

RADIO CONTROL

# RACER

## Channel Four

What the Futaba 4PK has to offer

## Speed Machine

65mph plus electric  
Losi Speed-T inside

## Core Samples

Racer checks out Core RC  
LiPo packs and charger

# Being Square Is Cool

Why X  
Factory's  
new 4WD is  
a winner...

WIN  
A HAYNES  
RC CAR  
MANUAL

ADH  
www.rcracer.com / Sep08 / £3.75  
9 771366 691089 09



**SPEC:** 4WD ALLOY CHASSIS **CLASS:** 1:8 OFF-ROAD COMPETITION **COST:** £379.99



# 808

**3** The ever growing rallycross scene is certainly one Xray want to be a part of. The original XB8 has now been and gone, having travelled through various versions including the TQ and EC versions, taking a good number of race wins and championships along the route. What Xray did was the XB8 was to take existing ideas and principles and refine them in their own way, making one of the most adjustable and well engineered rallycross buggies out there. We have run an XB8TQ here on our long term test fleet for some time here at Racer and have found a lot of good things. It is

a very durable buggy and easy to work on. It is also very adjustable, one of the points we think may contribute to its difficulty to set up. That is not to say that the TQ was an ill handling buggy, it's just that it has a very small sweet spot, where everything seems to fall into place and you have full confidence in what the car is going to do. This may also be down to the extensive use of alloy in the TQ, everything was very solidly mounted whereas other manufacturers seem to have gone the way of inducing flex and hence traction and grip into their designs.

## HELD CAPTIVE

Like we said, very few parts are carried over from the older XB8. Differential internals, the radio box and the wing along with its mounting are the main parts and some sundry smaller parts such as linkages. The rest is all new and incorporates the typical Xray attention to detail. It must be said that the 808 builds exceptionally well. Parts fit and manufacture is the best out there and the instructions are clear and concise. When sub-assemblies are made up there is no binding and everything is so smooth. The quality of manufacture on this buggy really is second to none.

The design is a wholesale change from the XB8 in some areas and carries over very few setup features. This makes for a simpler buggy, something I for one think is a good thing, far less to adjust and risk getting lost on setup.





*The latest Xray off-road challenger is here with the new XB808. Jon Winter, builds, digests and abuses Racer's test sample.*

# State

The 808 uses the familiar front, rear and centre geared differential setup common to all 1:8 competition off-landers. As stated earlier, these use the familiar XB8 cases and internals. This is good because in our experience, we never had an issue with any leaks of fluid from these diffs and their action was always very consistent. What you do have though is a revised gear ratio with 43 tooth bevel gears in the front and rear and a 42 tooth spur gear for the centre driven by a 16 tooth clutch bell. Xray have also innovated with the centre driveshafts and 10 tooth pinion gears that enter each gearbox. Using the common CVD design of driveshaft, the pinion and drive cup end is now a one piece item to which the driveshaft is assembled. The normal grub screw is used to retain the pin but then the whole assembly slides inside an oversized bearing meaning that even if the grub screw comes loose, the pin can go nowhere. The same also applies to the driveshafts to the wheels, these even do without a grub screw

meaning that the drivetrain should be bulletproof thanks to this and the use of the famed Hudy Spring Steel in all critical areas. The centre differential sits in a split casing that means that it can be easily removed for maintenance. This is braced at the top by a moulded plastic part and the brake discs operate on the front and rear of this casing, acting on the differential outputs. The same discs as on the XB8, these provide huge stopping power and when set up correctly, great feel too. Clutch wise, more reliability has been engineered in. The use of larger numbers of teeth on the clutch bells mean that bigger 5x12mm bearings can be used here giving longer service life while the rest of the clutch sees the familiar three alloy shoe setup remain. In short then, Xray have taken the proven components and refined it all into an even more reliable package for the 808.

