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OPERATION AND MAINTENANCE MANUAL

Table of Contents

Foreword	1
1 Tippa Features	2
2 Safety advice - Please read this first!	4
Symbols to help use your Tippa safely	4
Important safety points	4
3 Safe parking/working environment	7
4 Correct use of the Tippa – fluid loads	8
Safe loading	8
Safe tipping	9
5 Correct use of the Tippa – solid loads	14
Safe loading	14
Loading of the gantry cross bar	15
Safe unloading	15
6 Maintenance and Servicing	16
Safe location of the body prop	17
Weekly maintenance	18
Recommended fluids and cleaning agents	19
Obtaining spare parts and service advice	19
7 Troubleshooting minor faults	20
EC Certificate of Conformity	22
Service and repair history	23
Warranty terms	24

Disclaimer:

The information contained within is correct at time of going to press. Whilst every effort is made to keep the document up to date, specifications may change and these changes may not be reflected in the document.

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Foreword

Congratulations on your purchase of the time proven *TIPPA*, the original lightweight tipping body. TGS are committed to producing quality, hardworking and safe products for Commercial vehicles. The *TIPPA* is no exception to the rule.

To ensure your investment yields dividends for you and provides longevity of trouble free service, it is essential that operators fully familiarise themselves with all aspects of this manual, paying particular attention to the Safety advice prior to operation of the '*TIPPA*'.

The '*TIPPA*' is hydraulically driven and therefore recognised as a machine and is subject to design regulations according to the Machinery Directive. As a result a declaration of conformity is incorporated within this manual and can be found on page 22.

Whilst every effort has been made to reduce and eliminate risk to the operators and general public, it is important that the *TIPPA* is used strictly as directed in this manual for the safety feature to be effective.

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

Regular inspection and servicing of the *TIPPA* is mandatory to ensure its roadworthiness and safety. The manual is an essential daily reference material and should be kept safe and within the vehicle at all times.



This instruction Manual must remain with the veicle at all times. It is an integral part of the tipping body



1 Tippa Features



A. Sideboard lock
B. Sideboard hinge
C. Sideboard

D. Rear hinge pin
E. Mudwing
F. Hydraulic cylinder

G. Ram pin
H. Rear corner post
I. Tailboard hinge cap



J. Tailboard
K. Ladder gantry
L. Mesh protection panel

M. Rubber body stops

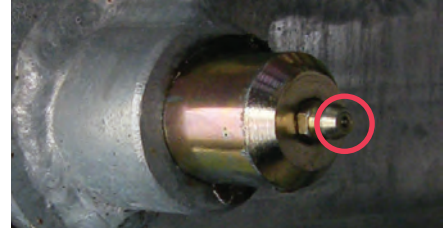
Grease Points – Circled in Red



Hydraulic cylinder bearings



Body attachment pin



Rear pivot point

Fuses



Tippa main fuse 150A is located in close proximity of vehicle battery



Control fuse (5A glass type) located within pendant control

Isolator Switch



To turn ON insert key and turn ⌚

Key is then locked in.

Turn ⌚ to isolate and remove the key.

Raise and lower controls



Pendant control

2 Safety advice – Please read this first!

Symbols to help you use your Tippa safely



Prohibition symbol

Used to indicate actions that are not permitted
e.g. *“Do not”*



Warning symbol

Used to give warnings of danger or tasks that involve risk.
e.g. *“Beware of ...”, “Risk of ...”*



Mandatory symbol

Used to indicate tasks that must be carried out.
e.g. *“Wear protective gloves”, “Read this manual”*

Important safety points



You must ensure that:

- You have fully read this manual before attempting to use the tipper.
- The vehicle is safely loaded before driving away. Refer to pages 8 and 14.
- The vehicle is visible to other road users when loading or unloading.
- You have the correct personal protective equipment before loading and unloading the vehicle.
- The danger area around the tipper is free from obstruction or personnel prior to and during tipping.
- The tailboard is released and correctly configured prior to tipping.
- The body is fully lowered and tipper isolator switch key is removed after completion of the tipping operation.
- The sides and tailboard are fully closed and locked prior to driving away.

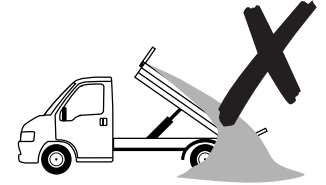


You must NEVER:

- Exceed the safe working load as indicated on the tipper identification plate.



