



## CM65 Series

**Safety, Operations & Maintenance Instructions**

## INTRODUCTION

This manual contains information concerned with safe practices when operating the machine, safety precautions that are necessary during operation, maintenance instructions and troubleshooting.

Before operating the machine it is imperative to have read and understood this manual. The instructions of this manual are intended to be read and followed to ensure the proper running of the CM65 and the safety of the user.

In the case of sale or transfer of the machine, this manual must be handed over. In the event that this manual is damaged or lost, the owner must ask the manufacturer or the former owner for a copy. This manual is to be considered as an integral part of the machine.

The information conveyed on this manual is reflective of the machine at point of sale. The manufacturer has the right to modify the machine for technical or commercial reasons and this does not make the manual unsuitable for use.

The copyright for this manual belongs to the manufacturer. The technical texts, images and pictures within this manual cannot be published or used, completely or in part, without written consent from the manufacturer.

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# INFORMATION ABOUT THE MACHINE

## INTENDED USE OF THE CM65

The Truyard CM65 is designed to chip most branches and prunings alongside other organic material such as palm, and mulch other organic waste such as shrubs, leaves, manure, cardboard and hay. It is not designed to process inorganic waste.

## MACHINE DESCRIPTION

The Truyard CM65's chipping and mulching mechanism consists of a flywheel with two mounted blades and hammers respectively. As the flywheel rotates at a high speed, the blades chip the incoming material and as smaller material is entered into the mulching chute, the hammers mulch the material.

The CM65 consists of the following features:

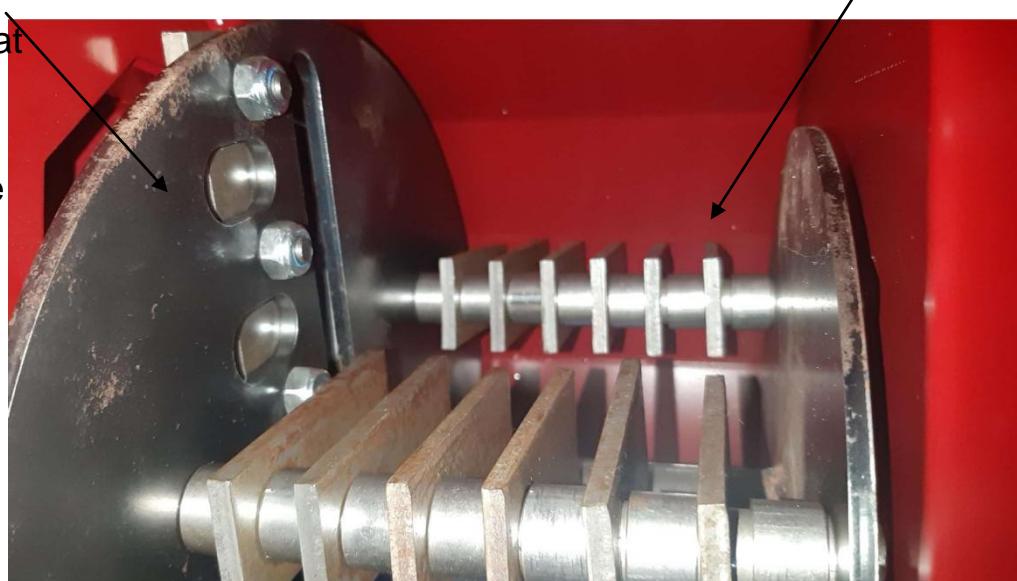
- A pair of pneumatic wheels to manoeuvre the machine
- A chipper chute
- A flywheel with two chipper blades
- Hammers to mulch the material
- An engine
- A discharge chute
- A mulching chute
- A handle to move the machine
- A frame with a stand
- 5 discharge bars

## IDENTIFICATION OF MAIN PARTS



### Flywheel

(Disconnect the spark plug and ensure flywheel is at a complete stop before opening the discharge chute)



## SPECIFICATIONS

### CM65

<b>Engine Specifications</b>		<b>Transmission</b>	
Engine	Honda GX200 or Kohler 5.5hp or Electric 2hp	Belt Drive	V Belt B section
Engine Type	Petrol	Pulleys	Cast iron
		No Load Starting Clutch	Optional
Chipping Capacity	Up to 65mm	<b>Machine Construction</b>	
Number of Blades	1	Weight	87kg
Mulching Hammers	18 spring steel reversible hammers	Chassis	Steel construction
Discharge Bars	5	<b>Special Features</b>	
Self-feeding	Yes	Warranty	Domestic Application 2 years, Commercial Application 3 Months

