

TAPPETS CAR TYPE

Car-type tappets, with greatly increased bearing areas, giving long life and silent operation, are one of the notable features of the B.S.A. Super Flash. Note the "Siamesed" pairs of tappets providing perfect constant alinement.

SPECIAL FLASH FEAT

PISTONS

The silicon-aluminum alloy pistons with W-slots for controlled expansion under high-performance conditions.

ROCKER

Underside view of the ro air flow channels are des cylinder head. This also tappet adjustments.



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ROCKER BOX

Underside view of the rocker box showing how the air flow channels are designed to follow that of the cylinder head. This also shows the easy access for tappet adjustments.

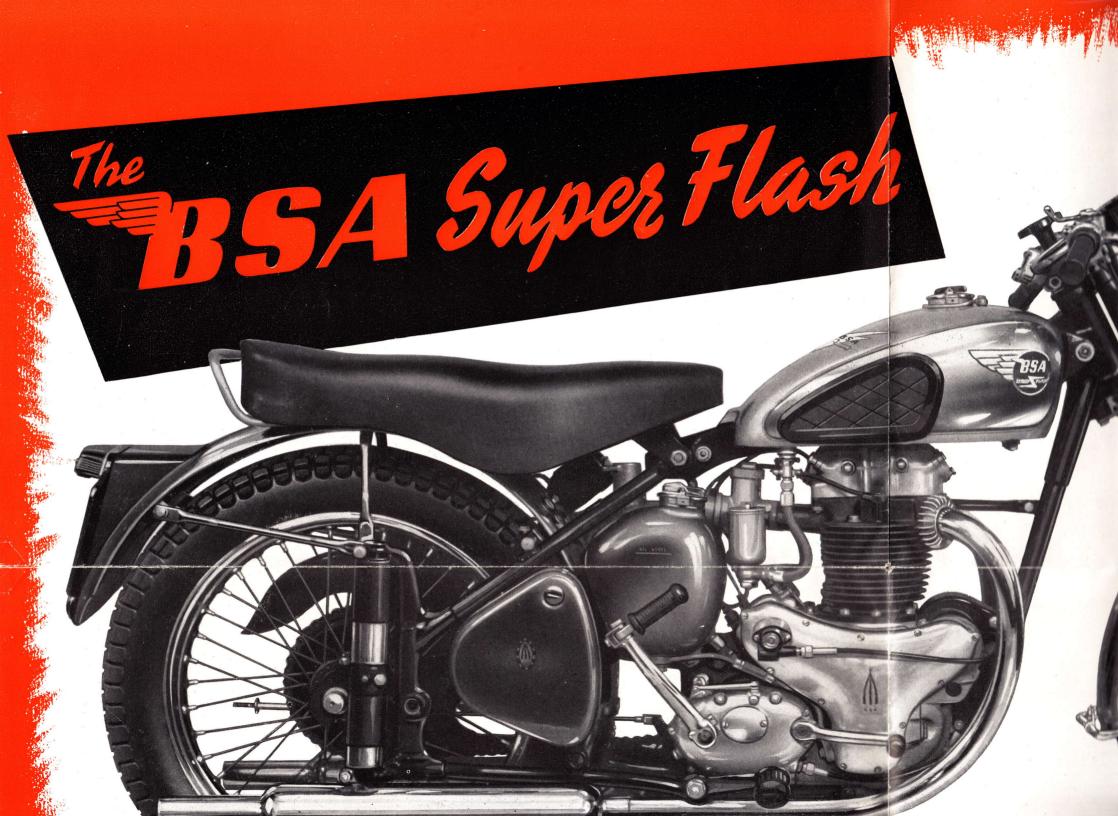


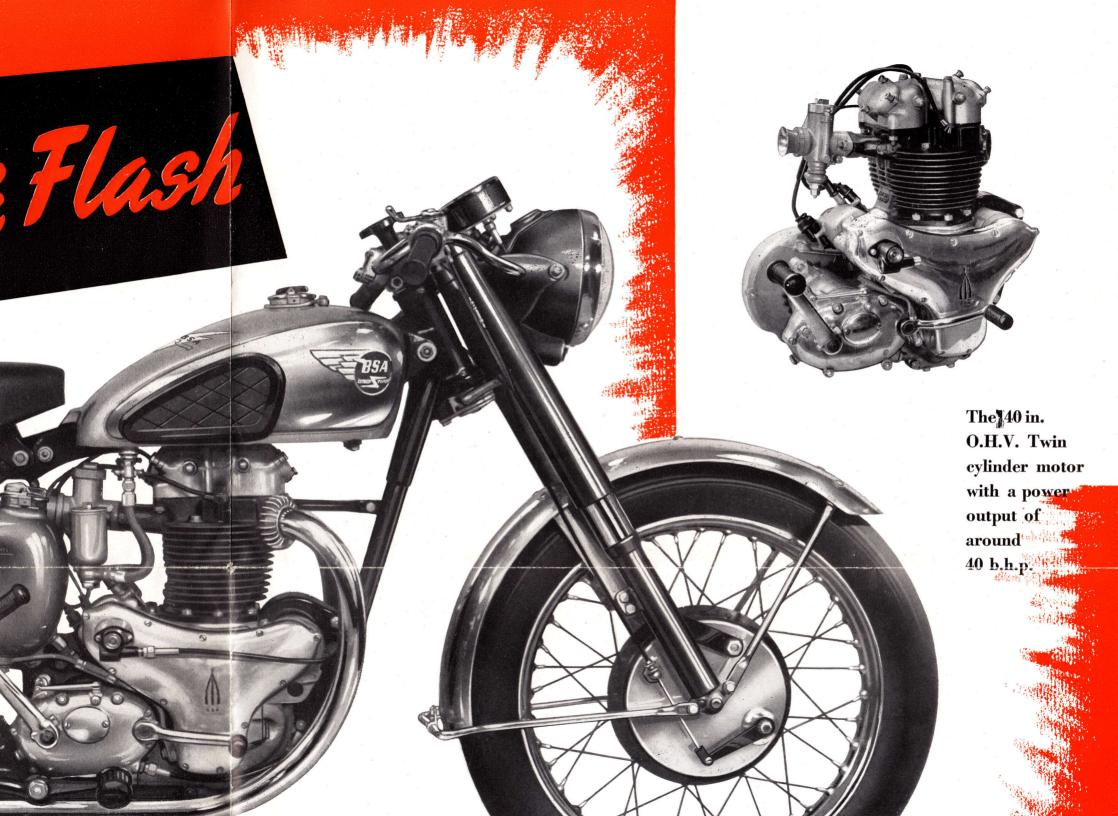
CYLINDER HEAD

The cylinder head, showing the air flow around the exhaust ports. The arrangement of the finning on the three valve spring chambers encourages a generous flow of cooling air right over the vital surfaces of the combustion head.

IN THE WORKER

loy pistons with W-slots under high-performance







The B.S.A. Golden Flash, introduced to American Motor Cyclists some two years ago, achieved instant popularity.

Now, from the same stable, comes the B.S.A. Super Flash—a super-duper speciallytuned sports edition of the original Flash.

In design and basic specification this new Super Flash is similar to its famous forerunner, but the technical layout of the motor has been developed to produce a marked increase in power output and all-round performance. This new model retains to the full all those characteristics which make the Golden Flash so deservedly popular flexibility, riding comfort, supreme road-holding and hairline steering.

The B.S.A. Super Flash is a <u>must</u> for the enthusiast who wants EVERYTHING in a motorcycle.









ENGINE. Vertical Twin Cylinder O.H.V. 70 mm. bore by 84 mm. stroke; 646 c.c. Specially tuned and dynamometer tested. Forged steel crankshaft with integral bobweights and bolted-on central flywheel. Roller bearing on driveside crankshaft. Plain lower end bearings with indium-flashed lead bronze linings. Babbit lined steel bushing for crankshaft timing side. Forged light alloy connecting rods; low expansion aluminum silicon alloy slotted skirt pistons. Twin cylinders cast in single unit with specially cored air passages. Unit cylinder head-casting with narrow angle valves, two per cylinder, operating in shallow combustion chambers specially developed for maximum efficiency. Bifurcated intake manifold cast in cylinder head unit.

Overhead rockers operated by push rods from a single camshaft at rear with large car type tappets. Camshaft gear-driven from crankshaft through idler pinion, and incorporating timed mechanical breather.

