Supplementary Owner's Handbook Vauxhall Movano 1-Way Tipper



Sept 2014 on





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Introduction

ABOUT THIS HANDBOOK

This supplementary owner's handbook must be referred to in addition to the standard Owner's Handbook. Read and understand both manuals and familiarise yourself with the vehicle before operating the vehicle on the road.

Note: This handbook only details the features on the Tipper that are not covered in the standard owners handbook, therefore it is imperative that this supplementary handbook is kept with the standard Owner's Handbook.

Note: Always use and operate your vehicle in line with all applicable laws and regulations.

Note: Pass on this handbook when selling your vehicle; it is an integral part of the vehicle.

SYMBOLS IN THIS HANDBOOK

WARNING



You risk death or serious injury to yourself and others if you do not follow the instructions highlighted by the warning symbol.



When you see this symbol, read and follow the relevant instructions in this handbook.

CAUTION



You risk damaging your vehicle if you do not follow the instructions highlighted by the caution symbol.

Introduction

PARTS AND ACCESSORIES

Spare parts and Accessories are available from: VFS (Southampton) Ltd, Unit 8, Barton Park Industrial Estate, Chickenhall Lane, Eastleigh SO50 6RR

Tel: 023 8065 1704 Fax: 023 8062 0999 Email: parts@vfs.co.uk

Detailed Spare Parts and Accessories can be found in the relevant section on-line at www.vfs.co.uk

WARRANTY

Full warranty exists on all parts and workmanship associated with the tipper body conversion for 3-years / 100,000 miles. Warranty is only valid if the Tipper is operated in accordance with the Supplementary Owner's Handbook and current Road Traffic Act Legislation.

Warranty claims for parts associated with the Tipper body conversion should be made direct to VFS Ltd.

VFS (Southampton) Ltd.

Unit 8 Barton Park Industrial Estate

Chickenhall lane

Eastleigh

Hants

SO50 6RR

Tel: 023 8065 1704

Fax: 023 8062 0999

Email: parts@vfs.co.uk

Introduction

SAFETY FIRST!

WARNING



Tipping is a potentially hazardous operation. It is essential that all operators fully understand the procedures detailed in this handbook and are aware of the Tipper controls on the vehicle. Health and Safety legislation must be strictly applied. UK Construction & Use Regulations must be observed when operating the vehicle on the public highway.

The basis for Health and Safety law in the UK is the Health and Safety at Work Act 1974 and its amendments. However certain EU Law is now applicable; all of which must be complied with before, during and after the use of this vehicle and the Tipper bodywork supplied with it. The Tipper bodywork supplied with this vehicle is recognised as a machine, therefore Health and Safety legislation applicable to machinery must be recognised in addition to general Health and Safety law.

It is the responsibility of the Driver, Owner and/or Operator to establish what Health and Safety legislation applies when using this vehicle and that only persons trained and qualified in line with that legislation be allowed to use this machine.

Depending on the circumstances and the territory that the vehicle is being used, other legislation may apply. Always check that existing legislation has not been updated or superseded, and whether new legislation has been introduced.

This quick start guide is intended to refresh operators of the control layout, operation and loading of the vehicle only after this handbook has been read and understood.

Tipper Controls and Layout

Isolation Switch - LHS of Tipper Subframe

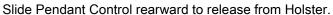
• Isolator Off Position



• Isolator On Position



Tipper Pendant Control – LHS of Passenger Seat





Press to Raise



Press to lower



Emergency stop

Press to engage



Rotate clockwise to release



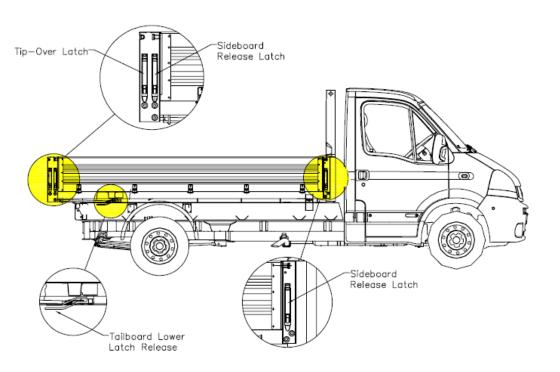
- The Emergency Stop Switch is located on the top of the Pendant Control.
- Press Emergency Stop Switch Button to cease all tipping functions.
- Rotate Button clockwise and allow button to spring out to re-set.

WARNINGS



Clear any danger before re-setting Emergency Stop

Controls Layout - Body



- Tip-Over Latch releases Tailboard for 'Tip-over' function.
- Tailboard Lower Latch Releases tailboard for 'Tip-through' function.
- Sideboard Release Latch releases Sideboard for loading and unloading.

WARNINGS



Close Boards and secure Latches and Release Levers before driving.

Loading the Tipper

WARNINGS



Ensure the load is uniformly distributed across the Tipper bed.



All loads must be secured and restrained before operating the vehicle on the public highway. Failure to adequately restrain the payload presents a hazard to other road users and is in contravention of the UK Construction and Use Regulations.