# SAFETY PRECAUTIONS

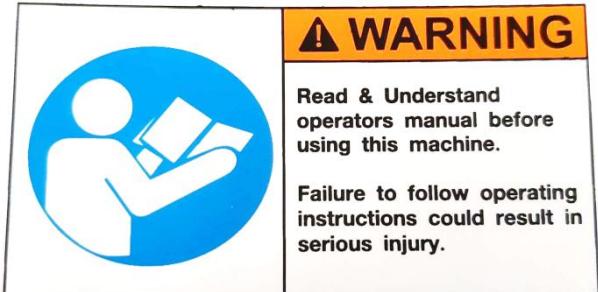
## ACCIDENT PREVENTION MEASURES



**STRICT ADHERANCE TO THE FOLLOWING RULES, PRECAUTIONS AND SAFETY MEASURES LISTED HERE MUST BE CONDUCTED TO AVOID THE DANGER OF ACCIDENT AND DAMAGE TO PEOPLE AND THE MACHINE.**

- 1) Ensure that the operator of the machine has read and understood fully this manual and the engine manual
- 2) Always wear suitable footwear. Do not use in bare feet
- 3) Always stop the engine and disconnect the sparkplugs when guards are not in place
- 4) Check that the items to be chipped are free of all foreign debris. This includes and is not limited to nails, wire, rope etc
- 5) Do not allow children to come near the CM65. Always ensure that children are at a safe distance and are well away from the machine
- 6) Do not put hands whatsoever inside the machine or near the belt or blade while the machine is running
- 7) Read the engine manufacturers operating instructions carefully. Do not alter governor settings or over speed the engine
- 8) Carefully follow the refuelling safety instructions when refuelling the engine:
  - Always refuel the CM65 outdoors in a well ventilated area
  - Ensure the engine is turned off and cooled before beginning refuelling process.
  - Keep all ignition and heat sources clear of the refuelling area.
  - If spillage occurs mop up immediately and wait a suitable time so the fumes disappear
  - When storing fuel make sure it is in a suitably designed container (AS/NZS 2906:2001) and it is stored in a cool dry place.
- 9) Use your CM65 only in daylight when visibility is good
- 10) When using the CM65 slopes should be treated with caution. Never place the CM65 on uneven ground
- 11) Never leave the CM65 unattended whilst engine is running
- 12) Do not use CM65 in confined spaces with no ventilation
- 13) It is advisable to wear safety glasses and hearing protection whilst operating the CM65
- 14) Always operate with all guards in place
- 15) For CM65150 electric model do not connect it to any power cord longer than 5 meters and it is to be run on a 10 amp circuit.

## SAFETY LABELS AND DESCRIPTIONS

	<p><b>CAUTION</b> – keep hands and feet away from the discharge and inlet openings on the machine as this could cause injury</p>
	<p><b>CAUTION</b> – the operating of the engine, its maintenance and starting must be done after having read the manual to prevent any harmful incidents and misuse of the engine from occurring</p>
	<p><b>CAUTION</b> – ensure that the operator has read and understood this manual before operating the machine to prevent injury</p>
	<p><b>CAUTION</b> – keep hands and feet away from openings on the machine to prevent injury</p>

## AFTER A PERIOD OF INACTIVITY

Ensure the following checks have been done on the CM65 before operation after a long period of inactivity:

- Check that the machine is undamaged and all guards are attached
- Check all the mechanical parts of the machine are not rusty and are in working condition
- Ensure the flywheel and the blades rotate freely, are sharp and are connected to the machine
- Ensure that the engine has sufficient oil and fuel
- Check all nuts and bolts are tight

# OPERATING INSTRUCTIONS

## BEFORE USE

Before operating the machine it is important to ensure the following to use the machine to its full capability and to keep the operator and the surrounding area safe.

- Make sure that the operator has read and understood how to use the engine as per the manufacturer's instructions
- Ensure that the oil and fuel in the engine are as per the engine manufacturers instructions
- Check that all guards and parts are in place
- Make sure the throttle control is at its lowest setting. At idle the centrifugal clutch should be disengaged
- Ensure that the CM65 is located on flat, even ground and that there are no people or animals in the vicinity of its working function, including the area surrounding the discharge chute
- Ensure that the operator has read and understood this manual, including how to control the machine
- Wear the prescribed safety equipment
- Check that the material to go through the CM65 does not contain nails, ropes or any metal object that can damage the machine whilst it is being mulched

