



RAISE YOUR EXPECTATIONS

FRONT LINKAGE

MXR05N

MXR08N

User Manual

**Please read carefully before using
MX front linkage**

Dear user,

We thank you for placing your trust in our product and hope you will find your MX front linkage satisfactory in every way.

By taking a few minutes to read this manual, you will be able to obtain the best results from your MX front linkage, extend its lifespan and work in complete safety.

The front linkage user manual before you is an important document, please retain it in order to be able to refer to it if required. Make it available to any other users and hand it over to any new owner in the event of your MX front linkage being sold on.

The illustrations and technical data shown in this document might not exactly match your front linkage; operating requirements will nevertheless remain the same.

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* Depending on configuration



The operator must read this manual before using the machine for the first time.



Familiarise yourself with:

- Safety rules and operating requirements.
- Hitching and unhitching an implement.
- Full use of the controls.

1. SAFETY INSTRUCTIONS

- The tractor – linkage combination must only be operated by trained and experienced personnel.
- When the tractor is fitted with a front linkage and front-end loader, the user is required to unhitch the loader before using the MX front linkage (please refer to the loader user manual for the unhitching procedure).
- CAUTION: before using of the front loader, please check the front linkage is locked (with the hydraulic tap), and the arms are folded or removed (see chapter "folded arms position").
- Only operate the front linkage from the operators seat or by using the MX factory-supplied external controls. Keep controlling until movements stop.
- The controls for operating the front linkage must be of the "spring return" type with the exception of the floating position which may be held by a detent system.
- Do not leave the control station without stopping all control movements.
- You must ensure that nobody is in the area while the front linkage and tractor are in use.
- The transport or elevation of persons using the front linkage is forbidden.
- Before moving with a front implement fitted, check and ensure that the tractor-front implement assembly is stable by fitting a counter weight at the rear of the tractor. This should ensure that 20% of the gross weight (tractor-front implement) remains on the rear axle of the tractor for optimum safety while travelling and working.
- The maximum front axle loading specified by the tractor manufacturer must not be exceeded.
- The front tyres maximum safe load provided by the tyres' manufacturer must not be exceeded.
- Check tyre pressures regularly.
- An implement hitched to the front linkage must be capable of being lifted through the full travel of the linkage. Any excess load impeding this travel is strictly forbidden.
- Before any operation, the user must ensure that the front linkage is in proper working order and can be used in complete safety.
- When travelling on the road with a front implement, the front linkage must always be in a raised position and it is imperative that the regulations governing use on the public highway be observed (size, implement markings, etc.).
- When driving on the road without a front implement, the front linkage must be set to the transport position (see "Setting the front linkage to transport position" section).
- Whenever the tractor is stopped momentarily or for an extended period, the engine must be shut down and the linkage lowered.
- The tractor must never be towed from an anchoring point on the front linkage.
- Check periodically to ensure that safety pins and bolts are in place. Do not replace them with any other items, such as nails, wire, etc.
- Any work involving fault tracing (diagnostics) and/or disassembly of parts may only be undertaken by a skilled technician who will start with an assurance that the work will be carried out in complete safety for himself and his surroundings.



Caution!

- MX products are designed to be used at the maximum hydraulic pressure indicated by the manufacturer for the features of the tractor. Pressure exceeding this value results in additional restrictions and therefore invalidates the guarantee offered on equipment supplied by MX.
- Never make any changes to the hose connections.
- Any instance of MX front linkage being fitted which ignores the recommendations in the MX price list in force on the date of purchase will void MX warranty on the entire MX supply.
- Any modification to any part of the MX supply (rams, arms, linkage frame, etc.) or usage of a component installed on the MX front linkage which has not originated from MX will void MX the warranty and liability on the entire MX supply.
- Use only genuine MX spare parts. Do not modify your MX front linkage yourself or have it modified by anyone else, without applying for written authorisation from MX in advance. Failure to comply these rules may make your MX front linkage hazardous. In the event of damage or injury, MX shall not be held responsible in any way.
- Warranty cover will cease immediately in the event of failure to observe the standards and instructions for use and maintenance of the MX front linkage as stipulated in the user manual.

