A TEREX BRAND

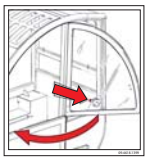
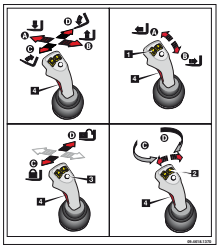
Operator's Manual

	Serial number range
GTH-4016 SR	From s/n *20918* To s/n 23823 plus s/n *20584*
GTH-4018 SR	From s/n *20882* To s/n 24176 plus *20559; 20598; 20623; 20708*

With Maintenance Information

First Edition
Second Printing
Part No. 57.0009.0542

Labels And Plates Applied On The Machine

Ref.	Decal	Code	Description	Qt.
9		09.4618.1050	**Label - Stabilizer Max Pres.**	4
10		09.4618.1399	**Label - Upper Door Internal Unlock System**	1
11		09.4618.1370	**Quick guide and Control lever decal**	1
12		09.4618.0921	**Label - Use limits close to electric power lines**	1
13		09.4618.0933	**Crush Hazard**	8
14		09.4618.0922	**Crush Hazard**	6
15 16	Genie®	09.4618.0243 09.4618.0241	**Cosmetic - GENIE Logo in WHITE**	1 1
17 18 19	Genie® GTH-4016 SR Genie® GTH-4018 SR	09.4618.1108 09.4618.1109 09.4618.1061 09.4618.1111 09.4618.1112 09.4618.1113	**Cosmetic - Genie GTH-4016 SR** **Cosmetic - Genie GTH-4018 SR**	1 1 2 1 1 2

Safety Precautions

- The machine shall be parked on a ground adequate to the maximum admissible payload. If the subsoil collapses, the machine could tip over. To avoid any risk of overturning, the following precautions should be taken:

1. Ask your employer (site manager or manager assistant) if there may be buried pipes, pits, old tanks, cellar floor, dung yards, etc. under the ground onto which the outriggers shall be lowered.
2. A rough estimate of the ground consistency can be done using the tables and picture in this page.
3. The resistance of the subsoil is in relation to the ground type and geomorphological characteristics.
   Table 1 indicates the superficial pressure which can be admitted under the outriggers of the machine.

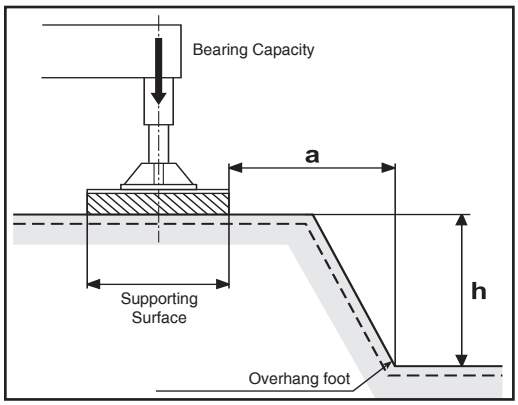
Type of ground, geomorphological features		**Admissible superficial pressure**	
		kg/cm²	**N/mm²**
loose, non-compact soil		generally speaking, not solid; special precautions needed	
loamy, peaty,pasty soil			
rippable, soft ground			
non-cohesive, well compact soil, sand, gravel		**2.0**	**0.2**
rippable soil	solid	**1.0**	**0.1**
	semi-solid	**2.0**	**0.2**
	hard	**4.0**	**0.4**
Rocks, concrete, heavy traffic paved roads		**above 10.0**	**above 1.0**

Table 1

WARNING

Make sure the machine (wheels and stabilisers) rests on a firm ground to prevent hazardous unstable conditions.
If the ground is not firm enough, position some supporting planks under the stabilisers or the wheels. These plates must grant a specific pressure of 1.2 to 1.5 kg/cm² (800x800mm plates are sufficient).

- Look for the best route to the job site.
- When the machine is running, nobody can enter its working range.
- While working, keep the working area in order. Never leave objects scattered: they could hinder the machine movements and represent a danger for personnel.
- In presence of trenches, lower the outriggers at a safe distance from the trench edge.



The distance (a) from the foot of the overhang shall be adequate to height (h) of the same overhang.
If the ground fulfils the required conditions:

a : h = 1 : 1

(values with a grey background in table 1)
In the case of doubts:

a : h = 2 : 1

Description Of The Machine

Machine General Description for GTH-4018 SR

The machine mainly consist of a mobile undercarriage, provided with a power system, a complete transmission driveline with wheels and a slewing turret, 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 undercarriage and controlled by a mechanical pedal located inside the operator's cabin.
The diesel fuel feeding the engine is contained in a steel tank located on the left side of the undercarriage, immediately behind the oil tank and the ladder assy to access the operator's cabin.
The engine powers three hydraulic pumps.
The bigger one, which 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 a mechanical two speed gear box installed on a central structural beam linking the two sides of the undercarriage.
The mechanical torque generated by the hydrostatic motor and passing through the gear box, is transmitted to the front and rear axles by two drive shafts located on the undercarriage centerline so providing a 4X4 wheels drive capability.
Both the hydrostatic pump and motor are hydraulically controlled and automatically adjust their functioning parameters against the engine rpm and the power requested by the pumps.
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, the load handling attachment articulation and the slewing device, to operate the front and rear stabilizers and to power the steering system.
The third gear type pump is flanged to the engine distribution lateral PTO and powers the service brakes system.
These three pumps are fed through oil suction lines which are linked to the hydraulic oil tank installed on the left side of the undercarriage, immediately ahead of the fuel tank and behind the ladder assy to access the operator's cabin.
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 three pumps are installed inside a suitable engine compartment consisting of a fixed lower bay made in steel and of a upper steel bonnet which can be completely opened to allow servicing activities in the engine compartment.
The engine compartment also includes the engine and hydraulic system cooler, provided with an internal coolant expansion tank, the air intake duct and filter, the electrical alternator, the battery, the battery disconnection device and the fuel and the engine oil filters.
The engine exhaust muffler and duct are then routed from the bottom of the engine compartment to the internal back area of the undercarriage and finally to the back of the undercarriage, with a geometry capable to eject the engine exhaust gas back from the machine.
The four stabilizers, installed on the four external corners of the undercarriage, provide machine extended load capacity through a larger stability support area when the four stabilizer feet are completely deployed on the ground.
Each of the four stabilizer mechanisms consists of a rotating stabilizer arm, provided with a pivoting foot plate capable to rotate between two positions (stabilizer stowed and stabilizer deployed) which is hinged on a stabilizer telescopic strut.
This strut can move outward/inward of the

