



F.N. "PRINCESS"

"Near Perfect" Moped from Belgium's
National Arms Factory

IN all save a few small points, the Belgian designers of the newly-introduced F.N. "Princess" have produced the ideal moped. There is scarcely a feature of it which can be criticised, and its performance is so good, in all departments, that I am tempted to describe it as the best all-round machine in its class. Certainly, this product of the Fabrique Nationale has soared right to the top of my personal hit parade.

In appearance, it is a straightforward two-speeder—better cowed than most, but otherwise quite conventional. There is nothing in the functional lines of its telescopic forks; in the sturdy and rather rough finish of its two-speed engine/gearbox unit; or in the general layout itself, to give a hint of the delightful surprise which awaits the rider the moment he starts the engine, engages gear, and feeds in the clutch.

Starting, despite the absence of a tickler, is simply a one-kick matter, providing the handlebar-mounted lever controlling the choke of the Encarwi carburettor is operated. It can be released immediately the unit fires. At once, one notes the first of the F.N.'s defects—an exhaust note which is too full-throated by current standards. This point is to be rectified on later models.

The gear engages cleanly, and when the clutch is fed home the F.N. fairly leaps away. Its acceleration is good, and even if the engine is disgracefully over-revved in bottom gear the power output remains smooth, with only the faintest hint of vibration right at the very peak of the rev. scalé. Second gear engagement is

clean, too, and the lack of vibration as the machine tops the 30 m.p.h. mark and reaches its level-road maximum of 33 m.p.h. just as noteworthy. Close to 40 m.p.h. can be hit downhill, and yet the engine never gives the slightest sign of losing its wonderful smoothness.

Coupled with this is remarkable flexibility. On a slight slope, top gear can be held right down to five m.p.h.—an almost incredible feature of a surprising machine. On the level, transmission snatch sets in at about eight m.p.h., but the F.N. will pull away from that speed without dropping the gear and without pedal

Elegant, practical and potent, the F.N. "Princess" is a machine to write home about.

assistance. Not surprisingly, it is a formidable hill-climber. If the gears are changed at about 15 m.p.h., it will romp up main-road hills smoothly and quickly in bottom, and on our test incline it recorded one of the best performances to date.

The sheer quality of this machine does not end with the engine unit. Its steering is absolutely first rate, and the suspension systems faultless. Neither the "teles" at the front nor the swinging-fork at the rear could be bottomed on ordinary going, and they harmonise beautifully, to give a cushioned, floating ride. This excellent springing, coupled with a frame geometry that is completely right, gives handling which I, for one, cannot criticise. The machine could be hurled into sharp corners and lain over at almost any angle without any sign of stepping out at the rear.

It is a pity that a fault in the design of the back-peddalling mechanism makes criticism of the braking inevitable. The brakes themselves are excellent pieces of work, mounted in beautifully-finished light alloy full-width hubs, and the front one is quite powerful. Unfortunately, the back-peddalling gear is so arranged that it operates only when the cranks are nearly vertical, and in this position it is impossible to achieve any delicacy of control, or to apply a really effective pressure. It is also a rather awkward arrangement so far as comfort goes.

In these circumstances, only poor rear-brake figures were obtained. My opinion is that the figures could have been almost halved had it been possible to apply the brake with the cranks just out of the horizontal position.

My consumption meter bore out an impression which road riding had already given me—that the "Princess" is almost a teetotaller! A figure of 150 m.p.g. at 25 m.p.h. argues a very good overall fuel consumption—and so there is; something like 130 m.p.g., with the machine held at its cruise of 30 m.p.h. on the level, and with full advantage taken of the good hill-climbing speeds.

Finally, comfort and finish. The bench-type seat is soft and well-positioned, and the riding position is consequently one of the best I have yet encountered. Finish is good—the sheet-steel sideshields, in particular, being commendably sturdy and rattle-free—and the Miller lighting set provides adequate light for night-time work. If F.N. can only improve the rear braking and provide a less joyous exhaust note, it will need a harsher critic than I to fault this lovable Belgian "Princess."

CENTAUR.

Performance

Speed:			
Maximum, 33 m.p.h. in 3 rd sec. from rest.			
Flying 1/10th. mile, 30 m.p.h.			
Standing 1/10th. mile, 20 m.p.h.			
Acceleration:			
0-10 m.p.h.,	2 sec.	0-25 m.p.h.,	18 sec.
0-15 m.p.h.,	4 sec.	0-30 m.p.h.,	25 sec.
0-20 m.p.h.,	9 sec.		
Economy:			
At 20 m.p.h.	162 m.p.g.	At 25 m.p.h.,	150 m.p.g.
At 30 m.p.h.,	115 m.p.g.		
Braking:			
	Front	Rear	Both
At 20 m.p.h.	25ft.	35ft.	15ft.
At 25 m.p.h.	45ft.	60ft.	26ft.
At 30 m.p.h.	80ft.	92ft.	40ft.
Hill Climbing:			
Time for hill, 1 min. 40 sec.			
Change, top/bottom at 0.2 miles			
Test hill 0.5 miles long; max. gradient 1 in 10;			
average gradient 1 in 16.			
Peddalling:			
Comfortable pedalling speed, 5 m.p.h.			
Tester's rating: Moderately easy to pedal.			
Tester's Weight: 200 lb.			

Specification

Engine: F.N. two-stroke; 38 mm. bore x 42 mm. stroke = 47.6 c.c.; c.r. 7.6 to 1; 2 b.h.p. at 5,500 r.p.m.

Gearbox: In unit with engine; two speeds: chain primary and final drives; kick starting.

Frame: Welded beam-type tubular frame, with steel shields; telescopic front forks; swinging-fork rear springs.

Tank: 14-gal. capacity.

Lights: Miller front and rear lamps fed direct from flywheel magneto-generator.

Wheels and Brakes: Both brakes 44-in. internal-expanding in full-width light alloy hubs; chromium-plated rims and rust-proof spokes; 2.00-in. x 26-in. white-wall tyres.

Equipment: Speedometer; central stand; in-built tool box; in-built luggage carrier; tool kit; tyre pump; licence holder; number plate.

Finish: Gun-metal enamel, with chromium-plated details.

Weight: 100lb.

Makers: Fabrique Nationale, Herstal, Belgium.

Concessionaries: F.N. (England) Ltd., 102 Baton Place, London, S.W.1.

Price: £95 10s. inc. P.T.

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