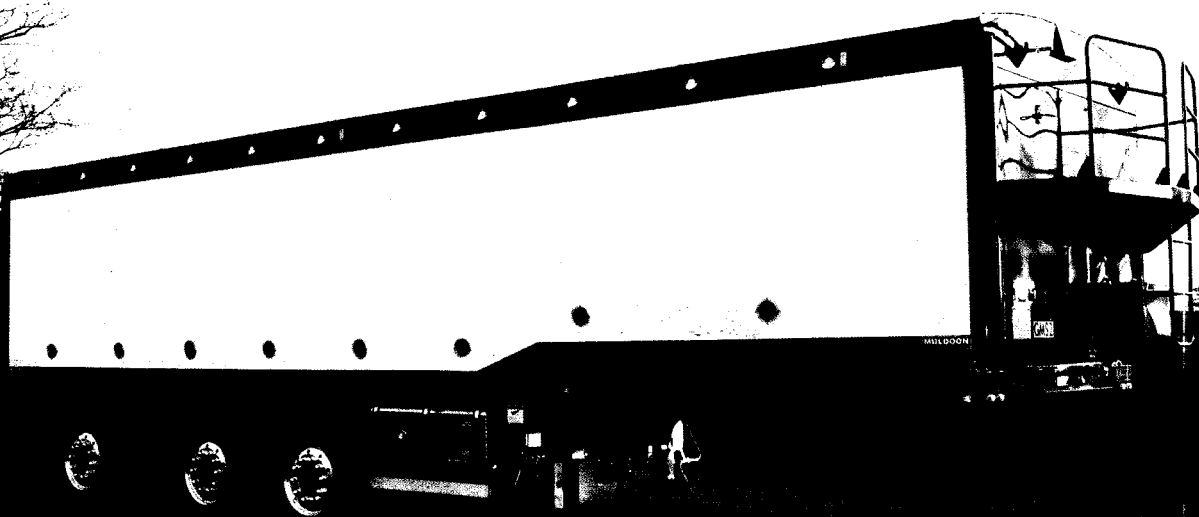


MULDOON

DRIVER'S MANUAL

BULK BLOWING TRAILER

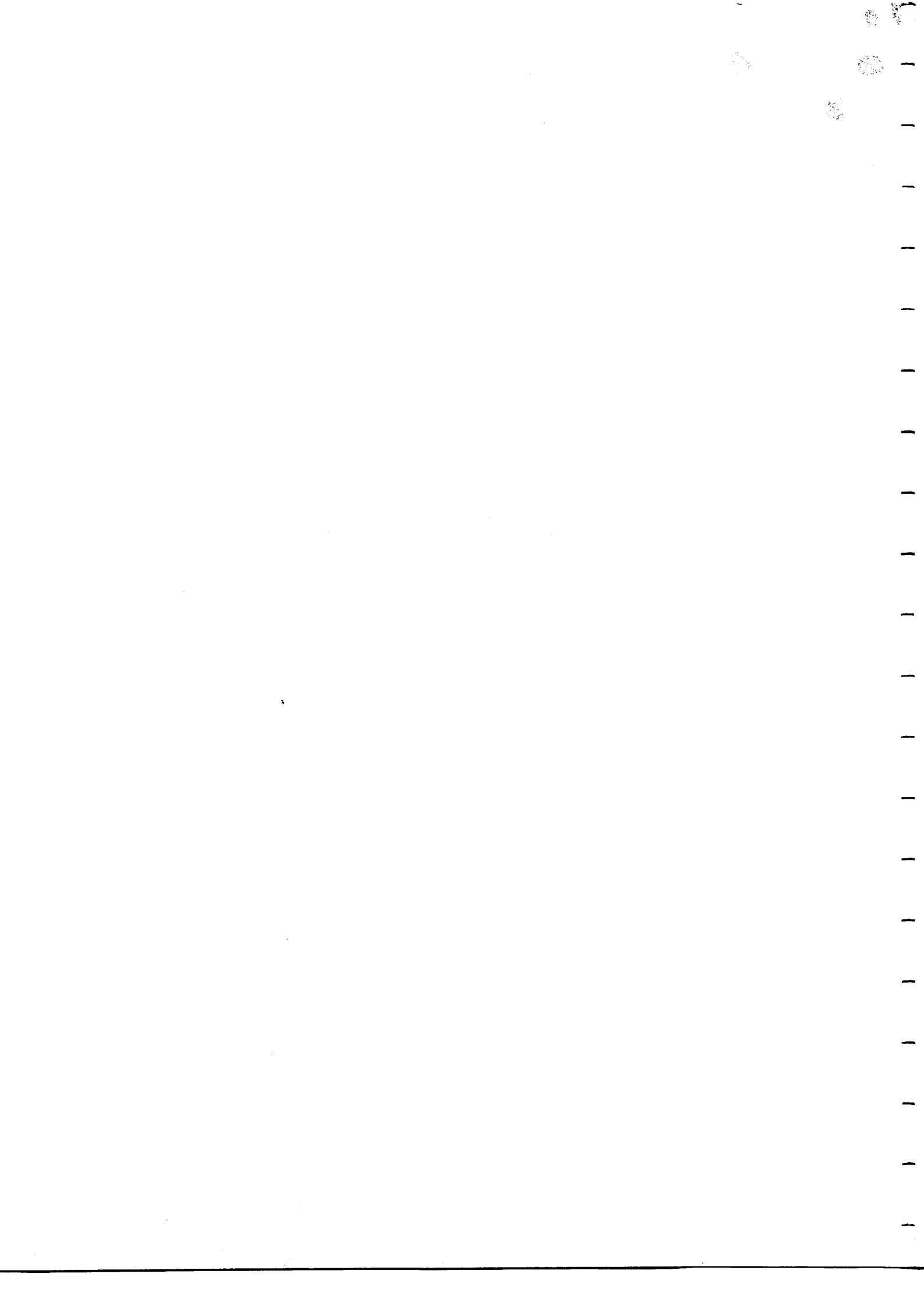
Operators Guide





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- SECTION 1: DAILY WALKAROUND CHECKS AND FIRST USE INSPECTIONS**
- SECTION II: REGULAR OPERATIONAL AND SAFETY INSPECTIONS**
- SECTION III: MAINTENANCE GUIDE – BULK BLOWING TRAILERS**
- SECTION IV: REAR STEER SYSTEM – OPERATION, SAFETY AND MAINTENANCE GUIDE**
- SECTION V: TRAILER OPERATING PROCEDURE**
- SECTION VI: IMPORTANT SAFETY NOTES**



SECTION I

DAILY WALKAROUND CHECKS AND FIRST USE INSPECTIONS

This section looks at the first of two essential roadworthiness inspections – the daily walkaround check and first-use inspection. It offers best practice advice on setting up a system for reporting faults and looks at defect reports, while clearly stating your legal position.

A responsible person must undertake a daily walkaround check before a vehicle is used. As a driver, you may carry out the check before you first drive the vehicle on the road each day.

Assistance may be required at some time during the inspection, for example to see that lights are working. Alternatively, a brake pedal application tool may be used as an effective way of making sure stop lamps are working and that the braking system is free of leaks. In addition, a torch, panel lock key or other equipment may be needed.

A system of reporting and recording faults

The person made responsible by the operator must carry out a minimum of one check in 24 hours. The check should consist of a walkaround look over the whole vehicle or combination. On multi-trailer operations a defect check should be made on each trailer being used. The check should cover the external condition, ensuring in particular that the lights, tyres, wheel fixings, bodywork, trailer coupling, load and ancillary equipment are serviceable.

There must be a system of reporting and recording faults that may affect the roadworthiness of the vehicle and having them put right before the vehicle is used. **Daily defect checks are vital, and the results of such checks should be recorded.**

It is important that enough time is allowed for the completion of these checks and that staff are encouraged and trained to carry them out thoroughly. Drivers should be made aware that daily defect reporting is one of the critical elements of any effective vehicle roadworthiness system. If you are the user of the vehicle, it is your responsibility to ensure that any hired, leased or borrowed vehicle is in a roadworthy condition and has all the necessary certification when used on the road. Therefore it is essential that you do a daily walkaround check (as described in the previous box) before any such vehicle is used. It is your responsibility to be able to provide maintenance records covering the period of use. Furthermore, if a vehicle has been off the road for a period longer than between planned maintenance inspections, it should be given a full safety inspection (see Section 4), prior to being brought back into use.



Drivers' defect reports

As the driver, **you are responsible** for the condition of your vehicle **when in use on the road**.

Drivers must be able to report any defects or symptoms of defects that could prevent the safe operation of the vehicles. In addition to daily checks you must monitor the roadworthiness of your vehicle when being driven and be alert to any indication that the vehicle is developing a fault (e.g. warning lights, exhaust emitting too much smoke, vibrations) or other symptoms.

When a vehicle is on site work, you should walk around the vehicle to identify any serious defects. If any defects are found, you must not use the vehicle on the road until it is repaired.

Providing a written report

Any defects found during the daily check, while the vehicle is in use or on its return to base **must be the subject of a written report** by you or some other person responsible for recording defects. The details recorded should include:

- vehicle registration or identification mark;
- date;
- details of the defects or symptoms; and
- the reporter's name.

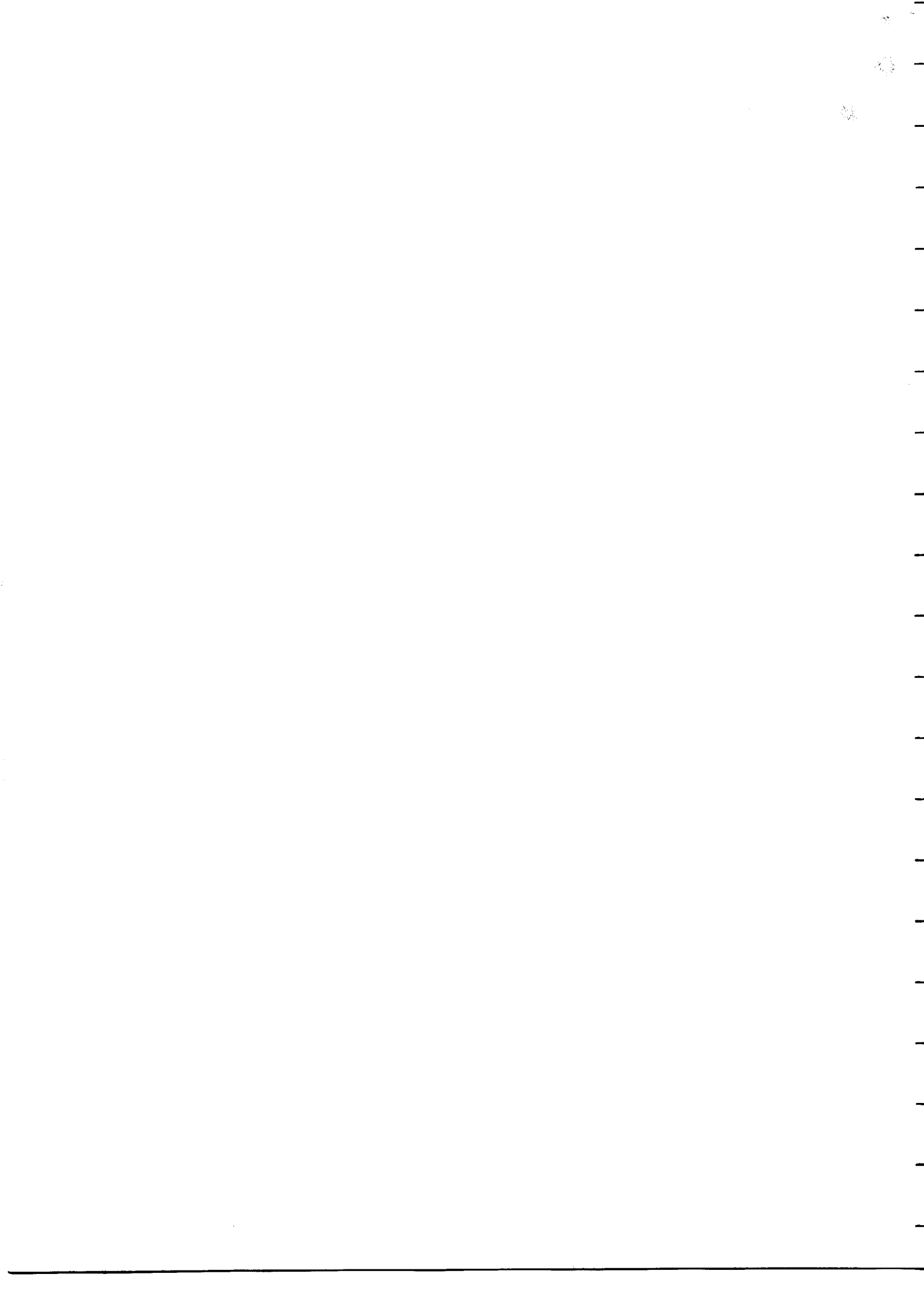
It is common practice to use a composite form that also includes a list of the items checked each day. It is advisable that where practicable the system should incorporate 'Nil' reporting when each driver makes out a report sheet – or confirms by another means that a daily check has been carried out and no defects found. Electronic records of reported defects are acceptable and must be available for 15 months along with any record of repair.

Appropriate action

All drivers' defect reports must be given to a responsible person with sufficient authority to ensure that any appropriate action is taken. This might include taking the vehicle out of service. Any report listing defects is part of the vehicle's maintenance record and must be kept, together with details of the remedial action taken, for at least 15 months.

'Nil' defect reports, if they are produced, should be kept for as long as they are useful. Normally this is until the next one is received or until the next scheduled safety inspection is undertaken. 'Nil' defect reports are not required under the conditions of operator licensing. However, they are a useful means of checking that drivers are carrying out their duties in this respect.

If you are an owner-driver, you will probably not have anyone to report defects to, except to your transport manager (if you have one). In these cases, defects can simply be recorded and held for at least 15 months. Examples of a daily check and defect report form are shown in Annexes 3A and 3B (pages 24 and 25). Also see the pull-out diagrams at the end of this Guide showing the core safety inspection items.



Drivers' responsibilities

Drivers must be made aware of their legal responsibilities regarding vehicle condition and the procedures for reporting defects. This can be achieved by writing a letter to each driver, describing defect reporting systems as well as any other duties they are expected to perform. The driver should sign this letter to show in writing that they have received the letter and understand what is required. Drivers share the responsibility for the vehicle's roadworthiness with the operator. Drivers **may be prosecuted** for the existence of defects found on the vehicles they drive if **they are considered partly or wholly responsible** for the existence of them. **Failure to take these responsibilities seriously could result in the loss of the driver's licence to drive.**

Minor repairs by drivers

If you are an operator, you should bear in mind that drivers who are expected to repair minor defects in service, e.g. light bulb replacement, might need basic training.

