LAWRENCE DAVID

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2 into 1 does go!

In recent years supermarkets have expanded to new out of town locations. Delivering to these locations with a 44 tonne, 16.5 metre overall length tractor semi-trailer combination has been accommodated within the layout of the retail park.

Loading, unloading and manoeuvrability has, generally, been taken into account when developing and designing these modern retail areas.

But, what of the many retail stores that want to be more centrally located? Those that need to be on the traditional high street for a number of very sound practical and economical reasons. How do they approach the aspects of delivery and collection? How do they overcome the situation where access and/or manoeuvrability are limited or restricted? How can transport costs be minimised? Send in lots of small vans? Send in smaller, shorter rigid trucks to get the manoeuvrability needed but compromise on load length? Send in longer rigid trucks to get the load length but find manoeuvrability is a problem?

Many organisations are facing similar challenges. And, with the growth now of the new so-called local convenience store it's a problem that isn't going to go away.

Take Boots as an example.

Boots are Britain's largest pharmacy chain. They are represented throughout the UK with about 2,500 stores, the vast majority of which are located on what we would call the traditional high street. And, although there are a number of Boots stores now operating in retail parks, there are very good reasons for the core of their everyday business to remain on the high street. And, many high streets have problems with congestion and space. Circumstances not lending themselves to easy and efficient access.

How then do they meet the challenges of serving those stores in the most efficient manner whilst minimising transportation costs? This was the challenge thrown down from Boots to their trailer supplier, Lawrence David, to come up with a practical, workable solution to their dilemma.

Dave Landy, Logistics Fleet and Asset Manager at the Boots Nottingham HQ says;

"A typical 13 tonne rigid with the appropriate wheelbase accommodates about a 28 foot body. A 28 foot body can carry around 42 of our cages. But the wheelbase required to achieve this body length is in the order of 6 metres.

The same is also roughly true for an 18 tonne rigids whereby, although the payload would be more than the 13 tonner, a 28 foot body would still require a wheelbase which compromised manoeuvring in tight spaces. To improve of manoeuvrability, if we go for a 24 foot body we can carry only 34 cages ..... and, don't forget the empties coming back. So, I was looking at ways to reduce the complexity of our supply chain and cut some of the waste and cost out of our logistics operation. In other words, to get more on board whilst not compromising manoeuvrability.

I already had a concept in mind but needed a reliable partner to turn this concept into reality.

Lawrence David trailers in Peterborough have always been a good partner to us. They represent a very good balance between quality and price and have, in the past, been pro-active in coming up with pragmatic, workable solutions to overcome difficult operational challenges and progress initial concepts onto the drawing board and then into a working solution. So, we engaged in dialogue with Lawrence David to find out what was a pragmatic, and realistic way forward."

Laurence Marshall, the managing director at Lawrence David explains;

"It was all about looking together at innovative ways to improve efficiency in the Boots logistics chain. A rigid truck solution was a non-starter. We had to find a way where we could look into both the manoeuvrability and access problem at the high street locations without suggesting small vehicles .....and more of them! Almost by definition, high streets are congested and space is always tight.

And it was not just a case of delivering to the stores. Boots has put in place a very robust re-cycling regime whereby all the empties are also collected from the stores for eventual transit back to their Nottingham HQ. So goods were having to be delivered and, preferably at the same time, the empties collected."

Laurence went on to say "we have more or less 35 years of trailer design, development and construction in the UK. We have our own in house CAD design and we looked at ways whereby we could maximise flexibility for our customer. We turned the concept into reality and with our in house design people put the detail into the concept to make sure it could work ..... and we came up with, our multi-urban distribution trailer ..... we refer to it as our MUD trailer!

There's not much new in shorter semi-trailers or in double deck trailers ..... but by combining the two we get maximum manoeuvrability coupled to maximum load lengths. And, the more load length the higher the number of pallets and cages that can be delivered..... and collected"

The Lawrence David MUD trailer can be coupled to any standard tractor unit. The trailer is just over 10 metres long and is capable of handling 66 standard Boots cages. It has an overall external height (road to top of trailer) just over 4.1 metres. it has a combined deck loading (top plus bottom) length of around 14.4 metres (over 47 feet!) and this loading length does not take into account the loading space above the swan neck.

47 feet loading space within a 10 metre semi-trailer compares very favourably with two very long wheelbase rigids. But, this is one vehicle, one 4 x 2 tractor unit with trailer with high manoeuvrability capable of operating in tight corners.

The loading space allows 66 cages to be carried at any one time as against the 34 or 42 that could be accommodated for any one specific rigid truck. So, the number of trucks that have to be used is reduced. Diesel usage and costs are reduced. Carbon Dioxide and other unfriendly emissions are reduced. And, the general efficiency of the logistics of delivery and collection from Boots high street locations optimised and modernised. And, the Boots carbon footprint reduced!

Lawrence David's MUD trailer has a fixed second deck running for the full length of the body. The deck capacity is 6 tonne and the internal height is just over 1.8 metres. The lower deck is of equal height and runs just under the 5.5 metres between the swan neck and the rear of the trailer. Above the swan neck, and in addition to all the load dimensions already covered, there is just under 4 metres of restricted height (1.30m) load space which could , if necessary, be used to deliver or collect any point of sale material that Boots would be either receiving or returning.

Lawrence David's' MUD trailer is also equipped with independent rear air tandem suspension. Both the right and left rear suspension can be raised and lowered independently..... operated from inside the rear of the trailer. That means on uneven surfaces the tailgate can sit level on the ground even if the trailer is at a slight angle. Again, loading and unloading of the various cages and pallets is made easier for the driver operator.

Load-Loc track is used for securing all of the loads and a d'hollandia 1500kg two tier column tailift is fitted to the trailer with a large 1.9 metre platform. The size of this tailift allows the driver operator to maximise the number of cages that can be moved in any one loading or unloading cycle.

A day in the life of .....

So, having said all that .... what's it really like in operation?

DHL/Boots are currently operating an MUD trailer out of their Avonmouth RDC and we spent a day with the driver to find out how the theory translates into practice on the road.

Avonmouth operate a 'through the night' loading service. The MUD trailer was loaded between midnight and about 2.30 am. A Transdec scissor lift is used to load up both decks with enough products to supply Boots stores in the local area during the next day's run. The trailer design allows easy access to both decks and with the load in place the trailer is 'secured' awaiting the arrival of the driver.

After arriving at 3 am and after carrying out the routine daily checks and completing the required paperwork the combination hits the road at just about 3.30 am. Then it's a matter of 5 or so drops around the 'local' area. The MUD trailer comes into its own in negotiating tight Boots 'goods inwards' sites en-route.

It's all about flexibility. The individual cages are clearly defined by store location and the unloading process and, the fact that there is an upper deck, allows collection (and subsequent re-cycling) of the empties. The space that the empties take up should not be underestimated and the MUD's two decks gives the driver operator more flexibility to deliver and collect in one overall cycle. a job that would require more than one rigid to do the same delivery collection job in any one day.

The MUD trailer is a clear winner!

For the Boots logistic operation. For Boots stores. For Boots customers. And, for the environment. It is a clear demonstration that working in partnership with an innovative supplier, with in house expertise, brings real added value to their business.

So, the Lawrence David MUD trailer in partnership with Boots results in a win win situation.
It does the job that has previously been carried out by two rigids.

Proving that 2 into 1 does go!