A TEREX BRAND

Operator's Manual

Serial number range

Work Platform:

3P/700-REM 4400 From serial n.: P3P700R14B-1001

2P/300 F From s/n.: P2P300F14B-1001

With Maintenance Information

Original Instructions
First Edition
Third Printing
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TEREX Global GmbH

Bleicheplatz 2
8200 Schaffhausen
Switzerland

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

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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

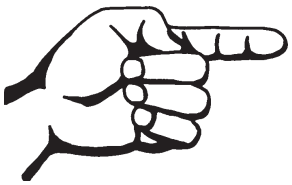
DANGER ***Red: indicates a hazardous situation which, if not avoided, will result in death or serious injury.***

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

CAUTION ***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.***

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



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Work Platform Identification

Check that the operator handbook refers to the delivered machine.

DESIGNATION

Mobile Elevating Work Platform

MODEL AND TYPE

Electrically controlled work platform complete with emergency electropump:

3P/700-REM 4400

2P/300 F

PRODUCT IDENTIFICATION

The attachment serial number is located on the serial label.

- *3P/700-REM 4400 59.1111.6014GT*
- *2P/300 F 59.1111.6013GT*

APPLICABLE STANDARDS

Directive	*Title*
2006/42/EC	Machinery Directive
2004/108/EC	Electromagnetic compatibility

Standard	*Title*
EN 280:2013	Mobile elevating work platforms - Design calculations, stability criteria, construction - Safety, examinations and tests

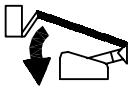
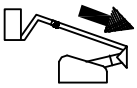
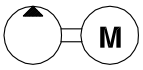
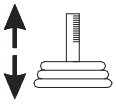
WORK PLATFORM IDENTIFICATION PLATES

The identification plate contains the main identification data of the work platform like model, serial number and year of manufacture.
The work platform identification plate is applied in the rear side of the work platform

IDENTIFICATION PLATES OF THE MAIN PARTS

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

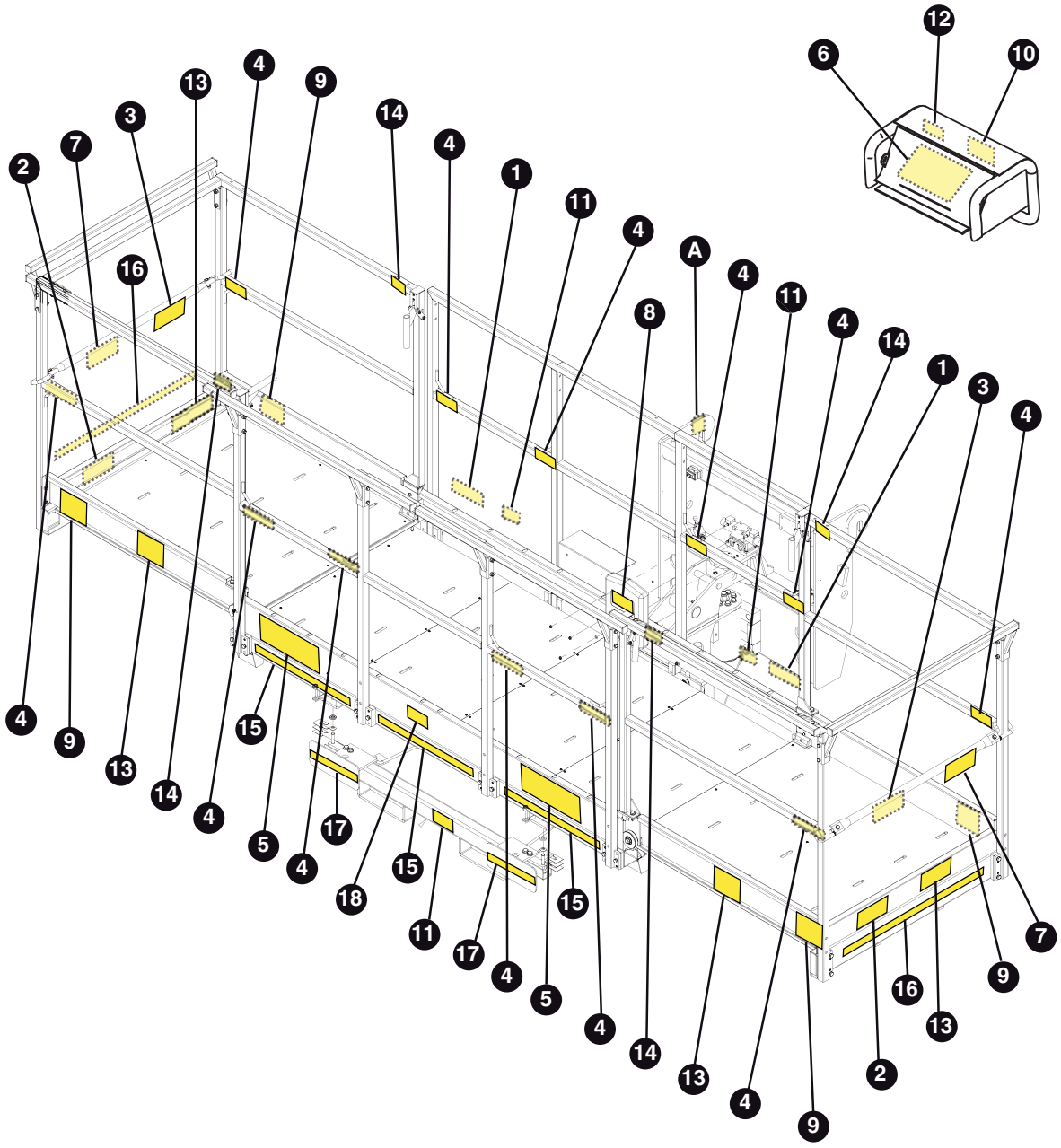
Symbols Used Work Platforms

 Boom Lowering	 Boom Raising	 Boom Extension	 Boom Retraction	 Functions Enabling Switch
 Basket Rotation	 Engine Start	 Emergency Pump	 Safety Alert Symbol	 Horn
 Basket Rotation (for 2P/300 F)	 Functions Enabling Switch (for 2P/300 F)			

Labels And Plates Applied On The Work Platform

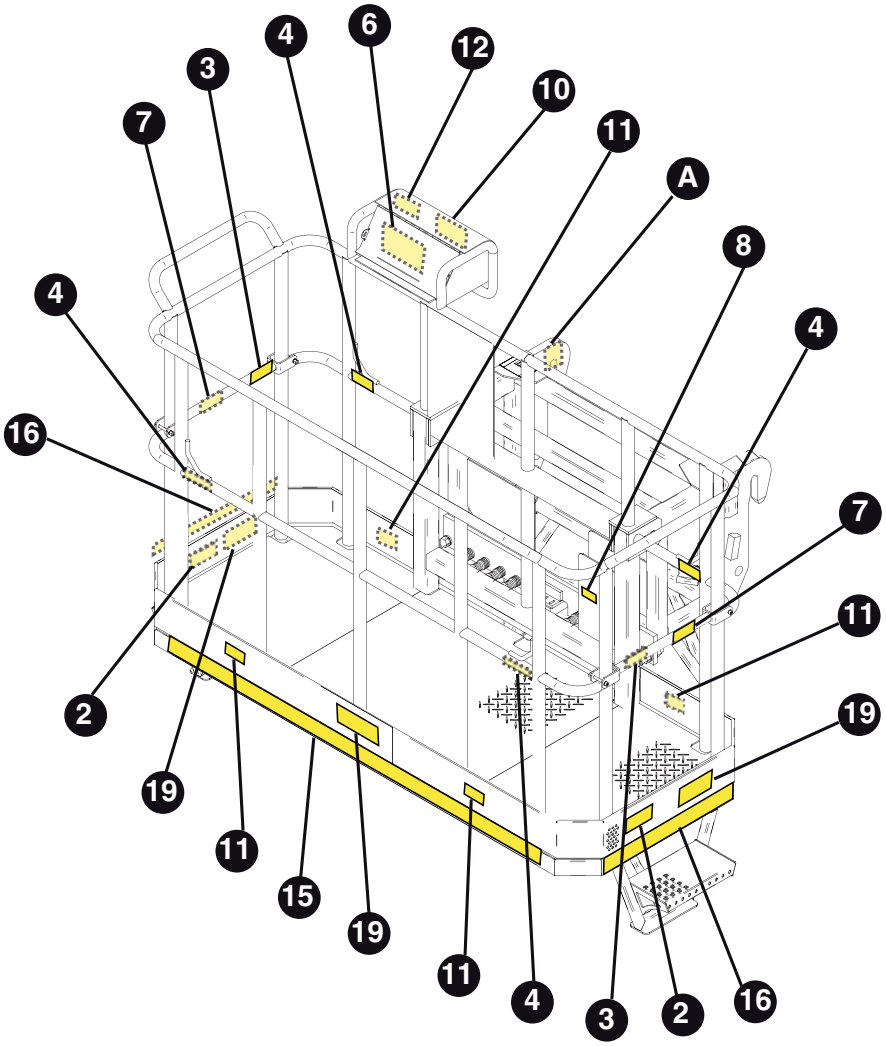
Dashed indicates decal is hidden from view.

■ 3P/700 REM 4400



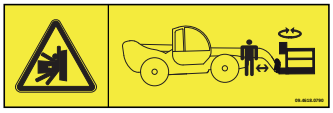
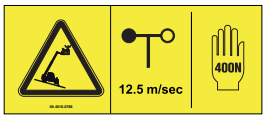
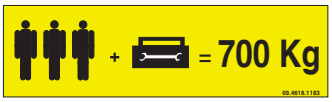
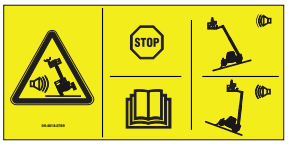
Labels And Labels Applied On The Work Platform

■ 2P/300 F

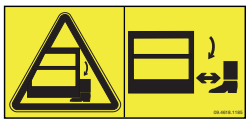


Labels And Labels Applied On The Work Platform

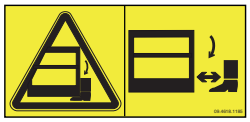
Use the pictures on these pages to verify that all decals are legible and in place.
The following chart shows quantities and description too.

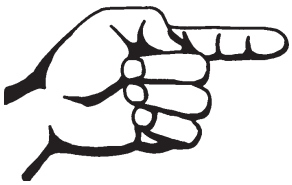
Ref.	Decal	Code	Description	Qt. 3P/700 REM 4400	Qt. 2P/300 F
1		09.4618.0790	**Keep away from path of moving work platform**	2	/
2		09.4618.0788	**Maximum wind allowed on the work platform 12,5 m/sec and Maximum hand strenght allowed**	2	2
3		09.4618.1344	**Fall hazard**	2	2
4		40434	**Lanyard attachment point**	12	4
5		09.4618.1183	**Maximum payload 700 kg including people on board; maximum occupants 3**	2	/
6		09.4618.0789	**Overturning danger alarm**	1	1
7		09.4618.0922	**Crush hazard, keep away from moving parts**	2	2
8		09.4618.1269	**Read the operator's manual**	1	1

Labels And Labels Applied On The Work Platform

Ref.	Decal	Code	Description	Qt. 3P/700 REM 4400	Qt. 2P/300 F
9		09.4618.0919	**Crush Hazard, keep away from moving parts**	4	/
10		09.4618.0921	**Label - Use limits close to electric power lines**	1	1
11		09.4618.1185	**Crush Hazard, keep away from moving parts (only on work platforms coupled to R machine models)**	3	4
12	<1%	09.4618.1330	**Maximum slope allowed < 1%**	1	1
13	< = 360 kg	09.4618.1342	**Maximum payload of the extensible parts 360 kg including people on board; maximum occupants 3**	4	/
14		09.4618.1343	**Lock the extensible parts using the proper handles**	4	/
15		09.4618.1345	**Reflecting decal**	3 units (mt 0,60)	mt 1,70
16		09.4618.1345	**Reflecting decal**	2 units (mt 0,90)	2 units (mt 0,60)

Labels And Labels Applied On The Work Platform

Ref.	Decal	Code	Description	Qt. 3P/700 REM 4400	Qt. 2P/300 F
17		09.4618.1345	**Reflecting decal (only on work platforms coupled to R machine models)**	2 unità (mt 0,25)	/
18		09.4618.1185	**Crush Hazard, keep away from moving parts (only on work platforms coupled to R machine models)**	3	/
19		09.4618.1363	**Maximum payload 300 kg including people on board; maximum occupants 2**	/	3
A		/	**Work platform data plate.**	1	1



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Safety Precautions

DAMAGED WORK PLATFORM HAZARDS

- Do not use a damaged or defective work platform.
- Do a thorough pre-operation inspection of the work platform and test all functions before each work shift. Tag and remove from service a damaged or defective work platform.
- 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 manual is intact, legible and placed in the special container located in the work platform.

PERSONAL INJURY HAZARDS

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

SAFETY DEVICES



Several safety devices have been fitted to the work platform. 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 defective device.
For the checking procedures, read chap. "Maintenance"

MOMENT LIMITING SYSTEM

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.

Safety Precautions



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

Do not operate the work platform unless:

- You learn and practice the principles of safe work platform 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 work platform functions prior to use.**
  4. **Inspect the work place.**
  5. **Only use the work platform 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 work platform.
- 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 work platform.

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 work platform.

NOTICE

If you recognise hazardous situations, you can prevent accidents!

DANGER

The instructions given in this handbook are the ones established by TEREX Global GmbH. They do not exclude other safe and most convenient ways for the work platform 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 work platform directly or indirectly or make it unsafe;
- contact TEREX Global GmbH Assistance Service for any suggestion and the necessary written permission.

Safety Precautions

REQUISITES OF THE PERSONNEL IN CHARGE

Requisites of the WORK PLATFORM OPERATORS

The operators who use the work platform regularly or occasionally 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 psycho-physical 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 work platform 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 work platform maintenance shall be qualified, specialized in the maintenance of handlers, 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 work platform is not a complex intervention and can be carried out by the operator too, provided he has a basic knowledge of mechanics.

Safety Precautions

■ WORKING CLOTHES

During work, but especially when maintaining or repairing the work platform, 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.
- Protective helmet.
- Protective gloves.
- Working shoes.



Use only type-approved working clothing in good condition.

