

# ESSENTIAL GENERAL MAINTENANCE REQUIREMENTS

## FOR SILVER GHOST

### **(Reproduced by kind permission of Messrs P & A Wood)**

Note - Handbook instructions vary for different series of car. These lists have been compiled from experience and have been written to simplify procedures but ensure good maintenance, particularly when journeying in today's conditions. We however always recommend the actual car's handbook be consulted.

### **Daily (when in use)**

Check fuel content.

Check and correct engine oil level.

Overfill slightly if long periods of running are envisaged (engine oil).

Check and correct coolant level - level should be approximately 4" from top face of filler neck.

Inspect tyres and check pressures.

Visually check engine and underside of car for leaks, etc.

### **Every 250 miles or if car has been standing longer than one week**

*In addition to previous.*

Lubricate engine valve guides and tappets (engine oil).

Lubricate magneto drive brake and driveshaft universal joints (gear oil).

Lubricate distributor governor housing (engine oil).

Lubricate distributor oiler (engine oil).

Lubricate fan oiler (gear oil).

Screw both water pump greasers in one flat and check tightness of gland nut (by hand only).

Lubricate water pump drive coupling (gear oil).

Lubricate steering box (gear oil).

Lubricate carbon shaft.

Depress clutch and turn clutch cone until oil hole or plugs on carbon shaft are uppermost - apply

approximately 30 pumps of gear oil from a normal pump oil can.

Check clutch lubrication.

There should be approximately one egg-cup full of oil visible in the clutch cone well.

If insufficient add oil. If excessive remove excess oil (engine oil).

Lubricate clutch thrust bearing (gear oil).

Lubricate transmission sphere - install approximately  $\frac{1}{4}$  pint (gear oil).

Lubricate propshaft centre bearing (in centre of torque tube). Install approximately  $\frac{1}{8}$ th pint (gear oil).

Lubricate propshaft joints on open propshaft cars (gear oil).

Check major units for leaks: gearbox, axle, etc. If apparent, check levels.

Ensure battery charged, particularly trembler battery if car has no charging system.

### **Note**

Clutch lubrication.

If clutch squeaks while driving oil level is insufficient.

This can be rectified quite easily while on the road.

Approximately 30 squirts from a normal pump oil can equates to about an egg cup full and if added through one of the large holes in the clutch cover will restore normal operation.

If gear changing is difficult or clutch slips there is probably too much oil in clutch.

Reduce level from drain plug on flywheel or by syringe.

Steering box lubrication.

We recommend the cover plate is removed to lubricate the steering box.

## **Every 1,000 miles in addition to previous**

Carry out full chassis lubrication.

Consult owner's handbook.

Use lubricants recommended (see separate sheet).

Note - do not forget to lubricate radiator and front engine mounting points.

Check and correct engine spare oil tank level (engine oil).

Check and correct gearbox oil level (gear oil).

Consult handbook as levels vary with different series of cars.

Level normally measured from top face of gearbox with top cover removed.

Check from centre of box with car on level surface.

Late cars have dipsticks fitted.

Note - do not overfill gearbox, excessive oil will cause oiling up of the transmission brake or servo if fitted.

Check and correct rear axle oil level (gear oil).

Level should be just visible through filler with car on level surface.

**Note** - excessive oil in final drive will cause oiling up of rear brakes. Also over oiling of spear or propshaft centre bearing will cause excess oil to run into final drive. This is not of particular concern other than occasionally it may be necessary to reduce the oil level in the final drive unit.

Clean and re-pack water pump grease caps (water pump grease).

Check fan belt and adjust as necessary.

Check dynamo belt and adjust as necessary.

**Note** - on original Whittle drive belts (fan and dynamo) lubricate swivel link joints with engine oil.

Check clutch pedal clearance and adjust if necessary.

Check handbrake and adjust if necessary.

Check transmission brake when fitted and adjust if necessary. Take care not to have too tight as the drum expands when hot.

Check and adjust foot brake when concentric rear brakes fitted.

Check and correct antifreeze content.

Service battery as necessary.

## **Once a year or every 2,000 miles**

Renew engine oil and clean filter. Release timing cover drain plug.

## **Every 2,000 miles in addition to previous**

Clean and check sparking plugs.

Check distributor contact breaker points and clean if necessary.

Clean distributor cap. Check cap segment clearances and adjust if necessary.

Check and adjust valve clearances.

Check magneto contact breaker points and clean if necessary.

Check trembler coil if fitted.

Clean and adjust contact points if necessary.

Note - do not disturb unless it is necessary.

Clean carburettor. Remove float lid, blow out float bowl and jets.

Dismantle and clean air valve.

Release fuel tank drain plug.

Clean fuel tank filter.

### **Note**

These notes have been compiled for owners operating British cars in Great Britain.

In the case of Springfield cars operating in the U.S.A. or other parts of the World certain settings will vary and lubricants stated may not be available.

While most of the instructions apply, in certain areas I recommend you consult the relevant owner's handbook.

