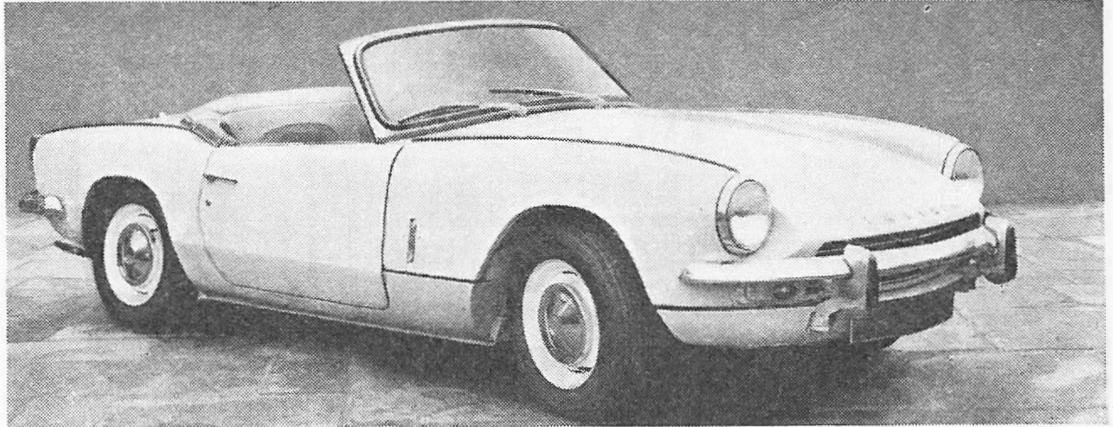


TRIUMPH SPITFIRE MK. 3

Manufacturers : Standard Triumph Sales, Ltd., Fletchamstead, Coventry.

All rights reserved. This Service Data Sheet is compiled by the technical staff of Motor Trader, from information made available by the vehicle manufacturers and from our own experience. It is the copyright of this journal, and may not be reproduced, in whole or in part, without permission. While care is taken to ensure accuracy we do not accept responsibility for errors or omissions.



DISTINGUISHING FEATURES: Body styling of this model is virtually identical with that of the previous Mk. 2 car. Spitfire Mk. 3 identity plaques are fitted to the bootlid

LATEST version of the Spitfire series, the Mk. 3 model was introduced in March 1967. This vehicle is an improved version of the Mk. 2 car and is fitted with a tuned 1296cc engine similar in design to that which is used on the 1300 model. This engine develops 70bhp at a speed of 6,000rpm. To cope with the increase in power output, larger disc brakes, Girling Type 14LF Mk. 3 are fitted.

The body shell is virtually identical to that which was fitted to the previous model in the series, and it is mounted on a separate chassis frame which is broadly similar to that employed for the other models in the Herald/Vitesse/GT6 ranges.

Mechanical components are similar to those which are used on other cars in the Triumph range, but some are specifically adapted for this model, as on other Triumph cars, this model has a closed circuit crankcase ventilation system.

Transmission of the drive is taken through a single dry plate hydraulically operated clutch to a

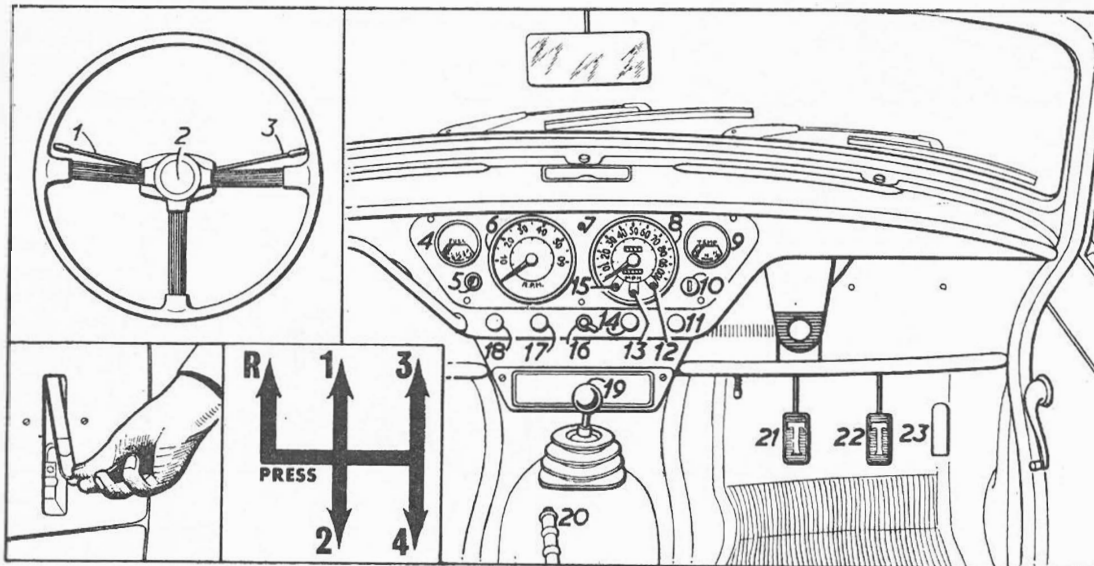
four-speed synchromesh gear box, and from the output shaft of the gearbox by short universally jointed propeller shaft to the hypoid bevel final drive reduction gear contained within the rear axle. Drive to the rear road wheels is transmitted by short drive shafts which are universally jointed at their inner ends. This design allows independent suspension of the rear

wheels and independent suspension at the front of the car is provided by a coil spring and wishbone link arrangement. Spring damping is achieved by the use of co-axially mounted telescopic hydraulic shock absorbers at the front and by similar units at the rear, in which application the shock absorbers are used to control the radial movement of the wheel assemblies about the rear axle and axial location is obtained in two ways, through the transverse leaf spring mountings at either side of the chassis and by short radius rods which are mounted between plates bolted to the body floor and the spring shackles.

Vehicles are identified in the customary Triumph manner, by Commission and unit numbers. The Commission number is to be found stamped on a plate on the left-hand side of the scuttle panel and is visible when the bonnet is raised. The engine number is stamped on a boss on the left-hand side of the cylinder block. The gearbox number is stamped on the right-hand side of the gearbox housing and the rear axle number is to be found stamped under the hypoid nose-piece. It is essential that the Commission number is quoted when referring to the vehicle manufacturers, or when ordering spare parts.