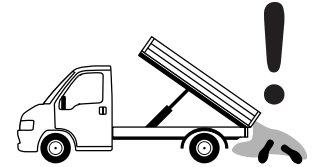
- Tip with the sideboards lowered.



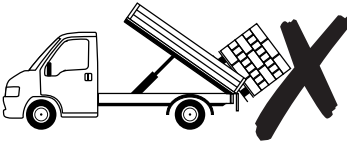
- Exceed the gross vehicle weight (this is distinct from the safe working load of the tipper).



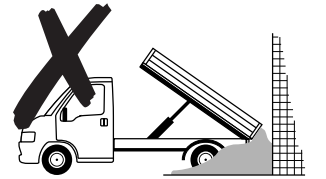
- Stand in the discharge area when releasing the tailboard locks



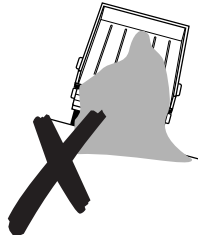
- Attempt to tip solid loads e.g. kerbstones, packs of bricks or other large single items.



- Tip into a restricted space, free flowing materials will spread over the tip area during tipping



- Tip with the vehicle on a slope or soft ground.



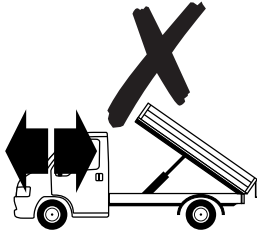
- Attempt to release a jammed or frozen load when the platform is raised





You must NEVER:

- Move the vehicle whilst the platform is rising.



- Operate the tipper in strong or gusting winds.



- Stand under a raised tipper platform unless the body prop is correctly deployed.



- Loosen, remove or replace any bolts or equipment from the tipper other than side and tail boards.



- Remove or obscure warning and information labels.



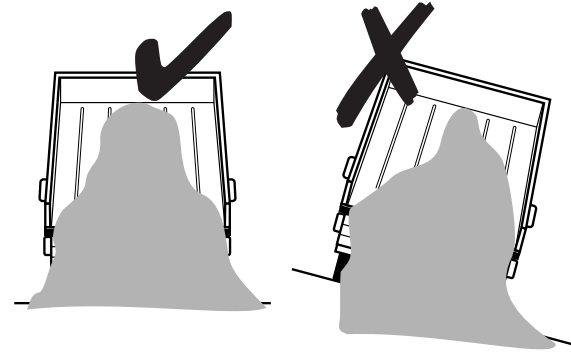
- Fail to replace damaged/non-serviceable components, as this may affect safe tipper operation.

3 Safe parking/working environment

Your TGS Tippa body may be used to carry a variety of goods, not only free flowing materials like sand, soil, gravel, etc, but also wheeled items of plant, bags of cement and pallets of bricks.

The information below is intended as a guide to proper use of the Tippa but it should be noted that operators and those in control of loading/unloading are still required to assess the risks involved in all their work activities, and take all reasonably practicable steps to reduce these risks.

- Always ensure that the vehicle is parked such that it does not represent an obstruction to people or other vehicles.
- When in use on the public highway, ensure that the vehicle is visible to other road users. Particular care is needed when the tailboard is lowered, as the vehicle rear lights will be obscured. This condition will contravene current road vehicle lighting regulations and in such cases a minimum of four traffic cones must be placed around the vehicle to warn other road users.
- Ensure that the vehicle is parked on level ground. If the vehicle is on a slope the payload may shift or slide on the deck. Where loads are retained with load straps, the load may shift suddenly on release.



- The ground must be stable, i.e. do not park close to ditches or on soft verges or drain covers. The later addition of load may de-stabilise the vehicle.
- The loading and discharge areas should always be well lit.
- When loading/unloading a vehicle ensure that it is not parked in a confined space.
- Always plan an escape route in case the load moves unexpectedly on release of restraint straps.
- Always apply the handbrake after parking the vehicle.
- Ensure that you can be seen by other road users, wear high visibility clothing if necessary.

