MATCH LESS

THEY GO BEST

1955 ALL. PRICES F.O.B. LOS ANEGLES

HANDLE BEST - RIDE BEST

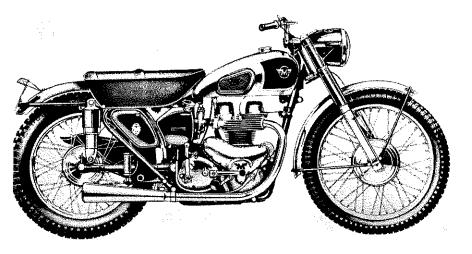
Surging horsepower at all speeds and conditions.

Wide range of torque. Maximum rear wheel traction.

They are rugged and tough.

Finest balance and handling gives you maximum safety. They go where you steer them — always under control. You can go faster.

<u>Most</u> comfortable ride. Two way Teledraulic shocks front and rear. Soft cushioned seat. You do not get tired on that all day ride.



Custom built for the American Sportsman.

First in the rough — Finest on the road.

Alloy fenders; 3 gallon chrome gas tank;

Dunlop Universal Trials Tires.

21 inch Front Wheel

8 to 1 compression

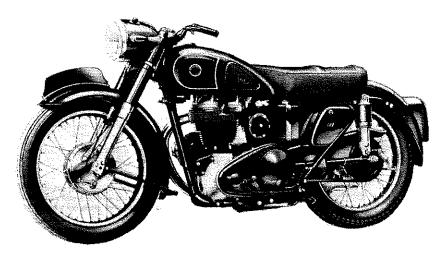
The finest all around motorcycle in the world.

Powerful, dependable, economical and comfortable.

A fast cruiser that is also ready for the rough stuff.

Fast cams, 7.3 to 1 compression. Alloy heads. Hairpin racing valve springs.

Also available in 350 c.c.



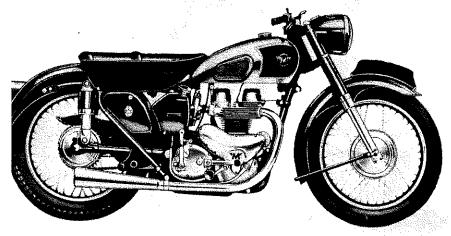
A.J.S. 18S

MATCHLESS G80S

498 c.c. O.H.V. WITH FULL TELEDRAULIC SUSPENSION

A.J.S. and MATCHLESS 550 cc SPORT TWIN

WITH FULL TELEDRAULIC SUSPENSION

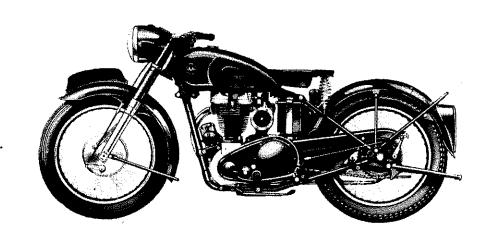


A.J.S. and MATCHLESS 550 cc "SUPER CLUBMAN" VERTICAL TWIN 550 cc Twin Engine.

69mm Bore x 72.8mm Stroke. Compression 8 to 1. Big finned alloy heads. Separate heads. Separate barrels. Three main bearings. Twin flywheels. Two Gear driven oil pumps. lightweight valve mechanism. High R.P.M. design.

A Race Kit for the Model G9 is available, full details of which will be supplied on application.

A lively, powerful and economical motorcycle that will prove of equal interest to the novice or experienced rider. New barrel type seat springs. Teledraulic forks. Except for springing this machine is identical to models 185 and G80S.



A.J.S. and MATCHLESS RIGID

347 c.c. O.H.V.

498 c.c. O.H.V.

WITH FULL TELEDRAULIC SUSPENSION

MATCHLESS and A.J.S. motorcycles are the exact same motorcycles manufactured in the same factory from the same parts,

Two famous names, A.J.S. and MATCHLESS manufactured by Associated Motorcycles Ltd., London, England.

TECHNICAL DATA

This document was ATCHLESS y members of the AJS/Matchless Ggroups. DEnoTresell. TION

SCRAMBLES

SINGLE-CYLINDER ENGINES

Die-cast aluminium alloy cylinder heads with castin valve seats, and cast-iron barrels with deep fins in valve seats, and cast-iron barrels with deep fine ensure adequate cooling. Noisy valve operation has been eliminated by fully enclosing the operating gear and providing adequate lubrication of the moving parts. The valves, fitted with hairpin springs, have Stellite tips on the chromium-plated stems and are operated by Duralumin push rods enclosed within tubes.

The timing gear is enclosed within an oil-flooded case. Separate camshafts are used for inlet and exhaust, and the gear wheel and associated cam are

A built-up crankshaft, with high-grade iron discs, individually balanced, and a forged connecting rod of high tensile steel, is carried on two ball races on the driving side, and a plain bronze bush on the timing side. The connecting rod is strengthened by a rib encircling the big end; the crankpin is of the two-piece type and the big-end bearing has three rows of rollers and a Duralumin cage.

To reduce clearances and eliminate mechanical noise, wire-wound aluminium pistons are used. There are three rings, two compression (the top one is chromium plated) and an oil-scraper ring.

LUBRICATION

Dry sump. The oil is circulated through the engine and returned to the tank by a double-acting, reciprocating plunger pump. Fabric and metal gauze filters prevent foreign matter from being circulated with the

IGNITION

The single-cylinder models have a chain driven, rotating magnet Lucas magneto incorporating an automatically controlled advance and retard mechaniam.

WHEELS

19-inch rims, full-width die-cast aluminium hubs front and rear, and straight spokes.

BRAKES

Internal expanding 7-inch diameter front and rear.

TWIN-CYLINDER ENGINE

The 'Springtwin' is powered by a parallel twin-cylinder engine designed to give a high safety factor even when the engine is run at high r.p.m.

