



1-WAY TIPPER

Instruction Manual

Revision 1.0 Nov 2003

Models Covered: Transit 350M & 350L Double Cab

Body Types: UK84RP005 & UK84RP004
Nov 2003 - on



This manual to remain with
the vehicle at all times.



Read and understand this
manual before attempting
to operate the Tipper.



Contents	Page
Preface	3
Safety First	4
Loading the Tipper	5
Load Retention and Sheeting	6
Controls	8
Tipping - General	30
Tipping	32
Driver Checks, Maintenance and Servicing	35
Fault Finding	37

Records of Repair and Servicing	39
Wiring Diagram	41
Spare Parts List	42
CE Certificate	51

Preface

This Tipper Instruction Manual will familiarise you with the handling of the vehicle and provide details on safe every day operating procedures, advice and general care.

Regular inspection and servicing of the Tipper is mandatory to ensure its roadworthiness, safety and resale value. This manual is essential daily reference material and should be kept safe and with the vehicle at all times.

Warranty:

Full warranty for parts and workmanship for one year from date of vehicle registration, on all parts associated with the Tipper body conversion. Warranty is only valid if the Tipper is operated in accordance with the Instruction Manual and current Road Traffic Act Legislation.



Pass on this instruction manual when you resell the vehicle. It is an integral part of the vehicle.

Safety First!**WARNING**

Tipping is a potentially hazardous operation. It is essential that all Operators fully understand this Manual and the Controls found on the vehicle before attempting to use this vehicle. All 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.

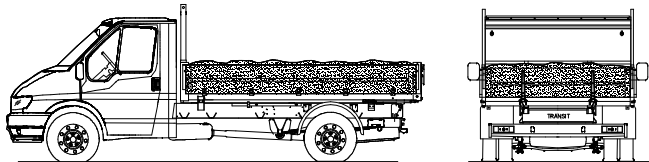
It is the responsibility of the Driver, Owner and/or Operator to establish what Health and Safety legislation applies when using this vehicle and that only persons trained and qualified in line with that legislation be allowed to use this machine.

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.

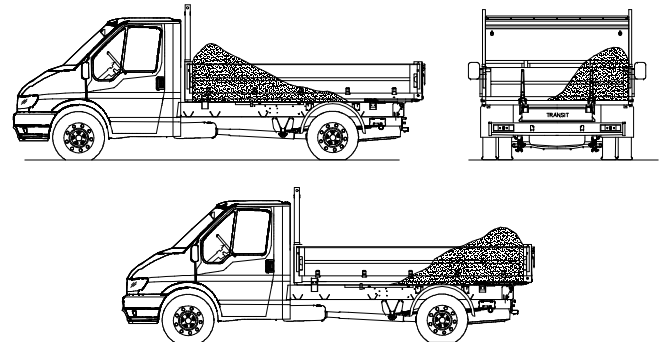
Loading the Tipper

- Prior to loading ensure that the Tipper is fully lowered.
- Ensure that the sideboards and tailboard are closed and securely latched.
- To prevent unnecessary damage always load bulk materials e.g. sand ballast etc. from the lowest practical height.
- Avoid dropping large items such as rocks, demolition debris etc. onto the Tipper bed.
- Ensure that the load is uniformly distributed across the Tipper bed.

CORRECT LOAD DISTRIBUTION



INCORRECT LOAD DISTRIBUTION





ROAD SAFETY

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
 - Hardcore
 - Topsoil
 - Wood chippings
- Non-Fluid Bulk loads, for example:
 - Palletised or wrapped building materials (bricks, tiles, thermal blocks)
 - Timber
 - Sheet material (plywood, plasterboard, roofing sheets etc.)
 - Machinery
 - White goods
 - Furniture

Load retention and sheeting continued

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.

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.

Tipper Isolation Switch

Description:

The Tipper Isolation Switch provides electrical isolation to both the electric and hydraulic systems found on the tipper, for maintenance purposes.

Location:

The switch is located on the offside subframe behind the cab.

Purpose:

To safely isolate the tipper electric and hydraulic systems.

Use:

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



Emergency Stop Switch

Description:

The Emergency Stop Switch ceases all Tipper operations and activates an audible alarm. The Tipper Control Panel displays "Emergency Stop Activated".

Location:

The Emergency Stop Switch is located directly below the vehicle light switch (see photo).

Purpose:

In emergency situations when the switch is activated all Tipper functions cease, until the switch is released.

To Activate:

Press in with finger or palm of hand.

To Release:

Rotate clockwise and allow button to spring out.



