

## **WELCOME TO MARSHALL TRAILERS**

Connections lie at the heart of everything we do. Since 1952, we've thrived on bridging gaps – linking our business to customers, our brand to changing times, people to exceptional products, and the industry to agricultural innovations. As we venture into the future, our commitment to our traditional values combined with embracing technological innovation, allows us to forge standout, enduring and efficient products.

## PRODUCT BROCHURE CONTENTS

#### INTRODUCTION

Enjoy a brief history of the Marshall Trailers business and an introduction to the people behind the name.

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CONCLUSION

Get access to new additions to the Marshall Trailer business, contact details and our social platforms.

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## DEALER FIT CONCEPT





The design of trailers has changed dramatically over the last seventy 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 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 to be created from a standard model. This quite obviously makes the Marshall Trailer you purchase future proofed for this fast ever-changing world. It is as simple as following these steps:

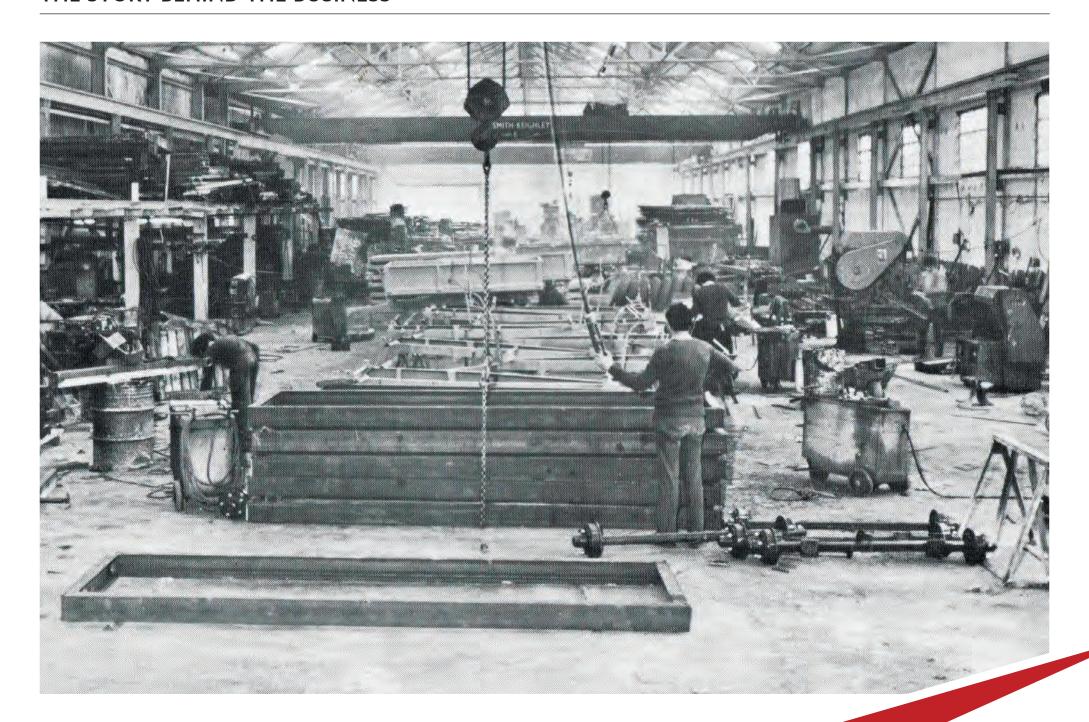
Study the specification tables in our pricelist or on our website. Identify whether an option can be dealer fitted and note how many hours are required to fit the option; the specification tables have the following text to identify this:



- Contact us to order the required kit, either by telephone, fax, email or by ordering through our website.
- 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.
- Fit the required kits to meet a customer's specification, allowing you to retail a machine that would otherwise remain in stock.

The Dealer Fit Concept is one of the many unique features incorporated into the Marshall Range. Study our pricelist to see many other exclusive innovations and production techniques, such as the integration of robotic welding and our new state of the art paint facility!

## THE STORY BEHIND THE BUSINESS



### THE MARSHALL COMPANY HISTORY

Charles J Marshall (Aberdeen) Ltd celebrates its 72nd anniversary in 2024. In 1952, the Marshall Trailer business was conceived by Charles J Marshall. As a tenacious 18-year-old apprentice joiner he decided that after his National Service he would establish his own business, producing top-quality machinery that he could sell en-masse. This allowed him to capitalize on the opportunity that the introduction of the new and technically advanced tractor had created in the agricultural industry.

His ambition was to become the largest trailer manufacturer in Scotland, and to achieve this goal he purchased a small croft on the edge of Aberdeen for the sum of £2,450. This was to the delight of his neighbours as they had endured years of noise and constant  $\mathsf{TV}$  interference from the power tools used to produce the original trailers!

By 1956 the first part of the factory building was completed and this is where the company continues to trade to this day. The greatest advantage to this factory was the ability to use the relatively new concept of a production line and by the mid-sixties well over 1600 units were being produced; a huge increase from the mere 46 units produced in 1952.

This increase in production was helped by the continual investment in new machines and plant, with the factory boasting the largest hydraulic press brake north of the Clyde when it was installed. This combined with his relentless work ethic and introduction of the rotor spreader in the 1970s and slurry tankers in the 1980s allowed output to grow to over 2000 machines.

In 1980 the bright new talent of Charles Richard joined the business and like his father he worked his way through the shop floor ensuring he had the same sound understanding of the company. Taking up his current position as managing director in 1998, he has successfully steered the company through the years of BSE, foot and mouth and more recently the Covid-19 pandemic.

Charles J Marshall sadly passed away in 2016 at the age of 81, he was an inspiring presence and continued to work right up until he passed. However, the company continues to move from strength to strength with Charles Richard joined by his two sons Charles Peter and David. Together they continue to annually invest six figure sums in new plant, modernise the product range and move the company forward.

### 3 TON REAR-TIPPING HYDRAULIC TRAILER

Mcdals 72/99, T2/90, T3/9N, T3/90 & T3/10N



(3-ton rear tipping hydraulic trailer first advertised in 1952)



(1967 newspaper ad featuring Charles J Marshall)



(The production line as it was in 1973)



(Charles J Marshall 24th August 1934 - 13th July 2016)



(The inception of the hydraulic press brake)



(SAP automated robot welder)

## MEET THE MARSHALL FAMILY



NAME Charles R Marshall

**POSITION**Managing Director

**TELELPHONE** 01224 722777

EMAIL charles@marshall-trailers.co.uk

I started my working life at the young age of fifteen on the shop floor learning all aspects of our manufacturing process; the experience proved invaluable as I believe first-hand knowledge is critical for running a successful business. The manufacturing element of the business is also my passion, designing new products and then seeing them come together as a practical and useful tool that customers can use in their own business is incredibly satisfying. Nothing pleases me more than seeing a Marshall machine being used out in the field.

Over the years I have seen many challenges to our industry and company, but the grounding I received from a very down to earth, astute father has stayed with me. His ethos to business was simple, "keep it practical, do what you said you would do and the customer will buy it!" These words have stayed with me and helped guide our business, combined with a policy of continual investment in the latest technology I am very proud of what our company manufactures and the service we provide!

In my life I have been very privileged to have both sons working in the business with me, a positive for the company but also for me personally; what more could I ask for!



NAME
David Marshall

POSITION
Sales / Technical

**TELELPHONE** 01224 722777

**EMAIL**david@marshall-trailers.co.uk

I started my education in the agricultural industry by attending Lackham College in Wiltshire to study an Engineering Diploma. This was a brilliant and enjoyable experience that gave me a huge grounding in the industry and I left the college with the Student of the Year award. Although my parents had encouraged me to explore other opportunities, I always wanted to return to the family business and put my years at Lackham College to good use.

