

**S**WINGING back into full production goes the Woolwich factory of Norton-Matchless. Now that the reorganization of AMC after the acquisition by Manganese Bronze, Ltd is settling down, the new policy is coming into operation right away.

For 1967 the AJS, Norton and Matchless ranges have been streamlined to concentrate on large-capacity mounts. Between the three makes, nine models are offered—six powered by the 745 cc Atlas engine, two six-fifties and a five-hundred scrambler. Two of these, Norton six-fifty and seven-fifty, are to police specification, finished in ivory and with provision for special two-way radio equipment.

Forming the backbone of the range, the Atlas engine has been modified in detail over the past year. Centre of attention has been the lubrication system, starting with the pump. It now has a six-start worm drive instead of three and this doubles the delivery flow.

To accommodate a bigger supply of oil to the pump, a larger-diameter pipe between the oil tank and crankcase is used. Internally, the oilways in the crankcase have been enlarged.

Incidentally, fitting the double-flow pump to an existing engine is not recommended unless the larger feed pipe and enlarged internal oilways are also provided.

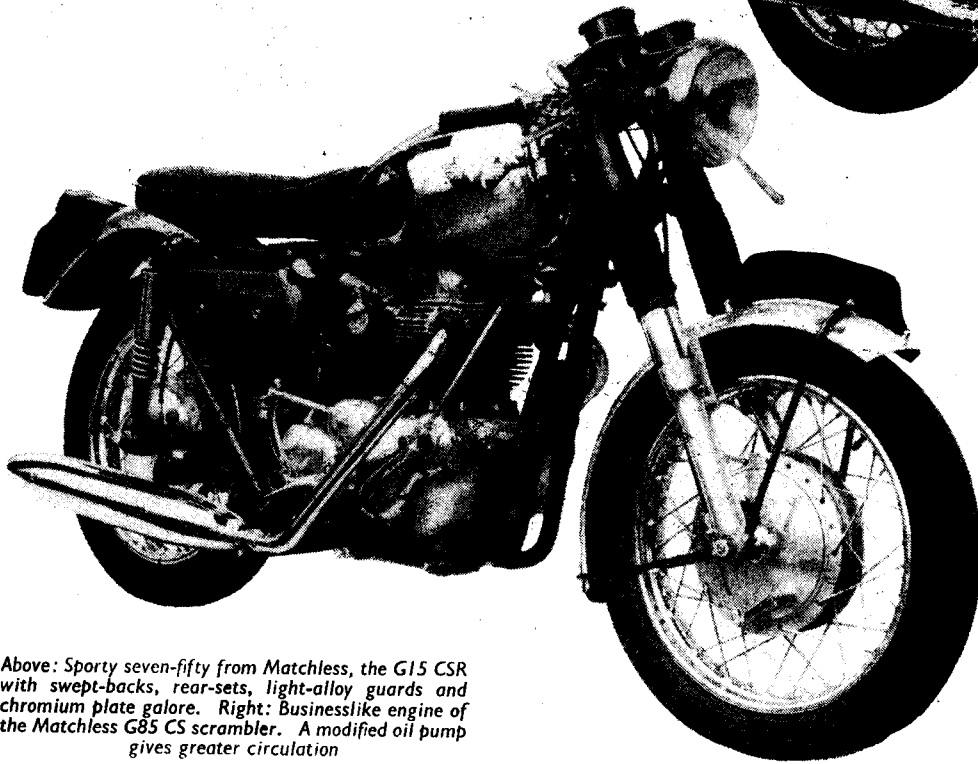
To ensure better lubrication of the cylinder walls, a hole bored in the top of each con-

necting rod big-end eye allows a certain amount of oil to squirt out on to each bore. A Duaflex oil-control ring on each piston—in addition to the usual two compression rings—prevents the extra oil getting up into the combustion chambers.

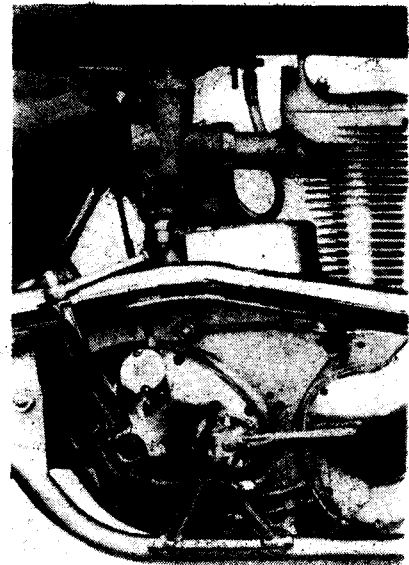
Another major change, which is the only one visible externally, is that the rocker gear is now fed from the delivery pipe to the engine instead of from the return side.