4 Correct use of the tipper – fluid loads.

Note:

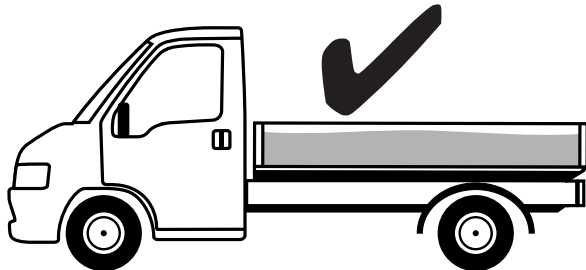
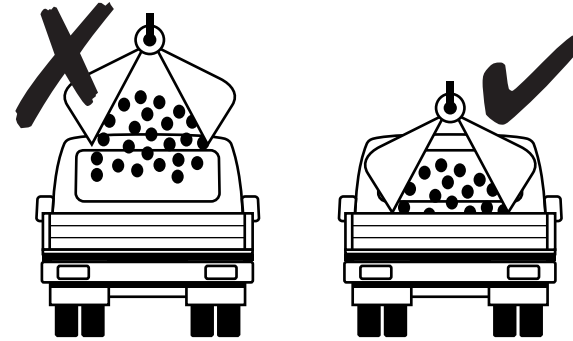
Typical examples of fluid loads would be sand, gravel or earth

Safe loading

Before placing a load on a tipper platform, check it is fully lowered and the isolator switch key removed. Refer to Page 13, Step 4, Lowering the body.

- Ensure the sides and tailboard are closed and securely locked.
- Ensure that the load is uniformly distributed across the tipper platform.

- To prevent unnecessary damage to the platform always load bulk materials, i.e. sand, gravel, etc. from the lowest practical height



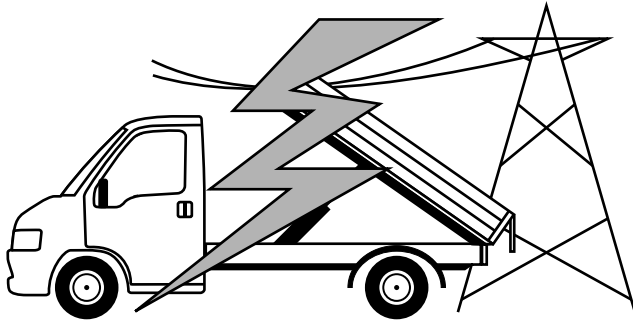
- For mixed loads follow the instructions below for securing solid items
- Before driving away ensure that the load is covered with a secured sheet to prevent it blowing around or getting wet in transit.
- Before driving away check that the vehicle does not exceed the gross vehicle weight and the load on both the front and rear axles is within the vehicles stated limits.

Safe tipping

Step 1 Find a safe tip area

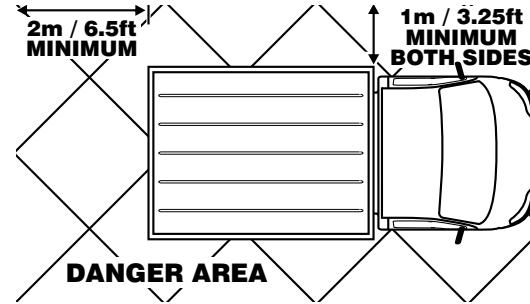
In addition to the safe parking instructions on page 7, the following must be observed when selecting a location for tipping:

- Check for overhead obstruction, particularly power cables or low roofs.

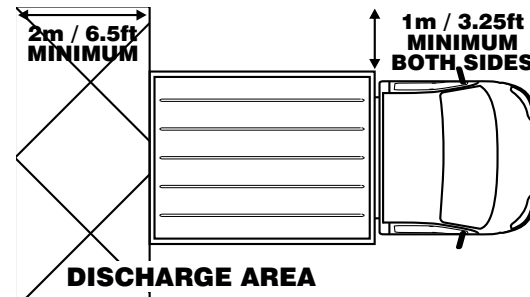


- If necessary surround the working area with cones to warn people away during tipping.

- Ensure that the danger area around a raised tipper is kept clear of personnel or obstruction. The illustration below indicates the danger area during tipping.



- Check that there is a sufficiently large discharge area remembering that fluid loads will spread out across the ground during tipping. The illustration below indicates the likely size of the discharge area.



Step 2 Configure the vehicle for tipping

- Exit the vehicle and determine the appropriate tailboard release mode.

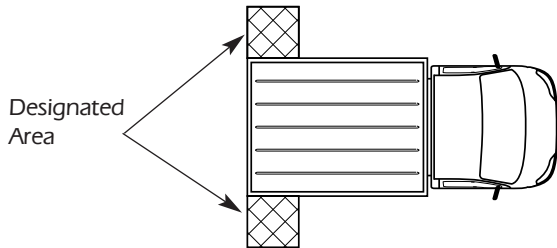


Wear gloves and safety boots for all operations involving the use of the tailboard.



Risk of injury!

Stand only in the designated area, as shown below, when releasing the tailboard locks.



