

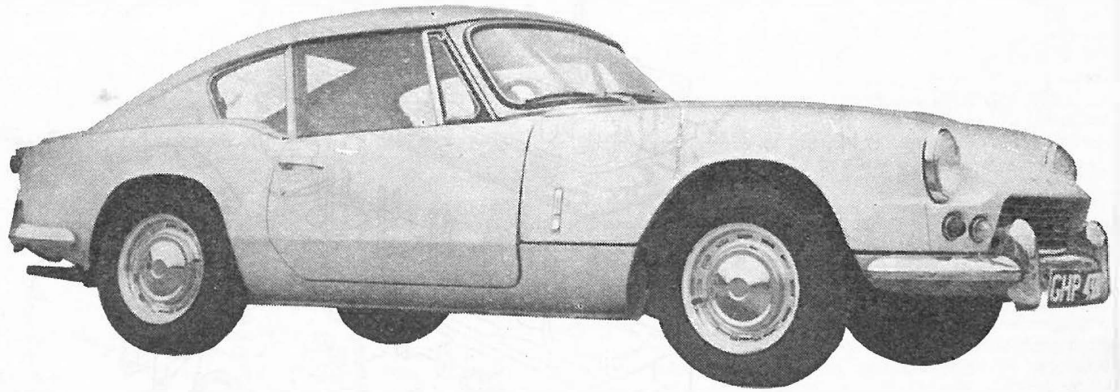
Motor Trader

SERVICE DATA No. 457

TRIUMPH G.T.6

Manufacturers : Standard-Triumph, Ltd., Coventry (members of the Leyland Motor Corporation)

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DISTINGUISHING FEATURES With its individual hard-top styling, this model is easily recognised. There is a large rear window and indent motifs are fitted to the bootlid.

THIS model was added to the Triumph range on October 4, 1966. It is interesting to recall that at the Racing Car Show, earlier in the same year, S.A.H. Accessories, Ltd., exhibited a Triumph Spitfire which was fitted with a tuned six-cylinder 1998cc engine, the then existing Spitfire being suffixed "4," one inference of this being that a "6" might follow.

Styling is that of a fast-back two-seater. Power is provided by a 95bhp version of the 1998cc six-cylinder Triumph engine. In this application, it works at a compression ratio of 9.5:1, and its mechanical construction is similar to that used in the Triumph 2000 saloon. Maximum power output is produced at an engine speed of 5,000 rpm.

Transmission of the drive is taken through an hydraulically operated single dry plate strap-drive clutch to the four-speed all-synchromesh gearbox, and by conventional propeller shaft arrangement to the final drive gear contained within the differential casing, and thence by drive shafts to the rear wheels. Overdrive, of Laycock de Normanville pattern is available as an optional extra, and when so fitted compares in detail with that described in Service Supplement No. 226/C1.

Front suspension is independent and utilizes coil springs as the suspensory medium, and telescopic hydraulic shock absorbers are coaxially mounted. Wishbones of this suspension layout have rubber bushed pivots, and an anti-roll bar is fitted. Rear suspension is also independent, and comprises a swing axle, transversely mounted leaf spring and radius rods. The system is damped by telescopic hydraulic shock absorbers.

Body mounting is carried out in broadly similar fashion to that employed in Herald/Vitesse/Spitfire vehicles in which the body is attached to the separate chassis frame.

Mechanical components bear considerable similarity to those which are used on other cars in the Standard-Triumph range and their use endorses the manufacturer's continuing policy of parts and unit standardization throughout their product range. The engine has twin carburettors and for full details of these Stromberg CD units, readers are referred to Service Supplement No. 404/C87. There is a closed circuit crankcase ventilation system.

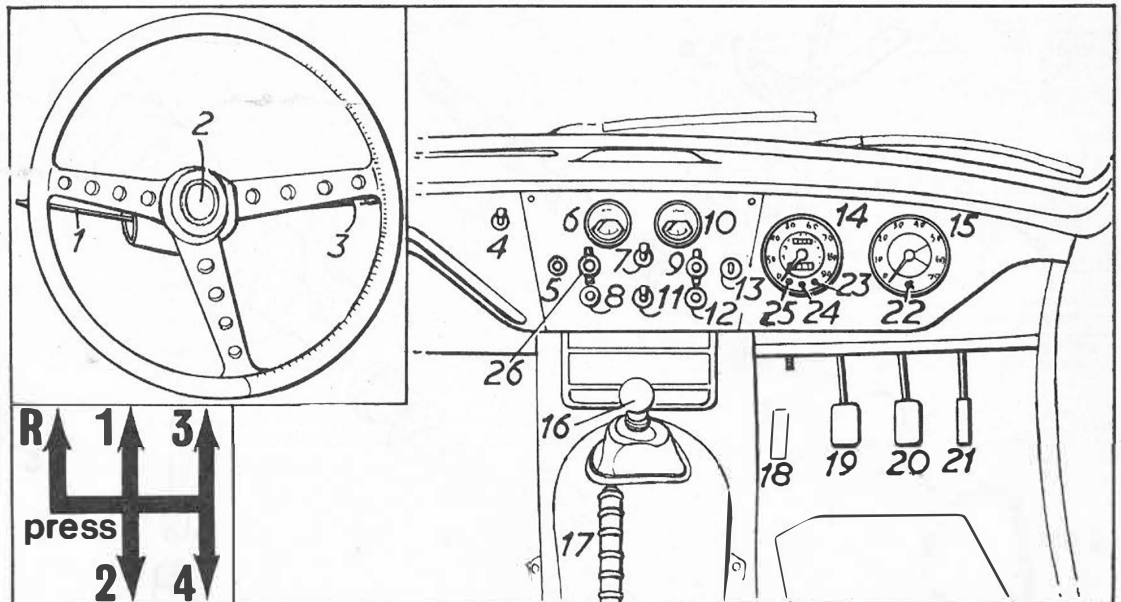
Vehicles are numbered in familiar

Standard-Triumph manner, by commission and unit numbers. The commission, paint and trim code numbers are to be found stamped on a plate which is attached to the bonnet scuttle left-hand side panel. The body number is stamped on a separate plate mounted below the commission number plate. Engines are serial numbered and these numbers are stamped on a boss on the left-hand side of the cylinder block casting. The rear axle number is stamped on the hypoid housing flange and the gearbox serial num-

ber is stamped on the side of the gearbox casing. Commission numbers and engine numbers should be quoted when referring to the vehicle manufacturers, or when ordering spare parts. In this context, it should be noted that it is manufacturer's policy that all matters of spares, service and warranty work should be channelled through the Standard-Triumph dealer network, to whom all such queries should be addressed.

