

Operator's Manual

Serial number range

GTH-2506 GTH-3007

From s/n 20728 To s/n 22479 Plus s/n: 20610 and 20617 But s/n: 21687 and 21835

From s/n 20710 To s/n 22419 Plus s/n.: 20631

With Maintenance

First Edition First Printing Part No. 57.0009.0536

Important

Read, understand and obey these safety rules and operating instructions before operating the machine. Only trained and qualified personnel shall be authorized to operate the machine. This manual shall be kept with the machine at all times.

For any further information, please call Terexlift.

Contact us:

ZONA INDUSTRIALE I-06019 UMBERTIDE (PG) - ITALY Telephone +39 075 941811 Telefax +39 075 9415382

Technical Assistance Service

Telephone: +39 075 9418129 +39 075 9418175 e-mail: UMB.Service@terex.com

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For the electronic version of this manual visit www.genielift.com/operator_manuals.asp

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Contents

Introduction	Page	3
Machine Identification	Page	5
Symbols Used On The Machine	Page	7
Labels And Plates Applied On The		
Machine	Page	9
Safety Precautions	Page	21
Description Of The Machine	Page	29
Controls And Instruments	Page	35
Inspections	Page	51
Operating Instructions	Page	55
Transporting The Machine	Page	71
Maintenance	Page	75
Faults And Troubleshooting	Page ⁻	101
Optional Attachments	Page ⁻	107
Specifications	Page ⁻	125
Load Charts	Page	131
Diagrams And Schemes	Page ⁻	141
Test	Page ⁻	155
EC Declaration of Conformity	Page ⁻	165
Routine Check Schedule	Page ⁻	167

Introduction

Symbols



Safety alert symbol: used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

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

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

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

NOTICE

Blue: indicates a hazardous situation which, if not avoided, could result in property damage.

ENVIRONMENT Green: used to draw the attention to important information on environment protection.



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Machine Identification

Check that the operator handbook refers to the delivered machine.

DESIGNATION: ROUGH TERRAIN VARIABLE REACH TRUCK

MODEL: *GTH-2506 / GTH-3007*

MANUFACTURER:

TEREXLIFT srl

Zona Industriale - I-06019 UMBERTIDE (PG) - ITALY

Enrolled in the register of companies at the Court of Perugia under no. 4823

C.C.I.A.A. 102886

Fiscal Code/V.A.T. no. 00249210543

APPLICABLE STANDARDS

For the operator's safety, the following standards were obeyed during the risk assessment of the handler fitted with telescopic boom:

Directive	Title
2006/42/EC	Machinery Directive
2008/104/EC	Electromagnetic compatibility
2000/14/CE	Environment Acoustic Emissions
Standard	Title
EN 1459:1988	Harmonised standard. Safety of
A2:2009	Industrial trucks - Self- propelled variable reach trucks.

MACHINE IDENTIFICATION PLATES

The following data plates are applied on the machine:

Machine data plate

The identification plate contains the main identification data of the machine like model, serial number and year of manufacture, it is applied on the front left side of the chassis.

Road traffic data plate

The road traffic data plate is installed on the front right side of the chassis (only on machines destined for the Italian market).

This plate shows the road traffic related data and the weights of the specific machine model.

Fork data plate

Placed on the left side of the fork frame.

This plate shows the identification data of fork such as model, serial number, year of manufacture, weight, nominal payload, centre of the load and model of the machine on which the forks are installed.

Machine Identification

CE MARKING

This machine fulfils the safety requirements of the Machinery Directive.The conformity has been certified and the placing of the **CE** marking on the machine demonstrates compliance with the regulatory requirements.

The **CE** marking is placed directly on the identification plate of the machine.

CHASSIS SERIAL NUMBER

The chassis serial number is punched on the front right part of the chassis side member.

■ IDENTIFICATION PLATES OF THE MAIN PARTS

The plates of the main components, not directly manufactured by **TEREXLIFT srl** (for instance, engines, pumps, etc.), are located where originally applied by the manufacturers.



Symbols Used On The Machine

Fuel Level	General Alarm	(I) Brake Pressure	(P) Parking Brake	Battery Charge
Engine Oil Pressure	Hydraulic Oil Filter Clogged	Hydraulic Oil Level	Turn Signals	ED High Beam
1 st Speed Engaged (only for GTH3007)	2 nd Speed Engaged (only for GTH3007)	Glow Plugs Preheating	High Coolant Temperature	Low Beam
H Rear Wheel Aligned	Air Filter Restricted	Hour-meter	Hydraulic Oil Temperature Indicator	Position Lights
LL Steering Mode	Cab Ventilation Fan	Lifting Point	Transfer Mode	Hazard Warning Lights
Continuous Oil Flow	Auxiliary Hydraulic Line	Air Conditioning	Fuel Cap	UL HYDRAULE Series Hydraulic Oil
Work Lights	Mechanical Gear			

Symbols Used On The Machine

■ HAZARD PICTORIAL DESCRIPTIONS

Electrocution Hazard	Maintain required clearance.	Falling Object Hazard	h	Fall Hazard
No riders.	Burn Hazard	Allow system to cool.	Explosion/Burn Hazard	No smoking. No open flame.
Read the operator's manual.	Support boom when performing maintenance.	Crush Hazard	Burn Hazard	Allow surfaces to cool.
Crush Hazard	Keep away from moving parts.	Crush Hazard	Keep clear of moving parts.	Allow compartment access
Crush Hazard	Keep away from belt.	Insert Maintenance Collar	Battery Cut-Out	Safety Alert Simbol

GTH-2506

Shading indicates decal is hidden from view, i.e. under covers.



GTH-2506 - GTH-3007

Use the pictures on these pages to verify that all decals are legible and in place. The following chart shows quantities and description too.

Ref.	Decal	Code	Description	Qt.
1		09.4618.1398	Safety pin operation	1
2		09.4618.1375	The capacity of the truck and attachment combination shall be complied with.	1
3	P= 4.5 bar 65 psi	09.4618.0061	Tyre inflation sticker P= 4.5 bar / 65 psi	4
4		09.4618.0918	Falling Object Hazard	3
5		09.4618.0919	Crush Hazard	4
6	104 dB	09.4618.0257	Guaranteed sound power level	1
7		09.4618.0920	Compartment Access	1
8	Kg 2500	09.4616.0102	Max Capacity	1

Ref.	Decal	Code	Description	Qt.
9	TPS TP4 TP3 TP2 TP1	09.4618.0786	Label - Testing ports	1
10		09.4618.1399	Label - Upper Door Internal Unlock System	1
11		09.4618.1368	Control lever for GTH-2506	1
12	$\frac{1}{10000000000000000000000000000000000$	09.4618.0921	Label - Use limits close to electric power lines	1
13		09.4618.0792	Label - Engine Cover Closing	1
14		09.4618.0922	Crush Hazard	6
15 16 17	Genie	09.4618.0240 09.0803.0424 09.4618.0242	Cosmetic - GENIE Logo	1 1 1
18 19	Genie.GTH-2506	09.4618.0390 09.4618.0930	Cosmetic - Genie GTH-2506	2 1

Ref.	Decal	Code	Description	Qt.
20		09.4618.0923	Burn Hazard	2
21		09.4618.0924	Burn/Explosion Hazard	1
22		09.4618.0925	Crush Hazard	1
23		09.4618.0926	No Riders	1
24		09.4618.0927	Burn Hazard	1
25		09.4618.0916	Lift Point	4
26	04412.0372	09.4618.0917	Diesel Fuel Cap	1
27	OIL HYDRAULIC ON 4414 JOINT	09.4618.0928	Hydraulic Oil	3
28	KO2 KO1 F61 F62 M M M M M M M M M M M M	09.4618.0949	Label - Engine Fuses & Relays Board	1

Ref.	Decal	Code	Description	Qt.
29	a de la del	09.4618.1001	Label - Maintenance Collar	1
30		09.4618.1400	Label - Upper Door External Unlock System	1
31		09.4618.0986	Crush Hazard	1
32		09.4618.1030	Label - Cabin Fuses & Relays Board	1
33		09.4618.1256	Instruction - Emergency Exit	1
34	0.4111.327	09.4618.1331	Battery Cut-Out Switch	1
35		09.4618.1423	Accumulator Hazard	1

Ref.	Decal	Code	Description	Qt.
36	ATTENZIONE BLOCKIE MECHANICKIE LEATREZZATURE DI LAGOD RUOTARE LEALTING STERZATURE DI LAGOD RUOTARE LEALTING STERZATURA RELLA PODDOLE CONTRAL = SOLO RUOTE ANTERONT PODZOUME L PULSATE STINGACUNTESE SULLASSETTO "STINGA" BLOCKIE DI STINGACUNTESE SULLASSETTO "STINGA"	09.4618.1029	Label - Road Traffic Warnings (only for machines destined for the Italian market).	1
37	09.4618.1419	09.4618.1419	Biodegradable Hydraulic Oil (optional)	2
38		09.4618.1458	Tip-over	2
A	Marcine We have been been been been been been been be	/	Machine data plate . The identification plate contains the main identification data of the machine.	1
В	EVENIENCE Martin Mar	/	Fork data plate. This plate shows the main data of the fork installed on the machine.	1
с		09.0803.0357	Boom tilting degree	1
D	O ONTOWOLOGADORE STIMULE O V	09.4616.0000	Road Traffic Data Plate. This plate contains the road traffic related data and the weights of the specific machine model (only for machines destined for the Italian market).	1

GTH-3007

Shading indicates decal is hidden from view, i.e. under covers.



Use the pictures on these pages to verify that all decals are legible and in place. The following chart shows quantities and description too.

Ref.	Decal	Code	Description	Qt.
1		09.4618.1398	Safety pin operation	1
2		09.4618.1375	The capacity of the truck and attachment combination shall be complied with.	1
3	P= 5.5 bar 80 psi	09.4618.0547	Tyre inflation sticker P= 5.5 bar / 80 psi	4
4		09.4618.0918	Falling Object Hazard	3
5		09.4618.0919	Crush Hazard	4
6	102 dB	09.4618.0563	Guaranteed sound power level	1
7		09.4618.0920	Compartment Access	1
8	Kg 3000	09.4616.0002	Max Capacity	1

Ref.	Decal	Code	Description	Qt.
9	TPS TP4 TP3 TP2 TP1	09.4618.0786	Label - Testing ports	1
10		09.4618.1399	Label - Upper Door Internal Unlock System	1
11		09.4618.1368	Control lever decal for GTH-3007	1
12		09.4618.0921	Label - Use limits close to electric power lines	1
13		09.4618.0792	Label - Engine Cover Closing	1
14		09.4618.0922	Crush Hazard	6
15 16 17	Genie	09.4618.0240 09.0803.0529 09.4618.0242	Cosmetic - GENIE Logo	1 1 1

Ref.	Decal	Code	Description	Qt.
18 19 20	Genîe.GTH-3007	09.4618.0484 09.4618.0485 09.4618.0984	Cosmetic - Genie GTH-3007	1 1 1
21		09.4618.0924	Burn/Explosion Hazard	1
22		09.4618.0925	Crush Hazard	1
23		09.4618.0926	No Riders	1
24		09.4618.0927	Burn Hazard	1
25	Contraction of the second seco	09.4618.0916	Lift Point	4
26	Generation Control Con	09.4618.0917	Diesel Fuel Cap	1
27		09.4618.0928	Hydraulic Oil	3
28		09.4618.0949	Label - Engine Fuses & Relays Board	1
29	Let to	09.4618.1001	Label - Maintenance Collar	1

Ref.	Decal	Code	Description	
30		09.4618.1400	Label - Upper Door External Unlock System	
31		09.4618.0986	Crush Hazard	1
32		09.4618.0923	Burn Hazard	2
33		09.4618.1385	Label - Mechanical Gear Instructions	1
34		09.4618.1030	Label - Cabin Fuses & Relays Board	1
35		09.4618.1256	Instruction - Emergency Exit	1
36		09.4618.1331	Battery Cut-Out Switch	1
37		09.4618.1423	Accumulator Hazard	1

Ref.	Decal	Code	Description		
38	ETTERZIONE DE LLAMECA BUERDON RUCOME MECCANECMENTE LE ATREZZATURE DI LADORO RUCOME E RELETIVE ETRUZIUNA MELLA PORZONE CONTALE POLO RUCTE ANTEROM" POEDOMME E PLESATE "STINGA-CANTOR" SULLABETTO "STINGA" DE SEG VIS-	09.4618.1029	Label - Road Traffic Warnings (only for machines destined for the Italian market).		
39	09.4618.1419	09.4618.1419	Biodegradable Hydraulic Oil (optional)	2	
40		09.4618.1458	Tip-over	2	
А		/	Machine data plate. The identification plate contains the main identification data of the machine.	1	
в		/	Fork data plate . This plate shows the main data of the fork installed on the machine.	1	
с		09.0803.0357	Boom tilting degree	1	
D		09.4616.0000	Road Traffic Data Plate. This plate contains the road traffic related data and the weights of the specific machine model (only for machines destined for the Italian market).	1	

DAMAGED MACHINE HAZARDS

- Do not use a damaged or malfunctioning machine.
- Do a thorough pre-operation inspection of the machine and test all functions before each work shift. Tag and remove from service a damaged or malfunctioning machine.
- Make sure that all maintenance jobs have been carried out as specified in this manual and the appropriate service manual.
- Make sure that all decals are in place and legible.
- Make sure that the operator's is intact, legible and placed in the special container located in the machine.

PERSONAL INJURY HAZARDS

- Do not operate the machine in case of hydraulic oil or air leak. Air or hydraulic oil leaks can penetrate or burn the skin.
- Always operate the machine in a well ventilated area to avoid carbon monoxide poisoning.
- Do not lower the boom if the area underneath is not clear of personnel or obstructions.

SAFETY DEVICES



Several safety devices have been fitted to the machine. They must never be tampered with or removed.

Regularly check the efficiency of such devices. In case of faults, stop working immediately and proceed in replacing the malfunctioning device. For the checking procedures, read chap. "Maintenance"

■ MOMENT LIMITING SYSTEM (LLMI/LLMC)

The moment limiting system has been developed to help the operator to maintain the machine longitudinal stability. Audible and visual messages are provided when the limits of longitudinal stability are being approached.

However this device cannot replace the experience of the operator. It is up to the user to adopt the necessary safety measures to work within the rated limits of the machine.

SEAT SWITCH

This micro switch is located inside the seat cushion, and it prevents any machine transmission movements if the operator is not correctly seated in the driving seat.



Not observing the instructions and safety rules in this manual may result in death or serious injury.

Do not operate the machine unless:

- You learn and practice the principles of safe machine operation contained in this operator's manual.
 - **1.Avoid hazardous situations.** Read and understand the safety instructions before going on to the next chapter.
 - 2. Always perform a pre-operation inspection.
 - 3. Always test the machine functions prior to use.
 - 4. Inspect the work place.
 - 5.Only use the machine for the intended application.
- Read, understand and obey the manufacturer's instructions and the safety rules, the safety and operator's manuals, and the decals applied on the machine.
- Read, understand and obey the employer's safety rules and worksite regulations.
- Read, understand and obey the applicable national regulations.
- Only trained personnel informed on the safety rules can operate the machine.

GENERAL REMARKS

Most accidents occurring while working, repairing or maintaining machines, are caused by not complying with the basic safety precautions.

Therefore, it is necessary to pay steady attention to the potential hazards and the effects that may come of operations carried out on the machine.

NOTICE

If you recognise hazardous situations, you can prevent accidents!

A DANGER

The instructions given in this handbook are the ones established by TEREXLIFT. They do not exclude other safe and most convenient ways for the machine installation, operation and maintenance that take into account the available spaces and means.

If you decide to follow instructions other than those given in this manual, you shall absolutely:

- be sure that the operations you are going to carry out are not explicitly forbidden;
- be sure that the methods are safe, say, in compliance with the rules and provisions given in this section;
- be sure that the methods cannot damage the machine directly or indirectly or make it unsafe;
- contact TEREXLIFT Assistance Service for any suggestion and the necessary written permission.

REQUISITES OF THE PERSONNEL IN CHARGE

Requisites of the MACHINE OPERATORS

The operators who use the machine regularly or occasionally (i.e. for transport reasons) shall have the following prerequisites:

health:

before and during any operation, operators shall never take alcoholic beverages, medicines or other substances that may alter their psychophysical conditions and, consequently, their working abilities.

physical:

good eyesight, acute hearing, good co-ordination and ability to carry out all required operations in a safe way, according to the instructions of this manual.

mental:

ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

emotional:

they shall keep calm and always be able to evaluate their own physical and mental conditions.

training:

they shall read and be familiar with this handbook, its enclosed graphs and diagrams, the identification and hazard warning plates. They shall be skilled and trained about the machine use.

NOTICE

The operator shall have a licence (or a driving licence) when provided for by the laws enforced in the country where the machine works. Please, ask the competent bodies. In Italy the operator must be at least 18 year old.

Requisites of the SERVICEMEN

The personnel charged with the machine maintenance shall be qualified, specialised in the maintenance of telehandlers, and shall have the following prerequisites:

physical:

good eyesight, acute hearing, good co-ordination and ability to carry out all required maintenance operations in a safe way, according to this manual. **mental**:

ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

training:

they shall read and be familiar with this handbook, its enclosed graphs and diagrams, the identification and warning plates. They shall be skilled and trained about the machine functioning.

NOTICE

From a technical point of view, the ordinary maintenance of the machine is not a complex intervention and can be carried out by the machine operator, too, provided he has a basic knowledge of mechanics.

WORKING CLOTHES

During work, but especially when maintaining or repairing the machine, operators must wear suitable protective clothing:

- Overalls or any other comfortable garments. Operators should not wear clothes with large sleeves or objects that can get stuck in moving parts of the machine.
- Ear-protectors or equivalent equipment.
- Protective helmet.
- Protective gloves.
- Working shoes.



