

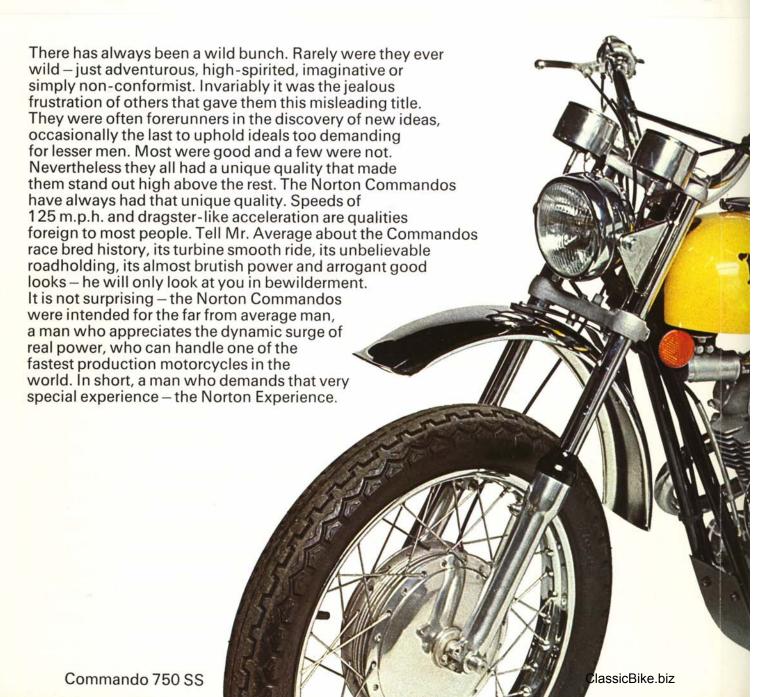
Isolastic

Norton's revolutionary answer to vibration.

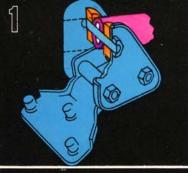
One of the world's foremost motorcycle magazines, "CYCLE" of America, called the Norton Commando Isolastic construction "ingenious" and "revolutionary". Why? Because Norton have with Isolastic construction insulated you from that most hated of motorcycle faults — vibration. By mounting the engine, gearbox and rear wheel assembly on the same polymer cushioned plane they have given you for the first time a velvet smooth ride on a high performance big twin.

