

1

Dear Roy,

1/20/59

Sorry I could not make it to our meeting at the Lake Shore Club last fall. Will try to answer your questions though and give my thoughts on others.

First, "Speed Costs" is a sign prominently displayed in the garage where all of the work was done on my car. I did get a first class job and after they got to know me better I got a break on prices.

I am very satisfied with the set-up I have at present. This is it; 1955 Buick, Corvette 4 speed transmission, complete Jag rear end, disc brakes front and rear (Jag), the engine has the Buick Kit of solid lifters and their cam, a Offenhauser intake manifold which takes 3 two barrel Buick carbs. With this set up I've got a 3.31 rear ratio which suits fine, gives a top of about 130mph and plenty of torque in between. I average 16 miles per gallon of gas believe it or not. Oh yes, I have a limited slip differential, but if is not required I drove the car for 3 years without it. Changing engines etc has not hurt the handling in fact it has improved the handling, now I am 49%-51% before it was 46%-54% weight on back wheels and front wheels. The Buick is ~~age~~ about 65 lbs heavier, but it is shorter thus the weight is farther back. The reason I used the Buick is the Corvette engine was barely on the market when I started the conversion.

If I were converting today I'd use the Corvette Engine on the Buick. For that matter the Pontiac fits well in Bob Foulds too, but I can't say about the adaption of the Corvette trans to the Pontiac. It bolts immediately to the Buick. No matter which engine - I would not buy a new one. Get a used one, have it taken apart and rebuilt by a good garage, have all parts balanced statically and dynamically and you'll have a real engine. By the way the 1955 Buick engine is the only Buick motor to use. They changed the exhaust manifold after this and if you plan using the stock exhaust manifold you'd have a lot of trouble for the 1956 and later. As for the Buick I'd bore it, put in 1957 pistons which will up compression from 8.3 to 10.2 and I'd balance everything. Of course any of the engines will go around a corner better with 2 barrel carbs than with 4 barrel jobs.

There is only one transmission to use - Corvette 4 speed. This bolts directly to the Buick and naturally the Corvette. Can't say about the Pontiac. By the way the AM 1/8 is out its too heavy.

Next, don't try to use the tongue tube and push-rod. Pick up a used Jag rear, work it over and you're set. Packard tie rods or radius rods fit down rear perfect for ~~even~~ orienting the rear end and then you have built in Traction Masters. Buick wheels fit the Jag lug spacing. Get the widest Buick wheels

while you're at it. They are 2 for \$5 at a junk yard, also go to 7:10x15 tires on the rear, 6:70x15 will fit the Nash rims on the front.

Now, you have Jag brakes on the rear - this gives you more brakes back there than Nash put up front originally. So, you've got to put more brakes up front. Bob Loudon tells me he went to a larger Nash set up on the front which practically bolts on. He could give you the details. I went to Jag Disc brakes which are not too hard to install. You could refer to mine as a example of how.

One more thing all 3 engines are 12 volt. Take my advice on this. Go 12 volt, don't try 6. Throw out the radio and get a 12 volt one, do the same with the windshield wiper motor, change all bulbs to 12 volts. This leaves the heater motor and instruments. Leave the heater set up as is - it'll run like the very devil but keep it turned down on the rheostat on the dash and you'll get by, besides it really puts out if you turn it up a bit. As for the instruments go to a good electrician and have him size resistors, carbon type, for these.

Now you're all set to do 0 to 100 in less than 15 seconds, you'll beat everything up to and including the 1505 on the straight and in the corners, and the first time you drive it you'll be shaking within one mile. At least, I did.

I hope I have covered most of your questions. Write if you have anymore.

As for your front end problems - I am just repeating, and do not know for a fact, what I heard from A.M. Chicago Area Service Managers - "South Racine Nash has rebuilt front ends on Nash Healeys and does a lot of work on same, we send all our Nash Healey work to them". The address, 6931 South Racine, Chicago of course - Telephone HB exchng 4-6700

Thanks for the invitation to visit with you, however with the weather and all of the sports Car activities I have gotten myself into ^{in the} past two months I can't promise anything. Can't even write a decent letter anymore.

Good luck if you proceed with the project or not. Hope to see you one of these days

Sincerely
 Ferril

Kent C. Martin
 127 W. 14
 Naperville, Ill.

Ferril Miller
 2329 Ridgewood
 Highland, Ind.