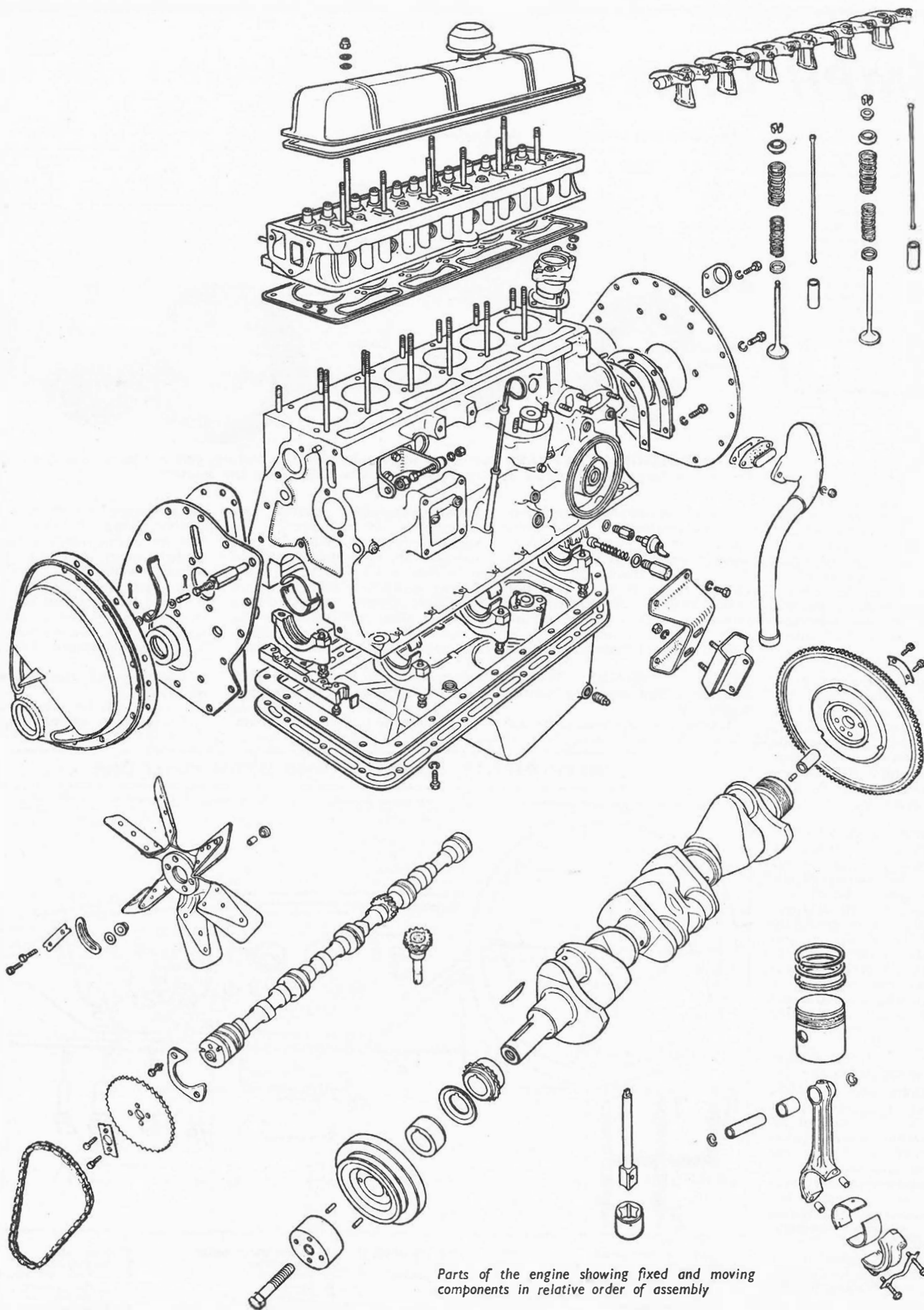
Special tools for use in overhaul and repair work are made and mar-

INSTRUMENTS, CONTROLS AND GEAR POSITIONS



- | | | | |
|-------------------------------|--------------------------------------|-----------------------------|----------------------------|
| 1. Lighting selector switch | 7. Main lighting switch/panel lights | 13. Ignition/starter switch | 20. Brake pedal |
| 2. Horn push | 8. Air distribution control | 14. Speedometer | 21. Accelerator |
| 3. Direction indicator switch | 9. Choke control | 15. Tachometer | 22. Direction ind. warning |
| 4. Interior lights switch | 10. Fuel gauge | 16. Gearlever | 23. Ignition warning light |
| 5. Screenwiper switch | 11. Heater motor switch | 17. Handbrake lever | 24. Oil pressure warning |
| 6. Water temperature gauge | 12. Heater temp. control | 18. Foot rest | 25. Main beam |
| | | 19. Clutch pedal | 26. Screen |

Insets show: operative positions of centre mounted gearlever and location of steering column mounted controls



Parts of the engine showing fixed and moving components in relative order of assembly

keted by V. L. Churchill & Co., Ltd., London Road, Daventry, Northants. A selection of those which are considered essential to efficient repair work is set out in these pages, together with the relevant part numbers for ordering purposes. The use of these tools is approved by the vehicle manufacturers. In many cases, it will be found that certain repair operations are difficult, costly and lengthy without them.

Threads and hexagons are, in the main, of the Unified thread series pattern and form, although there are some proprietary components which have different thread patterns. In all cases of doubt, it is preferable to replace all threaded parts exactly as they were dismantled, taking care to renew nuts, bolts, etc., which have stretched or damaged threads. It is impossible to tighten malformed screw threads to the correct torque loading.

ENGINE

Mounting

At front, flanged, composite mountings are bolted up to chassis abutments and to feet which are, in turn, bolted up to bosses on either side of crankcase casting.

At rear, cylindrical rubber blocks are bolted up to each side of gearbox extension casing and to cradle, which is bolted to chassis frame. Tighten all nuts and bolts fully.

Removal

Engine may be removed with, or without gearbox. To remove with gearbox as unit proceed as follows:

Disconnect earth lead from battery. Drain coolant from engine and oil from engine, take off air cleaner. Remove bonnet after taking out hinge bolts, undoing lighting snap connectors and removing overriders.

Take out radiator matrix (2 retaining bolts either side), air ducting and water hoses. Take out engine compartment side valances (3 bolts at front, 2 bolts at rear). Release gearbox attachments as follows: remove fascia support bracket after taking out 6 bolts; remove gearlever knob, take out carpets and undo and remove 12 screws and plates to remove gearbox cover.

Disconnect propeller shaft and undo front mounting nuts and rear mounting bracket nuts. Disconnect fuel inlet pipe from fuel pump.

Disconnect all pipes, wires, controls and hoses to and from all ancillaries and engine unit. Disconnect exhaust pipe at manifold flange and at gearbox attachment point, disconnect earth lead from engine front plate. Take weight of engine/gearbox unit on sling, with suitable lifting tackle. Remove nuts, bolts and packing pieces from mountings. Raise engine, tilting it rearwards so that unit assumes sharp angle, engine uppermost, manoeuvre up and out clear of vehicle.

Engine may be removed without gearbox, after removal of bellhousing bolts and starter motor mounting bolts. Note: gearbox should be supported while engine is drawn forwards to clear primary shaft splines and flywheel spigot. Replacement of engine/gearbox unit is a reversal of above processes.

Crankshaft

Four main bearings. Steel backed white metal lined shells located by tabs in block and caps. No hand fitting permissible. Shells may be removed and replaced with engine in position, but only in emergency. End float controlled by split thrust washers fitted either side of rear main bearing. Oversize sets of washers available.

Flywheel fitted with shrunk-on ring gear, spigoted on rear flange of crankshaft and retained by four $\frac{1}{2}$ in bolts and located by one dowel. Oilite spigot bush in crankshaft boss. Camshaft drive sprocket and fan pulley keyed to front end of shaft with long Woodruff key, and retained by bolt. Dished oil thrower fitted between crankshaft sprocket and timing cover. Hub of fan pulley passes through lipped renewable oil seal pressed into timing cover.

Sealing block fitted to front end of cylinder block, rear oil seal retained on rear face of block by 7 setscrews. When fitting front sealing strips, tap in wooden filler pieces and trim flush with crank-

case face. Rear oil seal has thread scrolled in inner diameter for oil return to sump and there must be .001 in clearance between scroll and crankshaft. Seal housing incorporates lipped seal. Composition seal, fitted around sump flange.

