

RUNNING THE PB X3

Setting up the PB Racing 'Mustang X3'

Whilst Bill Burkinshaw does a superb job in kit reviews it takes more than just the assembling of a model car to finish a 30 minute final, or even just to qualify.

Depending upon what motor you decided to use, we use an OPS rear exhaust, the first item that you must give particular attention too is the clutch and clutch bell. The latter must be completely smooth on the clutch biting inner area. This can be done by placing the clutch bell in the lathe or a large type of electric drill and spinning, with either emery paper or equivalent, held to the inside of the bell to erase all machining marks.

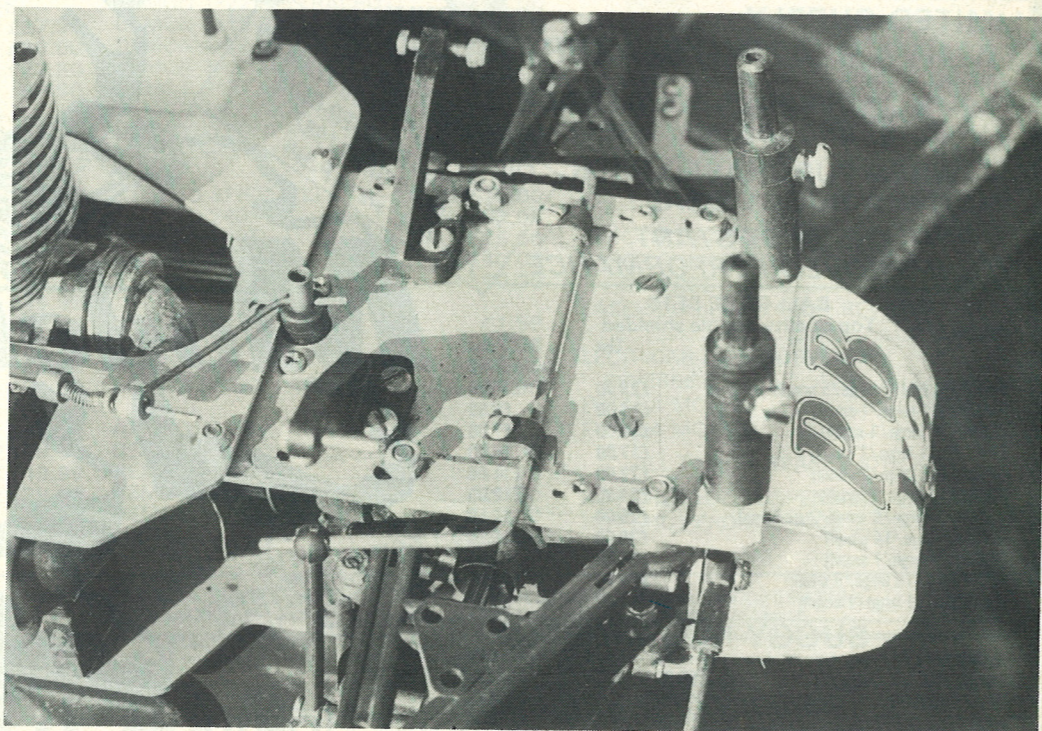
Going onto the drive line

A certain amount of friction can be encountered during gear meshing, it is important that this friction is eliminated, as it just absorbs power before it gets to the wheels which has obvious results.

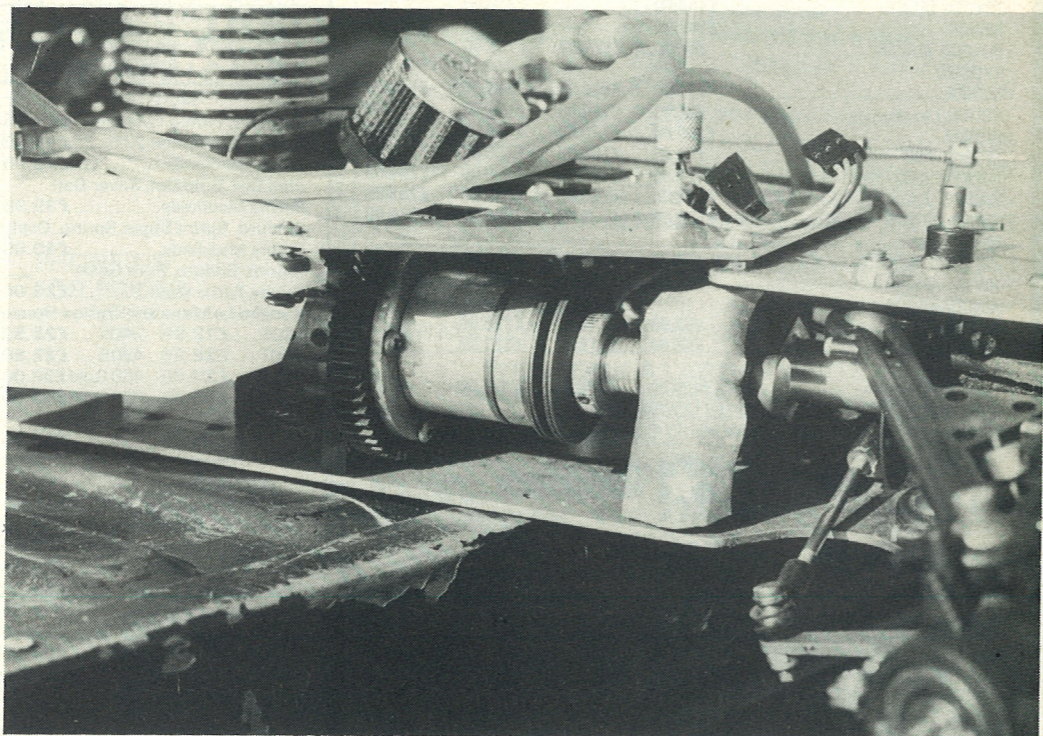
The front holes in the chassis plate need to be relieved outwards slightly by some .010in.-.015in. this will allow the front gears to rotate more freely. The rear we find normally does not have a mesh problem.

