



C95055 Issue 1 06/02

OPERATOR MANUAL

TILT-BED TRAILERS
CT166G, CT167G, CT166GA and CT167GA

These instructions are provided to help you to get the best possible service from your trailer. To ensure that the trailer is used safely, we strongly recommend that the instructions are read by all users and all the recommendations followed. This also applies to the enclosed booklet "General Operation and Maintenance".

Misuse may invalidate warranty

Please enter the following information for your own records:

Trailer Model:

Serial Number:

Coupling Security Key No.:

In addition to this booklet, the following items should be in the document bag:

1. One route card (with trailer serial number and specification)
2. One Guarantee Registration Card (unless the distributor completed the card for you)
3. One Ifor Williams Trailers sticker
4. One leaflet - battery details & warranty (Optional fitting)
5. Owners Manual for Winch (Optional fitting)
6. Operating and Maintenance Instructions for Adjustable Height Coupling (Optional fitting)

Guarantee Registration Card

It is important that the Guarantee Registration Card supplied with the trailer is completed and returned without delay, not only to ensure that the guarantee is validated, but also to enable us to assist the police in returning your trailer to you should it be stolen. It also allows us to contact you in the event of a recall.

IMPORTANT

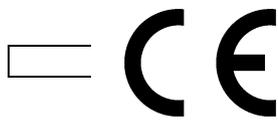
If you sell your trailer, please pass on this booklet and the booklet entitled "General Operation & Maintenance" to the new owner



**BRITAIN'S LEADING TRAILER
MANUFACTURER**



FM13224



SPECIFICATIONS

	CT166G	CT167G	CT166GA	CT167GA
Maximum Gross Weight (trailer and load)	3500 kg	3500 kg	3500 kg	3500 kg
Unladen Weight (trailer complete with standard equipment)	810 kg	1050 kg	922 kg	1162kg

Whilst every care is taken to ensure that the information in this manual is correct, no liability can be accepted for any loss damage or injury caused by any errors in, or omissions from, the information given.

GALVANIZED FINISH

Galvanized coatings should not be considered as aesthetic or cosmetic finishes. They are present as barriers to prevent corrosion of steel components and also afford a great deal of sacrificial protection should small, localised surface damage occur.

The hot-dip galvanising process produces a coating which is bonded metallurgically to the steel: a unique feature in coating processes. It is the most widely used method of protection against corrosion and has the added benefit of giving excellent wear resistance.

During the initial months of exposure of a galvanized coating to the atmosphere, the outer surface weathers by reacting with oxygen, moisture and carbon dioxide in the atmosphere, converting the original shiny surface colour to a matt dull grey protective coating. During this period it is particularly important that any deposits of corrosive substances such as road salt, fertilizer and slurry are removed by immediate washing. This will allow the galvanized coating to dry out, encouraging the development and retention of the protective coating. Failure to do so will lead to discolouration and unsightly staining of the surfaces.

Once formed, the weathered galvanized coating should provide protection against corrosion throughout the trailers life.

WASHING

Regular washing with a solution of water and mild detergent such as car wash will help to prolong the surface finish of plated and painted components.

This is particularly important if the trailer is used on salt-treated roads, in coastal areas, is heavily soiled or is used to carry corrosive substances such as fertilizers. In these cases, the trailer should be thoroughly washed down after each use.

If using a pressure washer, care should be taken to avoid training the high pressure spray onto electrical components or decals for extended periods or at close range.



LOADING & UNLOADING

The trailer should be positioned on level ground.

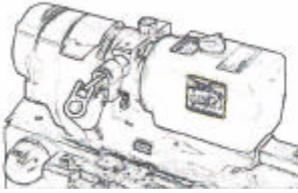


Fig.1

Except in emergencies, loading and unloading should be carried out with the trailer attached to the towing vehicle. If for any reason you have to do so with the trailer detached, take great care to ensure that the jockey wheel is securely clamped and the handbrake is fully applied before proceeding. If the trailer is on soft ground it may be necessary to provide additional support under the jockey wheel to prevent it from sinking into the ground.