When can I pick up
 transmission?

493-2000

Dick, parts A-8341

AMERICAN MOTORS CORPORATION

14250 PLYMOUTH ROAD • DETROIT 32, MICHIGAN

January 5, 1961

Mr. Roy D. Stetina
Holiday Lakes R #1
Garrett, Indiana

Dear Mr. Stetina:

This will acknowledge your welcomed letter of January 3 regarding replacement parts for your Nash-Healey.

The front bumper rail, part #3135006, is temporarily out of stock and has been on back-order since September 1960. Parts are being fabricated by hand in Kenosha to replenish our stock at the main parts warehouse in Milwaukee. The approximate promise date for delivery is in the week of January 9. Accumulated back-orders will be shipped when stock is available.

Assuming that you still require this part, I would suggest that you again place your order with our dealer and inform him of the back-order situation.

In answer to your question, my Nash-Healey with the V-8 conversion is still holding up well after two years of service. I have had no problems with the transmission.

I hope this reply will meet with your approval.

Very truly yours,



C. Chakruakian
Technical Advisor

CC/phc

Holiday Lakes R/1
Garrett, Ind.
January 3, 1961

American Motors Corp.
Detroit, Michigan

Attention: Mr. C. Chamakian

Dear Sir:

For 4 months I have had a \$160.00 Nash-Healey parts order with Ringle Motors, 435 W. Main St., Fort Wayne, Indiana.

About 2 weeks ago I received all (including front back bumper bars) except front bumper rail #313 5006 of group 12.168.

On Dec. 29, 1960, Ringle Motors informed me that ~~313 5006~~ 313 5006 has been discontinued. How can this be (especially since front back bumper bars were delivered)? I understand that it is mandatory for American Auto Manufacturers to supply parts for 10 yrs. My Nash-Healey #3076 was sold in July, 1955.

Since the parts were ordered and the bumper was not listed as discontinued, it has been discarded and hauled away by rubbish collectors.

My Nash-Healey has been reconditioned from the frame up and is in concours condition--but no bumper.

Can you check or double-check and find one somewhere (preferably new)?

Hopefully yours,

Roy D. Stetina

P.S. Incidentally, I also have a 1959 Rambler Station Wagon.

Please notify me of your findings as soon as possible.

If you locate a new #313 5006 bumper rail, please ship it to:

Ringle Motors
435 W. Main St.
Ft. Wayne, Ind.

as soon as possible.

And how is your Nash-Healey with the V-8 conversion? Does the transmission hold up under the increased torque?

RDS

M E M O

TO: Roy D. Stetina,
R.R.#1,
Garrett, Ind.

DATE Feb. 5, 1958

This refers to yours of Jan. 8th, about 1955 Nash-Healey.

We have had a good deal of luck reworking the Nash engine for hot street machines and also for track work. I think the E-2 Track would work very well in your engine. This cam is fairly smooth and has very good power from 2000 RPM up in the Nash 6 engine. Along with the cam, I would mill the head to get 9 or 9.5 to 1 compression or put in 10 to 1 high compression pistons and bore .125" over standard.

Most of the Nash-Healey engines have the steel cam so it will cost you \$40.00 to have yours ground. If your cam is cast-iron, we can sell you an E-2 outright for \$50.00.

Use your valve train as is with about .050" or .060" shims under new Nash valve springs.

Your 4.11 rear end gear with overdrive should work well all around.

Sincerely,

Sigurd Erson, Shop Foreman



ED ISKENDERIAN RACING CAMS
607 NO. INGLEWOOD AVE.
INGLEWOOD 3, CALIF.

P.O. Box 4037

ORegon 8-7791



AMERICAN MOTORS CORPORATION

HONDA AUTOMOBILES
NASH AUTOMOBILES
SPECIAL PRODUCTS

14250 PLYMOUTH ROAD
DETROIT 32 MICHIGAN

KELVINATOR
AND LEONARD
APPLIANCES

June 5, 1958

Mr. Roy D. Stetina
Holiday Lakes RR #1
Garrett, Indiana

$$\frac{271}{6(x-1)} = 6[6x-6]$$

$$36x - 36 = 271$$

$$x = \frac{271 + 36}{36}$$

$$x = \frac{307}{36} = 9$$

Dear Mr. Stetina:

This reply is submitted in response to your letter of May 28.