■ Personal PROTECTIVE MAN-PLATFORM

Under special working conditions, the following personal protective man-platform should be used:

- Breathing set (or dust mask).
- Ear-protectors or equivalent man-platform.
- 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.

DANGER

The machine with work platform is not electrically insulated and does not provide protection from contact with or proximity to electrical power lines. Always keep the work platform at a minimum safe distance from them. Electrical hazards!

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

DEATH OR INJURY CAN RESULT FROM CONTACTING ELECTRIC POWER LINES.					
ALWAYS CONTACT THE ELECTRIC POWER LINES OWNER. THE ELECTRIC POWER SHALL BE DISCONNECTED OR THE POWER LINES MOVED OR INSULATED BEFORE MACHINE OPERATIONS BEGIN					
POWER LINE VOLTAGE			*REQUIRED CLEARANCE*		
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*	

DANGER

Do not at any time use the work platform during a storm.

WARNING

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

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.

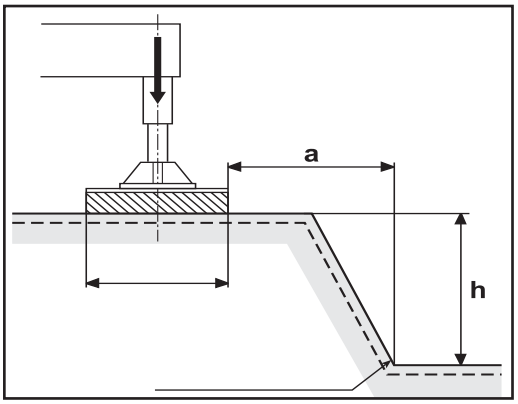
Type of ground, geomorphological features		**Admissible superficial pressure**	
		kg/cm²	**N/mm²**
loose, non-compact soil		generally speaking, not solid; special precautions needed	
loamy, peaty,pasty soil			
rippable, soft ground			
non-cohesive, well compact soil, sand, gravel		**2.0**	**0.2**
rippable soil	semi-solid	**1.0**	**0.1**
	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

Safety Precautions

■ 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.

⚠WARNING

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.

Safety Precautions

- 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.

WARNING

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.
- It is forbidden to increase the work platform working envelope or height by means of additional man-platforms such as ladders.
- 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.

Safety precautions

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.



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.

Safety Precautions

■ ALLOWED USE

The work platform has been designed and built to operate as a rotary work platform for coupling with the telescopic or rotaing telehandlers made by TEREX Global GmbH. The use of the work platform allows to lift operators, material and man-platform to carry out works of various kind. Any other use is considered contrary to what established and, therefore, improper. The compliance with and the strict respect of the use, maintenance and repair instructions of the Manufacturer represent an essential part of the allowed use. The use, maintenance and repair of the work platform shall be carried out by skilled personnel having the necessary knowledge of its special features and the safety precautions to be taken. It is also essential to comply with the national safety at work legislation, the provisions concerning the safety and health of workers at work, and the road traffic regulations.

NOTICE

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

■ IMPROPER USE

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

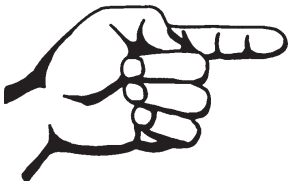
⚠ DANGER

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

- ***Carrying protruding loads on the work platform;***
- ***Not strictly complying with the operation and maintenance instructions of this handbook;***
- ***Working beyond the operation limits of the work platform;***
- ***Working without outriggers;***
- ***Working with outriggers resting on unstable or yielding grounds;***
- ***Working on steep slopes or working with a nonlevelled machine due to an inefficient action of the outriggers;***
- ***Fit mobile guards that may increase the wind action and jeopardise the stability of the machine;***
- ***Using the work platform for purposes other than those recommended;***
- ***Using telescopic handlers not approved or not manufactured by TEREX Global GmbH;***
- ***Attach loads to the boom anywhere other than on the quick coupling frame.***

⚠ DANGER

Using the aerial work platform to perform manoeuvres in the air is prohibited if the work platform is not correctly fastened to the lift. Always avoid all contact with non-moving objects (buildings) or moving objects (vehicles, hoisting man-platform, etc.) to prevent any damage to the work platform and possible risks to health and safety.

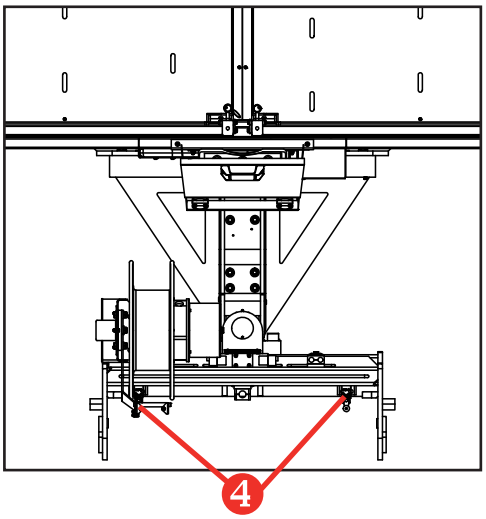


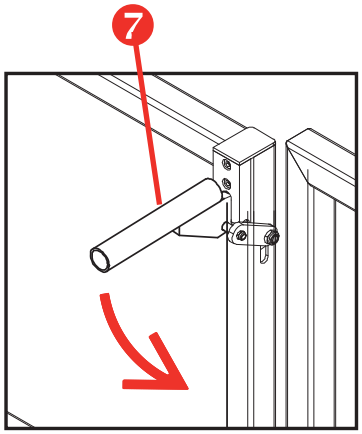
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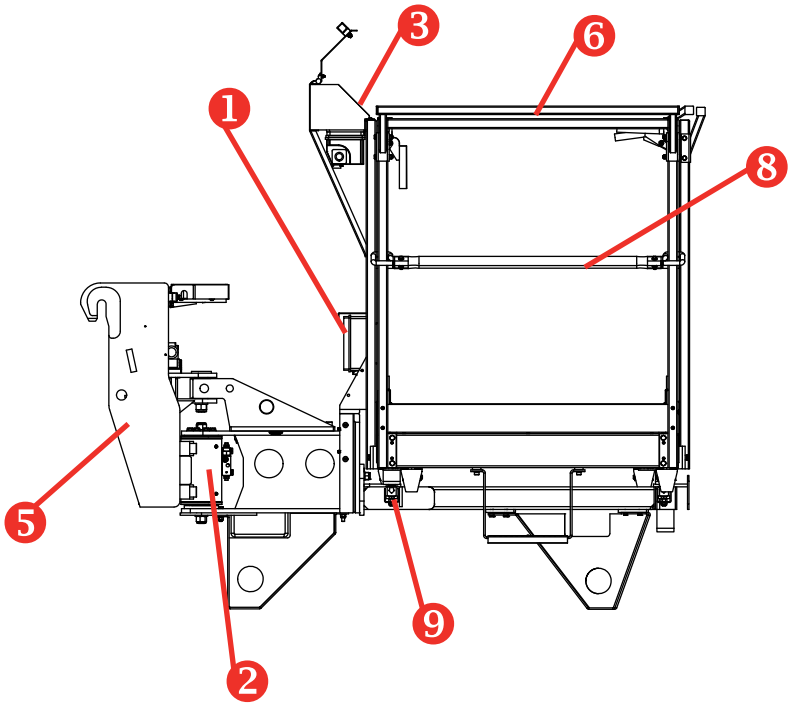
Man-Platforms Description

3P/700 REM 4400 MAIN COMPONENTS

1. Electronic control unit
2. Rotation actuator
3. Control board
4. Correct coupling micro-switches
5. Quick coupling frame
6. Cage
7. Locking handles for work platform extension
8. Entrance gates to get access to the cage
9. Load cells







Man-Platforms Description

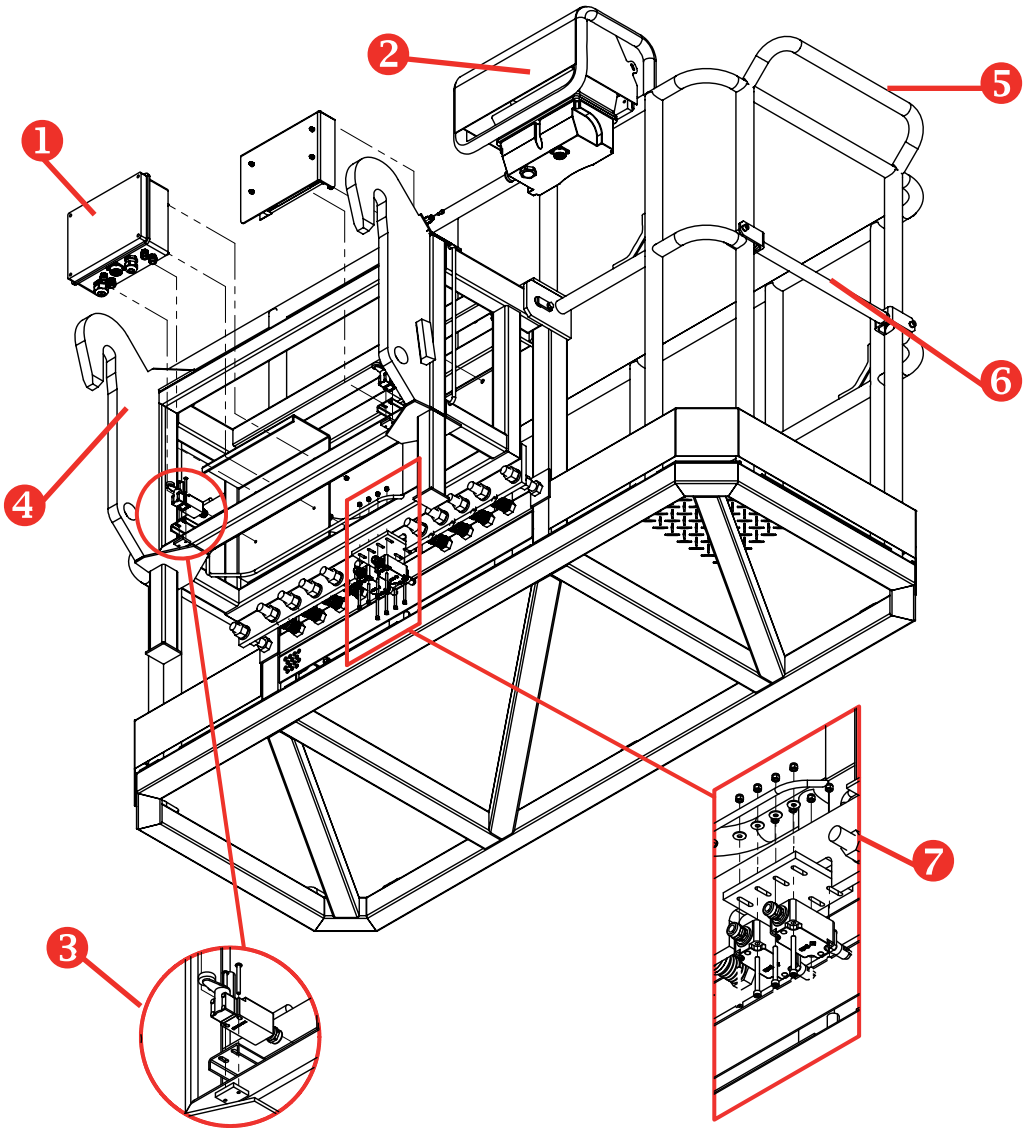
3P/700 REM 4400 GENERAL DESCRIPTION

The work platform is an attachment that can be installed in Genie GTH telehandlers range. It consists of an extensible structure designed for carrying persons and tools not exceeding the rated capacity, rotating respect to the fixed part of the work platform that shall be coupled to the telehandlers boom articulation.
The work platform ranges from -90° to + 90° respect to the central position, and the rotation is possible by means of an hydraulic rotary actuator that is activated by the platform controls.
In order to activate the controls positioned on the work platform is mandatory to connect it to the boom articulation and verify that the boom articulation pins are engaged to the fixed part of the platform; furthermore is mandatory to connect electrically and hydraulically the platform to the devices available on the telehandlers boom.
The operators are allowed to extend/retract the extensible parts of the platform between multiple positions that can be chosen in order to facilitate the activities in the jobsite.
By means of the platform controls, the boom movements are allowed within the platform work area if the load does not exceed the rated load or the allowed load that can be variable along the work area, in these cases just the safety manoeuvres are allowed (boom lift and retract). When the platform reach a stability limit position an audible alarm together with a visible led warn the operators, refer to the following instructions for explanations.
If the rated load is exceeded, the platform is blocked until the overload is removed, an audible alarm together with a visible led warn the operators, refer to the following instructions for explanations.

Man-Platforms Description

2P/300 F MAIN COMPONENTS

1. Electronic control unit
2. Control board
3. Correct coupling micro-switches
4. Quick coupling frame
5. Cage
6. Entrance gates to get access to the cage
7. Overload micro-switches



Man-Platforms Description

2P/300 F GENERAL DESCRIPTION

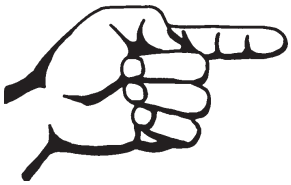
The work platform is an attachment that can be installed in Genie GTH telehandlers range. It consists of a basket type steel structure designed for carrying persons and tools (the payload) and having a payload not exceeding the rated capacity of the machine. This attachment can be coupled with the telehandlers boom articulation and is not provided with additional movements except those available from the machine (boom up/down, boom telescoping in/out, turret slewing when applicable).
In order to activate the controls positioned on the work platform is mandatory to connect it to the boom articulation and verify that the boom articulation pins are engaged to the fixed part of the platform; furthermore is mandatory to connect electrically the platform to the relevant socket available on the telehandlers boom.
The operators are allowed to access the internal area of the platform through a specific access gate which is normally kept in its closed position by gravity.
By means of the platform controls, the boom movements are allowed within the platform work area if the load does not exceed the rated load or the allowed load that can be variable along the work area, in these cases just the safety manoeuvres are allowed (boom lift and retract). When the platform reach a stability limit position an audible alarm together with a visible led warn the operators, refer to the following instructions for explanations.
If the rated load is exceeded, the platform is blocked until the overload is removed, an audible alarm together with a visible led warn the operators, refer to the following instructions for explanations.

