

USER MANUAL AND MAINTENANCE



TRANSPORT CART

Part No. 0654/06L-0654/09L-0654/12L



ORIGINAL INSTRUCTIONS

INTRODUCTION



Read this manual before performing any operations

ORIGINAL INSTRUCTIONS

Before performing any operational tasks, you must read this instruction manual. Ensuring the machine's proper operation and full performance compliance depends strictly on following all the instructions contained in this manual.



Operator Qualifications

Workers assigned to operate this machine must have all necessary information and instructions and must receive adequate training and instruction regarding safety in relation to:

- a) The conditions of use of the equipment;
 - b) Foreseeable abnormal situations;
- in accordance with Article 73 of Legislative Decree 81/08.

The machine is guaranteed to comply with the specifications and technical instructions described in the Manual as of the date of its issuance, as indicated on this page; however, the machine may undergo significant technical modifications in the future without the Manual being updated.

Therefore, please consult FERV I to be informed of any changes that may have been implemented.

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1. INTRODUCTION

This manual is considered an integral part of the machine and must be included with it at the time of purchase.

The manufacturer retains all material and intellectual property rights to this publication and prohibits its disclosure or reproduction, even in part, without prior written consent.

The purpose of this manual is to provide the essential information for the use and maintenance of the **transport cart** and to foster a sense of responsibility and an understanding of the capabilities and limitations of the equipment entrusted to the operator.

Operators must be adequately trained and prepared; therefore, ensure that this manual is read and consulted by the personnel responsible for commissioning, operating, and maintaining the machine. This is to ensure that all operations performed by those carrying out these tasks are as safe and effective as possible. It is therefore mandatory to strictly adhere to the instructions in this manual, which is a necessary condition for the safe and satisfactory operation of the Transport Cart.

Before beginning installation and operation of the machine, authorized personnel must therefore:

- carefully read this technical documentation;
- be familiar with the guards and safety devices available on the forklift, their locations, and how they operate.

It is the purchaser's responsibility to ensure that operators are sufficiently trained—that is, that they are familiar with all the information and requirements contained in this documentation and are aware of the potential risks involved in operating the forklift.

The manufacturer disclaims all liability for any injury to persons and/or damage to property caused by failure to comply with the instructions in this manual.

Any modifications made to the machine by the user are the user's sole responsibility; therefore, the manufacturer disclaims all liability for any damage to persons and/or property resulting from maintenance performed by unqualified personnel or in a manner inconsistent with the operating procedures outlined below.

The **transport cart** has been designed and built with mechanical guards and safety devices intended to protect the operator/user from potential physical injury.

It is strictly prohibited to modify or remove the guards, safety devices, and warning labels. If you must do so temporarily (for example, for cleaning or repair purposes), ensure that no one can operate the machine.



Graphic Format of Safety Warnings, Operating Instructions, and Hazard Notices

The following boxes are intended to draw the reader's/user's attention to ensure the **correct** and **safe** use of the machine:



Caution

Highlights behavioral guidelines to follow in order to prevent damage to the machine and/or the occurrence of hazardous situations.



Residual risks

Highlights the presence of hazards that pose residual risks, which the operator must be aware of to prevent injuries or property damage.

2. GENERAL SAFETY WARNINGS

2.1 Safety Guidelines

Even if you are already familiar with **the transport cart**, you must carefully read this manual to gain a full understanding of the machine and the general precautions to be observed while working.



Risks Associated with Using the Machine

- Despite the inclusion of all safety devices designed to ensure safe operation of the machine, you must take note of all accident prevention guidelines outlined in the various sections of this manual.
- The machine must be operated only by qualified personnel who have been trained in its use by authorized personnel



Always read the instruction manual

Anyone assigned to operate or maintain the machine must first read the instruction manual, particularly the chapter on safety instructions.

- Use the transport cart exclusively for transporting properly palletized loads.
- Before beginning transport, ensure that the cart is in good condition.
- Use the cart only on flat, even surfaces.
- Do not exceed the machine's design specifications, **particularly regarding the maximum load capacity**. In other words, do not overload the cart beyond its rated capacity.
- Do not travel at speeds exceeding 2 km/h during transport.
- Do not use the cart to transport loads on slopes, as it is not equipped with a brake!!
- It is recommended that anyone using this manual for maintenance and repair have a basic understanding of mechanical principles and repair procedures.
- Replace worn or damaged parts, and check that guards and safety devices are functioning properly before operating the cart.
- Ensure that children and unauthorized persons are kept away from your work area.

2.2 Technical Support

For any issues or questions, do not hesitate to contact the customer service department of the dealer from whom you purchased the item, which has qualified staff and genuine replacement parts.

