



THE

# GOSHAWK



FLIER



RROC GOSHAWK SOCIETY

SERVING THE SMALL HP COMMUNITY

VOL. 1 No. 3 ~ SPRING 2013

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## In this Issue.....

- A Word from our Chairman
- John Carey tells us how he found "GEN" and resurrected her
- A bit of Humor to, hopefully, brighten your day
- The Attwoods tackle a starter conundrum
- Our member cars at the 2013 Texas Meet
- No not some medieval torture device but valve keeper parts
- A primer on identifying prewar RR motorcars
- A Herculean effort by David Chrestenson on his 25/30
- A bit of trivia on screw threads

As always, I warmly welcome your articles! ..... and thanks!!

Terry

Dear Goshawk Enthusiast:

It's time to get your car on the road. You might consider signing up for the RROC's Fall Tour that will take you through "Low Country" to see some of the most beautiful and historic cities in the US, including the charm of Savannah, GA, Charleston, SC (the wealthiest city in Colonial America with its beautiful mansions), Wilmington, NC and Hilton Head Island. Our tour host is Chip Wright and he has designed the tour so that pre-war cars will feel right at home. Chip will be driving his 20/25 on the tour, so the tour is well suited to our cars. The tour will start in Fernandina Beach, FL and head north along the coast to Hilton Head, NC. The Low Country tour is scheduled for September 16th to October 2nd. You can contact RROC for more information, or email Chip at [beachmk4@yahoo.com](mailto:beachmk4@yahoo.com).

Touring in your Rolls-Royce is a great way to see the countryside, and the RROC tours are well organized and a lot of fun. To maximize your enjoyment while on tour, be sure you perform a complete service before you go. Most pre-war cars are under-serviced since they don't cover many miles on an annual basis. With that in mind, take a look at your owner's handbook for the recommended service. You will find three services intervals for your car. Schedule A should be performed every 5,000 miles, Schedule B at 10,000 miles and Schedule C at 15,000 miles. Since many of our pre-war cars seldom attain the annual mileage for the Schedule A service, you should consider substituting time intervals for the mileage intervals as follows: Schedule A every 6 months, Schedule B every 12 months, and Schedule C every two years. Since Schedule B includes the Schedule A service and correspondingly, Schedule C includes the Schedule B service, you might try the following service intervals: Perform Schedule A at 6 months, Schedule B at 12 months, Schedule A at 18 months and Schedule C at 24 months. The cycle should then be repeated with Schedule A, B, A, C, etc.

It's a lot of work to catch up on the service, but your car will appreciate the attention and you will be more familiar with its mechanics. Next, get your car on the road and drive it. Bill Kennedy is an experienced, long-distance tourer in pre-war Rolls-Royce cars. I recall one year that he drove a Silver Ghost over 25,000 miles. Bill recommends that you drive your car every day for a week prior to taking it on a tour as a pre-tour shakedown. Drive it to work, the grocery store and every place you take your modern car. If it's capable of starting and running on a daily basis, it will likely perform as well on the tour. The starting and stopping, driving while the engine is cold and hot will likely flag any problem issues. It will also get you more familiar with your car in town, traffic and on the road. If you have problems during the pre-tour week of driving, it's a lot easier to sort them out at home than while on tour. You will also be better prepared than some of the much newer cars that come on tours. Many of them are only driven to the country club on Sunday, and are not driven daily or for long distances. You will experience a smug pride in passing them on the side of the road since you prepared your car for the tour and they did not. In that case, you should at least stop and offer them a lift and let them experience the joy of riding in your well-tuned car.

Have a great summer and I hope to see you on the Low Country tour in the Fall.

Gil Fuqua

# From Barn Find to Beauty

June 7, 2013



I enjoy telling the story of my first day collecting "Gen" (1929 20HP GEN36) from her warehouse cell. (see photo above). She had been sitting for five years and the previous owner (PO) had not gotten her running. The gas in the tank was rotten varnish, but I had come with a friend and a small truck of supplies to try and get her home on her own power. Worst case, we could tow it home.

