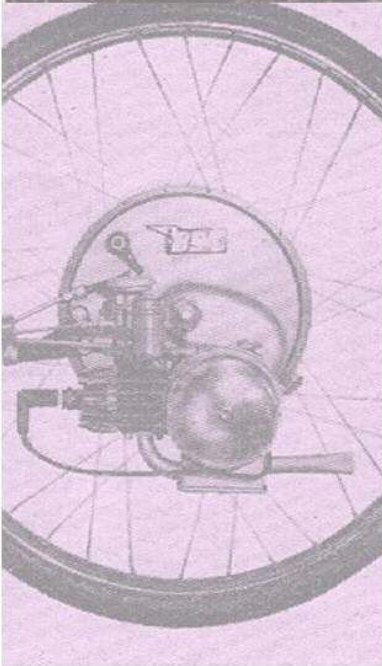


IceniCAM Information Service



www.icenicam.org.uk

IT'S HERE!

WORLD'S FIRST FULLY AUTOMATIC SCOOTER

AT LESS THAN £100!



It's here! The new Triumph Tina—world's first popularly-priced *automatic* scooter.

It's truly, fully automatic. No clutch. No gears. Just open the throttle, and away you go—smoothly, effortlessly.

This is the scooter that makes all others look old-fashioned. This is the Triumph Tina — the scooter for you!

TRIUMPH tina
only 89 gns INCLUDING PURCHASE TAX

SEND FOR FREE COLOUR BROCHURE TODAY!

To: TRIUMPH ENGINEERING CO. LTD., SCOOTER DEPT. E.,
 MERIDEN WORKS, ALLESLEY, COVENTRY

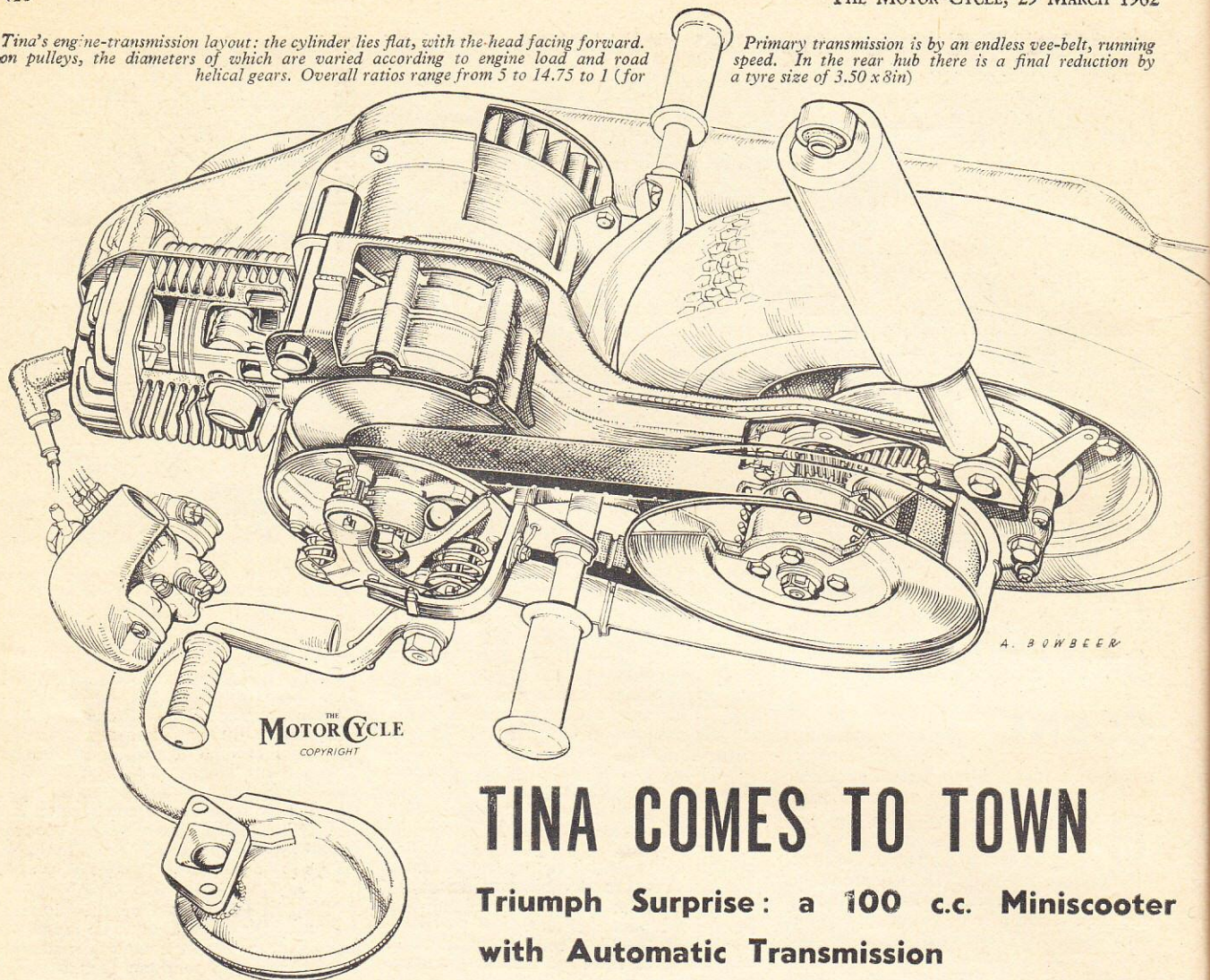
Please send me a free colour brochure on the Triumph Tina, together with the name and address of my nearest Triumph dealer.

