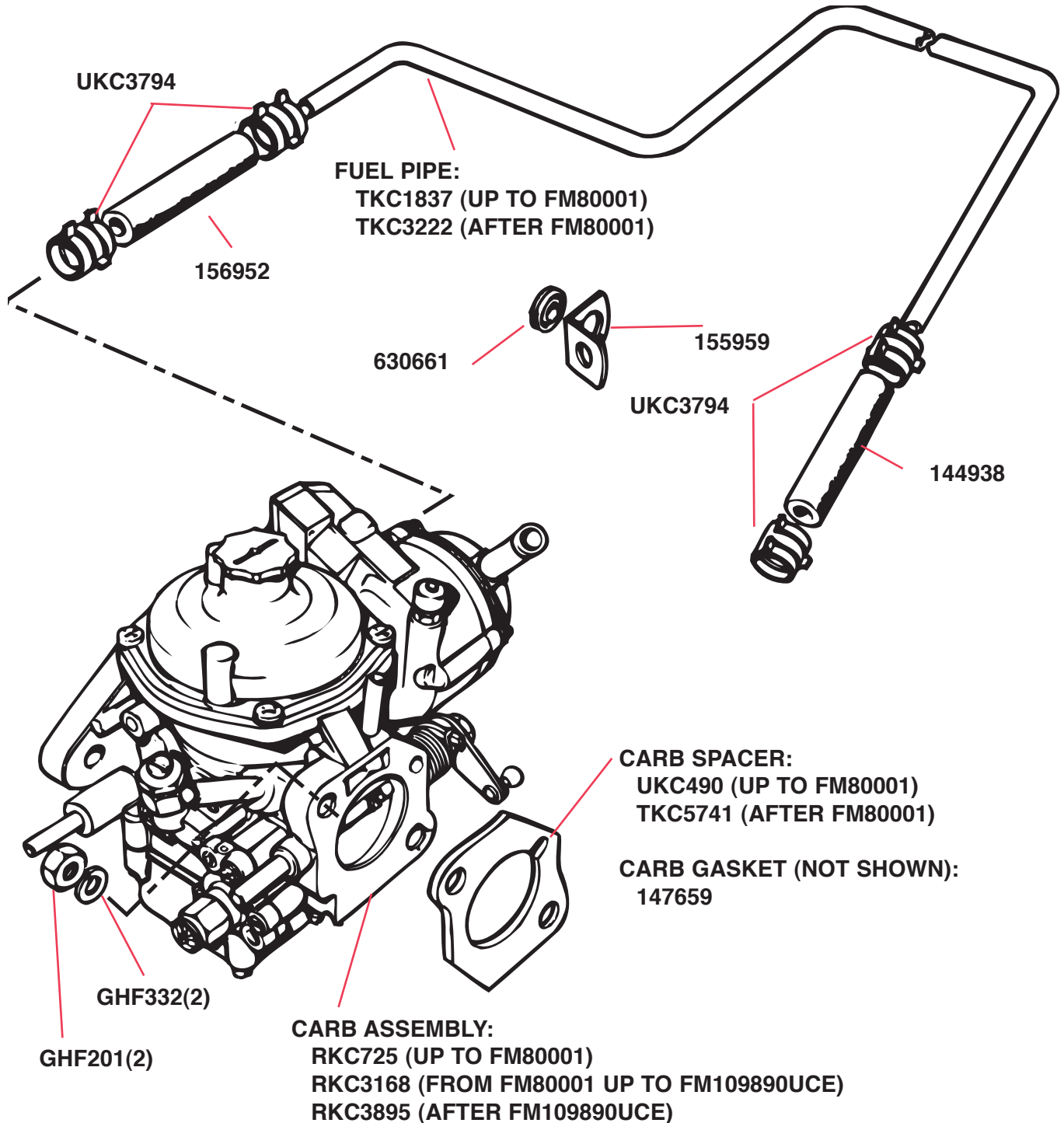
ZEMS576B

**Rebuild Kit, Spitfire mks.3, 4 and 1500**

1970-80; includes gaskets, diaphragm, float needle valve

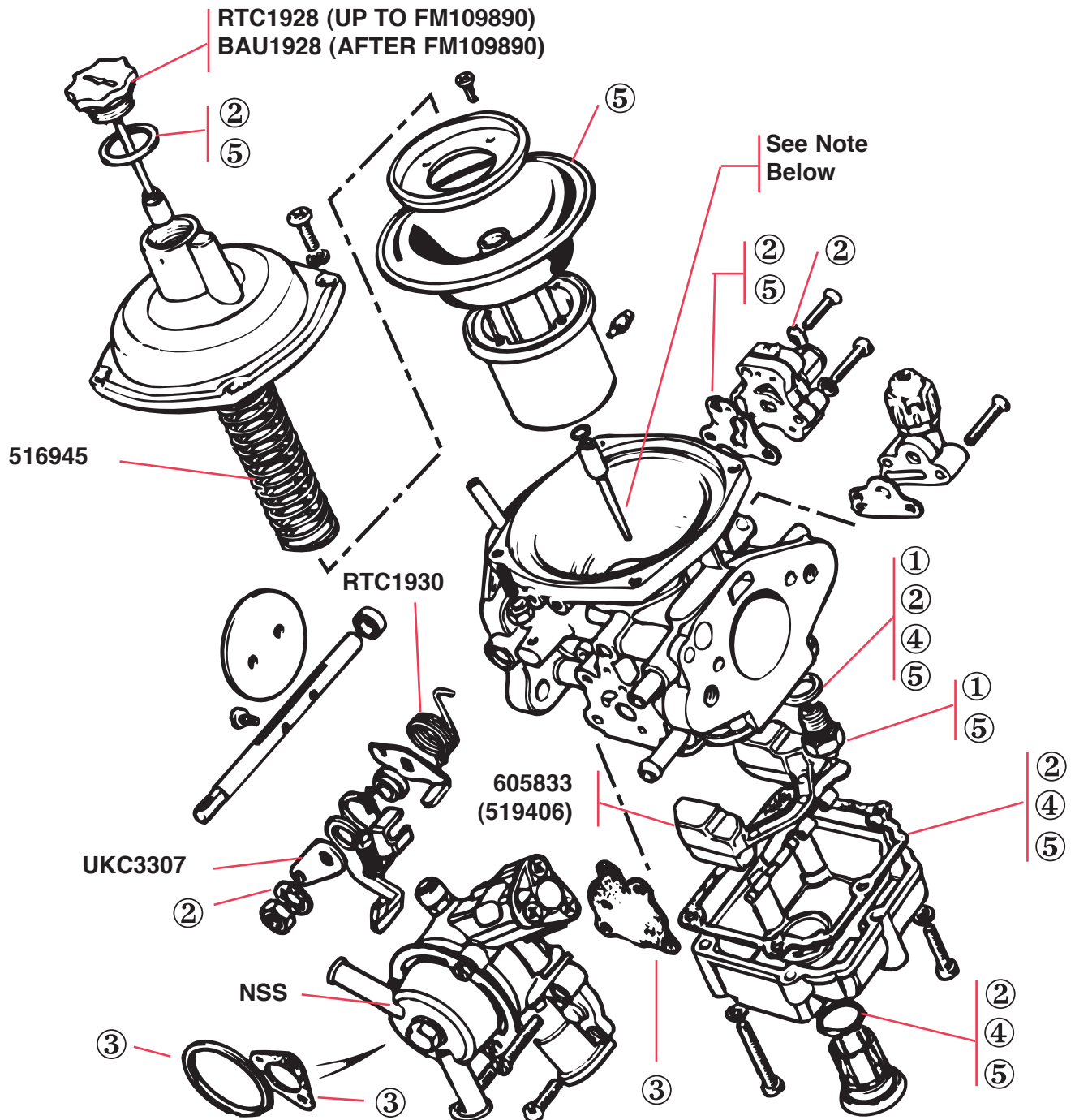
## SINGLE CARBURETTOR ENGINE—Carburettor Assembly

- U.S.A. Federal Models After Commission No. FM110,000
- California Models After the 1974 Model Year



## SINGLE CARBURETTOR ENGINE—Carburettor Details

- U.S.A. Federal Models After Commission No. FM110,000
- California Models After 1974 Model Year