First, the battery in her was a dead short, and the cables didn't look any better. I had brought blue bell dry cells to gang into a 12 Volt hot wire. These were also used to power the electric fuel pump and drain the varnished gas. The plan was to use new gas through the fuel pump and tow start the car. The original AutoVac was long gone.

It was after 5 P.M. and the parking lot was ours for the pull-start run. I told my buddy to get me to the far end of the lot and turn it around for the longest try available to us and stop to hook everything up. As we headed that way very slowly, I was keeping the tow line taught, but also was fiddling with the clutch and shifter being unfamiliar with the shift gate. Well I went and did a bad thing, **it actually went into a gear and the clutch got released!** In shock, I put the clutch back down immediately thinking that this could cause an unknown while not being ready.

As we pulled to a stop at the end, low and behold.... **Gen was running!** I had forgotten to remove the hot wire so everything was ready and all that was needed was that little "bump" of the flywheel when the clutch was engaged. She ran so smoothly and started so quickly that I didn't even know it. There was no bucking, no bang, no smoke, no backfire, just a purr. I had never had a car start short of at least a 100 yard pull and a lot of fuss.

I was amazed and knew I had a keeper. The PO was even more astounded as he had failed at any such attempt. Gen ran fine for the 10 mile trip home, but did start to overheat at idle. Early on (this was 1978), I figured to fix the water pump and have an engine not requiring rebuild. Alas, not so.

Fast forward to 2000 and the final investigation for planning the ground up restoration. The heating problem still persisted. I decided to do the engine as the water passage crud was the true culprit. Well, it is a good thing since there were several hidden problems in an otherwise fine running machine. The oil passages in both the rocker arm and crankshaft were blocked. The engine had been rebuilt two owners past with no regard for such standard cleanup. Further, the piston bores were tapered 0.040" from top to bottom! One of the crankshaft plugs was loose with the potential for oil pressure loss, and then there was the clutch that was worn as well.

Now Gen has a new motor with a real rear main seal, rebuilt transmission and clutch, all is bright spanking new and I know it will last and is right. (see photo below).

John Carey

San Jose, CA

see Gen's restoration info at: <http://goshawksociety.com/technical/Gen36Resto/Gen36Resto.htm>



## Heard on the Road

### "Art that Sells"

An artist asked the gallery owner if there had been any recent interest in his paintings, which happened to be on display.

"I have good news & bad news", the gallery owners replied. "The good news is that a gentleman inquired about your work and wondered if it would appreciate in value after your death".

"What did you say?" questioned the artist.

"When I told him it would, he bought all 15 of your paintings".

"That's wonderful!" exclaimed the artist. "What's the bad news?"

"The gentleman was your doctor"

### "A Frog calls a Psychic"

Recently, the Psychic Hotline & Psychic Friends Network has launched hotlines for frogs. Here is the story of one frog & his discussion with a psychic.

A frog phones the Psychic Hotline & is told: "you are going to meet a beautiful young lady who will want to know everything about you".

The frog says: "This is great! Will I meet her at a party or what?"

"No" says the psychic. "Next semester in her biology class."

A newly married man asked his wife: "Would you have married me if my father hadn't left me a fortune?"

"Honey", the wife replied sweetly, "I'd have married you no matter who left you a fortune!"

# **Starter emergency!**

*Michael and Lynn Attwood, Portland, Oregon*

Recently Dick and Ann Tilden had decided to take their lovely 1950 MkVI Bentley to a RROC event, but were encountering some difficulty in starting the car from cold on chilly days. The problem was the starter drive clutch, which was slipping too easily. While this assembly is different in detail from the pre-war starters, the principles involved in the clutch unit itself are very similar, so the article will hopefully be of some interest to the readers of this publication.

