



**Catalogue No.9. 30p**



# Introduction

This catalogue is a guide to the equipment and parts that we sell. All our equipment and parts are thoroughly tested before we offer them for sale. All materials used are of the highest quality and are tested to an extremely high standard. **THIS IS YOUR SAFEGUARD!**

ALF HAGON PRODUCTS are the recognised leaders in grass track, speedway and drag racing — featuring the most extensive range of products for these motor cycle sports.

ALF HAGON has contributed an enormous number of major achievements to the world of grass track, speedway and drag racing — which has helped tremendously in the development and production of our equipment.

But we are not content to rest on our laurels and will continue to explore and develop new products for the future. You can be assured that when you buy our products you get the very best in quality, performance, reliability and service. We are proud of our reputation for value, perfection and honesty.

## ORDERING BY 'PHONE

DO YOU ORDER BY 'PHONE? If so we can put you on our telephone ordering list, we will then give you a Reference Number which you can quote when calling. This will save you and us, time and money by eliminating the need to repeat addresses over the telephone, just name and reference number is sufficient.

## POSTAL SPARES SERVICE

THE WORLDS BEST! GRASS TRACK, SPEEDWAY, SPRINTING.

CASH ON DELIVERY BY RETURN POST IS OUR SPECIALITY. GOODS WEIGHING UP TO 22LB. CAN BE SENT BY G.P.O. TO YOUR DOOR — C.O.D. MAXIMUM IS £50 — BUT WE CAN SEND ANY NUMBER OF SEPARATE PARCELS. CHARGES AT G.P.O. RATE.

PARCELS OVER 22LB. IN WEIGHT CAN BE SENT BY B.R.S. WHO ALSO HAVE A C.O.D. SERVICE. CHARGES AT B.R.S. RATE.

## EXPORT

We can send goods to any part of the world — either by Post or Shipping Agents, by Air or Sea. Items up to 22lb (10 kilos) can be sent by Post. In many countries we can send goods C.O.D., but in some countries there is no C.O.D. service available, in which case please send CASH WITH ORDER, PLUS POSTAGE.

We can offer on parcels over 22lb (Complete Machines etc.) part C.O.D. i.e. Send only the money for the goods required and all Freight Charges are sent forward for you to pay on collection. PRICES QUOTED DO NOT INCLUDE POSTAGE.

When ordering please state:—

- A Make, Model, Year and CC of machine.
- B Your name and address, including postal code (if any).
- C Catalogue reference, size and colour, where applicable.

ADDRESS FOR ALL CORRESPONDENCE:—

**ALF HAGON PRODUCTS  
350/352 HIGH ROAD, LEYTON,  
LONDON E.10 6QQ  
ENGLAND**

Telephone: **01-539-8416 & 01-556-9200**

Open from 9 till 1 and 2 till 6 MONDAY to SATURDAY.

The nearest underground station is LEYTON which is on the Central Line. On leaving the station turn right, we are approximately 400 yards along on the right-hand side.

By road we are approximately 3 miles from the Blackwall Tunnel, 2 miles from the A406 North Circular Road.

\* Our front cover shows a Hagon machine (and T shirt) in typical action.





MARTIN HAGON PROUDLY DISPLAYING HIS SUZUKI POWERED JUNIOR HAGON

This catalogue shows most of the parts normally held in stock by us and available over the counter, or by return post.

In addition to these items are the specialised design and construction facilities of our workshop; the engine modification, building and tuning services of our engine shop; and the general expertise from our years of experience that can help you with your machine. Let us know your requirements, we will help all we can.

VALVE RE-FACING  
VALVE SEAT CUTTING  
INSERTING  
HELICOILING  
PORT ENLARGING

RE-BORING & HONING  
RE-SLEEVEING  
FLYWHEEL ALIGNMENT  
ALLOY & MAGNESIUM  
WELDING

MAGNETO REPAIRS

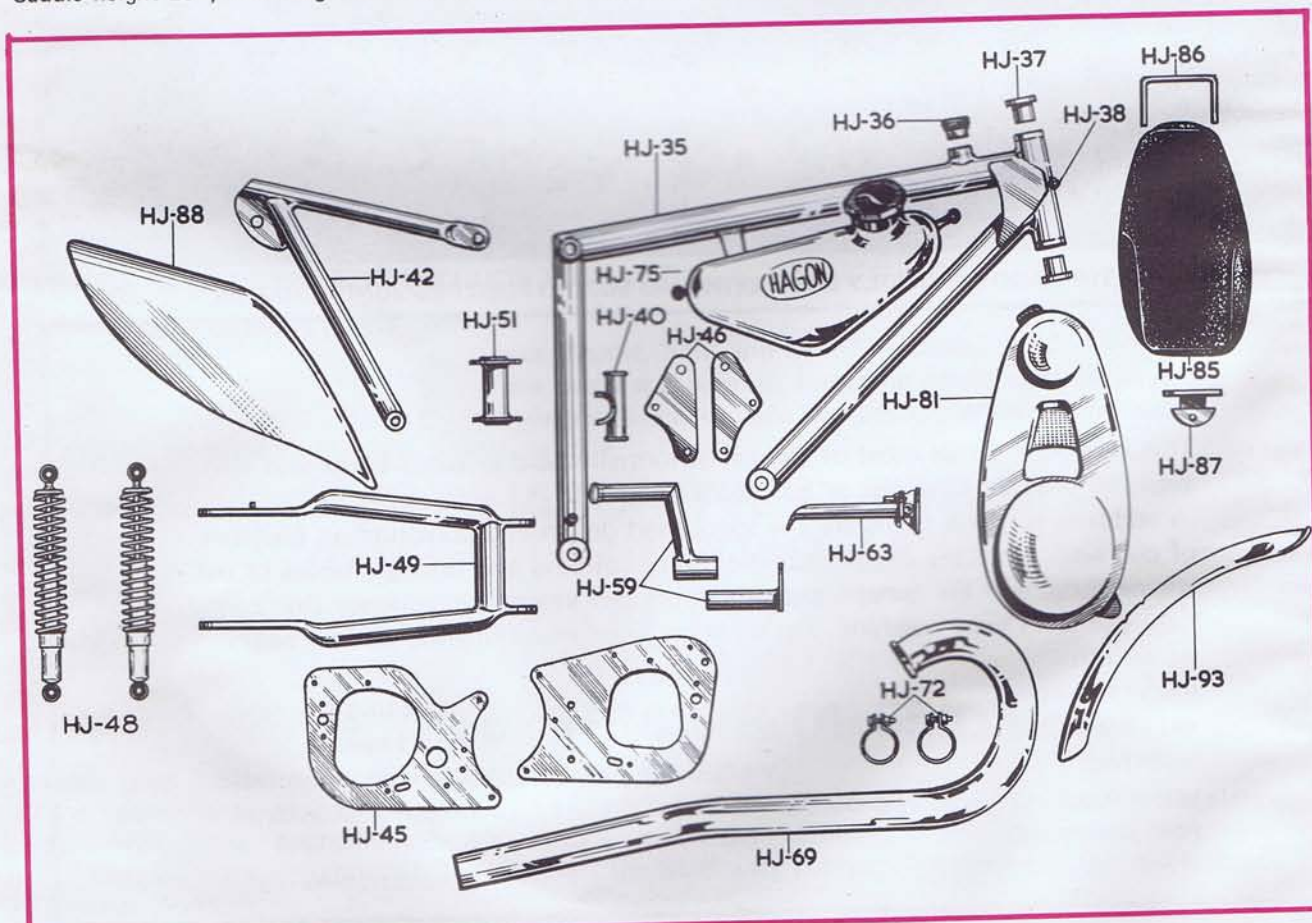


# Standard Hagon



Hagon grass-track machines, well known the world over, have been developed for this very popular sport in our well equipped, modern works in London. Since their introduction in 1956 no changes have been found necessary to the basic design, but many improvements in detail have been made — resulting in a completely functional, clean-cut machine — proven over the years to be the most successful formula. Added to this success is versatility, as parts are available to enable the use of virtually any engine and gearbox combination whilst still retaining the excellent qualities of the original.

**SPECIFICATION:** Weight, with fuel and oil (Standard JAP) 215 lbs. Wheelbase 57", Ground clearance 5", Saddle height 29", Head angle 69°. Chrome 5 pint fuel tank. Oil in main frame. Blue stoved enamel finish.







#### STANDARD HAGON COMPLETE (less engine)

Complete with AMC or Albion gearbox, Chains, Chaincase, Exhaust pipe, Footrests, Cables, etc. To suit JAP engine. It takes only one hour approximately to fit engine etc. and you are ready to race. REF. 1

Special assemblies available to suit most other engines including JAWA, AMC, BSA Goldstar. Optional extras include — Alloy rims, Fibreglass front mudguard, Speedway type air cleaner, Long seat, Dirt shield, Disc rear brake.

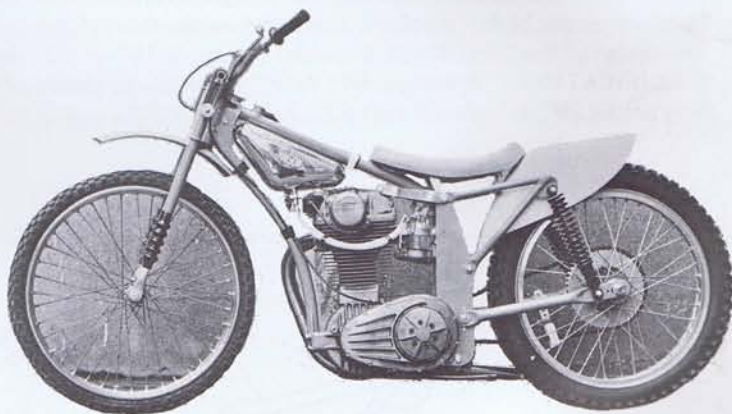


#### STANDARD HAGON FRAME ASSEMBLY

Comprising — Main diamond frame, Sub-frame, Swinging arm, Pivot, Loose lug, Head bushes, Girling units, High tensile bolts, Engine and Gearbox plates (state which gearbox you will be using). For JAP engine. REF. 2

Special assemblies available to suit most other engines including JAWA, AMC, BSA Goldstar, TRIUMPH Twin. REF. 3

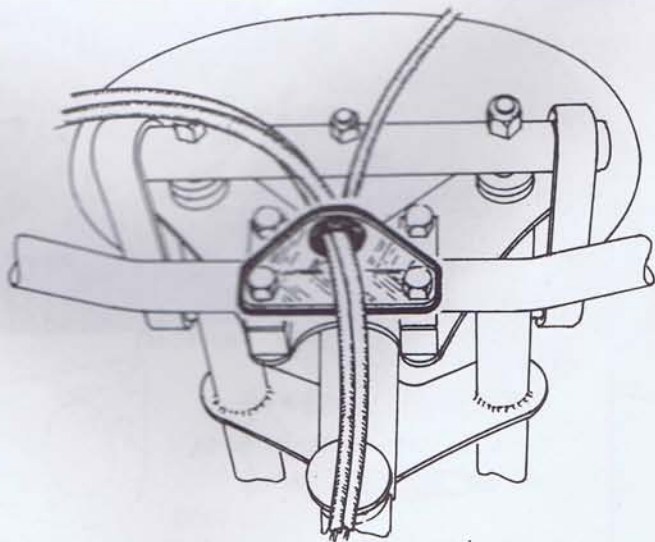
**SPECIALS.** We can make any special Grass Track machine to your requirements. We have made very many specials for riders who prefer to use the engine or frame layout of their own choice. The Hedlund engined HAGON special pictured here is a typical example, built for the Continental long track racing circuits.



**NEW**

#### THE HAGON CABLE TIDY.

Keeps cables under control. Stops that tangling up of cables that leads to breakage or accident. Grommet keeps cables in place but prevents chafing — and there's room for the spare cable too! REF. 4



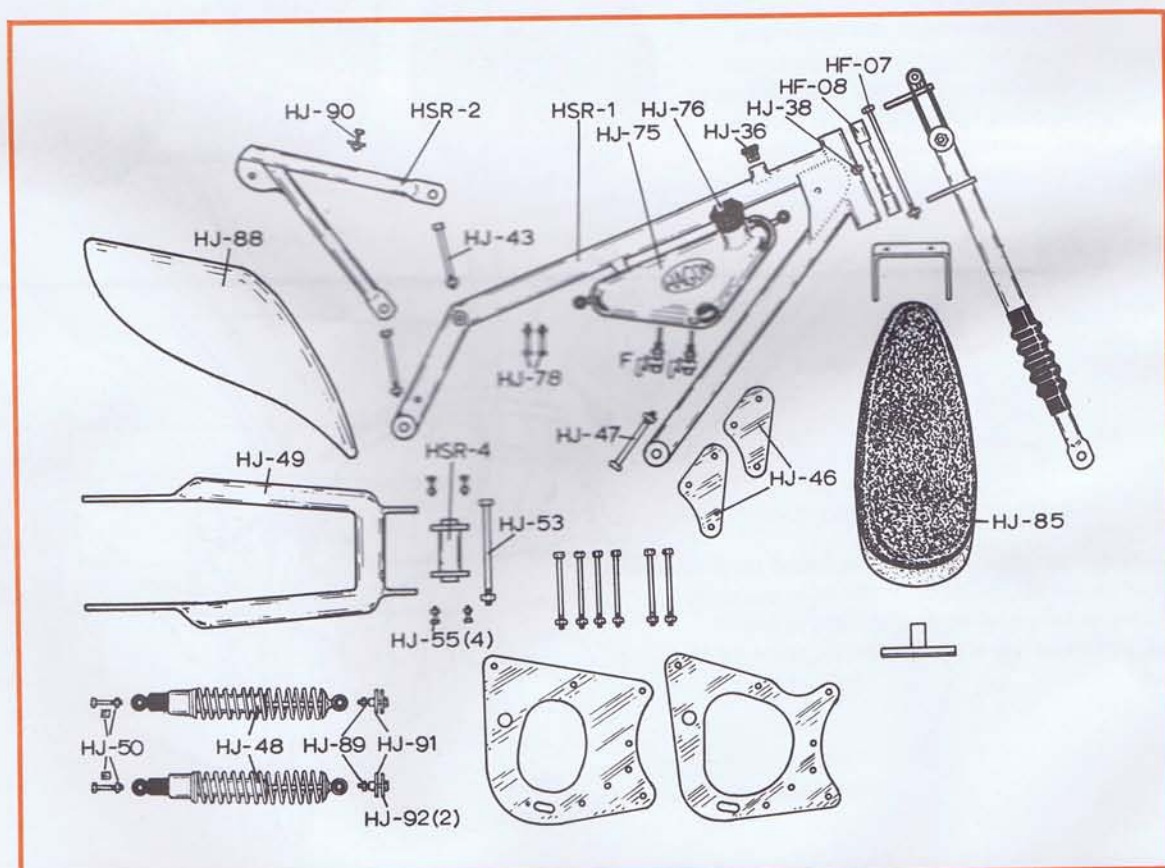
# Hagon Sandracer



Undoubtedly the most successful track racing machine available today. The SANDRACER was built for the long, fast Continental tracks, but is equally successful on the short Home circuits.

The design of the SANDRACER enables the use of 19" or 22" rear wheels.

**SPECIFICATION.** Wheelbase 54" to 56" according to choice of engine, gearbox, and rear wheel. Head angle 69°, Seat height 29", Wheels — Front 23", Rear 19" or 22".





## THE HAGON SANDRACER IS AVAILABLE IN THE FOLLOWING FORMS

**HAGON SANDRACER** As shown left but without engine, transmission and brakes. When ordering state which gearbox you will be using. For JAP and JAWA engines. REF. 1.

