

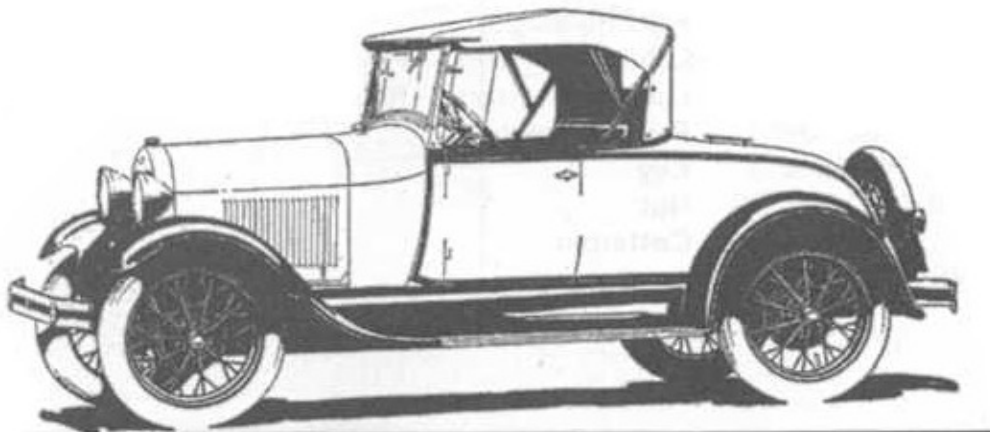
# **New Shay Owner's Guide**

*A Quick Guide for New Purchasers  
Of Original Equipment*

## **Shay Automobiles**

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Revised 2004 & 2021



*Remember that this machine you chose has the magical power to make you spread joy to hundreds of people each time you turn that key. The more you use it, the more good you do.*

*It's a hard job... But somebody's got to do it!*

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**PLEASE TAKE NOTICE**

**The manufacturer of this automobile benefited from a number of exemptions from safety regulations only because of the low production numbers and not because this automobile was otherwise as safe as mainstream automobiles. None of the information which follows comes from or has been reviewed by a qualified mechanic. Nothing expressed, furnished, or supplied here is (or implied to be) professional technical advice or services, or substitute for the advice and services of a qualified mechanic.**

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## New Shay Owners

### **Foreword**

Welcome to the world of owning a truly distinctive classic automobile, **The Shay Model A Reproduction**. This distinctive auto can be driven on today's highways, yet it retains the true classic looks envisioned by Henry Ford's design team in 1927. It can be affordably acquired, in many cases, at or less than it's original cost.

Many new Shay owners have doubtless been discouraged by some of the small idiosyncrasies in this short production-run automobile. In fact this fun automobile, with proper maintenance and minor modifications is reliable, easy to drive, and has one of the lowest mechanical parts replacement costs. The rugged engine, suspension, and drive train combination were manufactured until recently and have a good reliability factor and reasonable fuel economy.

This small guide is produced to thank the executives of the **Shay Owners Club International** for giving their time and creativity to provide new and existing Shay owners with an opportunity to share information and the experiences we have had with these addictive automobiles. The help and information I received from this group when I «took the plunge» and bought a Super Deluxe Roadster off the Internet site unseen (... not recommended) saved me much unnecessary grief, but also time and money.

The experiences and recommendations herein are just that. They are compiled from some of my mistakes and the helpful advice of members in the Shay Discussion Forum. I am not a mechanic, and I hope these prove helpful, but consult your local wrench jockey for his opinion. You can help us all by relating to us your own experiences, parts sources, or even bad jokes to the Forum. Detailed history, contacts, and excellent information can be acquired, among others, from these two Websites: **[www.shaymodelaclub.com](http://www.shaymodelaclub.com)** and **[www.shayhistory.com](http://www.shayhistory.com)**.

Pore over these sites and you will get a good feel for your Shay and some great ideas on modifications and body colours. The «**Links to related sites**» have excellent photos of original Model A's for comparison. All of this is to the credit of the unpaid founders of this organization who have given their valuable time to spread the «**word**» about a great automobile that makes young and old smile at the same time.

**Good luck and Happy Shaying!**

Roy Alexander  
Parksville, British Columbia



## Your New Shay

### *Starting Out*

So you've looked at all the information Shay owners Websites and have decided on a car... or bought one on impulse as I did. **What now?**

### *Transporting Your New Car Home*

**Editor's note:** Today, with hindsight and wisdom time brings, no one should drive a Shay back home at the time of purchase. Have it trailered home! So many things can go wrong with this special car, even more so if you are unfamiliar with it.

