1000184998	2.3
0608	

Dumper

1001, 1501, 2001

OPERATOR'S MANUAL

1 0 0 0 1 8 4 9 9 8

1.4 EC declaration of conformity dumper 1001AB (serial number: AB ...)

CE

EG-Konformitätserklärung

EC-Declaration of Conformity

Déclaration de conformité

im Sinne der EG-Maschinenrichtlinie Anhang II A 98/37/EC,
in addition to the EC machine directives Annex
dans l'esprit des directives du conseil relatives aux machines Annexe

Hiermit erklären wir, daß der Kompakt-Allraddumper
We declare, that the compact-dumper
Nous déclarons, que le dumper compact

Typ 1001 Fahrgestell-Nr. .....
type *serial-no.*
type *numéra de série.*

folgenden einschlägigen Bestimmungen entspricht:	98/37/EC
fulfills the *following directives:*	89/336EEC
est en conformité avec des prescriptions suivant:	2000/14/EC

Angewendete harmonisierte europäische Normen	EN 12100-1 : 2003
Harmonized standards applied	EN 12100-2 : 2003
Normes euopéen harmonisées appliquées	EN 474-1 1994
	EN 474-6 1996

Garantierter Schalleistungspegel L_{WA} 101
Guarantee weighted Sound Power Level
Niveau sonore garanti de la puissance

Gemessener Schallleistungspegel L_{WA} 101
Measured weighted Sound Power Level
Niveau sonore mesuré de la puissance

Freiwilligen Baumusterprüfung:	Baumusterprüfungsbescheinigung-Nr.:
Voluntary type-examination	*Eximination certificate No.:*
Effectuer l´examen de type volontaire	*Attestation de type n°:*

Tredegar, 18/12/2007
....
Ort, Datum / Place, date / Lieu, date Lee Morris / Technical Director

2 Safety Information

2.1 Safety Symbols Found in this Manual

This is the safety alert symbol. It is used to alert you to potential personal hazards.

- Obey all safety messages that follow this symbol.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

☞ *Obey all safety messages that follow this symbol to avoid injury or death*

- Aufzählung zur Vermeidung

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

☞ *.Obey all safety messages that follow this symbol to avoid possible injury or death.*

- Aufzählung zur Vermeidung

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

☞ *Obey all safety messages that follow this symbol to avoid possible minor or moderate injury.*

- Aufzählung zur Vermeidung

NOTICE: Used without the safety alert symbol. NOTICE indicates a hazardous situation which, if not avoided, could result in property damage.

Important

Iidentifies an instruction that, when followed, provides for a more efficient and economical use of the machine.

Environment

Failure to observe the instructions identified by this symbol can result in damage to the environment. The environment is endangered if environmentally hazardous material, such as waste oil, is not properly used or disposed of.

2.11 Safety Guidelines while using Internal Combustion Engines

WARNING

Internal combustion engines present special hazards during operation and fueling. Failure to follow the warnings and safety guidelines could result in severe injury or death.

☞ *Read and follow the warning instructions in the engine owner's manual and the safety guidelines below.*

Guidelines for running the engine

- Keep the area around exhaust pipe free of flammable materials.
- Check the fuel lines and the fuel tank for leaks and cracks before starting the engine. Do not run the machine if fuel leaks are present or the fuel lines are loose.
- Engine exhaust CAN KILL YOU IN MINUTES. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. Never run the machine indoors or in an enclosed area such as a deep trench unless adequate ventilation, trough such items as exhaust fans or hoses, is provided.
- Do not smoke while operating the machine.
- Do not run the engine near open flames.
- Do not touch the engine or muffler while the engine is on or immediately after it has been turned off.
- Do not operate a machine when its fuel cap is loose or missing.
- Do not remove the radiator cap when the engine is running or hot. The radiator fluid is hot and under pressure, and may cause severe burns!

Guidelines for fueling the engine

When fueling the engine:

- Clean up any spilled fuel immediately.
- Refill the fuel tank in a well-ventilated area.
- Replace the fuel tank cap after refueling.

When fueling the engine:

- Do not smoke.
- Do not refuel a hot or running engine.
- Do not refuel the engine near an open flame.

