

# Marshall



**PRICE LIST AND BROCHURE**  
**JANUARY 2019**

# The Marshall Company History

Charles J Marshall (Aberdeen) Ltd celebrates its 67th Anniversary in 2019. **Sixty seven years ago, the Marshall brand was conceived by Charles J Marshall; the year was 1952.** This tenacious 18-year-old apprentice joiner decided that after his National Service, he would establish his own business producing something that he could sell en-masse. At this time in history the introduction of the new technically advanced tractor was just in its infancy and the young Charles decided this was his time to capitalize on this opportunity.

While he was posted in Aberdeen, he was able to combine army national service throughout the day while building trailers at night; no mean feat but a win/win situation for this young man. His initial modest ambition was to build himself a factory to supply the whole of Scotland and to be the largest supplier in this territory!

To achieve this goal some land and a small croft were purchased, just 6 miles from Aberdeen. Charles managed to secure this at the cost of £2,450. Needless to say his current long suffering neighbours were delighted as they had endured years of noise and constant TV interference from power tools used by this enthusiastic young man.

By 1956 the first part of the present factory building was completed, named Chapel Works, it covered a 12,000 sq. ft. site. True to form, the young Charles supervised and even poured the concrete blocks by hand to ensure that the best value was achieved from his investment.



**Above:**  
The 3 - Ton Rear Tipping Hydraulic Trailer first advertised in 1952

The greatest advantage to his new factory layout was the ability to create the relatively new concept of a production line that allowed for the most efficient use of labour; always an expensive commodity and not to be wasted! Although said tongue in cheek, Charles quickly realised that labour was an essential requirement but had to be used efficiently so the production line was integral to this.

Then as today, Charles invested heavily in his business and purchased vast stocks of steel and other components. This gave him the added advantage of being able to buy at very competitive prices and so produce a more cost effective trailer. The knock on result from this strategy was a rapid expansion of turnover allowing him to further develop the factory premises.

By this stage he was employing all the trades required to manufacture steel and timber trailers. Production output had rocketed up from a mere 46 units built in 1952 to supplying well over 1600 units per year by the mid sixties - no small feat for a joiner!

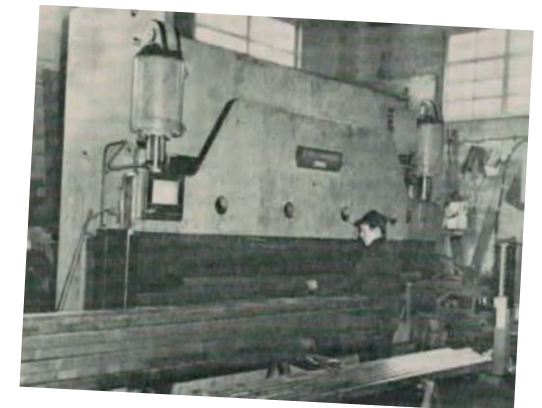
Equipment was another area of investment that was expanded to keep up with rising demand. A new press brake and guillotine were purchased, the largest north of the Clyde at that time! Likewise, the shrewd move away from the "slow" arc welders to the latest concept of MIG welders also proved to be a winning formula for speeding up production. Nothing was going to hold him back from achieving his original ambition!

The 1970s were the years of strike action and horrendous labour relations and Charles was extremely proud of the fact that he never had a strike and his factory still produced throughout this period. This result, he firmly believes, came from his own work ethic and the fact that even at this stage in business; he worked a full day with his staff on the shop floor. No job was too menial for Charles and no task was asked to be undertaken that he could or would not do himself.

Now producing well over 2000 units per year and with an extremely efficient factory, his focus turned to rotary spreaders to continue to increase production. Once again these spreaders were distributed throughout the country and in partnership with an extensive dealer network that he worked hard to supply. The success of the spreader was further augmented by the introduction of the Marshall slurry tanker in the 1980s.



**Above:**  
Press release dated 14th July 1967  
featuring Charles J Marshall in the factory



**Above:**  
The inception of the Hydraulic Press Brake

# The Marshall Company History

In 1980 the bright new talent of Charles Richard was introduced and he started his apprenticeship within the firm. Like his father before him, he also worked his way through the shop floor ensuring he had the same sound understanding of the business as his father and today he feels that nothing really beats the experience gained from doing it yourself.



**Above: The production line as it was in 1973**

Taking up his present position as managing director in 1998; he has successfully steered the company through the years of BSE and foot and mouth. Like his father before him, he still operates the firm on a daily basis handling all the purchasing, sales, after service and the general management required for a company of this size to function.

Throughout its 67 year history, no answer phones have ever been used and Charles R is still fully committed to the fact that customers are what make a business. All this "modern" rubbish of electronically answered phones, emails, faxes, texts are the downfall of many a business as it seems the customer is no longer important enough to be spoken to directly, a position that will never change as long as Charles is in charge.

Today we are still proud of our original Chapel Works premises and we continue to invest and annually spend six figure sums to ensure we stay ahead of our competition. We produce on average 46 units per week that are sold throughout the world and we can now proudly boast we are the UK's oldest and largest trailer manufacturer.



**Charles J Marshall**  
24th August 1934 - 13th July 2016

2016 was a sad year for the company as the founder, Charles J Marshall, passed away suddenly at the age of 81. Charles was an inspiring presence and even until the week before falling ill he was still working and doing what he loved; selling to customers and delivering machines. He certainly left his mark on the world, and will be sorely missed by the family and everyone at Marshall Trailers.

Despite the sad news the company has to continue on and this year we celebrate 67 years in the business and we are proud to be manufacturing trailers and other farm machinery. Perhaps what is more remarkable is the fact that we are still owned and operated by the same family; quite a feat if we say so ourselves! Five years ago the company also welcomed the next generation into the fold. The grandsons of Charles J Marshall, namely Charles Peter and his brother David, have now completed their studies.

Charles successfully achieved a LLB Hons in Law and graduated from Aberdeen University while his brother achieved Student of the Year at Lackham College in Wiltshire passing a BTEC with triple distinction in land based technology. Since joining the business the pair of them have been kept busy with various different roles throughout the company; there is no better way for them to learn than to do it themselves!



**Above: Robot Welder**

In any family business the younger generation always brings fresh ideas and enthusiasm to the company, and Charles and David have been no different. They have had a huge influence on the business and encouraged many of the changes introduced in the last few years. These changes are clear to see in the finish and quality of the final product, but the really radical changes have been with how the product is produced! We have borrowed 21st century production methods from the motor-industry, that rely on better integrating our state of the art plasma cutters, presses and robot welders into the production line. The end results are machines that are better looking and better finished every time!

**“ Now there should be no excuse not to consider a Marshall machine; a family business with traditional values producing a modern, state of the art product! ”**

**Charles R Marshall - Managing Director**

## Dealer Fit Concept

The design of trailers has changed dramatically over the last sixty years, from hundreds of trailers exactly the same to the current situation where almost every trailer is custom built. Naturally this makes it more and more difficult to stock the correct model, with the correct specification; something we are well aware of at Marshalls and are beginning to address with our new dealer fit concept! The majority of options will be able to be easily and efficiently fitted to different models without paint rectification, allowing almost any specification of trailer being created from a standard model. This quite obviously makes the Marshall Trailer you purchase future proof - a must in this fast ever-changing world.

It is as simple as following these steps:

- 1 Study the specification tables in our pricelist or on our website. Identify whether an option can be dealer fitted and note how many hours are required to fit the option; the specification tables have the following text to identify this:

**( DF - 1 )**

Indicates option can be dealer fitted

Fitting time in hours

- 2 Contact us to order the required kit, either by telephone, fax, email or by ordering through our website.
- 3 The kit will be dispatched to you, along with fitting instructions. If necessary do not hesitate to contact us for further help when fitting kits.
- 4 Fit the required kits to meet a customer's specification, allowing you to retail a machine that would otherwise remain in stock.

**6 - 11**



Marshall Drop-side Range Steel Trailers

**12 - 17**



Marshall QM Range Monocoque Trailers

**18 - 21**



Marshall HD Range Hybrid Dumper Trailers

**22 - 27**



Marshall BC Range Pallet/Bale Trailers

**28 - 31**



Marshall MS Range Muck Spreaders

**32 - 35**



Marshall VES Range Rear-discharge Spreaders

**36 - 39**



Marshall ST Range Slurry Tankers

**40 - 41**



Marshall Livestock Container Range

**The Dealer Fit Concept is just one example of the exciting new changes we have introduced since 2015; study our pricelist for more of our new upgrades and updates!**

**42**



Marshall FT Range Feed Trailers

**43 - 47**



Optional Equipment & Wheel Assemblies

# Meet the Marshall Family

### Name: Charles R Marshall



**Position:** Managing Director

**Email:** charles@marshall-trailers.co.uk

**Tel:** 01224 722777

**Marshall Trailers Start Date:** 1980

**Training / Experience:** 39 years of experience manufacturing agricultural machinery at Marshall Trailers, occupying all positions from the shop floor upwards.

**Favourite Machine Ever Produced:** The first production model of the new range of bale trailers we launched last year is probably my favourite machine we've produced. It was fantastic to see the new design and it looked stunning with a light blue paint finish to match the customer's tractor.

**Most Unusual Machine Ever Produced:** We once produced a bespoke tanker for the Sultan of Oman to be used to wash his elephants!

**Favourite Change to Company in the Last Five Years:** I can definitely say the best change for me was when both my sons joined the family business; it is brilliant to be able to work with them every day and they've made a huge difference to the company since joining.

**Best Business Decision:** The best business decision we have ever made is sticking with the agricultural industry and not dividing our focus by carrying out fabrication work for other industries. In Aberdeen it would have been easy to start oil industry work, but in the long term, with the drop in the oil prices, it would have been an expensive mistake.

**Worst Business Decision:** Personally I believe the worst business decision we made was trying to do too much with too little resources and people. I was spending all my time and energy just keeping the business where it was and never had the ability to advance the business. Now my sons have joined me we have made huge steps forward in all areas of the company and introduced huge changes to the product ranges.

**Future of the Company:** I have always said I would like to leave the company to my sons in a better position than when I received it from my father.

**Best Thing about the Agricultural Industry:** Although agriculture can be a turbulent industry, it is overall a long term, secure industry as people will always need to eat.

**Outside Business Activities:** Running, Yoga, Travel

**Biography:** I always wanted to work in the family business since I was very young and I was regularly enlisted by my father to help at weekends or after school with various jobs. Naturally this was a huge benefit when I left school at the age of fifteen and started work full-time on the shop floor; I undertook every job in the factory earning the respect from the people we employed and ensuring I knew the capabilities of our manufacturing plant. I took up my current position as managing director when I was twenty-seven and took over responsibility of the purchasing, sales and general management tasks every business has. However my passion has always been in the factory and in the last five years I have had the opportunity to update and design our new products; it is great when a new idea comes together and you see the finished version!

### Name: David Marshall



**Position:** Sales / Technical

**Email:** david@marshall-trailers.co.uk

**Tel:** 01224 722777

**Marshall Trailers Start Date:** Full-time - 22nd June 2012

**Training / Experience:** National Diploma in Land Based Technology – Triple Distinction Star / Student of the Year

**Favourite Machine Ever Produced:** I remember the QM/14 we had at the LAMMA Show 2015, it had a heap of updates on it and was the first of the changes leading to where we are now.

**Most Unusual Machine Ever Produced:** The most unusual trailer I think we have ever produced was a special BC/21 with no suspension or floor, to be used for the customer to build a house on.

**Favourite Change to Company in the Last Five Years:** We've changed so much in the last five years, but the biggest one for me is the atmosphere of the company; everyone wants the product to be right and the company to do well. It makes it so much easier to improve things if everyone is on board!

**Best Business Decision:** The most important decision we have made since I joined the business is investing in more machines and reducing our reliance on humans. People can make mistakes, but if a machine is right the first time then it is right every time.

**Worst Business Decision:** There used to be a huge range of components produced in the UK that were excellent quality, but fifteen years ago cheaper overseas products became available at extremely competitive prices. Naturally we began using these, and like most things that appear too good to be true they were. I wish we had taken more care about selecting our suppliers then and sourcing quality components like we do now.

**Future of the Company:** I would love the company to be trading for a hundred years; it is rare for a family business to survive that long and continue to be in the same industry, producing the same product.

**Best Thing about the Agricultural Industry:** The agricultural industry is full of unusual and interesting people; when you visit dealers or customers you never know what to expect or what you will learn.

**Outside Business Activities:** Vintage Tractor Collection, Watching Rugby, Travel and New Eating Experiences

**Biography:** Growing up around the family business meant I never wanted to do anything else; it was always going to be a great opportunity and something I knew I would enjoy. However my parents were very keen for me to experience something away from the business, and I was lucky enough to go to Lackham College in Wiltshire to study land-based technology. It was an incredible experience that broadened my horizons to different ideas and gave me the chance to make a lot of close friends in the agricultural industry. When I returned to the company I worked in the factory learning the various different jobs and tasks required to manufacture our products. This soon progressed into overseeing the changes to our manufacturing process; examining everything and changing things to make the process more efficient with less mistakes and problems.