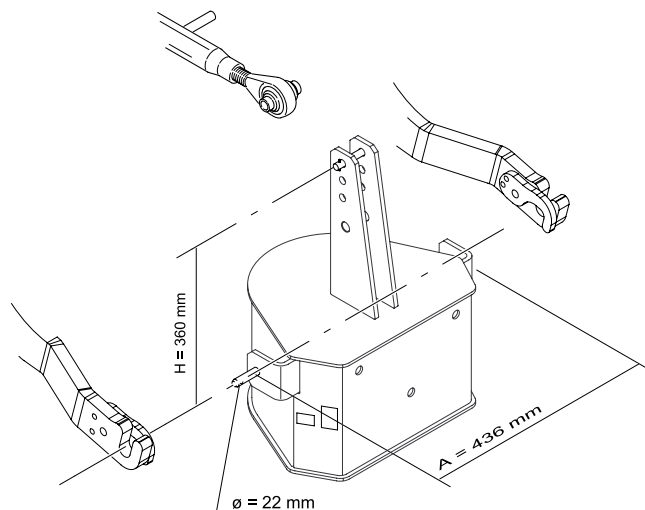
2. OPERATING REQUIREMENTS

2.1 Implement hitching.

The front linkages are designed to receive implements which comply with the hitch dimensions specified in ISO 730-1 standards for category 1N.

The spacing of the implement's hitch points must be 436 mm (dimension A, centre of the coupling ball, cat. 1N standard) with a linkage pin of 22 mm diameter ($\varnothing D$)ww.

The vertical height of the implement must be 360 (dimension H).



Hitching an implement with a dimension H less than that specified above will overload the upper link bar, causing damage to it.

Hitching an implement with dimension H in excess of that specified above can cause damage to the front of the tractor (bonnet, grille, etc.) on lifting.

2.2 Front overhang and use on the ground.

The implement must be hitched as close as possible to the attachment points on the front linkage. In fact, the longitudinal overhang generates considerable stresses on the front linkage (due to leverage). The more compact the implement fixing, the less strain there will be on the equipment. Using a compact implement also improves lifting performance.

This category of linkage is not designed for working the ground. You are strongly recommended not to fit soil engaging implements, so as to safeguard the structure of the machine.

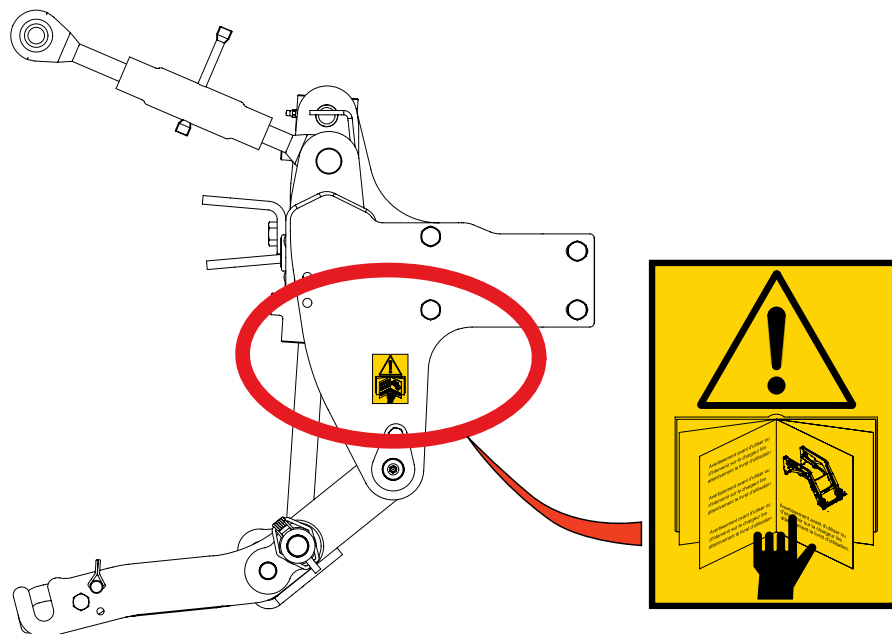


Caution!

