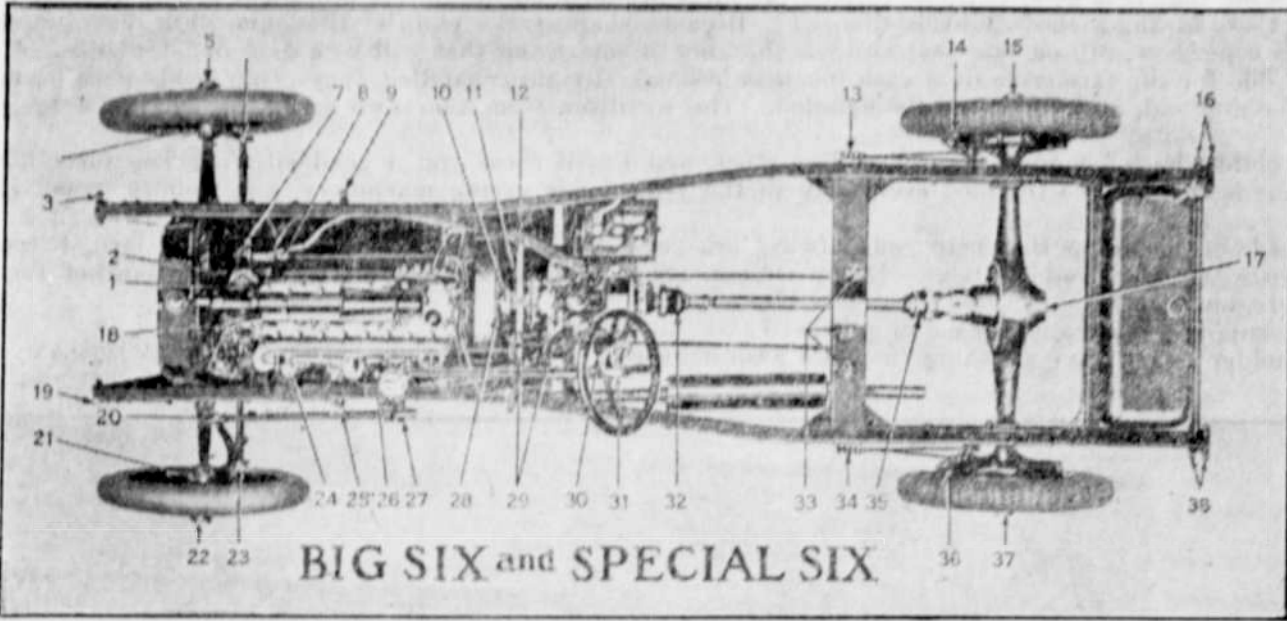


## STUDEBAKER CORRECT LUBRICATION CHART



BIG SIX and SPECIAL SIX

**Engine—24—A.** Daily, or every 100 miles, pour fresh Zerolene No. 3 into crankcase through filler pipe until oil level gauge on crankcase registers "full." Avoid overfilling. Best results will be obtained if the oil level is maintained between "half full" and "full" marks on the gauge. To get a correct reading of the oil level gauge, the automobile should be approximately level and the engine not running. When engine is running, the oil pressure indicator on dash should show pressure which will vary with the speed and temperature of the engine. If no pressure is registered, the indication is lack of oil in crankcase, oil pump not working properly, or some obstruction or break in oil passages. The engine should immediately be stopped and the trouble located and remedied.

At regular intervals, as recommended by the manufacturer, or in the absence of such instructions, every 750 miles, the oil in the crankcase reservoir should be entirely renewed in the following manner: First, remove drain plug in bottom of crankcase, allowing all old oil to drain. This should preferably be done when engine is warm, as the old oil when heated will drain faster, and less of it will adhere to the inner surfaces of the crankcase. Next, replace drain plug and pour four quarts of Calol Flushing Oil into crankcase through filler pipe. Then start and operate the engine under its own power at a moderate idling speed for from one to two minutes, by which time all oil passages and inner surfaces will have been cleaned by the action of the flushing oil. Again remove the drain plug and when certain that crankcase is thoroughly drained, replace plug and refill crankcase reservoir with fresh Zerolene oil as specified. Approximately six quarts of oil are required. Before refilling with fresh oil the strainer or screen surrounding the oil pump intake should be removed, thoroughly cleaned and replaced. When filling the reservoir through filler pipe, care should be taken that no foreign matter is carried into the engine with the fresh oil.

