

TR6

REPAIR OPERATION MANUAL

PUBLICATION PART NUMBER 545277/E2

Issued by the
SERVICE DIVISION

** TRIUMPH MOTORS BRITISH LEYLAND UK LIMITED **

ISBN 1 869826 132

A MEMBER OF THE BRITISH LEYLAND MOTOR CORPORATION

CONTENTS

General Specification Data	04
Engine Tuning Data	05
Torque Wrench Settings	06
Recommended Lubricants, Fuel and Fluids—Capacities	09
Maintenance	10
Engine	12
Anti-Pollution System	17
Fuel System	19
Cooling System	26
Manifold and Exhaust System	30
Clutch	33
Gearbox	37
Overdrive **‘A’ Type	40A
‘J’ Type	40J **
Propeller and Drive Shafts	47
Rear Axle and Final Drive	51
Steering	57
Front Suspension	60
Rear Suspension	64
Brakes	70
Wheels and Tyres	74
Body	76
Heating and Ventilation	80
Windscreen Wipers and Washers	84
Electrical	86
Instruments	88
Service Tools	99



INTRODUCTION

The purpose of this manual is to assist skilled mechanics in the efficient repair and maintenance of British Leyland vehicles. Using the appropriate service tools and carrying out the procedures as detailed will enable the operations to be completed in the time stated in the 'Repair Operation Times'.

Indexing

For convenience, the manual is divided into a number of divisions. Page 01-3 lists the titles and reference number of the various divisions.

A list of the operations within each division appears in alphabetical order on the page preceding each division.

Operation Numbering

A master index of numbered operations has been compiled for universal application to all vehicles manufactured by the British Leyland Motor Corporation and, therefore, because of the different specifications of various models, continuity of the numbering sequence cannot be maintained throughout this manual.

Each operation described in the manual is allocated a number from the master index and cross-refers with an identical number in the 'Repair Operation Times'. The number consists of six digits arranged in three pairs.

Each instruction within an operation has a sequence number and, to complete the operation in the minimum time, it is essential that the instructions are performed in numerical sequence commencing at 1 unless otherwise stated. Where applicable, the sequence numbers identify the relevant components in the appropriate illustration.

Emission Control Equipment

With the exception of Section 17, all remaining sections of this manual relate to basic vehicles not fitted with *anti-pollution* equipment. Where an operation is affected by the presence of this equipment, refer also to Anti-pollution (Section 17).

Service Tools

Where performance of an operation requires the use of a service tool, the tool number is quoted under the operation heading and is repeated in, or following, the instruction involving its use. An illustrated list of all necessary tools is included in section 99.

References

References to the left- or right-hand side in the manual are made when viewing from the rear. With the engine and gearbox assembly removed, the 'timing cover' end of the engine is referred to as the front. A key to abbreviations and symbols is given on page 01-5.

Amendments

Revised and additional procedures resulting from changes in the vehicle specifications will be issued as revised or additional pages.

The circulation of amendments will be confined to Distributors and Dealers of British Leyland Motor Corporation Limited.

REPAIRS AND REPLACEMENTS

When service parts are required it is essential that only genuine British Leyland Stanpart or Unipart replacements are used.

Attention is particularly drawn to the following points concerning repairs and the fitting of replacement parts and accessories.

Safety features embodied in the car may be impaired if other than genuine parts are fitted. In certain territories, legislation prohibits the fitting of parts not to the vehicle manufacturer's specification. Torque wrench setting figures given in the Repair Operation Manual must be strictly adhered to. Locking devices, where specified, must be fitted. If the efficiency of a locking device is impaired during removal it must be renewed. Owners purchasing accessories while travelling abroad should ensure that the accessory and its fitted location on the car conform to mandatory requirements in their country of origin.

The car warranty may be invalidated by the fitting of other than genuine British Leyland parts. All British Leyland Stanpart or Unipart replacements have the full backing of the factory warranty.

British Leyland Distributors and Dealers are obliged to supply only genuine service parts.

ABBREVIATIONS AND SYMBOLS

Across flats (bolt size)	A.F.	Millimetres	mm
After bottom dead centre	A.B.D.C.	Millimetres of mercury	mmHg
After top dead centre	A.T.D.C.	Minimum	min.
Alternating current	a.c.	Minus (of tolerance)	
Amperes	amp	Minute (of angle)	
Ampere-hour	Ah		
Atmospheres	Atm	Negative (electrical)	-
		Newton metres	Nm
Before bottom dead centre	B.B.D.C.	Number	No.
Before top dead centre	B.T.D.C.		
Bottom dead centre	B.D.C.	Ohms	ohm
Brake horse-power	b.h.p.	Ounces (force)	ozf
Brake mean effective pressure	b.m.e.p.	Ounces (mass)	oz
British Standards	B.S.	Ounce inch (torque)	ozf in
		Outside diameter	o.dia.
Carbon monoxide	CO	Overdrive	O/D
Centigrade (Celsius)	C		
Centimetres	cm	Paragraphs	para.
Cubic centimetres	cm ³	Part Number	Part No.
Cubic inches	in ³	Percentage	%
Cycles per minute	c/min	Petrol Injection	P.I.
		Pints (Imperial)	pt
Degree (angle)	deg. or °	Pints (U.S.)	U.S. pt
Degree (temperature)	deg. or °	Plus or minus	±
Diameter	dia.	Plus (tolerance)	+
Direct current	d.c.	Positive (electrical)	+
		Pounds (force)	lbf
Fahrenheit	F	Pounds (mass)	lb
Feet	ft	Pounds feet (torque)	lbf ft
Feet per minute	ft/min	Pounds inches (torque)	lbf in
Fifth	5th	Pounds per square inch	lb/in ²
Figure (illustration)	Fig.		
First	1st	Radius	r
Fourth	4th	Ratio	:
		Reference	ref.
Gallons (Imperial)	gal	Revolutions per minute	rev/min
Gallons (U.S.)	U.S. gal	Right-hand	R.H.
**Grammes (force)	gf	Right-hand steering	R.H.Stg.
Grammes (mass)	g**		
		Second (angle)	"
High compression	h.c.	Second (numerical order)	2nd
High tension (electrical)	h.t.	Single carburetter	SC
Horse-power	hp	Society of Automobile Engineers	S.A.E.
Hundredweight	cwt	Specific gravity	sp. gr.
		Square centimetres	cm ²
Inches	in	Square inches	in ²
Inches of mercury	inHg	Standard	std
Independent front suspension	i.f.s.	Standard wire gauge	s.w.g.
Internal diameter	i.dia.	Synchronizer/synchromesh	synchro.
Kilogrammes (force)	kgf	Third	3rd
Kilogrammes (mass)	kg	Top dead centre	T.D.C.
Kilogramme centimetre	kgf cm	Twin carburetters	TC
Kilogramme metres	kgf m		
Kilogrammes per square centimetre	kg/cm ²	United Kingdom	UK
Kilometres	km		
Kilometres per hour	km/h	Volts	V
Kilovolts	kV		
King pin inclination	k.p.i.	Watts	W
Left-hand	L.H.		
Left-hand steering	L.H.Stg.	Screw threads	
Left-hand thread	L.H.Thd.	American Standard Taper Pipe	N.P.T.F.
Low compression	l.c.	British Association	B.A.
Low tension	l.t.	British Standard Fine	B.S.F.
		British Standard Pipe	B.S.P.
Maximum	max.	British Standard Whitworth	B.S.W.
Metres	m	Unified Coarse	U.N.C.
Microfarad	mfd	Unified Fine	U.N.F.
Midget Edison Screw	MES		
Miles per gallon	m.p.g.		
Miles per hour	m.p.h.		



LOCATION OF COMMISSION AND UNIT NUMBERS

THE COMMISSION NUMBER is the identification number which is required for registration and other purposes. It is stamped on a plate attached to the left hand front wheel arch (not U.S.A.) and is visible when the bonnet is raised. On vehicles for the U.S.A. type markets this plate is attached to the body adjacent to the left hand door striker plate and the Commission Number is also stamped on a small plate visible through the left hand side of the windscreen.

The significance of the Commission Numbers and suffix is as follows:

- CP/CR** this prefix denotes 'TR6' model range *AND* that a Petrol Injection engine unit is fitted.
- CC/CF** is an alternative prefix denoting model range *AND* that a Carburetter engine unit is fitted.
- 1234** – is the accumulated total build of this model.
- L** – denotes left hand steering
(No letter is given to right hand steering models).
- U** – denotes U.S.A. type markets 1972 condition.

The Commission Number plate also bears code symbols for identification of the vehicle's exterior colour, trim material and trim colour. Refer to page 04-6.

THE ENGINE NUMBER is stamped on a machined flange on the left hand side of the cylinder block. The significance of the Engine Numbers and suffix is as follows:

- CP/CR** this prefix denotes model range *AND* that the engine unit is fitted with Petrol Injection.
- CC/CF** is an alternative prefix denoting model range *AND* that the engine unit is fitted with Carburetters.
- 1234** – is the accumulated total build of the type.
- H** – denotes High Compression. Alternatively.
- L** – denotes Low Compression. Alternatively.
- U** – denotes U.S.A. type markets 1972 condition.
- E** – denotes engine unit.

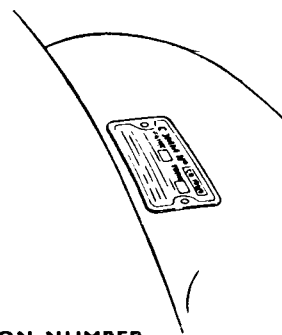
THE GEARBOX NUMBER is stamped on the left hand side of the gearbox casing. The significance of the Gearbox Numbers is as follows:

- CD** – this prefix denotes model range.
- 1234** – is the accumulated build of this type.
There are no suffix letters.

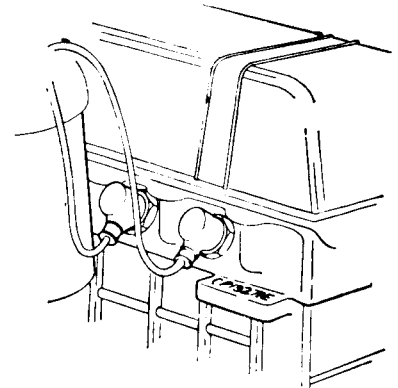
THE REAR AXLE NUMBER is stamped on the bottom flange of the axle housing. The significance of the Axle Numbers is as follows:

- CP/CR** this prefix denotes model range *AND* that the axle unit is for use with Petrol Injection engines.
- CD** – is an alternative prefix denoting model range *AND* that the axle unit is for use with Carburetter engines.
- 1234** – is the accumulated build of the type.
There are no suffix numbers.

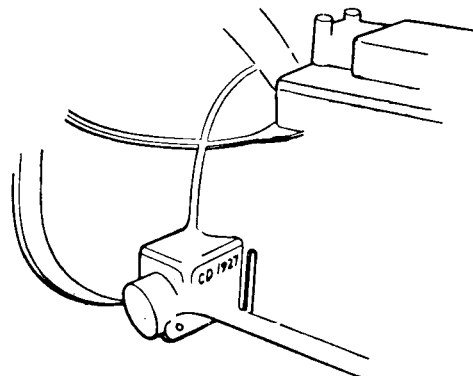
IMPORTANT: In all communications relating to Service and Spares it is essential to quote Commission Number, paint and trim codes and unit numbers (if applicable).



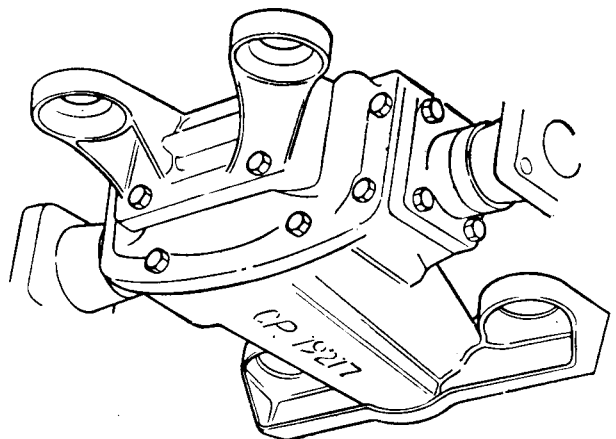
COMMISSION NUMBER



ENGINE NUMBER



GEARBOX SERIAL NUMBER



REAR AXLE NUMBER

AMENDMENTS

To assist in identifying amendments on revised pages two stars (**) will be inserted at the beginning and end of the amended paragraph, section, instruction or illustration.

To ensure that a record of amendments to this manual is available, this page will be re-issued with each set of revised pages. The amendment number, date of issue, appropriate instructions and revised page numbers will be quoted.

Revised pages must be inserted in place of existing pages carrying the same number, and the old pages discarded.

Additional pages or complete major assembly groups may be issued. In such cases the new pages must be inserted immediately following the existing pages carrying the next lowest number

Date	Filing Instructions				Date	Filing Instructions				
	Discard	Issue	Insert	Issue		Discard	Issue	Insert	Issue	
3/73	01.2	1	01.2	2	9/73	76.10.05	1	76.10.05	2	
	01.3	1	01.3	2		99.1	1	99.1	2	
	01.5	1	01.5	2		99.00.06	1	99.00.06	2	
	01.7	1	01.7	2						
	04.1	1	04.1	2		01.7	2	01.7	3	
	04.3	1	04.3	2		04.1	2	04.1	3	
	04.6	1	04.6	2		04.3	2	04.3	3	
	05.1	1	05.1	2		04.5	1	04.5	2	
	06.2	1	06.2	2		06.1	2	06.1	3	
	09.1	1	09.1	2		06.2	2	06.2	3	
	12.17.13 Sheet 3	1	12.17.13 Sheet 3	2		06.4	1	06.4	2	
	12.17.13 Sheet 4	1	12.17.13 Sheet 4	2		09.1	2	09.1	3	
	12.21.26	1	12.21.26	2		12.41.05 Sheet 1	1	12.41.05 Sheet 1	2	
	12.29.18 Sheet 4	1	12.29.18 Sheet 4	2		12.45.05 Sheet 7	1	12.41.05 Sheet 7	1	
	19.1 PI	1	19.1 PI	2		12.60.44	1	12.60.44	2	
	19.20.05 PI Sheet 1	1	19.20.05 PI Sheet 1	2		17.1	1	17.1	2	
	—	—	19.20.05 PI Sheet 5	1		17.20.31	1	17.20.31	2	
	19.20.07 PI	1	19.20.07 PI Sheet 1	2		—	—	17.45.01	1	
	—	—	19.20.07 PI Sheet 2	1		19.20.02C	1	19.20.02C	2	
	19.20.26 PI	1	19.20.27 PI	1		30.15.02 Sheet 2	2	30.15.02 Sheet 2	3	
	19.35.01 PI	1	19.35.01 PI Sheet 1	2		33.25.12	1	33.25.12	2	
	—	—	19.35.01 PI Sheet 2	1		—	—	40.00.06 J	1	
	19.40.00 PI	1	19.40.00 PI	2		—	—	40.00.08 J	1	
	19.1 C	1	19.1 C	2		—	—	40.00.10 J	1	
	26.30.31	1	26.30.31	2		—	—	40.00.12 J	1	
	30.1	1	30.1	2		51.25.19 Sheet 2	1	51.25.19 Sheet 2	2	
	30.10.01	1	30.10.01	2		76.1	1	76.1	2	
	30.15.01	1	30.15.01	2		76.10.02 Sheet 2	1	76.10.02 Sheet 2	2	
	30.15.02 Sheet 2	1	30.15.02 Sheet 2	2		76.22.15	1	76.22.15	2	
	—	—	30.15.15	2						
	37.12.19 Sheet 3	1	37.12.19 Sheet 3	2		**				
	37.16.01	1	37.16.01	2		3/74	01-5	2	01-5	3
	37.20.04 Sheet 6	1	37.20.04 Sheet 6	2			01-7	3	01-7	4
40.10.01 A	1	40.10.01 A	2		04-1	3	04-1	4		
40.16.10 A	1	40.16.10 A	2		05-1	2	05-1	3		
—	—	Section 40J	1		06-4	2	06-4	3		
51.25.19 Sheet 6	1	51.25.19 Sheet 6	2		09-1	3	09-1	4		
57.60.01	1	57.60.01	2		12.29.18 Sheet 3	1	12.29.18 Sheet 3	2		
76.3	1	76.3	2		12.29.18 Sheet 4	2	12.29.18 Sheet 4	3		
					12.53.03	1	12.53.03	2		
					37.12.01	1	37.12.01	2		
					37.12.04	1	37.12.04	2**		



Date	Filing Instructions				Date	Filing Instructions			
	Discard	Issue	Insert	Issue		Discard	Issue	Insert	Issue
** 3/74	37.20.01 Sheet 1	1	37.20.01 Sheet 1	2					
	37.20.01 Sheet 2	1	37.20.01 Sheet 1	2					
	64.15.14 Sheet 1	1	64.15.14 Sheet 1	2					
	74.10.00 Sheet 1	1	74.10.00 Sheet 1	2					
	76.10.05	2	76.10.05	3					
	76.22.08	1	76.22.08	2					
	86.35.15 Sheet 2	1	86.35.15 Sheet 2	2 **					



ENGINE

Number of cylinders	. . . . .	6 in line
Bore of cylinders	. . . . .	2.94 in (74.7 mm)
Stroke of crankshaft	. . . . .	3.74 in (95 mm)
Capacity	. . . . .	152 in ³ (2498 cm ³)

PETROL INJECTION

Compression ratio	9.5:1
-------------------	-------

CARBURETTER/U.S.A. MARKET

**7.5:1	— 1974 Models
7.75:1	— 1972/73 Models**
8.50:1	— Pre 1972 Models

LUBRICATION

Oil pump	. . . . .	High capacity eccentric lobe type
Oil filter	. . . . .	Full flow type, replaceable element
Oil warning light	. . . . .	Extinguishes at 3 to 5 lbf/in ² (0.21 to 0.35 kgf/cm ²) oil pressure

COOLING SYSTEM

Type	. . . . .	Water, "No Loss" system
Circulation	. . . . .	By impellor type pump, Vee belt drive
Pressure	. . . . .	13 lbf/in ² (0.91 kgf/cm ²)
Thermostat	. . . . .	Opens at 82°C (180°F) normal climate 88°C (190°F) cold climate

FAN

1974/1973 models (all)	. . . . .	13 blades 14½ in (368 mm) dia.
1972 models P.I.	. . . . .	7 blade 12½ in (318 mm) dia.
Carb.	. . . . .	13 blade 14½ in (368 mm) dia.
1971 models (all)	. . . . .	7 blade 12½ in (318 mm) dia.
Pre 1971 models (all)	. . . . .	8 blade 12½ in (318 mm) dia.