Controls And Instruments

28 _ Road Lights Switch

Three-position switch:

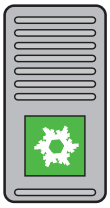
0 Lights OFF

1 Position lights ON (the switch indicator lights up partially).

2 Low beam ON (the switch indicator fully lights up).

30 _ Air Condition Switch (OPTIONAL)

Two-position switch:



0 OFF

1 ON

22 _ Work Lights Switch (OPTIONAL)

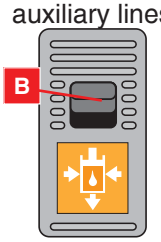
Two-position switch:

0 Lights OFF

1 Lights ON

20 _ Auxiliary Hidraulic 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:



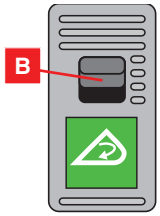
0 Oil to the main circuit

1 Attachments hydraulic circuit switching

The selector has a block to keep the switch pressed. Before switching the selector to another position, unlock control **B** at the top of the selector.

21 _ Mixing Bucket Switch (OPTIONAL)

Two-position switch. The pressure of this button enables the hydraulic mixing bucket functioning.



0 Mixer OFF

1 Mixer ON

The selector has a block to keep the switch pressed. Before switching the selector to another position, unlock control **B** at the top of the selector.

33 _ Hydraulic Mixing Bucket Oil Direction Switch (OPTIONAL)

Three-position switch. The pressure of this button regulates the oil flow direction towards right or left.

2 Oil flow towards left

0 No oil to the mixing bucket

1 Oil flow towards right

15 _ Cab heater control cock

Located on the left side of the driving seat base.

- Turn the cock clockwise to switch off heated air.
- Turn the cock counter-clockwise to switch on the cab heater.
- Adjust the flow of heated air in the cab operating the switch **29**.

Controls And Instruments

TURRET ROTATION

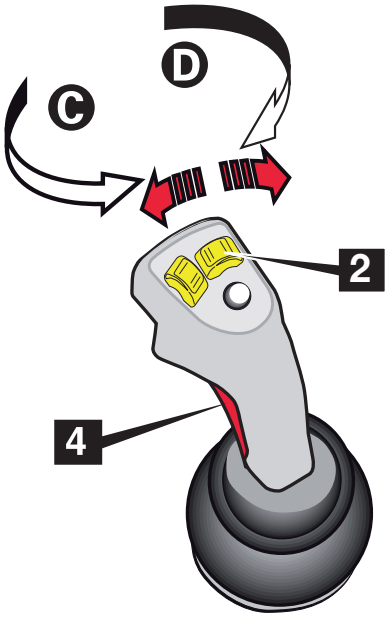
Turret Rotation Control

NOTICE

Before operating the turret rotation control, check that the locking pin has been removed.

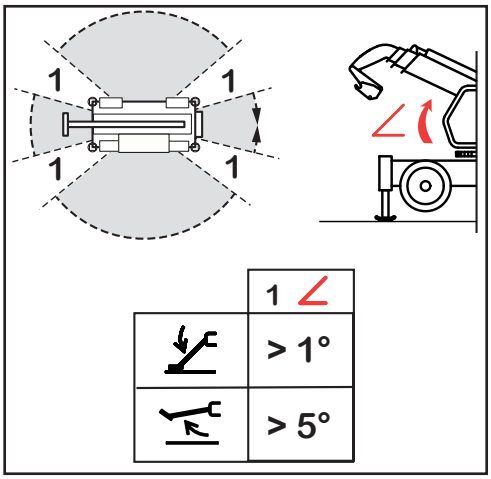
To rotate the turret:

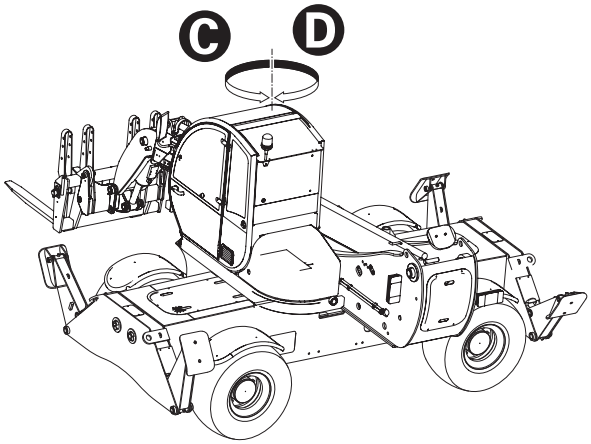
- Set the control lever to central position and press switch **4**.
- Move the roller **2** to **D** to rotate the turret clockwise, without shifting the joystick; move the roller to **C** to rotate the turret counter-clockwise, without shifting the joystick.



