Confidential

TECHNICAL SERVICE BULLETIN

NO. 2 G 30

BRITISH LEYLAND AUSTIN MG DIVISION

BRITISH LEYLAND MOTORS INC.
600 Willow Tree Road • Leonia • New Jersey 07605

DATE: February 1,1969

SUBJECT:	MODELS:
TECHNICAL DATA	M G C.

In the absence of an M.G.C. Workshop Manual we have attached a list of basic technical information on this model.

CODE 50

TECHNICAL SERVICE DATA

M.G.C.

ENGINE

Unit Type	29G
No. of Cylinders	6
Bore	3.282 in.
Stroke	3.5 in.
Capacity	177.7 cu. in. (2912 cc)
Valve Operation	Overhead by push-rod
Oversize Bore : First	.010 in.
Max.	.040 in.

CRANKSHAFT

Main Journal Diameter	2.3742 to 2.3747 in.
Min. Regrind Diameter	2.3342 to 2.3347 in.
Crankpin Journal Diameter	2.0000 to 2.0005 in.
Min. Regrind Diameter	1.9600 to 1.9605 in.
Crankshaft End-Thrust	Taken on thrust washers at No. 3 main bearing.
Crankshaft End-Float	.002 to .006 in. (.051 to .152 mm)
Adjustment	Selective thrust washer assembly, at No. 3 main bearing.
Undersizes (mains and crankpins)	.010, .020, .030, .040 in. (.25, .51, .76, 1.02 mm)

MAIN BEARINGS

Number and Type	7 thin-wall
Material	Steel-backed VP3 - Tin-Aluminium
Length: No. 3 and 4	1.065 in.
Nos. 1,2,5,6, and 7	.947 in.
Diametrical Clearance	.0009 to .0027 in.

CONNECTING RODS

Type	Split big-end, bushed small end.
Length Between Centres	6.601 to 6.605 in.
End-Float on Crankpin(nominal)	.008 to .012 in.
Small-End Bush(reamed in position)	.8750 to .8752 in.

BIG-END BEARINGS

Type and Material	Steel backed Reticular tin aluminium or VP3
Length	.900 in.
Diametrical Clearance	.001 to .0027 in.

PISTONS

Type	Aluminium, solid skirt
Clearance in Cylinder:	
Top(below oil control groove)	.0028 to .0040 in.
Bottom	.0017 to .0023 in.

PISTONS - CONTINUED

Number of Rings	4 (3 compression, 1 oil control)
Gudgeon Pin Bore	.8748 to .8750 in. (22.22 to 22.225 mm)

PISTON RINGS - COMPRESSION

Type : Top	Plain chrome)
Second and Third	Tapered) Cast iron
Fitted Gap : Top	.013 to .010 in.
Second and Third	.009 to .014 in.
Ring to Groove Clearance: Top	.0025 to .0045 in.
Second	.0015 to .0035 in.
Third	.0015 to .0035 in.

PISTON RINGS - OIL CONTROL

Type	Two chromed faced rings with expander
Fitted Gap	.015 to .045 in. (.38 to 1.143 mm)

GUDGEON PIN

Type	Fully floating retained by circlips in piston
Fit in Piston	Hand push fit at 16°C. (60°F)
Diameter - Outside	.8748 to .8750 in.

CAMSHAFT

Journal Diameters:	Front	1.80875 to 1.80925 in.
	Middle Front	1.78875 to 1.78925 in.
	Middle	1.76875 to 1.76925 in.
	Middle Rear	1.74875 to 1.74925 in.
	Rear	1.72875 to 1.72925 in.
End-Thrust		Taken on front end locating plate
End-Float		.003 to .006 in.
Adjustments		Renew locating plate
Drive		Chain and sprocket from crankshaft
Timing Chain		3/8 in. (9.52 mm) pitch X 58 pitches.

CAMSHAFT BEARINGS

Number and Type	5, Steel backed white metal
Inside Diameter(reamed in positon)	
Front	1.8103 to 1.8106 in.
Middle Front	1.79025 to 1.79075 in.
Middle	1.77025 to 1.77075 in.
Middle Rear	1.75025 to 1.75075 in.
Rear	1.73025 to 1.73075 in.
Diametrical	.001 to .002 in.

