

MARDAVE MARAUDER

Track Test



Following last month's build article Greg Halliday puts our review car to the test and discovers that even reviewers aren't infallible!



If you ever go to a 1/8th meeting or visit an i.c. club you will see some quite sophisticated equipment being used to start the cars. Boxes with inbuilt electric motors that switch on as soon as the car is lowered on top, gauges and lights to ensure that the glowplug is getting all the power it needs, tyre truing machines and gallon containers of 'special brew' fuel will all be seen in abundance.

Start-up (scene one)!

With the fuel tank filled, the glowplug was removed and the engine turned over on the starter to draw fuel through (a tip from the 1/8th racers). The plug was replaced, connected up and the car lowered onto the starter box. It burst into life virtually straight away! As Mark adjusted the engine



carburettor settings both Paul and I were feeling pleased that so far everything had been trouble free. However, it did seem strange to me that the rear wheels were going in reverse direction! I tapped Mark on the shoulder (by now he had the engine running perfectly) and told him I thought he had started the engine in reverse. He stopped the engine, looked at the car and pondered in silence for a few moments. "Who put the gearbox together?" he asked. I replied that it came ready assembled and that Paul had built the car. Paul, realising that he was about to be blamed for the problem, quickly pointed out that it was I who had handed the completed assembly to him during building. Mark's next comment was devastating: "I think the gearbox is fitted upside down!!!" (In my

defence I must say it looks the same whichever way up it is, but the axle bevel gear should have been on the right hand side of the input shaft when looking down on the car from the rear. By fitting the gearbox upside down it was now on the left!) At this point one of the Mardave Marauders main virtues became apparent — its simplicity enabled us to swap the whole thing around and put it together correctly in about ten minutes, but I can assure you your scribe felt a right "berk" for not spotting the error during construction!!! The moral here is always check your work carefully with the instructions.

Back to square one! The Marauder was turned over on the starter, on went the glowplug lead and Mark again lowered the car onto the starter box when....Bang! The engine flywheel came loose, partly because of too much fuel in the cylinder and probably because I hadn't tightened it up sufficiently. There was no damage, but it was necessary to remove the engine to tighten the flywheel/clutch assembly. I learnt another tip from Mark at this point when he used a pair of plumbers grips to hold the flywheel whilst tightening the nut on the crankshaft.

O.K. I thought, this is it! Surely nothing else can go wrong? This time the glowplug was removed to blow out any excess fuel and the Marauder was yet again turned over on the starter, in went the glowplug, on went the glowplug lead and Mark again lowered....well, I'm sure you know all this by now, so I won't keep repeating myself!

Start-up (scene two)!!

O.K. I thought, this is it! Surely nothing else can go wrong? This time the glowplug was removed to blow out any excess fuel and the Marauder was yet again turned over on the starter, in went the glowplug, on went the glowplug lead and Mark again lowered....well, I'm sure you know all this by now, so I won't keep repeating myself!

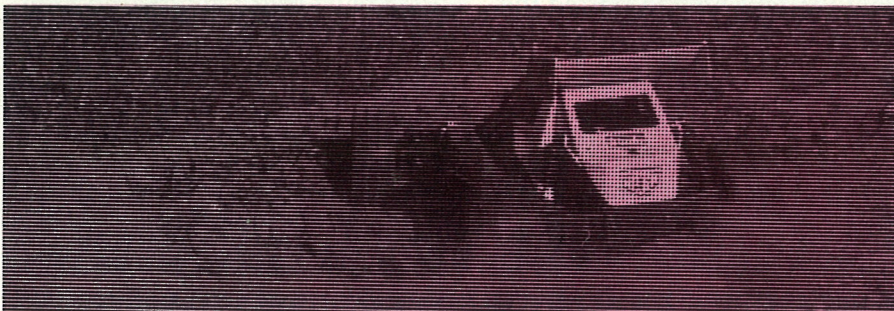


This time success, except that shortly after starting the Irvine 20, Mark stopped it again and informed us that "One of the screws holding the carburettor in place has just fallen out". Those of you who have read my previous articles and reviews will remember that I always make a special point about using a thread locking compound on any metal nuts and bolts. I had made sure Paul had done this everywhere on the Marauder, but had thought it probably wouldn't be necessary on the engine as no mention of it had appeared in Irvine's instructions. Boy, was I wrong!