The compression ratio of 8:1 has proven to be very satisfactory for all purposes on regular grade gas of about 90 octane. At the owner's option, the compression can be run up to 8.5:1 to 9.0:1 but the use of premium gas having an octane number of 95 or more is a must. A slight gain throughout the RPM range can be had by increasing compression, however, this modification is expensive and has its limitations.

If you wish to obtain an 8.5:1 compression ratio, the following computations will explain the amount required to be milled from the head.

$$CV = \text{Chamber Volume} = \frac{\text{Volume of one cyl.}}{\text{Compt. Ratio} - 1} = \frac{252.55 \text{ cu. in.}}{6 \text{ cyl.} \times 8.0 - 1} = 6.01 \text{ cu. in.}$$

$$\text{If } 8.5:1 \text{ is wanted: } CV = \frac{252.55}{6 \times 8.5 - 1} = 5.61 \text{ cu. in.}$$

$$CV \text{ difference} = 6.01 - 5.61 = .40 \text{ cu. in.}$$

$$\text{Amount milled off head} = \frac{CV}{\text{Piston area}} = \frac{.40 \text{ cu. in.}}{9.621 \text{ sq. in.}} = .0416 \text{ cu. in.}$$

Then, .0416 inches is the amount to be milled from the head, subject to a revision in the piston area figure of 9.621 sq. in., if the piston chamber outline deviates greatly from the true cylinder bore of 3.5".

Remove all sharp corners and it is good practice to "CC" all chambers to insure equal head volumes. To do this, set up the head upside down and level, with all valves, springs and spark plugs in place. Use a burette tube, some light oil and strive for an accuracy of - 2 cubic centimeters by polishing the chambers as required. Real accuracy also calls for a correction factor to compensate the fact that the pistons seldom come with .010" of the same position at T.D.C.

3133743

3136381 opt. cam

8.5:1 with 80.5 base

George J. Herbert
Box 226 RDr
Finleyville, Pa

21 Oct. 59.

Dear Roy,

In answer to your recent request for information on the carb. linkage, I am enclosing a print showing the details, and how it is installed. This proved to be a big improvement over the wire -tube device as installed by the factory.

Regarding the Mercury installation in my Nash Healey, I hardly know where to start. It has been operating successfully for about two years. I have it torn down at the present time for a clutch improvement, clutches seem to be my biggest source of trouble.

To begin at the beginning, I originally wanted to install a Chev. V 8 in my Healey, but couldn't locate one at the time (at my price).

In searching thru auto wrecking yards I came across this Merc. engine (55) from a badly wrecked car but with only about 6000 miles on the odometer. The block was cracked and some parts missing but it only cost me 50 bucks. I purchased a new block and re built it from the ground up.

Probably the biggest hurdle was joining the Merc. bell housing to the Nash transmission. This proved to be rather simple for me, but could be expensive for someone else. I drew up the plans for this spacer, it could be a casting or a weldment. In my case it was made from a weldment. A good friend of mine had the part fabricated and machined at a shop where he is employed, for a very nominal fee. All I had to do was drill and tap holes for the bell housing and transmission. Also tapped holes on the under side for the rear engine mounts. So you see I am unable to furnish you with an accurate cost on this part, but just as a guess I would say it would cost around 50 to 60 dollars at a machine shop

to have the spacer block fabricated and machined.

The frame must be notched to clear the starter motor, also must be notched to clear the fuel pump and engine breather .(the same notch takes care of the last two items) .

Radiator: the same radiator was used , but had to be altered somewhat, the old entry and exit pipes were removed and holes soldered up , then ~~xxxxxxxtopxxpipexxxxxxxsolderedxxin~~ one of the old top pipes was soldered in a new position at the top and a new bottom entry was fabricated and soldered in at the bottom. This radiator is a bit too small for the ~~xx~~ engine, normal driving even in hot weather is ok , but get stopped in traffic or traveling slow ~~N~~ during a hot day and the temp. slowly goes up, but it comes back to normal after the open hiway is reached.

Front motor mounts: These were fabricated from steel angles, and insulated from the frame with flathead Ford pancake type rubber mounts. A long bolt thru the frame holds them in place.

Steering box: This unit had to be moved slightly away from the frame in order to clear # 8 spark plug, this was done by using longer bolts and $\frac{1}{2}$ in. spacers between the steer. box and frame.