### Name: Charles P Marshall



**Position:** Sales / Administration

**Email:** charlesp@marshall-trailers.co.uk

**Tel:** 01224 722777

**Marshall Trailers Start Date:** Full-time - 22nd June 2012

**Training / Experience:** Aberdeen University – Law Degree with Honours

**Favourite Machine Ever Produced:** Last year we produced a QM/16 that was finished in "Rosso Corsa Red", which is also known as "Ferrari Red". The trailer looked incredible with this paint finish, but it also showed the progress of what we have been working towards. It had all the new updates we have introduced and the whole trailer was finished to such a high standard; it was something I was really proud to produce.

**Most Unusual Machine Ever Produced:** I think the most unusual machine I can remember was a QM/11 for carrying salt on the roads. It had a blue chassis, red body and yellow back door; definitely something you don't see every day.

**Favourite Change to Company in the Last Five Years:** The factory premises have changed a lot in the last five years; we've invested so much in new machines, new storage systems, new outdoor storage, new equipment and generally tidying up the factory. It is really a place we can be proud to produce in and somewhere you can show customers with pride and confidence.

**Best Business Decision:** Introducing shot-blasting to our paint process is something that has made a huge difference to our product; it virtually stopped any paint problems we were having and is acknowledged in the industry as the best preparation for painting steel.

**Worst Business Decision:** We used to produce a budget range and premium range of trailers, which I believe was one of our biggest mistakes. Customers would buy the budget range believing they were buying the "Marshall" product, which had a name for strength and quality. However a few years down the line the product hadn't lived up to the "Marshall" name; it didn't matter that the customer had paid less for it, all they remember was the product wasn't good enough! Now we produce one, high-standard of product that has a modern design, excellent finish and is strong enough to meet the challenges of modern farming practices.

**Future of the Company:** We've updated so many things and introduced a new range of dumper trailers, bale trailers and rear-discharge spreaders but we still have more new products coming in the near future.

**Best Thing about the Agricultural Industry:** Generally the people in this industry are very honourable and if a customer or a dealer says they will do something then it nearly always happens; there are very few industries that still have so much trust and honour in them.

**Outside Business Activities:** Running, Gym, Cooking

**Biography:** Since I was young I'd always enjoyed helping my father with little tasks in the evenings and weekends, which always made me want to be part of the family business. Although like my brother I was encouraged to try something different to make sure I knew what I wanted to do. In my case it was studying law at Aberdeen University, which seemed a worthwhile exercise as unfortunately rules and regulations seem to be a much larger part of a modern business. Now I'm based in the office handling a lot of the sales, marketing and overseeing the other general tasks carried out in the office.



## Drop-side Trailer Range

Model Shown: S/4 - Bale Extension



Model Shown:  
S/4 - Mesh Sides



## The most versatile trailer you will ever use.

Our range of drop-side trailers can be configured to suit almost any requirement.

**Grain Sides** – Available on the S/5 upwards; comes complete with a full height door to allow bulky loads to be safely discharged.

**Silage Sides** – Available on the S/5 upwards; comes complete with two side loading panels and uses Marshall's unique hydraulic silage door locking system fitted to the rear of the trailer, preventing any damage from the side.



Model Shown: S/6 - Front View



Model Shown: S/10 - Front View

**Mesh Sides** – Available on all models; these sides simply bolt on to the trailer. They provide an increased capacity for light loads such as leaves and grass.

**Bale Extension & Harvest Ladders** – Available on the S/4 upwards; the extension increases the bed lengths of our S/4, S/5 & S/6 models by 3' and our S/85 & S/10 models by 4'.

# Options, options and more options.

Every trailer in our drop-side range can be adjusted to your specification, with a number of useful options to ensure our trailers can tackle any job.

**Tyre Options** – there are a range of tyres available for each model that provide improved floatation or better performance on the road. To find out more information about our tyre options see page 10 for the drop-side specification chart and page 44 for our tyre guide.



**15 - 55 x 17 Floatation Tyres**

**Door Options** – every model in the range has a number of door options to ensure different loads can be safely discharged. This includes doors hinged at the top or the bottom, side opening doors or even barn doors; it is all possible.



**Lighting Options** – lights are standard on our S/4 model upwards and optional on our S/1 and S/2 models. The standard light units fitted are commercial grade, and sealed to prevent water damage. In addition it is also possible to upgrade to LED lights and LED beacons are available as an option for all models.

**Left: Recessed Lights**



**Fixed Headboard** – Every trailer in our drop-side range has a fixed headboard as standard. This increases torsional rigidity to reduce flexing when the trailer is being used.

**Fully-braced Hinge Points** – Our whole drop-side range uses the same CNC plasma cut hinge points, which are reinforced to stand up to the constant opening and closing action drop-side trailers have to endure.



Model Shown: S/85 - Front View

## Engineered to last.

Our entire drop-side range has been intelligently designed with a number of clever features to maximize strength and durability.

**Pressed Panel Construction** – This production technique increases strength and rigidity without adding significant weight, ensuring that the side panels can safely and easily be handled or removed.



Model Shown: S/1 - Rear View

**Fully Welded Construction** – No compromises are made in the construction of our trailers, with every model utilizing a fully welded construction. This provides two major benefits; the overall durability of the trailer is increased and there is less opportunity for water to sit and cause rust.

**Marshall Chassis Design** – Our smaller models use a fully-welded channel chassis that provides unmatched strength while keeping weight down. Our S/85 and S/10 models use a square chassis configuration to improve stability and reduce flexing when loading. In addition our S/10 model also benefits from a further strengthened chassis, which employs a 6mm thick reinforcing plate over the front of the chassis members to provide incredible strength.



# The right trailer, with the right running gear.

It is now more important than ever to make sure that trailers have the correct suspension, axles and brakes. We recognize this and accordingly we ensure all our models exceed the legal requirements for agricultural trailers, and of course we offer a number of optional extras to further improve performance if required.

## Suspension

**Springs** – Available on our tandem axle S/85 and S/10 models as a no-cost option and on our single-axle S/4, S/5 and S/6 models as an optional extra. The benefit of spring suspension is for road-work because it handles uneven surfaces better at speed.



## Spring Suspension

**Rocker Tandem** – Only available on our tandem axle S/85 and S/10 models as a no-cost option. This suspension set-up is excellent on steep ground or when transporting high-loads since it prevents lateral movement improving the stability of the trailer. The rocker tandem units are also welded on our robotic welders to provide a precise and consistent finish; critical for any suspension component.



**Axles & Brakes** – Our whole drop-side range comes complete with hydraulically operated brakes as standard; the only exceptions are our S/1 and S/2 models which have the option to fit hydraulic brakes. The sizes of the brakes on our drop-side range are also more than acceptable; providing braking efficiencies in excess of the current legal requirements. See our running gear guide on page 45 for more information.

**Left: Rocker Tandem Suspension**

	S/1	S/2	S/4	S/5	S/6	S/8.5	S/10
<b>Basic Price</b>	<b>£2,230</b>	<b>£2,815</b>	<b>£3,800</b>	<b>£4,292</b>	<b>£5,150</b>	<b>£8,140</b>	<b>£10,176</b>
<b>Grain Price</b>	N/A	N/A	N/A	<b>£4,994</b> (DF-2.5)	<b>£5,810</b> (DF-2.5)	<b>£8,834</b> (DF-2.5)	<b>£10,892</b> (DF-2.5)
<b>Silage Price</b>	N/A	N/A	N/A	<b>£5,748</b> (DF-2.5)	<b>£6,716</b> (DF-2.5)	<b>£9,928</b> (DF-2.5)	<b>£12,135</b> (DF-2.5)
Body Size - Imperial	6' x 4' x 13"	8' x 5' x 15"	10' x 6' x 18"	10' 6" x 6' 9" - 7' x 21"	12' x 6' 9" - 7' x 21"	14' x 7' 6" - 7' 9" x 24"	16' x 7' 6" - 7' 9" x 24"
Standard Tyre Size	23 x 8.5 x 12	26.0 x 12	10.0 x 15 - 10 ply	11.5 x 15 - 12 ply	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	400 - 60R x 22.5
Axle	50mm 5 stud	50mm 5 stud	60mm 6 stud	70mm 6 stud	70mm 6 stud	70mm 6 stud Tandem	80mm 8 stud Tandem
Brake	N/A	N/A	250 x 60	300 x 60	300 x 60	300 x 60	350 x 90
Carrying Capacity	1.25 tons	2 tons	4 tons	5 tons	6.5 tons	8.5 tons	10.5 tons
Floor Thickness	2.5mm	2.5mm	3mm	3mm	4mm	4mm	4mm
Side Thickness	2.5mm	2.5mm	2.5mm	2.5mm	2.5mm	2.5mm	2.5mm
Lights	£151 (DF-1)	£151 (DF-1)	Standard	Standard	Standard	Standard	Standard
Hyd Brakes	£235 (DF-1.5)	£235 (DF-1.5)	Standard	Standard	Standard	Standard	Standard
Side Loading Panels	N/A	N/A	N/A	Standard	Standard	Standard	Standard
Volume Basic	26 cu.ft / 0.74 cu. mtrs	50 cu.ft / 1.41 cu. mtrs	90 cu.ft / 2.55 cu. mtrs	128 cu.ft / 3.62 cu. mtrs	147 cu.ft / 4.16 cu. mtrs	216 cu.ft / 6.1 cu. mtrs	248 cu.ft / 7.0 cu. mtrs
Volume Grain	N/A	N/A	N/A	238 cu. ft / 6.7 cu. mtrs	273 cu. ft / 7.7 cu. mtrs	434 cu. ft / 12.2 cu. mtrs	496 cu. ft / 18.3 cu. mtrs
Volume Silage	N/A	N/A	N/A	457 cu. ft / 13 cu. mtrs	525 cu. ft / 14.8 cu. mtrs	704 cu. ft / 18.4 cu. mtrs	930 cu. ft / 21.06 cu. mtrs
Basic Trailer Weight	365kgs	505kgs	905kgs	1007kgs	1360 kgs	2310 kgs	2746 kgs
Loading Height Basic	40" / 1.02m	45" / 1.14m	52" / 1.32m	58" / 1.47m	60" / 1.52m	65" / 1.65m	71" / 1.80m
Tipping Mechanism	Single Hydraulic Ram	Single Hydraulic Ram	Single Hydraulic Ram	Single Hydraulic Ram	Single Hydraulic Ram	Twin Hydraulic Rams	Twin Chrome Hydraulic Rams
<b>OPTIONAL EQUIPMENT</b>							
26.0 x 12	£345 (DF-0.5)	N/A	N/A	N/A	N/A	N/A	N/A
11.5 x 15	N/A	N/A	£68 (DF-0.5)	Standard	N/A	N/A	N/A
12.5 x 15	N/A	N/A	£160 (DF-0.5)	£92 (DF-0.5)	Standard	Standard	N/A
355-60 x 18 Radial	N/A	N/A	N/A	£762 (DF-0.5)	£670 (DF-0.5)	£1,340 (DF-1)	N/A
15-55 x 17	N/A	N/A	£450 (DF-0.5)	£450 (DF-0.5)	£340 (DF-0.5)	£680 (DF-1)	N/A
8 inch Hatch	N/A	N/A	N/A	£118	£118	£118	£118
12 inch Hatch	N/A	N/A	N/A	N/A	N/A	£142	£142
Spring Drawbar (Adjustable)	N/A	N/A	N/A	N/A	N/A	£782	£782
Swivel Hitch	N/A	N/A	N/A	N/A	N/A	N/A	£155
Bale Extension	N/A	N/A	£325 (DF-1)	£325 (DF-1)	£325 (DF-1)	£375 (DF-1)	£375 (DF-1)
Harvest Ladders - Galvanized (pair)	N/A	N/A	£220 (DF-0.25)	£220 (DF-0.25)	£220 (DF-0.25)	£220 (DF-0.25)	£220 (DF-0.25)
Springs for Single Axle	N/A	N/A	£360	£360	£390	N/A	N/A
Trailer Cover (640g PVC)	£170 (DF-0.25)	£170 (DF-0.25)	£170 (DF-0.25)	£170 (DF-0.25)	£170 (DF-0.25)	£180 (DF-0.25)	£220 (DF-0.25)
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)
LED Tail Lights	£301 (DF-1)	£301 (DF-1)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)
10 Stud Commercial Axle	N/A	N/A	N/A	N/A	N/A	N/A	£1,214
10 Stud Commercial Axle c/w ABS Brakes	N/A	N/A	N/A	N/A	N/A	N/A	£4,620
Air/Oil Brakes (non ABS) c/w Load Sensing	N/A	N/A	N/A	N/A	N/A	£1,350 (DF-4)	£1,350 (DF-4)
Oil Load Sensing	N/A	N/A	N/A	N/A	N/A	£750 (DF-2)	£750 (DF-2)
18" Mesh Sides	£425 (DF-1.5)	£425 (DF-1.5)	£425 (DF-1.5)	£475 (DF-1.5)	£475 (DF-1.5)	£525 (DF-1.5)	£525 (DF-1.5)
Rear Tow Hitch c/w Lights and Brakes	N/A	N/A	£425	£425	£425	£425 (DF-2)	£325 (DF-2)
Jack Screw in lieu of Skid	Standard	Standard	£95 (DF-0.5)	£95 (DF-0.5)	£95 (DF-0.5)	N/A	N/A
Rear Ramps (Aluminium)	£650 (DF-0.25)	£650 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)

Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

1

### ACCURATE CUBIC CAPACITIES

The drop-side range is designed to hold and function with the stated carrying capacities; the construction, axles and brakes are all specified to achieve this.