NAME.....
(BLOCK LETTERS, PLEASE)

ADDRESS.....

Tina's engine-transmission layout: the cylinder lies flat, with the head facing forward. on pulleys, the diameters of which are varied according to engine load and road helical gears. Overall ratios range from 5 to 14.75 to 1 (for

Primary transmission is by an endless vee-belt, running speed. In the rear hub there is a final reduction by a tyre size of 3.50 x 8in)



TINA COMES TO TOWN

Triumph Surprise: a 100 c.c. Miniscooter with Automatic Transmission

WHAT was that? Just a little scooter, nothing to get excited about? You don't know Tina, that pert mam'selle from Meriden. Come and be introduced. No clutch lever, no gear pedal? That's right; just throttle and brakes—and an ingenious automatic transmission. And Triumphs have even put the rear-brake pedal in the middle, where it can be operated by either foot. Easy as riding a bicycle—and only a little more costly.

That switch, marked Start and Drive, rearward of the speedometer, is a safety device. As the engine speed rises, so centrifugal force causes the driving pulley to start transmitting power to the rear wheel (you'll see how, later). But you don't want the machine to take off before you are properly aboard. So you flick the switch over to Start, press down the left-mounted starter pedal and the engine fires. But while it will run at a tickover, no amount of throttle blipping will make it speed up—for an electrical

cut-out prevents it from doing so. No premature take-up of the drive, therefore.

Comfortably settled on the nice and low (only 26in high dual-seat, you can flick back to Drive, open the throttle. And that's it, away as smoothly as you like, the automatic transmission system of a sturdy vee-belt and expanding pulleys adapting itself to changes in engine speed to provide the most suitable gear ratio between limits of 14.75 and 5 to 1.

Tina is crammed from end to end with interesting features. Look at the box-section frame beam, for example, through which air to the carburettor is drawn from a little grille just below the 16½in-long steering head. Study the suspension system—trailing-link front, controlled by rubber in compression, and the engine, transmission and rear wheel pivoted as a single unit sprung by a single damper.

But the engine is orthodox enough. It is a straightforward two-stroke of 99.75 c.c. (50.4 x 50mm bore and stroke) which, at 7 to 1 compression ratio, develops

4.5 b.h.p. at 5,000 r.p.m. At each side, the crankshaft is carried in a ball bearing; the big-end has a caged roller bearing. When fully run-in, the engine will operate happily on a 30 to 1 petrol mixture.

The cast-iron cylinder barrel and light-alloy head are fan-cooled from the Wipac flywheel magneto (which incorporates direct-lighting coils). As mentioned earlier, the kick-starter pedal is on the left; it operates in a forward direction, and its quadrant engages with a pinion on the engine shaft.