Oil filter: It was not possible to mount the ~~oil~~ ^{OIL} filter on the side of the block due to frame interference , so I made an adapter from ~~xxxxxx~~ aluminum which fastens to the block in the place occupied by the oil filter. From this ^{adapter} ~~block~~ rubber hoses lead to the oil filter which is mounted on the frame , works fine and is much more convenient for changing filter elements...

Exhaust system : The cast iron manifolds could have been used by switching right to left and vice versa , this would have placed the exhaust openings at the front of the engine, from here U shaped ex. pipes would be used to ~~xx~~ the mufflers. However I decided that headers were better , so I made a set of headers from Electrical Metallic Tubing.

This tubing is purchased in straight lengths or in 90 degree bends, so that I didnt have to do any tube bending, this job took considerable time but I think is well worth the time spent.

Battery was relocated to a position behind the right front wheel housing.

Generator was mounted high and to the right side by means of suitable brackets.

Fan was altered by cutting off about an inch from each blade.

Thermostat housing was altered to point straight ahead instead of to the right side. I found out later that a certain model Ford truck uses a thermostat housing such as I needed.

The conventional oil bath type carb. air cleaner was too big, ~~gx~~ for closing hood so it was discarded and a Chrome Hellings dry type filter was purchased, looks better too...

Throttle linkage was fabricated to suit, using one of the bell cranks from the Nash engine throttle changeover, and the same Dodge ball joints. The Nash transmission and over drive unit were used and has stood up to the increased power~~d~~ very well. I tried the old Nash pressure plate unit and a ^{10"}Buick driving disc and it seemed to work ok for a while then started to slip. So I removed the clutch and installed heavier springs in the pres. plate. This was ok except that it slipped of fast accelerations. So last summer I removed this clutch and tried a Ford truck pressure plate (11 inch- Long type) and a Packard driving disc, this combination didnt slip but after a few thousand miles became a chattering (judder) nite mare . I plan to install a corvette clutch next and hope that my clutch troubles will be over.

Miscellaneous ; Radiator moved rear ward near fan.

Pair of BeLond glass pack mufflers used on exhaust system.

Front wheel housings altered slightly to clear exhaust headers.

Oil inlet pipe on top of engine moved from right side to left.

Top Rad. hose $1\frac{1}{2}$ x 11 flex. Bottom hose ; Dayton CH-123

Fan belt Modac # 290

Starter switch moved from left side of fire wall to right side , makes nice short electrical connections .

As you can plainly see I am not much of an author and certainly a lousy stenographer, but I think you should be able to see about what to expect in this engine switch. Its a lot of work , yes , thats true but I found it to be well worth while . I did all the work described, with the exception of the spacer block which I mentioned, I had the use of a friends lathe (South Bend Engine lathe 9" size) for many of the small parts. I have my own ~~xxxxx~~ Acetylene -Oxygen welding and burning outfit and so was able to do all my own welding.

I work as a machine designer for Mackintosh- Hemphill Div. of E.W.Bliss co. located at Pittsburgh. I drive my Healey to work every day , a round trip of 46 miles, and am happy to say it never let me down .

Recently painted my Healey red (Plymouth Cherry Red) , a beautiful color. Hope to get a new top ~~fst~~ for it next spring.

Now here is an interesting possibility, I have a Packard transmission and over drive unit which I hope to install in the Healey this winter, this will mean a new adapter plate and other alterations . ~~This will~~

If this change is successful it will mean that I will no longer need the spacer block ~~xxx~~ for the Nash transmission and it will be available to you for a very nominal fee.

(over)

As for performance , well its a real bomb, the acceleration in third gear standard is really terrific, the engine is stock, except for the exhaust headers, and polished combustion chambers, inlet ports etc. also use a Mallory ~~coil~~ coil . Recently out accelerated my ~~best~~ Buddies DeSoto Adventurer, which he thought was the hottest car on the road.

Well thats the story friend, hope the information is of some help to you, and if you decide to go ahead on a ~~job~~ project such as this I will be glad to furnish prints and additional info. as needed(for free of course). Possibly we may meet at one of the Nash Healey meetings, I hope to attend at least one of these meetings next year .

My Healey is a ~~1951~~ 1951 convert. aluminum body

Please write again and if you ever get out this way , look me up.

Best of luck,

George G. Herbert

George G. Herbert

ps Total cost of the engine switch was slightly over 400 dollars...