NOTICE

ONLY FOR GTH-4018 SR: When operating the turret rotation with GM-1 Articulation (optional), check the boom angle according with the following chart:





Inspections

WORKPLACE INSPECTION

The workplace inspection helps the operator to 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.

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.

3 Always perform function tests prior to use.

4 Inspect the workplace.

5 Only use the machine as it was intended.

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

Operating Instructions

9 _ LOAD MOMENT INDICATOR

At the back of the driving place there is a unit which lets you manage the moment limiting system of the machine.
The collected data, processed in relation to the attachment used, are continuously compared with the data stored in the program memory. The processing of these data results in three different situations which are displayed by the warning lights located at the left side of the display.

1 ***Green LED ON***
Stability condition. The raised load does not exceed 90% of maximum allowed load of the chart in that defined working position.

2 ***Yellow LED ON***
Pre-alarm condition. The raised load exceeds 90% of maximum allowed load, but it is still inferior to it: the boom movements are slowed down and the acoustic alarm emits short bips.

3 ***Red LED ON***
Alarm condition. The raised load exceeds the maximum allowed load, the acoustic alarm emits long bips and the machine motions are stopped, but for those allowing to return the load within safety limits.

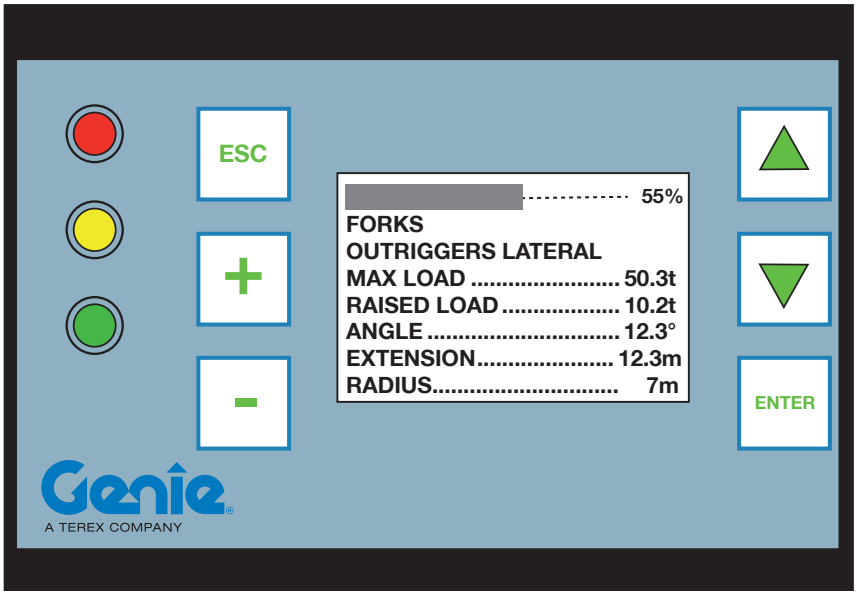
The display of the limiting device is divided into three areas:

LED's area: Three LED's warn of the variation of the working condition:

1 **green LED** - machine stable
2 **yellow LED** - machine in pre-alarm
3 **red LED** - machine in alarm

Control Keys

ESC	To go back to the previous screen page
ENTER	To confirm and open the screen page linked
ARROWS	To scroll the lines up or down
PLUS (+)	Additional selection button
MINUS (-)	Additional selection button



Transporting The Machine

■ MOVING A DISABLED MACHINE

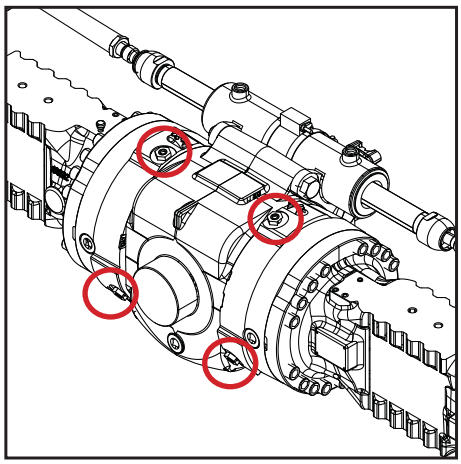
Tow the machine only when no alternative is possible, since this operation may result in serious damage to the transmission. When possible, repair the machine on site.
When the machine shall absolutely be towed:

- Disable 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/back speed lever to neutral position.
- Put the gear lever to neutral (see next page).
- Raise the front wheels of the machine.
- When possible, start the engine and use the hydraulic drive and the braking system.

Parking brakes disable

To unlock the negative brake of a faulty machine:

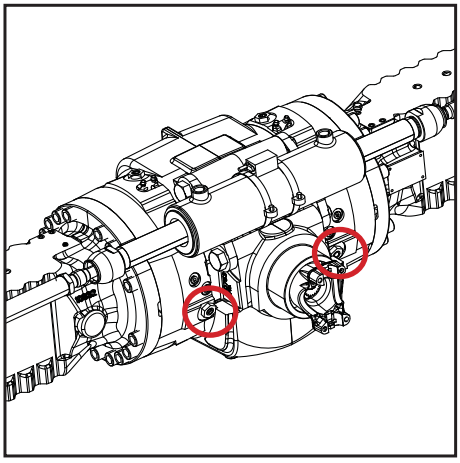
- remove the three lock screws (**1**) from both sides of the front axle, using an 8mm hex key. Note: during this operation make sure to hold the special screws (**2**), using a 25 mm combination wrench.
- Screw in the brake release screws (**3**), 1/2 turn at a time, in sequence (**A**, **B**, **C**) until the torque drops off sharply (4÷5 turns).