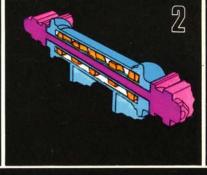


The Norton 750 Cor











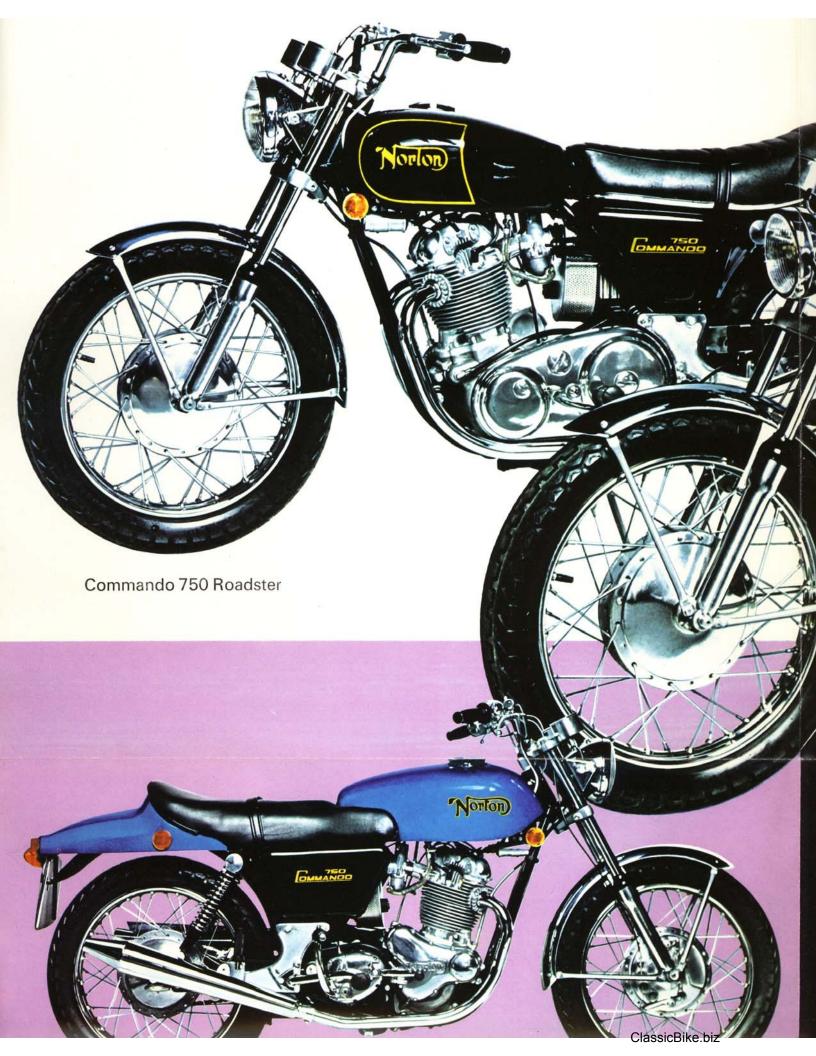
The Norton Isolastic principle built into the Commando couples the engine and gearbox directly to the rear wheel (illustrated in blue) on which the frame (illustrated in red) is mounted by three special polymer filled absorption units located at strategic mounting points (illustrated at 1, 2 and 3). These units are designed to retain rigidity where it matters, ensuring unimpaired handling.

This unique principle has two great advantages. First, it insulates the frame and the rider from engine vibration while still making use of a high performance vertical twin engine with its uncomplicated construction, proven reliability, low maintenance costs and light weight — the famous Commando formula. Secondly, because it is isolated from the frame, the engine torque transmitted through the chain cannot put the rear wheel out of alignment.

ommando range







ommando range







The Norton Commando which the motorcycle press proclaimed as "one of the greatest motorcycles ever" is guised in five basic styles to suit most riders. The well established Roadster and Fastback are now joined by a new version of the Fastback with bigger gastank in steel, the L.R. (not illustrated) and the newly styled SS and Hi.rider. All have the revolutionary Isolastic construction, the light but super strong frame, utterly predictable steering with the famous "Roadholder" forks, adjustable rear shocks, a race bred and race proved 750 c.c. big twin pushing out 60 B.H.P. at 6,800 r.p.m., the wonderfully light yet positive diaphragm spring clutch, double leading shoe airscoop front brake and a four-speed medium-closeratio gearbox. Beautifully finished in a wide choice of plain and metalflake colors with all-chrome fittings.

This magnificent quintet offer Isolastic anti-vibration super-ride, simple easy-to-maintain engine construction and terrific middle range power where you use it most — a combination which multi-complicated machines cannot match. With their uncanny smoothness, shattering performance — well over 100 m.p.h. at the quarter in 12.6 secs. — plus a top speed approaching 125 m.p.h., it is not surprising they have that unique quality that make them stand out high above lesser machines. Try one and prove it for yourself.

12 new persuaders

- 1. New dual coil 12 volt ignition system with ballast resistor. Constant powerful spark regardless of battery condition. Electrolytic capacitor fitted to improve starting with flat battery.
- 2. New rubber mounted 6 pint oil tank for cooler oil.
- 3. New cush shock absorption drive in rear hub. Insulates road shocks from the transmission and engine minimising chain wear and adjustment. New single nut fixing for quick wheel change.