2

### DEALER FIT READY

The entire range of drop-side trailers are designed to allow over 80% of the optional extras to be retrofitted without the need for fabrication or paint rectification. This ensures the trailer can be upgraded and changed to meet future requirements.

3

### FIXED HEADBOARD

Every model benefits from a fixed headboard that increases rigidity and prevents flexing when loading the trailer.

8

### LIGHTS AND HYDRAULIC BRAKES

The S/4 model upwards has hydraulic brakes and lights as standard. These are available as an option on the S/1 and S/2 models.



4

### PRESSED PANEL CONSTRUCTION

The design of all models utilises a pressed construction to improve strength, while reducing unnecessary weight and ensuring the operation of the trailer remains user-friendly.

7

### RUNNING GEAR

Tyre options are available on all models, to provide better floatation or enhanced road performance. Spring suspension is also available on the S/4 model upwards and split-oscillating suspension can be fitted to the S/85 and S/10 models for improved stability. Commercial axles and air brakes are options on the S/10 model.

6

### CHASSIS DESIGN

Heavy duty channels are used to form the chassis on all models, with the S/85 and S/10 models configured with a square chassis. This provides improved stability and strength.

5

### HYDRAULIC TIPPING

All of the drop-side trailer range have a hydraulic tipping facility with the S/1, S/2, S/4, S/5 and S/6 having a single hydraulic ram and the S/85 and S/10 have twin tipping rams. The S/1 and S/2 have displacement style rams fitted.



## QM Monocoque Trailer Range

**Chassis Design** – the QM/11 model upwards uses a unique chassis design that is formed from heavy duty channels with 6mm, 8mm or 10mm reinforcing plates stitch welded to the channels. This set-up provides unrivalled strength, while also allowing the chassis to flex when required; if the chassis is too rigid then it can become prone to cracking and premature failure.

**Right: 50mm Fully-bushed Tip Point and Rear Tow Point**

**Far Right: Displacement Ram**



# Built to perform.

Our QM range combines superior construction and clever design to create trailers that are strong, reliable and durable; the basic requirements of any good trailer.

**Body Design** – the floors of the entire range are 5mm thick and the sides are either 3.5mm or 4mm thick, ensuring an extended service life. When mudguards are specified the floor thickness of the trailer above the wheels is 10mm and the mudguards are designed to bolt on, so in the event they are damaged they can be easily replaced. Every model also benefits from a fully welded construction with a substantial number of floor and side bearers to improve overall rigidity and strength.



**Model Shown: QM/1200 - Hydraulic Attachment Style Silage Sides - Front View**

**Tipping Mechanism** – new for 2019 is the introduction of displacement single rams to all our models from 11 ton capacity upwards. After extensive trials throughout 2018, this new design has enabled us to reduce the tipping cycle time by 20%. This obviously makes the whole operation considerably safer whilst greatly reducing wear and damage to the trailer.

# High-performance running gear.

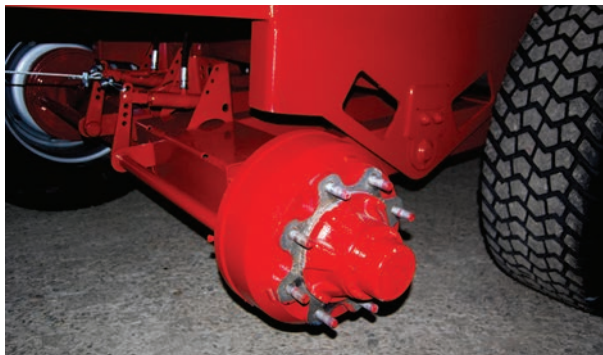
With ever increasing tractors speeds and heavier loads having the correct running gear has never been more important, accordingly our entire QM range is prepared to handle these challenges.

## Suspension

**Springs** – available on all our tandem axle QM models as a no-cost option and available on our QM/6 single axle model as a priced option. Our QM/8, QM/11, QM/12 and QM/1200 models use multi-leaf springs to keep the trailer height down for improved stability, while still providing excellent road performance. On our QM/14 model upwards 4-leaf, 24-ton parabolic springs are utilized to handle the increased weights, while also providing a smooth and stable ride.



4-leaf Parabolic Springs



Rocker Tandem Suspension



**Rocker Tandem** – available on our tandem axle models up to 14.5 tons as a no-cost option. This suspension set-up is more stable than springs as it eliminates lateral movement, while providing a smooth ride when travelling forward. Our rocker tandems are constructed from box-section with a 50mm solid steel bar pivot, that has devlon bushes and grease points to ensure an extended working life-span. The rocker tandem units are also welded on our robotic welders to provide a precise and consistent finish; critical for any suspension component.

**Axles & Braking** - every model in the QM range has hydraulic brakes as standard with the option for air brakes with load sensing and ABS. There is also the option for hydraulic load sensing. Our QM/11, QM/12 & QM/1200 models use 8 stud 350 x 90 axles, with the option to upgrade to commercial axles for high-speed road work. Commercial 10 stud 420 x 180 axles are standard on our QM/14 model upwards; these are the same size of axles that are used on HGVs and provide exceptional braking and high-speed performance.



10 Stud 420 x 180 S - Cam Commercial Axle



**Silage** – both our ranges of monocoque trailers are available with silage sides. The QM range is available with swinging tailgate style sides or silage attachment style sides; the swinging tailgate style sides allow for more capacity, while the silage attachment style sides are quicker to switch between silage and cereal set-ups. Our QM00 range is only available with silage attachment style sides. In 2014 we introduced an updated design for our silage attachment style silage sides; this new design improved the strength and rigidity of the sides. This was only possible due to the introduction of an internal plate that pushes against the standard trailer body as the trailer is filled with silage preventing the top of the silage sides from pushing outwards. In addition an updated hydraulic door arm has been developed that increases the clearance above the silage sides; ensuring loads can be safely discharged even when heaped up.

**Rootcrop** – our QM range has 4' high sides to minimize the distance crops have to fall during loading. When specified with 560/60 x 22.5 wheels and a full width front window, our QM range is ideal for rootcrop work.

**Sugar Beet** – with high tip rams either our QM or QM00 range can handle sugar beet work. The high tip rams ensure that the load correctly discharges before the reinforced 90 degree opening hydraulic door grades the heap.

## Designed around you.

With so many different demands placed on agricultural trailers it is now essential to offer a large range of options to ensure that our monocoque range can handle any task.

**Cereals** – our QM and QM00 range are both ideal for this type of work. The QM00 range has a marginally larger carrying capacity than the QM range with basic sides.



Model Shown: QM/1200 - Front View



Model Shown: QM/8SS - Swinging Tailgate Style Sides

# Build options

Special build trailers are not naturally compatible with our production methods! We build trailers like cars so taking a standard design that is mass produced is obviously the most efficient way to achieve this. However, like the car world, people want individual trailers and we can achieve this through our large, comprehensive range of optional extras. Now these have all been designed either to be fitted during production as the trailer is built or fitted at the end of the process so you can have the best of both worlds!



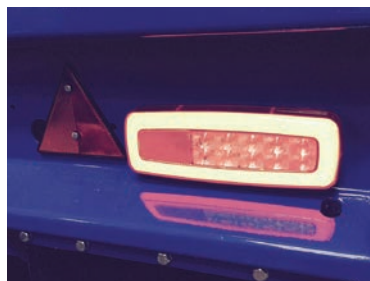
Model Shown:  
QM/14 - Bespoke Colour Finish - Front View

**Build Options** – we are able to alter certain build options on our range, such as fold down sides, axle placements, increased floor thicknesses and body dimensions.

**Paint Options** – this is another bespoke option that we are able to offer, allowing customers to specify the colour finish of their trailer. In the past colour options have included John Deere green, New Holland blue, Maserati blue, Kubota orange, Fendt green, Claas green, white and yellow for municipal use.



Rear Name Plate



LED Lights



LED Beacon



Premium Tyre Brand Options

**Lighting Options** – another area that we offer multiple specification options. LED lights at a high or low level are available along with dual lights and LED beacons.

**Wheel Options** – certain tyre sizes and brands that we do not offer as a standard option can be requested.

	QM/6	QM/8	QM/11	QM/12	QM/1200	QM/14	QM/1400	QM/16	QM/1600	QM/1800
<b>Basic Price</b>	<b>£6,532</b>	<b>£9,300</b>	<b>£11,938</b>	<b>£14,200</b>	<b>£14,200</b>	<b>£17,100</b>	<b>£17,100</b>	<b>£17,960</b>	<b>£17,960</b>	<b>£19,765</b>
<b>Silage Price</b>	<b>£7,649</b>	<b>£10,563</b>	<b>£13,565</b>	<b>£15,949</b>	<b>£15,949</b>	<b>£19,436</b>	<b>£19,436</b>	<b>£20,300</b>	<b>£20,300</b>	<b>£21,050</b>
Body Size - Imperial	12' x 7' 3" - 7' 6" x 4'	14' x 7' 3" - 7' 6" x 4'	16' x 7' 9" - 8' x 4'	18' x 7' 9" - 8' x 4'	16' x 7' 9" - 8' x 4' 8"	21' x 7' 9" - 8' x 4'	18' x 7' 9" - 8' x 4' 8"	24' x 7' 9" - 8' x 4'	21' x 7' 9" - 8' x 4' 8"	24' x 7' 9" - 8' x 4' 8"
Standard Tyre Size	12.5 x 15	12.5 x 15	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	NEW 385-65 x 22.5
Axle	6 Stud 70mm Single Axle	6 Stud 70mm	8 Stud 80mm	8 Stud 80mm	8 Stud 80mm	10 Stud 120mm High Speed Commercial	10 Stud 120mm High Speed Commercial	10 Stud 120mm High Speed Commercial	10 Stud 120mm High Speed Commercial	10 Stud 120mm High Speed Commercial
Brake	300 x 60	300 x 60	350 x 90	350 x 90	350 x 90	420 x 180 S Cam	420 x 180 S Cam	420 x 180 S Cam	420 x 180 S Cam	420 x 180 S Cam
Carrying Capacity	6.5 tons	8.5 tons	11 tons	12 tons	12 tons	14.5 tons	14.5 tons	16.5 tons	16.5 tons	18.5 tons
Floor Thickness	5mm	5mm	5mm	5mm	5mm	5mm	5mm	5mm	5mm	5mm
Side Thickness	3.5mm	3.5mm	3.5mm	4mm	4mm	4mm	4mm	4mm	4mm	4mm
Lights & Hyd Brakes	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Side Loading Panels	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Volume Basic	360 cu.ft / 10.2 cu. mtrs	420 cu.ft / 11.9 cu. mtrs	512 cu.ft / 14.5 cu. mtrs	576 cu.ft / 16.3 cu. mtrs	597 cu.ft / 16.9 cu. mtrs	672 cu.ft / 19 cu. mtrs	672 cu.ft / 19 cu. mtrs	768 cu.ft / 21.7 cu. mtrs	784 cu.ft / 22.2 cu. mtrs	896 cu.ft / 25.4 cu. mtrs
Volume Silage - Swinging Door Style Sides	720 cu.ft / 20.4 cu. mtrs	840 cu.ft / 23.8 cu. mtrs	1024 cu.ft / 29 cu. mtrs	1152 cu.ft / 32.6 cu. mtrs	N/A	1344 cu.ft / 38 cu. mtrs	N/A	1536 cu.ft / 43.4 cu. mtrs	N/A	N/A
Volume Silage - Hyd Door Attach. Style Sides	N/A	710 cu.ft / 20.1 cu. mtrs	865 cu.ft / 24.5 cu. mtrs	973 cu.ft / 27.5 cu. mtrs	1013 cu.ft / 28.7 cu. mtrs	1135 cu.ft / 32.1 cu. mtrs	1140 cu.ft / 32.3 cu. mtrs	1298 cu.ft / 36.7 cu. mtrs	1330 cu.ft / 37.6 cu. mtrs	1426 cu.ft / 40.4 cu. mtrs
Basic Trailer Weight	1680 kgs	2260 kgs	3740 kgs	3960 kgs	3980 kgs	4980 kgs	5010 kgs	5590 kgs	5640 kgs	6100 kgs
Loading Height Basic	83"/2.11m	89"/2.26m	96"/2.41m	96"/2.44m	104"/2.64m	104"/2.64m	104"/2.64m	98"/2.49m	106"/2.69m	106"/2.69m
Tip Angle (Degrees)	50°	45°	46°	49°	46°	50°	50°	51°	51°	51°
<b>OPTIONAL EQUIPMENT</b>										
15-55 x 17	£340 (DF-0.5)	£680 (DF-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
355-60 x 18 Radial	£670 (DF-0.5)	£1,340 (DF-1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
550-45 x 22.5 c/w Mudguards	N/A	N/A	£2,005	£2,005	£2,005	£1,640 (DF-1)	£1,640 (DF-1)	N/A	N/A	N/A
560-45 x 22.5 c/w Mudguards	N/A	N/A	£2,645	£2,645	£2,645	£2,280 (DF-1)	£2,280 (DF-1)	£2,280 (DF-1)	£2,280 (DF-1)	N/A
560-60 x 22.5 c/w Mudguards	N/A	N/A	N/A	N/A	N/A	£3,080	£3,080	£3,080	£3,080	£3,080
Mudguards/Wings - Bolt On	N/A	£365	£365	£365	£365	Standard	Standard	Standard	Standard	Standard
12 inch Hatch	£142	£142	£142	£142	£142	£142	£142	£142	£142	£142
Spring Drawbar (Adjustable)	N/A	£782	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Swivel Hitch	N/A	£155	£155	£155	£155	£155	£155	£155	£155	£155
Hyd Door Safety Valve	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)
Hyd Door Seal	£195	£195	£195	£195	Standard	£195	Standard	£195	Standard	Standard
Hyd Up & Over Grain Door	£983	£983	£983	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Hyd Door Attachment Style Silage Sides	Standard - When Hyd Grain Door and Silage Sides Specified	Standard - When Hyd Grain Door and Silage Sides Specified	Standard - When Hyd Grain Door and Silage Sides Specified	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)	Standard - When Silage Sides Specified (DF-2)
Swinging Door Style Silage Sides	Standard - When Hyd Grain Door Not Specified (DF-3)	Standard - When Hyd Grain Door Not Specified (DF-3)	Standard - When Hyd Grain Door Not Specified (DF-3)	No-cost Option (DF-3)	N/A	No-cost Option (DF-3)	N/A	No-cost Option (DF-3)	N/A	N/A
Trailer Cover (640g PVC)	£170 (DF-0.25)	£180 (DF-0.25)	£220 (DF-0.25)	£240 (DF-0.25)	£240 (DF-0.25)	£260 (DF-0.25)	£260 (DF-0.25)	£260 (DF-0.25)	£260 (DF-0.25)	£260 (DF-0.25)
Roll Over Cover (1000g PVC)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)	£1,275 (DF-5)
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	Standard	Standard	Standard	Standard	Standard
LED Tail Lights	£150 (DF-0.5)	£150 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)
10 Stud 406 x 120 Commercial Axle	N/A	N/A	£1,214	£1,214	N/A	N/A	N/A	N/A	N/A	N/A
10 Stud Commercial Axle c/w ABS & Air Brakes	N/A	N/A	£4,620	£4,620	£4,620	£3,108 (DF-6)	£3,108 (DF-6)	£3,108 (DF-6)	£3,108 (DF-6)	£3,108 (DF-6)
Rear Steering Axle	N/A	N/A	N/A	N/A	N/A	£3,650	£3,650	£3,650	£3,650	£3,650
Air / Oil Brakes (non ABS) c/w Load Sensing	N/A	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)
Oil Load Sensing	N/A	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)
Small Perspex Front Window	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)
Large Perspex Front Window	N/A	N/A	£695	£695	£695	£695	£695	£695	£695	£695
Rear Tow Hitch c/w Lights and Brakes	N/A	£425	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)

Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)



### 1 HYDRAULIC DOOR DESIGN

Optional on models up to the QM/11 and standard on larger models. Our hydraulic door design is CNC formed to increase clearance and integrates a tapered end plate for protection. The door also physically locks shut to prevent accidental material discharge; it does not rely on hydraulic pressure to remain closed.

### 2 TAPERED BODY

All QM models have a tapered body to allow materials to be safely discharged. Absolutely essential for silage and muck.

### 3 CUBIC CAPACITIES

Every QM model has very generous cubic capacities allowing the stated weights to be carried.

### 4 ROBOT WELDED SIDES

Every QM model benefits from robot welded sides to provide unmatched strength and quality. Sides are either 3.5mm or 4mm thick depending on the model.

### 13 REAR TIPPING POINTS

The QM/11 model upwards utilises 50mm, fully bushed tipping points.

### 12 MUDGUARDS

Optional on the QM/8 to QM/1200 models and standard on the QM/14 model upwards. The mudguard option upgrades the floor to 10mm and the mudguards bolt-on and are galvanized.

### 11 AXLE OPTIONS

The QM/6 and QM/8 models are fitted with 6 stud 70mm 300 x 60 axles as standard; the QM/11, QM/12 and QM/1200 models benefit from larger 8 stud 80mm 350 x 90 axles with the option for 10 stud commercial axles. The QM/14 model upwards have 10 stud 420 x 180 commercial axles as standard.

### 10 SUSPENSION

Split-oscillating suspension or spring suspension is available as a no-cost option. The split-oscillating suspension is robot welded and on the QM/14 model upwards a 24-ton, 4-leaf spring suspension kit is used.

### 9 UNIQUE DESIGN CHASSIS

Our unique, well proven designed chassis utilises a 6mm, 8mm or 10mm finch plate welded to the face of a 260 x 90 UPN channel. This ensures unrivalled strength while keeping the chassis depth to a minimum.

### 8 DRAWBAR DESIGN

Spring drawbars are standard on the QM/11 model upwards and fully adjustable. The drawbar is CNC formed from two 8mm plates to create a modern and strong design.

### 5 DEALER FIT READY

The entire QM range comes "dealer fit" ready, allowing over 80% of the optional extras to be retrofitted without the need for further fabrication or paint rectification.

### 6 FRONT INSPECTION LADDER

Standard on all QM models; robot welded and galvanized for durability and fit.

### 7 FRONT UPSTAND

CNC formed to protect the hoses and galvanized for improved protection.





## HD Hybrid Dumper Trailer Range

**Rubble & Stone** – the floors on the HD/6 and HD/8 models are 6mm thick, with the rest of the range benefiting from an 8mm rock floor. The HD/6 and HD/8 models have 5mm sides, with larger models being fitted with 6mm sides. The pressed design of the body further adds to the overall strength and rigidity; ensuring each model can handle rubble, stone or any other heavy material. In addition each model has been designed with a very generous cubic capacity to ensure that the stated loads can actually be carried. Finally the HD/12 model upwards benefits from a hydraulic door as standard and a flat-back design, with the HD/6 and HD/8 models having the hydraulic door available as an option to compliment the standard scow-end. This option can also be “dealer fitted” in the future to the HD/6 and HD/8 models if not specified from new. The hydraulic door increases carrying capacity and has the ability to be removed to increase clearance for large bulky loads.

## The dumper designed for every job.

The HD hybrid dumper trailer range has been designed to handle a wide variety of different tasks; from shifting muck on a farm to the toughest construction work.



Model Shown: HD/8 - Front

**Muck** – the large cubic capacities and robust build makes the hybrid dumper range ideal for carrying muck. The high tipping angle allows the load to be heaped up when discharged. The tipping mechanism is also very robust; with the HD/12 model upwards utilising chrome rams to prevent corrosion and premature seal failures. In addition the tipping points on larger models are formed by 50mm steel pins.



Model Shown: HD/16 - Front

# Stable suspension and robust running gear.

**Suspension** – our tandem axle models all come as standard with split-oscillating suspension, which eliminates lateral movement. This combined with a wide chassis ensures maximum stability when tipping. Spring suspension is also available as a no-cost option.



Model Shown: HD/16 - Rear

**Axles & Brakes** – the standard axles and hydraulic brakes on all models exceed the current legislation on braking efficiency. The HD/16 model also has 10 stud 420 x 180 commercial axles as standard; and the HD/12 and HD/14 models can be upgraded to 10 stud 406 x 120 commercial axles for increased braking efficiency. Air brakes are available as an option.



**Tyres** – the standard tyres on the HD/6 and HD/8 models are 12.5 x 15 floatation tyres, which can be upgraded to 355-60 x 18 radial tyres for road work. The larger models in the range, the HD/12 upwards, are equipped with 400/60R x 22.5 radial tyres, ideal for road work. These can be swapped for floatation tyres as an optional extra.

	HD/6	HD/8	HD/12	HD/14	HD/16
<b>Price</b>	<b>£6,000</b>	<b>£9,000</b>	<b>£11,500</b>	<b>£12,200</b>	<b>£14,100</b>
Body Size	11' 6" x 6' 6" x 1' 9"	14' x 7' 9" x 1' 9"	16' x 7' 9" x 2'	16' x 7' 9" x 2' 6"	16' x 7' 9" x 3'
Body Shape	Scow-end	Scow-end	Flat-back	Flat-back	Flat-back
Standard Tyre Size	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5
Axle	70mm 6 stud	70mm 6 stud Tandem	80mm 8 stud Tandem	80mm 8 stud Tandem	120mm 10 stud Tandem
Brake	300 x 60	300 x 60	350 x 90	350 x 90	420 x 180 S Cam
Carrying Capacity	6 tons	8 tons	12 tons	14 tons	16 tons
Floor Thickness (Rock)	6mm	6mm	8mm	8mm	8mm
Side Thickness	5mm	5mm	6mm	6mm	6mm
Lights and Hyd Brakes	Standard	Standard	Standard	Standard	Standard
Volume Basic	131 cu. ft / 3.7 cu. mtrs	190 cu. ft / 5.4 cu. mtrs	247 cu. ft / 7 cu. mtrs	307 cu. ft / 8.7 cu. mtrs	370 cu. ft / 10.5 cu. mtrs
Basic Trailer Weight	1660 kgs	2990 kgs	3960 kgs	4240 kgs	4680 kgs
Loading Height	60"	62"	71"	77"	83"
Tip Angle (Degrees)	55°	60°	60°	60°	60°
<b>OPTIONAL EQUIPMENT</b>					
15-55 x 17	£340 (DF-0.5)	£680 (DF-1)	N/A	N/A	N/A
355-60 x 18 Radial	£670 (DF-0.5)	£1,340 (DF-1)	N/A	N/A	N/A
355-50 x 22.5 (Lowers bed height by 75mm)	N/A	N/A	£640	£640	£640
NEW 400-60 x 22.5	N/A	N/A	£788 (DF-1)	£788 (DF-1)	N/A
550-45 x 22.5 c/w Mudguards	N/A	N/A	£2,005	£2,005	£2,005
560-45 x 22.5 c/w Mudguards	N/A	N/A	£2,645	£2,645	£2,645
Mudguards / Wings - Bolt On	N/A	N/A	£365	£365	£365
Spring Drawbar (Adjustable)	N/A	£782	Standard	Standard	Standard
Hydraulic Tail Door	£983 (DF-3)	£983 (DF-3)	Standard - Removable	Standard - Removable	Standard - Removable
Hyd Door Safety Valve	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)	£160 (DF-1.5)
Trailer Cover (640g PVC)	£170 (DF-1)	£180 (DF-1)	£240 (DF-1)	£240 (DF-1)	£240 (DF-1)
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)
LED Tail Lights	£150 (DF-0.5)	£150 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)
10 Stud Commercial Axle 406 x 120	N/A	N/A	£1,214	£1,214	N/A
10 Stud Commercial Axle c/w ABS & Air Brakes	N/A	N/A	£4,620	£4,620	£3,108 (DF-6)
Air / Oil Brakes c/w Load Sensing	N/A	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)
Rear Tow Hitch c/w Lights and Brakes	N/A	£425	£325 (DF-2)	£325 (DF-2)	£325 (DF-2)
Rear Ramps (Aluminium)	N/A	N/A	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)

Model Shown: HD/6 - Rear View



Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

### 1 STONE GUARD

Every HD model comes with a stone guard as standard to protect the operator and stop stones falling over the front of the trailer. The guard comes galvanized as standard and is bolt on, allowing it to be replaced if damaged.

### 2 FRONT UPSTAND

CNC formed to protect the hoses and galvanized for improved protection.

### 3 DRAWBAR DESIGN

The entire range utilises the CNC formed drawbar design, creating a strong and rigid drawbar with a modern and sleek look. The HD/12 model upwards is also standard with a spring drawbar that is adjustable to match the hitch height of different tractors.

### 4 CHASSIS DESIGN

Heavy duty channels are used to form the chassis on all HD models, with the HD/12 model upwards also benefitting from an 8mm reinforcing plate combined with the channel chassis design. This provides strength where necessary, while also allowing the chassis to flex rather than crack or fail prematurely.

### 9 BODY DESIGN

The design of the whole HD range is created on our pair of CNC presses to incorporate more folding and less welding. The result is strong and rigid bodies that visually have a very modern design. The floors on the HD/6 and HD/8 are 6mm thick and on all other models are 8mm thick; the sides on the HD/6 and HD/8 are 5mm thick while the HD/12 model upwards have 6mm sides.



### 5 TIPPING RAMS

The HD/8 has twin tipping rams and the HD/6, HD/12, HD/14 and HD/16 all use a single tipping ram while the HD/12, HD/14 and HD/16 all utilize our displacement style ram.

### 8 HYDRAULIC DOOR

The hydraulic door is standard on the HD/12, HD/14 and HD/16 models. It has a generous amount of clearance when open to allow loads to be safely discharged and the rear door panel can be removed to allow the trailer to be used for bulky materials that would otherwise catch on the door. The hydraulic door is available as an option on the HD/6 and HD/8 models, which are designed to allow the door to be "dealer fitted" at any point.

