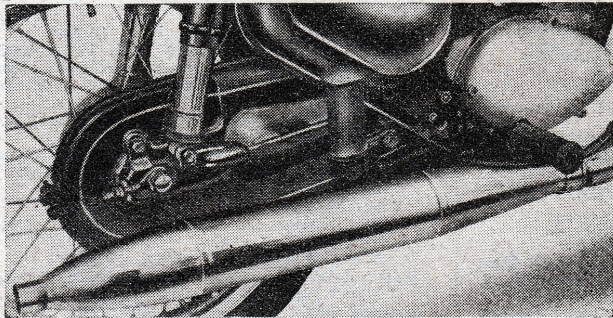


ROAD TESTS OF CURRENT MODELS

The 197 c.c. Twin-piston
Two-stroke

TWN "CORNET"

A High-class German Lightweight
of Unconventional Design



(Above, right) That the "Cornet" handles well is shown in this picture of "Motor Cycling's" man at Birmingham Airport. (Above) The neatly enclosed rear chain and "sausage-like" silencer.



TESTER'S ROAD REPORT

Maximum Speeds in:—

			Time from Standing Start
Top Gear (Ratio 6.3 to 1)	65 m.p.h.	= 5300 r.p.m.	36 secs.
Third Gear (Ratio 7.8 to 1)	54 m.p.h.	= 5600 r.p.m.	23 secs.
Second Gear (Ratio 11.9 to 1)	40 m.p.h.	= 6200 r.p.m.	12 secs.

Speeds over measured Quarter Mile:—

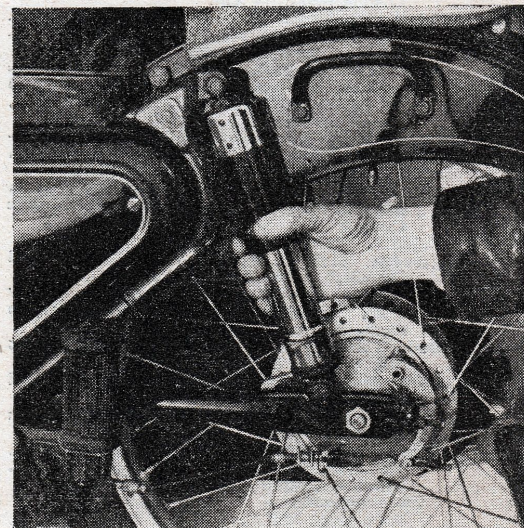
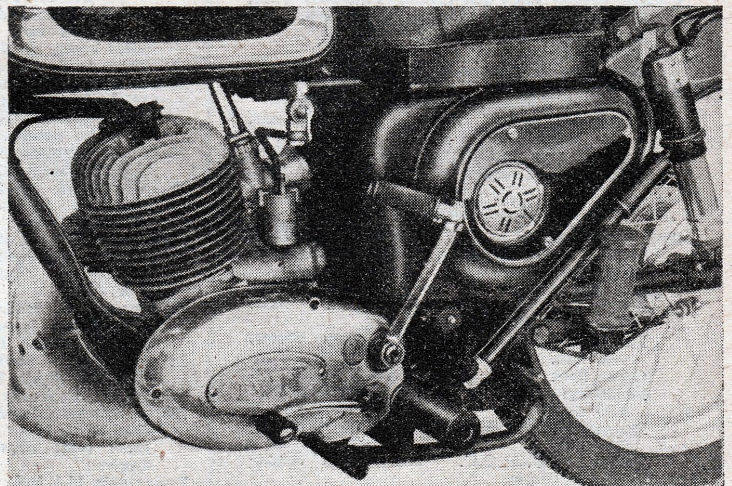
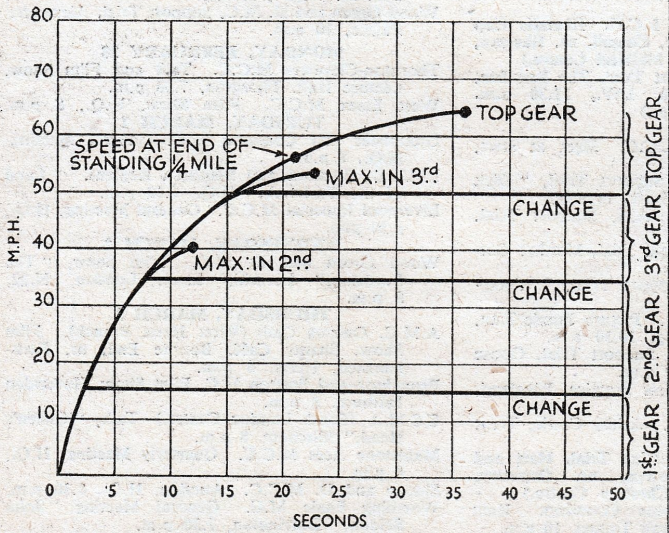
Flying Start	62 m.p.h.	Standing Start	42 m.p.h.
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Braking Figures On WET MACADAM Surface, from 30 m.p.h.:—

