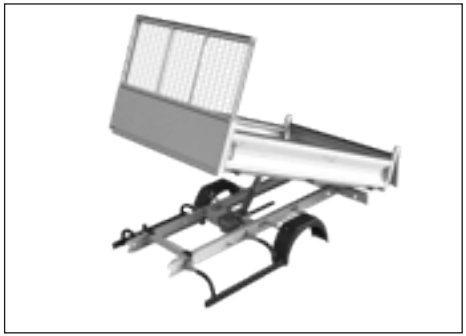
INSTRUCTIONS FOR USE

INSTRUCTIONS FOR USE

REAR TIPPER



THREE-WAY TIPPER

DROPSIDE

ORIGINAL INSTRUCTIONS - English version

Version dated 01/07/2024

The characteristics and information contained in this document are up-to-date when it is published. However, in the context of its continuous improvement policy, JPM reserves the right to make changes without prior notice. The up-to-date version of this document can be accessed on the website **www.jpm-group.com.**

CERTIFICATION UTAC

QUALITY SYSTEMS

ISO 9001: 2015

CERTIFICATION UTAC

ENVIRONMENT

ISO 14001: 2015

CERTIFICATION UTAC

QUALIFIED OPERATOR

CONTENTS

1. Guarantee conditions

1.1. Guarantee duration

The duration of the guarantee for the equipment supplied JPM against any fault in manufacturing, assembly when this is carried out in our workshops, operation and against any material defect, is 24 (twenty-four) months from the date the vehicle was first put on the road.

1.2. Guarantee extension

The guarantee duration may be extended free of charge to 36 (thirty-six) months from the date the vehicle was first put on the road subject to the conditions that the owner of the vehicle registers on the website www.jpm-group.com within the first 12 months by sending his contact details and accepting the use of his data for commercial purposes.

1.3. Purchase of a guarantee extension

The guarantee duration may be extended to 4 or 5 years from the date the vehicle is first put on the road subject to the condition that the owner of the vehicle purchases a guarantee extension on-line on the website, www.jpm-group.com, within the first 12 months following the date the vehicle was first put on the road.

1.4. Applications

Whatever the duration, the guarantee only concerns the replacement or repair of the part recognised to be defective, after inspection and written agreement from JPM, without it being possible to cover labour, travel that the repair may necessitate, or any damage caused by the immobilisation of the vehicle.
We will only accept responsibility for damage caused to the vehicle by the addition of bodywork or equipment carried out by our services in cases where it is demonstrated technically that this possible damage is the result of defects in the equipment or incorrect assembly on our part.

1.5. Guarantee exclusions

Whatever the duration, the guarantee will not apply in the case of:
- Installation non-compliant with the recommendations of JPM and the vehicle manufacturer.
- Negligence or incompetence in the use of the equipment.
- Breakage due to an obvious lack of maintenance.
- Intervention or modification performed outside the JPM network or with spare parts which do not come from JPM.
- Non-replacement of wearing parts.
- Use beyond the accepted possibilities (overloading and poor load distribution).
- Causes independent of the manufacturer.
- Non-return of defective parts.
- Tipping on soft ground that is not flat.
- Intervention on the pressure relief valve of the hydraulic unit or removal of the plastic seal.
- Prolonged storage with the tipper raised for more than 24 h.

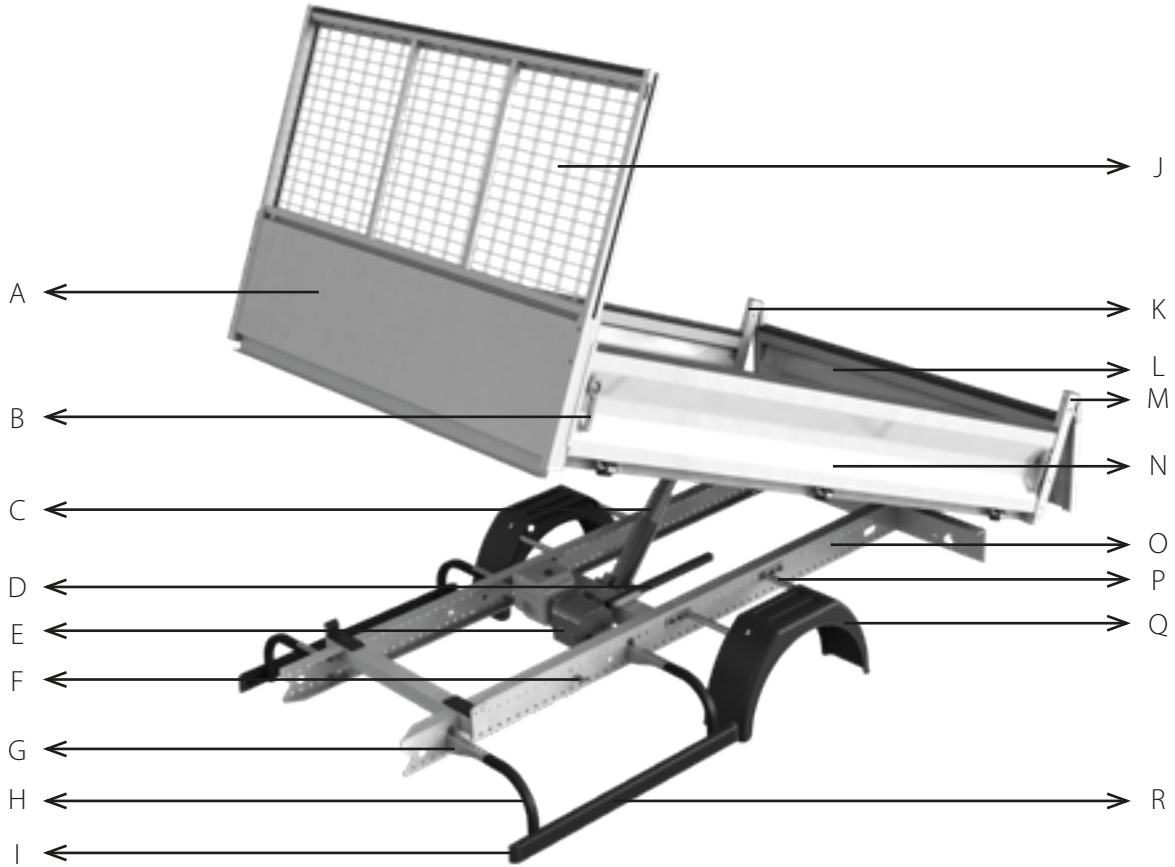
Whatever the duration, the guarantee for the paintwork or for JPM raw products does not apply:
- For the loading area
- For tippers not primed and/or not painted by JPM (responsibility of the painter coachbuilder)
- For gravel projections
- In the case of accidents or impacts (knocks from buckets, diggers, reinforcing bars, etc.)
- In the case of mechanical, chemical or thermal effects linked to the products transported (particularly cement, lime, concrete, fertiliser, salts, coatings, etc.)
- In the case of incorrect maintenance of the tipper (prolonged absence of cleaning, salting of roads)
- In the case of the use of products containing acids, alkalis, acid salts, solvents, organic materials.
- On functional areas of contact or friction (hooks, lock plates, articulations)

2. Tipper components

2.1. Overview

Locator	Name
A	Tipper dropside
B	Sideboard handle
C	Telescopic cylinder
D	Safety stand
E	Electrically driven pump unit (GEP)
F	Circuit breaker
G	Fixing for side bumper tube
H	Elbow tube for side bumper
I	End piece for JPM side bumper profile

Locator	Name
J	Ladder rack
K	Right rear pillar
L	Rear door
M	Left rear pillar
N	Sideboard
O	Subframe
P	Mudguard support tube
Q	Mudguard
R	JPM side guard profile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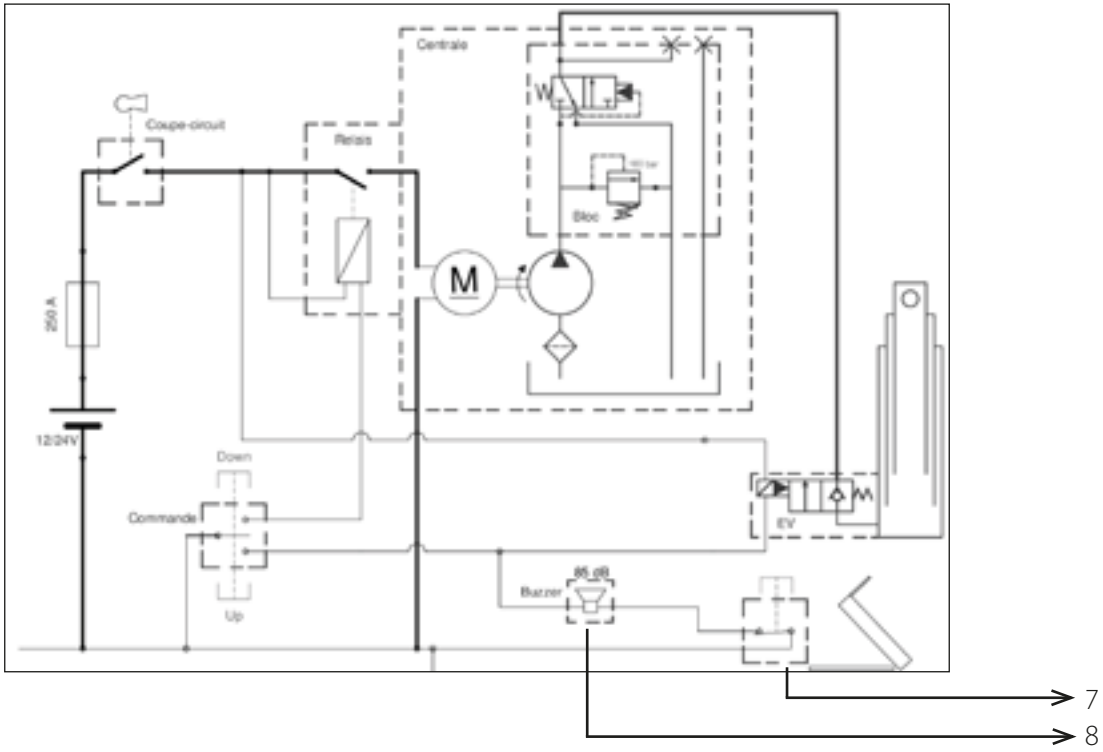
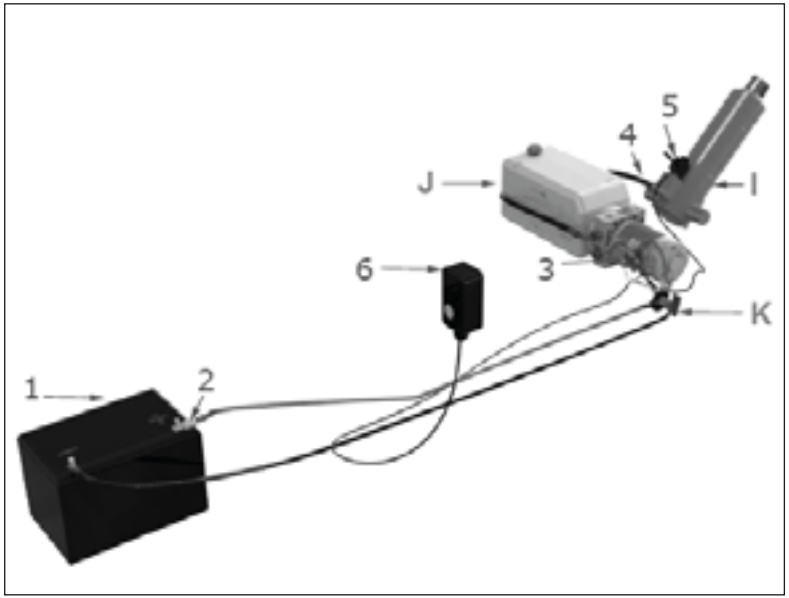
2.2. Electricity and hydraulics (configuration with electrically driven pump unit)