I understand the idea behind the clutch is to absorb some of the initial shock from the engagement of the starter gear on the teeth of the flywheel, which, as this is an inertia-engaged system, takes place rather violently. I have also read that it was to prevent the car from moving too much if an inattentive driver hit the starter button when the car was in gear! Whatever the design reasoning was, if the clutch slips too freely the starter armature and shaft spin, but the starter gear, and thus the flywheel and crankshaft, do not.

The removal of the starter from Dick and Ann's 20/25 to attend to a similar starting problem some time ago involved rather precise positioning of the starter clutch and gear within the flywheel housing to allow the starter to exit towards the front of the car past the crankcase wall. The issue in that case was maneuvering the clutch and starter gear assembly around the flywheel teeth – a problem obviated on the later cars by linking the clutch and its gear to the starter's armature using a splined union between the armature shaft and the clutch shaft. (The disassembled 20/25 starter clutch is shown in photo 1.)



**1. The rather sad state of the clutch discs on the 20/25 starter.**

**The 'prongs' on the clutch casing - referred to later - are clearly visible (red circle).**

Photo 2 shows the starter clutch used on the MkVI. The splines on the clutch assembly shaft engage a matching ‘female’ set of splines on the starter armature shaft, which provides for withdrawing the clutch and starter gear out of the flywheel bell housing to the rear without the necessity for removing the starter body itself.