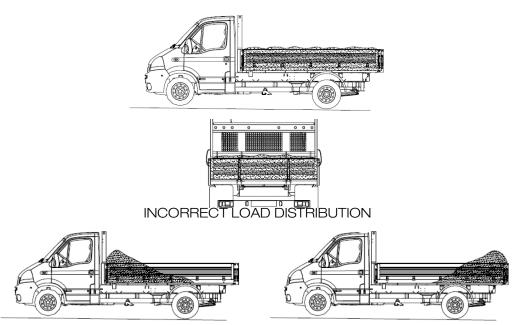
Do not exceed 50mph if any equipment or loads are placed on the headboard gantry. Maximum gantry load – 250Kg

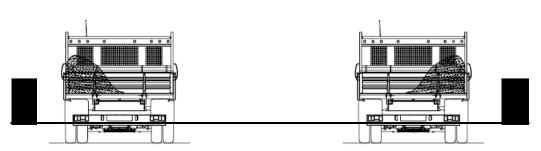


Do not overhang plank or sheet material forward of the headboard.

Load Distribution

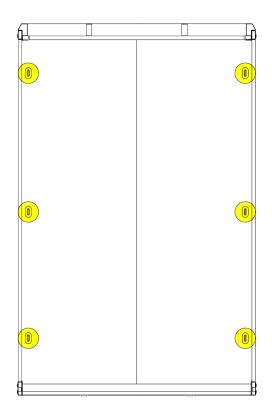






Load Retention - Load Anchorage Points

Used for non-fluid loads. Always ensure that all items are secured before attempting to drive the vehicle. Do not tip with the items lashed down to the anchorage points.



WARNING



Vehicle Mass (GVM) or individual front and rear axle capacities. Refer to the

Quick Start

Load Sheeting - Sheeting Hooks

It is recommended that all 'Fluid' loads such as Sand, Gravel, soil, wood chippings etc are sheeted for the benefit of other road users.

WARNING



Sheeting hooks and Gantry lashing eyes are rated at 25Kg maximum each. Do not use sheeting hooks to anchor loads.

Quick Start

Tailboard configuration

Dependent upon the type of load being tipped the dual mode tailboard can be configured to open in one of two ways:- establish correct mode before attempting to tip.

• Top Hinged (Tip-Thru) – best suited for 'Fluid' loads such as sand, gravel, crushed concrete, type 1, soil, wood shavings etc.



 Bottom Hinged (Tip-Over) – best suited for loads consisting of one or more large individual items for example logs, tree cuttings, white goods, furniture etc.



Quick Start

WARNINGS



Bottom Hinged mode - Always ensure sufficient clearance for the tailboard to hang without touching the ground, a minimum of 12" (300mm) is

recommended with the Tailboard in the lowered condition - body fully laden and in the lowered position.

If a tow bar has been fitted, ensure that the tailboard has been fitted with a protective guide (see Towing) to prevent it from jamming on the tow hitch. If a guide is not installed the tailboard may be damaged.



Bottom Hinged mode – Vehicle rear lights and hazard lights will be obscured, always deploy additional warnings to other road users and minimise the amount of time the board is lowered, return board to the shut position immediately after the tip is completed.

Quick Start

Tipping

Preparation:

- Apply handbrake and switch on hazard warning lights.
- Ensure the ground bearing the weight of the vehicle is level and is firm.

- Check that the area surrounding the vehicle is free from personnel, equipment and livestock, except for an assistant specifically tasked to guide you to the area where the load is to be tipped.
- Ensure the area surrounding the vehicle is suitably illuminated. (night operation)
- Check overhead clearance for overhead cables and power lines, abort tip or reposition vehicle if there are any overhead cables within the vicinity.

Operation:

To Raise:-

- Open the tailboard.
- Switch the Tipper Isolation Switch to the 'ON' position.
- Control the tip using the Hand Controller as described in the Tipper Controls section of this manual.
- Press the RAISE button to raise the body to the required height to either tip
 part or the entire load. Tipping can be stopped at any time by releasing the
 RAISE button. A sounder will be active when the RAISE button is pressed and
 throughout tipping operations and until body is lowered and stowed.

Quick Start

Tipping continued...

To lower:-

- Press the LOWER button to lower the body. Keep depressed until the warning sounder ceases
- Close the tailboard ensuring that it is securely locked.
- Switch the Tipper Isolation Switch to the 'OFF' position.

CAUTION



A warning triangle or similar devices are permitted to be placed in the road to warn of a temporary obstruction.

WARNINGS



Ensure Tailboard is closed and locked before driving the vehicle.

Never drive the vehicle with the Tailboard in the lowered position.

Vehicle side lamps must remain on during loading/unloading through the hours of darkness or poor visibility.



Tailboard in lowered position obscures vehicle rear lights.

Avoid lowering the tailboard when stationary on the Public Highway.

Temporary obscuration during loading/unloading is acceptable providing other road users are warned of an obstruction in the road by use of a Warning Triangle. Or a minimum of four traffic cones or pyramids.

Tipper Controls

Dual Mode Tailboard

Description:

The tailboard is designed to operate in two different configurations dependent upon the type of load, the configuration is determined by the operator prior to tipping. The following guidelines are to enable the operator to identify and apply the correct configuration before tipping.