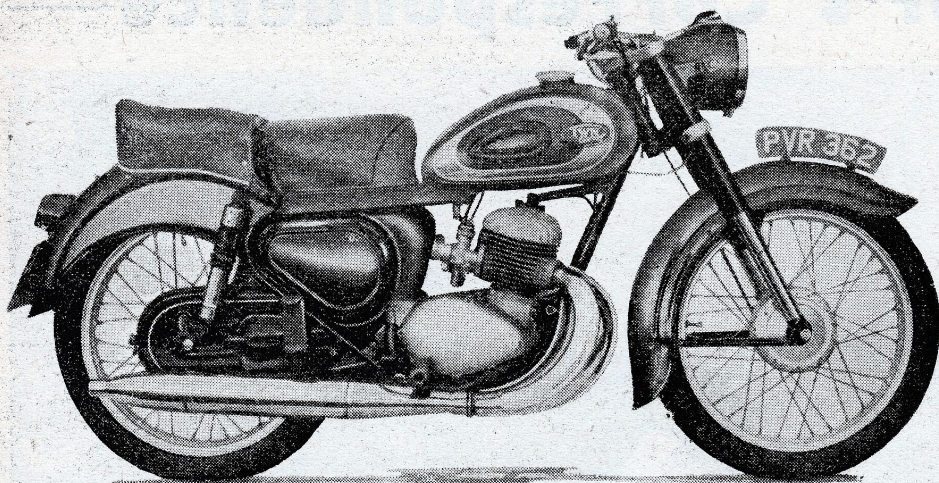
Both Brakes	31 ft.	Front Brake	45 ft.	Rear Brake	56 ft.
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Fuel Consumption:—

30 m.p.h.	130 m.p.g.	40 m.p.h.	110 m.p.g.	50 m.p.h.	90 m.p.g.
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(Above) Shown in this close-up of the German "Cornet" two-stroke is the folding kickstarter, left-side gearchange mechanism and the neat horn housing. (Right) The rear springing unit is easily adjustable for load.



Robust, but of handsome appearance, the TWN "Cornet" is priced at £199 7s. 9d. including P.T. and import duty.

It is a coincidence, but an interesting one, that, for the second week in succession, we present a British-style test of a contemporary German-made two-stroke; a type of machine to which the Teuton school of design has paid considerable attention and in the perfecting of which—within the limits imposed by inherent two-stroke characteristics—German manufacturers excel.

Certainly in the case of the 197 c.c. TWN "Cornet," a product of Triumph Werke Nürnberg A.G. (retailed over here by Chorlton Light Cars and Motor Cycles, 318 Barlow Moor Road, Chorlton-cum-Hardy), scavenging problems and the attendant trouble of uneven firing have been minimized by the unconventional, in British eyes, double-piston assembly, which makes possible improved port timing, better combustion and, therefore, even running and higher performance. Reg Dearden, proprietor of Chorlton Light Cars and Motor Cycles, himself handed over the "Cornet"—a stock motorcycle, the kind of model which many advocate for road tests.

He started the "Cornet" from cold in two pushes on the kickstarter; explained the press-in type of head-lamp-mounted ignition switch, the red ignition and green neutral warning lights; he put some oil in the primary chaincase, indicated where the very comprehensive tool-kit, including puncture outfit, was stowed; demonstrated how the rear fork legs could be quickly pre-loaded for pillion work if required, and, waving

goodbye, went in to carry on tuning!

The Nürnberg manufacturers recommend a 1:20 petrol mixture, an awkward proposition for an English wayside filling station; and on the run back to Birmingham a compromise was made at Mere with $\frac{1}{4}$ pint of oil (roughly) to two gallons of premium-grade fuel which worked out at a ratio of about 1:21. This seemed to be perfectly satisfactory. The carburetter, however, appeared to be set on the weak side for, at the cut-away stage, there was a tendency towards misfiring unless the handlebar-mounted air lever was kept closed for an appreciable time. The trouble diminished as the unit really warmed up and was absent altogether at wider throttle openings when the engine was pulling hard.

In these collar-work conditions a slight detonating tinkle could be wrung from the engine and, as the compression ratio is on the "soft" side, this, too, must have been attributable to the lean setting, an arrangement which, intended or not, resulted, on the other hand, in a very creditable m.p.g. performance.

That two gallons of fuel seemed everlasting! Actually nearly 190 miles, comprising fast main road and town work, and the covering of a trial, were accomplished before the three-way fuel tap had once again to be switched to reserve.