- For unloading free flowing materials select “top hung” by opening the bottom locks on the rear pillars. Ensure that the board is now free. This is the preferred method as the tailboard is unlikely to strike any objects during tipping. It is however not suitable for the discharge of bulky loads such as branches, logs, etc.



Tailboard in “Top hung” configuration

Risk of injury!



Do not open more than two locks at any one time as the tailboard will be released from the vehicle and may be damaged or injure the operator.

- For unloading large bulky loads the best configuration is “bottom hung” which is achieved by opening the top locks on the rear pillars. Before opening the tailboard check that the load is not bearing against it as this may force the board to open suddenly.



Tailboard in “Bottom hung” configuration



Risk of damage to equipment

The tailboard may strike the ground as the tipper rises. when in the “Bottom hung” configuration the clearance between the tailboard and the ground may not be sufficient, i.e. if the vehicle is over a raised kerb.

If necessary the tailboard may be completely removed from the body.

- To remove the tailboard completely first release the upper locks and lower the board fully. Support the board weight, then, release the lower locks.
- Check that all loose tools and, in the case of mixed loads, all solid objects are removed from the tipper before commencing the tipping operation. This includes items secured to the headboard.
- Check that the load is unlikely to spill over the sides of the body during tipping.

- Insert the key into the power isolator switch and turn fully clockwise, as shown on page 3.

Step 3 Tipping the load

- Complete a final check to ensure that no people are in or are likely to enter the danger area and then return to the cab and close the doors.
- After checking the discharge area the operator should be sat in the drivers seat with the doors shut to commence tipping.

Pendant Control – Remove the pendant from its cradle and press the “RAISE” button marked ↑, the platform will start to tip. Releasing the button at any point will stop the platform rising immediately. The red tipping LED will illuminate on the handset to indicate the body is raised.

- The external tipping alarm will sound to indicate that the tipper is in operation. At this stage, no personnel should be in the danger area as shown on page 9.

Pendant Control – As well as the tipping alarm sounding, the red tipping LED will illuminate on the handset.

- The platform will rise to a maximum of 45° before stopping automatically. At this point the “RAISE” button should be released. This operation will take approximately 20 seconds.



Do not hold down the “RAISE” button for prolonged periods.

Prolonged operation of the pump after the lifting operation will drain the vehicle battery and may lead to motor failure.

- It may be necessary to drive the vehicle forward at this point to clear the discharged load. In this case the distance moved should be minimal to avoid striking overhead structures or cables.



Risk of injury

Under no circumstances should the operator try to interfere with a stuck or “frozen load when the tipper is even partially raised. If the load freezes the tipper should be lowered before attempting to release it.

Step 4 Lowering the body

- To lower the tipper push and hold the “LOWER” button.
- Releasing the button will immediately stop the tipper operation.
- When the tipper platform is fully lowered onto its sub-frame the tipping alarm will stop, and the LED light on the pendant will turn off.

If lowering is very slow release the ‘Lower’ button momentarily and then operate again as this overcomes the burst valve which may have been activated automatically.

Step 5 Preparing for road use

- Isolate the tipper at the power isolation switch and remove the key. Removal of the key will prevent unintended operation.
- Sweep the platform clean of any remaining debris before driving away.
- Close the tailboard and ensure that the locks are fully closed.

Ensure the red light on the pendant control is off and the alarm as stopped..



Do not leave the isolator key in the switch after a tipping operation.

This could result in unexpected operation of the tipper when the vehicle is in transit

5 Correct use of the tipper – solid loads

Note:

Typical examples of solid loads could be a pallet of bricks, or plant and equipment.

Safe loading

- Before placing a load on a tipper platform, check it is fully lowered and the isolator switch key removed.
- When adding loads to the tipper the loading should start at the headboard working backwards.
- Keep the centre of gravity of the load as low as possible by distributing the load over the deck area and keeping dense materials placed at the bottom.
- Before driving away check that the vehicle does not exceed the gross vehicle weight and the load on both the front and rear axels is within the vehicles stated limits.



Ropehooks

Ropehooks are provided for attaching sheeting, rope and bungee lashing.

Rope hooks are not suitable as load anchorage points and as such should not be used with ratchet straps.

For correct load fixing refer to Department of Transport Code of Practice "Safety of Loads on Vehicles".



Never drive a vehicle with a loose load in the back!

Unrestrained loads will damage the vehicle and may be shed onto the road. Smaller items may be restrained against the headboard using the lashing points provided.