2.3 Additional Guidelines

The first thing to do when starting work is to check that all guards are present and intact and that the safety devices are functioning properly.

If you find any defects, do not use the transport cart!



3. INTENDED USE AND DESCRIPTION OF THE TRUCK

The **cart** is designed and built for the transport and handling of loads, particularly those of considerable mass.

It must be used on flat, even surfaces of adequate hardness and strength (capable of supporting the weight of the cart plus the maximum rated load).

Operating temperature range: -20 to +50°C .

The environment must also be sufficiently lit to ensure maximum safety during operation (at least 200 lux is recommended).

Other types of use, or the extension of use beyond what is intended, do not correspond to the manufacturer's intended use; therefore, the manufacturer cannot assume any liability for any resulting damage.

3.1 Main Parts



Figure1 – Overview

1 Support Structure

2 Rotating turntable

3 Front wheels

4 Rear rollers

5 Tow eye

The cart consists of (Figure1):

- an aluminum load-bearing frame (1) with a fixed front roller (3) and 8 to 16 swivel rear wheels (3), depending on the model;
- a central swivel hub (2) that serves as a load support and keeps the load stable during changes in direction;
- a tow arm to which a tow eye is attached, which in turn is connected to a suitable towing vehicle (forklift).

3.2 Safety Devices

The main safety device on the machine consists of the rubber load-supporting surfaces (Figure2), designed to prevent the load from slipping or accidentally falling during handling operations



Figure2 – Load support surface.

3.3 Personal Protective Equipment

When loading and operating the transport cart, it is necessary to wear appropriate work clothing; in particular, suitable PPE must be worn, such as:

1. Work coveralls
2. Protective gloves
3. Safety shoes.



Figure3 – Personal Protective Equipment.



3.4 Identification plate and pictograms

The identification plate (Figure4) is affixed to the drawbar beam.

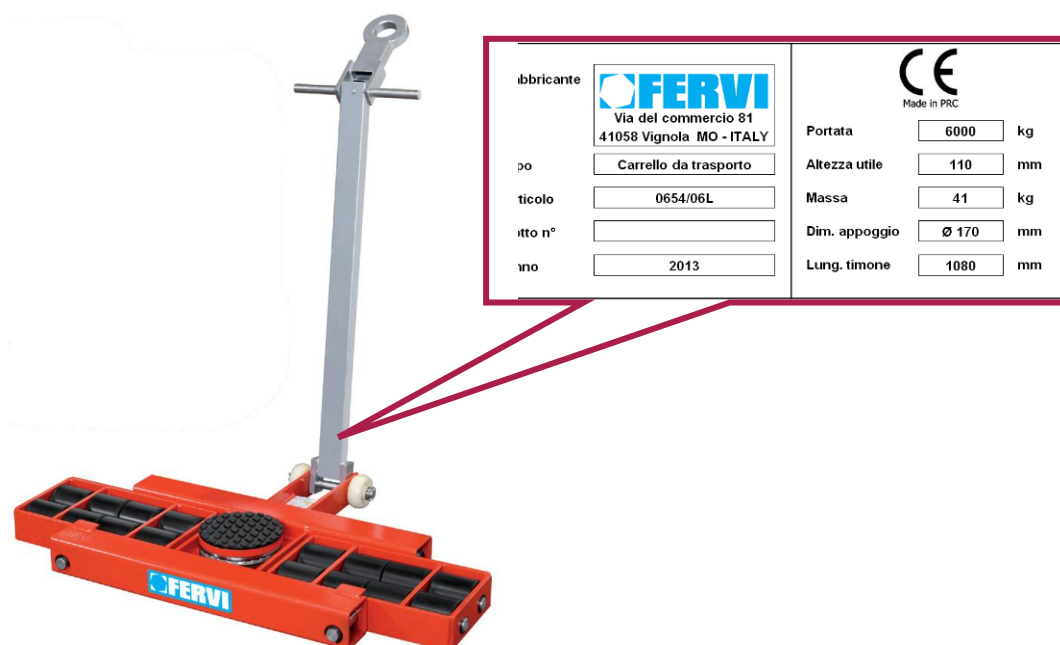


Figure4 - Identification plate.

3.4.1 Maximum rated load capacity

The nameplate indicates the **maximum rated load** that the truck can carry under standard conditions, that is, when:

- it is in good working order and well-maintained;
- it is operated within the temperature range, under the permitted environmental conditions, and on a flat, solid, and sturdy surface.

This maximum rated load capacity must not be exceeded under any circumstances!

