



TEREX®

SHOP MANUAL

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Light Capability Rough Terrain Forklift (LRTF)

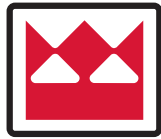
TX 51-19MD

CONTRACT NO. M67854-10-D-5074



From serial n. **657769**
To serial n. **xxxxxx**

PCN 500 091352 00



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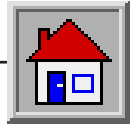
DEALER'S OR ASSISTANCE STAMP

Shop Manual **57.4400.9204**

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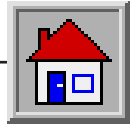
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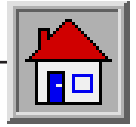
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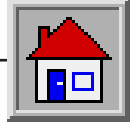


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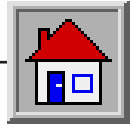


SECTION 1 INTRODUCTION

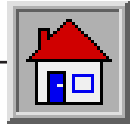


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1.0 INTRODUCTION

Owners, Users, and Operators:

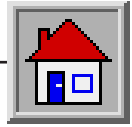
Terex appreciates your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you as the equipment users and operators:

1. **Comply** with OSHA, Federal, State, and Local Regulations.
2. **Read, Understand, and Follow** the instructions in this and other manuals supplied with this machine.
3. **Use Good, Safe Work Practices** in a common sense way.
4. **Only have trained operators** – directed by informed and knowledgeable supervision – running the machine.

NOTE: OSHA prohibits the alteration or modification of this machine without written manufacturers approval. Use only factory approved parts to service or repair this unit.

If there is anything in this manual that is not clear or which you believe should be added, please send your comments to Manager of Publication, Terex, 202 Raleigh Street, Wilmington, North Carolina 28412; or contact us by telephone at (910) 395-8500.

Thank you!



1.1 SYMBOLS

When using the machine, operators could face some situations requiring special care and particular knowledge.

When these situations involve the safety of operators or bystanders, the machine efficiency and proper utilization, this manual stresses these specific instructions by means of SPECIAL SYMBOLS. There are special (or safety) symbols in this manual, always combined with keywords, which class the situations according to their danger degree. The symbols are always followed by a text explaining the situation taken into account, the attention that must be paid to such situation, the method and the behavior, which should be adopted. When necessary, it stresses prohibitions or supplies instructions to prevent dangers. Sometimes, it can be followed by illustrations.

Listed below are special (or safety) symbols according to the relative seriousness of the hazard situation:



DANGER – Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.




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



CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



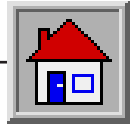
ATTENTION – Indicates a situation which, if not avoided, may result in property or equipment damage.

	<p>THIS SYMBOL MEANS YOUR SAFETY IS INVOLVED! READ, UNDERSTAND, AND FOLLOW ALL DANGER, WARNING, AND CAUTION DECALS ON YOUR MACHINE.</p>
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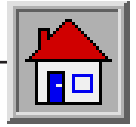
SECTION 2

SAFETY RULES

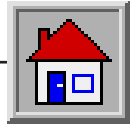


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2.0 SAFETY RULES

2.1 GENERAL

Most accidents, which occur while working, repairing or maintaining machines, are caused by not complying with the basic safety precautions. Therefore, it is necessary to pay attention to the potential hazards and the effects, which may come of operations carried out on the machine.

If you recognize hazardous situations, you can prevent accidents!

For instance, this handbook list special safety symbols to stress any potentially hazardous situation.

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

If in doubt, it is always better to ask! For this purpose, contact Terex the assistance service is at you disposal. Addresses, phone and fax numbers are given in the title page of this manual.

ATTENTION

Machine must be used, operated and maintain in compliance with ASME B56.6 Standards.

2.2 OPERATORS MAINTENANCE STAFF RESPONSIBILITIES

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

- Make sure the machine is in proper order and all warning signals are functional before operating.
- Before and during any operation, operators shall never consume alcoholic beverages, medicines or other substances, which may alter their psychophysical conditions and, consequently, their working abilities.
- Never lift a load without a Rating Chart in the cab.

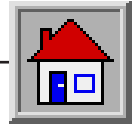
- Good eyesight, acute hearing, good coordination and ability to carry out all required operations in a safe way, according to the instructions of this manual.
- Ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as other's safety and shall desire to carry out the work correctly and in a responsible way.
- They shall keep calm and always be able to evaluate their own physical and mental conditions.
- Read and understand the operators' manual, its enclosed graphs and diagrams, the identification and hazard warning decals. The operator should be skilled and trained about the machine use.
- The operator might be required to have a license (or a driving license) when provided for by the laws enforced in the country where the machine works.

WARNING

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

2.3 CLOTHING

Your clothing should be relatively close fitting. Loose jackets, shirt sleeves, rings, and other jewelry should be avoided because of the danger of catching them in moving parts or on controls.