The crankshaft is in one piece and manufactured from a high-grade alloy iron. It is housed in a spherical crankcase of die-cast aluminium alloy and supported on caged roller bearings on the drive and timing side, and a plain Vandervell shell bearing at the centre. The rigidity of the crankcase ensures that the centre bearing is not heavily loaded. This bearing is carried by a separate light-alloy plate which is spigotted into both crankcase halves and bolted to the drive-side

The connecting rods are immensely strong and forged in light alloy. Split Vandervell shell bearings are fitted to the big-ends. The big-end cap studs are anchored in steel trunnions, a method which obviates a source of weakness at a vital point. This is an instance of the application of racing experience.

As on the single-cylinder models, wire-wound pistons with chromium-plated top ring and slotted oil control ring are fitted.

Each cylinder barrel and head is separate. The barrels are of a high-grade cast iron and the heads light-alloy dic-castings. The barrels are deeply spigotted into the crankcase and the whole assembly of barrel, head and crankcase are bolted together to

The ends of the valve stems are Stellite tipped to resist wear. Inlet valves are Silchrome steel and the exhaust valves are of KE965 steel. The valve rockersone-piece forgings—are mounted on eccentric spindles to facilitate the adjustment of valve clearances. Reciprocating weight in the valve operating mechanism is reduced by eliminating tappets, the cams operating short single arm followers.

Two camehafts are provided, one for the inlet valves and one for the exhaust valves, and are driven by

A gear-driven magneto is fitted to the twin-cylinder model, and the advance and retard is manually controlled by a lever mounted on the handlebars.

LUBRICATION Twin-cylinder

The engine is lubricated by a dry-sump system employing two separate gear pumps, each independently driven—at half-engine speed—from the camshafts.

The delivery pump feeds oil direct to the centre main bearing, and then via oilways to each big-end. The rocker boxes are supplied via oilways in the cylinder barrels and heads, and the overflow drains lown the push-rod tunnels into the camshaft

The scavenge pump, which has twice the capacity of the delivery pump, collects oil from the sump in the crankcase and returns it to the tank.

Filters, easily detached for cleaning, are placed in the delivery and return paths, and pressure relief valves are fitted as a precaution against excess pressure when the oil is thick during very cold weather.

CARBURETTOR

The latest Amal 'monobloc' instrument has been standardized for 1955. Float chambers and mixing chamber are a one-piece casting. The instrument incorporates a pilot jet and throttle stop and has a twist grip throttle control. The air control is by a handlebar mounted lever.

Heavy-weight, with four speeds, foot operated, positive-stop gear change, and kick starter.

Multi-plate dry clutch hand controlled from the handlebars.

FRAME

Duplex cradie type of brazed construction, Integral lugs are provided for the attachment of a sidecar and pillion footrests. The spring frame is of the swinging fork type controlled by two oil damped Teledraulic

Teledraulic forks—telescopic with hydraulic damping—are fitted to all models.

MODEL	350 SINGLE	500 SINGLE	SOU TWIN	350	COMPE	TITION 500	550 TWIN
			1				1 1
No. of Cylinders	69×93	82.5×93	66×72.6	69×1		82.5×93	69×718
Capacity—C.C.	347	490	498	347		498	498
Compression Ratio	6.5 or 7.5	6.3 or 7.3	7.0 or 8.0	6.5 or 7.5	7,5	6.3 or 7.3 7.3	8.0
S.h.p. and r.p.m.	I 8 @ 5750	24.4 @ 5500	29 @ 6800	18 @ 5750	24 (ö 6000	24.4 @ 5500 30 @ 5600	72 @ 6800
Tappet clearance. Inlet (cold)	Nil	NII	0.006 Inch	NII	0.001 inch	NH 0.001 inch	0.006 inch
Pappet clearance. Exhaust (cold)	Nil	NII	0.006 inch	Nil	0.005 Inch	Nil 0.005 inch	0.006 inch
Valve tirning. Inlet opens b.t.d.c	34'	IE.	35"	36°	59°	18" 59"	35.
" closes E.b.d.c	51°	61"	6S°	514	69°	69" 69"	45°
Exhaust opens b.b.d.c	50°	50"	65°	SO-	74	50° 74	45°
Carburettor type. AMAL	30"	30°	35°	Monoblos 374/5	48° 1710	30* 49	35"
Carburettor type, AMAL	Monoblec 376/5	Manablac 389/i 1-5/32	Monoblac 374/6	1-1/14	1-1/16	Monobloc 389/4 YT10 1-5/32 1-3/16	Monobloc 376/6
Choke diameter—inch	1-1/16	240	240	210	300	1-5/32 1-3/16 260 340	240
Main let po.	210	250	230	110	300	250 540	240
, with air cleaner	200 30	30	33	30	=	30 =	1 20
Filot jet no		3	30	30	-5	3 7	X
Silde no	3	centre notch	centre notch		5th fram top	centre notch 4th from top	centre notch
Needle position	centre notch SRI	SRI	KIF	NR		NRI NRI	K2F
Magneto, LUCAS	19°	39"	39	39°		39*	39
gnition advance	FESC	FERO	FEBO	FER		FERO	FERO
parking plug. K.L.G. Freach	0.020 to 0.022	0.010 to 0.021	0.020 to 0.022	0.020 to	0.022	9.030 to 0.022	0.020 to 0.022
flug gap-inch	j' x 0.305" 66 links	1' × 0.303' 47 links	1' × 305' 66 links	j' × 0.305° 6	5 links	1'×0.305' 66 links	1' × 305' 66 links
Primery chain—pitch x width	1, 0.380,	f. < 0'380,	1' × 0.380'	1'×0.3		1'× 0.380'	1' × 0.300'
lear chain—pitch x width	1 0,380 98 (Inks	94 links 98 links	96 links	90 links	98 finks	90 finks 98 links	% links
iproceste. Engine	tert	2iT	10 T	167			} 20T′
Clutch	46T	40T	40T	40T		407	40T
Gestbox	ĨěŤ	16T	I6T	16T		(61	16T
Rest wheel	QT	42T	42T	42T		QŢ	QT
Searbox ratios, First	2.65	2.6\$	2.65	3.2	2,65	3.1 2.45	2.45
Second	1.7	1.7	1.7	2.45	1.7	2.45	3.7
Third	1,34	(,3)	1,31	1.58	1.31	1.58).31	1.31
Seat ratios. First	15.4	13.3	13.9	21.0	17.3	18.7 IS.4	13.9
Second	9.9	8.5	8.9	16.0	11.2	14.2 9.9	8.7
Third	7.4	6.5	6.9	10.3	8.6	9.3 7.6	6.9
Top	5.8	5.0	5.25	6.6	6.6	5.0 5.0	5.25
Petrol tank capacity-gations	31) 3	34	2		1 2	1
Oil tank capacity—pints	4	i :	1	?		· •	1 !
Geerbox capacity-eint	1		SAESO	SAES		SAESO	1
Lubrication. Engine—Symmer	SAE50	SAE50 SAE30	5AE30	SAE		SAE30	SAESO SAESO
w.W. rter	SAE30 SAE50	SAE50	I GASEA	SAE!		SAESO	SAESO
Gnarbus	SAESU 1850 C. N	125 c	195.6	ASC .		185	JAESU
Suspension ell (Front)	185c.c. } SAE20	185c.c. SAE28	185c.c. SAE20	₹85c,c. } 75c.c. }	5AE20	185c.c. SAE20	TECE SAEM
Braker, diameters width inches	7×4	1×1	7×1	7×1	\	7×1	7×1
	3.25 × 19	3.25×19	3.25×19	2.75×21	3.00 × 21	2.75×21 3.00×21	3.00×21
Tyres, Front	3.25×17	4.00×19	4.00 > 19	4,00×19	4.00 × 19	4.00×19 4.00×19	4.00 x (9
Rear time Front	WM2×19	WM2×19	WM2×19	WM1>	< 21	WM1 × 21	WMIx2I
Rear	WM3×19	WM3×19	WM2 x 19	WM3>		WM3 × 19	WM2×19
Tyre Pressures. Ibe/sq. inch. Front	(B) 20	20 21	22	zz requ	ired	es required	1 12
Rear	10 12	1 11 14	25	" '			25
Weight-pounds	344 375 54 55	387 54 55)	394	193	321	294 324	394
Wheelbase-incles	54 551	5 5	55	53 32	551	53 554	55
leat height-inches	30 31	30 1 31	31	52]	12}	32 1 12	1 114
Ground clearance—inches	5 1	# 1		6g 6j	501	. 4	31
Overall length-inches	85 84 41 41	85 861 41 411	**	12 J	8S ž	112 [* 115 ₂ 43	🕌
Overhall height-inches	41 [41]	8 1 41	41	24		1	4