4. TECHNICAL SPECIFICATIONS

Features	0654/06L	0654/09L	0654/12L
Capacity (kg)	6,000	9,000	12,000
Useful height (mm)	110	110	110
Roller dimensions (mm)	85x85	85x85	85x85
Number of wheels	8	12	16
Footprint dimensions (mm)	Ø170	Ø170	Ø170
Drawbar length (mm)	1080	1080	1080
Turning angle (°)	± 90	± 90	± 90
Overall dimensions (mm)	610x520	840x583	1030x620
Weight (kg)	41	59	80

5. IMPROPER USE AND CONTRAINDICATIONS

The following actions, which obviously cannot cover the entire range of potential “misuses” of the machine, are **strictly prohibited**.



IT IS STRICTLY PROHIBITED!

- Transporting people and/or animals, who could fall;
- Transporting loads while people are passing near the machine;
- Carrying loads heavier than the maximum rated capacity indicated on the nameplate;
- Transporting unbalanced loads, or loads that may change their static configuration and/or their center of gravity;
- Transporting “hazardous” loads (molten metals, acids, radioactive materials, fragile and/or brittle loads);
- Loading the truck on surfaces that are not perfectly flat and smooth and/or that lack sufficient strength to support the load (truck + maximum rated capacity);
- Using the cart in applications where there is a possibility of accidental movement of the load;
- Leaving the loaded cart unattended;
- Allowing untrained personnel to use the cart;
- Using the cart if you are not physically or mentally fit to do so;
- Use the cart without due care;
- Using the truck for purposes other than those for which it is designed;
- Using the cart in unanticipated environmental conditions (adverse weather conditions, refrigerators, strong magnetic fields, etc.);
- Using the cart in potentially explosive atmospheres;
- Using the cart in inadequately lit environments;
- Using the cart on ships at sea;
- Allowing the cart to come into contact with food.

6. TRANSPORTATION, LIFTING, AND MOVING

The machine’s relatively low weight and the presence of wheels allow for safe and convenient manual movement.

The operator must move the cart by grasping the designated handles located on the cart’s handlebar.



Figure5– Carrying handles.

Since there are no suitable lifting points to lift the cart safely, it may only be lifted using appropriate lifting equipment such as forklifts, cranes, or hoists.



7. COMMISSIONING

7.1 Instructions for Removing the Packaging

The cart is supplied in a cardboard box with the control handle disassembled.

Before discarding the cardboard packaging, make sure not to throw away any parts of the machine, the instruction manual, or other documentation.



Standard Packaging

Packaging materials (plastic bags, cardboard, etc.) must not be left within reach of children, as they pose a potential hazard.

7.2 Assembling the control handle

To install the cart's control handle, proceed as follows:

1. Insert the control handle into the slot provided on the machine for its mounting until the holes in the two parts are aligned.



Figure6– Inserting the handlebar.

2. Insert the locking pin until the wheel comes to rest against the cart's frame.

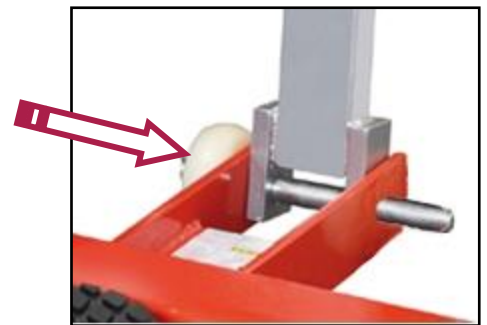


Figure7– Inserting the retaining pin.

3. Place the second wheel onto the pin and secure it using the appropriate Seeger ring.



Figure8– Securing the wheel.

4. Check that the rudder is properly secured and that the Seeger rings are correctly positioned in their seats.



Install the steering linkage correctly

Do not use the cart until you have properly installed the control handle, as described in this section.

8. USING THE T TRUCK



Handling Loads

Handling heavy loads poses a risk of body parts being crushed as a result of improper maneuvers.

Workers assigned to this task must be equipped with standard safety gear, particularly gloves and crush-resistant safety shoes.



Handling Loads

Workers responsible for handling loads must operate the forklift with caution, avoiding sudden maneuvers and exercising the utmost care.

In particular, they must maintain constant control over the forklift and the load during all movements.



Periods of Inactivity

After a period of inactivity, before resuming operation, carefully check that every component of the forklift is in good condition and does not pose a risk of failure.

8.1 Load Handling

Transport carts can be used individually to carry loads that can be securely positioned on them, or they can be used in pairs to transport particularly heavy and bulky loads.



Navigating Slopes

Exercise particular caution when navigating slopes, as transport carts are not equipped with a braking system.