Tipper Control

Description:

A four button switch and display panel, which allows control of the raise/lower function of the body and will automatically mute the radio cassette/CD player when switched on.

Location:

The Tipper Control Panel is housed centrally on the dashboard above the radio cassette/CD player.

Purpose:

The Tipper Control Panel enables the operator to raise and lower the tipper bed in a controlled and instructed sequence.

Use:

The Tipper Control Panel can be operated/read from either the driver or passenger seat. To perform tipping operations follow the instructions below:



1 *Action* Park vehicle and apply handbrake.

Action Check isolation switch is set to 'ON' position.

Action Proceed to 2.

Tipper Control continued

- 2** *Action* Switch on Tipper Control Unit, message will display...

HAVE YOU READ AND UNDERSTOOD THE INSTRUCTION MANUAL	
NO	YES

Action If you have read and understood the manual, press YES and proceed to 4.

Action If you have not read and understood the manual, press NO.

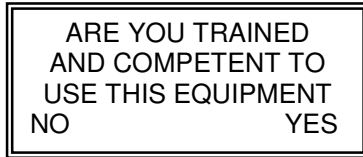
- 3** *Action* If you pressed NO after question 2, message will display...

REFER TO MANUAL BEFORE PROCEEDING

Result After 10 seconds unit will turn off.

Tipper Control continued

- 4** *Action* If you have answered YES at 2, message will display...



Action If you are trained and competent press YES.

Action If you have not read and understood the manual, press NO.

- 5** *Action* If you answered YES to question 4 message will read...



Tipper Control continued

- 6** *Action* If you pressed NO after question 4, message will read...

ENSURE YOU ARE TRAINED
IN THE USE OF THIS
EQUIPMENT

Result After 10 seconds unit will turn off.

- 7** *Action* If you release the handbrake after answering 'YES' to questions 2 & 4 warning will sound and message will read...

APPLY HANDBRAKE

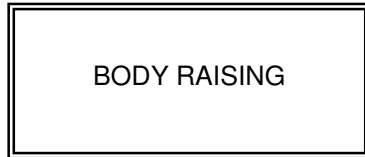
Action Re-apply handbrake.

Tipper Control continued

8 To Raise Body with Normal Sounder Operation...

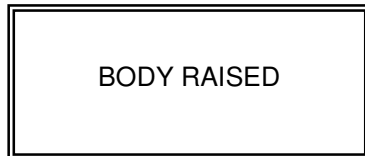
Action Release tailboard.

Action Press RAISE to raise body.



Result Body raises with both cab and external sounders operating and display will read as shown.

9 Action Release RAISE button at any time whilst body raising, message will read...



Result Body will cease rising awaiting next instruction.

Tipper Control continued

10 *Action* Continue pressing RAISE until body fully raised. Message will read...

BODY FULLY RAISED

Action Release RAISE button.

11 **To Raise Body with Muted Sounder Operation...**

Action Switch ON and confirm YES to questions 2 & 4. Press YES once again for MUTE operation.

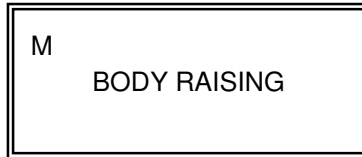
M READY
RELEASE TAILBOARD
BEFORE TIPPING

Muted operation

Result Display shows M for mute and display reads as above.

Tipper Control continued

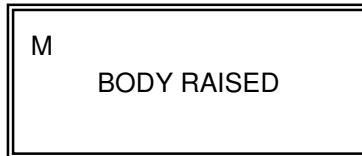
12 *Action* Press RAISE, to raise body. Display will read...



Muted operation

Result Body raises with sounder muted.

13 *Action* Release RAISE button at any time whilst raising body, message will display...



Muted operation

Result Body will stop rising.

Tipper Control continued

14 *Action* Continue pressing RAISE until body fully raised. Message will read...

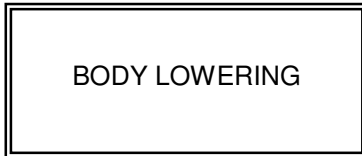


Muted operation

Action Release RAISE button.

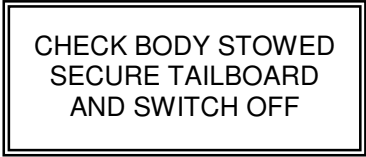
15 **To lower body...**

Action Press LOWER and keep button depressed until sounder ceases and flashing LED stops. Message will read...