**Electric Generator—1—H.** Every 500 miles apply a few drops of Zerolene No. 3 through oiler provided at each end of generator. Avoid surplus of oil at bearing on commutator end of generator.

**Electric Starting Motor—7, 8—W.** Every 1000 miles apply a few drops of Zerolene No. 3 through oiler provided at commutator end of motor. Avoid surplus of oil at this point. On Light Six, an oiler at rear end of starter gear shaft should receive the same attention. Every 2000 miles starter gear reduction housing should be filled with Zerolene Cup Grease through grease hole provided. Starter clutch on Big Six and Special Six should be oiled with Zerolene No. 3 every 1000 miles.

**Steering Gear Housing—26—U.** Every 500 miles remove oil filling plug

in side of housing and with oil gun fill housing with Zerolene Transmission Lubricant "A."

**Clutch (Big Six and Special Six only)—10, 28.** If the clutch is slipping because of greasy or gummy condition of the leather, it should be thoroughly flushed with Pearl Oil (kerosene). With the engine running, the clutch pedal should be worked back and forth to allow the kerosene to cut and dislodge this greasy deposit. A small quantity of Auto Leather Clutch Oil should then be applied to the leather. If the clutch is inclined to grab by reason of the leather being hard or dry, apply a little Auto Leather Clutch Oil to the leather. The application of oil to the leather can best be accomplished by blocking the clutch pedal about half way down. The clutch cone can then be revolved by hand and the oil applied to the leather at several points. Further turning of the clutch cone will distribute the oil evenly over its entire surface.

Every 1000 miles remove plug from clutch cone bearing housing and with grease gun fill interior of housing with Zerolene Cup Grease.

Clutch on Light Six requires no lubrication.

**Transmission—30—Y.** Every 500 miles remove oil level plug on side of transmission case, and, if no oil runs out, use oil gun to inject fresh Zerolene Transmission Lubricant "A" until it begins to overflow through the opening. Then replace plug.

Every 2000 miles remove drain plug from bottom of case and allow all old oil to drain. Then remove cover and wash all gears, shafts and interior of case with Pearl Oil (kerosene). When transmission is clean and thoroughly drained, replace drain plug and fill to correct level with fresh Zerolene Transmission Lubricant "A."

**Rear Axle Housing—17—N.** Every 500 miles remove oil level plug in rear of housing, and, if no oil runs out, use oil gun to inject Zerolene Transmission Lubricant "A" until it begins to overflow through opening. Then replace plug.

Every 2000 miles remove rear cap or cover on housing and wash gears and bearings with Pearl Oil (kerosene). Wipe out all old oil and kerosene from bottom of housing with clean rags. Do not use waste. Replace cover on housing and fill with fresh lubricant to proper level. (Note—As bearings in both transmission and rear axle are entirely lubricated by splash from revolving gears, hard grease should never be used as a lubricant in either place.)

**Universal Joints (on Big Six and Special Six only)—32, 35.** Every 500 miles remove grease plug in both universal joints between transmission and rear axle and with grease gun fill joints with Zerolene Cup Grease. These joints hold only a small amount of grease, and as they are constantly in action and transmit all driving power from the engine to the rear axle, it is

important that they be kept well lubricated.

**Wheel Bearings—5, 15, 22, 37—D, E.** Every 2000 miles remove both front and rear wheels and wash bearings and hubs thoroughly with Pearl Oil (kerosene). Repack bearings with fresh Zerolene Cup Grease and replace wheels, being careful to get proper adjustment on wheel bearings.