Locator	Name
1	Battery
2	250 A or 400 A fuse (Range 75)
3	Power relay
4	Hydraulic hose
5	Solenoid valve
6	Control box
7	Tipper raised sensor (option)
8	Buzzer (option)
I	Telescopic cylinder
J	Electrically driven pump unit
K	Circuit breaker

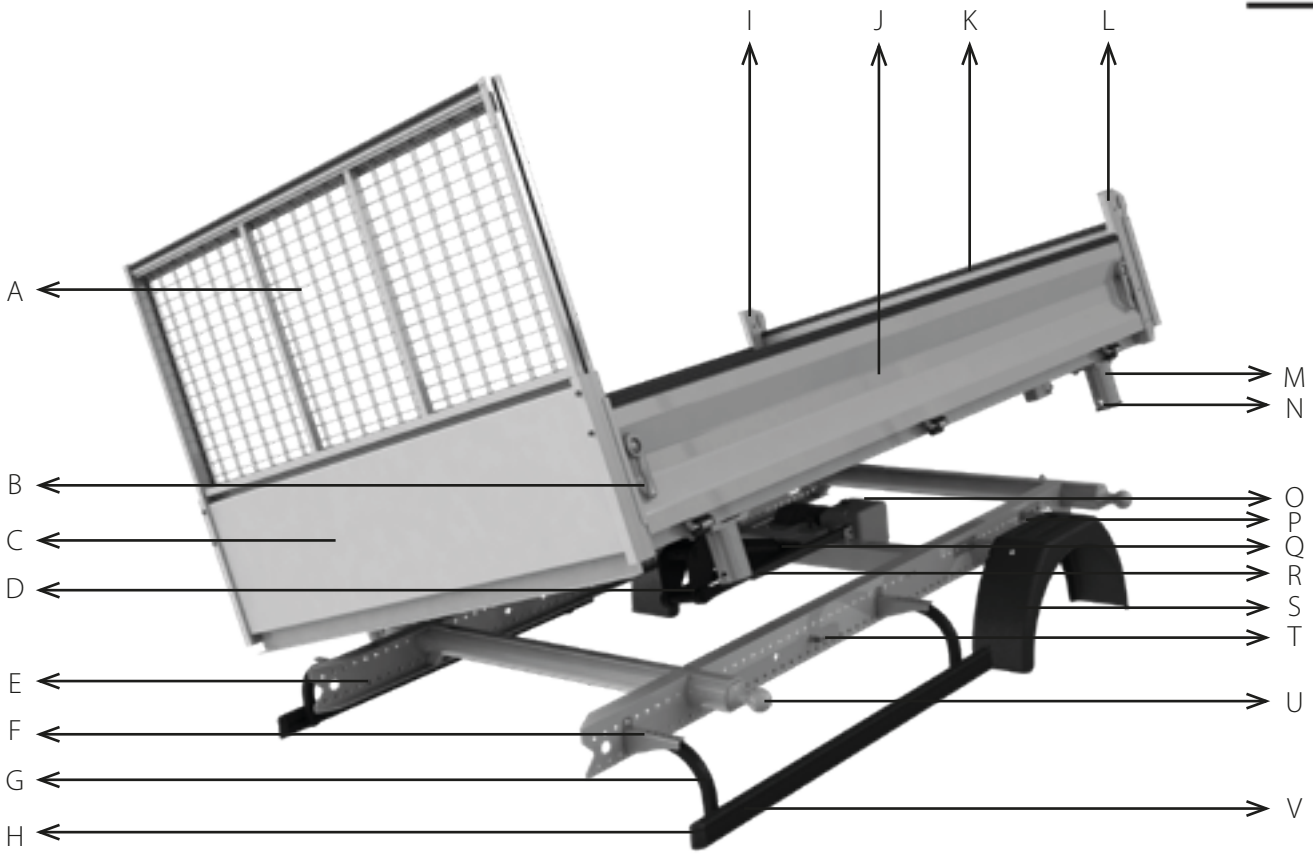


3. Three-way tipper components

3.1. Overview

Locator	Name
A	Ladder rack
B	Sideboard handle
C	Three-way tipper dropside
D	Compass cylinder
E	Subframe
F	Fixing for side bumper tube
G	Elbow tube for side bumper
H	End piece for JPM side bumper profile
I	Right rear pillar
J	Sideboard
K	Rear door

Locator	Name
L	Left rear pillar
M	Spherical roller bearing
N	Locking spindle for three-way tipper articulation
O	Electrically drive pump unit (GEP)
P	Mudguard support tube
Q	End of travel
R	Safety stand
S	Anti-projection mudguard
T	Circuit breaker
U	Sphere
V	JPM side guard profile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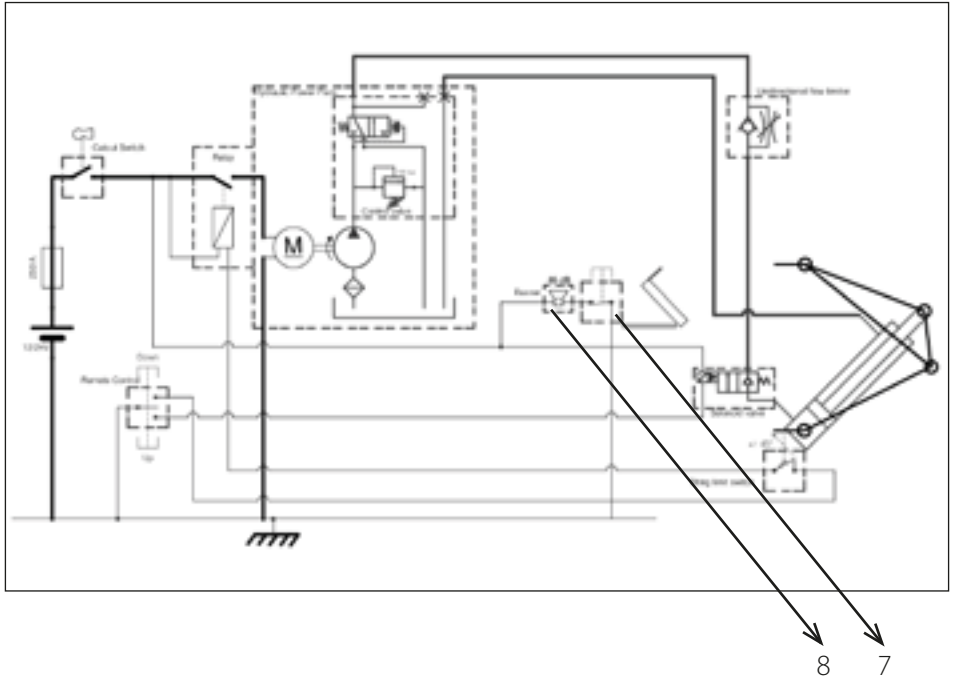
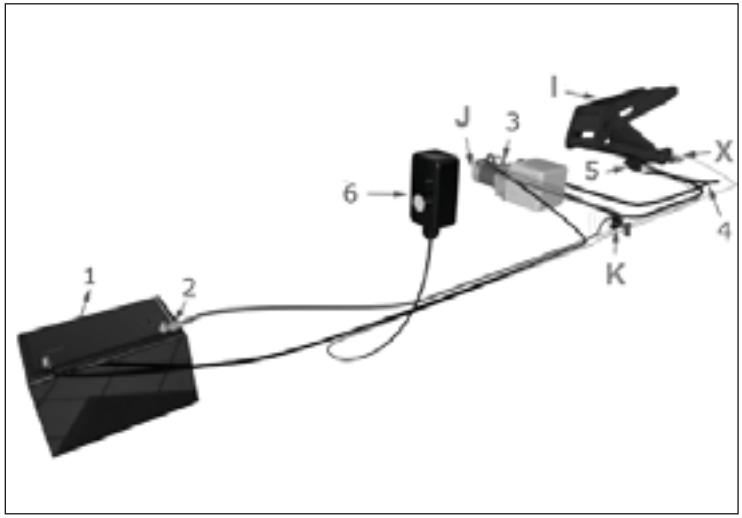
3.2. Electricity and hydraulics (configuration with electrically driven pump unit)



Locator	Name
1	Battery
2	250 A fuse
3	Power relay
4	Hydraulic hose
5	Solenoid valve
6	Control box
7	Tipper raised sensor (option)
8	Buzzer (option)
I	Compass cylinder
J	Special JPM three-way tipper electrically driven pump unit
K	Circuit breaker
X	End of travel sensor



4. Dropside components

4.1. Overview

Locator	Name
A	Ladder rack
B	Dropside
C	End piece for JPM side bumper profile
D	JPM side guard profile
E	Elbow tube for side bumper
F	Mudguard support tube
G	Anti-projection mudguard

Locator	Name
H	JPM anchoring ring
I	Sideboard
J	Right rear pillar
K	Rear door
L	Left rear pillar
M	Sideboard lever
N	Subframe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5. Use of the equipment

5.1. Symbols used in these instructions and the fitting instructions

Warning symbol
Presence of danger or at-risk action for the user
Safety instruction

Compulsory action symbol

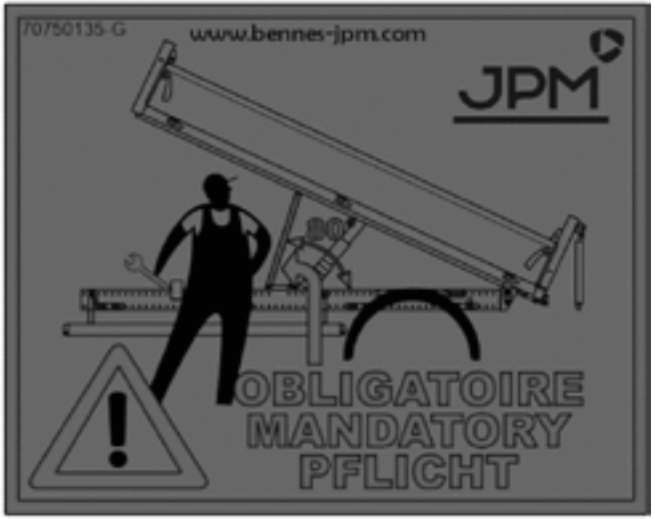
Suggestion symbol

5.2. Warning

When using the vehicle and its equipment (tipper, three-way tipper, dropside), the user is bound by the obligation of safety and adherence to the legislation and the Highway Code in force in his country.
Before using the equipment for the first time (tipper, three-way tipper, dropside), read the instructions carefully and learn how the equipment works. Study all the safety devices. Also study how the accessories work.
Keep these instructions permanently in the vehicle's glove compartment.