## DURING OPERATION

Once satisfied that the above criteria have been met, turn on the engine as per the manufactures instructions. Once running:

- Gently increase the throttle until the clutch engages and the blades rotate. Operate the CM65 at near full throttle for optimal performance
- For the CM65 all branches go through the chipper chute. It is best if the thickest end of the branch gets fed into the chipper chute first; generally this is the end that you cut the branch at. Sometimes it may be required to prune the side branches to fit the main branch into the chipper chute. Ensure this is done before you start chipping. The CM65 generally will draw the branches in and on no occasion do you need to put your hand inside the chipper chute. Once the branch has been put through, put leaves and other organic waste no more than approximately 10mm in diameter through the mulching chute at the top of the machine. Once again, do not put your hands in the mulching chute.
- To adjust the cutting of the CM65, the discharge bars can be taken out or put in. Ensure that when adjusting the amount of discharge bars in the machine that the machine is off and the flywheel has stopped rotating. The discharge bars are important for the efficient use of the machine. They are there for the purpose of allowing the CM65 to handle multiple types of material without clogging. For an example let the top bar be no.1 and the bottom bar be no. 5.

For dry materials such as gum trees etc. leave all the bars in. For wetter materials, plants, manure, flowers etc with higher water content, take out no. 3 and no. 5. For newspapers and cardboard, take out no. 5, 4 and 3. Generally, if what is being inserted into the machine is not coming out, there are too many bars in place.

## **IF THE MACHINE GETS BLOCKED**

During operation it is possible that a branch or pruning with a diameter higher than the working capacity of them machine is entered, and blocks the rotation of the flywheel.

To remove the blockage, ensure that the machine has been turned off, the spark plug has been disconnected and that the flywheel has no power supply that will make it rotate while the material is being removed. Once the blockage has been taken out, the machine can be re-started.

## **AFTER USE**

When you have finished operation of the machine and have turned the engine off:

- Allow machine to cool down
- Check the machine over to see if there are any irregularities that could impede your next use
- Check fuel and oil levels for next use

# GENERAL MAINTENANCE

For the servicing of the machine it is strongly recommended, for safety and quality of the maintenance, for this to be conducted by authorised professionals from Truyard authorised dealers who know the machine.

## ADJUSTMENT OR REPLACEMENT OF THE CHIPPER BLADES

	<p>Disconnect the spark plug to ensure that the machine will not receive power whilst you are working on the flywheel</p>
	<p>Take off the hopper using a 13mm spanner. Place a bar through the flywheel. Ensure that the flywheel doesn't rotate when this bar is in place by pulling the engine cord.</p>
	<p>Remove the chipper chute using a 13mm spanner to give access to the bolt holding the chipper blade.</p>
	<p>Using a 19mm spanner, loosen the nut and bolt that connects the chipper blade to the flywheel.</p> <p><b>CAUTION – THE CHIPPER BLADE IS SHARP AND CAN CAUSE INJURY</b></p>



In order to fully remove the nut and bolt, use an 8mm Allen key to counter the force from the spanner. Remove the nuts and bolts from the chipper blade. Once all three have been removed, take out the chipper blade. When replacing the chipper blade, ensure that the flywheel does not move and that it is facing the correct direction.

**CAUTION – THE CHIPPER BLADE IS SHARP AND CAN CAUSE INJURY**

## ADJUSTING BELT TENSION



Remove the protective cover that sits over the belts with a 13mm socket.



Using a 17mm spanner, loosen the nuts that connect the engine to the frame of the machine. Once all four have been loosened, slide the engine on the rails to increase the belt tension. Re-tighten the nuts and ensure that the engine is secure.

**NOTE: WHEN ADJUSTING THE BELT, THE FLYWHEEL SHOULD TURN WITHOUT TURNING THE MOTOR. DO NOT OVERTIGHTEN.**

## DISCHARGE BARS

**CORRECT**



**WRONG**



### CORRECT POSITION OF CLIP FOR DISCHARGE BARS

When re-inserting the discharge bars, ensure that the R-clip is fully inserted such that it is pushed all the way through to the large loop before restarting the machine

### WARNING!

**MAKE SURE MACHINE IS TURNED OFF, HAS COME TO A COMPLETE STOP AND SPARK PLUG LEAD IS REMOVED BEFORE ACCESSING ANY PART OF THE MACHINE**

## TYRE PRESSURE

The maximum tyre pressure for the pneumatic tyres is 20psi. Over inflation of the tyre can cause injury.

## **STORAGE**

In the case that the CM65 will not be used for an extended period, it is important to store the machine in a location that is sheltered from the weather to avoid damages to the machine.