Use only type-approved working clothing in good

Personal PROTECTIVE EQUIPMENT

Under special working conditions, the following personal protective equipment should be used:

- Breathing set (or dust mask).
- Goggles or facial masks.

OTHER DANGERS

Hazards on the JOBSITE

Always take into account the features of the job site where you are going to work:

 Always examine the working area and compare it with the machine dimensions in the different configurations.



The machine is not electrically insulated and does not provide protection from contact with or proximity to electrical power lines.

Always keep at a minimum safe distance from the telescopic boom and the lifted load. Electrical hazards!

 Keep away from the machine in case of contact with energized power lines. Personnel on the ground must never touch or operate the machine until energized power lines are shut off.

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ALWA OWN DISCO OR IN BEGII	NYS C ER. ONNE SULA N	ONTAC THE EL CTED (ATED BL	T THI .ECT OR TI EFOR	e electr Tric Pon He Powe Re Machi	RIC NE RI NE	POWER I R SHAL LINES M OPERAT	LINES L BE OVED TIONS
POWE	R LIN	IE VOLT	AGE	REQUIRE	ED (CLEARAN	ICE
0	to	50	kV	10	ft	3.00	m
50	to	200	kV	15	ft	4.60	m
200	to	350	kV	20	ft	6.10	m
350	to	500	kV	25	ft	7.62	m
500	to	750	kV	35	ft	10.67	m
750	to	1000	kV	45	ft	13.72	m



Do not at any time use the machine during a storm.



Operator have to survey his/her field of vision when operating the truck.

condition.

OPERATION or MAINTENANCE hazards

Before any operation, following precautions should be taken:

• First of all, make sure that the maintenance interventions have been carried out with care according to the established schedule.



Set the machine to working configuration and sway it. Use the special inclinometer to the right of the driving place to check that the machine is level before operating it.

- Ensure you have enough fuel to avoid a sudden stop of the engine, especially during a crucial manoeuvre.
- Clean instruments, data plates, lights and the cab windscreen thoroughly.
- Check the correct functioning of all the safety devices installed on the machine and in the job site.
- In case of troubles or difficulties, inform the foreman at once. Never start working under unsafe conditions.
- Do not carry out any repair work in a makeshift way to start working!

During work, and especially maintenance, always pay the greatest attention:

- Do not walk or stop under raised loads or machine parts supported by hydraulic cylinders or ropes only.
- Keep the machine handholds and access steps always clean from oil, grease or dirt to prevent falls or slips.



 When entering/leaving the cab or other raised parts, always face the machine; never turn the back.



- When carrying out operations at hazardous heights (over 1.5 meters from the ground), always use approved fall restraint or fall arrest devices.
- Do not enter/leave the machine while it is running.
- Do not leave the driving place when the machine is running.
- Neither stop nor carry out interventions under or between the machine wheels when engine is running. When maintenance in this area is required, stop the engine.
- Do not carry out maintenance or repair works without a sufficient lighting.
- When using the machine lights, the beam should be oriented in order not to blind the personnel at work.
- Before applying voltage to electric cables or components, check their connection and proper functioning.
- Do not carry out interventions on electric components with voltage over **48V**.
- Do not connect wet plugs or sockets.
- Plates and hazard warning stickers shall never be removed, hidden or become unreadable.
- Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again.
- Before any maintenance or repair work, stop the engine and disconnect the batteries.
- Do not lubricate, clean or adjust moving parts.

- Do not carry out operations manually when specific tools are provided for this purpose.
- Avoid the use of tools in bad condition or use in an improper way i.e. pliers instead of adjustable wrenches, etc.
- Applying loads in different points of the attachment holding plate is forbidden.

AWARNING

Any intervention on the hydraulic circuit must be carried out by authorised personnel.

The hydraulic circuit of this machine is fitted with pressure accumulators. You and others could be seriously injured if accumulators are not completely depressurised.

For this purpose, shut the engine down and step on the brake pedal 8/10 times.



- Before carrying out operations on hydraulic lines under pressure or disconnecting hydraulic components, ensure the relevant line has been previously depressurised and does not contain any hot fluid.
- Do not empty catalytic mufflers or other vessels containing burning materials without taking the necessary precautions.
- After any maintenance or repair work, make sure that no tool, cloth or other object has been left within machine compartments, fitted with moving parts, or where suction and cooling air circulates.

- When working, do not give instructions or signs to several people at the same time. Instructions and signs must be given by one person only.
- Always pay due attention to the instructions given by the foreman.
- Never distract the operator during working phases or crucial manoeuvres.
- Do not call an operator suddenly, if unnecessary.
- Do not frighten an operator or throw objects by any means.
- After work, never leave the machine under potentially dangerous conditions.
- Before any maintenance or repair work, remove the attachment.

MACHINE OPERATION hazards

Absolutely avoid the following work situations:

- Do not handle loads beyond the maximum capacity of the machine.
- Do not raise or extend the boom if the machine is not on a firm, level surface.
- Do not operate the machine in strong wind. Do not increase the surface area of the machine or forked load exposed to the wind. Increasing the area exposed to the wind will decrease machine stability.
- Use extreme caution and slow speeds when the machine is driven across uneven or unstable grounds, slippery surfaces or near trenches or drop-offs.
- Limit travel speed according to ground conditions, slopes, presence of personnel or other factors which may cause collision.
- Do not place or attach overhanging loads to any part of the machine.

EXPLOSION OR FIRE hazards

- Do not start the engine if you smell or detect LPG, gasoline, diesel fuel or other explosive substances.
- Do not refuel the machine with the engine running.
- Refuel the machine and charge the battery only in a well ventilated area away from sparks, naked flames and lighted cigarettes.
- Do not operate the machine in dangerous environments or in places with flammable or explosive gases or materials.
- Do not inject ether in engines equipped with glow plugs.
- Do not leave fuel cans or bottles in unsuitable places.
- Neither smoke nor use open flames in areas subject to fire dangers and in presence of fuel, oil or batteries.
- Carefully handle all flammable or dangerous substances.
- Do not tamper with fire-extinguishers or pressure accumulators.

Safety Precautions

DAMAGED COMPONENT hazards

- Do not use battery chargers or batteries with a voltage above 12V to start the engine.
- Do not use the machine as a ground for welding.

PERSONAL INJURY hazards

- Do not operate the machine in case of hydraulic oil or air leak. Air or hydraulic oil leaks can penetrate or burn the skin.
- Always operate the machine in a well ventilated area to avoid carbon monoxide poisoning.
- Do not lower the boom if the area underneath is not clear of personnel or obstructions.



SUSPENDED LOAD hazards

- A suspended load has a dynamic, and therefore unpredictable, effect on machine stability, so extreme caution should always be exercised when operating with suspended loads.
- Only lift the load when the telehandler is on firm level ground.
- Do not operate the machine while people are under a suspended load.
- All movements of the load must be accomplished at lowest possible speed.
- Do not lift loads when wind speeds exceed 20 mph (32 kmh).
- Level the telehandler before lifting the load.
- Use guide ropes or tag lines by qualified personnel to help control the load and prevent it from swinging.
- Do not attempt to use the telehandler frameleveling to compensate for a swinging load.
- Never drag the load.
- Do not try to move fixed or obstructed loads.
- Only lift a load vertically; do not pull a load horizontally as it could cause excessive swinging of the load.
- When visibility is or could be obstructed, the operator shall use alternative/additional means to safely transport the load.
- Use of additional personnel to direct the operator in his movements as well as surrounding ground traffic.
- Speed shall be limited by any conditions that could cause any unexpected movement of the load, or jeopardize the safe transport of the load.
- The boom shall be fully retracted during travel.
- Only travel on solid surfaces.
- Start, travel, turn and stop slowly to prevent the load from becoming unstable or swing.
- Do not exceed walking speed.
- The load shall be transported as low to the ground as practical.
- Do not use any controls for re-positioning the load when traveling. Come to a gradual and complete stop before attempting to re-position the load.

LLMI/ LLMC hazards

The LLMI/LLMC will only function to the design specification:

- when the truck is static;
- when the truck is on consolidated, stable and level ground;
- when the truck is performing loading or placing functions;
- when the LLMI/LLMC is activated (not overridden).

The LLMI will only warn the operator in the event of inadequate stability in the longitudinal plane in the forward direction.

The LLMI/LLMC is not intended for warning of the risk of overturning in the case of:

- a sudden overload;
- travelling with the load in the elevated position;
- travelling on rough terrain or on grounds with obstacles and holes;
- travelling across a slope or turning on a slope;
- driving in bends too fast or too sharp;

Adjustments affecting the setting of the LLMI/LLMC shall be performed only by authorised personnel.



- 1. Forks
- 2. 2nd boom section
- 3. 1st boom section
- 4. Engine hood
- 5. Driving cab
- 6. Front axle
- 7. Chassis
- 8. Left front wheel mud-guard
- 9. Left front wheel reduction gear
- 10. Left rear wheel reduction gear

Machine General Description GTH-2506

The machine mainly consists of a mobile carriage, equipped with an operator's cabin and a telescopic boom with a load handling attachment articulation capable to handle and carry payloads not exceeding the rated capacity of the machine.

The mechanical power necessary to move the machine and to operate the load handling mechanism is provided by a diesel engine installed on the right side of the machine and controlled by a mechanical pedal located inside the operator's cabin.

The diesel fuel feeding the engine is contained in a plastic tank located on the back of the chassis, immediately underneath the boom hinge articulation. The engine powers two hydraulic pumps.

The bigger one is a piston type variable displacement pump, is directly flanged to the engine flywheel housing and is hydraulically linked to a piston type variable displacement hydraulic motor, which generates the torque necessary for the machine translation.

These two units are the main components of the hydrostatic transmission which is mechanically linked to the machine axles and wheels. In particular the hydraulic motor is flanged to the center of the front axle which is linked to the real axle by a drive shaft so providing a 4X4 wheels drive capability.

The four wheels are equipped with tires suitable to operate the machine in all the working conditions which have been foreseen for this model and capable to withstand the maximum loads generated by the machine weight and payloads.

The second gear type pump, flanged on the back of the bigger one and mechanically linked to that by a passing through PTO, produces the flow and pressure to move the telescopic boom and the load handling attachment articulation and to power the steering system.

These two pumps are fed through oil suction lines which are linked to the hydraulic oil tank installed on the bottom center of the chassis.

This oil tank, steel made, is provided also with the oil filter package (return type), the oil level gauges and the oil charging cap.

The engine and the two pumps are installed inside

a suitable engine compartment consisting of a fixed lower bay made in steel and of a upper bonnet which can be opened to allow servicing activities in the engine compartment.

The engine compartment also includes the engine and hydraulic system cooler, the engine coolant expansion tank, the air intake duct and filter, the electrical alternator, the battery, the fuel and the engine oil filters.

The engine exhaust muffler is installed behind the engine compartment and is flanged to the chassis right side.

The telescopic boom, hinged on the back of the chassis, mainly consists in two steel tubes having rectangular sections and provided with a load handling attachment articulation for payload stuffing/unstuffing and transportation purposes.

The outer section is hinged in the back top area of the chassis and moved by an hydraulic cylinder linked between its bottom surface and the central bottom area of the chassis.

The extension/retraction of this cylinder produces the boom outer section to rotate between the boom up and down limits.

The boom inner section can telescope with respect the outer one by a boom extension cylinder internally installed.

At the top of the inner section a load handling attachment articulation is provided with a rotating carriage, which can be easily interfaced with a number of different attachments, and which is activated by another specific cylinder.

The different attachments selected for this machine can be easily replaced and are secured by a mechanical pin (standard feature) or by a hydraulic quick lock/unlock cylinder.

The boom cylinders described before are driven through a main valve which is electrically controlled through a joystick located in the operator's cabin. The other main controls available in the operator's cabin are the steering wheel (to control the machine steering function), the service brake pedal and the parking brake activation switch.

The steering wheel is mechanically connected to

a steering unit which feeds the steering cylinders installed on the front and rear axles in such a way the steering angle is proportional to the steering wheel turns.

The service brake pedal is linked to a brake pump which, according to the pushing force on the pedal, generates a hydraulic pressure activating the service brakes disks package (wet type) which is installed inside the front axle and works on the axle internal shafts.

The same brake disks package is operated by the parking brake system through an electrical switch located on the cabin dashboard.

The operator's cabin is of full enclosed type and provided with windshield and glasses to protect the operator and to the maximum visibility.

The operator is seated on a cushioned and adjustable seat and can operate the machine using the specific controls which have been properly located inside the cabin.

A dedicated dashboard is provided with all the necessary controls and gauges necessary to properly and safely operate the machine.

Machine General Description GTH-3007

The machine mainly consists of a mobile carriage, equipped with an operator's cabin and a telescopic boom with a load handling attachment articulation capable to handle and carry payloads not exceeding the rated capacity of the machine.

The mechanical power necessary to move the machine and to operate the load handling mechanism is provided by a diesel engine installed on the right side of the machine and controlled by a mechanical pedal located inside the operator's cabin.

The diesel fuel feeding the engine is contained in a plastic tank located on the back of the chassis, immediately underneath the boom hinge articulation. The engine powers two hydraulic pumps.

The bigger one is a piston type variable displacement pump, is directly flanged to the engine flywheel housing and is hydraulically linked to a piston type variable displacement hydraulic motor, which generates the torque necessary for the machine translation.

These two units are the main components of the hydrostatic transmission which is mechanically linked to the machine axles and wheels. In particular the hydraulic motor is flanged to the mechanical two speed gear box, to the center of the front axle which is linked to the real axle by a drive shaft so providing a 4X4 wheels drive capability.

The four wheels are equipped with tires suitable to operate the machine in all the working conditions which have been foreseen for this model and capable to withstand the maximum loads generated by the machine weight and payloads.

The second gear type pump, flanged on the back of the bigger one and mechanically linked to that by a passing through PTO, produces the flow and pressure to move the telescopic boom and the load handling attachment articulation and to power the steering system.

These two pumps are fed through oil suction lines which are linked to the hydraulic oil tank installed on the bottom center of the chassis.

This oil tank, steel made, is provided also with the oil filter package (return type), the oil level gauges and the oil charging cap.

The engine and the two pumps are installed inside a suitable engine compartment consisting of a fixed lower bay made in steel and of a upper bonnet which can be opened to allow servicing activities in the engine compartment.

The engine compartment also includes the engine and hydraulic system cooler, the engine coolant expansion tank, the air intake duct and filter, the electrical alternator, the battery, the fuel and the engine oil filters.

The engine exhaust muffler is installed behind the engine compartment and is flanged to the chassis right side.

The telescopic boom, hinged on the back of the chassis, mainly consists in two steel tubes having rectangular sections and provided with a load handling attachment articulation for payload stuffing/unstuffing and transportation purposes.

The outer section is hinged in the back top area of the chassis and moved by an hydraulic cylinder linked between its bottom surface and the central bottom area of the chassis.

The extension/retraction of this cylinder produces the boom outer section to rotate between the boom up and down limits.

The boom inner section can telescope with respect the outer one by a boom extension cylinder internally installed.

At the top of the inner section a load handling attachment articulation is provided with a rotating carriage, which can be easily interfaced with a number of different attachments, and which is activated by another specific cylinder.

The different attachments selected for this machine can be easily replaced and are secured by a mechanical pin (standard feature) or by a hydraulic quick lock/unlock cylinder.

The boom cylinders described before are driven through a main valve which is electrically controlled through a joystick located in the operator's cabin. The other main controls available in the operator's cabin are the steering wheel (to control the machine steering function), the service brake pedal and the parking brake activation switch.

The steering wheel is mechanically connected to a steering unit which feeds the steering cylinders installed on the front and rear axles in such a way the steering angle is proportional to the steering wheel turns.

The service brake pedal is linked to a brake pump which, according to the pushing force on the pedal, generates a hydraulic pressure activating the service brakes disks package (wet type) which is installed inside the front axle and works on the axle internal shafts.

The same brake disks package is operated by the parking brake system through an electrical switch located on the cabin dashboard together with the electrical two speed gear box shifting switch.

The operator's cabin is of full enclosed type and provided with windshield and glasses to protect the operator and to the maximum visibility.

The operator is seated on a cushioned and adjustable seat and can operate the machine using the specific controls which have been properly located inside the cabin.

A dedicated dashboard is provided with all the necessary controls and gauges necessary to properly and safely operate the machine.

Allowed use

The telehandlers have been designed and manufactured for lifting, handling and transporting agricultural or industrial products by means of specific attachments (See "**Optional Attachments**" chapter) manufactured by TEREXLIFT.

Any other use is considered contrary to that established and, therefore, improper.

The compliance with and the strict respect of the operation, maintenance and repair conditions, indicated by the Manufacturer, represent an essential part of the allowed use.

The telehandler must be used and serviced only by operators knowing its characteristics and the safety procedures in depth.

It is also essential to comply with the safety at work legislation, the precautions concerning safety and industrial medicine as well as the local and national road traffic regulations.

The telehandler can be used in residential and commercial environment, light industry and industry.



Effecting changes or carrying out interventions on the machine other than those of routine maintenance is expressly forbidden. Any modification of the machine not carried out by TEREXLIFT or an authorised assistance centre involves the automatic invalidation of the conformity of the machine to the Directive 2006/42/EC.

NOTICE

Please check the accessories available for your machine.

Improper use

Improper use means a utilisation of the telehandler following working criteria that do not comply with the instructions of this manual, and that, in general, may result in risks for both operators and bystanders.



We list below some of the most frequent and hazardous situations of improper use:

- Carrying passengers on the machine
- Not strictly complying with the operation and maintenance instructions of this handbook
- Working beyond the handler working limits
- Working on unstable edges of ditches
- Driving crosswise on slopes or hills
- Working during a storm
- Working on steep slopes
- Using attachments other than those recommended
- Using attachments not approved or directly manufactured by TEREXLIFT
- Working in potentially explosive areas
- Working in confined and non-ventilated environments.
- Working in poorly enlighted area.



