

# Mowers & Mower Conditioners

**Innovative and Efficient Mowers and Mower Conditioners** 

MASSEY FERGUSON

# **FROM MASSEY FERGUSON**



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## MF M Series: Drum mowers

The M Series Drum mowers from Massey Ferguson offer a reliable and economical solution for the harvesting of high-quality forage even under the most difficult of conditions. A precise cut with a high output help ensure a perfect compact swath. Large volumes of forage can be mown quickly without risk of blockage or damage. Massey Ferguson drum mowers are available in both front and rear attachment versions.







## Front-mounted, pivoting headstock

The MF M 294 FP-V, MF M 304 FP-V and MF M 334 FP-V front-mounted mowers with pivoting headstock are ideal for use in a combination with rear mounted mowers or a loader wagon. The pivoting linkage allows for lateral travel of up to  $+/-5^{\circ}$  for precise high speed mowing over uneven ground.

## **Rear-mounted, side hitch attachment**

The MF M 182, MF M 222, MF M 254 and MF M 294 are the classic drum mowers for small and medium sized farms. The simple durable construction of these mowers will ensure trouble-free operation and a clean compact swath. The impact guard system prevents cutter bar damage in the event of hitting an obstacle. All models can be switched from work to transport position without leaving the tractor seat. Adjustable lower link pins allow for track adaptation. The MF M 182 and MF M 222 models can also be fitted with the optional tine conditioner, increasing versatility.

#### **Rear-mounted, centre hitch attachment**

The MF M 304 TL mower utilises a centre attachment hitch designed so that the mower unit is attached and towed from its centre of gravity. The centre attachment allows for a +/- 13° lateral pivot. The mower is lifted and lowered using a single acting hydraulic cylinder. Ground pressure is controlled with the Massey Ferguson TurboLift system. This system incorporates an adjustable hydropneumatic accumulator to control cutter bar pressure, ensuring the mower can adapt to the most varied of field conditions.

# DM SERIES

## Front-mounted with pull type linkage

Optimum ground following across the most difficult terrain is assured with the MF M 304 FZ mower fitted with the 3 dimensional ground following pull type linkage. The hitch is free to pivot both longitudinally and transversely ensuring a clean cut and avoiding soil contamination of the crop. The design of the linkage with its simple spring suspension helps protect the mower unit from any undue stress.



# MF Farmer Series: **Disc mowers**

The MF DM 164, MF DM 205, MF DM 246, MF DM 287and MF DM 328 provide a sturdy and economical solution to the small and medium size farmer without compromising on quality and finish. Ideally suited to farmers with lower horsepower tractors or a limited amount of mowing to carry out, these mowers boast a host of features you would expect to find on larger, more expensive machines.





## MF DM 164, MF DM 205, MF DM 246, MF DM 287 and MF DM 328 features include:

- A PTO shaft with a free wheel clutch, which transfers power through a V belt from the tractor to the in-line cutterbar.
- Each individual cutting head is fitted with shear pin protection, preventing damage in case obstacles are hit. These pins can easily be replaced in the field.
- The flat profile is ideal for heavy crops and, combined with the standard stone guard and large hardened skid, ensures years of trouble-free service.
- Built to perform under the most difficult conditions.
- Provides an exact cut and high material flow without material build-up, leaving fluffy swaths and high quality forage.



## **Key Features & Benefits**

- Suitable for multiple applications
- Suitable for use with smaller tractors
- Low power requirement
- Spring mounted cutter bar Low ground pressure, gentle on crop







Side hitch attachment: makes mowing possible on sloping terrain



Shock absorbing V-belt drive



Solid bearing mounting – high level of

Durable oil bath cutter bar

## Low weight – wide coverage

Massey Ferguson disc mowers with spur gear drive ensure a long working life and low operating costs. The lightweight construction maximises the yield, even with smaller tractors wider working widths can be used. The simple low maintenance design of these mowers also make sure downtime is kept to a minimum.

## Precise mowing – even under difficult conditions

The precision engineered gear bed cutter bar, with elliptical discs, rotating swathformers and robust conveyor drums make sure it is possible to achieve a clean cutting pattern and good throughput even on difficult terrain.

## Key features of our cutter bar

Low wear and simple to maintain. The bolted cutter bar has all components mounted in the base plate with a simple-to-remove cover plate.

- Equipped to handle all loads due to the robust construction with high quality materials
- Superior Massey Ferguson blades for an extremely high quality of cut
- High-quality roller bearings used throughout to ensure smooth running gears and long life
- Full sealing of the complete cutter bar

## MF Professional Series: Features Disc mowers and mower conditioners

Designed for contractors and larger farms and built to tackle the big jobs, the Professional Series offers many exclusive features that provide high performance and low operating costs.