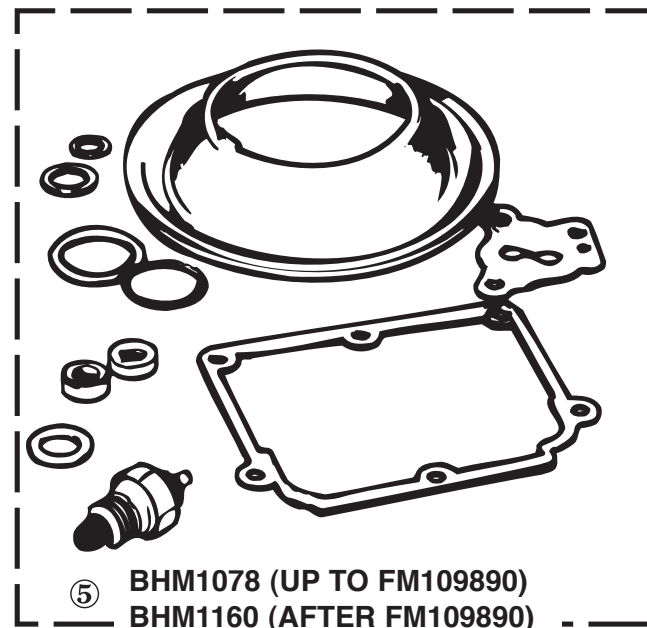
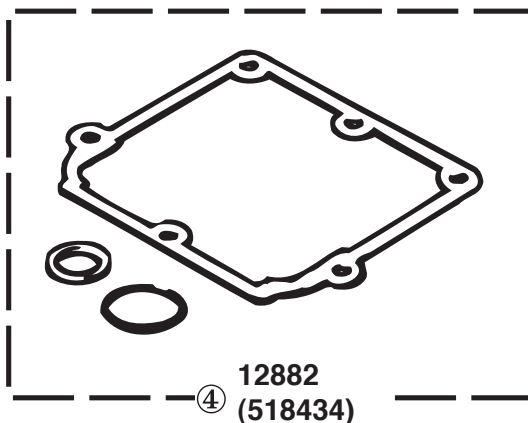
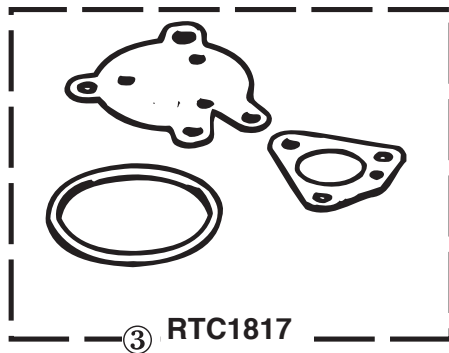
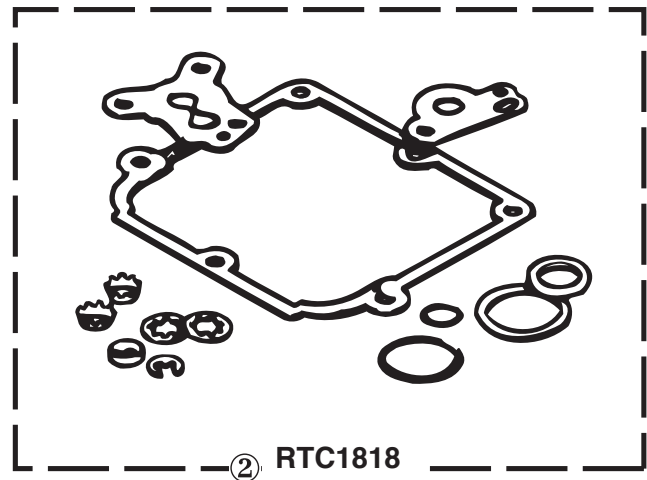
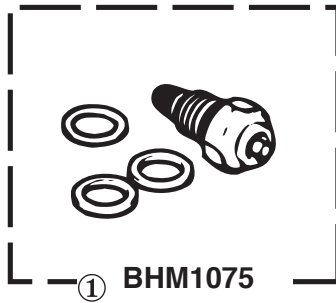


### NOTE: METERING NEEDLES:

- RTC1927 (UP TO FM80001)
- AEU1241 (FROM FM80001 UP TO FM109890)
- AEU1146 (AFTER FM109890)

The items marked ①, ②, ③, ④, and ⑤ are included in the kits illustrated on page 59.

## SINGLE CARBURETTOR ENGINE—Carburettor Gasket Kits—U.S.A. Federal Models After Commission No. FM110,000—California Models After the 1974 Model Year



Exact applications of the components of the various kits are illustrated on the previous page. Additional information about Zenith Stromberg carbs are listed on page 60, along with additional repair parts.