Example of a driver's daily checklist

- Fuel / Oil / Water levels
- Fuel / Oil / Water leaks
- Excessive engine blower noise or smoke
- Lights – Indicators – Reflectors - Markers
- Brakes and Brake lines
- Battery security (condition)
- Coupling security
- Tyre Pressures
- Tyres and Wheel fixings
- Electrical connections
- Spray Flaps
- Security of body/wings/fixings etc
- Wipers Washers
- Steering
- Horn
- Mirrors
- Glass
- Security of load



SECTION II

REGULAR OPERATIONAL AND SAFETY INSPECTIONS

Regular safety inspections are essential to an effective roadworthiness maintenance system. Although a part of the overall vehicle maintenance plan, the inspections should ideally be undertaken as a separate, albeit often sequential, operation to routine servicing and repair. This provides the maintenance programme with the flexibility to intensify or otherwise change the frequency of inspections. It also allows the introduction of ad hoc inspections, should they be required, without affecting frequency of servicing and other routine work (e.g. when the operating conditions call for more regular checks or when first use inspections are required). In addition, freestanding inspection reports can be produced which provide the operator with the means of determining not only the roadworthiness of individual vehicles in service but also the **overall effectiveness** of their vehicle maintenance system, thus enabling the instigation of any changes that might be necessary.

Being cost effective

Although primarily undertaken in the interest of safe vehicle operations, roadworthiness inspections, together with prompt remedial action, are also cost effective. The early indication of wear, damage or maladjustment may prevent sudden failure of a component – resulting in unscheduled downtime – or prevent wear becoming so advanced that premature replacement becomes necessary. New vehicles entering service that have undergone a recorded pre-delivery inspection will not require a safety inspection provided that it is as comprehensive. Used vehicles, not previously operated, should be given a full safety inspection.

Inspection scope and content

A roadworthiness inspection can be a freestanding inspection of just those items affecting road safety and certain environmental issues. Or it can be part of a more comprehensive inspection that, in addition, takes into account items relating to the vehicle's work performance and economic operation.

We recommend that all blowing and ancillary equipment is checked and serviced at this stage.

Reference should be made to manufacturers' recommended tolerances to ensure that each item covered by the safety inspection is inspected properly and limits of wear and tolerance adhered to.

A roadworthiness safety inspection must include all the items covered by the statutory annual test.

Safety inspection intervals

There are no set rules for inspection intervals but operational needs must not over-ride safety considerations.

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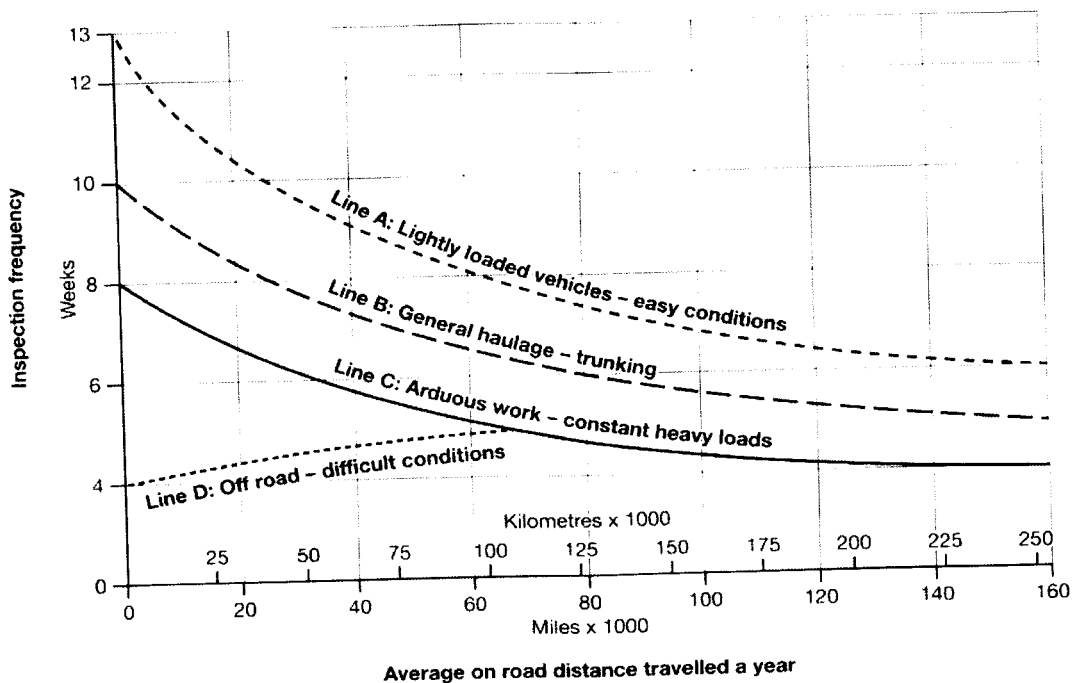


Safety inspections should, where it is practicable, be programmed to follow a time-based pattern. The frequency at which inspections are undertaken should be determined by assessing the level of mechanical degradation likely to be incurred over a period as a result of the vehicle's usage. This will depend on such factors as:

- the type of vehicle, the nature of its load and the equipment and fittings it carries or supports;
- the type and range of operations on which it is likely to be engaged;
- the type of terrain and the nature of the environment in which it operates or is likely to operate; and
- the distance and speeds at which it travels and the journey times.

Assessing the above factors for each vehicle will, in the majority of cases, enable a time-based programme of inspections to be formulated. Some operations, however, are subject to continuous change, or vehicles can frequently be re-assigned alternative tasks or routes, making the adoption of a strictly time based inspection programme impracticable. Mileage-based inspection programmes may be more suitable for some operators but will need to be linked to time. The resulting intervals in time between mileage based inspections will need to be consistent with the guidance in the table below.

Industry standards for bulk blowing vehicles would normally see an interval of 6-8 weeks between inspections.



Adapting your systems

If you are an operator, you are free to tailor these inspections to suit the nature of your operations and vehicle characteristics. You may even deploy more than one system across a fleet, where vehicles and the nature of the work vary. Systems will be judged

primarily on their effectiveness in maintaining roadworthiness. It follows therefore that in order to maintain an inspection regime that is sufficiently flexible to accommodate these changing criteria it might be more appropriate to adopt an inspection frequency determined by, for instance, the vehicle's mileage.

SAFETY INSPECTION AND REPAIR FACILITIES

This section covers the facilities needed to undertake safety inspections and the arrangements needed if you do not undertake your own inspections. The same guidance applies to the repair of any defects found during safety checks.

Own safety inspection facilities

If you decide to provide your own safety inspection facilities, **you must ensure that they are adequate for the job.** Facilities should ideally include:

- undercover accommodation for the largest vehicle in the fleet. This is required to ensure that safety checks can be conducted satisfactorily in all weathers (depending on fleet size the building may need room for more than one vehicle at a time);
- tools and equipment appropriate to the size and nature of the fleet; • an adequate under-vehicle inspection facility. Ramps, pits or hoists may not be needed if the vehicles have enough ground clearance for a proper inspection to be made on hard standing;
- adequate lighting
- access to brake test equipment (e.g. a roller brake tester, decelerometer)
- access to headlamp test equipment
- access to engine exhaust emission test equipment;
- access to steam or pressure under-vehicle washing facilities; and
- a safe working environment.

Other requirements

A diesel engine smoke meter (or a gas analyser, if petrol) should be used to ensure that the level of exhaust smoke is within the legal requirements. Operators should also have access to a brake tester for the purpose of checking braking efficiency. While a decelerometer may be adequate for some vehicles, **the use of a roller brake tester is strongly advised.** A roller brake test is an important indicator of braking efficiency, although not a substitute for regular and proper maintenance. Roadworthiness inspections can, of course, be included in an operator's overall maintenance plan.

Contracted-out arrangements

If you decide to use a contractor, **you are still responsible** for the condition of vehicles that are inspected and/or maintained for you by your agents or contractors.

Care must be taken to ensure that the facilities used by the agent are adequate and that the staff are competent. The list of facilities (on page 16) can be used to check a contractor. You should also ascertain that the agent/contractor is in possession of an inspection manual and has suitable inspection sheets.

Drawing up a contract

It is essential to have a written contract that sets out precise details of vehicles covered and frequency and type of check, along with a repair policy.

Contract limitations

Even when a maintenance contract exists between you (the operator) and an agent, **you remain legally responsible for the condition of the vehicle**, the authorization of any report work undertaken and the retention of records. You need to be satisfied at all times that the level of maintenance agreed matches the demands placed upon vehicles and that the standards achieved by the contractor **are kept at a sufficiently high level**. You should therefore **talk regularly** with the contractor to ensure that they are familiar with the operational needs of the vehicles they are required to inspect and repair. This knowledge is important if the contractor is to be called upon to advise on a particular course of action – particularly when your technical know-how is limited. Even when you get on well with a contractor, you should have a system for regularly monitoring the quality of work done. Obtaining first time pass rate annual test data from the contractor is one way of checking that their performance is satisfactory, but this should be supplemented by other checks. **Any sign of unreliability, incompetence or other shortcomings causing a reduction in the standards achieved should receive prompt attention**. Here again a good working relationship can help, but if problems persist you might well consider a change of contractor.

Visiting agents

As an operator, you may employ a visiting agent to undertake safety inspections, repairs and routine maintenance. However, you should ensure that the agent is qualified to work on the type of vehicles you operate and that adequate facilities and tools are provided. As is the case for contracted-out maintenance, **you are responsible for vehicle condition and upkeep of records**.

Roadside safety inspections

Only emergency repairs may be done at the roadside. Routine maintenance, including safety inspections and repairs, **may not** be carried out on the public highway.



Planning a safety inspection programme

Safety inspections must be planned in advance. Vehicles that are subject to a statutory annual test may have their year's programme planned around the anticipated test date to avoid duplication of work associated with the test, such as cleaning and major servicing.

A simple method of drawing up a programme is to use a year planner or flow chart. An example can be found in Annex 7 (page 34). Computer-based systems are equally acceptable, and the numerous electronic vehicle maintenance record management and storage systems available will often incorporate an electronic planning feature.

The information, **which should be kept in the simplest form possible and displayed prominently**, will serve as a reminder of programmed inspections or of any changes that have been necessary. All vehicles subject to programmed attention should be included. Ideally planners or charts should be used to set safety inspection dates at least six months in advance. Vehicles' annual test dates should be included, **as should servicing and other ancillary equipment testing or calibration dates, e.g. tachograph, lifting equipment, etc.**

The planner should be updated regularly by indicating the progress of the programme and recording any extra work carried out. Vehicles that have been taken off the operator's licence or other vehicles temporarily off-road should have their period of non-use identified, and a note should be made when vehicles have been disposed of. The planner or chart may be used to record other items in the vehicle maintenance programme, such as servicing, unscheduled work and refurbishing. Each activity should be clearly identified.

Monitoring

This section examines why the importance of continuous reviewing and monitoring of the quality of safety inspections is essential for all systems for maintaining a vehicle's roadworthiness. Continuous reviewing and monitoring of the quality of the systems in place is essential to ensure that they are sufficiently comprehensive to do the job.

One method of monitoring is to invite a technically competent third party periodically to re-inspect or undertake a safety inspection irrespective of whether inspections are done in-house or are contracted out. The content of completed inspection reports can also be analysed. **Checks should reveal any incomplete records and may also show patterns of faults.** If many faults are reported regularly this could indicate that:

- there are not enough safety inspections;
- daily walkaround inspections are not being completed correctly; or
- defects are not being corrected promptly or effectively.

If no defects or few defects are reported regularly, safety inspection intervals may be too short or the quality of the inspection may not be good enough.

Effective monitoring will enable you, the operator, to adjust the intervals between safety inspections to suit the operation of vehicles. In this respect there is considerable flexibility provided within the framework of this guide.



Annual test results

Attention should also be paid to annual test results and the issue of prohibitions and inspection notices. Regular monitoring of all available information will enable you to check the effectiveness of your system in keeping your vehicles roadworthy. The frequency or scope of safety inspections may need to be adjusted to ensure that the system maintains the roadworthiness of all vehicles operated.

Monitoring must continue whether or not changes are made to the inspection programme..

British standards (If applicable)

British Standard BS EN ISO 9000 is a standard for quality management systems. If you are an operator who has been awarded this standard, you must observe systems of working set out in a quality manual. Such a manual would contain details of the organisation of the business, responsibilities of staff and methods of operation. Those businesses aiming for BS EN ISO 9000 accreditation would need to consider the training, documentation recording, planning, standards and monitoring aspects of their organisation.

SECTION III

MAINTENANCE GUIDE – BULK BLOWING VEHICLES

Equipment checklist:

- Tipping gear inc hydraulic ram, brackets, hinge bar, bushes, fittings and hoses.
- Engine/ Blower assembly and system inc engine, blower, drive assembly, hyd pump, engine electrics, pipework and valves.
- Rotary valve, bottom pan, auger, control valves, motors and all hydraulics and fittings.
- Complete hydraulic system, pipework and fittings.
- Hyd tank, diesel tank, battery box, tool box, hose trays and all accessories and fittings.
- Lights and wiring.
- Wheels and Tyres.
- Axle and Suspension assembly and components.
- EBS/ABS, braking valves, piping and wiring.
- Chassis mainframe assembly.
- Alloy body and equipment inc dividing doors, locking cams, catwalks / ladders, cover, windows, taildoor, back panel and fittings.
- Steering system, components and fittings.
- Feed hoses and couplings.
- Wipers, Washers, Steering, Horn, Mirrors, Glass (RIGID BLOWER).

SECRET

1. The purpose of this document is to provide information regarding the activities of the [redacted] in the [redacted] area.

2. The information contained herein is classified as [redacted] and is intended for the use of [redacted] only.

3. This document is to be read in conjunction with the [redacted] and the [redacted].

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Maintenance Schedule – General Guide.

Axis and Suspension etc -	For more details see manufacturers guide.
Engine -	For more details see manufacturers guide.
Blower -	For more details see manufacturers guide.
Steer System (if fitted) -	For more details see manual.

Every Week:

Check:

1. **Tipping seat brackets and body brackets.**
2. **Steering system (see steer system manual).**
3. **Blower (see manufacturers guide).**
4. **Tipping hinge bar and brackets.**
5. **Anger bearings.**
6. **Rotary seal.**
7. **Reduction gearbox extension shaft.**
8. **Outer S cam bushes (Drum Brakes)**
9. **Inner S cam bushes (Drum Brakes)**
10. **Brake slack adjusters (Drum Brakes)**
11. **Steering System (See Steer Manual)**

Check:

11. **Hydraulic oil level.**
12. **Oil level in blower.**
13. **Blower air intake filters.**
14. **Engine - see manufacturers guide.**

Every 3 Months:

Change:

15. **Blower air intake filters.**
16. **Hydraulic oil filter element.**
17. **Engine oil and filters – see manufacturers guide.**

Certified inspection of trailer should be carried out at this time and any maintenance or repairs carried out as required.