Ingenuity is evident in the design of the driving pulley. The inner flange cannot move laterally but the outer flange can move inward, causing the driving vee-belt to ride up the flange slopes and so raise the gear ratio. Movement of the pulley flange is controlled by the engine speed, in this way. Splined to the driving shaft is a light-alloy spider, embracing three radial tracks, in each of which is a steel ball; matching tracks are formed on the outer face of the mov-

able pulley flange. As the speed is increased, so the balls are flung outward along the cam tracks, and a wedge action forces the pulley flange laterally inward against the pressure of three light springs bearing against a pressure plate. Conversely, as the engine speed falls, so the balls return down the cam tracks, while the light springs pull the flange outward once more.

When the engine is idling, there is clearance between the pulley flanges and the sides of the belt (which is supported on a ball-bearing hub) and no drive takes place. So that that condition is maintained, a pivoted arm bears against the spring pressure plate. This arm actuates a set of contact points, energized when the safety switch is in the Start position. Any movement of the pulley flange—and, hence, of the pressure plate—causes the points to close, thus interrupting the ignition circuit.

Drive is by a Goodyear vee-belt, of rubber reinforced with nylon cord, to a countershaft pulley with a spring-loaded inner flange; the spring loading is necessary, since any adjustment of the driving pulley would otherwise stretch the belt. Integral with the countershaft is a helical-tooth reduction gear, in mesh with a larger-diameter pinion keyed to the rear-hub shaft. No outer cover is provided for the belt guard (tests have shown that the scooter will even run through deep snow without ill effect) but the reduction gears are housed in an oil-bath, light-alloy casing bolted to the rear of the box-section, pressed-steel pivoted arm.

The carburettor is an Amal Type 32, the air intake of which is coupled to the frame beam by a short rubber hose. A choke control is mounted concentrically with the pull-out fuel tap on the left of the body; on the same side, a float-chamber tickler extension protrudes upward

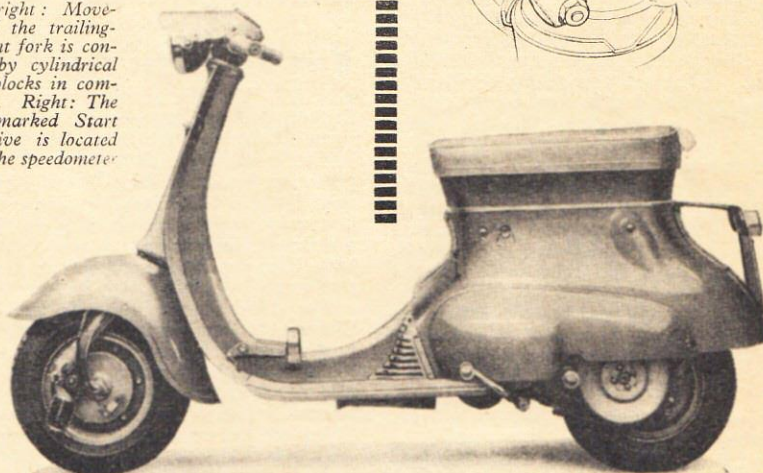
through the metal panelling. Forming the dual-seat base is a $1\frac{1}{2}$ -gallon fuel tank. The filler neck projects through the rear of the seat.

Wheel hubs are supported on the left, and embody 5in-diameter brake drums. Wheels are of split-rim, disc pattern, each secured by three studs and carrying a 3.50×8 in Avon tyre. The springing medium for the front wheel comprises two rubber buffers in compression, respectively of hard and soft mix to provide a varying rate, plus a rebound buffer.

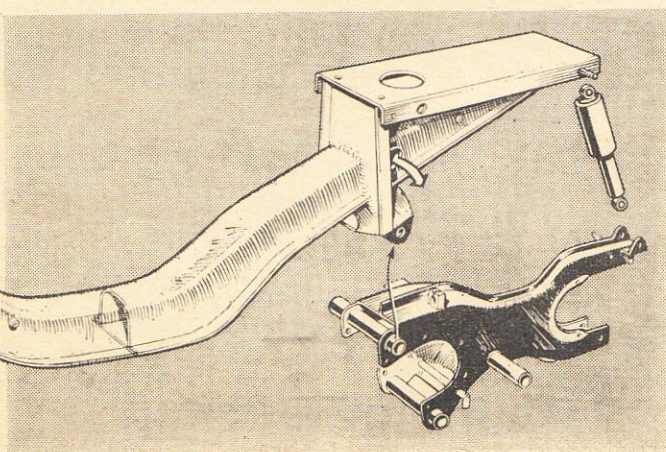
Bodywork, footboards and weather-shield are of pressed steel, but a novelty is the helmet-type front mudguard; it is a p.v.c. moulding. The neat handlebar cover, a steel pressing, affords a mounting for the 4in-diameter Wipac headlamp and the 60 m.p.h. speedometer. The finish is in lilac.