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SCRAMBLER



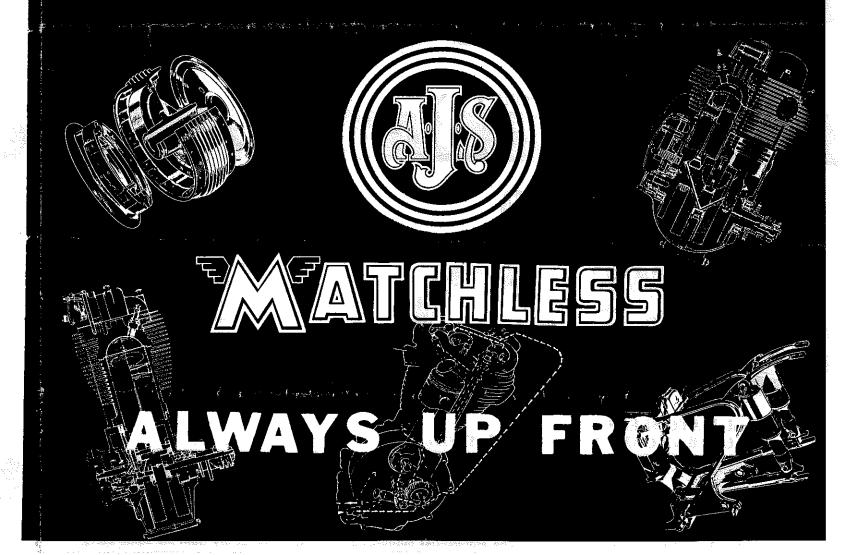
AVERAGE RIDERS BECOME EXPERTS WHEN THEY CHANGE TO A.J.S. OR MATCHLESS

Competition Models are fitted with a strengthened spring frame of normal construction and wheelbase; special rear suspension units and stronger fork springs; racing cams; high compression piston; Amal T.T.10 carburettor; a new competition Twinseat and special

Front: Dunlop 'Trials' tyres; 3.00 × 21"

All Competition Models have polished light alloy mudguards: a high ground clearance; high level exhaust a folding kick starter; steel crankcase shield; 24-gallon light-alloy petrol tank; Lucas waterproof magneto with manually-operated ignition control, and a light-alloy cylinder barrel.

Rear: Dunlop 'Sports' tyres; 4.00×19"



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BRAKES Internal expanding 7-inch diameter front and rear.

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Teledraulic forks—telescopic with hydraulic damping—are fitted to all models.