Requirements for implement hitching and for working on the ground must be strictly complied with. Any deviation from the requirements risks causing serious damage for which MX cannot be held liable.

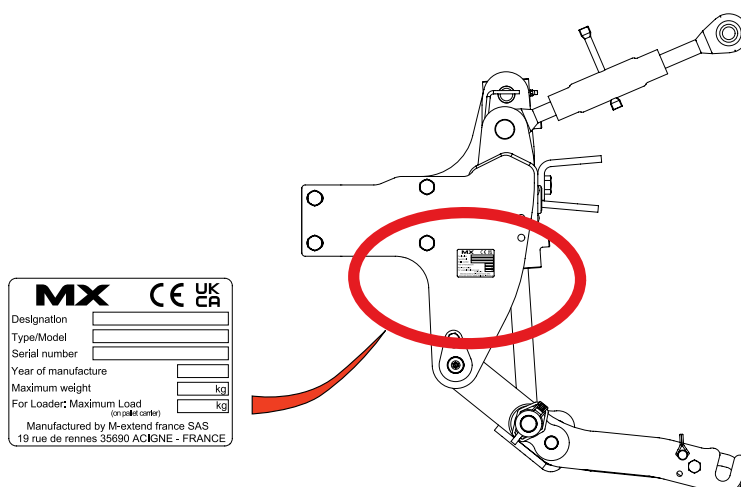
3. SAFETY STICKERS

A safety sticker is affixed to the front linkage. Keep it readable and clean; replace it if damaged.