FUEL SYSTEM

Tank	. . . . .	Tank at rear	Tank at rear
Pump	. . . . .	Electric lift pump in luggage compartment	1971 only — with separate overflow tank Mechanically operated diaphragm type on engine
Metering Distributor	. . . . .	Lucas	
Carburetter	1974/1973 Model	. . . . .	2 Stromberg 175 CDSEV sidedraught
	1972 Model	. . . . .	2 Stromberg 175 CDSE sidedraught
	1971 Model	. . . . .	2 Stromberg 175 CD-2-SE sidedraught
	Pre 1971 Model	. . . . .	2 Stromberg 175 CDSE sidedraught
Air cleaner	. . . . .	Combined air cleaner and silencer with replaceable element	} Exhaust Emissions Controlled
Crankcase ventilation	1974/73/72/71 Models	} Closed circuit breathing from rocker cover to air collector manifold		Valveless closed circuit breathing from rocker cover to constant depression side of carburetters.
	Pre 1971 Models			Closed circuit breathing through one-way valve to inlet manifold
Evaporative emission control.	From 1971 Models		Sealed tank filler cap. Vapour emissions from the tank are vented, — 1974/73/72 Models: via a separator canister — 1971 Model: via the overflow tank to a charcoal canister located in the engine compartment. Canister is purged by carburetter depression. Not applicable
	Pre 1971 Models		



GENERAL SPECIFICATION DATA

CLUTCH

Make/type Laycock
 Release mechanism Hydraulically operated
 Plate diameter 8½ in. (216 mm)

GEARBOX

Manual

Synchromesh On forward gears
 O/D Top Top O/D 3rd 3rd O/D 2nd 2nd 1st Rev.
 'J' 'A'
 Gear Ratios — — 1.00 — — 1.39 — 2.10 2.99 3.37
 Overall ratios Petrol Injection 2.75 2.83 3.45 3.83 3.76 4.78 5.69 7.25 10.33 11.62
 Carb/U.S.A. Market 2.95 3.03 3.70 4.11 4.03 5.13 6.10 7.77 11.08 12.47

Overdrive (where fitted)

From Comm. No. CR567/CF1U Up to Comm. No. CR567/CF1U
 Make/type Laycock Type J Laycock Type A
 Operative on Top and 3rd gears Top, 3rd and 2nd gears
 Overall ratios 0.797:1 0.82:1

FINAL DRIVE

Type Hypoid bevel gears in rear axle
 Ratio Petrol Injection 3.45:1
 Carb/U.S.A. Market 3.70:1

EFFECTIVE GEARING

Engine speeds (rev/min) at road speeds of:

		O/D Top	Top	O/D 3rd	3rd	O/D 2nd	2nd	1st	Rev.		
		'J'	'A'	'J'	'A'	'A' only					
10 m.p.h.	Petrol Injection	376	386	471	523	514	654	777	990	1412	1516
	Carb/U.S.A. Market	383	395	482	532	526	667	795	1009	1438	1552
10 km/h	Petrol Injection	235	240	292	325	319	406	482	621	878	952
	Carb/U.S.A. Market	240	245	300	331	327	414	494	627	893	975

ROAD SPEED DATA

Road speed at 1,000 rev/min engine speed:

O/D Top	Petrol Injection	26.6 m.p.h. (42.8 km/h)	} 'J' type	26.9 m.p.h. (43.3 km/h)	} 'A' type
	Carb/U.S.A. Market	26.1 m.p.h. (42 km/h)		25.1 m.p.h. (40.4 km/h)	
Top Gear	Petrol Injection	21.2 m.p.h. (34.2 km/h)			
	Carb/U.S.A. Market	20.7 m.p.h. (33.4 km/h)			

Road speed at 2,500 ft/min piston speed

Top gear	Petrol Injection	85 m.p.h. (137 km/h)
	Carb/U.S.A. Market	83 m.p.h. (134 km/h)

STEERING

Make/type Alford and Alder, Rack and pinion
 Turning Circle 1974/73/72/71 Models 34 feet (10.4 metres)
 Pre 1971 Models 33 feet (10.1 metres)
 Steering wheel diameter 1974/1973 Models** 14½ in. (368 mm)
 Pre 1973 Models 15 in. (381 mm) } Turns lock to lock 3¼

BRAKE SYSTEM

Operation:
 Foot pedal Hydraulic on all four wheels
 Tandem master cylinder operates on front and rear brakes independently
 Handbrake Mechanical on rear wheels only.

Front

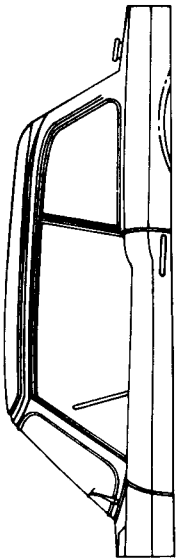
Type Caliper disc
 Dimensions Disc diameter 10.875 in. (276 mm)
 Lining area 20.7 in² (133.6 cm²)
 Swept area 233.0 in² (1500 cm²)

Rear

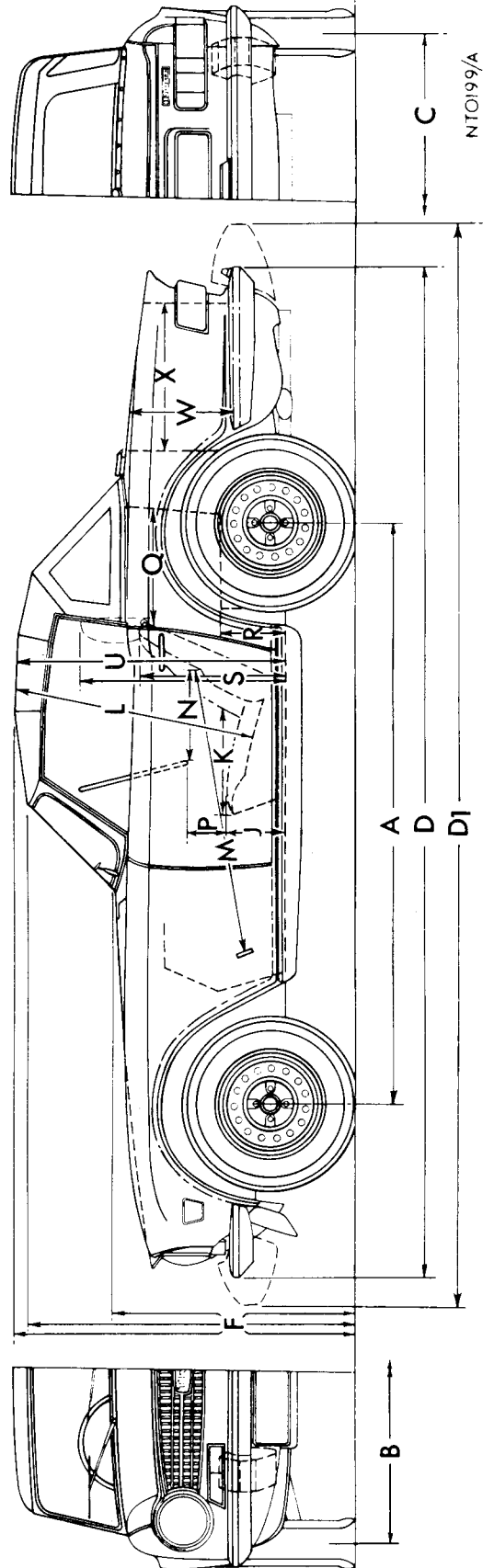
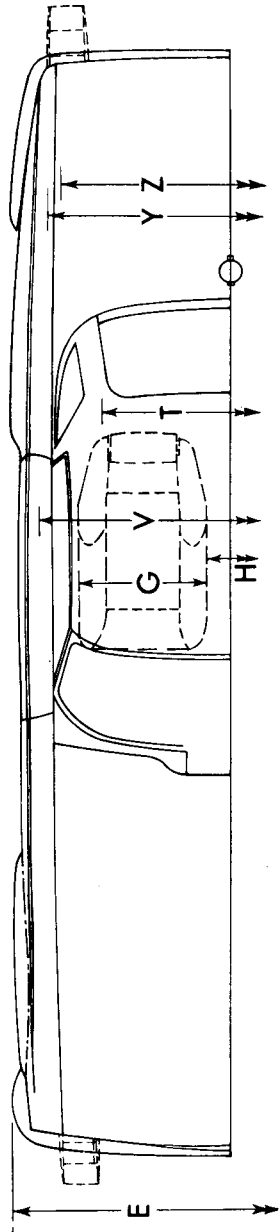
Type Drum with leading and trailing shoes
 Dimensions 9 in x 1¼ in (228 x 44.5 mm)
 Lining area 60.5 in² (390 cm²)
 Swept area 99.0 in² (639 cm²)
 Servo Direct acting servo providing 2.2:1 nominal boost ratio



GENERAL SPECIFICATION DATA



HARDTOP VERSION



NT0199/A



VEHICLE DIMENSIONS

Dim.	Description	inches	mm	Dim.	Description	inches	mm
A	Wheelbase	88.00	2240	N	Seat squab to steering wheel:		
B	Front track:				Max.	18.50	470
	Disc or Wire wheels	50.25	1276	P	Min.	14.00	355
C	Rear track:			Q	Seat cushion to steering wheel	6.50	165
	Disc or Wire wheels	49.75	1264		Length of luggage space behind seats:		
D	Overall length	155.00	3937		Max.	21.50	546
D1	Overall length (1974 USA Market)	162.13	4118	R	Min.	17.00	432
E	Overall width	58.00	1470		Floor to luggage platform	9.00	229
F	Height (unladen)			S	Height - floor to top of seat squab	22.50	572
	Soft top - hood erect	50.00	1270		U.S.A. only		
	to top of windscreen	46.00	1170	T	floor to top of seat restraint	30.00	762
	Hood folded and windscreen removed	40.00	1020	U	Width between wheel arches	33.50	850
G	Seat width	19.00	483	V	Maximum interior height	40.50	1030
H	Width between seats	6.00	152	W	Maximum interior width	50.50	1282
J	Seat height - floor to cushion	7.50	190		Luggage compartment height:		
K	Seat depth	16.50	419		Max.	13.50	343
L	Headroom from seat cushion	36.00	915	X	Min.	9.50	242
M	Seat squab to clutch pedal:			Y	Luggage compartment depth	20.00	508
	Max.	40.50	1030		Luggage compartment width:		
	Min.	36.00	915	Z	Max.	46.00	1170
					Min.	44.00	1117
					Luggage compartment effective opening width	43.00	1091



GENERAL SPECIFICATION DATA

PAINT AND TRIM CODING SYSTEM

The commission number plate affixed to the scuttle side panel bears code symbols for identification of the vehicle's exterior colour, trim material and trim colour.

Colour Code

Nine basic colours are allocated a number as shown in the table. Shades of these colours are classified as 1st shade, 2nd shade, 3rd shade, etc. The number of each shade change prefixes the basic colour to indicate the shade colour. Dual colours are identified by two code numbers separated by a stroke, e.g. 19/26 denotes 'White' and 'Wedgwood', the predominant colour being White, this symbol being quoted first.

The main trim material is identified by prefixing the colour code number with a letter, e.g.:

- Leathercloth – No prefix letter
- Leather – Prefix letter H
- Cloth – Prefix letter C

Basic colour	Basic colour number	1st shade	2nd shade	3rd shade	4th shade	5th shade	6th shade	7th shade	8th shade	9th shade	10th shade	11th shade	12th shade
Black	01	11											
Red	02	12 Matador	22 Cherry	32 Signal	42 Burgundy	52 Scarlet	62 Inca Red	72 Pimiento	** 82 Carmine	92 Magenta			
Brown	03	13 Light Tan	23 Sienna	33 New Tan	43 Saddle Tan	53 Dark Brown	** 63 Chestnut						
Yellow	04	14 Jonquil	24 Wimpey	34 Jasmine	** 44 Beige	54 Saffron	** 64 Mimosa						
Green	05	15 Cactus	25 Confer	35 Olive	45 Lichfield	55 Laurel	65 Emerald						
Blue	06	16 Midnight	26 Wedgwood	36 Dark Blue	46 Renoir	56 Royal	66 Valencia	76 Print Blue	86 Navy Blue	96 Sapphire	106 Mallard	** 116 Ice	126 French
Purple	07	17 Damson	27 Shadow Blue										
Grey	08	18 Gunmetal	28 Dark Grey	38 Phantom	48 Dolphin	58 Shadow Blue	68 Slate	78 Grey					
White	09	19 White	29 Sebring White	** 39 Honey-suckle									

ENGINE

Firing order	. . . . .	1 5 3 6 2 4		
No. 1 cylinder	. . . . .	at front		
Idle speed	Petrol Injection	. . . . .	**700 to 850 rev/min**	
	Carb/U.S.A. market	. . . . .	800 to 850 rev/min	
Fast idle speed	Petrol Injection	. . . . .	**1300 to 1500 rev/min**	
	Carb/U.S.A. market	. . . . .	1100 to 1300 rev/min	
Valve clearance (cold)	. . . . .	0.010 in (0.25 mm)		
Valve clearance adjustment	. . . . .	Screw and locking nut on rocker		
Location of timing marks	. . . . .	Scale on pulley, pointer on timing cover		
Valve timing		Petrol Injection		Carburetter/U.S.A. Market
		1974/73	Pre 1973	**1974/73/72 Models** Pre 1972 Models
Inlet opens	. . . . .	18° B.T.D.C.	35° B.T.D.C.	18° B.T.D.C.
	closes	. . . . .	58° A.B.D.C.	65° A.B.D.C.
Exhaust opens	. . . . .	58° B.B.D.C.	65° B.B.D.C.	58° B.B.D.C.
	closes	. . . . .	18° A.T.D.C.	35° A.T.D.C.
Ignition timing:	static	. . . . .	} See 86.35.00	
	dynamic	. . . . .	

FUEL INJECTION

Pressure from pump	. . . . .	104 to 110 lbf/in ² (7.31 to 7.73 kgf/cm ²)
Pressure at injector	. . . . .	50 lbf/in ² (3.52 kgf/cm ²)
Manifold depression at idling speed	. . . . .	12½ in (3.81 cm) of mercury

CARBURETTER

Make/type	**Stromberg 175 C.D.S.E.V.**	} Carburetters are matched to camshaft and distributor See 86.35.00
Main jet	. . . . .	0.100 in (0.254 cm)
Needle	. . . . .	B.I.A.F.
Float height	. . . . .	0.629 to 0.669 in (16 to 17 mm)

IGNITION COIL

		1974/73 Models	Pre 1973 Models
Make/type	. . . . .	Lucas 15 C6	Lucas H.A.12
Primary winding resistance	. . . . .	1.30 to 1.45 ohms	3-) to 3.5 ohms

BALLAST RESISTOR

Make/type	. . . . .	**Fitted into harness – 1974/73 Models**	Not fitted to pre 1973 Models
Resistance	. . . . .	1.30 to 1.45 ohms	

IGNITION DISTRIBUTOR

Make/type	. . . . .	Lucas 22D6 – see 86.35.00
Rotation viewed on rotor	. . . . .	Anticlockwise
Dwell angle	. . . . .	See 86.35.00
Capacitor capacitance	. . . . .	0.20 Microfarads
Contact breaker gap	. . . . .	0.014 to 0.016 in (0.35 to 0.40 mm)
Centrifugal advance	. . . . .	} See 86.35.00
Vacuum advance	

SPARKING PLUGS

Make/type	Petrol Injection	. . . . .	Champion N9Y
	Carb/U.S.A. Market	. . . . .	**1974/73 Models – Champion N9Y** Pre 1973 Models – Champion UN 12Y
Gap	. . . . .		0.025 in (0.63 mm)



TORQUE WRENCH SETTINGS

Operation	Description	Specified Torque		
		(lbf.ft.)	(kgf.m.)	
ENGINE				
Alternator mounting bracket to cylinder block	5/16" UNF	22	3.0	
Alternator to mounting bracket	5/16" UNF	22	3.0	
Alternator to adjusting link	5/16" UNC	20	2.8	
Camshaft chainwheel attachment	5/16" UNF	24	3.3	
Clutch attachment	5/16" UNF	20	2.8	
Connecting rod bolt	3/8" UNF	Phosphated	46	6.4
		colour dyed	50	6.9
Crankshaft cover to block	5/16" UNF	20	2.8	
Crankshaft sealing block attachment	5/16" UNF	14	2.0	
Cylinder head attachment	7/16" UNF	80	11.1	
Distributor and P.I. pump pedestal attachment	5/16" UNF	14	2.0	
Distributor to pedestal	5/16" UNF	20	2.8	
Distributor pedestal end plug	1/4" UNF	9	1.2	
Fan attachment	5/16" UNF	14	2.0	
Flywheel attachment	7/16" UNF	**95	13.1**	
Front engine plate attachment	5/16" UNF	22	3.0	
Front engine plate and cam locating plate attachment	5/16" UNF	22	3.0	
Main bearing bolts	7/16" UNF	65	9.0	
Mounting rubber bracket to engine	3/8" UNF	32	4.4	
Mounting rubber to engine bracket	3/8" UNF	32	4.4	
Mounting rubber to frame	3/8" UNF	32	4.4	
Manifold attachment	3/8" UNF	25	3.5	
Manifold to exhaust pipe	3/8" x 16 N.C.	25	3.5	
Oil gallery seal	1/8" N.P.S.I.	8	1.1	
Oil gallery plug	3/4" UNF	35	4.8	
Oil gallery plug	1/4" N.P.S.I.	14	2.0	
Oil filter attachment	7/16" UNC	20	2.8	
Oil pressure relief valve	5/8" UNF	35	4.8	
Petrol injection nozzle attachment	1/4" UNC	7	1.0	
Petrol pump attachment	1/4" UNF	9	1.2	
Petrol pump attachment	5/16" UNF	14	2.0	
Rear engine plate attachment	5/16" UNF	22	3.0	
Rear engine plate and gearbox to block	5/16" UNF	22	3.0	
Rocker pedestal attachment	3/8" UNF	34	4.7	
Rocker cover attachment	5/16" UNF	2	0.3	
Rocker shaft locating screw	No. 12 x 28 UNF	5	0.7	
Rocker oil feed plug	5/16" UNF	20	2.8	
Spark plug attachment	14 mm	20	2.8	
Starter motor attachment	3/8" UNF	34	4.7	
Sump attachment	5/16" UNF	20	2.8	
Sump drain plug	3/8" x 18	25	3.5	
Timing cover attachment	5/16" UNF Stud	16	2.2	
Timing cover attachment	5/16" UNF x 7/8"	20	2.8	
Timing cover attachment	5/16" UNF x 3/8"	10	1.4	
Water valve adaptor to cylinder head	3/8" B.S.P.	20	2.8	
Water pump pulley attachment	5/16" UNF	14	2.0	
Water pump attachment	5/16" UNF	14	2.0	
Water pump to cylinder head	5/16" UNF	20	2.8	
Water pump plug	3/8" UNF	25	3.5	
Water pump plug	5/8" UNF	35	4.8	

