

THE THEME of the contrast between the small quantity production special builders, and the massed-produced factories, seems to have been a consistent one in these columns in the past few months. And we are not about to change now. One of the main reasons is that the hand-tune specialists continue to turn out products to meet the specific demands of off-road competition. The incidental fact that most of them are British is a pleasing bonus, rather than a reason for natural patriotic publicity.

The point is that specialised competition inevitably calls for constant change, development and modification, and that such factors are inevitably at odds with the requirements of mass production, which needs a large number of relatively identical units over a long period to justify cost. It is because of this that in particular fields, at least, the small scale but specialist builder can turn out a product of superior quality for its specific task than the industrial giant.

Kawasaki are the case in point this month. In their own way they went to a lot of trouble to develop a trials bike: they were one of the first Japanese companies to take a serious interest in the sport, but like most major factories, the development of a truly competitive machine was only a minor consideration. The main requirement was to produce an adequate off-road bike which could be conveniently built in large quantities. If a number of one-off specials could produce good results in competition, then so much the better.

In that sense, Don Smith rather had one hand tied behind his back, as he will now readily tell you. After winning the European trials championships for Montesa, he was hired on a long and expensive contract by Kawasaki. But it was as much as a promotions man as a development engineer, and that is in no way trying to under-rate Smith's own talents.

Whether or not he was capable of developing a top-class title winning machine, the evidence is that Kawasaki would not let him because they were not really capable of producing it. And there was a lot of business sense in their reasoning. The market for an excellent trials bike is very small, and mostly, though not entirely confined to Western Europe. In particular, you could predict that if you had a bike good enough to win a World or European title, there would be no more than a

Trials Report



Gollner Kawasaki Peri

By Martin Christie



As left, the Peri is out on some narrow tracks. Inset above is 'gaffer' himself — Gollner.



Above: nickel plated frame is entirely new, built to Gollner specifications by Wasp.

hundred people in the world capable of riding it. And that is not much good if you have got 20,000 bikes to sell. So Kawasaki had to opt for the largest compromise over all their markets, and particularly America. They listened to what Don said, and nodded, and complied with much of the advice. But they also kept a keen eye on what they many thousands of non-trials specialists wanted.

So the KT250 was born: a nice bike, well finished and a good looking. It sold well, and continues to sell well world-wide. It is not a bad bike, by any means, but it is a compromise in the sense that it is made to appeal to, and be used by, the largest number of people.

It is a compromise in the sense that most Japanese bikes are, and most European bikes are *not*. Something like a Bultaco or a Montesa appears crude in direct comparison, but every inch of these Spanish machines is functional and built for nothing but one-day trial competition. If you want to do anything else, then it is the rider who has to compromise. In Japanese eyes, on the other hand, it is the one-day trialler that has to compromise, and on a bike that also has to be used as a plaything for what the American's call 'leisure activity'. British trials riders, however, are among the least compromising of people in any branch of motorcycle sport — a fact that even their own factories never really learnt. So from the early days there has always been a strong tradition of do-it-yourself. If they wouldn't put up with second-class hand-outs from British concerns, they were even less inclined to accept imported inferiorities.

Suzuki, under the enthusiastic

Hefty sump shield protects the basically standard Kawasaki engine. Heavier flywheel helps it 'plonk' better.

direction of Graham Beamish, got off to the best start with a British built chassis, made by Mick Whitlock. Sammy Miller tried, and apparently failed, to put Honda on the right tracks, presumably for the same reasons as Don Smith.