MODEL 350 SING	5 6 24 776/5 Ma	50 SINGLE 50.5 73 499 7.3 499 7.3 44 9 5500 NIII NIII 18° 69° 50° 1000bloc 389/I 1-5/32 200 30 30 30 30 30 30 30 30 30 30 30 30 3	500 TWIN 66×72.8 499 7.0 or 8.0 73 of 8.0 13 of 8.0 14 of 8.0 14 of 8.0 15 of 8.0 16 of 8.0 17 of 8.0 18	1-1/16 2/0 30 3 centre notch NRI 39° FEBO	7.5 24 0 6000 0.00 inch 507 74 48 1710 1-1/16 300 5 5th from top 0.0222 5 Illuks	1710N 50 1 213, 467 24.4 (6 5500 Nill 18" 467 50" Monobloc 189/1 1-1/3/2 24/0 3 centre notch NR 50 0,270 670 670 70 Rinks	3 7,3 30 9 5500 0.005 inch 0.005	550 TWIN 7 TLE 490 490 17 3 490 17 3 490 10 00 inch 0.006 inch 0.006 inch 0.006 inch 0.006 inch 0.006 inch 0.001 35 45 10 00
No. of Cylinders	5 6 24 776/5 Ma 176/5 Molech cer 1776/5 1 0.60 1776/5 1 0.60	499 4.4 @ 5500 NII NII NII II9 69* 50* 50* 30* 30* 30* 30* 30* 30* 30* 30* 30* 3	65×72.6 498 7.0 or 8.0 29 @ 6800 0.006 Inch 0.007 457 FE80 0.000 to 0.002 1 0.005 66 Inch 0.007 60 Inch	6.5 or 7.5 18 @ \$750 Nill Nill 36 51' 50' Monoblec 274/5 1-1/16	7.5 6000 2.1 (6.3 or 7.3 24.4 @ 5500 Nill 18* 49* 50* Monobloc 1297/1 1-5/32 2-60 30 30 centre notch NR 39* FEE 6.0210 to 1 × 0.305*	7.3 30 © 5600 0.001 inch 0.005 inch 500 74 40 1-3146 3-40	69 × 71.8 498 3.0 0.006 inch 0.006 inch 0.006 inch 35° 45° 45° 45° 45° Monobloc 376/6 230 30 4 center notch 36° 7 FE60 0.020 to 0.021 2 '< 300° 7 ét links 9 tinks
No. of Cylinders	5 6 24 776/5 Ma 176/5 Molech cer 1776/5 1 0.60 1776/5 1 0.60	499 4.4 @ 5500 NII NII NII II9 69* 50* 50* 30* 30* 30* 30* 30* 30* 30* 30* 30* 3	65×72.6 498 7.0 or 8.0 29 @ 6800 0.006 Inch 0.007 457 FE80 0.000 to 0.002 1 0.005 66 Inch 0.007 60 Inch	6.5 or 7.5 18 @ \$750 Nill Nill 36 51' 50' Monoblec 274/5 1-1/16	7.5 6000 2.1 (6.3 or 7.3 24.4 @ 5500 Nill 18* 49* 50* Monobloc 1297/1 1-5/32 2-60 30 30 centre notch NR 39* FEE 6.0210 to 1 × 0.305*	7.3 30 © 5600 0.001 inch 0.005 inch 500 74 40 1-3146 3-40	69 × 71.8 498 3.0 12.3 6800 0.006 inch 0.006 inch 0.006 inch 35° 45° 45° 45° 45° 40° 230 30° 4 center notch 36° 7 FE80 0.020 to 0.021 1° × 0.380° 96 links
Capitory-c.	5 6 24 776/5 Ma 176/5 Molech cer 1776/5 1 0.60 1776/5 1 0.60	499 4.4 @ 5500 NII NII NII II9 69* 50* 50* 30* 30* 30* 30* 30* 30* 30* 30* 30* 3	498 7.0 or 8.0 27 @ 6800 27 @ 6800 2006 inch 3.006 inch 3.006 inch 3.3° 65° 40 230 240 230 30 4 centre notch 62F FEO 0.000 to 0.020 1 × 0.05 66 links 1 × 0.380 10 10 10 10 10 10 10 10 10 10 10 10 10 1	6.5 or 7.5 18 @ \$750 Nill Nill 36 51' 50' Monoblec 274/5 1-1/16	7.5 6000 2.1 (6.3 or 7.3 24.4 @ 5500 Nill 18* 49* 50* Monobloc 1297/1 1-5/32 2-60 30 30 centre notch NR 39* FEE 6.0210 to 1 × 0.305*	7.3 30 © 5600 0.001 inch 0.005 inch 500 74 40 1-3146 3-40	499 30 12 3 6000 0.006 inch 0.006 inch 0.006 inch 35' 45' 45' 45' 45' 45' 45' 45' 46' 40 230 240 230 240 250 0.020 to 0.021 1' × 0.030' 46 links 96 links
Compression Natio	776/5 Ma	6.3 or 7.3 4.4 @ 5500 MII NII IP 69° 50° 30° 15/32, 2 250 20 3 surre notch SRI 3P 680 120, 0023 0.08° 67 links 1' < 0.380° 98 links 1' < 0.380° 407 407 407 407 417 417 417	7:0 or 8.0 29 @ 6800 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 0.007 0.0	6.5 or 7.5 18 is 75760 NII NII 345 51' 50' 10' Monobloc 274/5 1-/1/4 2/0 30 2 cantre notch NRII 36' FERDO 0.020 to 1' × 0.385' & 1' × 0.38	7.5 24 © 6000 0.001 inch 0.005 lnch 59* 69* 74* 48* 11/146 300 5 5th from top 0.0225 5 Illoks 99* 10/10ks	6.3 or 7.3 24.4 @ 5500 NSI NSI NSI 18* 67 50* Monobic 289/I 1-512 240 30 centre notch 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	7.3 30 @ 5600 0.001 inch 0.005 inch 59 74 47 110 1-3/14 340 — 7 4th from top 0 0.022 44 links	8.0 0.006 inch 0.006 inch 35. 45. 45. 46. 33. Monoblog 376/6 230 30 4 centre notch 8.3F FE60 0.020 to 0.021 1' < 0.020 to 0.021 1' < 0.030 96 links
Display and r.p.m. 18 @ 575 18 18 18 18 18 18 18 1	776/5 Ma	M.4. @ 5500 MII NII III 69° 50° 10nobloc 189/I 1-5/32 240 250 30 3 Intra notch 588 11	29 @ 6800 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 Inch 0.006 0.007 0.	18 @ 5750 NIII NIII NIII 36' 50' 30' Monobloc 374/5 1-1/6 30 3 centre notch NRI 7 F F F 0.020 to 1' × 0.38' 90 links 1' × 0.38'	24 % 6000 0.001 inch 0.005 inch 59° 69° 74° 48° T710 1-1/16 300 	24.4 @ 5500 Nill 18" 50" Monobloc 189/1 1-2/32 2-40 30 centre notch NR 39 F88 6.0210 to 1 × 0.395 90 links	30 © 5000 0.001 inch 0.005 inch 50° 74° 41° 1310 1340 ————————————————————————————————————	12 @ 6400 0.006 inch 0.006 inch 0.006 inch 0.006 inch 15° 65° 65° 65° 65° 65° 65° 65° 65° 65° 6
Tappet clearance. Inlast (cold) Nill	776/5 Ma cer 222 0.80 Rinks 1' > 0.	Nill NIII III III III III III III III III	0.006 Inch 0.006 inch 0.006 inch 0.006 inch 0.007 65° 65° 18° Monobloc 376/6 1 1 240 230 30 4 centre-rootch 53° FEB0 0.0070 to 0.0021 2.005 66 links 0.0070 to 0.0021 2.005 66 links 0.0070 to 1.0021 1.007 1.007 1.007 1.007	Nill Nill 345 517 507 307 Monobloc 374/5 L-1/14 2/10 30 31 centre notch NR 1367 FERSO 0.0202 to 1' × 0.385* 6 37 · 1.3 ·	0.001 inch 0.005 inch 59° 69° 74° 48° TT19 1.116 300 5 th from top 0.0225 5 lilks	NII 18" 50"	0.001 inch 0.005 inch 50° 69° 74 77 1710 1.2.114 340 7 4th from top 0 0.022 64 finks	0.006 inch 0.006 inch 35° 45° 45° 35° Monobloc 376/6 230 30 4 centre notch 8.38° FE60 0.020 to 0.021 2' < 300° 46 links 9° 6 links 96 links