By now the expression on Paul's face seemed to indicate that looking at the nearby sheep and birds was far more interesting than these silly i.c. cars, but we were not going to be beaten that easily!

Start-up (scene three)!!!

With the screw properly locked in place the car was turned over on the starter, the glowplug lead was connected....(are you by now experiencing a strange feeling of *deja vu*?!!!). But this time success, the Irvine 20 burst into life and Mark made sure it was set with a slightly rich mixture to prevent it seizing up during the running in period. On went the bodyshell and off went the Marauder.



Success at last!

Being our 1/8th expert, Mark drove the car first and commented how smoothly the clutch took up the drive. We also realised why Mardave supply such a heavy flywheel as the engine was able to tick over very slowly (something you don't get with lightweight racing types), so the supplied version is obviously especially good for the non-expert.

The suspension on the Marauder is quite basic in standard kit form — undamped springs at the front and rear with swinging arm rear suspension. Our car was fitted with

the optional oil-filled rear damper conversion which improves the bump handling and makes the car a little easier to drive. It was noticeable that the rear suspension became smoother and more flexible after a short period of running, probably due to the axle 'O' ring flexible joints softening up with use.

The handling generally was good considering the lack of sophistication and a differential. Although large bumps and undulations could catch the suspension out causing the Marauder to spin or sometimes even roll over, it never sustained any damage from these spectacular incidents! Probably because of its light weight it is a surprisingly rapid car which is best suited for smooth to medium undulating tracks. Paul and I also tried it out and found it fun to drive, but of course being rear wheel driven you naturally had to be careful not to open the throttle too quickly on slippery surfaces or it ended up facing the way it had just come!

Since the photos were taken our car has been fitted with an optional bumper, a part not listed on the Mardave spares list. It works well and I would recommend to anyone purchasing a Marauder that they seriously consider fitting one.

Problems?

Although the Marauder is

extremely tough, we did encounter two problems:

Part of our test track was extremely dusty and stony and in an attempt to get some spectacular 'Safari Rally' type shots (you know, the ones with the huge dust trails) we kept spinning the car in this area. The final result was that some of the small stones got in between the clutch pinion and the gearbox input spur gear and sheared off a few nylon gear teeth. Replacing the spur gear is fairly simple by removing the gearbox and driving out a roll pin. The replacement cost is only 85p, but it does appear to

be a vulnerable part of the car. I spoke to the factory about this apparent weakness and they told me that they can supply a steel replacement gear (part no. M147). However, they also advised me that if this were fitted and the car was used in the same sort of location, it is possible for the stones to break the clutch drum and pinion instead. The final solution is to choose one of three options:

1) Use the nylon spur gear on all tracks and carry a spare.

2) Fit the steel spur gear and avoid racing on tracks with a lot of small stones.

3) Use either gear and make up a small guard around it.

To be fair Mardave were very helpful, and just to add confusion to the choice they said they knew of Marauder owners who regularly ran the car without any spur gear teeth problems — some use nylon and some use steel. I think it could be a case of 'You pays yer money and you takes yer pick'!

The second problem was that the wire track rods occasionally lifted out of the steering arms. This was overcome by putting a collet on each outer track rod end.

What's the Verdict?

The Marauder is amazingly good value for money. It is fun to drive and if you have never used an i.c. car before, it's quite exciting when powered by the easy to start and set-up Irvine 20 ABC engine. (If only we could get this amount of power with electrics!). I understand the Marauder could even be used in BRCA 1/8th off-road meetings, although to be fair it was around long before the expensive four wheeled drive hybrids currently dominating the scene, and therefore would not really be competitive. It is surprisingly fast, and, apart from the nylon spur gear, it is tough and very easy to build. (That is provided you get the gearbox on the right way up!). It requires very little maintenance and spare parts are exceptionally cheap.

P.S. I have spent many years with all types of electric model cars and even more years previously with i.c. powered model aircraft, but the Marauder was only my second experience with a modern i.c. car. I enjoyed it and it reminded me of the old saying; "you learn something new everyday". It's very true, I did!!! ●