Location:

The tailboard is mounted at the rear of the body, located by four latches/pivots. Two positioned on the upper edge of the board, and two located on the lower edge. The lower latch is remotely operated by a yellow handle mounted below the tipper bed to the offside rear, behind the rear wheel fender.

Purpose:

- To safely discharge the payload from the rear aperture of the body.
- To provide restraint for fluid loads only. All loose loads must be restrained
 using the load lashing rings provided. The tailboard is not designed to prevent
 un-restrained loads from penetrating or bursting the tailboard.

Tipper Controls

Dual Mode Tailboard continued...

Top-Hinged or Tip-Thru: Recommended for 'Fluid' loads:

- Sand.
- Gravel



- Crushed concrete
- Type 1
- Dry topsoil
- Wood shavings

Bottom-Hinged or Tip-Over: Recommended for loads consisting of one or more large individual items:-

- Logs
- Tree cuttings
- Clay.
- White goods
- Furniture



NB: If in doubt, always use the Tip-over mode.

Tipper Controls

WARNINGS



Top Hinged / Tip-thru mode:

If the load begins to jam or choke in the rear aperture created by the tailboard hinging from the top, lower the body fully and clear the obstruction. Do not continue to tip when a jam occurs.



Bottom Hinged / Tip-over mode:

Always ensure that there is sufficient clearance for the tailboard to hang without touching the ground, a minimum of 12" (300mm) is recommended with the Tailboard in the lowered condition – body fully laden and in the lowered position.

If a tow bar has been fitted, ensure that the tailboard has been fitted with a protective guide (see Towing) to prevent it from jamming on the tow hitch. If a guide is not installed the tailboard may be damaged.

Tipper Controls

Dual Mode Tailboard continued...

Use: Tip-Thru mode: -

To open tailboard:

 Locate the yellow remote operating handle and pull outward and forwards in an arc until it stops.





To close tailboard:

- Brush down the lower edge and outer vertical edges of the body to ensure the tailboard can close without jamming.
- Push the tailboard closed.
- Holding the tailboard closed with one hand, return the remote release lever to the shut position.



• Check the lower remote release handle Is locked and the tailboard is secure.

Tipper Controls

Dual Mode Tailboard continued...

Use: Tip-over mode:

To open tailboard:

 Hold the top of the tailboard with one hand, with the other hand use an index



- finger or forefinger to release the latch, by first pulling up to approximately 90 degrees from the vertical.
- Using the palm of your hand push up on the handle until it is almost vertical and the latch is released.
- Repeat the action for the other latch.
 Maintain pressure on the tailboard until it is safe to lower gently.

To close tailboard:

- Brush away debris from the tailboard, specifically the edges and two upper latch pins. Clear the vertical edges of the body corner and horizontal rear edge of the tipper bed.
- Grab the lower edge of the tailboard with both hands and rotate upwards to its closed position.

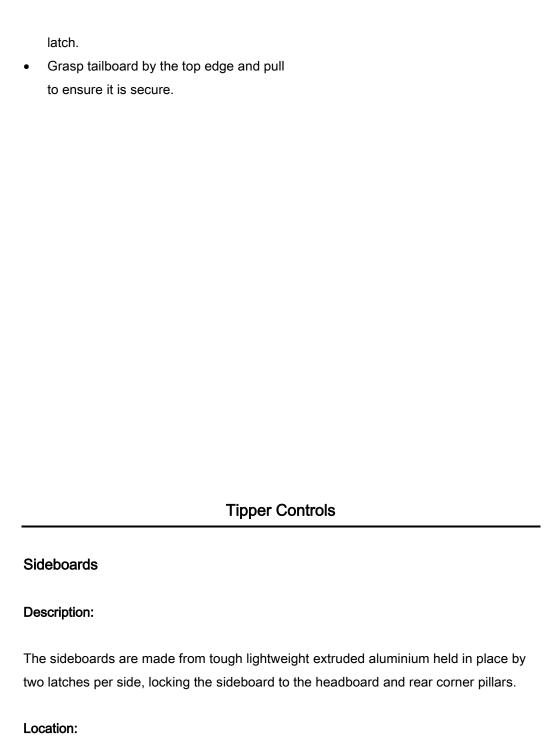


Tipper Controls

Dual Mode Tailboard continued...

 Return the latches to their closed position by pushing down on the handle with the palm of one hand and supporting the the tailboard with the other. Maintaining pressure on the tailboard repeat for 2nd





Near and offside of vehicle.

Purpose:

To provide restraint for fluid loads only. All loose loads should be restrained using the load lashing rings provided. The sideboards are not designed to prevent un-restrained loose loads from penetrating or bursting the sideboards.

Use:

Sideboards can be lowered to aid the manual or mechanical loading / unloading of non-fluid material.

To open sideboard:

Remove sheeting if the load is sheeted remove or tie-off tarpaulin safely. Visually check that the load is not exerting a force on the sideboard.

Tipper Controls

Sideboards continued...

Release the front latch by pulling handle up and pushing up to the vertical.
 Release the rear latch whilst holding the top of the sideboard with one hand, and releasing latch with the other hand.