Tipper Control continued

- 15** *Cont...* When body is completely lowered, message will read...



CHECK BODY STOWED
SECURE TAILBOARD
AND SWITCH OFF

Message displays for 60 seconds, auto shut down then takes place.

16 **Emergency Stop...**

Action At any time, all functions can be ceased by pressing Emergency Stop Button. A warning will be sounded and display will read...



EMERGENCY STOP
ACTIVATED

Action Ensure it is safe to proceed and release emergency stop button by twisting it clockwise.

Warning LED and Buzzers

Description:

A warning LED indicates when raising or lowering body.

Warning buzzers indicate when handbrake is not applied, emergency stop switch is activated and when raising or lowering body.

Location:

Warning LED is located in Tipper Control Panel, left hand side.

Warning buzzers are located in Tipper Control Panel and on Tipper subframe.

Purpose:

To give warning that the tipping operation has commenced and the body is raising or lowering. In addition it indicates if the handbrake is not applied or the Emergency Stop is activated.

Use:

The warning devices function automatically, the external buzzer can be muted by the operator. If a warning device fails to operate, stop immediately and refer to fault diagnosis section.



Body Prop



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. The weight of the body is held mechanically rather than relying on the hydraulic system.

Location:

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

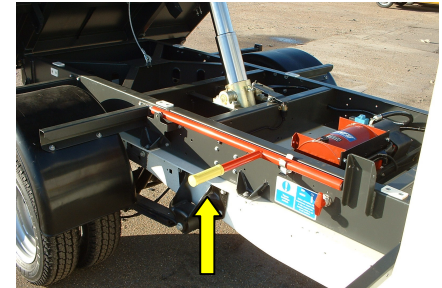
Purpose:

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

Use:

When to deploy the body prop:

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



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 stops.
- Ensure the body prop located in the socket.
- Turn the tipper isolation switch to the 'OFF' position.
- Remove the keys from the vehicle ignition.

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.



Dual mode Tailboard: Tip-thru/Tip-over (Top and Bottom Hinged)



HAZARD

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.



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



SHUT TAILBOARD

Ensure Tailboard is closed and locked before driving the vehicle.
Never drive the vehicle with the Tailboard in the lowered position.
Vehicle side lights must remain on during loading/unloading through the hours of darkness or poor visibility.

It is acceptable to obscure the rear lights temporarily with the vehicle parked, during loading/unloading. However, you must take steps to warn other road users of the vehicle obstruction by using at least one of the following: -

- Warning Triangle - supplied with vehicle.
- Minimum four cones or pyramids.
- Minimum four flat traffic delineators.
- Road vehicle sign (large yellow sheet with a red triangle).

Dual mode Tailboard continued

Description:

The tailboard is designed to operate in two different configurations dependant 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.

Tip-Thru:

Typical loads that can be used with this configuration more efficiently

- Dry sand.
- Gravel up to 20mm grade.
- Dry topsoil.

Tip-Over:

Typical loads that must be used with this configuration

- Damp or wet sand.
- Damp or wet topsoil.
- Clay.
- Type 1 aggregate.
- Wood chippings.
- Large bulk items such as domestic goods when used for house clearance work.
- Logs.

If in doubt, always use the tip-over mode.



Dual mode Tailboard continued



CAUTION

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 manually clear the jam using a shovel or fork and recommence the tipping operation. Do not continue to tip when a jam occurs, the vehicle may become unstable and present a danger to the operator and other personnel.

Tip over mode:

- Always ensure that there is sufficient clearance for the tailboard to hang without touching the ground and that there is a minimum of 8" (200mm) spare, this will allow for suspension compression as the load moves rearwards.
- If a tow bar has been fitted ensure that it had been installed with protective guides to prevent the tailboard from jamming on the tow bar/ball/clevis, if guides are not installed the tailboard may be crushed, possibly causing significant damage to the body.

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 control handles for the upper latches are integral with the latch. 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, created by unlatching either the top or bottom latches.
- To provide primary restraint for fluid loads only. All loose loads should be restrained using the load lashing rings provided on the tipper bed. The tailboard is not designed to prevent un-restrained loose loads from penetrating or bursting the tailboard.

Dual mode Tailboard continued

Use – Tip-Thru mode: -

To open:

- Locate the yellow remote operating handles, squeeze together and pull outwards and forwards in an arc until they stop.



To close:

- Brush down the lower edge and outer vertical edges of the body to ensure the tailboard can close without jamming.
- Push the tailboard closed by placing the palm of your hand to the centre of the board.
Holding the tailboard closed with one hand, return the remote release levers to their shut position.
- Check lower remote release handle is locked.



