New Wallchart Form

MOTOR TRADER Service Data No. 241

JAGUAR SPORTS CAR, SERIES XK 140

1955 Models

Manufacturers : Jaguar Cars, Ltd., Coventry

CONSEQUENT upon further developments in research and design on the earlier models of the marque, the XK 140 series of Jaguar cars was introduced at the 1954 Motor Show.

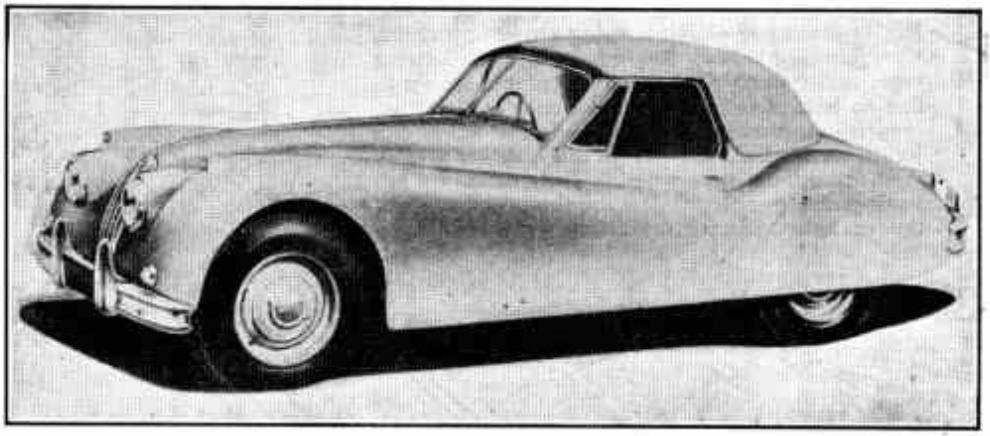
Cars of this new range retain some basic components which are similar to those employed on earlier vehicles, but which have been further developed to suit the requirements of performance in current production models. In addition to the well-known Sports body, the chassis is also available fitted with either drop head or fixed head coachwork. Engine units may be supplied in various stages of tuned performance condition to suit individual requirements, and among items supplied in these "Special Equipment" models are "C" type cylinder head which is optional to the standard cylinder head, high speed crankshaft damper and dual exhaust systems. A range of optional extras is available, included in which is the Laycock-de Normanville overdrive which operates on the top gear ratio only. See Service Supplement 226 C/1.

Identification of vehicles is by chassis and engine numbers. Chassis numbers are to be found stamped on the nearside chassis frame above the rear engine mounting bracket. Prefix "A" to this number indicates a "Special Equipment" model, the engine of which is fitted with a standard cylinder head. Prefix "S" indicates a "C" type cylinder head fitted.

Engine numbers are stamped on the offside of the cylinder block above the oil filter, and at the front of the cylinder head casting; /7, /8, /9, suffix indicating the compression ratio of the model in question. Suffix "S" denotes a "C" type cylinder head. Gearbox numbers are stamped on a boss at the nearside rear of the unit casting and letter "E" at the end of the prefix letters shows that an overdrive unit is fitted. The body number is stamped on a plate attached to the nearside of the dash panel beneath the bonnet.

All these numbers and letters are to be found collectively on a plate fixed to the nearside of the dash panel. It is essential that all these numbers and letters relevant to the chassis, engine and to any particular component should be quoted when ordering spare parts.

No special tools are needed for repair work to the cars except for a template for timing the camshafts. This is supplied in the car tool kit. Threads and hexagons are in the main SAE, but a certain number will be found to be BSF.



DISTINGUISHING FEATURES—Sports, fixed head coupé and drop head coupé, shown here are similar up to waist line. Fixed head coupé has more curved line

ENGINE

Mounting

At front, cylindrical rubber blocks bonded to studded plates at each end, bolted to brackets on either side of crankcase, and to chassis brackets.

At rear, round rubber blocks with moulded-in nuts bonded to plates bolted to chassis frame brackets. Setscrews through brackets bolted to either side of flywheel housing screw into moulded-in nuts. Tighten fully.

Removal

Engine and gearbox should be removed together. Procedure for engine/gearbox removal also applies when an overdrive unit is fitted to the gearbox.

To remove engine, detach bonnet from hinges and take out radiator matrix complete after removal of mounting brackets either side. Take off fan cowling and dynamo together with all pipes, wires and control cables fitted to engine. Remove exhaust downpipes at flanges and disconnect propeller shaft.

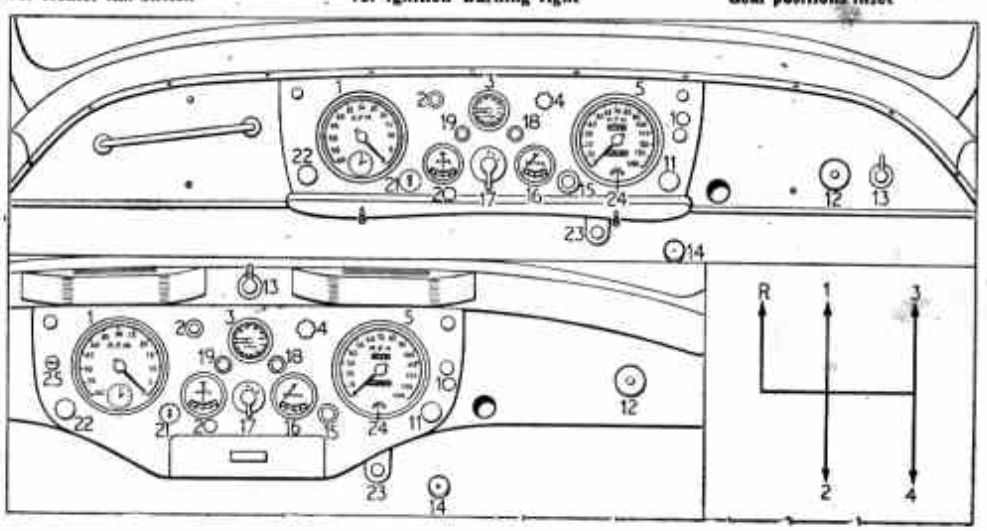
Take out interior carpets and remove gearbox cowl and floorboards, and take off gearbox top cover complete with gear lever. Blanking plate should be fitted to top of gearbox to prevent damage. Jack up and support rear of engine and remove mounting brackets and rubbers.

On R.H.D. models remove split pin and clevis pin securing adjusting rod to clutch pedal shaft lever. Take out pinch bolt securing clutch pedal and pedal stem and withdraw stem. Take out pinch bolt securing pedal to shaft and withdraw shaft through chassis frame until inner end of shaft is well clear of bearing housing in bell-housing On L.H.D. cars re-

INSTRUMENTS, CONTROLS AND GEAR POSITIONS

1. Rev. counter
2. Starter switch
3. Oil press. and water temp. gauge
4. Screenwiper switch
5. Speedometer
10. Screenwasher button
11. Heater fan switch
12. Overdrive control (if fitted)
13. Flashing indicator switch
14. Dipper switch
15. Cigar lighter
16. Petrol gauge
17. Lighting switch
18. Flasher warning light
19. Ignition warning light
20. Ammeter
21. Ignition switch
22. Panel lamp switch
23. Bonnet lock (pull, insert fingers under centre of opening and pull back catch)
24. Main beam warning light

Gear positions inset



BALL AND ROLLER BEARING DATA

	Part No.	Int. dia., ext. dia., Width (in or mm)	Type
ENGINE			
Water pump	C.8167	—	—
GEARBOX			
Constant pinion	C.1838	40 × 90 mm	B
Mainshaft	C.1845	1⅛ × 3¼in	B
REAR AXLE			
Wheel bearings	2HA-025 (T.25877-25820)	1.375 × 2.875in	T.R.
Diff-housing bearings	2HA-024 (T.25577-25523)	1.6875 × 3.265in	T.R.
Pinion-head bearing	2HA-022 (T.02872-02820)	1.125 × 2.875in	T.R.
Pinion-tail bearing	2HA-023 (T.31593-31520)	1.375 × 3.0in	T.R.
FRONT AXLE			
Front hub: inner race	C.3011 (T.14138/14276)	1.375 × 2.717in	T.R.
outer race	C.3012 (T.09067/09195)	.75 × 1.938in	T.R.