Cross-section of the cutter bar





Overcut: large overlap, positioned well towards the front

## The secret to a perfect cut

#### The compact angle drive

At the heart of this system is a continuous, large-dimensioned hexagonal shaft and a robust angular gearbox under each mower disc. This results in even power distribution to all mower discs and the smoothing of torque loads. The wear on components is significantly lower when compared to a conventional spur gear cutter bar. The components are mounted to a robust yet flexible unit. The Massey Ferguson disc mowers with compact angle drive are durable with a low PTO power requirement, ensuring high output cost efficient mowing at all times.

#### Ergonomics of the cutter bar

The ergonomics of the cutter bar determine whether you will harvest quality forage. The engineers at Massey Ferguson have succeeded in developing a perfectly streamlined cutter bar with the optimum profiles on the underside. As a result, even in adverse conditions, the formation of mounds of soil in field forage crops or on wet land is prevented. The soil is cleanly separated from the forage and flows away under the cutter bar. With a Massey Ferguson cutter bar, you can continue to work when others have had to give up or have not even been able to start working.

#### **Knife overlap**

A perfect cut is achieved due to the large overlap of the mower discs, which are positioned well towards the front. Massey Ferguson mowers use large mower discs and their special shape means that they can handle large volumes of forage – an important aspect, especially for heavy, lying material. A clean cutting pattern is guaranteed with a Massey Ferguson mower!

## Features of the compact angle drive

#### Everything is well thought-out for a high level of operational reliability and low operating costs

A great deal of engineering expertise has gone into the design of the cutter bar. For example, the main hexagonal drive shaft was designed with a predetermined breaking point, which interrupts the flow of power between the cutter bar and the tractor, in the event of a sudden heavy overload, preventing expensive and time consuming repairs. Bolt-on skids and guick-change knives reduce downtime. With lifetime oil filling, the cutter bar is largely maintenance-free and the lubrication of the cutter bar is ensured in all mowing situations.

## Axial or paired running – anything is possible

Due to the compact angle drive being bolted, you can change the direction of rotation of each module to meet your individual mowing needs - even after many years.

The mower discs are converted from axial running to paired running by simply switching the angle drive – all without any additional components.

You can flexibly adapt your Massey Ferguson mower to changing general conditions. Whatever comes your way, you always have the right mowing technology.

# drive GUARD°



Every farmer knows from experience that foreign objects accidentally drawn into the mower can cause significant damage.

Massey Ferguson prevents precisely this kind of damage with driveGUARD<sup>®</sup> – the industry leading overload protection system.



#### Better protected than ever

When the mower disc becomes jammed by a foreign object the driveGUARD<sup>®</sup> shears off at the predetermined breaking points.

This interrupts the power train and the mower disc turns freely.



Nothing is more cost-effective **driveGUARD**<sup>®</sup> offers the customer extremely cost-effective and reliable protection because, only the throwaway overload disc will have to be replaced if the need arises.

0000 Hexagonal shaft for efficient Bolted structure Paired running transmission of power

Streamline cutter bar (underside)



Axial running

## MF Disc Mowers: Rear-mounted disc mower

## MF DM 204, MF DM 255 P, MF DM 306 P & MF DM 357

The MF Professional Series disc mowers feature individual compact angular gears that provide an extremely smooth power transfer to all discs, resulting in less wear than a conventional gear drive and ensuring a longer and more reliable cutter bar life. The wedgeshaped bar provides the added benefit of a low cut and the 'Big Disc' design ensures a large overlap, which results in a clean cut even when faced with high volume and difficult crops.

The modular design enables quick and easy servicing in the field, should it be required.



## **Rear-mounted three-point side attachment**

Lateral suspension with a controlled lifting linkage results in a compact transport position and low transport height. A quick change knife system is standard on the Professional Series mowers, increasing the efficiency of operation.

As an option, the MF DM 255 P can be quickly and easily retrofitted with a roller (RC) or tine conditioner (KC), while the MF DM 306 P can be retrofitted with a KC tine conditioner.

A sturdy exterior support guarantees the long working life of the protective covers thus increasing the operational safety of the machine.