Dual mode Tailboard continued

Use - Tip-over mode:

To open:

- Grab one handle with one hand and support your body by placing your other hand on top of the tailboard.
- Locate the trigger found under the handle with your index finger, and pull the trigger in.
- Pull up the handle by approximately 80 degrees.
- Repeat the exercise for the opposite side.
- Lower the tailboard gently.

To close:

- 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.
- Return the latches to their closed position by grabbing the handle with one hand and supporting the weight of your body with the other against the tailboard, rotate the handle until it is parallel with the vertical face of the rear corner pillar.
- Observe that the trigger has now returned to view.



Sideboards

Description:

The sideboards are made from tough lightweight extruded aluminium held in place by two latches per side, locking the sideboard to the headboard and the rear corner pillars.

Location:

Near and offside of vehicle.

Purpose:

To provide primary restraint for fluid loads, secondary restraint for loose loads. All loose loads should be restrained using the load lashing rings provided in the floor. 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 of non-fluid material.

To release sideboard:

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

Sideboards continued

3. Hold the top of the sideboard with one hand, with the other hand use an index or forefinger to release the latch, by first pulling down to approximately 20 degrees from the vertical, grab the entire handle with one hand and push down to the horizontal position. Repeat the action for the other latch. Maintain pressure on the sideboard with both hands until it is safe to lower the sideboard gently.



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 that is jamming the board – do not force it closed.

Sideboards continued

- 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 lift and push the latch handle home. Repeat for other latch.



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



Tipping - General



WARNING

Tipping is a potentially hazardous operation. Ensure all other sections of this manual are fully understood and full familiarisation of the Controls have been achieved before attempting to tip a load.

Common Procedures for Tipping:

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

Before Tipping: -

- Apply handbrake.
- Wear protective gloves.
- 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, 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 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.
- Check overhead clearance for overhead cables and power lines, abort tip or reposition vehicle if there are any overhead cables within the vicinity.

Before Tipping continued

- 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 and shake a stuck load free, lower body fully to manually remove all or part of load with a shovel, exercise extreme caution when climbing on and off the body and when manoeuvring over loads within the body. 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 if 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

Method:

- Reverse vehicle to the position where you want to tip the load.
- Establish which tailboard mode to 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 tailboard firmly with one hand and release the upper tailboard latches by pulling the trigger located behind the handle with forefinger first and then pulling the handle upwards whilst maintaining pressure on the trigger. Lower the tailboard gently to the hung position.

Tip-Thru or Top Hinged mode: -

Release the lower latch lever, remotely positioned to the offside rear of the body.



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, refer to the 'Controls' section of this handbook for further information.

Tipping continued

**WARNING**

At any time, all functions can be ceased by pressing the EMERGENCY STOP BUTTON.

- Control the tip using the Tipper Control Panel as described in the controls section of this manual.
- Use the cab rear view window and exterior mirrors for maximum vision. 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 all of the load. The body will automatically stop tipping when the ram is fully extended. The tipping can be stopped at any time by releasing the RAISE button. A buzzer will sound when the RAISE button is pressed.
- Lower the body until the warning sounder ceases and the Tipper Control Display reads, 'CHECK BODY STOWED SECURE TAILBOARD AND SWITCH OFF'
- 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.

Tipping continued

Before driving the vehicle, ensure: -

- Body is fully lowered.
- Check Tailboard is securely latched.
- Ensure rear wheels are clear of any tipped material.
- Ensure rear cross-member, tail-lights, and registration plate are cleared of any tipped material.
- Ensure that all precautions detailed in 'Controls' are observed.

**LOW VOLTAGE WARNING**

If the vehicle battery voltage is below 11.5V for 60 seconds or 10V for 5 seconds when the Tipper Control unit is switched 'ON', an audible alarm will sound and the Tipper Control Display will read 'LOW VOLTAGE'. The Tipper will remain operational. The vehicle engine should be started to maintain battery charge throughout the tipping operation.

Driver Checks and Maintenance Items:



It is imperative that the recommended Driver Checks and Maintenance be carried out to ensure the safe and efficient operation of the 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 themselves 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 INSTRUCTION MANUAL including the Daily, Weekly and Monthly Maintenance.