NOTE: Faults, breakages or damage occurring in the interim period should be notified to Management and arrangements made for repairs to be carried out at the earliest opportunity. This will reduce the risk of any potential accident or injury. It will also reduce extra repairs and expense in the long term and prolong the life of the vehicle and associated equipment.

Maintenance Schedule - (Continued)

- Axles and Suspension etc - For more details see...
- Engine - For more details see...
- Blower - For more details see...
- Gear System (if fitted) - For more details see...

Every Week:

Check:

1. Tipping rear brackets and body
2. Steering system (see steering system)
3. Blower (see manufacturers instructions)
4. Tipping hinge bar and bearings
5. Axle bearings
6. Rotary seal
7. Reduction gearbox oil level
8. Outer 2 cam bushes (D.M.)
9. Inner 2 cam bushes (D.M.)
10. Brake slack adjusters (D.M.)
11. Steering System (See steering system)

Check:

11. Hydraulic oil level
12. Oil level in blower
13. Blower air intake
14. Engine

Every 3 Months:

Change:

Deutz maintenance and service schedule = E check = ● adjust = ○ clean = ▲ replace = ■							Industrial engines		Section	
fl prior to or during 1st trial run, check 2x daily during the breaking-in phase or when commissioning new and overhauled engines							The specified engine maintenance intervals are permissible recommended maximums. Depending on usage, reduced maintenance intervals may be necessary (comply with the unit manufacturer's operating instructions). #Maintenance must only be carried out by authorised service personnel			
fl every 10 operating hours or daily										
E10	E20	In operating hours (OH) every					Years		Operation	
		E25 500	E30 1000	E40 3000	E45 5000	E60 6000	1	2		
●	●		■						Top lube oil up if necessary	6.1.2/3.1.4
			■						FL 2011 lube oil, see TC 0199-99-3002	6.1.1/ 6.1.2
	●		▲						BFL 2011 lube oil, see TC 0199-99-3002	6.1.1/ 6.1.2
			■						Oil bath (lube oil quality, see TC 0199-99-3002 / Dry type filter)	6.4
			■						Oil filter cartridge FL 2011	6.1.3
			■						Oil filter cartridge BFL 2011	6.1.3
			▲						Fuel filter cartridge	
			●						Change fuel pump/strainer if necessary	
			●		●			■	Flexible fuel leakage lines, see TC 0138-21-9300	6.2.2
●			■						Injection valve	6.2.1/ 6.2.3
			●						Fuel pre-cleaner (halve if the fuel quality is poor)	#
			●					■	Intake air cleaner (if available, maintain according to maintenance indicator)	4.2
●			○						Battery and cable connectors	6.4.3 /6.4.4
○			○						Engine monitoring system, warning system (replace if necessary)	6.7.1
			○						Valve clearance	3.3 #
								■	V-belt	6.6.1#
									Crankcase pressure vent valve	6.5.#
									Timing belt, extreme-duty, see adjacent table	#
									Timing belt, heavy-duty, see adjacent table	#
									Timing belt, light-duty, see adjacent table	#
●									Check engine for leaks (visual inspection)	#
									Engine mount (replace if damaged)	-
										9.2

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DEUTZ F4L/914 NON TURBO

6.1 Maintenance Schedule

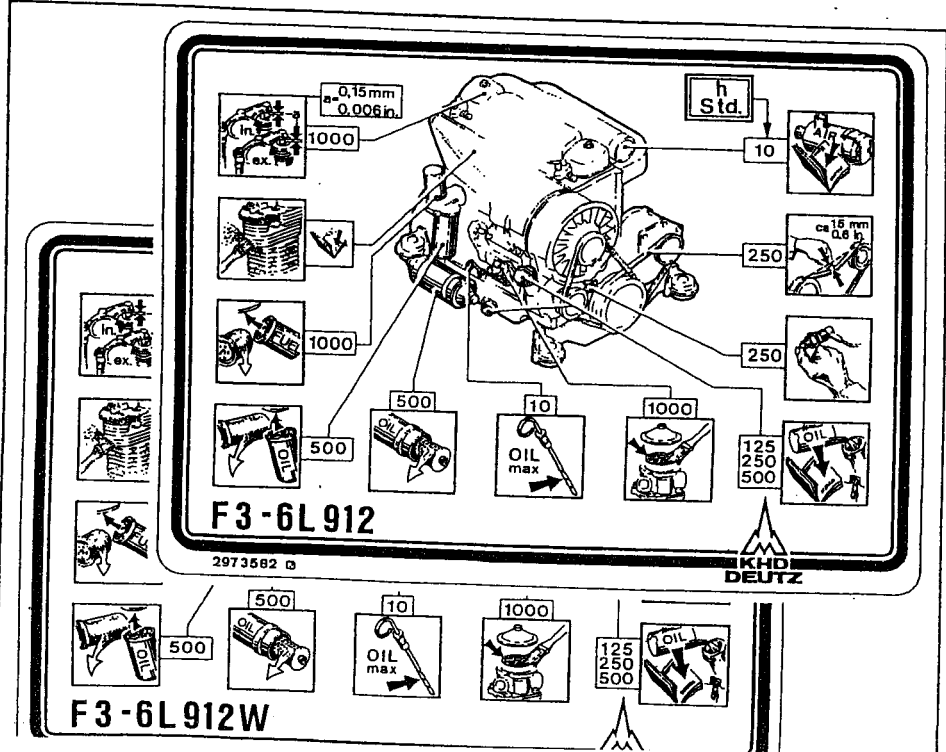
Every 10 Bh and daily resp.	Once after 50 ²⁾	In running hours (h) ¹⁾								Check		See Section
		Every								Clean	Renew	
		125	250	500	750	1000	2000	3000				
•										•	Oil level in engine / separate tank	6.1.2
•	•									•	Engine for leakages	
		•								•	Oil-bath and dry-type air cleaners ³⁾⁴⁾	6.4
		•	•	•						•	Battery and lead connections	6.7.1
		•	•	•		•	•			•	Cooling system (dep. on engine use ³⁾)	6.3.1/2
		•	•	•		•	•			•	Engine oil (dep. on engine use ⁵⁾)	6.1.2
		•	•	•		•	•			•	Oil filter cartridge	6.1.3
		•	•	•		•	•			•	Fuel filter cartridge	6.2.1
		•	•	•		•	•			•	Valve clearances (readjust if necessary)	6.6.1
		•	•	•		•	•			•	Engine mountings (retighten if necessary)	9.2
		•	•	•		•	•			•	V-belts (retension if necessary)	6.5
		•	•	•		•	•			•	Alarm system	6.5.3
		•	•	•		•	•			•	Fuel strainer / Fuel screen	6.2.2
		•	•	•		•	•			•	Fastenings	6.8.1
		•	•	•		•	•			•	Flame type heater plugs ⁴⁾	6.8.3
		•	•	•		•	•			•	Bypass oil filter	6.1.4
		•	•	•		•	•			•	Injectors	

¹⁾ Max. permissible guide intervals
²⁾ Commissioning new and overhauled engines
³⁾ Clean if necessary
⁴⁾ Renew if necessary
⁵⁾ Oil change intervals: see 6.1.1
⁶⁾ FL 912W only

The Maintenance Chart displayed here is supplied as self-adhesive label along with each engine. Check that this label is stuck at a convenient location on the engine or driven equipment.

If necessary, ask for a fresh supply of labels.

Valid for routine maintenance work is the Maintenance Schedule: see 5.1.



Stop engine before carrying out any maintenance work.





MAINTENANCE

Perform maintenance operations at the intervals indicated in the following chart, and more frequently under hard operating conditions (frequency in stopping or starting the engine, operation in dirty waters or during winter season, sulphur content in fuel superior to 0,5%, operating without load.

Operation	Component		HOURS								
			8	50	150	300	500	1000	2000	5000	9000
Cleaning	Filter	Dry type cleaner*									
		Oil bath cleaner	●								
		A.C. pump			●						
	Fins	Cylinder and cylinder head		●							
		Blower		●							
		Oil cooler		●							
	Fuel tank						●				
	Injector					●					
Checking	Level	Air cleaner oil	●								
		Crankcase oil	●								
		Battery electrolyte				●					
		Turbocharger							●		
		Tightening of fuel delivery unions and bolt and nuts				●					
		Fan "V" belts			●						
	Valve clearance					●					
	Injector pressure setting					●					
Replacement	Oil	Air cleaner		●							
		Crankcase			●						
		Injection pump governor			●						
	Cartridge	Dry type air cleaner**									
		Fuel filter				●					
		Oil filter				●					
	Starter brush set							●			
	Fan "V" belts							●			
Overhaul	Partial***								●		
	General									●	

* On filters fitted with service indicator, perform maintenance only when the red flag is shown on indicator.

** Replace both elements after 3 cleaning operations.

*** Partial overhaul includes inspection of cylinders, piston rings, valves, guides, springs, valve seats, injection pump, injectors decarbonizing of cylinder heads.

MEMORANDUM

TO : [Name]

FROM : [Name]

SUBJECT : [Subject]

Item	Quantity	Unit	Value
[Item 1]	[Quantity]	[Unit]	[Value]
[Item 2]	[Quantity]	[Unit]	[Value]
[Item 3]	[Quantity]	[Unit]	[Value]
[Item 4]	[Quantity]	[Unit]	[Value]
[Item 5]	[Quantity]	[Unit]	[Value]
[Item 6]	[Quantity]	[Unit]	[Value]
[Item 7]	[Quantity]	[Unit]	[Value]
[Item 8]	[Quantity]	[Unit]	[Value]
[Item 9]	[Quantity]	[Unit]	[Value]
[Item 10]	[Quantity]	[Unit]	[Value]
[Item 11]	[Quantity]	[Unit]	[Value]
[Item 12]	[Quantity]	[Unit]	[Value]
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[Item 14]	[Quantity]	[Unit]	[Value]
[Item 15]	[Quantity]	[Unit]	[Value]
[Item 16]	[Quantity]	[Unit]	[Value]
[Item 17]	[Quantity]	[Unit]	[Value]
[Item 18]	[Quantity]	[Unit]	[Value]
[Item 19]	[Quantity]	[Unit]	[Value]
[Item 20]	[Quantity]	[Unit]	[Value]

TOTAL

GRAND TOTAL

APPROVED: [Signature]

DATE: [Date]

3.10 SERVICE INTERVALS



CARRY OUT MAINTENANCE MORE FREQUENTLY WHEN THE ENGINE IS USED IN HARSH CONDITIONS (FREQUENT STOPS AND STARTS, DUSTY ENVIRONMENTS, LONG HARSH WINTERS, OPERATION UNDER NO-LOAD CONDITIONS).

IT IS STRICTLY FORBIDDEN TO CLEAN THE ENGINE WITH COMPRESSED AIR.

ADHERE SCRUPULOUSLY TO MAINTENANCE INTERVALS REPORTED BELOW.

Every 10 hours or every day

- Check Engine oil level
- Check Oil-bath air cleaner oil level
- Clean Oil bath air filter
(to carry out the maintenance operation in function of the use conditions).
- Clean Dry air cleaner
(to carry out the maintenance operation in function of the use conditions).
- Check Oil Radiator
(the radiator must be frequently cleaned using a soft brush even daily if necessary).
- Clean Fan

After 50 hours

- Change Engine oil
- Change Oil filter cartridge
- Check Vee belt

THE ABOVE SERVICE INTERVAL FOR CHANGING THE ENGINE OIL APPLIES TO THE FIRST OIL CHANGE ONLY.

FAILURE TO PERFORM THIS OPERATION WILL INVALIDATE THE WARRANTY.

THE ABOVE SERVICE INTERVAL FOR INSPECTING THE VEE BELT APPLIES TO THE FIRST INTERVAL ONLY.

Every 100 hours

- Clean Fuel pump filter

Every 150 hours

- Change Oil-bath air filter
- Check Vee belt

Every 300 hours

- Change Engine oil (must be performed at least once every 12 months in any event)



OWING TO THE FACT THAT THE ENGINE WORKS IN HARSH CONDITIONS SUCH AS DUSTY ENVIRONMENTS AND HEAVY LOADS, MAKE SURE TO CHANGE THE ENGINE OIL EVERY 150 HOURS

- Change Oil filter cartridge
- Change Fuel filter cartridge
(the fuel filter cartridge must be renewed at least once every 12 months, regardless of the hours of duty).
- Check Tightness of fuel line unions

Every 500 hours

- Check injectors
- Check Valve clearances
- Change Dry air cleaner cartridge

Every 1000 hours

- Clean Fuel tank
- Change Alternator drive belt

Every 2000 hours

- Check Starter motor brushes
- Check Turbocharger

After 5000 hours

- Overhaul Partial engine

After 9000 hours

- Overhaul Major engine

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all data is entered correctly and consistently.

3. Regular audits should be conducted to verify the accuracy of the information.

4. The second section covers the various methods used to collect and analyze data.

5. These methods include surveys, interviews, and focus groups.

6. Each method has its own strengths and weaknesses, and should be chosen based on the research objectives.

7. The final part of the document provides a summary of the key findings and conclusions.

8. It is important to note that the results of this study are preliminary and require further validation.

3.11 MAINTENANCE

CARRY OUT MAINTENANCE MORE FREQUENTLY WHEN THE ENGINE IS USED IN HARSH CONDITIONS (FREQUENT STOPS AND STARTS, DUSTY ENVIRONMENTS, LONG HARSH WINTERS, OPERATION UNDER NO-LOAD CONDITIONS).



IT IS STRICTLY FORBIDDEN TO CLEAN THE ENGINE WITH COMPRESSED AIR.



ADHERE SCRUPULOUSLY TO MAINTENANCE INTERVALS REPORTED BELOW.

NOTE: IF AN HOUR COUNTER IS NOT AVAILABLE, THE FREQUENCY OF THE INTERVENTIONS SHOULD BE CALCULATED ON THE BASIS OF A CALENDAR DAY: ONE CALENDAR DAY CORRESPONDS TO 12 HOURS OF OPERATION.

EVERY 10 HOURS OR EVERY DAY

- CHECK** Engine oil level (see chapter 9 "Running tests and adjustments" for oil capacity)
- CHECK** Coolant mixture level (see chapter 9 "Running tests and adjustments" for coolant capacity) (if necessary it must be topped up with identical mixture).
(Avoid to refill with different refrigerant mixture different from the one which is already in the circuit).
- CLEANING** Dry air filter
(to carry out the maintenance operation in function of the use conditions).
- CLEANING** Radiator
(the radiator must be frequently cleaned using a soft brush even daily if necessary).