### 7 TYRE OPTIONS

The standard tyres on all models are suitable for standard workloads, however other tyre options are available to deal with specific tasks. On the HD/6 and HD/8 models 15-55 x 17 floatation wheels and 355-60 x 18 radial wheels are available for either field or road work. On the HD/12 model and above, 550-45 x 22.5 or 560-45 x 22.5 floatation tyres are available for field work.

### 6 SUSPENSION

The standard suspension on the HD/8 model upwards is the split-oscillating suspension, which is extremely stable and hard-wearing. The suspension units are built using our robot welders to ensure a strong and precise finish every time. Spring suspension is available as a no-cost option on the HD/8 model upwards to provide a smoother ride for road work.



## BC Pallet/Bale Trailer Range



Model Shown: BC/28 - 14 Ton



Model Shown: BC/25 - 10 Ton

# Strong as standard.

The basic construction methods and materials used in our BC range ensures that every model conforms to the heavy-duty build standard of all Marshall products.

**Chassis Design** – every model benefits from heavy-duty channels to form a square chassis design that improves rigidity and reduces flexing during loading.

**Bed Design** – The entire range has a chequered plate steel floor as standard to prevent loads from moving during transit. The side rails are folded out of 6mm plate while also benefitting from integrated rope hooks and ratchet strap points to ensure loads can be properly secured. We would like you to take note of the deeper part pressed into the centre section. Traditionally this section has always been viewed as the weakest part therefore by increasing the depth at this point it will automatically become stronger.

**21" Fixed Headboard** – standard on all models this also dramatically increases the rigidity of the trailer.

# The finishing touches.

It is the small details of the Marshall BC range that set it apart from the competition, with numerous features that make our trailers simple to use and most importantly, extremely practical.

**Harvest Ladders** – standard front and rear ladders on all models, with a galvanized finish to provide effective protection. The rear harvest ladders on all models are designed to be adjustable between straight and angled positions, depending on the shape of the bales being transported.



Model Shown: BC/25 - 12 ton

**Commercial Grade Light Units** – every model has sealed commercial quality light units that are recessed into the back rail of the trailer to improve protection. LED front marker lights are also a standard feature on all models.

**Rear Crash Barrier** – standard on all models the crash barrier is formed from box section and can be folded away or removed if preferable.

**Rope Hooks & Strap Points** – every model has heavy duty 5/8" rope hooks along each side and at both the front and the back. In addition the side rail of the BC range integrates strapping points for ratchet straps ensuring efficient and safe strapping down of loads to comply with current legislation.



**Rear Toolbox** – this simple toolbox is recessed into the back rail of our trailers to ensure it is protected.

**Left: Recessed Lights, Rear Crash Barrier and Toolbox**

**Far Left: 5/8" Diameter Rope Hooks & Integrated Strap Points**



**Suspension** – the normal suspension offered on our bale trailer range is our split-oscillating suspension, which reduces lateral movement and improves stability of high loads. Spring suspension, if preferred, is also available for high-speed road work as a no-cost option.

**Axles & Brakes** – the standard axles on all our models are more than adequate for most jobs. However commercial 10 stud axles can be specified to provide high-speed performance and enhanced braking.

**Tyres** – it is possible to upgrade the tyres of our entire BC range to better handle different jobs. Tyres available include miniature super singles, low and wide 445-45 x 19.5 tyres to reduce the bed height and a variety of floatation tyres. Study the specification chart on page 26 to see the available tyre options for each model. Further information on tyre performance is available on page 44.

## Suspension, axles, brakes and tyres matched to the model.

We recognize that the correct suspension, axles, brakes and tyres are vital aspects of any new trailer. Accordingly our standard setup exceeds current legislation, and there are a huge range of optional upgrades available.



355 - 60 x 18 "Miniature Super-singles"



560 - 45 x 22.5 Radial Floatations



# More than just a bale trailer.

With a number of options, our BC range can be used for more than simply moving bales or boxes.

**Side Posts** – these posts are perfect for transporting pipes or other similar types of loads. The posts can be fixed or removable, the choice is yours.

**Model Shown: BC/21**



**Ramps** – optional ramp bars can be fitted to the rear back rail of the trailer, and aluminium ramps can be supplied as an option. This set-up allows machines to be loaded and transported without the need for a dedicated low-loader trailer while still leaving the long, low flat floor that is required for a bale trailer. Ask yourself how often do you need to move machines and how often you need a bale trailer; you will find this option provides excellent value for both jobs.

	BC/21	BC/25 - 10 ton	BC/25 - 12 ton	BC/28	BC/32 - TAN	BC/32 - TRI
<b>Price</b>	<b>£6,355</b>	<b>£6,800</b>	<b>£8,600</b>	<b>£9,900</b>	<b>£11,050</b>	<b>£16,100</b>
Body Size	21' x 8' / 6.40m x 2.43m	25' x 8' / 7.62m x 2.43m	25' x 8' 4" / 7.62m x 2.54m	28' x 8' 4" / 8.53m x 2.54m	32' x 8' 4" / 9.75m x 2.54m	32' x 8' 4" / 9.75m x 2.54m
Standard Tyre Size	11.5 x 15 - 12 ply	12.5 x 15 - 14 ply	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5	400 - 60R x 22.5
Axle	70mm 6 stud Tandem	70mm 6 stud Tandem	80mm 8 stud Tandem	80mm 8 stud Tandem	80mm 8 stud Tandem	90mm 10 stud Tridem
Brakes	300 x 60	300 x 60	350 x 90	350 x 90	350 x 90	406 x 120
Carrying Capacity	8 tons	10 tons	12 tons	14 tons	14 tons	16 tons
Floor Thickness (Steel) Durabar	4mm	4mm	4mm	4mm	4mm	4mm
Lights and Hyd Brakes	Standard	Standard	Standard	Standard	Standard	Standard
Headboard	Standard - 21"	Standard - 21"	Standard - 21"	Standard - 21"	Standard - 21"	Standard - 21"
Harvest Ladders - Galvanized	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard
Unladen Weight	2030 kgs	2240 kgs	3160 kgs	3440 kgs	4075 kgs	4475 kgs
Loading Height	38"	39"	47"	47"	47"	47"
Chassis Members	200mm PFC	200mm PFC	UPN 260mm	UPN 260mm	300mm PFC	300mm PFC
<b>OPTIONAL EQUIPMENT</b>						
12.5 x 15	£184 (DF-1)	Standard	N/A	N/A	N/A	N/A
15-55 x 17	£680 (DF-1)	£680 (DF-1)	N/A	N/A	N/A	N/A
355-60 x 18 Radial	£1,440 (DF-1)	£1,340 (DF-1)	N/A	N/A	N/A	N/A
400-60R x 22.5	£2,345	N/A	Standard	Standard	Standard	Standard
355-50 x 22.5 (Lowers bed height by 150mm)	N/A	N/A	£640	£640	£640	£960
445-45 x 19.5 (Lowers bed height by 150mm)	N/A	N/A	£1,160	£1,160	£1,160	£1,740
550-45 x 22.5	N/A	N/A	£1,640 (DF-1)	£1,640 (DF-1)	£1,640 (DF-1)	£2,460 (DF-1.5)
560-45 x 22.5	N/A	N/A	£2,280 (DF-1)	£2,280 (DF-1)	£2,280 (DF-1)	£3,420 (DF-1.5)
560-60 x 22.5 c/w 10 stud 420 x 180 Axles	N/A	N/A	N/A	N/A	£4,394	N/A
Front Mudflaps	£85	£85	£85	£85	£85	£85
Spring Drawbar	£782	£782	£782	Standard	Standard	Standard
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)
Rear Toolbox	£105 (DF-1)	£105 (DF-1)	£105 (DF-1)	£105 (DF-1)	£105 (DF-1)	£105 (DF-1)
LED Tail Light	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)
10 Stud Commercial Axle 406 x 120	N/A	N/A	£1,214	£1,214	£1,214	Standard
10 Stud Commercial Axle c/w ABS Brakes	N/A	N/A	£4,620	£4,620	£4,620	£3,258
Air / Oil Brakes c/w Load Sensing	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,550 (DF-5)
Oil Load Sensing	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)
Rear Box Pusher	£425 (DF-2.5)	£425 (DF-2.5)	£425 (DF-2.5)	£425 (DF-2.5)	£425 (DF-2.5)	£425 (DF-2.5)
Hydraulic Side Walkway (per side)	N/A	£975	£975	N/A	£975	£975
18" Side Posts	£275	£325	£325	£375	£375	£375
Rear Ramps (Aluminium)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)	£1,200 (DF-0.25)

Model Shown: BC/32 - 560-60 x 22.5 Wheels



Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

## 1 DEALER FIT READY

The entire BC range comes "dealer fit" ready, allowing over 80% of the optional extras to be retrofitted without the need for further fabrication or paint rectification.

## 2 CROSS BEARERS

Box-section is used for the cross-bearers on all our BC models. This ensures a strong, rigid design.

## 3 CHEQUERED PLATE STEEL FLOOR

All models are supplied with a 4mm chequered plate steel floor to ensure loads do not slide.

## 4 HARVEST LADDERS

Front and rear ladders are standard on all models and are supplied with a galvanized finish.

## 11 ADJUSTABLE REAR HARVEST LADDER

The rear ladder on all BC models is adjustable between a straight and angled position.

## 10 REAR CRASH BARRIER

Every BC model has a rear crash barrier as standard, with a galvanized finish for an improved service life.

## 9 RECESSED REAR LIGHTS

The rear lights on every BC model are recessed into the back-rail for added protection. The light units fitted also use a "plug and play" system ensuring a sealed connection and preventing water ingress.

## 8 SUSPENSION OPTIONS

The standard suspension option on all models is the split-oscillating option. This provides excellent stability and a smooth ride. Spring suspension is available as a no-cost option.

## 7 SIDE RAIL DESIGN

The side rail is folded from 6mm profiled steel sheets to create a design that integrates strap points and 5/8" rope hooks. This design is not only strong but allows loads to be properly secured.

## 5 FIXED HEADBOARD

This 21" headboard is integrated into the design to add strength and rigidity.

## 6 DRAWBAR DESIGN

The BC range is fitted with our new design drawbar that is formed from two CNC folded 8mm sheets. Adjustable spring drawbars are standard on BC/28 and BC/32 models and available as an option on other models.





## MS Muck Spreader Range

**Brakes & Lights** – brakes and lights come as standard on all models, except our MS/45. This ensures all our spreaders comply with both highway and health & safety regulations.

Right: Recessed Lights



Model Shown: MS/90

# The strength and design to last.

Our legendary MS range has been developed over forty years of producing muck spreaders; with a number of unique design features and durable construction the MS range continues to be the industry leading spreader.



Model Shown: MS/75

**Barrel Design** – the barrels on all models are fully welded and are either 4mm thick on our MS/45, MS/60 and MS/75 models or 4.5mm thick on our larger models. The ends on all models are also heavy-duty with 6mm thick ends to provide an excellent service life.

**Chassis Design** – an integral chassis design has been part of the Marshall spreader for over forty years. It removes any stress on the barrel of the spreader to prevent premature fatigue or cracking.

**Lid Design** – every model in the range benefits from a stainless steel lid ram to eliminate corrosion. Our lids open to 89°, allowing easy loading and reducing the possibility of damage.

# The ultimate spread.

The entire MS range is designed around providing the most efficient and effective discharge of material on a consistent basis. Accordingly the entire spreading mechanics of every model have been tried, tested and engineered to achieve this.



Model Shown: MS/75 Track Tread Tyres

**Sprockets** – all sprockets are machined steel, not cast, and located by a 10 pitch spline to maximize service life. In addition the gearing of the sprockets on all of our spreaders has been selected to provide the optimum spread.

**Bearings** – we only use plumber block bearings, which allows all our bearings to be placed away from corrosive slurry to limit potential damage.

**Rotor Shaft** – every model benefits from a round perfectly balanced rotor shaft with chains mounted on four sides, any engineer would agree a round shaft is easier to balance. Heavy-duty starter flails allow the spreader to easily start and quickly achieve the optimum spreading speed.



**Chains** – the chains on every model are case hardened to greatly reduce wear and the heads are welded on, not just held on with a pin or bolt. Large 3" x 2.5" heads and a substantial number of flail chains ensure a fast, efficient spread rate.

