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OWNER'S MANUAL

SNOW THROWER FOR ROTARY TILLERS





Read carefully this book before using the machine



Introduction

Thank you for purchasing our snow product. Whenever you need service or additional information, contact an Authorized Service Dealer or our Customer Service. This operator's manual has been prepared to provide you with the information necessary for safe operation and proper maintenance. Care for your snow shovel properly and it will provide you with satisfactory, labor–saving performance.

Before leaving the production plant, this model has been carefully inspected to guarantee the highest reliability; it will be anyway necessary to check that during the transport the machine didn't suffer any damages, that could prejudice its working and safety.

The technical information of this manual is Cerruti's property and must be considered as reserved information. Even a partial reproduction of text and images is legally forbidden.

Some parts indicated in the images could be different from those of your machine, some parts could have been eliminated to make the images clearer.

The technical information and data of this manual have been supplied by the producer after the text editing; the building company deserves to apply modifications in any time, without any advice.

In case of doubts, please contact immediately the *CERRUTI* company.

The Service for Spare parts provides original spare parts. The after-sale Service is the only one authorized to make interventions on the product during the warranty period, supported by the external authorized net.

The use of original spare parts keeps unchanged the quality of the machine and ensure the validity of the WARRANTY during the scheduled period.



Caution!

Read this manual carefully before using this snow thrower



AFTER-SALE SERVICE

For any problem you may have, our Dealers are at your disposal



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1.1 Manufacturer's details

Manufacturer: CERRUTI s.r.l.

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14033 Castell'Alfero (AT) Italy

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E-mail: info@cerrutimacchineagricole.it

1.2 Specifications decal / CE trademark

For any communication with the producer it will be necessary to have the model and serial number of your product ready, which you can find on the specifications decal, located on the housing of the snow turbine.

Via Statale, 27/H • 14033 Castell'Alfero (AT) Italy Tel. 0141.296957 - Fax 0141.276915				
O MASSA	(Kg)	C€ 200	0	
SERIE]	
MODEL]	
N° MAT]	

Warning!



Should this decal become damaged or got lost, replace it immediately asking the manufacturer company, by indicating the purchase data.

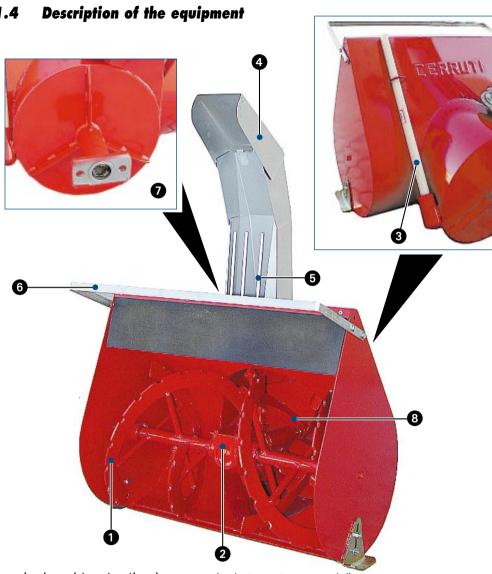
1.3 **Uses**

This particular model has been designed, manufactured and protected only for the following use:

Snow removal

A different use of this machine is IMPROPER.

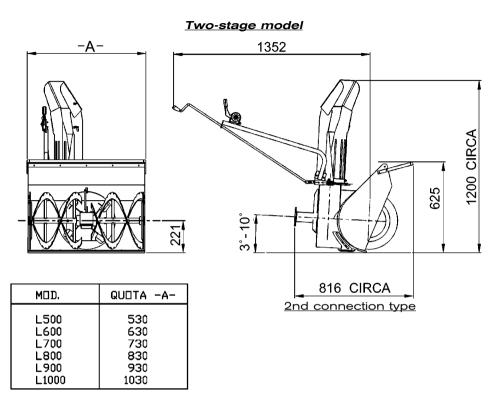




- 1 Icebreaking toothed augers (only two-stage model)
- 2 Central Transmission group (only two-stage model)
- 3 Stick for clogs removal and for cleaning
- 4 Snow discharge chute
- 5 Chute protection
- 6 Safety barrier
- 7 Rotary tiller couplers (flange or quick couplers) For other types, see attachments
- 8 Impeller