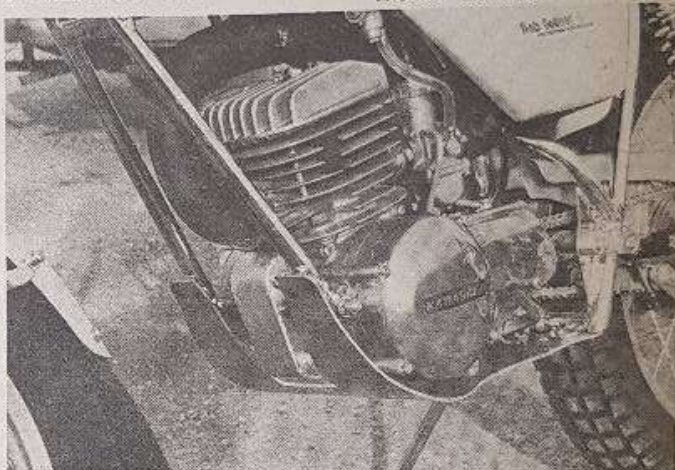
Now the humble KT250 has gained a new lease of life, not from Kawasaki themselves, but from one of their major dealers; Bob Gollner.

The Hampshire off-road enthusiast, currently better known for his sidecar moto-cross, actually started competing through trials longer ago than he cares to remember. However, since his

early days he has been involved in building specials, so that the present venture is not so much a new departure as a continuation of the tradition. It is a tradition that includes the Sprite-engined Cheetah, made with neighbour Whitlock, and the Bantam-engined Gollner-BSA. The resulting product is therefore a combination of both experience of knowing what is wanted, and the frustration in not being able to get it.

He started by modifying a standard KT250, but could get only partial success by tuning the production frame. Bob therefore designed a complete frame of his own, which takes nearly all of the ordinary Kawasaki parts. In this way the 'green meanie' was transformed, and to underline the transformation, he painted it yellow. Somebody wisecracked that it was now the 'yellow peril', and the name stuck.

There's nothing revolutionary



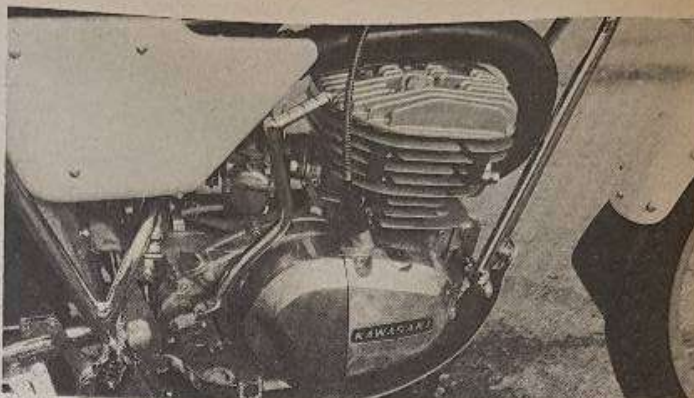
about the conversion, it is just a matter of getting everything right for the job that it is intended to do. One of the great advantages is that it uses all of the well built Kawasaki components, and simply changes those not suited to the task. Now geared up to limited production, with the actual frames currently being made by Wasp at their Salisbury works, and assembled at Bob's Denmead premises, the 250 Peril is being marketed nationwide by Kawasaki dealers.

The main problem with the standard KT250 is that it is built to do more than one day trials. The standard Japanese trimmings of a lighting system and positive oil lubrication are just outward signs of that. The production engine, even for a two-fifty, has very little

flywheel, and is happier revving than plonking. In addition, the steering is more stable in a straight line, and less keen on being flicked to keep the front wheel on the ground. In short, a bike more suited to the more open trials-cum-enduros popular in the States than the tight, nagger tree roots of rural England.

Running an engine on positive lubrication is of course very convenient. You only have to top up the oil tank just like a four stroke, and not puzzle about measuring quantities of lubricant when you fill the tank. But it is only easier if you are going to run the bike over a long period. Positive lubrication systems are notoriously difficult to tune successfully because, by their progressive nature, you have the choice of setting them to run right at low speed, or right at high speed. The additional weight and complication of the tank, the pump itself, and the throttle connection is also no mean consideration for the serious minded.