- For cylindrical items or items with wheels, chocks should be used in conjunction with other methods of restraint.
- If there is a risk of lightweight items of load being blown around in the back of the vehicle in transit, the load must sheeted before driving away.
- If the load has sharp edges or small contact points(e.g. small feet or wheels) on the floor, place a timber packer underneath.



Risk of personal injury

Avoid, where possible, climbing on the platform as the surface is slippery and there is a risk of falling.

Loading the gantry crossbar

Items which exceed the internal length of the body may be secured to the gantry cross bar. Note: for this operation it may be necessary to climb on to the platform.



Risk of damage to property!

When using the gantry to support an over length load ensure that the projection does not overhang the front of the vehicle and that the overall height above ground level does not exceed 3m.
Do not overload gantry.

- Position the load such that it rests against the tailboard and on top the gantry cross bar.
- Secure the load to the cross bar such that it can not slide forward or move sideways during cornering. The load may be secured with a rope around the gantry cross bar.
- Wedge the load where it rests on the deck, such that it cannot move sideways, or restrain with strap looped around the load.
- Check that there are no loose ends of rope after securing the load.



Risk of injury to public!

Do not allow the load to overhang the tailboard as there is no provision for restraining the load rearwards.

Do not allow the load on the gantry cross bar to be higher than the gantry ears.

Safe unloading



Risk of personal injury!

Before releasing the sideboards, the tailboard or lashing straps, check all sides of the vehicle to ensure that the load has not moved in transit.

- Open the sideboards and tailboards as appropriate.
- Release straps and remove the load.
- If gaps occur in the load due to part unloading, re-position the remaining load.
- Stow away loose components, chocks, straps, etc. Straps not in use may be secured to headboard lashing points.
- Clean off the platform.
- Close the sides and tailboards.

6 Maintenance and Servicing

The Tippa is designed to minimise operator maintenance during its service life. However, to keep the tipper in good condition, it is important to carry out a few simple maintenance tasks at regular intervals.



Risk of injury!

Extreme care is needed underneath the platform. Do not loosen or remove any bolts or hoses from the lift mechanism unless you are specifically authorised to do so by TGS.

In the event of system or component failure, refer to pages 20 and 21. Should you not be able to resolve the problem, do not attempt repair, but contact customer services to establish the location of the nearest approved repairer.

To carry out routine maintenance the body should first be correctly configured. In this case there are only two safe configurations of the platform.

- With the body fully lowered and the isolation switch key removed.
- With the body raised, resting on the body prop, with the isolation switch key removed.

Note: There are two keys supplied with each Tippa tipper. Ensure that neither is fitted in the switch to eliminate the risk of unexpected or unauthorised operation during maintenance.



Always wear a hard hat when working under a tipper platform.



NEVER WORK UNDER AN UNPROPPED BODY



Safe location of the body prop.

To prop the platform correctly:

- Raise the platform to the full tip position.
- Rotate the body prop to the fully open position taking care not to lean underneath the platform.
- The tipper should then be lowered onto the prop which locates as indicated in the figure below. Note: The full platform load has been applied to the prop when the tipping alarm stops sounding.



Correctly deployed body prop

- The key should then be removed from the isolation switch and retained by the person carrying out the maintenance.

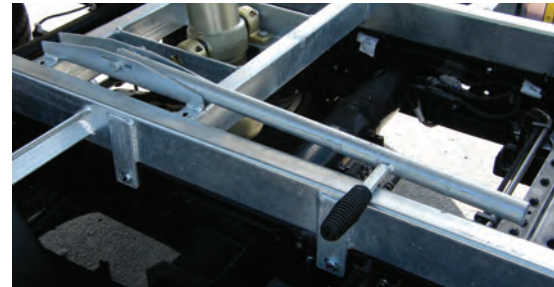


Never deploy the body prop when there is a load on the vehicle platform

(The body prop is designed to carry the weight of an empty body only.)

To un-prop the platform:

- Insert the isolator key and switch on.
- Raise the platform off the prop.
- Lower the prop ensuring that it is correctly located as shown below. Take care not to lean under the platform.



Correct stowage of the body prop

- Lower the platform until the tipping alarm stops and the light goes off.

Weekly maintenance

- Cleaning.

Wash the underside of the body and particularly the lift mechanism and rear pivot bearings. Use only water without cleaning agents.



Risk of damage to equipment

Do not directly spray the motor or the pump with a pressure wash as this will result in damage to the components.

- Visual inspection of bolted joints.
- Visual inspection of hydraulic system.

Check for any leaks at hose unions, ram and power pack.