Left: Drive Chain  
Far Left: Flail Chains

	MS/45	MS/60	MS/75	MS/90	MS/105
<b>Price</b>	<b>£4,500</b>	<b>£5,550</b>	<b>£6,444</b>	<b>£7,363</b>	<b>£9,162</b>
Standard Tyre Size	10.0 x 15 - 10 ply	12.5 x 15 - 14 ply	385 - 65 x 22.5	385 - 65 x 22.5	550 - 60 x 22.5
Axle	60mm 6 stud	70mm 6 stud	70mm 6 stud	70mm 6 stud	80mm 8 stud
Brakes	N/A	300 x 60	300 x 60	300 x 60	350 x 90
Volume Capacity	4.5 cu. yds / 3.4 cu. mtrs / 750 gal	6 cu. yds / 4.6 cu. mtrs / 1000 gal	7.5 cu. yds / 5.7 cu. mtrs / 1250 gal	9 cu. yds / 6.9 cu. mtrs / 1500 gal	10.5 cu. yds / 8 cu. mtrs / 1750 gal
Hydraulic Brakes	£235 (DF-1.5)	Standard	Standard	Standard	Standard
Hydraulic Lid	Standard	Standard	Standard	Standard	Standard
Drum Thickness	4mm	4mm	4mm	4.5mm	4.5mm
Ends	6mm	6mm	6mm	6mm	6mm
Case Hardened Chain Flails	1/2" / 13mm	1/2" / 13mm	1/2" / 13mm	9/16" / 14mm	9/16" / 14mm
Flail Chain - Quantity	22	28	28	34	40
HP Requirements	30	55	65	85	95
End Height	70"	73"	81"	82"	82"
Loading Height	49"	51"	58"	59"	62"
Body Dimension	8' x 54"	10' x 54"	10' x 57"	12' x 60"	14' x 60"
Lights	£151 (DF-1)	Standard	Standard	Standard	Standard
<b>OPTIONAL EQUIPMENT</b>					
Slurry Bib 8 inch Deep - Galvanized	£185 (DF-0.5)	£185 (DF-0.5)	£185 (DF-0.5)	£185 (DF-0.5)	£185 (DF-0.5)
11.5 x 15	£68 (DF-0.5)	N/A	N/A	N/A	N/A
12.5 x 15	£160 (DF-0.5)	N/A	N/A	N/A	N/A
REMOULD 405 - 70R x 22.5 TT	N/A	£376 (DF-0.5)	£326 (DF-0.5)	£326 (DF-0.5)	N/A
550 - 60 x 22.5	N/A	N/A	£1,000 (DF-2)	£1,000 (DF-2)	Standard
Jack Screw in lieu of Skid	£95	£95	£95	£95	N/A
LED Tail Lights	£301 (DF-1)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)

Model Shown: MS/45 - Front View



Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

### 1 SPREADER CONSTRUCTION

The ends of all the spreaders are profiled from 6mm steel and the drums are either 4mm or 4.5mm thick. The body of the spreaders are also fully welded improving rigidity and reducing places for water to sit and cause rust.

### 2 LID

Every MS model has a hydraulic lid that opens to 89 degrees, allowing the spreader to be easily loaded and reducing the chances of damage when loading. The lid is operated by a stainless steel lid ram, which prevents corrosion.

### 3 SPROCKETS AND SHAFTS

All sprockets are machined steel, not cast, to improve durability and strength. The drive shaft and sprockets are also located by a 10 pitch spline, to ensure a long service life.

### 9 FLAIL CHAINS

The chains on all spreaders are 13mm or 14mm thick and case hardened for extra durability. The flail heads are either 12mm or 16mm thick and welded on; not held on by a bolt or pin.

### 8 WHEEL OPTIONS

The axles on all models are designed to bolt on allowing a huge range of wheel options to be fitted. These include 400-60 x 22.5 and huge 550/60 x 22.5 tyres.

### 7 INTEGRATED CHASSIS

The chassis on all our MS models supports the drum, reducing material fatigue and preventing premature failure.

### 6 BEARINGS

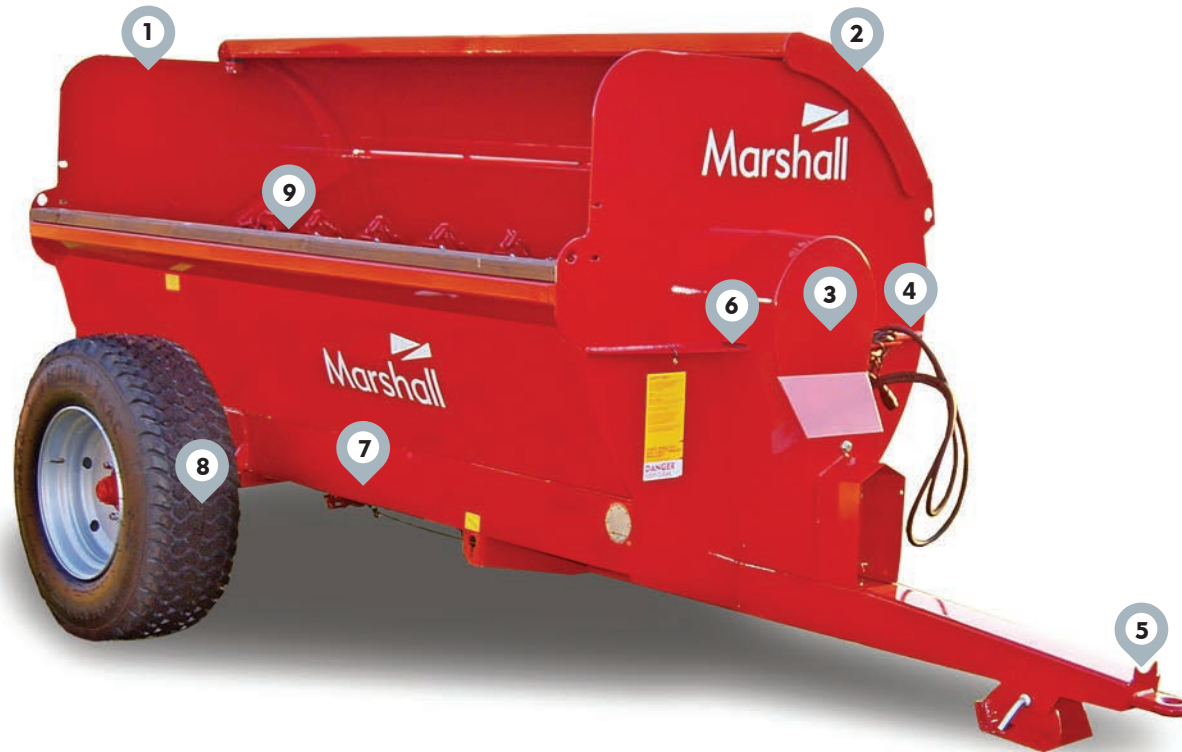
The tougher plumber block bearings are used on all MS models and mounted away from the slurry to prevent premature corrosion.

### 4 LIGHTS AND BRAKES

These are standard on all models, except our MS/45 model, ensuring our spreaders meet the legal requirements.

### 5 PTO SHAFT STAND

Every model has a PTO stand integrated into the design to keep the shaft clean and properly stored.





## VES Rear-Discharge Spreader Range

**Ground Clearance & Traction** – the VES range also has improved ground clearance due to the removal of floor chains; 520mm minimum ground clearance on the VES/1500 model. In addition the axle on all our models can be placed further back since there is no gearbox required to drive the floor chains, this improves traction and reduces weight transfer when spreading.

**Right: Pushing Door**

**Far Right:**

**Front Ram and Speed Control Unit**



# No floor chains = no problems.

The Marshall VES range is the next step forward in the design of rear-discharge spreaders, eliminating the problematic floor-chain set-up and the associated maintenance requirements. This mechanism is replaced by a patented hydraulic pushing ram that is fully speed controllable with an electronic control system that is extremely user-friendly and provides unmatched benefits.

**Maintenance** – the only regular maintenance required on our VES range is to grease the bearings via remote grease points and to check the oil level in the gearbox.

**Reliability** – every model utilises a 4 stage, chrome ram that has been specifically designed and produced for our VES range for incredible reliability compared to traditional floor chains.



**Model Shown: VES/2000 - Front View**

**Compact Design** – the removal of floor chains allows our VES range to have a shorter, deeper body that increases capacity and improves manoeuvrability.

**Slurry Spreading** – the VES range benefits from a completely sealed box, there are no gaps for the floor chains. Combined with the standard slurry door on all models means the VES range can properly hold and spread slurry.



# Tremendous strength in every spreader.

The unique hydraulic ram concept of our VES range is not its only selling feature. The robust construction and heavy-duty components used in every model means the VES range is ready for the toughest challenges.

**Rotor & Tip Design** – the VES range uses fully-balanced robot welded beaters that are constructed in-house using 10mm steel plates for maximum strength. The beater tips are also constructed from 10mm steel plates and are fully reversible to double the life-span of each tip. It is also important to note that all the tips are secured in sockets to prevent premature loss.



Rear Beater Tips

**Excellent Residual Value** – since our VES range commenced production over 10 years ago, its second-hand value has proven to hold up extremely well. This is mainly due to the ram ejection system compared to a floor chain system, which is prone to wearing over time and is always a worry on a used machine.

**Gearbox** – every model uses the same robust 160hp purpose built, one piece gearbox to prevent breakages. The gearbox is also fully protected by an armoured plate underneath the rear of the spreader.

**Dual Protection System** – the entire range has two layers of protection to ensure the spreader is not damaged. Specially formulated polyurethane couplings are used to connect the beaters to the gearbox to reduce the impact of any shock-loads on the drive line and protect the gearbox. In addition every model is protected by a 10mm shear bolt in the PTO shaft.



Drive Gearbox and Rubber Drives

	VES/1500	VES/2000	VES/2500
<b>Price</b>	<b>£18,700</b>	<b>£23,203</b>	<b>£25,750</b>
Standard Tyre Size	18.4 x 30 - 12 ply	18.4 x 34 - 12 ply	18.4 x 34 - 12 ply
Axle	8 stud 80mm	10 stud 90mm High Speed Commercial	10 stud 90mm High Speed Commercial
Brakes	350 x 90	406 x 120 S Cam	406 x 120 S Cam
Lights	Standard	Standard	Standard
Floor Thickness	4mm	4mm	4mm
Side Thickness	4mm	4mm	4mm
Slurry Door (Removable)	Standard	Standard	Standard
Carrying Capacity	9 tons	12 tons	14 tons
Volume	1500 gal / 7500 ltr / 219 cu.ft	2000 gal / 9120 ltr / 291 cu.ft	2500 gal / 11400 ltr / 363 cu.ft
HP Requirement	80 HP min	100 HP min	135 HP min
Body Dimensions	9' 5" x 5' x 4' 8" Deep	12' 6" x 5' x 4' 8" Deep	15' 7" x 5' x 4' 8" Deep
Loading Height	7' 2"	7' 7"	7' 7"
Unladen Weight	3400 kgs	3700 kgs	4200 kgs
Discharge Rate	5 min. max.	7 min. max.	9 min. max.
Material Feed	Hydraulic Ram	Hydraulic Ram	Hydraulic Ram
Rotor Speed	350rpm	350rpm	350rpm
Spread Width	Up to 10m	Up to 10m	Up to 10m
Standard PTO Input Speed	1000	1000	1000
Tips - Quantity	54	54	54
Overall Width - Standard Wheels	8' 10"	8' 10"	8' 10"
Overall Width - Oversized Wheels	9' 7"	9' 7"	9' 7"
Beater Protection Shear Bolt	10mm Standard	10mm Standard	10mm Standard
Main Ram Oil Volume Maximum	15 litres	20 litres	37 litres
<b>OPTIONAL EQUIPMENT</b>			
23.1 x 26 - 14 ply Tyres	£950 (DF-1)	£950 (DF-1)	£950 (DF-1)
Wide Angle Shaft	£440 (DF-0.25)	£440 (DF-0.25)	£440 (DF-0.25)
Hydraulic Light Covers	£275 (DF-2)	£275 (DF-2)	£275 (DF-2)
LED Tail Lights	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)
Air Brakes	£1,200	£1,200	£1,200

Model Shown: VES/1500 - Rear View



Note - When 23.1 x 26 wheels are fitted the overall wheel track will be 9' 7" U.K. & Ireland Patent Numbers - GB2372932 & GB2399267B

Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

### 1 SLURRY DOOR DESIGN

CNC folded for strength, the standard slurry door allows all models to effectively hold slurry.

### 2 SPEED CONTROL UNIT

The entire VES range employs an electronic speed control unit that is extremely user-friendly and allows the discharge rate of the pushing ram to be infinitely controlled. This easily allows the material coverage to be varied to meet requirements.

### 3 PUSHING RAM

This bespoke 4-stage ram is constructed to industrial standards specifically for the VES range. It allows the removal of the floor chains as the material feed method; traditionally the problematic part of any rear-discharge spreader design.

### 8 GEARBOX

The 160hp gearbox is over-specified for every model allowing the rear rotors to be moved closer together and provide an improved spread pattern.

### 7 REAR ROTOR DESIGN

The rear rotors are CNC formed and robot welded for strength and to ensure they are properly balanced. Polyurethane couplings connect the rotors to the gearbox and provide protection in the event of a foreign object going through the rotors.

### 6 WHEEL OPTIONS

The standard tyre on the VES/1500 model is the 18.4 x 30 and on the larger models it is an 18.4 x 34. The over-sized 23.1 x 26 is available as an option on all models.

### 5 BODY DESIGN

The entire body has a welded construction while the wide top rail is sloped inwards to prevent any build-up of material on the ledge. All spreaders have fully welded side bearers to ensure lifelong rigidity.

### 4 PUSHING DOOR

The door is formed by CNC presses to create a strong, robust design. Since the spreader does not use floor chains the door creates a sealed box that can properly hold slurry.