The towing vehicles must be equipped with brakes capable of stopping the trolleys when fully loaded.

If the load is moved by hand, the ground must NOT be on a slope.



8.1.1 Moving a Load with a Single Cart

When moving a load using only one cart, the load must be positioned on the cart in such a way as to ensure sufficient stability to allow for safe handling. Oversized loads or loads that are not positioned correctly can cause the load to fall during handling, posing a serious danger to the operator and/or anyone in the vicinity of the maneuvering area.



Load Placement

Loads must be positioned on the pallet in a way that ensures their stability, even during emergency maneuvers.



Load Fall

A load that is not properly positioned on the forklift risks falling, seriously endangering the operator and/or anyone in the maneuvering area.

Regardless of the type of forklift used, the load must be arranged so that its center of gravity is perpendicular to the point of contact, thereby ensuring full stability.

8.1.2 Handling the Load with Two Carts

The transport carts **Art. 0654/..L** and **Art. 0654/..F** are essentially designed to be used together; in this configuration, **Art. 0654/..L** serves as the front axle; thanks to its swivel coupling, it allows for turns without creating a risk of the load shifting, while **Art. 0654/..F** serves as the rear axle, ensuring excellent stability during maneuvering even with extremely heavy and bulky loads.

The correct loading method using this configuration is shown in the figure below.

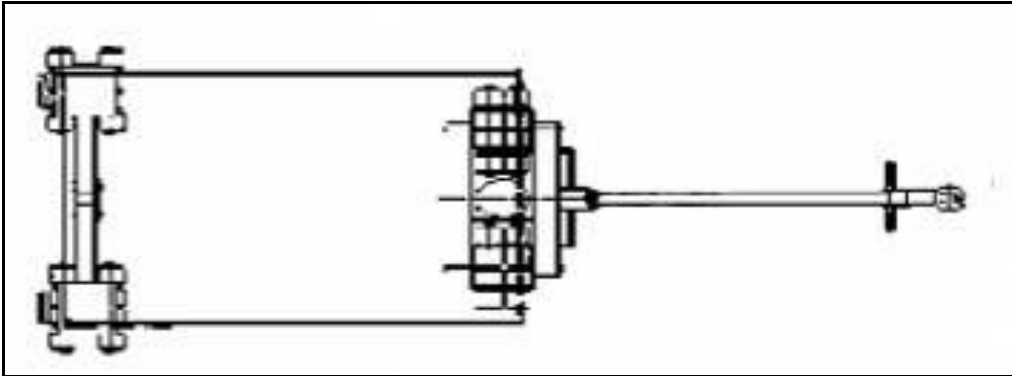


Figure9 – Correct load configuration.

With this loading configuration, it is essential to adjust the load supports of **Art. 0654/..F**; the supports must be positioned as far outward as possible, while ensuring they do not extend beyond the load's outline.

The fifth-wheel coupling of **Item 0654/..L** must be positioned exactly at the centerline of the load to prevent lateral imbalance during handling.



Load Drop

A load that is not properly positioned on the dolly risks falling, posing a serious danger to the operator and/or anyone in the maneuvering area.



9. MAINTENANCE

The purpose of this chapter is to provide all the maintenance schedules and procedures necessary to keep the **transport cart** in good working order.

Maintenance and repairs must be performed by qualified personnel.

9.1 Routine Maintenance

Task	Frequency		
	Daily	Weekly	Monthly
1. General visual inspection	X		
2. Check for legibility of nameplates	X		
3. General cleaning		X	
4. Wheel wear inspection			X

1. **General visual inspection:** Check the overall condition of the machine and look for any damaged or missing parts.
2. **Check label legibility:** The labels and pictograms on the machine must be perfectly legible; therefore, keep them clean and request replacement if they are illegible.
3. **General cleaning:** Cleaning is necessary to remove dust, dirt, and stains caused by excess lubricants from the structure and moving parts. Cleaning must be performed using methods, equipment, and detergents or solvents commonly used in the cleaning of industrial equipment.
4. **Checking wheel wear:** Checking the wear on the plastic wheels and replacing them as needed ensures safe use of the transport cart.

9.2 Replacing the Rollers

To replace worn cart rollers, proceed as follows:

1. Remove the Seeger retainer from the pin on which the rollers are mounted (Figure10)



Figure10 – Seeger retainer for wheel pins.

2. Remove the pin (Figure11) by pulling it out from the opposite side; if removal is difficult, you can tap the top of the pin with a hard plastic tool.



Figure11 – Removing the pin.

3. Remove the worn roller and replace it with a new one.



Figure12 – Removing the wheel.