Metric throughout, of course, the "Cornet" had a kilometre-graded VDO speedometer and, on the open road, with

the rider sitting normally, it was not difficult to keep the needle wavering between the 100-103 k.p.h. mark, which, as the makers claim, is a maximum equal to 62-65 m.p.h.

In the distance available for a "flying quarter" test, the machine recorded a reliable 100 k.p.h. (62 m.p.h.). A good main-road cruising speed was 50-55 m.p.h. at which gait the engine, which has a Mahle chrome-hardened alloy cylinder barrel, was quiet mechanically. The exhaust note, conforming to very strict post-war German rules, was most pleasantly restrained, a feature which makers of some British two-strokes might well imitate.

Transmission noises were absent, due largely to the effective enclosure of the rear chain and, because of the massive box-structure, air intake cavity and air cleaner located beneath the rider's seat, there was no audible induction flow. A pity, therefore, that this high standard of the "phon" measure, was offset by a slight metallic-sounding reaction in the front telescopic fork springs at sudden impacts, and also by a perceptible clash—a characteristic of many Continental motorcycles—in the otherwise slick gear selector mechanism.

What was the "Cornet" like to ride? By modern standards the seat was less comfortable on a long journey than the resilient-looking shape suggested. Springing front and rear was first class and novelty plus commonsense in the design of the hand-operated pre-loading of the rear telescopic dampers calls for warm compliment. The handling, too, was first class and the brakes, particularly that at the front, excellent, although a slight squeal developed as the test proceeded.

In appearance, the "Cornet" is a pleasing little motorcycle, the ample mudguarding area and chain case blend well into a composite whole.

Primary current is generated by a built-in crankshaft-mounted dynamo, with enclosed H.T. coil and ancillaries, giving a 6-v. 60-w. D.C. output. Fitted with a 160-mm. (nearly 7 in.) diameter head lamp, the "Cornet" has lighting commensurate with its 60-m.p.h. performance. Particularly praiseworthy is the really sharp cut-off of light on the dipped filament.

Finish is excellent and general construction robust throughout. Attention to detail such as finger adjusters for clutch and front brake cables—they can be operated by the rider in the saddle—is indicative of the thought which has gone into the specification. Altogether the test of the "Cornet" seems to provide a further revelation of German thoroughness in the manufacturing field.

BRIEF SPECIFICATION

Engine: 197 c.c. TWN two-stroke unit; bore 45 mm. by stroke 62 mm.; light-alloy cylinder head and Mahle hard-chrome plated barrel; C.R. 6:1; claimed b.h.p. 10.1/5,000; Bing 2/26/26 carburetter with air control lever on handlebar and built-in air intake cavity with filter.

Transmission: Gearbox in unit with engine; primary drive by $\frac{3}{8}$ by $\frac{3}{8}$ -in. endless chain running in oil-bath to gears providing 6.3, 7.8, 11.9 and 20.91:1 ratios. Selection by positive-stop footchange with operating lever on left side. Final drive by $\frac{1}{2}$ by $\frac{5}{16}$ in. chain working fully enclosed in chaincase; four-plate oil-resisting clutch.

Frame: Welded-steel tubular cradle-type frame with built-in pillion-rest lugs. Thief-proof lock device at head lug.

Lubrication: By petrol; test carried out with 21:1 proportions.

Electrical Equipment: Noris dynamo-type generator with 60-watt D.C. output; ignition by coil; all generator equipment fully enclosed by cover plate on left of power unit; Noris head lamp with 35-w. "Bilux" bulb; built-in switch mechanism with detachable control; VDO speedometer and ignition and neutral indicator lights; 6-v. battery and horn housed in container on left of machine; tail-light incorporates rear reflector.

Suspension: TWN telescopic front forks; rear suspension by pivot-type swinging-fork with hydraulic dampers adjustable for load.

Wheels: Polished alloy rims carrying 2.75 by 19-in. front and 3.00 by 19-in. rear studded tyres; full-width hubs with shrunk-in 6-in.-dia. brake drum inserts.

Tank: All-steel welded tank of 2.6-gal. capacity, including 1/3-gal. reserve; three-

way tap and flexible plastic line to carburetter.

Dimensions: Wheelbase 50 in.; ground clearance $\frac{5}{8}$ in.; saddle height 29 in.; weight, 276 lb.

Finish: Black and chrome with bright alloy parts polished.

General Equipment: Full kit of tools in container with barrel lock; VDO speedometer built into head-lamp shell; tyre pump; square saddle with separate pillion designed to blend into dual-seat styling.

Price: £199 7s. 9d. including P.T. and import duty.

Annual Tax: £1 17s. 6d. (10s. 4d. per quarter).

Makers: Triumph Werke Nürnberg A.G., Nürnberg, Bavaria.

Concessionaires: D. Salem, Ltd., 15 Cross Street, Manchester, 2.