Special tools for use in repair and overhaul work are made and marketed by V. L. Churchill & Co., Ltd., London Road, Daventry, Northants. These tools are approved by the vehicle manufacturers, and a list of those considered the more essential is set out on p. iii.

Threads and hexagons are, in the main, of the United thread pattern.



INSTRUMENTS, CONTROLS, GEAR POSITIONS AND BONNET LOCK

1. Lighting selector switch
 2. Horn push
 3. Direction signal switch
 4. Fuel gauge
 5. Lighting switch
 6. Engine rpm indicator
 7. Direction signal warning light
 8. Speedometer
 9. Water temp. gauge
 10. Ignition/starter switch
 11. Choke control
 12. Ignition warning light
 13. Oil pressure warning light
 14. Heater control
 15. Main beam warning light
 16. Heater motor blower switch
 17. Screenwisher
 18. Screenwiper switch
 19. Gearlever
 20. Handbrake
 21. Clutch pedal
 22. Brake pedal
 23. Accelerator pedal
- Inset top left: shows the siting of the steering wheel mounted controls and below: method of operating the bonnet catch, and the operative position of the centre mounted gearlever

Parts of the engine showing the fixed and moving components

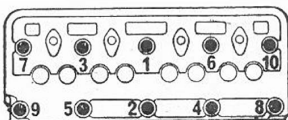
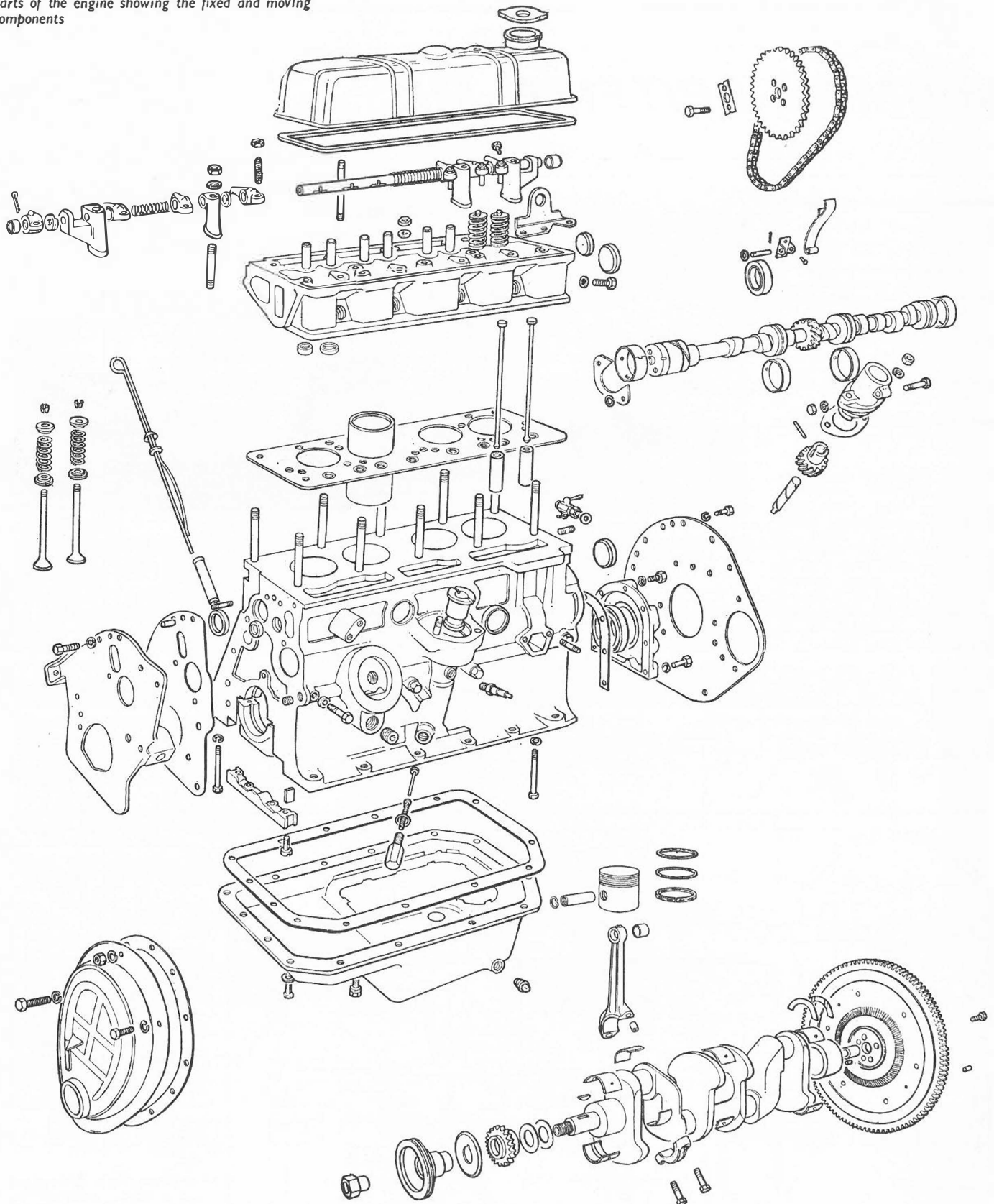


Diagram showing order of tightening cylinder head stud nuts. See also table of "Nut Tightening Torque Data"

ENGINE

Mounting

At front, bonded rubber blocks bolted up to front engine plate and to extension on front suspension turrets. At rear, cylindrical rubber blocks bolted up to either 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, remove bonnet by taking out each hinge bolt; disconnect battery, remove all pipes, wires and flexible controls to engine and gearbox. Drain coolant after removal of radiator cap. Take off top and bottom water hoses, remove radiator matrix held by bolts either side. Disconnect exhaust pipe at flange joint and at clip on gearbox. Attach sling of lifting tackle to eye on front of dynamo adjusting link and eye at rear of cylinder head. Undo securing bolts and remove fascia support panel from inside car. Remove gearbox cover, 11 self-tapping screws—three accessible from behind engine. Undo front mounting nuts and rear mounting bracket nuts. Disconnect propeller shaft at gearbox flange joint remove clutch slave cylinder mounting pinch bolt. Arrange sling so that unit will assume a suitable angle and lift unit up and out of vehicle.