It can be difficult being the third generation in a family business, particularly trying to make improvements to a business that is already highly regarded. However, it quickly became apparent my father had been holding back investing in the business until my brother and I had decided we were fully committed! Change started almost immediately, and we were encouraged to express any and all views with the only condition being that it had to keep within the company's ethos and values.

Ten years on I can say it has been an incredibly exciting and fulfilling journey seeing how the company has changed and advanced. Now I oversee the sales, transport and all the other tasks that are required to run a business, from the decisions on staff to what product to develop next.



NAME Charles P Marshall

**POSITION**Sales / Administration

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charlesp@marshall-trailers.co.uk

Since a very young age I was involved in the family business, and despite being encouraged to explore other options outside the business it was always my intention to work at Marshall Trailers. I finished studying law at Aberdeen University and started with the company in June 2012.

I was able to work my way through the business learning all aspects of how it operated and giving a sound understanding how things worked and where we needed to make improvements and changes. The business has been transformed dramatically over the last 12 years, and my role in this was the introduction of our SAP ERP software. Every process and part had to be put into the system, which was a huge challenge, but one that is paying off for us now.

Today I'm heavily involved with the accounting, admin and other general responsibilities that are part of any business. Looking forward I'm excited for the next ten years of progression we have planned and ensuring we continue to deliver for our customers.



## THE MOST VERSATILE TRAILER YOU WILL EVER USE



Our range of drop-side trailers can be configured to suit almost any requirement and adjusted to your specification, with a number of useful options to ensure our trailers can tackle any job.

**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.

**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-5 upwards; the extension increases the bed lengths of our S-5 & S-6 models by 3' and our S-85 & S-10 models by 4'. The extensions and ladders are also galvanised for an improved lifespan.

**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.

**Door Options** - the entire drop-side range has several door options to ensure each model can be specified to match customer requirements. The standard top-hinged rear door can be replaced with top & bottom hinged doors, extended rear doors or even barn doors.

**Lighting Options** - lights are standard on our S-4 model upwards with the S-85 and S-10 models benefitting from LED lights. On our S-1 and S-2 models lights are available as an option. The light units are all commercial grade, sealed to prevent water damage and use a plug and play system for easy maintenance. In addition LED lights, LED beacons and number plate brackets c/w lights are available as options for all models.



(Model shown: S-6 front view)



(Model shown: S-10 front view)



(Model shown: S-4 mesh sides)



(Bale extension)



(400 - 60 x 15.5 floatation tyres)



(Recessed lights)

#### SCAN THE CODE TO FIND OUT MORE »



## ENGINEERED TO LAST & EQUIPPED WITH THE RIGHT RUNNING GEAR

Our entire drop-side range has been intelligently designed with a number of clever features to maximise strength and durability. Combined with this is a huge range of different running gear options, that ensure our drop-side range can meet the challenges of any job.

**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.

**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.

**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.

**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.

**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.

**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.









(Model shown: S-85 front view)



(Spring suspension)



(Rocker tandem suspension)



# DROP-SIDE TRAILER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	S-1	S-2	S-4	S-5	S-6	S-85	S-10
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	10.0 x 12	10.0 x 15 - 10 ply	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	385 - 65 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	1.5 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	(DF-1)	(DF-1)	0	0	0	0	0
Hyd Brakes	O (DF-1.5)	O (DF-1.5)	0	0	0	0	0
Side Loading Panels	N/A	N/A	N/A	0	0	0	0
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	340 kgs	460 kgs	840 kgs	1100 kgs	1360 kgs	2310 kgs	3400 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	Single 5 Stage Hydraulic Ram
THE STATE OF THE S		J. J	3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		J . , , , , , , , , , , , , , , , , , ,	7	, , , , , , , , , , , , , , , , , , , ,
OPTIONAL EQUIPMENT							
· ·							
Grain Sides	0	0	0	(DF-2.5)	(DF-2.5)	(DF-2.5)	(DF-2.5)
Silage Sides	Ö	Ö	Ö	(DF-2.5)	(DF-2.5)	(DF-2.5)	O (DF-2.5)
26.0 x 12	(DF-0.5)	O (DF-0.5)	Ō	0	0	0	0
12.5 x 15	0	0	O (DF-0.5)	0	0	0	Ö
340-65 x 18 Radial	O	0	0	O (DF-0.5)	O (DF-0.5)	O (DF-1)	0
400-60 x 15.5	Ö	Ö	(DF-0.5)	(DF-0.5)	(DF-0.5)	O (DF-1)	O
550-45 x 22.5	Ö	O	0	0	0	0	O (DF-1)
8 inch Hatch	Ö	O	Ö	0	0	0	0
12 inch Hatch	Ö	O	Ō	0	0	0	0
Spring Drawbar (Adjustable)	Ö	Ö	Ö	O	Ö	0	0
Swivel Hitch	Ō	O	O	O	Ö	0	0
Bale Extension	Ö	O	Ö	O (DF-1)	O (DF-1)	O (DF-1)	O (DF-1)
Harvest Ladders - Galvanized (pair)	O	O	O	(DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)
Springs for Single Axle	Ō	O	0	0	0	0	0
Trailer Cover (640g PVC)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)
LED Beacon	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)
LED Tail Lights	(DF-1)	(DF-1)	O (DF-0.5)	(DF-0.5)	(DF-0.5)	0	0
10 Stud Commercial Axle	Ō	0	0	0	0	Ö	Ö
10 Stud Commercial Axle c/w ABS Brakes	Ö	Ö	Ö	Ö	Ö	Ö	0
Air/Oil Brakes (non ABS) c/w Load Sensing	Ö	Ö	Ö	Ö	Ö	(DF-4)	O (DF-4)
Oil Load Sensing	Ö	Ö	Ö	Ö	Ö	O (DF-2)	O (DF-2)
18" Mesh Sides	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	(DF-1.5)	O (DF-1.5)	O (DF-1.5)
Rear Tow Hitch c/w Lights and Brakes	0 (51 1.3)	0	0 (51 1.5)	0	0	O (DF-2)	O (DF-2)
Jack Screw in lieu of Skid	Ö	Ö	(DF-0.5)	(DF-0.5)	(DF-0.5)	(DF-0.5)	(DF-0.5)
	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	(DF-0.25)	· · · · · · · · · · · · · · · · · · ·	O (DF-0.25)	O (DF-0.25)

Scan the QR code above or visit www.marshall-trailers.co.uk for our retail pricing & full range of options.



### **DROP-SIDE RANGE - KEY FEATURES**





#### **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.



#### **Dealer Fit Ready**

The entire range of drop-side trailers are designed to allow over 95% 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.



#### Fixed Headboard

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



#### **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.





#### Hydraulic Tipping

All of the drop-side trailer range have hydraulic tipping as standard, with the S-1 to S-6 models utilising a single tipping ram. The S-85 model uses twin rams and on the S-10 it benefits from a single multi-stage tipping ram that pushes vertically, reducing oil requirements and improving cycle times.



#### 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.



#### **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.



### Lights & Hydraulic Brakes

The S-4 model upwards has hydraulic brakes and lights as standard, with the lights on the S-85 and S-10 models being LED units. Lighting and braking systems are available as options on the S-1 and S-2 models.





### BUILT TO PERFORM AND SPECIFIED WITH HIGH-PERFORMANCE RUNNING GEAR

Our QM range is built to perform, with a superior construction and clever design. This is combined with high-performance running gear to ensure our entire QM range is equipped to handle the faster speeds of modern tractors.

**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 above the wheels is 10mm and the mudguards are designed to bolt on, for easy replacement in the event of damage, and tapered to prevent material build up on top of the mudguard. Every model also benefits from a fully-welded construction with a substantial number of floor and side bearers to improve overall rigidity and strength.