Convert your standard Hagon, to Sandracer specification, using your 19" wheel and short swinging arm,

### Parts required

SR1	Diamond	
SR2	Sub Frame	
SR4	Pivot	
Engine Plates (State engine and gear box)		
S/R Conversion Kit		REF. 3.



### **HAGON SANDRACER KIT** (As shown but not assembled)

Comprising — Main diamond frame, Sub-frame, Swinging arm, Pivot, Girling Units, High tensile bolts, Fibreglass rear mudguard, Seat with brackets, Fuel tank complete with taps and fixing bolts, Forks complete with spindle and head bolt, Engine and Gearbox plates (state which gearbox you will be using). For JAP and JAWA engines. REF. 2.

### **HAGON SANDRACER FRAME ASSEMBLY.**

Comprising — Main diamond frame, Sub-frame, Dural engine plates, Swinging arm, Pivot, Girling units, Nuts and bolts etc. REF. 4.



The versatility of the HAGON SANDRACER frame is clearly illustrated here with this picture of the HAGON DUCATI.



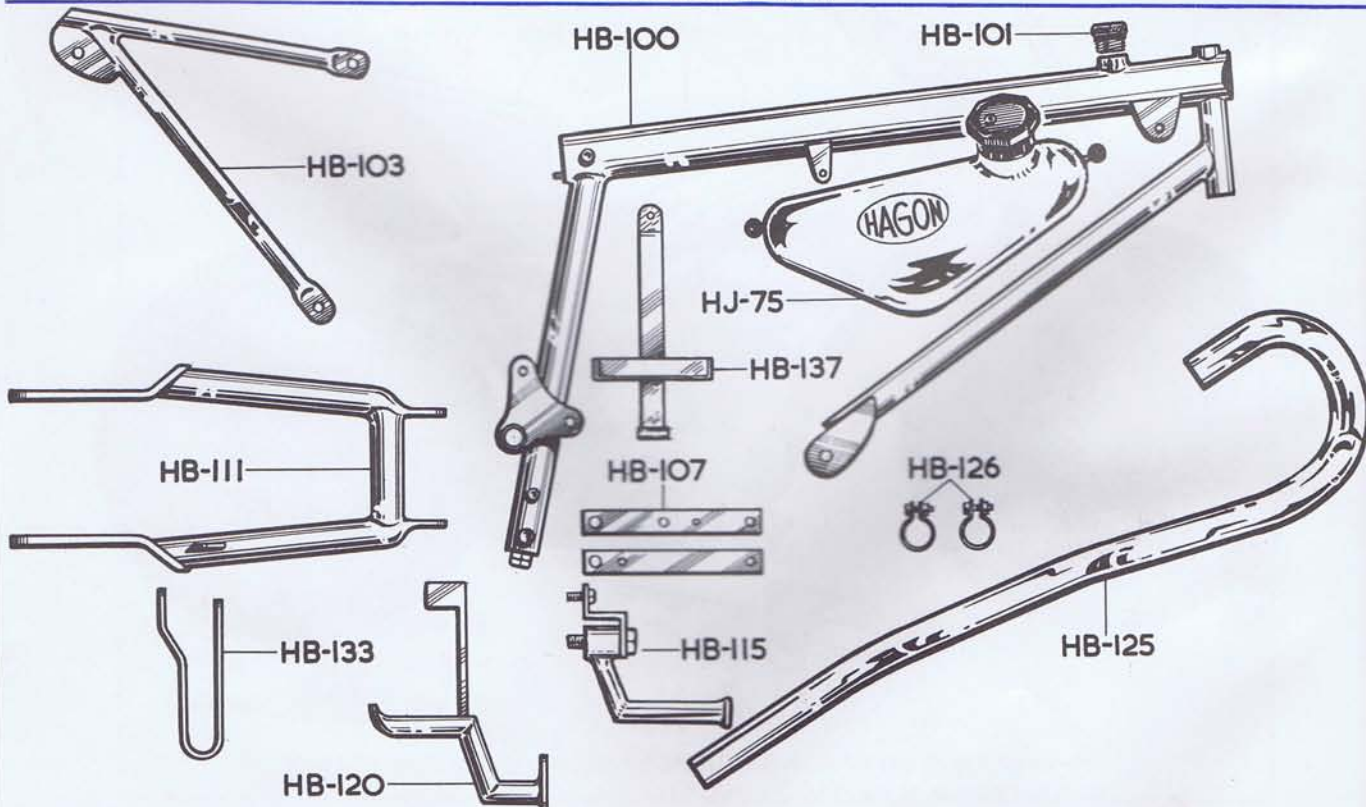
## SPECIFICATION

Built from the best quality materials, this machine can be adapted to accommodate most unit construction engines.

Weight (with fuel and oil) 195 lbs. Wheelbase 54", Head angle 69°, Oil in frame return system holding 2½ pints. High tensile 7/8" handlebars. High level cross over exhaust pipe. Interchangeable rear wheel sprockets, Chrome rims. 19" rear wheel, 21/23" front wheel, Standard fitting on all models. Fibreglass rear mudguard valanced for numbers. Right-hand swinging footrest. Accommodation for battery. Blue stoved enamel finish.

## BSA ENGINES

We can now supply new 250cc and 500 cc engines with complete machines. Price on request







THE HAGON BSA, Comes absolutely complete, less only the engine. All cables, chain, exhaust pipe etc. C15 type frame will also take B40 Victor and Barracuda. **WHEN ORDERING PLEASE STATE WHICH ENGINE YOU WILL BE FITTING.** REF. 8.

THE HAGON BSA FRAME ASSEMBLY, Comprising — Main diamond frame, Sub-frame, Swinging arm, Engine rails, Girling units, Nuts and bolts. REF. 9.

#### OTHER ENGINES

In addition to the most commonly used engines we have made special arrangements to cater for almost all other possible combinations, listed here are a few of the 'specials' that we produce:

HAGON 5TA. Frame assembly only REF. 11.  
(oil in frame)

HAGON VILLIERS. Frame assembly only. 12.

HAGON BULTACO Complete less engine and exhaust pipe. 13.

HAGON HUSQVARNA Complete less engine and exhaust pipe. 14.

HAGON MONTESA Complete less engine and exhaust pipe. 15.

HAGON TRIUMPH CUB. Send us your Cub main diamond frame 16.  
which we convert to  
HAGON CUB.

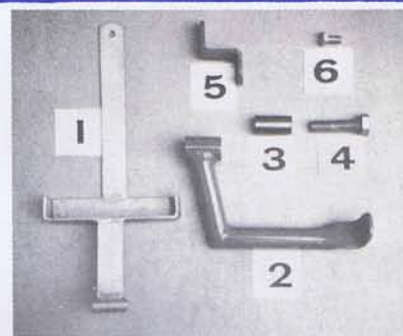
#### SPECIAL SERVICES

Iron barrels turned down 50 thou. off the base REF. 17.

Rebore and hone barrel (Exchange service) REF. 18.

Modification to distributor and fit new points C.15 REF. 19.

See also separate information on Cylinder head conversion, Magneto conversion, Big end assemblies etc.



New BSA BATTERY CARRIER fits under seat a must for BARRACUDA for carb. clearance REF. 1.

New C15 Right hand footrest

2 Footrest

3 Hinge spacer

4 Hinge spacer bolt

5 Fixing bracket

6 Fixing bracket bolt

Footrest Assembly complete

REF. 7.



HAGON Mag Conversion as shown inc.

New Magneto

REF. 10.



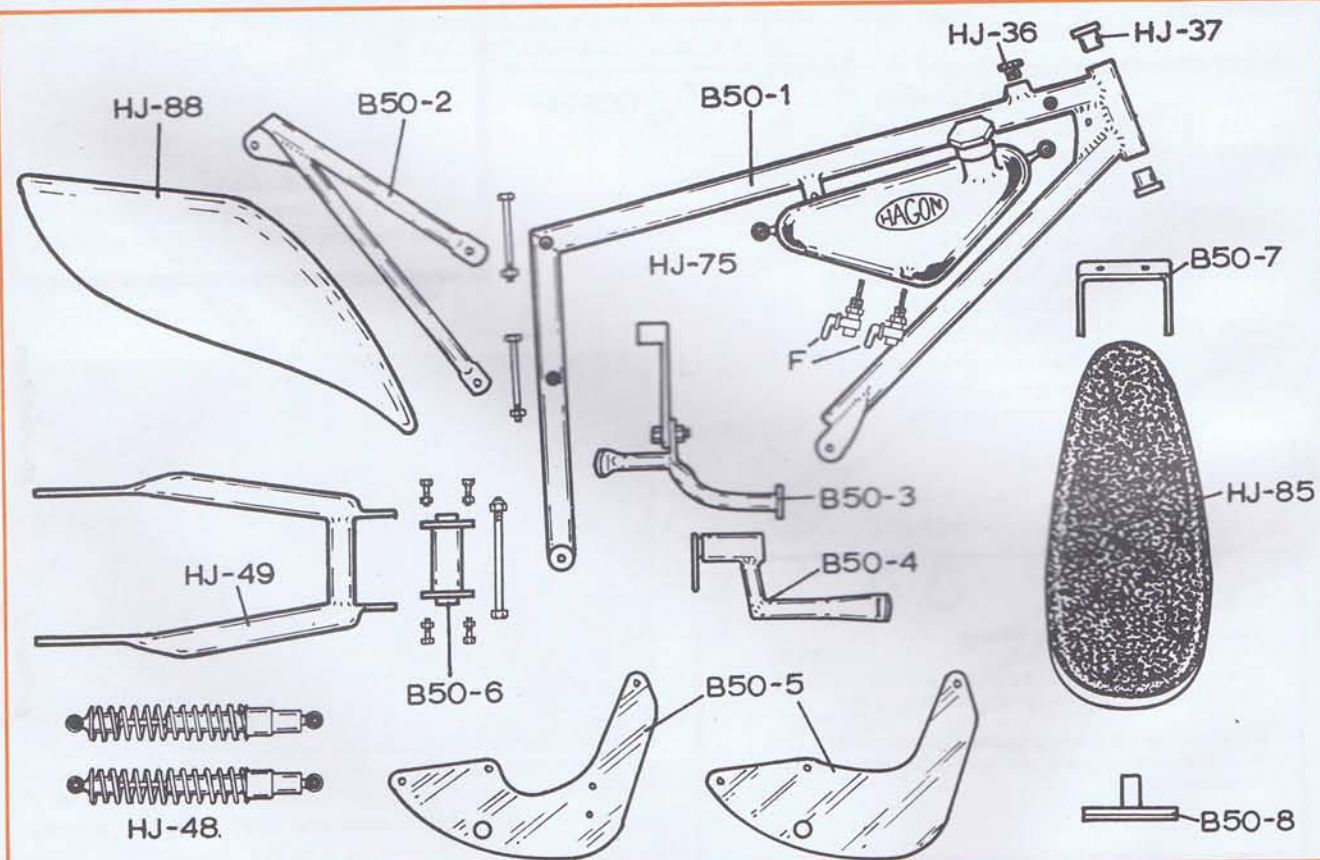
The HAGON Husqvarna is yet another of the Hagon range of specials — each special is built with care, perfection, accuracy.



# Hagon B50



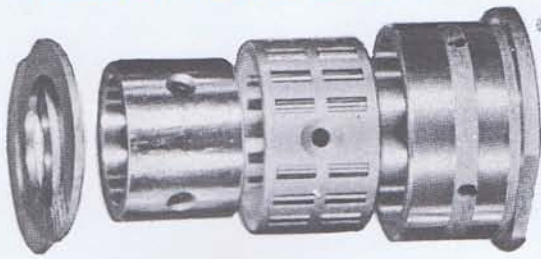
The latest HAGON frame, built primarily to accept the new BSA 250 and 500 cc engines. This type of frame, with suitable engine mounts and front down tube will readily accept both unit construction and separate engine / gearbox arrangements. Oil in main frame. Blue stoved enamel finish.





# Tuning Parts BSA

## TIMING SIDE NEEDLE ROLLER CONVERSION



Needs no fitting or special tools.  
Fits straight in.

REF. 1.

## HAGON "High Lift" C.15/B.40 Special Cam.

REF. 4.



Inlet	Opens :- 51° BTDC	STATE WHEN ORDERING DISTRIBUTOR OR LATE TYPE ENGINE
	Closes :- 68° ABDC	
Exhaust	Opens :- 78° BBDC	
	Closes :- 38° ATDC	

### Cam Lift

Inlet :- -367"  
Exhaust :- -340"

### Valve Lift

Inlet :- -380"  
Exhaust :- -357"

## C15/B40 FLYWHEELS

Fitted with Roller Big End Assembly — trued and ready to use.

Exchange Service -

REF. 2.



C15/B40 Alloy Cam Gear  
Saves Weight REF. 5.



C15/250 Decoke Set. REF. 6.  
C15/250 Engine Set. REF. 7.  
Head gasket only. REF. 8.



The BSA Cylinder Head Conversion consists of opening the inlet port to 1 1/8" fitting a larger inlet valve, recutting the valve seats — New Exhaust Valve — and two bronze valve guides. Sandblast cleaned.

EXCHANGE SERVICE

REF. 3.



Final Drive Sprockets 16T,  
C15/B40 Barracuda/Victor  
1/2" Pitch REF. 9.

## BARRACUDA PARTS



Inlet Valve REF. 10.  
Exhaust Valve REF. 11.  
Bronze Guides REF. 12.  
Alloy Pushrods REF. 13.



High Compression Piston for Barracuda  
CR 13/1 REF. 14

10-1 C15 Piston  
Std. 20 30 40 60 o's REF. 15.



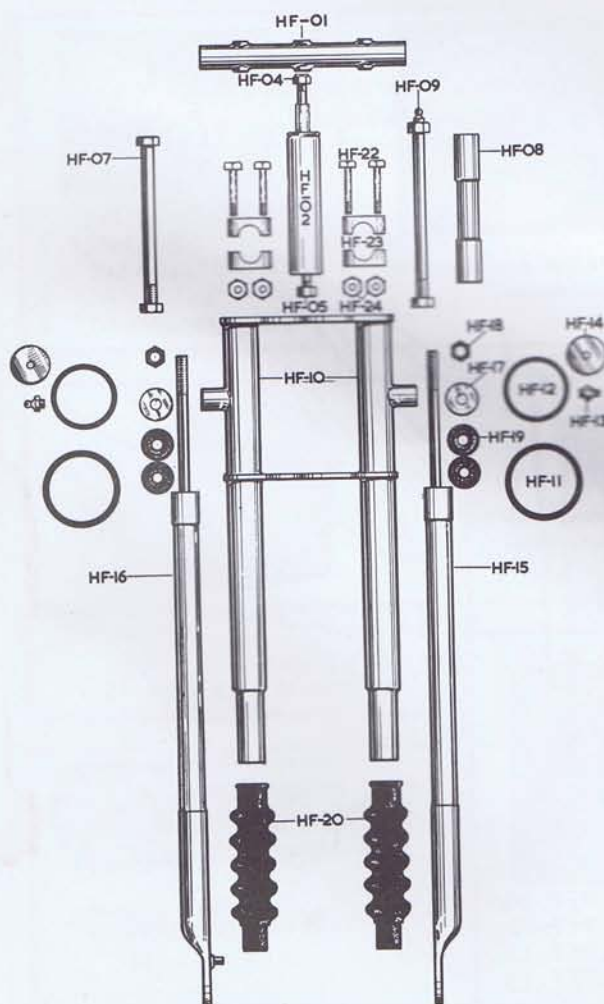
C15/B40  
Finned Alloy Rocker Feed  
REF. 16



# Hagon Forks



FORKS LESS  
DAMPER  
REF. 5.