ENGINE

Firing order		1 5 3 6 2 4		
No. 1 cylinder		at front		
Idle speed	Petrol Injection	750 to 800/850 rev/min		
	Carb/U.S.A. market	800 to 850 rev/min		
Fast idle speed	Petrol Injection	1100 to 1300/1500 rev/min		
	Carb/U.S.A. market	1100 to 1300 rev/min		
Valve clearance (cold)		0.010 in (0.25 mm)		
Valve clearance adjustment		Screw and locking nut on rocker		
Location of timing marks		Scale on pulley, pointer on timing cover		
Valve timing		Petrol Injection		Carburettor/U.S.A. Market
		** 1973	Pre 1973 **	1973/1972 Model Pre 1972 Model
Inlet opens		** 18° B.T.D.C.	35° B.T.D.C.	18° B.T.D.C. 10° B.T.D.C.
	closes	58° A.B.D.C.	65° A.B.D.C.	58° A.T.D.C. 50° A.T.D.C.
Exhaust opens		58° B.B.D.C.	65° B.B.D.C.	58° B.B.D.C. 50° B.B.D.C.
	closes	18° A.T.D.C.	35° A.T.D.C.	18° A.T.D.C. ** 10° A.T.D.C.
Ignition timing:	static	} See 86.35.00		
	dynamic			

FUEL INJECTION

Pressure from pump	104 to 110 lbf/in ² (7.31 to 7.73 kgf/cm ²)
Pressure at injector	50 lbf/in ² (3.52 kgf/cm ²)
Manifold depression at idling speed	12½ in (3.81 cm) of mercury

CARBURETTER

Make/type	**Stromberg 175 C.D.S.E. (V)	} Carburetters are matched to camshaft and distributor See 86.35.00
Main jet	0.100 in (0.254 cm) **	
Needle	B.I.A.F.	
Float height	0.629 to 0.669 in (16 to 17 mm)	

IGNITION COIL

	** 1973 Model	** Pre 1973 Model **
Make/type	Lucas 15 C6	Lucas H.A.12
Primary winding resistance	1.30 to 1.45 ohms **	3.0 to 3.5 ohms

BALLAST RESISTOR

Make/type	** Fitted into harness – 1973 Models	** Not fitted to pre 1973 Models **
Resistance	1.30 to 1.45 ohms **	

IGNITION DISTRIBUTOR

Make/type	Lucas 22D6 – see 86.35.00
Rotation viewed on rotor	Anticlockwise
Dwell angle	See 86.35.00
Capacitor capacitance	0.20 Microfarads
Contact breaker gap	0.014 to 0.016 in (0.35 to 0.40 mm)
Centrifugal advance	} See 86.35.00
Vacuum advance	

SPARKING PLUGS

Make/type	Petrol injection	Champion N9Y	
	Carb/U.S.A. Market	** 1973 Model – Champion N9Y	Pre 1973 Model – ** Champion UN 12Y
Gap		0.025 in (0.63 mm)	



TORQUE WRENCH SETTINGS

Operation	Description	Specified Torque	
		(lbf.ft.)	(kgf.m.)
ENGINE			
Alternator mounting bracket to cylinder block	5/16" UNF	22	3.0
Alternator to mounting bracket	5/16" UNF	22	3.0
Alternator to adjusting link	5/16" UNC	20	2.8
Camshaft chainwheel attachment	5/16" UNF	24	3.3
Clutch attachment	5/16" UNF	20	2.8
** Connecting rod bolt	3/8" UNF	46	6.4
		50	6.9
	Phosphated colour dyed	20	2.8
Crankshaft cover to block	5/16" UNF	14	2.0
Crankshaft sealing block attachment	7/16" UNF	80	11.1
Cylinder head attachment	5/16" UNF	14	2.0
Distributor and P.I. pump pedestal attachment	5/16" UNF	20	2.8
Distributor to pedestal	1/4" UNF	9	1.2
Distributor pedestal end plug	5/16" UNF	14	2.0
Fan attachment	7/16" UNF	75	10.4
Flywheel attachment	5/16" UNF	22	3.0
Front engine plate attachment	5/16" UNF	22	3.0
Front engine plate and cam locating plate attachment	7/16" UNF	65	9.0
Main bearing bolts	3/8" UNF	32	4.4
Mounting rubber bracket to engine	3/8" UNF	32	4.4
Mounting rubber to engine bracket	3/8" UNF	32	4.4
Mounting rubber to frame	3/8" UNF	25	3.5
Manifold attachment	3/8" x 16 N.C.	25	3.5
Manifold to exhaust pipe	1/8" N.P.S.I.	8	1.1
Oil gallery seal	3/4" UNF	35	4.8
Oil gallery plug	1/4" N.P.S.I.	14	2.0
Oil gallery plug	7/16" UNC	20	2.8
Oil filter attachment	5/8" UNF	35	4.8
Oil pressure relief valve	1/4" UNC	7	1.0
Petrol injection nozzle attachment	1/4" UNF	9	1.2
Petrol pump attachment	5/16" UNF	14	2.0
Rear engine plate attachment	5/16" UNF	22	3.0
Rear engine plate and gearbox to block	5/16" UNF	22	3.0
Rocker pedestal attachment	3/8" UNF	34	4.7
Rocker cover attachment	5/16" UNF	2	0.3
Rocker shaft locating screw	No. 12 x 28 UNF	5	0.7
Rocker oil feed plug	5/16" UNF	20	2.8
Spark plug attachment	14 mm	20	2.8
Starter motor attachment	3/8" UNF	34	4.7
Sump attachment	5/16" UNF	20	2.8
Sump drain plug	3/8" x 18	25	3.5
Timing cover attachment	5/16" UNF Stud	16	2.2
Timing cover attachment	5/16" UNF x 7/8"	20	2.8
Timing cover attachment	5/16" UNF x 3/8"	10	1.4
Water valve adaptor to cylinder head	3/8" B.S.P	20	2.8
Water pump pulley attachment	5/16" UNF	14	2.0
Water pump attachment	5/16" UNF	14	2.0
Water pump to cylinder head	5/16" UNF	20	2.8
Water pump plug	3/8" UNF	25	3.5
Water pump plug	5/8" UNF	35	4.8

Operation	Description	Specified Torque	
		(lbf.ft)	(kgf.m)
FUEL INJECTION PIPE SYSTEM			
Flexible pipe to filter	1/2" UNF	9	1.2
Flexible pipe to metering unit	3/8" B.S.P.	20	2.8
Flexible pipe to motor pump	3/8" B.S.P.	20	2.8
Flexible pipe to relief valve	3/8" B.S.P.	20	2.8
Flexible pipe to relief valve	1/4" B.S.P.	20	2.8
In line relief valve assembly relief valve to strainer housing	3/8" B.S.P.	40	5.5
Pipe to motor pump	3/8" B.S.P.	20	2.8
Pipe to filter	1/2" UNF	9	1.2
Relief valve assembly to Tee-piece	3/8" B.S.P.	40	5.5

ENGINE (CARBURETTER VERSION ONLY)

Carburetter attachment	5/16" UNF	14	2.0
Distributor pedestal attachment	5/16" UNF	14	2.0
Distributor to pedestal	1/4" UNF	9	1.2
Inlet manifold plug	3/4" S.A.E.	35	4.8
Manifold attachment	5/16" UNF	20	2.8
Manifold hose adaptor	1/2" P.T.F.	32	4.4
Manifold to front pipe	3/8" x 16 N.C.	25	3.5
Servo adaptor to manifold	5/8" UNF	32	4.4

GEARBOX

Change speed lever to top cover	1/4" UNF	9	1.2
Clutch housing cover attachment	5/16" UNF	20	2.8
Clutch slave cylinder attachment	5/16" UNF	20	2.8
Countershaft end cover to gearbox	5/16" UNC	20	2.8
Countershaft and Reverse shaft to gearbox	5/16" UNC	14	2.0
Extension to gearbox	5/16" UNC	20	2.8
Front cover to gearbox	5/16" UNC	20	2.8
Gearbox to engine	5/16" UNF	20	2.8
Mounting rubber to gearbox extension	1/2" UNF	65	9.0
Mounting rubber to frame crossmember	7/16" UNF	46	6.4
Overdrive adaptor plate	5/16" UNC	20	2.8
Propshaft flange to mainshaft	3/4" UNF	120	16.6
Propshaft attachment	3/8" UNF	34	4.7
Sealing ring cover plate attachment	1/4" UNF	9	1.2
Selectors and forks to shaft	5/16" UNF	9	1.2
Speedo bearing locking screw	5/16" UNC	9	1.2
Top cover to gearbox	5/16" UNC	20	2.8
Top up and drain plugs	3/8" UNF	25	3.5

OVERDRIVE ** -- 'A' TYPE

Cap to top cover and overdrive switch bracket	1/4" UNF	9	1.2
Overdrive unit retaining	5/16" UNC	20	2.8
Speedo driven gear to rear cover	5/16" UNC	9	1.2



TORQUE WRENCH SETTINGS

Operation	Description	Specified Torque	
		(lbf.ft)	(kgf.m)
OVERDRIVE – 'J' TYPE			
Adaptor to gearbox	1/4" U.N.F. setscrew	9	1.2
Overdrive to adaptor	3/4" stud	7	1.0
Overdrive to rear engine mounting	3/8" U.N.F./U.N.C. stud	25	3.5
Rear engine mounting attachment	7/16" U.N.F. bolt	38	5.2
Steady strap to overdrive unit	5/16" U.N.F. stud	20	2.8
REAR AXLE			
Bearing caps to housing	3/8" UNF	38	5.2
Crown wheel to housing	3/8" UNF	46	6.4
Cover and rear mounting plate attachment	3/8" UNF	32	4.4
Controlled rebound mounting to bracket	5/16" UNF	20	2.8
Hypoid housing to rear cover	5/16" UNF	20	2.8
Inner driving flange to inner axle	5/8" UNF	120	16.6
Nose plate to axle	3/8" UNF	38	5.2
Oil seal housing to hypoid housing	5/16" UNF	20	2.8
Oil level plug	3/8" UNF	25	3.5
Prop shaft flange to pinion	5/8" UNF	120	16.6
Rear mounting plate to frame	3/8" UNF	25	3.5
FRONT SUSPENSION			
Anti-roll bar mounting bracket to lower wishbone	3/8" UNF	32	4.4
Anti-roll bar fixing	5/16" UNF	4	0.6
Anti-roll bar link to lower wishbone	7/16" UNF	38	5.2
Anti-roll bar to link	3/8" UNF	16	2.2
Brake disc attachment	3/8" UNF	34	4.7
Brake caliper and shield attachment	7/16" UNF	65	9.0
Brake caliper mounting bracket and tie rod lever attachment	3/8" UNF	34	4.7
Damper to spring pan mounting	7/16" UNF	65	9.0
Lockstop bolts to trunnion	5/16" UNF	20	2.8
Lower wishbone mounting bracket to frame	3/8" UNF	25	3.5
Lower wishbone to mounting bracket	1/2" UNF	46	6.4
Lower wishbone to vertical link	9/16" UNF	65	9.0
Lower wishbone to spring pan	3/8" UNF	32	4.4
Shock absorber mounting to spring pan	3/8" UNF	25	3.5
Stub axle to front hub	1/2" UNF		
Stub axle to vertical link	1/2" UNF	65	9.0
Top ball joint to upper wishbone	3/8" UNF	32	4.4
Top ball joint to vertical link	1/2" UNF	50	6.9
Upper wishbone to fulcrum pin	7/16" UNF	40	5.5
Upper wishbone fulcrum to chassis frame	3/8" UNF	32	4.4
Wheel stud	7/16" UNF	80	11.1

Tighten to 5 lbf.ft. Unscrew one flat and insert split pin to give .003in to .005in (0.076 to 0.127 mm) end float.



TORQUE WRENCH SETTINGS

Operation	Specified Torque		
	(lb.ft)	(kgf.m)	
REAR SUSPENSION			
Bump rubber attachment	3/8" UNF	20	
Damper mounting to bracket	7/16" UNF	65	
Damper link attachment	3/8" UNF	20	
Damper arm to link	7/16" UNF	46	
Inner driven flange to outer axle	3/8" UNF	34	
Outer driven flange to axle and hub	1 3/8" UNF	To be tightened to give .002 in to .005 in. (0.051 to 0.127 mm) End float.	
Rear hub assembly	5/8" UNF	120	16.6
	Nylok Nut	120	16.6†**
	Castellated Nut		
Trailing arm to mounting bracket	7/16" UNF	46	6.4
Trailing arm mounting bracket to frame	3/8" UNF	34	4.7
Trailing arm to brake plate	5/16" UNF	16	2.2
Wire wheel extension attachment	7/16" UNF	65	9.0
Wheel attachment	7/16" UNF	80	11.1

** †Tighten to 90lb.f.ft. (12.5 Kgf.m.) Then continue tightening until split pin can be inserted**.

STEERING

Adaptor to upper and lower column	5/16" UNF	20	2.8
Adaptor to rubber coupling	5/16" UNF	20	2.8
Ball joint to tie rod lock nut	1/2" UNF	38	5.2
Ball joint tie rod to steering lever	7/16" UNF	38	5.2
Lower clamp to outer column and body	1/4" UNF	10	1.4
Outer column tie rod to body	1/4" UNF	10	1.4
Rack to chassis	5/16" UNF	16	2.2
Safety clamp to column	1/4" UNF	9	1.2
Safety clamp grub screw	7/16" UNF	20	2.8
Steering wheel attachment	9/16" UNS	34	4.7
Top clamp to outer column	5/16" UNF	20	2.8
Top clamp to body	1/4" UNF Setscrew	10	1.4
Top clamp to body	1/4" UNF Weld bolt	8	1.1
Universal joint attachment	5/16" UNF	20	2.8

CHASSIS

Cross tube to front suspension turrets	3/8" UNF	34	
Chassis to axle nose plate front of rear suspension	3/8" UNF	25	3.5
Chassis to axle back plate back of rear suspension	3/8" UNF	25	3.5
Gearbox mounting crossmember to chassis	3/8" UNF	34	4.7
Radiator shield attachment	3/8" UNF	32	4.4
Radiator to chassis	3/8" UNF	14	2.0
Radiator drain tap	1/4" P.T.F.	9	1.2



TORQUE WRENCH SETTINGS

Operation	Description	Specified Torque	
		(lbf.ft)	(kgf.m)
BODY			
Brake servo attachment	5/16" UNF	14	2.0
Brake limiting valve to body	1/4" UNF	9	1.2
Brake master cylinder to servo	3/8" UNF	24	3.3
Body mounting to rear suspension crossmember	3/8" UNF	14	2.0
Door hinge attachment	5/16" UNF	20	2.8
Door lock striker attachment	1/4" UNF	9	1.2
Door lock to door	1/4" UNF	9	1.2
Front bumper side fixing	5/16" UNF	20	2.8
Front bumper centre to support bracket	3/8" UNF	25	3.5
Front bumper support bracket to chassis	3/8" UNF	32	4.4
Fuel tank drain plug	5/8" UNF	32	4.4
Handbrake fulcrum pin	3/8" UNF	24	3.3
Hard top to screen attachment	5/16" UNF	9	1.2
Hard top bracket to tie bar	5/16" UNF	9	1.2
Hard top to rear deck	1/4" UNF	9	1.2
Rear bumper outrigger brackets to shackles	3/8" UNF	32	4.4
Rear bumper support bracket to chassis	3/8" UNF	32	4.4
Rear bumper front and side to bracket fixing	3/8" UNF	32	4.4
Safety harness pivot bolt	7/16" UNF	32	4.4
Safety harness eye bolt	7/16" UNF	32	4.4
Seat slides to floor	1/4" UNF	9	1.2
Seat to slide	5/16" UNF	7	1.0



RECOMMENDED LUBRICANTS, FUELS AND FLUID-CAPACITIES

RECOMMENDED LUBRICANTS – BRITISH ISLES

(The products recommended are not listed in order of preference)

COMPONENT	BP	CASTROL	DUCKHAMS	ESSO	MOBIL	PETROFINA	REGENT	SHELL
ENGINE AND OIL CAN	Super Visco-static 20-50	Castrol GTX	Duckhams Q20-50	Uniflo	Mobiloil Super 10W/50 or Mobiloil Special 20W/50	Fina Super Grade Motor Oil SAE 20W/50	Havoline Motor Oil 20W-50	Shell Super Multigrade
GEARBOX AND OVERDRIVE REAR AXLE AND LOWER STEERING SWIVELS	BP Gear Oil SAE 90 EP	Castrol Hypoy	Duckhams Hypoid 90	Esso Gear Oil GX 90/140	Mobilube HD 90	Fina Pontonic XP 90-140	Multigear Lubricant EP 90	Shell Spirax 90 EP
FRONT & REAR HUBS BRAKE CABLES GREASE GUN	Energrease L2	Castrol LM Grease	Duckhams LB 10	Esso Multi-purpose Grease H	Mobilgrease MP	Fina Marson HTL 2	Marfak All purpose	Shell Retinex A