# **RECOMMENDED LUBRICANTS AND FLUIDS FOR SILVER GHOST**

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## **Engine SPECIFIED RECOMMENDED EQUIVALENT**

Engine - Engine Oil If internal engine condition is known to be clean:

Castrol Classic XL 20w50

If internal engine condition is not known:

Castrol Classic XXL40

Engine Valve Guides and Tappets - Engine Oil As Engine

Distributor Governor Housing - Engine Oil As Engine

Distributor Oilers - Engine Oil As Engine

Magneto Oilers - Engine Oil As Engine

Magneto Drive Brake - Gear Oil Castrol ST90

Magneto Drive Shaft Joints - Gear Oil Castrol ST90

Distributor & Magneto

CB Point Mechanisms - Grease Shell Retinax LX Grease

Fan Bearings - Gear Oil Castrol ST90

Fan Belt (Whittle Type) - Engine Oil As Engine

Water Pump - Water Pump Grease Castrol or Penrite

Water Pump Grease

Water Pump Drive Coupling - Gear Oil Castrol ST90

## **Transmission**

Clutch Housing - Engine Oil As Engine

Clutch Thrust Bearing - Gear Oil Castrol ST90

Cardon Shaft - Gear Oil Castrol ST90

Gearbox - Gear Oil Castrol ST90

Sphere - Gear Oil Castrol ST90

Propshaft Centre Bearing - Gear Oil Castrol ST90

Propshaft Joints (Open Shaft Cars) - Gear Oil Castrol ST90

Final Drive (Rear Axle) - Gear Oil Castrol ST90

## **Chassis**

Steering Box Worm & Nut - Gear Oil Penrite Steering Box Lubricant

Steering Column Thrust Race - Gear Oil Castrol ST90  
Steering Joints and King Pins - Gear Oil Penrite Semi Fluid Grease  
Road Springs - Gear Oil As Engine  
Spring Shackles - Gear Oil Penrite Semi Fluid Grease  
Rear Spring Rollers - Gear Oil Penrite Semi Fluid Grease  
External Surface - Grease Shell Retinax LX Grease  
Torque Arms - Gear Oil Penrite Semi Fluid Grease  
Shock Absorber Leathers - Engine Oil As Engine  
Shock Absorber Links - Gear Oil Penrite Semi Fluid Grease  
Brake Equalisers and Shafts - Gear Oil Castrol ST90  
Starting Handle, Radiator  
Mounts, etc. - Gear Oil Penrite Semi Fluid Grease  
Gear Lever - Gear Oil Penrite Semi Fluid Grease  
Wheel Bearings - Grease Shell Retinax LX Grease  
Wheel Hubs and Splines - Grease Shell Retinax LX Grease  
Control Linkages - Engine Oil As Engine  
Brake Clevises - Engine Oil As Engine

### **Miscellaneous**

Starter Motor - Engine Oil As Engine  
Starter Reduction Gear and Chain - Gear Oil Castrol ST90  
Dynamo Oilers - Engine Oil As Engine  
Dynamo Drive Belt (Whittle Type) - Engine Oil As Engine  
Dynamo Sprag Clutch - Engine Oil As Engine  
Battery Terminals - Vaseline  
Klaxon Horn - Engine Oil As Engine  
Mechanical Air Pump - Engine Oil As Engine  
Hand Air Pump - Engine Oil As Engine  
Door Bonnet Hinges and Locks - Engine Oil As Engine  
Hand Oil Can - Engine Oil As Engine  
General Purpose Lubrication - Grease Shell Retinax LX Grease

### **Coolant**

Comma Super Coldmaster Antifreeze  
Red Line water wetter

### **Lead Replacement Fuel Additive**

Castrol Valvemaster.

### **NOTE**

The lubricants and fluids listed are our first preference for use on a car which is in good condition.

However, thicker oils can be used on cars known to be worn in certain areas. For example a noisy gearbox or axle can sometimes be quietened with a thicker oil. Also worn chassis components can benefit from thicker lubricant. However, they should not be used without consideration and not as a matter of course.

## **SILVER GHOST MAINTENANCE DATA**

Firing order 1 4 2 6 3 5.

Valve clearances: inlet and exhaust - 0.002" cold.

Recommended sparking plugs: Champion D.16 or equivalent.

Sparking plug gaps: Battery ignition 0.030"

Magneto ignition 0.020"

Sparking plug positions: Magneto plugs over exhaust valves or in intermediate positions.

Battery plugs over inlet valves.

Magneto: Contact breaker point gap 0.014" all types.

Distributor (non trembler coil): Contact breaker point gap 0.020".

Distributor (trembler coil) contact breaker point adjustment.

With points clean, true and well aligned.

Turn engine until arrow on rotor arm is exactly aligned with arrow on distributor cap.

Arrange main HT lead to go directly to earth.

With points screwed well apart.

Switch on ignition and screw in point slowly until point is reached when trembler just starts to buzz.

Lock up point in this position.

### ***Alternative Method***

Turn engine until roller of contact breaker operating lever is exactly mid way between two cams.

Arrange main HT lead to go directly to earth.

With points screwed well apart

Switch on ignition and screw in point slowly until point is reached when trembler just starts to buzz. Screw in point a further half a turn and lock up.

When correctly set the trembler should operate through a rotor movement of approximately two thirds of each cap segment.

Distributor cap segment clearances 0.004".

Trembler coil contact breaker adjustment.

With points clean, true and well aligned.

Turn engine until distributor points are closed.

With trembler points screwed well apart.

Switch ignition on ignition and screw in point slowly until point is reached where trembler just starts to buzz. Then give screw a further  $\frac{1}{4}$  turn and lock up.

Clutch pedal clearance.

Not less than  $\frac{1}{2}$ " and not more than 1" pedal clearance with floorboards in place.

Tyre pressures.

Beaded edge wheels 895 x 135 or 935 x 135

60 to 80 p.s.i. front and rear - depending on weight of car.

Straight sided wheels 33 x 5

55 to 60 p.s.i. - depending on weight of car.

Well based wheels if fitted 21 x 7

35 to 40 p.s.i. - depending on weight of car.