Controls And Instruments

- 1. Fresh Air Flap
- 2. Forward/reverse Gear Selector Horn
- 3. Steering Column Angle Adjustment
- 4. Turn Signals Windscreen Washer Lights
- 5. Ignition Switch
- 6. Load Moment Indicator
- 7. Emergency Stop Pushbutton
- 8. Hazard Warning Lights Switch
- 9. Multipurpose Control Lever

- 10. Gas Pedal
- 11. Instruments Dashboard
- 12. Cab Heater Control Knob
- 13. Fuses And Relays Board
- 14. Load Charts Holder
- 15. Load Limiter Disable Selector
- 16. Service Brake Pedal
- 17. Windscreen water reservoir
- 18. Continuous Oil Flow Potentiometer

Controls And Instruments

Ignition switch

Three-position switch:

0 No circuit under voltage, key can be removed and engine is stopped

1 Circuits under voltage, presetting for the engine starting. Board controls and instruments are on.

The warning light **11.13** signalling the glow plugs preheating comes on. Wait until the light goes off before starting the engine.

2 Engine starting; when released, key springs back to pos.1 automatically.

2 Forward/reverse gear selector switch

Three-position switch with lock in neutral position:

- 0 Neutral position; no gear engaged
- 1 Shift lever to pos. 1 to select the forward gear
- 2 Shift lever to pos. 2 to select the reverse gear



Horn function:

When sliding the lever along its axis, horn switches on, independently from other pre-set functions.




4 Turn signals - Windscreen wiper - Lights

Windscreen washer function:

Push the second stage of the lever along its axis to direct a jet of water onto the cab windscreen.



Windscreen wiper function:

To operate the windscreen wiper, rotate the lever tip to one of the three positions:

- 0 Wiper OFF
- I Low speed
- II High speed

Lights function:

To switch the handler lights, lever can be set to three different positions along its vertical axis:

- 0 low beam ON, stable condition
- 1 high beam ON, stable condition
- 2 high beam used for intermittent signalling; when released, the lever springs back to position 0



Turn signals function:

Set lever to pos. **1** to indicate a turn leftwards or to pos. **2** to indicate a turn rightwards.





Brakes

16 Service Brake Pedal

Gradually step on the brake pedal to decelerate and stop the machine. The pedal operates on the front axle.

Fully depressing the brake pedal causes a reset of the displacement of the power drive pump and makes the braking action more powerful.

19 Parking Brake

The parking brake of negative type engages automatically when the engine is stopped.

When the handler's engine is restarted, pressing the pushbutton switch **19** unlocks the parking brake.

To stop the handler without shutting down the engine, press the pushbutton switch **19** to engage the parking brake and push it once again to disengage the brake.

When starting the engine the light of the pushbutton turns automatically on! When the orange light at the top of the pushbutton and the dashboard warning light are on, the parking brake is engaged.



Never use the parking brake to slow down the machine, unless in an emergency. It may reduce the brake efficiency.



Accelerator control

10 Gas Pedal

Its pressure controls the engine rpm and the machine speed. It is fitted with an adjustable stop in the lower part.



When starting the engine the lights of all the pushbuttons turn automatically on!

Only the switching-on of the orange warning light sets on the top of the pushbutton will indicate the activation of the function.

Road/Jobsite selection

21 Road/Jobsite switch

Pushbutton with orange glass cap, with two stable positions.



- **0 Road setting:** boom controls are disabled and only the two-wheel steering is enabled.
- **1 Jobsite setting:** boom controls and all steering mode are enabled.

NOTICE

Before switching on the Road Setting, align the rear wheels of the machine



Speed control (only for GTH-3007)

29 Mechanical Gear switch

Pushbutton with red glass cap, it is used to engage 1st or 2nd gear. Push the button to select the required speed: each pressure corresponds to the selection of a new speed.



0 No speed change

1 Engage a new speed

The selection is signalled by the warning lights **11.15** and **11.16** which come on accordingly to the gear enagaged (11.15 for first speed; 11.16 for second speed).



To select a new speed you must control that the machine is not moving and that the forward/ reverse gear selector switch is in neutral position.

Steering mode selection

20 Steering Mode Switch

Three-position switch for the selection of the steering **n** mode:



- 1 Four-wheel steering
- 0 Two-wheel steering
- 2 Crab steering

Automatic Rear Wheel Alignment Indicator Sensor (Optional)

This sensor is connected to the warning light **11.12** and indicates when the rear wheels are aligned. Put the steering selector switch is in position 0 and turn the steering wheel: when the rear wheels will be aligned the orange warning light **11.12** will come on.

Controls And Instruments

Continuous oil flow

22 Flow Button

Pushbutton with orange glass cap, with two stable positions. Press this button to switch the hydraulic circuit feeding the attachments with auxiliary lines.



0 No oil flow

1 Continuous oil flow delivery to the used attachment.

18 Continuous Oil Flow Potentiometer

By turning the potentiometer clockwise, the flow rate



in the circuit feeding the attachments' movement lines is increased to one or the other direction.



Safety and emergency devices

8 Hazard Warning Lights Switch

Fitted with on-off position, it switches on the turn



signals simultaneously. When the hazard warning light is lit, the relevant switch and the turn signals light start flashing.

7 Emergency Stop Pushbutton

By pressing this button, the engine of the machine



is shut down. Before restarting the machine, it is necessary to reset the pushbutton by rotating it clockwise.

15 Load Limiter Disable Selector

The load limiter can be deactivated operating the key-selector placed under the protection cover **15**.



Working with the load limiting system cut out can result in a machine overturning and in serious injury.



Auxiliary drive controls

23 Cab Heater Fan Switch

Three-position switch:



- 1 Low speed
- 2 High speed

24 Road Lights Switch

Three-position switch placed on the right side of the dashboard:



- 0 Lights OFF
- 2 Low beam ON

1 Position lights ON

30 Work Lights Switch (OPTIONAL)

Two-position switch:



- 0 Lights OFF
- 1 Lights ON

31 A/C Switch (OPTIONAL)

Two-position switch:



32 Auxiliary Hydraulic Circuit (OPTIONAL)

Two-position switch. The pressure of this button causes the switching of the hydraulic circuit for the movement of the attachments equipped with auxiliary lines.



0 Oil to the attachment cylinder



1 Oil to the attachment

12 Cab Heater Control Knob

Located at the bottom of the driving seat base, it adjusts the flow of heated air in the cab.





Instruments

25 Engine coolant temperature indicator

This indicates the engine coolant temperature. If the finger is in the red zone and the warning light comes on, you must stop the machine and find and rectify the problem.

26 Hydraulic oil temperature indicator

This indicates the temperature of the hydraulic oil in the tank. If the temperature rises above the permissible value or the red warning light comes on, you must stop the machine and find and rectify the problem.

27 Fuel gauge

This indicates the fuel level in the tank. If the fuel level is low (reserve), the relevant warning light comes on.

28 Hour-meter

Signals the total operating hours of the machine. Use the hour-meter to gauge the routine maintenance jobs.



Warning lights (ref. 11)

11.1 Warning light - low battery charge

Signals a low charge by the alternator.

11.2 Warning light - low engine oil pressure

It lights when the engine oil pressure is too low

11.3 Warning light - air filter restricted

When this lamp come on, proceed with cleaning or changing the air filter cartridge.

11.4 Warning light - low brake pressure

It lights when the pressure of the brake circuit is too low for a correct functioning.

11.5 Warning light - parking brake engaged

When ON, this light indicates that the parking brake is engaged.

11.6 Warning light - high coolant temperature This red light comes on to alert to a too high temperature of the cooling medium.Stop the engine and find and rectify the problem.

11.7 Warning light - high beam

Blue warning light that signals when high beam is ON.

11.8 Warning light - hydraulic oil filter clogged

When this lamp sets to on, immediately change the oil filter on the return line to the tank.

11.9 Warning light - low hydraulic oil level

This light comes on to alert to a low level of the hydraulic oil for a correct functioning. Replenish and eliminate the oil leak.

Controls And Instruments

11.10 General alarm warning light

This red light comes on to warn of a problem of the machine. Contact the TEREXLIFT Service Centre.

11.11 Warning light - low fuel level

If the fuel level is low (reserve), the relevant warning light comes on.

11.12 OPTIONAL Warning light - rear wheel aligned

When ON, this light indicates that the rear wheel are aligned.

11.13 Warning light - glow plugs preheating

This light comes on during the pre-heating of the engine glow plugs. $\ensuremath{\mathsf{s}}$

11.14 Warning light - low beam

Green warning light that signals when low beam is ON. *11.15 Warning light - first speed*

(only for GTH-3007)

Amber warning light that signals when first speed is engaged.

11.16 Warning light - second speed (only for GTH-3007)

Amber warning light that signals when second speed is engaged.



CONTROL LEVER

Handlers are equipped with a multipurpose electroproportional lever which allows operating all machine movements.

When shifted to one of the four directions (right/left, forwards/backwards) it controls the boom lifting/ lowering and the forward/back pitching .of the attachment frame.

Pressing buttons **1** or **2** you move the boom telescope out and in and, when the function is present, you lock/unlock the attachment fitted to the machine.



Seize the control lever correctly and move it gently.

The motion speed of the actuators depends on the lever position: a small motion results in a slow motion of the actuators; vice versa, a full range motion of the lever corresponds to the max. speed of the actuator.



The control lever shall be operated only when the operator is correctly seated in the driving place.



Before operating the control lever, make sure that nobody is within the working range of the machine.





Function selection The lever is enabled to carry out the following motions:

- Boom lowering/lifting shift the control lever to **A** or **B**
- Boom extraction/retraction press button 2 and shift to A or B without moving the control lever
- Attachment back/forward tilting shift the control lever to C or D
- Attachment coupling/release (optional) press button 1 and shift the lever to C or D





■ Lifting/lowering the boom



Before operating the boom, make sure that nobody is within the working range of the machine.

To lift or lower the boom:

• Smoothly shift the lever to position **B** to lift the boom or to position **A** to lower it.





Extending/retracting the boom



Before operating the boom, make sure that nobody is within the working range of the machine.

To extend or retract the telescopic elements of the boom:

• Press button 2 and smoothly shift the lever to position A to extend the boom or to position B to retract it.





Part No. 57.0009.0536

Pitching the attachment holding frame forward/back

A DANGER

Before operating the boom, make sure that nobody is within the working range of the machine.

To tilt forward/back the attachment holding frame:

• Shift the lever to position **D** to tilt the frame forwards or to position **C** to tilt it backwards.





Attachment coupling/release (optional)

Before operating the boom, make sure that nobody is within the working range of the machine.

To coupling or release the attachment:

 Press button 1 and smoothly shift the lever to position C to coupling or to position D to release it.

Controls And Instruments







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Inspections



Make sure:

- ✓ You learn and practice the principles of safe machine operation contained in this operator's manual.
 - 1 Avoid hazardous situations.
 - 2 Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

- 3 Always perform function tests prior to use.
- 4 Inspect the workplace.
- 5 Only use the machine as it was intended.

Pre-operation Inspection Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

Refer to the list on the next page and check each of the items.

If damage or any unauthorized variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before going on to the function tests.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications.

Inspections

PRE-OPERATION INSPECTION

- Make sure the operator's manuals are intact, legible and placed inside the machine.
- Make sure all decals are present and legible. See "Labels and plates applied on the machine" chapter.
- Check for engine oil leaks and proper oil level. Top up if necessary. See "Maintenance" chapter.
- Check for axle oil leaks and proper oil level. Top up if necessary. See "Maintenance" chapter.
- Check for hydraulic oil leaks and proper oil level. Top up if necessary. See "Maintenance" chapter.
- Check for engine coolant leaks and proper coolant level. Add coolant if necessary. See "Maintenance" chapter.
- Check for battery fluid leaks and proper fluid level. Add distilled water if necessary. See "Maintenance" chapter.

Check the following components or zones for damage, missing or wrongly fitted parts or non-authorised modifications:

- electrical components, wiring and electrical cables
- hydraulic hoses, fittings, cylinders and main valves
- fuel and hydraulic oil tanks
- drive pump and motor and transmission axles
- steering system
- braking system
- boom telescopes sliding pads
- · clean glasses, lights and rear view mirrors
- engine and relevant components
- horn
- lights
- machine ignition control
- nuts, bolts and other fasteners

Check the entire machine for:

- cracks on welds or structural components
- dents or damage to the machine

- * Make sure that all structural and other critical components are present and the relevant fasteners and pins are fitted and properly tightened.
- * After inspection, check that all the compartment covers are in place and latched.



If even one single item is damaged or malfunctioning, do not start work. Stop the machine and repair the fault.

Checking the tyres

- * Check the correct inflation of the tyres; see par. "Tyres and Wheels" in the Maintenance section.
- * Make sure that the tyre plies are not cut or worn.



A tyre burst may result in serious injury; never use the machine if tyres are worn, wrongly inflated or damaged.

NOTICE

If the machine shall be used in a marine or equivalent environment, protect it against salt deposits with an adequate treatment against saltiness to prevent rust formation.

Inspections

■ FUNCTION TESTS FUNDAMENTALS

The function tests are designed to discover any malfunctions before the machine is put into service. The operator must follow the step-bystep instructions to test all machine functions. A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service. Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection and function tests again before putting the machine into service.

Make sure:

- You learn and practice the principles of safe machine operation contained in this operator's manual.
 - 1 Avoid hazardous situations.
 - 2 Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

- 3 Always perform function tests prior to use.
- 4 Inspect the workplace.
- 5 Only use the machine as it was intended.

TESTS

- 1 Select a test area that is firm, level and free of obstruction. Be sure there is no load on the forks or attachment.
- 2 Enter the operator's compartment and sit on the seat.
- 3 Fasten the seat belt.
- 4 Adjust all the mirrors. See "Adjusting the Mirrors" section.
- 5 Be sure the parking brake is on and the transmission control is in neutral.
- 6 Start the engine. See par. "Starting the Engine" in the Operating Instructions section.

Test the Control Lever

- 7 Using the control lever, momentarily raise and lower the boom, tilt the forks up and tilt the forks down.
- Result: All functions should operate smoothly.
- 8 Using the control lever and the yellow button, momentarily extend and retract the boom.
- Result: The function should operate smoothly.
- 9 Using the control lever and the white button, momentarily lock and unlock the attachment.
- Result: The function should operate smoothly.

Test the Steering

- 10 Push the right side of the steer selector switch to select four-wheel steer.
- 11 Check the steering operation by turning the steering wheel approximately¹/₄ turn in each direction.
- Result: The front wheels should turn in the same direction as the steering wheel. The rear wheels should turn in the opposite direction.
- 12 Straighten the wheels.
- 13 Push the steer selector switch to the middle position to select two-wheel steer.
- 14 Check the steering operation by turning the steering wheel approximately 1⁄4 turn in each direction.
- Result: The front wheels should turn in the same direction as the steering wheel. The rear wheels should not turn.
- 15 Straighten the wheels.
- 16 Push the left side of the steer selector switch to select crab steer.

Operator's Manual

Inspections

- 17 Check the steering operation by turning the steering wheel approximately ¼ turn in each direction.
- Result: The front wheels and rear wheels should turn in the same direction as the steering wheel.
- Test the Transmission and Brakes
- 18 Be sure the boom is fully lowered and retracted.
- 19 Step on the service brake pedal.
- 20 Move the transmission control lever to forward. Slowly let up on the service brake pedal. As soon as the machine starts to move, push the service brake pedal.
- Result: The machine should move forward, then come to an abrupt stop.
- 21 Move the transmission control lever to reverse. Slowly let up on the service brake pedal. As soon as the machine starts to move, push the service brake pedal.
- Result: The machine should move in reverse, then come to an abrupt stop. The back-up alarm should sound when the transmission control lever is in reverse.
- 22 Move the transmission control lever to neutral.
- 23 Push the top of the parking brake switch.
- Result: The red parking brake indicator light should come on, indicating the parking brake is on.
- 24 Move the transmission control lever forward, then in reverse.
- Result: The machine should not move.
- 25 Push the bottom of the parking brake switch. The parking brake is off when the indicator light is off.

Test the Road Lights

26 Verify that all lights are functional.

WORKPLACE INSPECTION

AWARNING

The workplace inspection helps the operator determine if the workplace is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the workplace.

It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the machine.

Be aware of and avoid the following hazardous situations:

- drop-offs or holes
- bumps, floor obstructions or debris
- sloped surfaces
- unstable or slippery surfaces
- overhead obstructions and high voltage conductors
- hazardous locations
- inadequate surface support to withstand all load forces imposed by the machine
- wind and weather conditions
- the presence of unauthorized personnel
- other possible unsafe conditions

This chapter describes some techniques and provides instructions for a safe use of the machine fitted with standard forks. Before using different attachments, thoroughly read the chapter "Optional attachments".



Before using the machine, inspect the job site and check for possible hazardous conditions. Make sure that there are no holes, moving banks or debris that may cause you to lose the control of the machine.



Pay the greatest attention when working close to electric lines. Check their position and ensure that no part of the machine operates at less than 6 meters from the power lines.



For a safe use of the machine, always check the weight of the loads going to be handled.

- ENTERING THE MACHINE
- ENTERING THE CAB



Always make sure that your hands and shoe soles are clean and dry before getting into the driving cab. Always face the machine when entering and leaving it and hold to the suitable handles.

The handler cab is equipped with an access door on the left-hand side.

Door opening from outside:

- Insert the key and release lock 1.
- Press the pushbutton **1** and open the door.



Door closing from inside:

Pull the door with force: it locks automatically.

Door opening from inside:

- Push lever **2** to open the door completely.
- Rotate handle **3** to open the upper section of the door and lock it against the special catch.





The upper section of the door must be secured to the rear part of the driving cab or latched to the lower section of the same door.

To unlock the door latched in open position:

- Press button 4 to unlock the door from the catch.
- Once released, re-close the upper section of the door by means of handle 3.





Leaving the cab in an emergency

In an emergency, the operator can use the front or the rear window as safety exit-ways.