RECOMMENDED LUBRICANTS – OVERSEAS

(The products recommended are not listed in order of preference)

COMPONENT	Air temp.		API Designation	BP	CASTROL	DUCK-HAMS	ESSO	MOBIL	PETRO-FINA	SHELL	TEXACO						
	°C	°F															
ENGINE CARB. DASHPOTS (USA Markets) OIL CAN	over 30	over 80	SD or SE	*BP Super Visco-Static	Castrol GTX Castrol Super 20W/50 or XLR (USA only)	Q20/50 Q10-50	Esso Extra Motor Oil 20W/50	Mobiloil Super 10W/50 Mobiloil Special 20W/50	Fina Supergrade Motor Oil 20W/50	Shell Super Motor Oil	Havoline 20W/50						
	30 to 0	80 to 30	SD or SE									Castrolite or Castrol GTZ	Q10-40	Esso Extra Motor Oil 10W/30	Mobiloil Super 10W/50	Fina Supergrade Motor Oil 10W/40	Havoline 10W/30
	0 to -20	30 to -4	SD or SE															Castrol 5W/20	Q5-30	Esso Extra Motor Oil 5W/20	Mobiloil 5W/20	Fina Supergrade 5W/30	Havoline 5W/20
GEARBOX AND OVERDRIVE REAR AXLE	over 0	over 30	GL4	BP Gear Oil SAE 90 EP	Castrol Hypoy	Duckhams Hypoid 90	Esso Gear Oil GX 90	Mobilube HD 90	Fina PONTONIC MP SAE 90	Shell Spirax 90 EP	Multigear Lubricant EP 90						
	LOWER STEERING SWIVELS	below 0	below 30	GL4	BP Gear Oil SAE 80 EP	Castrol Hypoy 80	Duckhams Hypoid 80	Esso Gear Oil GX 80	Mobilube HD 80	Fina PONTONIC MP SAE 80	Shell Spirax 80 EP	Multigear Lubricant EP 80					
FRONT AND REAR HUBS BRAKE CABLES GREASE GUN				BP Energrease LZ or Energrease MP (USA only)	Castrol LM Grease or MP Grease (USA only)	Duckhams LB 10	Esso Multi-purpose Grease H	Mobilgrease MP	Fina Marson HTL 2	Shell Retinax A or Darina AX (USA only)	Marfak All-purpose						

* OILS MARKED THUS ARE AVAILABLE IN MULTIGRADE FORMS WITH VISCOSITY CHARACTERISTICS APPROPRIATE TO THE AMBIENT TEMPERATURE RANGE IN INDIVIDUAL MARKETS.

** WHERE CIRCUIT RACING OR OTHER SEVERE COMPETITIVE EVENTS ARE CONTEMPLATED IT IS ADVISABLE, IN VIEW OF THE INCREASED OIL TEMPERATURE ENCOUNTERED, TO USE OILS OF HIGH VISCOSITY.

RECOMMENDED LUBRICANTS AND ANTI-FREEZE SOLUTIONS – U.S.A. MARKET

COMPONENT	SERVICE CLASSIFICATION	AMBIENT TEMPERATURE RANGE	SAE VISCOSITY CLASSIFICATION
Engine	API - SE	Above 14°F (-10°C)	10W/50 10W/40 20W/50 20W/40
		5°F to 50°F (-20°C to +10°C)	10W/50 10W/40 10W/30
		Below 14°F (-10°C)	5W/30 5W/20
Gearbox and Overdrive Final Drive	API - GL4	Above 32°F (0°C)	Hypoid 90
		Below 32°F (0°C)	Hypoid 80
Steering Rack, Hubs & Chassis Grease Points	NLGI 2 multi-purpose grease		
Brake & Clutch Fluid	DOT 3 Type Brake Fluid (FMVSS No. 116) also meeting SAE J1703d		
Anti-Freeze	Permanent type ethylene glycol base with suitable inhibitor for mixed metal systems		
Windshield Washer	Windshield Washer Anti-freeze fluid (Proprietary Brands)		



RECOMMENDED LUBRICANTS, FUELS AND FLUID CAPACITIES

** RECOMMENDED HYDRAULIC FLUIDS

Clutch and Brake Reservoirs: Castrol Girling Brake and Clutch Fluid – Crimson or Unipart 550 Brake Fluid.
Where these proprietary brands are not available, other fluids which meet the S.A.E. J.1703 specification may be used.

RECOMMENDED FUEL

The Triumph TR6 engine is designed to operate on fuel having a minimum octane rating of 97 (High compression engines) OR 91 (Lower compression engines): this is equivalent to the British 4 star and 2 star rating respectively.
Where such fuels are not available and it is necessary to use fuels of lower or unknown rating, the ignition timing must be retarded from the specified setting, just sufficiently to prevent audible detonation (pinking) under all operating conditions, otherwise damage to the engine may occur.

IMPORTANT: When cars for the U.S.A. market enter the “United States” the ignition timing must be set to suit the use of the recommended grade of fuel AND TO COMPLY WITH REGULATIONS ON EMISSIONS FROM THE CRANKCASE AND EXHAUST.

ANTI-FREEZE SOLUTIONS

Only solutions which meet B.S.I. 3151 or 3152 specifications may be used.

ANTI-FREEZE CONCENTRATION		25%	30%	35%	50%
SPECIFIC GRAVITY OF COOLANT AT 15.5° (60°F)		1.039	1.048	1.054	1.076
ANTI-FREEZE QUANTITY	PINTS IMP.	2.8	3.3	3.9	5.5
	PINTS U.S.A.	3.3	4.0	4.7	6.6
	LITRES	1.6	1.9	2.2	3.2
DEGREE OF PROTECTION	Complete Car may be driven away immediately from cold	-12°C 10°F	-16°C 3°F	-20°C -4°F	-36°C -33°F
	Safe Limit Coolant in mushy state. Engine may be started and driven away after short warm-up period	-18°C 0°F	-22°C -8°F	-28°C -18°F	-41°C -42°F
	Lower Protection Prevents frost damage to cylinder head, block and radiator. Thaw out before starting engine	-26°C -15°F	-32°C -26°F	-37°C -35°F	-47°C -53°F

CAPACITIES

Fuel tank	USA 1974/1973 condition	9½ gal (11.4 US gal)	(43 Litres)
	1974/1973 other markets PI	10¾ gal (12.9 US gal)	(48.6 Litres)
	Pre 1973 other Markets PI	11¼ gal (13.5 US gal)	(51 Litres)
	and Pre 1972 USA condition		
	U.S.A. 1972 condition	10¼ gal (12.3 US gal)	(46.5 Litres)
Engine sump and oil filter		9 pints (10.8 US pints)	(5.10 Litres)
Engine sump (drain and refill)		8 pints (9.6 US pints)	(4.25 Litres)
Gearbox (from dry)		2 pints (2.4 US pints)	(1.13 Litres)
Gearbox and overdrive (from dry)	'A' type	3½ pints (4.2 US pints)	(2.0 Litres)
	'J' type	2.66 pints (3.2 US pints)	(1.5 Litres)
Rear axle (from dry)		2¼ pints (2.7 US pints)	(1.27 Litres)
	U.S.A. pre 1970 condition	2½ pints (3.0 US pints)	(1.42 Litres)
Cooling system (including heater)		11 pints (13.2 US pints)	(6.21 Litres)
Heater		1 pint (1.2 US pints)	(0.57 Litres) **



MAINTENANCE OPERATIONS

Lubrication Chart	10.00.01
Pre-Delivery Inspection	10.10.01
Routine Maintenance Operation	
1,000 miles (1600 km) Free Service	10.10.03
3,000 miles (5000 km) Service	10.10.06
6,000 miles (10000 km) Service	10.10.12
12,000 miles (20000 km) Service	10.10.24
Summary Chart	10.00.02



LUBRICATION CHART

Weekly or before a long journey

1. Check/top up cooling system level.
2. Check/top up engine oil level.

Every 3,000 miles (5,000 km)

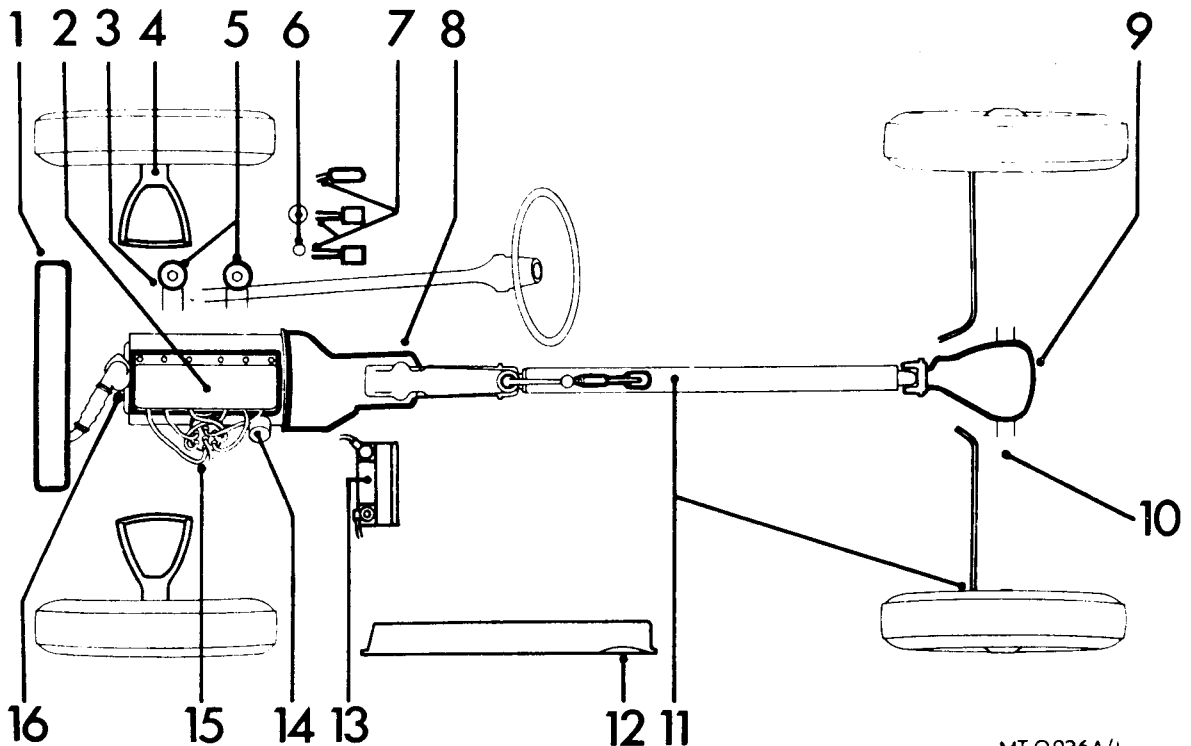
1. Check/top up cooling system level.
2. Check/top up engine oil level.
3. Check/top up brake and clutch fluid reservoirs.

Every 6,000 miles (10,000 km)

1. Check/top up cooling system level.
2. Change engine oil.
3. Lubricate steering rack and pinion.
4. Using OIL lubricate lower steering swivels.
Grease suspension upper ball joints.
5. Check/top up carburettor piston damper(s) and lubricate throttle linkage.
6. Check/top up brake and clutch fluid reservoirs.
7. Lubricate accelerator, brake and clutch pedal pivots.
8. Check/top up gearbox oil level.
9. Check/top up rear axle oil level.
10. Lubricate inner drive shaft universal joints.
11. Lubricate handbrake linkage and cable.
12. Lubricate all door, bonnet and boot locks and hinges.
13. Lubricate battery terminals (petroleum jelly).
15. Lubricate distributor.

Every 12,000 miles (20,000 km)

1. Check/top up cooling system level.
2. Change engine oil.
3. Lubricate steering rack and pinion.
4. Using OIL lubricate lower steering swivels.
Grease suspension upper ball joints.
5. Check/top up carburettor piston damper(s) and lubricate throttle linkage.
6. Check/top up brake and clutch fluid reservoirs.
7. Lubricate accelerator, brake and clutch pedal pivots.
8. Check/top up gearbox oil level.
9. Check/top up rear axle oil.
10. Lubricate inner drive shaft universal joints.
11. Lubricate handbrake linkage and cable.
12. Lubricate all door, bonnet and boot locks and hinges.
13. Lubricate battery terminals (petroleum jelly).
14. Renew oil filter element.
15. Lubricate distributor.
16. Lubricate water pump.



MT O936A/1



MAINTENANCE

SUMMARY CHART

The Summary Chart below lists general recommendations for Service Operations and Intervals. Overseas Service Engineers are advised to consult the 'Passport to Service' booklet supplied with the car for amendments to these recommendations that may be specially applicable to their local operating conditions OR that may be obligatory to meet Regulations for a specific Country.

Operation Number	10.10.03	10.10.06	10.10.12	10.10.24
Interval in miles x 1,000	1	3	6	12
Interval in Kilometres x 1,000	1.6	5	10	20
Operation Description				
ENGINE COMPARTMENT				
1. Check/top up engine oil level (E).....		X		
2. Check/top up cooling system (E).....	X	X	X	X
3. Check/top up brake fluid reservoir.....	X	X	X	X
4. Check/top up clutch fluid reservoir.....	X	X	X	X
5. Check/top up windscreen washer fluid reservoir.....	X	X	X	X
6. Check/top up battery.....	X	X	X	X
7. Check/top up carburetter piston(s) damper(s)(E).....	X		X	X
8. Drain engine oil and refill (E).....	X		X	X
9. Renew oil filter element (E).....				X
10. Clean fuel pump sediment bowl.....	X			X
11. Lubricate distributor and check automatic advance (E).....	X		X	X
12. Check/adjust/report condition of distributor points (E).....	X		X	
13. Distributor points – renew (E).....				X
14. Check/adjust ignition timing using electronic equipment (E).....	X		X	X
15. Check/report ignition wiring for fraying, chafing and deterioration (E).....	X		X	X
16. Condenser and coil check for breakdown on oscilloscope tune (E).....			X	X
17. Clean/adjust sparking plugs (E).....			X	
18. Renew sparking plugs (E).....				X
19. Check/adjust torque of cylinder head nuts/bolts (E).....	X			
20. Check/report cylinder compression (E).....			X	X
21. Check/adjust valve rocker clearances (E).....	X			X
22. Clean engine oil filler cap (E).....				X
23. Clean carburetter air cleaner elements (E).....			X	
24. Renew carburetter air cleaner elements (E).....				X
25. Check/adjust/report condition of all driving belts (E).....	X	X	X	X
26. Check security of starter motor and alternator retaining bolts.....	X			
27. Check security of engine mountings.....	X			
28. Check/adjust carburetter settings (E).....	X		X	X
29. Carburetter – overhaul – at 24,000 miles (E).....				
30. Fuel filter – change (E).....				X
31. Fuel system – check for leaks (E).....	X			X
32. Lubricate accelerator linkage/pedal fulcrum and check operation.....	X		X	X
33. Check battery condition: clean and grease connections.....			X	X
34. Check/report for oil/fuel/fluid leaks (general) (E).....	X	X	X	X
35. Check/report leaks from cooling and heater systems (E).....	X		X	X
36. Evaporative and crankcase ventilations systems – check hoses and restrictors for blockage, security and deterioration (E).....			X	X
37. Carbon canister – renew filter (E).....				X
38. Carbon canister – renew 48,000 miles (E).....				
39. Lubricate water pump.....				X



Operation Number Interval in miles x 1,000 Interval in Kilometres x 1,000	10.10.03	10.10.06	10.10.12	10.10.24
	1	3	6	12
	1-6	5	10	20
Operation Description				
UNDERBODY				
40. Check/top up level of gearbox and overdrive oil.....	X		X	X
41. Check/top up level of final drive unit oil.....	X		X	X
42. Lubricate lower steering swivel	X		X	X
43. Lubricate all grease points except hubs	X		X	X
44. Lubricate steering rack and pinion			X	X
45. Lubricate handbrake linkage and cable guides.....			X	X
46. Check transmission, engine, final drive, suspension and steering unit for oil leaks and report.....	X	X	X	X
47. Check visually brake, fuel and clutch pipes, hoses and unions for chafing, leaks and corrosion and report.....	X	X	X	X
48. Check/report exhaust system for leakage and security (E).....		X	X	X
49. Check security of suspension fixings, tie-rod levers, steering unit attachments and steering universal joint coupling bolts	X			X
50. Check security of propeller shaft and drive shaft universal coupling bolts.....				X
51. Check security of sub-frame or body mountings.....	X			X
52. Check/report condition of steering unit/joints for security, backlash and gaiter condition	X	X	X	X
EXTERIOR				
53. Adjust front hubs.....				X
54. Check/adjust front and rear wheel alignment with tracking equipment.....	X			
55. Check/report front and rear wheel alignment with tracking equipment			X	X
56. Inspect brake pads for wear, and discs for condition.....		X	X	X
57. Inspect and report brake linings for wear and drums for condition				X
58. Check security of road wheel fastenings.....	X	X	X	X
59. *Check that tyres are in accordance with manufacturers specification.....		X	X	X
60. *Check visually and report depth of tread, cuts in tyre fabric, exposure of ply or cord structure, lumps or bulges	X	X	X	X
61. Check/adjust tyre pressures (including spare wheel).....	X	X	X	X
62. Check/adjust headlamp alignment	X			
63. Check/report headlamp alignment		X	X	X
64. Check, if necessary replace windscreen wiper blades.....		X	X	X
65. Fuel tank filler cap – check seal for security (E)	X		X	X
INTERIOR				
66. Check brake pedal travel and hand brake operation adjust if necessary.....	X			
67. Check/report brake pedal travel and handbrake operation		X	X	X
68. Check operation of window controls, locks and bonnet release	X			
69. Check function of all electrical systems and windscreen washer.....	X	X	X	X
70. Lubricate clutch and brake pedal pivots.....			X	X
71. Lubricate all locks, door hinges, strikers and bonnet release	X		X	X
72. Check/report condition and security of seats and seat belts		X	X	X
73. Check/report rear view mirrors for looseness, cracks and crazing.....		X	X	X
ROAD TEST				
74. Road/roller test and report additional work required.....	X		X	X
75. Ensure cleanliness of controls, door handles, steering wheels etc	X	X	X	X

***Important** – If the tyres do not conform with legal requirements report to the owner.

Items marked (E) are particularly relevant to the emission and evaporative control systems and must receive attention at the recommended intervals to keep these systems in good order.