Tajpat clearance. Exhaust (cold) Mill	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	NIII 18* 69* 50* 18* 19- 10nobloc 189/I 1-5/32 240 250 30 30 30 sent's notch SRN FEBO 010 to 0.021 0.005* 67 links 1' × 0.380' 98 links 217 167 167	0.006 inch 35° 65° 65° 65° Menobloc 376/6 240 240 240 240 250 260 270 260 270 270 270 270 270 270 270 270 270 27	Nill 36' 51' 50' 10' Monobloc 374/5 i-1/16' 210' 30 3 centre notch NR 39' FERON 0.020 to ' × 0.35' 4' × 0.34' 90 links	0.005 inch 59° 74' 48° 1710 1-1/16 300 5 5th from top 0.0222 5 Illuks	NII 18" 50"	0.005 inch 50° 74° 44° 1710 1316 340 — 0.0022 6th from top	0.006 inch 35° 65° 85° 85° Monobloc 376/6 1 240 230 30 4 center notch X3F FE80 0.020 to 0.021 1' < 300° 46 links 96 links
Valve timing links tipnes b.t.d.c. 34'	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	69° 69° 30° conobloc 389/I 1-5/32 240 250 30 30 30 60 00 00 00 00 00 00 00 00 00 00 00 00	35' 65' 65' 18' Monobloc 174/6 140 230 34 4 centre notch K3F FE80 0.070 te 0.022 1' < 305' 66 links 10' 10' 10' 10' 10' 10' 10' 10' 10' 10'	345 51° 50° 30° Monobloc 274/5 1-//14 2/0 30 3 cantre notch NR 130° FERSO 0.020 to 1' × 0.305° 4' 1' × 0.345° 4' 1' × 0.345° 1'	59° 69° 74° 48° 1719 1-119 300° — 5 5th from top 10022 5 links	18" 47" 50"	59° 69° 74 48° 1710 1316 340 7 4th from top 0 0,022 66 finks	35° 45° 45° 45° 38° Monobloc 376/6 240 230 30 4 centre notch K2F 39° FE80 0.020 to 0.022 3° < 300° 66 links 9° 6 links
## closes a.b.d.t. Exhaust opens b.b.d.t. Sir	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	69° 50° 30° 10 nobloc 189/I 16/12 240 240 240 250 30 30 30 sente notch SRR 98 finds 1° 180 90.002 40 90.003 40 10 to 0.021 98 finks 1° 407 167 167 167	65° 13° Monobloc 174/6 140 130 130 34 centre notch K2F FE80 0.020 to 0.022 1 < 305° 66 links 1 * 0.400 1 *	50" 30" Monobloc 374/5 5-[-]16 2/10 30 30 centre notch 187 FEBO 0.020 to 'x 0.38" * 4" x 0.38 90 links	74* 48* TT*10 1-1/16 300	50° 36° Monobloc 389/I 1-5/32 2-40 30 3 centre notch NR 37° FE8 0.00 to 1' × 0.305° 90 links	69° 74° 49° 1710 1-3/16 3-40 ————————————————————————————————————	45° 45° 45° 45° 46° 240° 230° 4° 4° 4° 4° 4° 4° 4° 5° 4° 5° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4°
Exhaust opens blad.c. 50°	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	50" 300 15/12 15/1	65° 13° Monobloc 174/6 140 130 130 34 centre notch K2F FE80 0.020 to 0.022 1 < 305° 66 links 1 * 0.400 1 *	50" 30" Monobloc 374/5 5-[-]16 2/10 30 30 centre notch 187 FEBO 0.020 to 'x 0.38" * 4" x 0.38 90 links	74* 48* TT*10 1-1/16 300	50° 36° Monobloc 389/I 1-5/32 2-40 30 3 centre notch NR 37° FE8 0.00 to 1' × 0.305° 90 links	746 48° 1710 1-3/16 3-40 — 7 4th from top 0.0022 55 finks	55' Monobloc 376/6 1 240 230 30 4 centre notch K2F 39' FESO 0.020 to 0.022 y' 305' 66 links y' 0.380' 96 links
Clarburettor type, AMAL	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	39' 1-5/32	15' Menobloc 376/6 140	36* Monobloc 374/5 1-1/14 2/10 30 3 3 3 centre notch N 36* FEBO 0.020 to 1 × 0.30* 6 4 1 × 0.34 90 links	48° TT+0 1-1/16 300 — 5 5 5th from top 0.022 5 links	30° Monobloc 389/1 1-5/32 2-60 30 30 centre notch NR 39° FFE 0.020 to † × 0.305° 90 links	49° YT10 1-3/16 340 7 7 4th from top 0 0.022 64 finks 80°	35- Monobloc 376/6 1 240 230 30 4 centre notch K2F 39- FE80 0.020 to 0.022 17 × 0.380- 96 links
Carbuxector types AMAL	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	laneblo 189/I 1-5/32 140 250 30 30 sentre notch SRI 39* FEBO 100 to 0.022 0.005* 47 links 1* < 0.0340* 21* T 40*T 16*T 43*T	Monobloc 374/6 240 230 30 4 centre notch KF FE80 corde re 0.022 c	Monobloc 374/5 1-7/4 1-7/10 30 3 centre notch NR1 39° FEBBO 0.000 to 1° × 0.305° 6 4° × 0.305° 6	1770 1-1/16 300	Monobloc 189/1 1-5/32 240 30 3 centre notch NR 39* 6.020 to † × 0.305* 90 links	17710 1-3/16 340 7 7 4th from top 0 0.022 64 finks 80' 98 links	Monobloc 376/6 240 230 30 4 centre notch K2F 39 FE80 0.020 to 0.021 j' < 305' 64 links y' < 0.389' 96 links
Carburettor type. AMAL	0.02 0.02 0.00 0.00 0.00 0.00 0.00 0.00	1-5;12 140 240 250 30 3 sentre notch SRR FEBO 010 to 0,021 0.005 47 links 1' × 0,380' 96 links 217 40T 16T	140 230 34 4 centre notch K2F 377 FE80 0.020 to 0.022 < 305 ' 66 links 1 / 3 / 3,360' 96 links 1 / 40T 16T	1-1/16 2/10 30 30 33 centre notch NRI 39° FEBO 0.020 to b 1' × 0.305' 6 4' × 0.34	1-1/16 300 	1.5/32 2.60 30 30 centre notch NR 36* 6.020 to 1' × 0.305* 1' × 0.106*	1-3/16 3-40 	1
Choke diameter—inch	0.01 links 1/ > 0.	240 250 30 30 sentre notch SRI 397 FEB0 210 to 0.022 0.005' 47 links 1' × 0.380' 217 T 40T 16T 43T	230 30 4 centre notch K2F 39 F80 0.020 to 0.022 < 305 66 links < < 0.000 96 links 207 407 167	2/0 30 3 centre notch NRI 39 FEBB 0,020 to 1' × 0.305' 6 4' * 0.33	360 	30 3 centre notch NR 39° FE8 0.020 to 1' × 0.305° 1' × 0.305°	340 — 7 4th from top 0 0.022 64 Jinks 80° 98 Jinks	330 4 centre notch K2F 39' FE80 0.020 to 0.022 \$' < 305' 64 links 1' × 0.380' % links
Main jet no. 210	0.01 links 1/ > 0.	250 30 30 31 31 31 32 39 46 39 47 39 48 30 30 30 40 30 40 30 30 40 40 40 40 41 41 41	230 30 4 centre notch K2F 39 F80 0.020 to 0.022 < 305 66 links < < 0.000 96 links 207 407 167	30 30 3 centre notch NRI 39 0.020 to 1 × 0.035 d 4 × 0.035 d 90 links	Sth from top 0.022 5 links 60 98 links	30 3 centre notch NR 39° FE8 0.020 to 1' × 0.305° 1' × 0.305°	4th from top 0 0.022 66 Hinks	330 4 centre notch K2F 39' FE80 0.020 to 0.022 \$' < 305' 64 links 1' × 0.380' % links
	0.01 links 1/ > 0.	30 3 antre notch SRI 187 FEBO 10 to 0.022 0.005' 67 links J' V 0.380' 96 links 21T 40T 16T	30 4 centre notch K2F 39' FEB0 0.020 to 0.022 1' < 395' 66 links 1' × 0.380' 96 links 20' 40T 16T	30 3 centre notch NRI 19° FE80 0,020 to 1 1' × 0,34' 1' × 0,34' 10' linke	5 5th fram tap 0.022 5 links 10° 98 links	30 centre notch NR 39: 6,020 to 1' × 0.305' 1' × 0.305' 90 links	7 4th from top 1 0,022 66 Hinks 80° 98 links	30 4 centre notch K2F 39' FE80 0.020 to 0.023 \$'<305' 66 links 1' × 0.380' % links
