

Superbox, Son of Matchbox

ONE CANNOT APPLY the same set of standards to a competition machine that one applies to a street scrambler. In some areas, one is tougher. In other areas, one may be more forgiving. Thus, to clear up any misunderstanding, it should be known at the outset that the Matchless G85CS 500cc single is "strictly for serious." Otherwise, at \$1,400, it would have to be considered the most expensive play bike in production . . . and one of the worst. Play bikes are for carefree fun, and a good one doesn't require much fiddling. By way of contrast, the G85 is somewhat of a thoroughbred and needs a lot of combing through to keep her happy.

For perspective, we should harken back to the previous Matchless dirt single, the G80CS, which, for the dashing (and not too particular) amateur-go-a-racing, was ready to romp off-the-floor. Take off the lights and away you'd go at the drop of a smokebomb. Or, if you were in Europe, it was at the twang of the starting gate. We know one American chap who used his G80CS for 6,000 miles of reliable continental touring before he stripped for a summer of international motocross, where he acquitted himself with honor if not with laurel. His only complaint about the bike was that it was "awfully heavy" (360 odd pounds stripped) and he theorized that it had acquired this rather anvil-like quality because the makers had a

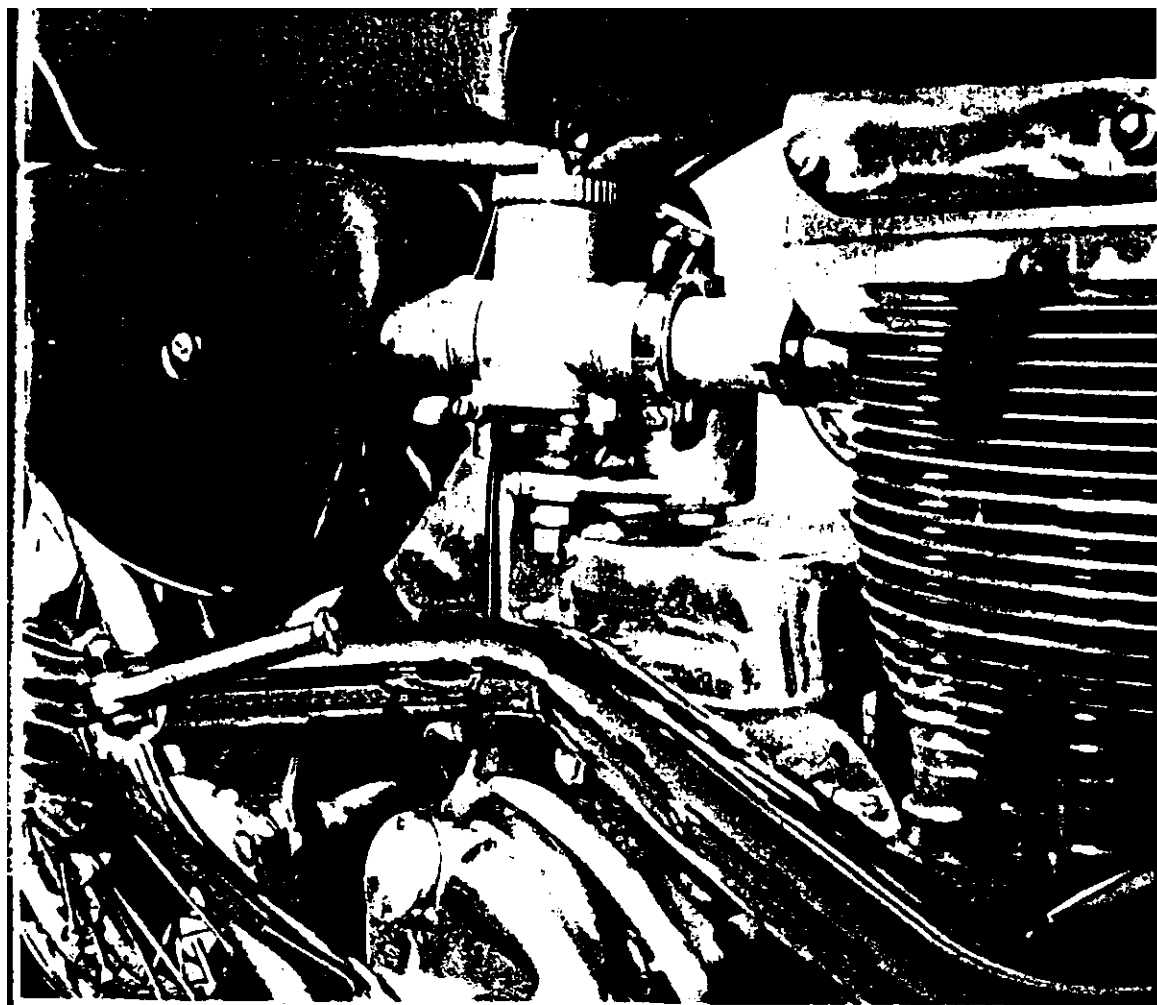
habit of adding three more pounds of metal to whatever part of the frame broke, until finally it stopped breaking.

