

One of the most dependable small cars on Australian roads over a number of years had been the Singer Nine roadster. The model has been discontinued by the Singer Company, but, given adequate care and maintenance, those about now should still be running well in the years far ahead.

The power-plant of the Singer Nine is a four-cylinder, overhead valve, camshaft driven by roller chains. The sump holds seven pints of oil. Recommended grade is SAE 30 in summer and SAE 20 in winter.

Those whose engines are equipped with oil filters should replace the filter at 7,000 miles, not 10,000, as recommended in the handbook. Similarly, using the filter, about the same mileage may be expected from the oil before changing, PROVIDING the engine-oil level is checked regularly and topped up when necessary.

Never fill the sump above the level indicated; this is not only extravagant, but can lead to various minor ailments.

## COOLING SYSTEM

The engine cooling system should be flushed out every year or so, preferably before winter. To do this, drain the water from the radiator by means of the drain tap at the nearside bottom corner of the radiator and the drain plug under the water inlet pipe on the offside of the cylinder block. THIS PLUG MUST BE REMOVED to drain the water system efficiently. Refill the cooling system with a strong solution of common salt and water.

Run the engine until the water becomes hot, drain the solution and afterwards flush out the cooling system with running water from a hose-pipe inserted in the radiator filler.

Every month or so, jack up the front axle assembly and grease the steering swivel pins at four points. Apply the grease gun to the swivel pin greasers, forcing the grease in until it begins to exude from the top and bottom swivel-pin pushes. At the same time turn the steering wheel from lock to lock to help distribute the grease evenly.

## TYRE CARE

While the wheels are jacked up, examine the tyres carefully for flints or tacks that have been forced into the treads. Remove these with a blunt screwdriver, and if the tyres are badly slashed have them vulcanised at your service station.

Recommended tyre pressures are 20lb. front and 22lb. rear. Always remember to check pressure on the spare once every week.

To ensure even wear of the tyres, rotate the wheels every 2,000 miles or so, not forgetting the spare, which may be included, say, every 4,000 miles.

 DRAIN PLUG in the Solex carburettor is easily accessible, and is best removed with a long-handled spanner.

When doing your monthly checkover, don't forget to top up the battery with distilled water. If the terminals are badly sulphated, chip off the worst of the sulphate and then wash the terminals in a solution of hot salt and water. Dry the terminals carefully, and then smear with vaseline. This will prevent further sulphating for a long time.

Regularly check your valve clearances. Incorrect clearances mean rough and inefficient running of the engine. Clearances recommended are: INLET—.005in.; EXHAUST—.007in. Always make tappet adjustments when the engine is warm.

## CHECK TAPPETS

To get at the tappets, remove the two dome nuts and the top valve cover of the cylinder head, being careful not to damage the cork joint. Turn the engine over with the starting handle for a half revolution after the closing of the valve

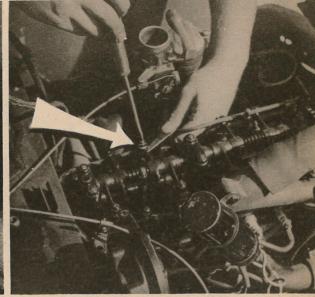
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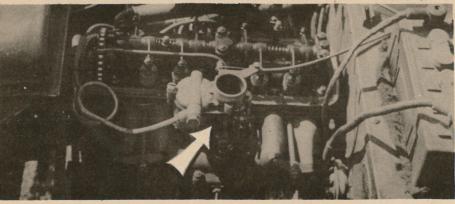
• SO THAT excessive wear will not develop in the camshaft, take care not to overtighten the cam chain. To make this adjustment, release the locking nut on the offside of the head, and turn the knurled screw with a spanner, as shown



ADJUSTMENTS to the brakes to compensate for lining wear are executed by turning the square-headed nut at top of the drum backplate. It is quite unnecessary, even undesirable, to jack up the car to do this maintenance job.



● TAPPET ADJUSTMENTS can be done speedily and simply with the usual feeler gauge and a screwdriver, after the rockerbox cover has been removed. Remember — in the interests of long-life and performance don't set clearances too fine.



SINGER NINES are lively little cars at their top, but they must be well and frequently maintained by the owner. The engine, with its overhead camshaft and low mudguard line, is simple enough to work on. Don't forget to care for the battery, conveniently mounted as shown, and the single but efficient carburettor.

which is to be adjusted.

Slacken the lock nut and adjust the tappet screw until the feeler gauge is a sliding fit between the valve stem and the tappet screw. Now tighten the lock nut and recheck with the gauge, as tightening the lock nut will sometimes alter the clearance.

NEVER set your valve clearances too small. This occasions hard starts, a misfiring engine, and if bad enough, burnt valve seats.

To adjust the dynamo and fan belt, slacken the three nuts securing the fan bracket to the engine case and swivel the bracket in the desired direction. After adjustment ensure all nuts are tight. It should be possible to depress the fan belt at least half an inch.

To adjust the engine camshaft chain, release the locking nut on the knurled screw which passes through the offside of the cylinder head close to the water outlet pipe. Tighten the CARS, June 1955

knurled screw until the tension of the camshaft chain is felt. Then turn the knurled screw back a half turn and lock into position by means of the lock nut. Camshaft chain adjustment should then be correct.

To avoid excessive wear of the camshaft chain, be very careful not to over-tighten the chain.

The firing order of the engine is 1, 3, 4, 2; No. 1 cylinder being nearest to the radiator. If you're overhauling the engine, always time on No. 1 cylinder. The ignition is firing when fully retarded 5 deg. to 10 deg (7/17in. to 3in.) before top dead centre.

If your engine has been rebored, treat as new and run in carefully for 500 miles. That is, don't exceed 15 in first, 25 in second, or 35 in third. After a rebore, always drain the sump at 500 miles and refill. Run your finger round inside the oil drain plug to remove tiny bits of metal that may lie there.

## THE BRAKES

The Singer Nine is fitted with Girling brakes, which should give trouble-free service if properly adjusted. Adjustment for brake lining wear is made by the brake shoe adjuster, one of which is found on each backplate, that is, the inside plate toward the axle. You can recognise this very easily by the machined flats which enable simple use of a spanner to make adjustments.

When making adjustments, rotate the adjuster until resistance is felt (this is the shoe coming into contact with the drum) and then slacken the adjuster back one full notch or two clicks, which can be plainly heard and felt. Treat all four wheels in the same manner.

Adjustment for lining wear should take place with the car in its running position on the ground. Jacking up is not recommended and is unnecessary for this operation. Stand the car on a flat and level surface when adjusting brakes, and don't forget to release the handbrake. Having made your adjustments, stamp hard on the brake pedal once or twice to ensure that the shoes are quite free in the drums.

Most Singer Nines are fitted with "trafficators." Sometimes these become "lazy" because of dirt or inattention. Every three months or so, lubricate these traffic indicators by means of a brush or feather carrying no more than a drop of thin oil. Sewing machine oil will do fine. REMEMBER, don't use too much. It is just as bad as not using enough.