TILTING THE TRAILER BODY

CT166G, CT167G, CT166GA, CT167GA (Fenner Electric Pump)

The tilting system comprises an electro-hydraulic pump (fig 1) powered by an on-board heavy duty 12V battery to operate a pair of hydraulic rams. The pump is operated from a remote control switch pad on a detachable lead (fig 2). An isolator switch with removable key is also provided to isolate the on-board electrical system.



Fig.2

Operation

Before commencing tilting operations, the screw/clamps securing the "A"-frame to the tilting platform should be released (see Fig.3)

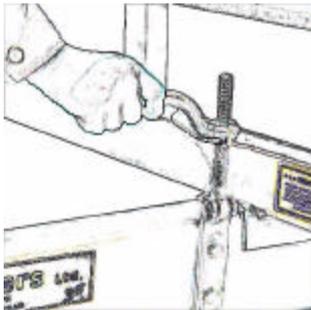


Fig.3

Connect the remote control lead to the socket on the side of the pump. (fig 4) Insert the key into the isolator switch and turn clockwise through 90° to switch on.

After checking that the rear of the trailer is clear, operate the 'up arrow' button on the remote control to tilt the trailer platform. To ensure that the platform cannot be accidentally tilted, disconnect the remote control lead plug from the socket (a straight pull).

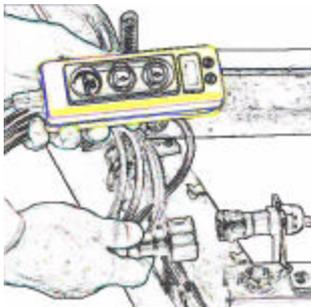


Fig.4

To return the tilting platform to the horizontal position, ensure that the area between the platform and chassis is clear of obstructions and operate the 'down arrow' button until the platform is fully lowered. Turn the isolator key anti-clockwise through 90° to switch off the system, and remove the key.

During normal operation the 'Green' LED lamp on the remote control will be lit. If the 'Red' LED lamp lights it will indicate that the battery charge is low -See pages 6-7 for battery information and more on control indicators.



ENSURE THAT THE SCREW/CLAMPS ARE IN THE LOCKED POSITION AND THE ISOLATOR KEY HAS BEEN REMOVED BEFORE DRIVING AWAY.

TILTING THE TRAILER BODY (continued)

Manual Operation

back-up system to the electrical pump - (Fig.5)

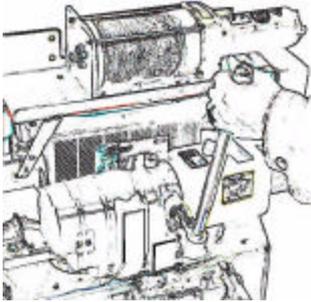


Fig.5

Operation

Before commencing tilting operations, the screw/clamps securing the "A"-frame to the tilting platform should be released (see Fig.3)

Ensure that the manual release valve (Fig. 6) is closed by turning clockwise with the specially shaped end of the pump handle.

Insert the handle into the main socket (as per Fig.5).

After checking that the rear of the trailer is clear, operate the pump handle to tilt the trailer platform.

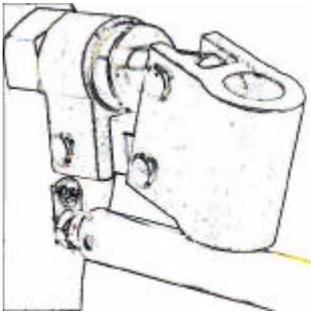


Fig.6

To lower the platform, check that the area between the platform and chassis is clear of obstructions and using the end of the pump handle open the release valve by slowly turning anti-clockwise.

Control the rate of descent by opening and closing the valve as required.

When the platform is fully lowered close the release valve so that the trailer is ready for further use.



ENSURE THAT THE SCREW/CLAMPS ARE IN THE LOCKED POSITION BEFORE DRIVING AWAY.

Trailers with Manual Pump only

The tilting system comprises a manually operated hydraulic pump to operate the hydraulic rams (fig 7).