MAINTENANCE

The maintenance summary list on pages 10.00.02 and 10.00.03 gives details of mile and kilometer intervals for the following operations. The figure in parenthesis to the left of each heading refers to the item number on the summary list.

(1) Check/top up engine oil level

NOTE: Allow time for oil to drain back into sump after running engine.

Stand vehicle on level ground.

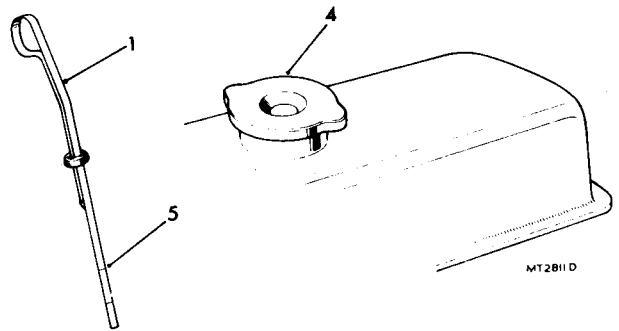
1. Withdraw dipstick, wipe it clean and replace in position.
2. Withdraw dipstick again and note oil level.
3. Wipe dipstick clean and replace in position.

If topping up is necessary:-

4. Remove oil filler cap.
5. Add recommended grade of oil, via filler cap, to bring level just below high mark on dipstick.

DO NOT OVERFILL

6. Replace filler cap.
7. Allow time for added oil to drain into sump, then check final oil level using the procedure in 1 to 3 above.



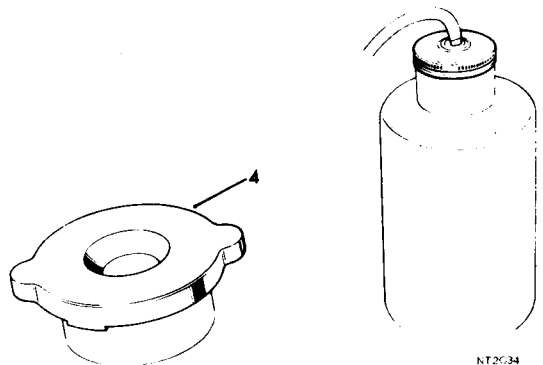
(2) Check/top up cooling system

WARNING: Do NOT remove cooling system filler caps or plugs when engine is hot.

1. Remove radiator expansion tank cap.
2. If necessary, top up expansion tank with soft water to maintain level at approximately half full.
3. Replace cap.

If the expansion tank is empty:-

4. Remove the cooling system filler cap.
5. Add soft water, via filler cap, until the system is full.
6. Replace filler cap.
7. Half fill expansion tank with soft water using the procedure in 1 to 3 above.
8. Run the engine until normal operating temperature is reached, allow engine to cool and re-check cooling system level.



(3) Check/top up brake fluid reservoir

1. Check fluid level against mark on side of reservoir.

If topping up is necessary:-

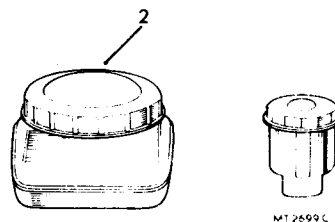
2. Wipe clean the reservoir cap and surrounding area.
3. Remove the reservoir cap.
4. Add fluid to bring level above danger mark on side of reservoir.

WARNING: Use only new fluid of the correct specification.

Do NOT use fluid of unknown origin, or fluid that has been exposed to the atmosphere, or fluid that has been discharged during bleeding operations.

5. Replace reservoir cap.
6. Remove any spilled fluid with a clean cloth.

CAUTION: Paintwork can be damaged by direct contact with brake fluid.



(4) Check/top up clutch fluid reservoir

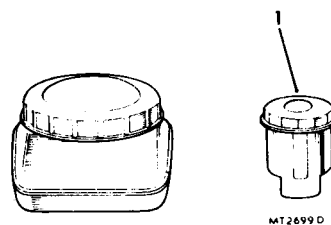
1. Wipe clean the reservoir cap and surrounding area.
2. Remove the reservoir cap.
3. Check fluid level against mark on side of reservoir.
4. If necessary, add fluid to bring level up to mark on side of reservoir.

WARNING: Use only new fluid of the correct specification.

Do NOT use fluid of unknown origin, or fluid that has been exposed to the atmosphere, or fluid that has been discharged during bleeding operations.

5. Replace reservoir cap.
6. Remove any spilled fluid with a clean cloth.

CAUTION: Paintwork can be damaged by direct contact with clutch fluid.



MAINTENANCE

(5) Check/top up windscreen washer fluid level

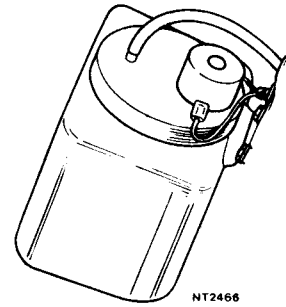
1. Check fluid level in translucent reservoir.

If topping up is necessary:-

2. Wipe clean the reservoir cap and surrounding area.
3. Remove the reservoir cap.
4. Add soft water to bring level up to approximately 1 in (25.4 mm) from top of reservoir.
5. Replace reservoir cap.

CAUTION: As a precaution against freezing conditions, fill the reservoir with a mixture of one part methylated spirits and two parts water.

Do NOT use glycol anti-freeze solutions in the washer reservoir, as these may discolour paintwork and damage wiper blades and sealing rubbers.



(6) Check/top up battery

NOTE: Alternative procedures are given for each of the two battery types that may be fitted.

1. Lift and tilt battery cover.
2. Check electrolyte level, which if correct should just cover the separators.

If topping up is necessary:-

3. Add **DISTILLED WATER** until the filler tubes are full and the trough is just covered.
4. Replace battery cover.

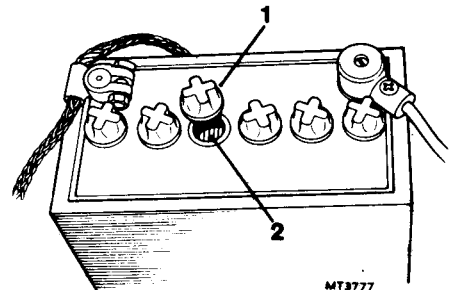
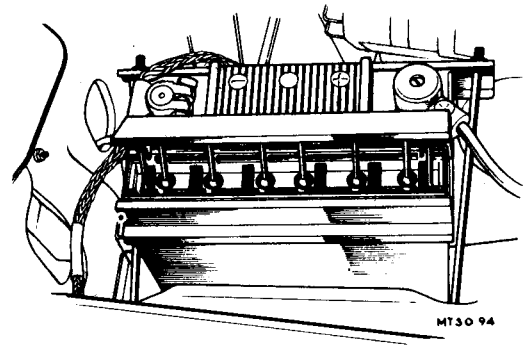
Alternatively:-

1. Remove battery filler plugs.
2. Check electrolyte level, which if correct should just cover the separators.

If topping up is necessary:-

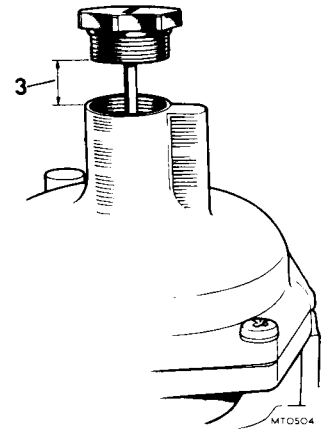
3. Add **DISTILLED WATER** until the separators are just covered. **DO NOT OVERFILL.**
4. Replace filler plugs.

CAUTION: Paintwork can be damaged by direct contact with the base of filler plugs.



(7) Check/top up carburetter piston(s) damper(s)

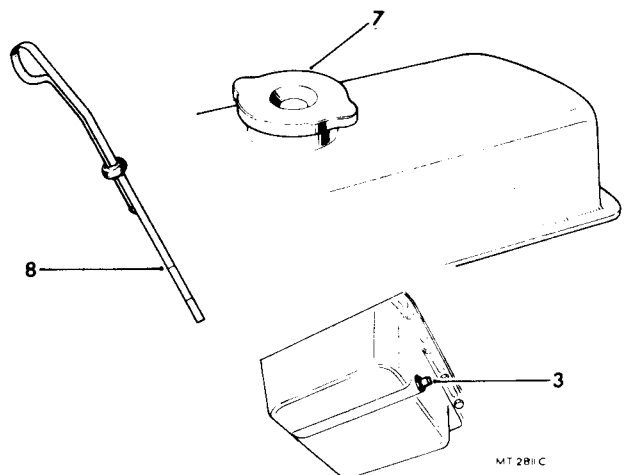
1. Unscrew hexagon plug from top of carburetter.
2. Withdraw plug and damper assembly from carburetter.
3. Replace plug and damper assembly to check oil level, which if correct will offer resistance to the assembly when the bottom of the plug threads are $\frac{1}{4}$ in (6 mm) above the rim of the dashpot.
4. If necessary, again withdraw plug and damper assembly and add a recommended engine oil, using an oil can, until the oil level is correct.
5. Replace plug and damper assembly.
6. Screw hexagon plug firmly in position.



(8) Drain engine oil and refill

NOTE: This operation is best carried out when the engine is warm and with the vehicle standing level on a ramp or over a pit.

1. Wipe clean the engine drain plug and surrounding area.
2. Place a suitable receptacle under the drain plug.
3. Unscrew the drain plug slowly until oil begins to escape.
4. When the rate of oil flow lessens, remove drain plug from sump and allow oil to drain completely.
5. Wipe clean the drain plug and replace it in sump.
6. Tighten drain plug to 20 to 25 lbf ft. (2.8 to 3.5 kgf m).
7. Remove oil filler cap.
8. Add a recommended engine oil, via filler cap, to bring level just below high mark on dipstick. **DO NOT OVERFILL.**
9. Replace oil filler cap.
10. Allow time for added oil to drain into sump, then check final oil level on dipstick.



MAINTENANCE

(9) Renew oil filter element

See 12.60.01 and 12.60.08.

(10) Clean fuel pump sediment bowl

See 19.45.05

(11) Lubricate distributor and check automatic advance

Lubricate distributor – See 86.35.18

Check automatic advance

1. Fit a strobe Timing Light in accordance with the Timing Light manufacturers instructions.
2. Disconnect vacuum pipe between distributor and induction side of engine.
3. Start engine.

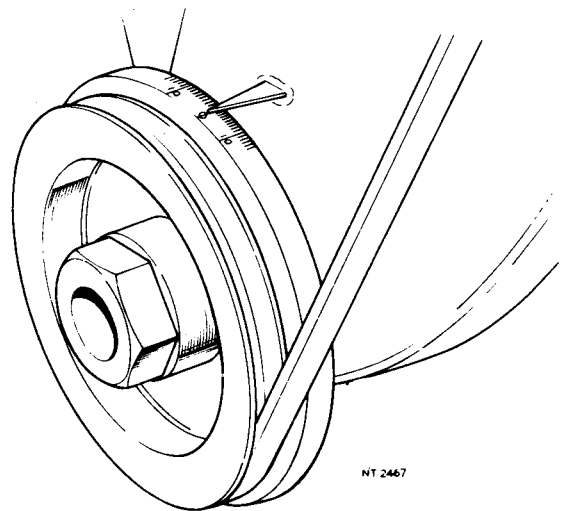
Check centrifugal advance.

4. Using a second operator to vary engine speed, check apparent movement of timing marks under strobe light.
5. Reconnect vacuum pipe.

Check vacuum advance

6. Repeat the procedure in 4 above, comparing engine timing with and without vacuum pipe connected.
7. Stop engine.

NOTE: If more accurate results are required electronic tuning equipment may be used in conjunction with the data on page 86.35.00. This is extra to normal service requirements.



(12) Check/adjust/report condition of distributor points

See 86.35.14.

(13) Renew distributor points

See 86.35.13

(14) Check/adjust ignition timing

See 86.35.16

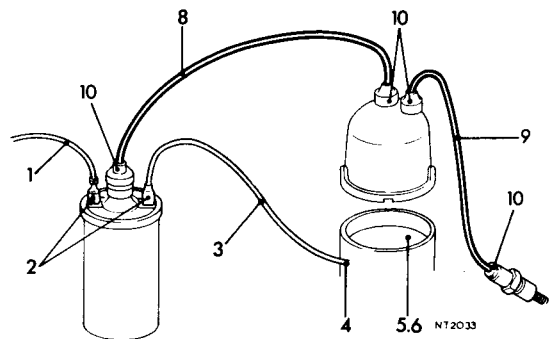
(15) Check/report ignition wiring for fraying, chaffing and deterioration

Low tension circuit.

1. Check exposed wiring between coil and ignition switch.
2. Check ignition coil connections.
3. Check wiring between coil and distributor.
4. Check distributor external connections.
5. Remove distributor cap and check internal wiring.
6. Check internal distributor connections.
7. Replace distributor cap.

High tension circuit.

8. Check lead between coil and distributor.
9. For each sparking plug in turn:—
Check lead between plug and distributor.
10. Check high tension lead connections.
11. Report wiring condition.



(16) Check condenser and coil for breakdown on oscilloscope tune

Using proprietary electronic testing equipment

1. Check distributor condenser performance.
2. Check ignition coil performance.

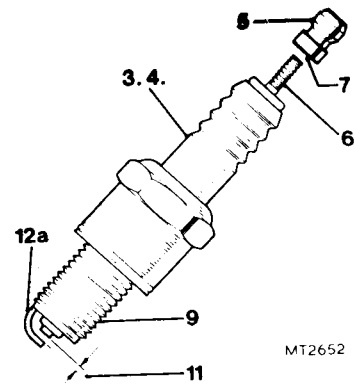
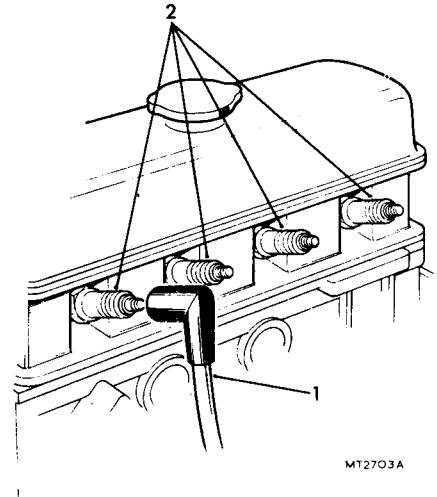
(17) Clean/adjust sparking plugs

For each sparking plug in turn

1. Remove ignition high tension lead from plug.
2. Unscrew plug from engine using a special plug spanner or a box type spanner.
3. Wipe clean ceramic body of plug.
4. Visually check plug body for cracks, and renew plug if cracks are present.
5. Unscrew end terminal cap from plug.
6. Clean plug terminal threads with a wire brush.
7. Clean cap threads using a low pressure air line.
8. Screw end terminal cap firmly into position on plug.
9. Clean electrode area and plug threads with a wire brush or sand blasting machine.
10. Visually check electrode surfaces for damage, and renew plug if damage is present.
11. Check electrode gap, which if correct will just allow a 0.025 in (0.64 mm) feeler gauge to slide slowly between the electrodes under light pressure.

If adjustment is necessary.

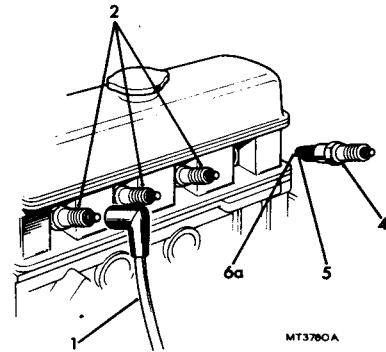
12. (a) Using a suitable tool, carefully move the side electrode.
(b) Recheck the gap and repeat this procedure until the gap is correct.
13. Check sealing washer for cracks and distortion, and renew washer if necessary.
14. Refit sparking plug to engine.
15. Tighten plug to 14 to 20 lbf ft (1.9 to 2.8 kgf m).
16. Refit high tension lead to plug.



(18) Renew sparking plugs

For each sparking plug in turn

1. Remove ignition high tension lead from plug.
2. Unscrew plug from engine using a special plug spanner or a box type spanner.
3. Discard plug.
4. Visually check new plug for damage to body and electrodes, discard plug if damage is present.
5. Check electrode gap on new plug, which if correct will just allow a 0.025 in (0.64 mm) feeler gauge to slide slowly between the electrodes under light pressure.

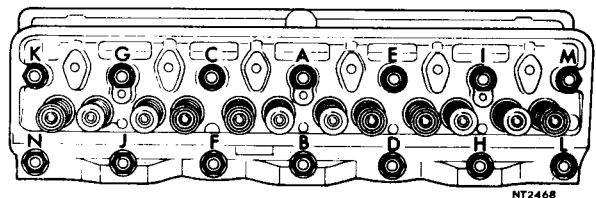


If adjustment is necessary.

6. (a) Using a suitable tool, carefully move the side electrode.
(b) Recheck the gap and repeat this procedure until the gap is correct.
7. Check sealing washer for cracks and distortion, and renew washer if necessary.
8. Fit new sparking plug to engine.
9. Tighten plug to 14 to 20 lbf ft (1.9 to 2.8 kgf m).
10. Refit high tension lead to plug.

(19) Check/adjust torque of cylinder head nuts/bolts

1. Remove rocker cover – See 12.29.42.
2. Using the sequence shown, tighten cylinder head nuts to 60 to 80 lbf ft (8.3 to 11.1 kgf m).
3. Check/adjust valve rocker clearances – See 12.29.48.
4. Check rocker cover gasket for damage, and renew if necessary.
5. Refit rocker cover – See 12.29.42.
6. With gears in neutral, handbrake on, start engine and check for leaks from rocker cover gasket.