The storage temperate recommended is between 0°C and 50°C.

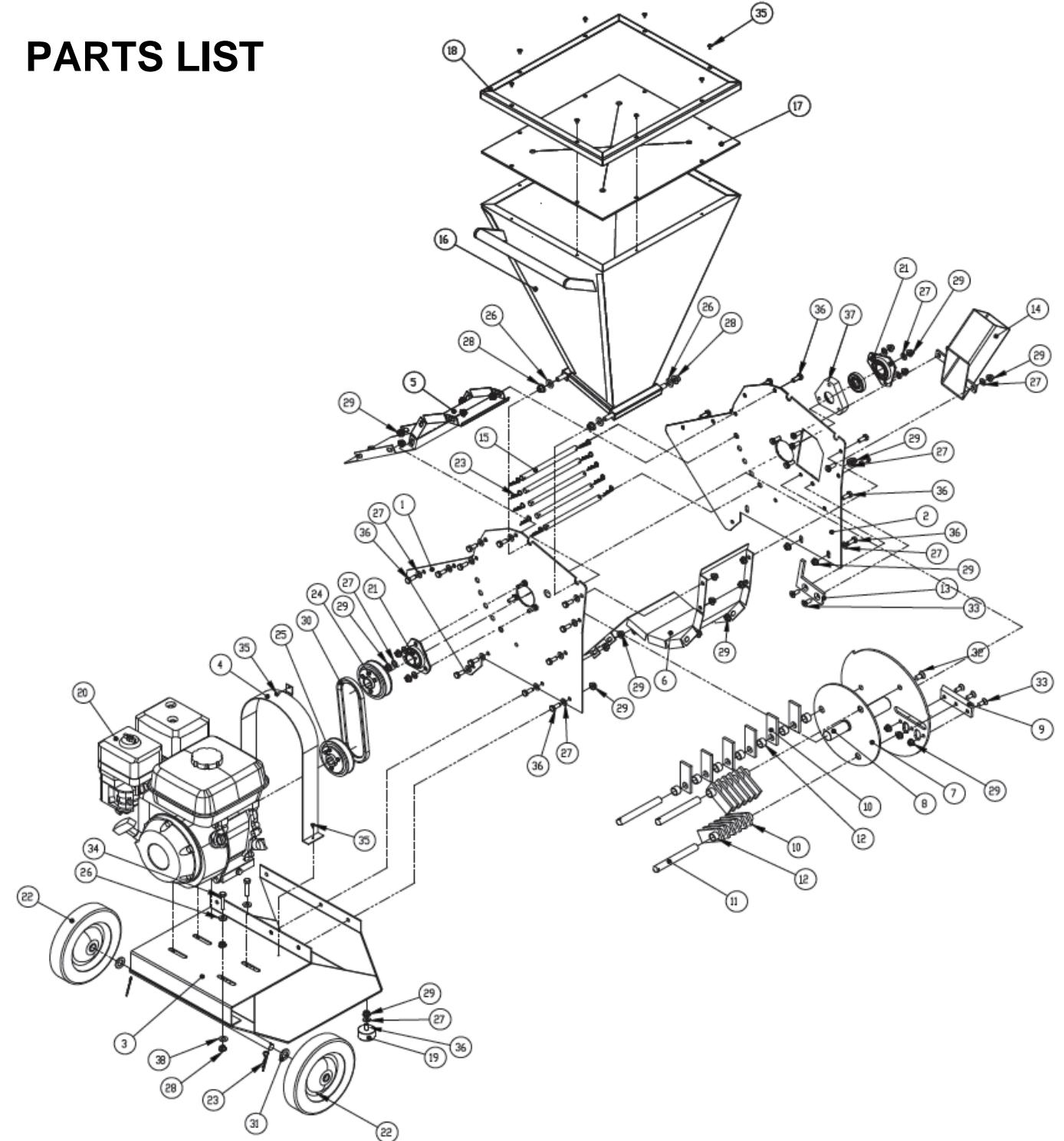
Before this period in storage, it is recommended to:

- Properly clean the machine
- Carefully free the flywheel from any remains of chipped wood
- Ensure that the area in which the machine is to be stored is sheltered and the ground surface is flat and compact
- Perform a check of the machine to detect possible damages or irregularities and to ensure that the safety labels are undamaged and clearly visible

## **CLEANING**

Regularly clean the machine using only compressed air, blowing away wood dust and green waste residue. For this operation ensure that you wear protective gloves and eyewear.