Connecting Rods

H-section stamping. Big ends thin wall steel backed bi-metal-lined shells located by tabs in rod and cap. No provision for hand fitting, rod split diagonally for removal through bores and cap dowel located on rod. Clevis split small end bush pressed in. Fully floating gudgeon pin located by circlips in piston. Fit with short shoulder of big end to camshaft side. Tighten bolts to torque figure specified.

Pistons

Aluminium alloy, flat topped split skirt. Pistons graded into three sizes of standard dimensions, "F," "G," and "H," identified by one of these letters stamped on the piston crown. Grades of piston are matched with grade of cylinder bore by selective assembly. Bore size increased in .0004 in steps on "F," "G," and "H" size markings respectively. Identification mark of bore grade stamped on casting adjacent to bore in cylinder block.

Two compression rings and one slotted oil control ring are fitted above fully floating gudgeon pin.

Remove rod and piston assembly

GENERAL DATA

Wheelbase	6ft 11in
Track: front	4ft 1in
rear	4ft 0in
Turning circle	25ft 3in
Ground clearance	4in
Tyre size	155-13
Overall length	12ft 1in
Overall width	4ft 9in
Overall height	3ft 11in
Weight (dry)	16 cwt
Net weight	17 cwt

NUT TIGHTENING TORQUE DATA

	Bolt size (in)	lb. ft
ENGINE		
Cylinder head stud nuts	UNF	42-46
Con. rod bolts	UNF	38-42
Flywheel to crankshaft	UNF	42-46
Main bearing caps (nuts)	$\frac{1}{2}$ UNF	55-60
GEARBOX		
Bell housing bolts	$\frac{1}{2}$ UNF	28-30
Extension to gearbox	$\frac{1}{2}$ UNF	14-16
Propeller shaft to mainshaft	$\frac{1}{2}$ UNF	90-100
REAR AXLE		
Bearing caps to housing	UNF	26-28
Crown wheel to diff. case	UNF	42-46
Front mounting plate to axle	UNF	26-28
Front mounting plate to chassis	UNF	26-28
Hypoid housing	UNF	32-34
Rear axle mounting	$\frac{1}{2}$ UNF	38-42

ENGINE DATA

Type	ohv
No. of cylinders	6
Bore x stroke: mm	74.7 x 76
in	2.94 x 2.992
Capacity: cc	1998
cu in	122
Max. bhp at rpm	95-5000
Max. torque at rpm	117.3 lb. ft—3000
Compression ratio	9.5 : 1

CRANKSHAFT AND CON. RODS

	Main Bearings	Crankpins
Diameter	2.0005-2.001in	1.8750-1.8755in
Length	1.360-1.362in	—
Running clearance: main bearings		.001-.002in
End float: crankshaft	big ends	.001-.0027in
	big ends	.006-.008in
Undersizes		.008-.012in
Con. rod centres		.010, .020 and .030in
No. of teeth on starter ring gear/pinion		117/9

PISTONS AND RINGS

Clearance (skirt)	.008 to .013in	
Oversizes*	+.020in	
Max. weight variation per set	4 grams (7.09 grams)	
Gudgeon pin: diameter	.8122-.8125in	
fit in piston	fully floating	
fit in con. rod	light push fit @ 68°F.	
	Compression	Oil Control
No. of rings	2	1
Gap	.008-.013in	.008-.013in
Side clearance in groove	.0019-.0035in	.0007-.0027in
Width of rings	.0770-.0787in	.1553-.1563in
*O/S rings available +.010, .020, .030 and .040in		

*O/S rings available +.010, .020, .030 and .040in

CAMSHAFT

Bearing Journal: diameter		1.8402-1.8407in
Bearing clearance		.0026-.0046in
End float		.004 to .008in
Timing chain: pitch		$\frac{1}{2}$ in
no. of links		62
VALVES		
Head diameter Stem diameter Face-angle Spring length: free fitted at lead	Inlet	Exhaust
	1.301-1.305in	1.176-1.180in
	.3107-.3112in	.310-.3105in
	45	45
	Inner	Outer
	1.56in	1.61in
	1.14in	1.386in
	11-14lb	27-30lb

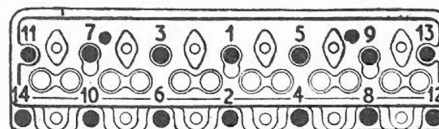


Diagram showing order of tightening cylinder head stud nuts. See also table of "Nut Tightening Torque Data"

SPECIAL TOOLS

	Part No.
ENGINE	
Con. rod aligner and con. rod aligner adaptor	S.336 & S.336
Valve guide adaptor (two)	60A-2 & 60A-6
Valve spring compressor main tool and compressor adaptor	6118A & S.6118A-1
Rear oil seal alignment tool	S.335
GEARBOX	
Hand press	S.4221A
Mainshaft ball race remover and replacer	S.4221A-19
Mainshaft circlip remover and replacer	S.144 & S.145
Slide hammer	S.4235A
Constant pinion shaft remover	S.4235A-2
REAR AXLE	
Differential case spreader	S.101
Pinion height gauge	S.108
Flange holder	S.337
(dialers to modify 20SM98)	
Pinion pre-load gauge. Reduce dia. to $\frac{1}{2}$ in location pins	S.98A
Pinion bearing remover—replacer	S.4221A-20
Crown wheel carrier bearing remover	S.4221A-8C
Inner axle shaft bearing remover replacer	S.4221A-7
REAR SUSPENSION	
Hub remover	S.109B
Rear hub bearing replacer	S.304
Needle bearing remover—replacer	S.300A
Rear hub remover (inner)	S.4221A/14

complete through bore; fit with split skirt of piston to non-thrust (camshaft) side of engine. When renewing gudgeon pin bushes, they should be broached to .8120-.8126in. Fit of pin is selective and should be tight push fit at room temperature.

Camshaft

Single row endless roller chain drive with spring tensioner. Shaft runs in machined bores in cylinder block casting. End thrust is taken and location is effected by "C"-plate fitted to front engine plate, and retained by two setscrews. Driven wheel retained by two setbolts on camshaft end boss. Provision made for adjustment of chain wheel to give $\frac{1}{4}$ tooth variations in valve timing.

Valves

Overhead non-interchangeable inlet larger than exhaust. Double springs for each valve, secured by split cone collets. Fit springs with close coils to cylinder head. Valve guides plain, no shoulder, press in from top until guide projects $\frac{3}{4}$ in from top of cylinder head. Inserts pressed in when required.

Tappets and Rockers

Plain barrel tappets sliding directly in crankcase. Tappets may be removed with long-nosed pliers

after removal of cylinder head. Rockers are bushed, offset left- and right-handed in pairs, drilled for lubrication and run on hollow shaft. Each pair operates either side of rocker post and intermediary rockers are separated by long coil springs. Oil fed from gallery is metered by flats on camshaft rear bearing and delivered via head drillings to rear rocker pedestal, and thence to shaft and individual rockers. Tappet clearance must be set to .040in for timing and .010in (cold) for normal running.

Lubrication

Hobourn-Eaton eccentric double rotor type pump, spigoted and flange bolted in sump. Centre rotor driven by shaft pressed into rotor and pegged in position. Upper end of rotor drive shaft engages with tongue on distributor shaft. Three long bolts attach pump body to cylinder block. Pump may be removed with engine in position. Oil pressure warning light provided on dashboard and cuts out at an oil pressure of 4-6 psi. Normal running pressure 40-60 psi. Full flow filter fitted.

Non-adjustable spring loaded release valve housed on near side of crankcase.