AFTER 50 HOURS

- CHANGE** Oil filter cartridge *
- CHECK** Vee belt
- CHECK** Cooling circuit

* **IN CASE OIL FILTER CHANGE, IT IS RECOMMENDED TO CHANGE THE ENGINE OIL** (see chapter 9 "Running tests and adjustments" for oil capacity)

EVERY 150 HOURS

- CLEANING** Fuel pump filter
- CHECK** Vee belt

AFTER 150 ÷ 200 HOURS

- CHECK** Tighten head bolts
(only for engines with single gasket head for single head)

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BLOWERS

Operating Instructions

MAINTENANCE

The oil level must be checked regularly after every 100 hours of continuous running and it is important to ensure that the Blower is not rotating when this operation is carried out.

Grease should be replenished every 500 hours, but it should be noted that excessive grease will cause overheating. The escape vent must not be allowed to become blocked by solidified grease.

The periods given for oil and grease replenishment may be extended after service experience has been gained for each individual application.

It is recommended that the grease and oil be changed completely after each year of continuous running.

Both end caps and roller bearings should be cleaned out and re-packed two-thirds full with grease. The gear cover should be drained, flushed out and re-filled with oil.

Should the Blower lie idle for a period of seven days, then it should be run for several minutes to ensure it retains its free running quality.

The inlet filter should be inspected regularly to see that it is not dirty or clogged, as a filter in this state will place an additional load on the Blower causing it to become overheated, and if left for an indefinite period, may well cause a complete seizure.

Couplings, if incorporated in the drive, should be checked periodically for wear on the rubber components and for tightness of flanges and bolts.

Wedge-belts, if incorporated in the drive, must be regularly examined for deterioration and checked for correct tensioning accordance with Fig. 4. New belts must be re-tensioned and re-aligned after the 1st, 3rd and 7th hour from introduction into service.

WARNING

1) Do not reset pressure relief valve to exceed max. design pressure of Blower.

2) Do not allow pressure to build-up at low speed this will cause overheating.

3) Do not wash with high pressure water or steam in the following areas:-

ii) The drive shaft bearing area.

iii) Gear cover breather.

iiii) Air gaps at either ends of Blower.

Water ingress in these areas will allow lubricant to break down.

4) If water gets inside Blower, rotate slowly to clear water, then run under load to dry.

5) Do not run Blower with air filter disconnected.

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EVERY 200 HOURS

(ONLY FOR D754 SE3_TE3_IE3 WITH STANDARD OIL PAN AND DECAL ON ROCKER ARMS COVER)

CHANGE Engine oil (see chapter 9 "Running tests and adjustments" for oil capacity)



Change the engine oil on D754 SE3_TE3_IE3 if these models are equipped with a standard pan oil: these models are recognizable from a decal-label on rocker arms cover.

EVERY 300 HOURS

TIGHTEN Fuel line union screws and nuts

CHANGE Engine oil (see chapter 9 "Running tests and adjustments" for oil capacity)
(must be changed at least once every 12 months in any event).



OWING TO THE FACT THAT THE ENGINE WORKS IN HARSH CONDITIONS SUCH AS DUSTY ENVIRONMENTS AND HEAVY LOADS, MAKE SURE TO CHANGE THE ENGINE OIL EVERY 150 HOURS

CHANGE Oil filter cartridge

CHANGE Fuel filter cartridge
(the fuel filter cartridge must be renewed at least once every 12 months, regardless of the hours of duty).

EVERY 500 HOURS

CHECK Injectors

CHECK Glowplugs (when fitted)

CHANGE Air filter cartridge

CHANGE Coolant mixture (must be performed at least once every 24 months in any event).
(see chapter 9 "Running tests and adjustments" for coolant capacity)

EVERY 1000 HOURS

CLEANING Fuel tank

CHANGE Alternator drive belt

EVERY 2000 HOURS

CHECK Starter motor brushes

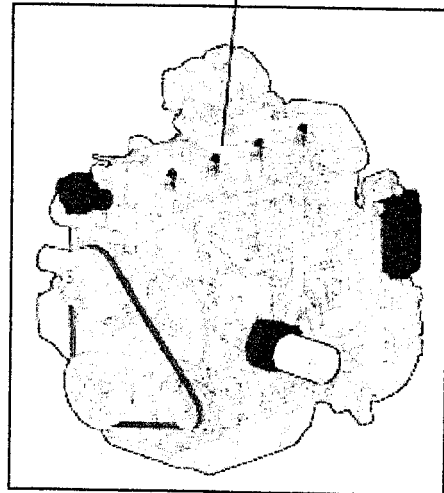
CHECK Turbocharger

AFTER 4000 HOURS

OVERHAUL Partial engine

AFTER 8000 HOURS

OVERHAUL Major engine

ATTENZIONE - WARNING**SOSTITUIRE OLIO OGNI 200 ORE****CHANGE OIL EVERY 200 HOURS**

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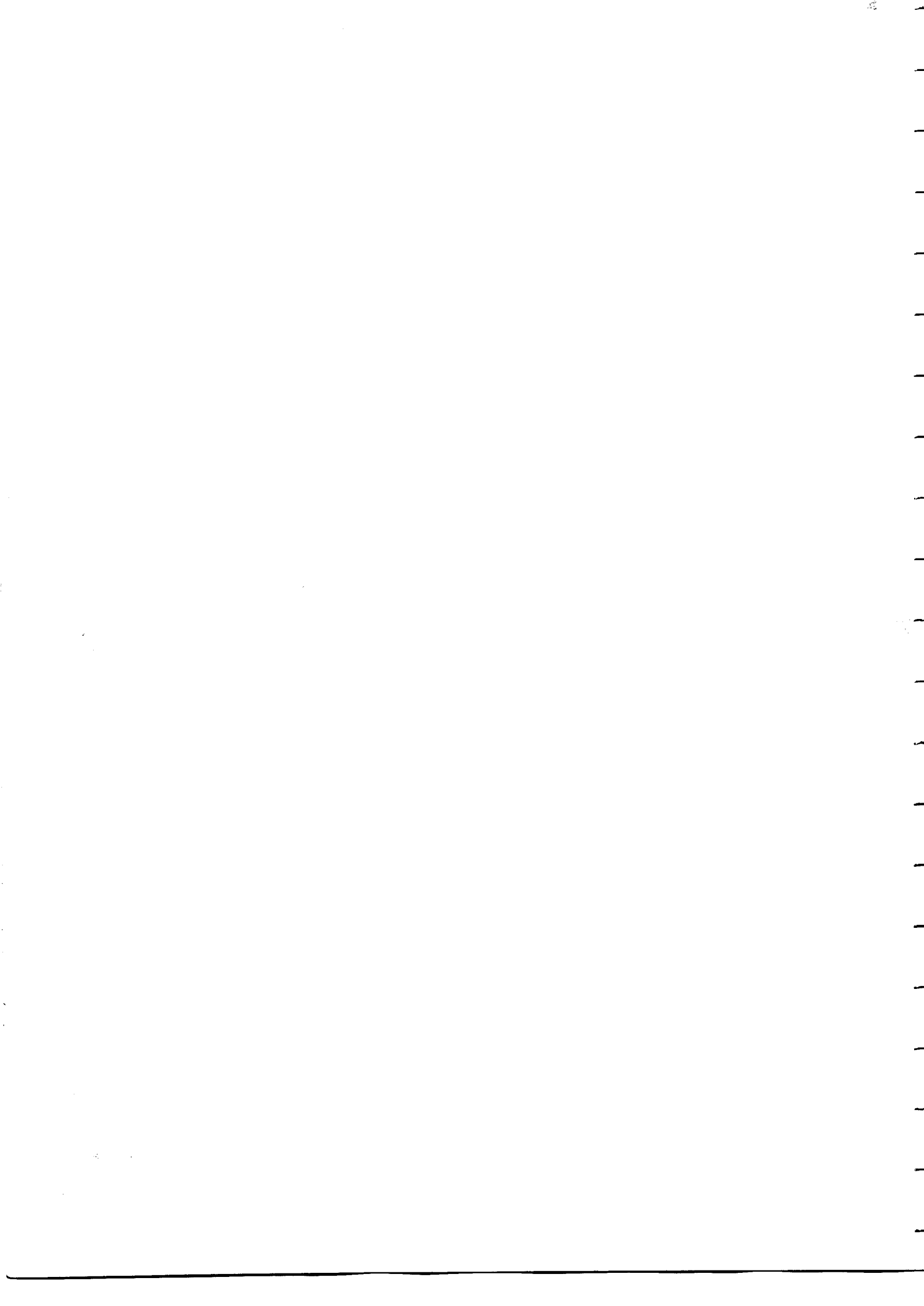
SECTION IV

POSITIVE REAR STEER SYSTEM

(IF FITTED ON TRAILER)

DRIVERS MANUAL

**INFORMATION ON OPERATION, ADJUSTMENTS, AND
MAINTENANCE OF MULDOON POSITIVE REAR STEER
SYSTEM.**



1) INTRODUCTION

The steer system works through a low pressure, four line, self-contained hydraulic circuit, with a back up reserve accumulator. As the tractor unit turns left or right the front steer rams are activated which in turn move the rear rams, which steer the rear axle.

2) BASIC INFORMATION

- A: THE WEDGE
- B: THE HYDRAULIC SYSTEM INDICATORS
- C: STEERING ALIGNMENT
- D: ADVICE AND WARNING
- E: STEERING MAINTENANCE

A) THE WEDGE

Always make sure the wedge is fully adjusted up into the slot in the 5th wheel plate.

To adjust Using a 24 mm (15/16") spanner, slack the 2 bolts under the wedge plus the lock nut on the adjusting screw
(See fig 1).

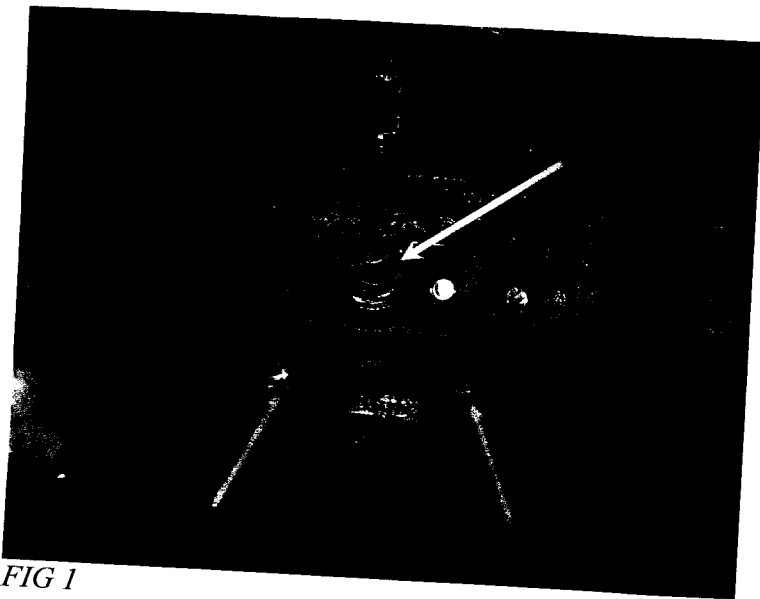


FIG 1

Screw in the adjusting screw until the wedge is **just fully engaged** in the slot with no clearance at either side
(See fig 2).

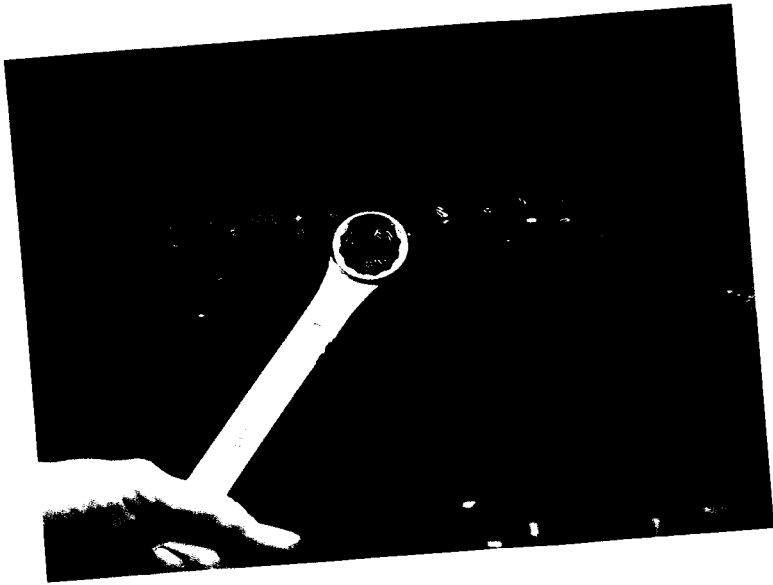


Fig 2

Do not **over tighten**, as it will be very difficult, if not impossible; to couple or uncouple the trailer.
When adjustment is correctly completed, tighten lock nut and the 2 bolts under wedge. (*See fig 1*)

B) THE HYDRAULIC SYSTEM INDICATORS

The hydraulic oil pressure and quantity should be checked regularly.

The hydraulic system has three separate indicators as to pressure and quantity of oil in the system

- B (1): THE PRESSURE GAUGE,**
- B (2): THE ACCUMULATOR**
- B (3): THE WARNING LIGHT**



B (1): THE PRESSURE GAUGE

The pressure gauge mounted on top of the accumulator indicates system pressure (*see fig 3*)

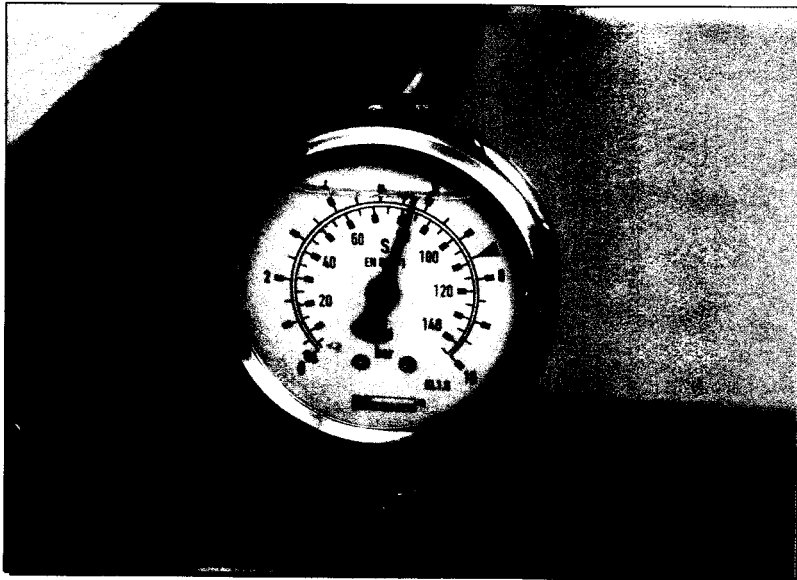


FIG 3

The normal pressure in the system is approximately 6 bar (85psi)

B (2): THE ACCUMULATOR

The accumulator holds a reserve quantity of hydraulic oil, of approx 1.5 Litres. There is a quantity indicator on the front of the accumulator. When the indicator is fully **IN** the accumulator is FULL (*fig 4a*)

When the indicator is fully **OUT** (approx 3" (75mm) the accumulator is empty (*see fig 4b*, and the pressure is at zero.