**Tipping Mechanism** - the QM-11 model upwards benefits from a single, multi-stage displacement ram that uses less oil and has reduced trailer tipping cycles by 20%. This is obviously more efficient, but also safer as the trailer spends less time tipped where it is more likely to be damaged or an accident to happen.

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.

Spring Suspension - available on all tandem axle QM models as a no-cost option and available on our QM-6 single axle model as a priced option. Spring suspension provides a very smooth ride while still providing good stability; this is made possible due to the design of our QM range, keeping the running heights as low as possible and the fitting of cleverly engineered spring sets. The QM-8, 11, 12 and 1200 models use mulit-leaf springs that are matched to the carrying capacity, and on the larger models they benefit from mono-leaf 24-ton commercial spring sets to handle the increased weights.

**Rocker Tandem Suspension** - 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.



(Model shown: QM-16 side view)



(Model shown: QM-11 side view)



(50mm fully-bushed tip point and rear tow point)



(Single tipping ram)



(Single leaf spring suspension)



(Rocker tandem suspension)



## DESIGNED AROUND YOU WITH A HUGE RANGE OF BUILD OPTIONS

With so many demands placed on agricultural trailers it is now essential to offer a large range of options and every option we offer has been fully designed, tested and integrated into each model.

**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.

Silage - our QM range has two silage side options available, the first is the swinging style silage sides that are available on all models except the QM-1200, QM-1400, QM-1600 and QM-1800. These sides offer the largest silage capacity with higher sides due to the rear gate hinging at the top. The second silage sides option is the hydraulic attachment style sides, which are available on all models and are very efficient to fit and remove. These sides are very strong and rigid due to an internal plate overlapping the standard trailer body. The sides also have excellent clearance due to long hydraulic door arms, ensuring silage does not catch on the door when discharging the load.

**Rootcrop** - the QM models in the range have 4' high sides reducing the distance crops have to fall when loading to minimise potential damage. These models can also be specified with full-width front windows for improved visibility and large floatation wheel options are also available, including 560-60x22.5 and 600-50x22.5 radial floatations.

**Sugar Beet** - QM and QM00 models are suitable for sugar beet work, as all models have reinforced rear doors and single tipping rams with high tip angles, allowing loads to be effectively heaped and graded when discharged.

**Paint Options** - one of our most popular options is a custom paint finish, and we offer 14 different colour options, so that customers have a huge range to choose from. The colours are as follows, Marshall Red, Marshall Blue, Maserati Blue, John Deere Green, Claas Green, Fendt Green, Ferrari Red, Case Red, Kubota Orange, Highway Yellow, JCB Yellow, White, Black and Gunmetal Grey.

**Lighting Options** - LED lights are standard on all our QM models and side marker lights are standard on the QM-11 upwards. In addition high-level LED lights and worklights are also available as options.

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



(Model shown: QM-1400 front view)



(Model shown: QM-8 swinging style silage sides)



(Model shown: QM-6 front view)



(Tyre options)



(Rear name plate)



(LED light)



# QM MONOCOQUE TRAILER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	QM-6	QM-8	QM-11	QM-12	QM-1200	QM-14	QM-1400	QM-16	QM-1600	QM-1800
									_	
Body Size - Imperial	12' x 7' 3" - 7' 6" x 4'	14' x 7' 3" - 7' 6" x 4'	16' x 7' 6" - 8' x 4'	18' x 7' 6" - 8' x 4'	16' x 7' 6" - 8' x 4' 8"	21' x 7' 6" - 8' x 4'	18' x 7' 6" - 8' x 4' 8"	24' x 7' 6" - 8' x 4'	21' x 7' 6" - 8' x 4' 8"	24' x 7' 6" - 8' x 4' 8"
Standard Tyre Size	12.5 x 15	12.5 x 15	385 - 65 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				
Brake	300 x 60	300 x 60	350 x 90	350 x 90	350 x 90	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						
Lights & Hyd Brakes	0	0	0	0	0	0	0	0	0	0
Side Loading Panels	0	0	0	0	0	0	0	0	0	0
Volume Basic	360 cu.ft / 10.2 cu. mtrs	420 cu.ft / 11.9 cu. mtrs	496 cu.ft / 14.4 cu. mtrs	558 cu.ft / 15.8 cu. mtrs	578 cu.ft / 16.3 cu. mtrs	651 cu.ft / 18.4 cu. mtrs	651 cu.ft / 18.4 cu. mtrs	744 cu.ft / 21.1 cu. mtrs	759 cu.ft / 21.5 cu. mtrs	868 cu.ft / 24.5 cu. mtrs
Volume Silage - Swinging Door Style Sides	720 cu.ft / 20.4 cu. mtrs	840 cu.ft / 23.8 cu. mtrs	992 cu.ft / 28.1 cu. mtrs	1116 cu.ft / 31.6 cu. mtrs	N/A	1302 cu. ft / 36.8 cu. mtrs	N/A	1488 cu. ft / 42.1 cu. mtrs	N/A	N/A
Volume Silage - Hyd Door Attach. Style Sides	N/A	710 cu.ft / 20.1 cu. mtrs	889 cu.ft / 24.9 cu. mtrs	999 cu.ft / 28.3 cu. mtrs	971 cu.ft / 27.5 cu. mtrs	1166 cu.ft / 33 cu. mtrs	1092 cu.ft / 31 cu. mtrs	1335 cu.ft / 37.7 cu. mtrs	1274 cu.ft / 36.1 cu. mtrs	1457 cu.ft / 41.2 cu. mtrs
Basic Trailer Weight	1680 kgs	2660 kgs	4300 kgs	4860 kgs	4620 kgs	5700 kgs	5700 kgs	6380 kgs	6380 kgs	6980 kgs
Loading Height Basic	83"/2.11m	89"/2.26m	95"/2.41m	96"/2.44m	104"/2.64m	96"/2.44m	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°
Tip Height (Basic)	N/A	N/A	17' 8"	19' 8"	18' 2"	22' 7"	20' 2"	23' 11"	23' 1"	24' 5"
OPTIONAL EQUIPMENT										
400-60 x 15.5	(DF-0.5)	(DF-1)	0	0	0	0	0	0	0	0
340-65 x 18 Radial	O (DF-0.5)	O (DF-1)	Ŏ	Ö	0	0	0	0	0	0
550-45 x 22.5 c/w Mudquards	O (DF-0.5)	O (DF-1)	0	0	0	O (DF-1)	O (DF-1)	0	0	0
560-45 x 22.5 c/w Mudguards	0	0	0	0	0	O (DF-1)	O (DF-1)	O (DF-1)	(DF-1)	0
560-60 x 22.5 c/w Mudguards	0	0	0	0	0	O (DF-1)				
Mudguards/Wings - Bolt On	0	0	0	0	0	0	0	0	0	0
12 inch Hatch	0	0	0	0	0	0	0	0	0	0
Spring Drawbar (Adjustable)	0	0	0	Ö	0	Ö	O	0	O	0
Swivel Hitch	0	0	0	0	0	0	0	0	0	0
Hyd Door Safety Valve	O (DF-1.5)	(DF-1.5)	O (DF-1.5)	(DF-1.5)	(DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)
Hyd Door Seal	O (DF-1.3)	0 (01-1.3)	0 (61-1.5)	0 (51-1.3)	0	O (DF-1.3)	0 (01-1.3)	O (br-1.3)	0	O (DF-1.3)
/	0	0	0	0	0	0	0	0	0	0
Hyd Up & Over Grain Door										
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 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)	No-cost Option (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)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	(DF-0.25)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)
Roll Over Cover (1000g PVC)	O (DF-5)	(DF-5)	O (DF-5)	O (DF-5)	O (DF-5)	O (DF-5)	O (DF-5)	O (DF-5)	O (DF-5)	O (DF-5)
-	0 (01-3)	0	0 (01-3)	0 (01-3)	0 (DF-3)	0 (01-3)	0 (61-3)	0 (61-3)	O (DF-3)	O (DF-3)
Hydraulic Front to Back Cover  LED Beacon	O (DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)	O (DF-0.25)	0	0	0	0	0
LED Tail Lights	O (DI-0.23)	O (DF-0.23)	O (DF-0.23)	O (b1-0.23)	O (DF-0.23)	0	0	0	0	0
	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	(DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)	O (DF-1.5)
High Level LED Lights  LED Worklights		O (DF-1.3)	O (DF-2)	O (DF-2)				(DF-1.5)		
,	0		O (DF-2)	O (DF-2)		O (DF-2)	0	0		
10 Stud 406 x 120 Commercial Axle	0	0	0	0	0		O (DF-6)	O (DF-6)	O (DF-6)	O (DF-6)
10 Stud Commercial Axle c/w ABS & Air Brakes	0		0	0	0	O (DF-6)	O (DF-6)	(DF-6)	O (DF-6)	O (DF-6)
Rear Steering Axle	0	O (DE 4)						9	9	
Air / Oil Brakes (non ABS) c/w Load Sensing	0	O (DF-4)		(DF-4)	O (DF-4)	O (DF-4)	O (DF-4)	(DF-4)	O (DF-4)	O (DF-4)
Oil Load Sensing	0	(DF-2)	(DF-2)	O (DF-2)	()	O (DF-2)	(DF-2)	(DF-2)	O (DF-2)	O (DF-2)
Small Perspex Front Window	O (DF-0.5)	O (DF-0.5)	O (DF-0.5)	O (DF-0.5)	O (DF-0.5)	O (DF-0.5)	(DF-0.5)	(DF-0.5)	(DF-0.5)	O (DF-0.5)
Large Perspex Front Window	0	0	0	0	0	0	0 (05.2)	0	0	0
Rear Tow Hitch c/w Lights and Brakes	0	O (DF-2)	O (DF-2)	O (DF-2)	(DF-2)	O (DF-2)	(DF-2)	(DF-2)	(DF-2)	O (DF-2)