Man-Platforms Description

MAN-PLATFORMS APPLICATION FIELD

The following table represents the application field of man-platform installed on TEREX Global GmbH telehandlers

	2P/300 F	3P/700 REM 4400
GTH-4014	x	x
GTH-4018	x	x
GTH-4016R	x	x
GTH-4018R	x	x
GTH-5021R	x	x



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Inspections



Make sure:

☑You learn and practice the principles of safe machine operation contained in this operator's manual and in the telehandler one.

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 telehandler and the man-platform as they were 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 telehandler and/or with an man-platform 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.

If damage or any unauthorized variation from factory delivered condition is discovered, the telehandler and/or the man-platform must be tagged and removed from service.

Repairs to the telehandler and/or the man-platform 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



For the Maintenance and the Pre-operation Inspection of the telehandler, refer to the specific Operator's Manual presents placed inside the cabin.

For the man-platform:

- Make sure the operator's manuals are intact, legible and placed inside the telehandler.
- Make sure all decals are present and legible. See "**Labels And Plates Applied**" chapter.
- Check for hydraulic oil leaks and proper oil level. Top up if necessary. See "**Maintenance**" chapter.

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

- electrical components and electrical cables
- hydraulic hoses and fittings
- fuel and hydraulic oil tanks
- nuts, bolts and other fasteners

Check the entire structure for:

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

WARNING

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

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.

CHECKS PRIOR TO USE

- Check the efficiency of the overload warning system
- Check the efficiency of the emergency stop pushbutton
- Check the efficiency of the micro-switches on the work platform attaching point
- Check the efficiency of the control enabling pushbutton

For the checks to be done, see the section "Maintenance"

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-by-step 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 and in the telehandler one.

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 telehandler and the man-platform as they were intended.

TESTS

About the telehandler:

1. Select a test area that is firm, level and free of obstruction.
2. Enter the operator's compartment and sit on the seat.
3. Fasten the seat belt.
4. Adjust all the mirrors.
5. Be sure the parking brake is on and the transmission control is in neutral.
6. Start the engine.



Perform all the tests provided for the telehandler and listed in the machine Operator's Manual.

Inspections

WORKPLACE INSPECTION

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

Operating Instructions

INTRODUCTION

This section provides the operator and the ground operator a practical guide for the gradual learning of the use of the machine fitted with work platform. Both operators shall have all the necessary requisites and shall become familiar with both handler and man-platform before starting using them. This familiarization ensures not only a proper use during work, but also a prompt and timely intervention of the ground staff when sudden manoeuvres to protect the operator on the work platform and the machine integrity are required.

WARNING

Before using the telehandler, 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.

DANGER

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

DANGER

Overloading the work platform is always forbidden. The number of people and the maximum admissible load are indicated in the identification plate of the work platform.

DANGER

Never use the telehandler combined with work platform if the machine has not been stabilized. The maximum slope allowed for the use of the work platform-machine system is about 1%.

NOTICE

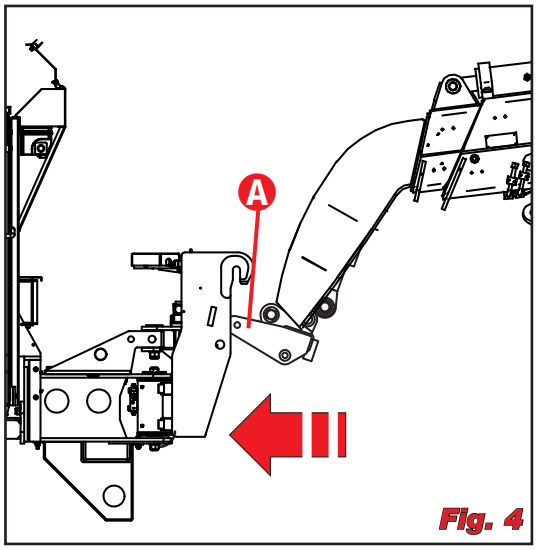
During the use of the work platform, one person must be charged with supervising the operators on the work platform from the ground to intervene and lower the work platform to the ground in an emergency - for the correct emergency procedure see the section "Operating instructions" of this manual (paragraph "Lowering the work platform in emergency")
For the controls operated from the driving place of the handler, please refer to the operator's handbook of the handler.
During the transfer of the machine coupled with the work platform on public roads, always respect the highway code for the country of use.
The use of the the work platform combined with a telehandler is allowed at temperatures ranging between -20°C and +40°C

Operating Instructions

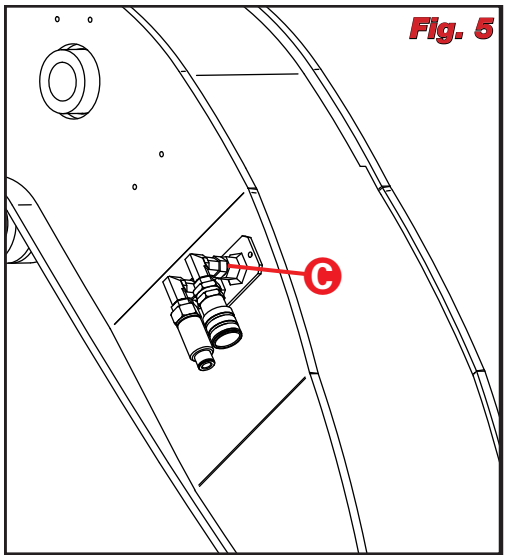
■ COUPLING THE WORK PLATFORM TO THE HANDLER

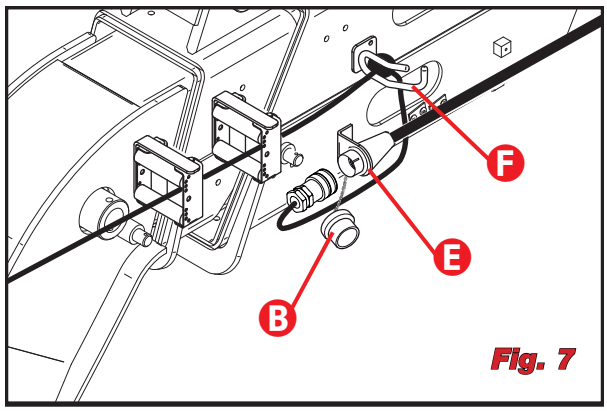
To couple the work platform to the handler, proceed as follows:

- disconnect any mounted attachment and store it in a safe place.
- Approach the quick coupling frame to the work platform and ensure the frame is rotated forward (see **fig. 4**).
- Hook the upper lock of the work platform (**fig. 4, position A**)
- Retract and lift the work platform some centimetres. The work platform will centre on the quick coupling frame automatically.



- Operate the joystick for locking the work platform definitively (see par. "Changing the attachments" in the machine operator's manual).
- Hook up the work platform pipes to the fittings in position **C** (see **fig. 5**)
- Open cover **B** protecting the current socket on the boom and plug in the work platform power cable plug **E** (see **fig. 7)**
- Secure the work platform power cable with the proper bracket in position **F** (see **fig. 7)**





NOTICE

When the work platform power cable is plugged to the boom socket, all the boom movements are disabled.

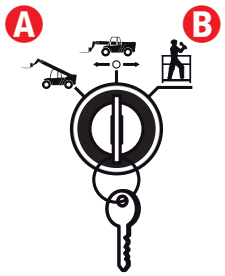
Operating Instructions

DANGER

Using the work platform for aerial manoeuvres if the platform is correctly coupled but the pin is not driven in or if the locking pin is driven in but the power cable is not correctly connected is expressly forbidden. It is forbidden to use the machine if the work platform is coupled, and a person is in the platform, but the handler controls are still activated.

NOTICE

The bypass key of the load limiter of the handler is only activated when the "Road-Platform-Jobsite" selector in the handler cab (see the image here below) is turned to "Jobsite" (position A). When this selector is turned to "Platform" (position B) the bypass key is not active and the load limiter cannot be disabled.

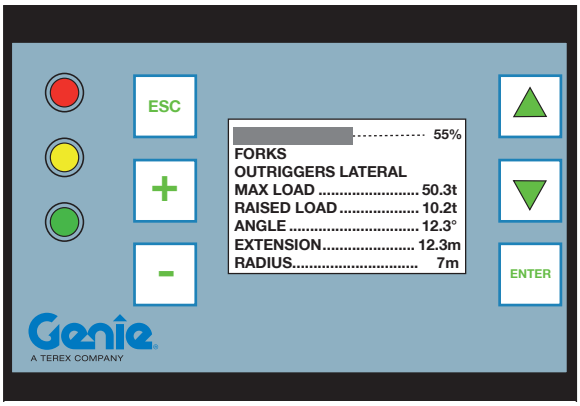


Operating Instructions

■ STABILITY CONTROL SYSTEM

All the telehandlers are equipped with an automatic stability control system which warns the operator of the variation of stability of the machine and blocks any manoeuvre before the same reaches a critical condition. A display inside the cabin shows the stability status of the machine and the relative equipment.
The system changes according with the telehandler and can easly be recognized depending on the display fitted into the cabin:

■ MODEL N° 1



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 slow 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

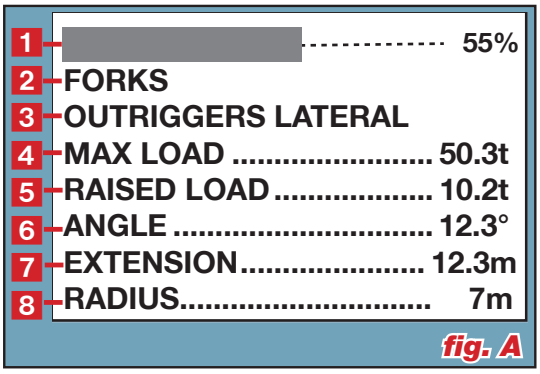
PLUS (+) Additional selection button

MINUS (-) Additional selection button

Display, which is divided into 8 lines_ fig.A

1. Load percentage strip
2. Indicates the attachment used
3. Indicates the operating mode
4. Indicates the max. load that can be raised
5. Indicates the weight raised for the system calibration
6. Indicates the boom angle
7. Indicates the boom extension (it'll be **= 0 meters** once the boom is fully retracted)
8. Indicates the distance of the load from the slewring axis and, in case of necessity, it displays the related warning message

Operating Instructions

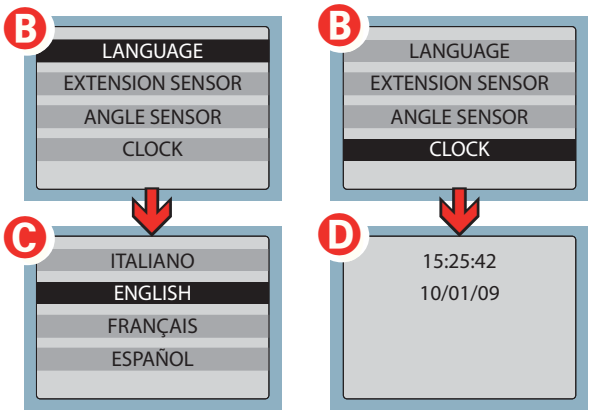


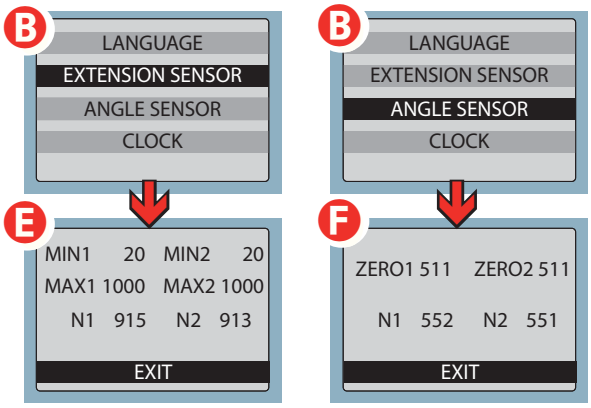
DANGER

Before using the machine, make sure that the green LED is ON, and that the operating mode shown in line 3 and the attachment shown in line 2 are those actually used.

Operation

- At the machine starting, the overload warning system runs an automatic check and the software datas are displayed.
- Within 3/4 seconds, the list of attachments allowed is displayed: using the arrows, the operator has to select the right attchment and then press ***ENTER*** to confirm.
- Once the attachment has been selected, the display shows the *Standard Screen Page* (***fig.A***).
- From this screen page, pushing ***PLUS (+)*** for some seconds, the operator can open the ***UPPER LEVEL (B)*** where other four sub-menus are displayed: one of these, ***LANGUAGE (C)*** can be modified while the other three, ***CLOCK (D)***, ***EXTENTION SENSOR (E)*** and ***ANGLE SENSOR (F)***, can only be consulted.
- Pressing ***ESC***, go back to the *Standard Screen Page.*
- Press the two buttons ***PLUS (+)*** and ***MINUS (-)*** simultaneously to access to the *Diagnostic Screen Pages.* These pages can only be consulted. Use the ***ARROWS*** to pass from one page to another.





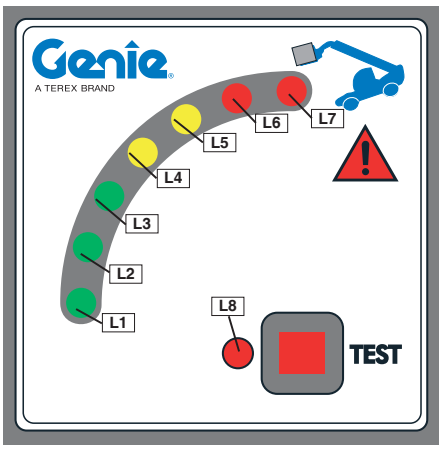
Operating Instructions

■ MODEL N° 2

1 ***Green LED ON***
Stability condition. (**L1**,**L2,L3):** during normal operation when the percentage of overturning moment is between 0 and 79, these LED's are ON.

2 ***Yellow LED ON***
Pre-alarm condition. (**L4** and **L5):** they light up when the machine tends to overturn and the percentage of overturning moment with respect to the threshold value is between 80 and 99: the boom movements are slowed down and the acoustic alarm slowly beeps.

3 ***Red LED ON***
Alarm condition. (**L6** and **L7):** risk of overturning! The percentage of overturning moment is from 100 with respect to the threshold value: the acoustic alarm quickly beeps and the machine movements are stopped, but for those allowing to return the load within safety limits.