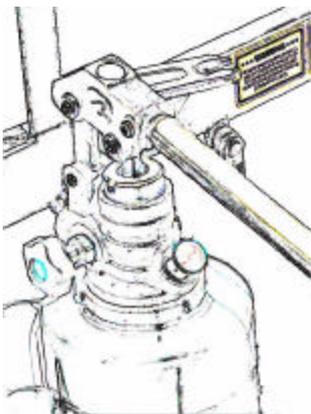


Fig.7

Operation

Before commencing tilting operations, the screw/clamps securing the "A"-frame to the tilting platform should be released (see Fig.3)

Ensure that the release valve is closed by turning clockwise.

After checking that the rear of the trailer is clear, Operate the hand lever to tilt the trailer platform.

To lower the platform, check that the area between the platform and the chassis is clear of obstructions and slowly open the release valve by turning anti-clockwise.

Control the rate of descent by opening and closing the valve as required.

When the platform is fully lowered close the release valve so that the trailer is ready for further use.



ENSURE THAT THE SCREW/CLAMPS ARE IN THE LOCKED POSITION BEFORE DRIVING AWAY.

BATTERY**All Models (Electric Pump)**

When working on or near the battery, observe the following safety precautions:



EXPLOSIVE GAS



DO NOT SMOKE. AVOID CONTACT WITH SPARKS OR FLAMES



CONTAINS SULPHURIC ACID



AVOID SKIN & EYE CONTACT

“MAGIC EYE” ‘State of battery’ indicator

(automatic built in hydrometer)

Colour: Green

Satisfactory state of charge > 65%

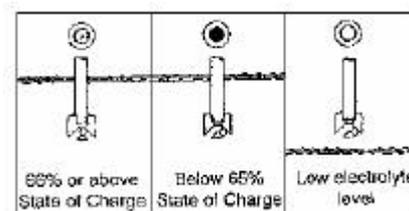
Black

Battery requires charging <65%

Yellow | Clear

Electrolyte level low *

Green Black Clear

**BUILT IN HYDROMETER**

* When the electrolyte level becomes low, do not use the battery and also check the electrical circuit of the system. The battery must be replaced via the manufacturer or their agent as shown on the enclosed manufacturer's leaflet.

The battery is warranted by the manufacturer against defects in materials or workmanship for one year - the full details of which are shown on the leaflet.

BATTERY (continued)**BATTERY CHARGING**

Battery Charger Selection:

A nominal 12 volt charger rated as follows, is required to maintain the battery at optimum performance

Battery capacity in Ampere hours	Charger size Rating in Amperes
102Ah (as fitted)	10 to 15A or 20A

The selection of the correct charger rating for your battery size is important to reduce the risk of premature battery failure:

A charger which is under-sized will not fully recharge the battery. This will result in a steady reduction of the available battery capacity, the inability of the battery to complete a normal service cycle, and eventually irreversible damage leading to battery failure.

A charger that is over-sized can, under certain circumstances, lead to potential hazardous situations (a: formation of an explosive gaseous mixture and b: acid spillage - leading to unchargeable dry cells and exposed acidic fluids), and early battery failure.

Battery Health

Whilst batteries which are not fully charged may still give reasonable performance, the effect of never allowing the batteries to be completely recharged will be a gradual reduction in performance and reduced battery life.

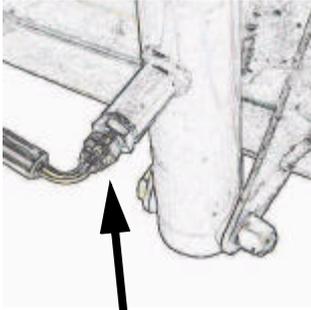


Fig.8

HYDRAULIC SYSTEM MAINTENANCE

1. Wipe all external surfaces of the pump and reservoir tank to remove dirt, dust and oil residue.
2. Inspect unit for leaks and rectify as necessary.
3. Clean reservoir filler cap, remove and renew if cap and/or seal is damaged. Check oil level and replenish with clean hydraulic oil. This should preferably be carried out with actuator (and thus the body ram) at minimum stroke, i.e. with the trailer body down. The oil should be approximately 25mm (1") from the top of the reservoir tank when full.
4. Fully replace the hydraulic oil at intervals depending upon the severity of the duty and environment conditions:

Very dirty, dusty and damp:	6months to 1 year
Otherwise, in more favourable conditions:	Approx. 2 yearly

Draining the Tank

With the body fully lowered, remove the main pressure supply hose from the ram (fig 8) and dip into a suitably sized and positioned container or oil drum. Switch on the electrical operating system (or operate the manual pump) to pump the oil into the container. Continue until the oil flow virtually ceases.



