

PARTS
ROOTES
SERVICE

SERVICE BULLETIN

COOLANT BULLETIN

No.

64-4

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March, 1964

TO: THE ROOTES PARTS DIVISION

SUBJECt: COOLANT BULLETIN

MODEL: SUNBEAM IMP SPORT SEDAN

With the introduction of a completely new car in the Sunbeam Imp, it is felt that a general bulletin in the form of special precautions in maintenance, etc. will ensure the trouble-free service that can be expected from this car. In view of this, will ALL dealers please ensure their service departments are fully informed as to the following.

COOLING SYSTEM

To prevent possible corrosive action on aluminium due to use of un-qualified antifreeze solutions or inhibitors, it is imperative that anti-freeze only to Federal Specification O-5401, G... Standard 1099-I or Ford Standard A1163B is used on the Imp. The normal permanent antifreeze produced by Dupont, Union Carbide or major oil companies, such as Prestone Zerex, Shellzone, etc. are perfectly satisfactory for the aluminium engine. In the event of climatic conditions rendering the use of an antifreeze unnecessary, an inhibitor should be used qualified for aluminium engines, 7 fluid ounces per car being necessary.

Rootes Coolant Inhibitor part #7054114 is available from our parts locations. In the event of local supply being necessary, Warner Cooling System Protector produced by Warner Patterson is a recommended inhibitor.

Cooling capacity = 7.0 qts.

3 qts. AntiFreeze gives protection to -25° F.

ENGINE

In view of the maximum use of aluminium in these two units, great care should be taken when tightening any bolts and strict adherence to the following torque loading figures is necessary.

SERVICE TORQUE FIGURES

Cylinder Head	36	lbs.	ft.
Crankshaft (Main)	41	"	"
Con. rods	18	"	"
Bell housing studs	9	"	"
Camshaft bearing caps	5	"	"
Spark plugs	1½	"	"

Before checking torque of cylinder head bolts, first slightly loosen and then retighten to correct setting.

All units bolted to the aluminium casings (oil filter, water outlet, distributor, etc.) should be tightened to 5 lbs. ft.

Oil capacity - 7 pints (including filter)

Above 68°F	30 SAE	or	20/40
" 20°F	20 W	or	10W30
0°F - 32°F	10 W	or	5W30

IGNITION SYSTEM

The Sunbeam Imp having a compression ratio of 10.0-1 is extremely critical on ignition timing and the use of high test gas is necessary. Ignition timing is 3° BTDC or 3mm (1/8" BTDC) measured on periphery of crank shaft pulley. During periods of extended slow speed running, there is a possibility of spark plug fouling. This has been counteracted on later models by the fitment of NGK R70I plugs. In the event of fouling of the NGK R70I plug, this should be changed to the 70I.

DRIVE OIL

Due to the combination of final drive and transmission gearing in one unit, the specification of lubricant is most important.

Capacity 5.5 pts.

Extreme pressure (E.P.) or HYDOL 80.

The extension shaft for the gear shift control passes through a rear bearing which should be greased at the normal 5000 mile servicing. Complaints of stiff gear shift will result if this greasing is not carried out.

SUSPENSION

Limited complaints of shock absorber "clunk" have been raised during the initial running of the car, especially when sold. If this is experienced with the car jacked up and suspension free, treat top and bottom rubbers of shock absorbers and the centre piston with a silicone spray. This "clunk" will usually disappear when the shock absorbers have warmed up.

DRIVING - TIRE TIPS (No. 64-2)

TIRE PRESSURE

Due to the excellent weight distribution characteristics of the Sunbeam Imp, the tire pressures are extremely important and when tire changes, front to rear, are involved it is imperative that service personnel adjust the pressures to those shown below.

Front - 15 lbs. per square inch
Rear - 30 " " " "

For fast driving, front and rear pressures should be increased 5 lbs. per square inch.

COOLING SYSTEM

As is normal with any water cooled rear engined car, it is necessary to bleed the heater after water has been drained to prevent possible air locking of the cooling system. The procedure is as follows:

Remove luggage compartment covering under hood. Set heater to "ON" (H.D) and loosen vent tap on heater piping. Fill radiator and start engine run at fast idle until water is passing through vent tap with no air. Tighten vent tap on top of radiator. Replace luggage compartment covering.

SERVICE SCHEDULE

In view of the 5000 mile servicing periods on the Sunbeam Imp, it is imperative that the Preparation for delivery Service (I.D.I) and the 500 mile free service be carried out strictly in accordance with the schedule shown.