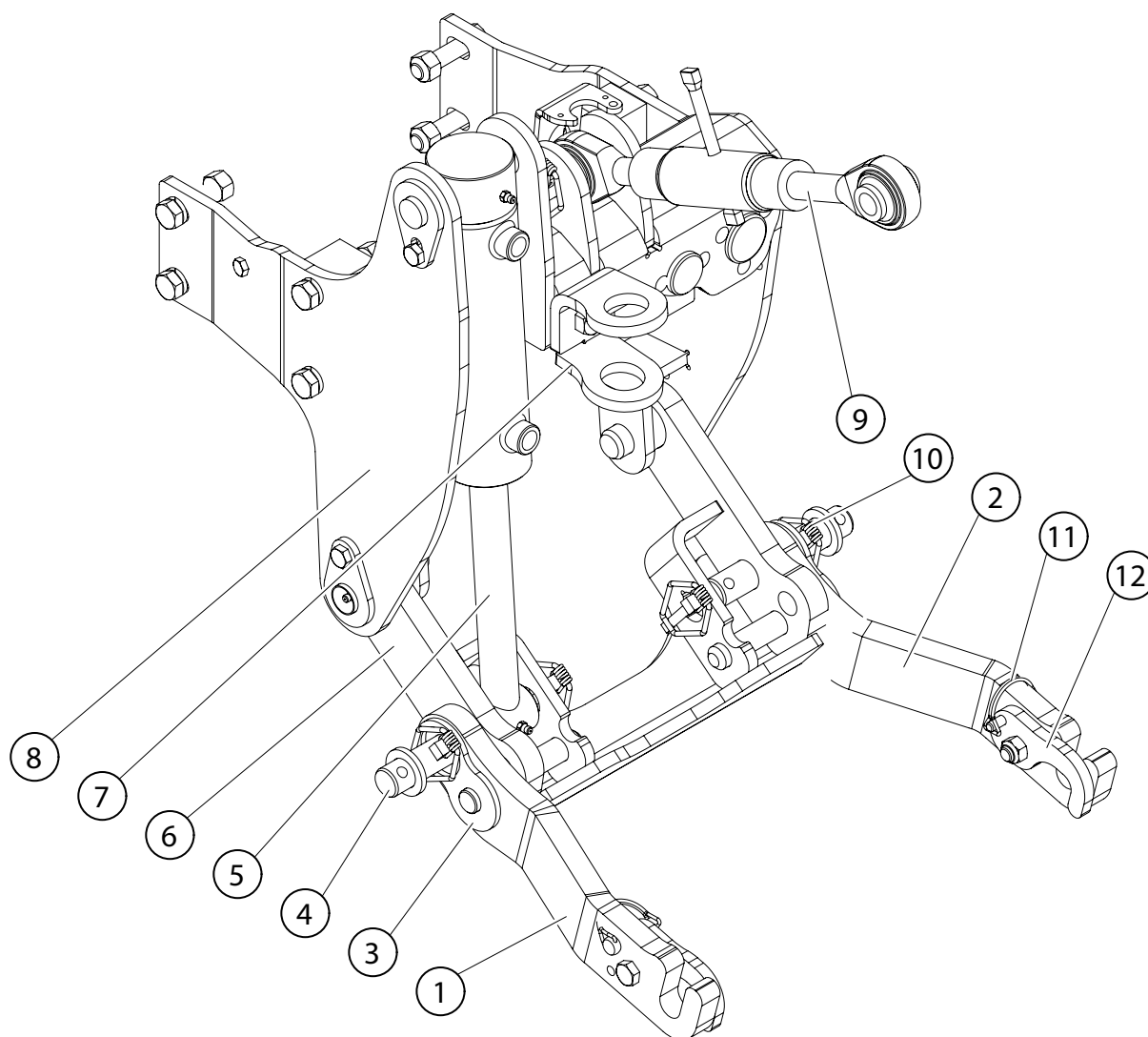
4. IDENTIFICATION PLATE

The identification plate is located on the right-hand side of the front linkage frame.



The serial number and front linkage model shown on this plate must be quoted in any request for spare parts information or technical assistance.

5. DESCRIPTION



- 1: Right-hand arm
- 2: Left-hand arm
- 3: Pin
- 4: Pin
- 5: Ram
- 6: Linkage frame
- 7: Towing clevis (use a 30 mm diameter pin)
- 8: Frame
- 9: 3rd link bar
- 10: Safety clip
- 11: Roll cage clip
- 12: Arm locking

6. SETTING FRONT LINKAGE TO OPERATING POSITION



Caution

This operation must be carried out by the driver who must leave his seat and ensure all controls are locked out while he is working on the front linkage.

- 6.1** Choose a level and solid surface.
The tractor engine is to be turned off and the hand brake applied.



- 6.2** Leave the cab and remove the locking pin from the left-hand arm.



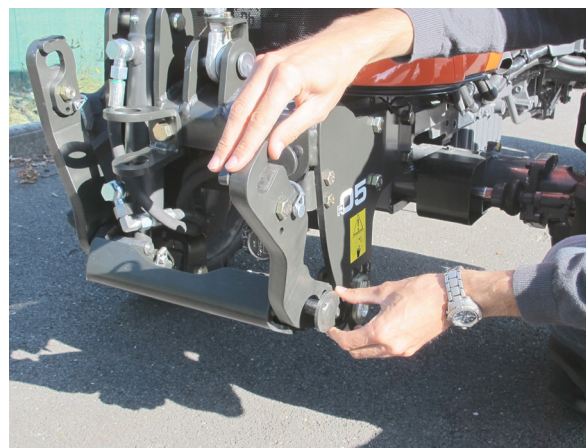
- 6.3** Hold the left-hand arm and withdraw the pin.