ENGINEERING CHANGES

CHASSIS	
Relay on overdrive circuit. Rear wheel brake cylinders.	
ENGINE	**Engine No.**
Rotor type oil pump fitted	G 1908 (on)
Renolds hydraulic chain tensioner fitted to camshaft chain drive	G 4431 (on) and G 4411–G4420

NUT TIGHTENING TORQUE DATA

	Bolt size	lb/ft
ENGINE		
Main bearing caps	½in	83
Cylinder head studs	⅜in	54
Flywheel	7/16in	66
Con. rod bolts	⅜in	38
Camshaft bearing caps	5/16in	15
REAR AXLE		
Crownwheel attachment	—	80

move split pin adjacent to large washer securing spring on clutch shaft.

Disconnect speedo cable from gearbox or overdrive unit if fitted. Sling engine with one end of sling under a depression at front of sump and other end at rear of sump. When engine is lifted it will tilt upwards at front and may be manœuvred forwards and upwards clear of car.

Crankshaft

Seven main bearings. Thin wall, steel-backed, white metal-lined shells located by tabs. End float controlled by half thrust washers located in either side of centre bearing cap. No hand fitting permissible. Bearing shells Nos. 1, 4 and 7 are interchangeable, as are Nos. 2, 3, 5 and 6. It is possible to change all main bearing shells without removal of crankshaft, but this should be done only in direst emergency. Thrust half-washers can be changed by removal of centre cap.

Flywheel, with integral starter ring gear, spigoted on rear flange of crankshaft, retained by 10 setscrews and located by two dowels. Flywheel can be refitted 180 deg. from original setting, but should be fitted with T.D.C. mark set correctly to preserve balance of assembly. Oil impregnated bronze spigot bearing bush pressed into end of crankshaft.

Oil pump and distributor drive gear (longer boss to rear), timing sprocket (either way), oil thrower, distance-piece and split tapered collet carrying fan pulley hub are keyed on front end of crankshaft with three Woodruff keys, and retained by setscrew and large washer which bears on pulley hub, to which bonded rubber torsional vibration damper is riveted. Hub is keyed on tapered collet with Woodruff key. Pulley spigoted and bolted to hub.

Circular oil seal, half in timing cover and half in sump, bears on distance-piece behind pulley. Split oil collector housing fits round oil return thread on rear end of crankshaft. Lower half, on which cork strip sealing rear of sump fits, bolted to upper half by two Allen head setscrews with hollow dowels. Upper half doweled and bolted to crankcase.

Connecting Rods

Big ends thin wall, steel-backed, white metal-lined shells located by tabs. No hand fitting permissible.

Small ends bronze bushed for floating gudgeon pins.

Pistons

Brico split skirt aluminium alloy. Gudgeon pins located by spring rings. Top compression ring chromium plated. Pistons should be fitted with cylinder bore number stamped on crown towards rear with split to near side. *Note that Jaguar practice is to number cylinders from rear to front. Where reference is made in this article to cylinder numbers, our usual practice of numbering from front to rear is maintained.*

Con-rods will pass through bores, but bolts may have to be extracted. Remove and assemble through top.

Camshafts

Duplex roller endless chain drive in two stages. First stage drives double idler sprocket, and has flat spring tensioner on off side, nylon rubbing block on near side. Second stage passes round idler sprocket, both camshaft sprockets and below small tensioner sprocket on eccentric hub.

Complete assembly of timing chains, sprockets and brackets can be removed after removal of timing cover.

Each camshaft runs in four split steel-backed white metal lined shells, located by dowels. Oil fed through drillings in head to rear bearings, and through hollow shafts to other bearings. End float controlled by front bearing between sprocket and flange on shaft.

When removing head for top overhaul first slacken or remove chain tensioner, then detach each sprocket and slide it inwards along slot, securing it with nut on stud.

Before refitting cylinder head it is important to observe procedure as follows to avoid fouling of inlet and exhaust valves

GENERAL DATA

Wheelbase	8ft 6in
Track: front	4ft 3½in*
rear	4ft 2½in*
Turning circle	33ft 0in
Ground clearance	7½in
Tyre size: front	6.00–16
rear	6.00–16
Overall length	14ft 8in
Overall width	5ft 4½in
Overall height	4ft 5½in†
Weight (dry)	25½-cwt**

* Wire wheels: 4ft 3in front; 4ft 3¾in rear.
† Drop head and fixed head coupe: 4ft 7in.
**Drop head coupe: 26-cwt; fixed head coupe: 25½-cwt.

ENGINE DATA

General	XK 140
Type	OHC
No. of cylinders	6
Bore × stroke: mm	83 × 106
in	3.268 × 4.173
Capacity: c.c.	3442
cu in	210
R.A.C. rated h.p.	25.6
Max. b.h.p. at r.p.m.	190@5,500
Max. b.h.p. at r.p.m. "C" type cylinder head	210@5,750
Max. torque lb/ft at r.p.m.	203@3,000
Max. torque lb/ft at r.p.m. "C" type cylinder head	213@4,000
Compression ratio	8:1*

*7:1 compression cyl. head optional

CRANKSHAFT AND CON. RODS

	Main bearings				Crank pins
Dia.	2.75in				2.089 in
Lgth.	1	2, 3, 5, 6	4	7	—
	1 1/16in	1 7/16in	1 3/8in	1 1/4in	1 1/16in

Running clearance: main bearings	.002–.003in
big ends	.0015–.0025in
End float: main bearings	.004–.006in
big ends	.006–.008in
Undersizes	.020, .030, .040in
Con. rod centres	7.75in
No. of teeth on starter ring gear	132/10
pinion	

PISTONS AND RINGS

Clearance (skirt)	.001–.0016in
Oversizes	.005, .010, .015, .020, .030in
Weight with rings and pin 7:1 CR	1lb 4 oz (0-6dr)
8:1 CR	1lb 3 oz (10 dr-1 lb 4 oz)
Gudgeon pin: diameter	.8750–.8752in
fit in piston	light tap @ 68°F
fit in con. rod	palm push @ 68°F

	Compression	Oil control
No. of rings	2	1
Gap	.015–.020in	.011–.016in
Side clearance in grooves	.001–.003in	.001–.003in
Width of rings	.0777–.0787in	.155–.156in

CAMSHAFT

Bearing journal: diameter	1.000 +.001in −.005in
Bearing clearance	.0005–.002in
End float	.0045–.008in
Timing chain: pitch	⅜in
No. of links (upper)	100
(lower)	82

VALVES

	Inlet	Exhaust
Head diameter	1¾in	1 7/16in*
Stem diameter	11/32in	11/32in
Face-angle	30°	45°
	Inner	**Outer**
Spring length: free	1 21/32"	1 13/16"
fitted	1 5/16"	1 3/8"
at load	30.33lb	48.375lb

*1⅛in. when "C" type cyl. head fitted.