With the conventional system, trying to jet the KT250 properly for



Glass fibre side panels are new to suit the frame, but wherever possible standard Kawasaki parts are used. Exhaust is kept well out of harms way. Engine breathing has been greatly improved.

English conditions tends to make them four-stroke at the top end, or run too weak at the bottom. Scrapping the tank and running on petrol obviously did away with that. But there was more to perfecting the running characteristics. To get more flywheel effect, and induce the motor to 'plonk', Bob chose to add extra weight to the end of the

crankshaft on the timing side. This is done by a slim metal disc which fits on the outside of the magneto. The weight is fixed solidly by steel pins on a mandrel, and secured by three screws: it is easy enough to remove to set the timing, but secure enough not to be displaced when fitted. The actual mass, of course, is critical and Bob prefers to keep quiet about its weight, especially as it did take at least six prototypes to get it perfect. Too much and the bike would hardly lift its head over a curbstone.

The modification can be done to a standard KT250, but it needs a thick alloy spacer to go behind the timing cover to ensure clearance for the fitting, and is achieved without adding impractical width to the engine. It is a pity perhaps that the crankshaft does not allow the weight to be fitted on the other side, because the standard cover there is now redundant with the oil pump being removed.

The final touch to engine tuning has been achieved by letting the engine gulp air, the conventional air filter box being too restricted. Bob's modified box has been extensively drilled, and an extra vent pipe poked out of the top to improve breathing. Having got the engine to run properly, the next problem was the frame. The sluggish steering is a classic sign of too large an angle at the steering head. Just reducing that alone would not help the weight distribution because the engine, would in effect, be even further forward when related to the total length of the bike and the wheelbase too short. The difficulty

Suspension units are Kawasaki, but different angle of mounting gives increased throw. Pirelli boots are standard.



was in getting the engine back in the chassis, because of the relative position of the standard swinging arm, and the large bulk of the gearbox case actually aft of the final drive sprocket. That is why a whole new frame was the only practical answer. And in going to that trouble, a whole lot of other improvements could be made to the general chassis.

Apart from getting the engine bulk rearwards, ground clearance has been increased by using an open-cradle design. Twin down tubes pinch the front mountings in an alloy box, while at the rear the sub-frame supports the gearbox. A large alloy plate sump shield then spans the gap underneath to protect the cases from unwanted intrusion.

The steering head angle has been reduced, but to maintain the correct wheelbase of about 52 inches and extra 1 1/2 in. has been put on the swinging arm. The seat height has also been reduced in relation to the total height of the bike through doing away with the oil tank, and mounting the rear units at 45 degrees. Standard Kawasaki oil damped units are used, but with their angle of tilt provides another inch of movement over the conventionally mounted ones. Sammy Miller progressive rate springs are fitted to take the strain.

At the front end too, the standard Kawasaki forks are used, but with different viscosity oil and extra pre-load spacers in them again increasing both stability and practical movement by about an inch. The beautiful welding of the frame gives away its hand-built heritage, and the nickel plating job greatly increases both appearance and longevity.

Other nice touches for the price are the Renthal handlebars, and Pirelli trials boots replacing the standard Japanese Dunlops. Such features add that little touch of class, and also avoid the extra expense which the ordinary buyer would normally expect to pay. Other than that, the only non-standard items are the glass fibre side panels for the air filter box, necessary because the different frame arrangement makes the KT's plastic ones unsuitable.

The tank is the same — just painted yellow, and with the Bob Gollner signwriting. So too are the unbreakable mudguards, and the standard exhaust system which still slots perfectly into the new system. Alternatives were tried, but found to be no improvement, and besides

for the average buyer such items likely to need replacement in time need to be readily available. The excellent Kawasaki brakes and wheel with light alloy non valenced wheels are retained, together with the speedo attachment on the front fork leg. Gone are the standard heavy throttle and control gubbins beloved by the orientals. The front headlamp is replaced by a simple number plate holder.

Items on the standard bike, and incorporated in the new set-up are the chain oiler in the left side swinging arm, and the right side prop stand.