Your equipment may be dangerous if it is not used in the conditions set out by the manufacturer. So use the appropriate communal and/or personal protective measures for the situation (marking of the zone with traffic cones, gloves, safety glasses, hearing protection, etc.)

Any modification may create additional hazards or increase the risks which have not been eliminated or reduced by risk reduction measures applied by the manufacturer of the tipper.



The safety stand is not designed to support the weight of a loaded tipper.

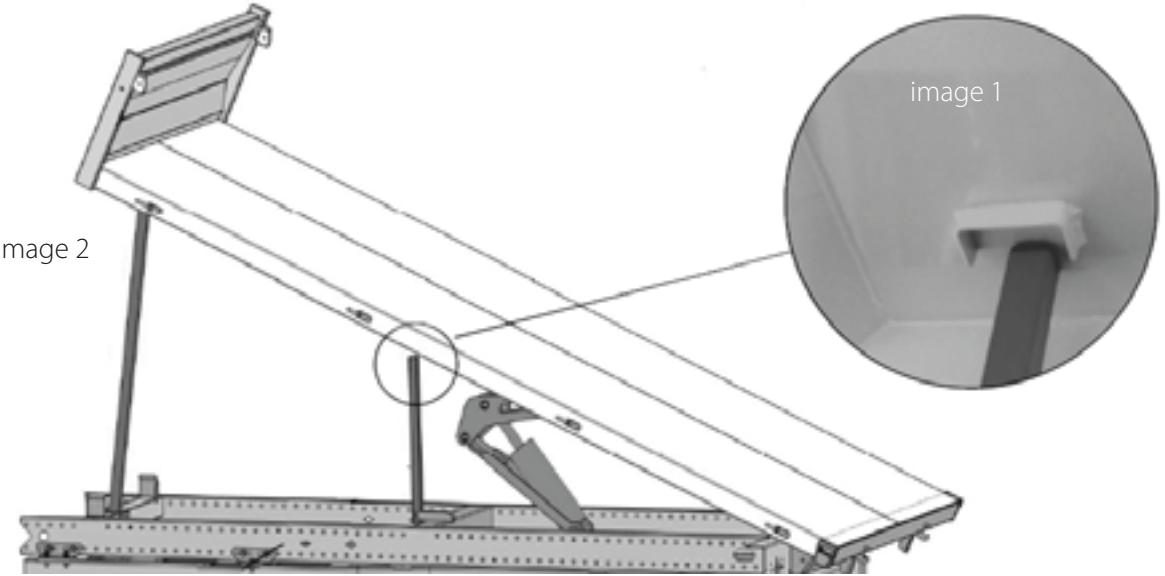
JPM CANNOT BE HELD RESPONSIBLE IF THESE SAFETY INSTRUCTIONS ARE NOT OBSERVED.

TIPPER AND THREE-WAY TIPPER:

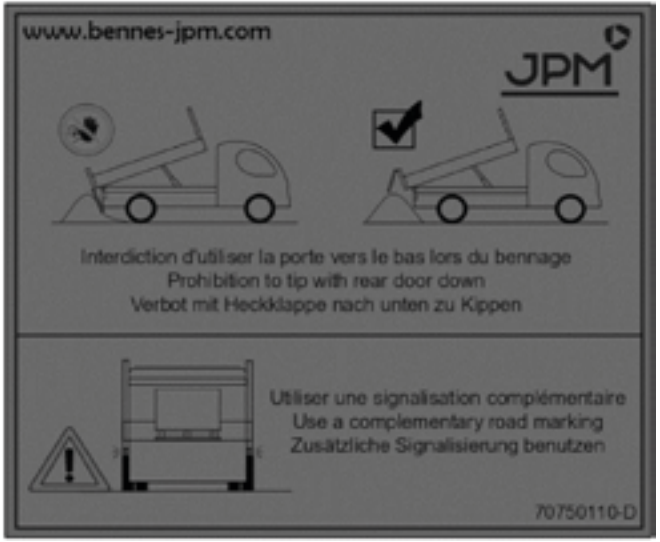
When the equipment is in the raised position, never go between the chassis and the tipper without positioning the unladen tipper safety stand correctly (Image 1).

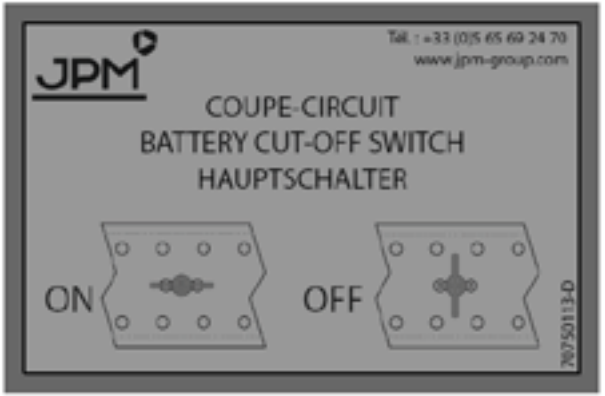
If the machine needs prolonged work with the platform fully raised, it is ESSENTIAL to chock the platform with a PROP positioned in the location provided for this (Image 2).

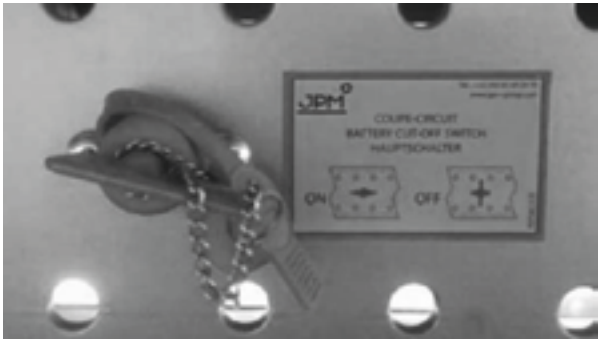
image 2



During tipping and in the configuration with the rear door open and held by the top, releasing the top part of the rear door is strongly discouraged as there is a risk of damaging the equipment (automatic opening of the hooks).







When using the rear door held by the bottom it is essential to use additional signalling (tipping with the door downwards is prohibited - except the Easydoor).
In an emergency cut off the electrical power supply using the circuit breaker on the driver's side.

5.3. Rules to be observed by the user of the equipment

- Check the vehicle is in good working order at the start of each working day (tyre pressures, lights, etc.) in compliance with the manufacturer's directions for use..
- Notify the Maintenance Department if there are oil stains (on the vehicle's chassis or on the ground in the storage premises).
- If, during your working day, you see any anomalies in the operation of your tipper, notify the Maintenance Department about them. If these anomalies are significant (defects in the hydraulic or electric circuits, etc.) notify the lorry manufacturer or the coachbuilder member of the JPM network immediately.
- Never remove the calibration pressure seal.

5.4. Before taking to the road

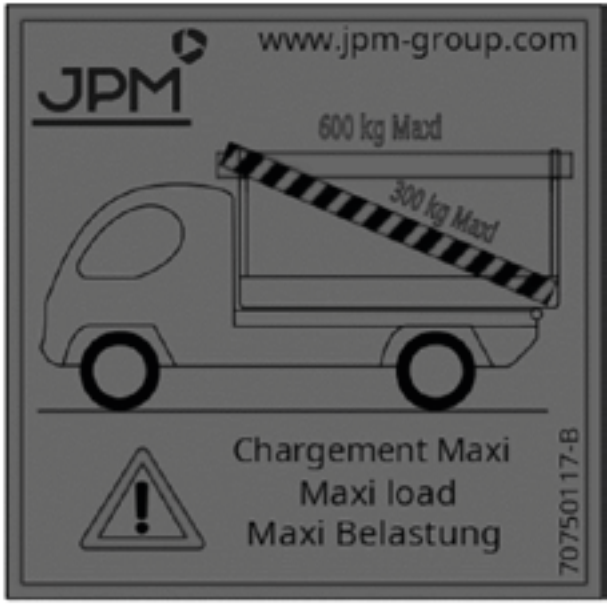
- Check that loading adheres to the rules defined in §5.5.
- Check that the load does not overhang the tipper and that the sideboards, rear door and extensions are correctly locked (all the sideboard handles or levers closed).
- Ensure that the load does not interfere with your visibility and does not endanger road traffic conditions.
- Never travel or brake when the vehicle has the tipper raised (except when using coal flaps in the rear door and moving slowly <25 km/h).
- Check that the locking and safety devices for the coupling and the trailer are in place.
- When travelling, the circuit breaker must be in the open position.

5.5. Loading

- Never exceed the payload recommended by the manufacturer (see GVWR: Field F2 of the Registration Certificate).
- When loading the equipment it is essential that the cylinder is in the resting position, platform in contact with the fixed subframe. Risk of damaging the cylinder.
- The tipper must be loaded somewhere that is flat and not cluttered, where manoeuvring is easy.
- Check that the load distribution in the tipper or dropside is even (load centred both lengthwise and widthwise).

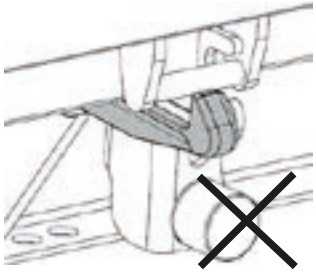
- Never store the tipper or three-way tipper in the raised position without placing the safety stand in the position defined in § 5.2.
- If necessary, and depending on the products transported, it is necessary to conform to the provisions of the ADR regulation (European agreement concerning the International Carriage of Dangerous Goods by Road) and bring the JPM equipment into ADR compliance.
- Check that loading does not endanger road traffic conditions, by lashing the load correctly in the equipment.
- Before opening the sideboards or the rear door, make sure that the load being transported is stabilised and that it does not put you in danger.