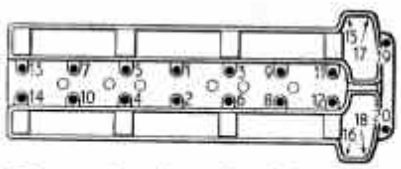


Diagram showing order of tightening of cylinder head nuts, also six securing front of head. See also "Nut Tightening Torque Data"

or valves with pistons, in addition to noting that engine should not be rotated with camshaft sprockets removed.

Position camshafts, using valve timing gauge (provided in tool kit). Key of gauge locates in keyway of camshaft and bottom face of gauge with camshaft cover face on cylinder head. Turn crankshaft to T.D.C. No. 1 firing (flywheel mark visible through aperture to nearside of bell-housing). Check rotor arm position in distributor, refit cylinder head and connect timing chains.

Valves and Tappets

Overhead, set at 70 deg., included angle. Not interchangeable, inlet larger than exhaust. Split cone cotter fixing, double springs with seats between springs and head.

Valve guides plain, no shoulder, interchangeable. Press in until outer end projects $\frac{5}{16}$in from spring seat, after total immersion of cylinder head in boiling water for 30 mins.

Valve seat inserts for inlet and exhaust shrunk into light alloy head.

Plain cylindrical tappets fit over valves and slide in guides shrunk into head. Adjust clearance between cam and tappet by pad on top of valve stem. Pads are available in thicknesses ranging from .085in to .103in in .001in steps. Pads are identified by etched letters A to S, A being thinnest. Camshaft must be removed for tappet adjustment.

For removal of valve seat inserts or tappet guides, light alloy head must be heated in oven or muffle for one hour from cold at a temperature of 300°F, when new parts should press in easily.

Lubrication

Gear pump in sump, bolted to front of No. 1 main bearing cap and driven from skew gear by loose quill. To remove pump, disconnect delivery pipe at flange.

Subsequent to engine No. G 1908, Hobourn Eaton eccentric rotor oil pump fitted. When this type of pump is fitted, oil pressure relief valve is in filter head.

Skew drive gear retained on shaft (Woodruff key) by nut. Shaft runs in bronze bush pressed into housing on front of crankcase. Upper end of shaft has offset slot for distributor drive.

When refitting skew gear, shaft and bush assembly, turn crankshaft to T.D.C. 1/6, and push in assembly so that, when skew gear meshes with crankshaft gear, slot is parallel to crankshaft centreline, with larger segment towards engine.

Ignition

Anti-clockwise distributor, with centrifugal and vacuum control, spigoted in crankcase on offside front, and retained by clamp plate.

When removing distributor, slacken clamp, leaving clamp plate on crankcase.

Set timing by means of scale and pointer on crankshaft damper. On road test, micrometer adjustment should not be made in excess of six "clicks" either advance or retard.

Cooling Systems

Pump and fan. Non-adjustable bellows thermostat in front end of inlet manifold water jacket.

Adjust fan belt by swinging dynamo until there is about $\frac{1}{2}$in movement either way on vertical run of belt.

TRANSMISSION

Clutch

Borg & Beck single dry plate, graphite thrust release bearing.

Only external adjustment is by nut on rear end of pedal pull rod, to give 1in free movement at pedal pad.

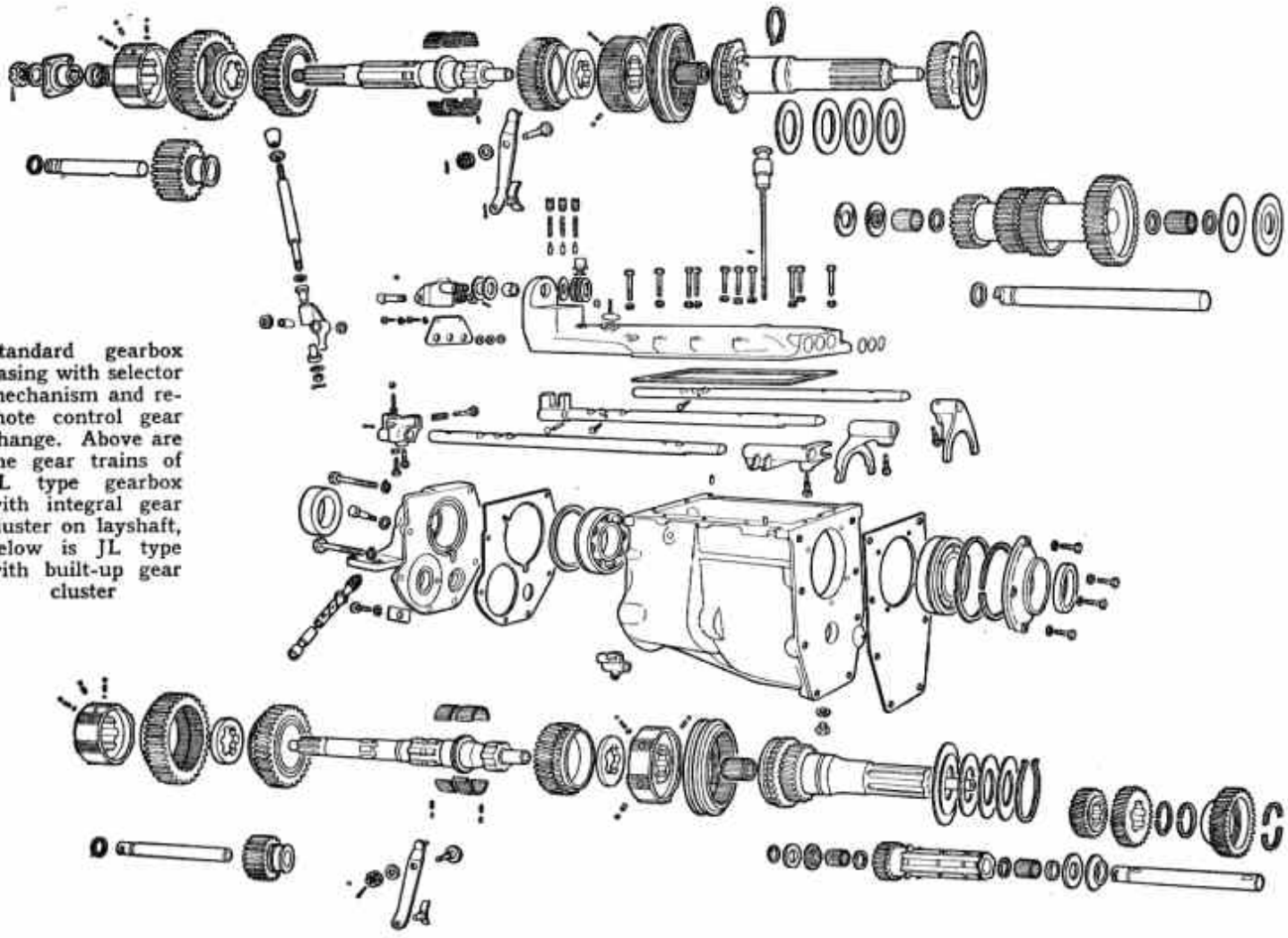
Access to clutch for service after removal of gearbox and bell-housing.