2.4 PERSONAL EQUIPMENT



Use only approved personal protective equipment in good condition.

Always wear required protective items such as hard hats, safety glasses, reflective clothing, safety shoes, and ear protection as required.

2.5 SAFETY PRECAUTIONS

JOB SITE

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

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



Pay the greatest attention to overhead electric lines. Always keep at a minimum a safe distance of at least 20 feet from the telescopic boom and the lifted load. Electrical Hazards!

- When assembling the machine or part of it on site, you need a well-equipped area of suitable dimensions. The surface shall be even, compact and stable.
- 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.

2.6 GETTING READY TO WORK

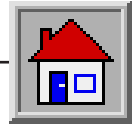
Before any operation, the following precautions should be taken:

- First of all, make sure that all maintenance has been carried out with care according to the established schedule.
- Ensure you have enough fuel to avoid a sudden stop of the engine, especially during a crucial maneuver.
- Clean instruments, data plates, lights and the cab windshield 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 supervisor at once. Never start working under unsafe conditions.

2.7 DURING WORK OR MAINTENANCE

During work, and especially maintenance, always pay attention:

- Do not pass 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.
- Do not get into or off the machine while it is running.
- Do not leave the operators seat when the machine is running.
- Neither stop nor carry out repairs 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 repairs on electric components with voltage over 48V.
- Do not connect wet plugs or sockets.
- Plates and hazard warning stickers shall never be removed, hidden or become unreadable.



- Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again.
- Before any maintenance or repair work, stop the engine and disconnect the batteries.
- Do not lubricate, clean or adjust moving parts.
- Do not carry out operations manually when specific tools are provided for this purpose.
- Absolutely avoid the use of tools in bad conditions or in an improper way i.e. pliers instead of adjustable wrenches, etc.
- Before carrying out operations on hydraulic lines under pressure or disconnecting hydraulic components, ensure the relevant line has been previously depressurized and does not contain any hot fluid.



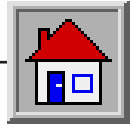
Any repairs made on the hydraulic circuit must be carried out by authorized personnel. The hydraulic circuit of this machine is fitted with pressure accumulators. You and others could be seriously injured if accumulators are not completely depressurized. For this purpose, shut the engine down and step on the brake pedal 8-10 times. Operate the steering wheel and joystick several times until the wheels stop turning with the machine engine off.

- Neither smoke or open flames in areas subject to fire dangers and in presence of fuel, oil or batteries.
- Do not leave fuel cans or bottles in unsuitable places.
- Do not empty catalytic mufflers or tanks containing burning substances without taking the necessary measures.
- Carefully handle all flammable or dangerous substances.
- Do not tamper with fire-extinguishers or pressure accumulators: explosion hazard!
- After any maintenance or repair work, make sure that no tool, cloth or other object has been left within machine compartments, fitted with moving parts, or where suction and cooling air circulates.
- When working, do not have more than one person giving instructions to the operator. Instructions and signals must be given by one person only.
- Always follow the instructions given by the supervisor.
- Never distract the operator during working phases of a crucial maneuver.
- After working, never leave the machine under potentially dangerous conditions.
- **The relief valves are factory preset. Adjusting the relief valve in the field will void machine warranty. Valves must be set only by trained personnel.**



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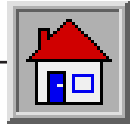


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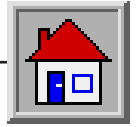