6.4 Swing the arms forwards up to the desired position.



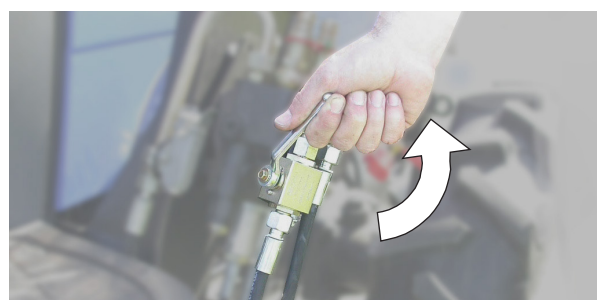
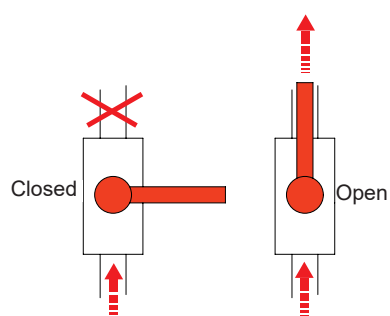
6.5 Refit the pin and secure it with the locking pin.



6.6 Repeat operations 6.2 to 6.5 for the right-hand arm.



6.7 Open the stop valve.



7. HITCHING A FRONT IMPLEMENT



Caution

This operation must be carried out by the driver who must leave his seat and ensure all controls are locked out while he is working on the front linkage.

The linkage is in the operating position.

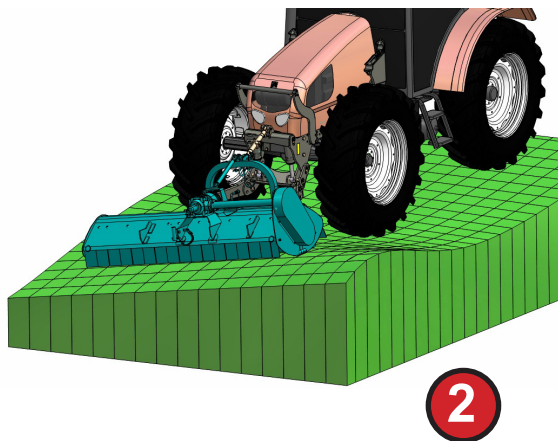
- 7.1** Open the locking catches on the hitching hooks and hitch up the implement.



- 7.2** Close the locking catches on the hitching hooks.
Two possible scenarios: position 1, fixed position
position 2, floating position



arm in floating position; the implement follows the contours of the ground



- 7.3** Hitch the 3rd link bar to the bracket on the front implement.



- 7.4 Set the length of the 3rd link bar to obtain the desired geometry for the front implement.
Lock the adjustment of the bar by means of the lever locknut.



Checks to be carried out before starting work

- Carry out a lift test checking that the tractor and front implement interact correctly. Pay particular attention to checking the gap between the upper link bar and the bonnet of the tractor.
- Check that all pins and locking pins are fitted and secured correctly.
- Check the locking status of the hitching hooks (the catches must be retracted correctly).

8. UNHITCHING A FRONT IMPLEMENT



Caution

This operation must be carried out by the driver who must leave his seat and ensure all controls are locked out while he is working on the front linkage.

- 8.1 Place the front implement on level and solid ground. Apply the tractor handbrake.



- 8.2 Release the 3rd link bar from the front implement bracket.



- 8.3 Reposition the 3rd link bar on to the front linkage frame.



- 8.4 Unlock the hitching hooks and lower the linkage arms to release the implement.



9. SETTING FRONT LINKAGE TO TRANSPORT POSITION



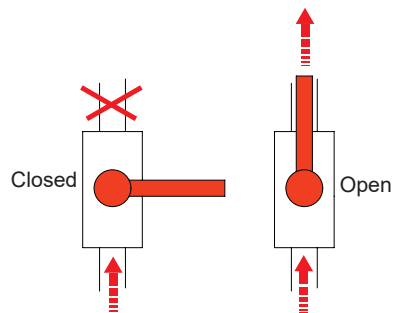
Caution

This operation must be carried out by the driver who must leave his seat and ensure all controls are locked out while he is working on the front linkage.