Gearbox

Four-speed, synchromesh on 2nd, 3rd and top gears. Single helical gears.

To remove gearbox take up carpet, seats, floorboards, gearbox cowl and propeller shaft tunnel. Disconnect front end of propeller shaft, reversing light switch wire, speedo drive and clutch pedal linkage. Remove cotter-clamp bolt from base of clutch pedal, and detach pedal cross-shaft ball housing from bell-housing. Push pedal cross-shaft outwards, and wedge outer end outside chassis frame. Take out four bolts holding rear mounting to gearbox, and setscrew from stabilizer mounting. Jack up engine under rear of sump, detach bell-housing bottom cover and take out bell-housing setscrews. Gearbox can then be drawn back and lifted out. Note: If overdrive is fitted, engine and gearbox must be removed as complete unit to achieve access to gearbox.

To dismantle gearbox remove top cover with remote control assembly, selector rods and forks. Engage top and 1st gears to lock box, and undo driving flange nut. Draw off flange, extract speedo drive pinion and detach rear cover with lipped oil seal. Draw off speedo drive gear and thick washer.



Standard gearbox casing with selector mechanism and remote control gear change. Above are the gear trains of SL type gearbox with integral gear cluster on layshaft, below is JL type with built-up gear cluster

Using bridge extractor bolted to rear casing and acting against end of mainshaft, draw off housing with rear ball bearing and layshaft and reverse spindles, allowing layshaft cluster to drop to bottom of box. Remove bell-housing and front bearing cover with lipped oil seal (note copper washers under setscrew heads). Turn primary shaft so that cut-away on top gear dogs clears layshaft constant mesh gear. Tap mainshaft forward to drive out primary shaft and ball bearing, with caged roller spigot bearing. Mainshaft assembly, with rollers and inner race of bearing, can then be lifted out through top. Lift out layshaft cluster with needle roller bearings and thrust washers, and bushed reverse idler.

Primary shaft ball bearing retained on shaft with chip shield by left-hand threaded sleeve nut.

To dismantle mainshaft assembly slide off top/3rd synchro assembly, noting interlocking plunger and ball (in later gearboxes only) in drilling through synchro hub. Press down plunger in shaft, locking 3rd gear splined thrust washer, releasing washer. Slide off 3rd gear with 41 needle rollers. Draw off inner race of roller bearing and remove 2nd gear and synchro assembly (same as top/3rd gear, with interlocking plunger and ball). When reassembling note that interlocking plunger and ball in top/3rd and 2nd synchro hubs must be opposite cutaway splines on mainshaft and in synchro sleeves.

JL layshaft cluster is built up, with integral 1st gear. To dismantle, extract spring ring behind constant mesh gear and press gear back until split ring recessed in front is released. Second spring ring retains 3rd and 2nd gears against shoulder on shaft.

Reverse idler spindle should not be separated from rear extension housing, as rubber sealing ring recessed in spindle cannot be replaced without special thimble.

When reassembling box insert small retaining rings in layshaft needle roller recesses, and insert 29 needle rollers in each end, sticking them in with thick grease. Insert outer retaining ring in front end of shaft with large bronze thrust washer. Stick on steel thrust washer (pegged to box). Insert stepped steel washer at rear (pegged to shaft) and small bronze thrust washer. Lower cluster into box and insert thin rod to support it.

Remove reverse locking lever from box, feed in mainshaft and primary shaft assemblies, and drive in roller bearing outer race. Lift layshaft cluster with rod and insert dummy spindle .980in in diameter, with generous chamfer on end, into layshaft so as not to disturb needle rollers. Assemble long distance-piece on mainshaft, and offer up rear extension housing with layshaft spindle, and reverse idler in place on spindle (fork groove to front). Insert layshaft spindle, pushing out dummy spindle to front. When rear housing is in place, assemble reverse rocking lever and fork, and complete assembly of box.

To dismantle top cover remove lever and pivot jaw assembly (nut on front of pivot housing). Detach sealing plate from rear of cover and unscrew plugs retaining selector springs and plungers. Unscrew taper-ended screws from selector forks, and draw out rods to rear one at a time, catching interlock balls as they are released from cross-drilling in rear of cover.

Propeller Shaft

Hardy Spicer needle roller bearing universal joints, series 1300. Nipples for lubrication of joints.

Rear Axle

Salisbury 4HA hypoid bevel drive, semi-floating shafts. Final drive housing integral with axle tubes, rear cover detachable.

To remove axle from car, disconnect brake fluid pipe, shock absorbers, brake cables and rear end of propeller shaft. Remove U-bolts, and hub and brake drum assembly from one side. Axle can then be passed through springs.

This unit compares in detail with axle employed on Mk. VII models. For further information regarding dismantling and repair operations, readers are referred to Trader Service Data No. 197, noting that nominal distance from crown wheel centre line to pinion head is 2.625in not 2.750in as stated on page V of that data sheet.

CHASSIS

Brakes

Lockheed hydraulic, two leading shoe (self adjusting) brakes at front. Rear brakes leading and trailing shoes. Front brake adjustment effected automatically by ratchet movement of adjuster bar held by friction pads, other end of bar is hooked to spring anchor pin screwed into brake shoe and secured by nut and spring washer. Separate cylinder fitted for each shoe.

Separate adjuster opposite rear wheel cylinder, with slotted head reached through hole in brake drum *after removal of wheel*, unless wire wheels fitted. Apply brakes hard to position shoes in drums, jack up car, remove wheel, turn adjuster anti-clockwise until shoe touches drum and back off until free (two clicks).

Rear Springs

Semi-elliptic. Metal bonded rubber bushes for spring eyes and shackles. Tighten fully with weight of car on springs. Centre-bolts offset. Fit springs with shorter section to front.

Front Suspension

Independent, torsion bars. Inner ends of upper and lower links pivoted in loose rubber bushes bonded to inner sleeves. Ball joints at outer ends. Upper link outer ball socket bolted between arms of link, with shims for castor adjustment. Ball pin tapered and fitted in top of stub axle carrier member. Ball joint is sealed and serviced only as assembly.

Suspension layout is similar to that employed on XK 120 models and readers are referred to Trader Service Data No. 185 for further details of service and repair operations.

Steering Gear

Rack and pinion. Rack operates short track rods, adjustable for length, through ball joints at either end of rods, lubricated from rack. Only provision for adjustment is for pinion and rack mesh made by means of eccentric sleeve with external serrations at upper end over which square adjuster plate fits. Rotation of plate (through 90 deg.) either way effects adjustment.

CHASSIS DATA

CLUTCH

Make	Borg & Beck
Type	s.d.p. 10 A6-G
Springs:	
no.	12
colour	yellow
free length	2.688in
Centre springs:	
no.	6
colour	maroon
Linings:	
thickness	.144–.155in
dia. ext.	9.870–9.840in
dia. int.	6.760–6.750in

GEARBOX

Type	Synchromesh
No. of forward speeds	4
Gear or final ratios:	
1st	
2nd	
3rd	not quoted
4th	
Rev.	

PROPELLER SHAFT

Make	Hardy Spicer
Type	Needle roller bearing U.J.

