



FRANZ AND GRUBB  
VINTAGE ENGINE  
SPECIALIST



5149 STROHM AVENUE NORTH HOLLYWOOD CA 91601 818-505-0340

## READ THIS BEFORE REBUILDING YOUR TRIUMPH ENGINE

Triumph advertising in the 1950's and 60's proudly stated *"The best motorcycle in the world"*. Nowhere did they ever claim "easiest engine to rebuild". After over a decade of dedication to these engines, I have written down some things that should be considered before undertaking a vintage Triumph engine build. Hopefully this will save you time and money by highlighting some important aspects of the process. These awesome powerplants can still be rebuilt with the right information, parts, and skills.

### Decide on the purpose of the engine

**What the engine will be used for will determine a lot about what needs to be done.**

Competition, show, restoration, and daily rider bikes will all have different requirements. Staying focused on the intended use of the engine will help you navigate which of the many options available are right for you. It will also help in parts selection and may prevent unnecessary purchases.

### Machine shops are closing

Automotive technology has advanced to the point where engines can go 200,000 miles without a rebuild. Many modern engines cannot be rebuilt. This, coupled with the retirement of shop owners, has led to a rapid decline in machine shops capable of doing cylinder boring, valve jobs, and assembly.

**All machine shops are not created equal.**

The true measure lies not in the equipment, but the operator's skill and experience. If your machinist has never worked with a Triumph twin, chances are you will both be in for a few surprises. An experienced shop should also be able to help in parts selection after the main components are selected.

**Although these engines are simple, there are a lot of things to know, and the machine work will make or break a perfectly assembled engine.**

For more information on parts or services please visit the shop website



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page 1



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## Free information overload

The internet has created a powerful and cheap resource for people all over the world to connect. This in turn has given us access to an incredible volume of knowledge.

**Specialty forums and social media groups can be helpful sometimes, but other times be an avalanche of bad information from well intentioned but unqualified people.**

Educate yourself first by understanding what the factory designers and engineers intended. There are many good books on Triumph motorcycles. A lot of "experts" are not much more than casual enthusiasts. It takes a lot more effort to publish a book than to post on a forum or website.

Take advantage of these great tools available but always **consider the source when making decisions about your engine.**

## Each engine is different

Each engine has different requirements as well as unique problems. Some are just worn out and need rebuilding, and others are missing vital parts, have major damage, and may need thread repair, welding, or specialty machining. Most major problems can be repaired...but all for a price.

**Sometimes the repair cost can be higher than replacement, depending on the rarity, condition, or the type of engine.**

It seems obvious but starting with the nicest and most complete engine is always the best scenario. The more parts that are missing means time finding them and money paying for them. If you are restoring a rare matching numbers bike, you don't really have a choice, but if you are in the market, be aware that some parts can get very hard to find, hard to pay for, and sometimes both!

**Sometimes that "project" is really closer to a boat anchor than an engine.**

There is moderately good aftermarket support for Triumph parts, but keep in mind that the age of the frames, cases, and other parts are still at least 40 years old, and a lot can happen in that time frame.

*I WANT YOU TO SUCCEED!*



There are no engine building "secrets"...  
The only secret to success is deciding  
what to do, and then following through  
with the work!

Dan- Franz and Grubb



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## The right parts

The purpose and condition of your engine will dictate a lot of what needs to be done. Knowing your desired RPM range, powerband, gearing, and top speed will help in selecting the cams, pistons, valve train components, carbs, and more. Planning out your build will help figure what parts will work for you.

**Selecting which parts to use in your engine should not be determined by chance, or by price.**

Often with aftermarket British parts, the price of high quality parts can be similar to poorly made parts. This observation leads me to suggest that price alone is not a good way to determine which parts are better. Replacing parts that are still serviceable is not always good practice, as some reproduction parts are far inferior to the original one being replaced.

**There are a lot of great parts available, but choosing which will work together is the key to a great engine.**

## What to do

### Start with a plan.

Be realistic. Set money aside.

After you determine the use of your engine and the level of detail desired, start writing a list.

Here are some of the major components you will need to address:

*Crankshaft / Connecting Rods Engine Cases / Threads / Covers Cylinder Block / Pistons*

*Camshafts / Tappets / Pushrods Cylinder Head / Valves / Valve Springs Rocker Boxes*

*Transmission / Sprockets Clutch / Primary Drive Ignition System Overall Gearing*

*Hardware / Surface Finish / Polishing Title / Engine & Frame Numbers Engine Parts*

**While this list may seem overwhelming to some, being organized is the best way to insure a positive outcome.** The satisfaction of completing and firing up your engine for the first time is incredible. When machined properly and put together carefully, your engine will do what it was designed to do...make power for the best motorcycle in the world.



For more information on parts or services please visit the shop website

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page 3