## ST Slurry Tanker Range

**Axles & Brakes** – every model has hydraulic brakes as standard with the option to upgrade to air brakes. Our ST/2000 model upwards has 420 x 180 10 stud commercial axles and spring drawbars as standard to ensure safe movement on the road. Dropped axles are also standard on these larger models to lower the centre of gravity and improve stability.

**Tank Design** – every model has a 6mm thick steel tank that is rolled and fully-welded by a sub-arc welder to ensure a consistent and robust finish. Inside the tank there are baffles to ensure material is transported safely and reinforcing rings to further enhance the tanks strength. It is also important to note that all our tanks hold the stated capacity; even our LGP cut in tanks are increased in size to compensate for the cut-out part.

**Lights** – lights are also standard on all models with the option to upgrade to LED lights and fit a LED beacon or worklights.

## Durable by design.

The ST slurry tanker range has been developed with strength and durability as the guiding principles.

**Chassis Design** – the overall rigidity of our tanker range is boosted by our integral chassis, which supports the tank to reduce fatigue and prevent premature failure.



Model Shown: ST/2550 Tanker 750/60 x 30.5 Wheels



Model Shown:  
ST/1600 Gallon Tanker 550 - 60 x 22.5 Wheels

# Easy to fill. Easy to spread.

Every model in the range has been intelligently designed for excellent everyday practicality and usability.



Model Shown: ST/1800

**Dual Slurry Trap System** – the entire range benefits from our dual protection system. The first line of protection is a specially designed double-ball set-up in the tank that stops the vacuum once it has reached a certain level. If any froth should manage to by-pass this system then there is a slurry trap in the large syphon box to catch any residue.

**Valves** – every model has a hand operated side valve as standard, which can also be positioned on the rear to allow for easy filling. It is also possible to specify a different position for filling valves as an option.

**Pump** – either an 8,000ltr or 10,000ltr Hertell pump is standard on our tankers to ensure fast filling and discharging of material. There is also an option to fit a hydraulic drive pump or Garda pump depending on the application of the tanker.



Hydraulic Pump



Garda Pump

**Gauge & Sight-glasses** – all our models have a liquid filled 75mm gauge to provide accurate pressure readings and ensure safe loading of the tank. Furthermore two sight-glasses positioned at the front and rear of the tanker allow the operator to know when the tank is full.

## ST Slurry Tanker Range / Prices, Specification and Options

	ST/1200	ST/1400	ST/1600	ST/1800	ST/2000	ST/2300	ST/2550	ST/3000
<b>Price</b>	<b>£7,950</b>	<b>£8,606</b>	<b>£9,816</b>	<b>£10,444</b>	<b>£15,250</b>	<b>£16,470</b>	<b>£17,470</b>	<b>£18,620</b>
Standard Tyre Size	385 - 65 x 22.5	400 - 60R x 22.5	550 - 60 x 22.5	550 - 60 x 22.5	750/60 - 30.5	750/60 - 30.5	750/60 - 30.5	400 - 60R x 22.5
Axle	70mm 6 stud	80mm 8 stud	80mm 8 stud	80mm 8 stud	90mm 10 stud High Speed Commercial Drop-axle	90mm 10 stud High Speed Commercial Drop-axle	90mm 10 stud High Speed Commercial Drop-axle	90mm 10 stud High Speed Commercial Tandem
Brakes	300 x 60	350 x 90	350 x 90	350 x 90	406 x 120 S Cam	406 x 120 S Cam	406 x 120 S Cam	406 x 120 S Cam
Volume	1220 gal / 5500 ltr	1400 gal / 6300 ltr	1550 gal / 7000 ltr	1800 gal / 8200 ltr	2150 gal / 9800 ltr	2340 gal / 10650 ltr	2560 gal / 11600 ltr	3000 gal / 13640 ltr
Side Valve	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Tank Thickness	6mm	6mm	6mm	6mm	6mm	6mm	6mm	6mm
Lights and Brakes	Standard	Standard	Standard	Standard	Standard - Dual Lights	Standard - Dual Lights	Standard - Dual Lights	Standard - Dual Lights
Drum Diameter	5' 3"	5' 3"	5' 3"	5' 3"	5' 3"	6'	6'	6'
Pump - Hertell	8000 ltr	8000 ltr	8000 ltr	8000 ltr	10000 ltr	10000 ltr	10000 ltr	10000 ltr
6 inch Hose	15'	15'	15'	15'	15'	20'	20'	20'
Unladen Weight	1945 kgs	2120 kgs	2330 kgs	2510 kgs	3660 kgs	3890 kgs	4140 kgs	4350 kgs
<b>OPTIONAL EQUIPMENT</b>								
REMOULD 405 - 70R x 22.5 TT	£326 (DF-0.5)	£276 (DF-0.5)	N/A	N/A	N/A	N/A	N/A	N/A
550 - 60 x 22.5	£1,000 (DF-2)	£721 (DF-1)	Standard	Standard	N/A	N/A	N/A	N/A
560 - 45 x 22.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	£2,280 (DF-1)
Spring Drawbar	N/A	N/A	£782	£782	Standard	Standard	Standard	Standard
Swivel Hitch	N/A	N/A	£155	£155	Standard	Standard	Standard	Standard
Tanker Hydraulic Hatch	£720	£720	£720	£720	£720	£720	£720	£720
Full Opening Rear Door	£810	£810	£810	£810	£810	£910	£910	£910
Mudguards	£335	£335	£335	£335	Standard	Standard	Standard	£475
10,000 ltr Pump Hertell	N/A	£340 (DF-1)	£340 (DF-1)	£340 (DF-1)	Standard	Standard	Standard	Standard
Hydraulic Pump	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)	£700 (DF-1.5)
Garda Pump (8,000l) c/w Spreader	£4,128	£4,128	£4,128	£4,128	£4,128	£4,128	£4,128	£4,128
90 degree Bend Complete	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)	£175 (DF-0.25)
Extra Complete Hand Operated Valve	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)	£340 (DF-0.25)
Wash Down Hose	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)	£221 (DF-0.25)
Quick Attach Coupling	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)	£175 (DF-0.5)
Pump Hydraulic Changeover	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)	£170 (DF-1)
Marshall Easy-Connect	£950	£950	£950	£950	£950	£950	£950	£950
Air / Oil Brakes	N/A	N/A	N/A	N/A	£1,200	£1,200	£1,200	£1,350
LED Tail Lights	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)	£150 (DF-0.5)
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)

### Marshall Easy-Connect System (Patent Pending)



The tractor draws up to the hose with the connection fork extended.



The hose slides into the connection fork.



The hose is pulled tight against the coupling to create an air tight seal.



Once the tanker has filled, the operator extends the connection fork and reverses away from the hose before retracting the connection fork and driving away.

Dealer Fit =  To see our full range of options visit [www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

**1 CUBIC CAPACITIES**

The capacity of every tank is accurate, even tankers with recessed wheels have increased capacities to compensate for the wheel recesses.

**2 TANK DESIGN**

Every model has a 6mm steel tank and machined steel ends. The entire range also has anti-implosion rings and internal baffles where necessary.

**3 DUAL SLURRY TRAP SYSTEM**

Every tanker benefits from this system, comprising of a front syphon box and dual ball slurry trap inside the tank.



**8 COUPLINGS**

All couplings are fabricated on one of our robotic welders to ensure a consistent quality and galvanized for added protection.

**4 SIGHT GLASSES**

Every tanker is fitted with two sight glasses, one at the rear and one at the front.

**7 AXLES AND TYRES**

The ST range has a large number of tyre options; including 400-60 x 22.5 and 550-60 x 22.5 Floatation Tyres. The ST/2000 model upwards benefits from 10 stud commercial axles with recessed 750/60 x 30.5 tyres as standard.

**6 CHASSIS DESIGN**

The tank on every model is supported by a fully-welded chassis. This removes any stress on the tank and increases the lifespan of the tanker.

**5 PUMP**

The vacuum pump on all models is either an 8,000 ltr or 10,000 ltr pump depending on the size of the tanker.



## Livestock Container Range

**Box Design** – every model is constructed from steel and has its own chequered plate floor that is coated with anti-slip paint. Internal slam-shut dividing gates are standard on all models and can be positioned anywhere along the length of the container.

**Loading Ramp Design** – all models benefit from an aluminium chequered plate loading ramp that has two helper springs to assist closing and opening.

**Model Shown:**  
21' Fixed Livestock Container



## The ultimate way for livestock to travel.

Our livestock container range provides a simple, efficient and good value way to shift livestock between farms or transport them to market.



Sheep Decks

**Value** – our livestock containers all provide an excellent value method for moving livestock. There is no need to have an HGV license or to have passed a trailer test; simply the ability to drive a tractor. Our fixed livestock containers are particularly good value, starting at £12,652 retail, there are few other ways to move livestock at that price.



**For optional extras available on the dismantable host trailer see page 26**

Models Shown: 28' Fixed Livestock Container

	21	25	28	32
<b>Steel Container</b>	<b>£8,677</b>	<b>£9,869</b>	<b>£11,151</b>	<b>£12,600</b>
<b>Steel Box and Trailer - Fixed</b>	<b>£12,652</b>	<b>£15,681</b>	<b>£18,481</b>	<b>£19,297</b>
<b>Steel Box and Trailer - Dismountable</b>	<b>£15,216</b>	<b>£18,739</b>	<b>£21,051</b>	<b>£23,650</b>
Trailer Model	BC21 12.5 Wls	BC25 12 ton	BC28 14 ton	BC32 14 ton
Axle Size on Fixed Trailer	70mm 6 stud	80mm 8 stud	80mm 8 stud	80mm 8 stud
Container Size	21' x 8'	25' x 8'	28' x 8'	32' x 8'
Unladen Weight - Steel	1800 kgs	2145 kgs	2400 kgs	2700 kgs
Approximate Carrying Weight	8000 kgs	10000 kgs	12000 kgs	12000 kgs
Internal Loading Height	6' 6"	6' 6"	6' 6"	6' 6"
Internal Cattle / Sheep Divisions	1	2	2	3
<b>OPTIONAL EQUIPMENT</b>				
Sheep Decks	£3,400 (DF-2)	£3,600 (DF-2)	£3,800 (DF-2)	£4,200 (DF-2)
Additional Internal Divisions	£664 (DF-0.25)	£664 (DF-0.25)	£664 (DF-0.25)	£664 (DF-0.25)
Front Escape Hatch	£680	£680	£680	£680
15-55 x 17	£680 (DF-1)	N/A	N/A	N/A
355-60 x 18 Radial	£1,340 (DF-1)	N/A	N/A	N/A
400-60R x 22.5	£2,161	Standard	Standard	Standard
355-50 x 22.5 (Lowers bed height by 150mm)	N/A	£640	£640	£640
445-45 x 19.5 (Lowers bed height by 150mm)	N/A	£1,160	£1,160	£1,160
Spring Drawbar	£782	£782	Standard	Standard
LED Beacon	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)	£135 (DF-0.25)
LED Tail Light	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)	£180 (DF-0.5)
10 Stud Commercial Axle 406 x 120	N/A	£1,214	£1,214	£1,214
10 Stud Commercial Axle c/w ABS Brakes	N/A	£4,620	£4,620	£4,620
Air / Oil Brakes c/w Load Sensing	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)	£1,350 (DF-4)
Oil Load Sensing	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)	£750 (DF-2)



Dealer Fit =

To see our full range of options visit

[www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)



## Tough, strong and durable.

Prices, specification and options.

	FT/15	FT/20
<b>Price</b>	<b>£2,335</b>	<b>£2,965</b>
Length	15' x 5' 6"	20' x 5' 6"
Feed Spaces	32	40
Loading Height	60"	62"
Sides	3mm Steel	4mm Steel
Front	5mm Steel	5mm Steel
Axles	6 stud 70mm	6 stud 70mm
Tyres	11.5 x 15 - 12 ply	12.5 x 15 - 14 ply
Retractable Drawbar	Standard	Standard
Swinging Removable Taildoor	Standard	Standard
<b>OPTIONAL EQUIPMENT</b>		
Jack Screw in lieu of Skid	£95 (DF-0.5)	£95 (DF-0.5)
Tombstone Sides	£350	£350
Removable Seating	£900 (DF-2)	£1,100 (DF-2)

Dealer Fit =

To see our full range of options visit

[www.marshall-trailers.co.uk/configure-machine](http://www.marshall-trailers.co.uk/configure-machine)

## FT Feed Trailer Range

**Full Opening Removable Rear Door** – allows feed trailers to be easily cleaned out.

**Retractable Drawbar** – maximizes number of available feed spaces.

**Axles** – new 6 stud 70mm beam axles are used on both models in the range.

**Construction** – tapered sides to allow for easy feeding. Every model also benefits from a fully welded steel construction with 5mm ends and 3mm or 4mm sides. The majority of the fabrication work is also carried out on our robot welders for a consistent, high-quality finish.

**Floor** – the entire range has 30mm treated pine floors, which allows effluent to escape and can easily be replaced when worn out.



