

# MR 406<sup>S2</sup>



BACKHOE LOADER

OUR STRENGTH IN YOUR WORK



**Power**  
110hp (82kW) @ 2,200RPM



**Operating Weight**  
8,600kg



**Excavation depth**  
4.4 m

[mullerbrasil.com](http://mullerbrasil.com)



**FABRICADO  
NO BRASIL**



Believing in the national industry, **Müller** presents the **MR 406 SERIES II** Backhoe Loader. With the DNA of its predecessor RD406, produced by Randon, the **MR 406 SERIES II** is even more efficient, durable, safe and easy to operate, combining greater productivity with the best operating cost. If you are looking for a strong and reliable backhoe loader, count on the **MR 406 SERIES II**.

### COMFORT AND ERGONOMICS

### PERFORMANCE AND CONTROL

### INNOVATION AND INTERACTIVITY



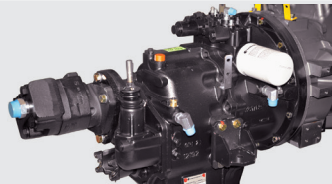
#### CHASSI

The Müller monoblock chassis, highly robust from the front to the pivot, is made from high-resistance steel sheet. It has a single-piece, closed box-type structure, reinforced to withstand heavy loads, shocks and twists in the most severe applications.



#### AXLES (CARRARO)

Rear axle with planetary reducers located at the ends (to facilitate maintenance). The axles have great mechanical strength to withstand the most severe working conditions on uneven terrain and low-bearing soils in loading operations.



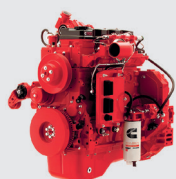
#### TRANSMISSION (CARRARO)

Now with 4x4 transmission as standard, the Carraro "power syncro shuttle" transmission, coupled torque converter, transmits great traction force to the axles during front loading and agility in moving the equipment.



#### NATIONAL MANUFACTURE

Equipment produced in Brazil that meets the most rigorous and severe applications, offering greater durability, high performance with low fuel consumption and maintenance.



#### CUMMINS ENGINE

With one of the most powerful engines in its category, the Müller backhoe loader, equipped with a MAR 1/ TIER 3 is extremely economical, easy to maintain and has low operating costs, ensuring the best power x economy ratio.



#### ROBUST STRUCTURE

The piping and cylinders are mounted on the outside, providing greater strength and robustness to the structure, facilitating maintenance and viewing of the system. Boom locking system, with support from the locks during operation, eliminating tension and friction on the cable.



#### TANK

It has two models of fuel tank, which are interchangeable. In the standard model (143 liters), the material is flame retardant plastic (ICORENE 1613), eliminating the risk of internal oxidation. In the optional model, the structure is with greater capacity (165 liters).



#### TECHNOLOGY

All of the machine's management systems are located in the operator's compartment, including a digital instrument panel with service alert and digitally controlled air conditioning.



#### HYDRAULIC SYSTEM

Load-Sensing controls ensure simultaneous power supply to two or more functions, generating smoother movements, digging precision and faster cycles, with fuel savings. The loader control has six operational functions: loading, unloading, lifting, return to digging and bucket self-leveling.



#### CABIN

With greater interior space, comfort, ergonomics, great visibility and convenience for long working days. The MR 406 SERIES II cabin was developed within the concept of "the maximum for the operator". Following safety standards, the standard ROPS/ FOPS cabin is certified according to ABNT NBR NM ISO 3471 and 3449 standards.



#### LOADER

In loading operations, the use of a front cylinder increases visibility. The articulated arms with lateral reinforcements withstand high stresses and provide faster and safer operating cycles, with high breakout force. The 86" front bucket helps protect and prevents premature wear of the front tire edges.



#### BACKHOE LOADER

The boom, made of high-strength welded sheet metal, has internal reinforcements designed to withstand high forces and twists. With a negative retraction angle, it provides greater stability during transportation. Its curved, "excavator type" design provides additional gains in both excavation operations and loading onto trucks.