The rear window has handles for partially opening the glass. Such handles are locked in position by some wing nuts which, if driven out, allow opening the glass completely.

The front window has one, **5**, handle which, if turned, enables the operator to pass through.



ADJUSTING THE SEAT

A correct adjustment of the seat ensures the operator a safe and comfortable driving. The handler seat is fitted with devices which allow for the adjustment of the springing, the height and the distance from the controls.

Seat distance from the controls

The seat is equipped with an adjusting device to slide the same seat forward or back with respect to the steering column.

To adjust the seat, pull lever **1** outwards and push the seat to the desired direction. Then release the lever and make sure that the seat locks in position.

Springing adjustment (optional)

Tilt the lever **2** toward the machine front side of about 45°, then rotate it clockwise to increase the seat springing or rotate it anticlockwise to reduce the seat springing. Once the desired springing has been reached put the lever back to the rest position.

• Height adjustment (optional)

Turn knob **3** clockwise to lift the seat; turn it counter-clockwise to lower the seat.

In some seats height can be adjusted to three different positions. Lift the seat until you hear the click signalling that the seat is locked in position. To lower the seat, raise to end of stroke to release the mechanism, then release the seat: it will return to the bottom position.



- The seat is for one person only.
- Don't adjust the seat when the machine is moving.



■ FASTENING THE SEAT BELTS

Sit correctly in the driving seat; then:

- The safety belts are equipped with reel retractor.
 To fasten the belt, pull tab 1 and push it into buckle
 2.
- To release the belt, push button **3** and remove the tab from the buckle.
- Make sure that the buckle is correctly located at the hip point and not on the stomach.
- Operate the end adjusters to reach the length you wish and make sure the buckle is always in the middle.



Not fasting the seat belts could result in death or serious injury.

■ 3 STEERING COLUMN ANGLE ADJUSTMENT

Both steering column and dashboard can be set to a different angle.

To adjust the steering wheel angle, unlock lever **3** and pull or push the steering wheel to the required position, then re-lock lever **3**.



Before driving the machine, ensure the steering wheel is perfectly clamped.



SWITCHING ON THE CAB INTERIOR LAMP

The ceiling light fixture is fixed to the rear top strut of the cab. The relevant lamp is switched on/off by switch.

ADJUSTING THE MIRRORS

The machine is fitted with four mirrors:

- The right convex mirror ① is located on a special supporting bracket in advanced position and allows checking the area ③ behind the machine, on the right-hand side. To adjust its position, manually rotate the joint it is fitted with.
- The right rear view mirror 2 is located on a special supporting bracket and allows checking the carriageway 3 behind the machine. To adjust its position, manually rotate the joint it is fitted with.
- The left rear view mirror ③ is placed on the left upper post of the windscreen and allows checking the area ④ behind the machine, on the left- hand side. To adjust its position, manually rotate the joint it is fitted with.
- The rear convex mirror ④ is placed on a special bracket located at the back of the boom and allows checking the area **①** behind the machine as well as the rear part of the chassis. To adjust its position, manually rotate the joint it is fitted with.



Part No. 57.0009.0536



Modification of the telehandler may affect the operator's visibility.

GTH-2506 - GTH-3007

STARTING THE ENGINE

For the low temperature starting, see paragraph "Low Temperature Starting".

- Engage the parking brake.
- Put the forward/reverse gear selector to neutral.
- Step on the gas pedal.
- To start the engine, turn the ignition switch to position 2. Release the switch when the engine starts. If the engine does not start within 20 seconds, release the key and wait at least 2 minutes before attempting again.



 After the start-up, let the engine run at idle for some seconds before engaging a gear; this allows for a

gradual warm up of the engine oil and a better lubrication.

• In case of engine jump-starting, remove the booster cables (see following paragraph).

NOTICE

If the light indicators do not switch off/on when engine is running, immediately stop the machine and find and rectify the fault.



Once it has been started, the engine continues to run even if you leave the driving place. DO NOT LEAVE THE DRIVING PLACE BEFORE HAVING SHUT THE ENGINE DOWN, LOWERED THE BOOM TO THE GROUND, TURNED THE FORWARD/ REVERSE GEAR SELECTOR TO THE NEUTRAL POSITION AND ENGAGED THE PARKING BRAKE.



Engine cannot be started if the forward/reverse gear selector switch is not in the neutral position.

JUMP-STARTING THE ENGINE



Do not start the engine using a quick charge booster to avoid any damage to the electronic boards.



When jump-starting the engine through the battery of another machine, make sure that the two vehicles cannot collide to prevent formation of sparks. Batteries give off a flammable gas and sparks may burn it and cause an explosion

Do not smoke when checking the electrolyte level.

Keep any metal object like buckles, watch straps, etc. clear of the battery positive (+) terminal. These elements can short between the terminal and nearby metal work and the operator can get burned.

The booster supply must have the same rated voltage and output of the battery installed on the handler.

To jump-start the engine:

- Turn any users off by the special control levers.
- Put the gear selector to neutral and engage the parking brake.
- Ensure the machine battery **A** is connected to the frame earth, the terminals are well tightened and the electrolyte level is regular.

- Connect the two batteries as shown in the figure. Connect first the positive terminals of the two batteries, then the negative terminal of the booster supply B to the machine frame earth.
- If the booster supply is installed on a second vehicle, make sure that the latter does not touch the handler. To avoid damage to the electronic instruments of the machine, the engine of the machine where the booster supply is installed, must be stopped.



- Turn the ignition key and start the handler.
- Disconnect the cables. Remove first the negative terminal from the frame earth, then from the booster supply. Disconnect the positive terminal from the machine battery, then from the booster supply.



Use only a 12V battery; other devices like battery chargers, etc. may cause an explosion of the battery or result in damage to the electrical system.

Operating Instructions

LOW TEMPERATURE STARTING

In case of cold starting, use an oil with a SAE viscosity adequate to the ambient temperature.

Please refer to the engine use and maintenance manual.

The machine is supplied with oil SAE 15W/40.



To start the engine from cold, proceed as follows:

- Set the forward/reverse gear selector to neutral position.
- Turn the ignition switch to the glow plugs preheating position: the relevant warning light 11.13 goes on. Step down on the gas pedal and start the engine by turning the ignition switch. Release the switch as soon as the engine fires.
- Let the engine run at idle for a few seconds before putting a gear; this allows for a gradual warm up of the engine oil and a better lubrication.

DISCONNECTING THE BATTERY

During maintenance or repair works, and while welding, turn off the battery cut-out switch **(**), located into the engine compartment below the engine air filter.



STARTING THE MACHINE

When the engine reaches the running temperature, ensure all parts are in transfer position and the forward/reverse gear selector is in neutral. Then, proceed as follows:

- Select the required steering mode.
- Select the required gear (forward or reverse).
- Release the parking brake.
- Slowly step on the gas pedal to start moving off.



Do not operate the forward/reverse gear selector when the machine is running. The machine would reverse the running direction abruptly and you could seriously be injured.

STOPPING AND PARKING THE MACHINE

When possible, stop the machine on a dry, level and solid ground. Then:

- Bring the machine to a smooth stop by easing up the gas pedal and stepping down on the brake pedal.
- Set the forward/reverse gear selector to neutral position.
- Engage the parking brake and ensure its indicator light switches on.
- Release the service brake pedal.
- Rest the attachment coupled to the boom flat on the ground.
- Rotate the ignition key to "**0**" and remove the key.
- Leave the driving cab and lock the cab door.



Always face the machine when getting off the driving cab; make sure that your hands and shoe soles are clean and dry, and hold to the handholds to prevent falls or slips.



Always engage the parking brake after stopping the machine to prevent possible accidental motions of the vehicle.

USING THE LOAD CHARTS

The load charts **1** indicates the maximum permissible load in relation to the boom extension and the type of attachment used. To operate under safe conditions, always refer to these charts.

The extension level of the boom can be checked with the help of the letters (**A**, **B**, **C**, **D**, **E**) painted on the same boom (pos.3), while the actual degrees of inclination of the boom are shown by the angle indicator **2**.

All the load charts are placed into a dedicated holder installed in the left side of the cabin. The tag **4** located at the bottom of each load chart represents the type of attachment used.



The load charts applied on the cab refer to a stationary machine standing on a solid and level ground.

Raise the load some centimetres and check its stability before raising it completely.



The load charts illustrated in this manual are given only as a mere example. To define the payload limits, refer to the load charts applied within the cab of your machine.





LOAD LIMITER

On the front top strut of the cab, there is limiter **6** which warns the operator of the variation of stability of the machine and blocks any manoeuvre before the same reaches a critical condition.

Description of the controls

- **1.** Used only for calibration
- 2. Stability indicator with LED-bar
- 3. Green light power OK
- 4. Used only for calibration
- 5. Used only for calibration



Operation

When power is turned on, light **3**, the led bar **2** and button **4** and **5** come on.

The monitoring system runs a self-test. During operation, the LED-bar **2** lights up gradually depending on the variation of stability.



Green LED's (L1 and L2): during normal operation when the percentage of overturning moment is between 0 and 89, these LED's are ON. The machine is stable.

Orange LED's (L3 and **L4):** they light up when the machine tends to overturn and the percentage of overturning moment with respect to the threshold value is between 90 and 99.

The system enters the **pre-alarm** mode: the buzzer sounds with an intermittent sound and the boom extension, lowering and forks forwards tilting movements slow down.

Red LED's (L5 and L6): risk of overturning! The percentage of overturning moment is above 100 with respect to the threshold value.

The machine enters the **alarm** mode: the buzzer sounds continuously and any dangerous manoeuvre is blocked: boom up, boom down, boom out, forks frame forwards. The operator can only retract the load within safety limits.

Alarm codes and resetting

The limiter has diagnostic facilities to aid in the identification of failures of the transducers, breakages of the cables or malfunction of the electronic system. When a failure is signalled, the limiter enters the safety mode blocking any dangerous manoeuvres: **LED L6** starts flashing representing an alarm code. The meaning of these alarm codes is shown in section **"Faults and Troubleshooting**".

A DANGER

Before using the machine, make sure that the first green LED of the overload warning system is ON. The overload warning system must not be used to check the load going to be lifted: it has only been designed to signal possible unbalances of the machine along its motion axis.

Such unbalances may also be caused by an abrupt operation of the levers during the load handling. If, during work, several indicators light up, operate the levers more smoothly.

Operating Instructions

HANDLING LOADS

Adjusting the forks

With FEM forks (optional)

Forks shall be spaced to suit the load going to be handled. For this purpose:

- Lift the clamping lever of the forks.
- Slide the forks to the desired position, then re-lock the lever.

With floating forks

In the case of floating forks:

- Loosen the nut of the locking screws.
- Raise the forks and slide them on the pivot until correct spacing.
- Lock the screws retightening the nut.





- The centre of gravity of the load must always be halfway between the forks.
- Ensure you exactly know the weight of the load before handling it.
- When extending the boom, do not exceed the payload limit.
- Refer to the payload limits given in the load chart applied inside the cab.
- Space the forks as wide as possible to suit the load being handled.

WORKING PHASES



Operator have to survey his/her field of vision when operating the truck.

Loading phase

- Approach the load to the handled perpendicularly and check that the machine is level on the inclinometer.
- Insert the forks under the load and raise the load some centimetres.
- Pitch the forks back to retract the load.











The risks during load handling are principally in the rearward direction during the reversing part of the manoeuvre.

Transfer phase

- Do not start or brake abruptly.
- Drive to the unloading point cautiously and keep the load 20÷30 cm from the ground.
- Suit the machine speed to the ground conditions to avoid dangerous jumps, side skids of the vehicle and possible load falls.
- When driving on slopes or ramps, hold the load uphill.

AWARNING

If a suspended load or the resulting boom geometry creates a substantial blockage that the user should consider alternative carrying means.



Do not drive on slopes sideways; this wrong manoeuvre is one of the main reasons for accidents due to vehicle overturning.

Unloading phase

- Drive to the unloading point with straight wheels and bring the machine to a smooth stop leaving enough space to operate the boom.
- Put the parking brake and set the transmission to neutral.
- Position the load some centimetres above the desired position and set the forks level.
- Lower the load and make sure it is level.
- Carefully withdraw the forks by operating the boom retraction control and, if necessary, raise or lower the boom as forks come out.
- When the forks are clear of the load, set them to transfer position.
- Release the parking brake and start a new working cycle.

CHANGING THE ATTACHMENT



Use only attachments directly manufactured or recommended by Terexlift and detailed in the "Optional attachments" section.

Version with MECHANICAL LOCKING

To change an attachment, operate as follows:

- Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
- Disconnect the quick connectors of the attachment (if any).
- Pull out pin **1** locking the attachment after removing the safety split-pin **2** at its end.



- Rest the attachment flat on the ground.
- Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
- Move back with the machine and drive to the new attachment to be coupled.
- Hold the frame pitched forward and hook the upper lock of the new attachment.
- Retract and raise the attachment some centimetres. It will centre automatically on the quick coupling frame.
- Refit pin 1 fixing it with its safety split-pin 2.
- Re-couple the connectors of the attachment (if any).



After substitution, visually check the attachment is correctly coupled to the boom, before operating the machine. A wrongly coupled attachment may result in damage to persons or things.











GTH-2506 - GTH-3007

Version with HYDRAULIC LOCKING (optional)

To change an attachment, operate as follows:

- Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
- Disconnect the quick connectors of the attachment (if any), and connect the hydraulic locking pipes of the attachments to couplings **3**.



- Rest the attachment flat on the ground.
- Remove the safety pin 2 placed at its end.
- Free the attachment operating the control of the attachment locking/unlocking cylinder
- Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
- Move back with the machine and drive to the new attachment to be coupled.
- Hold the frame pitched forward and hook the upper lock of the new attachment.
- Retract and raise the attachment some centimetres. It will centre automatically on the quick coupling frame.
- Operate the attachment locking lever (optional) and secure the attachment in place with safety pin **2** previously removed.
- Re-couple the connectors of the attachment (if any).

ROAD OR SITE TRANSFER

When travelling on public roads, strictly obey the local or national road traffic regulations.

Besides, take into account the following general precautions:

- Start the engine.
- Align the rear wheels.
- Only for the italian market install the locking devices provided for the machine registration document as follows:
- 1. install the boom extension locking cable A;
- 2. install the locking collar **B** on the tilting cylinder;
- 3. install the locking collar **C** on the lifting cylinder;
- Cover the teeth of the conventional forks with the special guard.
- Retract boom and attachment to transfer position.
- Set the Road/Jobsite switch to "ROAD".
- Make sure that lights, horn and turn signals are in working order.
- Engage the gear.
- The transfer speed of the vehicle will depend on the engine rpm and the position of the control lever.

NOTICE

Public road circulation is allowed only for transferring an unloaded machine. Do not use the machine to tow trailers.

ONLY FOR THE ITALIAN MARKET





Transporting The Machine

MOVING A DISABLED MACHINE

Tow the machine only when no alternative is possible, since this operation may result in serious damage to the transmission. When possible, repair the machine on site.

When the machine shall absolutely be towed:

- Unlock the parking brake.
- Tow the machine for short distances and at a low speed only (less than 5 km/h).
- Use a rigid drawbar.
- Select the two-wheel steer.
- Set the forward/reverse gear selector to neutral position.
- Raise the front wheels of the machine.
- When possible, start the engine and use the hydraulic drive and the braking system.

Unlocking the parking brake

To unlock the negative brake of a faulty machine, proceed as follows:

• Loosen the two opposite screws **A** located on the front axle.

• Remove the shims **B** located under the two screws **A**.

• Re-tighten the screws **A** turning alternately the front screw and the rear screw 1/2 turn to unlock the brake.

To relock the nagative brake, loosen the screws

A turning alternately the front screw and the rear screw 1/2 turn, refit the shims **B** and re-tighten the screws **A**.



Transporting The Machine

LIFTING THE MACHINE

When the machine shall be lifted, use only means having a suitable capacity. The characteristic data and the center of gravity details are listed in the section "*Specifications*".

For lifting the machine, proceed as follow:

- Retract the boom to transfer position.
- Put the parking brake and rest the attachment flat.
- Shut the engine down and close the driving cab of the machine.
- Anchor the chains to the four special lugs on the machine (marked with the decal below).



Lift the machine only when the chains has been anchored to all the lugs.

TRANSPORTING THE MACHINE ON OTHER VEHICLES

To transport the machine on another vehicle, follow the steps below:

- Ensure ramps are correctly positioned.
- Retract the boom to transfer position.
- Carefully drive the machine onto the transporting vehicle.
- Put the parking brake and rest the attachment flat on the vehicle platform.
- Ensure the overall dimensions do not exceed the allowed limits.
- Shut the engine down and close the driving cab of the machine.
- Secure the machine to the vehicle platform by wheel-chocks.
- Anchor the machine to the transporter's platform by fixing the chains to the special eyebolts (on the chassis.


Transporting The Machine

PARKING AND STORAGE

Short inactivity

Always park the machine in a safe way after a working day, a shift and at night.

Take all precautions to prevent damage to those persons who will approach the machine while stationary:

- Park the machine so that it does not hinder other operations.
- Lower the boom fitted with attachment on the ground.
- Disengage the transmission and put the parking brake.
- Remove the key from the ignition switch and lock the cab door.



Leaving a battery connected can result in shorts and, as a consequence, in a fire.

Machine storage

In case of extended inactivity of the machine, follow the above precautions. Additionally:

- Wash the machine thoroughly. For a better cleaning, remove grills and protection casings.
- Carefully dry all machine parts by blowing some compressed air.
- Lubricate the machine thoroughly.
- Do a walk-around inspection and replace any worn or damaged part.
- Re-paint any worn or damaged part.
- Remove the battery, smear its terminals with vaseline and store it in a dry place. Battery can be used for other purposes. Otherwise, periodically check its charge level.
- Refuel the tank to prevent internal oxidation.
- Store the machine in a sheltered and wellventilated place.
- Start the engine for about 10 minutes at least once a month.
- When weather is particularly cold, empty the radiator.