(*See fig 4c*).

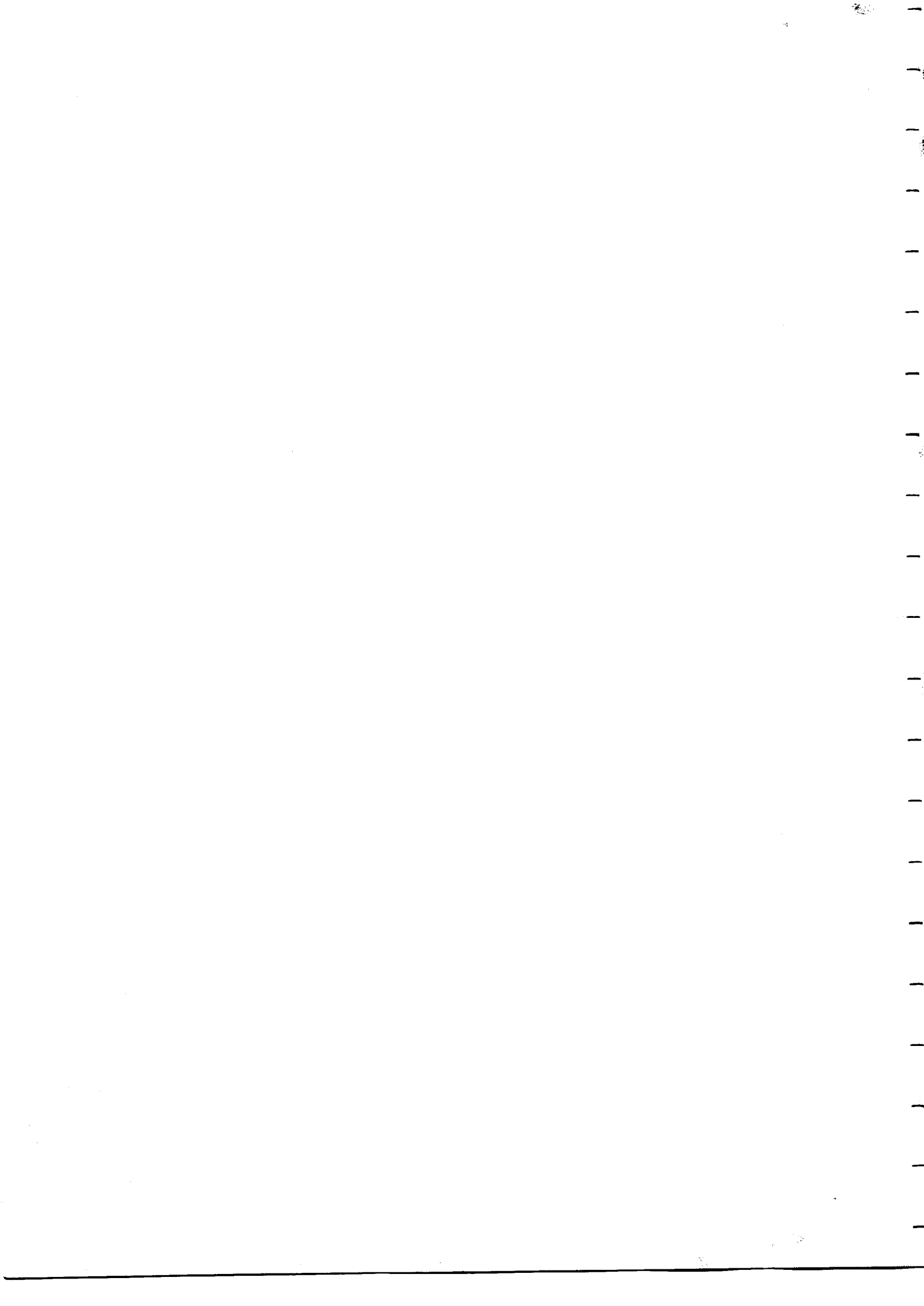




FIG 4a

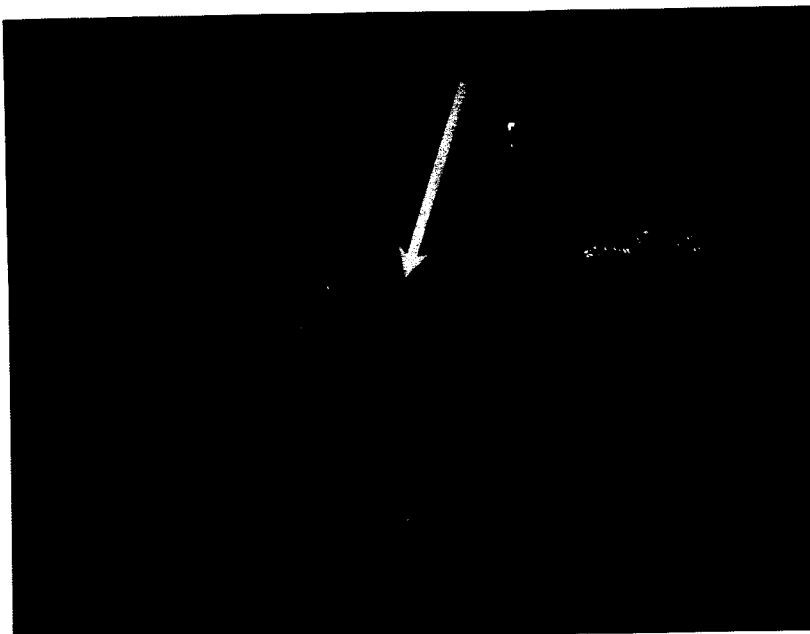
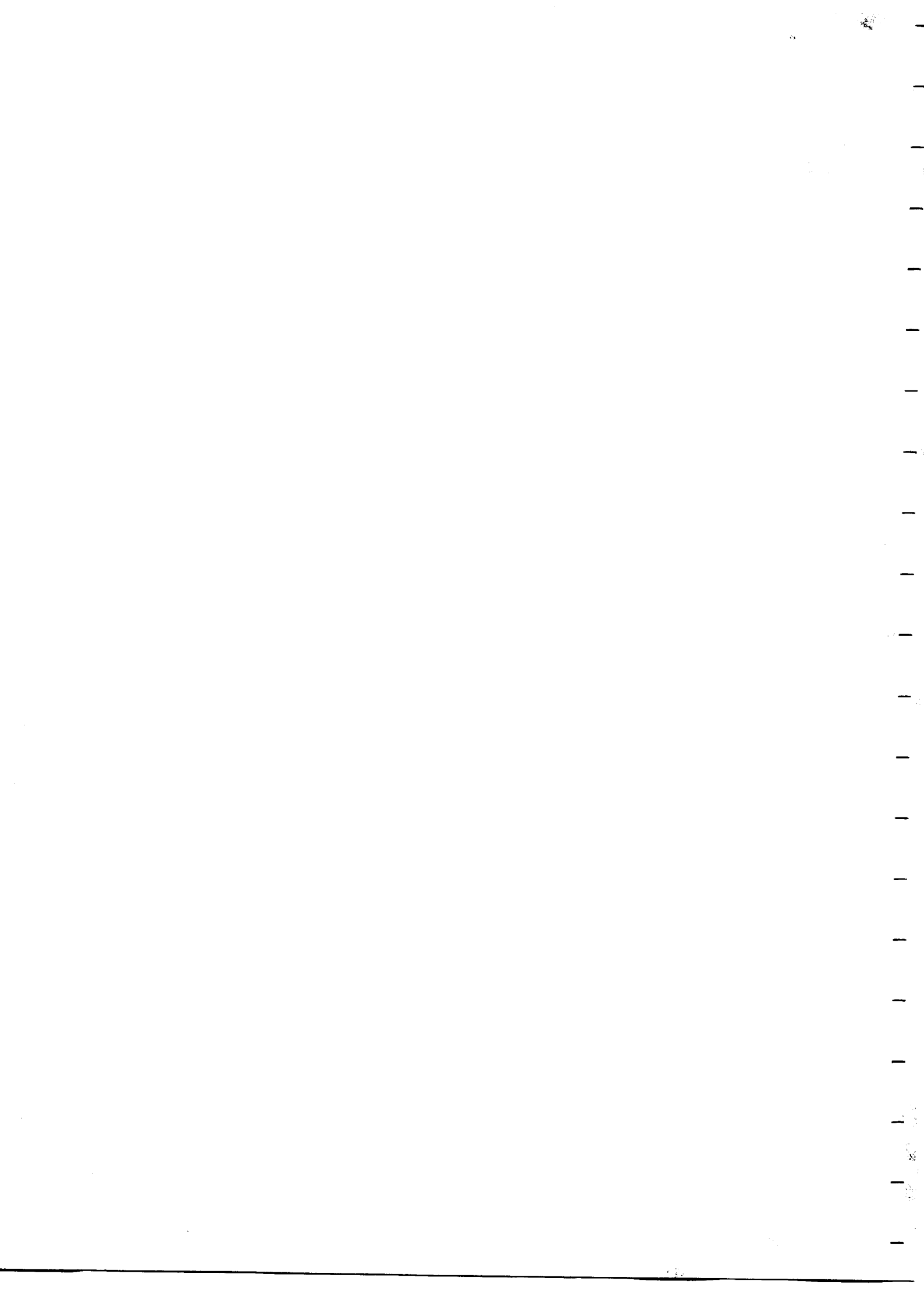


Fig 4b



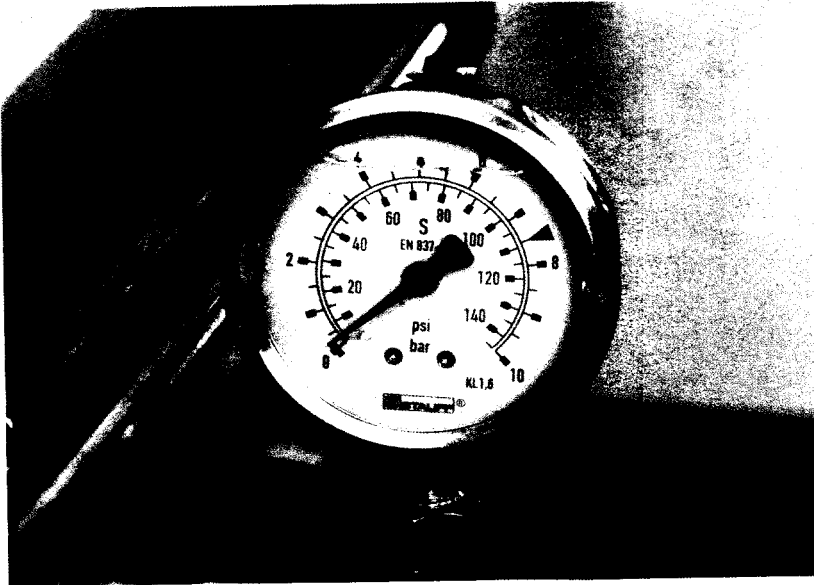


Fig 4c

B (3): THE WARNING LIGHT

If for any reason the system develops an oil leak, then the pressure will drop and the accumulator indicator will start to protrude.

If left undetected, the warning light will eventually come on; when the system pressure has dropped to approximately 1.5 bar (20 PSI).

At this stage the steer system is still in a safe and useable condition, however it is highly advisable that any oil leak be detected and repaired and the system primed to 6 bar (85 psi) as soon as possible.

Refer to the hydraulic system (in the workshop manual).

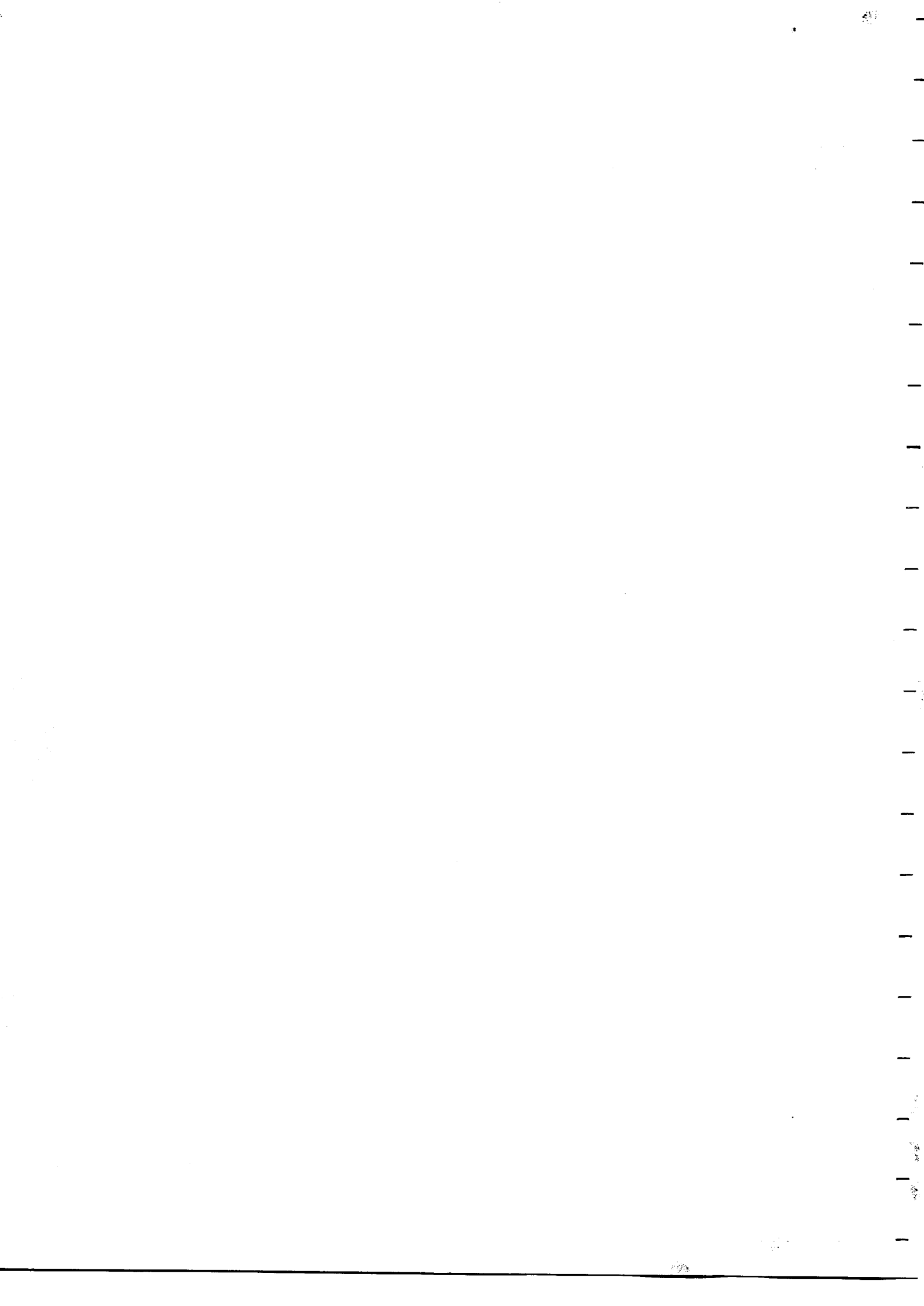
C) STEERING ALIGNMENT

Models produced prior to September 2000 require the steering to be aligned manually; Models produced after this date have an automatic alignment system.