(20) Check/report cylinder compression

See 12.25.01

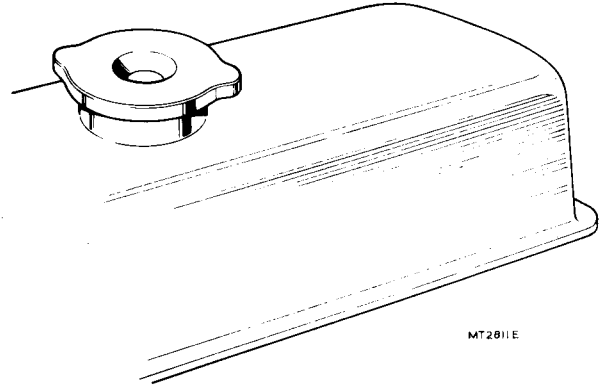
(21) Check/adjust valve rocker clearances

See 12.29.48

MAINTENANCE

(22) Clean engine oil filler cap

1. Remove filler cap.
2. Clean cap with clean petrol.
3. Allow to dry.
4. Refit filler cap.



(23) Clean carburettor air cleaner elements

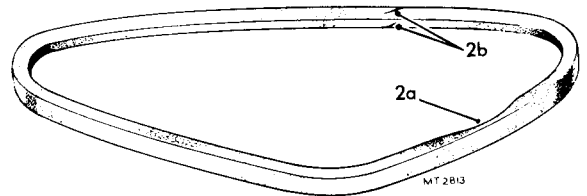
See 19.10.08

(24) Renew carburettor air cleaner elements

See 19.10.08

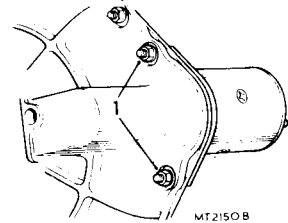
(25) Check/adjust/report condition of driving belts

1. Check and adjust – See 26.20.01
2. Report condition where belt is visibly
(a) worn or
(b) damaged.



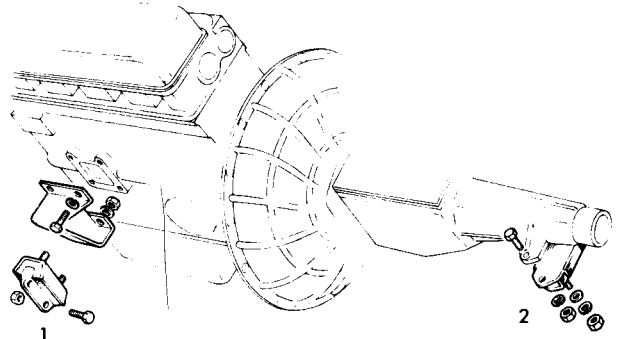
(26) Check security of starter motor and alternator retaining bolts

1. Check security of starter motor retaining bolts, which if correct should be tightened to 26 to 34 lbf ft (3.6 to 4.7 kgf m).
2. Check security of alternator to adjusting link bolt, which if correct should be tightened to 15 to 20 lbf ft (2.1 to 2.8 kgf m).
3. Check security of alternator mounting bracket bolt, which if correct should be tightened to 16 to 22 lbf ft (2.2 to 3.0 kgf m).



(27) Check security of engine mountings

1. Check security of front engine mountings, which if correct should be tightened to 24 to 32 lbf ft (3.3 to 4.4 kgf m).
2. Check security of rear engine mountings, which if correct should be tightened to 50 to 60 lbf ft (6.9 to 9.0 kgf m). Mounting rubber to gearbox AND 38 to 46 lbf ft (5.2 to 6.4 kgf m) mounting rubber to cross member.



(28) Check/adjust carburetter settings

See 19.15.02

(29) Overhaul carburetter

See 19.15.18.

(30) Change fuel filter

See 19.25.01

(31) Check fuel system for leaks

1. Check for leaks from fuel system connections.
2. Check fuel pipes for fractures and damage.
3. Check for leaks from fuel tank(s), pump and carburetter(s)/metering distributor.
On vehicles fitted with an evaporative control system, additional checks are given under 17.15.01.

(32) Lubricate accelerator linkage/pedal fulcrum and check operation

1. Lubricate accelerator linkage on carburetter(s)/metering distributor, using an oil can.
2. Wipe away surplus oil from linkage.
3. Check for roughness in linkage operation.
4. Lubricate accelerator pedal fulcrum, using an oil can.
5. Wipe away surplus oil from pedal fulcrum.

CAUTION: Surplus oil on the pedal fulcrum can cause staining of the carpet.

6. Check carburetter/metering distributor throttle response to initial movement of the accelerator pedal.

If adjustment is necessary – see 19.20.05

7. Check carburetter/metering distributor throttle position with accelerator pedal fully depressed.

If adjustment is necessary – See 19.20.05.



MAINTENANCE

(33) Check battery condition: clean and grease connections

With battery in location

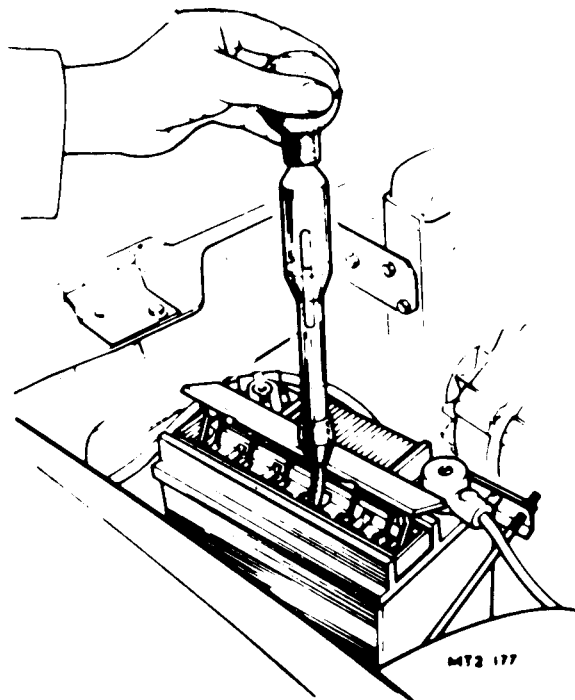
1. Check battery and surrounding area for corrosion from battery chemicals.
2. Clean off any corrosion found.
3. Check visually for cracks in battery case.
4. Report any case cracks found.
5. Check security of terminal connections.
6. Coat terminals with petroleum jelly.

For each cell in turn:-

7. Check electrolyte specific gravity, using an hydrometer, which if correct will approximate to the tabled readings below.

NOTE (a) Do NOT check S.G. immediately after adding distilled water as a false reading may be obtained.

(b) S.G. readings approximately equal for each cell indicate a battery in good condition. Conversely, if one or more cells show a reading lower than the others the battery is approaching the end of its useful life.



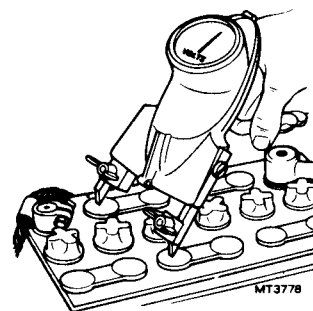
MT2 177

Charge condition of cell – temperate climate			
Ambient Temperature °C	Specific Gravity of Electrolyte		
	Charged	Half-Charged	Discharged
5	1.287	1.207	1.117
15	1.280	1.200	1.110
25	1.273	1.193	1.103
35	1.226	1.186	1.096
Charge condition of cell – tropical climate			
15	1.250	1.180	1.100
25	1.243	1.173	1.093
35	1.236	1.166	1.086
52	1.224	1.154	1.074

8. Check voltage, using a heavy discharge tester, which if correct will give approximately equal readings for each cell.

CAUTION: This check should NOT be made on a battery in a low state of charge as shown by procedure 7 as damage to the battery can result.

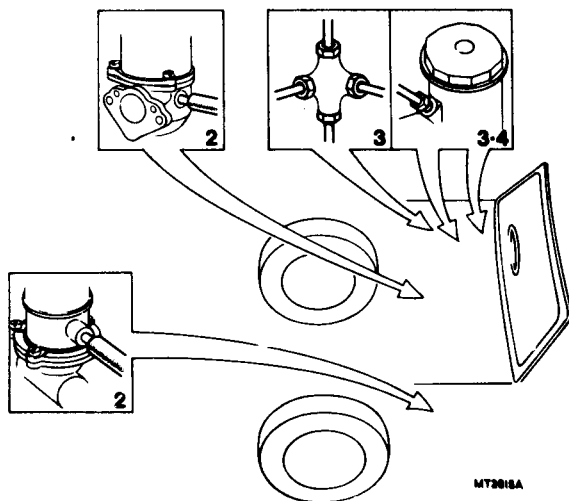
NOTE(a) Before making this check on a battery that has just completed an operational journey, the headlamps should be switched on for 2 or 3 minutes to remove any surface charge. **(b)** Voltage readings approximately equal for each cell indicate a battery in good condition. Conversely, if one or more cells show a reading lower than the others, or a reading that falls during the test, the battery is approaching the end of its useful life.



MT3778

(34) Check/report oil/fuel/fluid leaks

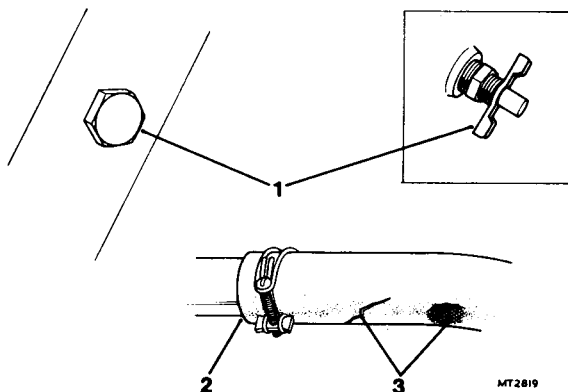
1. Check for oil leaks from engine and transmission.
2. Check for fuel leaks from pump, carburetter/metering distributor, pipes, joints and unions.
3. Check for fluid leaks from brake master cylinder, pipes, joints and unions.
4. Check for fluid leaks from clutch master cylinder, pipes, joints and unions.
5. Report any leaks found.



MT2818A

(35) Check/report leaks from cooling and heater systems.

1. Check for leaks from engine and radiator drain taps/plugs, (where fitted).
2. Check for leaks from water hose joints.
3. Check for leaks from water hoses through damage or porosity.
4. Check for leaks from water pump, thermostat housing, radiator and heater unit.
5. Report any leaks found.



MT2819

(36) Evaporative and crankcase ventilation systems-check hoses and restrictors for blockage, security and deterioration.

See 17.15.01 and 17.15.36

(37) Carbon canister –renew filter

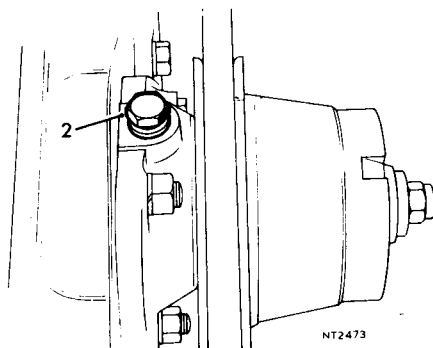
See 17.15.07

(38) Carbon canister – renew at 48,000 miles

See 17.15.13.

(39) Lubricate water pump

1. Wipe clean sealing plug and surrounding area.
2. Remove plug and fit a suitable grease nipple
3. Apply a grease gun until grease exudes from the pressure release hole in the side of the pump.
4. Remove grease nipple and replace blanking plug.
5. Wipe away surplus grease.



NT2473



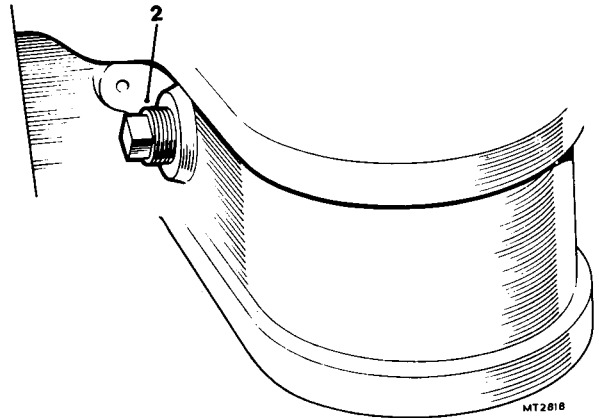
MAINTENANCE

NOTE: OPERATIONS 40 to 52 ARE BEST CARRIED OUT WITH THE CAR ON A RAMP OR OVER A PIT.

(40) Check/top up level of gearbox and overdrive oil

With vehicle standing level

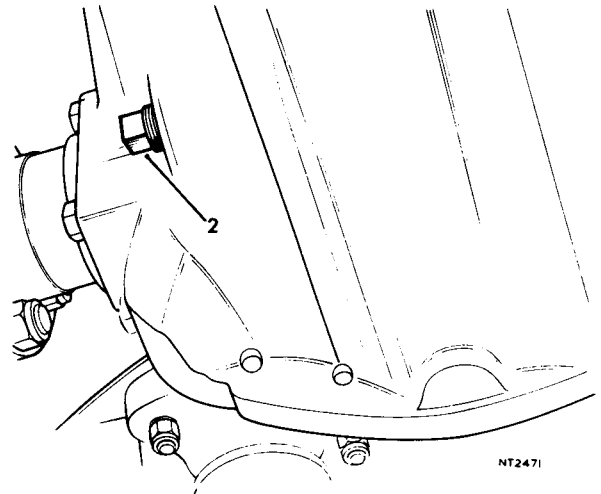
1. Wipe clean gearbox filler plug and surrounding area.
2. Remove filler plug.
3. Add new oil of the recommended grade, via the filler plug hole, until the oil level reaches the bottom of the hole.
4. Allow surplus oil to drain.
5. Replace filler plug.
6. Tighten plug to 20 to 25 lbf ft (2.8 to 3.5 kgf m).
7. Wipe away surplus oil.



(41) Check/top up level of final drive unit oil

With vehicle standing level

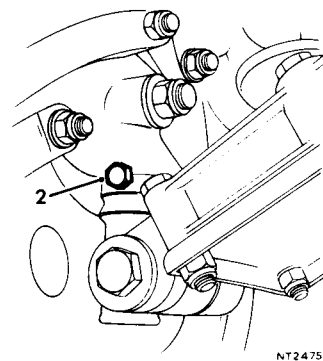
1. Wipe clean final drive unit filler plug and surrounding area.
2. Remove filler plug.
3. Add new oil of the recommended grade, via the filler plug hole, until the oil level reaches the bottom of the hole.
4. Allow surplus oil to drain.
5. Replace filler plug.
6. Tighten plug to 20 to 25 lbf ft (2.8 to 3.5 kgf m).
7. Wipe away surplus oil.



(42) Lubricate lower steering swivel

WARNING: OIL must be used for the operation. Do NOT use grease.

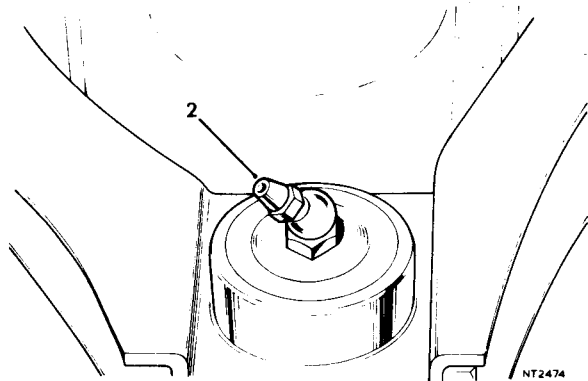
1. Wipe clean the plug and surrounding area.
2. Remove the plug.
3. Fit a suitable grease nipple to the plug hole.
4. Using a grease gun, **CHARGED WITH A RECOMMENDED OIL**, lubricate the lower steering swivel, via the grease nipple, until oil exudes from the bearing.
5. Remove grease nipple
6. Refit plug.
7. Wipe away surplus oil.



(43) Lubricate all grease points except hubs

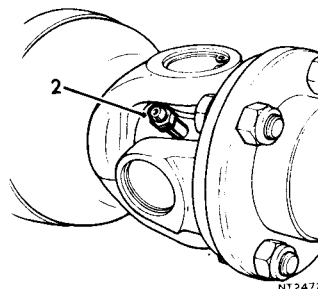
Suspension upper ball joint

1. Wipe clean the sealing plug and surrounding area
2. Remove plug and fit a suitable grease nipple.
3. Apply a grease gun until grease exudes from the joint.
4. Remove grease nipple and replace sealing plug.
5. Wipe away surplus grease.



Inner drive shaft universal joint

1. Wipe clean the grease nipple and surrounding area.
2. Apply a grease gun and give **5 STROKES ONLY**.
3. Wipe away surplus grease.

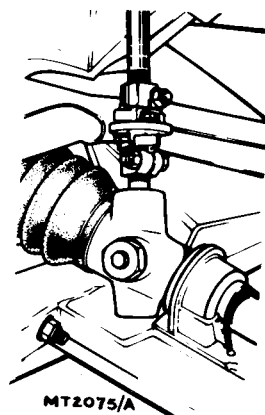


(44) Lubricate steering rack and pinion

1. Wipe clean the plug and surrounding area.
2. Remove the plug.
3. Fit a suitable grease nipple to the plug hole.
4. Apply a grease gun to nipple and stroke for 5 times only.

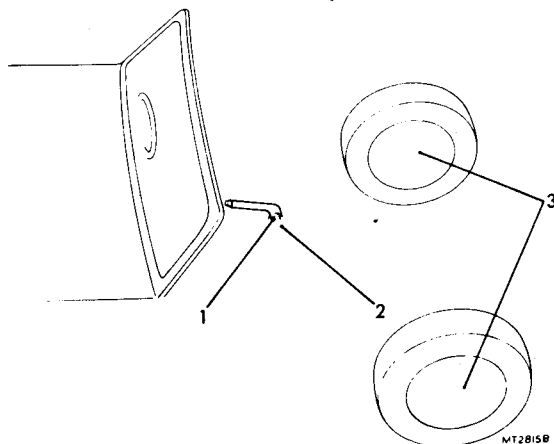
CAUTION: Over greasing can cause damage to the rubber bellows.