The only modification in the overhead-valve gear is to reduce the width of the rockers

# BIG GUNS from WOOLWICH



Above: Sporty seven-fifty from Matchless, the G15 CSR with swept-backs, rear-sets, light-alloy guards and chromium plate galore. Right: Businesslike engine of the Matchless G85 CS scrambler. A modified oil pump gives greater circulation



AJS Matchless Norton	CAPACITY, BORE STROKE AND TYPE OF ENGINE	COMP RATIO	'IGNITION	GEAR RATIOS				CAPACITY		SUSP		SIZE OF TYRES		Wt lb	PRICE WITH TAX		
				BOTTOM	SECOND	THIRD	TOP	FUEL	OIL	FRONT	REAR	FRONT	REAR		£	s	d
AJS 33 33 CSR	745 cc (73×89mm) ohv twin	7.6	M	11.55	7.67	5.5	4.51	4½g	4pt	T	PF	3.25×18	4.00×16	426	373	12	2
	745 cc (73×89mm) ohv twin	7.6	M	10.8	7.17	5.15	4.22	4½g	4pt	T	PF	3.25×19	3.50×19	426	376	15	2
MATCHLESS G15 G15 CSR G85 CS SCRAMBLER	745 cc (73×89mm) ohv twin	7.6	M	11.55	7.67	5.5	4.51	4½g	4pt	T	PF	3.25×18	4.00×18	426	373	12	2
	745 cc (73×89mm) ohv twin	7.6	M	10.8	7.17	5.15	4.22	4½g	4pt	T	PF	3.25×19	3.50×19	426	376	15	2
	497 cc (86×85.5mm) ohv	12	M	19.09	12.68	9.1	7.46	2g	4pt	T	PF	3.00×20	4.00×18	291	390	19	1
NORTON DOMINATOR 650SS ATLAS	647 cc (68×89mm) ohv twin	8.9	M	11.3	7.5	5.4	4.5	3½g	4½pt	T	PF	3.00×19	3.50×19	400	367	6	0
	745 cc (73×89mm) ohv twin	7.6	M	11.3	7.5	5.4	4.4	3½g	4½pt	T	PF	3.25×19	4.00×18	400	375	3	8

MANUFACTURERS: Norton—Matchless, Ltd, Plumstead Road, London, SE18.

ABBREVIATIONS: M, magneto; T, telescopic; PF, pivoted fork. Tyre sizes are in inches.

Unmistakeably Norton lines exhibited by the Atlas engine in the famous Featherbed frame with two-way damped front fork

by ¼in; this is done merely to ease a machining problem.

A tendency for blowing cylinder-head gaskets has been overcome by doing away with the spigots on top of the block, with, of course, elimination of the matching recesses in the head. This change gives greater accuracy in production and efficient gas-tight faces. A metallized asbestos gasket replaces the earlier copper-asbestos item.

Introduced for the Brighton Show last year, the Matchless G85CS scrambler also has a modified oil pump with wider

faces on the gears. Effect of this is to give appreciably greater oil circulation.

In the Matchless and AJS ranges, the G15 and 33 are virtually identical, being robust touring mounts. The Atlas engine is housed in a heavyweight lugged frame with the Roadholder telescopic front fork incorporating a steering lock. Full-width hubs are employed.

Mudguards are chromium-plated for eye-appeal and deeply valanced for effectiveness.

Main differences between

the two models are an upswept handlebar on the AJS and a variation in colours—all-black finish for the G15 and blue tank for the AJS.

The two CSR models are sports versions, without the air filters fitted on the standard versions, and with narrow-blade, light-alloy mudguards, low-level handlebars, swept-back exhaust pipes and rear-set footrests, gear change and brake assemblies.