## TRANSVISION RE-VAMP

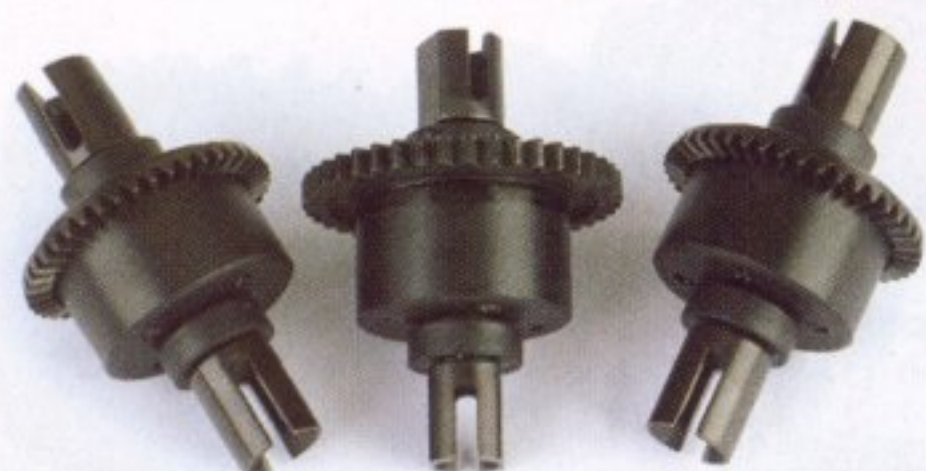
The suspension is one area that Xray have done a lot of work, and it shows. Long span wishbones are held in place by chunky composite holders, the foremost one at the front also has a steel plate reinforcement. The wishbones are also retained in these holders by long pivot pins which are secured with locknuts, but far the best and least fiddly way of doing this. This type of pivot pin also secures the wishbone to the standard fodder rear upright and new steering knuckle assemblies. These clearly take their influence from the Losi design, the benefits being a strong assembly that offers huge steering lock whilst pivoting for travel closer to the axle centreline. Oversized bearings are used in all hubs along with the aforementioned Hudy spring steel driveshafts using the captive pin design. The