NOTICE

Always remember that the ordinary maintenance must be carried out even during the machine inactivity. Pay particular attention to the fluid levels and to those parts subject to ageing. Before re-starting the machine, carry out an extraordinary maintenance and carefully check all mechanical, hydraulic and electrical components.

Transporting The Machine

CLEANING AND WASHING THE MACHINE

Clean the machine in accordance with the following instructions:

- Remove any oil or grease traces with a dry solvent or a volatile mineral alcohol.
- Before assembling a new part, remove any protection product (rust-preventer, grease, wax etc.).
- Remove any trace of rust from metal parts with some emery cloth before smearing the part with a protection product (rust-preventer, paint, oil etc.).

NOTICE

Do not use water at high pressure for washing the machine and especially the main valve, the solenoid valves and electrical parts.

External washing

Before washing the machine, check that the engine is shut down and the doors and windows are closed. Do not, at any times, use fuel to clean the machine. Use water or some steam. In cold climates, dry the locks after washing or smear them with an antifreeze. Before using the machine again, check its conditions. Internal washing

Wash the machine interior with some water and a sponge. Do not use water at high pressure. After washing, dry with a clean cloth.

Washing the engine

Before washing the engine, protect the air intake filter to prevent water from entering the circuit.

NOTICE

If the machine shall be used in a marine or equivalent environment, protect it against salt deposits with an adequate treatment against saltiness to prevent rust formation.

MACHINE DISPOSAL



At the end of the machine life, call in a specialized firm to dispose of it in compliance with the local or national regulations.

Battery disposal



Used lead-acid batteries cannot be disposed of as normal industrial solid wastes. Because of the presence of harmful substances, they must be collected, eliminated and/or recycled in accordance with the laws of the UE.

Used batteries must be kept in a dry and confined place. Make sure the battery is dry and the cell plugs are tight. Place a sign on the battery to warn of not using it. If before disposal the battery is left in the open air, it will be necessary to dry, smear the box and the elements with a coat of grease and tighten the plugs. Do not rest the battery on the ground; it is always advisable to rest it on a pallet and cover it. The disposal of batteries shall be as rapid as possible.

Operator's Manual

Maintenance

Observe and obey:

 The operator can only perform the routine maintenance operations envisaged in this manual.



* Scheduled maintenance procedures shall be completed by qualified technical personnel according to the manufacturer's specifications.

Maintenance symbol legend:

The following symbols are used in this manual to help you understand better the instructions provided. When one or more symbols appear at the beginning of a maintenance procedure, they indicate the following:



Indicates that tools are required to perform the procedure.



Indicates that new parts are required to perform the procedure.



Indicates that a cold engine is required to perform the procedure.



Ordinary

Indicates the time interval for the maintenance jobs expressed in working hours.



Before any maintenance or repair work, remove the attachment.

INTRODUCTION

A thorough and regular maintenance keeps the machine in a safe and efficient working condition.

For this reason, it is advisable to wash, grease and service the machine properly, especially after having worked under particular conditions (muddy or dusty environments, heavy operations, etc.).

Always ensure all machine components are in good condition. Check for oil leaks or loosening of guards, and make sure that the safety devices are efficient. In case of malfunctions, find and rectify them before using the machine again.

Not respecting the ordinary maintenance schedule of this manual automatically voids TEREXLIFT warranty.



For the engine maintenance, please refer to the specific Operator handbook supplied with the machine.



Use only original spare parts. Please refer to the specific Spare Parts Catalogue.

SAFETY DEVICES SPARE PARTS		
Load Cell	09.0802.0038	
LMI Display & Board GTH 2506	56.0016.0110	
LMI Display & Board GTH 3007	56.0016.0111	
Emergency Stop Pushbutton	56.0016.0091	
Seat Switch	07.0703.0257	
Levelling Cylinder Safety Valve	04.4239.0051	
Lifting Cylinder Safety Valve	04.4239.0005	
Boom Extension Cylinder Safety Valve	04.4239.0005	
Attachment Swinging Cylinder Safety Valve	04.4239.0052	

Part No. 57.0009.0536

LUBRICANTS - HEALTH AND SAFETY PRECAUTIONS

Health

A prolonged skin contact with oil can cause irritation. Use rubber gloves and protective goggles. After handling oil, carefully wash your hands with soap and water.

Storage

Always keep lubricants in a closed place, out of the children's reach. Never store lubricants on the open air and without a label indicating their contents.

Disposal

New or exhausted oil is always polluting! Never drain oil on the ground. Store new oil in a suitable warehouse. Pour exhausted oil into cans and deliver them to specialised firms for disposal.

Oil leaks

In case of accidental oil leaks, cover with sand or type-approved granulate. Then scrape off and dispose of it as chemical waste.

First aid

Eyes	: In case of accidental contact with the eyes, wash with fresh water. If the irritation persists, seek medical advice.
Intake	: In case of oil intake, do not induce vomiting, but seek medical advice.
Skin	: In case of a prolonged contact, wash with soap and water.

Fire

In case of fire, use carbon dioxide, dry chemical or foam extinguishers. Do not use water.

ORDINARY MAINTENANCE

A wrong or neglected maintenance can result in possible risks for both operator and bystanders. Make sure maintenance and lubrication are carried out according to the manufacturer's instructions to keep the machine safe and efficient.

The maintenance interventions are based on the machine working hours. Regularly check the hourmeter and keep it in good conditions to define the maintenance intervals correctly. Make sure any malfunction detected during the maintenance is promptly rectified before using the machine.



All "▲" marked operations must be carried out by a skilled technician.

During the first 10 working hours

- 1. Check the oil level within reduction gears, power divider and differential gears
- 2. Regularly check the tightening of the wheel bolts
- 3. Check the tightening of all bolts and nuts
- 4. Check the couplings for oil leaks

Every 10 working hours or daily

- 1. Check the engine oil level
- 2. Clean the air suction filter
- 3. Clean the radiator, if necessary
- 4. Check the hydraulic oil level in the tank
- 5. Check the greasing of the boom section pads
- 6. Grease the attachment holding frame
- 7. Grease all joints of the boom, the rear axle shaft joint, the transmission shafts, the front and rear axles and any equipment of the machine
- 8. Check the efficiency of the lighting electric system
- **9.** Check the efficiency of braking system and parking brake
- **10.** Check the efficiency of the steering selection system
- **11.** Check the efficiency of the fork balancing system.

Every 50 working hours or weekly

Jobs to be done in addition to those above

- 1. Check the tension of the alternator belt.
- 2. Check the tyre inflation.
- **3.** Check the tightening of the wheel nuts.
- 4. Check the tightening of the Cardan shaft screws.

Every 250 working hours or monthly

Jobs to be done in addition to those above

- 1. Change the engine oil and relevant filter
- 2. Check the oil level in the front and rear differential gears and the reducer
- **3.** Check the oil level in the four wheel reduction gears
- 4. Check the condition of the canister of the engine air filter; renew the canister if necessary
- 5. Check the clamping of the cableheads to the battery terminals
- 6. Check the air suction hose between engine and filter
- 7. Check the cylinder chromium-plated rods
- 8. Check the hydraulic lines are not worn because of rubbing against the frame or other mechanical components
- **9.** Check the electric cables do not rub against the frame or other mechanical components
- ▲ Check the wear of the sliding pads of the boom sections.
- 11. ▲Adjust the play of the sliding pads of the boom sections.
- **12.** Remove any grease from the boom, then regrease the sliding parts of the boom sections.
- **13.** Check the level of the battery electrolyte.

Every 3 working months

Jobs to be done in addition to those above

1. Check the efficiency of the block valves.

Every 500 working hours or every six months

Jobs to be done in addition to those above

- 1. Visually check the smoke quantity evacuated from the engine exhaust.
- 2. Check the tightening of the engine fixing screws.
- **3.** Check the tightening of the cab fixing screws.
- 4. Check the backlash between pins and bushings in all joints.
- 5. Change the hydraulic oil filter in the tank.
- **6.** Have the hydraulic system checked by a skilled technician.
- 7. Change the main cartridge of the engine air filter.
- 8. Change the hydraulic oil filter of the transmission
- **9.** Clean or replace, if necessary, the air filter in the cab.
- **10.** First change for the engine oil and renew the fuel filter

Every 1000 working hours or yearly

Jobs to be done in addition to those above

- 1. Change the oil in the front and rear differential units and in the power divider
- **2.** Change the oil in the four wheel reduction gears.
- 3. Change the hydraulic oil.
- 4. Change the engine oil and renew the fuel filter.

OIL CHANGE SCHEDULE

	Job	Operating hours *	Service interval *	Oil type	
	Oil level check	10	daily	SHELL RIMULA 15W-40	
Engine	First change	500	-	(API CH-4/CG-4/CF-4/CF;	
	Subsequent changes	1000	yearly	ACEA E3; MB228.3)	
Axles and power divider	Oil level check	250	monthly	TRACTORENAULT THFI 208 LF SAE 80W API GL4 / FORD M2C 86B Massey Ferguson M1135	
	First change	-	-		
	Subsequent changes	1000	yearly		
Hydraulic oil	Oil level check	10	daily	SHELL TELLUS T 46	
	First change	-	-	DENISON HF-1, DIN 51524	
	Subsequent changes	1000	yearly	pan 2 & 3	

* whichever occurs first.

MAINTENANCE INTERVENTIONS



All maintenance interventions must be carried out with engine stopped, parking brake engaged, working attachments flat on the ground and gear lever in neutral.



When raising a component for maintenance purposes, secure it in a safe way before any maintenance intervention.



Any intervention on the hydraulic circuit must be carried out by skilled personnel.

The hydraulic circuit of this machine is fitted with pressure accumulators. You and others could be seriously injured if accumulators are not completely depressurised.

For this purpose, shut the engine down and step on the brake pedal 8÷10 times.



Before any operation on hydraulic lines or components, make sure there is no residual pressure. For this purpose, stop the engine, engage the parking brake and operate the control levers of the main valve in both working directions (alternately) to depressurise the hydraulic circuit.



High pressure lines must be replaced by qualified personnel only.

Any foreign matters entering the closed circuit may result in a sudden deterioration of the transmission.

ACAUTION

The qualified staff charged with the maintenance of the hydraulic circuit must clean all areas around with care before any intervention.



The handling and disposing of used oils can be ruled by local or national regulations. Address to authorised centres.

NOTICE

During maintenance or repair works, and while welding, turn off the disconnected battery switch, located into the engine compartment below the engine air filter.

■ ACCESS TO THE ENGINE COMPARTMENT

For any operation within the engine compartment, open the protection bonnet.

Hood is equipped with lock & key and a supporting rod that holds it in position.

From the engine compartment, you get access to:

- Thermal engine A
- Engine air filter **B**
- Radiator fluid compensation cup C
- Battery D

To get access to the engine compartment:

- Shut the engine down and put the parking brake.
- Unlock and raise the hatch with handle.



Take all precautions when approaching the engine compartment. Some parts of the engine may be very hot. Always use protective gloves.





ENGINE AIR FILTER



Clean the engine air filter and replace the elements, when necessary.

- 1 Cleaning and changing the outer element:
 - Shut the engine down and engage the parking brake.
 - Unlatch the fasteners **A** and remove cover **B**
 - Pull out the filter cartridge C.
 - Clean the filter bowl.
 - Dry clean the cartridge (at max. 6 bar pressure) and direct the air jet from inside to outside.
 - Check the filter element for cracks by introducing a lamp inside.
 - Refit the cartridge and make sure it is properly positioned.
 - Close cover **B** and lock in place with fasteners **A**.

NOTICE

As soon as the warning lamp 11.3 on the cab dashboard switches on, replace the outer element. Never wash the cartridge with water or solvents.

2 Changing the internal element

- See step 1 for removing the outer element.
- Extract the internal cartridge **D**.
- Clean the filter bowl.
- Mount the new element and make sure it is correctly positioned.
- Fit the main filter and the cap as described in point **1**.

NOTICE

The inner element should be replaced every two times the outer element is replaced. Never wash the cartridge with water or solvents.



	NTERVAL
Running-in	None
Cleaning	Every 10 hours
Outer element change	Every 500 hours
	1000

Inner element change _____ Every 1000 hours

ENGINE COOLING SYSTEM



When the coolant is hot, the cooling system is under pressure. With warm engine, loosen the radiator plug slowly and carefully, without removing it, to drain the pressure. Use protection gloves and keep your face at a safe distance.

- Weekly check the coolant level through the level window **C**, before starting working (when fluid is cold).
- When necessary, add clean water or an antifreeze mixture through cap **A**.
- Change the antifreeze mixture every two years. To drain the antifreeze:
 - Let the engine cool down
 - Unscrew the plug **B** at the bottom of the radiator or disconnect the rubber hose, if no plug is present. Allow the coolant to flow out into a special container.
 - Refit the hose and pour new antifreeze (50% water-antifreeze). This proportion will provide protection up to -38°C.
- Daily clean the radiator grille using a brush with hard bristles or compressed air at a max pressure of 6 bar.



	SERVICE INTERVAL
Running-in	None
Ordinary	Every 50 hours





On delivery, the machine is filled with a cooling mixture consisting of 50% water and 50% anti-freeze.

TEREX PRO COOL Protection against boiling / freezing			
Product % Freezing point Boiling point			
33	-17°C	123°C	
40	-24°C	126°C	
50	-36°C	128°C	
70	-67°C	135°C	

CHECKING THE OIL LEVEL IN THE TANK



Fine jets of hydraulic oil under pressure can penetrate the skin. Do not use your fingers, but a piece of cardboard to detect oil leaks.

Visually check the hydraulic oil level through level **A** located on the reservoir and visible through the slot on the right side of the chassis.

When necessary, add new oil through filler B.



The handling and disposing of used oils can be ruled by local or national regulations. Address to authorised centres.



CHANGING THE HYDRAULIC OIL



To change the hydraulic oil, proceed as follows:

- 1 Stop the machine on a level ground and make sure the parking brake is engaged.
- 2 Release the pressure from the hydraulic circuit.
- 3 Place a container of suitable size under the drain plug, placed in the lower part of the reservoir, and collect any oil leaks.
- 4 Remove the drain plug and allow oil to flow out into the container.
- 5 Remove the inspection cover of tank C.
- 6 Carefully wash the tank with Diesel oil and blow a jet of compressed air.
- 7 Refit the drain plug and the inspection cover.
- 8 Add new oil by making sure that it matches the recommended type until it is level with **A**.





Part No. 57.0009.0536

CHANGING THE OIL FILTER CARTRIDGE



To change the hydraulic oil filter element, proceed as follows:

- 1 Stop the machine on a level ground and engage the parking brake.
- 2 Place a container of suitable size under the filter to collect any oil leaks.
- **3** Remove the filter cover to get access to the filter element **A**.
- 4 Change the filter element, then, before fitting a new one, thoroughly clean and grease both seat and gasket.
- 5 Refit and tighten the filter cover.

NOTICE

The hydraulic oil filter cartridge shall be replaced as soon as the clogging indicator light on the control board comes on (see par. Controls and instruments).

NOTICE

Hydraulic oil filter canisters cannot be cleaned or washed and refitted.

They must be replaced with new ones of the type recommended by the manufacturer.



The handling and disposing of used oils may be ruled by local or national regulations. Address to authorised centres.

	SERVICE INTERVAL
Running-in	None
Ordinary	Every 500 hours





CAB AIR FILTER



Every six months clean the air filter in the cab. Replace the cartridge if the filtering cloth is damged.

1 Cleaning and changing the cartridge:

- Shut the engine down and engage the parking brake.
- Pull filter **A** out of the housing accessible from the inside of the cab.
- Clean the filter bowl.
- Clean the filter cartridge by beating it against a piece of wood. Replace the cartridge if damaged.

NOTICE

Paper filters must never be cleaned using compressed air or washed with water and/or solvents.



OIL LEVEL IN THE DIFFERENTIAL GEARS

To check the oil level in the front and rear differential gears:

- Stop the machine on a level ground and engage the parking brake.
- Loosen level plug ③ and check if oil is level with the hole.
- If necessary, top-up through hole ① until oil comes out from hole ③.
- Refit and tighten plugs 3 and 1.

To change the oil:

- Place a container of suitable size under drain plug ②.
- Loosen the drain plug, the level plug ③ and the filler ① and allow oil to flow out from the reduction gear.
- Refit and tighten drain plug ②.
- Add new oil through the filler until it is level with hole ①.

Filling plug

Drain plug

• Refit and tighten plugs ③ and ①.

2



To check the oil level within the wheel reduction gears:

OIL LEVEL IN THE (front/rear) WHEEL

REDUCTION GEARS

- Stop the machine on a level ground and ensure the parking brake is engaged and plug finds on the horizontal axis.
- Clean the plug all around, then remove it and check if oil is level with the hole.
- If necessary, add new oil through hole until it is level.
- Refit the plug.

To change the oil:

- Stop the machine and ensure the plug is oriented along the vertical axis.
- Place a container of suitable size under the reduction gear plug.
- Unscrew plug and drain any oil from the reduction gear.
- Rotate the wheel by 90° until the plug finds again on the horizontal axis.
- Add new oil through hole ①.
- Refit and tighten plug.



OIL LEVEL IN THE POWER DIVIDER GEARBOX



To check the oil level in the power diver gearbox:

- Stop the machine on a level ground and make sure the parking brake is engaged.
- Clean level plug ① all around.
- Remove the plug and check if oil is level with the hole.
- When necessary, add new oil through plug ① until it is level with the hole.
- Refit and tighten the plug.

To change the oil:

- Place a container of suitable size under the drain plug.
- Remove the plug ①.
- Remove the drain plug ② and empty the power divider gearbox.
- Refit and tighten the drain plug ②.
- Pour in new oil through the filler ① placed at the top of the reduction gear of the power divider. Stop when oil is level with hole ①.
- Refit and tighten plug ①.