Cooling System

Pump and fan. Non-adjustable wax-type thermostat retained in out-

let port of pump body by outlet elbow. Fan belt adjustment provided by swinging dynamo unit. Correctly adjusted belt has $\frac{1}{4}$ in play in longest run.

TRANSMISSION

Clutch

Single dry plate diaphragm, hydraulically actuated, sintered ball thrust release bearing, pre-lubricated. No provision for adjustment in service. When refitting replacement unit checks must be made to ensure that maximum run-out of driven plate does not exceed .035in. Under no circumstances must clutch unit be dismantled or serviced for any reason whatsoever. Should a transmission fault be traced to this source, the complete clutch assembly must be replaced with a new unit.

Gearbox

Four-speed, all-synchromesh, centre lever control through selector mechanism in top cover. Gearbox may be removed in unit with engine, as detailed in Engine section, subsection Removal, or may be withdrawn separately.

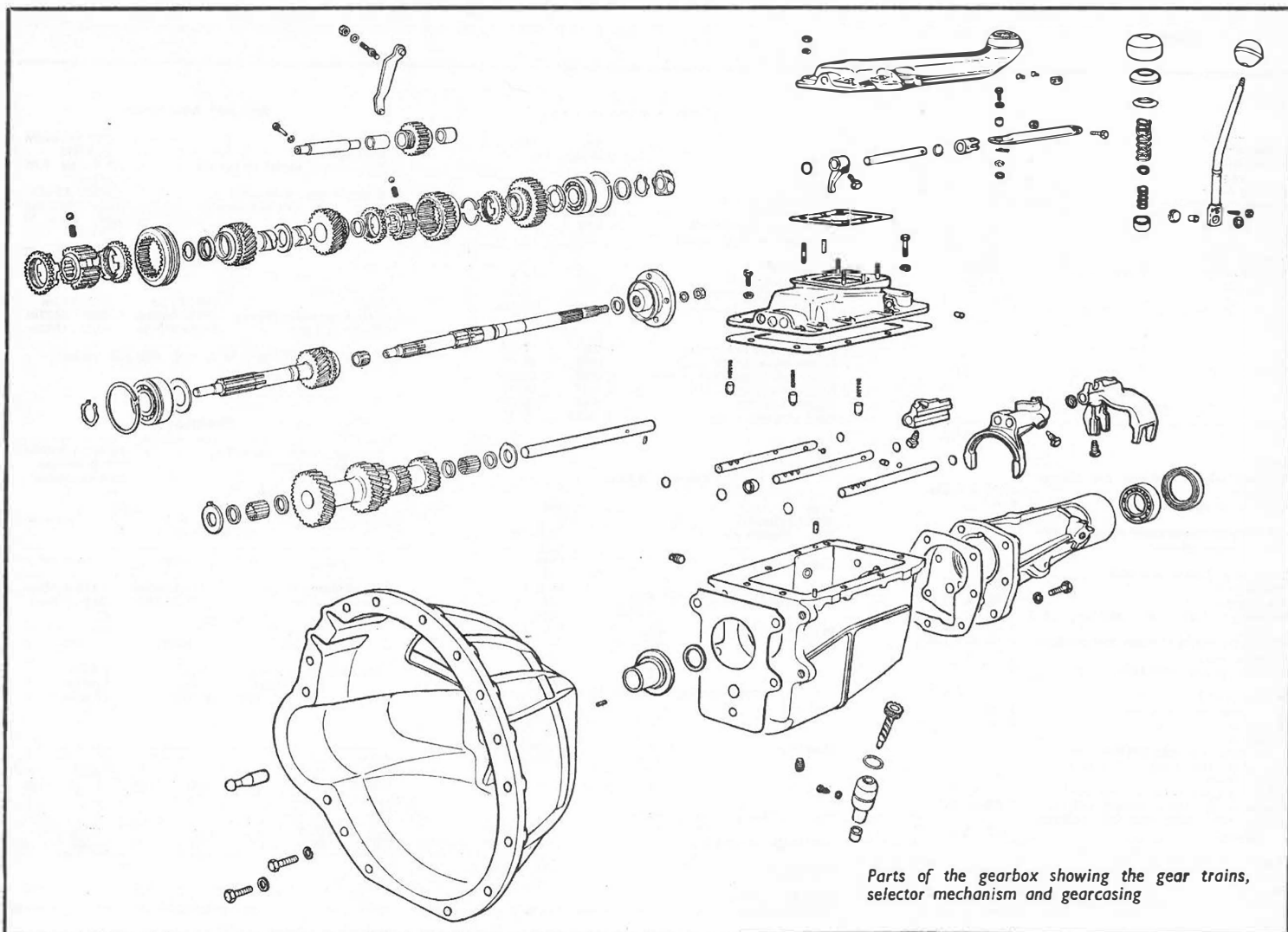
Overdrive, when fitted, compares in detail with that previously

described in Service Supplement No. 226/C1, and is of Laycock de Normanville pattern and design.

To Dismantle Gearbox

With gearbox on workbench, remove clutch housing, unclip release lever from pivot pin and remove lever and bearing. To remove rear extension, remove driving flange securing nut and remove flange from mainshaft. Unscrew and remove rear extension securing bolts and take off rear extension. Tap mounting lugs with hide face mallet if necessary. Take out retaining bolt and remove reverse idler gear spindle and distance tube. If necessary, eject ballrace and seal from extension casing.

Withdraw layshaft, and retain needle roller bearings by inserting length of tubing .655 x 6.5in. Using special tool no. S4235A-2 withdraw primary shaft assembly. Shake out spigot roller bearing and remove baulk ring. Remove snap ring and circlip and with tool no S4221A and adaptor no. S4221A-19/1 extract ball race and oil thrower. Fit abutment plate, tool no. S4221A-19, and remove snap ring, circlip and distance washer. With tool no. S4221A and adaptor no S4221A-19/1 withdraw ballrace and speedometer drive gear. Take off abutment plate. Tilt mainshaft assembly and remove from gearbox.



Parts of the gearbox showing the gear trains, selector mechanism and gearcasing

CHASSIS DATA	
Clutch Make Type	Borg & Beck diaphragm spring
Diameter	8½ in
Flywheel/face cover	2.05 in
Max. travel	.290 in
Centre springs: no. colour	6 White/lt. green
Linings: thickness (under 950 lb load) dia. ext. dia. int.	.290 in 8.0 in 5.75 in

GEARBOX	
Type	4-speed all synchronesh
Final ratios: 1st	8.66 : 1
2nd	5.82 : 1
3rd	4.11 : 1
4th	3.27 : 1
rev	10.15 : 1

PROPELLER SHAFT	
Type	Needle roller brg u.j.
FINAL DRIVE	
Type	Hypoid bevel
Crownwheel/bevel pinion teeth ratio	3.27 : 1 (36/11)

BRAKES		
Type	Girling hydraulic, disc front, drum rear	
	FRONT	REAR
Diameter	9.7 in	8
Max. disc run-out	.006 in	—
Lining: length	—	—
width	—	1½ in
thickness	—	⅞ in
Min. disc thickness	.460 in	—
Min. pad/lining thick- ness	⅛ in	bonded
No. of rivets per shoe	—	—
Total swept area	260 sq. in.	—
SPRINGS		
	FRONT	REAR
Length (eye centres, laden)	—	Not quoted
Width or wire dia. of coils	.45 in ± .002 in	Not quoted
Dia. of coils	3.13 ± .020 in	—
No. of leaves or coils	9½	8
Deflect in rate	200 lb/in	—
Free camber length	12.46 in	—
Loaded camber length	8.06 ± 0.09 in	2.13 ± .13
coil at load	@ 880 lb	@ 1238 lb