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Dealer Fit O Standard O Optional O Not Available

## **QM RANGE - KEY FEATURES**





#### Hydraulic Door Design

Optional on our QM-6 and QM-8 models or standard on the QM-11 model upwards. The door has excellent clearance when open and when closed physically locks into a catch to prevent accidental discharge; it does not rely on hydraulic pressure to keep the door closed.



#### Tapered Body

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



#### **Cubic Capacities**

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



#### **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.



#### **Dealer Fit Ready**

The entire QM range comes "dealer fit" ready, allowing over 95% of the optional extras to be retrofitted without the need for further fabrication or paint rectification.



#### Front Inspection Ladder

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



#### Front Upstand

Every QM model has a galvanized front upstand for holding the hydraulic hoses and lighting cables. The hydraulic hoses have hose identifiers as standard and are housed in a protective sleeve. The detachable lighting suzi is also located on the upstand.





#### Drawbar Design

Spring drawbars are standard on the  $\overline{Q}M-11$  model upwards and fully adjustable. The drawbar is CNC formed from two 8mm plates to create a modern and strong design.



#### **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.



#### Suspension

Split-oscillating suspension or spring suspension is available as a no-cost option. The split-oscillating suspension is robot welded and the QM-14 models upwards uses a 24-ton single-leaf suspension kit.



#### **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.



#### Mudguards

Optional on the QM-8 to QM-1200 models and standard on the larger models. The mudguard option increases the floor thickness above the wheels to 10mm and the guards themselves are galvanized and bolt on to allow easy replacement in the event of damage.



#### **Rear Tipping Points**

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

## HD HYBRID DUMPER TRAILER RANGE





## 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.

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 utilizing a single ram. This reduces the tipping cycle time by up to 20% obviously making the whole operation safer, faster and ensures less overall wear and tear. In addition the tipping points on larger models are formed by 50mm steel pins.

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.

**Suspension** - all our tandem axle models are available with rocker or spring suspension as a no-cost option. The HD-16 model utilises our 24-ton commercial spring set when spring suspension is specified.

Axles & Brakes - the standard axles and hydraulic brakes on all models exceed the current legislation on braking efficiency. The HD-16 model also has  $10 \text{ stud } 420 \times 180 \text{ commercial}$  axles as standard; and the HD-12 and HD-14 models can be upgraded to  $10 \text{ stud } 406 \times 120 \text{ commercial}$  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  $12.5 \times 15$  floatation tyres, which can be upgraded to  $340-65 \times 18$  radial tyres for road work. The larger models in the range, the HD-12 upwards, are equipped with remould  $385 - 65 \times 22.5$  radial tyres, ideal for road work. These can be swapped for floatation tyres as an optional extra.



(Model shown: HD-6 rear view)



(Model shown: HD-8 front view)



(Model shown: HD-12 side view)



(Model shown: HD-14 ramps)



(Model shown: HD-16 single tipping ram)



(Model shown: HD-16 side view)



# HD HYBRID DUMPER TRAILER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	HD-6	5	HD-	8	HD-	12	HD-	14	HD-	16
Body Size - Imperial	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	9" x 3'
Body Shape	Scow-er	nd	Scow-e	Scow-end		Flat-back		ack	Flat-back	
Standard Tyre Size	12.5 x 15	5 - 14 ply	12.5 x	15 - 14 ply	385 - 6	5 x 22.5	385 - 6	55 x 22.5	385 - 65	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 6	0	350 x 9	0	350 x 9	90	420 x 18	30 S Cam
Carrying Capacity	6 tons		8 tons		12 tons		14 tons	S	16 tons	
Floor Thickness (Rock)	6mm		6mm		8mm		8mm		8mm	
Side Thickness	5mm		5mm		6mm		6mm		6mm	
Lights and Hyd Brakes	0		0		0		0		0	
Volume Basic	131 cu. f	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. 1	ft / 10.5 cu. mtrs
Basic Trailer Weight	1760 kg	S	2990 k	gs	4920 kg	JS	5140 k	gs	5540 kg	S
Loading Height	60"		62"		71"		77"		83"	
Tip Angle (Degrees)	55°		60°		60°		60°		60°	
OPTIONAL EQUIPMEN	NT									
400-60 x 15.5	$\circ$	(DF-0.5)	0	(DF-1)	0		C		0	
340-65 x 18 Radial	0	(DF-0.5)		(DF-1)	õ		C		õ	
445 x 45 x 19.5 (Lowers bed	$\overline{\circ}$	, , , ,	C	(== -7	0					
height by 75mm)	0									
550-45 x 22.5 c/w Mudguards	0		0		0		0		0	
560-45 x 22.5 c/w Mudguards	$\overline{\circ}$		C		0		0		0	
Mudguards / Wings - Bolt On	ŏ		ŏ		Õ		Õ		Õ	
Spring Drawbar (Adjustable)	$\frac{\circ}{\circ}$		$\overline{}$		Ŏ		C		Õ	
Hydraulic Tail Door	$\overline{\circ}$	(DF-3)		(DF-3)		rd - Removable	Standard - Removable		Standard - Removabl	
Hyd Door Safety Valve	<u> </u>	(DF-1.5)		(DF-1.5)	0	(DF-1.5)		(DF-1.5)		(DF-1.5)
Trailer Cover (640g PVC)	$\tilde{\circ}$	(DF-1)	$\tilde{}$	(DF-1)	0	(DF-1)		(DF-1)	Ŏ	(DF-1)
Hydraulic Front to Back Cover	Õ		C		0		$\tilde{\circ}$		0	
LED Beacon	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
LED Tail Lights	0	(DF-0.5)		(DF-0.5)	0	(DF-0.5)	$\overline{}$	(DF-0.5)	0	(DF-0.5)
LED Worklights	Õ	()	ŏ	(== ===)	Õ	(DF-2)	$\tilde{C}$	(DF-2)	ŏ	(DF-2)
10 Stud Commercial Axle 406 x 120	ŏ		Õ		0			. ,	0	
10 Stud Commercial Axle c/w	$\frac{\circ}{\circ}$		$\frac{1}{2}$		0					(DF-6)
ABS & Air Brakes										(5: 0)
Air / Oil Brakes c/w Load Sensing	0			(DF-4)	0	(DF-4)	$\circ$	(DF-4)		(DF-4)
Rear Tow Hitch c/w Lights and Brakes	0			(DF-2)	0	(DF-2)		(DF-2)	0	(DF-2)
,			C	(D1-Z)		(DF-0.25)		(DF-0.25)		(DF-0.25)
Rear Ramps (Aluminium)	0		U		U	(01-0.25)	0	(ντ-υ.25)	$\square$	(DL-0.52)



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#### 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.