**Spring Leaves.** Every 500 miles, or whenever springs squeak, clean off all dirt and old oil and apply a small quantity of Standard Household Lubricant along the edges of spring leaves. A small brush may be used for this purpose, or the oil applied by means of Standard Household Lubricant Handy Can with spout attached.

**Grease Cups.** Daily, or every 100 miles, turn down all grease cups two complete turns, refilling with fresh Zerolene Cup Grease when empty. Particular attention is directed to grease cups on all steering gear links, 6, 29, 25, 27—E, F, S, V; clutch shift bearings, 11—1; steering gear shaft bearings, 25—U; distributor shaft, 18—G.

**General Lubrication.** Daily, or every 100 miles, use squirt can to apply Zerolene No. 5 to all oil cups and small working parts not otherwise lubricated. Parts to be oiled in this manner include all spring bolts, 3, 9, 13, 16, 19, 25, 34, 38—B, P, K, M, O, T, BB, DD; steering knuckle bolts, 4, 21—C, G; brake shafts, 14, 23, 26—L, AA, CC; brake clevis pins; steering wheel, 31—Z; spark and throttle connections; clutch and brake pedal shaft, 12, 29—X; etc.

MANY TYPES OF MOTORISTS ARE SEEN ON ROADS

Auto Tourists Now Flocking Into Oregon Offer Interesting Study.

"The migratory motorist offers a wide variety of type and a most interesting study," declares a Portland motor sales manager. "In a recent trip through the Willamette valley I was offered a splendid opportunity of studying the different types encountered along the highways. I saw a little bit of everything from the country 'swell' out for a week-end spin down to the man of money riding along in his closed car with his liveried chauffeur. Then there was the family group—the wife, husband and chattering flock of children—all piled into the faithful old car together with camping outfit. In one instance I saw a car packed down with baggage and human freight, while strapped onto the running board I beheld a coop of live and squawking chickens. This party was bound to have fresh eggs on the trip, or fried chicken, I don't know which. Then there was the modern prairie schooner, with a superstructure built upon an old chassis and equipped with all the comforts of home.

"One thing that impressed me most on the trip was the warmth and number of hospitable greetings one encounters along the road. There is scarcely an instance where camping parties fail to pass a pleasant word or, when drawn up for the night, fail to wave a cheery greeting as you pass on the highway. The motor car, in my belief, has promoted hospitality throughout the country, and the people who believe that the romance and color of the old days have passed had better try a motor trip along Oregon highways at this time of the year."

Ring us up and give your items. \*\*\*

### NOTICE FOR PUBLICATION.

Department of the Interior, U. S. Land Office at Roseburg, Oregon, August 16, 1921.

Notice is hereby given that Kay Gordon Hansen, of Anlauf, Oregon, who, on May 28, 1920, made Homestead Entry, Serial No. 012875, for the  $\frac{1}{2}$  of SE $\frac{1}{4}$  of Sec. 33, T. 21 S., R. 4 W., and on February 11, 1921, made Additional Homestead Entry, Serial No. 013680, for the E $\frac{1}{2}$  of SE $\frac{1}{4}$  of Sec. 33, Township 21 S., Range 4 W., William M. Merwin, has filed notice of intention to make Final Three-year Proof, to establish claim to the land above described, before the Register and Receiver of the United States Land Office, at Roseburg, Oregon, on the 21st day of September, 1921.

Claimant names as witnesses: Hedwig Presher, of Anlauf, Oregon; Gabrielle S. Hansen, of Anlauf, Oregon; Ben Berni, of Anlauf, Oregon; George Aldrich, of Anlauf, Oregon. ag19-spt16 W. H. CANON, Register.

### CHEERFUL WORDS

FOR MANY A COTTAGE GROVE HOUSEHOLD.

To have the pains and aches of a bad back removed—to be entirely free from annoying, dangerous urinary disorders, is enough to make any kidney sufferer grateful. The following advice of one who has suffered will prove helpful to hundreds of Cottage Grove readers.