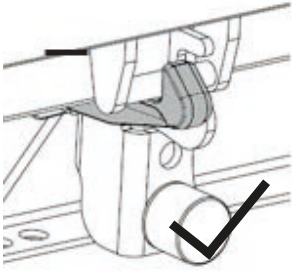
- Do whatever is necessary to prevent any loss of the load on the carriageway.
Example: sand, light materials, must be held in place by a net or tarpaulin (supplied as an option).
- Ensure that the load and the vehicle are not hindered in any way either in terms of length, width or height.
- Never exceed the maximum load of 300 kg supported by the ladder rack or 600 kg in combination with the rear lumber carrier (supplied as an option).



5.6. Tipping

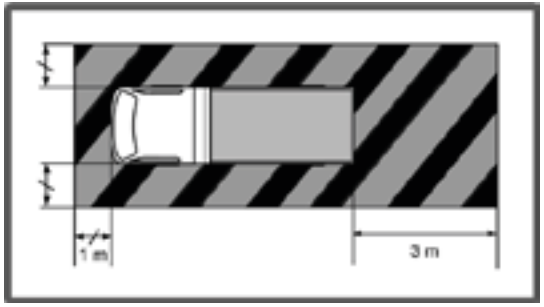
- The vehicle must be stopped, positioned on stable, flat ground, and the safety zone must be clear throughout the tipping manoeuvre.
- Use the tipping function with the engine running to conserve the vehicle's battery life.





CAUTION

After each tipping operation, make sure that the rear door is properly hooked, using the 2 hooks.

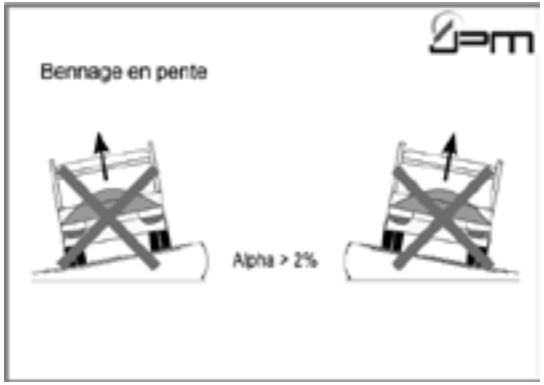


Check there is no-one in the danger zone of 3 metres behind the tipper and 1 metre around the vehicle before manoeuvring the tipper.

- Remain vigilant throughout the tipping operations.

- Do not tip on a slope with an incline of more than 2%.

- Ensure that the tipping area is sufficiently clear heightwise.



5.7. Opening and closing of sideboards

Before opening the sideboards, universal door or the Easydoor door, make sure that there is no risk of the load falling.

Opening of the new version handles:

1. Pull the handle grip to move the sideboard aside (Figure 1 and 2)
2. Tilt the handle upwards (Figure 3)
3. Release the handle. Close the sideboard handles to avoid coming into contact with the bumpers or the side guard (tipper, three-way tipper or dropside).

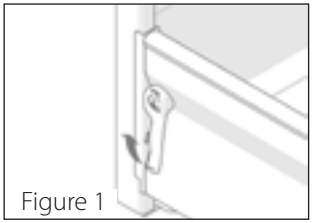


Figure 1

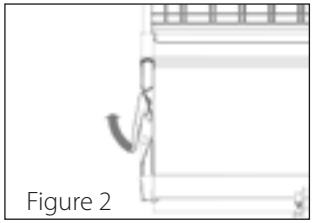


Figure 2

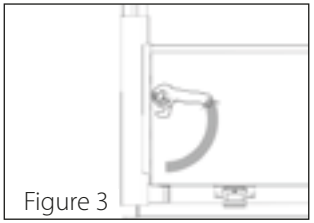
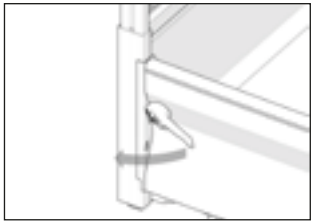
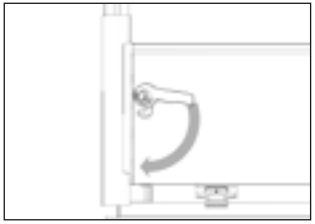


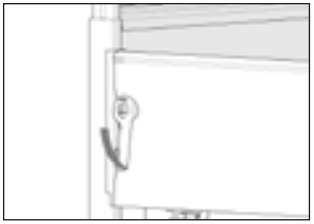
Figure 3

Closure of the new version handles:

1. Pull on the handle to move the sideboard aside
2. Tilt the handle downwards
3. Release the handle; it should return to a completely vertical position. It is possible to ensure that the handle is properly locked if it does not rotate without having to pull it towards you.







5.8. Removal of the rear door

The rear pillars are fitted with a double security device preventing the locking of the rear door hinges.

If it is necessary to remove the rear door, do this with 2 people.

On each pillar push the button forwards and raise the lever to free the rear door hinge.

2 people should hold the door to stop it falling.

These hooks should only be unlocked in certain specific cases:

- To replace a door with another (maintenance operation or After-Sales Service)
- For the downward opening of the rear door (only on the Standard Door) in order to allow loading via the rear

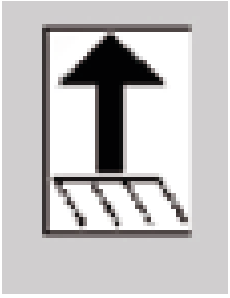
(NEVER TIP WITH THE DOOR OPEN DOWNWARDS - RISK OF BREAKAGE)

CAUTION:
The aluminium Universal Door cannot be tipped downwards (Risk of breakage)

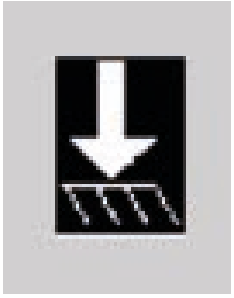
5.9. Rear tipper operation

The tipper is fitted with a circuit breaker which must be closed with the red key supplied before tipping is possible. At the end of the manoeuvre open the circuit breaker. (Locator F Page 11)
Tilting is provided by a single-acting telescopic cylinder supplied by an electrically driven pump unit connected to the vehicle's battery. A piloted solenoid valve is screwed into the supply orifice of the cylinder for the fall arrest safety device. Raising and lowering of the tipper is performed using the remote control box located in the cab (Locator 6 Page 13).

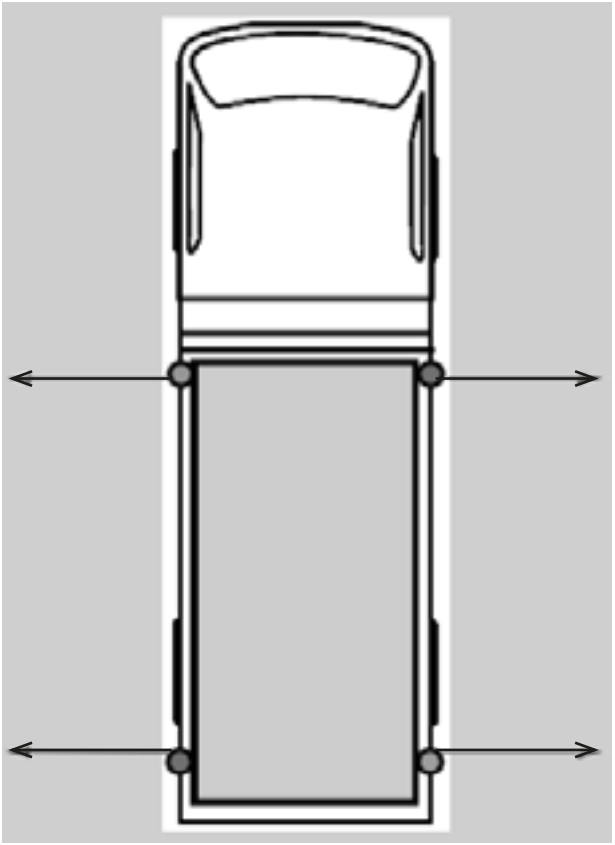
2-Button box (circuit breaker closed):



UP key:
raising of
the tipper



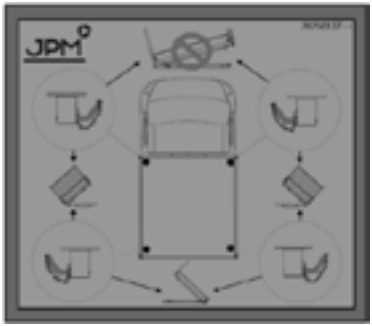
DOWN key:
lowering of
the tipper


Front left articulation
Spindle Type 2
Front right articulation
Spindle Type 1
Rear left articulation
Spindle Type 1
Rear right articulation
Spindle Type 2

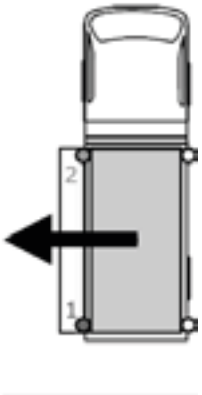
Several combinations are possible for locking the spheres depending on the type of tipping to be carried out. It is always necessary to lock the spheres on the side on which you want to tip the three-way tipper. The three-way tipper is supplied with one Type 1 Spindle and one Type 2 Spindle.

ADHERE TO THE ARRANGEMENT OF THE TWO DIFFERENT SPINDLES FOR LOCKING THE SPHERES (LOCKING PINS), SYMBOLISED ABOVE (1) (2).

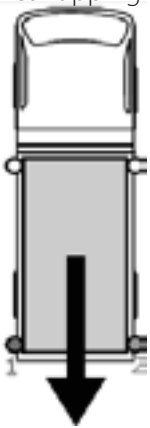
Locking the rear spheres is recommended before taking to the road with the vehicle.



