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## **Gully Emptying Machines Safe Working Practices**

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The following system of work must be followed by all personnel who work or maintain gully emptying machines. These instructions supplement the operating procedure which can be found in the instruction manual placed in the driver's cab of the vehicle. They are in the form of simple do's and don'ts which if adhered to will make the operation of this equipment safe and with the minimum of risk to the operators.

### **1. RESPONSIBILITIES**

It is the responsibility of the Head of the Department and all Supervisors within that Department to ensure that all personnel who work with and operate gully emptying machines are competent by way of experience and/or training to operate the machines under their control. It is also the responsibility of the Head of Department to ensure that personnel receive tetanus and typhoid inoculations, particularly those personnel who are engaged in the emptying of household cesspits.

### **2. VEHICLE AND PLANT MAINTENANCE DEPARTMENT**

It is the responsibility of the Vehicle and Plant Department to ensure that the vehicles are maintained to the manufacturer's specifications contained in the vehicle maintenance manual.

### **3. DRIVERS AND OPERATORS**

It is the responsibility of the driver and the operator to carry out daily checks on the oil, water, battery and tyres of the vehicle and to report any defect in the operating mechanism of the vehicle to their immediate supervisor, so that arrangements can be made for the vehicle to be returned to the maintenance department for the necessary repairs to be carried out. It is also the responsibility of the driver to ensure that a first aid kit is carried and adequately maintained.

### **4. HAZARDS**

The principle danger to the operator is in trying to open the rear door of the tank when it is in a pressurised condition. Any attempt to do so will result in an accident with serious injuries to the operator. On this equipment the rear door is sealed by a series of screw clamps; they must only be tightened by hand pressure. Under no circumstances must any attempt be made to apply extra pressure by means of a "length of pipe". When it is necessary to open the rear door for cleaning operations to be carried out, there is a sign indicating which clamp is the last one to be undone. When undoing this clamp the operator should stand to one side of the vehicle so that should anything unforeseen occur the operator is standing in a safe position.

5. If the vehicle has been out of operation for more than one week the ball valve on top of the vacuum tank must be tested by lifting off the top cover and checking that the rubber ball valve is seating correctly. Any obstruction or debris on the perforated grid should be removed and a further check on the valve should be made. If the valve is still not working correctly you will be unable to obtain a reading on the vacuum/pressure gauge and the vehicle must be returned to the vehicle maintenance department. It should be noted that the gauge is divided into two sections. The vacuum side is coloured white and the pressure side is coloured orange.
6. **HYDRAULIC OIL**  
Some of the working operations of the equipment are carried out under hydraulic pressure. Checks should be made frequently on hydraulic hoses for any leaks or damage which may cause the pipe to burst under pressure. Hydraulic oil being ejected from a pipe can cause serious injuries, particularly to the eyes and skin.
7. **ACCIDENTS**  
Any accidents that result in cuts or abrasions to the skin must be treated by disinfecting the immediate area and applying a sterilised dressing or plaster. It must always be remembered that tetanus and typhoid germs are ever present particularly where household cesspits are being emptied and prompt action where an injury is received could well prevent a serious illness.
8. **PROTECTIVE CLOTHING**  
The minimum protective clothing which must be worn is protective footwear, overalls and gloves, as identified through risk assessment.
9. **HYGIENE**  
Personal hygiene is a very important factor in combating illness and disease. Food must never be eaten before washing your hands. Showers are available at Aspen Way and should be used when convenient.
10. **OPERATING PROCEDURE**  
On all vacuum/pressure gauges the vacuum sector is white; the pressure sector is red.

### **Gully Cleansing and Resealing**

Check hazard warning flashing beacons are working correctly – beacons must be in use during gully emptying and resealing operations.

Check rear door clamps are in place and tightened.

Position vehicle adjacent to gully. Switch on hazard warning flashing beacons.

Using the appropriate lifting handle remove the gully grating.

Insert the dipper tube into the gully, select vacuum (white) on the tank and draw off the contents of the gully.

If the contents of the gully are obstinate, back flushing by use of pressure (red) in the tank and agitation of the fluid in the gully with the dipper tube may be required followed by vacuum removal.

The gully should then be resealed with fresh water.

The gully grating should be replaced securely ensuring it is properly located.

**Cesspit (or remote Gully) Emptying, etc.**

Check hazard warning flashing beacons are working correctly – beacons must be in use during cesspit (or remote gully) emptying etc.

Check rear door clamps are in place and tightened.

Position vehicle safely as close as possible to the pit (or gully). Switch on hazard warning beacons.

Remove from locker on vehicle sufficient lengths of suction hose to reach from the rear of the tank to the pit.

Remove inlet valve protection cover, assemble suction hoses and connect to the valve (check that all sealing rings in hose connections are clean and undamaged prior to assembly). Open inlet valve fully.

Insert the hose end or extension tube into the pit to clear the contents by use of vacuum, back flushing agitation and final vacuum suction as in road-side gully cleansing except that the vehicle driver stations himself at the vacuum/pressure selector lever and the operator handles the hose at the pit.

The driver and operator co-ordinate the whole operation by use of pre-arranged signals and verbal communication.

Using the trailing hose and cock at the rear of the vehicle, fresh water is available for hosing down or resealing a gully. However, if the distance is excessive a bucket may have to be used.

The inlet valve must be closed, the hoses disconnected and stowed and the valve protective cover replaced on completion.

11. TANK EMPTYING PROCEDURE

Drain off liquid using rear discharge valves.

Apply vacuum and ease the door clamps.

**Note: the clamps must not be fully released at this stage.**

Release vacuum by opening vent cock until pressure gauge reads 'O'.

Open side and two rear discharge valves fully to ensure zero pressure in tank.

When above operations have been completed the rear door clamps may be fully released for door opening.

Door must be clipped in the open position during any tank tipping operations.

12. CLOSING AND RESEALING TANK DOOR

Check rubber seal is clean and undamaged. Check door clamps and screws are undamaged and in proper alignment.

Close door, engage all door clamps and tighten the screw hand wheels.

Close all discharge valves.

Apply vacuum to tank and finally tighten all door clamp hand wheels.

Release vacuum. Check pressure gauge reads '0'.

Vehicle is now ready for use.

**Note: pressure must not be applied in the tank until all rear door clamps are in position and fully tightened.**

13. GULLY CLEANSING BY HAND

There are some gullies that will be inaccessible to the machine and it will be necessary for these to be cleaned using hand methods. The appropriate tool to be used is either a long handed scoop, bowl or gab sewer cleaner. Under no circumstances should the debris be cleared by hand only.

At the completion of the operation the gully grating should be replaced securely ensuring that it is properly located.

14. ADDITIONAL HAZARDS

It is not uncommon for hypodermic syringes to be found in gullies. Wherever these are located they must be placed into an approved "Sharps Burn Bin" and disposed of by incineration. It must also be remembered that although protective gloves are available there is no equipment that will give adequate protection from needlestick injuries and for this reason additional care must be taken when removing these items.

15. ROAD SIGNING

Where applicable or on the directions of the engineer, road signing must be carried out in accordance with the provisions of Chapters 7 and 8 of the Traffic Signs Manual (1991).