Also at this point it is essential that all grub screws of the 'Allen' type are ground so that the contact point of the grub screw is flat. Normally the grub screw will shake free when it is in place if they are not modified in this way.

It is also essential that you use Locktite No. 601. On the screws, use the lighter variety of Locktite on centre drive coupling screws thus enabling you to change the final drive gear on the diff without too much trouble. If you require to remove the grub screw applied with the 601 Locktite, heat is required on the part before you are able to release this adhesive.



Above: Rear Anti-Roll bar fixings using the PB universal mounts. Below: Center diff area, note K&N filter fitted to engine.



Front and rear diffs

On assembling the front and rear diffs, careful inspection of all items in the diff should take place. De-burring and thorough cleaning of all items is absolutely essential. Sealing the diffs cases to the chassis plate and top plate is required, we also seal the bearings to the outer case so eliminating oil leaks from that point. There is also small holes in the diff end casing which require plugging between assembly by inserting grub screws into the holes.

Suspension set-up

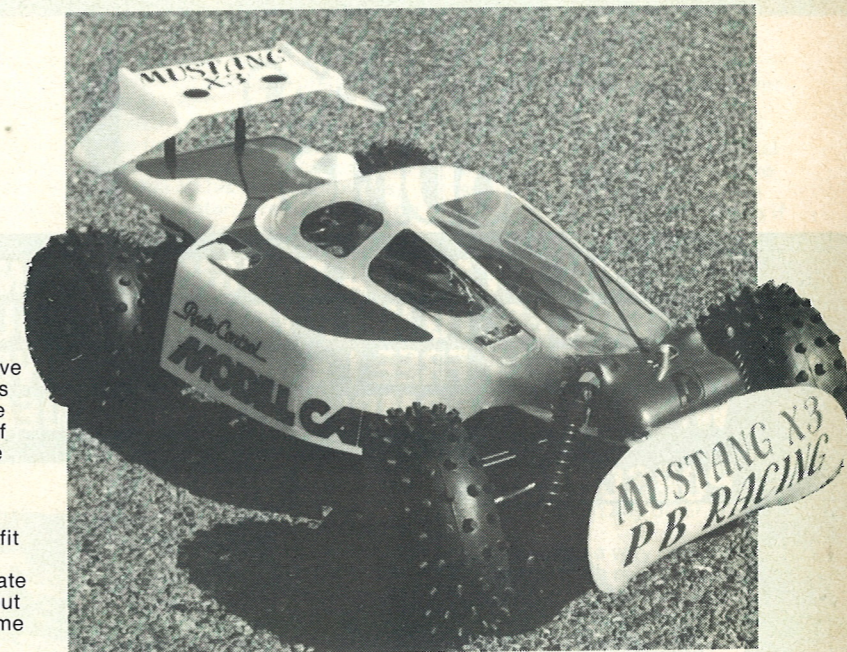
The setting up of suspension is of course a personal matter, depending on the style of driving used. We have developed special springs with 'progressive' three rates, which are fitted to both James Weedon's and our own car. These are proving to be considerably better than the standard kit spring. Careful attention should be given to the valve in the shock absorber and careful de-burring of this valve is critical to get all four valves identical, therefore, the damper action of the shock absorber is equal.

For most tracks the negative camber on the rear wheels as standard we feel is excessive and therefore, the removal of the top spaces does improve things for our own style of driving.

We have also developed a battery with a 'base plate' to fit under the throttle servo. Also a UJ kit, these eliminate the rear drive shafts falling out under heavy loads. By the time you read this they should be available at a price from your model shop.

A few cases of the suspension uprights failing have been experienced and this has been eliminated by fitting slightly longer screws which go in through the upright and into the bearing area, this simple modification virtually eliminates the failure on the PB. We also reduce the 'spinner' weight on the centre diff, a small thing but this also has the benefit of you being able to change the final drive ratio easier as the screwdriver can be operated through a direct line onto the screws.

On the standard top rear plate there is a small hole which is located in front of the disc brake, this hole is used for manufacturing purposes, but



we find that when mechanics over fill the fuel tank during a pitstop, fuel runs down that hole onto the rear gears, whereby causing dust to stick to the rear gears, during the first lap after refuelling resulting in abrasive problems. We have therefore, plugged this hole to stop this problem.

Shock oils

You may find it advantageous to run a slightly lighter oil in the front shock absorbers to rear, we use '90' and '140' SAE oil respectively. So my message to all you PB mechanics is to first of all de-burr and inspect all items paying particular attention to the diffs and disc

brakes to ensure that they are round and flat, grind or file the end of all Allen screws and use the best quality *locktite* available on all items. With these things done I am sure that the amount of work carried out at race meetings will be reduced.

We are planning new things to improve this excellent kit still further by reducing weight. I will report on this later.

So in conclusion the PB X3 kits are very good value with particularly low running costs; however some parts of the car because of the commercial costing overall are a bit 'that will do' in view of this it may become less competitive when the new fully developed 90% plastic kits start arriving next year.

Below left: The progressive rate springs used, these should be available soon. Top Right: Battery mounting is eased by making a "tray" type fixing. Below: The new "UJ" drive shafts, PB have yet to make these available.

