

In Brief

Price (including heater, radio, etc. as tested) £668 plus purchase tax £231 10s. 3d. equals £919 10s. 3d.
 Price with right-hand drive (including purchase tax) £1,080 7s. 9d
 Capacity 2,445 c.c.
 Unladen kerb weight 284 cwt.
 Acceleration:
 0-40 m.p.h. in top gear 11.9 sec.
 0-50 m.p.h. through gears 17.5 sec.
 Maximum top gear gradient 1 in 10
 Maximum speed 78.2 m.p.h.
 "Maximum" speed 75.8 m.p.h.
 Touring fuel consumption 21.5 m.p.g.
 Gearing: 17.25 m.p.h. in top gear at 1,000 r.p.m.

VOLGA M-21 K

A smooth, quiet, comfortable and leisurely Russian car

FROM Russia's political, technological and geographical background one might have expected utterly practical cars, or ultra-modern designs with speed enough to shrink journey times in a vast country. The 21-litre Volga saloon which is exported to Britain belies all such expectations. Solidly old-fashioned in many respects, it is a big and extremely comfortable car of rather leisurely character; it should be very long lived if given proper maintenance, and it offers a high standard of smoothness, silence and comprehensive equipment. It is, in fact, very much an upper-middle-class car.

The Package

THE model offered to British motorists at a price of only £919 10s. 3d. is a big 4-door saloon, 15ft. 7½ in. long and 5ft. 10½ in. wide, which looks generally reminiscent of an earlier generation of American cars. Some 284 cwt. in a lot of weight for a 24-horse 4-cylinder engine to pull, and least driving is necessary to get the test-to-50 m.p.h. time down even to 17.5 seconds.



Whereas 64 m.p.h. is claimed, our timed tests showed a mean speed of 78.2 m.p.h., and the M-21K may appeal most strongly to the man who values top gear flexibility and seldom exceeds 60 m.p.h.

Technically the Volga is orthodox, with paired overhead valves, tooth-ring synchromesh on two of its three forward gears, coil-and-ribbed front wheel suspension, half-elliptic rear springs, and a pressed steel body acting also as chassis. A first glance under the bonnet gives an impression of crudity, but closer examination brings respect. Attention is required to numerous lubrication points every 1,000 kilometres, but this model does also incorporate such refinements as grease nipples on the door hinges, and oil cups on the steering column governor linkage; as long as it receives its regular maintenance the Volga should prove extremely long-lived. Petty bothers during our test, with loose exhaust manifold nuts, a leaking water tap and an insecure heater water hose clamp, confirmed the car's superbest accessibility. Usual mechanical refinements include wet cylinder liners in a light alloy block, a five-bearing crankshaft, both full-flow (coarse) and by-pass (fine) filtration of engine oil, gaskets on the rear springs, driver-controlled radiator shutters in

The sturdily built Volga is styled after American cars of a decade ago, with plenty of chrome on a body that lacks modern crispness of line.



VOLGA

Although the Volga is available with left-hand drive only at the moment, it has a very comprehensive set of instruments and equipment. Some of the controls, such as the heater levers, are marked in Russian.

addition to the usual thermostatic valve regulating water circulation, and a fully fuse-protected electrical system.

Equally universal in the amount of equipment included in the list price. Besides a fresh-air heater the car has a push-button fog- and medium-wave radio, reversing lamps, under bonnet and luggage-locker lamps, screen washers with two-speed wipers, a cigar lighter, a clock amongst the full set of instruments, a horn ring and trim sun visors. Also, the seats let down to form a bed. As yet, only left-hand-drive examples have been delivered in Britain, but a Volga with right-hand drive, floor-mounted gear lever and whitewall tyres is expected shortly at £1,080 7s. 9d.