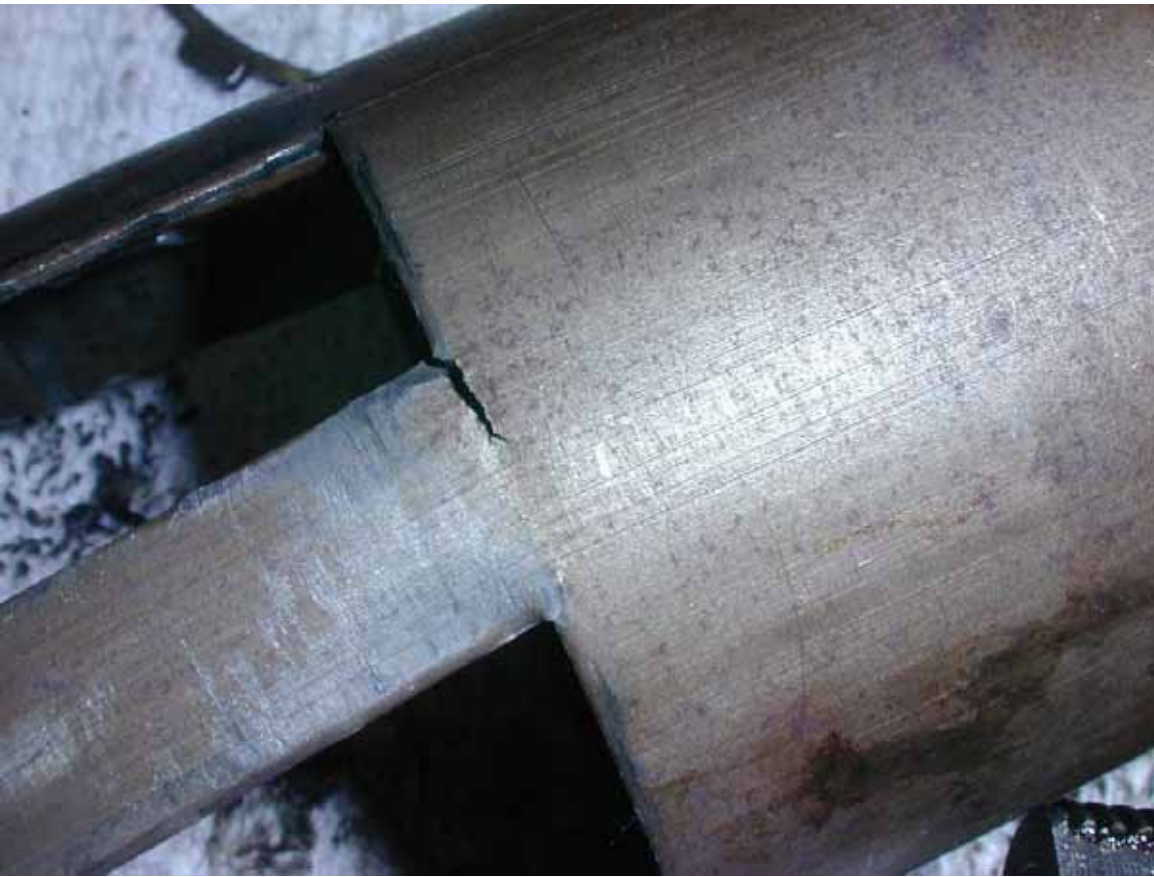


## 2. The Bentley MkVI starter clutch components.

Disassembling the clutch involves the removal of a locking ring which engages in the ‘prongs’ of the clutch housing, and subsequent removal of the clutch outer casing. (The location of the locking ring is arrowed, and just visible at bottom right in photo 2.) Inspection showed that the friction discs, while in decent condition, were oil soaked to the point that they were not transmitting torque as designed. The discs cleaned up well, leaving a little lubricant embedded in the material to ensure a modicum of slip.

Much more troubling was the state of the main clutch housing and the ‘prongs’ which engage in slots on the outer edges of a set of four friction discs and thus transmit the torque of the starter to the starter gear. All of the prongs were cracked (photo 3), and all were twisted from carrying the torque loads.

As it was too late for ordering a replacement if the car was to be used on the upcoming trip, we decided to weld the cracks. We also elected not to attempt any straightening of the case prongs, as to do so would probably have resulted in complete failure of the already-fatigued metal.



### **3. All the starter clutch casing 'prongs' displayed cracks.**

Reassembly involves compressing a spring inside the clutch housing which puts the necessary pressure on the clutch discs, and although the spring is not overly powerful it does take some thought and care to keep everything lined up and under compression while the locking ring is refitted to the case. Once reassembled, checked for torque transmission, and reinstalled in the car, the starter worked as it should, but we will be looking into replacement of the cracked casing, of course.

The quick fix we performed addresses, to a certain extent, something of a weakness in the way the clutch casing is designed. (I hope I will not be accused of sacrilege for suggesting such a possibility!) The prongs, which engage in slots cut into the periphery of four metal friction discs, transmit the starter torque from the starter shaft via the clutch discs to the starter gear, so the prongs experience a shock followed by a twisting force whenever the starter is operated. The outer casing 'cup' is locked in place by a ring which engages in slots cut into the ends of the prongs, the prongs sliding through annular slots cut into the end of the cup (photo 4). Thus the cap covers the friction discs and holds them in compression, but does not stabilize the ends of the prongs relative to the main body of the casing in a twisting mode. Once we had welded the cracks, we thought about grinding down the welds to match the original diameter of the inner, main, clutch casing. This would have allowed the outer casing to slide over the weld repairs. However, on second thoughts, we decided to leave the welds proud of the surface, and take them down to about the same thickness as the wall of the outer casing (photo 4). Of course, that meant that the outer casing would not slide all the way into its original position without modification.

With some careful grinding, we cut relief slots into the outer ‘cup’ so they engaged the welds. What this accomplished was to lock the cup to the main clutch housing so that it could not slip around on the inner case. Such slipping allows the prongs to bend and crack over time from transmitting the starter’s torque, of course. The cup is now locked to the inner case in twisting mode, and so splits the torque load between the ‘free’ ends of the prongs and the point where they attach to inner case, thus relieving them of much of the original design’s twisting effect.



**4. Welds were left proud of the original main clutch case diameter, to engage in the slots cut in cup.**

We finished off the job by testing the clutch assembly for slip, which was much reduced but still sufficient to absorb some of the shock of starter gear engagement. Despite some chilly mornings on the ensuing outing, the starter experienced no more failures in turning over a cold engine.