## HAGON HYDRAULIC FORKS

Perfect handling, combined with light-weight and strength was the order when these forks were designed some 16 years ago. That we were successful can be ascertained by a visit to any Grass Track meeting in any country, where it will be seen that the majority of riders use them. Continued development resulted in the production of a Drag racing version, these have proved their reliability and handling at speeds in excess of 200 m.p.h. These famous forks are constructed only from the finest materials.

**GRASS TRACK VERSION.** Overall length of 28". Distance between crowns 6". Will accept up to 23" wheel. Distance between fork blades 4½". Movement 4". Weight 12½ lbs. Suspension by rubber with hydraulic damper. Lubrication by grease nipples. Finish, Blue stoved enamel and Cadmium plated fittings. Supplied complete with head spindle and bolt, handlebar clamps, and damper.

**DRAG RACING VERSION.** Basically the same as Grass Track version but with Overall length reduced to 24½", Movement limited to 2", Weight 10½ lbs. Will accept 19" wheel.

Available as follows:

STANDARD with brake anchor pin for Hagon Alloy Hub  
STANDARD less brake anchor pin

Both include head bolt, spindle, damper and handlebar clamps.  
DRAGSTER with brake anchor pin for Hagon Alloy Hub  
DRAGSTER less brake anchor pin

Both include head bolt, spindle, damper, and 1¼" chrome split clip-ons.

WHEN FITTING FORKS TO FRAME ENSURE THAT SPINDLE BOLT IS TIGHT OTHERWISE HOLE IN FORK CROWN WILL BECOME WORN. IN THE EVENT OF DAMAGE RETURN 'H' PIECE AND BOTH INNER LEGS TO WORKS FOR REPAIR.

The hardened Head Spindle is available in sizes:—  
STANDARD = 0.867", + 1 = 0.874", + 2 = 0.881"

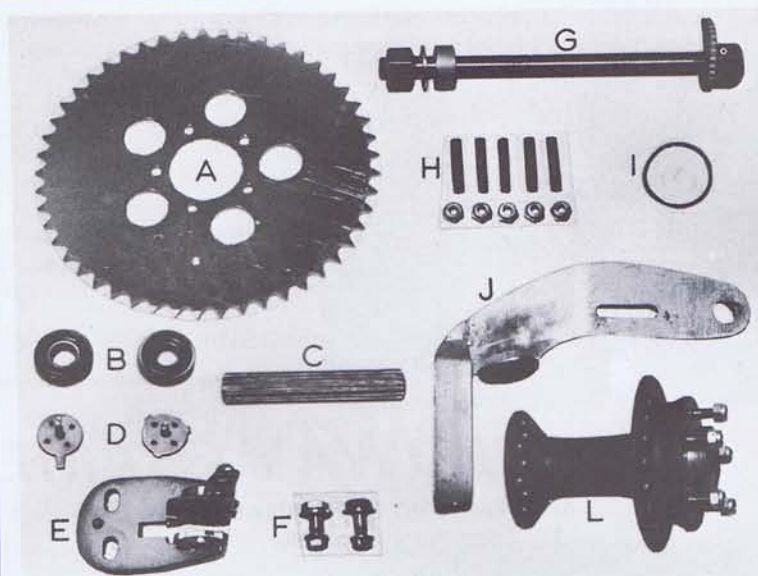
MAINTENANCE. Before lubricating it is essential to remove rubber bands and 'bottom' the forks, then apply 4-6 strokes of grease gun, containing engine oil DO NOT USE GREASE.

## PARTS LIST

Part No.	Description	Qty.
HF-01	Top piece	1
HF-02	Damper unit complete	1
HF-04	Damper top locking nut	1
HF-05	Damper bottom nut	1
HF-07	Head spindle nut and bolt; JAP	1
HF-08	Head spindle drilled; and hardened	1
HF-09	Head spindle nut, bolt and nipple	1
HF-10	Main fork 'H' piece	1
HF-11	Rubber bands outer (Large)	2
HF-12	Rubber bands inner (small)	2
HF-13	Grease nipples	2
HF-14	Grease nipple washers	2
HF-15	Inner leg, plain	1
HF-16	Inner leg with brake anchor pin	1
HF-17	Inner leg knurled nut	2
HF-18	Inner leg locking nuts	2
HF-19	Inner leg rubber buffers, top and bottom	4
HF-22	Bolts	4
HF-23	Clamps	4
HF-24	Locknut	4
HF-25	New *Dural handlebar clamps non-slip complete set 7/8" or 1"	



# Hagon Disc Brake



- A Steel sprockets
- B 17mm bearings
- C Hardened distance piece
- D Disc pads with screw & springs
- E Deep calliper
- F Calliper bolts
- G 17mm spindle assembly (as shown)
- H 5/16" BSF STUDS
- I 'O' Ring
- J Calliper carrier
- K Complete assembly (as shown)
- L Magnesium hub

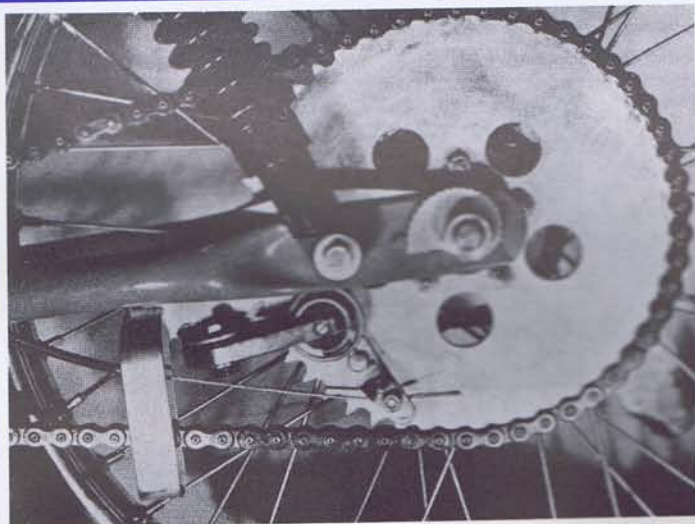
## SPINDLE ASSEMBLY

- M Spindle only 17mm Steel
- N Alloy 17mm Nuts
- O Alloy Spacer
- P Snail Cam - 17mm
- Q Washers 17mm

PLEASE STATE SIZE WHEN ORDERING ASSEMBLY KIT.

THE HAGON DISC BRAKE IS A NEW ADVANCEMENT IN THE GRASS TRACK & SPRINT WORLD - ULTRA LIGHT, YET STRONG, - Q/D, - HUB CAN BE USED WITHOUT THE CALLIPER, SEALED BEARINGS - NEED NO GREASING, CALLIPER IS DEEP THROATED TO ALLOW A SELECTION OF SPROCKETS TO BE USED IN  $\frac{1}{2}$ " PITCH AND  $\frac{5}{8}$ " PITCH THE DISC PADS ARE ADJUSTABLE AND EASY TO CHANGE

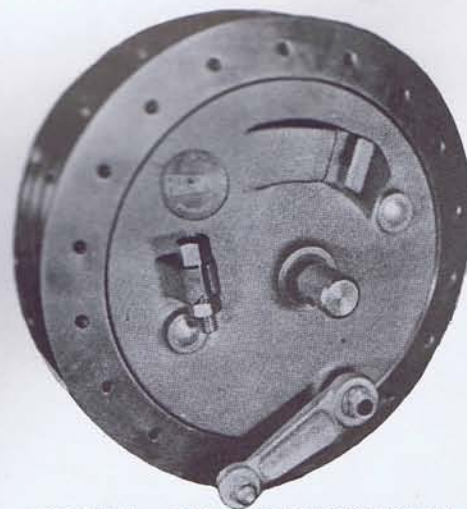
NOTE Steel Sprockets sizes for use with disc brake are  $\frac{5}{8}$ " pitch 47T to 51T.  
 $\frac{1}{2}$ " pitch 58.60.62.64.  
All Sprockets lightened & Cad. plated



## COMPLETE WHEELS WITH DISC BRAKE AND SPROCKET

- 1 19" or 22" Steel Rim Wheel
- 2 19" Borrani Alloy Wheel
- 3 22" Borrani Alloy Wheel

## HAGON FRONT HUB



POWERFUL. 135mm CAMPAGNOLO HUB  
Weight: 4 1/2 lb., 36 Hole: 12mm K.O. Spindle  
Ideal for G.T. Sprint, Trials etc.



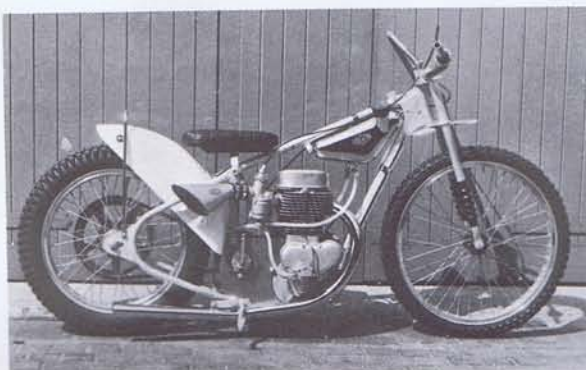
# Hagon Speedway

SPEEDWAY, THE LASTEST BRANCH OF MOTOR CYCLE RACING TO BE COVERED BY US, AND ALREADY HAGON FRAMES ARE SOUGHT AFTER THE WORLD OVER.

## SPECIFICATION

Wheel Base	52"
Ground Clearance	4"
Weight	180lb
Saddle Height	28"
Fuel Capacity	5 pints
Oil Capacity	1 pints

Suitable for JAWA and JAP engines.  
All parts are jig built to ensure interchangeability of replacement parts.  
Finished in HAGON blue, hammer grey stove enamel or cadmium plate.  
23" front wheel and 19" rear wheel, chrome steel rims or alloy rims, magnesium hubs.

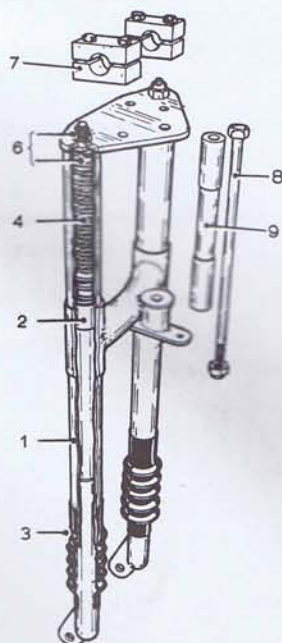


KEEP ON TOP  
AT  
THE HAGON SHOP

## SPEEDWAY FORKS      SPEEDWAY FRAME

### SPECIFICATION.

2" movement with internal springs,  
4 1/2" between fork blades.  
Finish — Stoved enamel blue, hammer grey or Cadmium plate. Will fit any make of machine.



- 1 Fork H piece
- 2 Inner legs
- 3 Gaiters
- 4 Springs
- 6 Spring top retainer and nut
- 7 Handle bar clamps 7/8" or 1"
- 8 Head nut and bolt
- Complete forks
- 9 Hardened head spindle (Extra)  
STD = .867 +1 = .874 +2 = .881

### MOST PARTS INTERCHANGEABLE WITH JAWA

- 1 Frame Diamond with oil filler cap and head bushes
- 2 Oil filler cap
- 3 Head bushes HJ37
- We can supply head bushes for JAWA forks
- 4 Rear end with chain adjusters
- 5 Chain adjusters nut and bolt
- 6 Engine stay short-JAWA long-JAP grey only
- 7 Front engine plates JAWA or JAP (pair)
- 8 Rear engine plates JAWA or JAP (pair)
- JAP rear plates state JAWA or ROTRAX counter shaft
- 9 Engine plate short sleeve nut and 4" stud (as photo)
- Also for rear top engine plate bolt
- 10 Seat long sleeve nuts and 4" stud
- 11 Footrest sleeve nuts and 4 1/2" stud
- (1) Long nut (1) Long nut with thick head
- 12 Footrest bolt spacer
- Sleeve nuts
- Sleeve nut studs
- FRAME KIT COMPLETE (AS PHOTO)



### FRAME AND FORKS





# Hagon Speedway

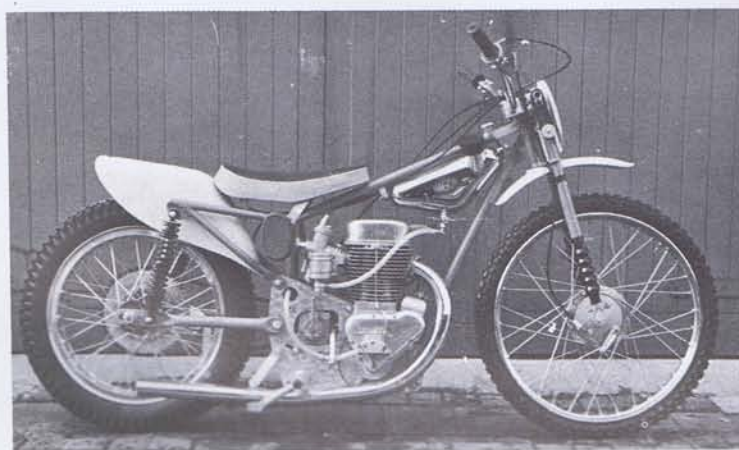
SPEEDWAY MACHINE Complete as shown REF. 1.  
Comprising – Frame and forks, Handlebars  $\frac{7}{8}$ " T45,  
Q/A Twistgrip, Clutch lever, Alloy front guard,  
23" front wheel (Magnesium Hub, Steel rim), 23"  
Barum front tyre and tube, Alloy dirt shield,  
Chrome fuel tank with 2 taps, 3 Oil and fuel pipes,  
Short seat with brackets, Fibreglass rear mudguard,  
Chrome lifting handle, Footrest, 19" Rear wheel  
(Magnesium Hub, Steel rim), Rear spindle assembly,  
Dural sprocket (35T to 62T) 19" Dunlop or Barum  
rear tyre, 19" Barum tube with offset valve.



SPEEDWAY MACHINE Complete as above but also fitted with Chain, Cables, Exhaust Pipe and Clips

REF. 2.

## **NEW** THE SPEEDWAY SPRINGER



THE NEW HAGON SPEEDWAY SPRINGER  
Pictured left is the new HAGON SPEEDWAY  
SPRINGER, fitted with JAWA engine and  
2-speed gearbox. This machine will take JAWA  
or JAP engines and most gearboxes. The com-  
plete machine as shown, less only engine  
and gearbox

REF. 3.

Frame assembly only

REF. 4.

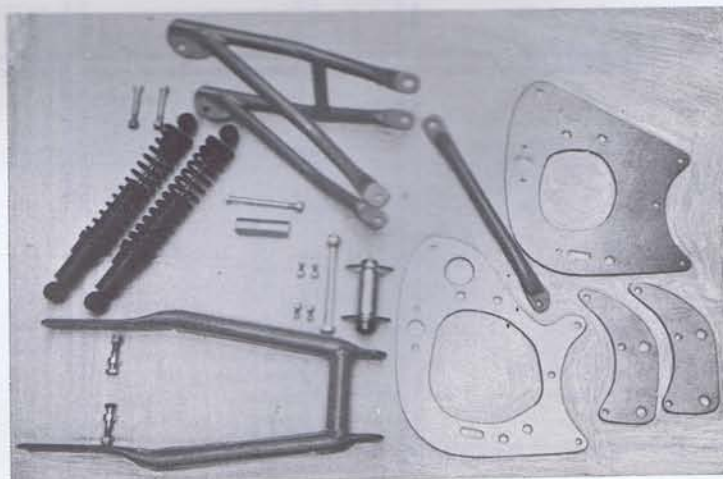
**WHEN ORDERING SPECIFY ENGINE AND  
GEARBOX TO BE USED.**

### SPRINGER CONVERSION KIT

Convert your HAGON or JAWA speedway  
machine to a very competitive Track Racer  
using our conversion kit. Simply bolts  
straight on in place of existing rear end.