Large intake valves; Nimonic 80 exhaust valves, all fitted with sports type springs and cotters. Sports camshaft. Special timing cover adapted to take rev-counter drive; rev-counter extra. Large bore Amal T.T. carburetor. Special mufflers giving pleasant exhaust note with minimum power loss.

LUBRICATION SYSTEM. Engine lubricated by dry-sump system with twin gear-type pump, driven by skew gear from crankshaft; pressure feed to timingside main bearing and lower ends, with by-pass oil pressure release. Pressure feed to overhead rocker shafts. Camshaft operates in specially-designed oil trough with pressure feed from pump. Oil tank capacity approximately 7 U.S. pints. Equipped with racing type breather tower.

IGNITION. Lucas magneto, gear driven from camshaft with manual control for advance.

CHAIN DRIVES. Primary drive from engine by $\frac{3}{8}$ in. triplex roller chain, running in cast aluminum oil-bath chaincase. Chain tension correctly maintained by adjustable slipper-type tensioner with hard-chrome bearing surface and external adjustment. Crankshaft cush drive. Rear chain $\frac{5}{8}$ in. $\times \frac{3}{8}$ in. roller, lubricated by breather-pipe from oil tank.

CLUTCH. B.S.A. five-plate clutch with special oil-proof fabric inserts. Controlled by lever from left handlebar.

TRANSMISSION. B.S.A. four-speed constant mesh transmission. Bolted to engine crankcase on machined faces and incorporating built-in positive stop foot operated shift.

FRAME. Duplex triangulated cradle frame with B.S.A. plunger type rear suspension. All frame lugs including those for sidecar and pillion footrests are of forged steel, B.S.A. telescopic front forks with automatic progressive hydraulic damping. Wheels quickly detachable, front with 8 in. brake; rear of straight spoke type with 7 in. brake; Dunlop tires; front 3.25-19, rear 3.50-19. Gasolene tank capacity 2¼ U.S. gallons; adjustable handlebar; sports type fenders; tail portion of rear fender detachable for easy wheel removal; spring-up central stand; adjustable footrests.

EQUIPMENT. B.S.A. buddy seat; Lucas 6-volt c.v.c. lighting set with sealed-beam headlamp and high frequency electric horn; new type rear licence plate incorporating combined rear and stop lights. Metal toolbox under seat tube with complete toolkit; tire pump; rubber knee-grips.

CONTROLS. On left handlebar: ignition lever, headlamp dip-switch and ignition cut-out button; on right handlebar: front brake, air lever and horn button; rear brake operated by left toe pedal; kickstarter and gear shift pedals on right. Twin gasolene shut-off valves at rear of tank, both with reserve levers. Flexible gas lines. Finger adjustment for brakes and clutch controls.

FINISH. All bright parts, including the exhaust system, fenders and wheels, heavily chrome plated; frame, lustrous black enamel, gasolene tank matt silver and chrome or green and chrome, and special super flash transfer; polished front chain case, transmission cover, timing cover.



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