## SINGLE CARBURETTOR ENGINE—Zenith Stromberg Carburettor Part Numbers

For several reasons, we have chosen to double-list the carburettors, giving the British Leyland part numbers on the previous pages, and the Zenith Stromberg part numbers on this page. Some parts will be listed twice, once under a British Leyland number and once under a Zenith Stromberg number. We obtain these parts from whomever is the best source, and you will be able to find the current price for any particular part by looking up either part number in our general price list which should always accompany this catalogue.

Note: You can always tell which carburettor you have on your car, because the Zenith Stromberg part number of the carburettor assembly will be stamped on your carb.

### APPLICATIONS AND PART NUMBERS OF CARB ASSEMBLIES

#### Application Zenith Stromberg Model Carb part No.

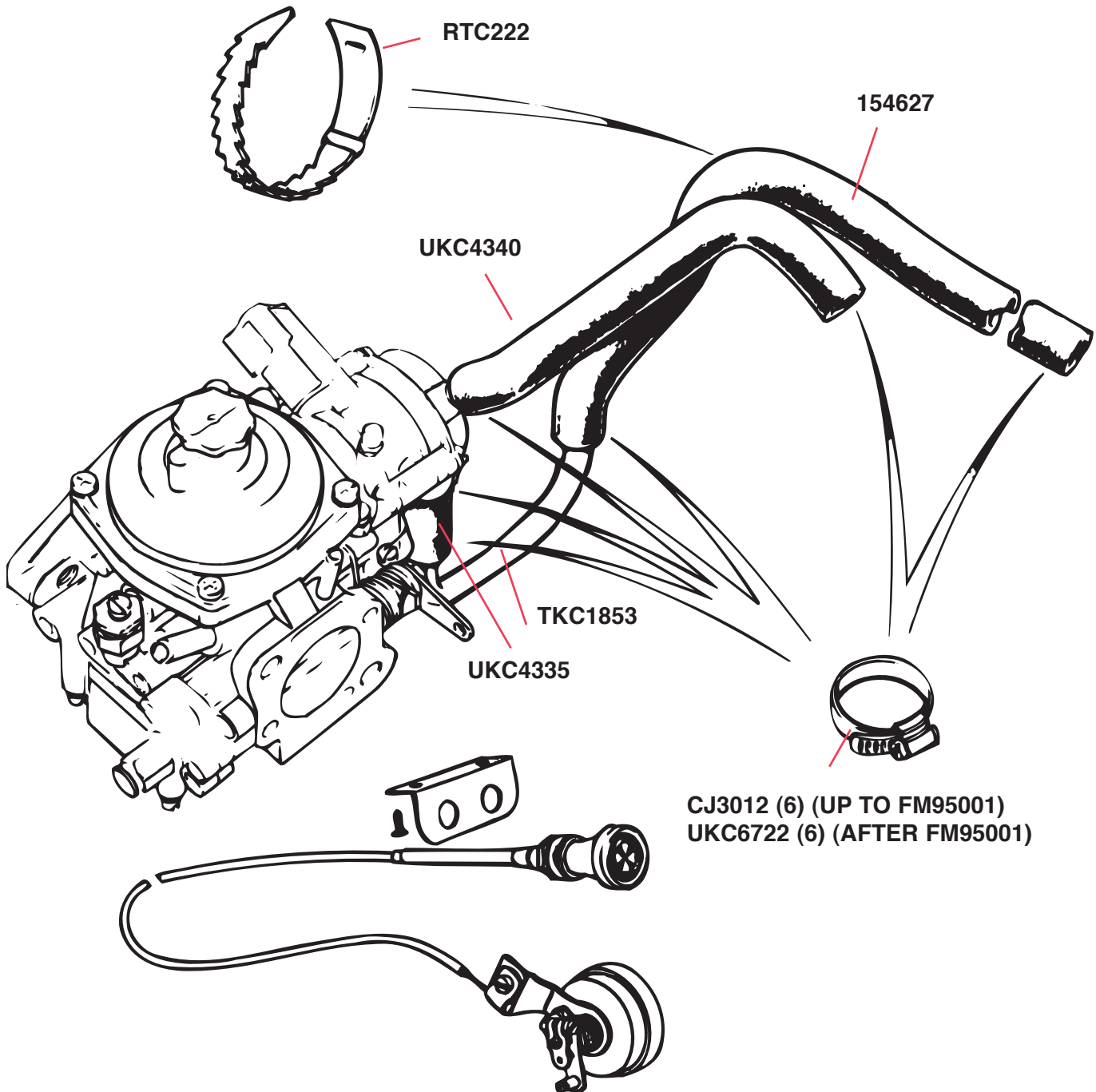
1974 (All USA)	150CD-SEVX	ZEC3612
1975-76 Federal	150CD-4	ZEC3686
1975-76 California	150CD-4T	ZEC3643
1977 Federal	150CD-4T	ZEC3837
1977-78 California	150CD-4T	ZEC3864
1978-80 Federal	150CD-4T	ZEC3960
Later 1978-80 California	150CD-4T	ZEC3961