#### Front Upstand

The entire HD range is standard with a galvanised upstand to protect the hydraulic hoses and wiring. The hydraulic hoses have bulkhead couplings and the wiring loom has a removable electrical suzi to allow easy replacement.



#### 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.



#### 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.



#### **Tipping Rams**

The HD-6 uses a single tipping ram, the HD-8 utilizes twin rams and the HD-12, HD-14 and HD-16 have the advantage of using a displacement single ram design.





#### 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.



#### **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 400-60 x 15.5 floatation wheels and 340-65 x 18 radial wheels are available for either field or road work. On the HD-12 model and above,  $550-45 \times 22.5$  or  $560-45 \times 22.5$  floatation tyres are available for field work.



#### 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.



#### **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.





## STRONG AS STANDARD WITH ALL THE FINISHING TOUCHES

The entire BC range is manufactured using modern techniques and materials for a robust and heavy-duty build. This is combined with a number of small details and standard features to produce trailers that are not only strong, but practical and user-friendly.

**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 and also benefit from integrated strapping points and rope hooks to ensure loads can be properly secured.

**21" Fixed Headboard** - standard on all models this feature dramatically increases strength and rigidity to reduce flexing when loading.

**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.

**Lighting** - every model in the range has LED lights as standard that are recessed into the back rail of the trailer to provide additional protection. In addition on the BC-25-12T model upwards side marker lights and a detachable electrical suzi are standard features.

**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 and comes standard with a strap-winder to make tidying up and storing straps easier than ever.



(Model shown: BC-25-10T front view)



(Model shown: BC-28 side view)



(Model shown: BC-25-12T side view)



(Hydraulic hose identifiers, hose protector and detachable electrical suzi)



(Model shown: BC-21 side view)



(Rear toolbox and strap winder)



## ALL THE OPTIONS TO MAKE YOUR TRAILER DO MORE

There are a huge range of options available on the BC range, including axle and brake upgrades to ensure the correct running gear can be matched to customer requirements. In addition our easy secure bale clamp system and the option to fit aluminium ramps means the BC range can be used for more than just bales and boxes.

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.

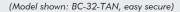
Tyres - it is possible to upgrade the tyres of our entire BC range to better handle different jobs. Tyres available include miniature super singles, low and wide 445-45 x 19.5 tyres to reduce the bed height and a variety of floatation tyres. Study the specification chart on page 24 to see the available tyre options for each model. Further information on tyre performance is available on page 44.

Easy Secure - this unique load securing system fits to the BC-25-12T model upwards and can be used to secure a variety loads from bales and boxes to fertiliser bags. The system incorporates two hydraulically lifted bars that rise up to 2.3m from the trailer bed and pull a pair of heavy-duty securing nets into place on either side of the trailer, reducing the need for strapping and further tying down of cargo. There are a number of benefits to this design, using nets instead of a complicated steel frame reduces the chance of damage and keeps the trailer's centre of gravity lower for better stability. In addition when the nets are folded down integrated bungle cords fold the net up allowing the trailer to be moved or unhitched even when in the lowered position.

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.











(340 - 65 x 18 "Miniature Super-singles")



(560 - 45 x 22.5 radial floatations)

# BC PALLET / BALE TRAILER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	BC-21	BC-25 - 10 ton	BC-25 - 12 ton	BC-28	BC-32 - TAN	BC-32 - TRI	BC-36 - TAN	BC-36 - TRI	
D. I. C.	241 01 / 5 40 2 42	251 01 / 7 (2) 2 2 42 2	25 0 4   /7 (2 2 54	201 01411 / 0.52 2.54	221 - 01 411 / 0 75 2 54	221 - 01 411 / 0.75 2.54 -	261 - 01 411 / 10 07 2 54	261-01411/10.072.54	
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	36' x 8' 4" / 10.97m x 2.54m	36' x 8' 4" / 10.97m x 2.54m	
Standard Tyre Size	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	385 - 65 x 22.5	385 - 65 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	10 stud 120mm High Speed Commercial Tandem	10 stud 120mm High Speed Commercial Tridem	
Brakes	300 x 60	300 x 60	350 x 90	350 x 90	350 x 90	406 x 120	420 x 180	420 x 180	
Carrying Capacity	10 tons	10 tons	12 tons	14 tons	14 tons	16 tons	16 tons	16 tons	
Floor Thickness (Steel) Durabar	4mm	4mm							
Lights and Hyd Brakes	0	0	0	0	0	0	0	0	
Headboard	Standard - 21"	Standard - 21"							
Harvest Ladders - Galvanized	Front and Adjustable Rear Standard	Front and Adjustable Rear Standard							
Unladen Weight	2030 kgs	2340 kgs	3320 kgs	3840 kgs	4075 kgs	4475 kgs	4935 kgs	5335 kgs	
Loading Height	38"	39"	47"	47"	47"	47"	47"	47"	
Chassis Members	200mm PFC	200mm PFC	UPN 260mm	UPN 260mm	UPN 300mm	UPN 300mm	UPN 300mm	UPN 300mm	
OPTIONAL EQUIPMENT									
400-60 x 15.5	O (DF-1)	O (DF-1)	0	0	0	0	0	0	
340-65 x 18 Radial	(DF-1)	(DF-1)	0	0	0	0	0	0	
385-65 x 22.5 fitted to 8 stud	0	0	0	0	0	0	0	0	
445-45 x 19.5 (Lowers bed height by 150mm)	0	0	0	0	0	0	0	0	
550-45 x 22.5	0	0	O (DF-1)	O (DF-1)	O (DF-1)	O (DF-1.5)	O (DF-1)	O (DF-1.5)	
560-45 x 22.5	0	0	(DF-1)	(DF-1)	(DF-1)	(DF-1.5)	(DF-1)	(DF-1.5)	
560-60 x 22.5 c/w 10 stud 420 x 180 Axles	0	0	0	0	0	0	O (DF-1)	O (DF-1.5)	
Front Mudflaps	O (DF-1)	O (DF-1)	O (DF-1)	(DF-1)	(DF-1)	(DF-1)	(DF-1)	(DF-1)	
Spring Drawbar	0	0	0	0	0	0	0	0	
LED Beacon	(DF-0.25)	O (DF-0.25)	O (DF-0.25)	O (DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)	O (DF-0.25)	
Rear Toolbox c/w Strap Winder	O (DF-1)	(DF-1)	(DF-1)	O (DF-1)	(DF-1)	(DF-1)	(DF-1)	(DF-1)	
LED Tail Light	0	0	0	0	0	0	0	0	
10 Stud Commercial Axle 406 x 120	0	0	0	0	0	0	0	0	
10 Stud Commercial Axle c/w ABS Brakes	O	0	0	O	O	O	O	0	
Air / Oil Brakes c/w Load Sensing	O (DF-4)	O (DF-4)	O (DF-4)	(DF-4)	(DF-4)	(DF-5)	O (DF-4)	(DF-5)	
Oil Load Sensing	(DF-2)	(DF-2)							
Rear Box Pusher	(DF-2.5)	O (DF-2.5)	(DF-2.5)	(DF-2.5)	(DF-2.5)	(DF-2.5)	(DF-2.5)	(DF-2.5)	
Hydraulic Side Walkway (per side)	0	(DF-5)	(DF-5)	0	(DF-5)	(DF-5)	(DF-5)	(DF-5)	
Easy Secure System	0	0	(DF-6)	O (DF-6)	(DF-6)	(DF-6)	(DF-6)	O (DF-6)	
Rear Ramps (Aluminium)	(DF-0.25)	O (DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	(DF-0.25)	O (DF-0.25)	
Extra Foot of Flooring	0	0	0	0	0	0	0	0	

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Dealer Fit • Standard • Optional • Not Available

## **BC RANGE - KEY FEATURES**





#### Dealer Fit Ready

The entire BC range comes "dealer fit" ready, allowing over 95% of the optional extras to be retrofitted without the need for further fabrication or paint rectification.



