

SHOP MANUAL ■ ENGINE □ CLUTCH □ GEARBOX

GIULIA TI
GIULIA SPRINT GT
GIULIA TI SUPER 

ALFA
ROMEO



This Manual, supplied to all authorised ALFA ROMEO Repair Shops, contains instructions for the servicing, overhaul and reconditioning of the engine, clutch and gearbox.

The operations are amply illustrated so that the detail and unit concerned can be quickly identified and the tools to be used and the correct method of operation can be seen.

Only genuine ALFA ROMEO spares should be used if any assemblies or parts have to be replaced; only in this way can complete interchangeability and fully satisfactory performance be guaranteed.

It is also recommended that the tools specially designed for the various operations be used for all overhaul and reconditioning works.

This Manual should be kept continuously up-to-date by the addition of new information and instructions issued at intervals by the Technical Service Division in the regular « Information Sheets » and « Modification Instructions » which should be copied on to the blank pages at the end of the handbook.

**ALFA
ROMEO**

**Direzione
Assistenza**



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GENERAL SERVICING INSTRUCTIONS

To avoid damage to parts when disassembling and reassembling, always work with the correct wrenches, extractors and tools (special and general).

If a few taps are needed to loosen tight-fitting, use a copper or aluminium mallet for steel parts; for light alloy parts (covers, housings, etc.) use a wooden or plastic mallet.

When disassembling, check that parts which should be marked are stamped with the correct number or reference mark; any original parts (previously replaced) found unmarked should be so stamped.

Components of different assemblies should be kept separate, and nuts should be loosely screwed onto their original studs or bolts.

Before washing parts, brush or wipe off the thickest dirt (to avoid soiling the solvent in the washing tank); then wash with paraffin or hot water and soda and remove any remaining dirt with compressed air; dry all parts immediately after washing so that they do not rust.

A hydraulic press or some other suitable means of applying pressure should be used if parts have to be trued; hammering reduces mechanical strength and should be strictly avoided.

After parts have been ground or honed, wash them thoroughly and blast with compressed air to remove all traces of abrasive powder. When reassembling, clean components (particularly after regrinding) with compressed air blast or a clean, dry brush.

When reassembling, lubricate all mechanical parts properly (except graphite bushings) to prevent seizing and scoring when the engine is first run.

Use a brush and absolutely clean oil to apply a film of oil to all parts which have to be lubricated on reassembly; the brush, the oil and its container should be kept completely free from dust and should be used for the above purpose only.

Use adhesive paper or clean rags to protect those parts of the engine into which dust or foreign particles could penetrate as a result of their being uncovered during disassembling.

When reassembling, renew all gaskets, oil seals, spring washers, tabwashers and lockplates, palnuts and any component not in perfect condition.

Always use genuine ALFA ROMEO spares.



GIULIA 1600 TI



TECHNICAL FEATURES

Engine	Number and layout of cylinders	4 in line
	Bore and stroke	78 x 82 mm
	Total displacement	1570 cc
Chassis	Maximum power at 6000 rpm	HP { DIN 92 SAE 106
	Front wheel track	1310 mm
	Rear wheel track	1270 mm
	Wheel base	2510 mm
	Minimum turning circle	10,900 mm
	Overall length	4140 mm
	Overall width	1560 mm
	Overall height	1430 mm
	Dry weight	1060 kgs
	Number of seats	6
	Tyres (Michelin X - Pirelli Cinturato S)	155-15

Inflation pressures with cold tyres	FRONT 1.6 kg/cm ² (22.7 psi)	} with low load and short bursts of speed
	REAR 1.7 kg/cm ² (24.1 psi)	
	FRONT 1.8 kg/cm ² (25.6 psi)	} with full load and max. continuous speed on highways
	REAR 2.1 kg/cm ² (29.8 psi)	

Performance after running in period	1st	40 km/h	25 mph
	2nd	66 km/h	41 mph
	3rd	97 km/h	60 mph
	4th	131 km/h	82 mph
	5th	165 km/h	103 mph
	Reverse ..	44 km/h	27 mph

To avoid damaging engine, do not exceed these maximum speeds.
The performances shown are intended for use in ambient conditions as found in center Europe.

Fuel consumption	Per 100 km (62 mi.) to italian CUNA standard approx. 10.4 lts (27.1 mpg GB-22.6 mpg US)
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FUEL, OIL AND WATER

Water (engine and radiator)	approx. 7.5 lts	(1.65 gals GB) (1.98 gals US)
Fuel: for best engine performance, we recommend premium grade fuel with an octane number of not less than 92 (RM)	approx. 46 lts	(10.1 gals GB) (12.1 gals US)
Fuel reserve	approx. 6-7 lts	(1.3-1.5 gals GB) (1.6-1.8 gals US)