5. Remove grease nipple.
6. Refit plug.
7. Wipe away surplus grease.



(45) Lubricate handbrake linkage and cables

1. Lubricate handbrake pivot.
2. Smear grease around handbrake lever cable connections, working it well into the clevis pin.
3. Smear grease around brake drum cable connections, working it well into the clevis pin.
4. Grease exposed sections of inner cable to resist corrosion.



MAINTENANCE

- (46) Check engine, transmission, final drive, suspension and steering unit for oil leaks and report.

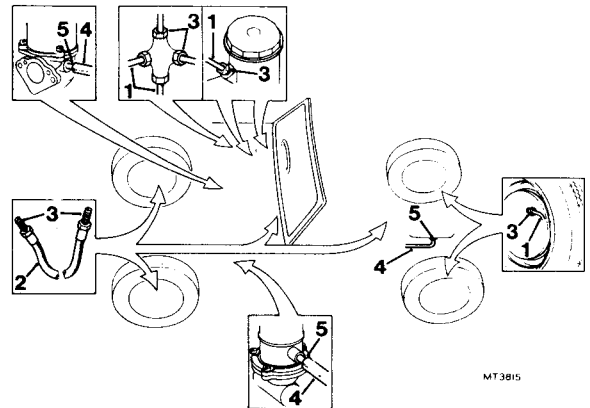
- (47) Check visually brake, fuel and clutch pipes, hoses and unions for chaffing leaks and corrosion and report.

Check visually

1. Brake and clutch pipes.
2. Brake and clutch hoses.
3. Brake and clutch pipe and hose unions.
4. Fuel pipes.
5. Fuel pipe unions.

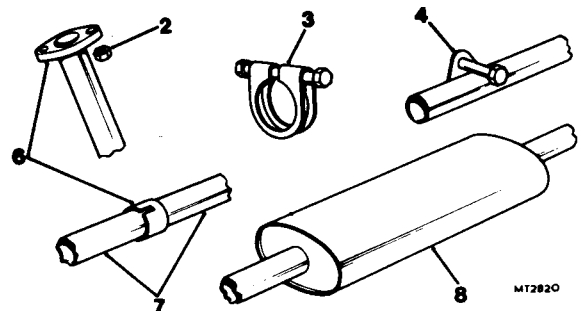
for chaffing leaks and corrosion.

6. Report any defects found.



- (48) Check/report exhaust system for leakage and security

1. Place car on ramp or over a pit.
2. Check security of exhaust pipe to manifold nuts, which if correct should be tightened to 20 to 25 lbf ft (2.8 to 3.5 kgf m).
3. Check security of exhaust pipe joint clips.
4. Check security of exhaust system mounting bolts.
5. Using a second operator, run engine at fast idle speed.
6. Check exhaust system joints for leaks.
7. Check exhaust pipes for leaks arising from damage or deterioration.
8. Check exhaust silencers for leaks arising from damage or deterioration.
9. Stop engine.
10. Report any defects found.



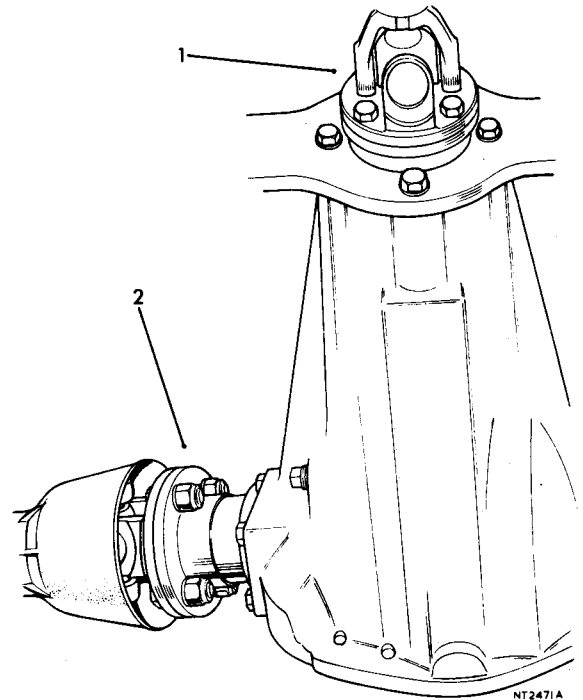
- (49) Check security of suspension fixings, tie-rod levers, steering unit attachment and steering universal joint coupling bolts.

Check security of

1. Suspension fixings,
2. Tie-rod levers,
3. Steering unit attachment,
4. Steering universal joint coupling bolts.

- (50) Check security of propeller shaft and drive shaft universal coupling bolts

1. Check security of propeller shaft coupling bolts, which if correct should be tightened to 26 to 34 lbf ft (3.6 to 4.7 kgf m).
2. Check security of half shaft to final drive unit coupling bolts, which if correct should be tightened to 26 to 34 lbf ft (3.6 to 4.7 kgf m).



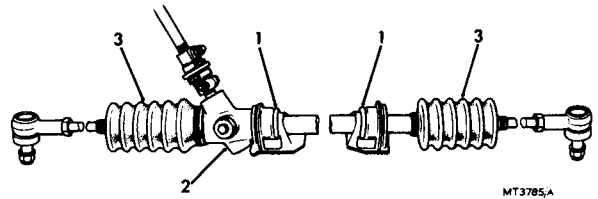
- (51) Check security of sub-frame or body mountings

Using page 06 as a guide

1. Check security of sub-frame mounting bolts/nuts.

- (52) Check/report condition of steering unit/joints for security, backlash and gaiter condition

1. Check security of steering unit mounting and steering joints, using page 06 as a guide.
2. Check steering for backlash.
3. Check condition of steering gaiters.
4. Report any defects found.



- (53) Adjust front hubs

See 60.25.13

- (54)(55) Check/adjust/report front and rear wheel alignment with tracking equipment.

Front wheel alignment – See 57.65.01

Rear wheel alignment – See 64.25.17



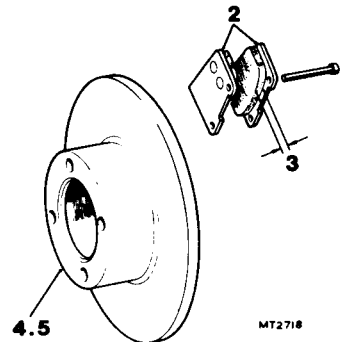
(56) Inspect brake pads for wear and discs for condition

Front brakes

1. Jack up front of car and place safely on stands.
2. Remove front brake pads – See 70.40.02

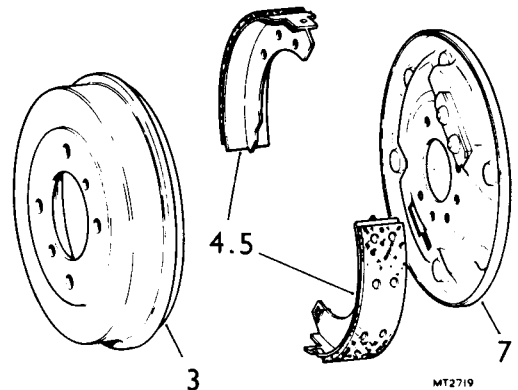
CAUTION: Do NOT depress the brake pedal while pads are removed.

3. Report pad condition if the friction lining has been reduced to 0.125 inch (3 mm) or if there is not sufficient material to provide a thickness of 0.125 in (3 mm) at the completion of a further 3,000 miles (5,000 km) motoring.
4. Check brake discs for excessive scoring and report this if present.
5. Check brake discs for run out and report this if it exceeds 0.007 in (0.178 mm).
6. Refit front brake pads – See 70.40.02
7. Lower car off stands.



(57) Inspect and report brake linings for wear and drums for condition

1. Jack up car and place safely on stands.
2. Remove road wheel – See 74.20.01.
3. Remove brake drum – See 70.10.02 (front) or 70.10.03 (rear).
4. Check brake linings for wear and report if linings are excessively worn.
5. Check brake linings for damage and contamination by oil or grease and report if linings are damaged or contaminated.
6. Check brake drums for wear, scoring or other damage and report if drums are excessively worn, scored or damaged.
7. Remove dust, oil and grease from brake drum and backplate.
8. Refit brake drum – See 70.10.02 (front) or 70.10.03 (rear).
9. Refit road wheel – See 74.20.01.
10. Lower car off stands.



(58) Check security of road wheel fastenings.

Disc Wheels

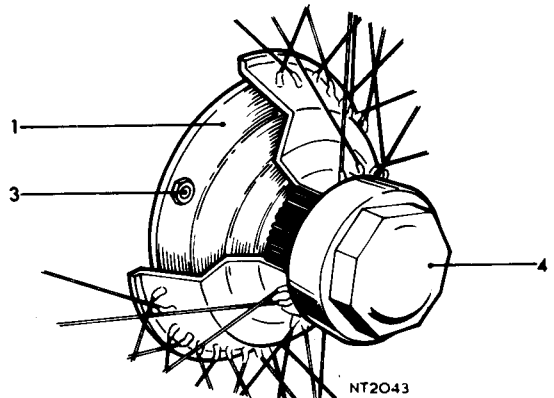
For each wheel in turn:-

1. Check tightness of road wheel securing nuts, which if correct should be tightened to 60 to 80 lbf ft (8.3 to 11.1 kgf m).

Wire Wheels

For each wheel in turn

1. Visually check that adaptor is fitted on the correct side.
2. Remove road wheel – See 74.20.01.
3. Check tightness of the adaptor securing nuts, which if correct should be tightened to 55 to 65 lbf ft (7.6 to 9.0 kgf m).
4. Replace road wheel – See 74.20.01 ensuring that the centre nut is correctly secured.



(59) Check that tyres are in accordance with manufacturers specification

For each road wheel and spare wheel:-

1. Check that tyres are in accordance with vehicle manufacturers recommendations for type and size and report any deviation.
2. Check for mixing of cross ply and radial ply tyres and report if both types are present on the vehicle (including spare wheel).

WARNING: It is illegal in the U.K. and highly dangerous to mix cross ply and radial ply tyres on the same axle or to fit radial ply tyres to the front wheels only.

- (60) Check visually and report depth of tread, cuts in tyre fabric, exposure of ply or cord structure, lumps or bulges

For each road wheel and spare wheel:-

1. Check tread depth, which if correct should show 1 mm (0.039 in) of tread (excluding wear bars) over three quarters of the breadth for the entire circumference of the tyre.

WARNING: It is illegal in the U.K. to use a car of this type fitted with tyres that have a tread depth below this minimum or tyres on which the tread is worn level with the wear indicator bars.

Check for

2. Cuts in the tyre fabric.
3. Exposure of ply or cord structure.
4. Lumps or bulges on tyre circumference.
5. Lumps, bulges or other damage on tyre walls.

WARNING: It is illegal in the U.K. to use a car fitted with tyres in a damaged condition.

- (61) Check/adjust tyre pressures (including spare wheel)

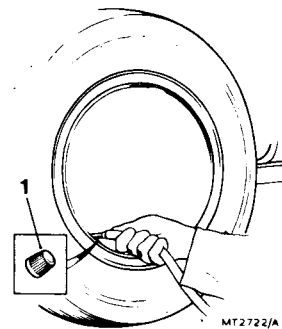
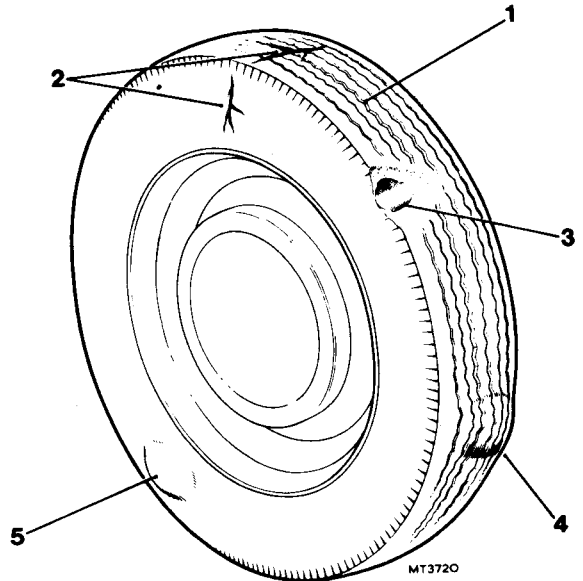
With all tyres at ambient temperature:-

1. Remove protective dust cap.
2. Using a tyre pressure gauge, tested for accuracy, check tyre pressure.

Recommended tyre pressures for the different tyre types that may be fitted are shown on page 04-3

3. Adjust tyre pressure as necessary.
4. Replace dust cap or renew if missing.

WARNING: It is illegal in the U.K. to use a car with the tyres inflated to a pressure that is not suitable for the use to which the vehicle is put.

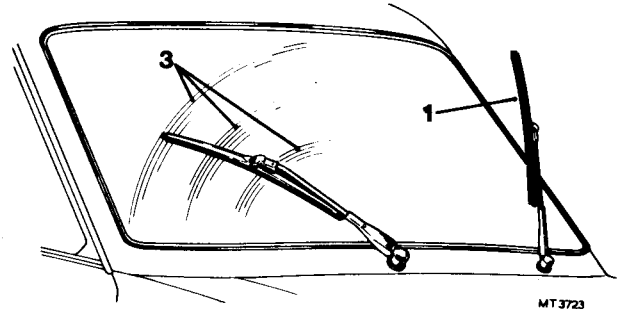


(62)(63) Check/adjust/report headlamp alignment

See 86.40.18

(64) Check, if necessary replace windscreen wiper blades

1. Examine each wiper blade in turn for damage.
2. With wiper blades in position and windscreen wet, operate wiper motor.
3. Check wiper blade operation for smearing and adequate removal of dirt.
4. Stop wiper motor.
5. If the checks in procedures 1 and 3 are not satisfactory, replace one or both wiper blades as necessary – See 84.15.05.

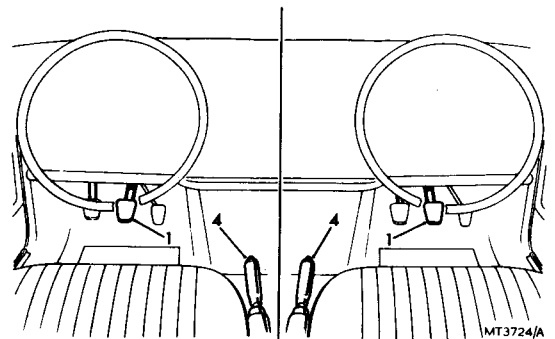


(65) Fuel tank filler cap – check seal for security

See 17.15.01

(66) Check brake pedal travel and handbrake operation, adjust if necessary.

1. With handbrake in 'off' position, check brake pedal for sponginess and excessive travel.
2. If brake pedal has spongy operation, bleed and adjust brakes – See 70.25.01.
3. If brake pedal travel is excessive, adjust brakes – See 70.25.03.
4. With foot clear of brake pedal, check handbrake for excessive travel.
5. If handbrake travel is excessive, adjust handbrake – See 70.35.10.



(67) Check/report brake pedal travel and handbrake operation.

1. With handbrake in 'off' position, check brake pedal for spongy operation and excessive travel.
2. Report brake pedal condition.
3. With foot clear of brake pedal, check handbrake for excessive travel.
4. Report handbrake operation.

MAINTENANCE

(68) Check operation of window controls, locks and bonnet release.

Check operation of:-

1. Window raising and lowering controls.
2. Internal door locks.
3. External door locks.
4. Luggage compartment lock.
5. Bonnet release controls.
6. Report any defects found.

(69) Check function of all electrical systems and windscreen washer.

In sequence, check operation of:-

1. Side, tail and headlamps (including headlamp dip/main beam and 'flash' controls).
2. Instrument panel illumination.
3. Interior light.
4. Horn(s).
5. Auxiliary lights.

With ignition circuits energised, check operation of:

6. All warning lights (including 'hazard' warning lights if fitted).
7. Fuel level indicator.
8. Heater blower motor.
9. Windscreen washers.
10. Windscreen wipers.
11. Direction indicators.
12. Brake lights.
13. Reversing lights.
14. Start engine and note that oil pressure warning light has extinguished.

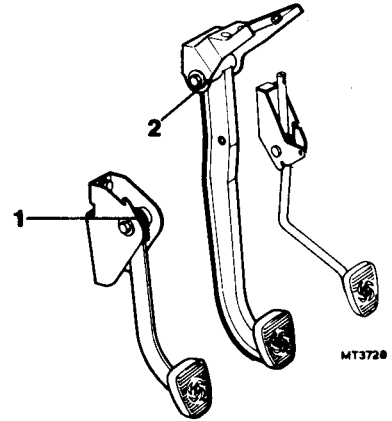
Check operation of:-

15. Charging system warning light in relation to engine speed.
16. Temperature indicator.
17. Radio (if fitted),
18. Switch off engine and return ignition switch to the auxiliary position, then recheck the function of any fitted accessories e.g. a radio, that are supplied with power from this switch position.
19. Report any defects found.

(70) Lubricate clutch and brake pedal pivots.

Using an oil can, lubricate

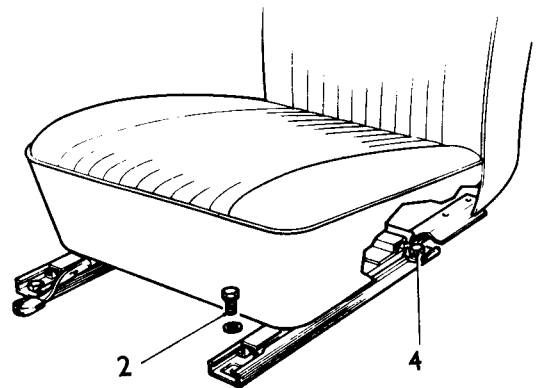
1. Clutch pedal pivot.
2. Brake pedal pivot.
3. Wipe away surplus oil to prevent staining the carpet.