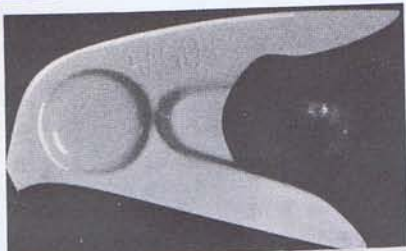
**WHEN ORDERING SPECIFY ENGINE AND  
GEARBOX AND WHETHER 19" or 22"  
REAR WHEEL USED.**

REF. 5.





# GT & Speedway spares



New Short Fibre Glass Chaincase for  
Speedway or Grass  
White, Blue, Red, Yellow. REF. 1.



White Fibreglass Chaincase cutaway  
or full REF. 2.



**SPEEDWAY BIKE COVER**  
Extra strong waterproof  
canvas, two strap fixing  
Yellow, Green, Blue REF. 3.



Chrome  
Dirt Shield  
with Clamps REF. 4.



White Fibreglass Dirtshield including  
Fixing Bracket REF. 5.



Alloy Dirt Shield with 2 clip fixing REF. 6.  
Alloy Front Mudguard, walled edge. REF. 7.



ROTRAX Countershaft REF. 8  
ROTRAX Clutch REF. 9.



JAWA Countershaft REF. 10.  
JAWA Clutch REF. 11.



JAWA 2-Speed gearbox. REF. 12.



A.C.U. Approved  
Silencer 1 1/2" REF. 13.



Speedway Foot Rest  
2 Bolt Fixing REF. 14.



ROTRAX Fuel Tank Chrome  
4-pint with cap REF. 15.



ROTRAX Chrome  
Oil Tank with Cap REF. 16.



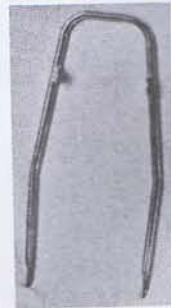
Long Speedway seat REF. 17.  
20" long 6" wide Black  
Bridges fit Hagon or Jawa  
Front REF. 18.  
Centre REF. 19.  
rear REF. 20.



Short Black Speedway Seat  
Strong alloy base REF. 21.  
Front Bracket REF. 22.  
Rear Bracket REF. 23.  
FITS HAGON OR JAWA



Speedway  
Exhaust  
Pipe Bracket  
REF. 24.



Chrome  
Lifting  
Handle  
REF. 25.



Starting Gate  
ideal all types of  
events with tape  
and rubber REF. 26.



# GT & Speedway spares



HANDLEBARS MADE TO PATTERN  
7/8" or 1" Steel or Dural REF. 1.



Fibreglass Rear Mudguard  
Colours — white — blue —  
yellow — red. REF. 2.



JAP White Fibreglass  
Engine Cover — REF. 3.



Blue & Grey Short Seat —  
4 stud fixing. REF. 4.



Blue and Grey Long Seat —  
4 stud fixing. REF. 5.



ROTRAX Seat — Black  
3 bolt fixing REF. 6.



BLACK RACE SEAT  
(Alloy Base) REF. 7.

Ideal Jnr. Bike or Road Race  
50cc/125cc.



BIKE STANDS  
Alloy Stand (ESO) REF. 8.  
Steel Stand (JAP) REF. 9.

DURAL H/Bar Clamps  
Clamps  
7/8 or 1"  
REF. 10.



Ex. Clips  
All Sizes  
up to 2"  
REF. 11.



EXHAUST PIPE CLIPS



RUBBER MOUNTED, 5 PINT  
CHROME FUEL TANK. Complete  
with cap and Rubber bushes both ends REF. 12.  
Rubber Tank cap REF. 13.  
Rubber mounting bushes REF. 14.  
Steel bush liner REF. 15.  
Fuel tap with filter REF. 16.  
Fuel tap fibre washer REF. 17.



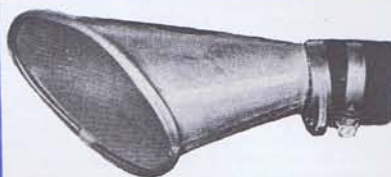
STEEL TANK  
Holds 1 1/4 gallons. Universal Fitting.  
Bayonet Cap — 1/4 Gas Tap Fitting  
Holes. REF. 18.



Fibre Glass No. Plates REF. 19.  
Self Adhesive Backgrounds REF. 20.  
All Colours  
Nos. Black or White REF. 21.



Universal Chain Guide  
1 1/2" Split clamp  
fixing — REF. 22.



Air cleaner Complete with  
Gauze, Hose and Clips — REF. 23.



For Steel Shoes REF. 24.



# Bits & Pieces

FOR JAP &  
JAWA ENGINES



**JAP VALVES & GUIDES**  
Thin Head Ex. Valve REF. 1.  
Inlet Valve REF. 2.  
Bronze Valve Guides REF. 3.



**PISTONS**  
Mahle MkIII Piston for 500cc JAP.  
Valve cutaways for big cam. Std +  
10 + 20 + 40 REF. 4.  
JAWA Piston (Hepolite) with Rings and  
Gudgeon Pin. Std. + 10 + 20 + 30  
REF. 5.  
Rings Only REF. 6.

**HAGON VALVE SPRINGS**  
For JAP or JAWA  
AS USED ON OUR 206 m.p.h. JAP



Specially made from Swedish wire—gives  
longer life and valve control at high r.p.m.  
**NON PROGRESSIVELY WOUND**  
2 inners 2 outers  
Set for JAP REF. 7.  
Set for JAWA REF. 8.



**ENGINE PLATES** REF. 9.  
Fit JAP Engine to JAWA frame



**Needle Roller Conversion for JAP**  
Camshaft bushes. REF. 10.  
(Old Bushes need boring to suit)



**Circlip Eng. Nut for JAP** REF. 11.



**ENGINE PLATES, JAP, Long front**  
3 hole pick up REF. 12.



**ALLOY PUSHRODS for JAP**  
REF. 13.



**JAWA EXHAUST  
NUT**  
Available in  
Standard,  
+ 5 + 10 + 15  
REF. 14

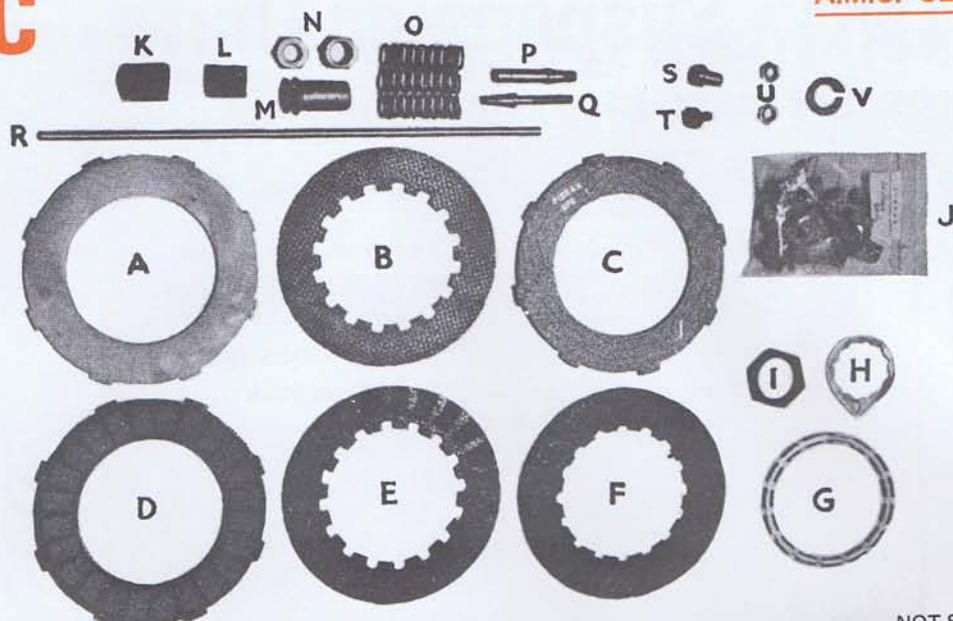


**BRACKET ASSEMBLY with**  
**BENT STAY** to enable fitting of twin  
SS1 float chambers to JAWA  
REF. 15.



**REF. 16.**  
**FOAMY FILTER.** The latest in air filters, perforated 20G steel liner giving 50% free area  
foam sponge sheath. Fits over 2" bellmouth.  
The foam can be washed over and over again without impairing its filtration qualities.  
It can be cleaned by normal washing and wringing out, by reverse flushing with water or  
by cleaning with a vacuum. Hot water and detergent will readily remove entrapped  
particles (and oil, where this has been used to give additional efficiency). It can be wrung  
dry after washing and will be ready within minutes for continued use.





A	Steel plate dimpled	J	Thick inserts for chain wheel	Q	Clutch stud		NOT SHOWN
B	Steel plate			R	Clutch. Push rods (7/32")	W	Alloy pressure plate
C	Solid fibre	K	Clutch rubber large	S	Spring adjuster "	W1	Steel pressure plate
D	Bonded plate	L	Clutch rubber small	T	Spring Adjuster "	X	Clutch hub — Splined
E	Bonded plate	M	Clutch spring cups	S1	Clutch Adjuster	X1	Clutch rollers
F	Solid fibre plate	N	Main shaft nut	U	Clutch stud nuts	Y	Clutch spider
G	Clutch cage	N1	Clutch adjuster lock nut	V	Mainshaft washer	Z	Recon. clutches
H	Sprocket nut lock washer	O	Extra strong springs			AA	Bonded back plate
I	Sprocket nut	P	Clutch stud			AB	Steel back plate
						AC	Centre race

### EXCHANGE SERVICE

Chain Wheel	REF. 1.
Clutch plates	REF. 2.
Bonded back plate	REF. 3.

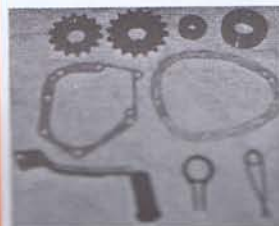
### TRANSMISSION

A.M.C. Gearbox/Engine Plate Assembly for Sandracer or Standard Hagon, consisting of:

Engine Plates rear	REF. 4.
Pivot	REF. 5.
Pivot Screws (4 off)	REF. 6.
Gear Box Bolts (2 off)	REF. 7.
Gear Box Spacers (2 off)	REF. 8.
Gear Box Top Tube Spacer	REF. 9.
Gear Box Adjuster Cam	REF. 10.
Clutch Nut Spacer	REF. 11.
Completely Reconditioned Gear Box and Clutch with Gear Lever and 14T or 16T Final Drive Sprocket	REF. 12.
The Complete Assembly as shown better than new but at half the price (Complete)	REF. 13.



YOUR OWN A.M.C. GEARBOX MODIFIED TO FIT, GRASS TRACK OR DRAG BIKE, MILL LUGS ON MAIN CASE, SUPPLY 2 ALLOY SPACERS, TOP FIXING TUBE SPACER, SHORTEN SLEEVE GEAR AND MAIN SHAFT, SUPPLY CLUTCH NUT SPACER.  
(EXCHANGE SERVICE) REF. 14.



### PARTS

14T and 16T	REF. 15.
5/8" x 1/4" Sprockets	REF. 16.
Small Bearing	REF. 17.
Large Bearing	REF. 18.
Inner Gasket	REF. 19.
Outer Gasket	REF. 20.
Gear Lever	REF. 21.
Thick Wire Spring	REF. 22.
Thin Wire Spring	



**DURAL CLUTCH SPRING CUP.**  
1 1/4" for 3 Plate REF. 23.  
1 1/2" for 4 Plate REF. 24.

**IMPORTANT!** CABLE END FLOAT IS NOT PUSHROD END FLOAT, CHECK CLUTCH PUSHROD ARM FOR CLEARANCE.



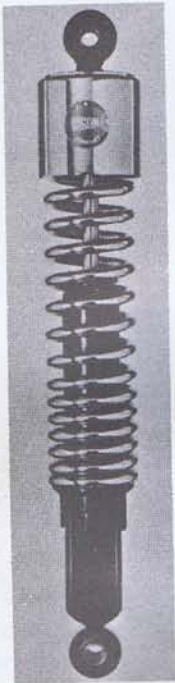
# GIRLING Suspension Units

OFFICIAL  
DISTRIBUTORS

## HIGH PERFORMANCE UNITS AVAILABLE FOR PRACTICALLY EVERY MACHINE

WHETHER ITS FOR ROAD, TRACK, SOLO OR COMB. GIVE US A TRY AND YOU WON'T GO WRONG.

PLEASE STATE MAKE, MODEL, YEAR, & C.C. OF MACHINE



SPECIAL Racing  
TYPE UNITS (Balanced)  
Chrome multi rate  
springs short chrome  
top cover REF. 1.



42lbs. to 210lbs. Springs  
From Stock

Chrome Springs REF. 2. Standard Spring REF. 3. Standard Top Covers REF. 4. Chrome Top Covers REF. 5. Chrome Bottom REF. 6. Short Top Chrome Cover REF. 7.



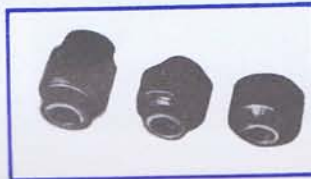
Standard Girling  
REF. 8.



Alloy Circlips (4) REF. 9.  
Steel Circlips (4) REF. 10.



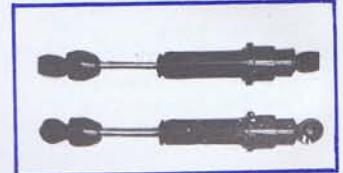
Steering Damper REF. 11.  
Fully Extended 11 3/4"  
Compressed 7 1/2"



Bushes REF. 12.  
5/16" 3/8" 7/16" 1/2"  
10mm and 12mm  
Length from 3/4" to 1 1/8"



Chrome Adjuster  
Spanner, Fits old and  
new type units.  
REF. 13.



Dampers (adjustable)  
(Sold in pairs)  
10.9 to 15.9  
REF. 14.

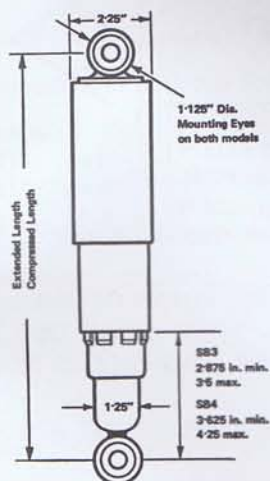
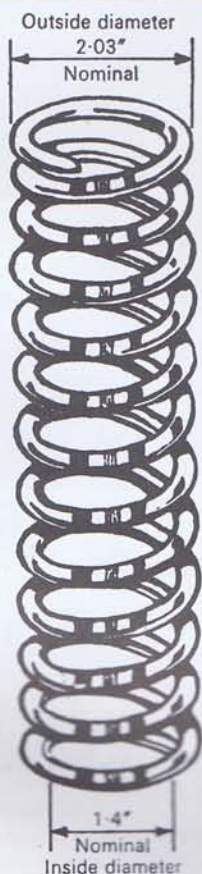
GIRLING SUSPENSION UNITS assembled to your requirements. This service is unique, you tell us your problem, and we will help you to solve it.