• Maintain pressure on the sideboard until it is safe to lower gently.





Tipper Controls

Sideboards continued...

To close sideboard:

- Brush away all debris between the sideboard and the edge of the Tipper bed, including the vertical faces at the headboard and rear corner pillar.
 If any resistance to closing the board is felt, lower the board and remove the debris – do not force it closed.
- Lift the sideboard and rotate it until shut, holding the top of the board with

one hand, grasp one latch in the palm of the hand and push the latch handle home. Repeat for other latch.

Grasp sideboard by the top edge and pull to ensure the sideboard is secure.





Tipper Controls

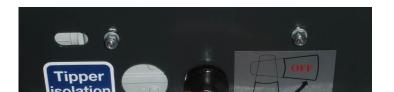
Isolation Switch

Description:

The Tipper Isolation Switch provides Electrical isolation to both the electric and hydraulic systems found on the tipper.

Location:

The switch is located on the left hand side of the Tipper Subframe.



Purpose:

To safely isolate the Tipper electric and hydraulic systems from the vehicle when the tipper is not in use.

Use:

 The isolation switch must be set to 'OFF' when performing any maintenance tasks with the bed raised and propped.

WARNING



Do not drive the vehicle with the Tipper Isolation Switch in the 'ON' position

Tipper Controls

Tipper Pendant controller

Description:

A Hand Controller with single rocker switch and Emergency stop button which allows control of the raise/lower function of the body is attached to vehicle via an expanding coiled Wanderlead.

Location:

The Tipper Hand Control is located on the side of the passenger seat in a dedicated holster accessed from the passenger door area.

Purpose:

The Tipper Hand Control enables the operator to raise and lower the tipper bed.

Use:

The Tipper Hand Control can be operated from the passenger door area adjacent to the passenger seat.

To perform tipping operations ensure handbrake is applied, transmission is in neutral and engine is running. Tipping will not proceed without engine running.

Tipper Controls

Tipper Pendant controller continued...

To Raise Body...

Release tailboard.

Switch Isolation Switch to ON position

Press RAISE button on Pendant Control.

Release RAISE button at any time to cease raising

Continue pressing RAISE until body is fully raised

To lower body
Press LOWER button on Pendant Control
Body lowers with external sounder operating.
Release LOWER button at any time to cease lowering.
Continue pressing LOWER until body is fully lowered.
Keep button pressed for 5 seconds to purge system of hydraulic pressure.
Check body is fully stowed
Emergency Stop
At any time, pressing the Emergency Stop Button can cease all Tipper functions.
Ensure it is safe to proceed and release emergency stop button by twisting it
clockwise.
Tipper Controls
Emergency Stop Switch
Description:
The Emergency Stop Switch ceases all Tipper operations.

The Emergency Stop Switch is located on the top of the Tipper Pendant Control.

Release RAISE button when body is fully raised.

Location:

Purpose:

In emergency situations when the switch is activated all Tipper functions cease,
until the switch is reset.
To Activate:
Press in with finger or palm of hand.
To Release:
Rotate clockwise and allow button to spring out.
Tipper Controls
Tipper Controls
Tipper Controls Warning Sounder
Warning Sounder
Warning Sounder Description:
Warning Sounder
Warning Sounder Description: The Warning Sounder indicates when the Tipper is in use.
Warning Sounder Description:
Warning Sounder Description: The Warning Sounder indicates when the Tipper is in use.
Warning Sounder Description: The Warning Sounder indicates when the Tipper is in use. Location:
Warning Sounder Description: The Warning Sounder indicates when the Tipper is in use. Location:

The Warning Sounder, indicates when the tipping operation has commenced and the body has been raised or is being lowered.

Use:

The Warning Sounder functions automatically.

If the Warning Sounder does not operate during normal tipping functions, stop immediately and refer to the fault diagnosis section.

Tipper Controls

Body Prop

WARNING



Never Stand or Work underneath an un-propped body.

Description:

A body prop is a safety device that is provided to ensure the safety of personnel carrying out routine checks and maintenance of components and structures underneath the body.

Location:

The body prop is an integral part of the subframe and is stowed on the

outside of the offside subframe.

Purpose:

To provide a safe means to mechanically support the body in a raised position.

Use:

Whenever there is a requirement to work or stand underneath the body.

WARNING



Do not leave the vehicle with the body raised and propped for any length of time. The protective oil film on the ram will evaporate, drain away or be washed away. Corrosive elements may erode the highly finished surface of the ram, which in turn could lead to damage of the ram seals, resulting in potential oil leaks.

Tipper Controls

Body Prop continued...

How to deploy the Body Prop:

- Park the vehicle on a firm level surface and apply the handbrake.
- Raise the Tipper bed.

- Raise the body prop by pulling up on the handle.
- Rotate the body prop past the

vertical until it stops.



- Lower the body until it rests on the prop.
- Turn the Tipper Isolation
 Switch to the 'OFF' position.
- Remove the keys from the vehicle ignition.



Load Carrying

General Information

WARNING



All loads must be secured and restrained before operation on the public highway. Failure to adequately restrain the payload will present a hazard to other road users and is in contravention of the UK Construction and Use Regulations.