3.6 Putting the machine into operation

Safety instructions

- Use footholds and handles to access and leave the machine
- Never use control elements as handles
- Never get on or off a moving machine! Never jump off the machine

Putting the machine into operation for the first time

Important information

- The machine may be put into operation by authorized staff only – *see chapter 2.5 Staff Qualifications and Basic Responsibilities* on page 2-4 and – *see chapter 2.6 Safety instructions Regarding Operation* on page 2-4 of this Operator's Manual.
- The staff must have read and understood this Operator's Manual before putting the machine into operation.
- The machine may only be used in serviceable condition in accordance with its designated use and the instructions set forth in the Operator's Manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine.
- Go through the “Start-up” checklist in the following chapter.

Running-in period

Handle the machine carefully during its first 50 operating hours.

The future performance and service life of the machine are heavily dependent on the observance of the following recommendations during the running-in period.

- Do not overload the machine, but at the same time do not drive too cautiously either, as the machine will never reach its proper operating temperature.
- Do not run the engine at high rpm for extended periods.
- Increase the load gradually while varying the engine revs.
- Strictly observe the maintenance schedules in the appendix.
  – *see chapter 5.16 Maintenance plan 2001: overview* on page 5-36

Hydraulic brake

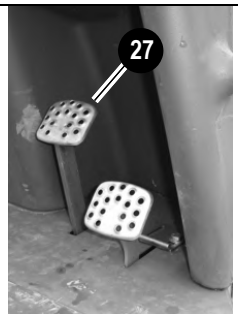

Fig. 6: Brake pedal

Hydrostatic drive.

Service brake ***2*** has its effect on the hydrostatic drive. The hydraulic parking brake in the rear wheel motors is enabled when pressing the brake pedal to the end position (2001: in the front wheel motors)

Important

Use service brake ***2*** on slopes to slow down the machine as required.

Mechanical brake

Fig. 7: Parking brake 1001/1501

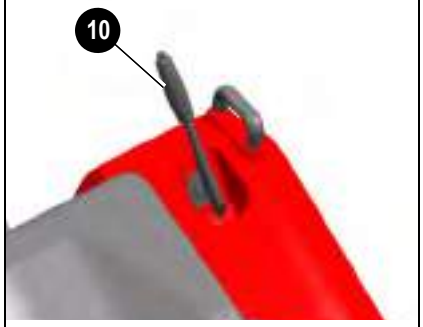

Fig. 7: Parking brake 2001

Parking brake with mechanical braking effect on the front axle.

Press parking brake ***3*** forwards to release it.

Important

Hitting parking brake ***2*** with your hand to release it can damage the lever!

Pull up the lever to apply parking brake ***10***.

3.12 Hazard warning system

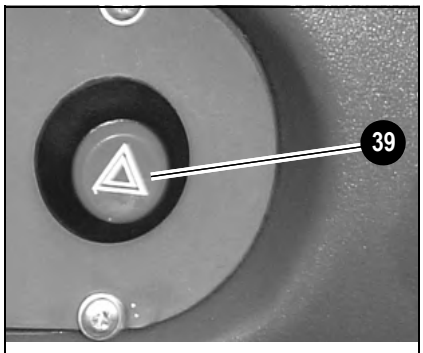

Fig. 8: Hazard warning system

Pressing switch **39** switches the hazard warning system on and off.

3.19 Loader unit (2001 SLE)

Fig. 20: Loader Unit

The loader unit has been designed for raising loose material up to 300 kg. The 2001 SLE is not suitable for excavating or pushing heavy material.
When using the 2001 SLE,
bear in mind the following points:

☞ *Dump bucket must be lowered when loading.*

☞ *• Always lower the loader unit before dumping out or rotating the dump bucket.*

☞ *• Do not use the loader unit on slopes.*

☞ *• Other persons must stay clear of the dumper during work*

☞ Loader unit bucket *must be in a horizontal position when pushing or picking up material (see mark on bucket ram).*

☞ *• Dumper must be in a straight position when pushing or picking up material (no steering).*

☞ *• Never use the loader unit as a crane.*

☞ *Lower the loader unit bucket onto the dump bucket when driving the dumper.*

4 Troubleshooting

The information given in this chapter is provided for maintenance staff, for fast and reliable detection of malfunctions and their appropriate repair.

Repairs must be carried out by authorized staff.