DO NOT RUN THE PUMP FOR LONGER THAN IS NECESSARY WHEN THE TANK IS APPROACHING EMPTY

Filling the Tank

Use clean, filtered oil of the correct grade. Use a filter unit with a filtration level of 25 microns (25 μ m) or better.

Use only clean jugs and funnels.



CONTAMINATION OF HYDRAULIC OIL ACCOUNTS FOR THE VAST MAJORITY OF HYDRAULIC SYSTEM FAILURES

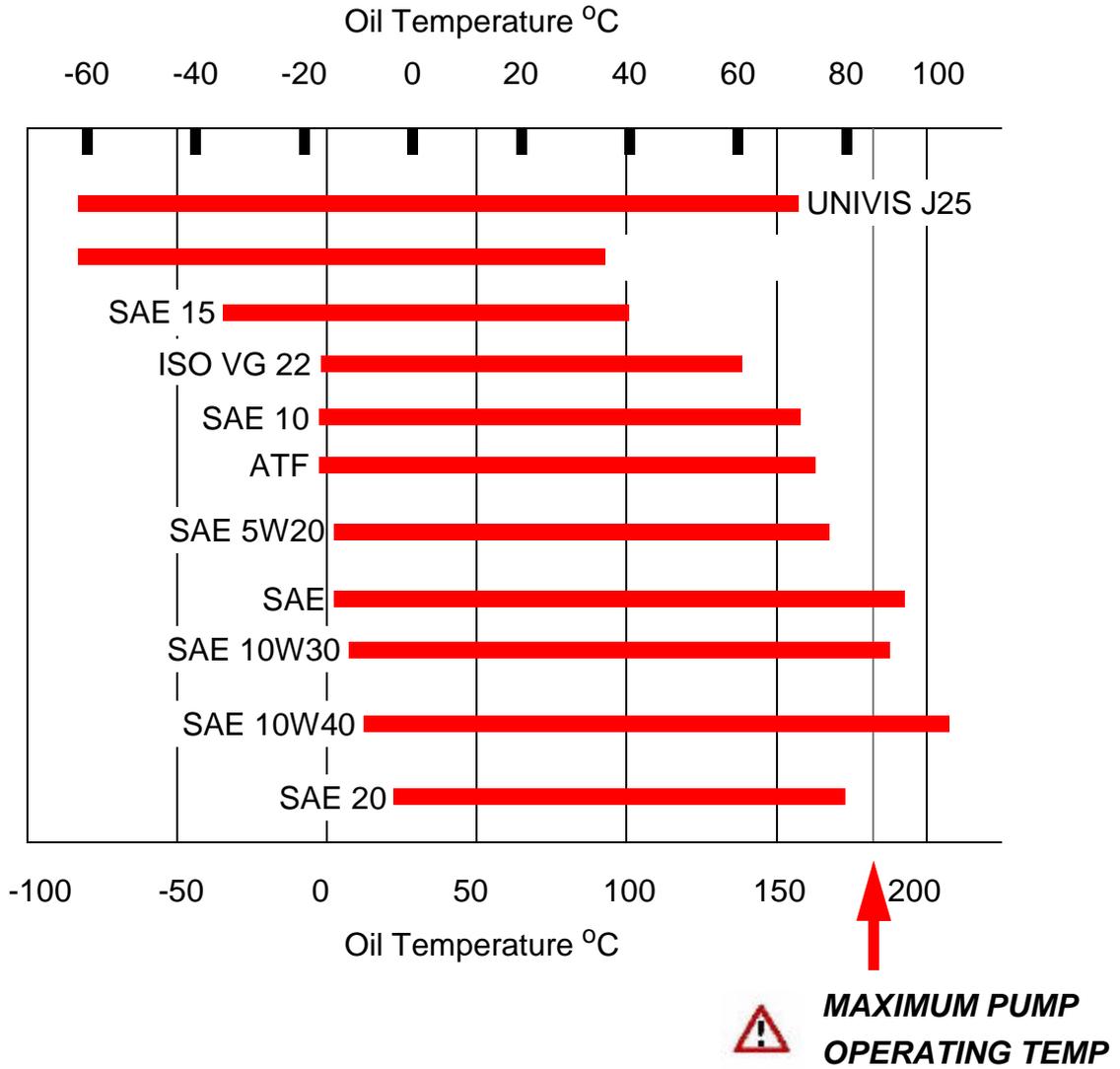
Connect the hose to the ram but do not tighten. Fill the tank to the level mark. Bleed the system by operating the motor briefly whilst observing the release of air from the hose connection on the ram. As soon as there is no sign of air escaping, tighten the connector. Check the oil level and top up if necessary.