#### **Cross Bearers**

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



#### **Chequered Plate Steel Floor**

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



#### **Harvest Ladders**

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



#### Fixed Headboard

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



#### Drawbar Design

The BC range is fitted with our ungiue design of drawbar that uses heavy-duty plates to produce a strong drawbar that also has a sleek design. On the BC-28 upwards the drawbar is adjustable and sprung to ensure smooth operation at higher speeds, this is available as an option on other models.



(Marshall BC-25-12T Key Features)







#### 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.



#### **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.



#### **Recessed Rear Lights**

The rear lights on every BC model are LED units and recessed into the backrail for extra protection. The light units also use a sealed wiring loom that prevents water ingress and any corrosion.



#### **Rear Crash Barrier**

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



#### Adjustable Rear Harvest Ladder

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





### 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.

**Barrel Design** - the barrels on all models are fully welded and are either 4mm thick on our 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 thirty 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.

**Brakes & Lights** - brakes and lights come as standard on all models. This ensures all our spreaders comply with both highway and health & safety regulations.

**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  $3" \times 2.5"$  heads and a substantial number of flail chains ensure a fast, efficient spread rate.



(Model shown: MS-75 side view)



(Model shown: MS-105 side view)



(Recessed lights)



(Angled loading lip)



(Fiail Chairis)

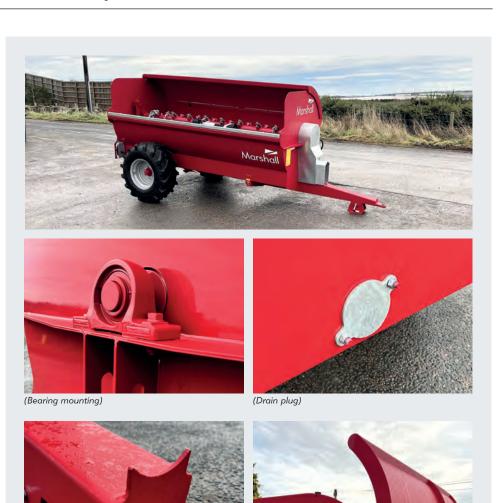


(Drive chain)

# MS MUCK SPREADER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT



	MS-60	MS-75	MS-90	MS-105		
Standard Tyre Size	12.5 x 15 - 14 ply	385 - 65 x 22.5	385 - 65 x 22.5	550 - 60 x 22.5		
Axle	70mm 6 stud	70mm 6 stud	70mm 6 stud	80mm 8 stud		
Brakes	300 x 60	300 x 60	300 x 60	350 x 90		
Volume Capacity	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	0	0	0	0		
Hydraulic Lid	0	0	0	0		
Ends	4mm	4mm	4.5mm	4.5mm		
Drum Thickness	6mm	6mm	6mm	6mm		
Case Hardened Chain Flails	1/2" / 13mm	1/2" / 13mm	9/16" / 14mm	9/16" / 14mm		
Flail Chain - Quantity	28	28	36	40		
HP Requirements	55	65	85	95		
End Height	73"	81"	82"	82"		
Loading Height	51"	58"	59"	62"		
Lights	10' x 54"	10' x 57"	12' x 60"	14' x 60"		
Body Dimension	0	0	0	0		
Basic Spreader Weight	1330 kgs	1680 kgs	2060 kgs	2280 kgs		
OPTIONAL EQUIPME	ENT					
Slurry Bib 8 inch Deep - Galvanized	(DF-0.5)	(DF-0.5)	(DF-0.5)	(DF-0.5)		
16/70 x 20 Track Tread	(DF-0.5)	(DF-0.5)	(DF-0.5)	0		
550 - 60 x 22.5 fitted to 8 stud	0	(DF-2)	(DF-2)	0		
Jack Screw in lieu of Skid	0	0	0	0		
LED Tail Lights	(DF-0.5)	(DF-0.5)	(DF-0.5)	(DF-0.5)		



(PTO stand)

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Marshall

(Vertically opening lid)

Dealer Fit • Standard • Optional • Not Available





#### 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.



#### 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.



### 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.



#### Lights and Brakes

These are standard on all models ensuring our spreaders meet the legal requirements.



#### **PTO Shaft Stand**

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





#### Bearings

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



### Integrated Chassis

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



#### **Wheel Options**

The axles on all models are designed to bolt on allowing a huge range of wheel options to be fitted. These include  $16/70 \times 20$  track tread wheels and  $550-60 \times 22.5$  floatation wheels.



#### 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.



## THE ULTIMATE SPREADER - 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 associated maintenance requirements. This is only possible due to the patented hydraulic pushing ram that is fully speed controllable with a user-friendly electronic control system. Combined with the heavy-duty construction and over-specified components the VES range is ready for the toughest challenges.

**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.

**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.

**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.

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.

**Excellent Residual Value** - since our VES range commenced production over 15 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.



(Model shown: VES-2000 front view)



(Model shown: VES-2000 rear view)



(Front ram and speed control unit)



(Pushing door)



(Rear beater tips)

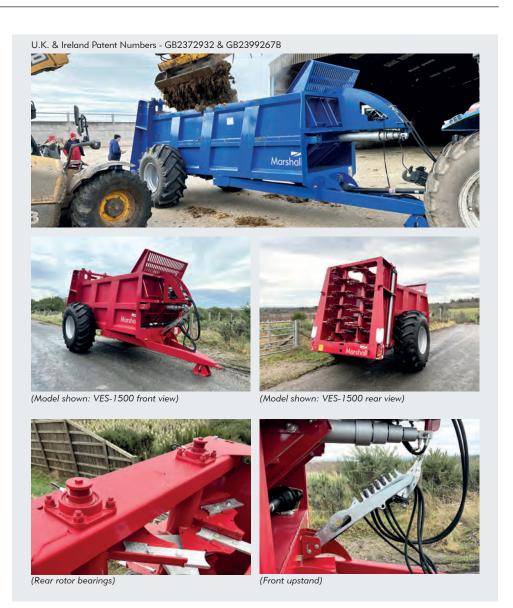


(Drive gearbox and rubber drives)



## VES REAR-DISCHARGE SPREADER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	VES-1500	VES-2000	VES-2500
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 120mm High Speed Commercial	10 stud 120mm High Speed Commercial
Brakes	350 x 90	420 x 180 S Cam	420 x 180 S Cam
Lights	0	0	0
Floor Thickness	4mm	4mm	4mm
Side Thickness	4mm	4mm	4mm
Slurry Door (Removable)	0	0	0
Carrying Capacity	9 tons	12 tons	14 tons
Volume	1427 gal / 6490 ltr / 229 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' 10" 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	4080 kgs	4380 kgs	5000 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 16m	Up to 16m	Up to 16m
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
OPTIONAL EQUIPME	ENT		
23.1 x 26 - 14 ply Tyres	O (DF-1)	(DF-1)	(DF-1)
Wide Angle Shaft	(DF-0.25)	(DF-0.25)	(DF-0.25)
Hydraulic Light Covers	(DF-2)	(DF-2)	(DF-2)
LED Tail Lights	0	0	0
LED Beacon	(DF-0.25)	(DF-0.25)	(DF-0.25)
Air Brakes	0	(5: 0123)	



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Dealer Fit • Standard • Optional • Not Available

## **VES RANGE - KEY FEATURES**





### Slurry Door Design

All models have a slurry door as standard that when combined with the unique pushing ram design allows for a properly sealed box to effectively hold slurry. There are no gaps or spaces for floor chains required.