SECTION 3 GENERAL INFORMATION AND SPECIFICATIONS

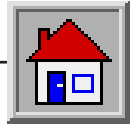


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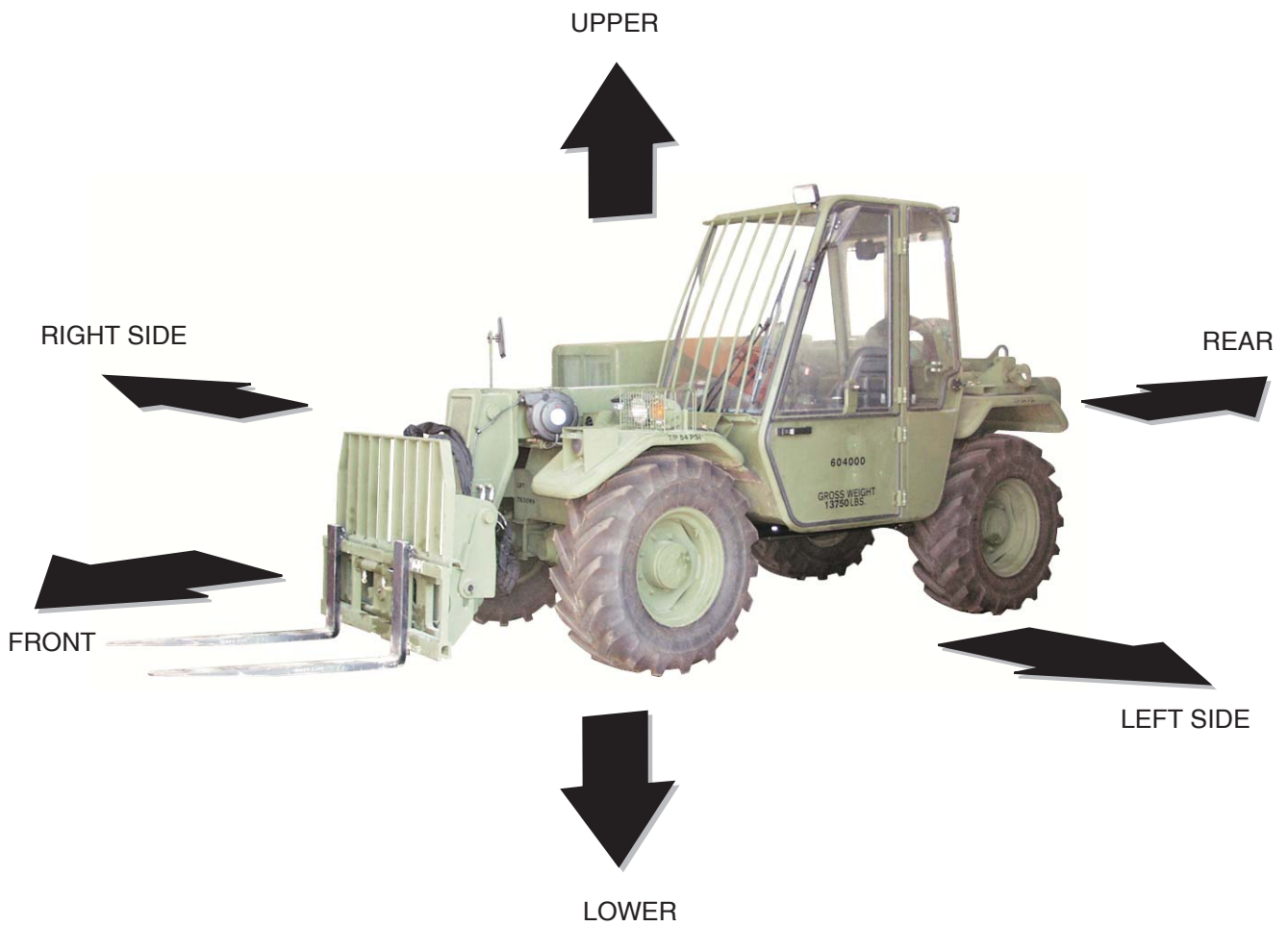
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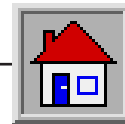


3.0 MACHINE REFERENCES

3.1 MACHINE POSITION

Any reference to the machine position will always be as if the operators is seating in the operator's seat, unless other wise specified.





3.2 LABELS AND WARNING DECALS

The labels and warning decals normally applied on standard machines or which can be found when special attachments are coupled to the machine are shown below.



Read and understand all decals on this machine. Make sure they are easy to read. For this purpose, clean them or replace those that become unreadable (either graphic or text). To clean labels, use a soft cloth, water and soap. Never use solvents, petrol, etc. When a label is applied on a part being replaced, make sure that the replaced part is already labeled as required or apply a new label.

WARNING

Your safety and the safety of those around you depends on your using care and judgement in the operation of this equipment. Know the positions and functions of all controls before attempting to operate. All equipment has limitations. Understand the speed, braking, steering and load characteristics of the machine before starting to operate. Read the Operator's Manual and ask questions of your supervisor until you know the limitation.

Do not operate TEREXLIFT TELEHANDLER while people and property are within a 50 foot (15.24 M) minimum radius. Falling objects from the forks or attachment can cause serious injury or property damage. The 50 foot (15.24 M) minimum radius should be used as a guideline and should be enlarged if warranted by working conditions.

Always remain completely within canopy enclosure while operating machine. Falling debris can cause serious personal injury.

Never extend a load beyond the load chart band. Machine turn over, component damage, injury or death could occur.

Absolutely no riders on machine or attachment.

Never lower a maximum load before retracting it. Machine turn over, component damage, injury or death could occur.

Always wear the seat belt when operating the machine.

Always inspect the machine daily. Check for missing guards and screens, loose bolts or anything out of the ordinary. Repair and/or replace immediately. Failure to do so can cause injury or death.

Do not travel on terrain or in dangerous areas that may cause the machine to tip over.

Carry a load so that you have maximum machine stability.

Always level the machine as indicated on the gauge before raising the boom. Raising the boom with an unlevel machine may cause the machine to overturn causing injury or death.

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