All we need is a few basic facts

- |   |                            |   |                         |
|---|----------------------------|---|-------------------------|
| A | Weight of Machine          | B | Length of Unit required |
| C | On what type of machine    | D | Solo or comb.           |
| E | Bush Sizes, top and bottom | F | Weight of rider/s       |

Units range from 10.9 to 15.9 and we can supply springs from 42lb up to 210lbs—





# Spring Identification

## Suspension Springs in order of Spring Rate

Part No.	Colour		Rate lb/in.	Length when fitted	Load
	Primary	Secondary			
64539002	White	Yellow	42	9.4	18
9054/64	White	Blue	45	8.0	35
9054/90	Yellow	Blue	54	9.4	20
9054/317	Yellow	Yellow	75	8.0	40
64545134†	Yellow	Yellow	75	8.0	40
9054/66	Yellow	Green	78	9.4	23
9054/103	Yellow	Red	80	7.5	23
9054/59	Yellow	White	88	8.4	28
64545350†	Yellow	Orange	88	8.4	96
9054/94	Green	White	90	9.4	27
64543735†	Green	White	90	9.4	27
9054/58	Green	Yellow	90	8.0	27
64541820*	Green	Orange	60/90	8.1	100
64541788*	Green	Purple	60/90	8.0	60
64543819	Green	Red	96	8.1	27
9054/280	Green	Green	100	8.4	28
64543708†	Green	Green	100	8.4	28
64540470	Yellow	Tan	100	5.7	45
64543553†	Yellow	Tan	100	5.7	45
9054/53	Green	Blue	100	7.4	30
64541530*	Green	Pink	70/100	8.4	70
64543626†	Green	Pink	70/100	8.4	70
64544754	Pink	Purple	110	8.4	45
9054/277	Red	Red	110	8.0	35
9054/88	Red	White	110	9.4	28
64544235†	Red	White	110	9.4	28
64532786	Red	Blue	110	8.4	45
9054/312	Red	Pink	110	7.8	25
64543817	Red	Green	120	7.5	63
64544621†	Red	Yellow	126	8.4	50
64539963	Red	Orange	132	8.0	62
64543764†	Red	Orange	132	8.0	62
64543818	Blue	Yellow	145	8.0	28
64544234†	Blue	Yellow	145	8.0	28
64543820	Blue	Red	150	8.4	73
9054/165	Blue	Green	160	7.0	42
64540471	Blue	White	195	9.4	35
64541653	Blue	Orange	210	8.8	35

\* Twin Rate Spring † Chrome only

A system of colour markings for the identification of suspension springs has been devised, and it consists of three splashes of paint applied to the coils of the springs in the manner shown in the illustration. The colour combination together with the list, provides the key to the part number and spring rate.

The two outer colours are the same and called the 'primary' colour and the inner is the 'secondary' colour.

All the springs listed are for the adjustable unit (B type).

A range of Chrome springs are available in certain sizes and are listed directly under the black equivalent spring and marked thus †



# Borrani Alloy Rims

## BORRANI ALLOY RIMS (Depressed)

Undrilled 16", 17", 18" and 19"

WM3 extra

Undrilled 20" and 21"

Undrilled 22" and 23"

Drilling Extra

Dunlop Chrome Steel Rims 16 to 19

Dunlop Chrome Steel Rims 21, 22, 23

## WHEEL BUILDING (Inc. Spokes & Rim)

With Borrani 23" and 22"

With Borrani Alloy Rim 20" and 21"

With Borrani Alloy Rim

(16", 17", 18" and 19")

WM3 Rims - Extra

## WHEEL BUILDING (Inc. Spokes)

With Steel Chrome 21", 22", 23" Rims

With Steel Chrome 19", 18", 17", 16" Rims

Wheel Build (Inc. Spokes)

(Customers own Rim and Hub)

Brake Drum Skimming

Postage and Packing per Wheel Boxed

(less Tyre)

## PRICE LIST REFERENCE

1  
2  
3  
4  
5  
6  
7

8  
9  
10  
11

12  
13

14  
15  
16



## BORRANI RIMS

16" to 23"

WMO to WM3

36 and 40 Hole in stock.

## RIM WIDTHS

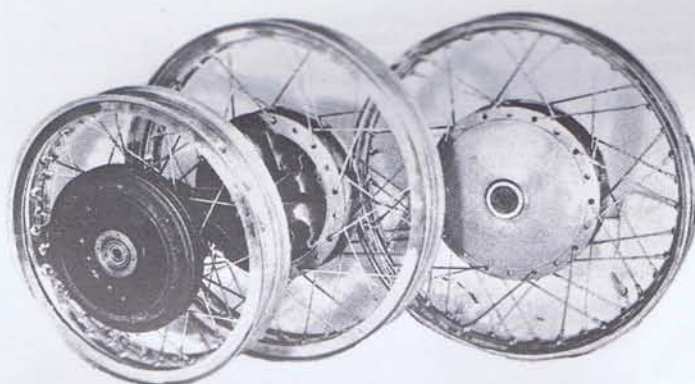
WM3 WM2 WM1 WMO

3" 2 1/2" 2 1/4" 2"

Please remember to state width when ordering



SPOKE KEY



## SECURITY BOLTS WM3 WM2 WM1

REF. 17.



NOTE USE OUR ORDER FORM ON THE OPPOSITE PAGE. SEND FULLEST DETAILS.

## SPECIALISED WHEELBUILDING SERVICE



GRASS



ROAD RACER



SPEEDWAY



SCRAMBLES



Dunlop  
Wheel  
Balancing  
Weights

Self-Adhesive

1/2 oz. (14 grammes)

3/4 oz. (21 grammes)

1 oz. (28 grammes)

## SANDBLASTING!

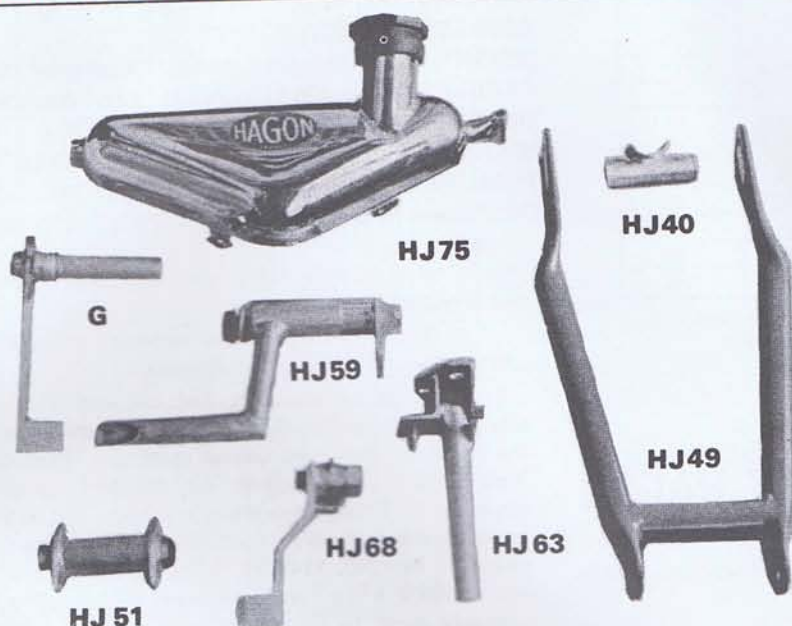
WHY NOT HAVE YOUR ALLOY HUB SAND-BLASTED BEFORE WE BUILD YOUR WHEEL YOUR HUB WILL LOOK LIKE NEW

WE SPECIALIZE IN ALL FORMS OF WHEEL BUILDING AND REPAIRING - FROM ROAD USE TO WORLD RECORDS. YOU CAN RELY ON OUR SERVICE WITH CONFIDENCE. WHEELBUILDING IS A SPECIALIST JOB - SO DON'T TAKE CHANCES. BRING YOUR WHEELS TO US!



# Do It Yourself

Many of you enjoy building and making your own bikes but sometimes there are parts which you cannot make. So let us supply it — from the smallest nut and bolt to a COMPLETE BIKE — we can help.



- HJ51. Pivot with Bushes — Long — Short — Sandracer
- HJ68. Footbrake Assembly
- HJ63. L.H. Footrest Std., or Sandracer
- HJ49. Swinging arm. ½—17 mm. ¼" Slot. Long 22" or Short 19"
- HJ40. Loose Lug
- HJ75. 5-pint Chrome Fuel Tank
- G Front Mounted Footrest with Footbrake
- HJ59. R.H. Swinging Footrest

## ENGINE PLATES



Cut to your pattern in DURAL or STEEL, Engine Turned if required. Drawing or Pattern MUST be supplied.

**HIGH TENSILE DURAL PLATE** Stocked in 1/16", 1/8", 3/16", 1/4", 5/16", and 3/8" thickness.

**DURAL ROD** Stocked in 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 1/4", 1 3/8", 1 1/2", and 2" diameter.

**STEEL TUBING** We hold in stock an extensive range of Cold Drawn Mild Steel, 531 and T45 tubing. Diameters: 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 1/4", 1 3/8", 1 1/2", 1 3/4", 2", 2 1/4", and 3" in various gauges from 18G to 10G. Prices on application.

**BRAZING RODS, FLUX, HIGH TENSILE BOLTS, NUTS, SELF-LOCKING NUTS.**

Can you please supply us with the following information, so that we may dispatch your order quickly and correctly.

Wheel building delivery approximately 7 days.

MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ YEAR \_\_\_\_\_ QUANTITY \_\_\_\_\_

TYPE OF HUB (Full width, large or small flange) \_\_\_\_\_ DIAMETER OF BRAKE \_\_\_\_\_

SIZE OF RIM \_\_\_\_\_ HOOKED SPOKES \_\_\_\_\_ or STRAIGHT SPOKES \_\_\_\_\_

36 or 40 SPOKE HOLES \_\_\_\_\_ WIDTH OF RIM REQUIRED \_\_\_\_\_

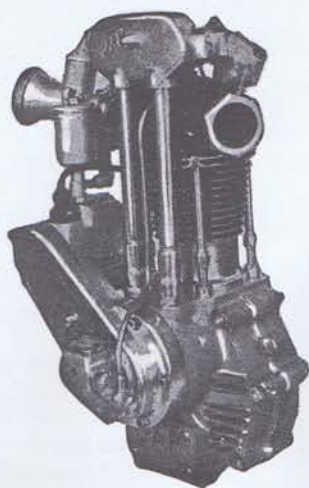
ORDER TO:  
ALF. HAGON PRODUCTS, 350/2 High Road, Leyton,  
London, E.10. 6QQ.  
Tel: 01-539-8416 and 01-556-9200

FROM: Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_



# The Mighty JAP

POWER HOUSE 500 cc J.A.P. SPEEDWAY ENGINE (TYPE 4B)



## Tuning Tips by ALF HAGON

### FITS AND CLEARANCES

MAGNETO IGNITION ADVANCE: 35° before TDC (15 : 1 Comp. ratio).

PISTON CLEARANCE: .006" at bottom of skirt on thrust faces (at right-angles to gudgeon pin).

PISTON RING GAP: .008" (minimum).

TAPPET CLEARANCE: .002" (engine warm).

MAGNETO CONTACT BREAKER POINTS: .012".

END FLOAT OF CON ROD BETWEEN FLYWHEELS: .010" to .020".

END FLOAT OF FLYWHEELS IN CRANKCASE: .010" to .020".

END FLOAT OF CAMWHEEL: .003".

END FLOAT OF CAM LEVERS: .003".

END FLOAT OF ROCKER LEVERS: .002".

STANDARD VALVE TIMING: (Camwheel Part No. 18989)

	opens	closes
Exhaust	65° before BDC.	34° after TDC.
Inlet	44° before TDC.	62° after BDC.

### SPECIAL CAMWHEEL (Part No. 23154)

	opens	closes
Exhaust	80° before BDC.	50° after TDC.
Inlet	60° before TDC.	80° after BDC.

Due to increased overlap on this Cam, care must be exercised to ensure that there is sufficient mechanical clearance between valve heads and piston crown.

It is not recommended that this Cam be used if the valve head diameters are greater than standard.

BORE: 80 mm.

STROKE: 99 mm.

CAPACITY: 497 cc.

COMPRESSION RATIO: 15 : 1

WEIGHT: Nett 58lb.; Magneto 4lb.; Carburettor 2lb.

CARBURETTOR: AMAL type 932. 12½" downdraught.

OIL PUMP: PILGRIM Duplex B.1.

SPARKING PLUG: LODGE R49, R50 or R51 (½" reach).

FUEL: METHANOL (Methyl Alcohol CH<sub>3</sub>OH).

OIL: Castor Base ("R") ENGINE SPROCKETS 15T to 26T

A RACING JAP is an incredibly simple engine, and is no trouble to work on.

Both steel and dural con-rods are available for JAP engines. There is no preference.

When reassembling, the con rod should have a side float between the flywheels of .010" minimum. When the flywheels have had several crankpins fitted the tapers 'sink' causing the wheels to 'nip' the con rod and this is remedied by fitting an oversize crankpin, this oversize is in length between tapers (not diameter). There are two oversizes, Part No. 11453/1 (½" longer between tapers) and 11453/2 (¼" longer between tapers). The flywheel assembly must be accurately trued between centres after assembly and the crankpin nuts properly tightened.

Like the crankpin, bearing housings are also available in oversizes and when refitting, after replacement, thrust washers should be fitted to provide the flywheel assembly with an end-float of 10 to 20 thou.

Both the crankpin and timing-side mainshaft rely entirely upon their tapers for alignment in the flywheels. Make sure that the mating oil-holes align during fitting. The driveside mainshaft is tapered and keyed.

Both valve and ignition timing on JAP engines is critical. Always use a degree timing disc with a dial gauge to note valve movement.

Before timing the cam, pinion backlash MUST be determined and should be 1°. For this purpose Timing Pinions, - 6 Std + 6 + 10 are available.

Reface the valves and valve seats every time the engine is dismantled. This is the secret of the JAP - no power should be lost through bad valve seatings.

When assembling, always fit the push-rods first without the cover tubes. Then spin the rods to check that they are straight.

### OIL PUMP

Actually two pumps, one supplies the big-end via the oil tube and this is the one furthest away from the engine, controlled by the front adjuster and it should always be set to give the maximum flow. The inner pump, controlled by the rearward facing adjuster supplies the rocker box this should be adjusted to supply a small quantity (one drop every five seconds when ticking over).