Model Shown:  
FT/15 Feed Trailer

# Optional Equipment



Air Brakes



Oil Brakes LSV



Hyd Door Safety Valve



8" Hatch



12" Hatch



Perspex Front Window - Small



Perspex Front Window - Large



Trailer Cover



Roll-over Cover



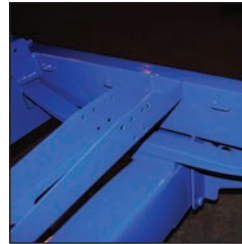
LED Lights



High Level LED Lights



LED Beacon



Spring Drawbar



Rear Tow Hitch



Hyd Up & Over Grain Door



Hyd Grain Door c/w Silage Attachment



Bale Extension



Top and Bottom Hinged Door



Mesh Sides



Jack Screw



Rear Ramps



Rear Box Pusher



Hydraulic Walkway



Rear Toolbox



Slurry Bib



Tanker Hydraulic Hatch



Full Opening Rear Door



Quick Attach Coupling



Escape Hatch



Garda Pump System



Hydraulic Driven Pump

Tyres are an important decision when specifying a trailer so let us help you make the correct choice. This guide will give you information about the different tyres we offer and explain what the tyre sizes mean.



## Tyre Sizes Explained

# 385 - 65 x 22.5

The first number indicates the width of the tyre and can be metric or imperial. In this example the width of the tyre would be 385mm.

The second number is the depth of the sidewall as a percentage of the tyre width. In this example 65% of 385mm meaning the sidewall of the tyre is 250mm deep.

The final number is the diameter of the tyre's centre and is usually in imperial. In this example the tyre centre has a diameter of 22.5".

## Tyre Information

	TYRE SIZE	TYPE	DESCRIPTION
1	26 x 12.0 x 12	Floation	Fits to small trailers and provides fantastic floatation.
2	12.5 x 15.3	Floation	Primarily designed to provide floatation for field work.
3	15 x 55 x 17	Floation	This wide tyre provides floatation above a 12.5 x 15.3.
4	355 - 60 x 18	New Radial	Also known as a mini super single, it is excellent for road work.
5	385 x 65 x 22.5	Radial - Remould	Also known as a super single and designed for road performance.
6	400 - 60R x 22.5	Radial - Remould	Similar to a super single but marginally wider for better floatation.
7	405 x 70R x 22.5 TT	Remould	Track tread pattern for excellent lateral grip.
8	16 x 70 x 20TT	Floation	The track tread means this tyre is excellent at field work.
9	23.1 x 26	Floation	Track tread pattern for excellent lateral grip.
10	355 - 50 x 22.5	Radial - Remould	Low radial tyre designed for high speed road performance.
11	445 - 45 x 19.5	New Radial	Low and wide radial tyre designed for high speed road performance.
12	550 - 45 x 22.5	Floation	Excellent tyre for floatation, designed primarily for the field.
13	560 - 45 x 22.5	New Radial	Designed to provide good road performance and floatation.
14	550 - 60 x 22.5	Floation	Excellent tyre for floatation, designed primarily for the field.
15	560 - 60 x 22.5	New Radial	Designed to provide good road performance and floatation.
16	750 - 60 x 30.5	Floation	Massive tyre to provide incredible floatation.

## Tyre Notes

All 355 - 50 x 22.5 tyres are rebuilt tyres fitted to new centres. Please note that due to the rebuilding process the branding on the side of these tyres may not always match.

All 385 - 65 x 22.5 tyres are rebuilt tyres fitted to new centres.

All 400 - 60R x 22.5 tyres are rebuilt tyres fitted to new centres.

If 550 - 45 x 22.5 or 560 - 45 x 22.5 tyres are fitted to QM/11, QM/12, QM/1200, HD/12, HD/14 or HD/16 models then mudguards are required - see page 16 or page 20.

If 560 - 60 x 22.5 or 550 - 60 x 22.5 tyres are fitted to QM or BC Models then the loading height of the trailers increases by 8".

Correct tyre pressures are available on our website [www.marshall-trailers.co.uk/downloads](http://www.marshall-trailers.co.uk/downloads)

# Running Gear Guide

The relatively recent increase in tractor speeds and travelling distances means that it is critical to specify the correct axles, brakes and suspension when deciding on a new trailer. Accordingly our guide to running gear highlights the important specs to look for and explains how Marshalls can meet these challenges.

## Axles

Marshalls have always recognised the importance of fitting the appropriate axles to all the models in our range since they have such an effect on machine performance and safety. Unfortunately it is an area where many of our competitors cut-corners and fit axles that cannot cope with modern farming practices. Therefore it has become more important than ever to understand axle sizes when you are comparing machines to ensure they are up to standard; read our axle size explanation below to find out more:

# 10 stud 120mm 420 x 180 S-Cam



The number of studs indicates the size of wheel that can be fitted to the axle. The more studs the larger the wheel that can safely be fitted. If too large a tyre is fitted to an axle it can damage studs or shear the entire hub from the beam.

The larger the beam size the greater the axle's carrying capacity.

The first number indicates the diameter of the brake drum and the second number the width of the brake shoe. It is important for these numbers to match up to maximize braking efficiency. If they do not match up then the brakes will not be working at the correct temperature and braking force will be lost. It is also important to identify how the brake drum has been produced, whether it is cast or pressed steel. Cast drums dissipate heat better and ensure the brakes work at the optimum temperature.

The type of cam an axle has signifies whether the axle is commercial; only commercial axles have an S-Cam. The advantage of an S-Cam is it forces the brake shoe more evenly against the brake drum compared to a flat cam, therefore increasing the braking force of the axle.

### Axles Notes

On our QM/14, QM/1400, QM/16, QM/1600 and QM/1800 models 10 stud 120mm 420x180 S-Cam commercial axles are standard. This is the same size of axle used by HGVs.

## Brakes

The braking system is another key part of the running gear of any trailer, particularly when travelling at higher speeds for longer distances. Accordingly Marshalls offer a number of different braking options to ensure our machines exceed the current legislation and will be ready for any future changes to the law.

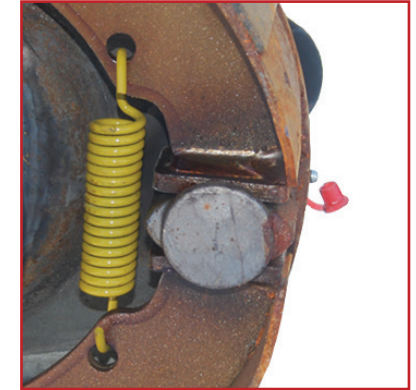
**Hydraulic Brakes** – this is the standard braking system on all ranges of machines since every tractor can operate hydraulic brakes. Depending on the model, either 20mm or 25mm brake cylinders are fitted to each brake actuator. This set-up has been fully tested and currently exceeds the present 25% efficiency braking regulations. Load sensing is also available as an option on our hydraulic braking systems.

**Air Brakes c/w Load Sensing** – we offer air brakes as an optional extra on many of our models. This supplements our standard hydraulic braking system to ensure that all tractors can safely tow the trailer, even if they are not equipped for air brakes. It is also important to note that all our air brake kits come with load sensing as standard to prevent locking up and skidding the machine tyres. In addition all our air brake kits have a twin line system, with a service for normal braking and an emergency, which automatically engages the brakes in the event of a break away.

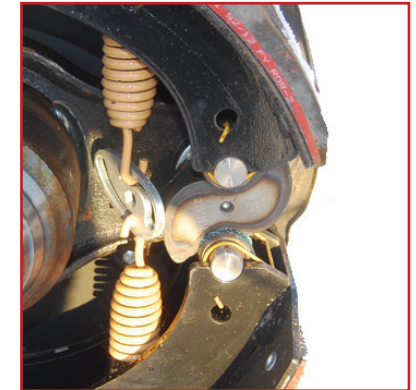
**ABS** – the ultimate braking solution, our ABS package comes with 10 stud commercial axles and air brakes. It eliminates the possibility of skidding the tyres and provides maximum braking efficiency.

### Brakes Notes

Load sensing for hydraulic or air braking systems is only available on machines with spring suspension. Manual load sensing is available for air brakes on machines with split oscillating suspensions.



8 Stud Flat Cam



10 Stud S - Cam

# Behind the Scenes...in 2018

The latest chapter in this great story has quite simply seen the most monumental change we have ever undertaken in the whole history of Marshall Trailers! Our business has been producing trailers since the early fifties and we have continually made changes over the years. However, as time goes by change always slows down and we were no exception. There would also have been little point in implementing change if my sons had decided to follow different career paths.

Today with their support, enthusiasm and commitment to the business we have set out on an exciting journey of investment. An investment of not only money but a serious investment in time and energy to analyse our whole working practice from start to finish! This extremely ambitious plan has seen the production of trailers en masse similar to how modern car plants operate. The vital criterion has been that every step along the production process required structure in order to achieve this goal.

We had to know that what we were producing was constant as from constancy an engineer can make alterations and improve overall quality. Therefore, part numbers were introduced, we divided up the factory floor into coloured zones, we instilled accountability into all those that worked in the components divisions and we started using machines to a much greater extent exploring every angle of their use.



**Above: New Coloured Floor Zones**

This resulted in us cutting far more complex shapes and pressing a great deal more than, previously, had been welded by hand. We have introduced new plasmas and replaced a complete saw-line, all in our journey of progression towards our end goal.



**Above: New Plasma Cutters**



**Above: New Saw Line**

With this change in method we now had the ability to introduce a check in the process that could be done using our robotic welding cells.

Simply by placing a greater amount of parts in this system in itself checks quality because if the parts being presented are not consistent it simply won't weld it, period. With consistency in production now being achieved we found that there were far less mistakes and we also witnessed our staff trying harder to continue this work ethos.



**Above: New Robotic Welding Cells**

However during the last two years we have found it increasingly difficult to manage this new system manually due to the sheer complexity of all the component parts required in the production process, so the final part of this jigsaw is the installation of a software package that can organize this mayhem! We looked around at many different options and settled on the best because the system used to organize the BMW plant and Claas in Germany would surely be able to operate our humble business!



**Above: SAP Tower**



**Above: Charles P Marshall working on SAP**

Although this may sound simple, it is the most major change undertaken in our 67 year history. It has taken thousands of man hours programming in parts, thousands of hours changing work methods and it has required we change the entire mind set of all our staff. We have also worked with all our suppliers and spent an impressive budget along the way!

The benefit of all this change and effort will be to propel this long-established business into a league of its own that will be unattainable by any of our current competitors. Why? For the first time we will truly be able to produce a machine with a level of accuracy and unrivalled efficiency both of which are the ingredients to selling the best value trailers on today's market.

# Branding

Last year brought a massive change to how we are presenting and displaying our range of products, with a new logo and a complete re-brand. There were a lot of reasons for this change, but the main one is that the Marshall product and company have completely changed and our old logo didn't reflect the changes! Everything has been updated, developed and improved, from the actual quality of the product to the visual look of each range; the new logo now reflects this.

The logo is much cleaner and simpler, which matches what we are trying to do as a company; build a quality product that is delivered on time and does exactly what it says, its that simple! The two overlapping triangles represent the fact that we build a product that connects; our machines connect to tractors and as a company we have been here for 67 years and still connect to our customers. We are a family business and even now you are still able to phone and speak to a member of the Marshall family! Although we are a company with a long history, we are always looking to the future with investment in the latest technology and machines. The space between the two triangles represents the "road to the future" and that Marshalls is always looking forward and not just about what we need to do today!



**" Built for today. Driven by tomorrow "**

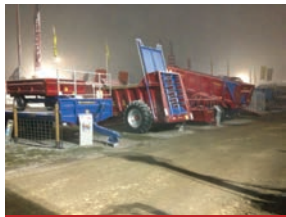
## Conversion Chart

The following conversion chart will be useful when reading this brochure for calculating the amount of space required for certain agricultural materials.

Material	Kg/m <sup>3</sup>	lb/cu.ft
Barley	620	39
Carrots	636	40
Clay	1764	111
Fertiliser (bulk)	1017	64
Manure	922	58
Onions	556	35
Peat	985	62
Potatoes	699	44
Sand (dry)	1319	83
Silage (maize)	524	33
Stone (crushed)	2544	160
Sugar beet	556	35
Wheat	763	48

## Show Dates 2019

We will be attending the following shows in 2019:



LAMMA  
8th - 9th January 2019



The Doe Show  
5th - 8th February 2019



The Royal Northern Spring Show  
27th February 2019



The Royal Highland Show  
20th - 23rd June 2019



The Royal Welsh Show  
22nd - 25th July 2019

## Thanks

Thank you to all our loyal customers for your continued support, we really do appreciate your business. If you would like your Marshall machine to be featured on our website, facebook page or next pricelist then please send your pictures to [charlesp@marshall-trailers.co.uk](mailto:charlesp@marshall-trailers.co.uk)

## Terms & Conditions

All photographs and specifications used were current when this pricelist was prepared but due to constant endeavour to improve our products, specification and prices, changes may be made without prior notice.

This cancels all previous pricelists. All prices are subject to additional VAT.

All machines are subject to carriage of £200.00 to a UK mainland address. Shipping charges extra where applicable. Additional equipment if ordered separately will be charged at net carrier cost.

No guarantee is given that bespoke colours will exactly match customers' requirements.

Times to dealer fit parts are only for guidance purposes.

Supplied by:



# Marshall



[www.marshall-trailers.co.uk](http://www.marshall-trailers.co.uk)



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