**SPEC:** 4WD ALLOY CHASSIS **CLASS:** 1:8 OFF-ROAD COMPETITION **COST:** £379.99



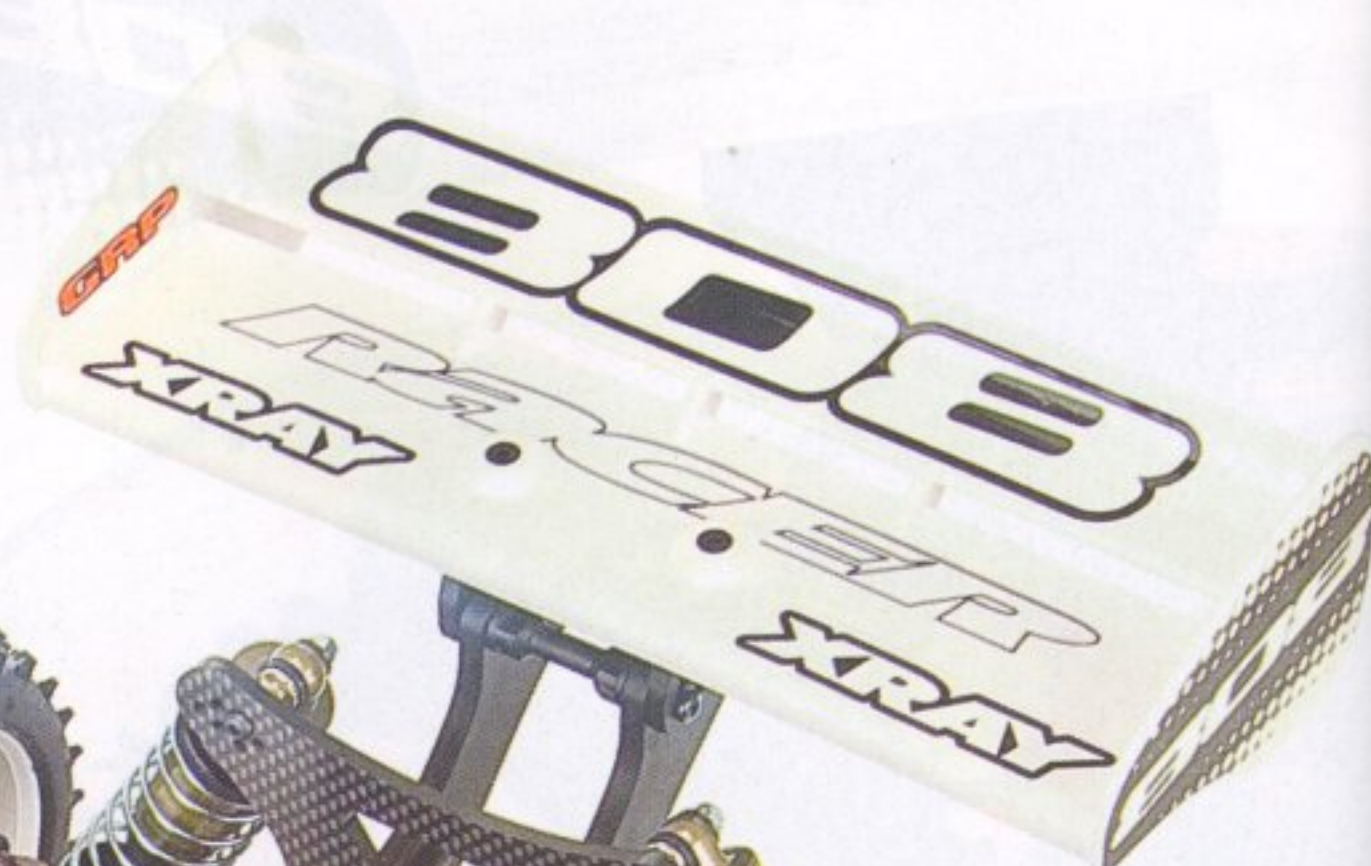
Radio tray is angled around offset centre diff mount