# Gear Ratio Charts

## 42T CLUTCH

		REAR WHEEL SPROCKET						
A	B	56	57	58	59	60	61	62
17	14	9.88	10.04	10.23	10.42	10.61	10.8	10.92
18	14	9.30	9.50	9.67	9.83	10.00	10.20	10.32
19	14	8.81	9.00	9.16	9.32	9.47	9.60	9.74
20	14	8.39	8.55	8.70	8.85	9.00	9.14	9.30
21	14	8.00	8.14	8.29	8.43	8.57	8.70	8.82
22	14	7.62	7.77	7.91	8.05	8.18	8.30	8.48
23	14	7.30	7.42	7.57	7.69	7.81	7.95	8.09
17	15	9.23	9.39	9.56	9.71	9.89	10.04	10.22
18	15	8.70	8.87	9.02	9.18	9.33	9.50	9.66
19	15	8.28	8.40	8.55	8.69	8.84	9.00	9.15
20	15	7.85	7.98	8.12	8.26	8.40	8.55	8.72
21	15	7.48	7.60	7.73	7.88	8.00	8.13	8.30
22	15	7.13	7.28	7.40	7.50	7.62	7.77	7.91
23	15	6.82	6.95	7.08	7.20	7.30	7.42	7.58
17	16	8.67	8.80	8.95	9.11	9.26	9.40	9.60
18	16	8.18	8.31	8.46	8.60	8.75	8.89	9.15
19	16	7.73	7.88	8.01	8.15	8.29	8.41	8.58
20	16	7.38	7.49	7.62	7.75	7.90	8.01	8.18
21	16	7.00	7.14	7.26	7.40	7.50	7.62	7.78
22	16	6.70	6.80	6.93	7.05	7.16	7.29	7.42
23	16	6.40	6.51	6.62	6.75	6.87	6.98	7.10

Column A = No of teeth on Engine Sprocket  
Column B = No of teeth on Countershaft Sprocket

## COMPRESSION RATIO CHART 500 cc.

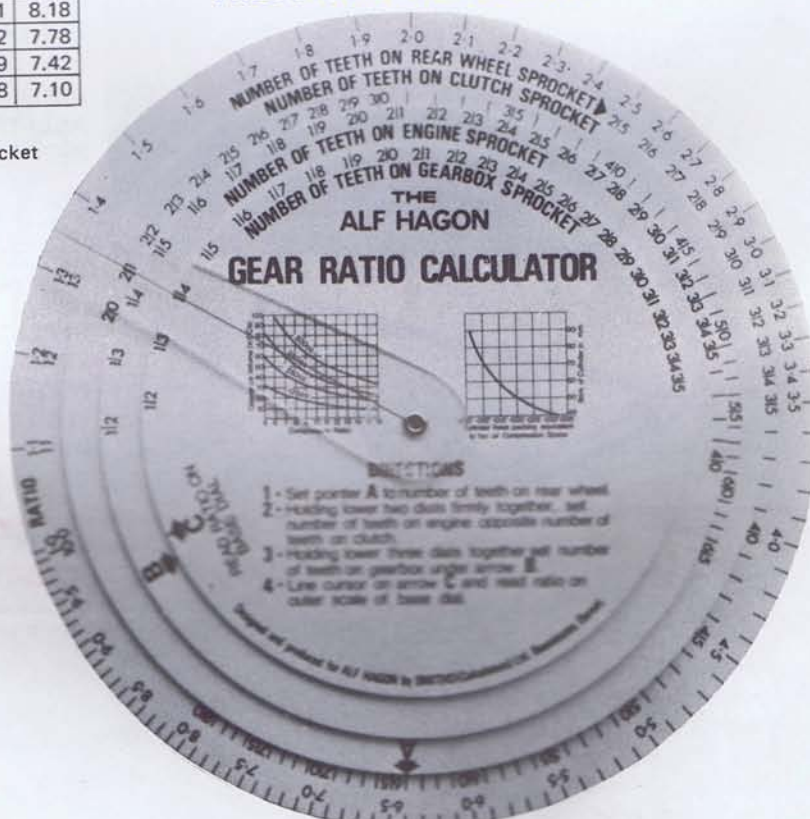
HEAD cc.	RATIO
30	17.6
31	17.1
32	16.6
33	16.1
34	15.7
35	15.3
36	14.9
37	14.5
38	14.1
39	13.8
40	13.5
41	13.2
42	12.9
43	12.6
44	12.3
45	12.1
46	11.8
47	11.6
48	11.4
49	11.2
50	11.0
51	10.8
52	10.6
53	10.4
54	10.2
55	10.0
56	9.9
57	9.8
58	9.6
59	9.4
60	9.3

## JAWA SPEEDWAY RATIOS

ENGINE SPROCKET	REAR WHEEL SPROCKET						
	56	57	58	59	60	61	62
15	10.26	10.44	10.63	10.81	10.99	11.18	11.36
16	9.62	9.79	9.96	10.14	10.31	10.48	10.65
17	9.05	9.21	9.38	9.54	9.70	9.86	10.02
18	8.55	8.70	8.85	9.01	9.16	9.31	9.47
19	8.10	8.25	8.40	8.55	8.70	8.84	8.98
20	7.71	7.86	7.98	8.12	8.27	8.42	8.52
21	7.25	7.48	7.60	7.72	7.86	8.00	8.12
22	7.00	7.12	7.25	7.38	7.51	7.64	7.76
23	6.70	6.81	6.94	7.07	7.19	7.32	7.42
24	6.41	6.53	6.64	6.75	6.87	6.98	7.10
25	6.16	6.27	6.38	6.49	6.60	6.71	6.82

ABOVE BASED ON 44T CLUTCH SPROCKET AND 16T COUNTERSHAFT SPROCKET

## THE HAGON CALCULATOR

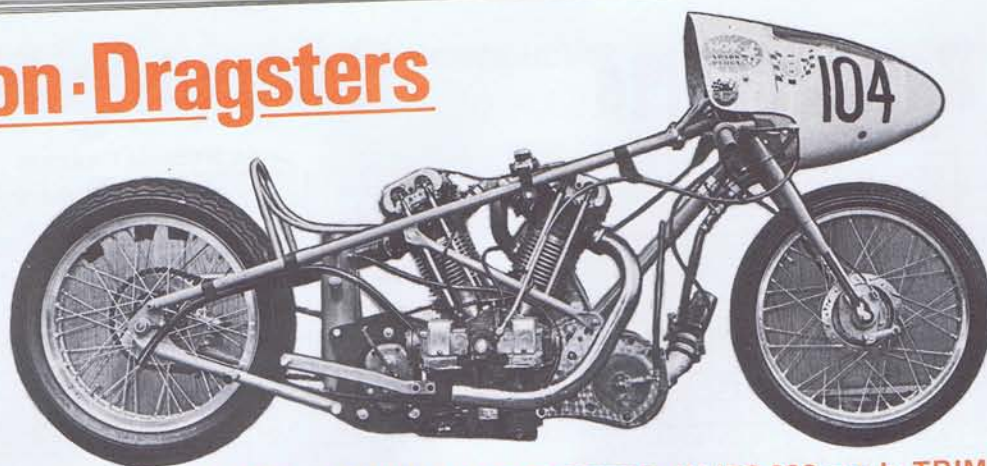


This GEAR RATIO/RPM/MPH/SPEED calculator is the product of knowledge we have gained over the years and enables rapid conversion of SPROCKET SIZES to GEAR RATIO and of GEAR RATIO to RPM to SPEED.

It also incorporates CUBIC INCH to CUBIC CENTIMETRES and MPH to KPH conversion charts, conversion of head capacity to compression ratio, and effect of alteration to length of barrel on compression ratio, equally suitable for Road racing - Drag - Grass Track - Trials - Scrambles - Karting - Cars etc. Will settle all sorts of arguments in seconds.



# Hagon·Dragsters



**THE FAMOUS 1260 cc HAGON JAP DRAGSTER, IN ITS 206 m.p.h. TRIM**

**HAGON JAP REPLICA.** A Replica frame assembly of the Famous 1260cc HAGON JAP, is now available to suit most engines. **FEATURING** Twin Top Tubes from Steering head to Rear Wheel Spindle ensuring maximum rigidity under acceleration. Oil tank in seat tube — Alloy screwed filler plug — delivery and return oil system with breather and drain plug incorporated — Dural Engine Plates. T45 Tube. High tensile nuts and bolts. Stove enamel finish.



**COMPLETE  
REPLICA FRAME  
ASSEMBLY  
AS SHOWN.  
REF. 1.**



**REPLICA  
FRAME ONLY  
WITHOUT  
TUBE SEAT  
REF. 2.**

## COMPONENTS

Frame Assembly with Tube Seat	REF. 3.
Forks with Clip-ons etc.	4.
Front Wheel 18" Alloy Rim	5.
Campagnolo Hub Brake	6.
Front Wheel 18" Alloy Rim	7.
Mag Hub — No Brake	8.
Rear Wheel 18" Alloy Rim	9.
Mag Hub	10.
Rear Wheel Spindle 17mm	11.
Incorporating Footrest	12.
Alloy Nuts	13.
Spacers (Chain Adjuster)	14.
Spacer (Long)	15.
Caliper Bracket (Drag)	16.
Brake Pedal and Link	17.
Gear Change Pedal & Link	18.

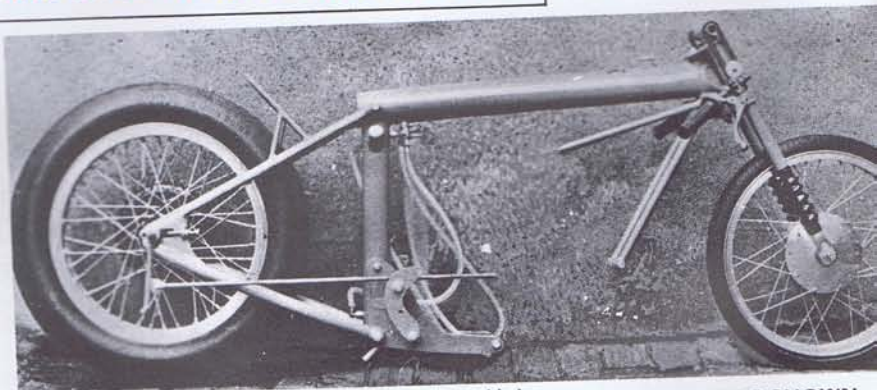
## A65 AND TRIUMPH UNIT CONSTRUCTION

### SPECIFICATION

These machines have been developed by us from practical experience, over the past 9 years, now widely used in the U.S.A. Weight approximately 200 lbs. complete. Wheel-base 59" H/Angle 61°. 18 x 200 Front wheel Racing Ribbed type. 18 x 400 Rear wheel slick. Alloy rims. **FUEL TANK** in top tube. **OIL TANK** in Saddle tube. Return system. (Includes Cables, Number Plate, Chain etc).

Will incorporate most engines

**REAR WHEEL** Mag. Hub 17 mm K/O Spindle Disc Brake Operating on sprocket— or can be used without brake — 18" slick — WM3 Alloy Rim.



**FRONT WHEEL** Campagnolo Alloy Hub — 12 mm K/O Spindle 18" Alloy Rim Dunlop 200 or 250 Racing tyre. Spool Hub (No Brake) if required.

**COMPLETE AS SHOWN  
REF. 15.  
FRAME ASSEMBLY ONLY  
REF. 16.**

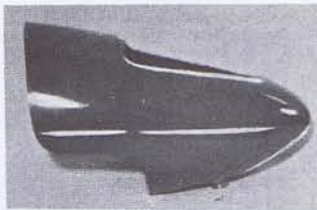


## DRAGSTER PARTS & ACCESSORIES

### HAGON NOSE CONE

The finishing touch to your Drag Bike.  
Can be used as just a Small fairing or  
Fuel tank can be fitted in the nose  
giving correct fuel surge. Weight only  
3 lbs. Colours White/Blue/Yellow/Black  
/Red/Green.

Supplied less fittings and screen REF. 1.  
Perspex screen only REF. 2.



**NOSE CONE TANK**  
5 pint capacity, weight  
1½ lbs. Alloy screwed  
filler. ¼" gas feed and  
vent unions.

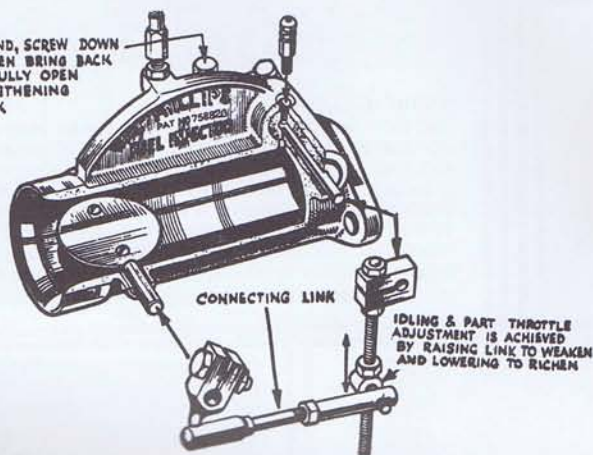
REF. 3.



## Wal Phillips Fuel Injection

AS USED ON OUR  
200 M.P.H.  
DRAG BIKE

TO WEAKEN TOP END, SCREW DOWN  
THROTTLE STOP, THEN BRING BACK  
BUTTERFLY TO FULLY OPEN  
POSITION BY LENGTHENING  
CONNECTING LINK



All units up to 1¼" have flanges with 2" centre stud holes  
Note:—5½ inches clearance between Intake manifold and  
nearest obstruction (usually the frame) is necessary to  
accept injectors up to 1¼ inch bore. 6½ inches for units  
1½ inch and larger.

1in, 1½ in, 1¾ in, 1⅞ in, 1⅞ in. 1¼" . . . . . REF. 4.

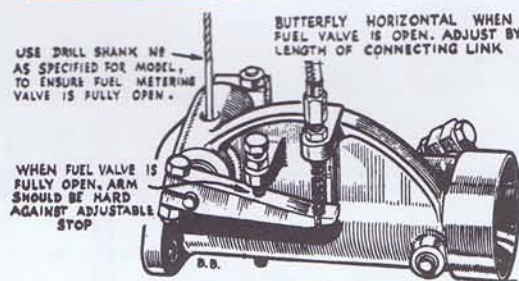
1¾ in, 1¾ in, 1¾ in. . . . . REF. 5.

1¾ in. . . . . REF. 6.

2in. to 3in. To order only . . . . . REF. 7.

Full tuning instructions are supplied with every instrument.

Special dope jets REF. 8



## Shorrock Supercharger Supercharging

Is the quickest, simplest and surest way of extracting more power  
from small capacity engines.

Atmospheric tuning for performance, that is, by the use of modified  
carburation, cylinder head, camshafts, etc., usually produces increased  
power at the cost of increased engine R.P.M. and loss of bottom  
end power. Shorrock supercharger installations on the other hand  
can produce up to 50% more power without substantially increased  
r.p.m. as well as vastly improved bottom end performance, and  
torque, throughout the normal rev. range.

C.75B for engine capacities ranging from 850 — 1200 cc REF. 9

C.142B for engines from 1200 — 2000 cc. REF. 10.

Pressure Release Valve and Stud REF. 11.

Pulleys (alloy) Twin V section 2" to 5" REF. 12.

Belts (A26 to A39) REF. 13.

Rubber hose 1⅜" to 2¼" REF. 14.

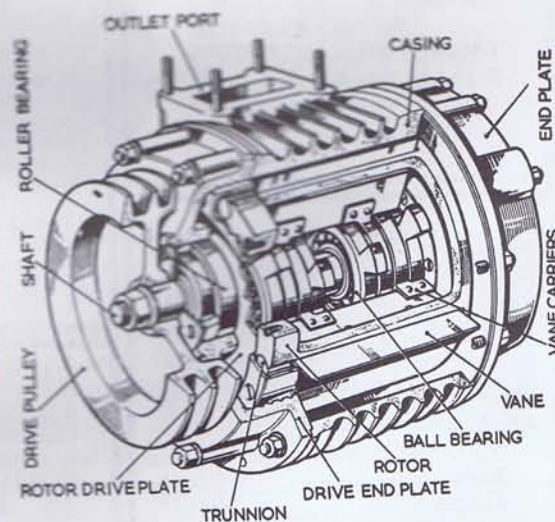
Hose Clips (½" to 2½") REF. 15.

Shorrock's Booklet REF. 16.

Supercharging Cars & Motor cycles

by M. Brierley

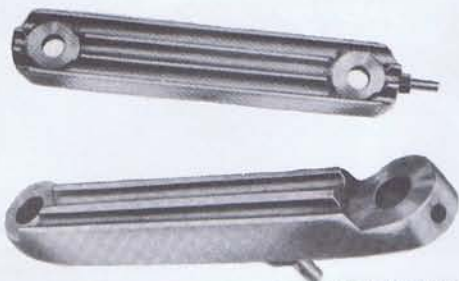
REF. 17.



The rotation of the blower can be reversed by dismantling  
and turning the centre section through 180°.