SHOCK ABSORBERS	
Type	telescopic front & rear
Service	replacement
STEERING BOX	
Make	Alford & Alder
Type	rack and pinion
Adjustments: rack end float	shims
cross shaft end	shims under damper pad
float	—
mesh	—
FRONT-END SERVICE DATA	
Castor	3½° ± 1° pos
Camber: front	2½° ± 1° pos
rear	0° ± 1°
King pin inclination	6° ± 1°
Toe-in	⅜ in
No. of turns lock to lock	4½
Adjustments: castor }	shims on lower ends
camber }	of wishbones
toe-in }	screwed tie-rod ends
Note: Max. permissible differential on castor and camber between right and left-hand side is 1°	

Take off components in following order: 3rd/top synchro unit, 3rd gear baulk ring, thrust washer, 1st speed gear, 1st gear baulk ring, with tool no. S 144 remove securing circlip, and take off following items: washer, 3rd speed gear, bush thrust washer, 2nd speed, gear, bush, thrust washer 2nd gear baulk ring, 1st/2nd speed synchro unit and split collars. Note: preserve balls and springs if synchro, hubs are dismantled further. Lift layshaft cluster out of box, together with thrust washers. Needle rollers and retaining rings may also be removed at this stage if required. Take out reverse idler gear, unscrew securing nut, remove actuator and pivot pin.

Assembly of gearbox is a reversal of dismantling, noting following points: check layshaft end-float correct at .007-.013 in. Axial release loading of 3rd/top and 1st/2nd synchro hubs—19-21 lb. If release loads differ from these figures, fit new springs, or add shims to obtain correct loading. End-float of gears on respective bushes should be .002-.006 in. Fit new bush to increase float, or reduce bush length to decrease float. Overall end-float of mainshaft bushes is adjusted by selective use of thrust washers to obtain correct tolerance of .004-.010 in. Thickness of mainshaft circlip washer should be determined with use of feeler gauges and selective use should be made of washers to obtain a zero—.002 in. clearance fit.

When assembling mainshaft, replace items in following order: 1st/2nd synchro unit, 2nd gear baulk ring, thrust washer, 2nd speed gear bush, 2nd speed gear, thrust washer, 3rd gear bush, 3rd speed gear, and washer. Using tool no. S 145, refit circlip, followed by 3rd/top synchro unit, split collars, 1st gear baulk ring and 1st speed gear.

Rear Axle

Hypoid bevel swing axle. Drive is transmitted to rear road wheels via universally jointed drive shafts. Final drive housing is rubber mounted and through-bolted to chassis frame at four points. To remove differential casing jack up

vertical links either side, remove Nyloc nuts and washers from damper lower attachment eyes and pull bottom of dampers clear of mounting pins. Remove exhaust silencer and tail pipe from vehicle. Disconnect inner shaft couplings and rear end of propeller shaft from hypoid unit. Take out front part luggage floor panel and remove spring access plate from floor. Release spring retaining plate and remove 3 studs from axle casing. Release rear attachment by removing Nyloc nut and washer and take out bolt. Undo forward mounting plate nuts securing plate to lugs on chassis frame. Remove rear attachment nuts and bolts passing through rubber bushed lugs on rear of differential casing. Unit may then be lowered out for bench service.

Hubs keyed to outer tapered ends of drive shafts (interchangeable) run on ball bearings at outer ends and on needle roller races at inner ends. Four stud hub flanges have lipped oil seal behind and hubs are retained by ⅛ in nut. Tighten to torque figure specified in data tables when reassembling. Drive shaft may be removed with extractor after removal of brake drum, shoes and back plate.

Hypoid pinion runs in taper roller bearings, outer races pressed into final drive housing. Shims provided to govern depth of mesh of pinion with crown wheel. When assembling, pinion bearing preload without oil seal should be 12-16 lb. in; and on final assembly pinion nut should be locked up to 90-100 lb. ft torque. Note: addition or subtraction of a shim of .001 in thickness makes a difference of approximately 4 lb. in to torque readings. Crown wheel spigoted and bolted to one-piece differential gear carrier. Bearing caps, numbered, are dowel located on housing and differential assembly runs in taper roller bearing. When reassembling differential gear, check "run-out" with dial gauge. This should not exceed .003 in. Differential side bevel gears run directly in cage and planet pinions have spherical washers. Shims between differential cage and outer faces of bearings provide mesh adjustment. Adjust to give backlash of .004-.006 in. When re-

placing assembly in housing, use a case spreader ensuring that bearing caps are in their correct positions and tighten bolts to correct torque loading of 42-46 lb. ft.

CHASSIS

Brakes

Girling hydraulic. Disc brakes at front, drum brakes at rear. Pedal operates front and rear brakes hydraulically but handbrake operates at rear wheels only, by mechanical expanders in rear wheel cylinder housings.

Front brakes are self-adjusting, pads should be replaced when worn to minimum thickness of approx. ⅛ in. To renew pads, jack-up car and remove road wheels, remove pad retainer bolt spring clips retainer pins and take out pads. Push piston back to cylinder extremities, fit new pads and replace retainers and spring clips.

Adjustment of rear brakes is provided by square ended adjusters on brake back plates, one per drum. With handbrake released, turn each adjuster until resistance is felt and back off one notch. Depress brake pedal sharply to check that shoes are fully centralized in drums. Adjustment of brakes as described automatically adjusts handbrake, and resetting of cables is not advised as a general practice. Operating cable is threaded and has clevis and yoke ends providing adjustment to compensate for cable stretch.

Rear Spring

Transverse semi-elliptic leaf, centre mounted on top face of differential unit, retained by six studs and nuts and top plate. Spring centre through bolt is spigoted and located in machined face of differential housing. Metalastik bushes pressed into spring eyes. Outer ends of radius rods mounted on outrigger chassis members are plain rubber bushed.

Front Suspension

Independent coil springs and double wishbone links. Upper wishbone ball jointed at outer ends and rubber bushed at inner ends.

Lower wishbone nylon bushed at outer ends, rubber bushed at inner ends. Complete suspension units are handed and not interchangeable. Units are bolted up to chassis frame brackets and may be removed complete for service on the bench, or systematically dismantled for individual part service.

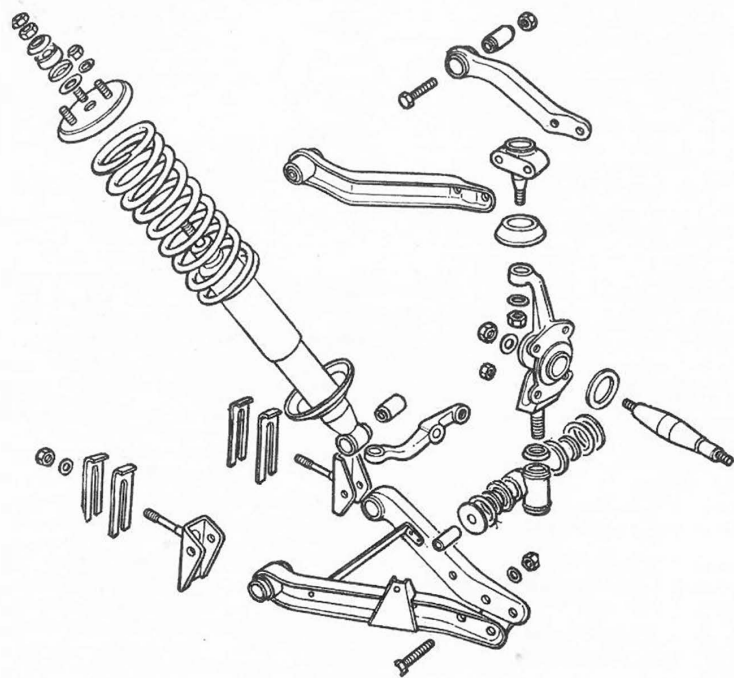
Upper end of each vertical link terminates in ball pin working in a sealed ball socket bolted between both arms of upper wishbone. Lower end of each vertical link is threaded and works in bronze swivel housing. Securing bolt passes through outer ends of lower fulcrum, steel sleeve and phosphor-bronze trunnion; nylon bushed either side and locked up with Nyloc nut and plain washer.

