SIX TECH

by Leonard Renkenberger
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This manual is dedicated to the TR-6, the car I have always referred to as the MG-TC of the '70s. These happen to be, in my opinion, two of the greatest cars ever built. They are not the fastest, the most powerful, the best handling, the most valuable or the best at anything matter of fact. Perhaps that's why I feel they are so great. They were the epitome of sports car in their day and, most important, the average guy could afford them. The TC was the first and the TR-6 was the last. My TC has been with me since 1960 and the one TR-6 since March 26, 1970. I can not imagine what it would be like not having them - especially driving the TR-6 every day and the TC for occasional pleasure use on nice days and trips. All those poor souls chugging down the road in their 1987 Zapmobiles sure are missing a lot in life.

Where am I coming from and why did I prepare this book? I'm not sure. However, by attempting to help you and encourage you to keep your TR-6 on the road I'm really helping myself too. The more these cars are driven and restored the more parts suppliers are encouraged to keep making those vital gears, switches, and such. That keeps the cars drivable and so we go around the cycle again. I have a belief that if you know something, you have a duty to pass that knowledge on. I also believe this is doubly true in old car circles because you aren't going to learn it "on the job". I'm not talking about things you can find in shop manuals - they're written for people who already know what they are doing (or at least think they do). I'm concerned with the inherent weakness the manufacturer sure as Hell isn't going to mention in his manual, or the improvement of an assembly by substituting parts that technology hadn't invented when your car was built. I'm not suggesting I know it all - far from it. I've merely attempted to pass on some of the lessons I've learned behind the wheel and underneath a TR-6 for over 300,000 miles. I would like to encourage you do the same.

There has been no attempt made to make this a "professional" looking publication - nor even too much of an attempt to use the correct grammar and spelling. There has been, however, a real attempt to explain things clearly in language the non-pro can understand. I hope we have succeeded on this latter point above all else.

You will be amazed at how much work you can do yourself if you have a few basic tools, preferably more than one shop manual and, most importantly, the confidence to try. Most jobs can really be subdivided into several smaller jobs and by doing this you'll find it is not so overwhelming as you may have thought. For example, body repair and a paint job seems mighty intimidating. However, if I said you could remove the left front fender, you'd probably agree. If I then said take a 1/4" drill and a grinding disc and grind the rust away from the edges of a rust hole in that fender you'd again agree you could do it. Then if you just put a fiberglass patch on the back, a little plastic filler on the front and sand it
a little, you've fixed the fender. Now you'd know you could do the other three. By then you'd probably be very justified and smart to take the rest of the job to a pro; but, you would have gained a tremendous amount of self confidence. Of course it is also obvious that you can't jump into a complete engine rebuild if you've never even been able to change the oil. Strive to gain skill but know your limits.

Many of the articles deal in basics, and more important they deal specifically in TR-6s. By that I mean not a generic article like all the "How to" books have. I once bought a "How to Fix your TV" Book. Trouble was the resistors and rectifiers in my TV weren't in the same place as the ones on the generic TV. I threw the book and TV out together. I promise you that you'll know how to do the job on your TR even though you can't do it on a lawnmower. The theory and tune-up articles are, I think, good examples of this. Incidentally, I can't fix lawnmowers either!

Also I'd like to qualify the difficulty level of the articles we present when applicable so that you don't feel intimidated by a job you could easily do but just don't know you can. The grading would work something like this:

D: Requires ability to recognize box end wrench and lift with both hands after appropriate study and preparation.

C: Able to open hood (bonnet) and know what carburetors (I spell in U.S. not British) look like - well, at least which side of engine they are on.

B: Knows what a torque wrench is and how to use it for something other than a hammer.

A: Able to remove a major assembly such as engine or differential and, with some help from manuals, disassemble and re-assemble it.

A+ Donald Healey, Bob Tuilis, and Richard Petty call you "Your Highness".
SIX TECH

ENGINE, CYLINDER HEAD, VALVE GEAR, AND MANIFOLDS
- Double engine life with frequent bearing changes
- Changing upper main bearings
- Frequent engine thrust washer replacement is a necessity
- Engine front oil seal improvement
- Speedi-sleeves – a better idea
- Matching a new or rebored block and new pistons
- Repairing the oil pressure line
- Oil all over the left side of your engine
- Rocker shaft set screw
- Curing/preventing rocker shaft, rocker, and cam failure
- Cylinder head and manifold interchanges
- The blue cloud, the sign of valve guide wear and what to do
- Easy valve guide replacement
- Raising your oil pressure and checking bearing condition
- Don't raise your oil pressure and drop your temperature
- Always use two manifold gaskets

CARBURETTERS, FUEL SYSTEM, AND EMISSION SYSTEM

- Modifications and replacements for the Zenith-Stromberg CD carburettors on Triumph TR-250 and TR-6

TUNE UP AND IGNITION
- Distributor rebuild
- Accurate setting of ignition points and the ignition timing
- Home made static timing light for under $5

CLUTCH, GEARBOX, AND OVERDRIVE
- Adapting a ‘J’ type overdrive to an early car
- Repair your ‘J’ type overdrive and save $211.75 on a solenoid
- What nobody ever told you about clutch jobs
- If your clutch won’t disengage after rebuilding and bleeding the slave cylinder

DIFFERENTIAL, REAR AXLES, AND DRIVESHAFT
- Rear hubs – probably the biggest problem you will ever face with your TR 6
- Extending the life of rear hubs
- Grease fittings for rear hubs and universals
- Differential rebuild without the factory tools

STEERING AND FRONT SUSPENSION, SHOCKS AND SPRINGS
- Rack and pinion mounts – stock and solid (with a consumer bulletin on the later)
- Preventive medicine for front suspension mount woes
But when it does break - front suspension mount repair
Front suspension rebuild for the beginner
Wheel bearing adjustment when installing a new seal
Easy tie rod end and ball joint removal
Easy front wheel bearing cap removal
Speedi-sleeve - a better idea for front end rebuilds
Front wheel bearing wear and repacking wheel bearings
A good cheap tool for packing bearings
A better front wheel bearing seal
Prolong the life of wheel bearings and make maintenance easier
Extended tie rod end life
Oiling your steering gear

REAR SUSPENSION, SHOCKS AND SPRINGS

Revising the early TR 6 rear suspension geometry
Rear suspension bump stop replacement
Installing rear suspension bushings with hand tools
Rear springs

BODY, PAINT, GLASS, TOP, INTERIOR, WEATHERSTRIPping, ETC.

Dashboard weekend
Rocker panel replacement for the every day car
Care and feeding of the door hinges
Front fender rust prevention splash shields
Rust prevention for the TR 6 rear fenders
Additional rear body splash shield
Selecting a color and a paint system
Correct sliver or more silver silver for your wheels
Door handle escutcheon problem
Windscreen to door glass seals
Built in stereo speakers for your TR 6
Theftproof speakers and a parcel rail

ELECTRICAL, ALTERNATOR, SWITCHES, INSTRUMENTS, AND RADIO

One of Joe Lucas' most insidious inventions
Emergency wiper switch for early (rocker switch) cars
The Studebaker answer
Early windshield washer switch replacement
Before you replace that alternator
Alternator brushes - preventive medicine for the high mile car
Alternator mounting woes (or) don't let a red neck mechanic
touch your alternator
Easy alternator pulley removal
GM alternator conversion
Wiper switch replacement, "original" or cheap
Speedometer and tach repair
Stop light/tail light woes

SAFETY AND MISCELLANEOUS

Is your pride and joy a candidate for a Ralph Nader witch
hunt? Keeping it safe!
Don't be in a hurry for your TR 6 to fire up