MANUAL ALIGNMENT

WARNING MANUAL ALIGNMENT SHOULD ONLY BE ATTEMPTED BY COMPETENT PERSONNEL AFTER HAVING FIRST CONSULTED THE WORKSHOP MANUAL.

SERIOUS DAMAGE CAN OCCUR IF ALL INSTRUCTIONS ARE NOT FULLY ADHERED TO.



AUTOMATIC ALIGNMENT

Automatic alignment takes place when the tractor unit is turned to 90 degrees to the trailer in both left and right directions. It will be necessary to carry out the above operation **every time** the tractor unit is uncoupled and re-coupled, or if steering axle misalignment occurs.

D) ADVICE TO DRIVERS

ALWAYS un-couple and re-couple with trailer and tractor unit in a straight line. If this is not possible, then driver needs to take account of the angle the unit was uncoupled, and later attempt to re couple at the same angle. This is **most important** on trailers with non self-alignment.

CAUTION REGARDING TIPPING TRAILERS

STEERING AXLE TRAILERS MUST NOT BE TIPPED UNLESS UNIT AND TRAILER ARE IN A STRAIGHT LINE, AS TRAILER STABILITY COULD BE AFFECTED. ALSO, BLOWING EQUIPMENT ETC COULD FOUL REAR AXLE.

WARNING

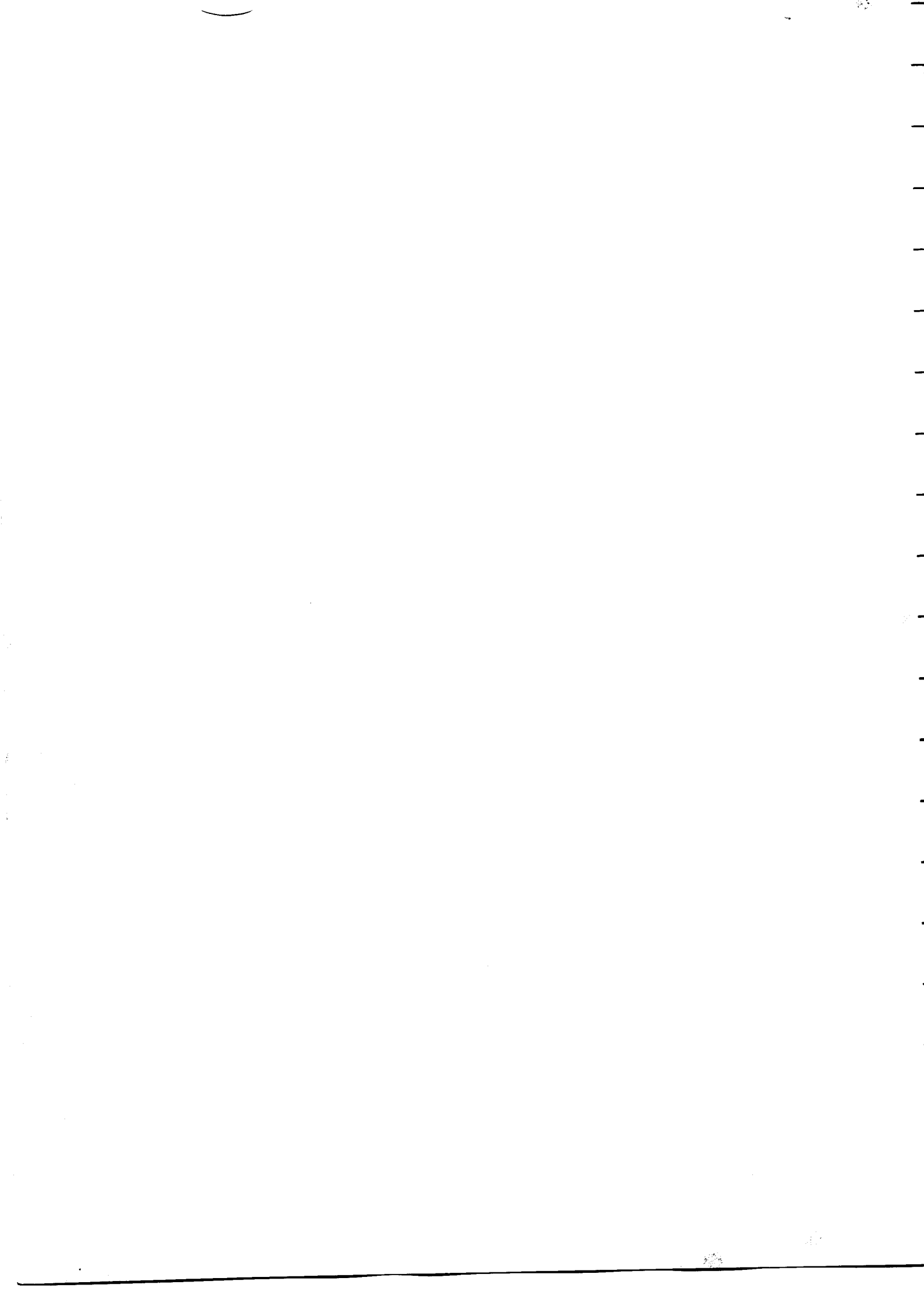
NEVER ATTEMPT TO TIP A LOADED BODY WHILE ON UNEVEN TERRAIN WITH AIR BAGS DUMPED. THIS CAN CAUSE MAJOR CHASSIS DAMAGE.

DO NOT MOVE TRAILER UNLESS BODY IS COMPLETELY LOWERED.

E) STEERING MAINTENANCE

The front and rear turntables should be greased weekly. Use good quality waterproof grease (see following list of recommended greases).

The driver should also look out for any oil leaks or damage in the hydraulic circuit, leaking steer rams, a drop in oil pressure or quantity as explained in 'B' above and excess vertical movement in the turntables that would indicate that a replacement may be necessary. Other eventual common replacement parts may be steer ram bearings and pins, steer module bushes, the cam roller bearing, the rubbing plate. If the trailer persists in running out of line, it is possibly due to one of the aforementioned faults. If he finds any other faults or damage to the front module, rear bogie or hydraulic system he should seek assistance immediately in order to avoid further damage or inefficient operation.



SUITABLE EQUIVILENT GREASES

SHELL - RETINAX HD2 OR HDX2

DUCKHAMS - LB 10

BP ENER GREASE - LSEP-2

FUCHS- RENOLIT EP-2

CASTROL SPHEEROL LEP-2 (OR HIGHER SPEC) PYROPLEX BLUE

OMEGA - 77

MOBILGREASE - XHP 222

ESSO - UNIREX EP-2

OR ANY EQUIVILENT HIGH QUALITY, LITHIUM BASED GREASE

Grease nipples are situated on the front offside corner of the rear bogey (*see fig 5*) and at the back of the wedge on the front turntable (*see fig 6*)



Fig 5

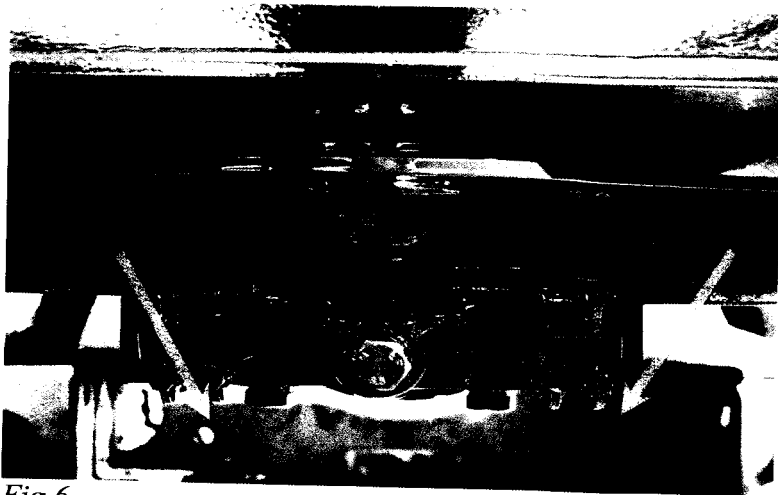
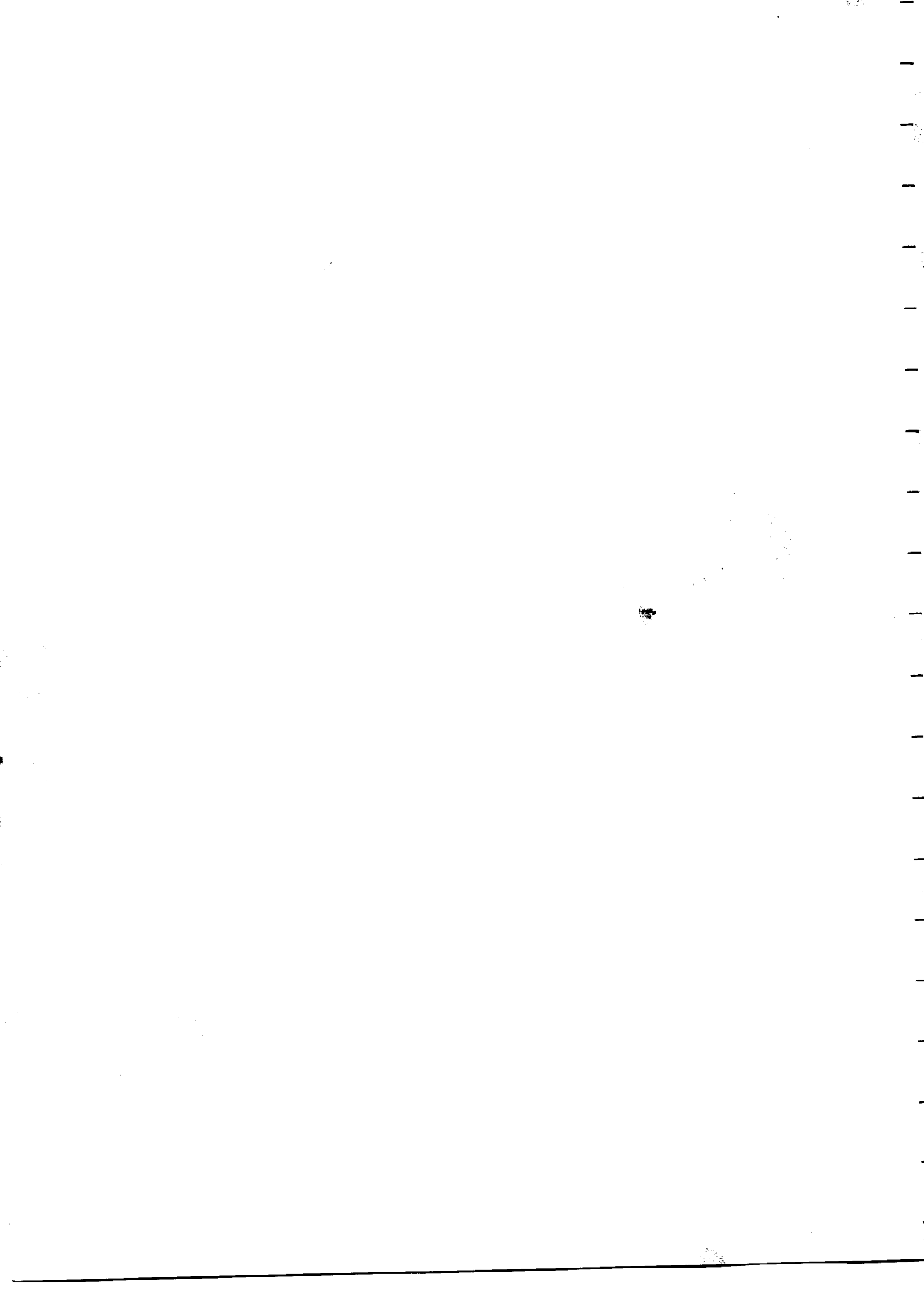


Fig 6



On earlier trailers the cam follower bearing grease nipple is situated just in front of the wedge under the rubbing plate (See fig 7).



FIG 7

(The tractor unit needs to be uncoupled for this operation).

On later trailers the nipple is situated either under the wedge adjusting screw boss, or on the wedge itself.

(See fig 8)