# MR406<sup>S2</sup>

## BACKHOE LOADER



### TRANSMISSION

Traction	4x4
Model	Syncro Power Shuttle 4 WD
Type	4 forward speeds and 4 reverse speeds
Gear selection	Manual / synchronized
Forward/Reverse Reverse Control	Electro-hydraulic

### TURBO ENGINE

Manufacturer	Cummins
Model	QSB4.5 - MAR-I / TIER 3
Fuel	Diesel
Net power (ISO 3046)	103hp (77kW) @ 2,200RPM
Gross horsepower (ISO J1995)	110hp (82kW) @ 2,200RPM
Maximum torque	488 Nm a 1,500RPM
Injection type	Direct
Diameter	107mm
Piston stroke	124mm
N° of Cylinders / Displacement	4 / 4.5 l
Compression ratio	17.2:1
Maximum rotation - free	2,300RPM
Dry weight	375kg
Cooling	Water radiator
Maximum oil temperature	138°
Aspiration	Turbo Intercooler

### ELECTRICAL SYSTEM

Alternator	95A
Voltage	12V
Battery	Sealed 100Ah 750 CCA

### STANDARD ITEMS

Reverse gear audible alarm	Two front LED headlights and two rear LED headlights
Standard 95A alternator	Internal and external rear view mirrors (side)
Front bucket self-leveling	Steering wheel knob
Seat adjustable to the operator's weight with spring suspension and posture adjustment	Windshield, front wiper and rear wiper
Sealed battery	Front tires 12.5 x 18 - 10 PR
Hydraulic pump with a flow rate of 137 l/min @ 2,200 RPM	Rear tires 19.5 x 24 10 PR
Differential lock activation button	Storage compartments, cup holders, tool holders
Cabin with hot and cold A/C	Cardan and Crankcase Protection
ROPS/FOPS certified enclosed cabin	Exhaust protector
86" 1m³ loader bucket with teeth	Stabilizer shoe 40x40
30" 0.25m³ backhoe bucket with teeth	Turn signals, brakes and shifts
System master key	143 liter fuel tank
Seat belt	Rubber mat
Steering column adjustable in reach and reach	External socket for pressure measurement
Counterweight 205kg	

### SPEEDS

	FRONT	RE
1st gear	5.4km/h	6.6km/h
2nd gear	9.8km/h	11.8km/h
3rd gear	18.8km/h	22.7km/h
4th gear	37.6km/h	45.4km/h

### FRONT AXLE

Type	Oscillating at 11°
Tractioned	Reducers with internal planetary gears
Static capacity	175,000N
Dynamic capacity	70,000N

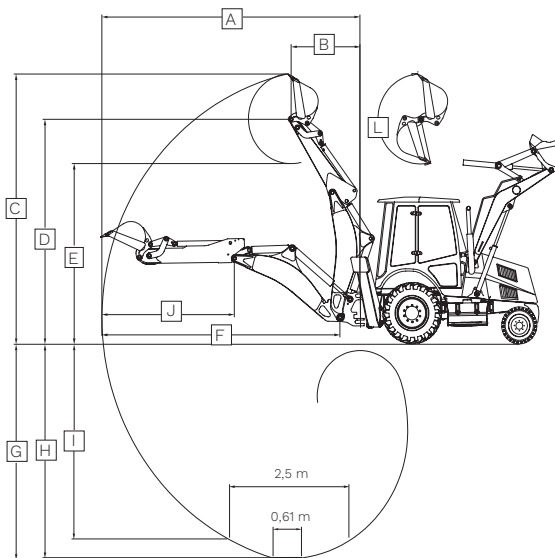
### REAR AXLE

Static capacity	250,000N
Dynamic capacity	100,000N
Service brake type	Multidiscos em banho de óleo
Service brake actuation	Simultâneo ou independente por roda
Service brake actuation	Hydraulic
Parking brake type	Mechanical actuation internal to the axle
Transmission neutralization	Electric drive
Differential lock	Electric drive

### HYDRAULIC PUMP

System	Open
Pump type	Gears
Flow rate	137.9 l /min @ 2,200 RPM
General relief pressure	210bar
Filtering	10 microns