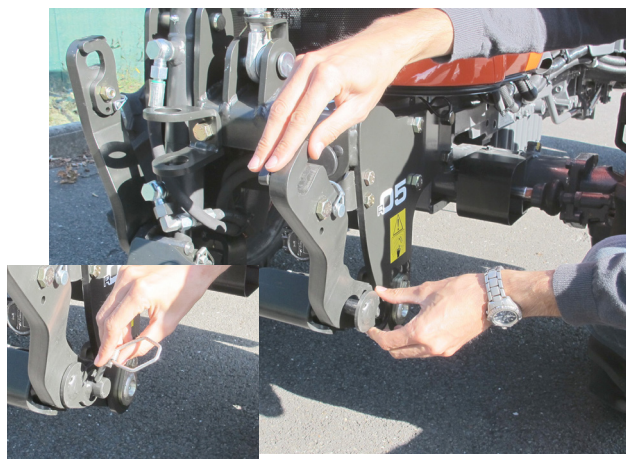
- 9.1 Choose a level and solid surface. Raise the front linkage arms. Stop the engine and put on the hand brake.



9.2 Shut the isolator valve.



9.3 Remove the locking pin while holding the left-hand arm.



9.4 Swing the left-hand arm rearwards and refit the pin and locking pin.

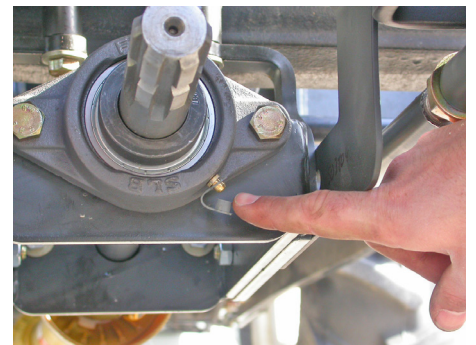
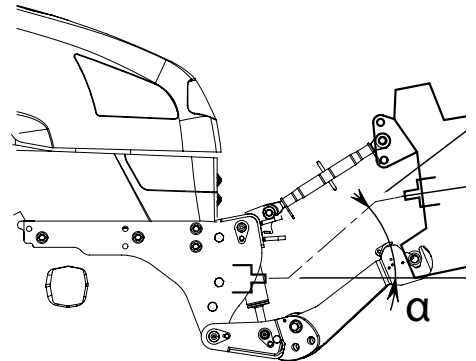


9.5 Repeat operations 9.3 to 9.4 for the right-hand arm.

10. FRONT POWER TAKE-OFF WITH TRANSMISSION SHAFT*

SAFETY RULES AND RECOMMENDATIONS IN RESPECT OF POWER TAKE-OFF

- Never start the engine with the power take-off engaged.
- Before hitching the implement, check that the direction of rotation for the implement is compatible with the front power take-off.
- Check whether the speed and power of the implement are matched to the power take-off. Otherwise, the implement must not be hitched and connected.
- Check the length of the PTO shaft between the implement and the front power take-off and adapt it accordingly.
- The PTO shaft universal must be fitted with a suitable guard (complying with the ISO 5673-1 standard).
- Never lift or lower the front linkage with the power take-off under load.
- Check angles α and β of the implement and power take-off universal joints. Adjust the upper link bar to make these angles approximately equal in terms of working position. The maximum values for angles α and β will vary according to the type of universal joint used (please refer to the universal joint manufacturer's user manual).
- Any maintenance on the implement must be carried out with the engine shut down, the implement completely at rest and hydraulically locked.
- Each time the power take-off is used, grease the sliding section of the shaft and the universal joint spiders beforehand.
- Never make any changes to the electrical connections.
- Observe the maintenance instructions (please refer to the "Maintenance" section).
- The safety instructions in this manual are not to be construed as a replacement for safety regulations, insurance requirements or national and local legislation. Ensure your machine is fitted with the correct equipment as required by law and local regulations.



Caution

This operation must be carried out by the driver who must leave his seat and ensure all controls are locked out while he is working on the front linkage.

10.1 Hitch up the implement (please refer to the section "Hitching a front implement").

10.2 Connect the PTO shaft to the front power take-off.



The tractor engine must be stopped.