The Tipper is designed to carry bulk loads of which there are two distinct types:

'Fluid' Bulk loads are loads that act similar to a fluid once in motion, for example:

• Sand, Gravel, Type 1 Aggregate, Hardcore, Topsoil, Wood Chippings.

Non-Fluid Bulk loads, for example:

Palletised or wrapped building materials (bricks, tiles, thermal blocks), Timber,
 Sheet material (plywood, plasterboard etc. Machinery, White goods, Furniture.

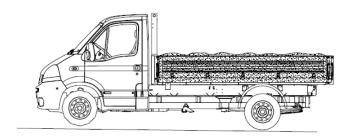
Loading

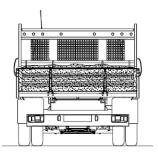
- Prior to loading ensure that the Tipper is fully lowered.
- Check that the sideboards and tailboard are closed and securely latched.
- Avoid dropping large items such as rocks, demolition debris etc.
- Ensure that the load is uniformly distributed across the Tipper bed.
- Do not overhang plank or sheet material forward of the headboard.

Load Carrying

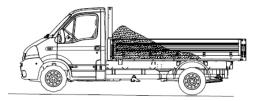
Load Distribution

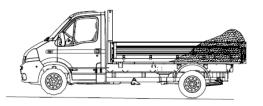
CORRECT LOAD DISTRIBUTION

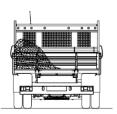


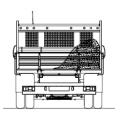


INCORRECT LOAD DISTRIBUTION









Load Carrying

Load Retention and Sheeting

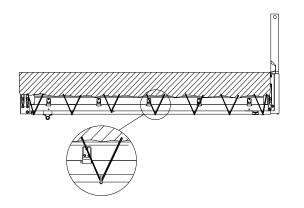
The method of load retention will depend on the type of load being carried: -

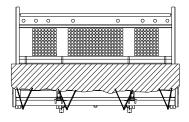
Fluid loads:

Sheeting the load with a high strength waterproof Tarpaulin is the best form of retention especially for a dry powdery load. This will prevent the load being blown from the vehicle and prevent the load becoming waterlogged and thereby potentially overloading the vehicle.

The body is supplied with roping points at the end of each body cross-bearer under the floor. These should be used to tie off any Tarpaulins that envelope the body sides.

Once fitted, the Tarpaulin should be restrained by high quality nylon rope, (minimum 12mm Diameter) specifically designed for Commercial Vehicle use.





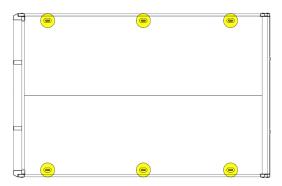
Load Carrying

Load Distribution continued...

Non-fluid loads:

All non-fluid loads must be suitably restrained using the load lashing points provided on the tipper floor. Loose loads must not be allowed to shift or roll around in the rear of the vehicle, presenting in some instances, extreme impact forces to the bodysides, tailboard and headboard, generated by cornering, braking and acceleration forces. If the load is to be tipped rather than removed mechanically or manually, the lashing must be removed immediately prior to the tipping operation.

Good quality ratchet straps or approved nylon rope should be used. For cylindrical loads or awkward shaped loads, it is imperative to chock the load with timber to enable the straps or rope to work effectively.



Load Lashing Points on Tipper Floor

WARNING



Do not exceed the maximum front and rear axle loads for your vehicle. Refer to the Vehicle identification section in the Owner's Handbook.

Tipping - General Practice

WARNING



Tipping is a potentially hazardous operation. It is essential that all operators fully understand the procedures detailed in this handbook and are aware of the Tipper controls on the vehicle. Health and Safety legislation must be strictly applied. UK Construction & Use Regulations must be observed when operating the vehicle on the public highway.

Common Procedures for Tipping:

The following procedures must be observed before, during and after the Tipping operation.

Before Tipping: -

- Apply handbrake.
- Switch on hazard warning lights.
- Establish that the ground bearing the weight of the vehicle is level and is firm
 enough to support the weight of the vehicle. (Maximum gradient 5%). Avoid wet
 or waterlogged clay, soil or sandy terrains. If available, have someone direct you to
 the required position taking the precautions identified above.
- Check that the area surrounding the vehicle is free from personnel, equipment and livestock, except for an assistant specifically tasked to guide you to the area where the load is to be tipped. Health and Safety (Safety Signs & Signals Regulations 1996) guidelines on verbal or hand communication must be observed.

Common Procedures for Tipping continued...

- Ensure the area surrounding the vehicle is suitably illuminated. (night operation)
- Check overhead clearance for overhead cables and power lines, abort tip or reposition vehicle if there are any overhead cables within the vicinity.
- If the load is sheeted, loosen the sheeting; roll back to the headboard and tie-off.
- Remove load restraints if fitted.
- Now continue with the tipping operation.

During the Tipping operation: -

- Be vigilant and observe the operation closely.
- Never try to shake a stuck load free, lower body fully to manually remove all or part
 of the load. Do not restart tipping until all personnel are clear from the vehicle.