To remove one suspension unit complete, jack up chassis at specified jacking points. Undo hydraulic connections and remove track rod from steering arm and detach anti-roll bar from lower wishbone. Detach lower wishbone arms and upper wishbone support bracket bolts from side and top side of chassis frame. Remove three Nyloc nuts from upper road spring plate, spring compressor is unnecessary, since telescopic damper controls extreme movement of coil spring. If coil spring is required to be dismantled, use compressor to take load off top nuts prior to release. Imperative to observe this method, since any other is dangerous and involves personal risk. Remove locknuts, nuts and washers from around top of damper. Release spring compressor slowly and withdraw coil spring. If damper is to be removed, undo lower mounting by releasing nut and removing securing through bolt.

Hubs run on taper roller bearings. Adjust by tightening slotted nut fully against washer and unscrew one flat. Felt oil seals in retainers pressed into hubs outside inner bearings. Tie rods have sealed ball joints.

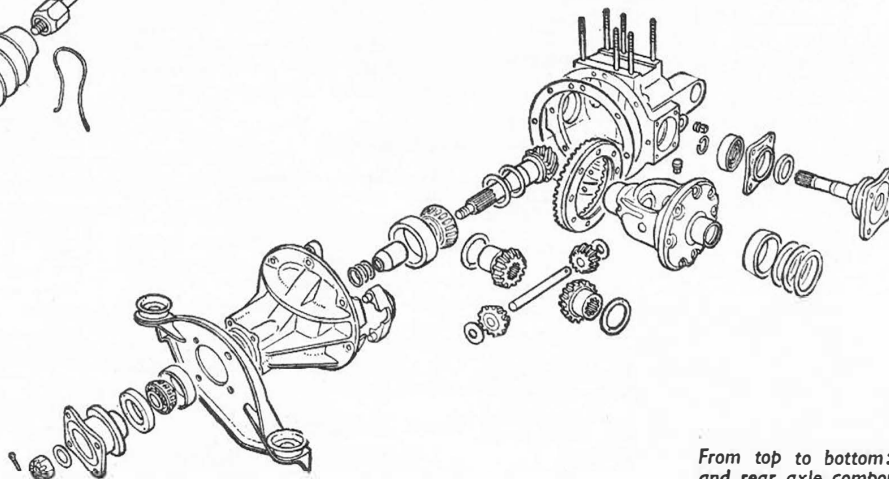
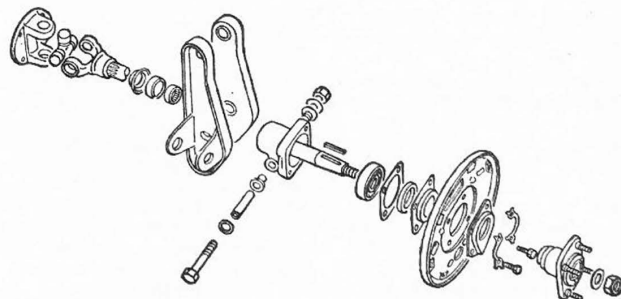
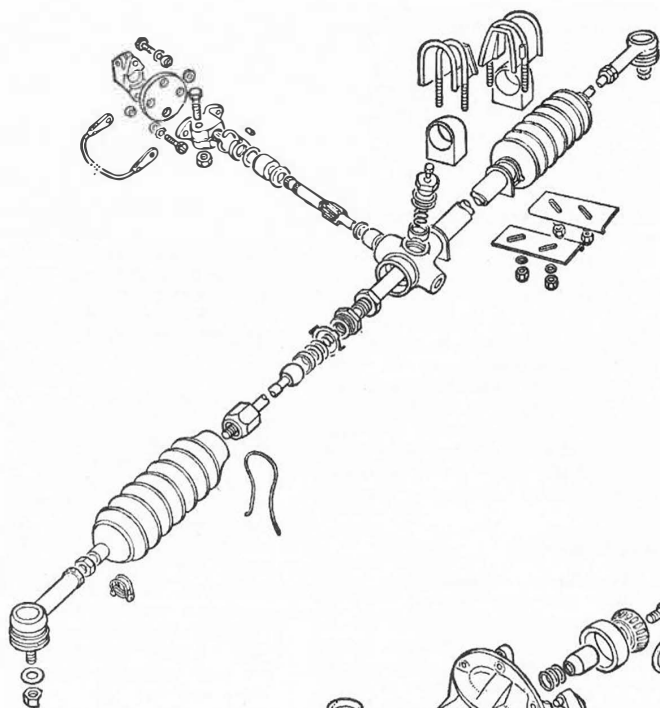
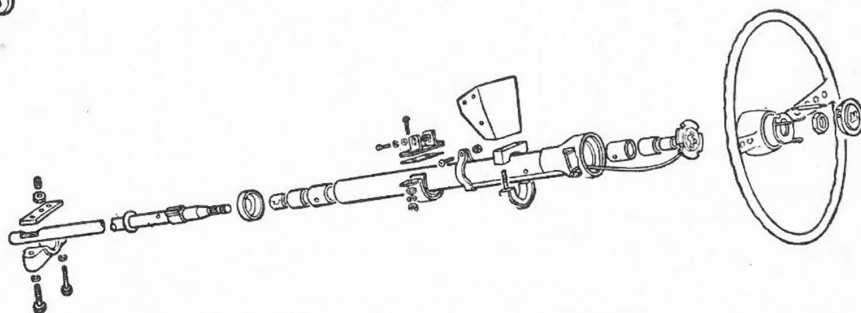
Steering Gear

Rack and pinion. Inner ends of short track rods attached to ends of rack by adjustable ball joints covered by concertina gaiters and lubricated from steering gear,



TUNE-UP DATA	
Firing order	1-5-3-6-2-4
Tappet clearance (cold): inlet	.010in
	exhaust .010in
Valve timing: inlet opens	18° BTDC
	inlet closes 58° ABDC
	exhaust opens 58° BBDC
	exhaust closes 18° ATDC
Standard ignition timing	13° BTDC*
Location of timing mark	pulley/pointer
	Champion
Plugs: make	N-9Y
	type
	size
Carburettors: make	7 x 14 mm
	gap
Settings: choke	.025in
	type
Air cleaner: make	8 Stromberg (2)
	CD150
Fuel pump: make	1.50in
	type
Contact breaker gap	6d
	AC
Contact breaker gap	twin paper
	elements,
Contact breaker gap	A.C.
	mechanical
Contact breaker gap	14-21 p.s.i.
	.015in