10.3 Restart the tractor and start the front power take-off (refer to the tractor's user instructions).



Checks to be carried out before starting work

- Check that the tractor, implement and transmission shaft interact correctly throughout the full lifting stroke before engaging the power take-off.

* Depending on configuration

11. HITCHING TRIANGLE*

Attachment of the female A triangle on implements – each implement will have its own female triangle.

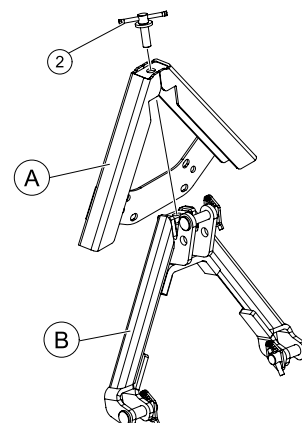
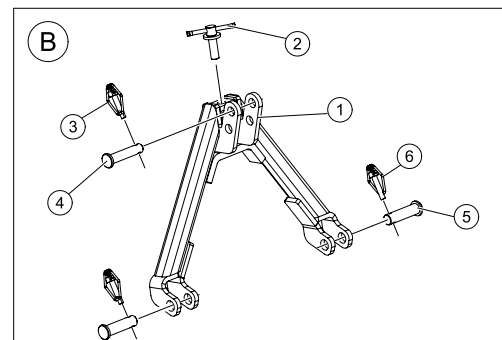
Attachment of the male B triangle on the linkage (see "Hitching a front implement" section).

Remove the pin reference 3 from the triangle reference 1.

Fit the male triangle reference B in the female triangle reference A.

Retighten the pin reference 3 in the triangles. This acts as a lock.

Readjust the upper link bar if necessary.



12. AUXILIARY HYDRAULIC LINE*

This supplies a hydraulic unit in front of the linkage.

12.1 Connect the hydraulic hoses of the implement to the 3/8" female couplings. Release the pressure from the hydraulic system to make the connection of the hoses easier.

12.2 Operate the hydraulic line using the tractor or the MX control valve. (Refer to the "Control" section).



* Depending on configuration

13. CONTROL

Using the factory-fitted control valve on the tractor. Refer to the user manual for the tractor.

13.1 Using the MX loader control valve.

13.1.1 Raising and lowering the MX front linkage. Move the MX monolever handle forwards or backwards.



13.1.2 Operating the auxiliary hydraulic line (depending on configuration). Move the MX monolever handle to the left or to the right.

In order to operate a second auxiliary hydraulic line, press and hold the green button on the monolever handle and move it to the left or to the right.



* Depending on configuration

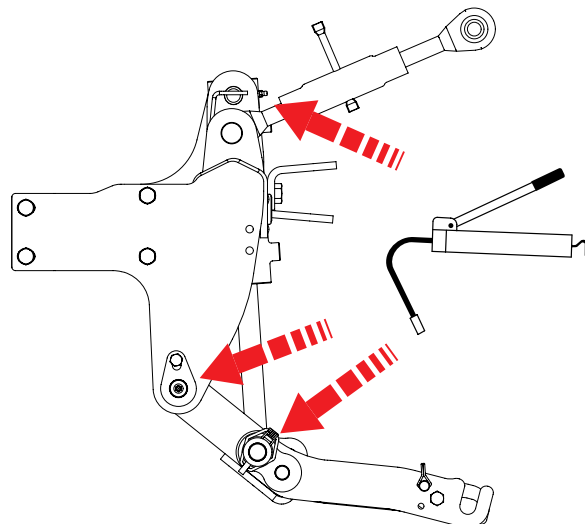
14. MAINTENANCE

Lubricate every 10 hours and after each wash (water drives grease out) and particularly after washing with a pressure washer. See lubrication points opposite.

Check fasteners for tightness after 10 and 50 hours of operation, every 100 hours thereafter, keeping to the recommended tightening torque.

On each occasion, check before and after use for any hydraulic leaks which might have appeared and that the pins and locking pins are all fitted.

The frame and rams are fitted with wear bushes. If there is excessive play (approx. 2 mm), replace them with new genuine MX bushes.