Engine may be removed without gearbox after removal of bellhous-

ing bolts, starter mounting bolts and care being taken to see that gearbox is supported while engine is drawn forward to clear primary shaft splines and flywheel spigot. Replacement is reversal of above process

Crankshaft

Three main bearings. Steel-backed, bi-metal shells located by tabs on block and caps. No hand fitting permissible. Shells may not be removed and replaced with engine and transmission in position. End-float controlled by split thrust washers fitted either side of rear main bearing. Oversize sets of washers available.

Flywheel spigoted on rear flange of crankshaft and retained by four $\frac{1}{2}$ in bolts and located by one dowel. Oilite spigot bush pressed into crankshaft boss. Camshaft drive sprocket and fan pulley keyed to front end of shaft with long Woodruff key, and retained by nut. Dished oil thrower fitted between camshaft sprocket and timing cover. Hub of fan pulley passes through lipped renewable oil seal pressed into timing cover. Starter ring gear bolted to carrier which is in turn bolted up to pulley hub, by six bolts. Clamp plate fixed behind carrier.

Sealing strip fitted to front end of cylinder block. Rear oil seal housing retained on rear face of block by seven setscrews. When fitting front sealing strips, tap in wooden filler pieces and trim flush with crankcase face. Composition seal fitted around sump flange.

Connecting Rods

H-section stamping. Big ends thin wall steel backed lead indium 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. Fit with short shoulder of big end to camshaft side. Tighten bolts to torque figure specified. Note: gudgeon pins are light press fit in con rod small ends.

Pistons

Aluminium alloy, flat-topped solid skirt. Pistons graded into two sizes of standard dimensions, "F" and "G," 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 .0004in steps on "F" and "G" size markings respectively. Identification mark of bore grade stamped on casting adjacent to bore in cylinder block. Pistons marked with arrow which, when assembly is fitted to engine, must point to front.

One parallel faced, one taper faced compression ring and one slotted oil control ring are fitted above fully floating gudgeon pin.

Remove rod and piston assembly complete through bore. Gudgeon pins fully floating, retained in piston bosses by circlips.

Camshaft

Single row endless roller chain drive with spring tensioner. Shaft runs in split bushes in cylinder block casting. End thrust is taken

and location is effected by "C" plate fitted to front engine bearer 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. Scribed marks on chain wheels should be in line, to give correct timing when No. 1 piston is at TDC compression stroke. In this position, crankshaft chain wheel keyway is also at top centre.

Valves

Overhead, non interchangeable, inlet larger than exhaust. Springs secured by split cotters. Fit springs with close coils to cylinder head. Valve guides plain, no shoulder, press in from top until guide projects $\frac{1}{4}$ in above top face of cylinder head. Inserts shrunk 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 offset left- and right-handed in pairs, drilled for lubrication and run direct on hollow shaft. Each pair operates either side of rocker post and intermediary rockers are separated by 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.

ENGINE DATA

General Type	
No. of cylinders	4
Bore x stroke: mm	73.7 x 76
in	2.9 x 2.99
Capacity: cc	1,296
cu in	79.2
Max. bhp at rpm	75-6,000
Max. torque at rpm	900lb. in-4,000
Compression ratio	9:1

CRANKSHAFT AND CON. RODS

	Main Bearings		Crankpins
Diameter	2.0005-2.001in		1.6255-1.6250in
	Front & Inter.	Rear	
Length	.995-1.055in	1.2995-1.2975in	.9085-.9886in
Running clearance: main bearings big ends			.0005-.0002in .0005-.002in
End float: main bearings big ends			.004-.011in .0025-.0086in
Undersizes			.010, .020, .030in
No. of teeth on starter ring gear/ pinion			117/9

PISTONS AND RINGS

Clearance (skirt)			.0024in
Oversizes			.010-.020-.030in
Gudgeon pin: diameter			.8123-.8125in
fit in piston			floating
fit in con. rod			interference fit 10lb.ft
	Compression	Oil Control	
No. of rings	2	1	
Gap (fitted)	.012-.022in	.099-.019in	
Side clearance in grooves	.0015-.0035in	.0015-.0035in	
Width of rings:			
Top	.0620-.0625in	—	
2nd	.0615-.0625in	.1553-.1563in	

CAMSHAFT

Bearing journal: diameter	1.9654-1.9649in
Bearing clearance	.0026-.0048in
End float	.0035-.0085in
Timing chain: pitch	.375in
no. of links	62

VALVES

	Inlet	Exhaust
Head diameter	1.308-1.304in	1.172-1.168in
Stem diameter	.310-.311in	.310-.3105in
Face-angle	45°	45°
Spring length: free	1.67in	
fitted load	117lb	
No. of coils	6	

SPECIAL TOOLS

	Part No.
ENGINE	
Valve spring compressor	S 130
GEARBOX	
Extension bush remover and replacer	S 107
Layshaft aligning mandrel	S 110
Speedo drive and oil thrower removal and replacing ring (for use with Handpress S 4221A)	S 117
REAR AXLE	
Differential case spreader	S 101
Diff. bearing remover adaptors	S 102
Pinion bearing setting gauge	S 108
Pinion preload gauge	20S M98
Oil seal remover	S 122
Hub bearing remover and replacer	S 4221A/6
Inner axle shaft bearing remover and replacer	S 4221A/7
Hub needle roller bearing remover and replacer	S 300
FRONT SUSPENSION	
Coil spring remover and replacer	S 4221A/S
Multi-purpose handpress	S 4221/A
Drop arm drawer	S 121

NUT TIGHTENING TORQUE DATA

	Bolt size (in)	lb. ft
ENGINE		
Main bearing caps	$\frac{7}{16}$	55-60
Cylinder head studs	$\frac{1}{2}$	38-42
Flywheel	$\frac{1}{2}$	42-46
Con-rod bolts	$\frac{1}{2}$	42-46
GEARBOX		
Clutch cylinder attachment	$\frac{3}{8}$	14-18
Clutch fork attachment	$\frac{1}{2}$	14-18
FRONT SUSPENSION		
Sub axle to verticle link	$\frac{1}{2}$	55-60
Tie rod ends	$\frac{1}{2}$	28-28
Suspension mounting to sub-frame	$\frac{1}{2}$ -20	28-30
REAR AXLE		
Bearing caps	$\frac{3}{8}$	32-34
Crownwheel attachment	$\frac{1}{2}$	22-24
Pinion flange	$\frac{1}{2}$	60-80
Hubs	$\frac{1}{2}$	110