8 Nov. 59.

Dear Roy,

Glad to hear from you again, and thanks for the kind invitation to visit with you, hope to take you up on that some day , but not until warmer weather, next summer probably. (I hate cold weather) ...

I think your choice of a Chev. 283 c.i. is a good one. Thats what I wanted to install in my Healey . I am enclosing a print of the adapter spacer used in the Merc installation. ~~It~~ It should adapt to the Chev. Your estimated length of such a spacer (3 & 7/8 in.) matches exactly with my unit. I had to cut $\frac{1}{2}$ in. from the front end of the Ambassador trans. clutch shaft. To join the end of this spline shaft to the Merc. crankshaft I used a Fafnir # 9504 K (40 mm. O.D. x 20MM. I.D.) ball bearing .

As to the old Amb. engine I scrapped it with the exception of the generator, distributor, al. cover plate on top of head, and the SU carbs. The carbs are rather worn and would need rebuilding now , my son in law has used a few of the seals and gaskets from my SUs to repair the SUs on his * TR3 ...

My Amb. trans. seems to be ok, tho I have had trouble getting a clean fast shift, but I have been blaming it on the clutch not dis-engaging properly. Have decided to discard the 11 in. Ford truck clutch and Packard disc. and have purch. a new 10 in. Corvette pres. plate assembly. ~~My old 10 in. Ford truck clutch and Packard disc. are now gone~~ Might get a Corv. disc or may try a Buick disc which I now have.

Am also going to install suspended pedals on the Healey. Got a pair of ~~ex~~ susp. pedals complete with master cylinders last week at the junk yard, from a 55 Ford . Will have ~~brake~~ hydraulic clutch control. Have removed ~~all~~ the old cl. and brake pedals and all their linkage , also the old master cyl.

Perhaps I should explain, in order to use suspended type pedals I first had to remove the old fire wall (slanted) incl. the heater assembly and fresh air duct etc. also removed the Nash weather eye air scoop and riveted an al. patch over the hole. then used fiberglass to finish the surface. Repainted the entire car shortly after. Then made a new firewall (vertical) and installed same, this gave me a lot more room under the dash for a larger glove box, also made the susp. pedal job much easier.

Another job to be completed is new fresh air inlets, got some firewall fresh air intakes with butterfly valves for dash control, from ~~the~~ the junk yard. (50 chev.) Will connect these units ^{with} ~~to~~ 4in. flex, air tubing to front of car .

All this planned work will probably tie ~~up~~ up the car for the rest of the winter, but I dont care because I will then ~~be~~ have the car in good shape for lots of "top down" summer driving...

The Packard transm. project may have to wait, seems like I need the use of a 12 in. engine lathe to complete the project and havent been able to find one available .. Of course I could have the whole job done at ~~any~~ any good machine shop , but the cost would be prohibitive.

Sorry I didnt make a drawing for the headers but will send along a little sketch, this job consists mostly of a lot of hand work, cutting, filing , and fitting parts together as well as welding. The flanges represent a lot of work , I cut them out with a hack saw, then in order to make the square holes , I had to drill a lot of small holes around the marked out hole, break out the ~~p~~ inside pc. then file the hole to size.

The San Diego steel prod. co. sells a one pc flange already made which would save a lot of work . This co. advertises in Hot Rod magazine. , they also sell tubing bent to size , but I think the Electrical Metallic Tubing ~~XXXXXX~~ (E.M.T.) I used is a better bargain.

over

Another thing I plan to do some day is to add a short pc. of flex. metallic tubing in the ex. pipe between the headers and the mufflers. There is not enough flexibility in the present setup and as a result have had to weld the mufflerx heads after they cracked .

Well thats all for now, getting late , and tomorrow (monday) is always a hard day for me. Write again , and if I dont seem to ans.your letters promptly ple ase be patient , sometimes I get a bit lazy ..

Sincerely

George

George G. Herbert

ps. I am 46 yrs. young , married, 4 children (wife Dorothy)

- 1 son Geo.Edw. age 22 -store manager at Sharon, Pa.
- 1 daughter 21 married - Marian -works for Westinghouse Atomic
- 1 " 17 Dolores - at home
- 1 " 15 Diane - at home

All are sports car enthusiasts .

ps . what year and body style is your healey ? ~~nixx~~ al. body?