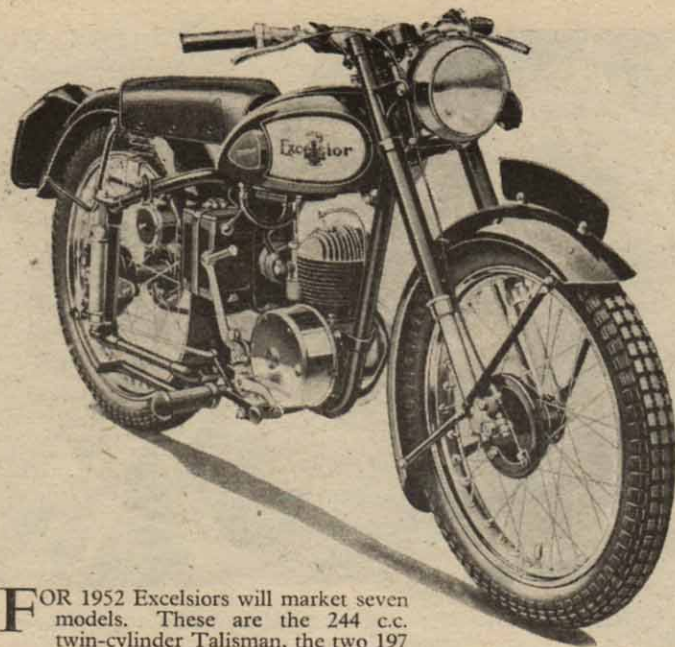


Excelsior Range for 1952

A Programme Comprising Single- and Twin-cylinder Lightweights, and Two Autocycles



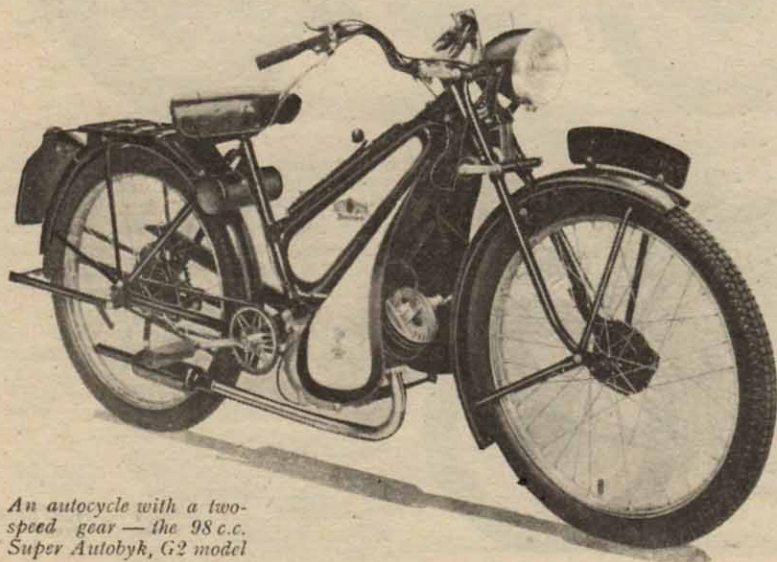
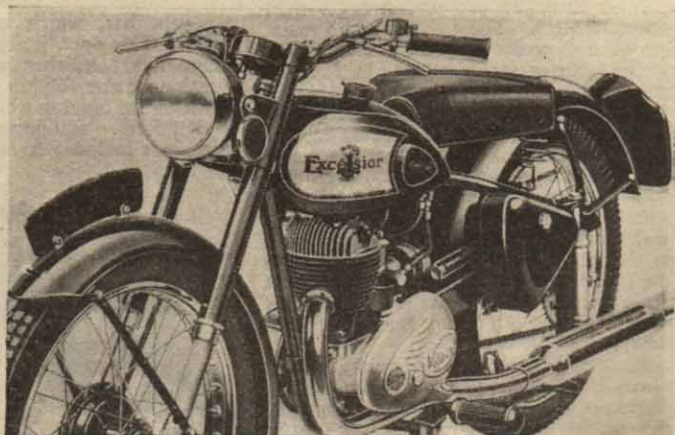
A telescopic front fork and rear-springing are standard on all Excelsior motor cycles. This is the 122 c.c. U2 Universal

FOR 1952 Excelsiors will market seven models. These are the 244 c.c. twin-cylinder Talisman, the two 197 c.c. Roadmaster models, the 122 c.c. standard and de luxe Universals, and the two 98 c.c. autocycles—the two-speed gear Super Autobyk and the single-speed de luxe Autobyk. All models are powered by two-stroke engines lubricated by petrol.

The most interesting model in the range is the Talisman. Not the least notable of its technical features is that it has a built-up crankshaft carried on no fewer than five ball journal bearings. The crankcase is made up of three main aluminium-alloy castings, the two outer portions providing "ends" for the long middle section. Disposition of the five main bearings is that there is one at the generator end of the shaft, two at the middle section between the crank webs, and two at the drive end.