FINAL DRIVE

Type	Hypoid semi-floating
Crownwheel/bevel pinion teeth	46/13 std., 43/13 high*

* 45/11 overdrive cars

BRAKES

Make	Lockheed
Type	2 LS (self adjusting) front, leading and trailing rear
Drum diameter	12in
Lining:	
length	10½in
width	2½in
thickness	¼in
No. of rivets per shoe	12

SPRINGS

	Front	Rear
Length (eye centres, laden)	Torsion bars	44in
Width	—	1¾in
No. of leaves	—	7
Free camber (length, coil)	—	5½in
Loaded camber (length, coil) at load	—	¼in @ 690lb
Rate of spring	—	138 lb/in

SHOCK ABSORBERS

Make (front)	Girling
Type	Telescopic CDR 5/20 NF
Service	Replacement

STEERING BOX

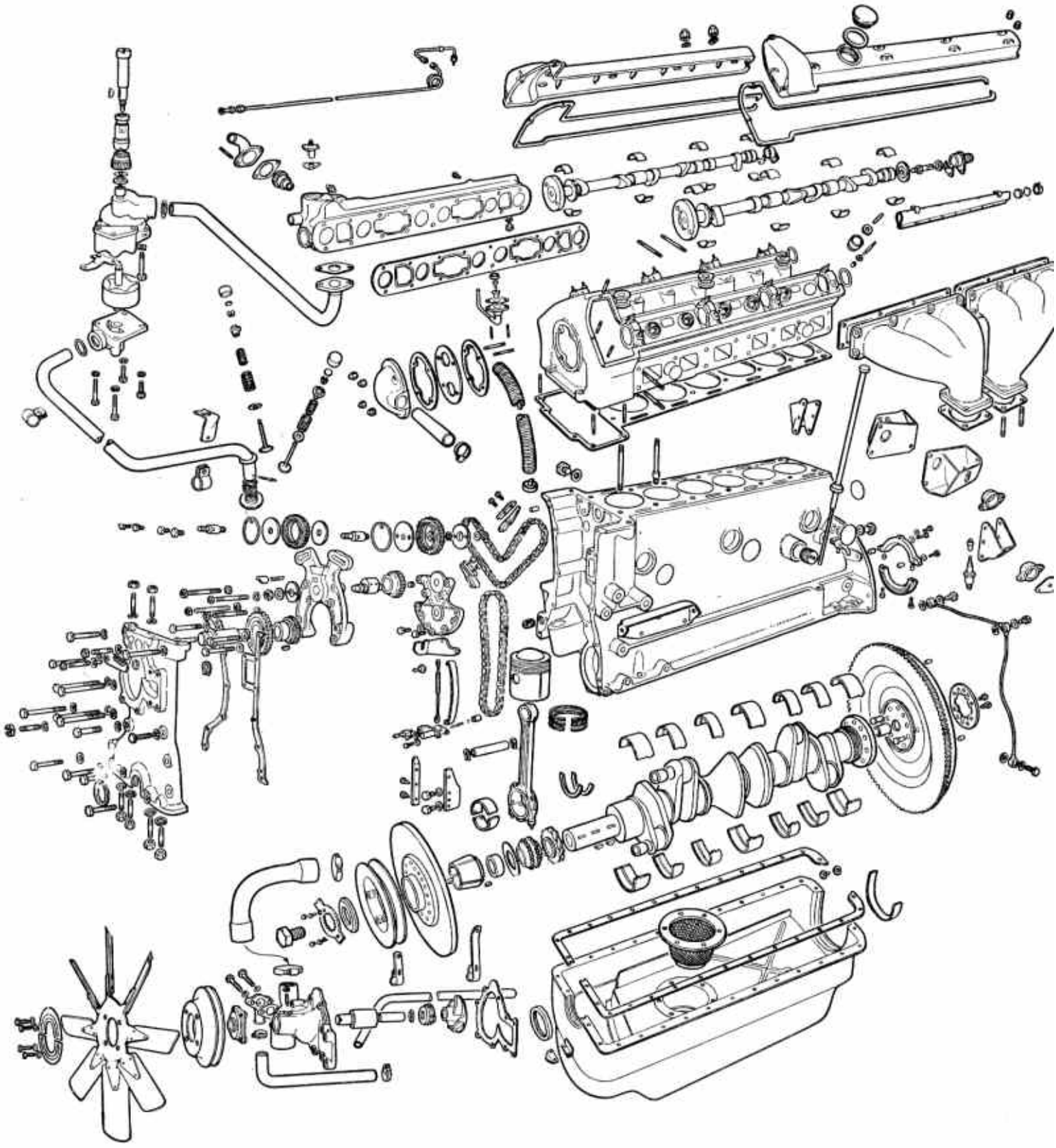
Type	Rack and pinion
Adjustments:	
column end float	nil
mesh	eccentric sleeve

FRONT-END SERVICE DATA

Castor (static laden)	1½°–2° positive
Camber (static laden)	½°–1° positive
King pin inclination (static laden)	5°
Toe-in	0–¼in
No. of turns lock to lock	2¾
Adjustments:	
castor	shims
camber	shims
toe-in	screwed tie rod ends