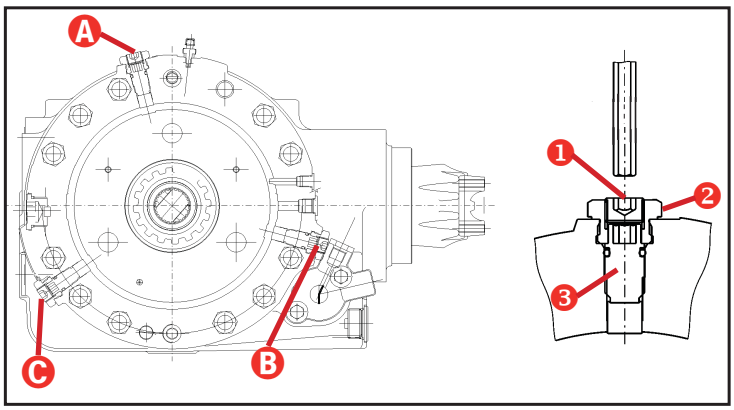


Parking brakes enable

To re-activate the negative brake:

- Remove the lock screws (**1**) and unscrew all the brake release screws (**3**) on both sides of the front axle, until the end of stroke has been reached (until beating against the special screws **2**). Note: do not move the special screws (**2**).
- Assemble the lock screws (**1**) to the special screws (**2**).
- Lock the special screws (**2**) at 30 Nm tightening torque and then lock screws (**1**) at 20 Nm tightening torque on both sides.





Maintenance

Every 1500 working hours or seasonally
Jobs to be done in addition to those above.

1 Change the oil in the gearbox

Every 2000 working hours or yearly
Jobs to be done in addition to those above.

1 Change the engine coolant

Every 6000 hours or 5 years and, subsequently, every 2 years
Jobs to be done in addition to those above.

1 Check that the structure is intact paying a special attention to the welded supporting joints and the boom pins.

■ OIL CHANGE SCHEDULE

	Job	Operating hours *	Service interval *	Oil type
Engine	Oil level check	10	daily	SHELL RIMULA 15W-40 (API CH-4/CG-4/CF-4/CF; ACEA E3; MB228.3)
	First change	500	-	
	Subsequent changes	500	yearly	
Axles and power divider	Oil level check	300-400	monthly	TRACTORENAULT THFI 208 LF SAE 80W; API GL4 / FORD M2C 86B; MASSEY FERGUSON M 1135
	First change	150-200	-	
	Subsequent changes	1500	seasonally	
Hydraulic oil	Oil level check	10	daily	SHELL TELLUS T 46 DENISON HF-1, DIN 51524 part 2 & 3
	First change	-	-	
	Subsequent changes	1000	6 month	
Turntable rotation reduction gear	Oil level check	250	monthly	SHELL OMALA 150 DN 51 517-3 CLP, ISO 12295-1 TYPE CKC, US STEEL 224, DAVID BROWN 51.53.101
	First change	-	-	
	Subsequent changes	1000	6 month	

* whichever occurs first.

Maintenance

■ TURRET ROTATION REDUCTION GEAR

■ Checking the oil level of the turret rotation reduction gear

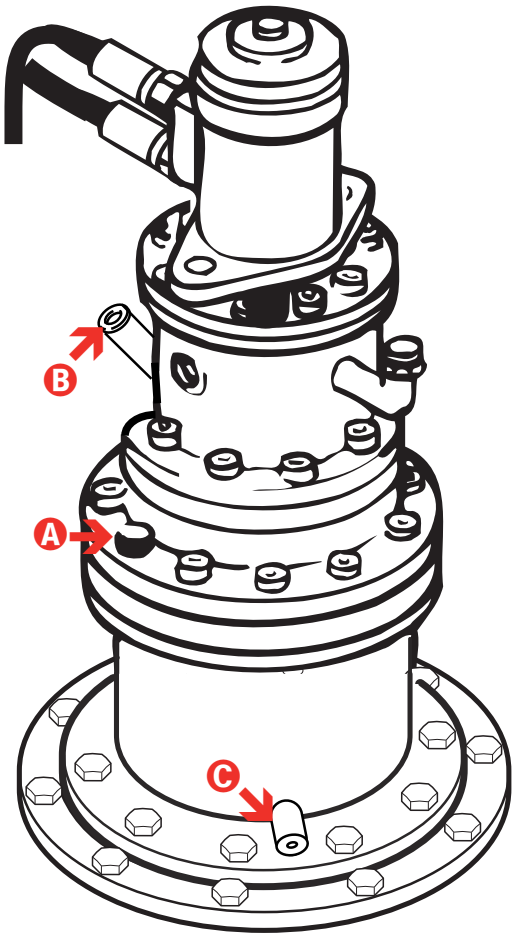
To check the oil level of the turret rotation reduction gear:

- Stop the machine on a level ground and engage the parking brake.
- Clean level plug **A** all around.
- Loosen level plug **A** and check if oil is level with the hole.
- If necessary, unscrew the filler plug **B** and pour new oil through the hole until it starts flowing out of hole **A**.
- Refit and tighten plugs **A** and **B**.

SERVICE INTERVAL

Running-in _____ **None**

Ordinary _____ **Every 250 hours**



■ Change the oil in the turret rotation reduction gear

If you shall change the oil in the turntable rotation reduction gear:

- Stop the machine on a level ground and engage the parking brake.
- Place a container of suitable size under drain plug **C**.
- Remove drain plug **C** and let oil flow out of the reduction gear.
- Unscrew the filling plug **B**.
- Clean level plug **A** all around.
- Loosen level plug **A**.
- Refit and tighten drain plug **C**.
- Pour new oil through the hole of plug **B** until it starts flowing out of hole **A**.
- Refit and tighten plugs **A** and **B**.