Current for ignition and lighting is supplied from a Wico-Pacy, 36-watt mag-generator, the outer casing of which is

A model with a sprightly performance — the 197 c.c. R2 Roadmaster. The specification is very similar to that of the Talisman twin



An autocycle with a two-speed gear — the 98 c.c. Super Autobyk, G2 model

bolted direct to the crankcase. The rotor is mounted on the end of the crankshaft. Roller-bearing big-ends with alternate steel and bronze rollers are employed, and connecting rods are of nickel-chrome steel. Primary drive is by means of an orthodox roller chain enclosed in a light-alloy, oil-bath chain case.

Pistons are aluminium-alloy, of the flat-top type, and each carries two compression rings. "Swirl" of the transfer charge into the rear of the half-pea-shaped combustion chambers is achieved by means of clever port directioning. Separate cylinders with light-alloy detachable heads are used. Both cylinders are charged through a single Amal carburettor mounted on a light-alloy branch

piece, designed in such a way that it gives a downswept effect to the charge.

The engine has a four-speed gear box bolted to the rear of the crankcase. Gear ratios are 5.5, 7.42, 9.9 and 16 to 1. A two-plate cork clutch is employed. Gear-change is of the positive-stop, foot-change type.

A tubular loop-type frame houses the engine-gear unit. Front suspension is by means of a telescopic fork with helical springs to resist shock and rebound loadings. Rear-springing is standard on the Talisman models, and is designed on the simple plunger principle; total up and down movement is 1½ in. The layout has the advantage that it is simple in design and requires very little maintenance; it has proved in practice to be extremely successful.

Fuel-tank capacity is 2½ gallons. Tyres are 3.00 × 19 in Dunlops front and rear; brake dimensions are 5 in diameter front and 6 in rear. Lighting is by battery and rectifier. Total weight is given as 220 lb.

The remaining four motor cycles, the standard and de luxe 197 and 122 c.c.

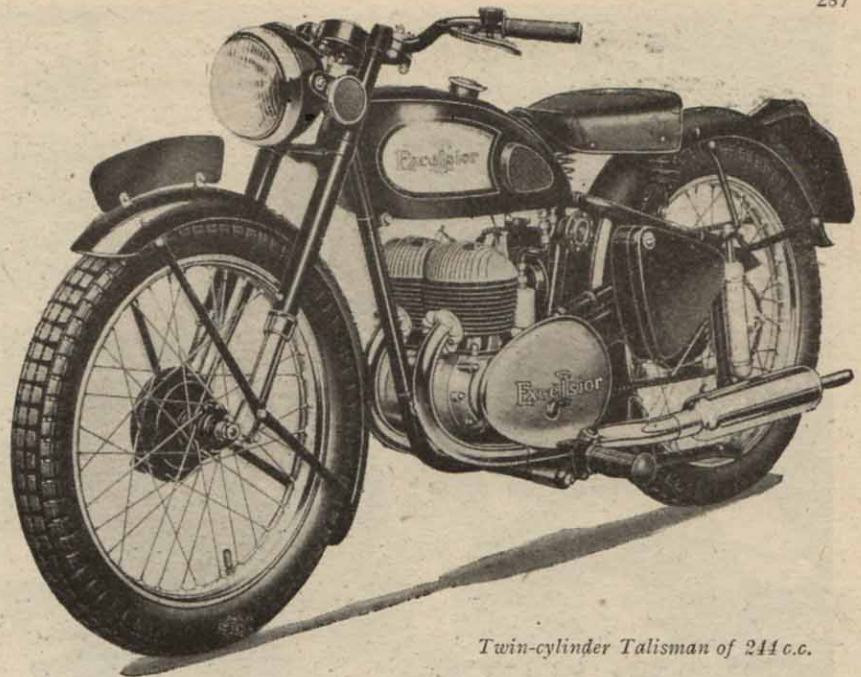
Roadmaster and Universal models respectively, all have similar rear-springing and telescopic forks as standard. These models employ Villiers two-stroke engines, and the difference between standard and de luxe editions is that the former employ direct lighting and the latter battery and rectifier lighting. Fuel capacity, tyre, and brake sizes are all similar to those applying to the Talisman. Saddle height, incidentally, is 29in; wheelbase, 49in.

Protects Rider's Clothing

Excelsior Spryt and Goblin engines are used to power, respectively, the de luxe and Super Autobyks. These are both two-stroke engines of 98 c.c. capacity lubricated by petrol. The Spryt engine has a single-speed gear and the Goblin a two-speed gear. In the main, the specifications of both models follow similar lines, but there are detail differences. In each case there is a rearwardly sloping fuel tank of 11 pints capacity, and a link-type front fork with rubber bands providing the resilient medium. The fly-wheel magneto used on both engines is a Wico-Facy incorporating 21-watt output coils for direct lighting.