Most Shay purchases contain lots of mystery and little documentation or service records. As most people are in a hurry to get their new treasure home, here are some quick recommendations if you're planning on driving. (In the absence of recent service records)

1. Drive to a quickie oil change center and change oil to **full synthetic**. (If a problem occurs, this gives maximum protection)
2. Inspect belts and radiator hose / heater connections for wear, leaks, etc.
3. Check all fluid levels. **Assume some levels may not have been checked for decades!** Do not «assume» as I did and paid for it.
4. Do a quick check of electrical functions, turn signals, brake lights, beams, interior lights and check tires for cracks or dry rot.
5. Take a short drive with the seller to familiarize yourself with all the functions, etc. Take your Shay (if original wheels/and or old rubber) to a road you can reach to 50 MPH and see where your comfort level is.
6. **Take it easy on the way home** and don't let big rigs or berserk commuters push you. Remember your visibility is probably 25% of your everyday car until you sort some things out and get used to little vibrating mirrors, wipers that do little but make you laugh, and dull plastic windows.
7. Relax, take your time, enjoy the ride, pretend you're on «**The Waltons**»... **and be cautious changing lanes** or entering freeways, especially at night.

### *It's home!! I want to drive it!*

**Not so fast!** Unless you know that your car has had replacement mechanical parts or fluid changes, you could easily strand yourself or bring on costly repairs. Nothing is more embarrassing than a crowd of admirers watching you push your car away with steam pouring out. Some of your components have responded to **age... not mileage** and they will likely **fail** if not inspected and or replaced.

Whether your Shay has 10 miles, 10,000 miles, or 100,000 miles, the same *five simple rules* apply. ...

### Newly-purchased Shay Rule #1

- ∞ If it's original...
- ∞ If it's black...
- ∞ If it's flexible...

**Editor's note:** If the tires are original (Example: Sears Allstate), change them TODAY!

... IT SHOULD BE REPLACED!!!

### Newly-purchased Shay Rule #2

- ∞ If it's a lubricant...

... REPLACE IT (WITH A SYNTHETIC IF POSSIBLE)

### Newly-purchased Shay Rule #3

- ∞ If it's coolant...

... FLUSH IT AND REPLACE IT... DRIVE IT  
... AND FLUSH EACH WINTER

### Newly-purchased Shay Rule #4

- ∞ Don't wait for cheap parts to malfunction before replacing them...

... I.E. 40 YEAR OLD THERMOSTAT OR  
WATER PUMP, FUEL PUMP

### Newly-purchased Shay Rule #5

- ∞ If it's loose...

... TIGHTEN IT BEFORE IT FALLS OFF!  
(WITH A TORQUE WRENCH, LOCTITE, STAINLESS STEEL  
FASTENERS, OR LOCKWASHERS)

## CHECKLIST OF NECESSARY ITEMS

Here is a checklist of some of the items that should be replaced or serviced if you don't know your vehicle history. I would recommend «**biting the bullet**» and doing all original items in a particular area at once, as usually mechanics rates are higher than the reasonable parts on a Shay.

### A. Engine/Cooling System Area

1. Fully flush and replace radiator and cooling system (use proper antifreeze even in hot areas. Higher boiling point.)
2. Replace all radiator hoses, water pump 5/8" elbow hose, and lines to under-seat heater(s). (These will fail if original, as I learned with my 5,700 mile Shay, steaming embarrassingly in front of our local post office.)
3. Replace water pump (keep for spare) and replace thermostat with Hi-flow model. (Water pump should be **new**... not rebuilt. Check all clamps.) \*
4. Replace timing belt (Life 60,000 + miles... but rubber only lasts about **15 years** age maximum.) \* This is best done with the water pump job, as this requires removing the same equipment.
5. Replace fuel pump and filter. (Again, do not wait for a fuel pump failure. The heart of this cheap, sealed unit is a 40-year-old piece of **decaying black rubber**. It will still operate with a perforation, as I learned, but can give annoying mystery symptoms till it leaves you «fuming on the side of the road».)
6. Check and tighten oil pan, valve cover bolts (10 ft. lbs.) and exhaust manifold bolts.
7. Replace original exhaust. There is no off-the-shelf fit. It has to be custom made. (Check proximity of hoses or moving parts to hot pipes)

### B. Transmission

#### 1. Manual Transmission

- Inspect linkage and *top shifter collar* for looseness.
- Inspect rear seal for leaks.
- **Check transmission bolts to bell housing !!** (This is an assembly problem on some vehicles, it bolts from the inside

and should be tightened with new bolts torqued with Loctite.)

- Replace fluid with synthetic and magnetic plug if possible.

## 2. C-4 Automatic Transmission

- Pump out all fluid and replace (if a seal additive is used, repeat this after allowing the product to work, *don't* leave it in permanently!)
- If fluid looks dark it may be original and a second change may be necessary after the season
- Replace internal filter.
- Check transmission-cooling fittings at radiator and transmission for leaks, etc.

## C. Suspension, Brakes, Differential

### 1. Differential

- Inspect for seal leaks
- Dump old fluid. Replace with synthetic gear lube. (Ford makes a good product)

### 2. Suspension

- Check shocks for leaks. (Monroe makes replacements)
- Check radius arm bushings and tie rod ends.
- Inspect wheel bearings and re-pack with highest quality grease. (Lithium or synthetic)
- Inspect front crossmember (under radiator) for **cracks**. Weld or reinforce area at stress points. Inspect regularly.