Daily checks - before use:

- Check Instruction Manual is complete and located in a safe position within the cab.
- Check 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 hydraulic lines for signs of fluid leaks.
- Check security of all side and tailboard latches.
- Check tailboard lower latch mechanism is free from debris and functions correctly.
- Check all safety signs are present, and ensure they are legible and not damaged.
- Check rear lights and license plate to ensure any site debris or mud thrown up from the rear wheels has not obscured them.
- Check tailboard is shut and that remote handles are in their locked position.

Weekly checks:

- Check hydraulic reservoir oil level and top up if required with hydraulic oil ISO 32.
- Check electrical cable fixings and ensure that no chaffing has occurred.
- Check operation of warning buzzers and LED.
- Check the tailboard remote handles (yellow) closes securely without free-play.

Monthly maintenance checks:

- Grease ram upper ball & socket bearing with general purpose grease.
- Grease lower ram and gimble bearings with general purpose grease.
- Grease tailboard upper latches with general purpose grease.
- Grease rear body pivot bearings with general purpose grease.
- Grease sideboard latches with general purpose grease.
- Grease tailboard lower latch mechanism including remote operating (yellow) handle bearing with general purpose grease.



WARNING

Any maintenance carried out on the electric/hydraulic systems, must only be performed when the body is propped and the Isolation Switch set to OFF. The body will lower without warning in an uncontrolled manner, if hydraulic pressure is lost i.e. The hydraulic hose splits or a union is loosened.

Fault Finding

	Problem	Possible Causes	Corrective Action
1.	The Tipper fails to operate.	a) Chassis mounted isolation switch, switched OFF. b) Emergency stop switch defective. c) No electrical power (1). d) No electrical power (2). e) No electrical power (3). f) Stroke end switch defective. g) Insufficient hydraulic oil in the reservoir. h) Electric drive motor defective.	Switch ON isolation switch. Replace emergency stop switch. Check fuse under driver's seat (150A). Check the fuses inside the chassis mounted junction box 10.0A & 3.0A. Check all electrical connections and cables. Replace stroke end switch. Fill the reservoir to the correct level. Replace the drive motor/pump unit.
2.	The electric drive motor runs but the Tipper fails to rise.	a) Tipper overloaded. b) Hydraulic pump defective.	Reduce load. Replace the drive motor/pump unit.