SERVICE INTERVAL

Running-in _____ **None**

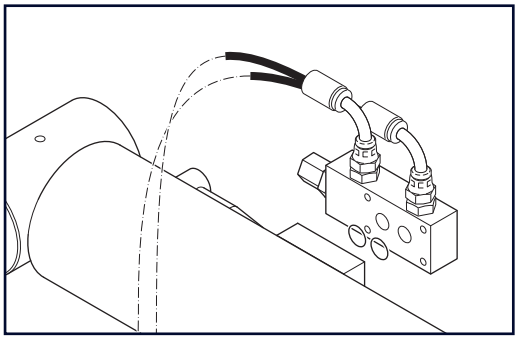
Ordinary _____ **Every 1000 hours**

Maintenance

BLOCK VALVES fitted to all CYLINDERS

All machine's cylinders are equipped with block valves:

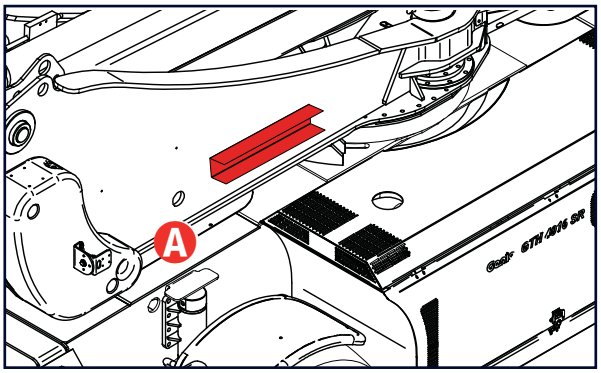
- Block valve on lifting cylinder
- Block valve on slave cylinder
- Block valve on boom telescoping cylinder
- Block valve on attachment tilting cylinder
- Block valve on outriggers cylinders



DANGER

Always use the lock ring of the lifting cylinder (see picture below), when carrying out maintenance on the lifting 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 lifting cylinder rod
IV. Lock the ring by tightening the screws provided on the ring



Faults And Troubleshooting

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.

WARNING

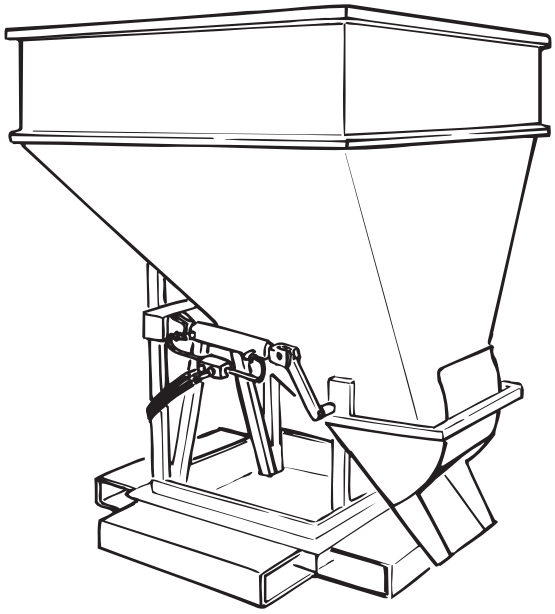
Any repair work, maintenance or troubleshooting must be carried out with machine stopped, boom in rest position or laid on the ground, parking brake engaged and ignition key removed.

PROBLEM	CAUSES	SOLUTIONS
THE DASHBOARD DOES NOT TURN ON	• Battery down • Fuse in the engine compartment box blown	• Check the battery condition • Check the fuse **F16** in the engine compartment and replace if necessary
THE STARTER DOES NOT RUN	• Forward/reverse gear selector not in neutral position • Emergency button ON • Fuse blown • Battery down	• Set the switch to **0** • Reset the button • Check fuse **F46** and replace if necesary • Recharge or replace the battery
THE STARTER RUNS, BUT THE ENGINE DOES NOT START	• No fuel • Fuel filter clogged • Fuel hose empty (fuel used up)	• Refuel • Change the filter. (See engine operator handbook) • Refuel, then refer to engine operator handbook
THE MACHINE DOES NOT MOVE FORWARD/BACK	• Changeover switch in neutral • Parking Brake engaged • One or more stabilisers down • Lowered stabiliser limit switches tripped • Fuse blown • Low hydraulic oil level • Operator is not correctly seated in the driving seat	• Set the gear switch • Disengage • Raise the stabilizers • Deactivate • Check fuse **F14** • Check oil in the reservoir • Sit correctly on the driving seat
NO SELECTION OF THE STEERING MODE	• Steering mode selector damaged • ROAD/JOSITE/PLATFORM selector turned to ROAD	• Check the selector and replace if necessary. • Turn to JOBSITE
STABILIZERS DO NOT WORK	• ROAD/JOSITE/PLATFORM selector turned to ROAD • Boom lifted over 10°	• Turn to JOSITE • • Lower the boom under 10°

Optional Attachments

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 m^3
CoG	700 mm

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**".