### ZENITH STROMBERG PART NUMBERS OF CARBURETTOR COMPONENTS

Carburettor Part No. (see chart above)	ZEC3612	ZEC3686	ZEC3643	ZEC3837	ZEC3864	ZEC3960	ZEC3961
Tune-up kit (incl. gaskets & diaphragm)	ZEMS576B	ZEMS576B	ZEMS576B	ZEMS576B	ZEMS576B	ZEMS576B	ZEMS576B
Gasket set (Yellow Emission Pack) 12,000 mi.		ZEB19633	ZEB19633	ZEB19633	ZEB19633	ZEB19633	ZEB19633
Repair kit (Red Emission Pack) 24,000 mi.		ZEB24282	ZEB24282	ZEB24282	ZEB24282	ZEB26088	ZEB26088
Needle valve pack	ZEB24008	ZEB24008	ZEB24008	ZEB24008	ZEB24008	ZEB24008	ZEB24008
Diaphragm assembly	ZEB20924	ZEB20924	ZEB20924	ZEB20924	ZEB20924	ZEB20924	ZEB20924
Trimmer screw, volume control	ZEB18479						
Spring, trimmer screw	ZEB18480						
Starter assembly	ZEB23294	ZEB23981					
Float and arm assembly	ZEB19470	ZEB19470	ZEB19470	ZEB19470	ZEB19470	ZEB19470	ZEB19470
Damper assembly	ZEB16911	ZEB20043	ZEB20043	ZEB20043	ZEB20043	ZEB26078	ZEB26078
Metering needle Code of needle	ZEB21977 (B.5CH)	ZEB23655 (B.1DL)	ZEB23655 (B.1DL)	ZEB25279 (B.1DL)	ZEB25350 (45L)	ZEB26022 (45P)	ZEB26011 (45N)
Air valve return spring	ZEB18274	ZEB18274	ZEB18274	ZEB18274	ZEB18274	ZEB18274	ZEB18274
By-pass valve assembly	ZEB23362	ZEB23987		ZEB25220	ZEB25220	ZEB25220	ZEB23987
Temperature compensator assembly	ZEB19656						
Thermostat housing assembly			ZEB24404	ZEB24404	ZEB24404	ZEB24404	ZEB24404
Idle air and regulator assembly		ZEB22237		ZEB25218	ZEB25218	ZEB25218	ZEB25218
Poppet valve and throttle assembly			ZEB22237				
Heat mass assembly			ZEB21492	ZEB2432B	ZEB2432B	ZEB2432B	ZEB2432B



**SINGLE CARBURETTOR ENGINE**—Automatic Choke Pipes—U.S.A. Federal Models After Commission No. FM80,001 —California Models After 1974 Model Year.