4.1 Engine trouble

Problem	Possible causes	See
Engine does not start or is not easy to start	Wrong SAE grade of engine lubrication oil	*5-29*
	Fuel grade does not comply with specifications	*5-29*
	Defective or flat battery	*5-26*
	Loose or oxidized cable connections in starter circuit	
	Defective starter, or pinion does not engage	
	Wrong valve clearance	
	Defective fuel injector	
Engine starts, but does not run smoothly or faultless	Fuel grade does not comply with specifications	*5-29*
	Wrong valve clearance	
	Injection line leaks	
	Defective fuel injector	
Engine overheats. Temperature warning system responds	Oil level too low	*5-8*
	Oil level too high	*5-8*
	Dirty air filter	*5-13*
	Dirty oil cooler fins	
	Defective fuel injector	
Insufficient engine output	Oil level too high	*5-8*
	Fuel grade does not comply with specifications	*5-29*
	Dirty air filter	*5-13*
	Wrong valve clearance	
	Injection line leaks	
	Defective fuel injector	
Engine does not run on all cylinders	Injection line leaks	
	Defective fuel injector	
Insufficient or no engine oil pressure	Oil level too low	*5-8*
	Machine inclination too high (max. 20%)	
	Wrong SAE grade of engine lubrication oil	*5-29*
Engine oil consumption too high	Oil level too high	*5-8*
	Machine inclination too high (max. 20%)	

Filling up engine oil

NOTICE: Possibility of engine damage from too much oil or incorrect engine oil.

☞ *Do not add engine oil above the MAX mark of oil dipstick 9/***A.**

☞ *Use only the specified engine oil.*

Environment

Use a suitable container to collect the engine oil as it drains and dispose of it in an environmentally friendly manner!

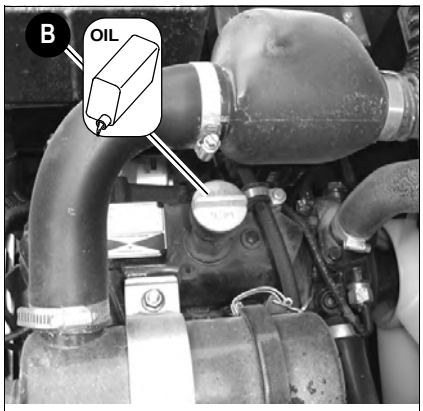

Fig. 10: Filling up engine oil

Filling up engine oil

☞ *Proceed as follows:*

- Clean the area around oil filler cap **B** with a lint-free cloth.
- Open filler cap **B.**
- Raise oil dipstick **A** slightly to allow any trapped air to escape.
- Add engine oil.
- Wait about 3 minutes until all the oil has run into the oil sump.
- Check the oil level – *see Checking the oil level* on page 5-8.
- Fill up if necessary and check the oil level again.
- Close filler cap **B.**
- Push oil dipstick **A** back in as far as possible.
- Completely remove all oil spills from the engine.

Filling up hydraulic oil

WARNING

Personal injury hazard. Removing the hydraulic filter plug can cause pressurized oil to escape. Escaping oil may cause serious injuries.

☞ *Alow the hydraulic oil to cool to a temperature that is comfortable to the touch.*

☞ *Slightly loosen the breather plug on the hydraulic reservoir enough to relieve pressure in the reservoir.*

Do not fill up the hydraulic oil unless the engine is switched off. Otherwise, hydraulic oil will overflow at the filler opening on the hydraulic tank.

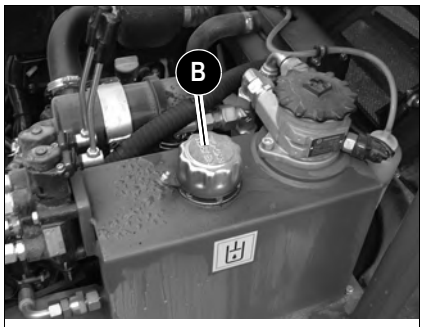

Fig. 18: Hydraulic oil tank

☞ *Fill up as follows:*

- Park the machine on level ground.
- Retract all hydraulic rams.
- Switch off the engine.
- Clean the area around filler inlet **B** with a cloth.
- Open filler inlet **B.**

With the filter insert in place:

- Add hydraulic oil.
- Check the hydraulic oil level on sight glass **A.**
- Fill up if necessary and check again.
- Firmly tighten plug **B.**