BALL AND ROLLER BEARING DATA

	Int. dia. Ext. dia., Width (in. or mm)	Type
Note.—Upper limits only quoted.		
GEARBOX Mainshaft (front)	1.0002 x 2.4995 x .750in	B
(centre)	1.0002 x 2.4995 x .750in	B
(rear)	.7502 x 1.8742 x .5625in	B
REAR AXLE Hubs	1.0002 x 2.2497 x .625in	B
Diff. housing	1.2566 x 2.4416 x .7525in	TR
Pinion head	1.0006 x 2.6881 x .8676in	TR
Pinion tail	.7506 x 1.256 x .8575in	TR
FRONT SUSPENSION Hubs (inner)	1.0006 x 2.0006 x .557in	TR
(outer)	.6255 x 1.6256 x .578in	TR

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 7 psi. Normal run-

ning pressure 60 psi. Full flow filter fitted.

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

Ignition

Coil, distributor incorporates auto and centrifugal advance mechanism. Distributor drive is taken from camshaft and helical gear at upper end has an offset slot for location of dogs on distributor drive shaft. When timing after reassembly of

oil pump and drive gears, correct position of distributor drive gear is obtained when smaller "half moon" formed by slot in gear is uppermost and slot is in direct line with centre hole of oil filter boss, and engine is set for TDC No. 1 cylinder firing.

Cooling System

Pump and fan. Non-adjustable wax thermostat retained in outlet port of pump body by outlet elbow. Fan belt adjustment pro-

vided by swinging dynamo unit. Correctly adjusted belt has $\frac{3}{4}$ in play in longest run.

TRANSMISSION

Clutch

Borg and Beck single dry plate diaphragm type, hydraulically operated through sealed ball race release bearing. Actuating cylinder mounted to bulkhead and connected to slave cylinder, mounted on bellhousing, by pressure hose. Access to clutch unit after removal of gearbox. This type of clutch unit must not be dismantled for any reason. Should a fault be traced to a clutch unit in service a replacement must be fitted.

Gearbox

Four-speed synchromesh engagement on second, third and top gears. Centre, remote control lever operating through selector mechanism in gearbox.

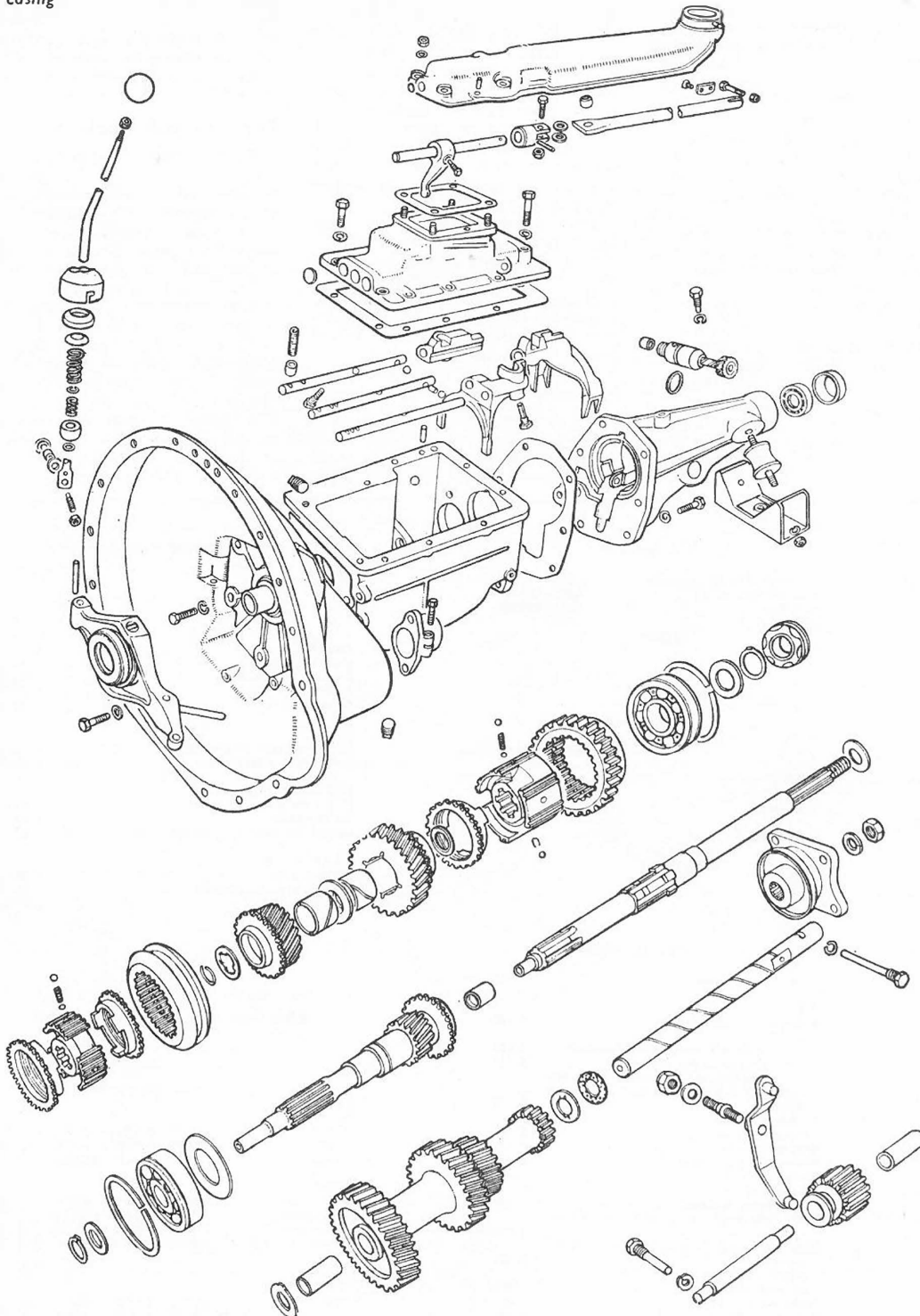
Removal

Proceed as detailed in engine section, for removal with power unit. To remove gearbox by itself, take out floor coverings and take off cover. Disconnect front end of propeller shaft, remove speedometer cable and undo clutch operating cylinder, retaining pinch bolt, detach slave cylinder, tying up out of way. Place a suitable jack or support under engine, remove bellhousing bolts, release starter motor mounting bolts. Disconnect engine/gearbox rear mounting, cradle may also be removed if required. Raise rear of engine slightly, draw gearbox back and manoeuvre up and out into car.