Commando 750 Interpol

It wasn't long before the unique quality of the Commando became appreciated by the Police Forces of the world. They had for years wished for such a machine. A machine which was sympathetic to delicate radio equipment and to long distance riding comfort and which put stability, easy maintenance, excellent load capabilities and high safety standards at a premium. Operational in all conditions, whether on the freeways or across rough country, the Commando Interpol makes an invaluable contribution to State vehicle strength. Custom built with specialist equipment of your choice.

Commando 750 F.I.M. Production Class Racer

The Commando is one of those rare bikes that is almost a pure racer in standard form. When you include the following list of standard extras it becomes a very formidable machine, one that already has a string of racing successes on both sides of the Atlantic. Selectively assembled high compression motor with high lift camshaft, choice of silenced exhaust (70 b.h.p.) or megaphones (72 b.h.p.), front disc brake, special rear drum brake, clip-on handlebars, rear racing footpegs, alloy wheel rims, choice of 3½ or 5 gallon racing gastank, racing seat, racing fairing. Optional transistorised ignition, 5-speed gearbox.

- 4. New front fork geometry giving an all round improvement in steering especially at high speeds. Special sealed head bearings requiring no adjustment. New no-ride steering lock.
- 5. 4.10 x 19 front tire for greater comfort and safety.
- 6. New roll-on center stand and prop stand for easy-lift parking. Both tuck up high for maximum clearance during fast cornering.
- 7. New electrical system including alternator, headlite dipper, ignition and main beam warning lites, independent front and rear brake lite switches, four position ignition (key) switch and external point for power take off or battery charging. Redesigned battery tray with quick action security strap.



- 8. Improved control levers and handlebar layout with soft cushion hand grips.
- 9. Redesigned muffler. Complies with noise regulations without losing that distinctive Commando sound. Actual power increases are attained in the middle rev range where you need it
- 10. Restyled luxury deep-padded contoured seat.



- 11. New easy-read instrument dials of superior appearance.
- 12. New and stronger chainguard of modern functional design.

Specification:

Construction

Isolastic anti-vibration principle more fully illustrated and described in this leaflet.

Frame

The unique Commando frame combines lightness with strength, giving exceptional torsional rigidity. It is constructed of high quality steel tube with large diameter backbone supporting the steering head, twin downtubes anchoring the engine cradle. Pre-greased and nonadjustable sealed bearings are fitted at the steering head. Strong security steering lock abutment and substantial lock stop provided.

Suspension

Famous "Roadholder" front forks with progressive two-way oil damping and long single rate springs housed in high quality chromed steel stanchions in slimline profile. Light aluminum sliders to reduce unsprung weight for high speed roadholding. Slimline fork top covers incorporate rigid headlite brackets. Precision front fork yokes and stem provide hairline steering geometry. Girling rear shocks with exposed rear chromed springs control swinging arm pivoting on oilite bushes.

Engine

One piece aluminum cylinder head and rocker box with splayed exhaust ports for maximum power. Overhead valve operation thru forged steel rocker arms. Barrel-shaped aluminum push-rods for precise operaton. Large diameter tappets with hardened faces for long life. Sports camshaft with chain drive. Forged steel crank with central flywheel. Forged aluminum connecting rods with inserttype bearings.

Type Air cooled o.h.v. vertical twin 45 cu. in. (745 c.c.) 2.88 in. (73 mm.) Capacity Bore 3.5 in. (89 mm.) Stroke 9:1

Compression ratio Maximum cruising

7,000

B.h.p. at sea level 60 at 6,800 r.p.m. High efficiency tach drive direct from camshaft.

Carburetors

Twin Amal 30 mm. concentric with high efficiency air cleaner. Automotive type replacement element. Average setting:

Main Jet 220 3 Throttle valve 0.107 Needle Jet

Check with your dealer for your optimum local setting, which will depend on altitude and temperature.

Exhaust Systems

Roadster, Fastback and Hi.rider. Twin downswept pipes with upswept tailpipes. SS. High level pipeswith slightly inclined tailpipes. Protective leg guards.

All models: full flow mufflers to comply with all known official noise regulations.