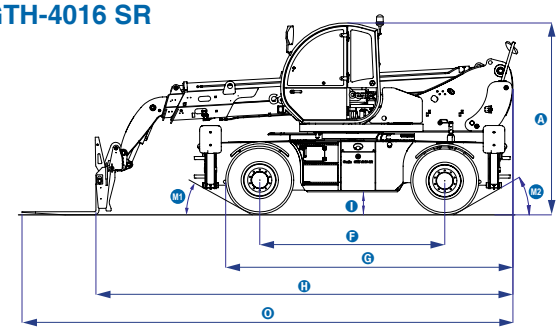
Operation
Fork the bucket bearing in mind the side where the product will be unloaded.
Secure the bucket to the forks using the chains provided. To unload the concrete:
- *Manual Version:* manually operate the gate opening lever
- *Hydraulic Version:* operate the attachment locking lever after connecting the feeding lines of the new attachment to the quick couplings

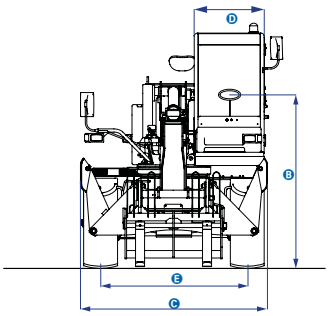
Maintenance
Visually check the bucket for damage before using it.
Wash with water after use or in case of prolonged inactivity to prevent the mix or residues from hardening.
Check for oil leaks from hoses and connectors.
Carefully protect the quick connectors once disconnected to prevent impurities from entering the circuit.
Check the chains after every use and replace them if worn or damaged.

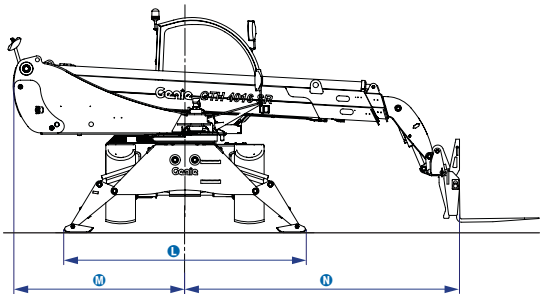
For the use of this attachment, read the specific manual.