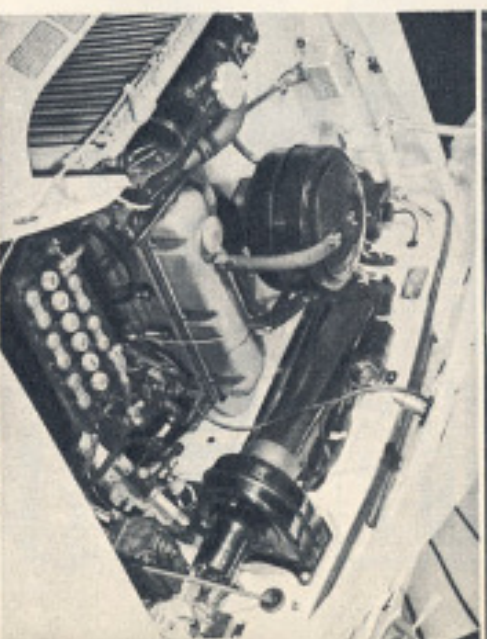
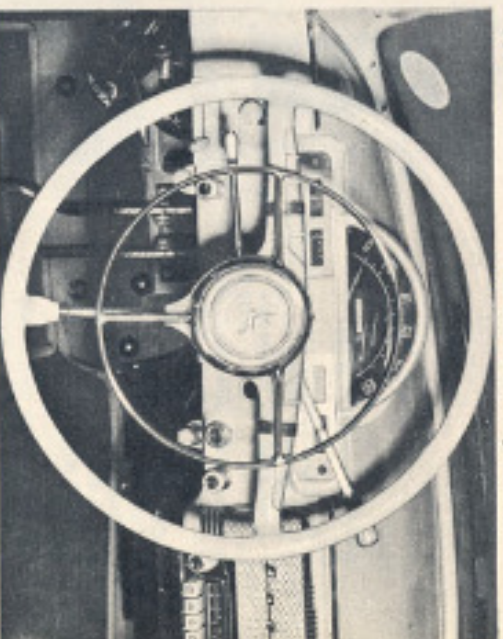
Stop-watch and Flowmeter

It is hard to be categorical about the Volga's economy and performance, because no doubt with Soviet economic and climatic conditions in mind the manufacturers have provided not only a wide range of ignition timing adjustment, but also a carburettor on which the size of the main jet may be varied simply by turning a screw. It is possible, therefore, to obtain widely varying performance and economy simply by changing the setting of these two controls. As received the ignition on the test car was very retarded, to suit low-octane fuel. We advanced the setting to obtain best top gear acceleration, but the engine would still run without knocking on mature grade fuels. Despite an accelerating pump on the carburettor, mixture settings rather than the ideal for steady-speed hill climbing were needed to overcome hesitant throttle response.

Thus tuned, the Volga was pleasantly responsive between 20 and 60 m.p.h. in top gear, giving top gear acceleration from 20 to 40 m.p.h. in 11.9 sec. and from 40 to 60 m.p.h. in 14.9 sec. Beyond 60 m.p.h. acceleration was falling off, even though the top speed was close to 80. The engine has a very heavy flywheel and although one is conscious of driving a four-cylinder rather than a six at speeds below 20 m.p.h. in top the car will climb hills at moderate r.p.m. even better than its acceleration figures on the level would suggest.

Very widely spaced ratios in the three-speed gearbox, in conjunction with a high clutch pedal and slow gearchange, emphasize the Volga's appeal to drivers who are not in a hurry. Middle gear, engaged with the aid of very effective synchromesh, can provide a frozen 50 m.p.h., but Volga customers will normally change up at half this pace. Middle gear can be used almost down to a standstill in traffic, without the clutch having to be slipped, and the majority of steep hills can be climbed in this ratio. The clutch of the test car was juddery on take up but we are assured that this is not normal.

An ability to give best performance on 90 octane petrol, and to run very smoothly (but not so efficiently) on fuel of even lower



The 2½-litre four-cylinder engine has wet liners in a light-alloy block, and a five-bearing crankshaft. Accessibility is good.

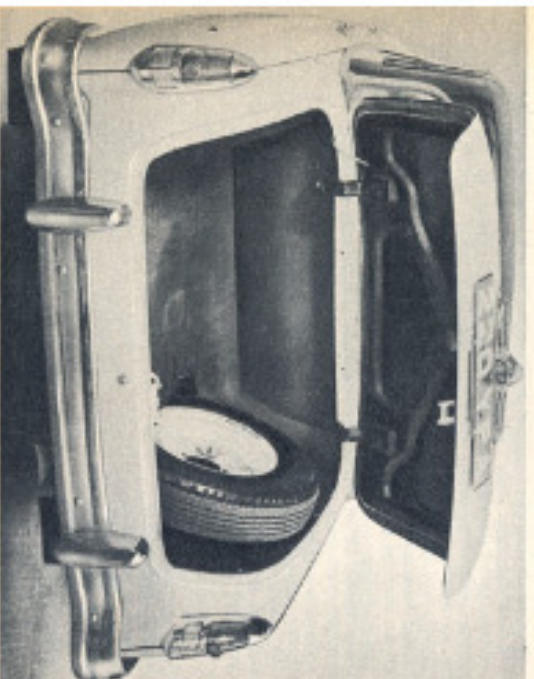
anti-knock rating, should make for economy, but with the mixture weakened as far as acceptable, the Volga was heavy on petrol, giving us a "Touring Fuel Consumption" of 21½ m.p.g. and an overall figure for 967 miles (partly but by no means entirely in strenuous conditions) of 19 m.p.g. The petrol tank holds 13½ gallons. The test car, which had covered only about 1,200 miles, needed a pint of oil about every 200 miles, but with more fully bedded-in piston rings this figure might perhaps improve.