# PARTS LIST



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1202001	Drive Side Plate	1
2	1202002	Off Side Plate	1
3	1202003	Base Plate	1
4	1202005	Belt Guard	1
5	1202008	Small Deflector	1
6	1202009	Large Deflector	1
7	1202010	Fly wheel	1
8	1202011	Drive Shaft	1
9	1202014	Chipper Blade	1
10	1202016	Mulcher Blade	18
11	1202017	Spindle	3
12	1202018	Blade Spacer	21
13	1202019	Anvil	1
14	1202020	Chipper chute	1
15	1202022	Discharge Bar	5
16	1202030	Hopper	1
17	1202031	Rubber Top	1
18	1202033	Hopper Rim	1
19	1901226	Rubber stop	2
20		Engine	1
21	1901506	Bearing	2
22	1901010	Wheel	2
23	1901410	R-Clip	11
24	1901616	Biloc Set 25 mm	1
25	1901615	4 Stroke Engine A : Biloc Set 19.5 mm	
	1901619	Electric Motor B : Biloc Set 24 mm	1
26	1901310	Washer M10	4
27	1901300	Washer M8	40
28	1901210	Nut M10	4
29	1901230	Nut M8	40
	1901611	V-Belt Electric Motor	
30	1901612	V-Belt Petrol Motor	1
	1901605	V-Belt clutch Model	
31	1901331	Washer M16	2
32	1901408	Bolt M10 x 20 Flat Skt	3
33	1901403	Screw M8x20 Flat Skt	5
34	1901119	Bolt M10 x 45	4
35	1901404	Tech Screw	11
36	1901101	Bolt M8x20	25
37	1202043	Bearing Seal	1
38	1901311	Washer M10 Mudguard	4

REV B

CM65

TRUYARD

# WARRANTY POLICY

Under the warranty your CM65is warranted for 2 years from the date of purchase against mechanical defects, faulty workmanship or material. 90 days for commercial use. This warranty covers only the replacement, repair or adjustment of any part which fails as a result of a fault in manufacture or assembly. Defective parts will be repaired or replaced without charge for labour or materials subject to the conditions detailed below.

## Warranty Exclusions, Limitations and Rights:

- 1) Any failure that results from accident, abuse or neglect is not covered by this warranty
- 2) Transport of the CM65 to and from the manufacturer, their agents or dealers, to be paid for by the owner
- 3) Proof of purchase date must be provided prior to the commencement of the warranty work
- 4) Any failure of parts or material that is contributable to fair wear
- 5) Any indirect or consequential loss, damage, costs or expenses suffered by the consumer that may result either directly or indirectly from the failure or malfunction of the product
- 6) Any repairs carried out other than those by authorised Truyard agents or dealers cancel this warranty
- 7) Engine warranty is separate and is in accordance with the Engine manufacturers express warranty

## TROUBLESHOOTING

ISSUE	CAUSE	SOLUTION
Irregular Chipping	<ul style="list-style-type: none"><li>• Worn or damaged blades</li><li>• Anvil not adjusted</li><li>• Loose belts</li></ul>	<ul style="list-style-type: none"><li>• Change blades or rotate them around 180°</li><li>• Adjust to within 1-2mm of chipper blade</li><li>• Adjust the belts to the correct tension</li></ul>
Excessive noise	<ul style="list-style-type: none"><li>• Over tightened belts</li><li>• Bearing</li></ul>	<ul style="list-style-type: none"><li>• Loosen and inspect belt damage in case they need to be replaced</li><li>• Replace the bearing</li></ul>
Motor starts but mulcher doesn't	<ul style="list-style-type: none"><li>• Blockage in the flywheel</li></ul>	<ul style="list-style-type: none"><li>• Remove the spark plug and make sure the flywheel is at a complete stop. Open the discharge chute and take out the blockage carefully. Test spinning the flywheel a full 360° to ensure that there aren't more blockages. Be careful of the blades.</li></ul>

Note: Truyard has available spare parts for the machine if a replacement is necessary

# MACHINE MAINTENANCE SCHEDULE

Bolt tightening check	Inspect every 5 hours of use
Replacement of the chipper blades	Inspect blades for sharpness, burs and chips every 10 hours of use. If the blades are damaged replace; if blunt rotate 180°
Belt adjustment or replacement	Inspect belts every 10 hours of use looking for cracks and tightness. If cracks appear replace the belts
Bearings	Inspect bearing every 10 hours of use for movement. If loose or has a gravelly noise, replace
Engine oil	Consult the manufacturers manual for these specifications

## NOTES