- Visual inspection of hydraulic hose.
- Check for any chaffing or splitting. Damaged hoses must be replaced immediately.
- Check reservoir oil level.

This is to be completed with the body fully lowered. Check that the oil level is at the "MAX" position with the body fully down. Note: If the oil level requires topping up it may be that there is a hydraulic leak in the system.

- Inspection of front location pads.

Check hydraulic ram seals.

- It is important to cycle the tipper through at least one complete operation weekly as prolonged periods without use will lead to seal deterioration. This will also help to lubricate the bore and piston rod.
- Tail and sideboards.

Check locks on the sideboards and tailboards for correct operation. Lubricate where necessary with white lithium grease.

Recommended fluids and cleaning agents

Hydraulic oil: Shell HM 32
Lock grease: K94 white lithium grease



Do not use caustic cleaning agents, as this will damage the protective finish on tipper components

Obtaining spare parts and servicing advice

Spare parts can be obtained directly from TGS stocks. All credit cards are accepted.

Contact: Customer Services – 0117 9659965

Phone lines open from 8am. to 4.30pm. 5 days per week

7 Troubleshooting minor faults

Fault	Cause	Action
Body will not tip		
No power or tipping alarm.	Control fuse blown.	Replace control fuse in junction box. If fuse blows again contact customer services.
	Main fuse blown.	Check main fuse adjacent to vehicle battery. Do not replace but call customer services.
	Vehicle overladen or unevenly laden.	Press "LOWER" button to stop tipping alarm, re-distribute payload more evenly or remove some payload manually from forward portion of platform.
	Oil level too low.	Check oil level at "Max" with Body fully lowered . If below, check for leaks and contact customer services.
Hydraulic pump noisy.	Oil level too low.	Check oil level at "Max" with Body fully lowered . If below, check for leaks and contact customer services.
Partial Tip.	Oil level too low.	Check oil level at "Max" with Body fully lowered . If below, check for leaks and contact customer services.
Body will not lower		
No alarm with body raised.	Main fuse blown.	Check main fuse adjacent to vehicle battery. Do not replace but call customer services.
No internal light.	Control fuse blown.	Replace control fuse in junction box (5A blade fuse). If fuse blows again contact customer services.
When "LOWER" button is depressed tipping alarm is sounding.	Lowering solenoid failure.	Contact customer services.

7 Troubleshooting minor faults (continued)

Fault	Cause	Action
Other mechanical faults		
Oil leaking from tipper.	Failed hose.	Park tipper in a safe location, away from drains and protect ground underneath to prevent oil spreading. Contact customer services.
	Loose unions.	As above, if possible tighten unions and replenish lost oil. Refer to page 19 for recommended oil type.
Noise and/or excessive body movement.	Body not fully lowered	Lower body until tipping alarm stops.
Handsets (isolator switch key inserted and fully rotated) Tipping action functions but		
Tipping alarm does not sound when tipping.	Faulty alarm.	Contact customer services.
Tipping LED does not activate when tipping.	Faulty LED.	Contact customer services.

EC Certificate of Conformity

Undersigned manufacturer



**TGS Group
Woodpecker House
Balaclava Road
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BS16 3LJ
UK**

Complies with the requirements of:

The machinery directive 2006/42/EC / The supply of Machinery (Safety) Regulations 2008 SI 2008 No.1597.

89/336/EEC and 95/54/EC electromagnetic compatibility.

The manufacturer prohibits the use of or modification to this machine, under this declaration, in any way other than that expressly described in the operators manual.

Hereby declares under its own responsibility that the new machine:

Product type:

Body Serial Number:

Month and year
of manufacture:

As installed on:

Chassis make & model:

Chassis VIN Number:

TGS
Responsible person



Warranty terms

The tipper is covered by a 12 month (20,000 mile) warranty period commencing the date of delivery from TGS.

Any repair, which could be necessary during the warranty period, must be carried out at our workshops or by an authorised repair agent.

Warranty is only applicable to those parts that may become unusable because of defect in material or in workmanship. The testing of defective parts or analysis of their possible causes will only take place at the offices of TGS.

The warranty does not include those parts subject to wear and tear.

The warranty does not include failure due to misuse of the machine or lack of maintenance.

The warranty will be invalid if the machine is modified or parts have been tampered with in any way by an unauthorised repair shop.

TGS do not cover the cost of transport or hire of alternative vehicle under the warranty agreement.

Full warranty terms are available upon request.

3 year warranty available – please contact customer services.