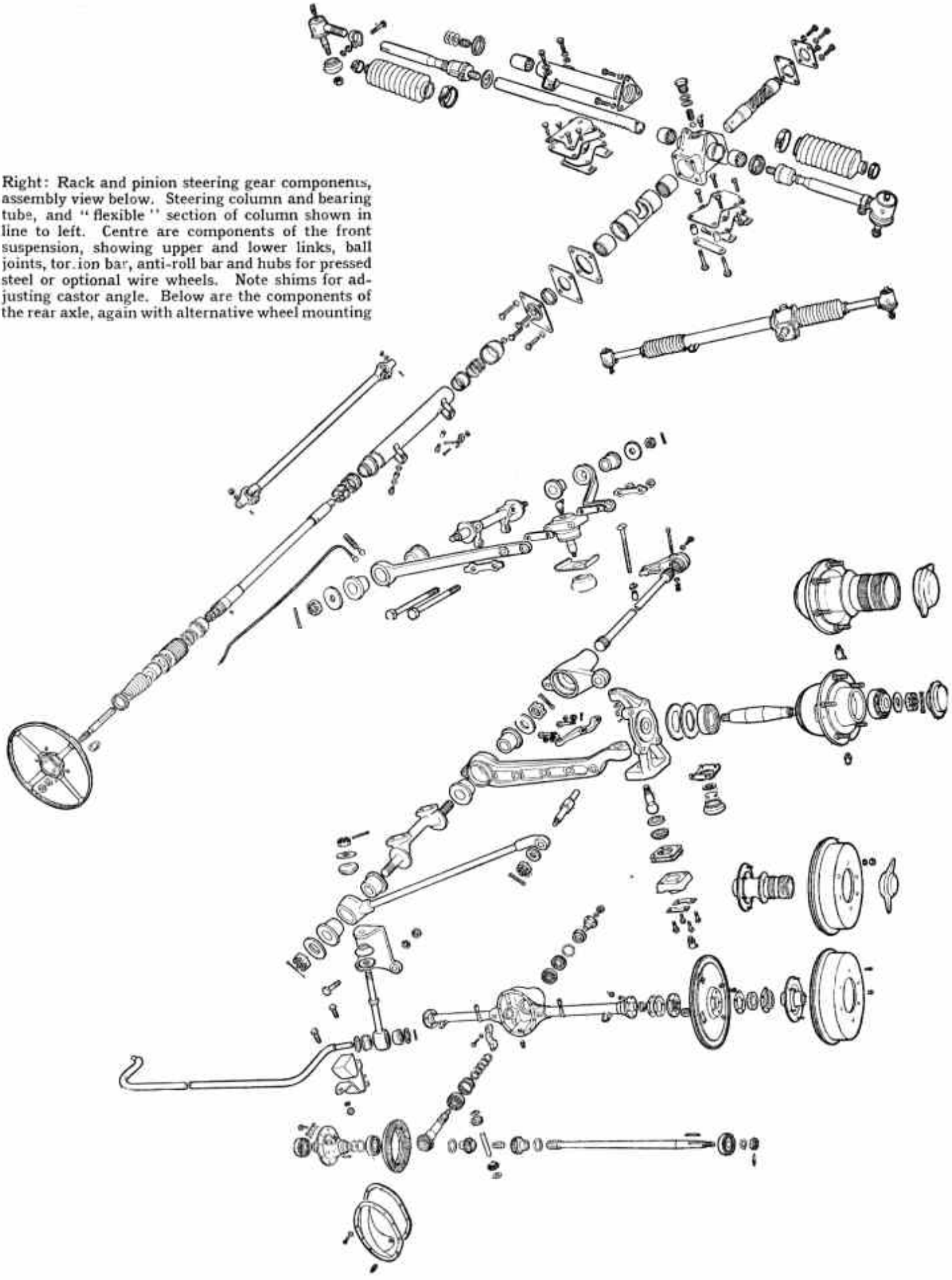
Shock Absorbers

Front and rear, Girling telescopic hydraulic, no provision for topping up.



Parts of the engine showing cylinder block, head and sump, crankshaft, con rod and piston assembly, camshafts, camshaft drive sprockets and casing, oil pump, water pump, fan and manifolds

Right: Rack and pinion steering gear components, assembly view below. Steering column and bearing tube, and "flexible" section of column shown in line to left. Centre are components of the front suspension, showing upper and lower links, ball joints, torsion bar, anti-roll bar and hubs for pressed steel or optional wire wheels. Note shims for adjusting castor angle. Below are the components of the rear axle, again with alternative wheel mounting

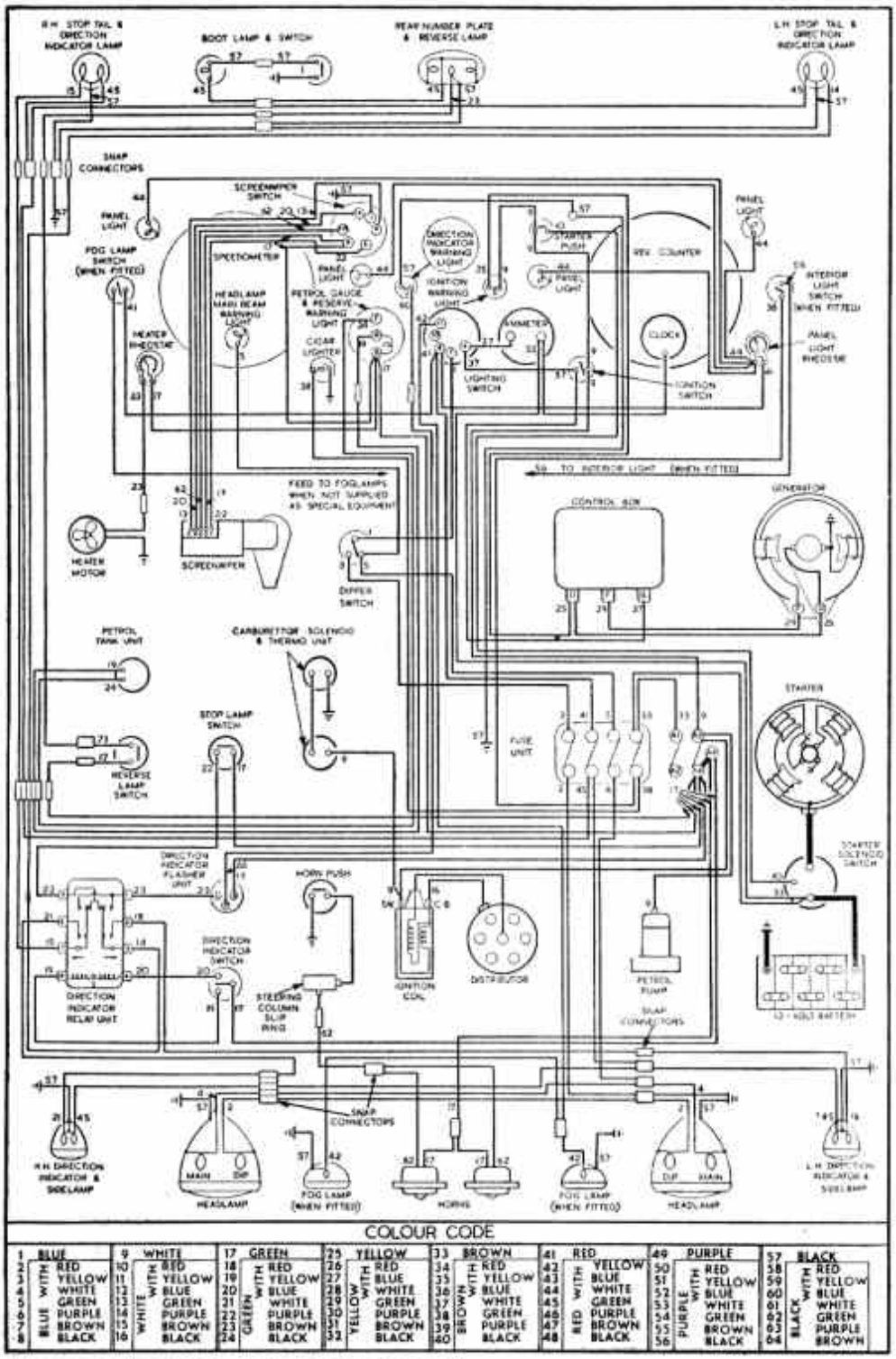


TUNE-UP DATA

Firing order	1, 5, 3, 6, 2, 4 (No. 1 at rear)			
Tappet clearance (cold): inlet	.004in			
exhaust	.006in			
Compression pressure	125-130 lb/sq in at 70°C all sparking plugs out			
Valve timing: inlet opens	15° BTDC			
inlet closes	57° ABDC			
exhaust opens	57° BBDC			
exhaust closes	15° ATDC			
Location of timing mark	Crankshaft damper and pointer			
	7:1 comp. eng.	8:1 comp. eng.		
Standard ignition timing	8° BTDC	10° BTDC		
Distributor: type and service no.	DVX 6A 40435	DVX 6A 40436		
Advance range (dist. deg.): Centrif.	up to 16°/18°	up to 13°/15°		
vacuum	up to 8°	up to 12°		
Advance starts (crank r.p.m.)	900	320		
Max. advance (crank r.p.m.)	5700	5200		

Cam angle	40° ± 3°	40° ± 3°
Contact spring tension	18-24 oz	18-24 oz
Contact set No.	407050	407050
C.B. gap	0.014-0.016in	0.014-0.016in
Condenser: capacity	0.2 mf	
min. insulation	3 megohm	
Plugs: make	Champion	
type	L 10 S	N 8 B*
size	14 mm	
gap	.022in	
Carburettor: make	S.U. twin	
type	H6	
Settings: Choke	1½	
Needles: Std. head and air cleaner	SJ (weaker LBA)	
Air cleaner: make	AC	
type	Wire mesh	
Fuel pump: make	S.U. electric	
type	PP 31/LCS	

* NAS for "C" type cyl. head.