1.5 Measurements



945 O 405 O 405 A MASSIMO 2nd connection type



1.6 Description of the models/ technical data

Two-stage model

Two-stage snow turbine for rotary tillers

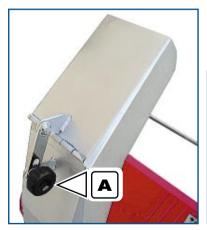
Model L 500	Clearing width 0,5 metri	Weight ~ 55 Kg
Model L 600	Clearing width 0,6 metri	Weight ~ 60 Kg
Model L 700	Clearing width 0,7 metri	Weight ~ 65 Kg
Model L 800	Clearing width 0,8 metri	Weight ~ 70 Kg
Model L 900	Clearing width 0,9 metri	Weight ~ 80 Kg
Model L 1000	Clearing width 1,0 metri	Weight ~ 90 Kg
Model ECO 400	Clearing width 0,4/0,46 metri	Weight ~ 38 Kg

Note

Chute rotation and manual outlet angle adjustment

Available as optional the adjustment of the outlet angle through cable and proper handle.

The above-written weights are purely indicative and can undergo variations, also depending on the applications on request or specific modifications.

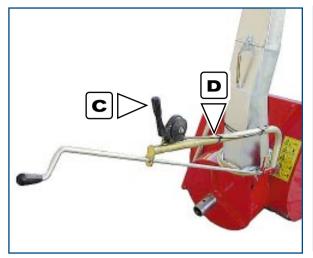


example of chute with outlet angle adjustment through a chute control handle (A)



Put the rod inside the joint (B) and lock it with the safety cotter pin for adjustment and rotation of the chute



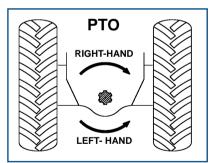




Example of chute with outlet angle adjustment through cable with hand lever (C) mounted on a support (D).

Note _

Basing on the direction of rotation of the rotary tiller PTO, the snow thrower is available right-hand or left-hand.



Example: Right-hand snow thrower





1.7 Safety norms

Failure to comply with the basic safety norms and care could cause injury during using, maintaining and repairing this machine. Injuries can be avoided through the acknowledgement of dangerous situations before they occur.

The operator must look out for potential dangers and must have an appropriate training level, the abilities and the necessary instruments to effect in a proper way these operations.

The CERRUTI Company cannot be considered in any case responsible for injuries or damages, due to the use of the machine from part of not properly trained staff or due to improper uses, due to even partial non-compliance with the safety norms and with the intervention procedures explained in this book. The safety care and the warnings are indicated in this book and on the product.

Failure to follow these warnings can cause to the operator and to third parties serious damages.

Caution!



Failure to comply with these indications could cause damages and injuries to the operator.

The **CERRUTI** Company cannot prefigure every kind of circumstances, that could cause a potential danger.

The following indications cannot completely protect the operator from all dangers that can occur during the use of the machine; these indications should be integrated with operator's common sense and experience, essential measures to prevent the injuries.

By the use of tools, procedures, working techniques, that the *CERRUTI* company didn't explicitly suggest, it will be necessary to make sure of the absence of dangers for one-self and for other people and bear in mind that these operations are under user's responsibility.

Il buon senso e la prudenza sono indispensabili per prevenire incidenti. Leggere attentamente le seguenti norme generali di sicurezza. La non osservanza delle norme sottoelencate libera la Nostra Ditta da ogni responsabilità.

The common sense and the carefulness are essential to prevent accidents. Read carefully the following general safety norms. Failure to comply with the below norms absolves our Company from every responsibility.

Structural damages, variations or improper repairing can modify the protection and safety level of the machine.



Do not allow children and unskilled people to operate the snow thrower.

Keep children and pets away from the operation area.

Consider that the user of the machine is responsible for damages and injuries caused to third party and property.





Always use the appropriate individual safety gears, like shoes, gloves and approved glasses.



Do not wear loose clothing that may get caught in rotating parts. Inspect the machine and the tractor before operating them; all safety devices must be present and properly located.

Comply with the Road-traffic safety norms.

Do not carry on the machine people or things except the supplied and homologated parts.

Before using the turbine, read carefully and understand everything about all devices, controls and functions.

Do not tamper with the machine or with any parts of the equipment. Keep the machine efficient and as soon as you find a problem of every nature, contact our after- sale Service Centers.