All this brings us back to the new 500, which weighs a relatively feather-like 318 pounds with about half a tank of gas. In other words, Matchless, in the face of the successful onslaught of lightweight 500cc class machinery, has decided to fight fire with fire.

It takes a lot of slenderizing to bring a long-stroke single like the Matchless down to such *svelte* dimensions and still have a structure that resists the destructive effects of dirt racing. To do so, the makers took what has become the standard route these days by beginning with a frame of lightweight chrome-moly. Of conventional design, this frame is an improvement over its predecessor in that the main unit, consisting of double down tubes and cradle and single top tube, is of all-weld construction rather than being bolted in several spots as was that of the G80CS. The robust-appearing rear section is pieced together in like fashion so there should be no question that the set-up offers a great deal of rigidity.

Also lighter are the new Matchless forks, which, unfortunately, are springy in a way they were never intended to be — laterally. While this will not be noticeable on improved tracks, it will be a problem in rough scrambles, where sideways tweaking forces are in considerable abun-

MATCHLESS G85CS SCRAMBLER



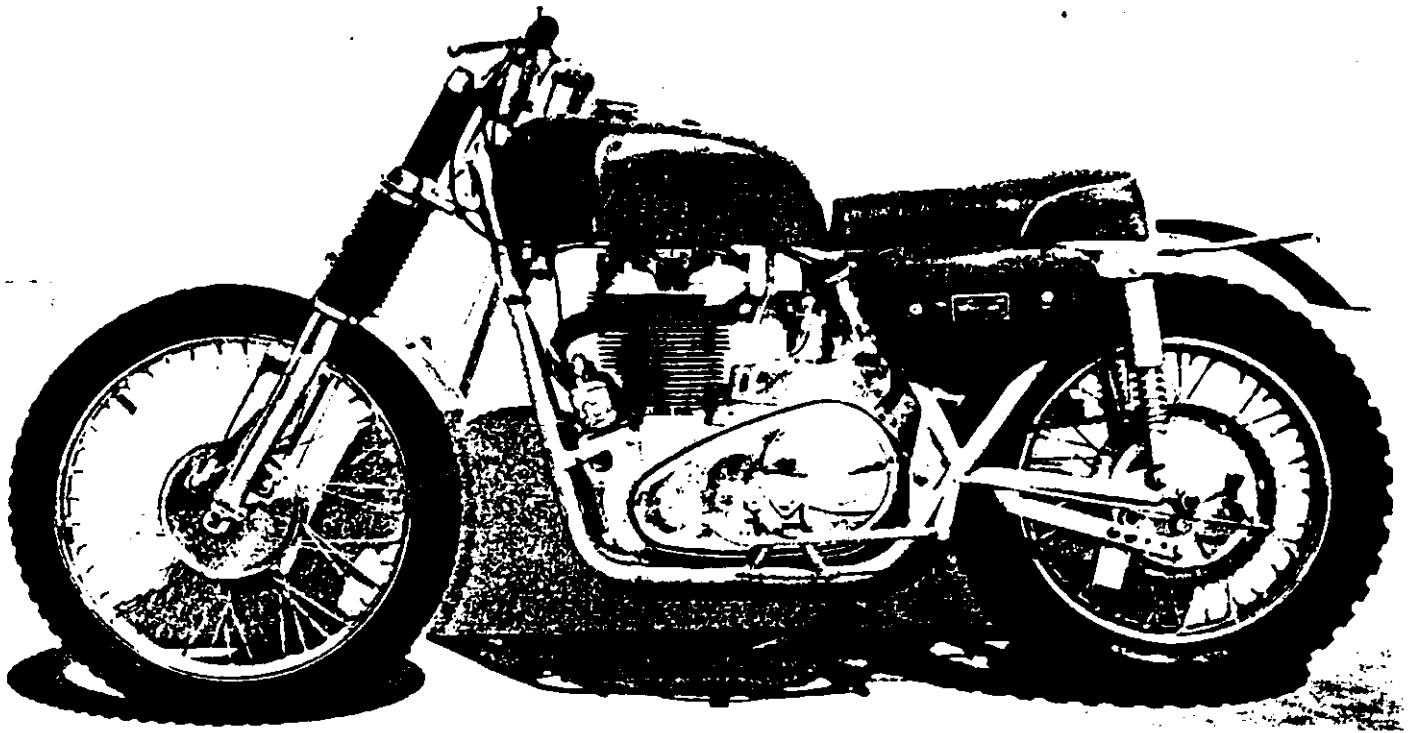
dance. A hefty U-brace is recommended to remedy this flexing.

