

New A.B.J. Cyclemotor

49 c.c. Two-stroke Announced by Famous Cycle Manufacturer

AS announced in last week's issue, a new cyclemotor, to be known as the Auto Minor, has been introduced by A. B. Jackson (Cycles), Limited, the firm responsible for the pre-war Raynal Autocycle. A 49 c.c. two-stroke, the power unit is to be supplied fitted to a special bicycle designed for such work. The whole engine unit, complete with its half-gallon-capacity petrol tank and easily detachable shield, weighs approximately 20 lb and is grouped about the steering head. Pivot mounted on the fork, it can be locked in either the drive or disengaged position by means of a self-locking cam operated by a shifting lever. The sole engine controls are those for the throttle and compression-release.

Bore and stroke are 42 x 36mm. The compression ratio is 6 to 1. A cast-iron cylinder barrel, deeply spigoted into the crankcase, is employed, and the forward facing cylinder head is of die-case light alloy. The compression-release valve is incorporated in the cylinder head and discharges through a drilling into the exhaust port. The two transfer ports are brought up the cylinder, one on each side of the exhaust port, and direct the mixture into the combustion chamber in an upward and rearward direction. Two brass plugs, one on each side of the exhaust port, have their inner ends machined off at an angle and act as deflectors to improve the mixture flow. The transfer ports are both machined along the whole of their length. The die-cast, flat-top piston, in low-expansion alloy, is carried on a fully floating gudgeon pin and plain bronze small-end bearing. Two compression rings are used. The connecting rod is a steel stamping in EN38 (65 ton nickel steel).

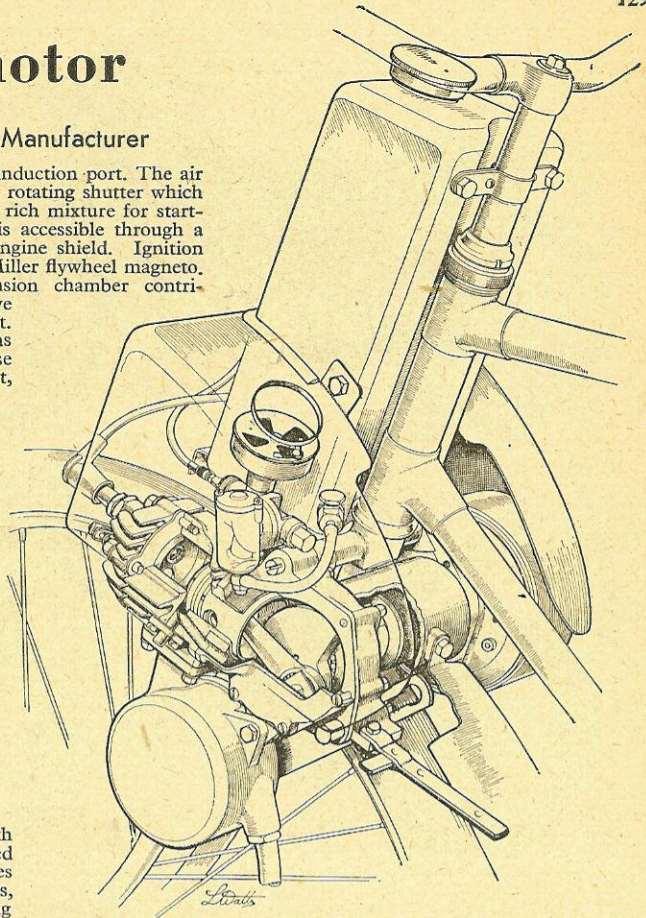
A needle-roller big-end bearing is employed. Drop-forged in EN8 carbon steel, the crankshaft is carried in a 17mm diameter ball bearing and a needle-roller bearing both of which are protected by compressed felt seals in steel pressings. The carburandum drive roller, which operates on the front tyre of the machine, is mounted on a steel sleeve, socket-clamped to the crankshaft by Allen screws. D.T.D. aluminium alloy is used for the crankcase, which is die-cast for uniformity and appearance.

An Amal single-lever carburettor is

mounted direct to the induction port. The air filter is provided with a rotating shutter which can be closed to give a rich mixture for starting. The air control is accessible through a small cutaway in the engine shield. Ignition and lighting are by a Miller flywheel magneto. A pancake-type expansion chamber contributes towards effective silencing of the exhaust.

The cycle, which has been designed for use with the power unit,

Details of the new Auto Minor 49 c.c. cyclemotor. A die-cast cylinder head and cast-iron barrel deeply spigoted into the crankcase are features



can be supplied with either an open or closed frame. Special features include 14-gauge spokes, oversize tyres, a sprung saddle and internal expanding hub brakes. A Sturmey-Archer three-speed hub gear with internal expanding hub brake for the rear wheel is also available at extra cost.