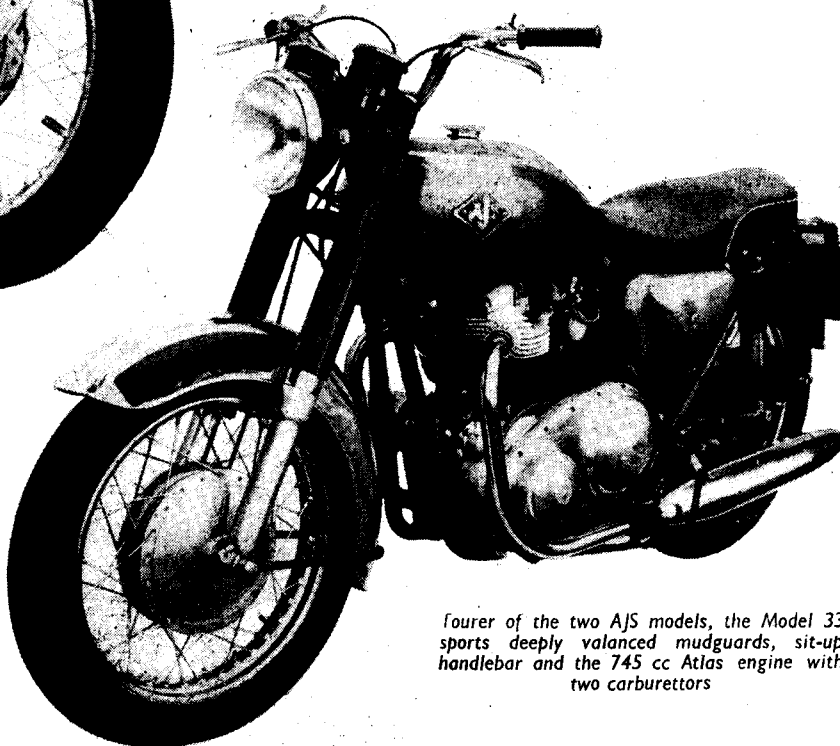
Wheel diameter is increased to 19in front and rear. Rubber gaiters on the front fork, discarded dust covers on the rear-suspension units, flat, sporting dualseat and chromium-plated petrol tank and headlamp add lustre to the sporty appearance.

But for engine capacity and detail differences, the Norton 650SS and Atlas 750 are identical. Both utilize the famous race-bred Featherbed frame, with two-way progressively damped Roadholder forks and full-width, light-alloy hubs.

Main difference is that the 3.50×19in Avon Grand Prix rear tyre on the six-fifty is replaced by a 4.00×18in cover on the Atlas, and a 3.25in-section front cover is used on the Atlas in place of a 3.00in tyre.

In comparing Atlas and six-fifty engines the only external engine difference is the breather pipe from the camshaft tunnel on the Atlas, but the two models can readily be distinguished by the cherry red petrol tank on the Atlas, compared with a silver tank on the 650SS.

Both models now have paired speedometers and revmeters mounted on a chro-



Fourer of the two AJS models, the Model 33 sports deeply valanced mudguards, sit-up handlebar and the 745 cc Atlas engine with two carburettors

mium-plated bracket across the fork top yoke. Readily accessible between the two instruments is the light switch.

The police mounts follow the same basic specification as the standard models with certain detail differences, the most noticeable of which is the all-ivory finish.

Engines are standard except for the addition of air filters.

A short seat leaves room for a platform for the two-way wireless gear mounted behind the rider and the tank-top is modified to accommodate the receiver.

Other alterations include an upswept handlebar and a blue traffic-duty light mounted in the middle of the bar.

Although downswept handlebars are fitted to the sports Matchless and AJS, and an upswept type on the AJS 33, alternative bends are available.

On all models except the scrambler, revmeters are now included in the specification.

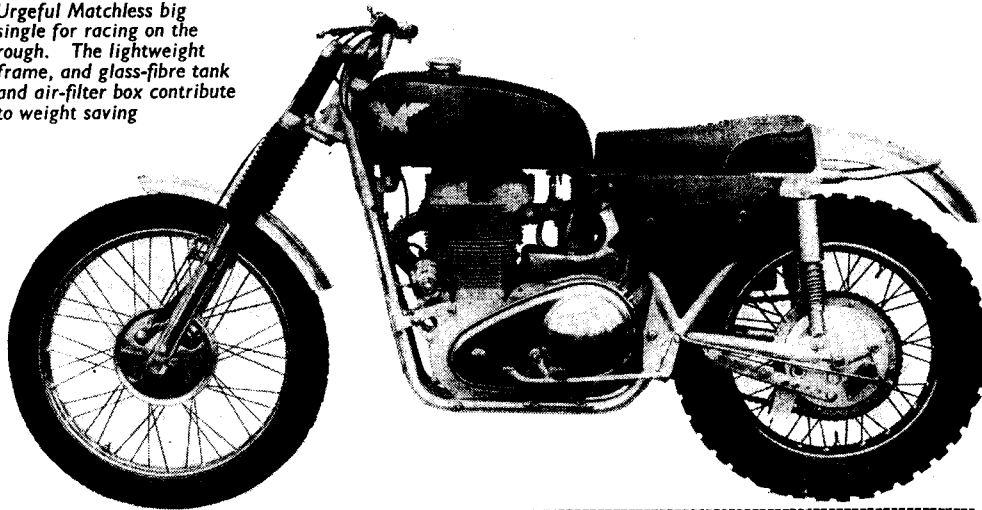
A he-man's mount, the very potent scrambler uses an all-welded, light-gauge duplex frame with the rear fork supported at its extremities in gusset plates on the main frame.