Specifications

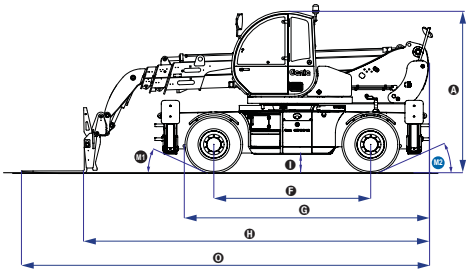
GTH-4016 SR

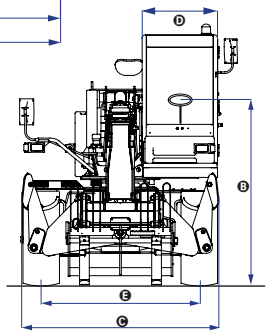


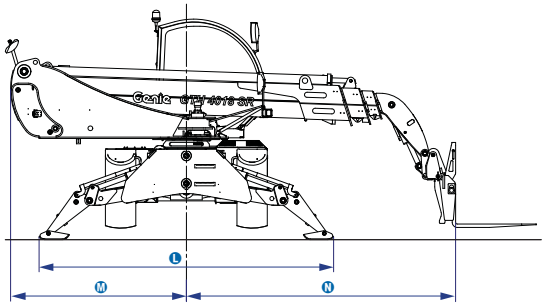




GTH-4018 SR



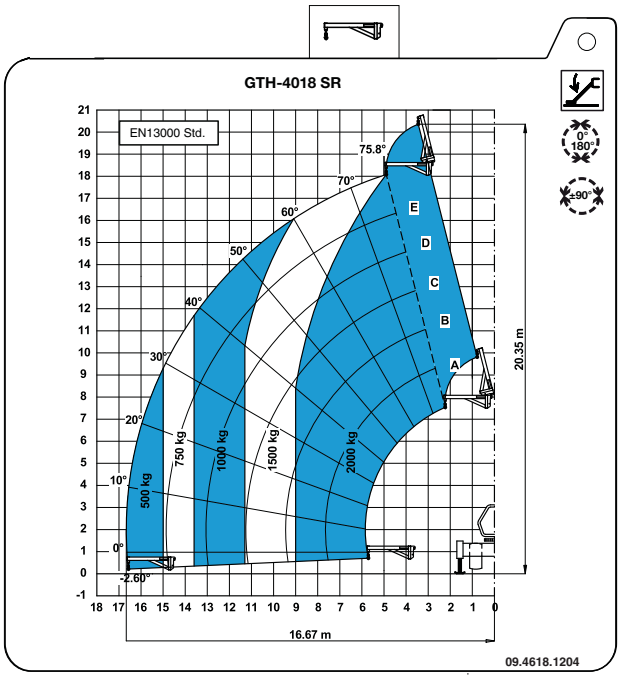


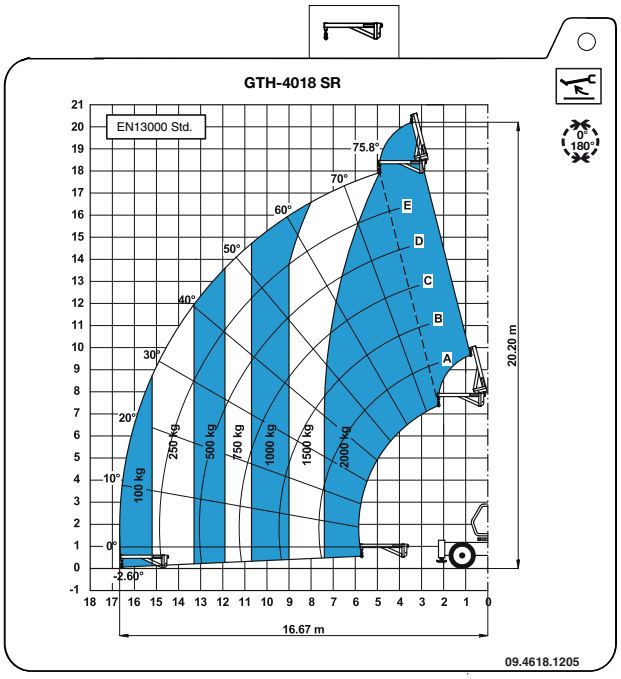


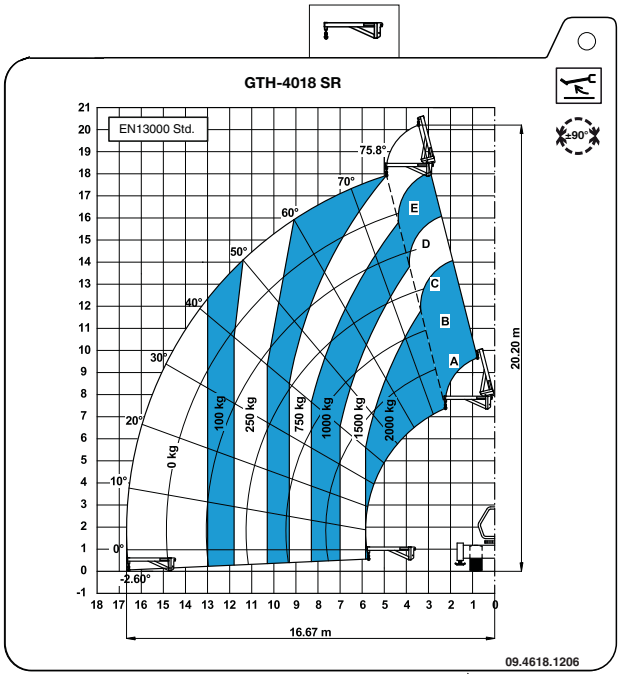
	GTH-4016 SR	GTH 4018 SR
■ MAIN DIMENSIONS		
A Overall height .....mm	2990	2990
B Height to the steering wheel .....mm	2220	2220
C Overall width .....mm	2400	2400
D Inside cab width .....mm	930	930
E Track .....mm	1950	1950
F Wheel-base .....mm	3000	3000
G Length to the front tyres .....mm	4660	4675
H Length to the fork holding plate .....mm	6760	6600
I Ground clearance, center .....mm	345	345
L Max width with extended outriggers .....mm	3600	4400
M Side rear overhang .....mm	2595	2610
N Front overhang .....mm	4170	3990
O Overall lenght .....mm	7960	7800
• Internal steering radius .....mm		
• External steering radius .....mm		