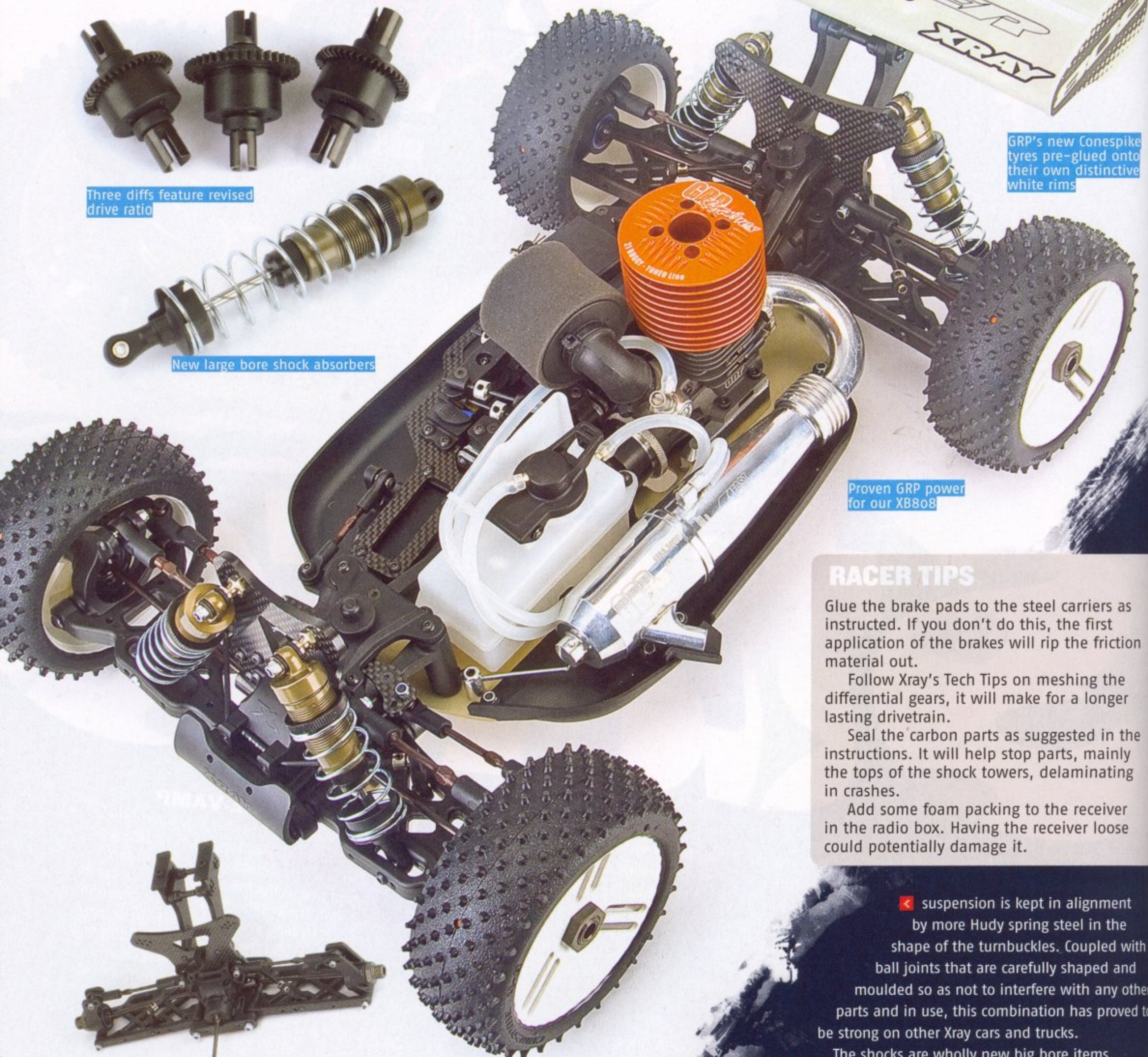
Three diffs feature revised drive ratio



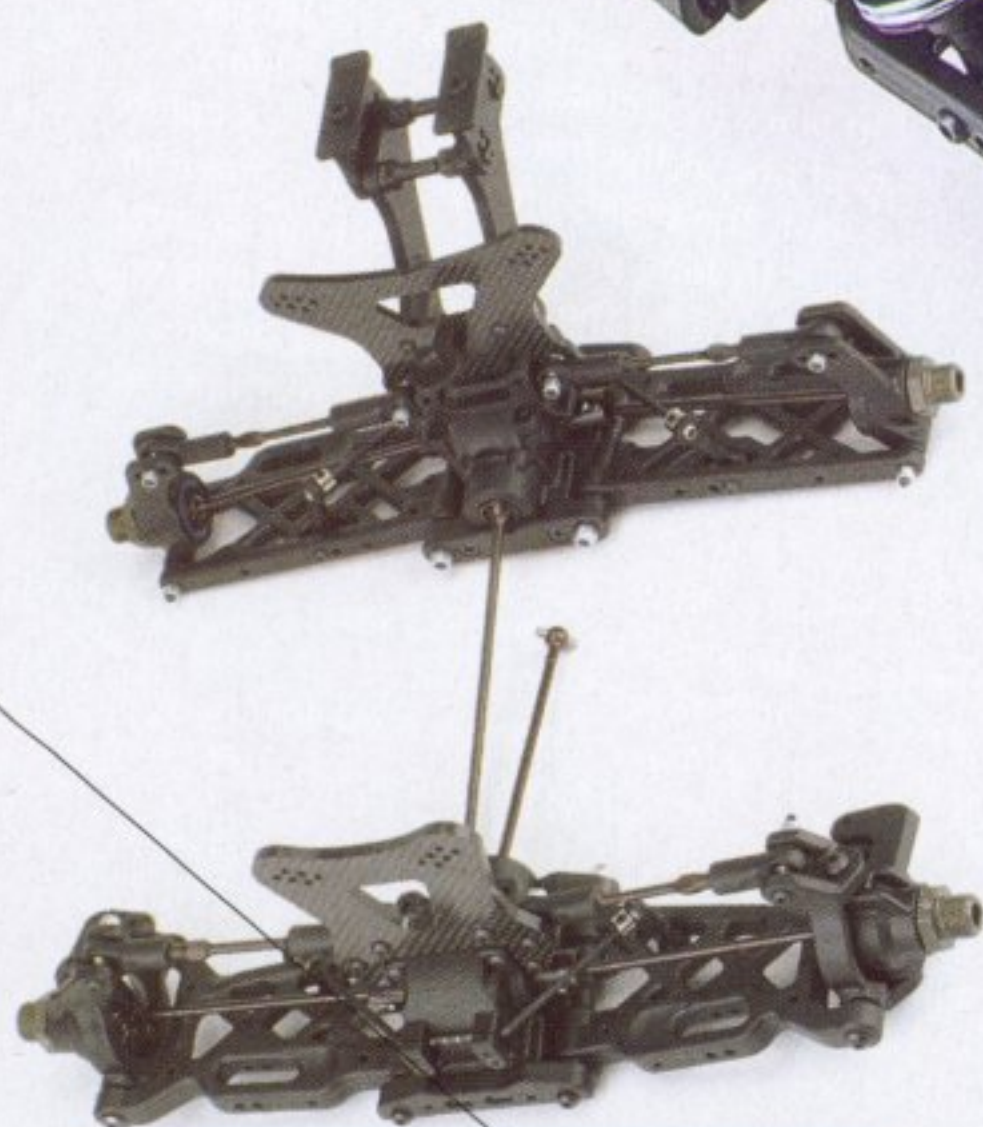
New large bore shock absorbers



GRP's new Conespike tyres pre-glued onto their own distinctive white rims



Proven GRP power for our XB808



The rear and front modules built up and ready to be installed onto the main chassis

## RACER TIPS

Glue the brake pads to the steel carriers as instructed. If you don't do this, the first application of the brakes will rip the friction material out.

Follow Xray's Tech Tips on meshing the differential gears, it will make for a longer lasting drivetrain.

Seal the carbon parts as suggested in the instructions. It will help stop parts, mainly the tops of the shock towers, delaminating in crashes.

Add some foam packing to the receiver in the radio box. Having the receiver loose could potentially damage it.

◀ suspension is kept in alignment by more Hudy spring steel in the shape of the turnbuckles. Coupled with ball joints that are carefully shaped and moulded so as not to interfere with any other parts and in use, this combination has proved to be strong on other Xray cars and trucks.

The shocks are wholly new big bore items. Utilising beautifully machined alloy bodies and caps they are simple to build and get a smooth consistent action out of. The main bodies are hard anodised with the bottom seals being held in by a threaded cap. Although the shocks don't come with a dust boot for the shaft, there is a foam seal that will wipe dirt off before it gets to the o-rings in the bottom cap. The large diameter pistons are secured to the piston rod by locknuts making them easily changeable with a choice of three different ones



## ON TEST

### CONTACT:

Mirage RC Enterprises Ltd., 19 William Nadin Way  
Swadlincote, Derbyshire, DE11 0BB

Tel: 01283 226570

Fax: 01283 229401

Email: [sales@mirageracing.com](mailto:sales@mirageracing.com)