To dismantle gearbox, remove nut retaining shaft flange and six setscrews and two bolts securing cover assembly and take off cover and gasket. Take off clutch actuating mechanism from gearbox and companion flange from the rear, withdraw six setscrews and one long bolt securing tail extension housing to main gearbox. Detach extension, remove speedometer cable attachment union, withdraw drive shaft and nylon driven gear. Eject reverse idler pinion rearwards. Remove locking pin and reverse pinion idler shaft, and remove operating lever with pivot pin. Take off clutch housing. Remove layshaft locking pin and drive out layshaft to rear. Extract primary shaft together with ball race, using special tool No. 20SM66B. Drift out mainshaft to rear until rear bearing is clear of housing and tip up shaft to extract third and top synchromesh unit and third speed synchromesh cup. Note: longer boss on hub faces forward. Extract circlip securing third speed mainshaft gear and withdraw mainshaft rearwards, taking off mainshaft gear cluster. Note: In removing mainshaft gears it is possible that three loading balls and springs in second speed synchro, sleeve will become displaced when second gear is engaged and not restrained by fork. Take out rear layshaft thrust washer, and remove layshaft.

To dismantle top and third or second speed synchromesh units, press inner splined hubs out of outer members, taking care to catch

Parts of the gearbox, showing gear trains, selector mechanism, clutch release mechanism and gear-casing



GENERAL DATA

Wheelbase	6ft 11in
Track: front	4ft 1in
rear	4ft
Turning circle	24ft
Ground clearance	5in.
Type size	5.20S—13
	14S—13 Radial
	ply optional
Overall length	12ft 3in
Overall width	4ft 9in
Overall height (unladen) hood up	3ft 11.5in
hood down	3ft 8.5in
Weight (dry)	14 cwt
Max. gross laden weight	17.75 cwt

PROPELLER SHAFT

Type	tubular open, needle roller bearing
FINAL DRIVE	
Type	hypoid bevel
Crownwheel/bevel pinion teeth ratio	4.11: 1

FRONT-END SERVICE DATA

Castor	3° pos.
Camber	2° pos.
King pin inclination	6½°
Toe-in	½-¾ in toe in
No. of turns to lock	3½
Adjustments: castor } camber } toe-in }	shims on lower ends of wishbones screwed tie-rod ends

SPRINGS

	Front*	Rear
Length (eye centres, laden)	—	40.88-41.13in
Width	—	1.75in
Colour identity	green paint strip	—
No. of leaves	—	7
Free camber (length, coil)	12.59in	1.03-1.29in
Loaded camber (length, coil) at load	7.80in. ± .09in @ 718lb.	1.53in neg ± .13in. @ 1420lb.

*Alternative spring (blue paint marked). Free length: 12.21in. Length at load: 7.42in. ± .09in @ 718lb.

GEARBOX

Type	Constant mesh synchromesh 2nd, 3rd, top 4
No. of speeds	15.4: 1
Final ratios: 1st	8.37: 1
2nd	5.73: 1
3rd	4.11: 1
4th	15.4: 1
rev.	

STEERING BOX

Make	Alford & Alder
Type	rack and pinion
Adjustments	shims
column end float } cross shaft end float }	shims under plunger screwhead

BRAKES

Type	Hydraulic
Make	Girling
Drum diameter	7in
Disc diameter	9in
	Front
Disc run-out (max.)	.004in
Lining: length	6¾in
width	1½in
thickness	¾in
Material	Don 55 Ferodo MS1

SHOCK ABSORBERS

Make	Armstrong
Type	telescopic linking
Service	replacement

balls and springs as they are released. To dismantle main shaft assembly, remove large circlip from annular groove in mainshaft ball race, press off speedometer driving gear and remove ball race locating circlip, which also releases washer. Place shaft under press and remove ball race.

To reassemble gearbox reverse process of dismantling, taking care to replace and renew all gaskets, jointing material. Overall end float of main shaft gears on bushes is specified as .002in-.006in and lower limit is permissible allowing for an overall float on gear cluster of .004-.012in. If new laygear is fitted end float should be checked between floating washer and stationary thrust washer at .0015-.0125in. If end float is excessive, thrust washer should be selected from top end of these limits.

Rear Axle

Hypoid bevel swing axle. Drive is transmitted to rear road wheels via short 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, undo drive shaft flanges and main propeller shaft rear flange; remove damper attachments and lower jacks under suspension to release spring pressure. Remove exhaust pipe and silencer from car. Disconnect hydraulic and brake connections. Remove panel from floor inside car and undo six nuts on rear spring retaining plate, and remove plate. 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 of 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 ½ 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 70 lb. ft torque. Note: addition or subtraction of a shim of .001in 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 .003in. 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-.006in. When replacing 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. ½ 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 type 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 dis-

mantled for individual part service.