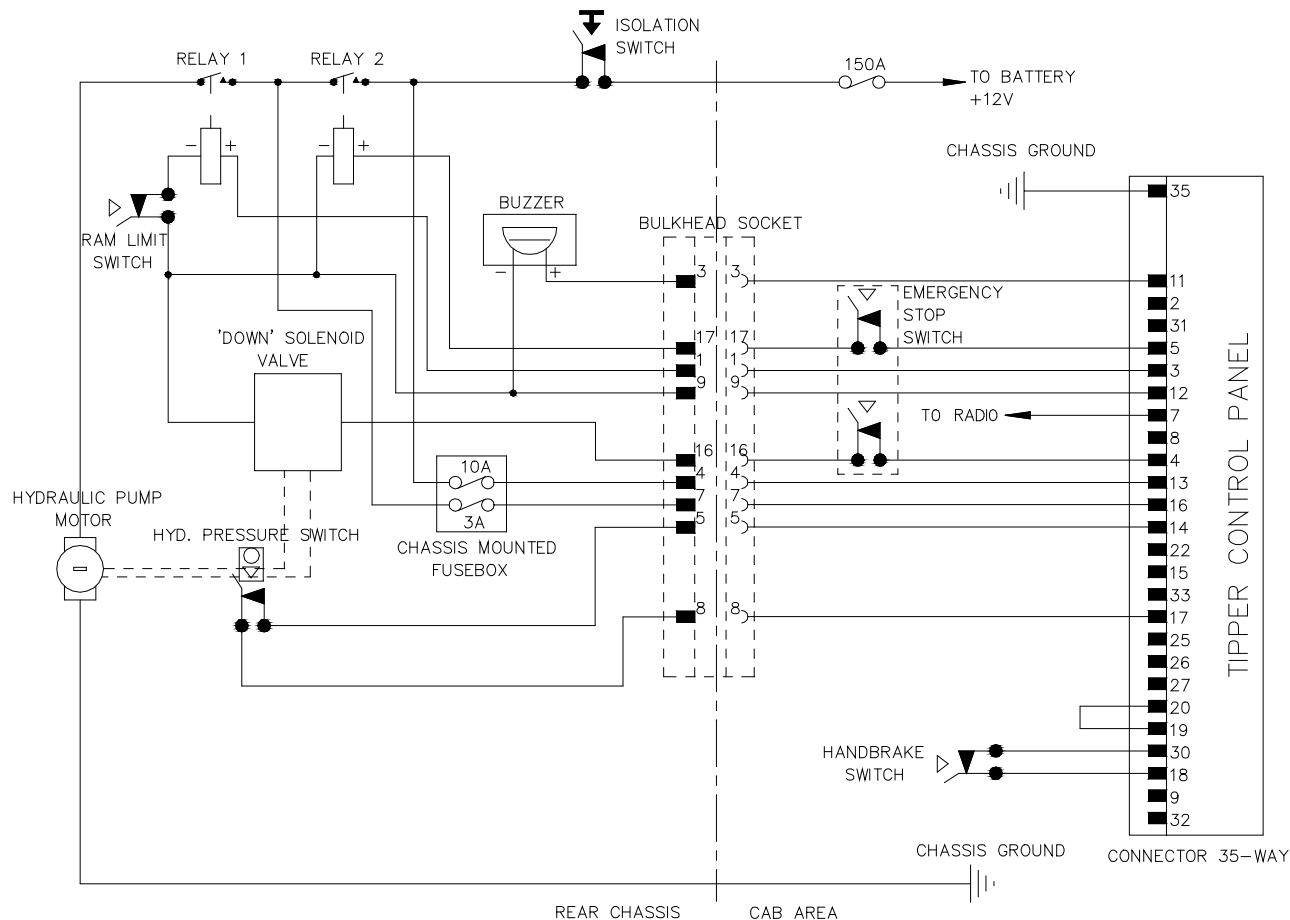
3.	Hydraulic oil sprays from the reservoir when the Tipper is lowered.	a) Reservoir over filled. b) Reservoir punctured.	Fill reservoir to the correct level. Replace reservoir.
4.	Chassis mounted buzzer fails to operate.	a) Buzzer defective. b) No electrical power.	Replace buzzer. See items a - d in 1 above.
5.	The Tipper lowers when the hydraulic pump stops.	a) Defective non-return valve. b) Defective pressure release valve. c) Hydraulic oil leak.	Replace non-return valve. Replace pressure release valve. Inspect hydraulic system, replace parts as required.
6.	Tipper only rises partially.	a) Vehicle not on level ground. b) Tipper loaded unevenly. c) Insufficient oil in the reservoir. d) Pressure relief valve defective.	Tip when the Tipper is on level ground. Redistribute the load. Fill reservoir to the correct level. Replace pressure relief valve.
7.	Tipper fails to lower.	a) Solenoid defective. b) Solenoid valve defective. c) Hydraulic pressure switch defective.	Replace solenoid. Replace solenoid valve. Replace hydraulic pressure switch.

Records of Repair and Servicing

Date	Nature of Repair	Carried Out By

Records of Repair and Servicing

Date	Nature of Repair	Carried Out By



Spare Parts List

Tipper spare parts are available from:

VFS (Southampton) Ltd.

Unit 8

Barton Park Industrial Estate

Chickenhall Lane

Eastleigh

SO50 6RR

☎ Phone 023 8061 3612

☎ Fax 023 8062 0999

Email: richardw@vfs.co.uk

Insert : General Arrangement Drawing

ITEM NUMBER	DESCRIPTION	PART NUMBER	
		SINGLE CAB	DOUBLE CAB
1	Frame Assy	UK84VR07 L6	UK84VR06 L6
2	Side Board LH inc Latches	UK84SL008	UK84SL006
3	Side Board RH inc Latches	UK84SL007	UK84SL005
4	Rear Board inc Latches	UK84SP004	UK84SP004
5	Screw TSEI M8 x 20	101668	101668
6	Teflon Bumper Plate	151187	151187
7	Rear Left Upright	SCGESPTS03L6	SCGESPTS03L6
8	Rear Right Upright	SCGESPTS04L6	SCGESPTS04L6
9	Plug	151188	151188
10	Rear Protection Plate	UK84CRPR01L6	UK84CRPR01L6
11	RH Pillar	110100	110100
12	LH Pillar	110101	110101
13	Tail Board Hook	701010	701010
14	Rear Bolster LH Pillar	733035	733035
15	Rear Bolster RH Pillar	733036	733036
16	Headboard Cab Protection	UK84PR000	UK84PR000
17	Rubber Fixing Plate	FD84PASU01L6	FD84PASU01L6
18	Cab Protector Rubber	FD84PAPR02L1	FD84PAPR02L1
19	Cab Protector Fixing Plate	UK84PRAT00L6	UK84PRAT00L6
20	Sub-frame	UK84CR04L6	UK84CR05L6