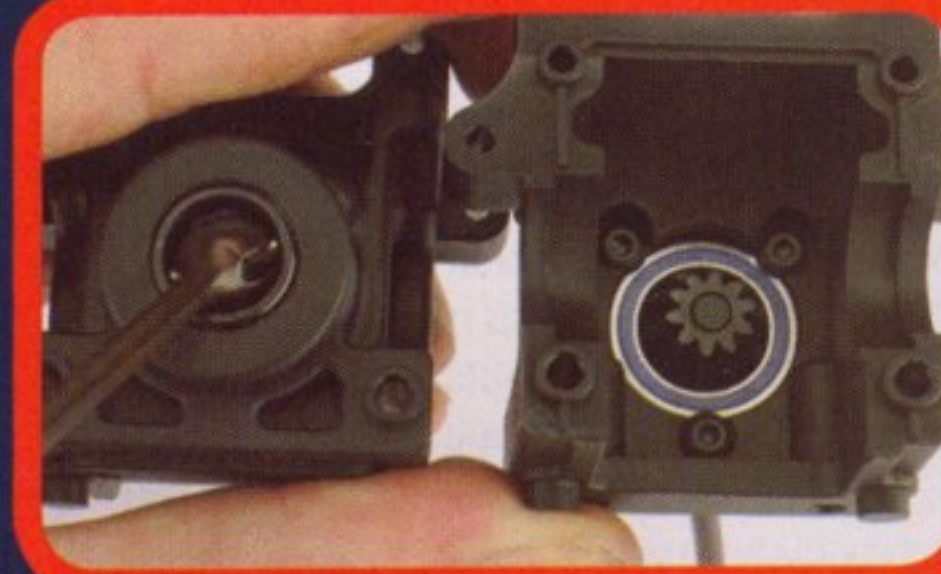
Website: [www.mirageracing.com](http://www.mirageracing.com) - [www.teamxray.com](http://www.teamxray.com)



After giving our new GRP powerplant a lengthy and careful break-in, we were ready to lean it out and see what the 808 was capable of. It really didn't disappoint. The drivetrain, like previous Xray's is one of the best in the business and transfers the huge amount of rip from the GRP engine efficiently. The XB808's seems even better though, the revised gearing giving the buggy dollops of acceleration, thankfully though the double brake disc setup can haul the buggy to a halt pretty quickly. The new suspension setup shows its worth too. The whole buggy seems so much more settled, keeping the wheels on the ground whenever possible. Handling is great, especially on dirt which is clearly the surface

the kit setup is biased towards. Turning tightly, the XB808 holds its line perfectly although the very soft springing does lead the rear to squat and kick-out if you are not too careful with the throttle.

The real revelation though is jumping. The XB808 is so much more controllable in the air, a wholesale improvement over the XB8 series. Durability is great too although time will tell more, we haven't broken anything yet, our only recommendation being some stiffer springs for grass or Astroturf as it's dirt orientated kit setup is way too soft on these surfaces to keep the chassis in check.



in the kit. The top of the shocks use a bladder and bleeding according to the instructions and the use of an alloy top cap with bleed hole makes it simple to get balanced feeling shocks without any rebound.

These new shocks need locating and Xray have selected carbon fibre as the material of choice for the shock towers. Offering six positions front and rear for the top shock location, along with alternate inner camber link positions, there are plenty of tuning options here. Whether the use of carbon fibre is the best choice of material here, only time and testing abuse will tell. For myself, the rough and tumble of rallycross would mean that I may prefer the optional alloy towers as being the king of whacking things with considerable feeling, I would prefer a part that would bend as in the metal part and get me to the end of the race. As said, only time will tell...

## PRECIOUS METAL

Unsurprisingly though, as is common with all rallycross buggies, alloy is the material of choice for the chassis. Xray use very high quality Swiss 7075 T6 alloy, the part being machined out rather than stamped, it is a work of art. A hard anodised coating on the 3mm thick material adds further durability. At first, nothing looks too different about the chassis plate, Sure it is narrow but a closer look shows the engine mounting bolt holes to be angled as well as being far more towards the centreline. When it is all assembled onto the chassis, the engine is canted slightly more inboard at the clutch end. Now Xray say that running the clutch bell and spur gear at a slight angle to each other has no detrimental effect but until I see it for myself in testing, no conclusions will be drawn. However I can't see that it's a great idea running

on such a small amount of each gear tooth's contact point rather than the full face...