Silde no.	0.01 links 1/ > 0.	3 sentre notch SRI 38' FE80 510 to 0.021 0.303' 67 lloks y' < 0.340' 96 links 21T 40T 16T	centre notch K2F 39° F80 0.020 to 0.022 j'<305° 66 links y'< 0.380° 96 links 20° 40T 16T	3 centre notch NRI 39 FEBO 0.020 to 1 7 × 0.33 7 × 0.34 7 × 0.34 90 links	S Sth from top 0.022 S links O' 98 links	3 centre notch NR 39* FE8 0.020 to * < 0.305* 90 links	7 4th from top 0 0.022 64 Jinks 80° 98 links	4 centre notch K2F 39' F540 0.020 to 0.023 3' < 305' 64 links 1' × 0.380' 96 links
Silde no.	0.01 links 1/ > 0.	entre notch SR1 SR1 12° FE80 010 to 0.022 0.005' 67 links ! < 0.380' 21T 40T 16T	centre notch K2F 39 FE80 0.020 to 0.022 ['<305' 66 links I'<0.380' 96 links 207 407	centre notch NR1 39- F680 0.020 to '×0.305' 6 4' × 0.34 90 links	Sth fram tap 0.022 S Ilnks 10' 98 links	centre notch NR 39* FE6 6.020 to > 0.305* > 0.305* 90 links	4th from top 0 0.022 66 iinks 80' 98 links	centre notch K2F 39' FE80 0.020 to 0.022 ½'×305' 66 links 1'×0.380' 96 links
Needle polition Centre not	0.01 links 1/ > 0.	SRI 39° FE80 610 to 0.022 0.105° 47 links 1° 0.380° 98 links 21T 40T 16T 42T	K2F 39° FE80 0.020 te 0.022 1' × 0.380° 96 links 20° 40°T 16°T	NR.1 39* F680 0.020 to 1 1' x 0.303* 6 1' x 0.34 90 links	0.022 5 Ilnks 60' 98 Iinks	NR 39: FEB 0.020 to 1' × 0.305' 1' × 0.3 90 links	l 0 0,022 56 žinks 80° 98 links	K2F 39' FE80 0.020 to 0.022 §'×305' 66 links §'×0.380' 96 links
Megreto LUCAS SRI Ignition advance Fig.	links 1'×0.	39° FE80 010 to 0.022 0.303° 47 links ! ~ 0.380° 21T 40T 16T 42T	39° FE80 0.020 to 0.022 j' < 105° 66 links j' < 0.180° 96 links 20°T 40°T 16°T	39° F880 0.020 to 1' × 0.305° 4 1' × 0.34 90 links	0.022 5 links 60' 78 links	39° FE8 G.020 to 1°×0.305° 90 links	0 0.022 64 jinks 80' 98 links	39° FE80 0.020 to 0.022 3°×305° 66 links 1°×0.380° 96 links
FEBO	links 1'×0.	FE80 00.023 00.03* 47 links }' < 0.380* 98 links 2 l T 40T 16T 42T	FE80 0.020 to 0.022 ` × 305° 66 links ' × 0.380° ' * 0.180° * 0.180° ' *	FEB0 0,020 to 1 1' × 0,305* 6 1' × 0,34 90 finks	0.022 5 Ilnks 10° 98 Iinks	FE9 9,020 to 1"×0,305" 1"×0,3 90 links	9 0.022 64 žinks 180* 98 links	FE80 0.020 to 0.022 \$' \times 305' 64 links \$' \times 0.380' 96 links
Pag gap—lack	links 1'×0.	010 to 0.023 0.303* 47 links ! < 0.380* 98 links 21T 40T 16T	0.020 to 0.022 1' × 305" 66 links 1' × 0.380" 96 links 20" 40" 16"	0.020 to §' × 0.305° á §' × 0.31 90 links	0.022 5 Ilnks 10° 98 Iinks	0.020 to ×0.305' 1' × 0.3 90 tinks	0.022 66 žinks 180° 98 links	0.020 to 0.022 ½' × 305' 66 links ½' × 0.380' 96 links
Primary chain—pitchx width 1 - 0.305* 66	links 1'×0.	0.305° 47 links §' < 0.380° 98 links 21T 40T 16T 42T	1" × 305" 66 links 1" × 0.380" 96 links 20T 40T 16T	' × 0.30\$' 6 1' × 0.31 90 links 167'	5 links 10' 78 links	* × 0.305* * × 0.3 90 tinks	66 finks 180° 98 links	\$' × 305' 64 links 1' × 0.380' 96 links
Top)' < 0.380' 96 links 21T 40T 16T 42T	1" × 0.380" 96 IInks 201" 401 161"	1' × 0.34 90 links	10° 98 links	j*×0.3 90 tinks	80° 98 links	j' × 0.300' % links
Rear chain—pitch width 94 links 3prockets Engine 407 4		96 links 21T 40T 16T 42T	96 links 20°T 40°T 16°T	90 links	98 links	90 links	98 links	96 links
Sprockets Engine HeT	PO THIKE PO INTES	21T 40T 16T 42T	70°T 40°T 16°T	167				
Clutch 40T Gear-box 14T Gear-box 14T Gear-box 14T Gear-box 14T		40T 16T 42T	40T 16T					
Gas-box IeT		16T 42T	16T		- 1	401		40T
Rear wheel 4T		42T	l 42T	161	I	161	and the second	IAT
Gearbox ratios First 2.65		2.65		42T		Q1		QT .
1.7 1.7	1		2.65	3.2	2.65	3.2	2.65	2.45
Third		1.7	1 17	2.45	1.7	2.45	1.7	1.7
Gent ratios. First 15.4 Second 9.9 Tipe 7.4 Top 5.8 Patrol tank capacity—gallons 3 Genrbox capacity—gallons 4 Genrbox capacity—gallons 5.8 Lubrication. Engine—Symmer SAE30 SAE30 SAE30 SAE3	ľ	(3)	1.31	1.54	1.31	1.58	1.31	5.31
Second 9,9		i3.3	13.9	21.0	17.3	18,7	15.4	13.9
7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.4 7.5		8.5	8.9	16.0	11.2	14.2	9.9	8.7
Petrol tank capacity—gallons 3		6.5	6.9	10.3	B.6	9,2	7.6	5.9
Petrol tank capacity		5.0	(S.25	6.6	6.6	5.0	5.8	5.25
Oil tank capacity—pints Geerbox capacity—e-net Lubrication. Engine—Synther SAE30 SAE30 SAE30)	3}	32	1	,	2		3)
Geerbox capacity - s-nt Lubrication. Engine—Synther SAE30 SAE30 SAE50	!	4	4	4	i	4		4
Lubrication. Engine—Symmer SAE50 SAE30 SAE30 SAE30 SAE50 SAE50	l l	1	L_					1
SAE30 SAE50		SAESO	5 A E50	SAES		SAE		SAE50
Saurbus SAES0	[SAE30	5AE30	\$AE3		SAE		SAE30
		SAE50	SAES0	SAES	~	SAE	30	SAE50
Suspension ell (Front) 185c.c. 54	4E20 183	Sc.C. SAE20	185c.c. SAE20	6 (85c,c.):	SAE20	185c.c. 75c.c.	SAE20	185cc SAE20
quantity per leg. (fitar) /3c.c.)	/50	,	1	,		754.4.		!
Brakes, diameter > width inches 7×1		7×1	7×1	7×1		7×	•	7×1
Tyres, Front 3,25 × 19 Rear 3,25 × 19		3.25 × 19 4.00 × 19	3.25 × 19 4.00 × 19	2,75×2f 4,00×19	3.00 × 21 4.00 × 19	2.75 × 21 4.00 × 19	3.00 × 21 4.00 × 19	3,00 × 21 4,00 × 19
Rims. Front WM2×1	,	WM2×19	WM2×19	WMIx	21	WMI	× 21	WMI×2I
Rear WM1×1	j ∀	WM3×19	WM2×19	WM3×		EMW.	× 19	WM2×19
Type Pressures, Ibalas inch. Front (8	20 29	21	22	as requ	ired	as req	Devit	12
Resr 10	12 12					"	,	75
Weight-nounds 344	375 354	24	25	*		294 I	324	394
Wheelhese-inches	3/9 334	387	25 394	293	321		55+	553
Seat height—inches 30	55) 54	387 551	25 394 55	293 53	551	53		,
Ground clearance—Inches 5†	375 359 551 54 31 30	387 55 31	25 394 55 31	293			12.	11
Overall length—inches 45	-	387 551 31	25 394 55 31	193 53 32	32	53 32	12]	1 11
Overhall height-inches 41	-	387 551 31	25 394 55 31	293 53	551	53 32 64 102	12] 854	111
Overall width—inches	-	387 55 31	25 394 55 31	193 53 32	32	53 32	12] 12]	311 5 41 23