### 3. Brakes

- Inspect hoses (Check front hose travel, have 2 front hoses lengthened if necessary or brackets modified. Check for cracks, stiffness near metal ends.)
- Inspect wheel cylinders & calipers. **(40 years old?)**
- Replace corroded or worn parts.
- Flush braking system and replace fluid (flush and replace again after one season's motoring)

## D. Wheels and Tires

One of the greatest looking features on an «original look» Shay is the antique-appearing spoke wheels. However, many owners discovered vibration problems at freeway speeds that couldn't be «balanced out» and made long distance hauls unpleasant. Spoke wheels are subject to **distortion** in curves. Take them with the lowest Gs possible! Many owners have solved these problems, but modern replacement wheels and tires can be expensive. Many choose to stick to their «originals» and take their time; some have both. The bolt pattern is 4-bolt *four and one quarter inch* (4¼) circle that fits many Fords, Fairmounts and Mustangs of this era.

**Take it easy with narrow 18" tires!!!** They're **squirrely** on uneven roads and have little give (especially old tired ones.) Your «**road footprint**» for braking and cornering is small compared to newer tires. (1932 Ford tires were the same size and fit original Shay rims)

### General

#### **Installing wheels and tires**

- When reinstalling wheels, use Loctite on threads.
- Tighten nuts with torque wrench.
- Re-torque a couple of hundred miles later.
- Check welds on inside of original wheels for deterioration.
- Replace old, cracked tires TODAY!

#### **Jacking**

- Jack on the frame or axle. Jacking on the bumpers will twist the brackets. (Most Shays come with useless jacks, or none at all)
- Consider a floor jack, a jack-stand (adjustable) and a variety of small blocks in your trunk. (Front and rear have different axle heights)
- Practice jacking front and rear before you are caught in the «boonies».

## E. Electrical

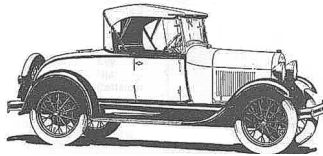
- Check age of battery (under your feet) and check for corrosion.
- Check grounds on lights.



- Spray plug wires, connectors, fuse blocks with a non-corrosive electrical spray. (**LPS-1** is the Cadillac, in my opinion) Use copper paste for connections (Try **Cop-R-Shield**).

## Miscellaneous

- Lubricate top frame joints and pivots; rumble hinges. (Put top up and down slowly and evenly)
- When top is up, tighten top to windshield holding screws. Use a wrench. (Vibration can loosen these and a top opening at 50 MPH on a windy day can be exciting and could be very expensive.)
- Check your frame while up on the hoist. Shay frames were sturdy enough but not well protected. If yours is corroding, there are many good products on the market to preserve it (Rust Destroyer, POR 15, etc.)



## Conclusion

This guide for new Shay owners is just a quick overview and will be updated periodically. Please continue to post your thoughts, ideas, and sources on the *Internet Discussion Forum* and we can add those that will help new Shay owners get out there dependably motoring!

**AHH-OOO-GAH!**



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## Quick Checklist for your new Shay

**Shay Model:** \_\_\_\_\_ **Serial No.** \_\_\_\_\_

**Transmission:** \_\_\_\_\_ **Date Purchased:** \_\_\_\_\_

**Mileage Purchased:** \_\_\_\_\_

	Mileage/Date	Notes/Part #'s
<input type="checkbox"/> Flush System (Rad & block)		
<input type="checkbox"/> Replace radiator hoses		
<input type="checkbox"/> Replace heater hoses		
<input type="checkbox"/> Replace water pump		
<input type="checkbox"/> Replace aged fan belts		
<input type="checkbox"/> Replace timing belt		
<input type="checkbox"/> Replace fuel pump & filter		
<input type="checkbox"/> Tighten engine cover bolts+exhaust		
<input type="checkbox"/> Service transmission		
<input type="checkbox"/> Service and inspect differential		
<input type="checkbox"/> Replace suspension items		
<input type="checkbox"/> Inspect and replace brake hoses		
<input type="checkbox"/> Flush braking system		
<input type="checkbox"/> Inspect linings drums & discs		
<input type="checkbox"/> Check battery condition/connections		
<input type="checkbox"/> Check tire condition/age/wheel cracks		
<input type="checkbox"/> Loctite threads/torque wheel nuts		
<input type="checkbox"/> Check jack and blocks needed		
<input type="checkbox"/> Lube top hinge points		
<input type="checkbox"/> Carry wrench to tighten top hold downs		
<input type="checkbox"/> Check wheels /balance (see forum discussions)		
<input type="checkbox"/> Check for cracks in cross-members (Reinforce and check often)		
<input type="checkbox"/>		
<input type="checkbox"/>		
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