The weight saving process has been extended to the fenders, where light alloy is used instead of steel; the air box, which is plastic; the handsomely styled polished aluminum oil tank; and the engine, where primary case covers are of much lighter construction than those of the G80 engine. While the lightness of these casings may cause a bit of worry, it should be noted that any mishap capable of punching levers or rocks through them would most likely do the same if they were of normal thickness. This chaincase, by the way, is quite oiltight, thanks to a clamp band seal.

As there is not the slightest pretense that the G85CS is for anything else but competition, the makers have also been able to cut weight by eliminating the flywheel alternator and battery that were on the G80. The reader may note that the rear brake is reminiscent of a road racer's; small wonder, for the brake is none other than from the famous AJS7R, lightweight magnesium hub, shoes and all! Combine that with the turned down G80CS front brake and there is more stopping power than this scrambler will ever need.

In the performance department, we found that the G85 is very competitive. It comes out of the hole fast and

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will hit 71 mph after only 8.9 seconds and 1/8 mile. Some of this increased acceleration is due to the machine's lighter weight, but most of it comes from minor engine modification.

The power unit is basically G80, and, in fact, has been available as an option to G80 owners. The only differences are that the G85 has a 12:1 compression ratio instead of 8.7:1, and a 1-3/8-inch Amal GP carburetor is mounted instead of the 1-3/16-inch Monobloc. Cam timing, valve size and the longish stroke-to-bore ratio remain the same.

The raised compression — which one would suspect to be rather high for scrambles — proved to be no problem, save to one staffer who got "bit" by all 38 degrees of advance while trying to start the beastie. No harm done, both the limp and the hurt feelings will pass with time. Understandably, pinging occurs at low rpm under full load, but disappears quickly as the engine reaches middle range. As with many a single, it took a bit of time to find the correct procedure for starting, which was to flood the float chamber completely, grab three-quarter throttle and heave ho. Ah yes, don't forget to retard the spark.

The GP carb was perfect for high-speed running, but we question its use for anything else but TT scrambles, where speeds rarely drop below 35 miles per hour. In the rough — through extremely tight turns, up twisting climbs or in high-gear, low rpm sand sections — the GP carb will prove a nuisance, for it loads up and power drops off until the clutch is slipped and the revs return. For riders who don't want the responsibility of keeping this instrument buzzing and "cleaned out," we would suggest a switch back to the prosaic but tractable Monobloc.

The G85 is delivered in European motocross rigging, with thin 21-inch front tire and straight, bridged bars. This will please those riders hailing from the loamier states who stand up a lot when they ride, assuming they brace the forks as suggested. In deference to the rearward crowd, who like to sit back with a set of Cooper bends and steer their machines across the sand like motorboats, we also tried the G85 with Western bars, and 4.00x19 tire up front. We found this much to our liking, as the bike is a beautiful slider, steering exactly with very little

twitch or yaw, even when proceeding sideways over small ruts in a high-gear slide. No matter how the bike is set up, however, one should not expect a lightweight; even with its weight down to 318 pounds ready to go, it still feels heavy, although not uncomfortably so.

