



ADVERTISING FEATURE

# THE GOODWINCH TDS GOLDFISH Winch Series

## One Year on

by David Bowyer

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**Just over a year ago I was introduced to the TDS range of winches manufactured by Kingone in China. Upon opening the first two boxes flown into me containing a low profile model and a bridge one, I was suitably impressed. Of course I had studied the photographs, drawings and illustrations beforehand, but now having them in front of me, these winches looked really wholesome.**

Everything about these TDS winches looked good, really good. The chunky drum supports gave a feeling of strength, the larger than normal gap between the wire rope and the underside of the tie rods was impressive, the bridge model had a nice strong one piece casting over the drum which sported the same tie rods underneath as on the low profile model giving plenty of strength. The freespool lever was easy to operate as well.



The samples sent were both TDS-9.5 models. I decided to fit the TDS-9.5i bridge model on a colleague's Land Rover Defender for trials, and the other TDS-9.5c, the low profile version, for stripping down to its bare components for quality control checking, analysis of design and photography which you see here.

Naturally, I could not wait to try one out, so we fitted the TDS-9.5i straight away to the Land Rover. We simply used the winch straight out of the box, after taking pictures and extending the cables to reach the battery under the passenger seat. The time taken to remove the original bumper, fitting one of our own winch bumpers, installing the winch, and

connecting the power cables and a safety cut out switch took just a couple of hours.

All our TDS winches come with roller fairleads, wire rope and a pulley block. Now, I have to say that I far prefer using and demonstrating winches fitted with Dyneema<sup>®</sup> Bowrope. So as we took off the wire rope before installing the winch, which is something you should always do in any case, the natural thing to do was to fit our synthetic rope along with an aluminium hawse fairlead.

Now came some lovely surprises. Firstly the Dyneema<sup>®</sup> Bowrope simply flew on and payed out just as fast. Wonderful. And as the gearbox grease warmed up a bit, it was even faster. Another surprise was the way we could easily run off with the rope with the gearbox in freespool. Simply brilliant.

We then went on to spend many hours winching on our off road course and I have to say the winch performed faultlessly in all respects. We even had a session in winching up and lowering out our big JCB forklift up the slope into our yard.

Whatever we did, we became more and more impressed. The motor never really got very hot, even with the hardest winching, in fact most of the time it only ran warm.

The double tapered brake, which is located on the end of the gearbox, worked impeccably well in all climbing and lowering situations, supporting the full load of the Defender.

The other sample winch I carefully



disassembled, cleaned and inspected every component for quality and finish. Starting with the motor, which is superbly designed and made with huge carbon brushes, and simple but effective spring's bearing the brushes down onto the copper commutator, which in turn is copper welded, not soldered, to heavy rectangular copper armature windings with its' spindle revolving in roller bearings at each end. Large electro-magnetic field windings would help to give reliability and longevity to the power plant. The truth is, this TDS motor is a close copy of our Bowmotor.



The multispline output shaft of the motor drives a beefy drive shaft via an adaptor through the centre of the drum and gearbox to the back of the double tapered brake. This in turn back drives a hollow splined shaft and centre cog which powers the incredibly well made triple set of planetary carriers and gears. These gearsets revolve within a heavy outer gear making up part of the gearbox casing and the freespooling gear, which, when locked by the freespooling lever, allows the drum to be driven. The largest planet set carrier drives the final heavy castellated output shaft.

Nylon bearings support the two ends of the winch drum, and, wait for it, there are 'V-Ring' seals, housed in annular grooves within the chunky drum supports. These seals bear onto the outside faces of the drum flanges giving a wonderful seal to keep mud and water out of the drum bearings.

Since then, I have visited the factory. To add to the water proofing qualities, I have managed to arrange new tooling for a sealed motor drum support to further enhance the TDS waterproofing, just for us. From that day onwards, all our TDS winches became TDS-Goldfish winches, a product to be really proud of.

So, that has covered the drive train of the winch from the motor to the drum being driven. The remaining part of the mechanical components is the brake unit, housed inside the cover on the end of the gearbox. This brake is a new innovative design employing a double tapered unit with two vee shaped surfaces being forced together, driven by a pair of cams, operated when the power is switched off, during winching with a load on the drum.

As these two vee shaped surfaces are forced together, pieces of specially shaped brake blocks are forced outwards to jam inside the back of the gearbox which in turn locks up the driven winch drum. As power is resumed, either in or out, via the handset, a spiral spring allows the cams to open which in turn releases the two tapered vee shaped surfaces and lets the brake blocks come clear of the drum surface on the back of the gearbox,



As I have said, the brake works impeccably well which is very necessary when hanging on a very steep hill. The vehicle may creep back just a little before locking up when lowering back because of the momentum, but when winching up and stopping, it is fine and safely holds the full weight of the vehicle. As I said, I was invited to the factory in China a year ago and I spent a very interesting few days inspecting the production line and discussing

the winches in depth. I left China suitably impressed with Kingone's products. A year later, I am extremely pleased with the level of service, the professionalism and the quality control.



During the first year of marketing and selling our TDS Goldfish winches we have had nothing but praise for them from users both in the UK and across Europe. The usual comments range from 'brilliant value for money', 'great features', 'pulls like a train' and 'best winch we have ever had'.

We have had literally no warranty work whatsoever which is great of course because this fact speaks volumes for the product.

Needless to say we do hold a comprehensive stock of spares to cover all eventualities, but so far, these items, enough to make between 5 and 10 complete winches are simply collecting dust on the shelves!

I sincerely believe that the reason behind this incredible success is that this winch is specifically designed for off road use and I am pleased that Kingone have listened to me and understood the requirements of having an out-of-the-box waterproof winch.

On our website [www.goodwinch.com](http://www.goodwinch.com) I tell you how to make this winch even more waterproof to make it submersible. However, very few of you will need to do this! Many of you

will have seen our TDS Goldfish in a water tank at all the shows during 2008.

Without a shadow of doubt, by far the largest number of winches sold is our high-speed TDS-9.5 version for off-road use. The reason being, when winching and driving in muddy situations where you haven't got sufficient grip to get through, as you gain grip, the rope soon gets onto the drum ensuring that you don't drive over it! The lower speed TDS 12.0 is for commercial applications, ie: Defender 130, very heavy 4x4's, backs of recovery trucks and sometimes as a rear fitment on Challenge Trucks.

I sincerely thank all of you from both the UK and across Europe who have either purchased direct from us, or from one of our 4x4 dealers. Please enjoy your winch.

If any of you have photographs of your TDS at work, or simply fitted to your vehicle, I would appreciate them, emailed to me at [sales@goodwinch.com](mailto:sales@goodwinch.com) for possible inclusion in the picture gallery on the website. Please include your full name, address and telephone number, I'll send you some stickers in return.

Apart from enjoying the lack of warranty work mainly in drowned dead winches, I have to say that I am very passionate about Kingone's products.

I would be delighted to talk to you should you be interested in any of our winches, including our range of Superwinch products.

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