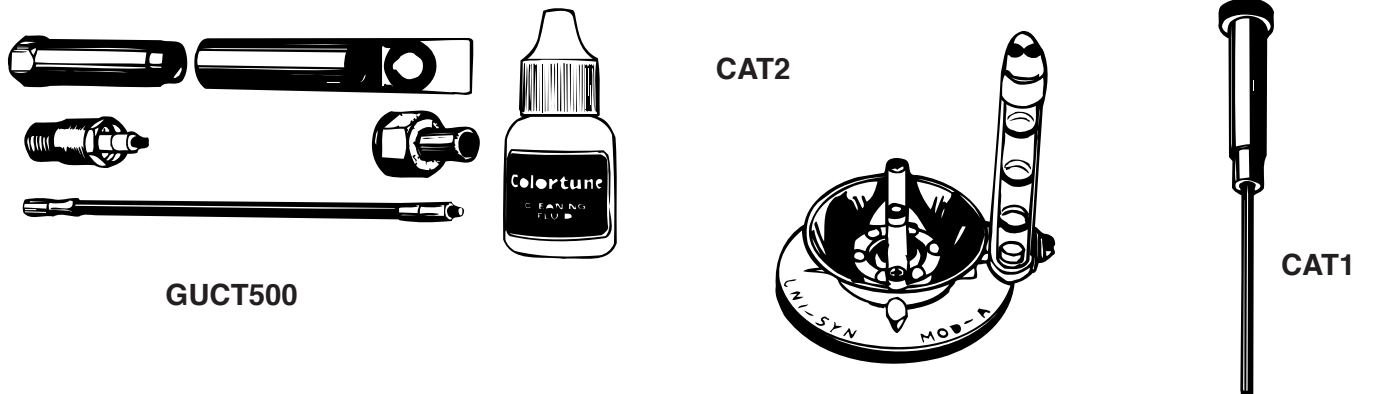


**Part No.**  
MCC101

**Description**  
**Manual Choke Conversion**, includes everything needed to convert the unreliable automatic choke over to a simple manual operation.

## SINGLE CARBURETTOR ENGINE—Carburettor Tuning Tools —Colortune, Unisyn, Mixture Adjusting

Any Triumph enthusiast, who has been around for any length of time, has met the old guys who tune their carbs by listening to and comparing the notes of the hisses the carbs make when they draw air through a piece of rubber tubing. These same guys always have nice even exhaust notes, idles at six or seven R.P.M.'s and have nice grey deposits on the insides of their tailpipes. They are smart, knowledgeable and experienced. They've been around for a long time, and they've learned the craft. For those of us whose ears are not yet experienced enough to tell whether a mixture is too rich or too lean by raising a carburettor piston or who missed school the day the teacher talked about air hissing through rubber hoses, there is still help in the form of items like Unisyn air flow meters and the Colortune system for accurately determining what kind of air/fuel mixture is being sucked into our engines.

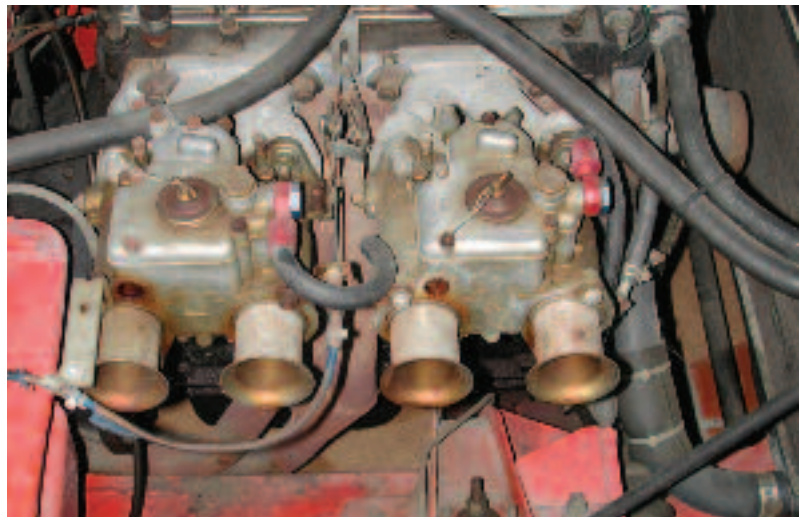


Part No.	Description
GUCT500	<b>Colortune Tune-up Kit</b> (everything you need to set your carburettor mixture by the Colortune method.)
CAT2	<b>Unisyn Air Flow Meter</b> (Replaces the rubber tube with a simple air flow meter that doesn't require an experienced ear to accurately synchronize multiple carbs, if you happen to have a dual carb set-up, such as Webers, on your Spitfire 1500.)
CAT1	<b>Mixture Adjusting Tool</b> (for cars with Zenith Stromberg "tamperproof" carburettors.)

## WEBER CARBURETTOR KITS FOR SPITFIRE 1500

Weber carbs have a mystique all their own. They have been run on the most successful high-performance engines for a generation or more, and their quality is undeniable. The results that we at TRF received from fitting a set to our TR250 rallye car confirmed this point for us.

The biggest advantage of buying a Weber kit from The Roadster Factory over buying it from anyone else is that we offer technical support to help you to get the carbs on and in proper adjustment.\* Call our Technical Research Department at (814) 446-4491 for assistance in choosing the proper Weber carburettor kit for your car.