(71) Lubricate all locks, door hinges, strikers and bonnet release.

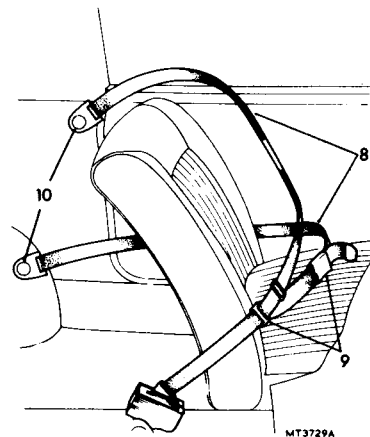
Using an oil can, lubricate

1. Door locks.
2. Door hinges.
3. Door strikers.
4. Luggage compartment lock.
5. Bonnet release mechanism.
6. Wipe away surplus oil.



(72) Check/report condition and security of seats and seat belts.

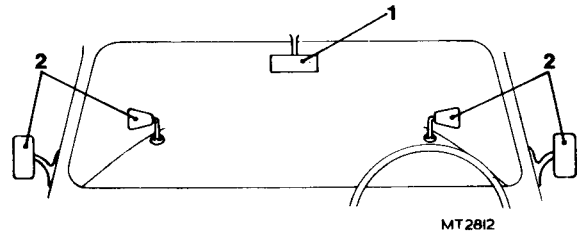
1. Move driver's seat back to its fullest extent.
2. Check security of front bolts holding seat runner to floor.
3. Move driver's seat forward to its fullest extent.
4. Check security of rear bolts holding seat runner to floor.
5. With seat in middle position, check security of seat in runner.
6. Repeat the procedure in 1 to 5 for passenger seat.
7. Check seat tipping and lock mechanisms.
8. Check seat belts for wear and damage.
9. Check seat belt connections for wear and damage.
10. Check security of seat belt anchorage bolts, which if correct should be tightened to 24 to 32 lbf ft (3.3 to 4.4 kgf m).
11. Report any defects found.



MAINTENANCE

(73) Check/report rear view mirrors for looseness, cracks and crazing.

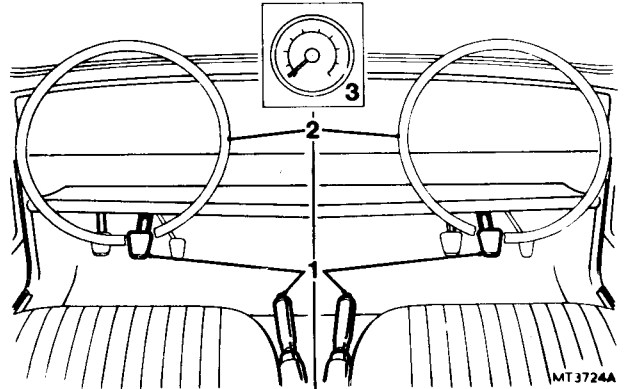
1. Check interior mirror for looseness, cracks and crazing.
2. Check external mirrors (when fitted) for looseness, cracks and crazing.
3. Report on condition of mirrors.



(74) Road/Roller test and report additional work required

In addition to the general road test, pay particular attention to:-

1. The efficiency and function of the footbrake and handbrake.
2. The function of the steering mechanism.
3. The function of the speedometer.



(75) Ensure cleanliness of controls, door handles, steering wheel etc.

1. Check steering wheel, gear lever, bonnet release control and fascia controls etc. for dirt and damage attributable to the service just completed.
2. Check door trims, locks and window controls for dirt and damage attributable to the service just completed.
3. Check seats, carpets and pedal rubbers for dirt and damage attributable to the service just completed.

ENGINE OPERATIONS

Cam followers – set – remove and refit	12.29.57
Camshaft – remove and refit	12.13.01
Connecting rod bearing	
– set – remove and refit	12.17.16
– one – remove and refit	12.17.17
– extra each – remove and refit	12.17.18
Connecting rods and pistons	
– remove and refit	12.17.01
– Overhaul	12.17.10
Crankcase front sealing block	12.25.11
Crankshaft – remove and refit	12.21.33
Crankshaft end-float – check and adjust	12.21.26
Crankshaft pulley – remove and refit	12.21.01
Crankshaft rear oil seal – remove and refit	12.21.20
Cylinder block drain plug – remove and refit	12.25.07
Cylinder block front mounting plate gasket – remove and refit	12.25.10
Cylinder block – rebore	12.25.23
Cylinder head	
– overhaul	12.29.18
– remove and refit	12.29.10
Cylinder head gasket – remove and refit	12.29.01
Cylinder head nuts – tighten	12.29.27
Cylinder pressures – check	12.25.01
Decarbonize, reface all valves and seats, grind-in valves, tune engine	12.29.21
Distributor drive shaft – carburettor model – remove and refit	12.10.22
Distributor drive shaft – P.I. model – remove and refit	12.10.22

Continued

Oil sump – remove and refit	12.60.44
Pedestal seals – Pl.	12.10.24
Piston and/or rings	
– engine set – remove and refit	12.17.03
– extra each – remove and refit	12.17.06
Push-rods – set – remove and refit	12.29.59
Rocker adjusting screws – set – remove and refit	12.29.56
Rocker cover – remove and refit	12.29.42
Rocker shaft assembly – overhaul	12.29.55
Rocker shaft – remove and refit	12.29.54
Spigot bush – remove and refit	12.21.45
Starter ring gear – remove and refit	12.53.19
Timing chain – remove and refit	12.65.14
Timing chain and gears – remove and refit	12.65.12
Timing chain tensioner – remove and refit	12.65.28
Timing cover oil seal – remove and refit	12.65.05
Timing chain cover – remove and refit	12.65.01
Valve clearance – check and adjust	12.29.48
Valve guides	
– exhaust – remove and refit	12.29.71
– inlet – remove and refit	12.29.70
Valve timing – check	12.65.08
Valves	
– exhaust – remove and refit	12.29.60
– inlet and exhaust – remove and refit	12.29.62
– inlet – remove and refit	12.29.63

ENGINE

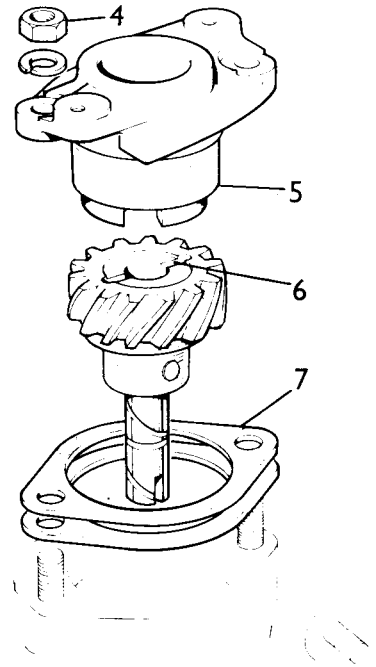
DISTRIBUTOR DRIVE SHAFT – CARBURETTOR ENGINE

– Remove and refit

12.10.22

Removing

1. Isolate the battery.
2. Turn the engine over until the pointer on the timing cover coincides with the 4° A.T.D.C. mark on the crankshaft pulley, number one cylinder firing.
3. Remove the distributor 86.35.20.
4. Remove the two nuts and spring washers securing the pedestal to the cylinder block.
5. Remove the pedestal.
6. Check that the position of the distributor drive slot is correct (see instruction 13) and lift out the distributor drive shaft and gear.
7. Remove the gaskets.

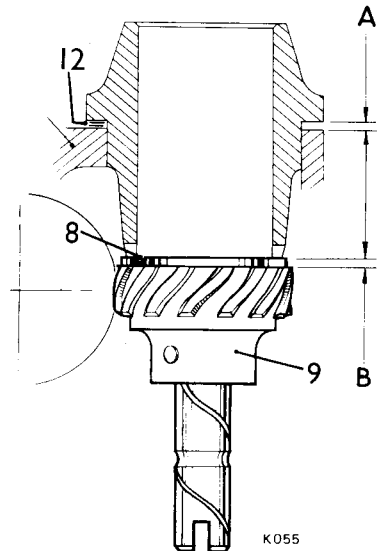


Establishing the distributor drive shaft end-float

NI2 586

8. Place a flat washer on top of the oil pump shaft bush.
9. Fit the distributor drive shaft and gear in position over the washer ensuring that the oil pump drive dog is engaged.
10. Fit the pedestal without gaskets and using a feeler gauge measure and note the gap A between the pedestal and cylinder block flange.
11. Remove the pedestal and distributor drive shaft and measure the thickness of the washer with a micrometer.
12. Allowing 0.005 in (0.127 mm) end-float assess the required number and thickness of gaskets needed as in the following examples a and b.

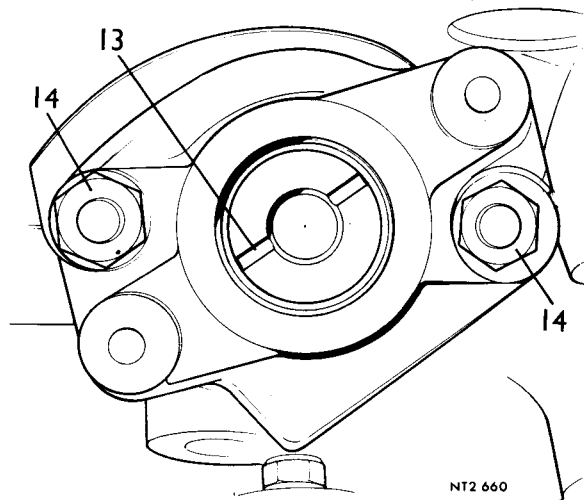
- | | | |
|----|----------------------------------|-------------------------|
| a. | Washer thickness B | 0.075 in (1.905 mm) |
| | Measured gap A | 0.074 in (1.880 mm) |
| | End float | 0.001 in (0.025 mm) |
| | Gaskets required to the value of | 0.004 in (0.102 mm) |
| b. | Washer thickness B | 0.075 in (1.905 mm) |
| | Measured gap A | 0.080 in (2.032 mm) |
| | Pre-load | - 0.005 in (- 0.127 mm) |
| | Gasket required to the value of | 0.010 in (0.254 mm) |



Continued

Refitting

13. Fit the distributor drive shaft and gear ensuring that the oil pump drive dog engages correctly and the distributor drive off-set slot is towards the engine.
14. Fit the gaskets as calculated and assemble the pedestal to the cylinder block and secure with the two nuts and spring washers.
15. Refit the distributor and check the ignition timing.

**DISTRIBUTOR DRIVE SHAFT – P.I.**

– Remove and refit

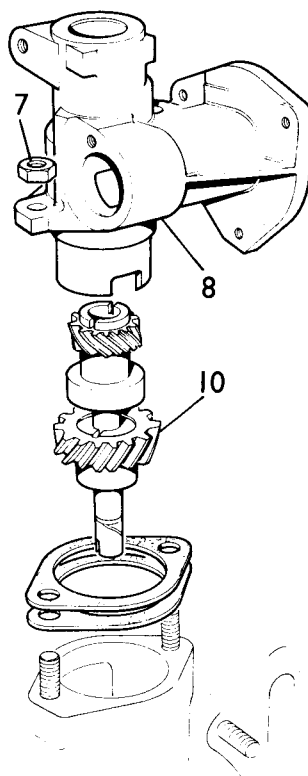
12.10.22

Removing

1. Isolate the battery.
2. Disconnect the main fuel feed union to the fuel metering distributor.
3. Disconnect the tachometer drive from the ignition distributor.
4. Disconnect the fuel distributor unit lubricate return pipe.
5. Turn the crankshaft to bring numbers one and six pistons to T.D.C. number one firing.
6. Note the position of the rotor arm and remove the distributor complete with the cap and leads.
7. Remove the two nuts and washers securing the pedestal to the cylinder block.
8. Remove the pedestal complete with the fuel metering distributor whilst preventing the ignition distributor drive shaft from being removed as well.

NOTE: Take care not to allow the fuel metering distributor drive pinion to rotate so that the necessity to retime will be prevented.

9. Check that the position of the ignition distributor gear drive slot is correct for reassembly purposes.
10. Remove the distributor drive shaft and gear complete and note the position of the oil pump drive dog.

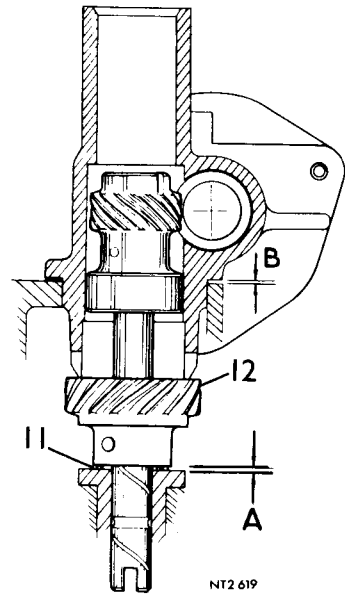
*Continued*

ENGINE

Establishing distributor drive shaft end-float

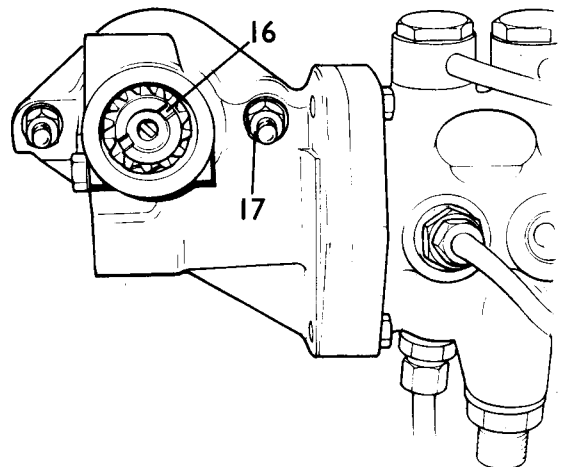
11. Place a flat washer on top of the oil pump shaft bush.
12. Fit the distributor drive shaft and gear in position over the washer ensuring that the oil pump drive dog is engaged.
13. Fit the pedestal without gaskets and using a feeler gauge measure and note the gap 'B' between the pedestal and the cylinder block flange.
14. Remove the pedestal and the distributor drive shaft. Remove the measure the thickness of the washer with a micrometer.
15. Allowing 0.005 in (0.127 mm) end float assess the required number and thickness of gaskets needed as in the following examples a and b:-

a.	Washer thickness A	0.075 in (1.905 mm)
	Measured gap B	0.074 in (1.880 mm)
	End-float	0.001 in (0.025 mm)
	Gaskets required to the value of	0.004 in (0.102 mm)
b.	Washer thickness A	0.075 in (1.905 mm)
	Measured gap B	0.080 in (2.032 mm)
	Pre-load	-0.005 in (- 0.127 mm)
	Gaskets required to the value of	0.010 in (0.254 mm)



Refitting

16. Fit the distributor drive shaft and gear ensuring that the shaft engages properly with the oil pump drive shaft and the distributor drive off-set slot is towards the engine.
17. Fit the gaskets as calculated and assemble the pedestal and metering unit to the cylinder block and secure with the two nuts and washers.
18. Check the fuel metering distributor timing instructions 3 to 6 19.35.01 and adjust instructions 7 to 11 19.35.01 if necessary.
19. Reverse instructions 1 to 4 and run the engine.



DATA

Distributor drive shaft end-float 0.003 to 0.007 in (0.076 to 0.177 mm).

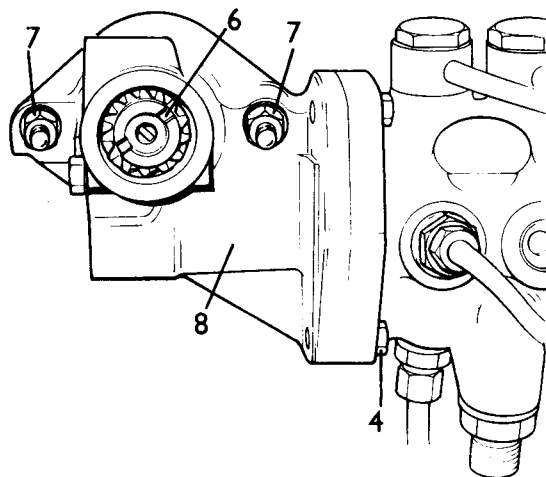
PEDESTAL OIL SEALS – P.I. ONLY

– Remove and refit

.12.10.24

Removing

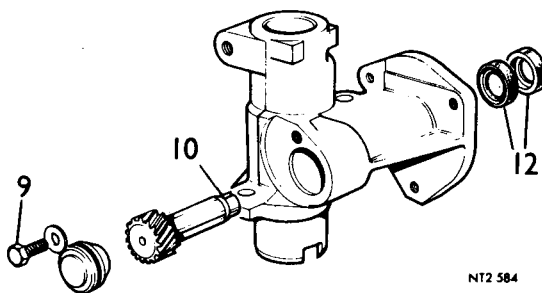
1. Isolate the battery.
2. Turn the engine over until number one piston is at T.D.C. on the firing stroke and the ignition distributor rotor arm is pointing to number one cylinder electrode in the distributor cap. Do not turn the engine again until completion of the operation.
3. Remove the ignition distributor.
4. Remove the three bolts securing the fuel metering distributor to the pedestal flange and move the unit away from the pedestal. Instruction 8 19.35.07.
5. Remove the plastic drive dog and rubber 'O' ring.
6. Check that the position of the distributor drive shaft off-set slot is correct for the purposes of reassembly.
7. Remove the two nuts securing the pedestal to the cylinder block.
8. Withdraw the pedestal complete with the drive shaft ensuring that the gaskets between the pedestal and the cylinder block are left in position since they are necessary to maintain the correct end-float on the distributor drive shaft. See operation 12.10.22.



NT2 638

0.097 = A
 0.099 = B.
 48 thou endfloat.

9. Remove the plug retaining bolt from the pinion housing.
10. Using a soft drift gently tap the drive end of the pinion shaft to release the plug and 'O' ring.
11. Continue tapping the pinion to remove it from the pedestal.
12. Using a suitable hooked tool remove the two seals taking care not to damage the pedestal bore.



NT2 584

Continued