Description of the controls

1. Calibration button
2. Stability indicator with LED-bar
3. Green light - power OK
4. L8 functional led

Operation

When power is turned on the load limiting system runs a self-test:

- **LED-bar 2** gradually lights from green to red
- the display buzzes
- **L8** and the **Load limiting system general alarm indicator light** stay on
- then **LED-bar 2** gradually switches off
- **L8** and the **Load limiting system general alarm indicator light** switch off

During operation, the **LED-bar 2** lights up gradually depending on the variation of stability.

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: **Load limiting system general alarm indicator light** stays on together with **LED L8** which starts flashing representing an alarm code.
The meaning of these alarm codes is shown in section "**Faults and Troubleshooting**".

⚠ ***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

USING THE LOAD CHARTS

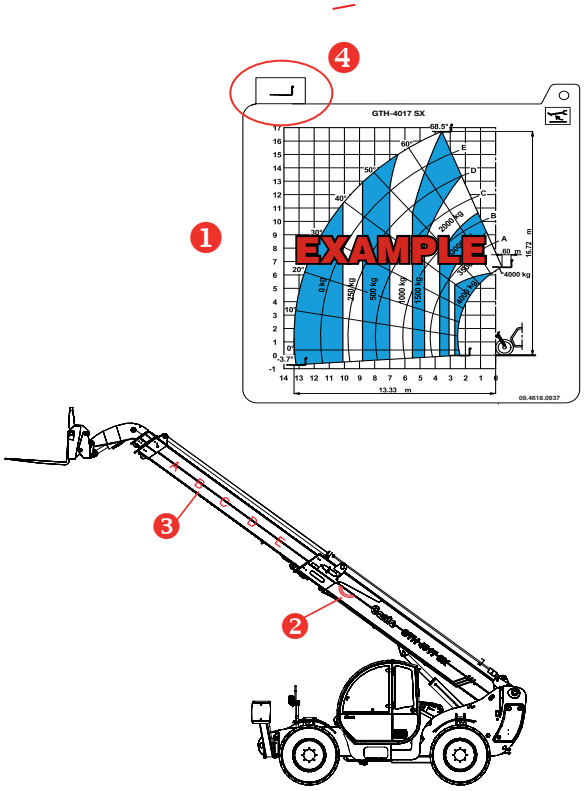
The load charts **1** indicates the maximum permissible load in relation to the boom extension and the type of attachment used. To operate under safe conditions, always refer to these charts.

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 cabin.

The tag **4** located at the top of each load chart, indicates the type of attachment used**.**

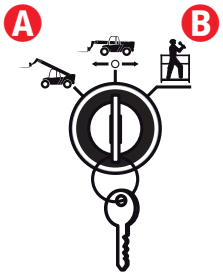
The load chart illustrated in this chapter is given only as a mere example. To define the payload limits, refer to the load charts applied within the cab of your machine.



Operating Instructions

SWITCHING THE CONTROLS FROM THE HANDLER TO THE WORK PLATFORM

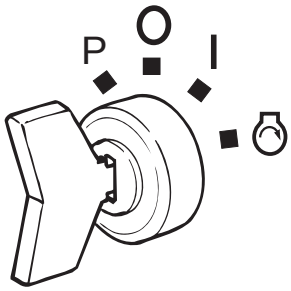
- Move with the handler to the working site, lower the outriggers to the ground and level the machine checking its position on the water level on the cab dashboard
- Engage the parking brake.
- Level the flatbed of the work platform;
- Run the engine just over idle operating the gas pedal.
- Connect the power cable of the work platform to the handler.
- Set the Road/Jobsite/Platform selector to "Platform" (position **B**).



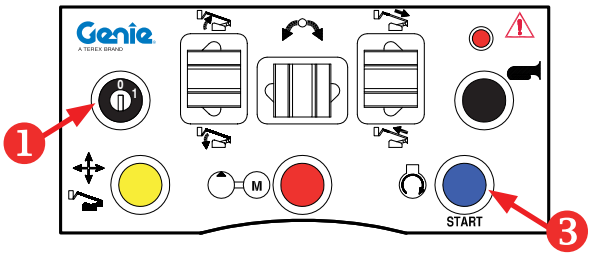
- Remove the key from selector (it shall be used to access to the work platform control board).

NOTICE

Before switching the controls from the handler to the work platform, set the control switch on the dashboard to position P



- Enter the work platform and proceed as explained below:
- Insert the key of the Road/Site/Platform selector into switch **1** and turn the key to position 1 (see the following image) to enable the work platform controls.
- Push the button **3** in the following image to start the engine.
- On the LMI display that is inside the cab select the function "Work Platform" and confirm it selecting "enter" (only for rotating models).



DANGER

The operator on the ground shall never leave the handler cab unattended and must always be in contact with the operator on the work platform.

Operating Instructions

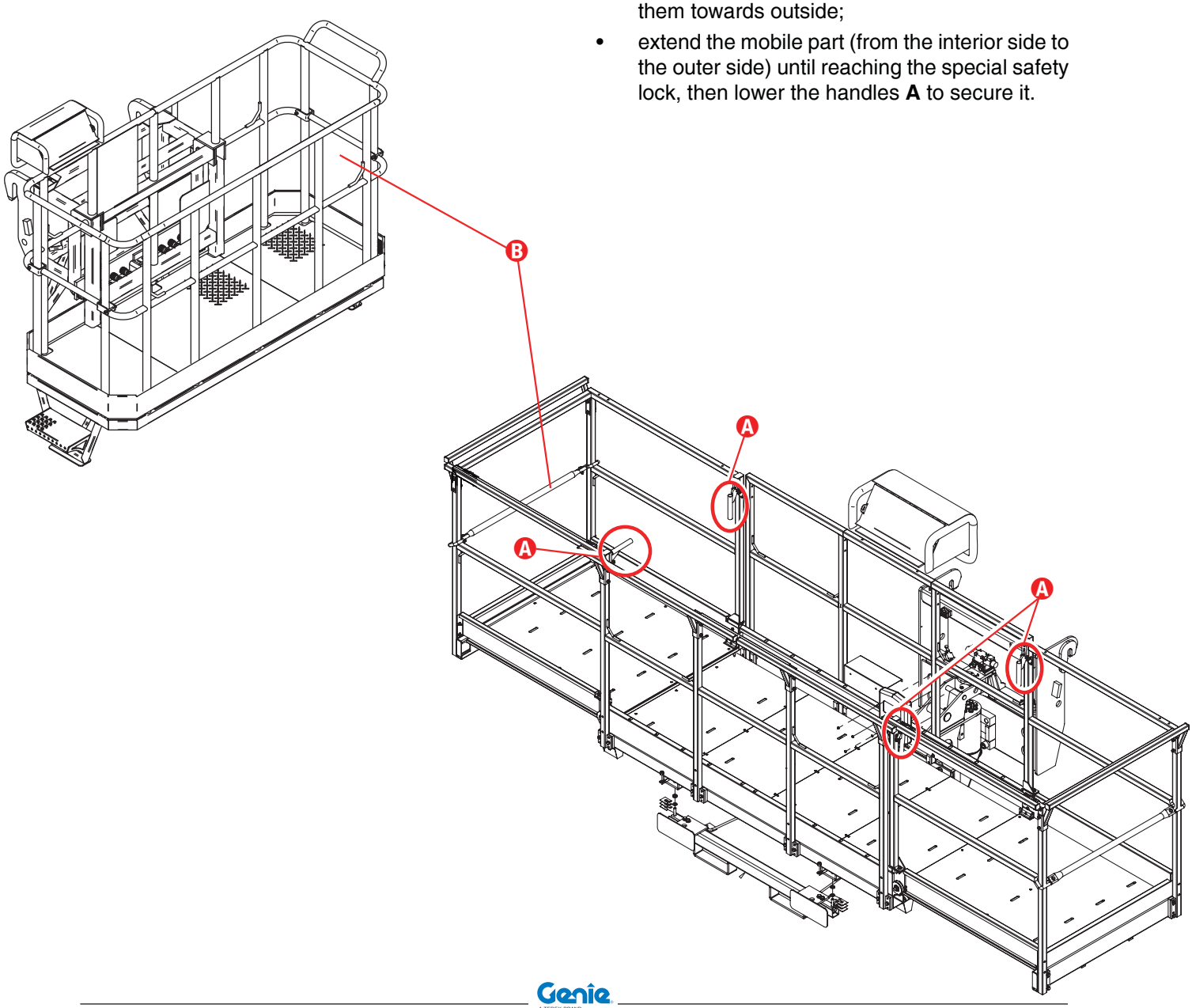
■ STEPPING INTO THE WORK PLATFORM

To enter the work platform, lift the entrance gates **B** located on the two sides of the cage (see the image here below). Be sure that both the entrance gates are properly closed before operating.

■ EXTENDING THE WORK PLATFORM for 3P/700 REM 4400

The work platform has an extending flatbed; to extend the flatbed, proceed as follows:

- lower the work platform to the ground, stop the diesel engine and engage the parking brake;
- lift the handles **A** (there are two for each extending side of the work platform) and push them towards outside;
- extend the mobile part (from the interior side to the outer side) until reaching the special safety lock, then lower the handles **A** to secure it.



Operating Instructions

USE OF THE SAFETY BELT

DANGER

- Occupants must wear a safety belt or harness in accordance with governmental regulations. Attach the lanyard to the proper anchorages provided in the work platform.
- Do not sit, stand or climb on the work platform guard rails. Maintain a firm footing on the work platform at all times.
- Do not climb down from the work platform when raised.
- Keep the work platform floor clear of debris.
- Close the work platform entrance gates before operating.
- Do not enter or exit the platform unless the machine is in the stowed position and the work platform is at ground level.

NOTICE

Use only type-approved and CE-marked safety belts in good conditions. For the use of safety belts, please refer to the manual supplied by the manufacturer.

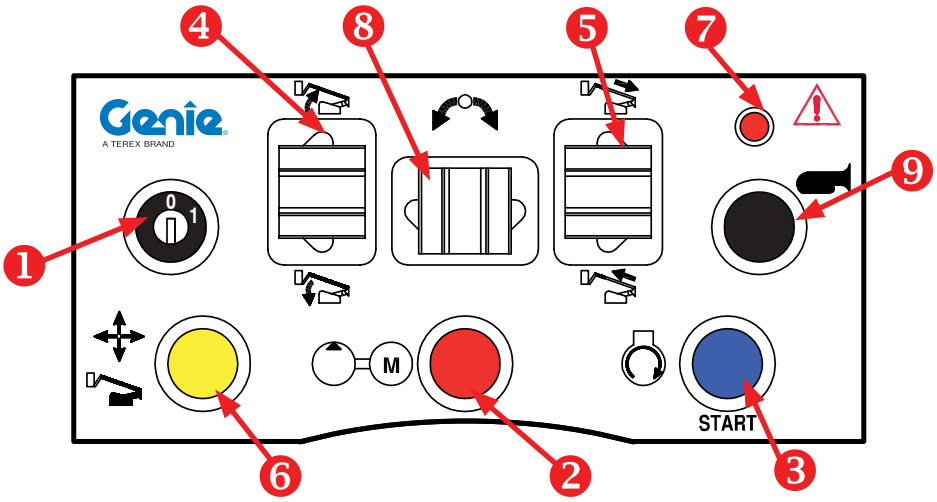


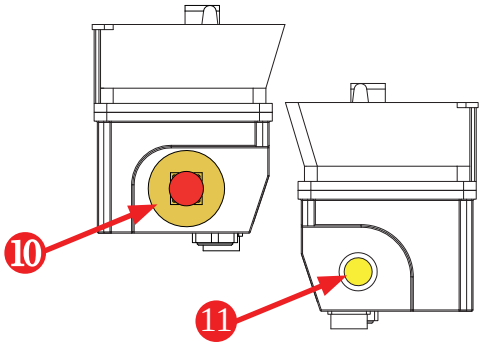




Operating Instructions

CONTROL PLACE ON THE WORK PLATFORMS





Operating Instructions

1. Key-switch enabling the controls:
(use the key of the Road/Jobsite/Platform selector previously removed from the handler)
- turn the key to position **0** to deactivate the controls, the machine engine will switch off.
- turn the key to position **1** to activate the controls.

2. Emergency pump button:
the pressure of this button activates the electric pump used for emergency manoeuvres. When the button is released, the pump is deactivated.

3. Engine start button:
press this button to start the telehandler engine.

4. Boom lifting/lowering lever:
- press the function enabling switch **6** and holding it down move the control lever up, the boom will raise.
- press the function enabling switch **6** and holding it down move the control lever down, the boom will lower.

5. Boom extension/retraction lever:
- press the function enabling switch **6** and holding it down move the control lever down, the boom will extend.
- Press the function enabling switch **6** and holding it down move the control lever up, the boom will retract.

6. Function enabling switch:
this button must be pressed and hold down during the operation of the control levers. If the button is released, the given command is not performed or interrupted. If this button is pressed for more than 3 seconds without operate any control you should release and press it again before operating the control otherwise it is not performed.

7. Alarm LED:
the red LED lit associated with a sound alarm indicates the presence of an error in the work platform-machine system.To make the diagnostics of any possible existing error press at the same time the function enabling switchs **6** and **11** and hold them down for about 3 seconds.

8. Basket rotation lever:
- press the button **11** and holding it down move the control lever toward left, the work platform will rotate to the left.
- press the button **11** and holding it down move the control lever toward right, the work platform will rotate to the right.
- press the function enabling switch **6** and holding it down move the control lever toward left, the machine turret will rotate to the left (only for rotating models).
- press the function enabling switch **6** and holding it down move the control lever toward right, the machine turret will rotate to the right (only for rotating machine models).

9. Horn button:
push the horn button and the horn will sound, release it and the horn will stop.

10. Emergency stop pushbutton:
when pressed down the machine engine switch off and all the movements of the work platform are stopped. Before starting work again, find and rectify the causes which compelled to an emergency stop, then reset the button to neutral position pressing it down while turning clockwise.

11. Pushbutton to enable the work platform rotation (ONLY for 3P/700 REM 4400):
this pushbutton has to be pressed and hold down for the whole duration of the control. If it is released the action stops.

12. Basket rotation selector:
NOT ACTIVE.

NOTICE

The emergency pump is driven by an electric motor. It is advisable to let it run for about 30 seconds, then stop it for about 2 minutes to allow the motor to cool down.