A short ride on the new cyclemotor proved that the engine has extremely good two-stroke characteristics. It would pull evenly away from little more than walking speed and it would cruise happily at about 15-20 m.p.h., with power in reserve. Stops and restarts in

traffic were made by closing the throttle lever to stop the engine and pedalling away with the compression-release valve raised. Prices are as follows:—Auto Minor (and single-speed bicycle), £39; with Purchase Tax (in Great Britain only), £41 18s 4d. Auto Minor and three-speed bicycle, £40 5s; with Purchase Tax, £43 9s 2d. Makers are A. B. Jackson (Cycles), Limited, 300, Icknield Port Road, Birmingham, 16.

RESULTS

250 c.c.—S. Setaro (250 A.J.S.), 68.0s (new record); 350 c.c.—J. Gray (349 Velocette), 69.0s. 500 c.c.—A. McKay (497 A.J.S.), 69.7s. Sidecar.—J. Rowlands (490 Norton sc), 74.6s (new record).

S.E. Centre Championship

COOL, cloudy weather made ideal racing conditions at the Valley Track, Worms-hill, Kent, where the South-Eastern Centre grass-track championships were held last Sunday. The track was dusty and, as was apparent from the scored crash helmets and splintered goggles, very stony in parts. Organization was capably handled by the Eltham Club.

The 250 c.c. Championship gave a close win for A. Fox (248 Matchless), with J. Colver, on a megaphoned 246 c.c. Matchless, only feet behind him. The first of the remaining five finished some 200 yards behind. Colver gained first place in the 350 c.c. Championship after passing M. Tatum, also Matchless mounted, on Lap 2. Six outfits lined up for the final of the Sidecar Championship. D. Slate, with passenger R. Nottingham—both old hands at grass racing—drove his 596 c.c. Norton outfit over four laps of a slightly amended course to win at a good speed. Chain trouble put J. Thorn (497 J.A.P. sc) out of the race on Lap 3, and F.

Wiseman's 596 c.c. Norton outfit spluttered its way slowly round one lap before retiring. J. Tyrrell (596 Norton sc) was close on the winner's tail, and R. Russell's 596 c.c. "fore and aft" twin Douglas outfit screamed its way into third place.

In the 8-lap final of the South-Eastern Centre Championship, A. Hagon (499 B.S.A.) streaked into the lead, followed by M. Banks (499 B.S.A.), S. Jarvis (497 J.A.P.), P. Mould (348 Ariel), D. Brister (348 J.A.P.), L. Matthew (348 J.A.P.) and F. Wells (498 Triumph). The positions remained unchanged for the first five laps, then Hagon fell at a corner. Quick as a flash he seized a yellow "caution" flag and waved other riders clear of his machine! Mould passed Banks, whose B.S.A. failed to oust the Ariel from first place.

RESULTS

250 c.c. Championship.—1, A. C. Fox (248 Matchless), 40.45 m.p.h.; 2, J. H. Colver (248 Matchless); 3, V. Knapp (248 Triumph). 350 c.c. Championship.—1, J. H. Colver (347 Matchless), 42.2 m.p.h.; 2, M. A. Tatum (348 A.J.S.-J.A.P.); 3, P. Mould (348 Ariel). S.E. Centre Championship.—1, S. Jarvis (497 J.A.P.), 42.8 m.p.h.; 2, M. Banks (499 B.S.A.); 3, P. Mould (348 Ariel); 4, D. Brister (348 J.A.P.). 550 c.c. Championship.—1, D. Spain (497 J.A.P.), 42.8 m.p.h.; 2, M. Banks (499 B.S.A.); 3, J. H. Colver (498 Matchless). Sidecar Championship.—1, D. Slate (596 Norton sc), 41.2 m.p.h.; 2, L. Tyrrell (596 Norton sc); 3, R. Russell (596 Douglas sc).

Natal Hill-climb

FOR many years the Natal M.C. and C.C. has staged the South African national hill-climb championships on the Burman Drive in Durban on Dingaan's Day, December 16. This day has now been declared a sacred holiday and will henceforth be known as the "Day of the Covenant." As a result the Natal club decided to switch the national championship to July 14 (Queen's Birthday—not Bastille Day).

The event was the 12th in the series, but owing to poor weather the crowd was smaller than usual. Several of the South African road racing stars were up in Rhodesia for the Umtali "100" and the Salisbury "100" and the field suffered accordingly. Intermittent showers fell occasionally. In spite of the conditions, however, Roy Millbank thrilled the crowd by screaming up the hill on his supercharged D.K.W. in amazing fashion. But Stan Setaro (250 A.J.S.) was even faster and he broke the long-standing, lightweight record for the hill by 2.2 seconds. The new figure in the 250 c.c. class now stands at 68 seconds for the mile climb. L. Brickhill caused a sensation on his 490 c.c. side-valve Norton-Triumph and almost caught the handicappers napping with his quite unexpected speed.