*Re-set to 7° BTDC if Premium grade fuel is used



From top to bottom: Front suspension, steering and rear axle components

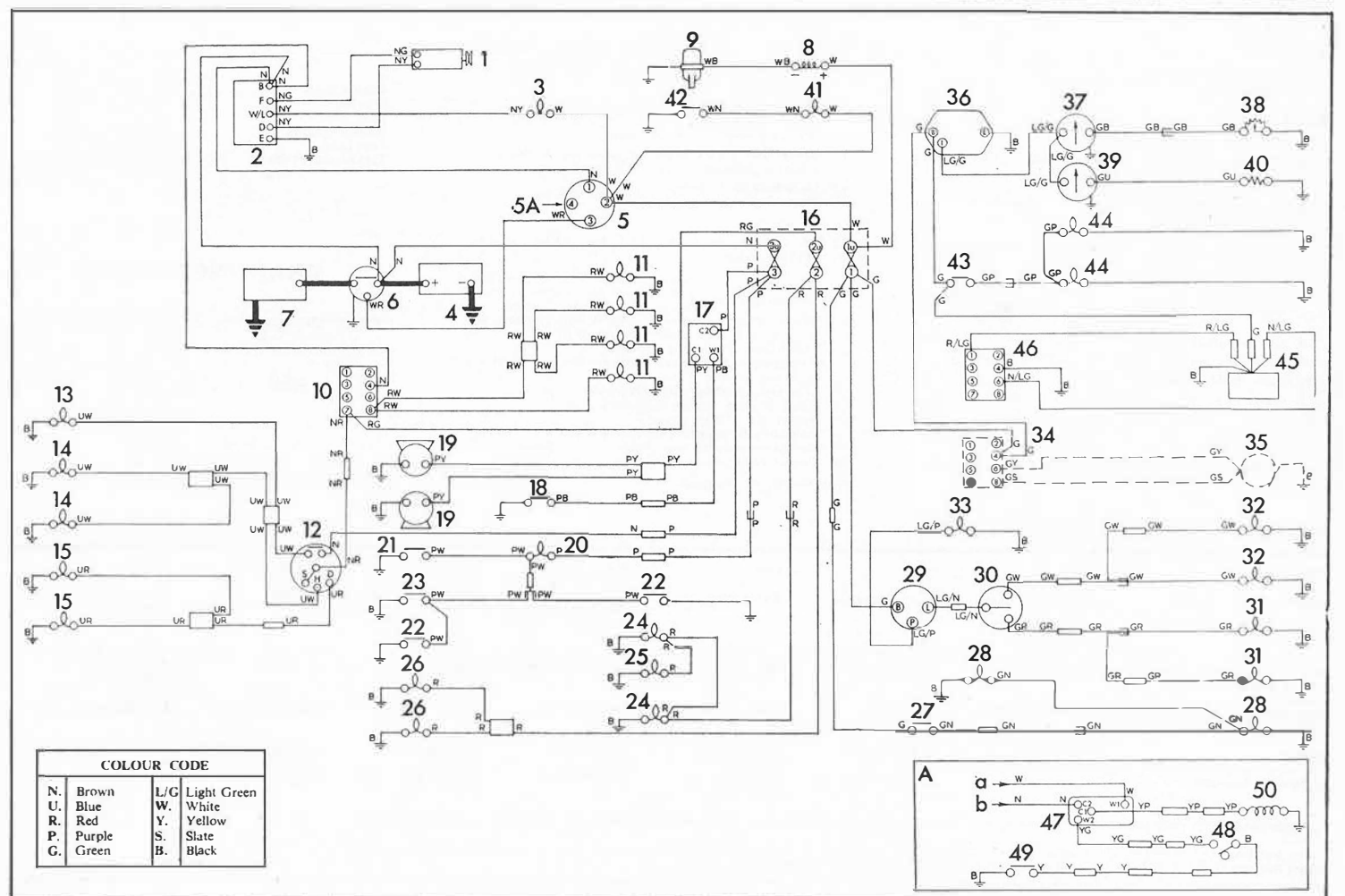
Lamps	Model	Part No.	Part No.	Wattage	Cap
*Head	F700	59103	54521872	60/40	S.B.U.
Side	594	52391	No. 207	6	8.C.C.
*Front flasher	594	52337	No. 382	21	8.C.C.
*Rear flasher	594				
Stop tail/reflex	672	54138	No. 380	21/6	8.B.C.
See above					
Number plate	467/2	53093	No. 989	6	M.C.C.
Reverse	594	52345	No. 382	21	S.C.C.
Flasher warning (WL13 shade and window)					
W/L BULBHOLDERS					
Flasher		863511			
Ig. ilion					
M/Beam		319408			
Oil					
W/L BULBS			No. 987		
*See Addenda					

ADDENDA					
Component	Model	Part No.	Bulb or S.B.U.		
			Lucas No.	Wattage	Cap
Headlamp (Europe general)	F700	59104	No. 410	45/40	Unf. Eur.
(France)	F700	59167	No. 411		
(Sweden)	F700	59105	No. 410	45/40	Unf. Eur.
(U.S.A.)	F700	59337	54522231	50/40	8.B.U.
(N. America)					
Front Flasher (Italy)	594	52345			
(U.S.A.)	691	52649			
(N. America)					
Rear Flasher (U.S.A.)	691	54139			
(N. America)					
No. Plate Illum. (U.S.A.)	467/2	53836			
(N. America)					
Wiper Arm (All L.H.D.)	—	54715785			
Dip Switch (U.S.A.)	1038A	34536 and cap(rubber)	54337982		
(N. America)		31869 and knob			
Panel Light (U.S.A.)	PS7	54334481			
(N. America)		31828			
Horn Isolating Switch (France)	658A	908A			
Overdrive Control Switch (All L.H.D.)	DZ9	54028973			
Battery (Export dry charged)	GVZ9A	54028447			
(Export Canada)					