Operating Instructions

LOWERING THE WORK PLATFORM IN EMERGENCY

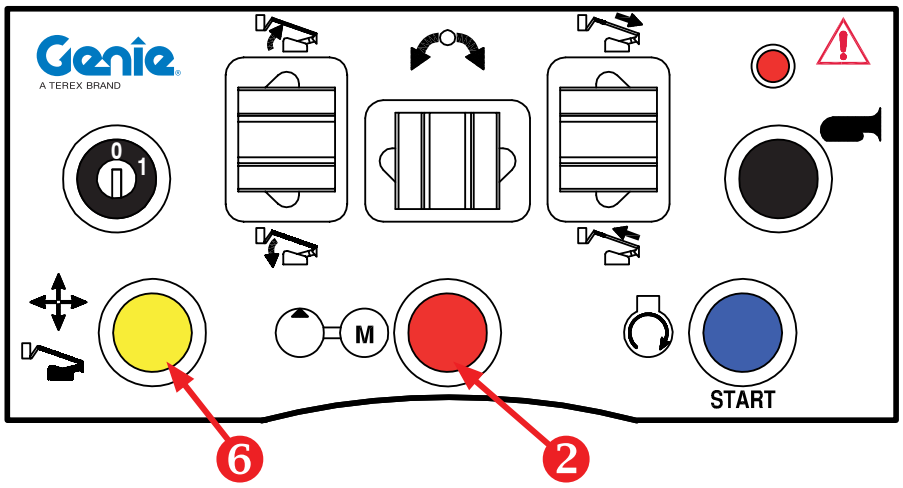
There are two possible types of emergency descent to bring the work platform back down to the ground:

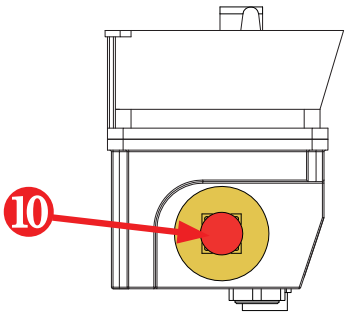
A) the operator is able to use the controls on board the work platform but the engine stopped previously will not restart.

B) the operator is unable to work the controls on the work platform.

CASE A):

- Press the emergency stop pushbutton **10** on the work platform control board.
- Press the emergency pump button **2** and the dead man button **6** together and holding them down move the proper control lever to perform the required movement.





Operating Instructions

CASE B):

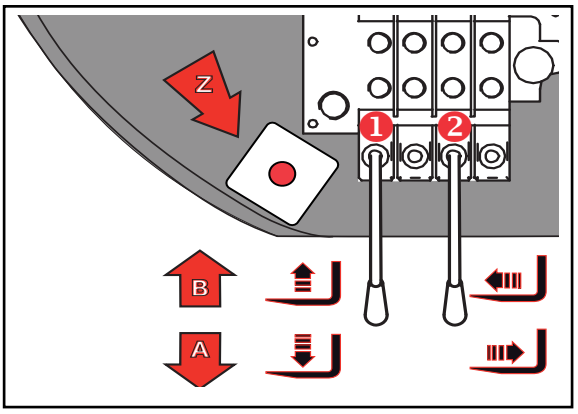
If the operator on the work platform cannot operate the emergency controls installed in the work platform, the ground assistant shall execute the emergency manoeuvre to lower the work platform to the ground.

- Press the emergency pushbutton that is inside the cab, the machine engine will switch off.
- Open the compartment where is located the main valve.
- Press the emergency pump button **Z** that is located close to the main valve and holding it down move the lever to lower the machine boom and bring the work platform back to the ground. If the emergency pump button is released the pump action stops.

The main valve has some control levers that operate the following functions:

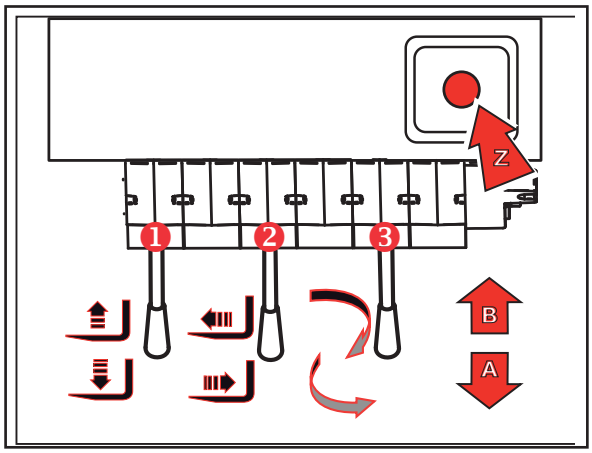
HIGH REACH MODELS:

Lever 1	B	Boom up
	A	Boom down
Lever 2	B	Boom extention
	A	Boom retraction



ROTATING MODELS:

Lever 1	B	Boom up
	A	Boom down
Lever 2	B	Boom extention
	A	Boom retraction
Lever 3	B	Turret clockwise rotation
	A	Turret counter-clockwise rot.



Operating Instructions

NOTICE

- ***The load limiter will not intervene when using the emergency controls in manual mode.***
- ***Use the emergency controls only to take the machine back in a safety condition.***

DANGER

When using the emergency controls, always follow the sequence here below with care:

Lever 2 In A	***Total boom retraction***
Lever 1 In A	***Boom lowering***

NOTICE

Use the manual controls of the handler only if a real hazard exists.

DANGER

If it is not possible to lower the work platform in emergency due to the main valve failure, please contact TEREX Global GmbH Service Department.

CORRECT WORK PROCEDURE

1. Couple the work platform to the telehandler
2. Fix the work platform using the work platform attachment quick coupling cylinder
3. Place the machine on a level surface with the outriggers completely lowered and extended
4. Engage the parking brake
5. Set the forward/reverse lever to neutral position
6. Set the road/jobsite/platform switch to platform
7. Turn the ignition switch to position P
8. Remove the key from the road/jobsite/platform selector (it shall be used to operate the work platform controls)
9. Release the piston blocking turret rotation (Rotating series only)
10. Using the proper cotter pin block the attachment quick coupling cylinder
11. Connect the hydraulic pipes of the work platform to the boom fitting (only for 3P/700 REM 4400)
12. Connect and fix the power plug on the connector that is on the boom
13. Check the work platform load as described in the section "Maintenance" in the paragraph "checking the work platform load cells"
14. Start the machine engine from the work platform
15. On the LMI display that is inside the cab select the function "Work platform" and confirm it selecting "enter" (only for Rotating models)
16. This procedure has to be executed every time you use the work platform after using other attachments on the machine.

Now you are ready to work with the work platform.

Operating Instructions

■ USE PRECAUTIONS

DANGER

- ***The second and unique copy of the key of the Road/Site/Platform selector shall be kept by the jobsite manager or the person charged with the workplace safety.***
  This key shall be used only for lowering the work platform to the ground in an emergency.
- ***Do not at any time use the work platform for purposes other than those for which it was specifically intended -e.g. as a crane.***
- ***Enter/leave the work platform only when it is lowered to the ground.***
- ***The loading of a rotating work platform can only be done with the work platform in the central position.***
- ***Do not at any time use man-platform or accessory parts to increase the working or lifting height of the work platform (e.g. ladders fitted to the basket, etc.).***
- ***It is forbidden to move the work platform from side to side of the working area while the operators are on board.***

NOTICE

In case of situations or working conditions other than those described in this manual, contact the manufacturer to get the necessary permission and any useful advice.

WARNING

The work platforms dealt with in this manual are not equipped with safety devices protecting the operators aboard from objects falling from above.

■ STOPPING AND STORING THE EQUIPMENT

NOTICE

Lay the work platform on a dry and level ground.

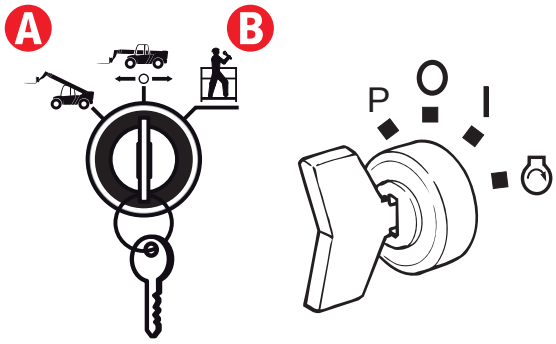
To release the work platform from the handler:

- Approach the place where you will release the work platform.
- Lower the work platform on the ground.
- Stop the engine of the handler and remove the key from the work platform control board (selector I/0).
- Leave the work platform.
- Disconnect the hydraulic pipes of the work platform from the boom fittings.
- Remove the work platform power cable plug from the boom socket and close the cover to protect the socket against dirt and rain.
- Enter the handler cab and insert the key you removed from the work platform into the Road/Site/Platform selector and turn it to "Jobsite"(position **A**).
- Move the ignition switch on the machine dashboard from position **P** to position **I**.
- On the LMI display that is inside the cab select the function "Forks" and confirm it selecting "enter" (only for rotating models)

Operating Instructions

NOTICE

Now, controls can be operated from the handler cabin only.



- Restart the engine.
- Operate the joystick to release the work platform from the quick coupling plate.
- Tilt the coupling plate forward and lower the boom to release the upper lock of the work platform.
- Move back with the machine.

■ PARKING FOR LONG PERIODS

If the lift and work platform need to be parked for long periods of disuse we recommend that you:

- Wash the work platform with care.
- Do not direct the water to the electric components.
- After washing, dry all parts thoroughly with a jet of air.
- Grease all parts of the work platform.
- Carry out a general inspection and replace any worn or damaged parts.
- Repaint any damaged or worn parts.
- Place the work platform in a covered, well ventilated area.

⚠WARNING

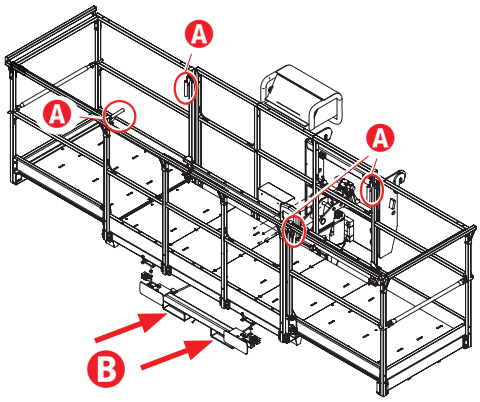
Always remember that the ordinary maintenance must be carried out even during the machine inactivity. Pay particular attention to the fluid levels and to those parts subject to ageing. Before re-starting the machine and the work platform, carry out an extraordinary maintenance and carefully check all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

Operating Instructions

WORK PLATFORM HANDLING

The work platform can be handled by means of the telehandler to which it is coupled or by means of machines equipped with forks that have a suitable rated capacity.
In the second case proceed as follows:

1. retract the extensible part of the work platform and lock it with the proper handles **A** (ONLY for 3P/700 REM 4400);
2. approach the work platform;
3. insert the forks in the proper guides **B**.



WORK PLATFORM TRANSPORT

The work platform is in the transport position when the relevant controls are disabled and cannot be used. In this condition, only the cab controls are activated.

WARNING

Before moving with the work platform coupled to the handler, make sure it is correctly coupled to the attachment coupling frame.

MACHINE DISPOSAL

PROTECT THE ENVIRONMENT

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

BATTERY DISPOSAL

PROTECT THE ENVIRONMENT

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.

Maintenance

Observe and obey:



* The operator can only perform the routine maintenance operations in this manual.
* Scheduled maintenance procedures shall be completed by qualified technical personnel according to the manufacturer's specifications.

Maintenance symbol legend:

The following symbol is used in this manual to Indicates the time interval for the maintenance jobs expressed in working hours.



SERVICE INTERVAL

Running-in _____

Ordinary _____

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 defects, find and rectify them before using the machine again.

Not respecting the ordinary maintenance schedule of this manual automatically voids TEREX Global GmbH warranty.

Maintenance

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 specialized 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 or the work platform safe and efficient. The maintenance interventions are based on the machine working hours. Regularly check the hour-meter and keep it in good conditions to define the maintenance intervals correctly. Make sure any defect detected during the maintenance is promptly rectified before using the machine.

NOTICE

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

At every use of the work platform

1 Check the efficiency of the safety systems installed (see the section "Safety Devices" in this manual).
2 Remove any material from the grilled floor to avoid blocks of the extending parts of the work platform.
3 Make a visual check of the structure, paying particular attention to signs of corrosion and structural welds.

During the first 10 operating hours

1 Check if there are oil leaks.
2 Check the tightening of all bolts and nuts.

Maintenance

MAINTENANCE INTERVENTIONS

Every 50 operating hours or weekly

1 Do a visual check on the structure paying special attention to signs of corrosion, welds and those parts supporting the load.
2 Check the mechanical, hydraulic and electrical systems as indicated in the handler's manual.
3 Grease all moving parts.

NOTICE

The intervals and the duration of the periodic checks and tests can be subject to local or national regulations.
Do the necessary checks before using the work platform.

Every 5 years

5 years after the machine (handler and aerial work platform) has been placed into service, it is necessary to inspect the structure, paying special attention to the welds on the load-bearing joints and the pins on the telescopic boom and work platform.

WARNING

Before using the work platform:

- ***ensure all bolts and nuts are properly tightened***
- ***check the couplings for oil leaks***
- ***check the hydraulic system***
- ***check the electric system.***

DANGER

All maintenance interventions shall be carried out with working implements on the ground. When, for maintenance purposes, a component shall be lifted, secure it in a safe and stable way, before carrying out any operation.
Any intervention on the hydraulic circuit must compulsorily be carried out by skilled personnel.

PROTECT THE ENVIRONMENT

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

Maintenance

■ GREASING

CAUTION

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  represents the points to be greased by a brush.