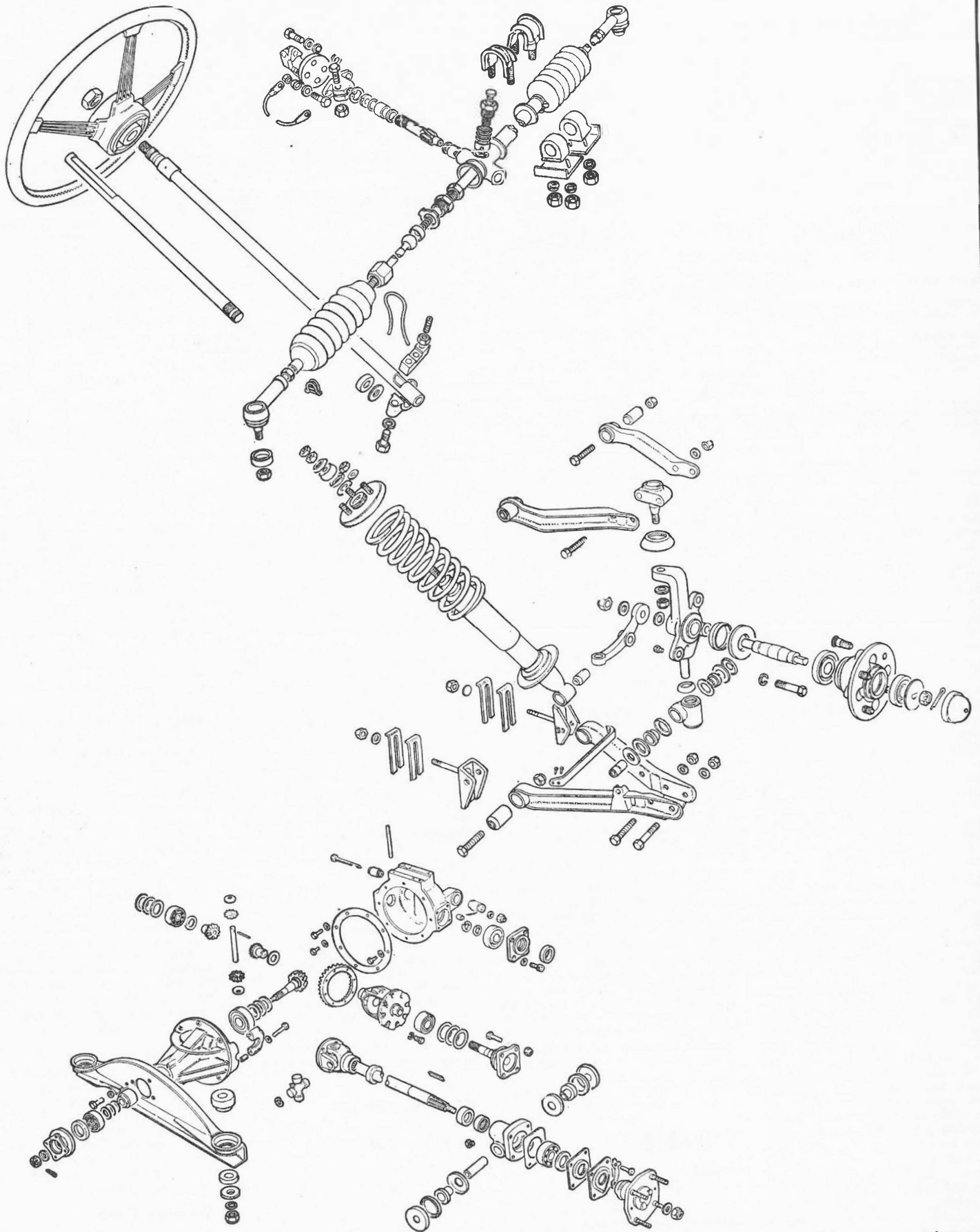
Upper end of each vertical link terminates in ball pin working in a sealed ball socket bolted between both arms of upper wishbone. Lower end of each vertical link is threaded and works in bronze swivel housing. Securing bolt passes through outer ends of lower fulcrum, steel sleeve and phosphor-bronze 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.



Parts of the front suspension, steering and rear axle assemblies

Lamps	Model	Part No.	Voltage	Wattage	Cap
Head R.H.D. Dip, left	F700	59103D	12	60/59	Sealed Beam
Export Europe (except countries stated)	F700	59104D	12	45/40	Unified
Export France	F700	59167D	12	45/40	European
Export Sweden	F700	59758A	12	45/40	Unified
Export N.A.D.A.	F700	59337B	12	50/40	Sealed Beam
Side/flasher { Amber	677	52866A	12	21/6	SCC/MCC
Clear	677	52867A	12	21/6	8CC/MCC
Rear Flasher { Amber	672	54138A	12	21/6	SBC Off. Pin
Red	760	54495A	12	21	SCC
Number Plate	780	54520A	12	21	SCC
Number Plate, N.A.D.A. {	467-2	53093K	12	6	MCC
Reverse	467-2	53836F	12	6	MCC
Panel { and Speedo Bulbholder	594	52345B	12	21	SCC
and Temp. Gauge Bulbholder		554734			
Ignition warning (Bulbholder)		54944812			
Main beam warning (Bulbholder)		319408			
Flasher warning (Shade and Window) (Bulbholder)	WL13	54360552			
Oil warning (Bulbholder)		863511			
		319408			

SUNDRY EQUIPMENT	Model	Part No.
Wiper arm, RHD	—	54715784
Wiper arm, LHD	—	54715785
Wiper blade	—	54711281

SWITCHES	Model	Part No.
Ignition/starter	478A	31873J
Starter solenoid	28T	76464H
Master and H/L Flasher	578A	34477A
RHD	1028A	35778A
and H/L Flasher	1028A	35779A
LHD	—	54336440
Knob for Master Sw.	—	35774A
Direction indicator	1258A	34460A
Reverse lamp	SS10	34316A
Wiper { Switch	PS7-2	54334501
Knob	—	33577B
Steering column control	CC9	54301407
Steering column control brush	—	34555D
Horn isolating (Ex. France)	658A	34555D
Heater (Optional)	658A	34555D

TUNE-UP DATA	
Firing order	1-3-4-2
Rocker clearance (cold): inlet	.010in
exhaust	.010in
Valve timing: inlet opens	18° BTDC
inlet closes	58° ABDC
exhaust opens	58° BBDC
exhaust closes	18° BTDC
Standard ignition timing (97 octane fuel)	6° BTDC
Location of timing mark	pointer of timing case cover, hole in pulley at nose of crankshaft
Plugs: make	Champion
type	N.9.Y
size	14 mm.
gap	.025in (.64mm)
Carburettor: make	8.U.
type	H.S.2
number	2
Settings: needle size	B.O.
Air cleaner:	twin replaceable elements
Fuel pump: make	AC
type	mechanical
pressure	1½-2½ psi

LUCAS EQUIPMENT	
BATTERY	
*D9 (Home)	54028971
*DZ9 (Dry Charged, Export)	54028973
Model GVZ9A (Export, Canada)	54828447
GENERATOR	
Model C40-1	Part No. 22700L
CONTROL BOX	
Model RB340	Part No. 37344H
STARTING MOTOR	
Model M35G-1	Part No. 25079H
Drive Assy. SB Type	54254043
IGNITION COIL	
Model HA12	Part No. 45132D
Primary resistance 3-3.4 ohms	
Running current at 1,000 r.p.m. 1.2 amp	
WINDSCREEN WIPER	
Model DR3A	Motor Part No. 75528A
HORN(S)	
Model 9H	Part No.(s) 54068079 (H Note)
	54068078 (L Note)
Type: Windtone	
Current consumption 3.5-4 amp	
FLASHER UNIT	
Model FL5	Part No. 35011A
FUSE UNIT	
Model 8FJ	37520A
Fuse ratings 35A	