Always position the machine in a proper way, stop the engine and disconnect the key before every maintenance operation, reparation, intervention of any kind on the machine or on the connected tools

Keep anybody away from the turbine, while the fan and the impeller are halting.

In case of anomalous vibrations, make sure of the causes and fix them; in any case do not proceed in using the machine.

Periodically check the tightening of screws and nuts.

Caution!



Do not let the snow thrower unattended with the rotary tiller engine on



1.8 Safety devices and protections

The snow thrower is equipped with safety devices, in order to avoid the majority of risks, related to the normal conditions in the use of the machine.

We keenly suggest to always comply with the safety norms in force, included the use of the individual protective gears.

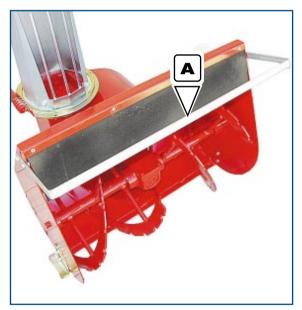


Caution!

The indicated components are particularly important for the safety.

In case of break, replace them immediately with parts supplied or authorized by the manufacturer.

- A Safety barrier, to protect and delimit the work area
- **B** Chute safety device







1.9 Warning decals and symbols

The decals with safety symbols and messages related to the several dangers, that could arise during the operating, are located on the turbine housing.

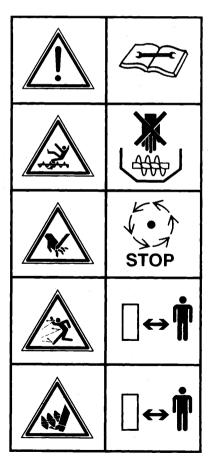


Caution!

Make sure that all safety messages are readable.

Clean them using a cloth, water and soap. Do not use solvents, mineral naphtha or fuel.

Replace the damaged decals, by ordering them to the manufacturing company. If a decal is on a replaced part, make sure that on the new replacement part a new decal is applied.



Read carefully the owner's manual for the use and maintenance before operating this machine.

Danger of dragging!

Danger of injuring superior limbs!

Danger of injuring superior limbs!

Keep away while the engine is running and wait for it to stop completely.

Danger of injury because of thrown objects!

Keep the safety distance from the machine while operating

Danger of injuring inferior limbs!

Keep the safety distance from the machine while operating



1.10 Assembly and coupling

The snow turbine is normally equipped with the assembled discharge chute. If the turbine is supplied in a box, it's necessary to assemble the chute, by using the three socket head screws M5X15 with the three self-locking nuts, already assembled on the chute support.



Caution!

Before connecting the turbine to the rotary tiller, make sure that the engine is not running

The snow turbine can be connected to several rotary tillers; listed below you can find two examples.



Verify that the revolutions of the pto are between 800/1.000 RPM.

Quick coupling

Couple the turbine and the rotary tiller and lock with the supplied lock. Check carefully that the coupling was effected properly and that the transmission is regular.

Flange coupling

Couple the turbine and the rotary tiller with the supplied centering and strongly fix it with screws, washers and nuts (supplied with the rotary tiller). Tighten the nuts.

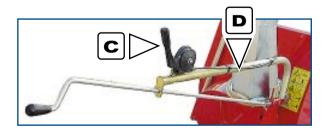
Warning!



Before connecting to the rotary tiller, grease the grooved bushing that transfers the motion.

Install the handle control support on the handlebar from the most comfortable side. Insert the handle before in the support and then into the joint of the worm screw and lock the assembly with the cotter pin.

In case of adjustment of the outlet angle with hand lever (\mathbf{C}) use the supplied support (\mathbf{D}) .





1.11 Utilization norms

Once you reach the operating area, make sure that there aren't any hidden objects under the snow, stay alert for hidden hazards and remove everything that could break the equipment.

Start the engine, engage the clutch lever and the power takeoff. Release the clutch lever and check that the impeller of the snow turbine turns freely.

Engage again the clutch lever, choose the adequate forward speed and release the clutch lever to operate in a better way.

To get the highest performance, use the slowest forward speed with the highest acceleration.

To avoid clogs do not stop the turbine rotation during the removing, to allow that the icebreaking augers and the scraper blades totally discharge the snow.

If the snow is heavy, if it's possible, position the discharge chute onward in respect to the forward direction and the deflector completely vertically to avoid clogs of the snow discharge.



1.12 Maintenance



Caution!