On the road, the little Triumph proved

Above right: Movement of the trailing-link front fork is controlled by cylindrical rubber blocks in compression. Right: The switch marked Start and Drive is located behind the speedometer.



Above: Tina in all her finery. Bodywork, footboards and weathershield are steel pressings. Below: Could anything be more simple? The frame beam is of straightforward box section



a charming companion, with no vices and capable of speeds in the region of 40 m.p.h. To a hardened motor cyclist, the absence of a clutch lever—and the lack of engine braking (snapping the throttle shut, of course, disengages the drive) were a little disconcerting at first. But Tina is not aimed at the experienced rider. Instead, she offers two-wheel motoring, with comfort and weather protection, in its simplest form; and at that, she's virtually irresistible.

Makers are the Triumph Engineering Co., Ltd., Meriden Works, Allesley, Coventry. Basic price is £76 3s 4d and the total price (which includes British purchase tax) is £93 9s. In course of preparation is a number of accessories, including a shopping-bag hook, windscreen and front-mounted carrier basket, prices of which will be announced later.

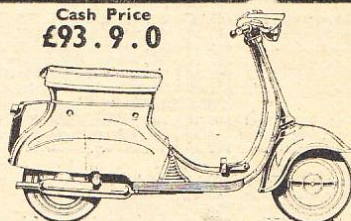


29 MARCH 1962

WHITBYS OF ACTON

Immediate Delivery
NEW 1962 SCOOTERS
ONE FIFTH DEPOSIT
36 MONTHS TO PAY.

Cash Price
£93.9.0



NEW TRIUMPH TINA
Deposit £19. 36 Payments £2.16.6

NOW ONLY
£139.19.9
COMPLETE

VESPA
SPORTIQUE

£28.19.9
Deposit
and
36
payments
£4.3.0



CASH PRICE		ALSO		Dep.		36 Payments	
£193	2 11	VESPA G.S. 150	.....	£39	2 3	£5	17 4
£83	5	0 CAPRI 70, d/st.	.....	£17	5 0	£2	19 10
£88	15	0 CAPRI 80, d/st.	.....	£13	15 0	£2	12 11
£169	5	2 B.S.A. Sunbeam 175	.....	£33	5 0	£4	12 6
£182	5	2 TRIUMPH T81 175	.....	£33	5 2	£4	12 6
£184	0	0 TRIUMPH TW3 250	.....	£37	0 0	£5	11 1
£89	13	9 N.S.U. QUICKLY "N"	.....	£17	13 9	£1	19 3
£77	0	4 N.S.U. QUICKLY "S"	.....	£19	0 4	£2	3 10
£89	16	6 N.S.U. QUICKLY "S/2"	.....	£22	16 6	£2	10 7