On both models, too, deep shields are provided to protect the rider's clothing from possible petrol messiness, as well as from road mud thrown up by the front tyre. Brakes are 4in diameter front and rear. Among the detail differences in the two models are tyres of 2.00 x 16in on the de luxe model and 2.25 x 21in on the Super Autobyk.

With the exception of the de luxe Autobyk, which is finished in black and



Twin-cylinder Talisman of 244 c.c.

cream, the standard colour scheme on the 1952 models will be maroon with cream tank panels. Handlebars, exhaust pipes, and so on, are chromium plated. Production of the Excelsior-J.A.P. Speedway machines is, of course, continued.

Makers are The Excelsior Motor Company, Ltd., Kings Road, Tysley, Birmingham, 11. Prices are as follows:—

	Basic Price			Total Price		
	£	s	d	£	s	d
S1, 98 de luxe Autobyk	55	10	0	70	18	4
G2, 98 Super Autobyk (two-speed)	64	0	0	81	15	7
U1, 122 Universal	89	10	0	114	7	3
U2, 122 Universal (with rectifier lighting and charging set)	95	10	0	122	0	6
R1, 197 Roadmaster	97	10	0	124	11	8
R2, 197 Roadmaster (with rectifier lighting and charging set)	103	10	0	132	5	0
TT1, 244 Talisman Twin	125	0	0	159	14	5

A.B.J. Lightweights

Two 98 c.c. Models Powered by Villiers Engines

A.B.J. models, comprising two 98 c.c. Villiers-powered lightweights, will remain unchanged for 1952. One of these machines, it will be recalled, is a motor cycle, and the other an auticycle. In the case of the motor cycle the engine is a Villiers Series 1F unit incorporating a two-speed gear, and, in the case of the

auticycle, the power is provided by the Villiers Series 2F single-speed engine.

Both of these engines have roller-bearing big-ends, and ball bearings for supporting the mainshafts. Cylinder heads are of light alloy and are retained on the cast-iron cylinder by means of four studs.

Ingeniously, for ease of production,

both A.B.J. machines have much in common. Both frames, for instance, are of the full-loop type with brazed, malleable lugs at the joints for maximum strength. A telescopic fork is employed on each machine, and the fork has a novel feature in that there are two separate springs in each leg; one operates on depression and the other on rebound.

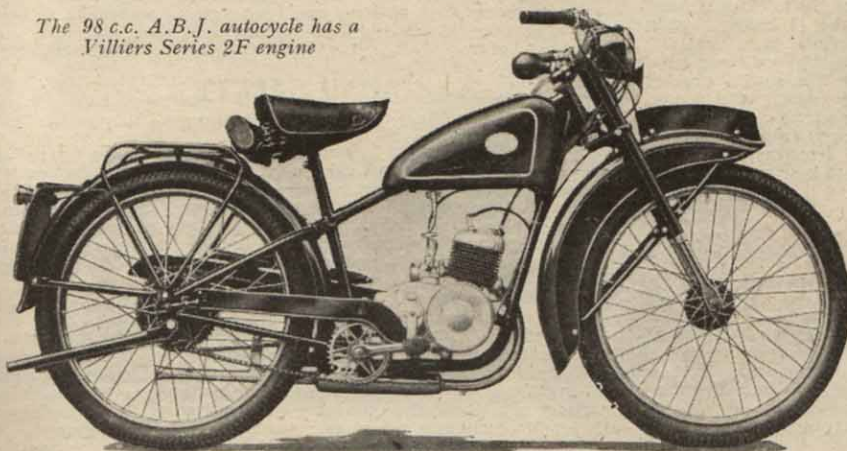
Total weight of each machine is stated to be in the region of 140lb. Wheelbase of both is approximately 50in. Fuel capacity is 1½ gallons. In each case, the front mudguard is mounted through inline stays to the fixed, or upper, fork leg and is deeply valanced; rear guards are unvalanced and hinged at the rear to facilitate rear-wheel removal. Tyres on both models are 2.25 x 26in front and back.

Sensibly, the saddles are mounted on adjustable stems giving a height-range variation of 3in. Brakes are 3½in diameter front, and 4in rear. Both auticycle brakes are operated by handlebar levers, but those on the motor cycle are operated in the normal manner, i.e., the rear one by a pedal on the left of the machine and the front by a lever on the handlebar.

Finish in each case is black, with gold tank lines and transfers. Handlebars, exhaust pipes, and the headlamp rims are chromium plated. Manufacturers are A. B. Jackson Cycles, Ltd., 109, Pope Street, Birmingham, 1. Prices are as follows:—

	Basic Price			Total Price		
	£	s	d	£	s	d
Autocycle	52	10	0	66	13	6
Motor cycle	60	0	0	76	4	0

The 98 c.c. A.B.J. auticycle has a Villiers Series 2F engine



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