TRANSMISSION UNITS	Model	Part No.
LAYCOCK		
Control switch { RHD	90SA	34986A
LHD	90SA	34985A
Transmission gear solenoid	118	76522H
Interuption switch	SS10	31849A
Relay	6RA	33213E

Footnotes

*Suitable Lucas replacement

†Optional

‡Other items to complete wiping equipment are as follows

Wheelbox—72774A

Rack (32½in)—743221

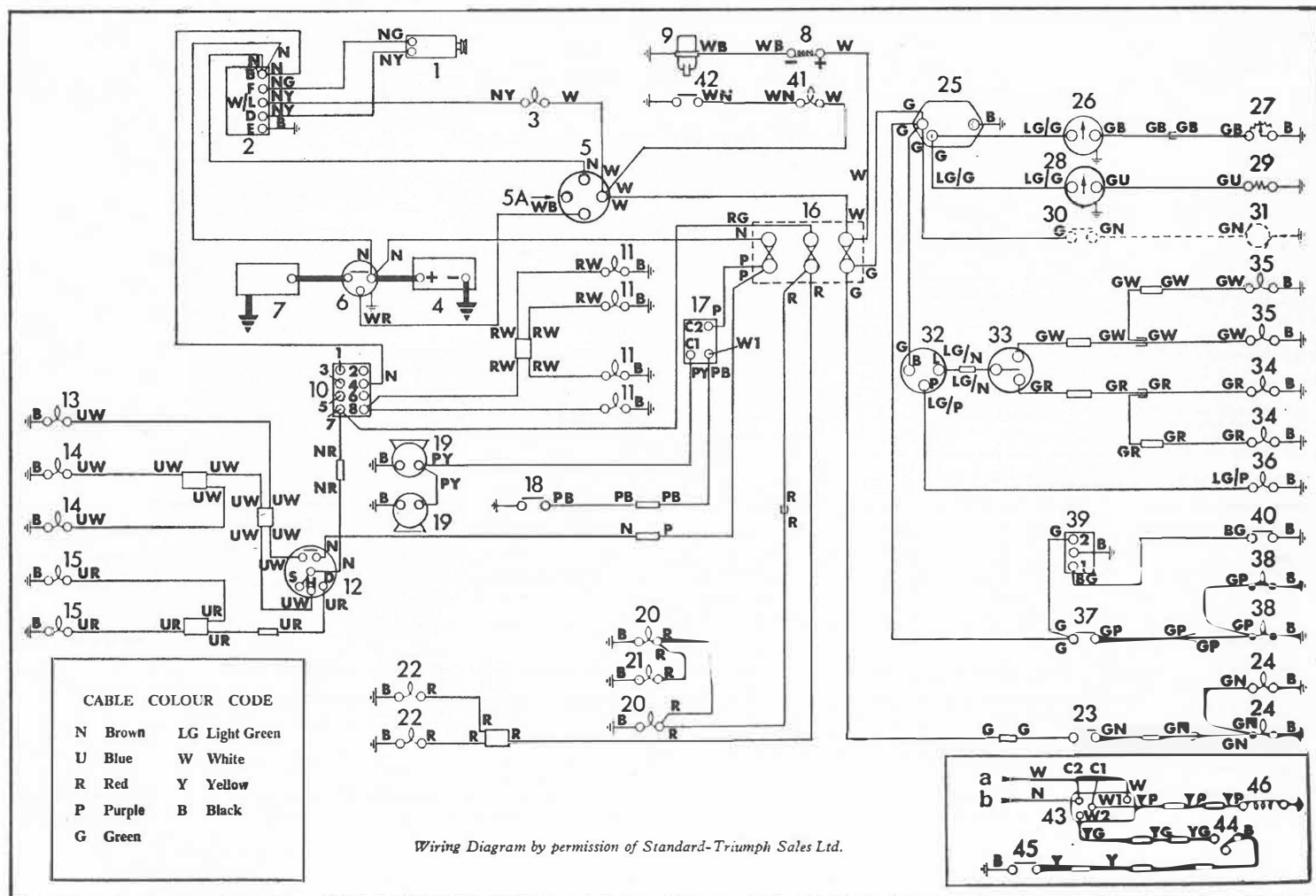
Grommet—745031

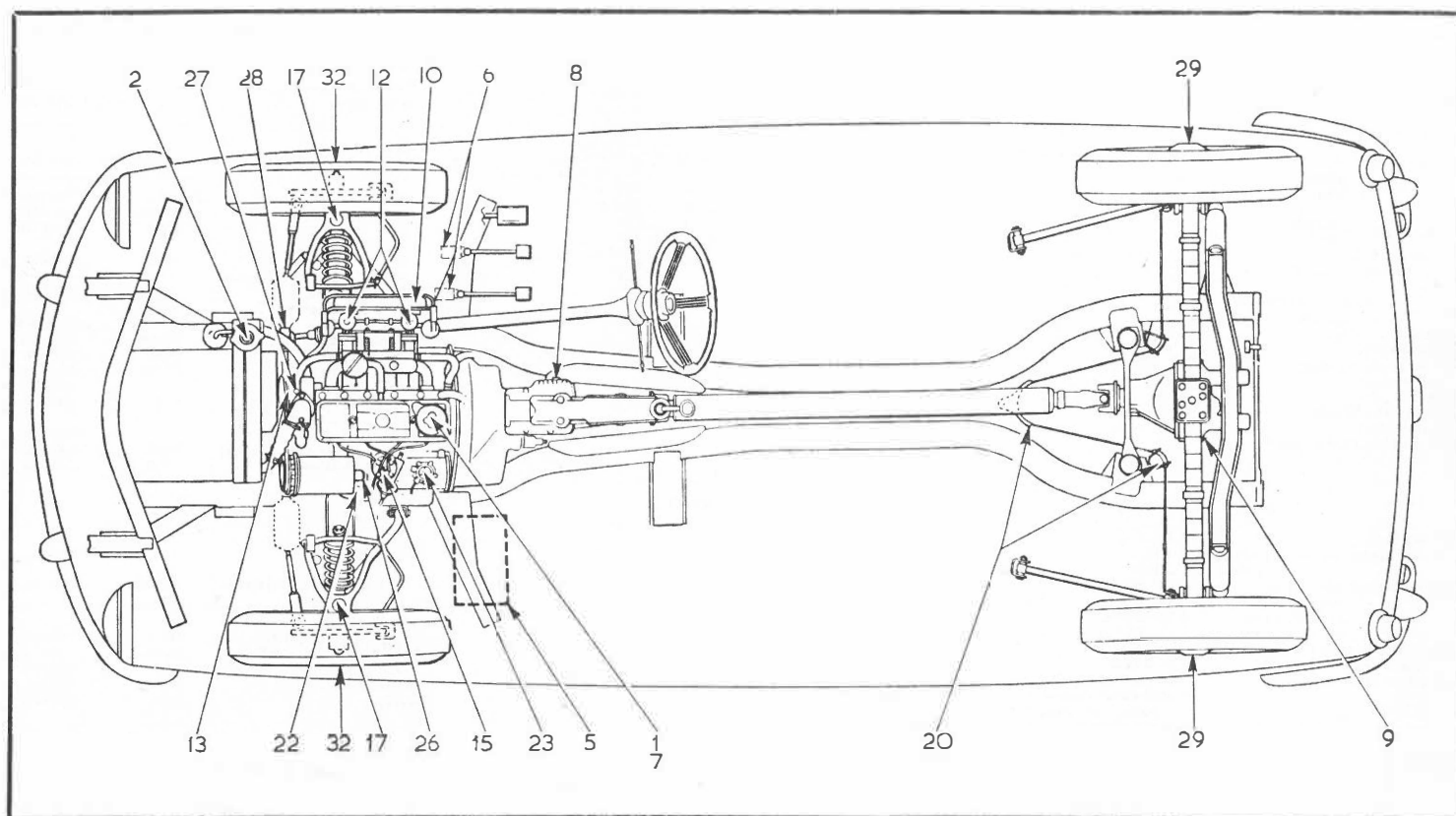
Motor to Wheelbox—54716430

Outer Casing { Wheelbox to Wheelbox—54716740

Short, wheelbox—740746

§Used with Bulb No. 987 12v 2.2w Mes Cap





KEY TO MAINTENANCE DIAGRAM

WEEKLY

1. Engine sump
 2. Radiator
 3. Screenwasher
 - *4. Tyres—check pressures when cold
- } check and top up

MONTHLY

5. Battery
 6. Clutch and Brake master
- } check and top up cylinders

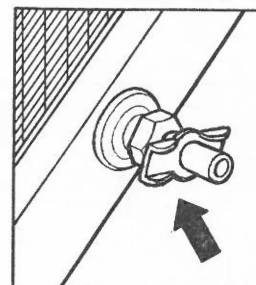
EVERY 6,000 MILES (additional to periodic checks)

7. Engine sump—drain and refill
8. Gearbox/overdrive
9. Rear axle
10. Air cleaners—remove elements and de-dust
- *11. Valve rocker clearances—check (see "Tune-up Data")
12. Carburettor piston dampers—check and top up (Engine oil)
13. Fan belt tension—check ($\frac{1}{2}$ -in.)
- *14. Sparking plugs—clean and reset
15. Distributor—clean and reset contact points (.015in.) oil auto. advance mechanism, contact breaker pivot, smear cam with grease
16. Engine oil filler cap—clean
17. Steering lower swivels—remove blanking plugs, fit nipples and lubricate with hypoid oil
- *18. Brake pads and shoes—check and adjust, renew if necessary
- *19. Clutch and brake hoses—examine for leakage and renew defective hoses
20. Handbrake cable guides—grease
- *21. Door locks, hinges, catches, etc.—oil can

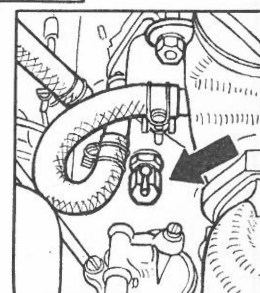
EVERY 12,000 MILES (as for 6,000 miles plus following)

22. Engine oil filter element—renew