Clutch

Automotive type multi-disc clutch with large diameter diaphragm spring designed to transmit up to 100 b.h.p. Unique design of spring allows very light hand operation.

Transmission

Wide tooth four-speed gearbox with medium-close ratios. Extra tough nickel chrome steel gears, triple row heavy duty primary drive with streamlined aluminum housing. Gear ratios:

4.84:1 4th 3rd 5.9 : 1 8.25:1 2nd 12.4 : 1 1st

Efficient paddle type polyurethane shock absorber in rear hub.

12 volt electrical system fed by high output alternator with zener diode regulator and silicon bridge rectifier. Coil ignition by twin contact breakers and 6 volt coils with ballast resistor. Capacitors mounted in common pack with neat rubber cover. Capacitor discharge auxiliary ignition system in event of battery failure. Seven inch headlite (smaller diameter on SS and Hi.rider styles) with 45/40 watt bulb. Powerful Alpine windtone horn for freeway use. Charge warning lite with assimilator sealed and spring mounted warning lite for headlite hi-beam. Four position master switch for ignition and lites; lite selection switch in headlite shell. Neat cluster switches on handlebar controls for dip switch, engine kill button and optional direction indicators. External live socket for auxiliaries or battery charging.

Gastank Strong sports tank with quick filler gascap.

Capacity: Fastback L.R. 4.7 gallons 3.9 gallons Fastback 2.7 gallons Roadster 2.3 gallons SS Hi-rider 2.3 gallons

Reserve supply gastap.

Oiltank

All steel construction for heat conduction. Capacity 6 pints. Complete with drain plug and dipstick concealed by neat glassfiber cover on all models. Flexible rocker feed pipe.

Seat

Luxurious deep cushion contoured dual seat with supple black pleated cover.

Stands

Robust easy-lift high-tuck-up center stand mounted on rear engine plates. Strong extra length propstand angled to give maximum support even on poor surfaces.

Wheels Brakes and Tires

Chromed rims with plated steel spokes laced to large diameter aluminum hubs with racing style brakes, the front being ventilated twin leading shoe with 4.10 x 19 low profile tire with specially developed tread pattern for hairline steering and wet weather grip. On the rear, 4.10 x 19 low profile tire designed for high speed and maximum wear resistance. Recommended tire pressures for normal riding: front and rear 26 p.s.i. Check with your dealer or the tire chart for correct pressures for riding with heavy load or sustained high speed.

Other Equipment

Matching easy-to-read tachometer and speedometer, buddy pegs, tool kit, side reflectors, steering lock, cushion hand grips. Skid plate (on SS style only). Flashing amber direction indicators with sealed operating unit and repeater in headlite available as optional extra.

Colors

Rear fairing (Fastbacks only) gastank and side panels. Wide range of colors available. Check with your dealer.

Dimensions

Wheelbase 56.75 in. 87.5 in. Length 26 in. Width **Ground Clearance** 6 in. Weight (dry) 385-395 lb. dependent on style and equipment.

Performance

Time 12.69 secs. Standing quarter Terminal speed 103.68 m.p.h.

Published by CYCLE Magazine,

March 1970. Other figures dependent on conditions.

0-60 m.p.h. 4.8 secs. 125 m.p.h. Top speed

Norton Villiers reserves the right to vary the specification of all motorcycles and spare parts without notice and the information in this leaflet does not therefore constitute a term of any sale. All descriptions and claims are given and made in good faith but are intended to apply generally. Variations in performance and construction on individual machines may occur. Performance on any particular occasion will also be affected by the conditions, circumstances and the rider.

Note: Capacity measurements in this leaflet are stated in U.S. gallons and pints.

> Norton Villiers Limited Walworth, Andover Hants, England

Patents on the frame and on the Isolastic construction principle have been applied for in the U.S.A., Canada, the United Kingdom and elsewhere. U.S.A. design patent D212404, U.S.A. patent 3,508,765 and British registered design 932428 have been granted on the frame.