When we install new components we will likely take steps to lock the outer and inner casings together in the same vicinity as the repair welds, thus equally sharing torque loading between the ends of the prongs rather than relying on the area where the prongs join the main casing to take the entire twisting effort transmitted through the clutch discs.

Hope this makes sense, and may be of some help to a few of you –

Cheers!

Michael and Lynn



**GOSHAWK SOCIETY MEMBER'S  
CARS AT THE SAN ANTONIO MEET**

Photos by Gil Fuqua

William Downs' 1937 25/30  
Park Ward Limousine GH08

Dallas, TX



Gary Phipps's 1939  
Wraith, Corsica saloon  
WMB16.

The only one made.

Albuquerque, NM

Bob Wright's 1933 20/25  
Gurney Nutting sedanca  
coupe GTZ28

The Woodlands, TX



# SPARE VALVE COMPONENT KEEPER DEVICE FOR THE TOOL KIT By Gill Fuqua

This little valve keeper was in the tool kit of one of my cars. It appears to be made of mahogany and is designed to hold a valve, valve spring, and related parts.

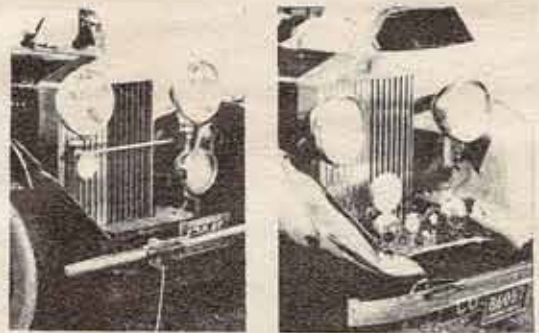


# Identifying Large Pre-War Rolls-Royce Cars

—compiled by Katie Robbins

Courtesy "Torque" — Michigan Region

	British Built	U. S. Built Springfield
Silver Ghost	1907-1925	1921-1926
Phantom I	1925-1929	1926-1931
Phantom II	1929-1935	None
Phantom III	1936-1939	None



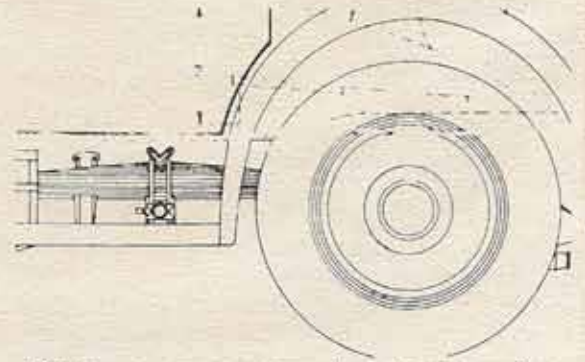
If the lights are mounted on poles or bars, it is a pre-war Rolls-Royce.



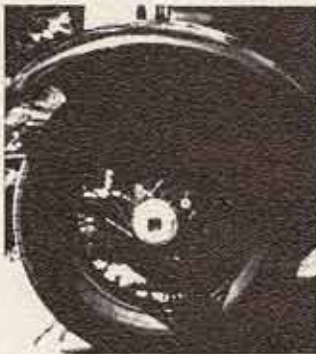
British Wheel Nut



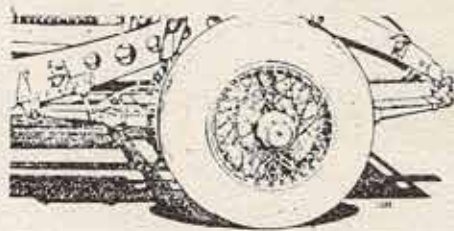
If it has a permanent crank, it is a British Silver Ghost.



If it has no permanent crank, look at the springs in the rear. If the wheel is fitted to the end of the spring, it is a Phantom I (PI).