CHAIN WHEEL ALIGNMENT

Crankshaft Chain Wheel Face	.005 in. rearwards of camshaft chain wheel face
Method of Adjustment	Add selective shims behind crankshaft chain wheel

TAPPETS	
Type	Bucket with spherical base
Outside Diameter	.9363 to .9370 in.
Length	1.75 in.
ROCKER GEAR - ROCKER SHAFT	
Diameter	.749 to .750 in.
ROCKER GEAR - ROCKER ARM	
Bore	.8735 to .8745 in.
Bush Inside Diameter(reamed in position)	.7505 to .7510 in.
Ratio	1.43:1
VALVES	
Seat Angle	45° (Stellite seat)
Stem to Guide Clearance: Inlet	.0016 to .0026 in.
Exhaust	.0031 to .0043 in.
Valve Lift	.310 in.
VALVE GUIDES	
Length	2.219 in.
Outside Diameter	.5635 to .5640 in.
Inside Diameter	.3443 to .3448 in.
Fitted Height Above Head	.625 in.
Interference Fit in Head	.0015 to .0027 in.

VALVE SPRINGS

	Double Spring	
	Inner	Outer
Free Length	1.969 in.	2.141 in.
Fitted Length	1.44 in.	1.56 in.
Load at fitted length	30 ± 2 lb.	72.5 ± 2 lb.
Load at Top of Lift	50 lb.	117 lb.
Number of Working Coils	6½	4½
Valve Crash Speed	5500 RPM	

VALVE TIMING

Timing Marks	Dimples on adjacent teeth: camshaft and crankshaft sprockets
Rocker Clearance: Running(cold)	.015 in.
Timing	.024 in.
Inlet Valve: Opens	16° B.T.D.C.
Closes	56° A.T.D.C.
Exhaust Valve: Opens	51° B.B.D.C.
Closes	21° A.T.D.C.

LUBRICATION

System Type	Wet sump, pressure fed.
System pressures: Running	55 lb/sq.in.
Idling	15 lb/sq.in.
Oil Pump	Concentric(serviced as a unit)
Capacity	10 gal. (12 U.S. gal.) per minute at 1,000 RPM
Oil Filter	Tecalemit full flow, felt element
By-Pass Valve Opens	13 to 17 lb/sq.in.
Oil Pressure Relief Valve	65 to 70 lb/sq.in.

CAPACITIES

Engine:	Without Oil Cooler	12 pints (14.4 U.S. pints)
	With Oil Cooler	14½ pints (17.3 U.S. pints)

TORQUE WRENCH SETTINGS

Cylinder Head Nuts	75 lb.ft.
Rocker Bracket Bolts	25 to 27 lb.ft.
Big-End Bolts	50 lb.ft.
Main Bearing Nuts	75 lb.ft.
Flywheel Bolts	50 lb.ft.
Clutch to Flywheel	25 lb.ft.
Sump to Crankcase	6 lb.ft.
Oil Pump to Crankcase	20 lb.ft.
Cylinder Side Covers: Front	15 lb.ft.
Centre, Rear	4 lb.ft.
Front Cover Screws	25 lb.ft.
Manifold Nuts	60 lb.ft.
Water Manifold to Block	30 lb.ft.
Oil Filter Centre-Bolt	15 lb.ft.
Carburetter: Stud Nuts	15 lb.ft.
Float chamber Bolt	7.5 lb.ft.
Distributor Clamp Nut	2.5 lb.ft.
Sparking Plugs	30 lb.ft.
Rear Plate	50 lb.ft.

COOLING SYSTEM

Type	Pressurized spill return system with thermostat control, gump and fan - assisted.
Thermostat Settings: Standard	74°C (165°F)
Cold Countries	82°C (180°F)
Pressure Cap	15 lb/sq.in.
Fan Belt: Tension	½ in. - deflection on long side
Type of Pump	Centrifugal

FUEL SYSTEM

Air Cleaner

Type	Oil impregnated paper element with air intake and silencer tube

Fuel Pump

Make and Type	S.U. electric AUF 301
Test Data: Delivery Rate	15 gallons (18 U.S. gall./HOUR)
Suction Head	18 in.
Delivery Head	4 ft.
Delivery Pressure	3.8 lb/sq.in.