① Filling plug

② Drain plug



	INTERVAL
Running-inWith	in the first 10 hours
Ordinary	_ Every 250 hours

GREASING



Before injecting grease into the greasers, thoroughly clean them to avoid that mud, dust or other matters can mix with the lubricant and reduce or annihilate the lubrication effect.

Remove any old grease with a degreaser from the telescopes before smearing them with new grease.

Regularly grease the machine to grant it efficient conditions and a long life.

By means of a pump, inject grease into the special greasers.

As the fresh grease comes out, stop the operation. The greasing points are shown in the following figures:

- the symbol 🗳 represents the points to be greased by a pump
- the symbol vertex represents the points to be greased by a brush.



Use only PTFE INTERFLON FIN GREASE LS 2 to lubricate the sliding parts of the telescopic section. Observe the following schedule:

- After the first 50 operating hours (1 week)
- After the first 250 operating hours (1 month)

• Every 1000 operating hours (6 months)

Remove any old grease from the boom and smear the sliding area of the blocks with a thin coat of grease.





GTH-2506 - GTH-3007

Operator's Manual

Maintenance



Overheated can burst. Do not weld the wheel rims. For any repair work, call in a qualified technician.



For the tyre inflation or substitution, please refer to the table below:

GTH-2506 GTH-3007 405/70-20 Dimensions (front and rear) 12-16.5 P.R. (or load index) 10 pr 14 pr Rim 9.75x16.5 13x20 Wheel disc 8 holes DIN 8 holes DIN 70361 70361 Pressure bar/Psi 4.5/65 5.5/80 Optional Part Number **Polyurethane Filled** 55.0403.0055 / Tyres 405/70-24 14 pr Tyres 55.0403.0047 /

Always use tyres having the dimensions indicated in the vehicle registration card.

On new machines, and when a wheel has been disassembled or replaced, check the nut torque of the wheels every 2 hours until they stay correct.

Torque: 400 N/m.

	SERVICE INTERVAL
Running-in	Within the first 10 hours
Ordinary	Every 250 hours

BRAKES

For any intervention on the braking system (adjustment and/or substitution of the brake discs) address to the TEREXLIFT Technical Assistance Service or the nearest TEREXLIFT authorised workshop.

SHAFTING ALIGNMENT

During operation, the alignment of the front and rear axles of the machine can be subject to variations. This can depend on an oil blow-by from the steering control circuit, or on a steering of both axles when front and rear wheels are not perfectly aligned.

To fix this problem, rather than checking the alignment visually, follow the procedure below:

- 1) Move to a solid and level ground
- 2) Set the steering selection switch 20 to "fourwheel steering" (pos. 1)
- **3)** Rotate the steering wheel up to its stop (either to the right or to the left)
- 4) Set the steering selection switch to "two-wheel steering" (pos. 0)
- 5) Rotate the steering wheel up to its stop (turn in the same direction as above)
- 6) Reset the steering selection switch to "four-wheel steering" (pos. 1)
- 7) Rotate the steering wheel (to the side opposite to point 3) so that the rear axle reaches its stop
- 8) Reset the steering selection switch to "two-wheel steering" (pos. 0)
- 9) Rotate the steering wheel (to the same side as in point 7) so that the front axle reaches its stop
- **10)** Reset the steering selection switch to "four-wheel steering" (pos. 1)

Now the wheels should be re-aligned.





If the machine is equipped with the optional Automatic Rear Wheel Alignment Indicator Sensor(see paragraphControls and instruments), the orange warning light 11.12 comes on automatically when, by turning the steering wheel with the selector switch is in position 0, the rear wheels are aligned.

	SERVICE INTERVAL
Running-in	None
Ordinary	When necessary

ADJUSTING THE SLIDING PADS OF THE BOOM SECTIONS



Any boom section is fitted with adjustable pads located on the four sides of the profile. These pads are secured to both fixed and mobile part of every section.

All pads can be adjusted by the special shims supplied by TEREXLIFT upon demand.

Adjusting the pads:

- Remove or loosen the screws fixing the pads in relation to type of shims used (with or without slots).
- Fit the necessary amount of shims.
- If the residual thickness of the pad is insufficient or near the maximum wearing limit, renew the pad.
- Tighten the screws fixing the pads at the recommended torque (see below). Use a dynamometric wrench.

Tightening torques of the pad screws in relation to the screw diameter

Screws M10	Nm 30	
Screws M14	Nm 50	

Tightening torques higher than those recommended can cause the break of the pad or of the locking threaded bush.



Pads must compulsorily be replaced if the residual thickness of the plastic layer with respect to the iron bush fixing the block is equal or inferior to 1 mm.









GTH-2506 - GTH-3007

CHECKING THE SAFETY DEVICES

■ LOAD LIMITING SYSTEM.

It consists of a load cell fitted to the rear axle and a display installed in the driving place. This device enables the operator to check the stability variation through a bar with 6 LED's (2 green, 2 orange and 2 red).

Checking the LOAD LIMITING SYSTEM (at every use)

When power is turned on, the load limiting system runs a self-test. In the case of troubles, the limiter enters the safety mode blocking any dangerous manoeuvres: **LED L6** starts flashing representing an alarm code.

The meaning of these alarm codes is shown in section **"Faults and Troubleshooting**".

To do a manual check, it will be enough to load a weight exceeding the maximum permitted with the boom fully out and attempt to lift it. The system shall enter in alarm; should that not be the case, contact TEREXLIFT Technical Service.



EMERGENCY STOP PUSHBUTTON

Located on the dashboard, to the right of the steering wheel. Pressing down this button stops the engine of the machine.

Before starting work again, find and rectify the relevant causes, then reset the button to neutral position turning it clockwise.



Checking the emergency stop pushbutton (at every use)

To check the efficiency of this pushbutton, simply press it down during a movement. The pressure of the pushbutton shall cause the movement to stop and the engine to shut down.

SEAT SWITCH

Located inside the seat cushion, this micro switch prevents any machine transmission movements if the operator is not correctly seated in the driving seat.



■ Checking the seat switch (at every use) To check if the seat switch is in efficient working order, it will be enough to attempt to make the machine to move without sitting on the drive seat. In this condition, the machine shall not move. Should that not be the case, contact TEREXLIFT Technical Service.

SAFETY VALVES fitted to all CYLINDERS

A DANGER

Always use the lock ring of the lift cylinder (see picture below), when carrying out maintenance on the lift cylinder block valve or, in general, any operation in the area under the boom:

I. Lift and extend the boom

II. Unscrew the two screws on the frame (pos. *A*) to release the ring

III. Put the ring on the lift cylinder rod (pos. B) *IV.* Lock the ring by tightening the screws provided on the ring.

All machine's cylinders are equipped with block valves:

- Compensation cylinder
- Lifting cylinder
- Telescopic boom extension cylinder
- Attachment swinging cylinder



Checking the block valves (every 3 months)

The piloted blocking valves allow to held the load in position in case of burst of a flexible hose.

To check the efficiency of a valve, proceed as follows:

- Load a weight near the maximum payload onto the boom.
- Raise the load some centimetres above the ground (max 10 cm). To check the valve on the telescope extension cylinder move the boom to maximum height and extend it some centimetres.
- Loosen the oil hoses to the cylinder of which you are checking the valve with caution.

During the check, the oil will flow out of the hoses and the load shall remain blocked in position. Should that not be the case, the valve must be replaced. Contact TEREXLIFT Technical Service.

To remove the block valves or the cylinders

- Lower the boom to the ground in a firm way since the removal of the block valve or the cylinder can cause an uncontrolled down-movement.
- After refitting the valve or the cylinder, replenish the circuit and eliminate any air before starting working. To eliminate the air from the circuit, move the involved cylinders to end-of-stroke in the two directions (opening/closing. To eliminate the air from the fork balance cylinder, move the boom up and down and tilt the fork plate forwards/ back.



Do the check of the valves taking all the possible precautionary measures:

- Wear safety glasses
- Wear safety gloves
- Wear safety shoes
- Wear suitable working clothes
- Use guards against leaks of oil at high pressure
- Do the check in a free space with barriers all around to keep non-authorised people away
- Ensure that the part to be checked is in safe condition and that the action generated does not result in an uncontrolled movement of the machine.

NOTICE

See section ROUTINE CHECK SCHEDULE for noting the result of the daily safety devices checking.

CHECKING THE MACHINE START CONTROL (at every use)

Attempt to start the engine with the forward or reverse gear put.

The engine must not start. If the engine starts, contact the TEREXLIFT Technical Service.

Repeat the operation putting first one gear, then the other.

CHECKING THE STATE OF THE STRUCTURE

Five years or 6000 hours after the first placing into operation of the machine (whichever occurs first), check the state of the structure paying an extreme attention to the welded supporting joints and the pins of both boom and platform (if present).



After the first 5 years, repeat this check every 2 years.





All maintenance interventions must be carried out with engine stopped, parking brake engaged, working attachments on the ground and gearbox lever in neutral.



When raising a component for maintenance purposes, secure it in a safe way before carrying out any maintenance.



Any intervention on the electrical system unless performed by authorized personnel, is expressly forbidden.



Modifications and/or adds to the machine's electronic components and systems must comply to the provisions of EN12895.



- Do not use fuses having a higher amperage than that recommended, since they can damage the electric system seriously.
- If the fuse blows after a short time, look for the fault source by checking the electric system.
- Always keep some spare fuses for an emergency.
- Never try to repair or short blown fuses.
- Make sure the contacts of fuses and fusesockets ensure a good electric connection and are not oxidised.

FUSES AND RELAYS

The electrical system is protected by fuses placed in the driving cab, on the left. Before replacing a blown fuse with a new one having the same amperage, find out and rectify the fault.

DESCRIPTION REF. AMP. F01 WARNING 10 HIGH BEAM F02 15 LOW BEAM F03 15 HORN F04 15 F05 ROAD/JOBSITE 10 **R-FRONT & L-REAR** F06 5 **POSITION LIGHTS** L-FRONT & R-REAR F07 5 POSITION LIGHTS F08 POWER SUPPLY OPT 10 2°HYDRAULIC CIRCUIT F09 10 LMI INSTRUMENT F10 5 F11 HEATING 25 F12 GEAR SELECTOR 10 WORK LIGHT F13 15 F14 REAR AXLE SENSOR 10 F15 FLASHING BEACON 10 STOP LIGHT F16 10 **ROAD LIGHT & HAZARD WARNING** F17 10 LIGHT SWITCHES EMERGENCY STOP F18 10 WIPER F19 10 **INSTRUMENT PANEL** F20 10

Cabin compartment fuses and relays



REF	DESCRIPTION	AMP
FG1	MAIN FUSE	50
FG2	GLOW PLUGS FUSE	40
K02	STARTER ENABLING SWITCH	
K01	GLOW PLUGS PREHEATING	





BATTERY

STARTER BATTERY SPECIFICATIONS			
Volt	12		
Ah	100		
Length (A) 333 mm			
Width B 175 mm			
Height 🕑 215 mm			
Weight 25 kg			

- Check the electrolyte level every 250 working hours; if necessary, add distilled water.
- Ensure the fluid is 5÷6 mm above the plates and the cell levels are correct.
- Check the cable clips are well secured to the battery terminals. To tighten the clips, always use a box wrench, never pliers.
- Protect the terminals smearing them with pure vaseline.
- Remove the battery and store it in a dry place, when the machine is not used for a long time.



- Battery electrolyte contains sulphuric acid. It can burn you if it touches your skin and eyes. Always wear goggles and protective gloves, and handle the battery with caution to prevent spillage. Keep metal objects (watch straps, rings, necklaces) clear of the battery leads, since they can short the terminals and burn you.
- Because the electrolyte is highly corrosive, it must never come in contact with the frame of the handler or electric/electronic parts. If the electrolyte comes in contact with these parts, contact the nearest authorised assistance centre.



- To disconnect the battery, disconnect the negative (-) lead from the frame earth first.
- To connect the battery, connect the positive (+) lead first.
- Recharge the battery far from the machine, in a well-ventilated place.
- Keep out of items which can produce sparks, of naked flames or lit cigarettes.
- Do not rest metal objects onto the battery. This can result in a dangerous short especially during a recharge.



Risk of explosion or shorts. During the recharge, an explosive mixture with release of hydrogen gas forms.



Do not add sulphuric acid; add only distilled water.

Part	Product	Capacity (litres) GTH-2506	Capacity (litres) GTH-3007
Diesel engine	Engine oil	10	10
Engine cooling system	Water+antifreeze	13	13
Fuel tank	Diesel fuel	60	90
Hydraulic system tank	Hydraulic oil	65	80
Front differential gear with reduction gear	Oil	4 + 0.7	4 + 1.7
Rear differential	Oil	4	4.3
Front wheel reduction gears	Oil	1.6	1.5
Rear wheel reduction gears	Oil	1.6	1.5

PRODUCT SPECIFICATIONS

Engine oil

Use the oil recommended by the Diesel engine Manufacturer (see the relevant handbook delivered with the machine).

At the delivery, the machine is refilled with:

SHELL RIMULA SAE 15W-40 (API CH-4 / CG-4 / CF-4 / CF, ACEA E3, MB 228.3)

Lubrication oils and relevant filtering elements

Refill the machine with following lubricants:

Use	Product	Definition	
Power divider-Differential gears- Reduction gears	TRACTORENAULT THFI 208 LF SAE 80W	API GL4 / FORD M2C 86B Massey Ferguson M1135	
Hydraulic system and brakes	SHELL TELLUS T46	DENISON HF-1 DIN51524 part 2 & 3	



Never mix different oils: this may result in troubles and component breaks.

Oils for hydraulic system:

Arctic climates:Temperatures below -10°CMild climates:Temperatures from -15°C to + 45°CTropical climates:Temperatures above +30°CBiodegradable Oil:Endegradable Oil:

Use SHELL Tellus T22 Use SHELL Tellus T46 Use SHELL Tellus T68 Use SHELL Naturelle Fluid HF-E Shell



Never mix the biodegradable fluid with conventional mineral oil in order to ensure that biodegradability properties are maintained.

Filtering elements:

Filter	Flow rate I/1'	Filtering	Coupling
Oil filter	150	10 ŋ	1" 1/4 BSP

Fuel

Refuel opening cover **A**. Use only diesel fuel with less than 0.5% sulphur content, according to the specifications of the diesel engine operation handbook.

NOTICE

In cold climates (temperature under -20°C) use only Arctic" type Diesel fuel, or oil-diesel fuel, or off-diesel fuel mixtures. The composition of the latter can vary in relation to the ambient temperature up to max. 80% oil.



Grease

For the machine greasing, use:

Lithium-based Vanguard LIKO grease, type EP2	When greasing by pump.
Graphitized AGIP grease, type GR NG 3	When greasing by brush.
INTERFLON FIN GREASE LS 2	On the telescopic boom

NOTICE

Avoid mixing greases of different type or features and do not use greases of lower quality.

Engine coolant

It is advisable to use an antifreeze mixture (50% water-50% antifreeze). At the delivery, the machine is refilled with:

TEREX PRO COOL by VALVOLINE

The use of this product guarantees protection to the circuit for 3 years or 7000 hours without having to add any dry coolant additive.

TEREX PRO COOL Protection against boiling / freezing						
Product % Freezing point Boiling point						
33 -17°C 123°C						
40 -24°C 126°C						
50	50 -36°C 128°C					
70 -67°C 135°C						

Use an antifreeze mixture in the proportions recommended by the manufacturer in relation to the ambient temperature of the jobsite.

FAULTS AND TROUBLESHOOTING

This chapter represents a practical guide for the operator for fixing the most common failures and, at the same time, detecting those interventions that must be carried out by qualified technical engineers.

If you are unsure about anything, do not carry out operations on the machine, but call in a skilled technician.



Any repair work, maintenance or troubleshooting must be carried out with machine stopped, boom in rest position or laid on the ground, parking brake engaged and ignition key removed.

PROBLEM	CAUSES	SOLUTIONS		
THE DASHBOARD DOES NOT TURN ON	 The 50A fuse FG1 supplying power to the dashboard is blown (engine compartment) Battery disconnected Battery down Battery cut-out switch OFF 	 Replace the fuse Connect the battery using the relevant switch Check the battery Switch it on 		
THE STARTER DOES NOT RUN	 Parking brake not engaged Battery down Battery cut-out switch OFF 	 Engage the parking brake and ensure the relevant indicator on the dashboard switches on Recharge or replace the battery Switch it on 		
THE STARTER RUNS, BUT THE ENGINE DOES NOT START	 Fuse F18 blown No fuel Diesel fuel filter clogged Diesel fuel hose empty (fuel used up) Solenoid valve - engine stop 	 Check the fuse Refuel See engine operator manual Refuel, then refer to engine operator manual Check the solenoid valve; replace, if necessary 		
THE MACHINE DOES NOT MOVE FORWARD/BACK	 Speed selector switch in neutral Operator is not correctly seated in the driving seat Parking brake engaged Fuse F9 blown 	 Set the speed selector switch correctly Sit correctly in the driving seat Disengage Check the fuse; replace, if necessary 		
NO SELECTION OF THE STEERING MODE	 Fuse F5 controlling the steering selection blown "ROAD/JOBSITE" switch set to "ROAD" 	Replace the fuse, if necessarySet to "JOBSITE"		
THE MACHINE DRIVE IS NOT ENOUGH	Hydraulic oil filter clogged	Replace the filter		

PROBLEM	CAUSES SOLUTIONS			
"ROAD" FUNCTION ON, EVEN WHEN SELECTING THE "JOBSITE" FUNCTION	No "ROAD/JOBSITE" selection	Check and replace fuse F5 , if necessary		
NO BOOM LOWERING AND EXTENSION, NO HOLDING FRAME TILTING	Fuse blown F5Tecnord Unit	 Replace the fuse Check the Tecnord Unit and, eventually, replace it 		
THE HYDRAULIC OIL THERMOMETER DOES NOT WORK	E HYDRAULIC OILThis is normal, when the outside temperature is low and/or the machine is used for short periods, since the hydraulic oil cannot warm up over 40÷50°C			
THE PARKING BRAKE LIGHT DOES NOT LIGHT UP	Fuse blown F12	Replace fuse		
BOOM DOES NOT MOVE	 Fuse blown F5 "ROAD/JOBSITE" switch set to "ROAD" 	 Check the fuse and replace it if necessary Set to "JOBSITE" 		
THE LOAD LIMITING SYSTEM IS BLOCKED (RED LED'S LIT)		 Retract the load within safety limits. If the error message is still shown, move the boom to rest condition operating the overload warning system cutout key and contact your nearest authorized service centre. 		
THE LOAD LIMITING SYSTEM • Fuse blown F10 IS IN ALARM • System failure		 Check and replace fuse, if necessary 		

NOTICE

In case of faults not listed in this chapter, address to the TEREXLIFT Technical Assistance, your nearest authorised workshop or dealer.