About halfway through the first day's testing, a small crack appeared in the rear fender around the front fixing bolt. Vibration. Then, after a half hour of fire road travel, the nut for the swing arm through-bolt fell off. This was followed by other bits and pieces in the next few days, which leads us to believe that a thorough safety wiring job would be good insurance before undertaking even the shortest race.

One should expect special touches which show a certain cognizance of the problems encountered in racing, and they are present in the G85. For instance, the front brake operating lever is mounted on the top half of the backing plate and therefore is given some protection by the fork leg. While Matchless' separate gearbox unit is "old hat," at least the makers had the grace to put the adjusters in easy reach just above the primary chaincase; we have absolutely no complaints about either the smoothness of the changes or the choice of ratios. While the front fender is rather short, an aluminum mud stopper is mounted on the down tubes and will help keep engine fins unclogged.

The foot rests are a picture of strength and simplicity and should work out well in motocross. However, AMA riders, depending on how their district competition committee feels, may have to switch to the folding variety.

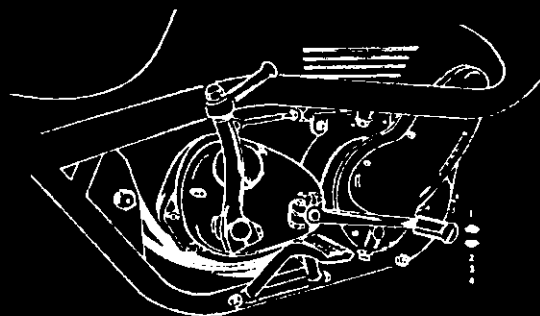
It is hard to make an overall pronouncement on a motorcycle like the G85CS, because the needs of the American racing crowd are so diverse. We feel, however, that in as-delivered form, it is more ready for closed-circuit rough scrambles than for any other type of competition. Both desert riding and TT scrambles will require changing the front wheel, not to mention a host of other modifications unique to these sports, which grow more specialized each day.

The bike has much potential but, no matter the sport, there is need of much refinement by the owner-rider before he may circulate with great aplomb. ■

MATCHLESS G85CS SCRAMBLER

SPECIFICATIONS

List Price	\$1,400
Suspension, front	telescopic
Suspension, rear	swing arm
Tire, front	3.25-21 (4.00-19)
Tire, rear	4.00-18
Brake, front	7.0 x .88
Brake, rear	8.0 x 1.2
Total brake swept area, sq.-in.	50.5
Brake loading (test weight/swept area)	
lb/sq.-in.	9.4
Engine type	single-cyl., 4-stroke
Bore and stroke	
(inches-millimeters)	3.39 x 3.36, 87 x 86
Displacement (inches ³ -centimeters ³) ...	30.4,
Compression ratio	12:1
Carburetion	1 3/8" Amal GP
Ignition	Lucas magneto
Bhp @ rpm	42
Oil system	dry sump
Oil capacity, pts.	12
Fuel capacity, gal.	1.7
Starting system	kick, folding crank
Lighting system	none
Air filtration	paper element
Clutch	multi-disc, wet-plate
Primary drive	single-row chain
Final drive	single-row chain
Gear ratios, overall:1	
5th	none
4th	7.4
3rd	8.5
2nd	11.9
1st	18.0
Wheelbase	57.0
Seat height	32.6
Seat width	9.7
Foot-peg height	13.0
Ground clearance	8.6
Curb weight (w/half-tank fuel)	318
Test weight (fuel and rider)	478



PERFORMANCE

Top speed	73
Maximum speed in gears (@ 7000 rpm)	
5th	none
4th	73
3rd	64
2nd	45
1st	29
Speedometer error	
30 mph indicated, actually	No speedo
50	
70	
Acceleration, zero to —	
30 mph, sec.	2.8
40	3.8
50	5.0
60	5.9
70	8.5
Standing 1/4-mile, sec.	16.2
terminal speed	73
Standing 1/8-mile	8.9
terminal speed	71