COLOUR CODE

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ELECTRICAL TEST DATA

*Battery:	
model	GTZ 11 A/2
voltage	12
no. of plates	11
capacity	64 amp-hr at 10 hr rate
	72 amp-hr at 20 hr rate
Spec. gravity: up to 90°F	1.270-1.290
over 90°F	1.210-1.230

*Fixed head coupe type STGW 11E (2 off) 63 ah cap. at 10 hr rate.

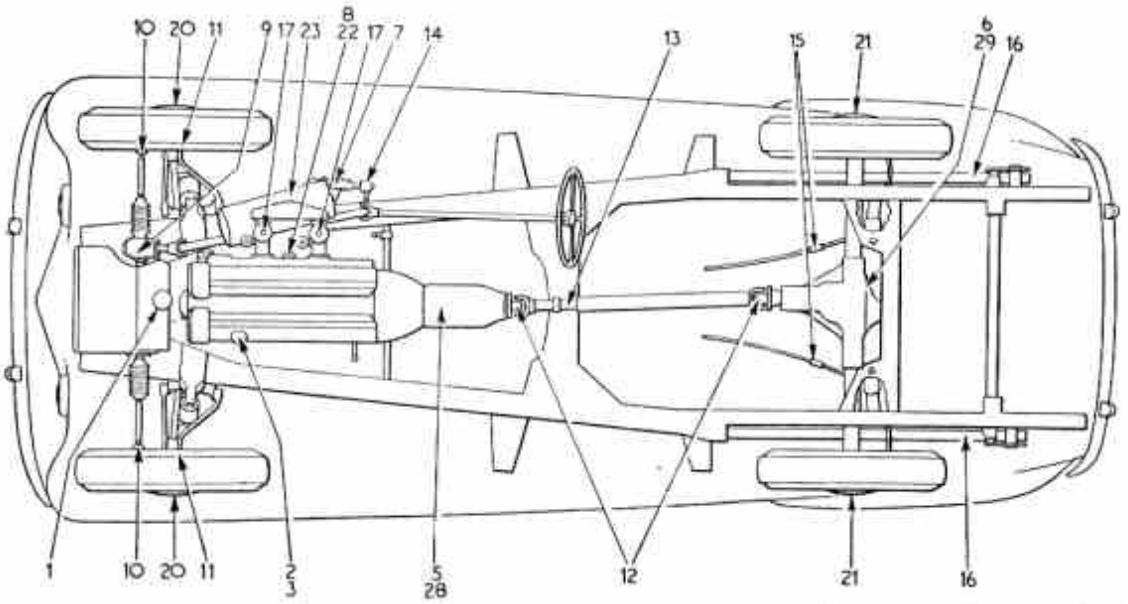
Dynamo:	
model	C 45 PVS/5
service no.	22462
rotation (comm. end)	anti-clock
cut-in volts at r.p.m.	13 volt at 1100-1200 r.p.m.
max. output of volts at r.p.m.	22 amps at 13.5 volt at 1700-1900 r.p.m.
field resistance	6.0 ohm
brush tension	36-44 oz
Control box (current voltage type)	
model	RB 310
service no.	37189
cut-out: cut-in voltage	12.7-13.3 volts
cut-out voltage	9.5-10.5 volts
regulator voltage:	
10°C (50°F)	14.5-15.1 volt
20°C (68°F)	14.2-14.8 volt
30°C (86°F)	13.9-14.5 volt
40°C (104°F)	13.6-14.2 volt
current regulator	22 amps
STARTER	
model	M 45 G
service no.	26062
rotation (comm. end)	anti-clock
lock torque (lb/ft-amps-volts)	22 lb/ft; 430-450 amp; 7.8-7.4 volt
torque at 1,000 r.p.m.	8.3 lb/ft
brush tension	30-40 oz
COIL	
model	HA 12
service no.	45054/B
stall current	3.64 amp
running current (4,000 r.p.m. engine speed)	0.6 amp

ADDITIONAL ELECTRICAL DATA
Lucas Equipment

	Model	Service No.
Headlamps: L.H.D.	J 700	51505
R.H.D.	J700	51506
U.S.A.	PF700	51562
Europe	PF700	51507
France	PF700	51563
Norway and Sweden	PF700	51564
Switzerland and Holland	PF700	51565
Side lamps: standard	513	52175
flasher	563	52271
Stop/tail lamps: standard and flasher	549	53350
Fog lamp (optional)	SFT576	55128
Reversing and No. plate lamp	489	53159
Starter solenoid switch	SS9	31253
Lighting switch	PRS7	31426
Ignition switch	S45	31287
Fog lamp switch	PRS7	31426
Screenwiper switch	PRS7	31426
Flasher unit	FL3	35003
Flasher relay	DB10	33117
Screwiper	DR1	75232
Fuse box (25 amp fuse)	SF4	37100
(35 amp fuse)	SF6	37132
Starter solenoid	ST950	76411
Horns: high note	HF1748	70071
low note	HF1748	70063

BULBS

	Lucas No.	Voltage	Wattage	Cap
Headlamps:				
dip left	404	12	60/30	B.P.F.
dip right	406	12	60/30	B.P.F.
vertical dip	370	12	45/40	B.P.F.
Side lamps	207	12	6	S.B.C.
Stop/tail lamps: standard	361	12	21/6	S.B.C.
Front flasher	382	12	21	S.B.C.
Rear and Brake flasher	380	12	6	S.B.C.
No. plate lamp	222	12	4	M.B.C.
Reversing lamp	382	12	18	S.B.C.
Fog lamp	323	12	48	Prefocus
Ignition and beam warning lamps	987	12	2.2	M.E.S.
Panel lamps	987	12	2.2	M.E.S.
Flasher warning lamp	987	12	2.2	M.E.S.



KEY TO MAINTENANCE DIAGRAM

DAILY

1. **Radiator** } top up.
2. **Engine sump** }

EVERY 2,500 MILES

3. **Engine sump**—drain and refill.
4. **Battery** } top up.
5. **Gearbox** }
6. **Rear axle** }
7. **Brake fluid reservoir** }
8. **Engine oil filter**—remove and clean.
9. **Steering housing**—oil gun.
10. **Steering tie rod ball joints.** } grease gun.
11. **King pins** }
12. **Propeller shaft universal joints** }
13. **Propeller shaft splines** }
14. **Foot brake pedal boss** }
15. **Handbrake cables** }
16. **Rear spring gaiters** }
17. **Carburettor piston dampers**—oil.
18. **Distributor**—oil shaft bearing, auto advance, contact breaker pivot, grease cam.

EVERY 5,000 MILES

19. **Carburettor filters**—remove and clean.
20. **Front wheel bearings** } grease gun.
21. **Rear wheel bearings** }
22. **Engine oil filter**—renew.
23. **Air cleaner**—clean and re-oil.
24. **Accelerator linkage.** } oil can.
25. **Handbrake ratchet** }
26. **Screen wiper pivots** }
27. **Door, bonnet, bootlid, petro' filler cover, locks and hinges** }

EVERY 10,000 MILES

28. **Gearbox** } drain and refill.
29. **Rear axle** }
30. **Overdrive oil pump***—clean oil filter.
31. **Petrol pump filter**—clean.