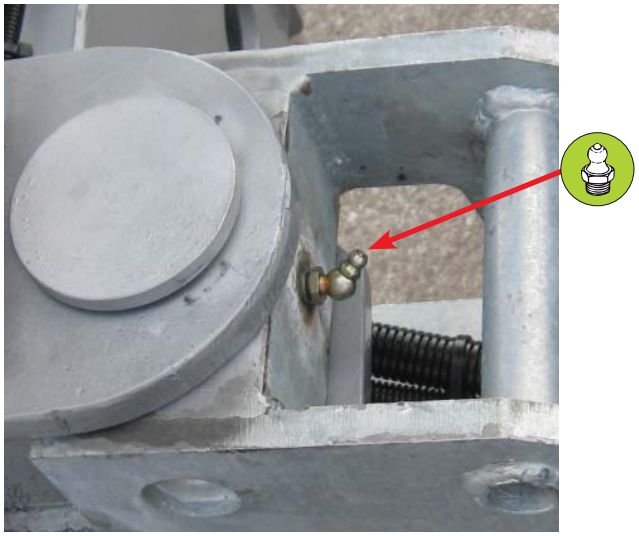
CAUTION

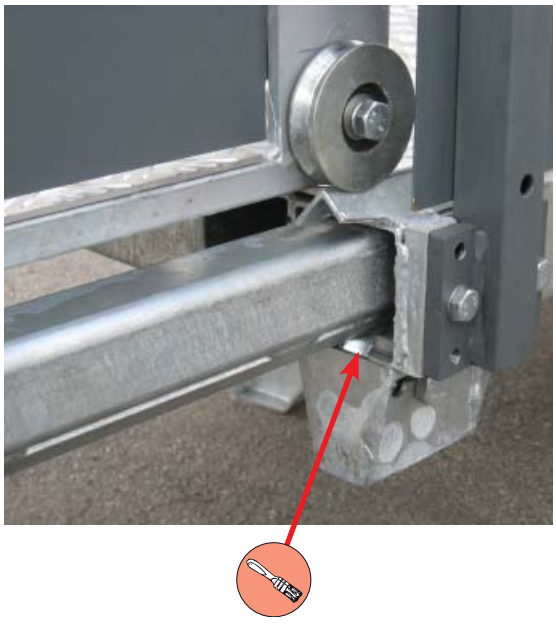
For the machine greasing, use SHELL lithium-based grease, type SUPER GREASE EP when greasing by pump and AGIP graphitised grease, type GR NG 3, when greasing by brush.

WARNING

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

Weekly grease the points shown in figures here below:





SERVICE INTERVAL

Running-in	**None**
Ordinary	**Every 40 hours**

Maintenance

CHEKING THE SAFETY DEVICES

Checking the work platform LOAD CELLS
(at every use)

The function of this devices is to detect the load that is on the work platform

- Load a known weight on to the work platform corresponding to the maximum admissible load plus 20%;
- Ensure the system alarm warns of the overload state and all the movements of the work platform are blocked until the 20% weight in excess is removed.

Checking the STABILITY CONTROL SYSTEM
(at every use)

At the telehandler start-up, the moment limiting system runs an automatic check. In the case of troubles, the red led will come on and the buzzer will sound to warn of the error. The telehandler will enter the alarm mode and no operation will be allowed.
To check the system manually, proceed as follows:

- Set the telehandler on wheels.
- Load a weight of 1000 kg.
- Raise the boom about 30 cm above the ground.
- Extend the telescope and check if the system enters the alarm mode once reached the distance indicated in the load charts for the attachment fitted to the machine.
- If the system does not enter the alarm mode, contact the TEREX Global GmbH Technical Service.

Checking the control lever ENABLING PUSH BUTTON
(at every use)

This pushbutton has to be pressed and hold down for the whole duration of the control. If the button is released, the action stops. It is used to avoid any accidental movement.
To check its efficiency

- attempt a movement without pressing this button down: the movement must be disabled. Should that not be the case, contact the TEREX GLOBAL GMBH Technical Service.

Checking the attachment locking MICRO-SWITCHES
(at every use)

They are placed on the work platform attach to test its correct connection to the handler on both sides (the locking pin that fix the work platform to the handler has to be completely inserted).
To check their efficiency

- attempt to move the work platform without coupling it to the handler: it shall remain blocked; should this not be the case, check the micro-switches for damage and replace if necessary.

Checking the EMERGENCY PUMP BUTTON
(at every use)

the pressure of this button activates the electric pump used for emergency manoeuvres. When the button is released, the pump is deactivated**.**
To check its efficiency:

- after pressing down the emergency stop pushbutton, press down the emergency pump button and holding it down check that the required control is operated by the joystick.

Maintenance

Checking the EMERGENCY STOP PUSHBUTTON

(at every use)

When pressed down the machine engine switch off and all the movements of the work platform are stopped. Before starting work again, find and rectify the causes which compelled to an emergency stop, then reset the button to neutral position pressing it down while turning clockwise.

To check its efficiency:

- press it down during a movement: the pressure of the pushbutton shall cause the movement to stop and the engine to switch off.

Checking the blocking valve on the work PLATFORM ROTATION ACTUATOR for 3P/700 REM 4400 (at every use)

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

- position the work platform some centimetres above the ground with the boom fully withdrawn
- Push the work platform by hand and attempt to rotate it with the assistance of a second person. The work platform must not move. Should that not be the case, change the valve.

Maintenance

DANGER

Take all the necessary precautions while checking the efficiency of the valve:

- ***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-authorized people away***
- ***During the check proceed with extreme caution.***

NOTICE

Also check the blocking valves of the handler to which the work platform is coupled as per Operator 's Handbook instructions.

■ **Checking the outrigger micro-switches**
(at every use of the work platform)

To check the efficiency of the outrigger micro-switches, proceed as follows:

- lower the outriggers leaving one of them raised.
- Couple the work platform to the handler and plug in the special power plug on the boom.
- Switch the Road/Jobsite/Work platform switch to Platform.
- Operate the platform controls and ensure they do not move.

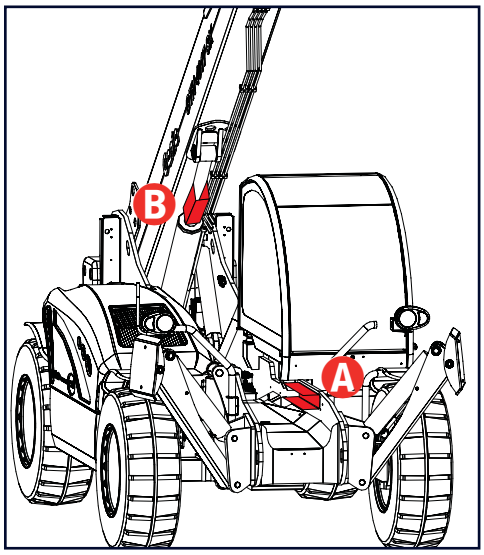
NOTICE

If the micro-switch is faulty or the lever is deformed, immediately replace the defective part.

DANGER

Always use the lock ring of the lift cylinder (see picture below), when carrying out maintenance on the work platform 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.



It is forbidden to pass or stop in the area beneath the work platform if the lock ring has not been installed on the lift cylinder.

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

The work platform is an man-platform coupled to an handler. A defective handler may affect the proper functioning of the work platform. For this reason, it is recommended to read the handler manual for all faults which are not listed below.

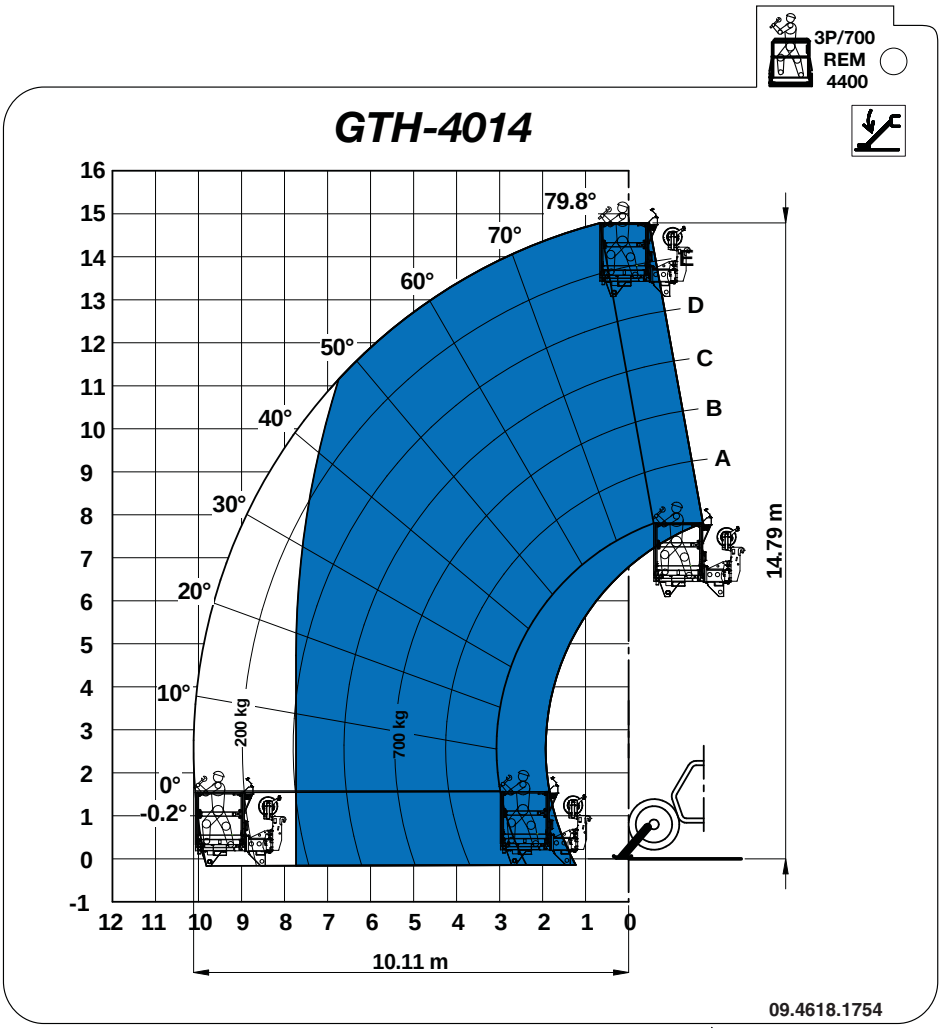
PROBLEM	CAUSES	SOLUTIONS
THE WORK PLATFORM CONTROLS DO NOT FUNCTION	• Work platform power cable is not connected to the handler	• Connect the power cable to the handler boom
	• Road/Jobsite/Platform selector is set to "Jobsite" or "Road" control	• Set the switch to "Platform" control
	• Switching procedure from handler to platform incorrect	• Switch again the controls from the handler to the platform
THE OVERLOAD WARNING SYSTEM IS IN ALARM	• Overload of the work platform	• Remove any load in excess from the work platform. Take note of the payload limits of the machine to which the work platform is coupled
THE OVERLOAD WARNING SYSTEM IS IN ALARM EVEN IF THE EMBARKED LOAD IS LESS THAN THE MAX ADMISSIBLE	• One of more load cells can be defective	• Replace the defective load cell