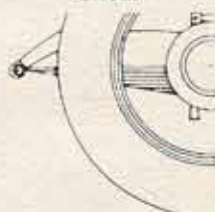
U. S. Wheel Nut



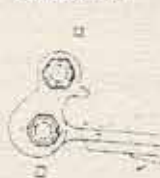
If the wheel is fitted in the middle of the rear spring and the headlights are forward of the radiator, the car is a Phantom II



Springfield, Silver Ghost



Springfield Phantom I



Examine the front springs. If joined directly to the dumb iron it's a Springfield Silver Ghost. If joined through an intermediate piece (a spring shackle), it's a Springfield Phantom I (PI).



If the headlights are alongside the radiator, the car is a Phantom III (PIII).

To determine if it's British-built or U.S.-built (Springfield), examine the wheel nuts. British wheel nuts are flat, Springfield wheel nuts have a depression.

# An Almost Correct Story

By David Chrestenson, II

It was in the early '40s that I became interested in Rolls-Royces. I was in grade school; my father was an auto mechanic. After school I would sometimes walk to his shop to see him and look at the cars. One day I asked him, "What is the best car made?" He replied, "A Rolls-Royce." I decided I wanted one. I read Road & Track, I even wrote Rolls-Royce and they sent me a nice collection of literature. Come 1956 and I was ready to buy my first car. After much reading I picked a new Volkswagen. I was happy, but not quite satisfied. I still wanted a Rolls-Royce. A friend of mine, Dale, also had many diverse interests, including cars, and we would discuss endlessly the merits of various makes and also anything else that took our fancy. But getting married moved a Rolls back a bit on my must-do list. Then one day I saw an ad for one in the newspaper. I immediately called, the owner (if he really was such,) knew almost nothing about it, when I asked the model he didn't know, but said it had "fenders like boxing gloves." (A recommendation if I ever heard one.) But he



told me that it was in an old barn and we could go take a look. So off Dale and I went.

It truly was a "barn find," in the worse sense of the term. The price may have been right, but not much else was. I always wondered what happened to it. (I still have a photo of it, at left.) Then, in 1972, Dale called again, he had come across a mimeographed newsletter where a gentleman advertised, among other interesting items, a *walking-stick cum air-rifle* that Dale was interested in. And he was only about forty miles away. There was also

a *diving helmet* listed and I was interested in that. So I told my wife I was going to look at a diving helmet and off we went. We got there; the man (a true gentleman,) certainly had an eclectic collection of objects. But both of the items we were interested in were already sold. Of even more interest, there were old cars all over, most of them Rolls. [There was also an airplane in pieces (in his bedroom.) Fascinating!]

I immediately asked about all of the Rolls. He was doing a private business in importing them from England and then reselling at a reasonable profit. I looked around; all were too expensive, except one. It really needed work, how much I fortunately didn't realize at the time! I didn't even know what model it was, or the year. (A 1937 25-30 Hooper Limo GRP72, I discovered later.) But it ran! That was a big plus in my book. After some talking and haggling, I bought it. Imagine my wife's surprise when, after going for a diving helmet

I came home with a Rolls-Royce! She, as I expected, took it extremely graciously! That, of course, was just the beginning. I joined the RROC, started reading, collecting books, parts, and knowledge, and it grew from there. I named it, and "it" became a "she", namely "*Guinevere*". I built a garage, just for her. After all these years and after a restoration, she is still there, looking far finer than when I first brought her home. I expect her to continue to live there forever!



### SECTION A3

## UNIFIED SCREW THREADS

The need for a common standard of screw threads in the United Kingdom, Canada and the United States of America has led to an agreement between the countries concerned to use UNIFIED THREADS of mutually acceptable form, pitch and diameter.

There are three types of unified thread:

1. Unified Coarse.
2. Unified Fine.
3. Unified Special.

These unified threads are clearly identified by the standard system of markings, as illustrated in Figure A1.