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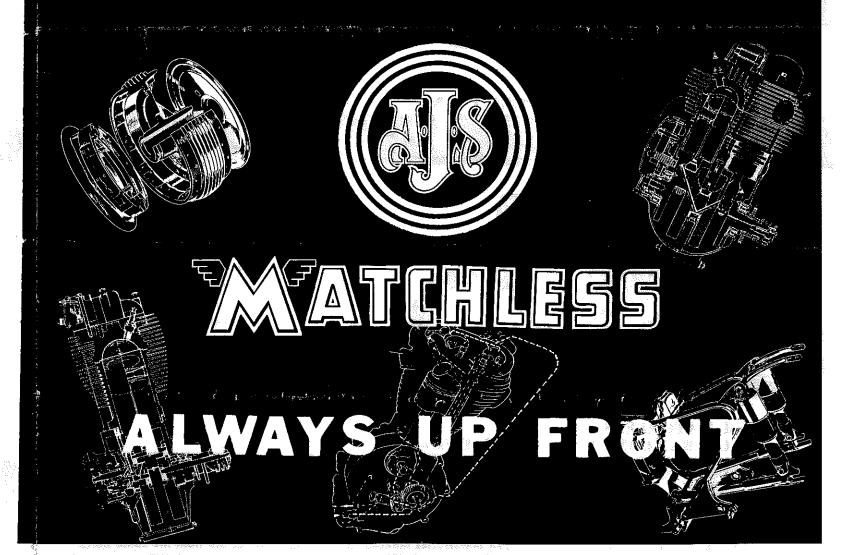
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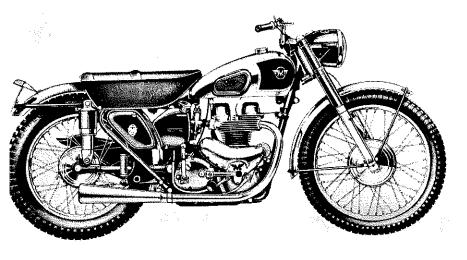
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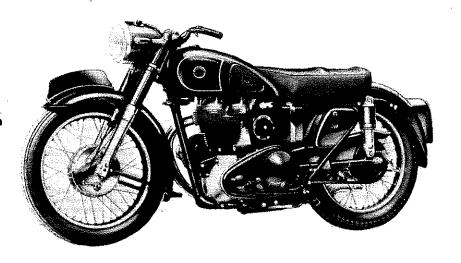
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8 to 1 compression