The lightweight front fork has been specially developed for scrambling, in conjunction with a lightened hub, and a magnesium-alloy hub—originally used on the road-racing mounts—is fitted at the rear.

Weight is further reduced by the use of glass fibre for the petrol tank and air-filter panels, which double-up as side number plates. Between the rear engine plates is the four-pint, light-alloy oil tank.

Finish of the glass fibre is red, with silver on the frame and highly polished light-alloy parts.

*Urgeful Matchless big single for racing on the rough. The lightweight frame, and glass-fibre tank and air-filter box contribute to weight saving*



# FIRST NATIONAL WIN FOR GORDON FARLEY

**AFTER** consistently getting among the first half-dozen in top-bracket trials recently, Gordon Farley (199 Triumph) managed to pull off his first national win in last Sunday's Southern Trial. Even so, it was by the narrow margin of a better performance on a downhill coasting special test after a tie of ten marks lost each with Dennis Jones (254 Sprite). Farley wins the "Motor Cycle" Trophy.

Top sidecarist was Brian Hunt (597 Matchless) with 79 marks lost, who forced his way round the difficult sections to finish 20 ahead of Charlie Fryer (497 Ariel).

Heavy overnight rain, which continued throughout the day, fortunately did not cause the sections to deteriorate too much largely because many were rocky, an unusual feature for a trial in the southern counties.

The 20-mile route took in three main groups of sections. The first, Pinehurst, included a narrow, six-section gully filled with rocks; it was cleaned in its entirety only by Farley and Jones. Next best was Peter Stirland (246 Greeves) who needed just one prod.

Another mark-stealer came in the next group at Hourne Farm where there were five more rocky sub-sections.

Best rides here were Jones and John Lee (246 Butler) with cleans in all five, and Arthur Dovey (244 Bultaco) and Peter Fraser (246 Greeves) who dabbed once each.

Back at Isenhurst, the last group near the finish, a steep muddy hill looked like deciding the solo issue for Farley and Jones were level pegging when they arrived.

Although it had been cleaned by earlier numbers, a

deep groove near the top made it very tricky when the pair arrived. Despite full-blooded efforts both stopped.

**Best Solo.**—G. J. Farley (199 Triumph), 10 marks lost.

**Best Sidecar.**—J. B. Hunt (597 Matchless), 79.

**Best 250 cc.**—A. Dovey (Bultaco), 14.

**Best 350 cc.**—D. Jones (254 Sprite), 10.

**Club Team Prize.**—Southampton Vikings: Dovey, G. Chandler (246 Greeves) and I. Barrett (244 Bultaco), 75.

**First-class Awards.**—J. E. Lee (246 Butler), 19; L. C. Telling (244 Bultaco), 21; C. Leighfield (246 Sprite) and D. J. Adsett (246 Greeves), 23; Chandler, 25; C. F. Dommett (247 Cotton), 26; D. Brown (199 Triumph) and P. Dunkley (246 Greeves), 28; P. T. Stirland (246 Greeves), 32; C. Fryer (497 Ariel sc), 99; C. Spittle (499 BSA sc), 100.

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## Horror Epic

**SATURDAY** sees the famous Scott Trial on the Yorkshire moors near Richmond. Once again just about all the top names in the trials world will be gathering to pit their skill against the 65-mile course on the rugged moors, plus the relentless clock, in this time-and-observation horror epic of the trials calendar.

Winner will be the man who can coax his machine along faster than the rest yet keep his feet on the pegs longer in the sections.

Punishment begins at 9.30 am, three miles west of Richmond on the old Reeth road.



*Murray Brush (199 Triumph) keeps his feet on the rests in a slippery section of the Isenhurst group*