ALARM CODE	DESCRIPTION	SOLUTION		
11	CRC error in the software memory area	ContactTEREXLIFTTechnicalAssistance		
12	CRC error in the parameters memory area	ContactTEREXLIFTTechnicalAssistance		
13	Error in the software flow check	ContactTEREXLIFTTechnicalAssistance		
14	Exchange error	ContactTEREXLIFTTechnicalAssistance		
15	Overrange power supply (+/- 7, +/- 18 Vdc)	Check the power supply		
16	1st channel power supply error	ContactTEREXLIFTTechnicalAssistance		
17	2st channel power supply error	ContactTEREXLIFTTechnicalAssistance		
21	CUT OFF 1 error	ContactTEREXLIFTTechnicalAssistance		
22	CUT OFF 2 error	ContactTEREXLIFTTechnicalAssistance		
23	WDO1 error	Contact TEREXLIFT Technical Assistance		
24	OUTPUT 1 error	ContactTEREXLIFTTechnicalAssistance		
25	OUTPUT 2 error	ContactTEREXLIFTTechnicalAssistance		
26	WDO2 error	ContactTEREXLIFTTechnicalAssistance		
31	Load cell A CRC error	ContactTEREXLIFTTechnicalAssistance		
32	Load cell A overrange signal	ContactTEREXLIFTTechnicalAssistance		
33	Load cell A offset error	ContactTEREXLIFTTechnicalAssistance		
34	Load cell A power supply error 5 Vdc	ContactTEREXLIFTTechnicalAssistance		
35	Load cell A error-thermal calibration not present	ContactTEREXLIFTTechnicalAssistance		
36	Load cell A - LIN bus message check error	ContactTEREXLIFTTechnicalAssistance		
37	Load cell A - CRC error	ContactTEREXLIFTTechnicalAssistance		
38	Load cell A - LIN bus error	ContactTEREXLIFTTechnicalAssistance		
39	Load cell A - LIN bus message counter error Contact TEREXLIFTTechnical A			

Load Limiting System ALARM CODES

Faults And Troubleshooting

41	Load cell B CRC error	Contact TEREXLIFT Technical Assistance		
42	Load cell B overrange signal	ContactTEREXLIFTTechnicalAssistance		
43	Load cell B offset error	ContactTEREXLIFTTechnical Assistance		
44	Load cell B power supply error 5 Vdc	ContactTEREXLIFTTechnicalAssistance		
45	Load cell B error-thermal calibration not present	ContactTEREXLIFTTechnicalAssistance		
46	Load cell B - LIN bus message check error	ContactTEREXLIFTTechnicalAssistance		
47	Load cell B - CRC error	ContactTEREXLIFTTechnicalAssistance		
48	Load cell B - LIN bus error	ContactTEREXLIFTTechnicalAssistance		
49	Load cell B - LIN bus message counter error	ContactTEREXLIFTTechnicalAssistance		
51	Too big difference between load cell A and B signals	ContactTEREXLIFTTechnicalAssistance		
52	Too big difference between the load percentage detected by channel 1 and 2	ContactTEREXLIFTTechnicalAssistance		
64	Error - LMI bypass key actived during the machine starting	Do not activate the LMI bypass key before the machine starting		
66	Feedback signal error	ContactTEREXLIFTTechnicalAssistance		
67	Feedback signal error	ContactTEREXLIFTTechnicalAssistance		
68	Feedback signal error	ContactTEREXLIFTTechnicalAssistance		
71	Joystick signal error	ContactTEREXLIFTTechnicalAssistance		
81	Error - LMI buttons pressed during the machine starting	Release the LMI buttons, turn the machine off and turn it on again If the error message is still shown contact TEREXLIFT Technical Assistance.		

TORQUE WRENCH SETTINGS								
Dхр	Pre-loading (N)				Torque wrench settin			
	4.8	8.8	10.9	12.9	4.8	8.8	10.9	12.9
M 4 x 0,7	1970	3930	5530	6640	1,5	3,1	4,3	5,2
M 5 x 0,8	3180	6360	8950	10700	3	6	8,5	10,1
M 6 x 1	4500	9000	12700	15200	5,2	10,4	14,6	17,5
M 8 x 1,25	8200	16400	23100	27700	12,3	24,6	34,7	41,6
M 8 x 1	8780	17600	24700	29600	13	26	36,6	43,9
M 10 x 1,5	13000	26000	36500	43900	25,1	50,1	70,5	84,6
M 10 x 1,25	13700	27400	38500	46300	26,2	52,4	73,6	88,4
M 12 x 1,75	18900	37800	53000	63700	42,4	84,8	119	143
M 12 x 1,25	20600	41300	58000	69600	45,3	90,6	127	153
M 14 x 2	25800	51500	72500	86900	67,4	135	190	228
M 14 x 1,5	28000	56000	78800	94500	71,7	143	202	242
M 16 x 2	35200	70300	98900	119000	102	205	288	346
M 16 x 1.5	37400	74800	105000	126000	107	214	302	362
M 18 x 2,5	43000	86000	121000	145000	142	283	398	478
M 18 x 1,5	48400	96800	136000	163000	154	308	434	520
M 20 x 2,5	54900	110000	154000	185000	200	400	562	674
M 20 x 1,5	60900	122000	171000	206000	216	431	607	728
M 22 x 2,5	67900	136000	191000	229000	266	532	748	897
M 22 x 1,5	74600	149000	210000	252000	286	571	803	964
M 24 x 3	79100	158000	222000	267000	345	691	971	1170
M 24 x 2	86000	172000	242000	290000	365	731	1030	1230
M 27 x 3	103000	206000	289000	347000	505	1010	1420	1700
M 27 x 2	111000	222000	312000	375000	534	1070	1500	1800
M 30 x 3,5	126000	251000	353000	424000	686	1370	1930	2310
M 30 x 2	139000	278000	391000	469000	738	1480	2080	2490
N	OT	ICE						

Sensor maximum driving torque: 15 Nm.



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Optional Attachments

INTRODUCTION

This section provides information on the optional interchangeable attachments, especially manufactured for the handlers.

Use only genuine attachments, described in this section, after having read their features thoroughly and understood their use.

To install and remove the attachments, follow the instructions supplied in the "**Operating Instructions**" section.



When replacing interchangeable attachments, keep any person clear of the working area.

A DANGER

Mounting optional attachments, and especially the extension jib, can change the centre of gravity of the machine. Before handling a load, check its weight and compare it with the values on the load charts. The weight of the used attachment must always be deducted from the rated payload.



Before any maintenance or repair work, remove the attachment.

Optional Attachments

FLOATING FORKS

(code 55.0750.0059 ONLY FOR GTH-2506)



Application

Quick-coupling fitted attachment for handling palletized loads.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superposed pallets

Operation

Adjust the distance between the two forks by hand. Operate the joystick to adjust the forks tilting.

Maintenance

Visually check the attachment for damage before using it.

Daily grease the joints using a greasing gun, and smear the sliding guides with graphitized grease.

TECHNICAL DATA			
Payload	2500 kg		
Width	1285 mm		
Length	1545 mm		
Height	940 mm		
Weight	260 kg		
CoG 320 mr			
FEM 2 FORKS ON PLATE (code 55.0750.0000 ONLY FOR GTH-2506)



Optional Attachments

Application

Quick-coupling fitted attachment for handling palletized.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superposed pallets

Operation

Adjust the distance between the two forks by hand. Operate the joystick to adjust the forks tilting.

Maintenance

Visually check the attachment for damage before using it.

TECHNICAL DATA	
Payload	2500 kg
Width	1235 mm
Length	1490 mm
Height	970 mm
Weight	260 kg
CoG	280 mm

■ FEM 2 FORKS WITH HYDRAULIC SIDE-SHIFT (code 59.0601.5001 ONLY FOR GTH-2506)



Application

Quick-coupling fitted attachment for handling palletized loads with possibility of shifting the load to the side by \pm 100 mm.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superimposed pallets

Operation

To adjust the tilting, operate the joystick. To side-shift, operate the joystick after connecting

the feeding lines of the new attachment to the quick couplings.

Maintenance

Visually check the attachment for damage before using it.

Check for hydraulic oil leaks.

TECHNICAL DATA	
Payload	2500 kg
Width	1360 mm
Length	1560 mm
Height	960 mm
Weight	355 kg
Stroke	± 100
Fork Attachments	FEM 2
CoG	330 mm

FLOATING FORKS

(code 55.0750.0041 ONLY FOR GTH-3007)



Optional Attachments

Application

Quick-coupling fitted attachment for handling palletized loads.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superposed pallets

Operation

Adjust the distance between the two forks by hand. Operate the joystick to adjust the forks tilting.

Maintenance

Visually check the attachment for damage before using it.

TECHNICAL DATA	
Payload	3000 kg
Width	1285 mm
Length	1560 mm
Height	950 mm
Weight	275 kg
CoG	325 mm

FEM 3 FORKS ON PLATE (code 55.0750.0002 ONLY FOR GTH-3007)



Application

Quick-coupling fitted attachment for handling palletized.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superposed pallets

Operation

Adjust the distance between the two forks by hand. Operate the joystick to adjust the forks tilting.

Maintenance

Visually check the attachment for damage before using it.

TECHNICAL DATA	
Payload	3000 kg
Width	1390 mm
Length	1505 mm
Height	1130 mm
Weight	380 kg
CoG	250 mm

■ FEM 3 FORKS WITH HYDRAULIC SIDE-SHIFT (code 59.0601.5002 ONLY FOR GTH-3007)



TECHNICAL DATA		
Payload	3000 kg	
Width	1370 mm	
Length	1580 mm	
Height	1130 mm	
Weight	520 kg	
Stroke	± 100	
Fork Attachments	FEM 3	
CoG	305 mm	

Optional Attachments

Application

Quick-coupling fitted attachment for handling palletized loads with possibility of shifting the load to the side by \pm 100 mm.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

- Do not load loose materials
- Do not move superimposed pallets

Operation

To adjust the tilting, operate the joystick.

To side-shift, operate the joystick after connecting the feeding lines of the new attachment to the quick couplings.

Maintenance

Visually check the attachment for damage before using it.

Check for hydraulic oil leaks.

SHOVEL

Attachment suitable for moving and loading loose material such as soil, sand debris, cereals, inert material.



 When using a shovel, load the material only when the boom is completely retracted and push against the heap with straight wheels.



 Approach the load to the handled perpendicularly and check that the machine is level on the inclinometer.





Do not use for digging operations.



- When driving on a rise with loaded material, proceed in forward gear and travel with load in the lowest possible position.
- When sloping downward with loaded material, proceed into reverse.
- When driving on a rise with empty shovel, proceed into reverse.
- When sloping downward with empty shovel, proceed in forward gear.
- Don't use the shovel for rising or transporting people.
- When loading round-shaped objects (as petrol drums, etc) bind them with straps or ropes and travel at reduced speed.

Attachment suitable for moving and loading loose material such as soil, sand debris, cereals, inert material.

Operation

To load/unload the material, operate the rotation lever of the attachment holding plate.

Maintenance

Visually check the shovel for damage before using it.

Safety

Strictly obey the general safety precautions given in section "**Safety**".



Model	500 LITRES	800 LITRES CEREAL	
Code	59.0201.9002	59.0201.9003	
TECHNICAL DATA	TECHNICAL DATA		
Capacity	500 litres	800 litres	
Width	2036 mm	2036 mm	
Length	980 mm	1175 mm	
Height	810 mm	940 mm	
Weight	355 kg	420 kg	
CoG	360 mm	485 mm	



For the use of this attachment, read the specific manual.

250 MIXING BUCKET

(code 59.0401.2003)



TECHNICAL DATA	
Width (A)	1506 mm
Length (C)	795 mm
Height (B)	840 mm
Weight	460 kg
Equipment Payload	250 litri
CoG	470 mm





Application

Quick coupling attachment for mixing and distributing concrete.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Operation

To load/unload the material, operate the rotation lever of the attachment holding plate.

Maintenance

Visually check the bucket for damage before using it. Wash thoroughly with water after use or in case of prolonged inactivity to prevent the mix or residues from hardening.

Check for oil leaks from hoses and connectors.

Once the attachment quick connectors have been disconnected from the boom connectors, take care to reconnect them to the proper rest connectors that are present on the bucket, in order to prevent impurities from entering the circuit. Carefully protect the rest connectors with the proper plugs when they are not used.



Before any maintenance, rest the bucket on the ground, stop the machine, remove the starter key and lock the cab door to prevent anybody from gaining access to the control panel.



For the use of this attachment, read the specific manual and the Operator's Manual supplied with this equipment.

■ 500 LITRES CONCRETE BUCKET

(code 59.0400.0000 _ Manual Version) (code 59.0400.1000 _ Hydraulic Version)



TECHNICAL DATA	
Capacity	500 litres
Width	1110 mm
Length	1110 mm
Height	1320 mm
Weight	230 kg
SAE Capacity	0.5 m³
CoG	700 mm



For the use of this attachment, read the specific manual.

Optional Attachments

Application

Attachment coupled to the standard forks of the handler and fixed by means of the special chains with shackle provided.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Operation

Fork the bucket bearing in mind the side where the product will be unloaded.

Secure the bucket to the forks using the chains provided. To unload the concrete:

• Manual Version: manually operate the gate opening lever

• *Hydraulic Version:* operate the attachment locking lever after connecting the feeding lines of the new attachment to the quick couplings

Maintenance

Visually check the bucket for damage before using it. Wash with water after use or in case of prolonged inactivity to prevent the mix or residues from hardening.

Check for oil leaks from hoses and connectors.

Carefully protect the quick connectors once disconnected to prevent impurities from entering the circuit.

Check the chains after every use and replace them if worn or damaged.

2500 KG FIXED HOOK ON PLATE (code 59.0700.9004 ONLY FOR GTH-2506)



TECHNICAL DATA	
Width	1335 mm
Height (in resting position 2)	1110 mm
Length	830 mm
Height (in working position 1)	910 mm
Weight	120 kg
Payload	2500 kg
CoG	150 mm

A DANGER

- Do not allow suspended loads to oscillate. Do not drag loads when they are hooked up.
- A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.



For the use of this attachment, read the specific manual

Application

Attachment for lifting loads by means of special slings.

Safety

Strictly obey the general safety precautions given in section "Safety".

Do not oscillate the load.

Do not drag hooked loads.

Lift the load before extending the boom.

Operation

- Couple the hook and hold it in position by means of the attachment locking system (mechanical or hydraulic).
- Set the attachment supports in working position 1, using the dedicated pins A.
- All loads must be bridled with special textile slings or chains in compliance with all pertinent regulations.
- To handle the load, raise and rotate the telescopic boom of the handler.
- To remove the attachment, set the supports in resting position **2**, then carefully tilt the attachment forward, lower the boom resting the attachment on the ground and retract the boom.

Maintenance

Visually check the hook for damage before using it. Check the safety catch is in good working order.



The fixed hook has been designed to support the load declared beside. The max payload corresponds to the nominal capacity rating of the handler on which it is installed and is indicated on the load charts supplied with the equipment.



Make sure this attachment can be used in the destination country of the machine. Application must be submitted directly by the user.

3000 KG FIXED HOOK ON PLATE (code 59.0700.9002 ONLY FOR GTH-3007)



TECHNICAL DATA	
Width	1335 mm
Height (in resting position 2)	1110 mm
Length	830 mm
Height (in working position 1)	1070 mm
Weight	160 kg
Payload	3000 kg
CoG	180 mm

A DANGER

- Do not allow suspended loads to oscillate. Do not drag loads when they are hooked up.
- A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.



For the use of this attachment, read the specific manual

Optional Attachments

Application

Attachment for lifting loads by means of special slings.

Safety

Strictly obey the general safety precautions given in section "Safety".

Do not oscillate the load.

Do not drag hooked loads.

Lift the load before extending the boom.

Operation

- Couple the hook and hold it in position by means of the attachment locking system (mechanical or hydraulic).
- Set the attachment supports in working position 1, using the dedicated pins A.
- All loads must be bridled with special textile slings or chains in compliance with all pertinent regulations.
- To handle the load, raise and rotate the telescopic boom of the handler.
- To remove the attachment, set the supports in resting position **2**, then carefully tilt the attachment forward, lower the boom resting the attachment on the ground and retract the boom.

Maintenance

Visually check the hook for damage before using it. Check the safety catch is in good working order.



The fixed hook has been designed to support the load declared beside. The max payload corresponds to the nominal capacity rating of the handler on which it is installed and is indicated on the load charts supplied with the equipment.



Make sure this attachment can be used in the destination country of the machine. Application must be submitted directly by the user.

900 KG EXTENSION JIB

(code 59.0802.3008 _ Mechanical Version ONLY FOR GTH-3007)



TECHNICAL DATA	
Width	1190 mm
Height (in resting position 2)	1220 mm
Length	4450 mm
Height (in working position 1)	980 mm
Weight	245 kg
Payload	900 kg
CoG	1340 mm

A DANGER

- Do not allow suspended loads to oscillate. Do not drag loads when they are hooked up.
- A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.



For the use of this attachment, read the specific manual.