Load Charts

LOAD CHART WITH 2000 KG JIB - GTH-4018 SR

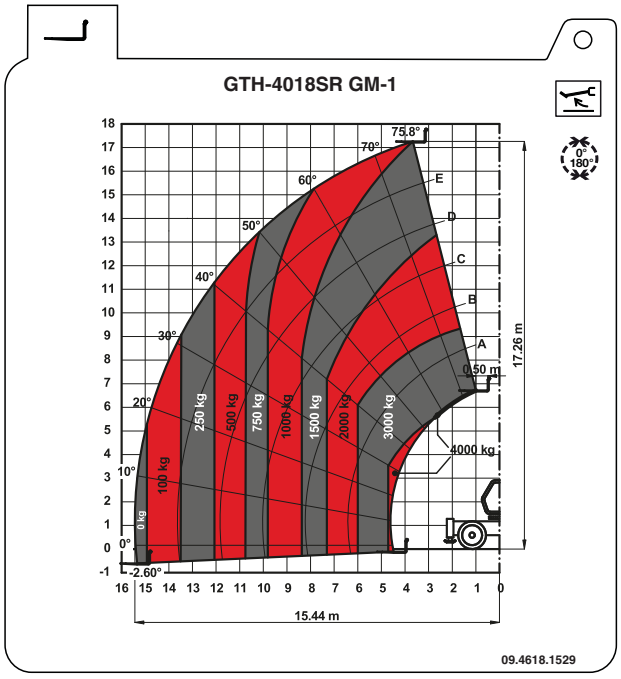


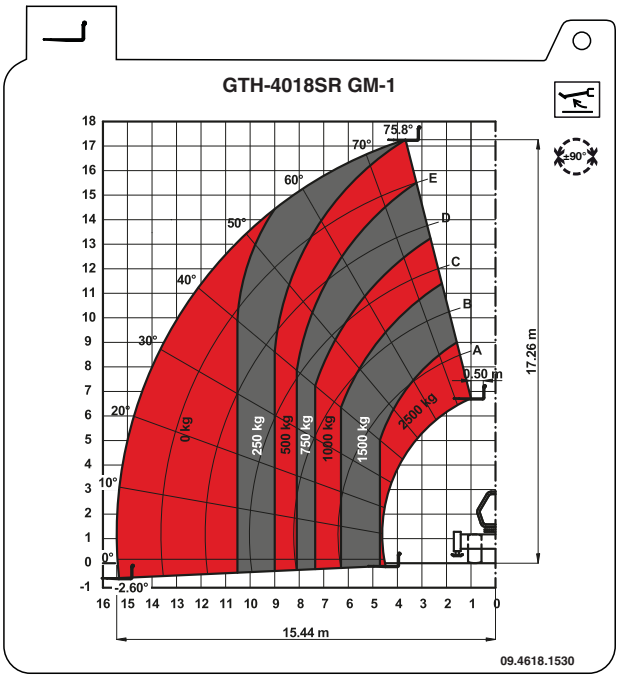


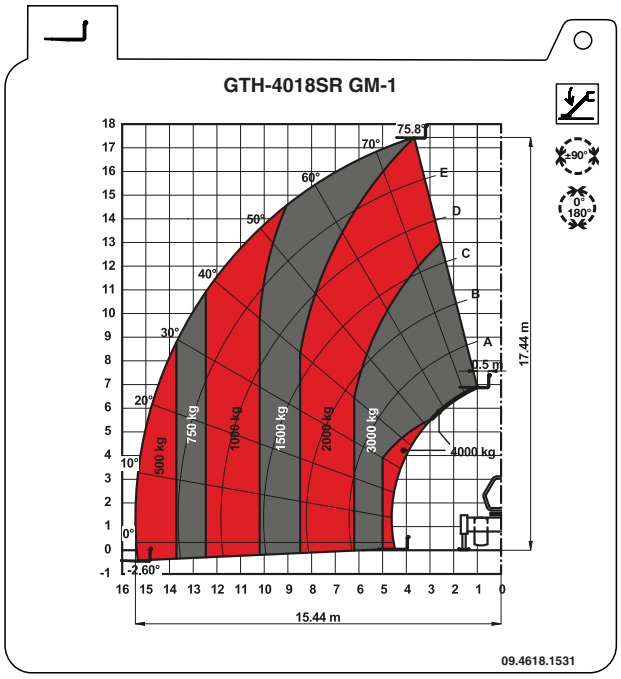


Load Charts

LOAD CHART WITH GM-1 FORKS - GTH-4018 SR

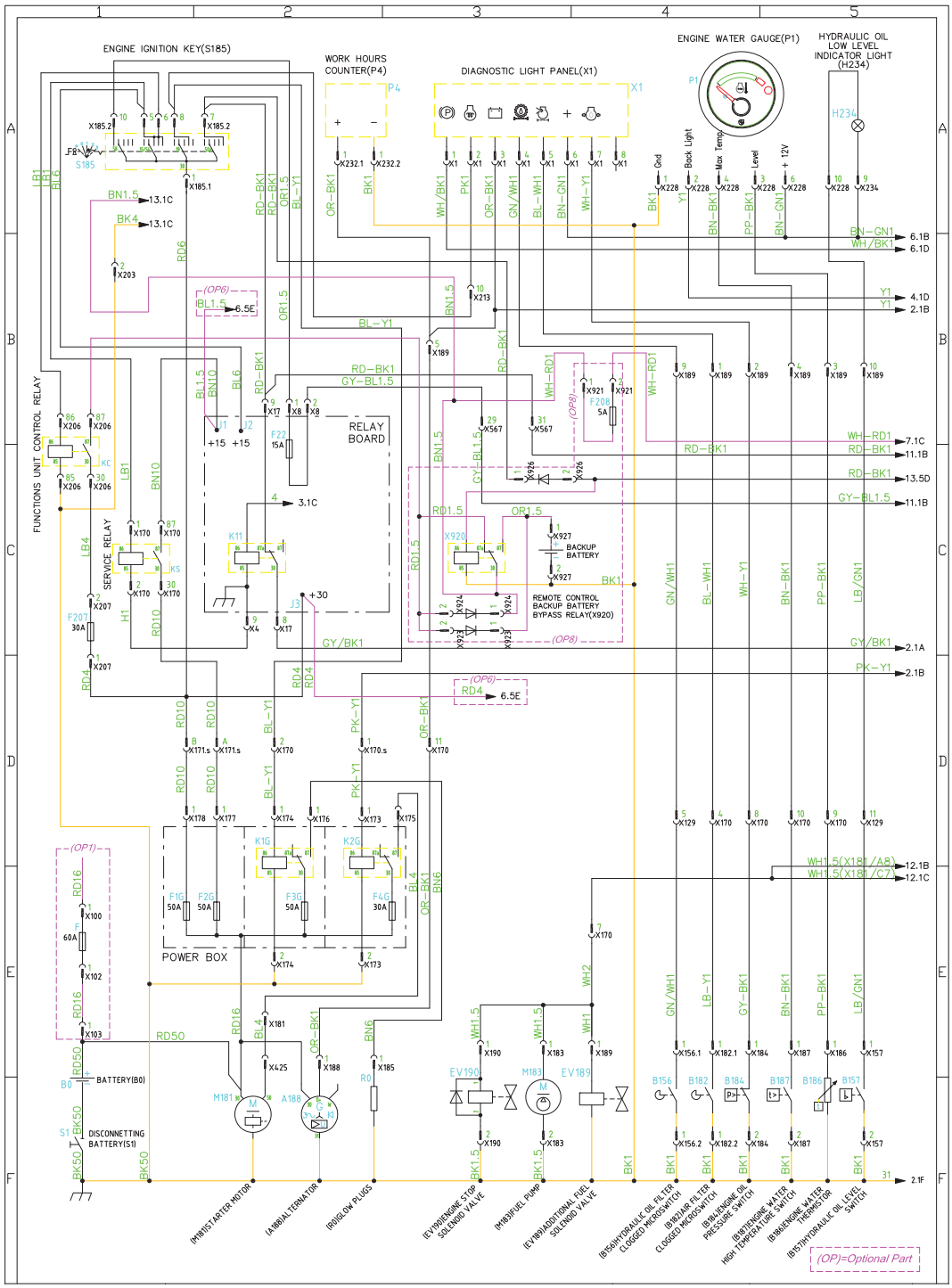






Diagrams And Schemes

WIRING DIAGRAM 1/14 (Rev.D, P/N: 57.1800.5115)



Diagrams And Schemes

WIRING DIAGRAM 11/14 (REV.D, P/N: 57.1800.5115)