## BACKHOE ARM OPERATION MEASURES



POS.	DESCRIPTION	ARM STANDARD	ARM PROLONGADO	ARM EXTENSÍVEL
A	Maximum range from the swing pivot	5,380mm	5,865mm	5,480mm
A	Maximum reach from swing pivot – boom extended	-	-	6,560mm
B	Loading range at maximum joint center height	1,440mm	1,730mm	2,060mm
C	Maximum bucket height – 18" rim	5,360mm	5,825mm	5,460mm
C	Maximum bucket height – extendable arm extended – 18" rim	-	-	6,610mm
D	Operating height – 18" rim	4,530mm	4,915mm	4,630mm
D	Operating height (maximum) – 18" rim, extendable arm	-	-	5,670mm
E	Loading height – 18" rim	3,632mm	4,015mm	3,732mm
E	Loading height – extendable arm extended – 18" rim	-	-	4,770mm
F	Reach from the arm joint	4,952mm	5,430mm	5,052mm
F	Reach from arm joint – extendable arm extended	-	-	6,134mm
G	Maximum digging depth – standard	4,400mm	4,560mm	-
G	Maximum digging depth – boom extended	-	-	5,400mm
H	Maximum excavation depth at the bottom (ISO 7135) 0.61m	4,228mm	4,525mm	-
H	Maximum digging depth at the bottom (ISO 7135) 0.61m – boom extended	-	-	5,090mm
I	Maximum excavation depth at the bottom (ISO 7135) 2.50m	3,856mm	4,275mm	3,856mm
J	Distance from pivot pin to bucket edge	2,790mm	3,120mm	-
J	Distance from pivot pin to bucket edge of extended boom arm	-	-	3,972mm
K	Pivot swing arc (not illustrated)	180°	180°	180°
L	Bucket rotation	190°	190°	190°
	Distance between shoes in operation	3,640mm	3,640mm	3,640mm
	Digging/breakout force on the arm	3.451kgf	3.451kgf	3.451kgf
	Digging/breakout force on bucket	5.355kgf	5.355kgf	5.355kgf
	Lifting capacity	2.555kg	2.555kg	2.555kg
	Bucket capacity 30° – standard	0.25m³	0.25m³	0.25m³
	Bucket capacity 24° – standard for extendable arm	0.18m³	0.18m³	0.18m³
	Bucket capacity 36° – optional	0.31m³	-	-
	Bucket capacity 18° – optional	0.13m³	0.13m³	0.13m³
	Bucket capacity 12° – optional	0.09m³	0.09m³	0.09m³

## SERVICE CAPACITY

Fuel tank	143l
Hydraulic tank	75l
Rear axle	17.2l
Front drive axle	6.9l
Transmission and converter oil	18.8l (4x4)
Turbo engine oil	13l
Cooling system	22l

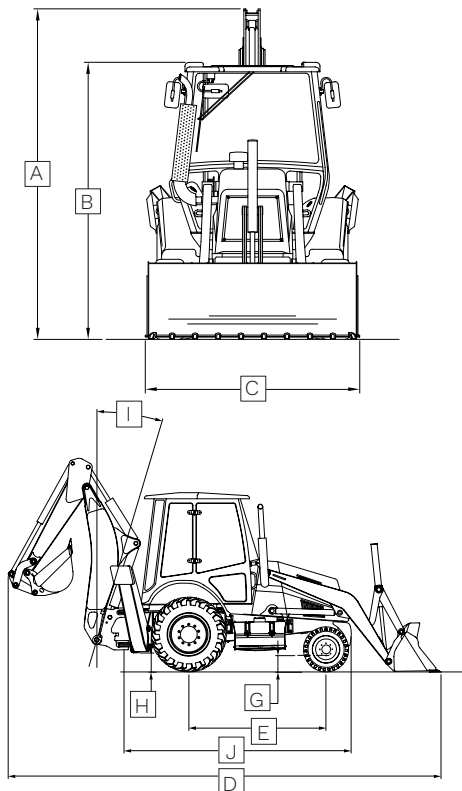
## STEERING SYSTEM

Type	Hydrostatics / Hydraulics
Flow rate	16l/min
Steering wheel turns – lock to lock stop	2.75 turns
Turning radius without brake applied	3.92m
Turning radius with brake applied	2.53m