Application

Quick-coupling fitted attachment for maintenance interventions at high working heights.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Never lift wrongly slung loads.

Avoid abrupt acceleration or deceleration.

Avoid load oscillations, and especially do not move the load from the vertical pull line.

Do not pull crosswise and do not tow.

Operation

- Couple the jib and hold it in position by means of the attachment locking system (mechanical or hydraulic).
- Set the attachment supports in working position 1, using the dedicated pins **A**.
- Lift the attachment support **3** locking it in working position by means of the dedicated pin **B**.
- All loads must be bridled with special textile slings or chains in compliance with all pertinent regulations.
- To handle the load, raise and rotate the telescopic boom of the handler.
- To remove the attachment, set the supports in resting position 2, lower the attachment support 3 locking it in resting position by means of the dedicated pin B, carefully tilt the attachment forward, lower the boom resting the attachment on the ground, then retract the boom.

Maintenance

Visually check the jib for damage before using it. Check the safety catch is in good working order. Daily grease the joints using the greasing gun.



Make sure this attachment can be used in the destination country of the machine. Application must be submitted directly by the user.

900 KG EXTENSION JIB

(code 59.0802.3009 _ Hydraulic Version ONLY FOR GTH-3007)



TECHNICAL DATA	
Width	1190 mm
Height (in resting position 2)	1220 mm
Length	4485 mm
Height (in working position 1)	1610 mm
Weight	320 kg
Payload	900 kg
CoG	1400 mm

A DANGER

- Do not allow suspended loads to oscillate. Do not drag loads when they are hooked up.
- A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.



Make sure this attachment can be used in the destination country of the machine.

Application must be submitted directly by the user.

For the use of this attachment, read the specific manual.

Optional Attachments

Application

Quick-coupling fitted attachment for maintenance interventions at high working heights.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Never lift wrongly slung loads.

Avoid abrupt acceleration or deceleration.

Avoid load oscillations, and especially do not move the load from the vertical pull line.

Do not pull crosswise and do not tow.

Operation

- Couple the jib and hold it in position by means of the attachment locking system (mechanical or hydraulic).
- Set the attachment supports in working position 1, using the dedicated pins **A**.
- Lift the attachment support **3** locking it in working position by means of the dedicated pin **B**.
- All loads must be bridled with special textile slings or chains in compliance with all pertinent regulations.
- To handle the load, raise and rotate the telescopic boom of the handler.
- To remove the attachment, set the supports in resting position 2, lower the attachment support 3 locking it in resting position by means of the dedicated pin B, carefully tilt the attachment forward, lower the boom resting the attachment on the ground, then retract the boom.

Once the attachment quick connectors have been disconnected from the boom connectors, take care to reconnect them to the proper rest connectors that are present on the jib, in order to prevent impurities from entering the circuit. Carefully protect the rest connectors with the proper plugs when they are not used.

Maintenance

Visually check the jib for damage before using it. Check the safety catch is in good working order. Daily grease the joints using the greasing gun.

2000 KG EXTENSION JIB

(code 59.0802.3007 _ Mechanical Version)



TECHNICAL DATA		
Width	1335 mm	
Height (in resting position 2)	1080 mm	
Length	2290 mm	
Height (in working position 1)	800 mm	
Weight	255 kg	
Payload	2000 kg	
CoG	490 mm	

A DANGER

- Do not allow suspended loads to oscillate. Do not drag loads when they are hooked up.
- A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.

Application

Quick-coupling fitted attachment for maintenance interventions at high working heights.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Never lift wrongly slung loads.

Avoid abrupt acceleration or deceleration.

Avoid load oscillations, and especially do not move the load from the vertical pull line.

Do not pull crosswise and do not tow.

Operation

- Couple the jib and hold it in position by means of the attachment locking system (mechanical or hydraulic).
- Set the attachment supports in working position 1, using the dedicated pins **A**.
- To change the working height, operate the lever according to the "Quick-Coupling The Attachments" function.
- To remove the attachment, set the supports in resting position **2**, then carefully tilt the attachment forward, lower the boom resting the attachment on the ground and retract the boom.

Maintenance

Visually check the jib for damage before using it. Check the safety catch is in good working order. Daily grease the joints using the greasing gun.



Make sure this attachment can be used in the destination country of the machine.

Application must be submitted directly by the user.

For the use of this attachment, read the specific manual.

BASKET FOR BRICKS

(code 59.0400.7000)



Optional Attachments

Application

Attachment used to handle construction manufactured products, to be fixed to the standard forks of the handler and locked in position with the chains with shackles supplied.

Safety

Strictly obey the general safety precautions given in section "**Safety**".

Operation

supplied.

Fork the basket from the rear side being careful that the door that can be opened is at the front. Secure the basket to the forks using the chains

Maintenance

Visually check the attachment for damage before using it.

TECHNICAL DATA		
Width	800 mm	
Length	1100 mm	
Height	1150 mm	
Weight	120 kg	
Capacity	500 litres	
CoG	550 mm	



For the use of this attachment, read the specific manual.



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Specifications

GTH-2506



	Metric
■ MEASUREMENTS	
A Height	1920 mm
B Height at steering whell	1250 mm
C Width	1810 mm
D Inside cab width	750 mm
E Track	1500 mm
F Wheelbase	2320 mm
G Length at fork-holder plate	3840 mm
H Ground clearance	330 mm
I Overall Length	5040 mm
Lifting height (max)	5790 mm
Lifting capacity(max)	2500 kg
Lift capacity at maximum height	2000 kg
Lift capacity at maximum reach	900 kg
Forward reach (max)	3350 mm
Reach at maximum height	605 mm
Fork-holder plate rotation	130°
Weight***	4450 kg
Lifting/lowering speed**	7s/4s
Extension/retraction speed**	7s/4s
Inside/outside turning radius	1700 mm / 3350 mm
Break-out force (with 500lt shovel SAE J732/80)	3700 kg
Towing capacity at dynamometer*/**	4230 kg / 3100 kg
Travel speed (max)	24 km/h
Floating forks	L 1200mm section100x40mm
Tyres(DIN 70631)	12-16.5, 8 holes wheel disk

Specifications

	Metric
POWER	
Engine Model Displacement Cylinder arrangement Combustion System Max Power Output Max Torque Output Max Torque Output Rated Power Aspiration Cylinder's number Hydraulic Hydraulic output/pressure	DEUTZ D2011 L04 3600 cm ³ Vertical in line In-direct injection 50 kW (@2600 rpm) 210 Nm (@1700 rpm) 184Nm/50kW (@2600rpm) Naturally aspirated 4
■ VIBRATION LEVEL Mean assessed vibration level transmitted to arms Mean assessed vibration level transmitted to body Highest root mean square value of weighted acceleration to which the whole body is subjected Uncertainty of vibration measurements Values calculated in accordance with standard EN13059	2,5 m/s ² 0,44 m/s ² xxx ± 0,13 m/s ²
SOUND LEVEL	
Sound pressure level at the operator position (in accordance with the standard EN12053) Guaranteed sound power level (in accordance with the Directive 2000/14/CE) LwA	78 dB 104 dB
■ FLOOR LOADING SPECIFICATIONS	_
Occupied Floor Area Occupied Floor Pressure Max. Tire Load Max Axle Load Tire Contact Pressure	3,48 m² 12,8 kPa 3200 kg 6400 kg 424 kPa

*Max Load; ** With Fork

GTH-3007

Specifications

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	Metric
■ MEASUREMENTS	
A Height	2070 mm
B Height at steering wheel	1350 mm
C Width	1990 mm
D Inside cab width	750 mm
E Track	1590 mm
F Wheelbase	2660 mm
G Length at fork-holder plate	4715 mm
H Ground clearance, center	500 mm
I Overall Length	5915 mm
Lifting height (max)	6900 mm
Lifting capacity(max)	3000 kg
Lift capacity at maximum height	2500 kg
Lift capacity at maximum reach	1250 kg
Forward reach (max)	3900 mm
Reach at maximum height	760 mm
Fork-holder plate rotation	128°
Weight**	5900 kg
Lifting/lowering speed**	9s/7s
Extension/retraction speed**	8s/5s
Attachments tilting speed**	3s/3s
Inside/outside turning radius	2200mm/3800mm
Break-out force (with 800lt shovel SAE J732/80)	4270 kg
Towing capacity at dynamometer*/**	5200kg/3900kg
Floor loading*	292kPa
Max speed*/**	5km/h /
Floating forks	1240x100x50mm
Tyres(DIN 70631)	405/70-20

Specifications

	Metric
POWER	
Engine Model Displacement Cylinder arrangement Combustion System Max Power Output Max Torque Output Aspiration	DEUTZ TD2011 L04W 3600 cm ³ Vertical in line Direct injection 68 kW (@2600 rpm) 288 Nm (@1600 rpm) Turbocharged
Hydraulic Hydraulic output/pressure	4 87L/min / 280bar
Mean assessed vibration level transmitted to arms Mean assessed vibration level transmitted to body Highest root mean square value of weighted acceleration to which the whole body is subjected Uncertainty of vibration measurements Values calculated in accordance with standard EN13059	2,5 m/s ² 0,44 m/s ² xxx ± 0,13 m/s ²
SOUND LEVEL	
Sound pressure level at the operator position (in accordance with the standard EN12053) Guaranteed sound power level (in accordance with the Directive 2000/14/CE) LwA	82 dB 102 dB
■ FLOOR LOADING SPECIFICATIONS	
Occupied Floor Area Occupied Floor Pressure Max. Tire Load Max Axle Load Tire Contact Pressure	4,20 m ² 13,95 kPa 4045 kg 8090 kg 310 kPa

*Max Load; ** With Fork

Specifications

■ CENTER OF GRAVITY GTH-2506



Specifications

CENTER OF GRAVITY GTH-3007



GTH-2506 - GTH-3007

■ GTH-2506 - FLOATING FORKS



GTH-2506 - HOOK



GTH-2506 - 2000kg JIB



GTH-2506 - BUCKET



■ GTH-3007 - FLOATING FORKS



GTH-3007 - HOOK



GTH-3007 - 900KG JIB



GTH-3007 - 2000 KG EXTENSION JIB



GTH-3007 - BUCKET





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GTH 2506 WIRING DIAGRAM 1/6 (Rev.B, P/N: 57.1800.5126)

Part No. 57.0009.0536

Genie GTH-2506 - GTH-3007



GTH 2506 WIRING DIAGRAM 2/6 (Rev.B, P/N: 57.1800.5126)



GTH 2506 WIRING DIAGRAM 3/6 (Rev.B, P/N: 57.1800.5126)

Part No. 57.0009.0536



GTH 2506 WIRING DIAGRAM 4/6 (Rev.B, P/N: 57.1800.5126)

GTH-2506 - GTH-3007

Part No. 57.0009.0536


GTH 2506 WIRING DIAGRAM 5/6 (Rev.B, P/N: 57.1800.5126)



GTH 2506 WIRING DIAGRAM 6/6 (Rev.B, P/N: 57.1800.5126)

GTH-2506 - GTH-3007



GTH-2506 - GTH-3007



GTH 3007 WIRING DIAGRAM 2/6 (Rev.0, P/N: 57.1800.5125)











GTH 3007 WIRING DIAGRAM 5/6 (Rev.0, P/N: 57.1800.5125)





First Edition - First Printing



GTH 2506 HYDRAULIC DIAGRAM (Rev.C, P/N: 57.2201.3300)

GTH 3007 HYDRAULIC DIAGRAM (Rev.B, P/N: 57.2201.3400)



APPENDIX A

SUSPENDED LOAD CONDITION

The test load shall be located so that the forward edge is 1 000 mm \pm 50 mm from the test boundary (the rectangular 1 m boundary on the test surface at a distance of 1 m from the machine boundary). It shall be positioned ()=600 mm \pm 50 mm below and, centrally (laterally) with respect of the raised forks.

The boom shall be adjusted so that dimensions B (=2000mm ± 50mm) with the upper face of the forks above and substantially parallel to the test surface and the heel of the forks vertically above the rear face of the test load. A rearward tilt of <5° is permissible.





The risks during lorry trailer loading are principally in the rearward direction during the reversing part of the manoeuvre before the boom is lowered.

APPENDIX A

DIAGRAMMATIC REPRESENTATION OF SUSPENDED LOAD CONDITION TEST RESULTS GTH-2506



APPENDIX A

■ DIAGRAMMATIC REPRESENTATION OF SUSPENDED LOAD CONDITION TEST RESULTS GTH-3007



APPENDIX B

■ LORRY TRAILER CONDITION

This condition is referred to the machine with the boom be fully retracted and its height adjusted so that the upper face of the forks above and substantially parallel to the test surface 0 is 1000 mm +/- 50 mm. A rearward tilt of <5° is permissible.





The risks during lorry trailer loading are principally in the rearward direction during the reversing part of the manoeuvre before the boom is lowered.





APPENDIX B



APPENDIX B





APPENDIX B





OVERLOAD TEST PROCEDURE

Telehandler coupled to attachments with fixed centre of load (Forks, Bucket, Clamps):

1,33 x Q

Ref. Standard EN1459 Q = Nominal Rated Load Capacity

Telehandler coupled to attachments with oscillating centre of load (Hook, Jib, Hoist):

1,33 x Q + 0,1 x Fb on tires 1,25 x Q + 0,1 x Fb on outriggers

Ref. Standard EN13000 Q = Nominal Rated Load Capacity Fb = Boom weight reduced (i.e. equal overturning moment) at boom tip.



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EC Declaration Of Conformity

■ EC DECLARATION OF CONFORMITY FULL TEXT

Manufacturer and person authorized to compile the technical file TEREXLIFT s.r.l. Zona Industriale Buzzacchero 06019 Umbertide (PG) Italia Hereby declares that the machinery described below Designation: Rough Terrain Variable Reach Truck Function: handling loads Model GTH XXXX YY Serial Number XXXXX complies with the relevant previsions of the machinery directive 2006/42/EC complies with the relevant previsions of the directive 2004/108/EC also complies with the provisions of the Directive 2000/14/EC as amended Model: n°37 annex I directive 2000/14/EC Conformity assessment procedure followed: n° 2 annex VI Notified body: xxxxx Net installed power (kW): Measured sound power level: dB(A) Guaranteed sound power level: dB(A) Also complies with the following European Standards, National Standards and technical provisions: EN 1459:1998/A2:2009

Original	Original	Original	Original		
EC DECLARATION OF CONFORMITY	DECLARATION CE DE CONFORMITE'	DECLARACION CE DE CONFORMIDAD	EG-KONFORMITÄTSERKLÄRUNG		
Manufacturer and person authorized to compile the technical file	Fabricant et personne autorisée à constituer le dossier technique	El fabricante y la persona autorizada para elaborar el expediente técnico	Hersteller und Person berechtigt, die technischen Unterlagen zusammenzustellen		
TEREXLIFT s.r.l. Zona Industriale Buzzacchero 06019 Umbertide (PG)					
Hereby declares that the	Déclare que la machine désignée	Italia Destaramen que el equise	Erklärt, dass die nachfolgende		
machinery described below Designation: Rough Terrain	ci-dessous Désignation:	Designación:	maschine Bezeichnung:		
Variable Reach Truck Function: handling loads	Example of	Función: maneiar las cargas	Eunktion: handhabung von lasten		
Model	Modèle	Modelo	Model		
complies with the provisions of the machinery directive 2006/42/EC also complies with the provisions of the Directive 2000/14/EC as amended	est conforme aux dispositions de la directive machines 2006/42/EC est également conforme aux dispositions de la Directive 2000/14/EC modifiée avec	Corresponde a las exigencias básicas de la Directiva Màquinas 2006/42/EC està, ademàs, en conformidad con las exigencias de la Directiva 2000/14/CE incluidas las modificaciones de la misma	Mit den bestimmungen der maschinenrichtlinie 2006/42/EC ebenfalls mit den bestimmungen der Richtlinie 2000/14/EG geänderte richtlinie 2005/88/EG		
Model: n°37 annex I directive 2000/14/EC Conformity assessment procedure followed: n° 2 annex VI Notified body:	Désignation: n° 37 annexe I Directive 2000/14/CE Procédure appliquée pour l'évaluation de la conformité: n°2 annexe VI Organisme notifié	Tipo: nº37 anexo I Directiva 2000/14/CE Procedimiento de evaluación de la conformidad : nº 2 anexo VI Organismo notificado	Bezeichnung: n° 37 anhang I Richtlinie 2000/14/EG Angewandtes. Konformitätsbewertungsverfahren: n° 2 anhang VI Name und Anschrift der benannten. Stelle		
Net installed power (kW): Measured sound power level: dB(A) (guaranteed sound power level: dB(A) Also complies with the following European Standards, National Standards and technical provisions	Puissance nette installée (kW): Niveau de puissance acoustique mesuré: dB(A) Niveau de puissance acoustique garanti: dB(A) Est également conforme aux normes européennes, aux normes nationales et aux dispositions hebrolenues uivantes	Potencia neta instalada (kW): Nivel de potencia acústica medicio: dB(A) Nivel de potencia acústica garantizado: dB(A) Las siguientes normas nacionales o internacionales y especificaciones técnicas fueron avilicada	Installierte Nutzkistung in kW: Maschinen gemessener. Schalleistungsegel: dR(A) Maschinen garantierter. Schalleistungsegel: dR(A) Eberfalls mit folgenden europäischen normen, nationalen normen Ind technischen Vorschriften übereinstimmt		

EXAMPLE OF LAYOUT



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Routine Check Schedule

SAFETY DEVICES DAILY CHECKING

DATE _____

COMPONENT	RESULT	NOTE	SIGNATURE
Load Cell	positivenegative		
LMI Display	positivenegative		
Emergency Stop Pushbutton	positivenegative		
Seat Switch	positivenegative		
Levelling Cylinder Safety Valve	positivenegative		
Lifting Cylinder Safety Valve	positivenegative		
Boom Extension Cylinder Safety Valve	positivenegative		
Attachment Swinging Cylinder Safety Valve	positivenegative		