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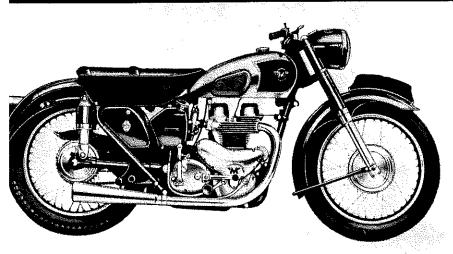


A.J.S. 18S

MATCHLESS G80S

WITH FULL TELEDRAULIC SUSPENSION

498 c.c. O.H.V. WITH FULL TELEDRAULIC SUSPENSION

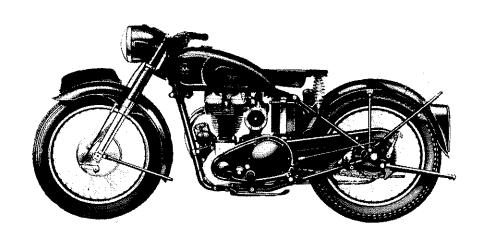


A.J.S. and MATCHLESS 550 cc SPORT TWIN

A.J.S. and MATCHLESS 550 cc "SUPER CLUBMAN" VERTICAL TWIN 550 cc Twin Engine.

69mm Bore x 72.8mm Stroke. Compression 8 to 1. Big finned alloy heads. Separate heads. Separate barrels. Three main bearings. Twin flywheels. Two Gear driven oil pumps. lightweight valve mechanism. High R.P.M. design.

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347 c.c. O.H.V.

498 c.c. O.H.V.

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