5.13 Engine/machine fluids and lubricants (1001 and 1501)

Component/ application	Engine/machine fluid	Specification	Season/ temperature	Capacities[1]
Diesel engine	Engine oil	API CD, CF, CF-4, CI-4	- 20 °C +40 °C	3.4 l
		ACEA: E3, E4, E5 (SAE 10W40)[2]		
Hydraulic oil tank	Hydraulic oil	HVLP46[3] 200 Hydraulic	Year-round	20 l
	Biodegradable oil[4]	PANOLIN HLP Synth 46		
		FINA BIOHYDRAN SE 46		
		BP BIOHYD SE-46 404 Biodegradeable Hydraulic 32/46		
Grease nipples	Multipurpose grease[5]	FINA Energrease L21 M Mobilgrease CM-P	Year-round	As required
Battery terminals	Acid-proof grease[6]	FINA Marson L2 Mobilux EP2	Year-round	As required
Fuel tank	Diesel fuel	2-D ASTM D975 – 94 (USA)		15 l
		1-D ASTM D975 – 94 (USA)		
		EN 590 : 96 (EU)		
		ISO 8217 DMX (International)		
		BS 2869 – A1 (GB)	Summer or winter diesel depending on outside temperatures	
		BS 2869 – A2 (GB)		
Radiator	Coolant	Soft water + antifreeze ASTM D4985	Year-round	4 l
		Distilled water + antifreeze ASTM D4985		

1. The capacities indicated are approximative values; the oil level check alone is relevant for the correct oil level
   Capacities indicated are no system fills
2. According to DIN 51511
3. According to DIN 51524 section 3
4. Hydraulic ester oils (HEES)
5. KF2K-25 according to DIN 51502 multipurpose lithium grease with MoS^2 additive
6. Standard acid-proof grease

5.16 Maintenance plan 2001: overview

Work description

For service and maintenance work on the attachment, please refer to the operation and maintenance manual of the attachment manufacturer as well.

	Maintenance plan/service hours (s/h)							
	Maintenance work (once a day)	Every 50 s/h	Every 250 s/h	Every 500 s/h	Once a year or after 1000 s/h	After 1500 s/h	Customer	Authorized workshop
Functional check ( ):								
Check the function of the following assemblies/components. Rectify if necessary:								
• Lights, signalling system, acoustic warning system		●						●
• Parking brake function	●						●	
• Steering function	●						●	
Leakage check ( ):								
Check for tightness, leaks and chafing: pipes, flexible lines and screw connections of the following assemblies and components. Rectify if necessary:								
• Visual check	●						●	
☞ Engine and hydraulic system	●						●	
☞ Cooling circuit	●						●	
☞ Travelling drive	●						●	

6.11 Relays

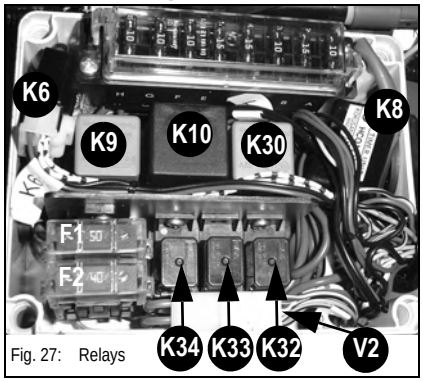

Fig. 27: Relays

Tyres 1001/1501/2001

Switching relay no.	Protected circuit
K 6	– Preheating time lag relay
K 8	– Cutoff solenoid time lag relay
K 9	– Cutoff solenoid switching relay
K 10	– Turn indicator relay
K 30	– Parking brake relay
K 32	– Start interlock relay
K 33	– Low beam relay
K 34	– High beam relay
V2	– Diodes
F 1, 2	– Main fuses

Tire size	Tyre pressure		
	Front	Rear	Wheel offset
10.00/7.5x15	3 bar (43,51 psi)	3 bar (43,51 psi)	20

6.12 Noise levels

Sound power level	Up to AC000335	From AB150001H AB150002D
Sound power level (L_{WA})	102 dB (A)	101 dB (A)

Important

Measurement of sound power level according to EC Directive 2000/14 EC.
Noise level at the driver's ear measured according to EC Directives 84/532/EEC, 89/514/EEC and 95/27/EEC.
Measurements carried out on asphalted surface.