# Tuning Parts Triumph



ROCKER FEEDS — FINNED POLISHED ALLOY.  
OS14 Triumph oil feed Pre Unit 500cc and 650cc. REF. 1.  
OS19 Triumph 1963 onwards 650cc. REF. 2.



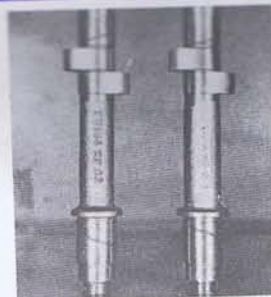
DURAL ROCKER  
BUTTONS (plain &  
offset)  
Both plain and offset  
buttons are one third of  
the weight of the original  
component. The offset  
button gives approximately  
0.020" extra valve lift.  
Plain REF. 3. Offset REF. 4.



TRIUMPH 650 cc 11/1 PISTONS  
Std + 10 + 20 + 40 + 60 REF. 6.



TRIUMPH Main Bearings  
Ball REF. 14.  
Lippered Roller REF. 15.  
Triumph Alloy REF. 17.  
Mag Gear



TRI E3134/E4819 CAMS REF. 7.  
Timing at .020 Tappet Clearance  
Inlet Opens — 34 BTDC  
Inlet Closes 55 ABDC  
Exhaust Opens 55 BBDC  
Exhaust Closes 34 ATDC

HAGON CAMS REF. 8.  
Timing at .020 Tappet Clearance  
Inlet Opens 45 BTDC  
Inlet Closes 75 ABDC  
Exhaust Opens 75 BBDC  
Exhaust Closes 45 ATDC



DURAL PUSH RODS  
TRI 650 & 500 Twin 32B REF. 18.  
BSA 250 RANGE 32L REF. 19.  
BARRACUDA 32E REF. 20.

## Triumph 750 Zip Kit



### SPECIFICATION

Cast from heat treated alloy, is 10lb lighter than standard iron barrel. Pistons are die cast and have 2" cutaway to enable oversize valves to be fitted.  
Standard PISTON size 2.975" + 10+20+40+60 oversize available. Compression ratio 9.5 to 1 or with thin head gasket 10.5 to 1. Pistons are only slightly heavier than STD therefore crankshaft does not need rebalancing. Fits all 650 Triumph engines providing 9 stud head is fitted. REF. 5.



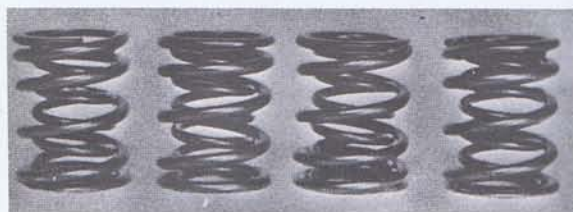
TRIUMPH 650 High Performance Parts.  
Valves, Inlet, REF. 9. Exhaust REF. 10.  
Bronze Guides, Inlet REF. 11.  
Exhaust, REF. 12. Nimonic Exhaust  
Valve, REF. 13.



ALLEN SCREW SETS  
Triumph Twins Primary Case REF. 21.  
Triumph Twins Timing Case REF. 22.  
BSA Primary Case REF. 23.  
BSA C 15 Timing Case. REF. 24.



# Tuning Parts Triumph



All material is special aircraft quality wire which is drawn oversize and then ground to the proper size for winding.

Each spring is then pressure checked for load. Tolerances are held to plus or minus 2½%.

FREE LENGTH 1 1/16" TYPE "A" SPRING

LENGTH	POUNDS	LENGTH	POUNDS
1 3/8	65	1 1/16	150
1 7/16	80	1 1/16	170
1 1/4	96	1 5/16	190
1 3/16	115	7/8	220
1 1/8	130	3/4	240

COIL BOUND.

## Instructions for installation of type "A" spring

These outer springs are progressively wound and it is very important that they are installed in the correct manner.

Place the end of the large spring with the tight coils next to the cylinder head. The inner spring is placed inside the outer.

**CAUTION:** When valve is on the seat, the overall length of the outer spring should be 1 5/16". The inner spring should be .090 less than the outer. If the length is greater than stated, pack to the recommended length.

In some cases top and bottom valve spring collars will have to be turned to suit springs. O.D. of outer spring 1 1/4".

SET FOR TWINS  
SET FOR SINGLES

REF. 1.  
REF. 2.

## TRIUMPH ALLOY TIMING GEARS



Set of 3 (Unit)

REF. 4.

Set of 4

REF. 5.

## TRIUMPH FINNED SUMP PLATE



This finned sump plate is manufactured from high strength alloy, finned for effective cooling. Incorporates a magnetic drain plug.

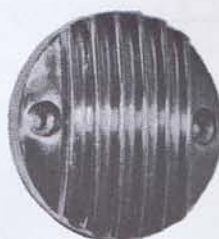
To suit all pre unit construction Triumph models.  
REF. 6.

## 14mm BLANKING OFF PLUGS



These components are used for blanking off the original sparking plug hole when central plugs have been fitted, 3/4" reach. Manufactured from high tensile Dural with broached hole for Allen key to facilitate easy fitting.

REF. 3.



## FINNED ALLOY CONTACT BREAKER COVER

Highly polished alloy casting. For Triumph or BSA. Gives a finishing touch to the machine.

REF. 7.

# SIDECARS-BLOW & GO

Why not supercharge your grass track outfit? Increase of power up to 50%. Most parts from stock. As a guide to those of you wanting to 'Blow' we suggest the following set-up as a starting point, as the majority of outfits are Triumph powered a Triumph 650 is used for this example — but the same basically applies to most engines.

We recommend a Shorrock CB75 driven by twin V belts at approximately engine speed. Racing type cams HAGON or E 3134 will give good results, the overlap helps keep pistons and exhaust valves cool. Standard 9 stud valve sizes will be adequate, larger exhaust valves may be fitted. Use about 8 to 1 pistons, mag. timing standard 38 to 40, the ignition system must be 100% ok to cope with the higher cylinder pressures. Fit a 'blow off' valve between blower and cylinder head — this prevents damage to the blower in the even of engine backfire when starting. Make the manifold as simple as possible. Slide carburettors CANNOT be used as slides will not shut under suction. We find that Wal Phillips fuel injectors give good results.



# Carburettors



## FLOAT BOWL

1. Standard. 0.125" Feed Hole
2. Standard, with drain plug.
3. Standard, with 'High Flow' slot.
4. Standard, with drain and slot.
5. High Pressure. 0.062" Feed Hole. For use with fuel pump.
6. Special HIGH FLOW, as shown 0.156" Feed Hole
7. Dural needle for item 6.



## AIR FILTER

(fits 900 series) with removable wire mesh gauge held by circlip. REF. 11.



Concentric Carb. Adaptor for 1 3/8" and 1 1/2" stub. 2" Centres REF. 12



FLANGE ADAPTOR 1 3/8" O.D. 2" Centres. 30mm and 32 mm. REF.13.

When ordering parts for concentric carburettors please state the illustration no. of the item required.

## AMAL CONCENTRIC CARBURETTORS NO AIR SLIDE OR VENTURI

### 900 SERIES

928 - 28 mm  
930 - 30 mm 2" Flange Centres  
932 - 32 mm

### 1000 SERIES

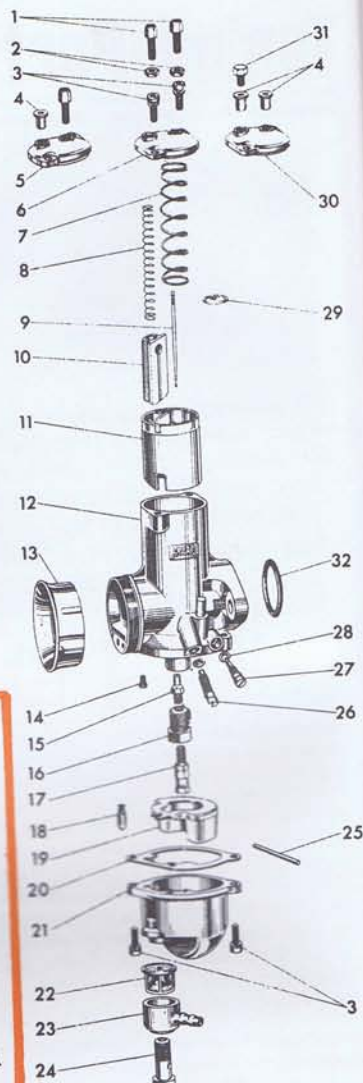
1034 - 34 mm  
1036 - 36 mm 65mm Flange Centres  
1038 - 38 mm

REF. 8.

REF. 9.

All available modified for METHANOL.  
CONVERSION KIT FOR JAWA ENGINE. REF. 10.

Consisting of:-  
1036 Carburettor, modified for METHANOL  
Alloy Adaptor for Air Cleaner  
Alloy spacer with 8 mm studs and nuts.



## CONCENTRIC CARB. SETTINGS

	JETS			PETROL SETTINGS
	MAIN	NEEDLE	PILOT	SLIDES No. 2, 2 1/2, 3, 3 1/2, 4, 4 1/2, 5.
SETTINGS FOR ROAD USE Most 250 Four Stroke Single Cylinder Machines and 500 Twins with one or two carburettors	200	106	25	Always start with slide needle in middle position. Slide cutaway affects pick-up. BLACK SMOKE FROM EXHAUST = TOO RICH REMEDY: Fit slide with more cutaway. SPITTING BACK THROUGH CARB. = TOO WEAK REMEDY: Fit slide with less cutaway.
Most 350 Four Stroke Single Cylinder Machines and 650 Twins with one or two carburettors	220	106	25	ADJUST PILOT AIR SCREW IN CONJUNCTION WITH THE SLOW RUNNING SCREW TO OBTAIN SMOOTH TICKOVER.
Most 500 Four Stroke Single Cylinder Machines	280	107	25	
SETTING FOR METHANOL Most 250 Four Stroke Single Cylinder Machines and 500 Twins with one or two Carburettors	460	120	25	METHANOL SETTINGS
Most 350 Four Stroke Single Cylinder Machines and 650 Twins with one or two carburettors	500	120	25	Always start with special tapered slide needle (Z) in middle position. Slide cutaway affects pick-up. Eight stroking denotes - TOO RICH REMEDY: Fit slide with more cutaway. Bad pick-up denotes - TOO WEAK REMEDY: Fit slide with less cutaway.
Most 500 Four Stroke Single Cylinder Machines	600	120	25	On machines with return oil system, fuel in the oil denotes - EITHER - too big a main jet or slide too rich. If the engine overheats - Main or needle jet is too small. Pilot air screw - Screw in Fully - then back off 3/4 of a turn. Always use the copper gauze filter in the fuel feed banjo.

PLEASE NOTE \* FOR METHANOL IT IS MOST ESSENTIAL THAT YOU FIT OUR MODIFIED FLOAT CHAMBER BOWL AND FEED BOLT.

LET US SUPPLY AND SET YOUR  
NEW 900 & 1000 CONCENTRIC

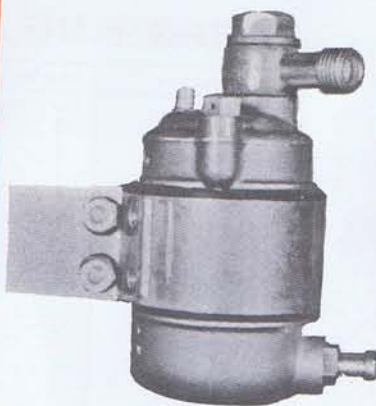


# Carburettors



AMAL Matchbox Remote Float  
Very slim twin outlet

REF. 1.



DELLORTO Remote Float Chamber

SS1 large REF. 2.  
SS2 small REF. 3.



AMAL G.P. Carbs (in matched pairs)  
1 5/32" bore with control cables and  
junction box REF. 4.



ALLOY MANIFOLD SPACER

SIZES: 1", 1 1/16", 1 1/8", 1 3/16", 1 1/4"  
Complete with long studs & nuts. 2"  
centres

REF. 5.



BELL MOUTHS

A. Steel (Chrome) REF. 6.  
B. Alloy REF. 7.  
C. Short Alloy for Air Filter REF. 8.



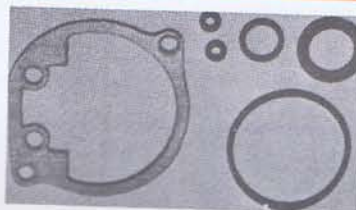
MANIFOLD

For fitting big carbs on small heads  
or small carbs on big heads. 65mm  
to 2" Stud centres. 32mm bore. REF. 9.



DELLORTO  
FUEL PUMP

Vacuum Op-  
erated from  
Crankcase —  
all that is  
needed is a  
pipe from  
Crankcase  
to Pump.  
REF. 10.



CONCENTRIC GASKET SET REF. 11.

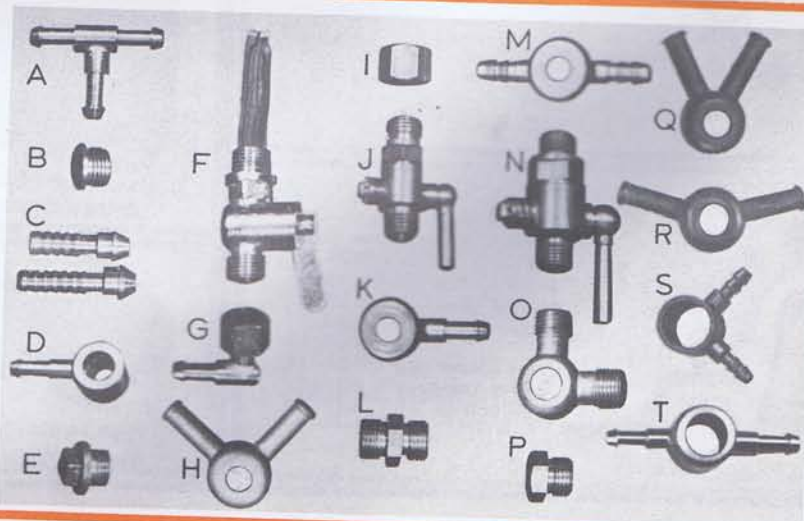


FUEL LINE FILTER

Essential for small engines, prevent un-  
necessary jet blockages. Fits straight  
into fuel line, adjustable angle. REF. 12.

## FUEL TAPS AND CONNECTORS

- A T Piece
- B Pipe Union
- C Ferrules, Brass and Alloy.
- D Banjo.
- E Plug.
- F Tap
- G 90° Connector
- H Twin Feed 90°
- I Nut, Brass or Alloy
- J Tap
- K Single Feed
- L Double End Union
- M Twin Feed 180°
- N Tap (with filter)
- O Twin Feed 90°, screwed
- P Male nut.
- Q Twin Feed 60°
- R Twin Feed 150°
- S Twin Feed 90° DELLORTO
- T Twin Feed 180° DELLORTO



NYLON REINFORCED FUEL PIPE, METHANOL, NITROMETHANE.



# Racing Plugs



We hold a wide range of racing, sports and 'warm-up' plugs by NGK, LODGE and CHAMPION.