#### **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.



#### **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.



#### **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.





#### 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.



#### **Wheel Options**

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



#### 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.



#### 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.





The ST range has been intelligently designed to maximise strength and also ensure every model is operator friendly.

**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.

Axles & Brakes - hydraulic brakes are standard on all models with the option for air brakes on the ST-1600 model upwards. On the ST-2000, ST-2300 and ST-2550 a drop-axle is used to lower the centre of gravity by 130mm for improved stability. Commercial  $420 \times 180$  axles are standard on the ST-2000 model upwards.

**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.

**Lights** - lights are standard on all models, with the ST-2000 model upwards benefitting from dual, high-level LED lights as standard. LED beacons are also available as an option.

**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, 10,000ltr or 12,000ltr 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.

 $\begin{tabular}{ll} \textbf{Dribble Bars} & - \text{ these are available as an option on all models to ensure compliance with the latest regulations.} \end{tabular} The popular size is a detachable 7.5m version.} \label{table bars}$ 

**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.



(Model shown: ST-2550 side view)



(Model shown: ST-2300 front view)



(Model shown: ST-2550 front view)



(Model shown: ST-1600 rear view)



(Easy connect)



(Garda pump)



# ST SLURRY TANKER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	ST-1	200	ST-14	400	ST-16	500	ST-18	300	ST-20	000	ST-23	00	ST-2	550	ST-30	00	ST-350	00
Standard Tyre Size	385 - 6	-	385 - 65		550 - 60		550 - 60		750/60 -		750/60 -		750/60 -		385 - 65 )		385 - 65 x	
Axle	70mm	6 stud	80mm 8	stud	80mm 8	stud	80mm 8	stud	120mm Commerc 130mm	0 stud High Speed cial Drop-axle	120mm 1 Commerc 130mm	0 stud High Speed ial Drop-axle	120mm Commer 130mm	10 stud High Speed cial Drop-axle	90mm 10 Commerc	stud High Speed ial Tandem	120mm 10 Commercia	) stud High Speed al Tandem
Brakes	300 x 6	0	350 x 90		350 x 90		350 x 90		420 x 18	) S Cam	420 x 180	) S Cam	420 x 18	0 S Cam	406 x 120	S Cam	420 x 180 S	S Cam
Volume	1220 ga	al / 5500 ltr	1400 gal	/ 6300 ltr	1550 gal	/ 7000 ltr	1800 gal	/ 8200 ltr	2150 gal	/ 9800 ltr	2340 gal	/ 10650 ltr	2560 ga	/ 11600 ltr	3000 gal	/ 13640 ltr	3500 gal /	15910 ltr
Overall Width (Standard Wheels)	7' 5" / 2	2.27m	7' 11" / 2	2.42m	8' 6" / 2.	59m	8' 6" / 2.	.59m	9' 4" / 2.	34m	9' 8" / 2.9	94m	9' 8" / 2.	94m	7'8"/2.3	2m	7'8"/2.32	2m
Overall Height (Standard Wheels)	8'3"/2	2.5m	8' 3" / 2.	.5m	8' 6" / 2.	59m	8'6"/2.	.59m	8' 6" / 2.	59m	8' 6" / 2.5	59m	8' 6" / 2.	59m	9' 10" / 3	m	9' 10" / 3m	1
Side Valve	0		0		0		0		0		0		0		0		0	
Tank Thickness	6mm		6mm		6mm		6mm		6mm		6mm		6mm		6mm		6mm	
Lights and Brakes	0		0		0		0		Standard	- Dual Lights	Standard	- Dual Lights	Standard	d - Dual Lights	Standard	- Dual Lights	Standard -	Dual LED Lights
Drum Diameter	5' 3"		5' 3"		5' 3"		5' 3"		5' 3"		6'		6'		6'		6'	
Pump - Hertell	8000 ltr	r	8000 ltr		8000 ltr		8000 ltr		10000 ltr		10000 ltr		10000 lti	r	10000 ltr		12000 ltr	
6 inch Hose	15'		15'		15'		15'		15'		20'		20'		20'		20'	
Unladen Weight	1945 kg	js .	2120 kgs		2330 kgs		2510 kgs		3660 kgs		3890 kgs		4140 kgs		4800 kgs		5350 kgs	
OPTIONAL EQUIPMEN	IT.																	
OI HOUSE EQUITMEN																		
16/70 x 20 Track Tread	0	(DF-0.5)	0	(DF-0.5)	0		0		0		0		0		0		0	
550-60 x 22.5 Fitted 8 Stud	0	(DF-2)	0	(DF-1)	0		0		0		0		0		0		0	
560-45 x 22.5	0		0		0		0		0		0		0		0	(DF-1)	0	
560-60 x 22.5	0		0		0		0		0		0		0		0		0	
Spring Drawbar	0		0		0		0		0		0		0		0		0	
Swivel Hitch	0		0		0		0		0		0		0		0		0	
Tanker Hydraulic Hatch	0		0		0		0		0		0		0		0		0	
Full Opening Rear Door	0		0		0		0		0		0		0		0		0	
Mudguards	0		0		0		0		0		0		0		0		0	
10,000 ltr Pump Hertell	0		0	(DF-1)	0	(DF-1)	0	(DF-1)	0		0		0		0		0	
Hydraulic Pump	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)	0	(DF-1.5)
Garda Pump (8,000l) c/w Spreader	0		0		0		0		0		0		0		0		0	
Spreader / Rain Gun Only	0		0		0		0		0		0		0		0		0	
90 degree Bend Complete	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
Extra Complete Hand Operated Valve	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
Wash Down Hose	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
Quick Attach Coupling	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)
Pump Hydraulic Changeover	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)	0	(DF-1)
Marshall Easy-Connect	0		0		0		0		0		0		0		0		0	
Air / Oil Brakes	0		0		0		0		0		0		0		0		0	
LED Tail Lights	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0		0		0		0		0	
LED Beacon	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
Sight Tube	0		0		0		0		0		0		0		0		0	

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Dealer Fit • Standard • Optional • Not Available

# ST RANGE - KEY FEATURES





# **Cubic Capacities**

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



# 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.



## **Dual Slurry Trap System**

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



## Sight Glasses

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





# Pump

The vacuum pump on all models are 8,000, 10,000 or 12,000 litres depending on the size of the tanker.



# 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.



### **Axles and Tyres**

The ST range has a large number of tyre options; including  $16/70 \times 20$  Track Tread and  $550-60 \times 22.5$  floatation tyres. The ST-2000 model upwards benefits from 10 stud commercial axles with recessed  $750/60 \times 30.5$  tyres as standard.



#### Couplings

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

# LIVESTOCK CONTAINER RANGE



# 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.

**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 and start at very competitive prices. There are few other ways to move livestock at those prices.