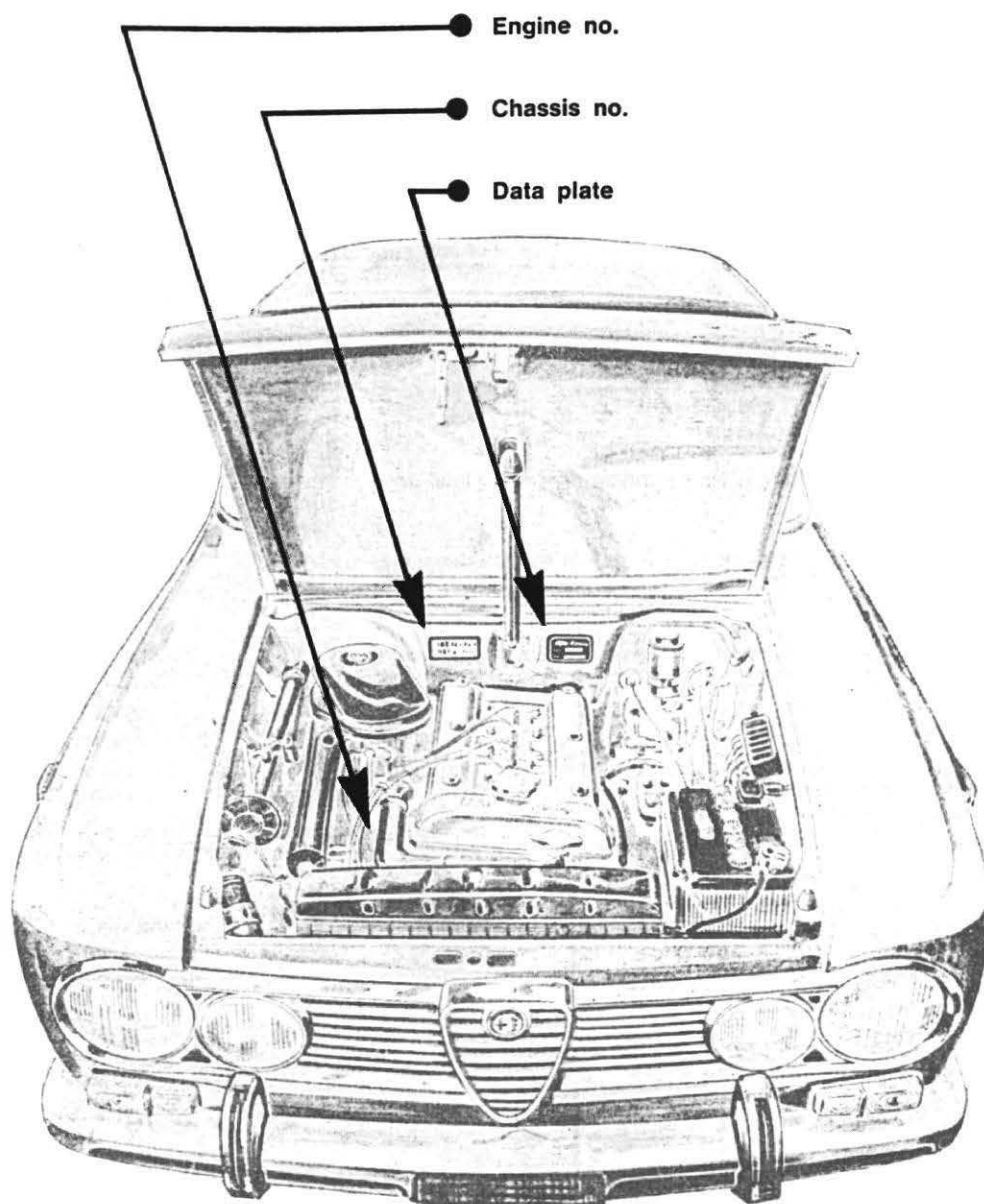
RECOMMENDED LUBRICANTS

Part		kg ▼	GB units	US units	Classification	Commercial equivalents		REMARKS	
						AGIP	SHELL		
Engine sump Quantity needed for regular changing		5.80 4.00	5.75 qts 3.95 qts	6.90 qts 4.7 qts	SAE 20 W 40 API MS	F.1 Supermotoroil Multigrade 20 W/40	X-100 Multigrade 20 W/40 Super Motor-Oil " 100 "	* as specified by the red transfer, if any, on gearbox.	
Total amount of oil in circuit (sump, filter and passages)		6.55	6.5 qts	7.8 qts					
Gearbox		1.65	3.2 pts	3.8 pts					
Gearbox *					SAE 90 EP	F.1 Rotra Hypoid SAE 90	Spirax 90 EP		
Rear axle		1.25	2.5 pts	3.0 pts	SAE 90 API EP	F.1 Rotra Hypoid SAE 90	Spirax 90 EP		
Steering box		.25	.5 pt	.6 pt					
Propeller shaft universal joints & sliding sleeve					NLGI 1	F.1 Grease 15	Retinax G		
Front wheel bearings					NLGI 2/3	F.1 Grease 33FD	Retinax AX		
Fluid reservoir	drum brake				SAE 70 R 3	F.1 Brake Fluid	Donax B 70 R 3		It is advisable not to mix fluids of different makes.
	disc brake				—	ATE « Blau H »			

In countries where the recommended lubricants are not available, it is possible to replace them with products of other leading makes provided that in accordance with the prescribed specifications and grades.

SAE - Society of Automotive Engineers
API - American Petroleum Institute
NLGI - National Lubricating Grease Institute

IDENTIFICATION



Engine No.

Model and serial no. of engine are stamped on right-hand side of crankcase.

Chassis No.

Chassis serial no. is stamped on bulkhead right-hand top (in the engine compartment).

Data plate

Data plate is attached to bulkhead top (in the engine compartment) and stamped with car model and type approval no.

Paint specifications

Paint specification plate is attached to bulkhead top (in the engine compartment) and stamped with paint type, color and manufacturer's name.