After the load has been Tipped: -

- Clean the tipper bed with a broom to clear the floor of debris maintaining the smooth surface, essential in allowing the load to slip when tipping.
- Brush off the body edges and generally clean around the bodyside and / or tailboard apertures to ensure the side and tailboard can be closed without jamming.
- If used on muddy/dirty sites, always wash down wheels, rear tail-lights, license
 plate and lamps before joining the public highway. A potential traffic offence will be
 created it the vehicle is driven with obscured lights or license plate.
- Perform a visual check for damage.
- Re-apply sheeting (if fitted) or fold, roll and store until required.
- Switch off hazard warning lights.

Tipping Load

Method:

- Reverse vehicle to the position where you want to tip the load.
- Establish which tailboard mode will be used, refer to the Controls section of this handbook, ensure there is no load pressing against the tailboard.

Tip-Over or Bottom Hinged mode: -

- Hold the top of the tailboard with one hand, with the other hand use an index finger or forefinger to release the latch, by first pulling up to approximately 90 degrees from the vertical.
- Using the palm of your hand push up on the handle until it is almost vertical and the latch is released.
- Repeat the action for the other latch.
 Maintain pressure on the tailboard until it is safe to lower gently.





Tipping Load continued...

Tip-Thru or Top Hinged mode: -

• Release the lower latch lever by pulling out and towards the front of the vehicle.





 Close by pushing the lever rearwards whilst holding the Tailboard fully closed.



WARNING



Do not open the lower tailboard latch and the upper tailboard latches at the same time. The tailboard will fall away from the rear of the vehicle causing possible injury. Use only the appropriate latch for the tailboard mode required.

Tipping continued...

- Switch the Isolation Switch to the 'ON' position.
- Control the tip using the Tipper Hand Control as described in the controls section
 of this manual.
- Ideally a visible assistant should be made available to indicate progress of the load being tipped.
- Raise the body to the required height to either tip part or the entire load. The
 RAISE button should be released when the ram is fully extended. The tipping can
 be stopped at any time by releasing the RAISE button. A buzzer will sound all the
 time that the body is raised.
- Lower the body until the warning sounder ceases.
- If the tip-thru function has been used it is essential that the lower latch jaws are brushed clean to ensure that the latch doesn't become jammed open by debris.
- Close the tailboard observing the precautions outlined in the 'Controls' section,
 ensuring that it is securely locked. Use a combination of a visual check around the
 lower latch jaws if the tip-thru mode has been used, and a physical tug on the
 tailboard to check that they are fully home and locked. Ensure the tailboard release
 handles are in the locked position.

Before driving the vehicle, ensure: -

- The Isolation Switch is 'OFF'.
- The body is fully lowered.
- · Check the tailboard is securely latched.
- Ensure the rear cross-member, tail-lights, and registration plate are cleared of any tipped material.
- Ensure that all precautions detailed in 'Controls' are observed.

Driver Checks and Maintenance Items:

CAUTION



It is imperative that the recommended Driver Checks and Maintenance be carried out to ensure the safe and efficient operation of the Tipper.

WARNING



Any maintenance carried out under the load bed must only be performed when the body is securely propped. Refer to the section Tipper Controls – Body Prop.

Only competent technical trained personnel should carry out maintenance involving adjustment or replacement of operating devices on this Tipper.

The driver, regardless of ownership of the vehicle must perform the following checks and vehicle maintenance. If the driver does not own the vehicle, the owner of the vehicle must satisfy himself or herself that the driver to whom the vehicle has been allocated will carry out these essential checks. The driver must be made aware of their responsibilities to read and understand the Supplementary Tipper Handbook and carry out the essential Maintenance Checks in line with the maintenance procedure in this section.

Daily Driver Checks:

- Check the Instruction Manual is complete and located in a safe position within the cab.
- Check the tipper load deck for damage, clean and remove any material that
 has stuck to it, ensure the surface is smooth and free from debris that may
 snag loads.
- Check the security of all side and tailboard latches.
- Check the tailboard lower latch mechanism is free from debris and functions correctly.
- Check the rear lights and license plate to ensure any site debris or mud thrown up from the rear wheels has not obscured them.

Monthly Maintenance Checks:

- · Check operation of warning sounder.
- Check the hydraulic lines for signs of fluid leaks.
- Check all safety signs are present, and ensure they are legible and not damaged. (Refer to Spare Parts and Accessories catalogue at www.vfs.co.uk for details)
- Inspect and grease tailboard & sideboard latches with general-purpose grease.
- Inspect tailboard lower latch mechanism and apply general-purpose grease to all mechanism linkage pivot points, including remote operating (yellow) handle bearing
- Ensure the tailboard can close securely without free-play.

Annual Maintenance Checks:

In addition to the Monthly Maintenance, the items detailed below should be checked and adjusted as necessary.

- Check the hydraulic reservoir oil level and top up if required with hydraulic oil ISO 32.
- Check the tailboard lower latch mechanism and adjust if necessary.
- Check the 'body stowed' switch.
- Check all electrical cables and ensure that no chaffing has occurred.
- · Check the Tipper subframe to chassis fixings.
- Check the rear corner pillar fixings.
- Check the headboard securing fixings.
- Check the fender mounting bracket fixings.
- Inspect the Tipper deck / subframe and associated components for damage.
 Replace or repair locally to maintain Tipper functionality and roadworthiness.