4. Reassemble everything in reverse order, remembering to insert the appropriate spacer between each roller (Figure13).



Figure13 – Spacer.



Roller Assembly

Before using the cart, check that the rollers are installed correctly as described in this manual.



Spacers

Remember to insert the appropriate spacers between each roller or between the roller and the metal frame to prevent uncontrolled movement of the cart.



Worn Rollers

Using the cart with worn or damaged rollers could compromise the stability of the load, creating a serious hazard for the operator and/or anyone in the vicinity of the maneuvering area.

10. STORAGE IN A WAREHOUSE OR

If the machine must be stored for a certain period of time, proceed as follows to prevent damage and/or deterioration:

- Place the control handle of Item 0654/..L in the rest position, that is, facing the machine's rotating turntable (Figure14).



Figure14 – Rest position of the control tiller



Control Handle

When the machine is not in use, do not lean the control handle against walls, furniture, other machines, etc. The handle could be accidentally struck and fall, causing injury.

- Lubricate all parts of the cart, especially the wheels, pins, and swivel casters;
- Store the cart in a closed, dry area.

11. DECOMMISSIONING

If the machine is to be scrapped, its parts must be disposed of through separate recycling channels.



Please respect the environment!

Contact a specialized center for the collection of metal materials.

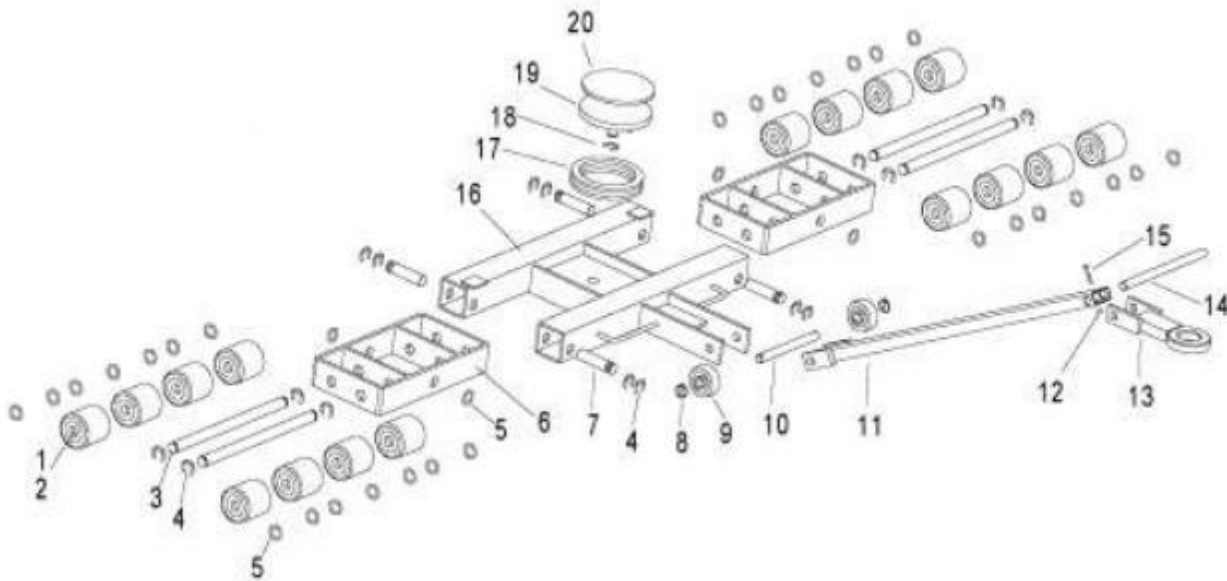
The cart's frame is made of steel, while the load supports and wheels are made of rubber and plastic, respectively.

In this regard, sort the materials according to their type and have them disposed of by specialized companies authorized to do so, in compliance with legal requirements.





12. EXPLODED VIEWS AND SPARE PARTS



No.	Description	No.	Description
0654/..L/1	Plastic wheel	0654/..L/11	Drawbar
0654/..L/2	Bearing	0654/..L/12	Hex nut
0654/..L/3	Wheel axle	0654/..L/13	Eye bolt
0654/..L/4	Safety ring	0654/..L/14	Carrying handle
0654/..L/5	Spacer	0654/..L/15	Hex head bolt
0654/..L/6	Wheel frame	0654/..L/16	Frame
0654/..L/7	Shaft	0654/..L/17	Turntable
0654/..L/8	Safety ring	0654/..L/18	Safety ring
0654/..L/9	Support wheel	0654/..L/19	Plate
0654/..L/10	Drawbar axle	0654/..L/20	Rubber load plate