HYDRAULIC SYSTEM MAINTENANCE (continued)**HYDRAULIC OIL RECOMMENDATIONS**

Mineral oil with a viscosity range from 6 to 450 centistokes at normal working temperature. The following oils are recommended for use at temperatures between -20°C and +60°C.

Supplier	Grade	Pour Point °C	Viscosity In Centistokes	
			@0°C	@40°C
B.P.Trading	HLP 32	-33	--	15
	HP 32	-54	--	15
Burmah Castrol	Hyspin VG 15	-39	117	15
	Hyspin AWS 15	-39	117	15
	Hyspin AWH 15	-51	82	15
Esso	Nuto H 15	-35	95	14
	Nuto HP 15	-35	95	14
	Univis J 13	-59	50	15
ELF Sternal	Albatross	-40	77	15
Gulf Oil	Harmony 15 AW	-30	93	14
Lorco	HT15	-40	90	14
	FVT 15	-40	85	14
Mobile Oil	11	-45	87	17
Shell UK Oil	Tellus T 15	-51	75	15
Total Oil GB	Azolla 15 N	-30	100	15
	Equivis VG1S	-51	82	15

Where the temperature is constantly below -10°C, please consult your oil consultant or supplier.



Oil viscosity

Temperature limits based on maximum viscosity of 1000 centistokes (5000 SSU) and Minimum viscosity of 15 centistokes (80 SSU)

TYRES

Tyres must be maintained at the pressures indicated below. Under-inflation will adversely affect handling and fuel consumption and will lead to premature wear. If seriously under-inflated, a tyre will overheat and fail very rapidly.

When renewing tyres, always ensure that you purchase a tyre of the same size and load/speed index rating. Different makes or models of tyres of the same size can have widely differing load/speed index ratings and inflation pressures. Using tyres with a lower rating can be dangerous. If in doubt, ask a tyre distributor or our technical department.

Tyre Fitments

	Load/Speed Index	Pressure (Cold)
12" Wheels		
155/70R12C (tubeless)	104/101N	95 psi / 6.5 bar
185/60R12C (tubeless)	104/101N	95 psi / 6.5 bar
13" Wheels		
195/50R13C (tubeless)	104/101N	95 psi / 6.5 bar

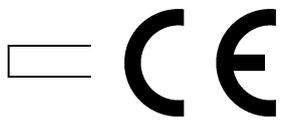
The maximum gross weight figure given on the trailer plate is always equal to or less than the approved maximum load for the tyres at 60mph multiplied by the number of tyres on the trailer. Other maximum load figures are marked on some tyres. These do not apply to the UK or Europe and should be disregarded

Tyre Repairs

Punctures should be inspected and repaired by a specialist tyre distributor. If the tyre is too severely damaged for a repair to be carried out the tyre must be replaced.



DO NOT FIT TUBES TO TUBELESS TYRES AS THIS CAN LEAD TO A "BLOW OUT" IN THE EVENT OF A FURTHER PUNCTURE.



User Notes