Front power take-off:

After the first 50 hours and every 500 tractor operating hours thereafter (or once a year):

- Drain the oil and replace the filter with a new genuine MX one (see filter removal procedure below).
- Next, refill the housing with oil up to the level shown opposite. Recommend oil type STOU (Supper Tractor Oil Universal) 10W30 or 10W40 or equivalent.

NOTE: Check power take-off housing oil level regularly and top up as necessary.

15. TECHNICAL CHARACTERISTICS

	R05N	R08N
Front linkage category	1N	1N
Lifting capacity at the end of the linkage arms*	500 kg	800 kg
Lifting capacity with the centre of gravity of the implement positioned 610 mm forward of the ball ends*	300 kg	550 kg
Theoretical arm spacing (inside the arms)	405 mm	405 mm
Height of linkage arms off the ground*		
In lowered position (1)	< 200 mm	< 200 mm
In raised position (2)	> 450 mm	> 450 mm
Hitching hooks	-	-
Upper link length	Cat. 1 / 345 to 500 mm	Cat. 1 / 345 to 500 mm
Power take-off (PTO) with transmission shaft**		
PTO output speed	2000 rpm	2000 rpm
Output shaft profile (DIN 9611)	1"3/8 - 6 splines	1"3/8 - 6 splines
Direction of rotation (viewed from tractor seat)	clockwise	clockwise
Front power take-off (PTO)**		
Max. PTO power	100 hp	100 hp
PTO output speed	1000 rpm	1000 rpm
Output shaft profile (DIN 9611)	1"3/8 - 6 splines	1"3/8 - 6 splines
Direction of rotation (viewed from tractor seat)	clockwise	clockwise

* Average figures They may vary in line with tractor specifications.

** Option available dependent upon tractor - front linkage compatibility.

DECLARATION OF CONFORMITY



The manufacturer:

M-extend France SAS

Registered office: 19, Rue de Rennes, 35690 Acigné (France).

Registered with the RCS of Rennes under number 639 200 260.

Hereby declares that the material :

Front loader T408evo or T408+evo or T410evo or T410+evo or T412evo or T412+evo or T414evo or T417evo or T418evo or TX420evo or TX425evo or TX430evo

or

Front loader U503 or U504 or U505 or U506 or U506+ or U507 or U508 or U508+ or U509 or U510 or U510+ or U511 or U512 or U512+ or U514 or U514+

or

Front loader A104 or A106 or A110 or F303 or F304

or

Front loader C1 or C1s or C2u or C2 or C2+ or C3u or C3 or C3+ or C4 or C4+

or

Loader implement BMS or BRDS or BQU or BF + GF or CGU or TR or TRu or BMSC or CGC or TRC or BT or BR or BC or BF or BMSU or BRU or BFU or CL or BRC or BFC or LC or CG or BP or SG or BB or PCS or LS or PG

or

Implement for telescopic handler loader BMSA or CGA or BTA or TR or BCA or BCDA

or

Feeding bucket BD or GDT

or

Manubal L40 or L400 or L400HD or L500 or L6000 or C30 or C40 or U40 or V40 or V60 or V500 or W500 or V400HD or V5000HD or V7000HD

or

Front linkage R04 or R05 or R06 or R08 or R09 or R10 or R12 or R16 or R20 or R28 or R38 or R53

or

Weight M250 or M400 or MM600 or MM900 or MM1200 or MM1500 or MM400AD or MBX or MXS 250 or MXS 400 or MXS 600 or BOX 100L or BOX 150L or MBX XS

or

Multibumper

serial number:

please write in the box above the serial number given on the equipment's nameplate.

included in the list of serial numbers 000001001 to 999999365,

is in conformity with the Machinery Directive 2006/42/EC

and with the Supply of Machinery (Safety) Regulations 2008.

M-extend France SAS, 19 rue de Rennes at Acigné (35690), is authorised to prepare the technical file.

Acigné, 2 September 2025.

B. Gauchenot
CEO

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