21	Bracket for Fender LH Front	733037	733037
22	Bracket for Fender RH Front	733038	733038
23	Screw M5 x 30	102578	102578
24	End Outline Light Bracket RH	733086	733086
25	End Outline Light Bracket LH	733087	733087
26	Rear Bolster	732063	732063
27	Rear Bolster Rubber	160601	160601
28	Rubber Fixing Plate	700854	700854
29	U Bolt with nuts	732020	732020
30	12V Power Pack	135832	135832
31	Body Prop Rubber Bung	151189	151189
32	Oil Pipe	130496	130496
33	Body Prop Safety Plate	UK84CRAC00L6	UK84CRAC00L6
34	Body Prop	UK84CRPS00	UK84CRPS00
35	Hydraulic Ram	135905	135905
36	Spring	150719	150719
37	Ram Support	110400	110400
38	Rubber Bump Stop	150269	150269
39	U Bolt	201844	201844
40	Safety Cable	160716	160716
41	Spring	150783	150783
42	Stroke End Lever	UK84CRSU02L6	UK84CRSU02L6
43	Spring	150782	150782
44	Stroke End Switch	120754	120754

45	Stroke End Support	UK84CRSU03L6	UK84CRSU03L6
46	Rear Board Hinge	110199	110199
47	Isolation Switch	120755	120755
48	Sideboard Hinge	110196	110196
49	Fender	111011	111011
50	Cable Protection Plate	-	UK84VAPR02L6
51	Cable Protection Plate	-	UK84VAPR03L6
52	PVC Washer Ø15.2	103963	103963
53	Rubber Plug	150223/LH 150223/RH	150223/LH 150223/RH
54	PVC Handle	151190	151190
55	Spring Clip Ø12	150053	150053
56	Body Prop Bracket	150723	150723
57	Grease Nipple M10	151304	151304
58	Nut Self locking M24	103736	103736
59	Washer M24	103797	103797
60	Rear Pivot Hinge Pin	110195	110195
61	Washer M8	103835	103835
62	Screw TE M8x30	100729	100729
63	Nut Self Locking M8	100973	100973
64	Washer M10	103839	103839
65	Screw TE M10x30	100730	100730
66	Nut Self Locking M10	100992	100992
67	Washer M14	103848	103848
68	Screw TE M14x40	100749	100749
69	Tailboard Release Lever	701441	701441

70	Screw TCEI M8x30	101520	101520
71	Tie Down Ring	110936	110936
72	Ring Fixing Point	700085	700085
73	End Outline Marker Lamp	120434	120434
74	End Outline Marker Light Loom	120433	120433
75	Bump Stop – Tie Down Ring	150215	150215
76	Rear Bolster Pillar Blank Plug	160643	160643
77	Washer Ø10/30	103841	103841
78	Button Head Set Screw M8x20	100945	100945
79	Nut Self Locking M10	103576	103576
80	Aluminium Rivet 4.8x18	107942	107942
81	Screw TE M8x20	100714	100714
82	Screw TE M8x35	101022	101022
83	Washer M8	103837	103837
84	Nut Self Locking M12	100993	100993
85	Hydraulic Ram Collets & Circlip	135923	135923
86	Rear Pillar Fixing Plate	733088	733088
87	¾" Breather Cap	135825	135825
88	Hydraulic Pressure Switch	135736	135736
89	Solenoid Valve	135728	135728
90	Solenoid	135729	135729
91	Register Screw	135730	135730
92	Relief Valve Spring	135731	135731
93	Aluminium Washer 17x23x1.5	135732	135732
94	Spring Guide	135733	135733

95	OR 4487 Gasket	135829	135829
96	Solenoid	135722	135722
97	Hydraulic Valve Block	135828	135828
98	Rubber Protection Boot	120756	120756
99	Side Marker Lamp Bracket LH	733038	733117
100	Side Marker Lamp Bracket RH	733037	733118
101	FWD Side Marker Lamp Bracket	-	733119
102	Nut M6	103569	103569
103	Side Marker Lamp Kit	-	120449
104	Screw TE M12x40	100748	100748
105	Stainless Steel Rivet Ø4.8	108027	108027
106	Self-locking nut M4	101009	101009
107	Washer M4	103827	103827
108	Screw TE M8x90	100933	100933
109	Nut M8	103572	103572
110	Tailboard Release Handle	110904	110904
111	Coupling	160711	160711
112	Adjustable Linkage	701321	701321
113	Coupling	150052	150052
114	Linkage End Fitting	700949	700949
115	Tailboard Locking Bar	SCGEAS002	SCGEAS002
116	Tailboard Locking Bar Fixing Plate	SCGEVRSG01L6	SCGEVRSG01L6
117	Spring Ø3x16,5x64,5	150700	150700
118	Screw M6	151714	151714
119	Washer Ø22/40	103863	103863