100 GUARANTEED USED SCOOTERS & MOPEDS

SCOOTERS		MOPEDS	
N.S.U. '59, Prima, 150 c.c., ivory/blue, elec. starter, smart	£79	N.S.U. '59, Quickly 49 c.c., legshields, speedo, low milge.	£25
MOBYSOOTER, '60, 150 c.c., green/mar., plin. seat, u/mk.	£79	NORMAN, '56, Nippy 49 c.c., maroon, most exchr. cond.	£29
LAMBRETTA, '58, TV 175 c.c., screen, carr., s/wheel....	£89	PHILLIPS, '49, Gadabout, very low milge., red/chpr., as new	£19
N.S.U. '59, 3 KL, Prima, 150 c.c., green/black, scrn., plin.	£89	PHILLIPS, '59, Panda, maroon, good, tyres, smart.....	£15
LAMBRETTA, '58, Li 150 c.c., red, d/seat, rear carr., s/wheel	£89	RALEIGH, '59, 49 c.c., grey, good tyres, low milge., excel.	£12
VESPA, '59, 125 c.c., blue, d/seat, rear carr., low milage	£89	NORMAN, '61, Nippy 49 c.c., maroon, low milge., excellent	£25
DURKOPP, '60, Diana 194 c.c., turquoise/ivory, elec. start.	£89	NORMAN, '59, Nippy 49 c.c., maroon, gd. tyres, v. smart	£27
SUN, '61, Wasp, ivory/red, elec. starter, 175 c.c. Villiers..	£79	MOTOCANE, '50, 49 c.c., grey, gd. tyres, low milge.....	£10
ZUNDAPP, '60, Bella, 200 c.c., elec. starter, 4-spd. g/box	£79		
ZUNDAPP, '57, Bella 150 c.c., maroon, elec. starter, d/st.	£39		
TRIUMPH, '59, Tigress, T.W.2, 250 c.c., twin, shell blue d/s	£99		
LAMBRETTA, '57, Mk. III, 150 c.c., LD, blue/ivory, plin.	£48		
TRIUMPH, '59, Tigress, T.W.2, 250 c.c., blue, spare wheel	£99		
PEUGEOT, '57, 150 c.c., spare wheel, carr., seat covers	£35		
ZUNDAPP, '57, Bella, 150 c.c., ivory, low milge., carr.	£65		
LAMBRETTA, '57, LDB 150 c.c., spare wheel, carr., blue/grey	£39		
DIANA, '57, Durkopp 200 c.c., blk./chrome, spare wheel, carr.	£69		
LAMBRETTA, '60, LD Mk. IV, 125 c.c., red/grey, spare whl.	£79		
N.S.U. '57, Prima 150 c.c., "D" self starter, ivory/blue	£49		
LAMBRETTA, '61, Li 150 c.c., grey/red, screen, carr., smt.	£129		
LAMBRETTA, '57, Li 175 c.c., cream, matching scrn., carr.	£89		
LAMBRETTA, '60, Li 125 c.c., two-tone grey, screen, carr.	£89		
LAMBRETTA, '60, Li 150 c.c., grey, spare wheel, chr. carr.	£109		
ZUNDAPP, '59, Bella, 200 c.c., blk./ivory, self starter, d/s.	£59		
BESPA, '58, Continental 150 c.c., d/seat, rear bumpers, ex.	£59		
CAPRI, '60, 70, ivory/red, d/seat, many extras, excellent	£99		
MAICOLETTA, '59, 250 c.c., maroon, chr., rear carr., l. milge.	£99		
VESPA, '50, 42, "L" model, 125 c.c., gd. tyres, excel.	£49		
TRIUMPH, '60, T81 175 c.c., metallic blue, screen, low milge.	£89		
VESPA, '59, Std. 125 c.c., maroon, d/seat, rear carr., clean	£59		
LAMBRETTA, '57, LDB 150 c.c., Mk. III, screen, carr., ex.	£49		
DIANA, '59, Sports, red, screen, 200 c.c., carr., spare wheel	£95		
N.S.U. '59, Prima 3 KL 150 c.c., green/black, plin., f/change	£89		

Get on the road before price rises. We will make you a fantastic allowance for your old machine in Part Exchange—or even your camera, Tape Recorder Player. Don't delay—get your new or secondhand machine now. From WHITBYS ON ENGLANDS EASIEST TERMS. If unable to call use coupon on next page.

263-273 THE VALE, ACTON, LONDON, W.3
SHEPHERD'S BUSH 5355/6

Hours of Business 9 a.m.—7 p.m. weekdays. Sats. 6 p.m.

THE MOTOR CYCLE

VOLUME 108 NUMBER 3068
THURSDAY 29 MARCH 1962

Managing Director } ARTHUR BOURNE
Editor-in-Chief }
Editor } HARRY LOUIS
Associate Editor } GEORGE WILSON
Midland Editor } BOB CURRIE
Technical Editor } VIC WILLOUGHBY

IN THIS ISSUE

Final Checkover	396
Working for the Aces	400
Honda Dream Tested	406
Time of Your Life	408
Competition Commentary	417
Novel New Triumph	418

the racing season