Possibly because Russian cars are not designed for women drivers, the Volga needs much more pressure on the brake pedal than is nowadays usual, and except with a full load aboard, rear wheel locking limits the best stopping distances which can be recorded. A sturdy pull-out handbrake works in a small drum on the tail of the gearbox, and is quite effective, although when stopping on a hill the car can move slightly as transmission and rear spring flexibility is taken up.

Comfort and refinement

PROVIDED that no attempt is made to hustle it, the Volga is a pleasantly quiet and comfortable car. There is ample width for three-throw seating, with only a moderate transmission hump in the front floor and no intrusion of wheel arches into the rear seat. There can be no criticism of foot, knee or headroom in the front or rear seats, the driving seat adjustment range is ample, but sheet drivers find their view obstructed by the steering wheel and an unfortunably high bonnet. The cloth-upholstered bench seats still feel as comfortable as the end of a king day as they did in the morning.

Heavy construction from thick sheet steel, and the presence of both rubber and a fibre sheet below the carpets help to make the car quiet at touring speeds. There is some wind noise when going fast, but open windows do not make it unduly noisy and this is one of the few cars in which they can be wound right down



Despite the side-mounted spare wheel, the boot is quite large. A heavily chromed bumper wraps round the rear body panels.

Coachwork and Equipment

Starting handle ...	The	Warranty lights: head brake, coolant temperature
Battery mounting ...	Alcegaide engine on left	headlamp wash beam, direction indicators.
Jack ...	Knacker pillar type	Locks:
Locking points ...	Under bumpers on four corners of car	With ignition key: light/dim/turn/lock/overdrive switch
Standard tool kit: 2 tool bags, jack and handle, starting nozzle, tyre pump and pressure gauge, tyre inflator, tyre repair kit, screwdriver, 9 sockets, 4 box spanners, brose bleeder, inspection horns, can of paint to match body, can of sealant, can of polish, even of wax and duster.		With other key: Elbow front door, and luggage boot
Exterior lights: 2 headlamps, two side-lamp/turning, 2 fog/lamp, rear number plate lamp, 2 reversing lamps.	4 fuel, 3 re-attachable	Clare lockers ...
Number of electrical fans:	4 fuel, 3 re-attachable	One on foot, with lid
Direction indicators ...	Integrated electro-motors	Pop pockets ...
Wipers: front and rear ...	with electric and flap lamps	One behind rear seat
Washer wipers ...	with electric and flap lamps	One on foot, one behind front seat
Wiper wipers ...	Hand pump type	Cigar lighters ...
Sun visors ...	2 transparent plastic	One on foot
Washers: Speedometer ...	universally plastic	Interior lights: roof lamp with manual switch and courtesy switch on driver's door, luggage locker lamp, under-floor lamp.
Distance recorder, fuel economy gauge, orienter, coolant thermometer, oil pressure gauge, clock.	with device	Rear door heater: fresh-air heater and screen demister with variable control.
		Car radio: Long and medium-wave, with five crystal sets/able, fitted to standard.
		Exhaust seats/able ...
		Upstairs seats/able ...
		Floor covering ... Carpet (with rubber heel pads) over rubber and fibre
		Alternative body styles ...
		None

Maintenance

Sample (outer and inner) ...	10 plate, S.A.E.	Valve timing: hot open 24° before T.D.C. and close 44° after; Exhaust opens 30° before B.D.C. and closes 22° after.
Gear box ...	1-4 plate, S.A.E. 90 gear oil	Torque steer (road) ...
Rear axle ...	1-3 plate, S.A.E. 90 hypoid gear oil	Front wheel track (at green) ...
Steering gear lubrication ...	S.A.E. 90 gear oil	Castor angle (outer) ...
Counting system capacity ...	20 gears (2 drive top)	Castor angle (inner) ...
Overhaul lubrication ...	97 grams per every 600 miles	Steering wheel arm inclination ...
Lubrication: timing: Asapac, 14.2 cc	1 cc valve to 17 points	Tyre pressure ...
Selector to be adjusted by road test.	1 cc valve to 17 points	Front and rear, 24 lb.
Constant breaker gap ...	0.014-0.018 in.	Brake fluid ...
Spark plug type ...	14 mm. (A.L.T.V)	Normal Hydraulic brake fluid
Spark plug gap ...	0.022-0.025 in.	Battery ...
		12 volt, 54 amp. hr.

without draught. The car becomes fuzzy if driven at all fast in the indrecks but middle gear is almost invisible at traffic speeds. The comfortable riding may seem to be due to sheer haxness which beam-rollers bump out of existence, but in fact it must come from careful detail design of the springs and dampers. Here again, severity travel is born, but there is enough damping to keep the ride reasonably flat at speeds in the seventies. Comfortable springing, and a fairly high body with a lot of ground clearance beneath it, produce a good deal of roll if corners are taken fast.