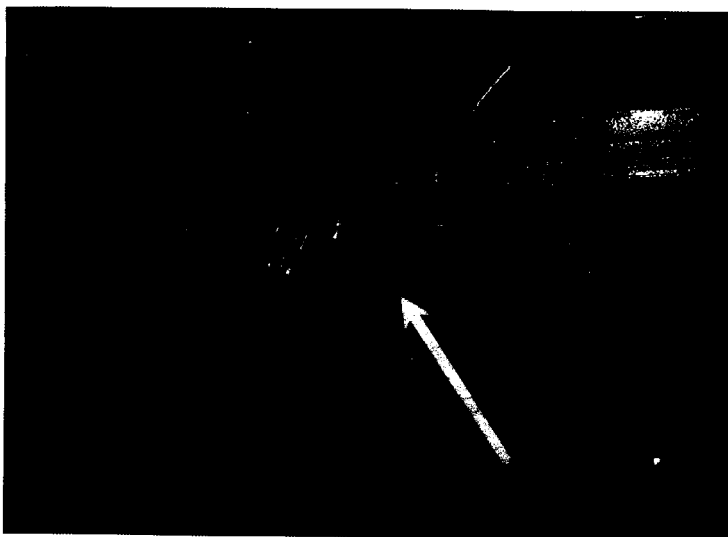
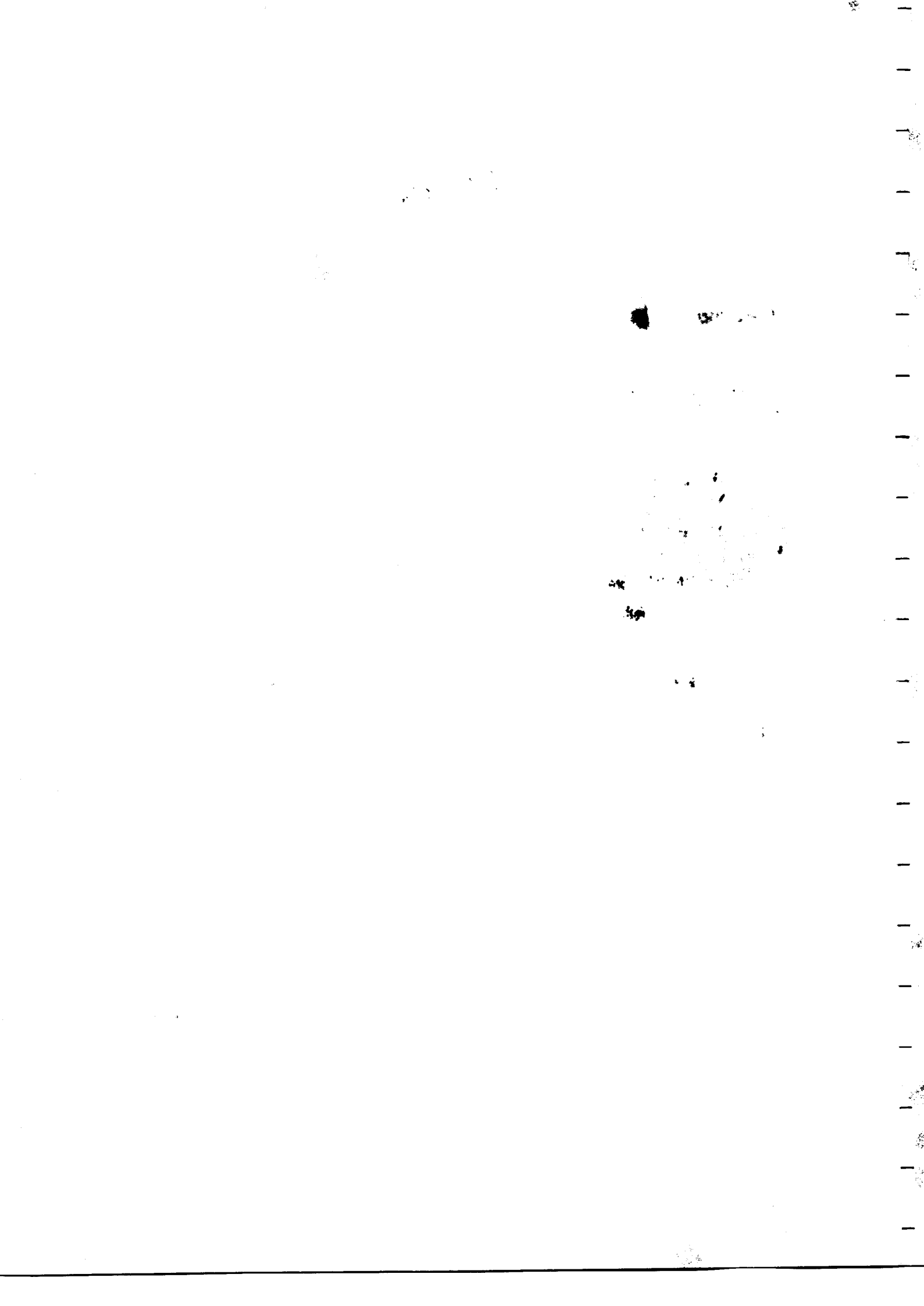


FIG 8



Apply only two or three pumps of grease to cam follower, and also later type bellcrank centre bolt
(See (fig 9))

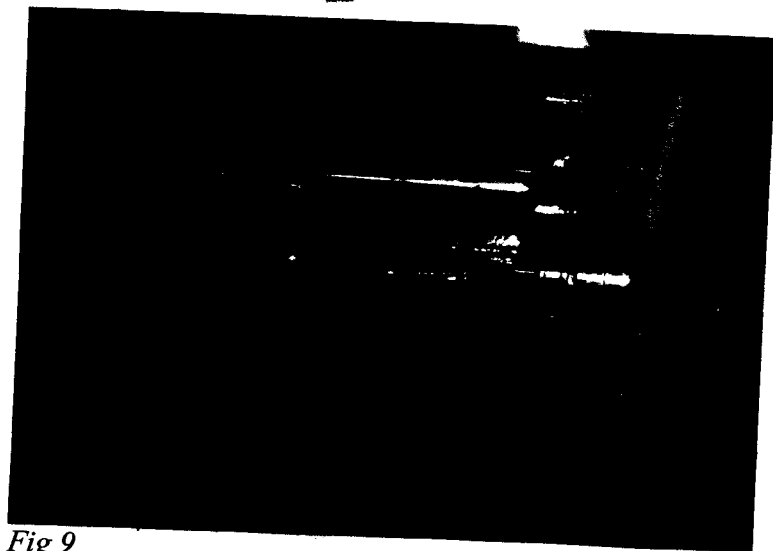
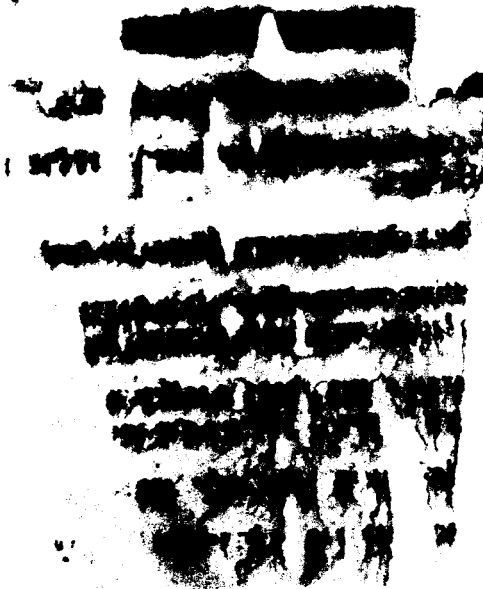


Fig 9

MANUAL
FOR PARTS OR REPAIRS PLEASE REFER TO SEPARATE
MANUAL.

**FOR PARTS OR REPAIRS PLEASE REFER TO SEPARATE
MANUAL.**

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OPERATING / BLOWING PROCEDURE

Do not...

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Check that all safety rails are in good condition at all times.

When climbing, ensure the footrest is properly in place.

Do not climb on top of the body. If getting on top of the body is necessary, do so using the ladders and catwalk. Stand along the length of the body.

Always wear your seat belt and clip it to the safety rail. For extra safety, a second clip should be clipped to the safety rail.

Do not lean against the doors.

Do not over the top when loading.

LOADING PROCEDURE

Drive slowly and carefully down the destination with care. Always be vigilant for people, farm animals, children and obstacles, especially in rainy, dull or dark conditions.

If necessary, extra traction can be gained by lifting the lift axle (See below).

Always park on level ground.

Keep unit and trailer in a straight line and never uncouple trailer from tractor unit when trailer is loaded.

Turn on work lamps if dull or dark.

Check for overhead cables.

Connect feed delivery hoses from vehicle to silo ensuring butterfly valves on the bottom pan (if fitted) are engaged in the proper direction.

Ensure butterfly valve on blowline (if fitted) is closed.

Switch on engine and using throttle cable, gradually bring revs to 1,500 - 2,000 PSI depending on product, distance from silo etc.

Engage rotary seal at rear - See illustration).

1. Check the engine oil level before starting the engine. Add oil if necessary.

2. Check the coolant level in the radiator. Add coolant if necessary.

3. Check the air filter. Replace it if it is dirty.

4. Check the battery. Make sure it is fully charged.

5. Check the tire pressure. Inflate to the correct pressure.

6. Check the brake pads and shoes. Replace them if they are worn.

7. Check the suspension. Make sure it is in good condition.

8. Check the lights. Make sure they are working.

SAFETY PRECAUTIONS

Always wear your seat belt. Do not drink and drive. Always use proper driving techniques.

Use proper tie-down technique when loading a vehicle.

Always use proper tie-down technique.

Keep your eyes on the road. Do not use your phone while driving.

Turn on your headlights if it is dark.

Check for overhead cables.

Connect food delivery boxes from vehicles (are engaged in the proper direction).

Ensure butterfly valve on blowdown is closed.

Start on engine and use proper tie-down technique.

Bring blower speed to minimum - 14.5 ft/min - blowing on product and blowing
down by increasing speed of the rotary and by turning the speed control knob located on
the valve bank at rear of machine (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration) to reduce risk of
injury.

Engage emergency stop using lever located on valve bank at rear (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration) when blowing equipment is in operation.

Engage emergency stop using lever located on valve bank at rear (See illustration) to clean out the

emergency stop using lever located on valve bank at rear (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration) to allow
partition doors to be delivered to allow better load distribution, traction

Engage emergency stop using lever located on valve bank at rear (See illustration).

Engage emergency stop using lever located on valve bank at rear (See illustration) to ensure all partition doors are securely locked again

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ILLUSTRATIONS

- 1. Axle / Brake controls:**
 - A. Engage/Disengage button (push to engage brakes).**
 - B. Engage/Disengage button (push to disengage brakes).**



- 2. Magnet (Tri axle trailer).**



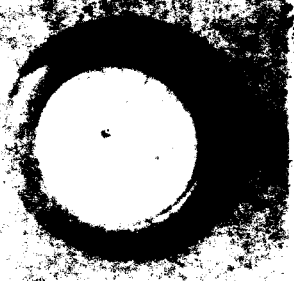
- 3. Brakes / Electric:** **ABS / EBS warning light in cab.**
- 4. TIM Board (if fitted):** **Trailer Information Module (Faults and Diagnostics)
(See separate booklet for more information)**

INSTALLATIONS

- 1. **Axis / Brake cables** (to engage brakes)
- 2. **Brake / Electric** (to disengage brakes)

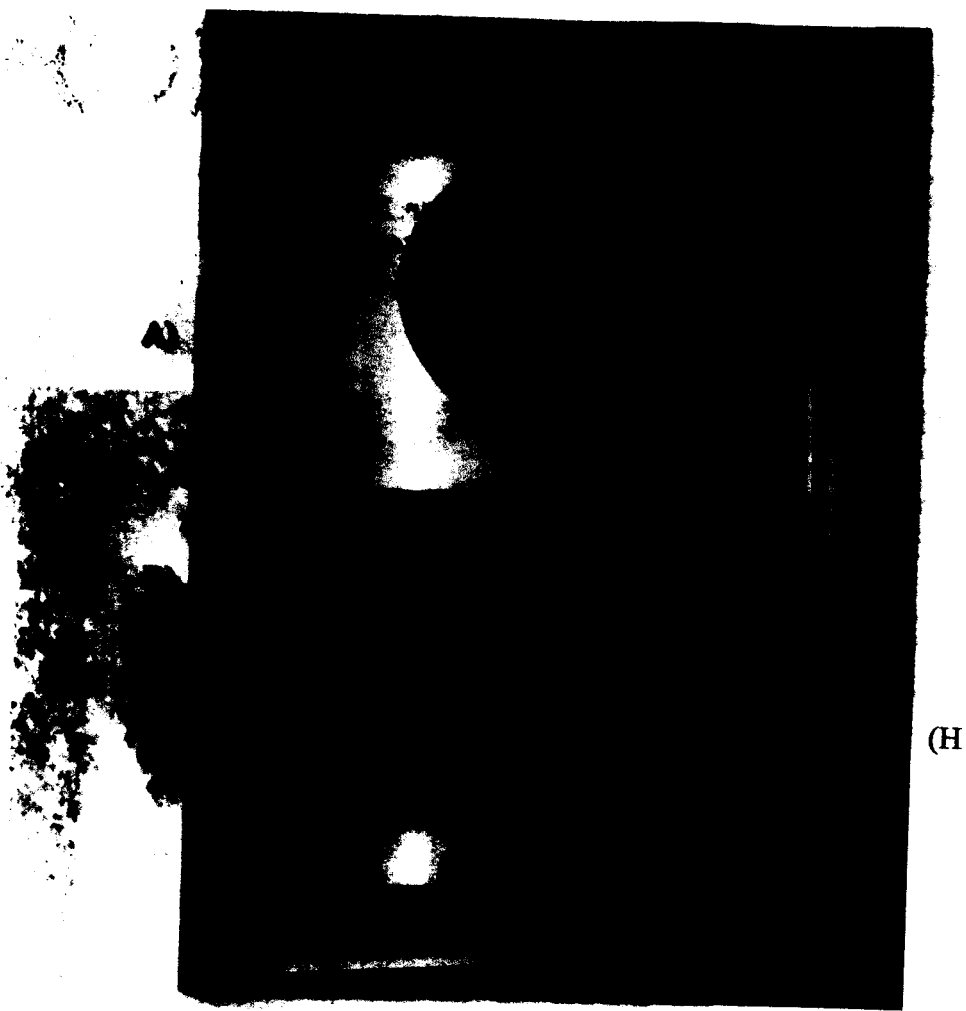


- 3. **Brake / Electric** (if extra trailer)



- 3. **Brake / Electric** (ARS / EBS warning)
- 4. **TIM Board (if fitted)** (Trailer In)

5. **Engine Control Panel (ECP)**
- 1. Engine Start/Stop
 - 2. Fuel System
 - 3. Cooling System
 - 4. Air Intake
 - 5. Exhaust
 - 6. Oil Pressure
 - 7. Water Level
 - 8. Battery Charge



6. **Dual direction discharge bottom pan (at rear):** Turn butterfly valves to change air flow direction as illustrated i.e. turn handle pointing out to the side you wish to blow while closing off the other one.