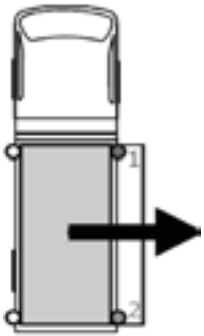
Locking of the left-hand spheres for tipping to the left



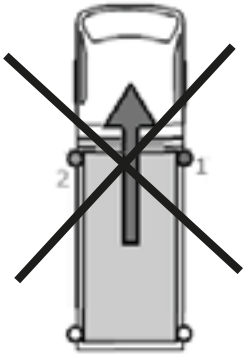
Locking of the rear spheres for rear tipping



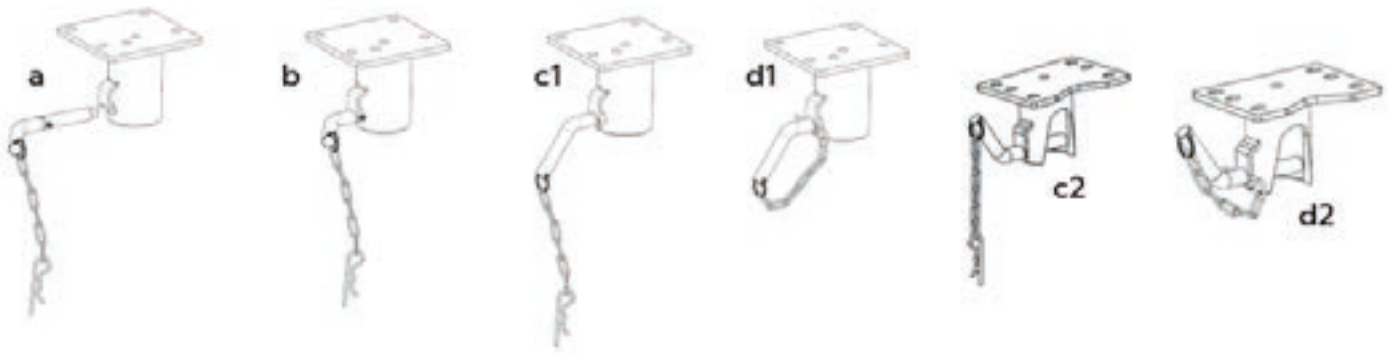
Locking of the right-hand spheres for tipping to the right



Locking the two front spheres is prohibited!



Sphere locking spindle (old version):



a – Take the spindle, lever horizontal.
b – Introduce it into the articulation housing and push it in up to the stop.
c – Swivel the spindle through 180° downwards (Image c1) or upwards (Image c2) to lock: in this position the spindle is locked correctly.
d1/ d2 – Introduce the locking pin into the spindle.

Sphere locking spindle (old version):

To prevent any incorrect handling, the two spindles are different and fitted with a locking pin at their extremity. They are identified by a number engraved on the sleeve. The corresponding clevises have one or two notches (number corresponding to that engraved on the sleeve) at the outlet of the spindle (see Figures 1 and 2).

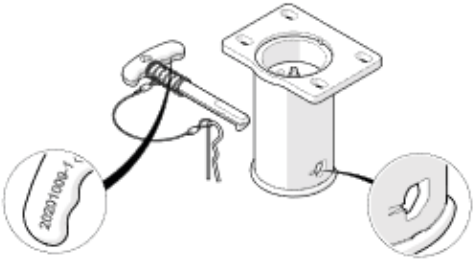


Figure 1

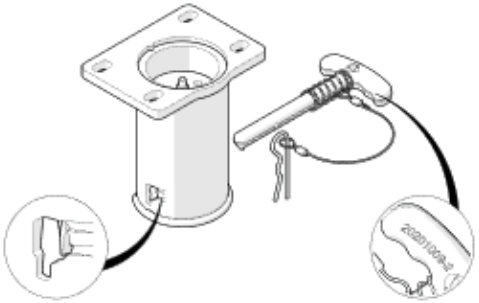


Figure 2

To put a spindle in place on the corresponding clevis:
1. Present the spindle facing the inlet drill hole on the corresponding clevis (Figure 1 and 2), with the locking pin facing downwards.
2. Push the spindle right in (spring compressed) (Figure 3).
3. Put the pin in place (Figure 4).
4. Release the spindle and check that it is held in place by the pin.

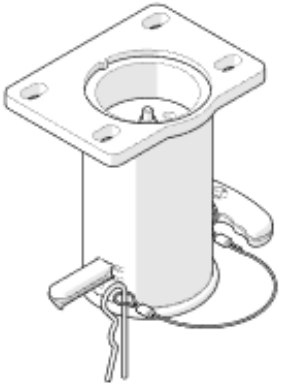


Figure 3

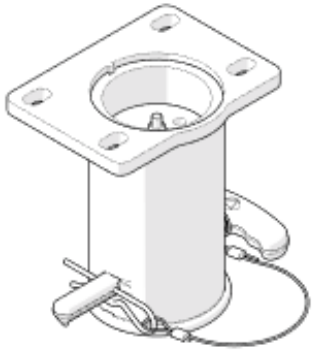
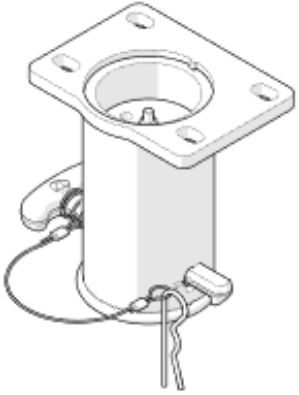
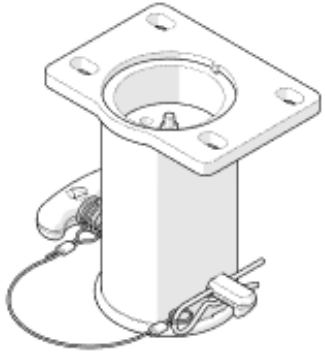


Figure 4

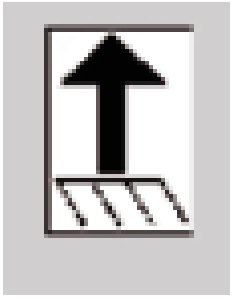




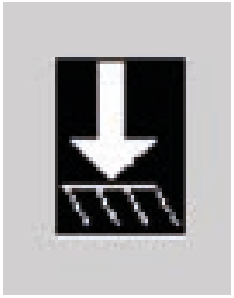
The tipper is fitted with a circuit breaker which must be closed with the red key supplied before tipping is possible. At the end of the manoeuvre open the circuit breaker. (Location T Page 15)

Tilting is provided by a single-acting compass cylinder supplied by an electrically driven pump unit connected to the vehicle's battery. A piloted solenoid valve is screwed into the supply orifice of the cylinder for the fall arrest safety device. Raising and lowering of the tipper is performed using the remote control box located in the cab (Location 6 Page 17).

2-button box (circuit breaker engaged):



UP key:
raising of the
three-way tipper.



DOWN key:
lowering of the
three-way tipper.

6. Use of the JPM options

6.1. Coupling devices

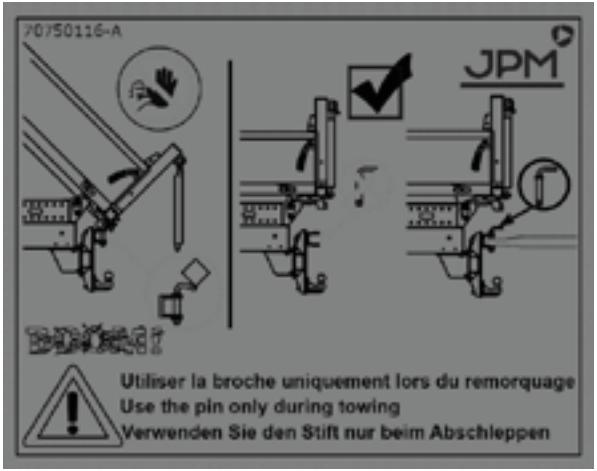
If your vehicle can tow, whenever you use your coupling:
- Check that the Gross Vehicle Weight (GVW = laden weight of the vehicle + laden weight of the trailer) does not exceed the AGVW of the vehicle. (AGVW = Authorised Gross Vehicle Weight - Field F3 of the Registration Certificate: Weight in acceptable maximum load of the assembly in service).
- Make sure that the coupling device and its hook are suitable for towing the trailer.
- Respect the S and D values of the vehicle, the tow bar and the cross bar (the value of the equipment supplied by JPM is always higher than the max. permissible by the vehicle).
- Connect the trailer electrical supply plug.
- Put in place all the safety devices provided on the trailer or coupling.

6.2. JPM TRIVA coupling devices

The anchorage point for the trailer safety carabiner is directly on the headstock.
A 'Ring' kit is available as an option.

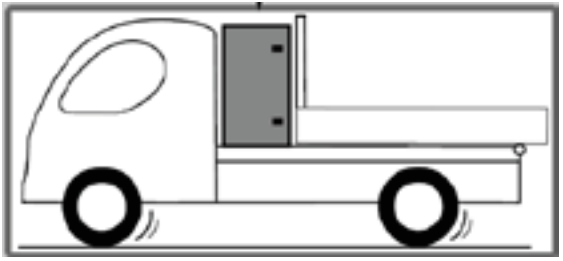
6.3. JPM TRIVA TP coupling devices

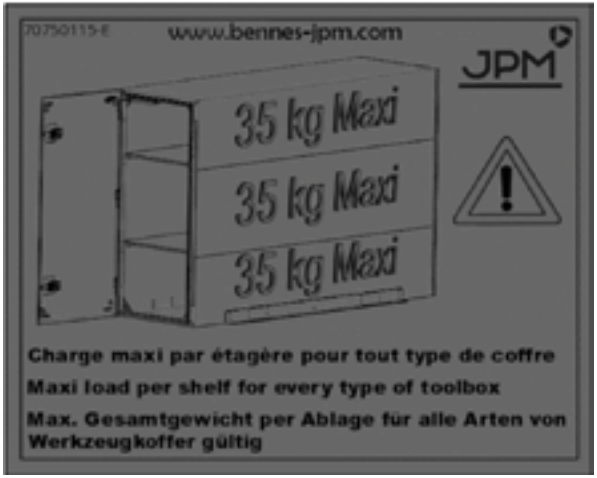
So as not to hinder the rear tipping operation and prevent damage to the equipment, the upper clevis pin should only be used when towing.



6.4. Rear cab locker

- Check that the load distribution in the locker (supplied as an option) is even and it does not exceed 35 kg per shelf.
- In strong winds support and hold the doors when opening and closing them.
- Check all doors are closed and locked before taking to the road.





6.5. Locker in the tipper

- Check all doors are closed before taking to the road.

6.6. Universal Door (old version)

Use of the rear door with double leaves: Check that the locking hooks (Figure 1) of the door frame are engaged on the right and left. Unlock the door handle and turn it to open the two leaves. Lock each leaf on the side hook of the sideboard with the ring.

Use of the rear door for tipping: Pivot the hooks on either side of the door (Figure 2) in order to unlock it before tipping (automatic opening of the lower keeper hooks).

Before taking to the road, make sure that the rear door is properly hooked, using the 2 hooks.