Description	Torque Value	
Description	(Nm)	
Tipper sub-frame to vehicle chassis fixings.	45	
Rear corner pillar mounting fixings.	125	
Headboard securing fixings.	25	
Fender mounting bracket fixings.	25	
Side marker lamp mounting bracket fixings (Double Cab only).	25	

Checking the Hydraulic Oil Level

WARNING



Ensure body prop is correctly deployed before attempting to check the hydraulic reservoir oil level.

- Park the vehicle on a firm level surface and apply the handbrake.
- Raise the Tipper bed.
- Raise the Body Prop by pulling up on the handle.
- Rotate the Body Prop past the vertical until it stops.
- Lower the body until it stops. Body Prop should be in location cup under bed floor.
- Turn the Tipper Isolation Switch to the 'OFF' position.
- Remove the keys from the vehicle ignition.
- Visually check the oil level against the Hydraulic Oil Level decal, or unscrew
 the oil filler cap and check the oil level on the integral dipstick and if required
 top up with hydraulic oil ISO 32.
- Replace the oil filler cap and lower the Tipper bed.





CAUTION



Do not top up further than the MAX mark.

Fuses

Fuses and Fuse Locations

The Tipper electrical system is protected by 3 fuses.

Primary Fuse:

The primary fuse is located inside the battery Compartment. This fuse is a 150A mega type.

Control Circuit Fuses:

The control circuits are protected by two fuses, 5 Amp and 15Amp. Both are located in an enclosure mounted on the LH Tipper Subframe.

WARNING



Do not modify the electrical system of your vehicle in any way. Have repairs to the electrical system and the replacement of fuses carried out by properly trained technicians.



Switch ignition and all electrical equipment off before attempting to change a fuse.

CAUTION



Only fit a replacement fuse with the same rating as the fuse removed.

Vehicle Care

Cleaning the Exterior

Regular cleaning of the tipper will maintain the smooth surface essential in allowing the load to slip when tipping. Brush the tipper bed with a broom to clear the floor of debris and brush off the body edges and generally clean around the bodyside and / or tailboard apertures to ensure the side and tailboard can be closed without jamming. If the vehicle has been used on muddy/dirty sites, always wash down the wheels, rear tail-lights, license plate and lamps.

WARNING



If the Tipper has been used to transport corrosive material, e.g. road salt. The Tipper bed and vehicle should be washed as soon as possible, thereby preventing any potential corrosion.

CAUTION



The use of a high-pressure washer could cause damage to certain parts of vour vehicle.

Vehicle Care

Repairing Minor Paint Damage

CAUTION



Remove apparently harmless looking substances from the paintwork immediately (e.g. bird droppings, tree resins, insect remains, tar spots, road salt and industrial fall out).

You should repair paintwork damage caused by stones from the road or minor scratches as soon as possible. A choice of products are available from your Dealer. Read and follow the manufacturer's instructions.

Towing

WARNING



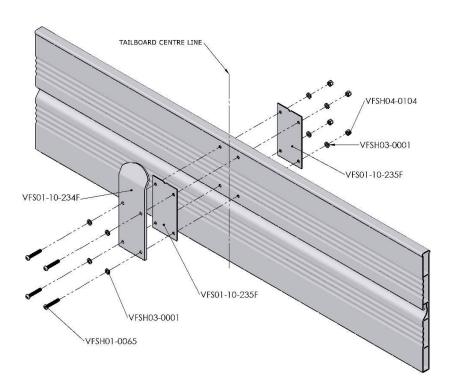
Do not exceed the maximum vehicle and trailer weight stated on the vehicle identification plate. Refer to the Vehicle identification section in the Owner's Handbook

CAUTION



If a tow bar has been fitted ensure that the tailboard has been installed with a protective guide to prevent it from jamming on the tow bar/ball/clevis.

Tailboard Protection Plate Assembly Guide



Fault Finding

	Problem	Possible Causes		Corrective Action
1.	The Tipper fails to	a)	Chassis mounted isolation	Switch ON isolation switch.
	operate.		switch, switched OFF.	
		b)	No electrical power (1).	Check fuse in Battery
				Compartment (150A).
		c)	No electrical power (2).	Check the Tipper Control
				fuses 05.0A and 10.0A in
				subframe enclosure.
		d)	No electrical power (3).	Check all electrical
				connections and cables.
		e)	Insufficient hydraulic oil in	Fill the reservoir to the
			the reservoir.	correct level.
		f)	Electric drive motor	Replace the drive
			defective.	motor/pump unit.
2.	The electric drive	a)	Tipper overloaded.	Reduce load.
	motor runs but the	b)	Hydraulic pump defective.	Replace the drive
	Tipper fails to rise.			motor/pump unit.
3.	Hydraulic oil	a)	Reservoir over filled.	Fill reservoir to the correct
	sprays from the			level.
	reservoir when the	b)	Reservoir punctured.	Replace reservoir.
	Tipper is lowered.			
4.	Chassis mounted	a)	Buzzer defective.	Replace buzzer.
	buzzer fails to	b)	No electrical power.	See items a - d in 1 above.
	operate.			
5.	The Tipper lowers	a)	Defective non-return valve.	Replace non-return valve.
	when the	b)	Defective pressure release	Replace pressure release
	hydraulic pump		valve.	valve.
	stops.	c)	Hydraulic oil leak.	Inspect hydraulic system,
				replace parts as required.