**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.







(Internal dividing gates)



CODE TO

# LIVESTOCK CONTAINER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT

	21		25		28		32	
Trailer Model	BC-21		BC-25-12T		BC-28		BC-32-TAN	
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	
OPTIONAL EQUIPMENT								
Steel Container (TRAN)	0		0		0		0	
Steel Box and Trailer - Fixed (TRAN-FT)	0		0		0		0	
Steel Box and Trailer - Dismountable	0		0		0		0	
Sheep Decks	0	(DF-2)	0	(DF-2)	0	(DF-2)	0	(DF-2)
Additional Internal Divisions	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
Front Escape Hatch	0		0		0		0	
400-60 x 15.5	0	(DF-1)	0		0		0	
340-65 x 18 Radial	0	(DF-1)	0		0		0	
385-65 x 22.5	0		0		0		0	
445-45 x 19.5 (Lowers bed height by 150mm)	0		0		0		0	
Spring Drawbar	0		0		0		0	
LED Beacon	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)	0	(DF-0.25)
LED Tail Light	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)	0	(DF-0.5)
10 Stud Commercial Axle 406 x 120	0		0		0		0	
10 Stud Commercial Axle c/w ABS Brakes	0		0		0		0	
Air / Oil Brakes c/w Load Sensing	0	(DF-4)	0	(DF-4)	0	(DF-4)	0	(DF-4)
Oil Load Sensing	0	(DF-2)	0	(DF-2)	0	(DF-2)	0	(DF-2)
Hydraulic Sheep Decks	0		0		0		0	

# For optional extras available on the dismountable host trailer see page 24

Scan the QR code above or visit www.marshall-trailers.co.uk for our retail pricing & full range of options.





# FT FEED TRAILER RANGE SPECIFICATIONS & OPTIONAL EQUIPMENT



	FT-15	FT-20	
Length	h 15' x 5' 6"		
Feed Spaces	32	40	
Loading Height	62"	62"	
Sides	3mm Steel	4mm Steel	
Front	5mm Steel	5mm Steel	
Axles	6 stud 70mm	6 stud 70mm	
Tyres	12.5 x 15 - 14 ply	12.5 x 15 - 14 ply	
Unladen Weight	840 kgs	1080 kgs	
Retractable Drawbar	0	0	
Swinging Removable Taildoor	0	0	
OPTIONAL EQUIPMEN	T		
Jack Screw in lieu of Skid	(DF-0.5)	(DF-0.5)	
Tombstone Sides	0	0	
Removable Seating	(DF-2)	(DF-2)	

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.

Scan the QR code above or visit www.marshall-trailers.co.uk for our retail pricing & full range of options.







(Model shown: FT-15 front view)

(Model shown: FT-15 tombstone sides)





(Model shown: FT-20 front view)

(Model shown: FT-20 rear view)

Dealer Fit • Standard • Optional • Not Available

# **OPTIONAL EQUIPMENT**







Oil Brakes LSV



Hyd Door Safety Valve



8" Hatch



12" Hatch



Perspex Front Window - Small



Window - Large



Trailer Cover



Roll-over Cover



Hydraulic Front to Back 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 & 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 Drive Pump





	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".

#### **BRAKES**

All  $385 - 65 \times 22.5$  tyres are rebuilt tyres fitted to new centres.

All 400 - 60R  $\times$  22.5 tyres are rebuilt tyres fitted to new centres.

If  $550 - 45 \times 22.5$  or  $560 - 45 \times 22.5$  tyres are fitted to QM-11, QM-12, QM-1200, HD-12, HD-14 or HD-16 models then mudguards are required - see page 15 or page 19.

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

Correct tyre pressures are available on our website www.marshall-trailers.co.uk/downloads

	TYRE INFORMATION				
	TYRE SIZE	TYPE	DESCRIPTION		
1	26 x 12.0 x 12	Floatation	Fits to small trailers and provides fantastic floatation.		
2	12.5 x 15.3	Floatation	Primarily designed to provide floatation for field work.		
3	400 - 60 x 15.5	Floatation	This wide tyre provides floatation above a 12.5 x 15.3.		
4	340 - 65 x 18	New Radial	Also known as a mini super single, it is excellent for road work.		
5	385 - 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	16 x 70 x 20TT	Floatation	The track tread means this tyre is excellent at field work.		
8	23.1 x 26	Floatation	Track tread pattern for excellent lateral grip.		
9	445 - 45 x 19.5	New Radial	Low and wide radial tyre designed for high speed road performance.		
10	550 - 45 x 22.5	Floatation	Excellent tyre for floatation, designed primarily for the field.		
11	560 - 45 x 22.5	New Radial	Designed to provide good road performance and floatation.		
12	550 - 60 x 22.5	Floatation	Excellent tyre for floatation, designed primarily for the field.		
13	560 - 60 x 22.5	New Radial	Designed to provide good road performance and floatation.		
14	600 - 50 x 22.5	New Radial	Designed to provide excellent performance on road and off-road.		
15	750 - 60 x 30.5	Floatation	Massive tyre to provide incredible floatation.		
16	18.4 x 30	Floatation	Excellent floatation tyre with a track tread grip.		





The 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 quide to running gear highlights the important specs to look for and explains how we 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:



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 larae 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 areater the axle's carrying capacity.

The first number indicates the brake drum diameter and the second number the brake shoe width. It is important for these numbers to match up to maximize braking efficiency. It is also important to identify how the brake drum has been produced, whether it is cast or pressed steel.

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.

#### **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 automatic emergency braking 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.



(8 Stud Flat Cam)



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

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 oscilatina suspensions.



# **BEHIND THE SCENES**

The last decade at Marshall Trailers has been one of monumental change, with updates and improvements across the manufacturing process! These changes were critical for the company to continue to move forward and ensure the business was positioned to continue trading for another seventy years!

The changes started from the ground upwards and introduced a huge number of manufacturing techniques borrowed from the automotive industry. Simplified designs that looked better and could be produced en-mass were developed; a massive financial investment but also an investment of time to update thousands of drawings.

Design changes were only part of the puzzle and this went hand in hand with updates to the factory's manufacturing equipment and plant. New CNC plasma cutters, robot welders, a CNC saw line and brand-new paint facility were also purchased, moving Marshalls to the cutting edge in the agricultural machinery world. This new plant increased efficiency, but more importantly drastically improved quality as human error was remove from the process.

Finally, the company implemented state-of-the-art software called SAP to run the factory; it is the same software used by various car and tractor manufacturers and is globally acknowledge as the best software solution for manufacturing. It allowed the factory to be much better organised and ensure a smooth and efficient production line was maintained, improving delivery times and driving up quality.

These changes are just a very small insight into the effort and energy the company invests to deliver the UK's leading agricultural trailers, muckspreaders, tankers and livestock containers!



(Parts delivery cart)



(Plasma with loading area)



(New saw line)



(Robotic welding cells)



(SAP tower)



(Operating the factory)



Although we have gone through a huge evolution in the last ten years, we always have one eye on the future! If a company is not going forwards, then it is going backwards; words that we remind ourselves of constantly!

To that end we have a variety of updates planned for 2024, some with our manufacturing process and some for our product line:

- New overhead cranes are planned for our finishing area to speed up fitting and reduce handling marks, while also improving safety.
- The office facility is going to be updated and expanded to make room for customer visits and create a better working environment.
- Our solar farm is to be increased in size and storage batteries are to be installed to ensure we keep control of our energy costs and can continue to deliver value to customers.
- The livestock container range is being revamped to improve the design and usability of the containers, this includes a brilliant hydraulic sheep deck design that will make loading and unloading much, much easier!
- Finally, a low loader range of trailers will be introduced with a hydraulic beaver tail allowing the trailers to be used as bale trailers and low loaders.

These are only the highlights, and there will be hundreds of improvements made throughout 2024 to ensure we are always delivering good value to customers.





(New overhead cranes)

(Solar farm expansion)

# **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

# **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 a carriage charge, details are available from our website. 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.

# Marshall

Thank you to our loyal customers for their continued support, if you would like your Marshall machine to be featured on our facebook page and possibly in our 2025 product brochure then please send us your photos.

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