Mrs. Ella L. Wilson, 1236 Ash ave., Cottage Grove, says: "I gladly recommend Doan's Kidney Pills. I know they are a good remedy for I have used them when my kidneys were out of order. My kidneys acted irregularly, I felt run down and I knew my kidneys caused this trouble. Doan's relieved me of the trouble, strengthening my back and kidneys."

Price 60c, at all dealers. Don't simply ask for a kidney remedy—get Doan's Kidney Pills—the same that Mrs. Wilson had. Foster-Milburn Co., Mfrs., Buffalo, N. Y. a12-19

# Studebaker

## Most Popular Six Cylinder Automobile

If a man write a better book, preach a better sermon, or make a better mouse-trap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door."—Emerson.

Never in the history of the automobile business has the truth of this saying been proved so conclusively as in the SALES of Studebaker cars in California, Oregon and over the ENTIRE COUNTRY, in the six months ending June 30, 1921. In California alone there were sold

### 3853 New Studebaker Automobiles

The fact that this remarkable increase in SALES is made in a BUYERS' MARKET—when the most rigorous inspection and comparison of car-service is made by prospective buyers—is proof positive that Studebaker cars offer the highest quality at fair prices.

Further proof are the registration figures of the California State Motor Vehicle Department, which show that

### Studebaker Leads in Registration

with the exception, Ford. And when all the distributors had cars to deliver and the prospective buyer was in a position to get any car desired.

—THIS IS A STUDEBAKER YEAR—

# SERVICE GARAGE

Exclusive Studebaker Dealers in Cottage Grove



Use Red Crown Gasoline for Power & Mileage



## QUALITY DOMINATES

Quality is the genius of production; and the dominant characteristic of Red Crown gasoline is quality.

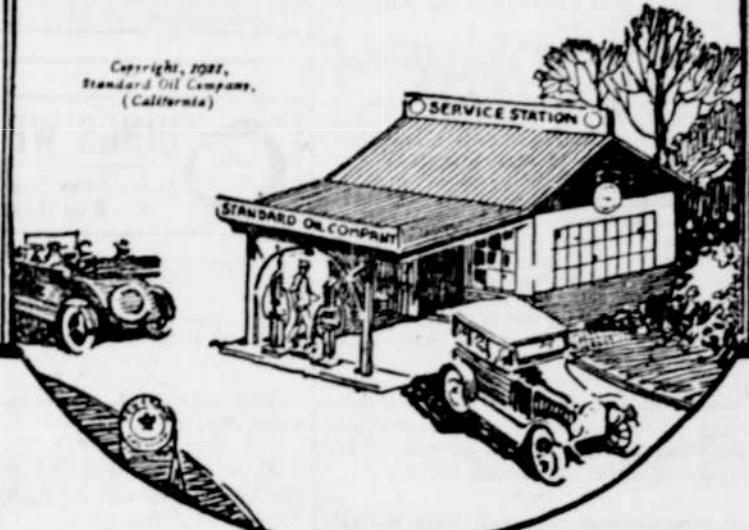
One cannot experience the results of quality unless quality is in the product.

"Red Crown" is an all-refinery gasoline; a product of quality—a perfect stream of power—that makes it possible for you to enjoy the maximum power and the maximum speed your engine was designed to develop.

Look for Standard Oil Service Stations and for the Red Crown sign at garages, service stations, and other dealers. There you will be able to get good service with Red Crown gasoline.

STANDARD OIL COMPANY (California)

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## Our Sign of QUALITY

We sell Red Crown gasoline, the all-refinery gasoline with the full and continuous chain of boiling points necessary for readystarting, quick and smooth acceleration, steady, dependable power and long mileage. Buy here at the sign of Gasoline Quality.

Come here for Red Crown Gasoline

You get more power and mileage from "Red Crown" because it is all-refinery gasoline—not a "mixture." We sell only the genuine.



All refinery gasoline—not a mixture

We sell only genuine Red Crown gasoline.

This is all-refinery gasoline—not a "mixture."

If you want dependable, full-powered gasoline, buy "Red Crown" here.



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