Roller conditioner



Tine conditioner

## MF Disc Mowers: Rear-mounted. Three-point linkage, centre support

## MF DM 306 TL, MF DM 306 TL-KC, MF DM 357 TL, MF DM 357 TL-KC, MF DM 408 TL & MF DM 459 TL

- Rear-mounted mower for medium power tractor classes
- Hydro-pneumatic suspension
- Ease of handling

## Hydro-pneumatic suspension system – TurboLift system

Infinitely variable ground pressure control, with the ability to change ground pressure on-the-move as field conditions vary.

- Free-floating cutting
- Patented sliding guide
- Adaptable to a variety of conditions
- Improved cutting quality
- Reduced load on the support frame, support tube and three-point linkage
- Gentle on the turf sward
- Reduced forage contamination
- Precise support and guidance of the mowing bar
- Very good adjustment to the ground

## The support frame – the backbone of any mower

The cutter bar is supported and guided by the support frame. This is manufactured from high-quality, warpresistant steel and is designed for extremely high loads.







TurboLift system



Sliding guide

## MF Disc Mower Conditioners: Trailed centre support

## MF DM 306 TR & MF DM 357 HS TR

- Versatile trailed mower
- Centrally controlled drawbar linkage

#### Ease of handling with superb agility

The MF DM 306 TR & MF DM 357 HS TR are trailed mowers with a centrally controlled drawbar linkage. These machines are characterised by ease of handling and superb agility. The mower can be pivoted at the rear of the tractor both to the left and right. This gives you an enormous advantage, particularly with forage lying on the ground, on sloping terrain and for hillside lines.

#### Adapts very well to ground contours

The cutter bar is mounted at the outermost points on the support frame. With the parallel adaptation of the mower to uneven ground, the mower is reliably prevented from piercing the sward, producing top-class quality forage without forage contamination.

#### Conditioner – achieving quality forage faster

The MF DM 306 TR & MF DM 357 HS TR can be fitted with a tine or roller conditioner as standard. With a conditioner, you achieve quality forage faster because the water loss from your crop is accelerated.

With the specially developed trailed suspension mounting of the cutter bar, the ground pressure is reduced to a minimum – whatever the pivot movement.

#### **User-friendly**

The working height can be set over an infinitely adjustable cutting height of 3.5-7.0 cm. As a result, you can react flexibly to changing working conditions. In addition, you can perfectly adapt the contact pressure of the mower to the conditions. Due to the high lift height of the mower, turning manoeuvres on the headland can be carried out seamlessly without causing any damage to transverse swaths.







Can be pivoted to the left and right

## MF Semi-mounted Disc Mower Conditioners: With single wheel support

## MF DM 306 TRS & MF DM 408 TRS

The MF DM 306 TRS and MF DM 408 TRS's unique design facilitates wide mowing and narrow transport width without the need for high horsepower tractors. The proven compact angular cutter bar and conditioning unit provides an economical, productive and efficient result.

#### Features include:

- Utilising a two-point hitch and side-mounted support wheel, the MF DM 306 TRS and MF DM 408 TRS offer a very economical and heavy-duty option for wide area mowing.
- These Professional Series disc mowers simply fold out to the working position and then back behind the tractor for transport.
- A sturdy main beam suspends the cutter bar and conditioning unit and combined with a vertical travel range of 430 mm provides a large area of movement to travel over obstacles. Cutting height changes are carried out easily from a central crank, as is ground pressure.
- A swivel hitch drive connects directly to the cutter bar with drive shafts to ensure constant working speeds and performance, whilst giving the ability to break back 90 degrees should an obstacle be struck.
- Edge mowing device for mowing close to ditches and fences
- $-\ensuremath{\,\text{forage}}$  is spread from the edge to the field.

#### **Unique concept**

With the models MF DM 306 TRS and MF DM 408 TRS, Massey Ferguson offers two trailed mowers with wheel support. The weight of the machine is distributed evenly to the tractor and the running wheel.

#### Adapts to ground contours

The cutter bar is mounted at the outermost points on the sturdy support frame. The parallel operation over uneven ground ensures the best quality forage without contamination. Due to the specially developed trailed suspension mounting of the cutter bar, the ground pressure is reduced to a minimum.







#### **User-friendly**

The working height can be set over an infinitely adjustable cutting height of 3.5-7.0 cm. In addition, you can perfectly adapt the contact pressure of the mower to the conditions. Changing from working position to transport position can be conveniently performed in seconds from the tractor seat.