Figure 1

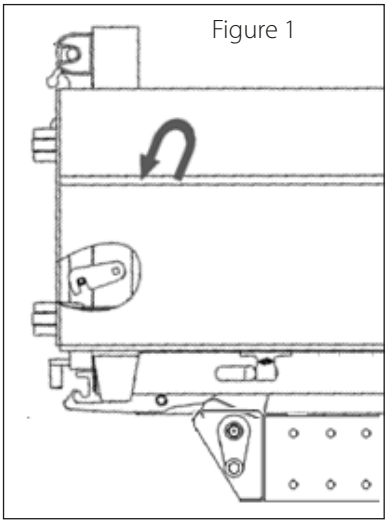
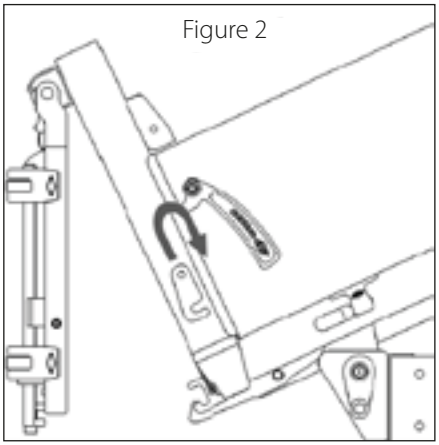


Figure 2



6.7. Universal Door (new version)

Use of the rear door with double leaves:

- Check that the two locking spring clips in the door frame are engaged (Figure 2).
- Unlock the door handle and turn it to open the two leaves.
- Lock each leaf on the side hook of the sideboard.

Use of the rear door for tipping:

- Unlock the spring clips (Figure 3) before carrying out the tipping (automatic opening of the hooks on the lower keepers).
- Before taking to the road, make sure that the rear door is properly hooked and locked, using the 2 spring clips (Figure 2).

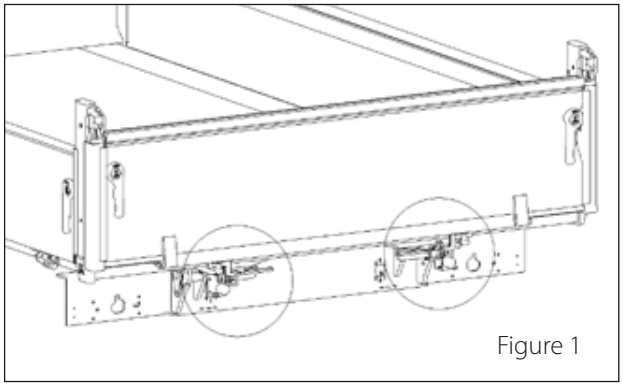


Figure 1

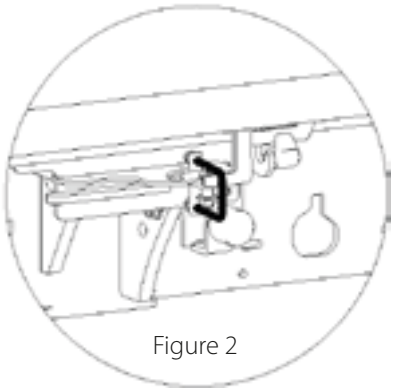


Figure 2

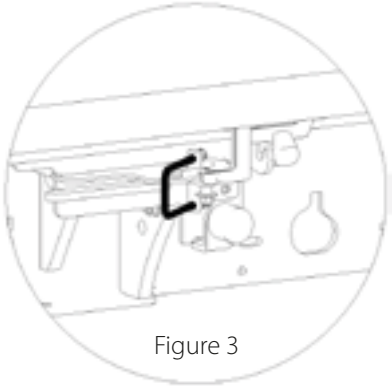
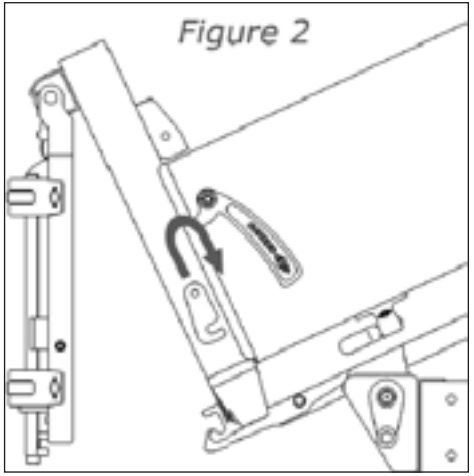


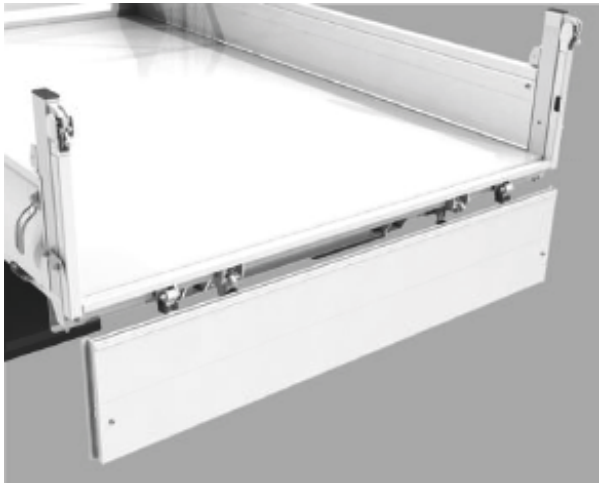
Figure 3

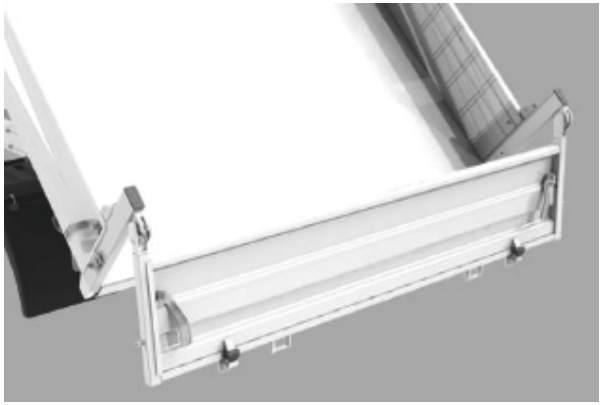
6.8. Easydoor Rear Door

Opening of the Easydoor rear door downwards:
With the frame in place and locked by the side hooks, open the rear door levers and support it downwards.

Use of the Easydoor rear door for tipping:
Pivot the hooks on either side of the door (Figure 2) in order to unlock it before tipping (automatic opening of the lower keeper hooks).







6.9. Easydoor Rear Door (new version)

Opening of the Easydoor rear door downwards:
- Check that the two locking spring clips of the door frame are engaged (Figure 2).
- Open the rear door levers (identical operation to the sideboards and support them downwards).

- Use of the Easydoor rear door with the automatic release function:
unlock the spring clip (Figure 3) before carrying out tipping (automatic opening of the hooks on the lower latches).

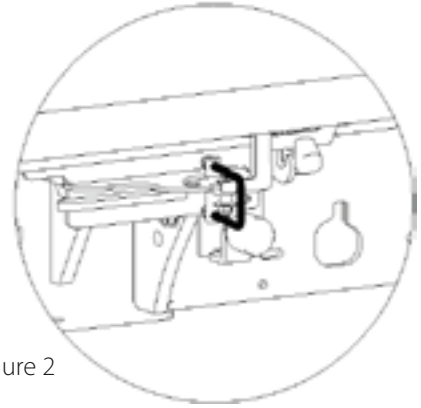


Figure 2

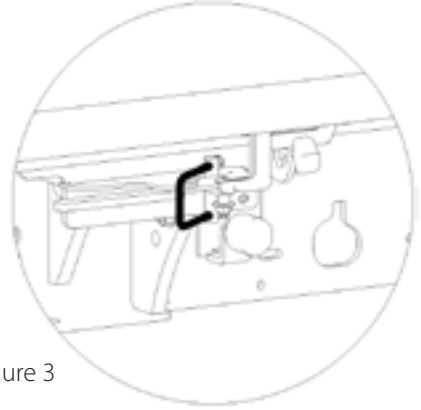


Figure 3

Locking:
1- Pull on the spring clip handle (Figure 4).
2- Tilt the ring to position it facing the keeper (Figure 5).
3- Push the spring clip handle in again (Figure 6).

Unlocking: proceed in reverse order.

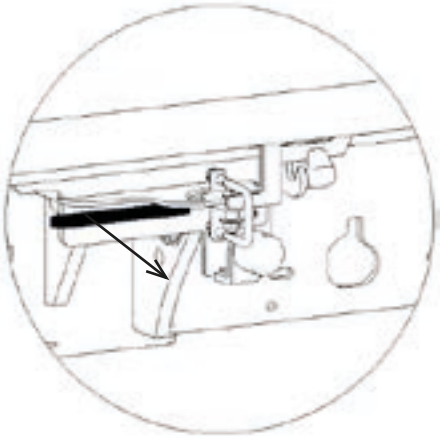


Figure 4

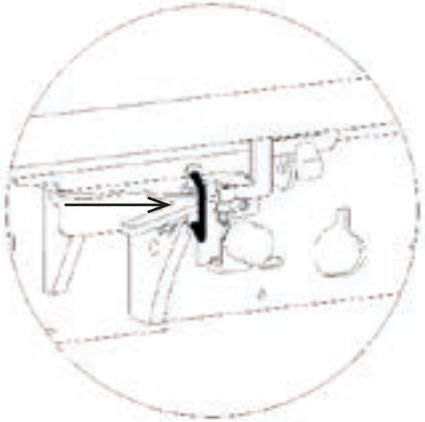
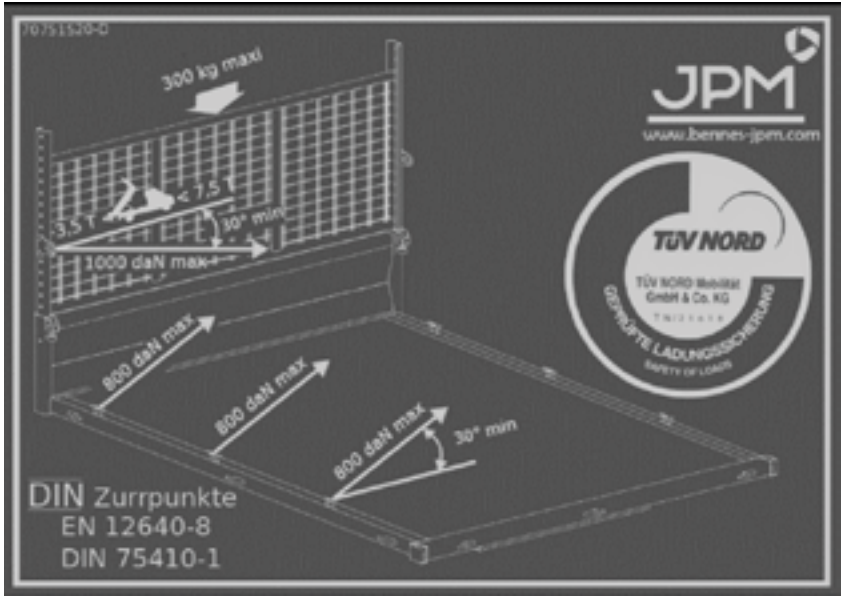


Figure 5

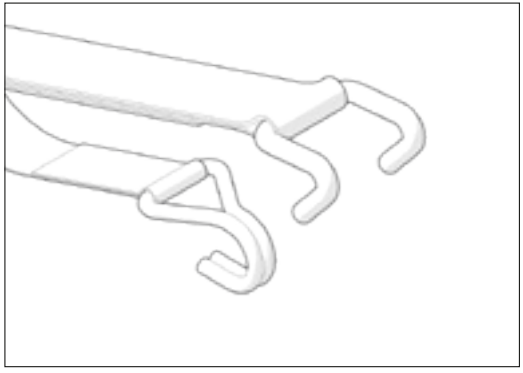
Figure 6

6.10. Lashing

- Before use, check there are no visible defects on each of the lashing rings used.
- Never exceed the maximum load supported by the lashing rings, 1000 daN for the ladder rack rings and 800 daN for the platform rings.
- Adhere to the minimum angle of 30° for lashing.
- Respect the regulatory verification intervals for the lashing rings applicable in your country.