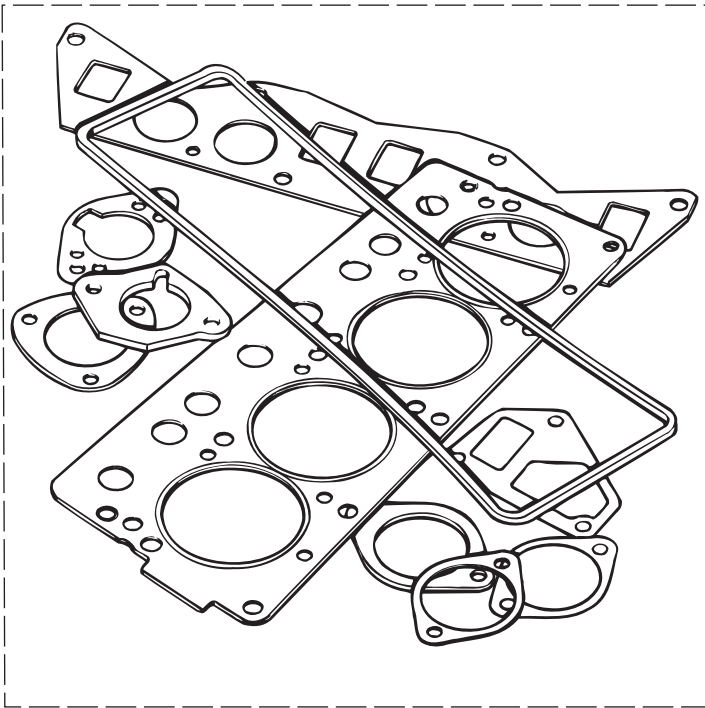
Weber carburetors fitted to LeMans Spitfire replica in TRF's showroom.



Weber Down-Draught Carburettor Kit

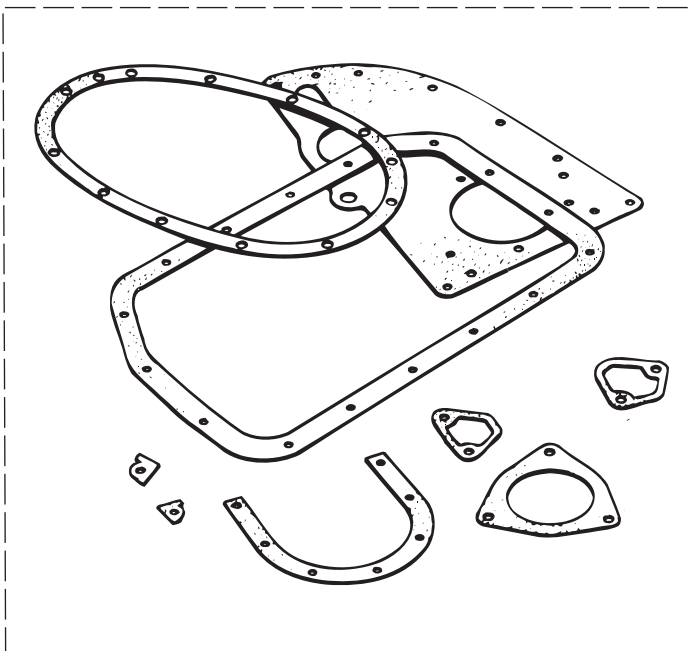
Part No.	Description
	<b>WEBER SIDE-DRAUGHT CARBURETTOR KITS</b>
WEK124	<b>Weber Single Side-Draught Carburettor Set</b> —includes one side-draft carb, special manifold, Haynes workshop manual; does not include air filters. Late models require an exhaust header to be fitted to the car.
WEK125	<b>Weber Dual Side-Draught Carburettor Set</b> —includes two side-draft carb, special manifold, Haynes workshop manual; does not include air filters. Late models require an exhaust header to be fitted to the car.
	<b>WEBER DOWN-DRAUGHT CARBURETTOR KIT</b>
WEK123	<b>Weber Down-Draught Carburettor Set</b> —includes carb, manifold, linkage, and air cleaner.

## SINGLE CARBURETTOR ENGINE—Decarbonizing (Upper Engine) Gasket Set—All U.S.A. Models



GEG1142 (TO END OF 1974)  
RTC1760 (1975 AND ON)

## SINGLE CARBURETTOR ENGINE—Conversion (Lower Engine Gasket Set—All U.S.A. Models



GEG279