## MF Disc Mowers and Mower Conditioners: **Front-mounted** - Trailing linkage or pivoting headstock

## MF DM 306 FZ & MF DM 306 FP

- Perfect for operating in mower combinations
- Hydraulic movement system for harvesting without losses
- Three-dimensional sensing of ground contours

## Spring parallelogram

- Optimally located
- Minimal spring contraction during oscillating movement of the mower unit
- Low ground pressure

## **Conditioning process**

- Tine and roller conditioners available
- Gentle forage treatment
- No crushing
- Less loss due to crumbling compared to flail conditioners

## **Conditioner intensity**

- Adaptable to a variety of conditions
- Easily adjustable to four positions without tools
- Easy to replace individual elements

## Simple direct-drive concept

- Overload protection
- Low weight
- Easy to operate with little additional power demand





Large lifting height





## MF Disc Mowers and Mower Conditioners: Butterfly

## MF DM 8312 TL-KC RC & MF DM 9314 TL-KC

- Butterfly mower conditioners 8.3 and 9.3 metres
- Three-point linkage attachment
- Hydro pneumatic suspension
- SafetySwing anti-collision device

## Mower units are mounted at their centre of gravity

- Adapts very well to the ground contours
- Reduced load on tractor lift arms

## Trailed mower – pulling is easier than pushing

- Soil conserving
- Fuel saving

## Constant, continuously variable ground surface pressure

- Adaptable to a variety of conditions SafetySwing anti-collision device
- Each mower unit avoids obstructions independently
- Mower unit folds backwards and upwards
- Re-engagement into working position through its own weight

## Contact pressure adjustable while driving

- Low ground impact
- No forage contamination

#### **Free-floating cutting**

- Gentle on turf sward
- Reduced forage contamination







## MF DM 8312 TL-KC RC & MF DM 9314 TL-KC

#### **Rear-mounted Butterfly**

The MF DM 8312 rear-mounted 3PL butterfly disc mower with KC or RC tine rotor conditioner is a perfect companion to the front-mounted MF DM 306 FZ mower conditioner with trailing linkage. Working in tandem, the two provide a total cutting width of 8.27 m, allowing you to cover more ground faster.

The MF DM 8312 features free-floating cutting, which reduces the load on the support frame, support tube and the 3-point linkage hitch. It allows for improved cutting quality on uneven ground thanks to its



#### TurboLift-system (TL), which enables hydro-pneumatic discharge and continuous adjustment of pressure on the cutter bar.

The MF DM 8312 TL-KC RC and MF DM 9314 TL-KC mower is also fitted with impact **SafetySwing** protection, which can independently fold back and up around the slanting axle should an obstacle be hit.

If an incident occurs, the mower will return to its working position under its own weight, saving time without the need to reverse.

Both mowers feature one-lever operation for quick change at the headlands, making the transition from working to turning fast and simple.



## MF DM 8312 EL TL-KCB, MF DM 8312 EL TL-RCB & MF DM 9314 EL TL-KCB

## Mower combination with conveyor belts and ISOBUS control system

Advanced machine technology coupled with a state-of-the-art ISOBUS equipment control system, makes this mower combination with conveyor belt stand out from the rest. A working width of 8.30 m or 9.30 m allows large volumes of forage to be processed efficiently. For the MF DM 9314 TL-KCB, a particularly wide conveyor belt (940 x 2,700 mm) has been developed that can handle larger volumes of forage with ease, and continuously operate at higher working speeds.

- Hydraulic floating mower units TurboLift system
- SafetySwing impact guard
- Trailed cutter bar hitch attachment pulling is easier than pushing
- Operation of all mower functions via the ISOBUS control system
- Comprehensive speed monitoring of rotating parts
- Wide conveyor belt with integrated hydraulic lateral movement

- Central, single or partial swath delivery to conveyor belts that can be raised individually
- ComfortChange quick-change blade system as standard, to safely replace blades without losing time
- Retrofit kit available for non-ISOBUScompatible tractors
- Active ground pressure control



## **Specifications**

## **MF Drum Mowers**

Model	MF M 294 FP-V	MF M 304 FP-V	MF M 334 FP-V	MF M 304 FZ	MF M 182	MF M 222	MF M 254	MF M 294	MF M 304 TL
Configuration	Front - Pivoting Headstock	Front - Pivoting Headstock	Front - Pivoting Headstock	Front - Trailing Linkage	3 pt - Side Mount	3 pt - Centre Support			
Width (m)	2.86	3.06	3.26	3.06	1.85	2.2	2.55	2.85	3.06
Min. pwr (hp)	75	75	75	75	30	40	72	82	82
Weight (kg)	846	874	907	910	440	524	750	790	1,105
PTO (rpm)	1000	1000	1000	1000	540	540	1000	1000	1000
Drums	4	4	4	4	2	2	4	4	4
KC Conditioner	-	-	-	-	О	0	-	-	-