Fault Finding

	Problem		Possible Causes	Corrective Action
6.	Tipper only rises	a)	Vehicle not on level ground.	Tip when the Tipper is on
	partially.			level ground.
			Tipper loaded unevenly.	Redistribute the load.
		b)	Insufficient oil in the	Fill reservoir to the correct
		c)	reservoir.	level.
				Replace pressure relief
		d)	Pressure relief valve	valve.
			defective.	
7.	Tipper fails to	a)	Solenoid defective.	Replace solenoid.
	lower.	b)	Solenoid valve defective.	Replace solenoid valve.
		c)	Body fully lowered switch	Replace switch.
			defective.	

Lighting

Changing a Bulb

WARNING



Switch the lights and the ignition off.



Let the bulb cool down before removing it.

CAUTION



Only fit bulbs of the correct specification.

End Outline Marker Lamp (If Fitted):

- · Carefully prise the lens from the holder.
- Gently press the bulb into the bulb holder, turn it anti-clockwise and remove.
- Replacement bulb type: BA15s 12V 5W

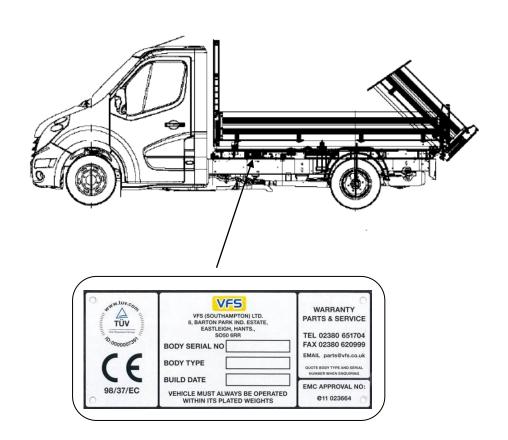
Side Marker Lamp (Double Cab Only):

- Disconnect the electrical connector.
- Turn the bulb holder anti-clockwise and remove it.
- Remove the bulb.
- Replacement bulb type: W2.1 x 9.5d 12V 5W

Vehicle Identification

Tipper Body Type and Serial Number:

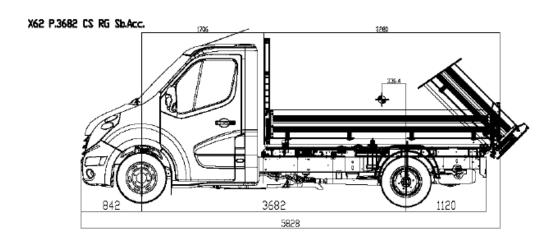
The Tipper Body Type and Serial Number information is stamped on the Tipper ID plate, this is riveted to the left hand side subframe member.

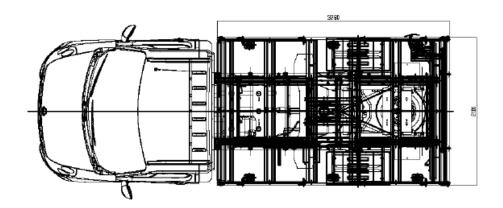


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Vehicle Dimensions:

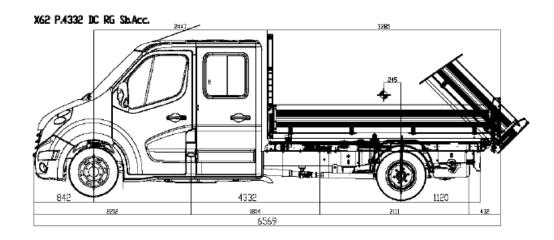
Medium Wheelbase Single Cab

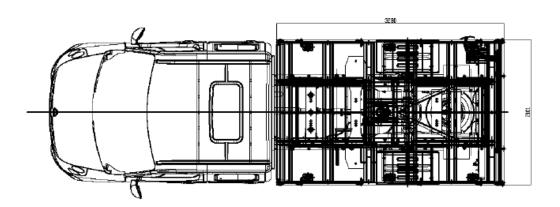




Vehicle Dimensions:

Long Wheelbase Double Cab

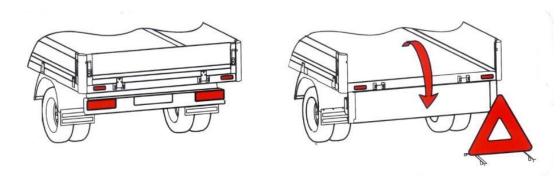




Warning Triangle

Reflective Warning Triangle:

You should be aware that in reduced daylight when the tailboard is lowered, your rear lights may be obscured. A Reflective Warning Triangle should be positioned to warn other road users of your presence.



The Reflective Warning Triangle should be used in accordance with the Highway Code.