23. Fuel pump—clean
- *24. Sparking plugs—renew
- *25. Crankcase breather valve—clean components in meths
26. Generator rear bearing—few drops oil
27. Water pump } remove blanking plug, fit nipple,
28. Steering unit } apply grease gun (five strokes only)
29. Rear hubs—remove plug, fit nipple, apply grease gun until grease exudes from bearing
- *30. Rear brakes—remove drums, de-dust, renew shoes if necessary
- *31. Front brake pads—check condition, renew if necessary (min. pad thickness $\frac{1}{16}$ in)
32. Front hubs—strip, clean and repack with grease, check end-float

DRAINING POINTS



Left: shows the radiator matrix drain tap, accessible from above or below.



Right: the cylinder block drain tap.

FILL-UP DATA	Pints	Litres
Engine sump	8	4.5
Gearbox	1.5	.85
Gearbox and overdrive	2.38	1.35
Rear axle	1	.57
Cooling system	7	4
Cooling system & heater	8	4.5
Fuel tank	8.25 gals	37.6
Tyre pressure: front		
(radials) front	18psi (1.26kg/cm ²)	
rear	24psi (1.69 Kg/cm ²)	
	21psi (1.47Kg/cm ²)	
	26psi (1.83 Kg/cm ²)	

APPROVED LUBRICANTS

Component	Mobil	Shell	Esso	B.P.	Castrol	Duckhams'	Petrofina
Engine Carburettor Dashpot Oil Can	Mobiloil Special 10W/30 or Mobiloil Super SAE 10W/40	Super Motor Oil	Extra 10W/30	Super Visco-Static 10W/40	Castrolite	Q20/50	Fina Multigrade Motor Oil SAE 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	Energrense L2	Castrollease LM	LB10 Grease	Fina Marson HTL2

Approved Anti-Freeze Solutions:—Smith's Bluecol B.P. Anti-Frost, Castrol, Duckhams, Esso, Mobil Permazone, Fina Thermidor, Regent PF, Shell

Clutch and Brake Fluid Reservoir:—Castrol Girling Brake and Clutch Fluid.

Where this proprietary brand is not available, other fluids to S.A.E. 7083 specification may be used.

NOTE: Similar grades of Regent lubricant are also recommended.