## **MF Disc Mowers**

Model	MF DM 164	MF DM 205	MF DM 246 / MF DM 246 ISL	MF DM 287/ MF DM 287 ISL	MF DM 328 ISL	MF DM 204	MF DM 255 P	MF DM 306 P	MF DM 357 P
Configuration	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount	3 pt - Side Mount
Width (m)	1.66	2.06	2.42	2.82	3.18	2.05	2.55	3.00	3.50
Min. pwr (hp)	30	41	50	60	72	49	54	61	68
Weight (kg)	372	407	437 / 510	475 / 550	570	612	630	724	798
PTO (rpm)	540	540	540	540	540	540/1000	540/1000	540/1000	540/1000
Discs	4	5	6	7	8	4	5	6	7
KC Conditioner	-	-	-	-	-	0	0	0	-
RC Conditioner	-	-	_	-	-	0	0	_	-

## MF Three-point linkage mounted disc mowers with centre support

Model	MF DM 306 TL	MF DM 357 TL	MF DM 408 TL	MF DM 459 TL
Working width approx. m	3	3.50	4.00	4.50
Transport width approx. m	2.3	2.3	2.3	2.3
Transport length approx.m	4.65	5.15	5.60	6.10
Mower discs	6	7	8	9
Blades per disc	2	2	2	2
Swath width approx. m	2.3	2.8	3.3	3.8
Power demand approx. kW/hp	55/75	65/88	72/99	84/115
Necessary hydraulic outlets	1 X SAV, 1 X DAV			
PTO rpm	540/1000	540/1000	540/1000	540/1000
Overrunning clutch	•	•	•	•
Weight approx. kgs	875	950	980	1,100
KC Conditioner	0	0	-	-
RC Conditioner	0	-	-	-

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## **MF Trailed**

Model	MF DM 306 TRS	MF DM 408 TRS	MF DM 306 TR	MF DM 357 HS TR
Configuration	Semi-Mounted single wheel	Semi-Mounted single wheel	Trailed	Trailed
Width (m)	3	4	3	3.50
Min. pwr (hp)	90	115	102	120
Weight (kg)	1,678	1,928	2,388	2,560
PTO (rpm)	1000	1000	540/1000	540/1000
Discs	6	8	6	7
Conditioner	RC or KC	RC or KC	RC or KC	RC or KC

## **MF Mower Combination**

Model	MF DM 8312 TL	MF DM 9314 TL	MF DM 8312 EL TL-KCB	MF DM 8312 EL TL-RCB	MF DM 9314 EL TL-KCB
Working width approx. m	8.3	9.3	8.3	8.3	9.3
Transport width approx. m	2.78	2.78	2.78	2.78	2.78
Transport heigth approx. m	3.73	3.9	3.73	3.73	3.9
Mower discs	2 X 6	2 X 7	2 x 6	2 x 6	2 X 7
Blades per disc	2	2	2	2	2
Swath width approx. m	2 X 1.45 - 2.25	2 X 1.85 - 3.25	1.8 - 2.6	1.8 - 2.6	2 X 1.80 - 3.00
Power demand approx. kW/hp	132/180	155/200	145/200	141/182	168/228
Necessary hydraulic outlets	2 X SAV, 1 X DAV	2 X SAV, 1 X DAV	1 X Load Sensing	1 X Load Sensing	1 X Load Sensing
PTO rpm	1000	1000	1000	1000	1000
Overrunning clutch	•	•	•	•	•
Warning panels	•	•	•	•	•
Electrical lightning	•	•	•	•	•
Weight approx. kgs	2,410	2,830	3,200	3,300	3,450
KC Conditioner	0	О	•	-	•
RC Conditioner	0	-	-	٠	_

## **MF Front-Mounted**

Model	MF DM 254 FP / FP-S	MF DM 306 FP	MF DM 306 FP-K	MF DM 306 FP-SL	MF DM 306 FZ
Configuration	Alpine	Pivoting Headstock	Pivoting Headstock	Pivoting Headstock	Trailing Linkage
Width (m)	2.5	3	3	3	3
Min. pwr (hp)	38	75	75	75	75
Weight (kg)	474 / 504	734	694	854	930
PTO (rpm)	1000	1000	1000	1000	1000
Discs	4	6	6	6	6
KC Conditioner	-	0	О	О	0
RC Conditioner	-	0	-	-	0

## **MASSEY FERGUSON**

A world of experience. Working with you.



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Responsible forest management