The chassis has additional bracing coming from two composite parts which triangulate the chassis and front/rear gearboxes. When this is all assembled, it certainly does have a lot more flex and give over other Xray buggies, something that has again been engineered in by the team. The fuel tank is carried over from previous cars while the radio is taken care of by another part carried over, the radio box. Attached to this is a carbon fibre radio plate that holds the two servos, the throttle in the upright position and the steering laid down for which in both cases our trusty KO Propo items were used. The steering acts through a double bellcrank assembly which has an in-built servo saver and a carbon draglink with alternative Ackerman positions. ➤



# THRASH TEST

**SPEC:** 4WD ALLOY CHASSIS **CLASS:** 1:8 OFF-ROAD COMPETITION **COST:** £379.99

As we have come to expect, the Xray XB808 kit went together without any need to modify parts. We will follow up this review with a feature on some of the optional parts very soon



## VERDICT

- ⊕ Clever pin retention in CVD's
- Quality of parts and manufacture
- Seems to address XB8's issues perfectly
- ⊖ Slightly soft kit springing

Racer Rating ★★★★★

*"Turning tightly, the XB808 holds its line perfectly, although the very soft springing does lead the rear to squat and kick-out if you are over-aggressive with the throttle."*

## FITTING UP

The Xray 808 is a competition buggy and as such it comes as a rolling chassis needing the buyer to add their own choice of radio, engine, tuned pipe and wheels and tyres. As said earlier, KO Propo PDS-2344FET servos served for both throttle and steering duties combined with a Spektrum receiver and Nosram battery pack. Engine wise, we plumped for the latest GRP powerplant complete with GRP tuned pipe and manifold. GRP also provided the tyres courtesy of their pre-glued spikes which should be ideal for grass tracks we predominantly run on here in the UK. When this was all fitted and hooked up, all that remained was to paint the body and we were off. Rallycross buggy bodies serve more function than form and the Xray's is no exception.

## WHAT WE USED

### Nitro

Transmitter: KO Propo Esprit III Universe  
Receiver: Spektrum SR3000  
Steering Servo: KO Propo PDS-2344FET  
Throttle/Brake Servo: KO Propo PDS-2344FET  
Receiver Pack: Nosram VTEC 1400mAh  
Engine: GRP Tuned .21 Buggy  
Pipe/Manifold: GRP  
Fuel: O'Donnell 30%

Unpainted it didn't inspire confidence, looking bulbous and unshapely but once sprayed up and cut out, thankfully looked considerably better than expected! ■

## SUMMARY

The 808 is a fantastic piece of kit. Well thought out, it incorporates ideas and principles such as those with the location of drive pins to retain them that will aid reliability greatly. Although some of the other ideas maybe have been seen before, Xray's execution though is second to none. The feel of quality shines through and although we have only had limited testing, other reports and feedback from drivers seem to conclude that the XB808 is a whole lot easier to set up and far more user friendly. Thus it seems that with the XB808, Juraj's brief has been achieved...

## SPECIFICATION



MODEL: XRAY XB808  
SCALE: 1:8  
CLASS: OFF-ROAD  
APPLICATION: COMPETITION  
FORMAT: KIT  
POWER: NITRO  
CHASSIS: ALLOY  
DRIVETRAIN: 4WD  
TRANSMISSION: GEAR  
DIFFERENTIALS: GEAR  
SHOCKS: OIL FILLED/THEADED BODIES  
BEARINGS/BUSHES: BEARINGS

## TECHNICAL DATA

LENGTH	505MM
WIDTH	308MM
HEIGHT	180MM
WHEELBASE	323MM
FRONT TRACK	300MM
REAR TRACK	310MM
WEIGHT	3250G