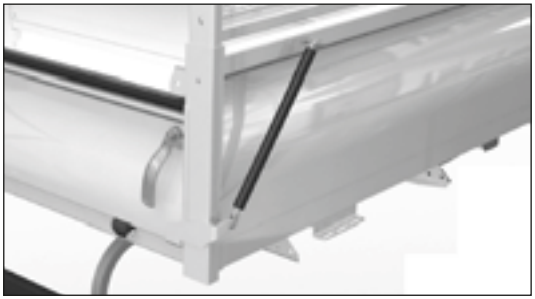
Usable strap hooks:



*Only on the rings at the bottom of the wood dropside tipper and the aluminium 55 tipper

6.11. Aid for lifting the sideboards

CAUTION
Make sure all the handles are correctly locked.

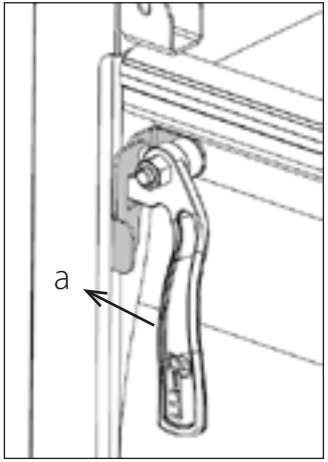


6.12. Wireless remote control

- Check there is no-one in the danger zone of 3 metres behind the tipper and 1 metre around the vehicle before manoeuvring the tipper (see §5.4).
- Turn on the radio control before using it and remember to turn it off after use to preserve the batteries (Start and Stop buttons).
- Always activate the radio control keeping the danger zone in view.

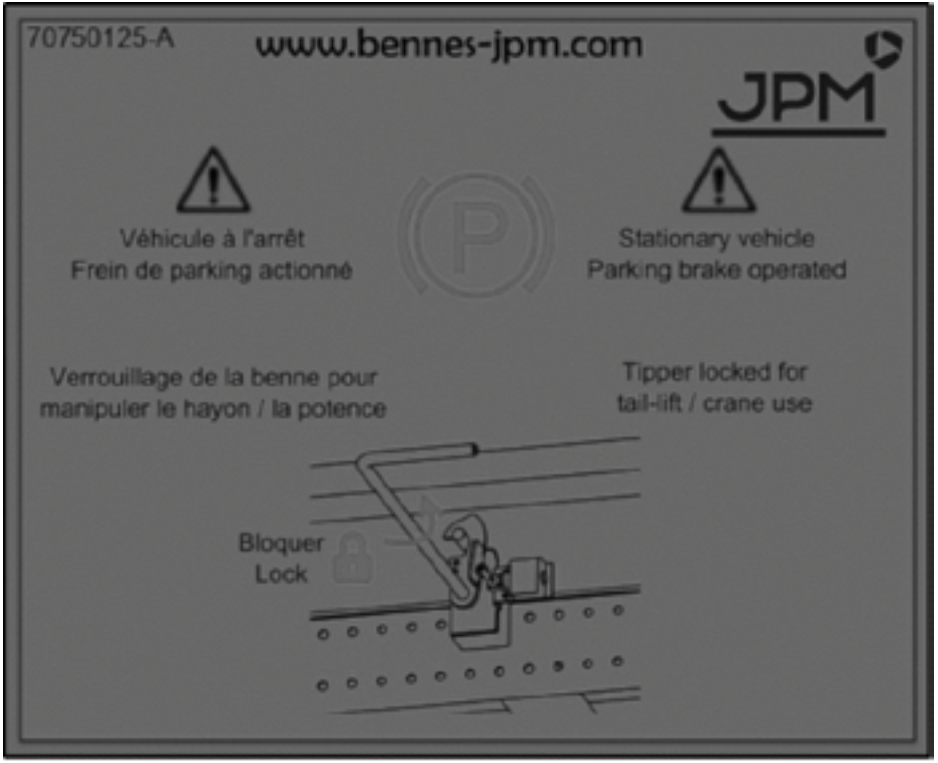
6.13. Sideboard double safety device

- Lift the lever (a) of the handle double safety device before opening or closing the sideboard handle or the Easydoor rear door.
- The handles of product versions in aluminium profiles after 2021 have the incorporated double safety device (see operation paragraph 5.7).



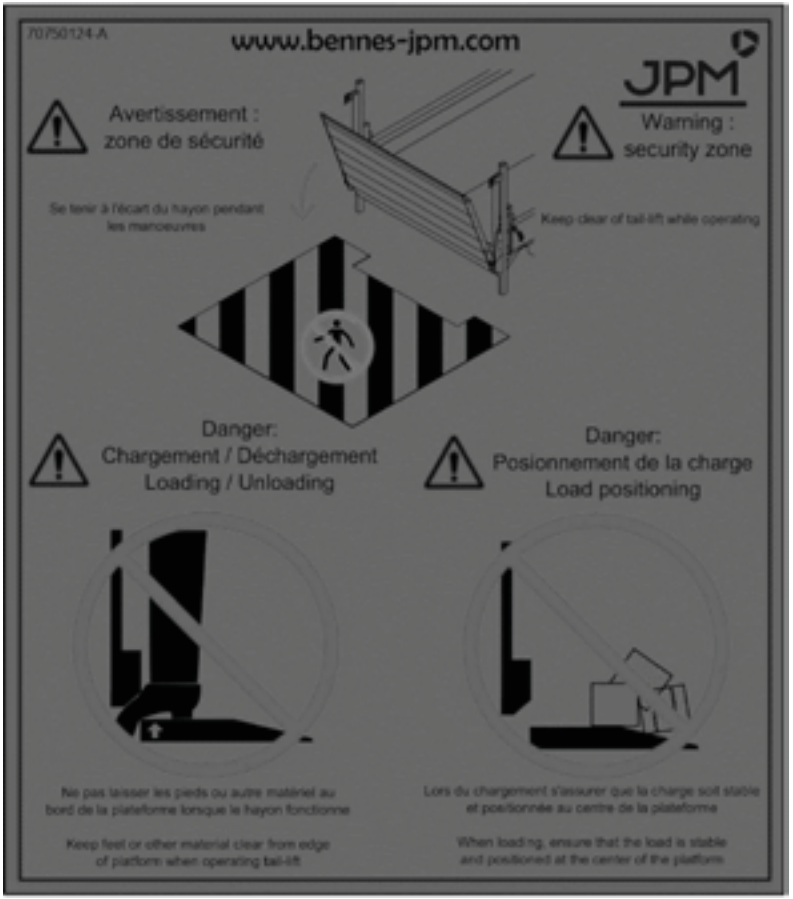
6.14. Locking tipper with Tailgate, Crane or Gallows

The tipper on the chassis is unlocked manually.
Use the handle to unlock the tipper.



6.15. Equipment with Tailgate, Crane or Gallows

- Refer to the Instructions for Use of the equipment and the local regulations concerning lifting machines.



6.16. Tool-holder

The tools are put in place by pressing the handle against the bungee cord and moving it to the right against the tool-holder.

Check the tools are properly blocked behind the tool-holder. If the tools are too high above the cab, ensure that they do not pose any danger if they sway in the wind. The driver must also take into account the increase in the profile of his vehicle.

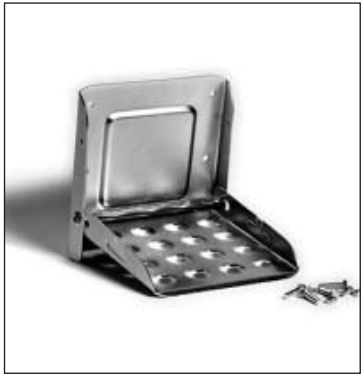
6.17. Extensions

Before taking to the road, check that the devices for closing extensions are correctly locked.

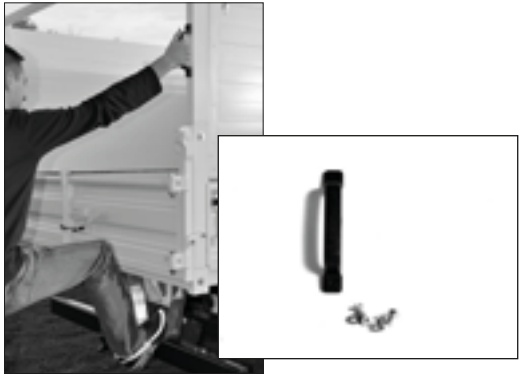
6.18. Means of access

The means of access provided to access the tipper safely are not designed for loading and unloading. (do not carry equipment when climbing up or down).

Sliding step ladder



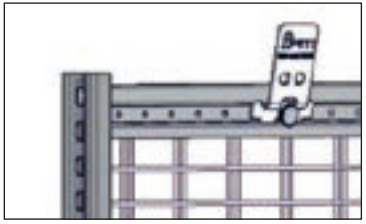
Step



Access handle

6.19. Load stops

Removable load stops are available as an option to hold the load on the cab protection. Before taking to the road check that the materials are correctly lashed and fixed.



6.20. Locker under the tipper

Max. load for polyurethane locker:

Max. load for stainless steel locker:

7. Maintenance

CAUTION
Adjustment, maintenance, repairs, cleaning, and service are all carried out when the tipper is stopped (circuit breaker open, key removed).

7.1. Periodic maintenance

- Clean the tipper or dropside immediately after transporting corrosive products, and as often as necessary.
- Periodically (every 6 months) lubricate the lock barrels on the cab rear locker and the lockers under the tippers.

7.2. Verification and maintenance of the hydraulic circuit

- Change the hydraulic oil every 10,000 manoeuvres or every 4 years.
- Change the hydraulic hoses every 4 years.