1. **Introduction**
 2. **Objectives**
 3. **Methodology**
 4. **Results**
 5. **Discussion**
 6. **Conclusion**
 7. **References**
 8. **Appendix**
 9. **Index**
 10. **Summary**



Turn button
 Illustration
 of the
 device

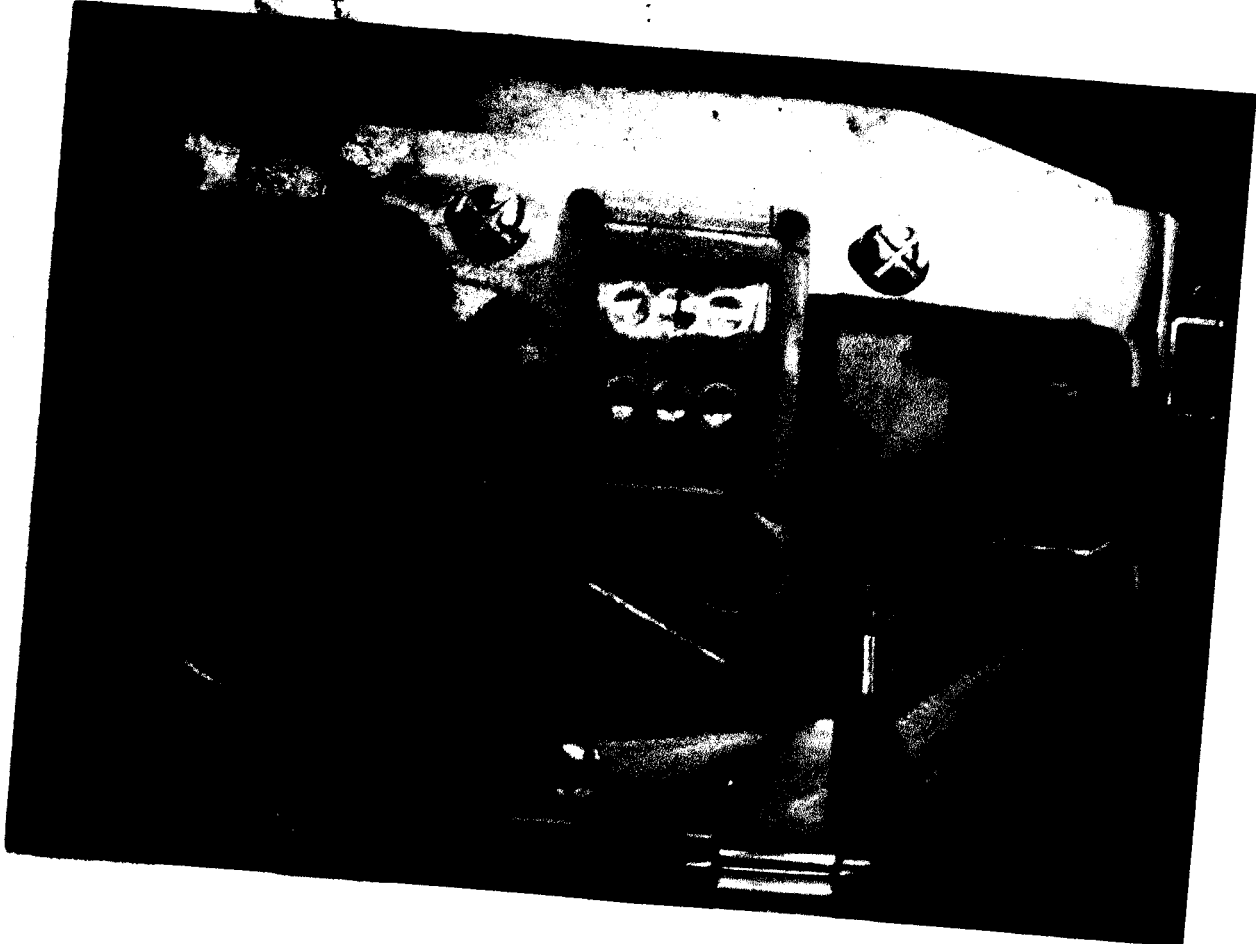
Dual direction discharge
 bottom pan (at rear)

- 7. Diesel Tank / Fueler: **Default**
- 8. Hyd Oil Tank / Battery bank: **Default**
- 9. Air/Fuel controls (from left)
 - A) **Blowdown valve**
(normal working pressure - 7 psi).
 - B) **Air speed control handle.**

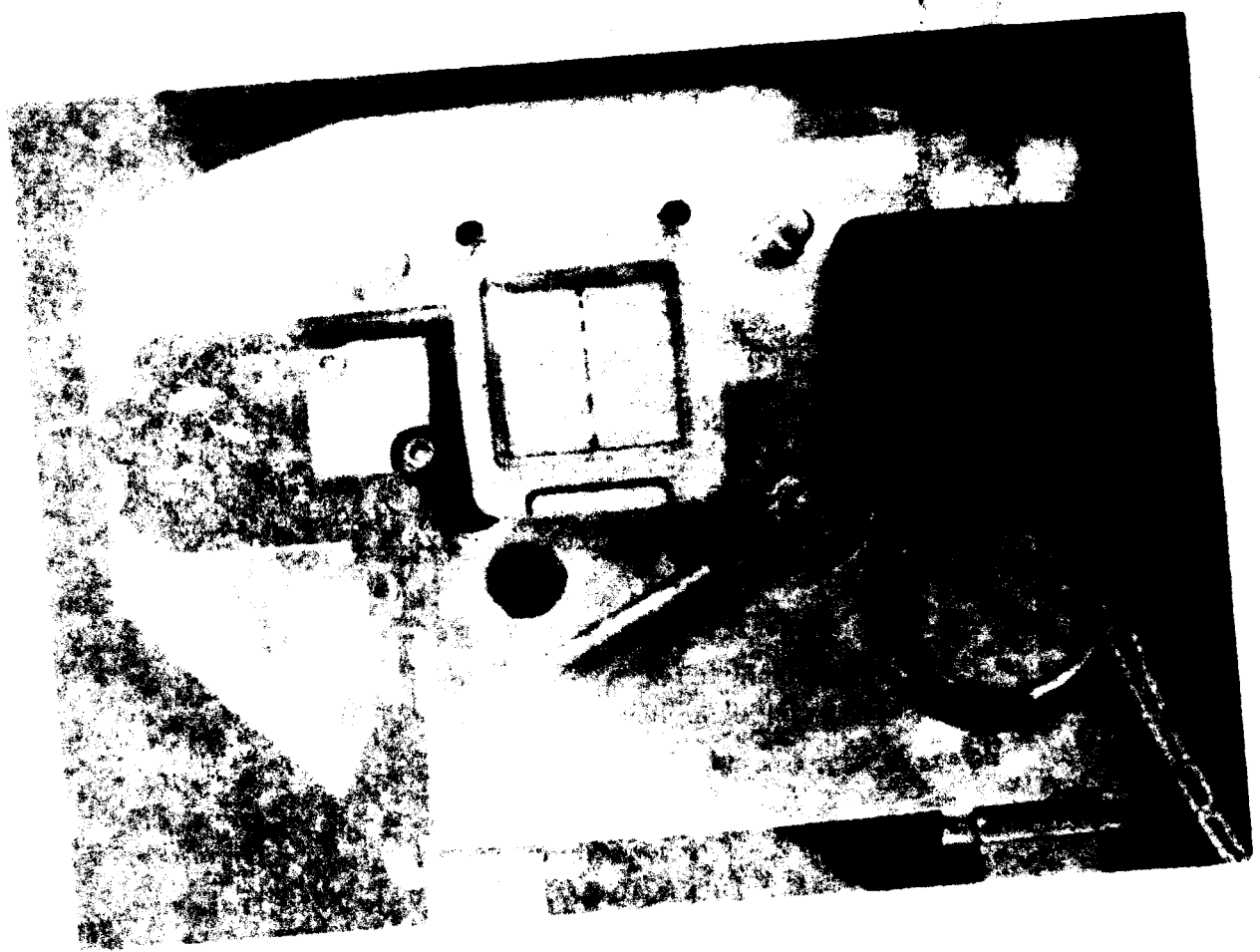
C) **Rear work lamp / Rear compartment light switches.**

Blowdown valve - safety seal should turn clockwise when blowing.

Air speed control: Turn flow control knob anti-clockwise to increase speed, clockwise to reduce speed. **Off knob to off position when finished blowing.**



- 7. Direct Turn / Reverse
 - 8. Stop On Turn / Reverse
 - 9. Automatic control (from 8th)
 - (normal running forward - 7 psi)
 - B) Water speed control panel
 - C) Gas vent panel / Back engagement light switches
- The flow control knob and the stop knob should turn clockwise to increase speed, clockwise to reduce speed. The flow control knob and the stop knob should turn clockwise to increase speed, clockwise to reduce speed.



NOTES (TRAILERS):

ROLL STABILITY PROGRAMME

RSP (ROLL STABILITY PROGRAMME) IS A SAFETY FUNCTION THAT SLOWS THE TRAILER IF IT SENSES THE TRAILER IS TRAVELLING TOO FAST AROUND A BEND OR JUNCTION. IT IS AN IMPORTANT SAFETY FEATURE BUT CAN BE CANCELLED ON REQUEST.

LIFT AXLE

THE FRONT LIFT AXLE OPERATES VIA THE LOAD SENSING VALVE AND AUTOMATICALLY LIFTS AND LOWERS DEPENDING ON THE LOAD AND/OR THE POSITION OF THE LOAD. SO IF THE TRAILER IS HALF EMPTY BUT THE REMAINDER OF THE LOAD IS AT THE FRONT, THEN THE AXLE MIGHT LIFT SO IT IS IMPORTANT TO KEEP THE LOAD EVENLY DISTRIBUTED.

WHEN TRACTION HELP IS REQUIRED, RELEASE HANDBRAKE AND PUMP BRAKE PEDAL 6 TIMES WITHIN 12 SECONDS. THE LIFT AXLE WILL REMAIN LIFTED UNTIL THE VEHICLE EITHER EXCEEDS 30KPH OR THE IGNITION IN THE TRUCK IS SWITCHED OFF.

WHEN AXLE IS RAISED AND YOU WANT TO LOWER MANUALLY, RELEASE HANDBRAKE AND PUMP BRAKE PEDAL 3 TIMES WITHIN 6 SECONDS. THE AXLE WILL STAY LOWERED UNTIL THE VEHICLE IGNITION IS SWITCHED OFF AND ON AGAIN.

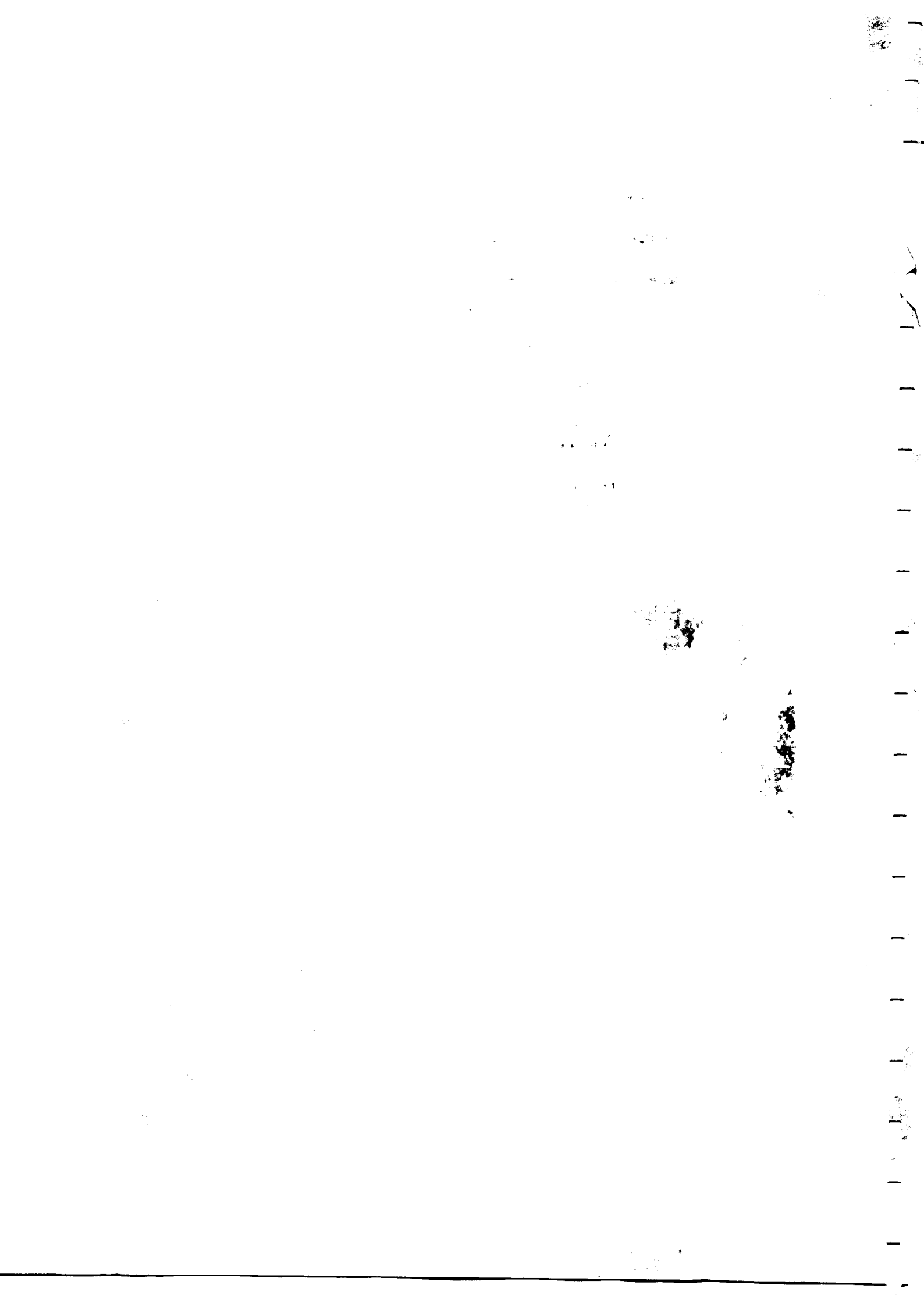
WHEN ADDITIONAL TRACTION ASSIST BUTTON IS FITTED TO TRAILER OR TRACTOR UNIT, PRESS ONCE FOR TRACTION HELP. THE AXLE WILL REMAIN LIFTED UNTIL VEHICLE EITHER EXCEEDS 30 KPH OR THE IGNITION IN THE TRUCK IS SWITCHED OFF. NOTE: THIS SWITCH MUST BE A NON LATCHING SWITCH.

IF THERE IS A WARNING OF AN EBS FAULT SHOWING ON THE DASHBOARD. THEN THE AXLE WILL NOT FUNCTION PROPERLY UNTIL THE FAULT IS RECTIFIED.

TRAILER INFORMATION MODULE

THE TIM (TRAILER INFORMATION MODULE) IS A DIAGNOSTIC AND INFORMATION UNIT THAT DISPLAYS ANY CURRENT BRAKING AND SUSPENSION FAULTS.

ABOVE GUIDE MAY VARY DEPENDING ON BRAKING SYSTEM USED AND/OR SPECIFICATIONS REQUESTED. IF IN DOUBT PLEASE CONTACT MULDOON TRANSPORT SYSTEMS LTD.



SECTION VI

IMPORTANT SAFETY NOTES

Always be vigilant for people, farm animals, obstructions or overhead cables, especially in rainy, dull or dark conditions.

Keep unit and trailer in a straight line and never uncouple trailer from tractor unit when trailer is loaded.

Turn on work lamps if dull or dark.

Check for overhead cables.

Do not tip trailer until necessary and no higher than necessary to reduce risk of overturning.

Always stand clear of body and tail door when body tipped.

Suitable body props must be used if inspecting or working under tipped body.

Do not enter body whilst loading or unloading or whilst blowing equipment is in operation.

Keep hands away from any moving or mechanical parts, fittings, hoses etc whilst engine or blowing equipment is in operation.

Suitable safety clothing and footwear should be worn where and when required.

NOTE:

If a fault or breakdown occurs, contact qualified or appointed technician as soon as possible. Do not attempt to continue using vehicle or blowing equipment or carry out repairs before seeking the advice of qualified or appointed personnel first.

ATTENTION

ALL INFORMATION AND WARNING MANUALS AND SIGNS SHOULD BE NOTED AND COMPLIED WITH AT ALL TIMES. FAILURE TO DO SO COULD HAVE OPERATIONAL AND SAFETY IMPLICATIONS AND COULD RESULT IN ACCIDENT OR INJURY.

If you have any queries, contact Muldoon Transport Systems on
(0044 ROI) (0) 28 38 852002 / 851873.