Taken all round then, the Gollner Peril seems like a combination of the best of both worlds, using the well-built and reliable components of the basic Japanese product, and mounting them in a high quality chassis for a specific task.

It is not intended to be a one-off world beater by any means, although it is perhaps a better compromise than a mass-producer can cope with. It is the transformation of an adequate off-road bike into a good one day trials bike, especially aimed at the English market. Bob already has several average centre riders showing that his product is now equally as good as competitor brands from Japan or from Europe, and that, as they say, is the real proof of the pudding.

But as we said at the beginning, development and progress is the essence of specialist competition. And Bob himself is already busy on his next project, which is making a four-stroke KL250 engine competitive in one of the same frames.

Watch this space for more news

SPECIFICATIONS GOLLNER KAWASAKI

ENGINE

Type: Kawasaki built KT250, air cooled, all alloy single cylinder two stroke with steel liner. Needle roller big and little end bearings, pressed together crankshaft running on ball races.
Porting: Six ports, piston controlled.
Capacity: 246cc
Bore and Stroke: 69.5x64.9mm
Compression ratio: 6.5:1
Carburation: Single 26.5mm Mikuni breathing through modified Kawasaki oiled foam filter.
Electrics: 6 volt 40w flywheel magneto with capacitive discharge ignition system.
Lubrication: Petrol oil mixed in ratio of 25:1.
Claimed power: (in standard form) 16bhp at 6,500rpm. Torque: 13.7 ft/lbs at 4,000rpm. Note: Gollner version has improved breathing, and consequently slightly improved power output.

TRANSMISSION

Primary: Gear driven with 3.263:1 reduction ratio.
Clutch: Wet multi-plate.
Overall gear ratio: 28.86, 21.89, 16.29, 10.81, top 6.97:1. Selection by left side, one down four up foot lever.
Final drive: Exposed, lubricated by metered oil feed. Overall reduction ratio: 3.466:1.

FRAME

All welded, nickel plated duplex cradle in Reynolds 531 tubing, built to specification by Vasp Engineering. Incorporates alloy sump shield.

SUSPENSION

Front: Standard Kawasaki telescopic oil damped forks with modified pre-loaders and 6in (152mm) movement.
Rear: Standard Kawasaki oil damped units with modified throw, 5 1/2 in (140mm) movement.

WHEELS

Front: High tensile alloy rim, fitted with Pirelli 2.75x21 tyre. Cable operated 120mm dia single leading shoe drum brake.
Rear: High tensile alloy rim fitted with Pirelli 4.00x18 tyre. Rod operated 130mm dia. single leading shoe drum brake.

EQUIPMENT

1.1 gallon steel fuel tank, flexible plastic mudguards, steel handlebars, folding footrests, alloy levers and sump shield. Speedometer mounted on fork leg. Lighting set available as optional extra approx. £25.00. Right-hand gear change conversion set not available.

DIMENSIONS

Weight: (claimed wet) 213lb (96.8kg).
Wheelbase: 51 1/2 in (1308mm).
Ground clearance: 12 1/2 in (318mm).
Seat height: 31in (787mm).

CUSTOMER

INFORMATION

Constructors: Bob Gollner Ltd, Denmead, Nr. Portsmouth, Hampshire.
Tel. 07014 55024. Available direct from Bob Gollner Ltd. or order via Kawasaki dealers.
Colours available: Yellow.
Price: £779 inc. VAT. Delivery charge £10 extra.

SPARE PARTS (inc. VAT)

Piston	£18.07
Rings (set)	£6.44
Clutch plates (6)	£6.48
Complete exhaust system	£31.28
Rear silencer only	£12.85
Gear change pedal	£5.08
Mudguards, front	£2.62
Mudguard, rear	£3.78
Fuel tank	£37.60
Footpegs (each)	£2.36
Pair brake shoes (front)	£3.02
Pair brake shoes (rear)	£3.43