## RACING PLUG CONVERSION CHART

Thread Size	Heat Range	NGK	Champion	Lodge
14mm x 12.5mm Reach Short Reach	Hot (Soft)	B-8HN(P)	L62R L60R	R-47 R-49
	Cold (Hard)	B-9HN(P)	L58R L57R	R-50 R-51
		B-10HN(P)	L54R	R-53
		B-11HN(P)		
14mm x 18.0mm Reach Long Reach	Hot (Soft)	B-8EN(P)	N62R N60R	RL47
	Cold (Hard)	B-85EN(P)	N57R	RL49 RL50
		B-9EN(P)		
		B-95EN(P) B-10EN(P) B-105EN(P) B-11EN(P)	N54R N52R	RL51 RL53
10mm Short Reach	Hot (Soft)	C-10H	G59R	10R-49
	Cold (Hard)	C-12H	G56R	10R-50
		C-13H	G54R	10R-51
		C-14H		
10mm Long Reach	Hot (Soft)			10RL 49
	Cold (Hard)			10RL 50 10RL 51

This conversion chart is intended only as a guide.

### HOW TO SELECT THE CORRECT PLUG

In order to obtain top performance, it is essential to select a proper type of racing plug. The higher the engine temperature, the colder the plug type should be, or vice versa. For warming up the engine, it is recommended to use a hotter plug, which should be replaced with a racing plug before starting the race. The accompanying table will help in selecting a proper type.

CONDITION	ENGINE TEMPERATURE	PLUG TYPE
HIGH COMPRESSION	HIGH	COLD
HIGH REVOLUTION	"	"
ADVANCED TIMING	"	"
LEAN FUEL MIXTURE	"	"
SUPER CHARGING	"	"
HIGH OCTANE FUEL	"	"
WARM CLIMATE	"	"
WET WEATHER	LOW	HOT
HIGH ALTITUDE	"	"



New B.T.H. Magnetos (Ex. W.D.)  
REF. 1.  
JAWA Conversion kit, complete as shown.  
REF. 2.  
magneto only, modified.  
REF. 3.  
Clamp.  
REF. 4.  
Draw bolt  
REF. 5.  
Reconditioned B.T.H. Magneto, Guaranteed.  
REF. 6.  
Single  
REF. 7.  
Twin  
EXCHANGE SERVICE.



New S.E.M. Magnetos.  
Rotating magnet, Base fitting.  
For JAP  
REF. 8.  
JAWA Conversion kit, complete as shown.  
REF. 9.  
Magneto only, modified.  
REF. 10.  
Alloy Spacer ring  
REF. 11.  
Angled clamp  
REF. 12.  
Draw bolt  
REF. 13.



Vibration Proof 6V.  
Battery. Guaranteed REF. 14.



High Tension Lead  
Black or White P.V.C.  
REF. 15.



6V  
Sports  
Coil.  
Oil filled  
REF. 16.  
Standard  
REF. 17.



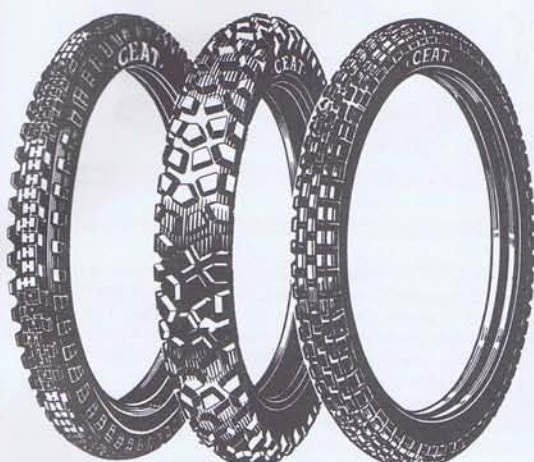
REF. 18.  
Champion and Lodge  
rubber plug covers.



# TYRES

TRY US FOR YOUR COMPETITION TYRES, MOST SIZES IN STOCK

## CEAT



Motocross CRP 14 325/350 x 16	Motocross MCR 250 x 17 300 x 17 250 x 19	Motocross CRA 12 250 x 19
-------------------------------------	--	---------------------------------

## Barum



350 x 19  
REAR  
TYRE  
Soft  
rubber  
tread for  
maximum  
grip.

275 x 23  
FRONT  
TYRE  
The most  
popular  
front tyre  
for Speed-  
way or  
Grass.

275 x 22  
REAR TYRE  
for  
Maximum  
traction.

## DUNLOP



Dunlop Sports K86,  
460 x 18"

## Continental

300 x 19" GS6 REAR  
350 x 19" GS6 REAR

## DRAGSTER

DUNLOP FRONT  
KR6 - 200 x 18  
KR76 - 250 x 18  
REAR TYRE  
Avon Slick 400 x 18

SLICK KR76 KR6



FULL RANGE OF RIM TAPES, TUBES, SECURITY BOLTS ETC.

## FUEL & OIL

### METHANOL

Sold loose by the gallon. Also in 5 gallon container.

### NITROMETHANE

Sold loose in multiples of 1 pint.

PLEASE BRING YOUR OWN CONTAINERS.

### CASTROL R40 and CASTROL M

Stocked in 1 quart and 1 gallon cans.

### SOLVOL R 40

Stocked in 1 quart and 1 gallon cans.

### SOLVOL GREASE

1 lb. tins.



### DURAL TIMING DISC.

7" diameter. A must for serious engine work.



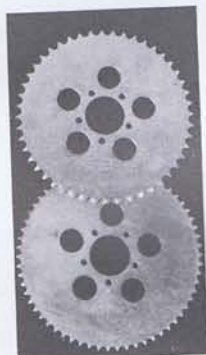
# Accessories



**SPROCKETS.** We stock a wide range of sprockets for JAP, JAWA and Tiger Cub. Sprockets normally held in stock as follows:-

## ENGINE SPROCKETS

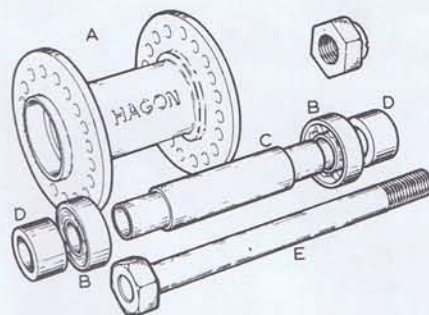
to fit JAP and JAWA  
15T to 20T REF. 1.  
21T to 26T REF. 2.



## REAR WHEEL SPROCKETS

SIZE	DURAL	REF
1/2" x 5/16"	56, 58, 60, 62, 64, T (CUBI)	3
5/8" x 1/4"	35 to 49T	4
5/8" x 1/4"	50 to 62 T	5
5/8" x 1/4"	55 to 62T	6
	SPEEDWAY JAP	
	SPEEDWAY JAWA	
SIZE	STEEL	REF
1/2" x 5/16"	58, 60, 62, 64, T	7
5/8" x 1/4"	47 to 51, T	8
	MAG HUB OR	
	SPEEDWAY JAP	

## HAGON MAGNESIUM FRONT HUB REF. 9.



**SPECIFICATION:** The Hagon Magnesium Front Hub is made from die cast Electron 'C' and is heat treated, crack tested, and chromated. Spindle size 12mm. 40 spoke holes. The sealed bearings are 15mm bore. The centre spacer locates inside the bearing, enabling a larger spindle to be fitted by boring out the centre spacer.

- A - Magnesium Hub, with bearings and centre spacer.
- B - Bearings, double rubber sealed. Needs no lubrication.
- C - Dural centre spacer, 12mm bore.
- D - Push-on dural spacers, will not fall out when wheel is removed.
- E - 12mm Spindle and nut.

ALSO AVAILABLE WITH 1/2" SPINDLE.



1 1/4" Split Clip-ons for Hagon Forks

REF. 10.

## RENOLDS CHAIN



- 1/2" x 5/16" REF. 11.
- 5/8" x 1/4" REF. 12.
- 5/8" x 3/8" REF. 13.
- Spring Link REF. 14.
- Cranked Link REF. 15.



MONZA CAPS  
2" REF. 16.  
2 1/2" REF. 17



7/8" LEVERS - Ball ended  
Steel REF. 18. Alloy REF. 19.



ALLOY MUDGUARDS  
Front 4" REF. 20.  
Rear 5" REF. 21.



SINGLE PULL  
7/8" Q/A grip  
REF. 22.



SINGLE PULL  
1" very Q/A  
grip REF. 23.



All alloy superfast twist  
grip 1 1/2" pull with only  
800 twist. REF. 24.



SINGLE PULL  
7/8" Nylon grip  
Q/A REF. 25.



TWIN PULL  
7/8" Q/A grip  
REF. 26.



CONTROL CABLES  
Nylon lined Anti friction.

Universal fitting  
Front Brake  
Throttle  
Clutch REF. 27.

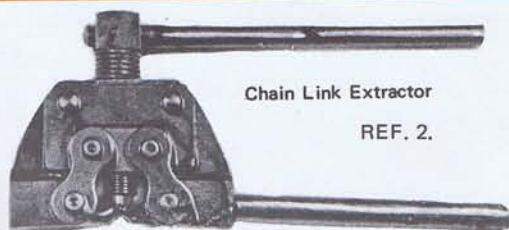


# Tools

ALL TOOLS ARE OF GOOD QUALITY



O.H.V. Valve Spring Compressor  
REF. 1.



Chain Link Extractor  
REF. 2.



Burette - (Glass) 50cc.  
REF. 3.



Tyre Gauge  
6lb. to 50lb.  
REF. 4.



Plastic Mallet  
REF. 5.



CYL HEAD HOLDING TOOL  
REF. 6.



14MM Plug Spanner  
REF. 7.



JAP EX NUT SPANNER  
REF. 9.



JAP Eng Nut Spanner  
REF. 10.



Tappet Spanner  
REF. 11.



ADJUSTABLE 'C' WRENCH. Chrome.  
Will fit JAWA Exhaust nut, Fuel and Oil caps. DELLORTO carburettor, etc.  
REF. 12.



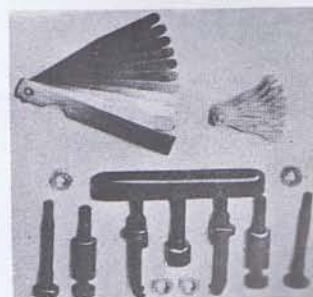
VALVE GRINDING TOOL  
REF. 8.



Jet Key & Phillips Screwdriver Tool  
REF. 13.



Champion Plug Tools  
REF. 14.



FEELER Gauge  
REF. 15.

MAG. Spanners  
REF. 16.

UNIVERSAL Pullers  
REF. 17.



CIRCLIP PLIERS  
Combined Internal and External

REF. 18.

**LOCTITE\***

TRADE MARK



We recommend and use  
**LOCTITE**

REF. 19



A special matt black coating gives good heat dissipation.  
Aerosols  
REF. 23.



PLASTIC INSULATION TAPE

Large (Black only)  
Small Yellow, blue, red, and green.  
REF. 20.



PISTON RING CLAMP  
60mm REF. 21. 85mm REF. 22.



HERMETITE GASKET JOINTING CEMENT  
REF. 24.

Green - SETTING  
Red - NON-SETTING  
Gold - MULTI-PURPOSE.



# Clothing

WHEN ORDERING PLEASE STATE SIZE AND COLOUR WHERE APPLICABLE.



LEATHER FACE MASK — Black leather chamois lined. REF. 1.



UNLINED LEATHER GLOVES. Elastic wrist grip — S, M, L. REF. 2.  
WRENS LEATHER OIL keeps all your leather racing gear supple. REF. 3.



BUBBLE VISOR — Fitted by press studs. Colours: Clear, Smoke, Green, Blue, Sodium. REF. 4.



STONE STOPPING LEATHER FACE MASK  
Ideal for G.T. Racing or Speedway, made of high quality black leather, adjustable strap.

REF. 5.



ALF HAGON  
STONE STOPPING  
LEATHER RACING  
GLOVES

with protective rubber strips  
Small, medium large.

REF. 6.



GAS GOGGLES

REF. 7.



ANTI-MIST GOGGLES. Crushproof. (200 m.p.h. tested). REF. 12.  
Spare plain or tinted lenses. REF. 13.



WHITE PLASTIC CHINGUARD  
Complete with press studs and screws. REF. 8.



ELASTIC STRAPS

- S.1. Footrest strap ..... REF. 9.
- S.2. Small Luggage strap ..... REF. 10.
- S.3. Medium luggage strap .. REF. 11.



BODY BELT.

Canvas belt 9" wide. 4 straps. Sizes 28" to 38".

REF. 14.



WRIST STRAPS

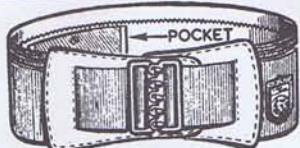
Strong leather, helps give wrist support

REF. 15.



WHITE PLASTIC PEAK

REF. 16.



RACING BODY BELT. REF. 17.  
As used by many star riders. Quick fastening, Fully adjustable. Colours — Black, Brown or Blue.



Steel Shoe made to order  
Completely Colmonoyed base  
(Send boot)

REF. 18.



PEAKS, BLACK and WHITE. P.V.C. Snap-on by press studs. Fits most helmets. REF. 19.

Adjustable.





CLOTH BADGE. Ideal for Leathers, Blazers, Overalls etc. REF. 1.



REF. 3.



REF. 4.



LAPEL BADGE. Pin-on. REF. 2.



REF. 5.

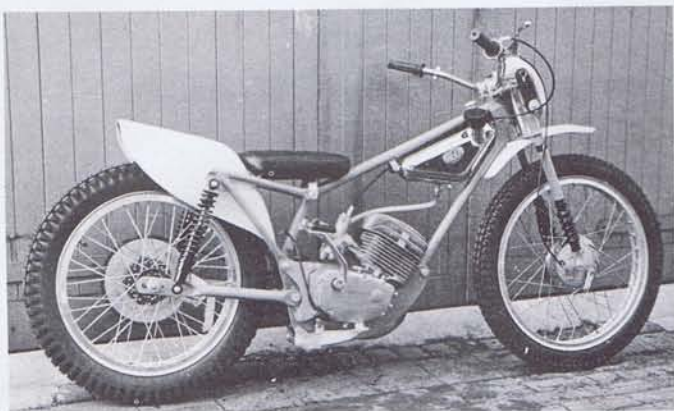


SELF-ADHESIVE PLASTIC BADGE. REF. 6.



# KIDS CORNER

WITH THE INCREASING POPULARITY OF JUNIOR MEETINGS WE HAVE TURNED OUR ATTENTION MORE TOWARDS THEIR NEEDS AND CAN OFFER A COMPREHENSIVE SERVICE FOR THE YOUNG RIDER.



Pictured here is a typical HAGON JUNIOR machine, produced by us to use a Puch 100 or 125 engine. We can provide a frame or complete machine to take any suitable small capacity engine. Let us know your requirements.

Many of the parts illustrated in this catalogue are equally suitable for use on junior machines — mudguards, seats, levers, number plates, chains, tanks, fuel pipe and fittings, etc. We also have —

Junior Handlebars  
Junior Leathers  
Junior Helmets

LEE BIRD AND MARTIN HAGON ON THEIR JUNIOR HAGONS



ACU APPROVED HELMETS  
CENTURION G.T. ACU.BSI.  
APPROVED.

Colours: Red, Yellow, Orange.

Sizes: 1. 6.5/8" x 6.3/4"

2. 6.7/8" x 7"

3. 7.1/8" x 7 1/4"

Size 1. Ideal for Juniors.



Well made die cast metal and plastic models. The DRAG RACER based on ALF's world famous JAP, has flexible rider, plated frame and perspex fairing.

IDEAL PRESENTS  
FOR THE YOUNG FAN.



The SPEEDWAY models, boxed in pairs have flexible riders and international insignia labels for attaching to models.



**EVERYBODY RIDES A HAGON**



WORLD CHAMPION OLE OLSEN RELAXING BETWEEN RACES WITH HIS HAGON JAP. IN 1971 EVERY START WAS A WIN FOR THIS OUTSTANDING COMBINATION.