

ALUMINIUM CLUTCH FOR COMPETITION SCOTTS.

After a season of testing and hill climbs, we are very pleased with our new dry ally racing clutch, featuring NEB components. As Joe Hughes, now sadly passed on, supplied the clutches on our Scott specials, our first port of call was to his son who now runs the business. There has been a lot of development in the intervening years and the NEB clutch is fitted to many Classic scramblers, speedway & grass track machines.

The standard NEB clutch is fitted to bikes with o/hung drives and in its original form is not suitable for Scotts.

Racing 3 Speed Supers and Sprint Specials have the magneto driven by a chain from the clutch drum, with a bicycle chain, in itself a problem, Roger had already solved this by using a 10mm pitch x 16 wide toothed belt. This has proved noise free and given no problems for the last four years to date. So the obvious starting point was to use an aluminium 10mm pitch sprocket, as the clutch sprocket needs to run at exactly 1A speed of the engine then the fly wheel steel sprocket is a 22t and the clutch primary drive sprocket 44t. The toothed drum is a 60t and the mag 30t. All of this ensures the engine runs in time. For all other Scotts the engine /primary sprockets are as original. **DRUM**

The 60t ally drum is trepanned out of a stock sprocket, bored and slotted in 8 places, to suit the NEB palates. Drilled and tapped with 4 dowels.

PRIMARY STEEL 44t

Is recessed, tufftrided and bonded and lined on the outside face, bored to accept the std Scott roller race, is bolted and dowelled to the drum.

BACK PLATE

The std Scott backplate, and roller race is retained, the centre hub unbolted and removed by undoing the 6 studs. New different studs are to be fitted later.

HUB

One of the secrets of the NEB clutch is the 100mm (4") ally center hub. This has a coarse involute spline, looks like a 37t 8dp gear. This means that in operation the plain plates lift up square. This hub is modified to suit. Rebolted with the 6 different studs.

FRICTION PLATES

There are 3 aluminium cored plates faced with the friction coating, at 4 mm wide, these have 8 lugs to engage with the drum. There is a 4th plate 2mm wide which fits against the 44t sprocket, (this saves recessing the sprocket on both sides, avoiding reducing the core strength too much).

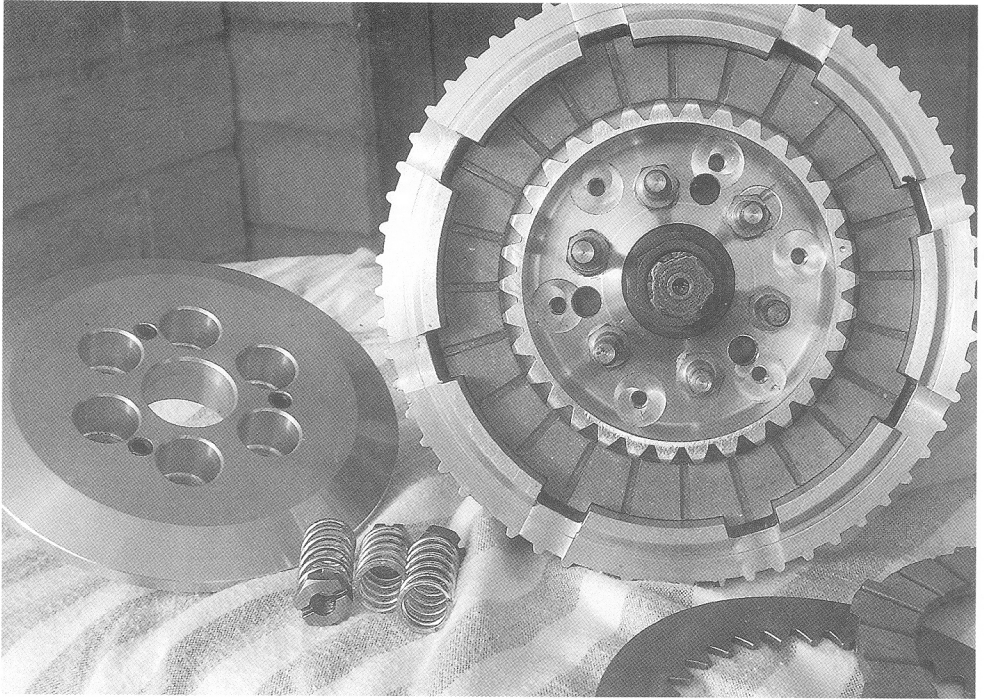
PLAIN PLATES

There are 4 plain plates which take the skidding of the friction plates. **PRESSURE PLATE**

Machined from a solid ally billet, the pressure plate carries the springs and pressurises the end plain plate. Unlike the Scott it does not drive through the studs.

SPRINGS

Another bonus, there are 3 original Scott springs interspersed with 3 softer springs resulting in less pressure on the left hand.



A FEW FACTS

My Scott clutch with mag sprocket weighs 5.7 lbs

Ally clutch with 60t belt sprocket 3.71bs

Belt is 12 mm wide, noise free

No lube req helps dry clutch stay dry

Scott clutch without mag sprocket 5.51bs

Ally clutches without belt sprocket 3.2 lbs

Seated Scott inner drive lugs 6 x 2mm

NEB hub 37 x 8mm

Outer lugs Scott 6 x 2mm

NEB 8 x 4mm

What is it like?

Basically, you forget it's there, very little noise by comparison, lighter at the lever, totally positive and handles the uprated power of Phil's engine, and the high first gear.

George Silk

As there will be some Cadwell celebrations next year, I thought the programme of the first ever VMCC race meeting there might be of interest. The B&W is one from Bill Swallows family album showing the "All Scott Race" at the third Cadwell meeting from restart after the war in 1946. By the way, have we ever considered Olivers Mount?

Roger Moss