NOTICE

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

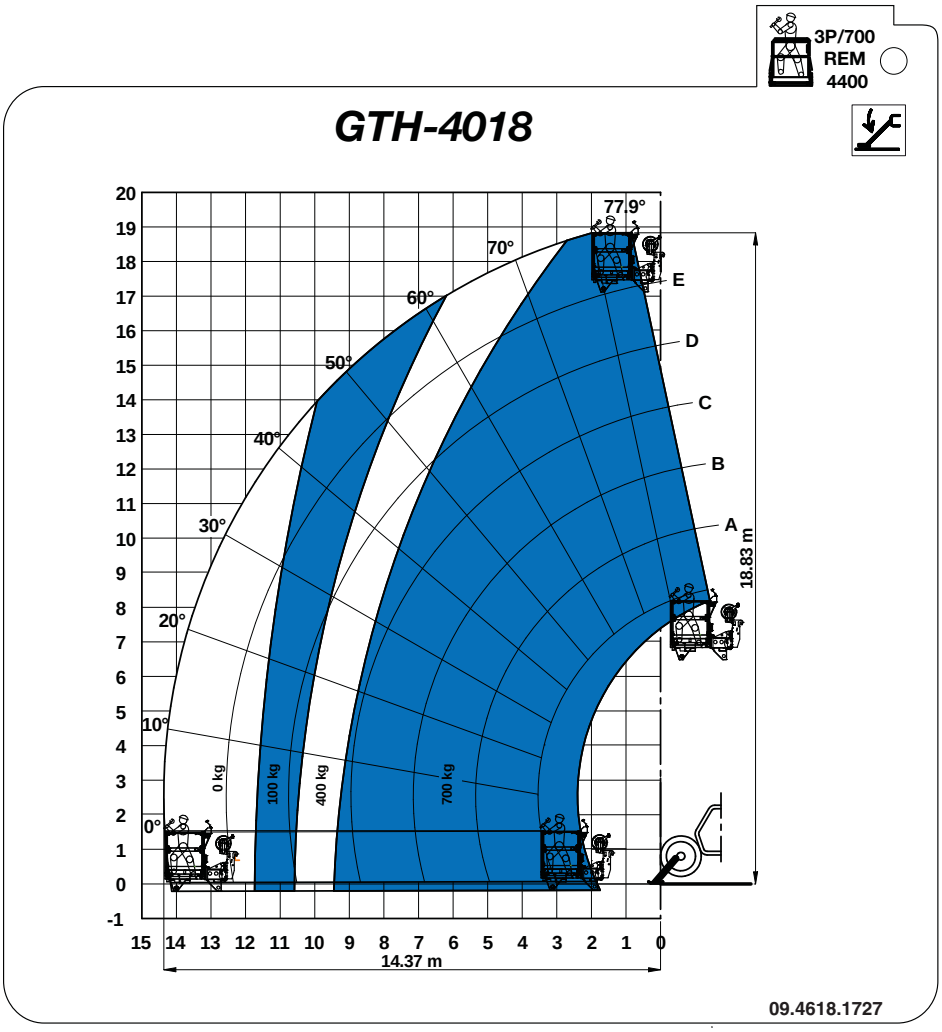
Load Charts

3P-700 REM 4400 COUPLED TO GTH-4014



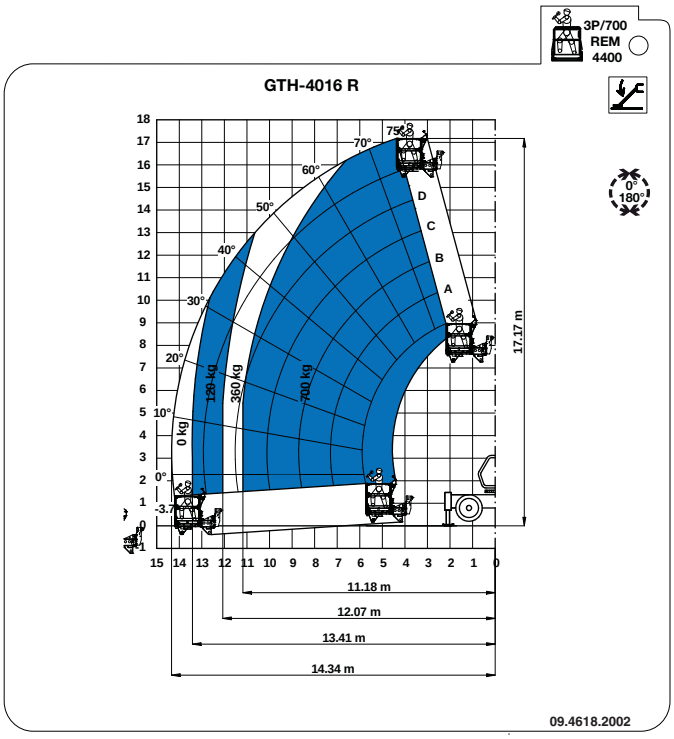
Load Charts

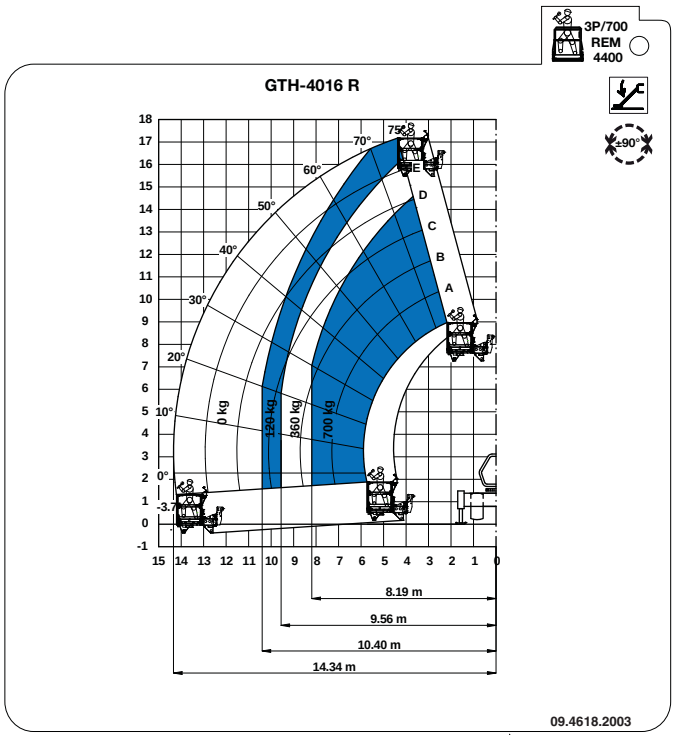
3P-700 REM 4400 COUPLED TO GTH-4018



Load Charts

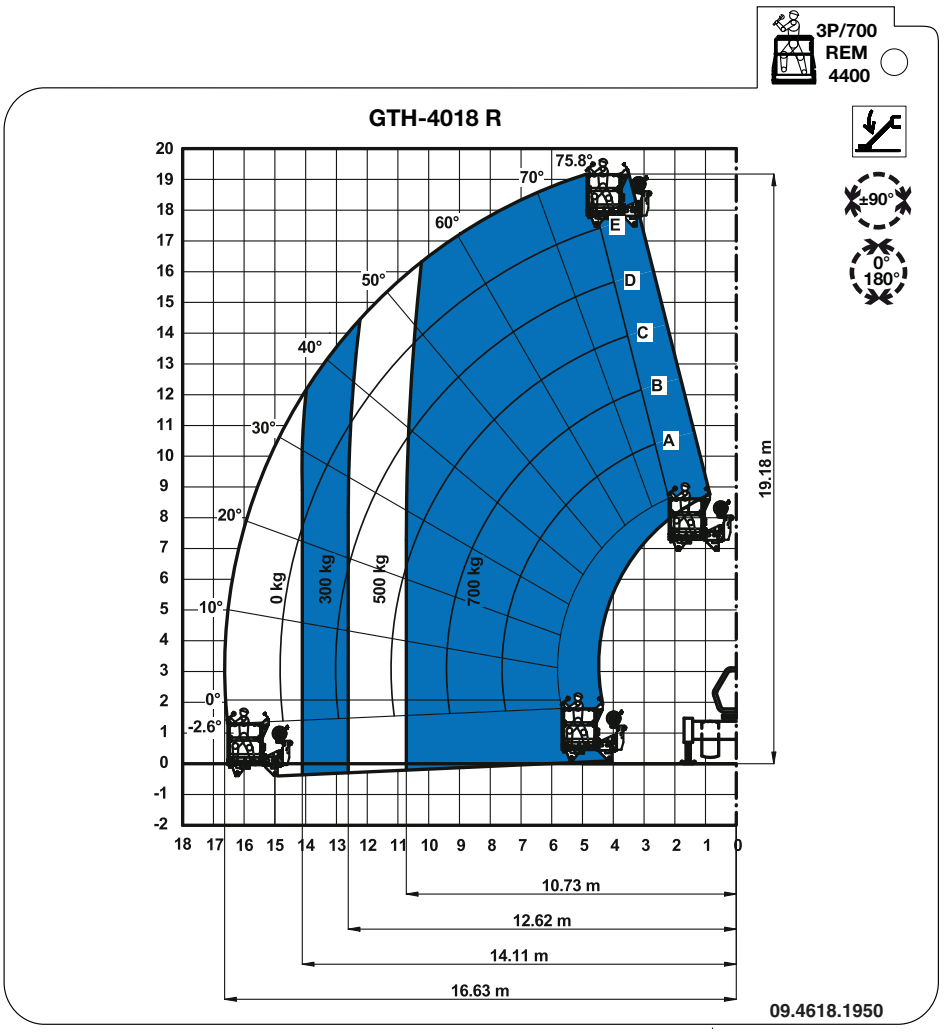
3P-700 REM 4400 COUPLED TO GTH-4016 R





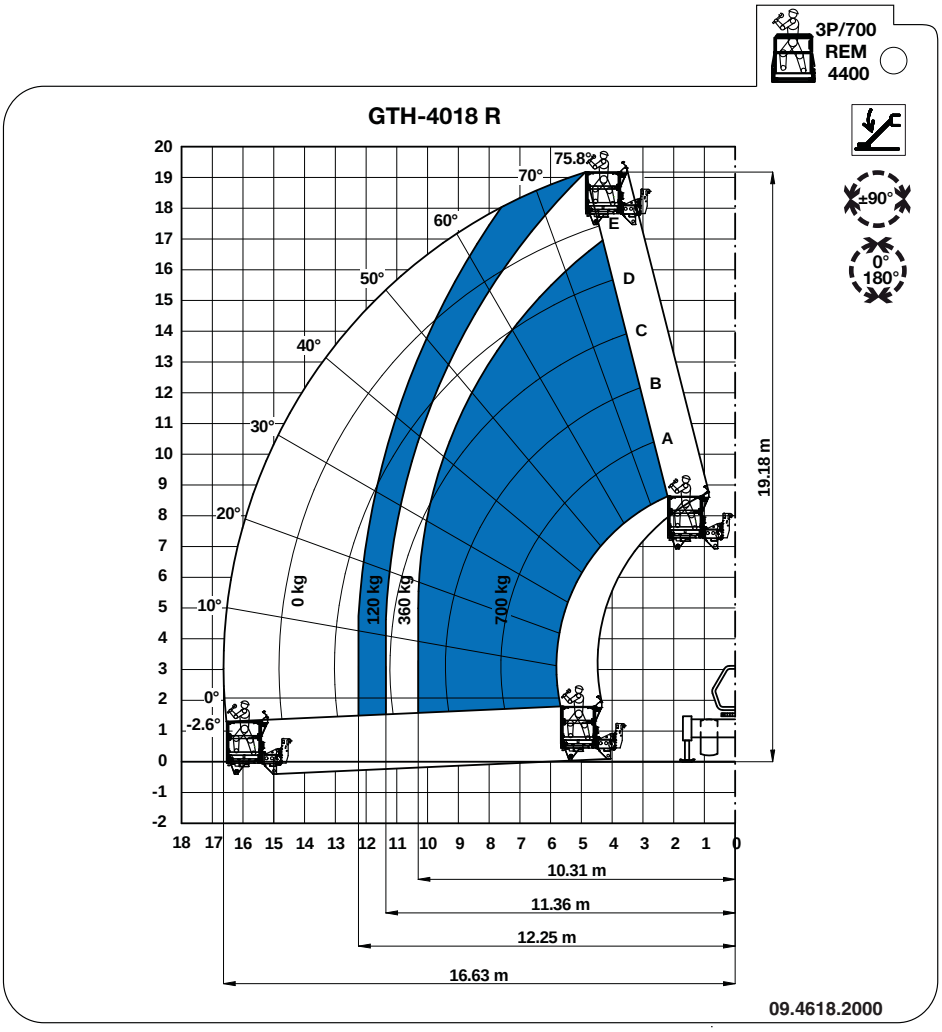
Load Charts

■ **3P-700 REM 4400 COUPLED TO GTH-4018 R**
(only for machine serial number GTH4018R15M-101/102/103/104)