CLUTCH

Make and Type	Borg and Beck diaphragm type
Clutch Plate Diameter	9 in.
Facing Material	Raybestos WR9
Number of Damper Springs	6
Damper Spring Colour	Dark grey/light green

CLUTCH (continued)

Diaphragm Spring Colour	Orange/light green
Clutch Release Bearing	Graphite MY3D
Operating Slave Cylinder Diameter	15/16" dia. x .70" stroke
Master Cylinder Diameter	.625" dia.
Clutch Fluid	Castrol Girling Brake Fluid Amber

PROPELLER SHAFT

Make and Type	Hardy Spicer telescopic flange type, tubular
Joints	Universal Needle Roller

SYNCHROMESH GEARBOX AND OVERDRIVE

Number of Forward Gears: 4 (synchromesh)

		Standard	Overdrive
Gearbox Ratios:	Top	1.000:1	1.000:1
	Third	1.382:1	1.307
	Second	2.167:1	2.058:1
	First	3.44:1	2.98:1
	Reverse	3.095:1	2.679:1
Overall Ratios:	Top with Overdrive		2.71:1
	Top	3.07:1	3.307:1
	Third with Overdrive		3.54:1
	Third	4.24:1	4.32:1
	Second	6.65:1	6.81:1
	First	10.56:1	9.85:1
	Reverse	9.5:1	8.85:1

Overdrive Ratio	.82:1
Road Speed at 1,000 r.p.m. in Top Gear:	
Standard	23.83
Overdrive	26.75
Speedometer Gear Ratio:	
Standard	10:24
Overdrive	8:21
1st and 3rd Speed Gear End-Floats	.005 to .007 in.
2nd Speed Gear End-Float	.005 to .008 in.
Laygear End-Float	.002 to .003 in.
Synchromesh Breakaway Load	23 to 27 lb.

SUSPENSION

Front

Type	Independent, torsion bar
Torsion bar	
Overall Length	46.3"
Effective Diameter	.860"
Max. Angle of Twist	41.2° at 250 lbs.
Load Rate	100 lb.in.
Deflection: Static	6.5"
Maximum	8.6"
Load: Static	650 lb.
Maximum	860 lb.
Anti Roll Bar: Diameter	11/16"

Camber Angle	Nominal 0° (+¼° - 1¼°) = ¼° positive, 1¼° negative	) Unladen) with lower) edge of) body sill
Camber Adjustment	Shims	) and front) lower
Caster Angle	Nominal 5° (+¼° - 1¼°) = 5¼° to 3 3/4°	) suspension) levers) parallel
Kingpin Inclination	Nominal 9° (-¼° + 1¼°)	) to ground.

Wheel Bearing End Float	.002 to .004"
Wheel Bearing Adjustment	Shims
Dampers	Telescopic
Arm Centres	Compressed 10" Extended 14.56"

Rear

Type	Semi-elleptic, rubber mounted leaf springs
Spring Data	
Number of Spring Leaves	6 + bottom plate; inter leaving
Width of Spring Leaves	1 3/4"
Gauge of Leaves	3 at 7/32", 3 at 3/16"
Dampers	
Arm Centres	5¼"

STEERING

Type	Rack and Pinion
Steering Wheel Diameter	16½"
Turns - Lock to Lock	3½
Angle of Outer Wheel	
With Inner Wheel at 20°	18° 15' ±30'
Wheel Alignment	Parallel

REAR AXLE

Type		Hypoid, semi-floating
Ratio:	Standard	3.07:1 (14/43)
	Overdrive and Automatic	3.307:1 (13/43)
Differential Bearing Preload		.002 'nip' per bearing
Pinion Bearing Preload		7 to 9 lb. in.
Backlash Adjustment:		
	Crownwheel	Shims
	Pinion	Head washer

BRAKES

Type		Girling hydraulic; disc front, drum rear, leading and trailing shoes.
Brake Fluid		Castrol Girling Brake Fluid Amber
Front		
	Disc Diameter	11"
	Pad area (total)	20.80 sq. ins.
	Swept Area (total)	226.2 sq. in.
	Lining Material	Ferodo E2430
	Minimum Pad Thickness	1/16"
Rear		
	Drum Diameter	9"
	Lining Dimensions	2.25 x 7.12 ins.
	Swept Area (total)	127.2 sq. in.
	Lining Material	Ferodo AM3
	Numbers of Rivets Per Shoe	8