## WHEELS

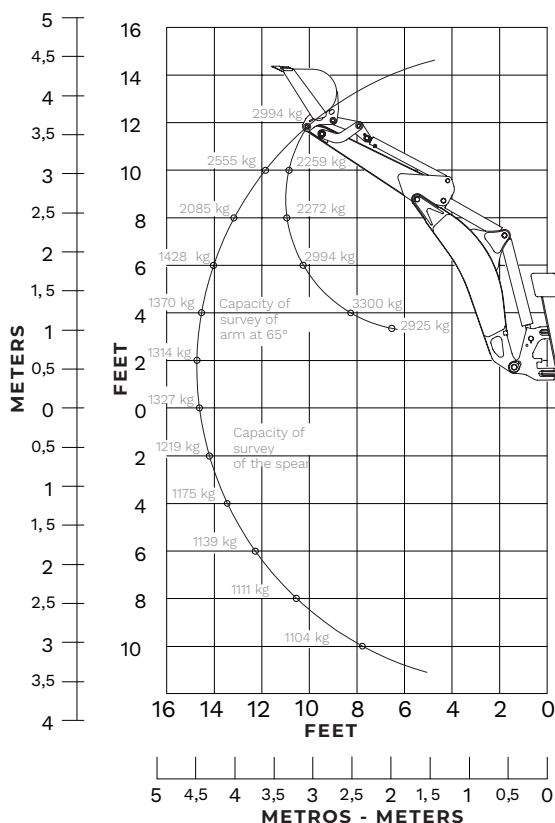
WHEELS (TRACTION)	TYPE	MODEL	TIRE	CHAMBER
Front 18" rim (4x4)	Single piece	12.5/80 x 18	12.5x18-12 PR / 12.5x18-10 PR	Without
Rear 24" rim (4x4)	Single piece	DW 16L x 24	19.5x24-12 PR / 12.5x18-10 PR	Without

### GENERAL DISPLACEMENT DIMENSIONS

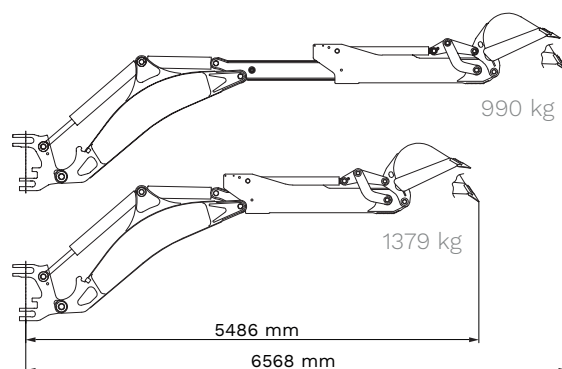


	STANDARD	ARM EXTENDED
A Total transport height (displacement) – 16.5" tire rim	3,481mm	
A Total transport height (displacement) – 18" tire rim	3,551mm	
B Maximum height, from ground to cabin roof – 16.5" tire rim	2,810mm	
B Maximum height, from ground to cabin roof – 18" tire (4x4)	2,880mm	
C Overall width - loader bucket	2,260mm	
D Overall length – standard bucket (with teeth)	7,7045 (7,160)mm	7,758 (7,770)mm
E Wheelbase	2,135mm	
G Free space – front differential – 18" rim	340mm	
H Free span – lower base of the shoe – 18" rim	410mm	
I Negative angle	-15°	
J Maximum length from center of swing pivot joint shaft to front counterweight	3,700mm	
Turning radius without brake applied	3,920mm	
Turning radius with brake applied	2,530mm	
Total volume for transport	50.97m³	
Weight with open cabin 4x4	6.850kg	
Weight with closed cabin 4x4	7.170kg	
Wheel Loader Version with Counterweight – Closed Cabin	7.570kg	
Loader Version with Counterweight – Open Cabin	7.320kg	
Addition of the extendable arm to the weight	280kg	
Fuel tank addition 165 liters	17kg	
Front bucket weight addition 2 cylinders	110kg	
Weight addition with 6x1 bucket	210kg	
Addition of two-door cabin	10kg	
Weight with professional arm 4,560mm	-	70kg
Additional weight with 36" bucket		30g
Extra Heavy Chassis (EH)		450kg