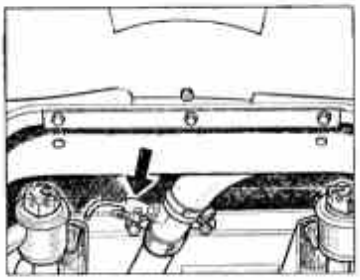
* If fitted.

FILL-UP DATA

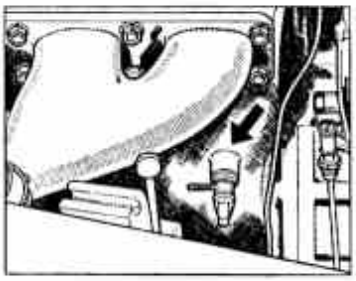
	Pints	Litres
Engine sump* ...	22	12½
Gearbox**	2½	1½
Rear axle	3½	2
Cooling system ...	25	14¼
Fuel tank	14 gall	63½
Tyre pressure:		
front	*** 23 lb sq/in	1.6 kg/cm²
rear...	26 lb sq/in	1.85 kg/cm²

* Total capacity—Allow 3pt for filter.
** 4pt (2½l) with overdrive.
*** For fast driving (i.e.: over 100 m.p.h. (160 kph) front tyres: 30 lb sq/in (2.1 kg/cm²); rear tyres: 35 lb sq/in (2.5 kg/cm²).

DRAINING POINTS



Left: Radiator drain tap on radiator bottom outlet, access from below. Right cylinder block drain tap at rear on near side. Note that heater is not drained by these taps



RECOMMENDED LUBRICANTS

		S.A.E. No.	Vacuum	Wakefield	Shell	Esso	B.P. Energol
Engine	Above 90°F	40	Mobiloil AF	Castrol XXL	X-100 40	Essolube 40	Energol S.A.E. 40
	32° to 90°F	30	Mobiloil A	Castrol XL	X-100 30	Essolube 30	Energol S.A.E. 30
	Below 32°F	20	Mobiloil Arctic	Castrolite	X-100 20/20W	Essolube 20	Energol S.A.E. 20
Gearbox, Carburettor dashpots, Distributor, Oil can		30	Mobiloil A	Castrol XL	X-100 30	Essolube 30	Energol S.A.E. 30
Rear axle		90	Mobilube GX 90	Castrol Hypoy	Spirax 90 EP	Expee Compound 90	Energol EP 90
Propeller shaft needle roller bearings		140	Mobilube C 140	Castrol D	Spirax 140 EP	Gear Oil 140	Energol 140
Chassis nipples (except wheel hubs and propeller shaft needle roller bearing) Steering Housing		—	Mobilgrease No. 4 or 5	Castrolease Medium or WB	Retinax RB or A	Esso Grease or Esso High Temp. Grease	Energrease C3 or N3
Wheel hubs		—	Mobilgrease No. 5	Castrolease WB	Retinax A	Esso High Temp. Grease	Energrease N3
Upper cylinder lubricant		—	Mobil Upperlube	Castrollo	Donax U	Essomix	Energol U.C.L.
Brake operation fluid reservoir		—	Lockheed Brake Fluid (S.A.E. Spec. 70R2).				

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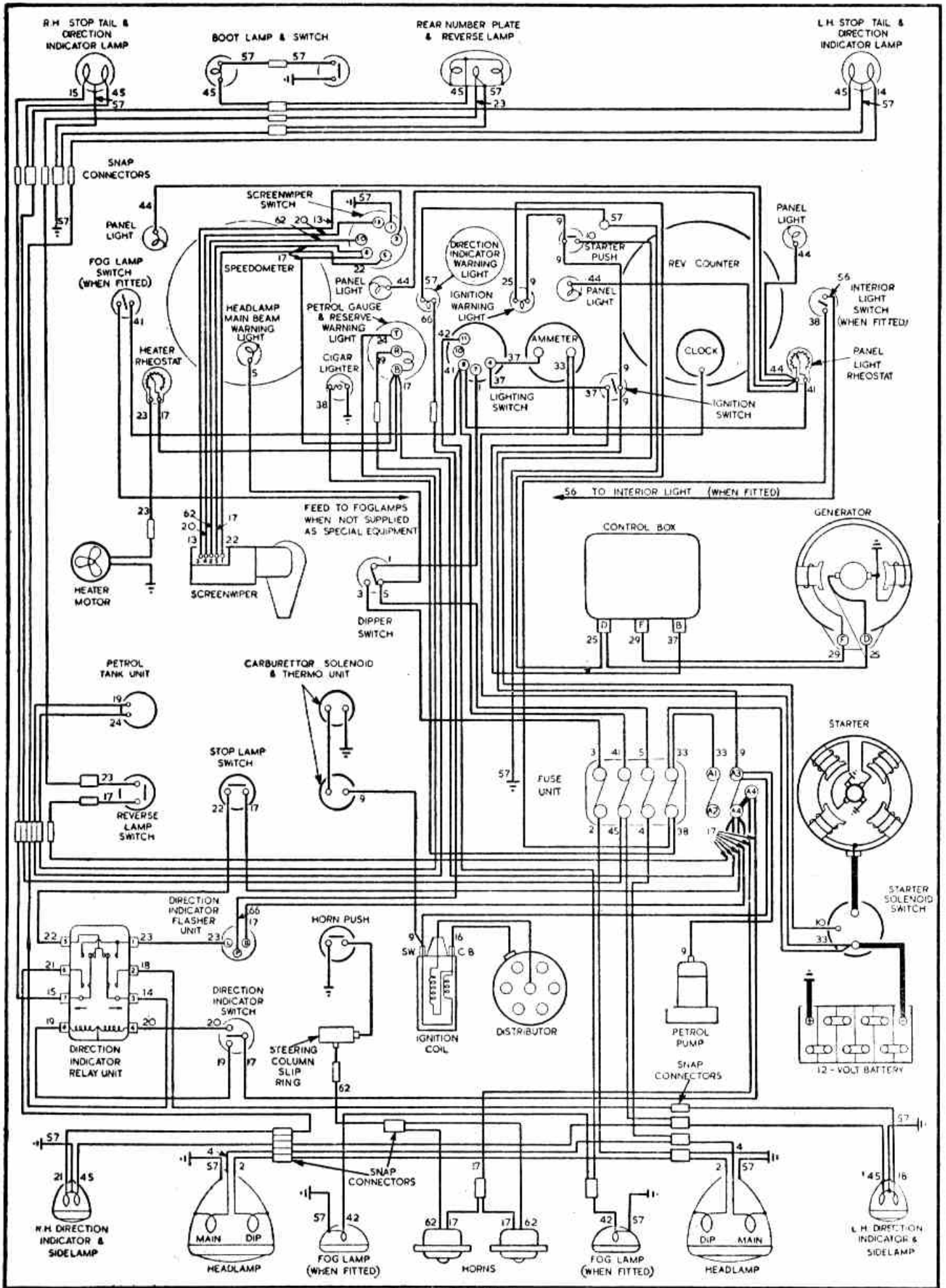

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