CAUTION
Any work on the hydraulic circuit presents many hazards and must be performed by the JPM network.

The following points should be checked and serviced if necessary:
The frequency should be adapted if the product is used in the severest of conditions.

		Every month	Every 2 years
		Level 1 Control	Level 2 Control
		To be performed by the driver	To be performed in the workshop
HYDRAULIC	Check the oil level in the reservoir when in the maximum rear tipping position (cylinder completely extended, the oil level should be above the "min" mark)	X	X
	Top up the level whenever necessary with mineral oil: Grade ISO H46 or biodegradable oil, grade equivalent to that of mineral oil compliant with VDMA 24568	X	X
	Check there are no signs of a hydraulic leak	X	X
	Check the cleanliness of the hydraulic oil (the presence of water or impurities may alter the correct operation of tipping)	X	X
	Check the condition of the hoses and if necessary tighten the connections (no excessive tightening, contact + 1/4 turn)		X

7.3. Mechanical verification and maintenance

At 1000 km check the fixings and tightenings to the torque of the coupling devices (crossbeam, hook).

(Nm = Newton Metre)	M10 screw class 1.9	M12 screw class 1.9	M14 screw class 1.9
Tightening to torque	65 Nm	110 Nm	120 Nm

The rotary shafts (rear tipper) are fitted on self-lubricating bearings and do not require any maintenance. The following points should be checked and serviced if necessary. The frequency should be adapted if the product is used in the severest of conditions.

		Every month	Every 2 years
		Level 1 Control	Level 2 Control
		To be performed by the driver	To be performed in the workshop
MECHANICS	Lubrication of the tilting spheres (three-way tipper)	X	
	Check the condition of the sphere locking spindle (three-way tipper)	X	X
	Lubrication of the compass cylinder	X	X
	Check the value for the side tipping angle (45° to the right and left) and end of travel operation		X
	Check the condition of the frame/chassis fixings and tightenings	X	X
	Lubrication of the rear pillar articulations	X	
	Check that the rear pillars are tightened correctly	X	X
	Tightening of the cylinder shafts and fixings	X	X
	Fixing for the rear door closure	X	X
	Check the condition of all welding		X
	Operating status of the circuit-breaker	X	X
	Check the condition of the connections and electric cable holders		X

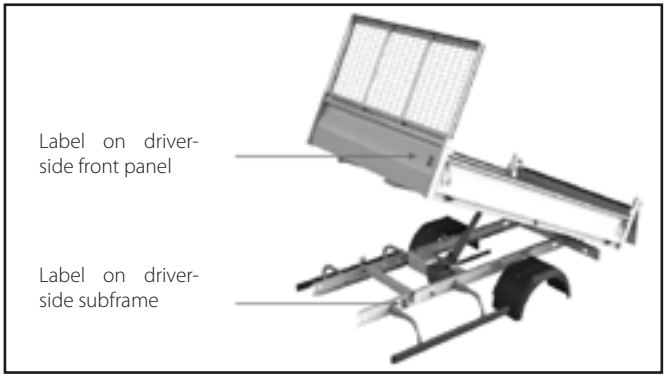
Carry out the lubrication operations after each high pressure wash for the lubricated mechanical parts. For all the above-mentioned operations it is ESSENTIAL that the tilting platform is held chocked by the safety stand and the tipper is not loaded.

Lubricant: Industrial, insoluble in water. Min. operating range -20°C to +70°C. Thermoplex Unil Opal, Supergrease 350 Unil Opal, or equivalent.

8. Spare parts

8.1. Information to be given

The model, type, serial number, dimensions and the week in which the machine was manufactured are mentioned on the manufacturer's label stuck to the front face and subframe on the left side of the equipment, thus making it possible to identify the bodywork for the After-Sales Service and the guarantee.
JPM original spare parts supplied by the JPM network are guaranteed for 2 years.
For any technical communications or order of spare parts please specify the information mentioned on the manufacturer's plate.



8.2. Wearing parts

Wearing parts may be ordered from the JPM Spare Parts Department (www.jpm-group.com) or the JPM network.
Wearing parts:
- PVC protections
- Tipper, sideboard and door buffers
- Hydraulic hose
- Tarpaulin, net or tool-holder bungee cord

8.3. JPM Network in France and Abroad

The contact details for members of the JPM network in France and Europe are available on the website, **www.jpm-group.com**

9. Troubleshooting

CAUTION
Any work on the hydraulic circuit must be performed by the JPM network.

Symptom	Troubleshooting	Possible causes	Corrective action	User	JPM network
The tipper does not raise at all	By pressing Lift on the remote control nothing is heard (neither the relay nor the unit)	Circuit breaker in open position	Close the circuit breaker	X	
		Locking of the Tailgate safety device Hayon, gallows engaged	Unlock the safety lever for Tailgate, Gallows (if installed)	X	
		Fuse problem	Check the battery fuse (125A, 250 A or 400 A)	X	
		Electrical connection problem	Check all the electrical connections		X
		Remote control circuit problem	If the tipper raises by directly connecting the relay, change the remote control		X
		Three-way tipper end of travel sensor problem	Test the operation of this sensor and change it if necessary		X
		Relay problem	If the tipper raises by connecting the unit, change the relay		X
	By pressing Lift on the remote control the relay and the unit motor are heard easily	Problem with the hydraulic unit	Replace the hydraulic unit		X
		Overload	Check and remove the load	X	
		Hydraulic unit free-flow problem	Replace the free-flow		X

Symptom	Troubleshooting	Possible causes	Corrective action	User	JPM network
The tipper raises a little and then stops		Problem of locked cylinder	Replace the cylinder		X
		Lack of oil	Check the oil level and top up with oil	X	
		Lack of battery power	Charge the battery or start the vehicle	X	
		Problem with the hydraulic unit power	Replace the hydraulic unit		X
The tipper does not lower	The tipper does not lower from an intermediate position but lowers from the top position	Problem with the unit free-flow	Clean or replace the free-flow		X
		Solenoid valve problem	Clean or replace the solenoid valve		X
		Cylinder problem	Replace the cylinder		X
		Remote control circuit problem	If the tipper lowers by directly connecting the solenoid valve, change the remote control		X
		Electrical connection problem	Check all the electrical connections		X

CAUTION

Any work on the hydraulic circuit must be performed by the JPM network.

Symptom	Troubleshooting	Possible causes	Corrective action	User	JPM network
The tipper lowers again on its own		Problem with locked solenoid valve	Replace the solenoid valve		X
		Remote control circuit problem	If the problem no longer occurs when the remote control is disconnected, change the remote control		X
		Hydraulic leak	Check the hydraulic circuit components and replace the defective component		X
The tipper lowers very slowly		Polluted or used hydraulic oil	Change the oil and clean the hydraulic circuit		X
		Empty tipper is too light	Support the lowering of the tipper or ballast the ladder rack	X	
		Hydraulic flow rate too low in the three-way tipper limiter	Adjust the three-way tipper flow rate limiter		X

Symptom	Troubleshooting	Possible causes	Corrective action	User	JPM network
The hydraulic unit does not stop		Problem with a stuck relay	Turn off the circuit breaker (user) and change the relay (JPM network)		X
		Remote control circuit problem	Turn off the circuit breaker (user) and change the remote control circuit (cable and/or box) (JPM network)		X
Oil leaves the reservoir in the bottom position		Oil too full	Remove oil until the correct level is reached	X	
The rear door does not lock	The trigger hook does not lock the door	Mechanical offset of the hook	Adjust the eccentric in the axis of the trigger hook		X
The three-way tipper does not raise enough when side tipping		End of travel out of adjustment	Adjust the end of travel sensor		X
Three-way tipper spindles bent		Side tipping too great	Adjust the end of travel sensor		X

10. Technical characteristics (Tipper and Three-way Tipper)

10.1. Acoustic pressure level

The acoustic pressure level when the electrically driven pump unit of the tipper is activated is less than 70 dB.
If necessary, the user should wear ear protection suitable for the noise level caused by the materials loaded or unloaded, which could exceed the threshold of 70 dB.

10.2. Electromagnetic compatibility

All the devices that might emit electromagnetic waves (electrically driven pump unit, optional wireless remote control) are compliant with Directive 2014/30/EC or Regulation R10.

10.3. Tipping

Max. angle: about 48° (rear tipping)/about 45° (three-way tipper side tipping)
Tipping duration: between 20 and 45 seconds depending on tipper model
Max. operating pressure: 180 bars (rear tipper)/320 bars (three-way tipper)
Hydraulic oil: mineral type ISO 46 or equivalent or Bio Plantosyn or extreme cold special
Hydraulic oil volume:
- Rear Tipper Range 35 and 55: 6.5 litres
- Rear Tipper Range 75: 9 litres
- Three-way tipper: 3.5 litres
- Dual compass three-way tipper: 7 litres

Operating temperature: -20°C to + 70°C
Operating voltage: 12 or 24 Volts depending on the vehicle

Lubricant: Industrial, insoluble in water. Min. operating range -20°C to +70°C. Thermoplex Unil Opal, Supergrease 350 Unil Opal, or equivalent.

11. Contacts

11.1. Spare parts
Tel: +33 (0)565 69 24 70 Press 2
E-mail: pr@jpm-group.com

11.2. After-Sales Service/Guarantee
Tel: +33 (0)565 69 24 70 Press 3
E-mail: quality@jpm-group.com

CE CONFORMITY

JPM – ZA Merlin 12800 Naucelle (France), equipment manufacturer, declares under its exclusive responsibility that the equipment, the model and serial number of which is shown on the CE Declaration of Conformity, satisfies all the relevant provisions of the Machine Directive 2006/42/EC and Electromagnetic Compatibility 2014/30/EC as long as it is used in compliance with the instructions described in this instruction manual.

JPM – ZA Merlin 12800 Naucelle (France) is authorised to draw up a technical file.

The Assembly Centre declares that the equipment referenced on the CE Declaration of Conformity has been assembled on the vehicle referenced on the CE Declaration of Conformity.
The Assembly Centre declares that the equipment referenced on the CE Declaration of Conformity has been installed in compliance with the instructions of its manufacturer, the JPM assembly manual, the JPM final monitoring plan, and has not undergone any modification calling into question its conformity with the essential health and safety requirements described in Directive 2006/42/EC.

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Fax +33 (0)5 65 69 23 77

Maintenance table

CONTROL	DATE	KMS	JPM CENTRE	REMARKS

CONTROL	DATE	KMS	JPM CENTRE	REMARKS

CONTROL	DATE	KMS	JPM CENTRE	REMARKS

CONTROL	DATE	KMS	JPM CENTRE	REMARKS

CONTROL	DATE	KMS	JPM CENTRE	REMARKS

CONTROL	DATE	KMS	JPM CENTRE	REMARKS


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