The driver has an impression that efficient steering mechanism is having to work against heavy loads in this car. Undoubtedly heavy at the lowest speeds, the steering gets smooth and reasonably light once the car is under way, although it also needs a good deal of effort for vigorous cornering. On bumps or varying cambers, the Volga can show "de-stabilizer tendencies" but its steering is precise enough for these to be corrected almost instinctively by the driver. The Volga's 38-ft. turning circle is quite good for so large a car.

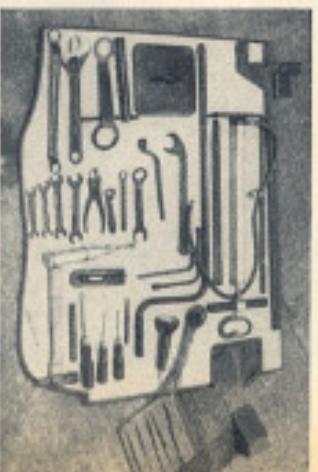
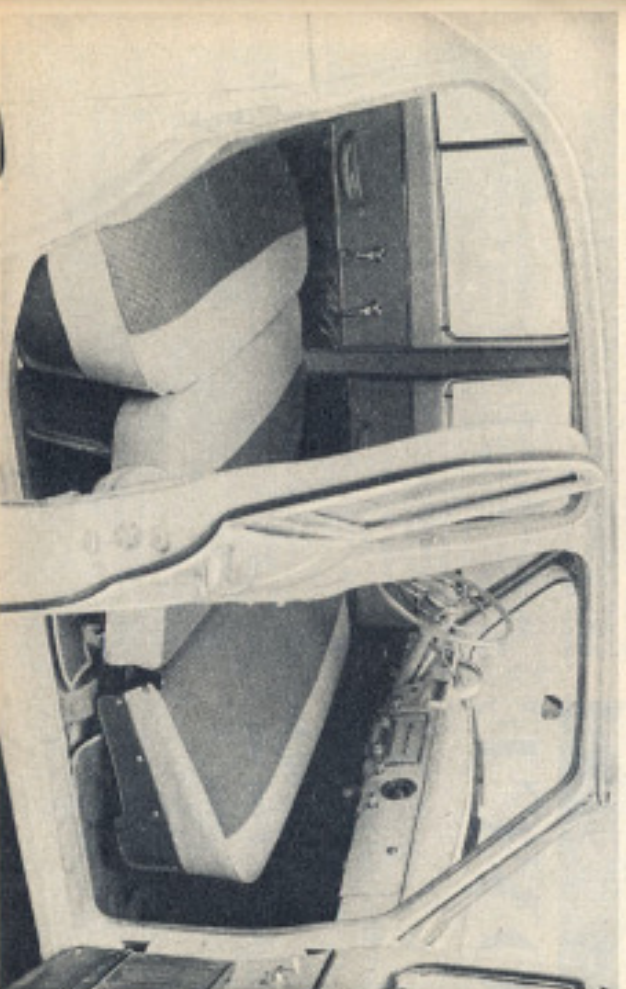
The Russian headlamps give ample driving light on main

beam, although the dipped beam has less than half as much candlepower. The brightness of the instrument illumination is controlled by twisting a pull-out light switch knob; another refinement for town driving is that when only the side-lamps are on, the dipswitch pedal brings the dipped headlamps into use, which is useful at crossroads and in the suburbs. There is a lamp on the face to warn when the handbrake is on and another to show if misuse of the manual radiator shutters is overheating the engine, but these lamps are rather hidden by the spokes of the steering wheel.

The Volga is an unexciting car, but its solidity, roominess, confident and quiet running at moderate speeds will for some people offset the disadvantages of heavy fuel consumption, limited through-the-gears acceleration and not very nimbler (though solidly safe) cornering. Even with left-hand drive, this large and very completely equipped car should attract some people at its British price of under £950. In certain parts of the world (like Ceylon) where roads are bad and Russian trucks her worse with unusually generous credit, the 2½-litre Volga is already a familiar sight.

As in a number of Continental cars, the front seat folds flat to form a bed. In its normal position, the cloth-covered seat has ample adjustment. Head and knee room at both front and rear is generous.

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The toolkit, necessarily complete in a country where vast distances can be covered without seeing a garage, puts most British "toolkits" to shame.