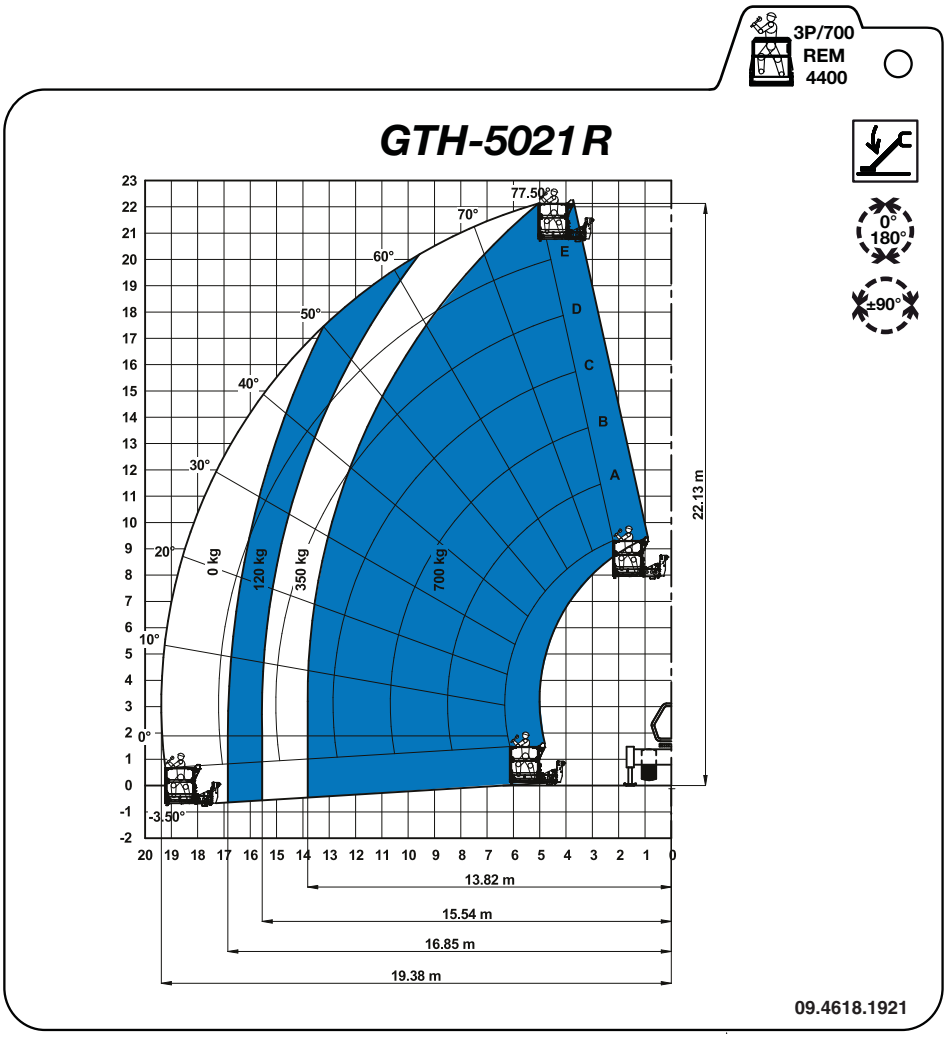
Load Charts

■ 3P-700 REM 4400 COUPLED TO GTH-4018 R



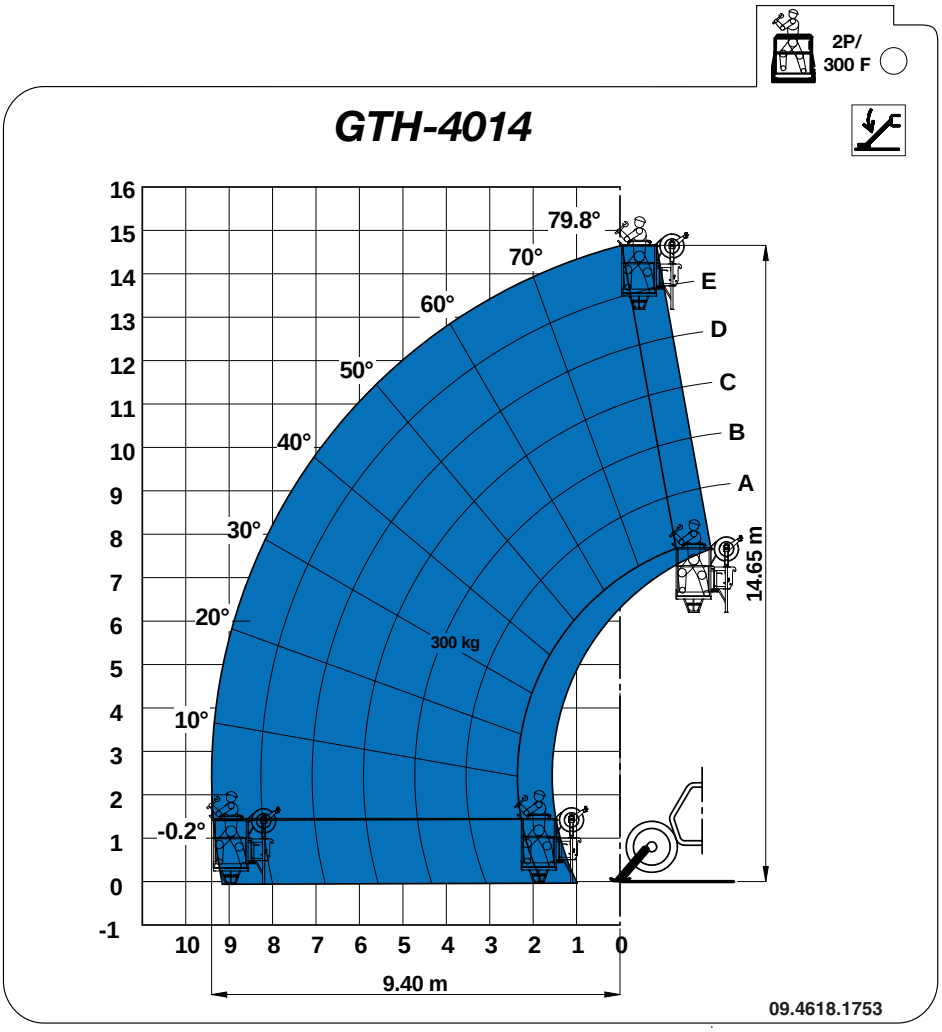
Load Charts

3P-700 REM 4400 COUPLED TO GTH-5021 R



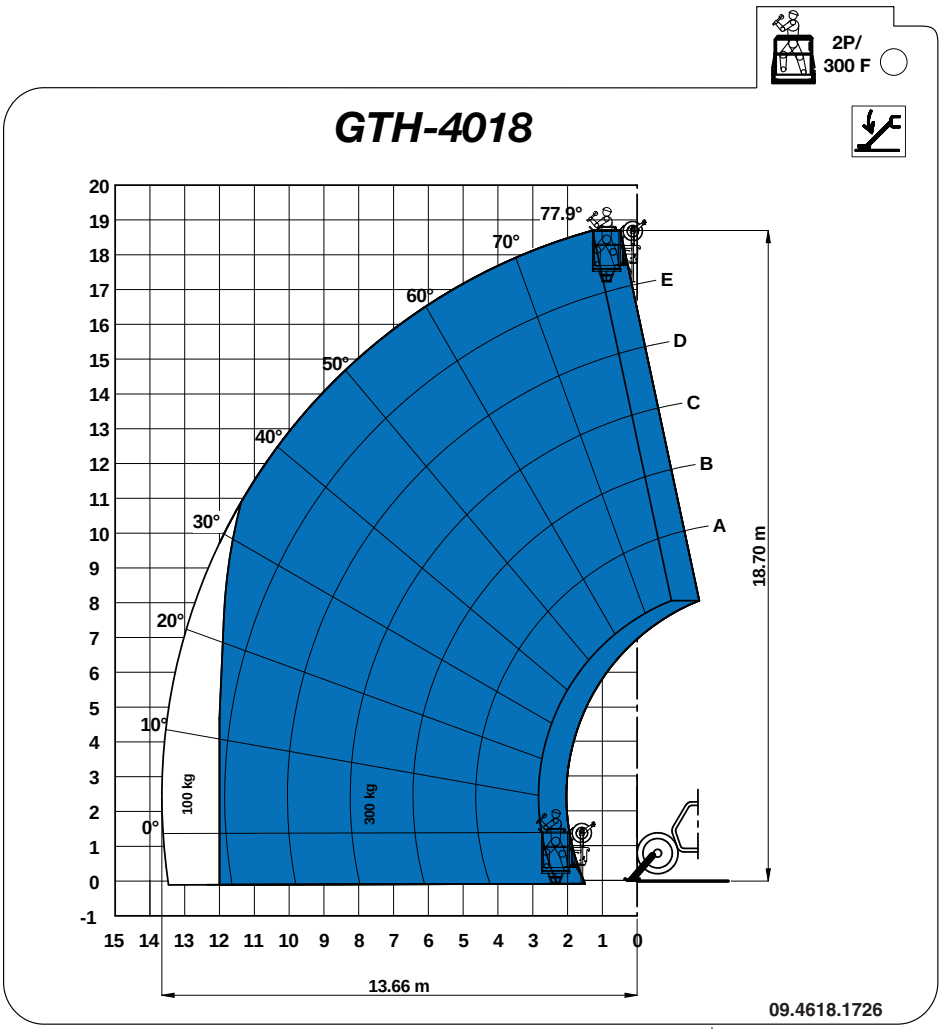
Load Charts

2P/300 F COUPLED TO GTH-4014



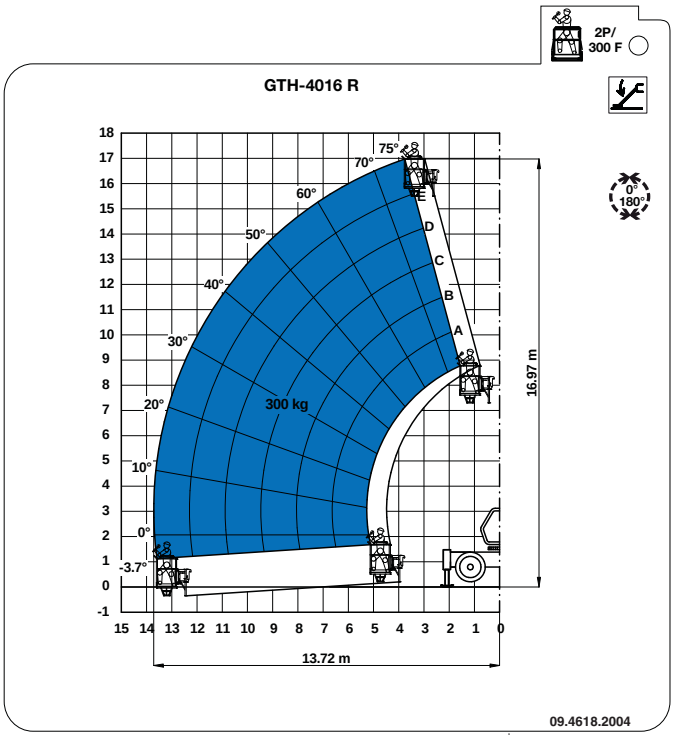
Load Charts

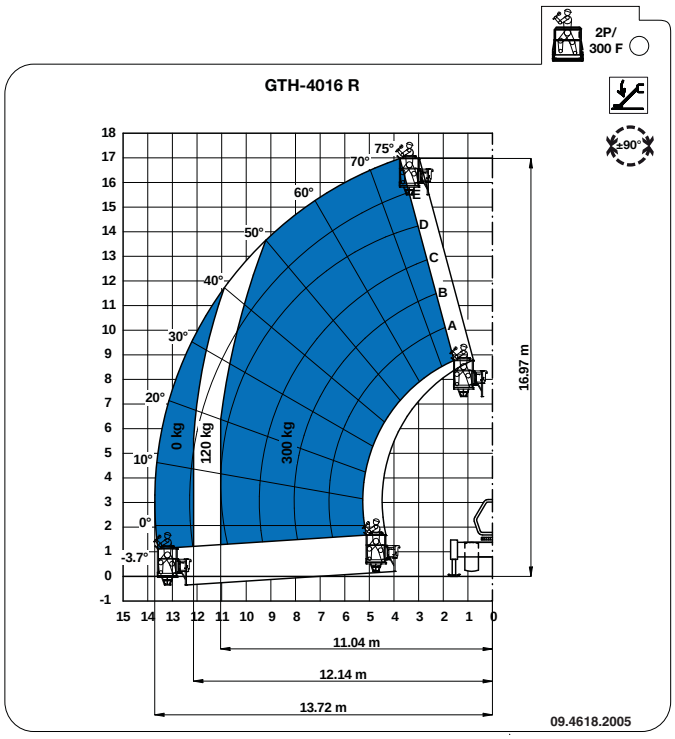
■ 2P/300 F COUPLED TO GTH-4018



Load Charts

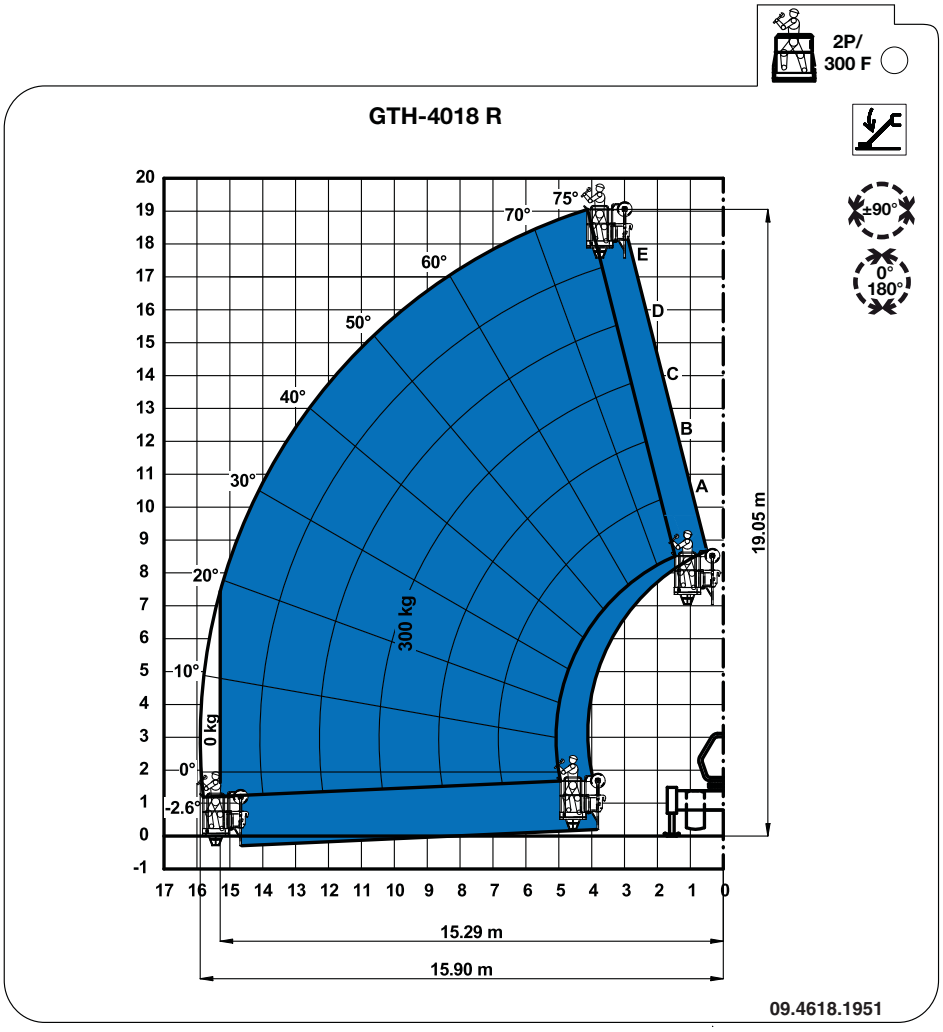
2P/300 F COUPLED TO GTH-4016 R





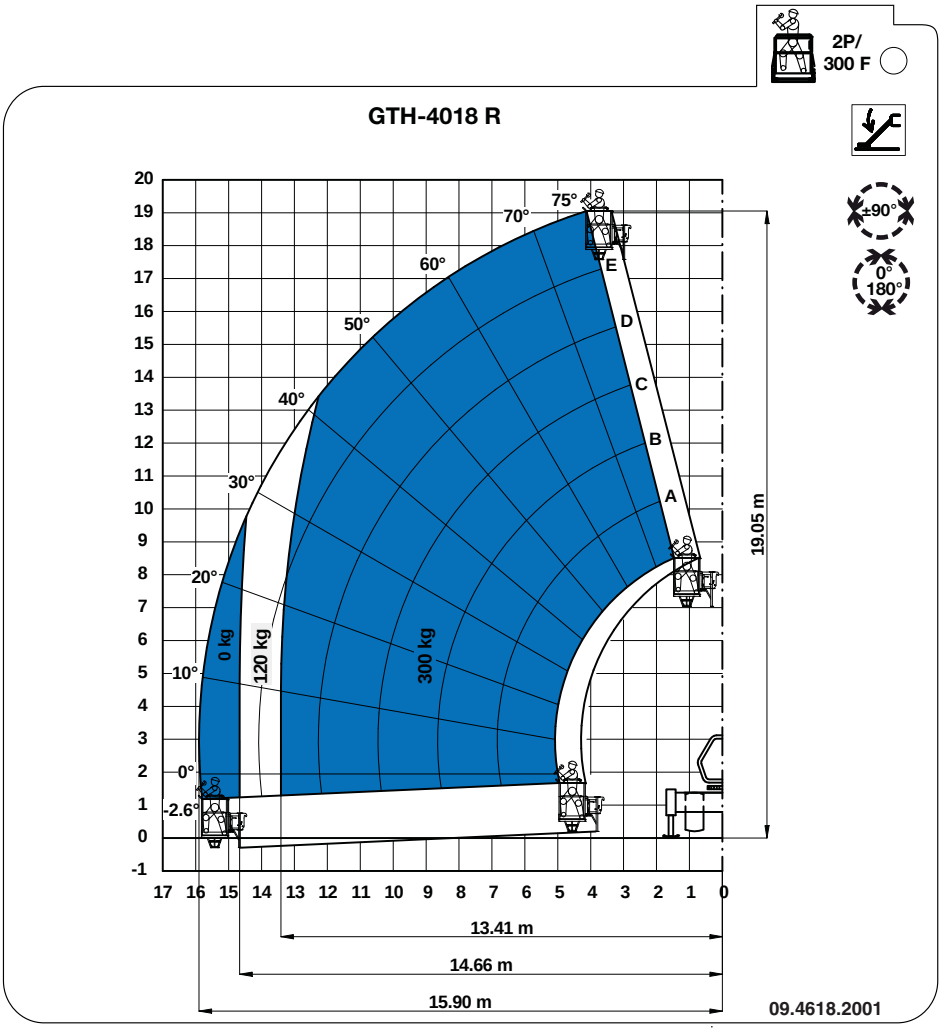
Load Charts

2P/300 F COUPLED TO GTH-4018 R
(only for machine serial number GTH4018R15M-101/102/103/104)



Load Charts

2P/300 F COUPLED TO GTH-4018 R



Load Charts

2P/300 F COUPLED TO GTH-5021 R