120	Pin Ø4x50	109615	109615
121	Tailboard Hinge Pin Ø12	700997	700997
122	Nut M14	103586	103586
123	Spring Ø25xØ12,5x1,5	104451	104451
124	Screw TCEI M8x50	101560	101560
125	Spring Washer M5	104062	104062
126	Nut M5	103567	103567
127	Headboard Plug	151191	151191
128	Cable Protection Plate	UK84VAPRO1L6	-
129	Decal Mounting Plate (Switch)	UK84SLACO3L6	UK84SLACO3L6
130	Decal Mounting Plate (Levers)	UK84SLACO4L6	UK84SLACO4L6
131	Rivet Ø6,4x14,6	107991	107991
132	Decal Mounting Plate Tailboard	UK84SPAC00L6	UK84SPAC00L6
133	Drilled LH Sideboard	UK84SLBA04L1	UK84SLBA06L1
134	Drilled RH Sideboard	UK84SLBA03L1	UK84SLBA05L1
135	Drilled Tailboard	UK84SPBA00L1	UK84SPBA00L1
136	Cable Support Plate	VFS01-11-023	VFS01-11-023
137	Fuse Holder	0-376-85	0-376-85
138	Main Fuse – 150 amp	0-376-15	0-376-15
139	Power Cable - battery to fuse	VFS01-11-031A	VFS01-11-032A
140	Power Cable - fuse to switch	VFS01-11-059	VFS01-11-061
141	Power Cable - switch to relay	VFS01-11-050A	VFS01-11-075A
142	Power Cable - relay to motor	VFS01-11-050B	VFS01-11-050B
143	Earth Cable - motor to earth	VFS01-11-060	VFS01-11-062
144	Control Loom Assy - front	VFS01-11-044	VFS01-11-045

145	Control Loom Assy - rear	VFS01-11-046	VFS01-11-047
146	Radio Jumper Loom	VFS01-11-049	VFS01-11-049
147	Rear Chassis Box - relay assy	VFS01-11-050	VFS01-11-075
148	Rear Chassis Box - mounting bracket	VFS01-11-051	VFS01-11-051
149	Rear Chassis Box - alarm assy	VFS01-11-052	VFS01-11-052
150	Emergency Stop Switch	VFS01-11-053	VFS01-11-053
151	Down Solenoid Loom Assy	VFS01-11-056	VFS01-11-056
152	Tipper Control Unit	VFS01-11-055B	VFS01-11-055B
153	Identification Plate	VFS01-11-012	VFS01-11-012
154	Badge - "Tipper"	VFS01-11-013	VFS01-11-013
155	Decal Set	VFS01-11-073-A	VFS01-11-073-A
156	Handbrake Switch	VFS01-11-058	VFS01-11-058
157	Warning Triangle	1221082	1221082

SCATTOLINI S.p.A.

carrozzerie industriali

37067 VALEGGIO SUL MINCIO (Verona) Via del Lavoro, 8 - Z.I.
Tel ++39/045 6334911 (30 linee r.a.) Fax ++39/045 6334900

Trib. Verona Reg. Soc. N. 9368
C. C. I. A. A. Verona N. 148785
Capitale Sociale Euro 600.000
Cod. Fisc. E Partita IVA 0063781 023 5
Partita IVA CEE IT0063781 023 5

DATA	September 12th 2003
PROT.	



VFS (Southampton) LTD
Unit 8, Barton Park
Industrial Estate, EASTLEIGH
Hampshire, SO50 6RR U.K.

Re: Authorisation letter for the issuing of CE compliance declaration

Further to our visit on September 4th 2003 to Eastleigh to check and review the mounting, Scattolini S.p.A. authorizes herewith company VFS (Southampton Ltd) - Eastleigh - U.K, to issue CE compliance declarations relevant to Ford Transit vehicles MWB Single Cab and LWB Double Cab equipped with tipper bodies models UK84RP005 and UK84RP004, bed, subframe, ram and power pack manufactured and supplied by Scattolini S.p.A. provided the mounting instructions are carefully followed, as per attachments to this letter, and that VFS will return us duly signed for acceptance.

Paolo Scattolini, General Manager Scattolini SpA