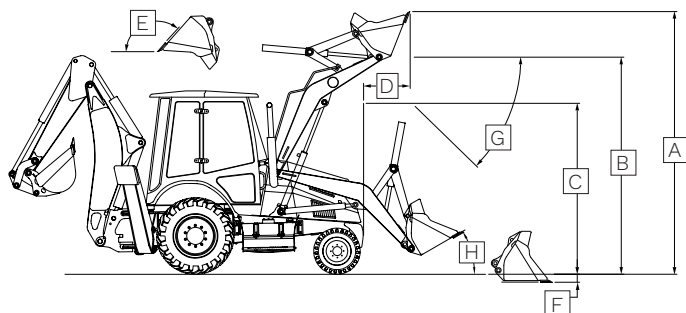
### BACKHOE WORKING CAPACITY (STANDARD)



### LIFTING CAPACITY OF THE EXTENSIBLE ARM



## OPERATIONAL MEASURES OF THE LOADER ARM



A	Total operating height rim 18" – standard bucket	4,250mm
B	Height to pivot pin with arm fully raised – 18" rim	3,535mm
C	Standard bucket dump height – 18" rim	2,796mm
D	Maximum dumping range at maximum height	725mm
E	Maximum tilt angle	131.67°
F	Digging depth – 18" rim	55mm
G	Discharge angle	44.55°
H	Recoil angle	40°
	Nominal bucket capacity 86"	0.89m³
	Bucket crowned capacity 86"	1.00m³
	Breakout force in the bucket considering the hydraulic cylinders	8.922kgf
	Lifting force	3.057kgf

## OPTIONAL

Air suspension seat	Double dump cylinder on bucket	AM/FM radio with USB and speakers
Depth arm 4560mm	Fire extinguisher	MP3 radio and speaker
Extendable arm	Rear auxiliary lights	Hydraulic breaker
Cabin with tinted glass / film	Independent parking brake	Rubber coated shoe
Closed cabin with two doors / Open cabin	Material lifting hook	Rotating beacon
12" 0.09m³ Backhoe Bucket	Boom Turn Pedals (Foot Turn)	Satellite monitoring system (GPS)
18" 0.13m³ backhoe bucket	Night work lighting with 4 rear lights	Closed hydraulic system with load sensing
24" 0.18m³ backhoe bucket	Auxiliary hydraulic line 3rd function	Front bucket subblade
36" 0.31m³ backhoe bucket	Optional 6x1 bucket	165 liter fuel tank
Extra Heavy Chassis (EH)	Custom Painting	Warning triangle
Retractable seat belt	Front tires 12.5x18 - 12 PR	Loader version with rear counterweight
Additional counterweight	Radial tires front and rear	
Extra Heavy Chassis (EH)	Rear tires 19.5x24 - 12 PR	

## CUSTOMER SUPPORT

### AFTER-SALES

Müller, through its dealer network throughout the country, has specialized technical assistance with genuine parts that are always available and accessible to you, and best of all, Always close by when you need them. With factory-trained technicians and diagnostic equipment, the Müller dealership is able to offer all the guidance for the perfect functioning and operation of your MR 406 SERIES II. Consult our Müller customer service department.

### HOW TO BUY YOUR MR 406 SERIES II BACKHOE LOADER

Contact our network of Müller Dealers today or visit [www.mullerbrasil.com](http://www.mullerbrasil.com).

### GENUINE MÜLLER PARTS

The company operates in the spare parts and services market for Müller products through its dealer network throughout the country. These are genuine Müller parts, known for their quality, durability and safety, extending the useful life and guaranteeing the equipment's full performance.

### TAKING CARE OF YOUR MR 406 SERIES II BACKHOE LOADER

Preventative maintenance of your backhoe loader, in addition to the inspections scheduled in your operating manual, extends its operating time and useful life, avoiding unscheduled downtime.

**MR 406** S2  
BACKHOE LOADER

☎ (51) 3488.3488

✉ [adm vendas@mullerbrasil.com](mailto:adm vendas@mullerbrasil.com)

📘 /Muller.Equip

📷 @muller\_equip



\*Specifications subject to change by the manufacturer without notice.