There is little difference between the form of the American national thread and the unified thread; therefore the new threads are largely interchangeable with S.A.E. standards. They are not, however, interchangeable with BSF, and although BSW have the same number of threads per inch as the Unified National Coarse series, interchanging is not recommended due to a difference in the thread form.

The following types of thread are used on nuts, bolts and castings fitted to Rolls-Royce and Bentley cars.

For all sizes below  $\frac{1}{4}$  in. diameter, BA threads are used.

For all sizes between  $\frac{1}{4}$  in. and  $\frac{3}{4}$  in. diameter inclusive, the Unified Fine thread is used.

All sizes above  $\frac{3}{4}$  in. diameter have been classified by Rolls-Royce and Bentley Motors as Unified Special and have 16 threads per inch.

The Unified Coarse Thread is not used.

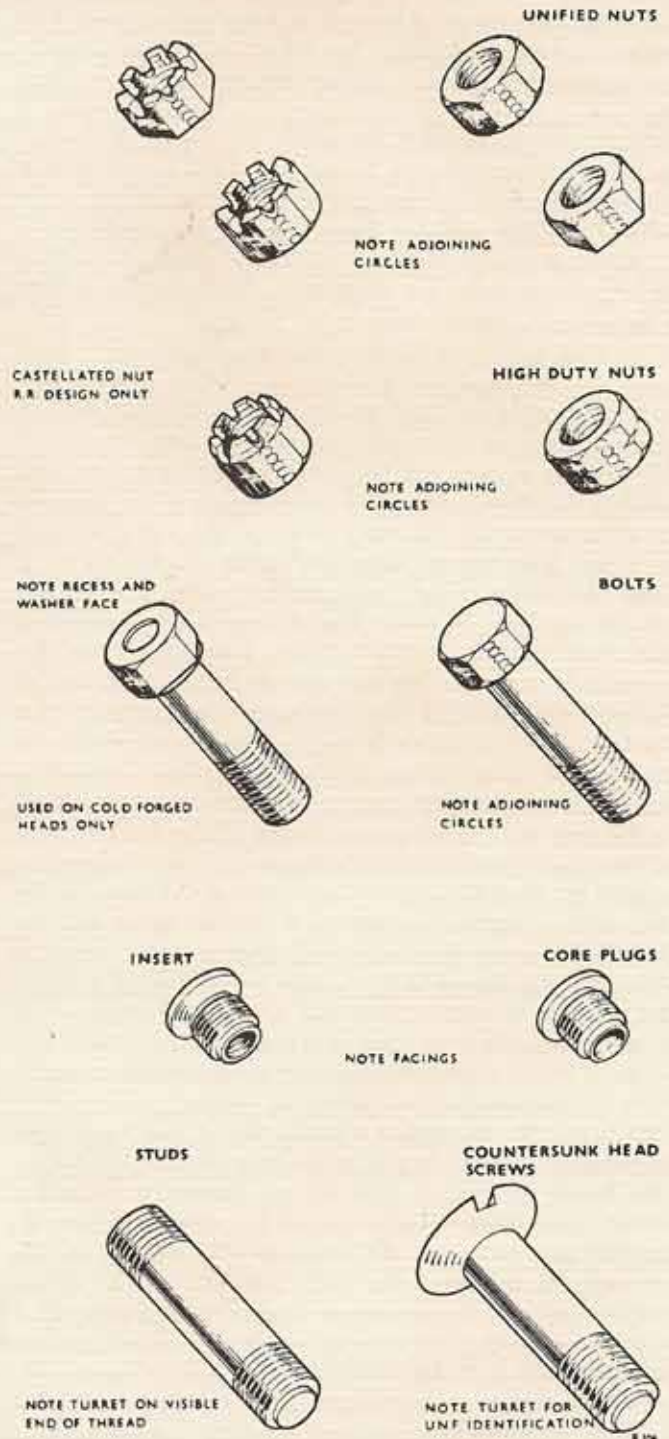


Fig. A1 Identification of unified threads