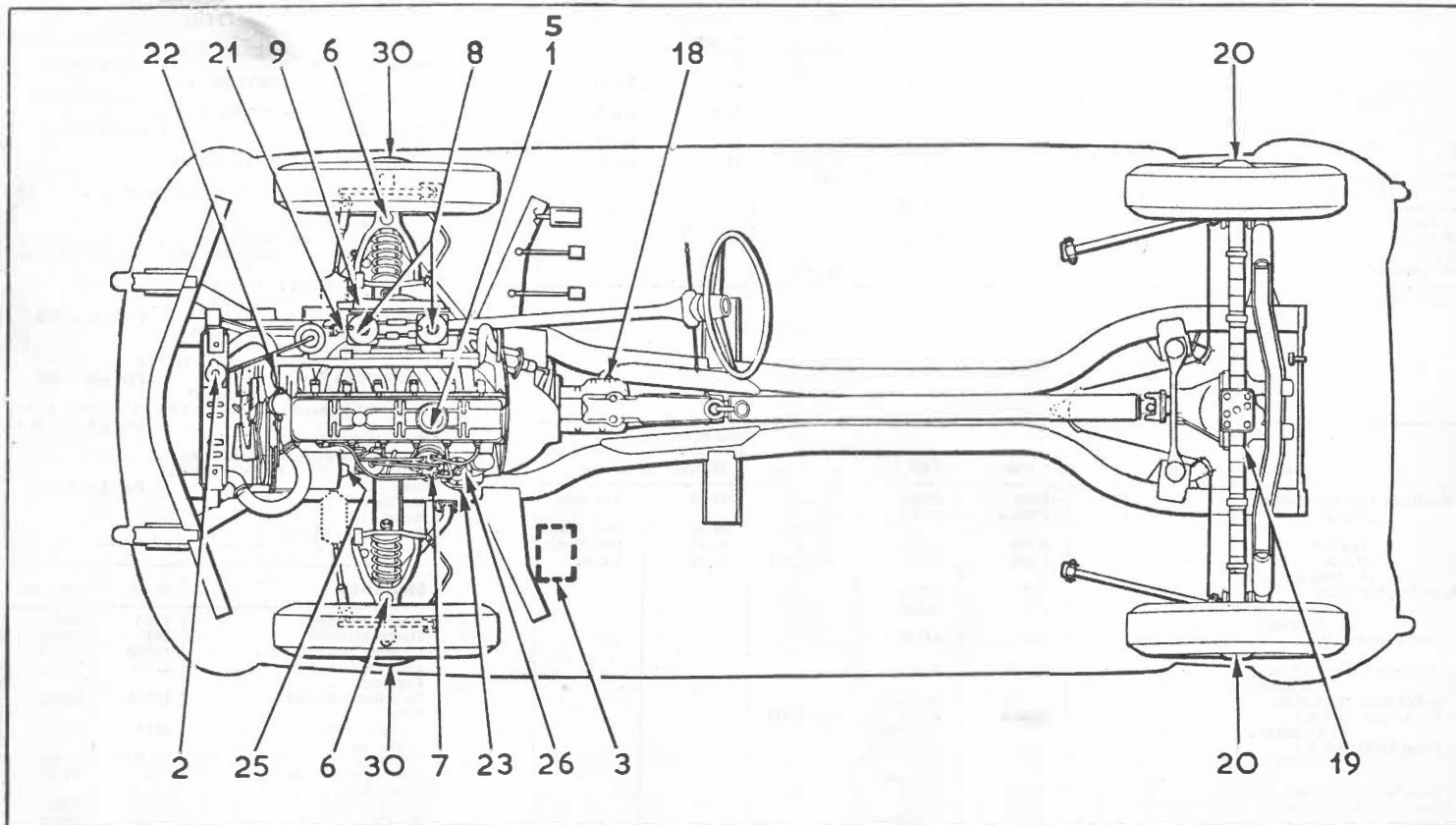
LUCAS EQUIPMENT		*BATTERY
Model D9	Part No. 54028971	
GENERATOR		
Model C40L	Part No. 22716	
CONTROL BOX		
Model RB340	Part No. 37342	
STARTING MOTOR		
Model M35/G1	Part No. 25079	
Drive "SB" inboard		
DISTRIBUTOR		
Model 22D6	Part No. 41168	
Max. centrifugal advance (crank degrees) 16-20° at 6,400 crank rpm		
No advance below 500 crank rpm		
Centrifugal advance springs. Part No. 54418975 set of (2)		
Max. vacuum advance (crank degrees) 18-22° at 20in Hg.		
No advance below 8 in. Hg.		
IGNITION COIL		
Model HA12	Part No. 45173	
Primary resistance 3.0-3.5 ohms		
Running current at 1,000 rpm 1 amp.		
WINDSCREEN WIPER		
Model DR3A	Part No. 75607	
HORN(S)		
Model 9H (uprated)	Part No.(s) 54068078 (L.N.)	
	54068164 (H.N.)	
Type: Windtone		
Current consumption 6.0-7.0 amp		
FLASHER UNIT		
Model FL5	Part No. 35020	
Fuse Unit		
Model 4JF		
Fuse ratings 35 amp.		

SWITCHES	Model	Part No.
Ignition/starter	47SA	31873
Starter solenoid	2ST	76445
Lighting and H/L flash	102SA	35674
Lighting (master)	57SA	35672
Foglamp		
Direction indicator	125SA	35676
*Dip		
Reverse lamp	SS10	31849
*Panel light		
Wiper	57SA	35668
Steering column control	CC9	33577
Horn push		
Courtesy light	65SA	35562
Heater	57SA	35560

*See Addenda



Wiring diagram by permission of Standard-Triumph Sales, Ltd.



KEY TO MAINTENANCE DIAGRAM

WEEKLY

1. Engine Sump } check and top up
2. Radiator }

MONTHLY

3. Battery—check and top up
4. Clutch and brake master cylinders—check and top up

EVERY 6000 MILES

5. Engine Sump—drain and refill
6. Steering Lower Swivels—remove plug, fit nipple and lubricate with hypoid oil until oil exudes from the swivel
7. Distributor—oil auto. advance mechanism, contact breaker pivot, smear cam with grease, clean and reset points
8. Carburettor Dashpots—top up with oil
9. Air Cleaner Elements—remove and de-dust
10. Fan belt tension—check
11. Generator Attachments—check tightness
12. Valve Rocker Clearance—check and reset, if necessary
13. Sparking Plugs—clean and reset
14. Engine Slow Running—check and adjust, if necessary

15. Brakes—examine pads and shoes, adjust or, if necessary, renew, examine hydraulic system for leaks, grease handbrake cable guides and compensator sector

16. Tyres and Wheel Nuts—check condition of tyres, check front and rear wheel alignment, check tightness of wheel nuts

17. Electrics—check operation of all equipment and adjust headlamp focus if necessary

18. Gearbox/Overdrive } check and top up
19. Rear Axle }

EVERY 12000 MILES (as for 6000 miles plus following)

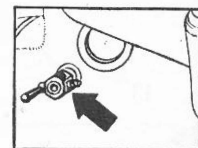
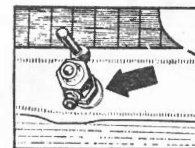
20. Rear Hubs } remove plugs, fit grease nipple,
21. Steering Unit } lubricate with grease, avoid excess of grease to steering
22. Water Pump—remove plug, fit nipple, lubricate with grease (five strokes of gun only)
23. Oil Filter Element—renew
24. Crankcase Breather Valve—dismantle, clean and re-assemble
25. Generator Rear Bearing—oil
26. Fuel Pump—clean sediment bowl
27. Sparking Plugs—renew
28. Exhaust System—examine for leaks
29. Brakes—remove rear drums and de-dust
30. Front Hubs—check and adjust if necessary

* Not shown on diagram.

FILL-UP DATA

	Pints	Litres
Engine sump	8	4.5
Gearbox	1½	.85
Rear axle	1	.57
Cooling system	11	6.2
Fuel tank	9½ gal	44.3
Tyre pressure: front	22 psi	1.55kg/cm²
rear	24 psi	1.69kg/cm²

DRAINING POINTS



Left: shows the radiator matrix drain tap and right: the cylinder block drain tap

RECOMMENDED LUBRICANTS

Component	Mobil	Shell	Esso	B.P.	Castrol	Duckhams'	Petrolina
Engine	Mobiloil Special 10W/30 or Mobiloil Super 10W/40	Super Motor Oil	Extra Motor Oil	Super Visco-Static 10W/40	Castrolite	Q20/50	Multigrade Motor Oil 10W/30
Steering Lower Swivel, Gearbox, Rear Axle	Mobilube GX 90	Spirax 90 E.P.	Gear Oil GP90/140	Gear Oil SAE 90EP	Hypoy	Hypoid 90	Fina Pontonic MP SAE 90,
Front and Rear Hubs, Brake Cables and Grease Gun	Mobilgrease M.P.	Retinax A	Multi-Purpose Grease H	Energrelase L2	Castrolase LM	L.B10 Grease	Fina Marson HTL2
Oil Can	Handy Oil	X-100 20W	Engine Oil	Engine Oil	Everyman Oil	General Purpose Oil	Fina Engine Oil
Carburettor Dashpot	Engine Oil	Engine Oil	Engine Oil	Engine Oil	Engine Oil	Engine Oil	Engine Oil

Approved Anti-freeze Solutions Smith's Bluecol, B.P. Anti-frost, Castrol, Duckhams', Esso, Mobil Permazone, Fina Thermidor, Regent PT, Shell.

Clutch and Brake Fluid Reservoir:—Castrol, Girling Brake and Clutch Fluid. NOTE: Similar grades of Regent lubricant are also recommended. Where this proprietary brand is not available, other fluids to S.A.E. 70R3 specification may be used.