These operations can be dangerous for the personal safety, therefore operate carefully following the safety norms.

Before maintenance or cleaning, wear the individual safety gears, like gloves, safety shoes and so on, depending on the operation you are performing.

Before every maintenance operation shut-off the engine of the rotary tiller

Put the following notice near the machine controls:

MAINTENANCE IN PROGRESS,

DO NOT START THE ENGINE

Before every intervention on the turbine:

Shut off the rotary tiller.

Read carefully all norms of this manual. Follow the safety messages on the decals located on the turbine.

Allow only authorized people to repair or to upkeep the machine.

To use the compressed air for the cleaning, wear the safety appropriate glasses.

The maintenance area must be clean.

Do not grease or repair the machine while the engine is running to avoid to get caught in rotating parts.

Never use bare hands to inspect leakages of fluids, this can cause skin injuries.



Caution!



Do not disperse exhausted oils and residual grease.

The exhausted oils must be consigned to the Consortium for used Oils through authorized Organizations.

For the maintenance of the commercial components it will be necessary to make reference to the correspondent manuals supplied by the manufacturer.



Here below the explanations of the control operations and the normal maintenance practices, which are necessary to keep safe working conditions.

The extra maintenance on the machine must be performed only by the technical experts of the Manufacturing company

Perform scheduled maintenance and inspection for life, in relation with the utilization of the machine

Always wear the individual safety gears, before every maintenance operation on the snow turbine.

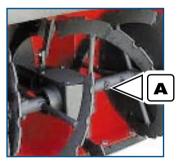
Always use tools in safe conditions and produced on purpose for the operation to be performed; the use of improper and inefficient tools can cause serious damages.

To screw and unscrew, do not add any pipe or extension to the keys in order to increase the force. In case of dynamometric keys or special tools, always verify that their calibration is appropriate to the component.

Do not forget cloths, keys or tools used for the maintenance inside the machine. Check carefully and eventually remove the foreign elements.

After every operation, remove the residual snow of the turbine with the supplied stick, to avoid the augers and the scraper blades to freeze-up.

After every working operation check the tightening of the several safety nuts (\mathbf{A}) , located on the icebreaking augers.



Screw M8x50 R 8.8 UNI 5737-5739

Always check that augers and scraper blades turn freely; if not, verify the bearings and the side gears.

If a stone or a foreign object enters the augers and impeller, inspect the units and make any necessary repairs in case of damaged parts to avoid unbalances or vibrations of the machine.

Always perform the maintenance operations with engine shut-off, the machine placed on the ground and connected to the rotary tiller, with engine shut-off and put put the following notice near the machine controls:

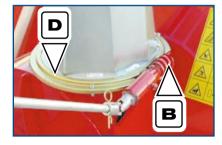
MAINTENANCE IN PROGRESS, DO NOT START THE ENGINE

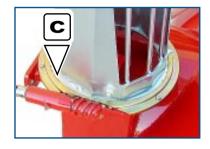


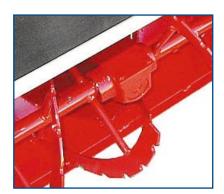
Before and after every use it 's necessary to grease:

The worm screw that controls the chute rotation (\mathbf{B}) , the seat of the chute rotation (\mathbf{C}) , the adjustable slides and the cardanic transmission through the appropriate lubricants.

Periodically disassemble the rim cover (D) and oil it just a little.







The transmission group is maintenance-free.

Periodically inspect eventual oil leakages; in that case contact the assistance service.



CERRUTI S.R.L. VIA ALBA 57 – FRAZ. BOGLIETTO 14056 COSTIGLIOLE D'ASTI SEDE OPERATIVA:VIA STATALE 27/H - REG.NOVEIVA 14033 CASTELL'ALFERO AT tel.0141/296957 – fax 0141-276915 c.fisc. e p.iva 01295490054

DECLARATION OF CONFORMITY

Hereby the Cerruti S.r.L. Company declares on its responsibility that the machine below

SNOW TURBINE Model

Ye ar

•	ssential requirements and other relevant 2006-42 CE of the European Community.
Reference was made to the of the machine :	e following Harmonized Norms in the assessment
EN 1553	
As well as the technical spe	ecification:
ISO 11684	
CASTELL'ALFERO	DATE
	CERRUTI S.R.L. Legal Representative Roberto Cerruti