It will be noticed that the initial free service on the LP is carried out at 500 miles instead of the 1000 miles on our other range of cars.

I.D.I

Cooling System	Examine radiator level and top up if required.
Clutch and Brakes	Check the master cylinder reservoir fluid level. If low, examine for leakages and rectify. Top up as required. Make sure cap vent hole is clear. Examine flexible hoses for twisting or chafing and correct as necessary.
Wheels and Tires	Check roadwheels nuts for tightness. Check that tires (including spare) are correctly inflated. Maintain spare at road tire pressure.

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Battery

Activate Dry Charged Battery if supplied or
Examine electrolyte level and top up if required.
Check specific gravity, charge battery if low.
Check that terminals are tight.

Body

Check for correct operation of all locks,
window wipers, bonnet lock, and engine compartment
catches.

Lubrication

Check the level of lubricants in the following
and replenish as necessary:

- (a) Engine
- (b) Transmission

Road Test

Carry out brief road test which includes a
functional check of the items described, and
note any unusual features which require further
attention.

- (a) Check operation of lamps and switches and
windscreen wipers.
- (b) Carry out functional check of all instruments.
- (c) Ensure correct operation of gear change
mechanism.
- (d) Check slow running.
- (e) Check operation of screen washer and
heater where fitted.
- (f) Note any body rattles and rectify as
required.
- (g) Check doors for correct closure.

On completion of road test, examine engine
and front compartment and chassis for fluid,
petrol or oil leaks and rectify as required.
ALL TORQUE ADJUSTMENTS MUST BE DONE TO
TORQUE LOAD FIGURES ONLY WITH UNITS COLD.

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General

- Examine tool kit and check operation of jack.
- Examine interior trim for damage and report - ensure interior car trim and carpets are clean.
- Clean steering wheel, control levers, switches and door handles.
- Remove wax from body and other protective material from plated parts or white wall tires, if fitted.
- Wash and polish car.

IMPORTANT NOTE

This Service should be carried out as soon as possible upon receipt of the vehicle and this form signed by a responsible member of the Organization concerned. Distributors should file this form for future reference if required. Dealers should forward the form, when completed, to the Distributor for filing.

SCHEDULE OF FREE SERVICE

After Completing First 500 Miles

Radiator

- Fill to correct level. Do not overfill.

Engine

- Check tightness of cylinder head (cold) to correct torque figures.

Check manifold nuts for tightness.

Examine engine for oil leaks and rectify as necessary.

Examine tension of fan belt and adjust as necessary.

Reset contact breaker gap.

Drain sump when hot and refill with new engine oil.

Check tappet clearances and reset if necessary.

Clutch

Examine hydraulic system, including bleed screw, and correct any leaks.

Transaxle and Controls

Drain transaxle (when hot) and refill.

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Front Suspension
and Steering

Check the following for tightness:

- (a) Steering rack assembly fixing nuts.
- (b) Steering arms securing nuts.
- (c) Steering linkage ball joints and nuts.
- (d) Steering column tube to floor bolts and bolts securing column inner coupling to rack.
- (e) Suspension arm pivot bolts.
- (f) Stub axle carrier inner bolts.
- (g) Bolts securing front suspension bracket to body.

Check track rod ball pin to socket alignment and correct if necessary.

Check locknuts for tightness.

Examine hub bearings for smooth operation.

Check front hub endfloat and re-adjust if necessary.

Check front wheel "toe-in" and reset if necessary.

Rear Suspension

Check the following for tightness:

- (a) Suspension arms pivot bolts.
- (b) Rear crossmember securing bolts.
- (c) Drive shaft coupling bolts.

Shock Absorbers

Check fixing bolts for tightness.

Brakes

Examine bolts securing back plates for tightness and retighten as necessary.

Check master cylinder reservoir fluid level. If low, examine for leakage and rectify.

Top up as required. Make sure cap vent hole is clear.

Check adjustment of brakes.

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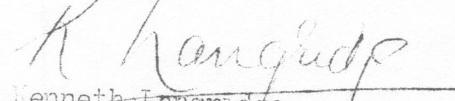
Electrical
Equipment

Examine battery and top up if necessary.

Road Test

Carry out brief road test and make necessary
adjustments.

ROOTES MOTORS INCORPORATED


Kenneth Langridge
General Service Manager

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