



Small Agricultural Machines  
& E-Drives Division



# User Manual Guideline



**Simpsons Self Propelled Power Reaper**

## Important safety Instructions

This manual contains important instructions that should be followed during the operation and maintenance of the Simpsons Power Reaper I5RSP

Read these instructions carefully to become familiar with the Machines before trying to operate, service, or maintain it. The following special messages may appear throughout this document to warn of potential hazards or call attention to information that clarifies or simplifies a procedure.

### **DANGER**

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

### **WARNING**







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

### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

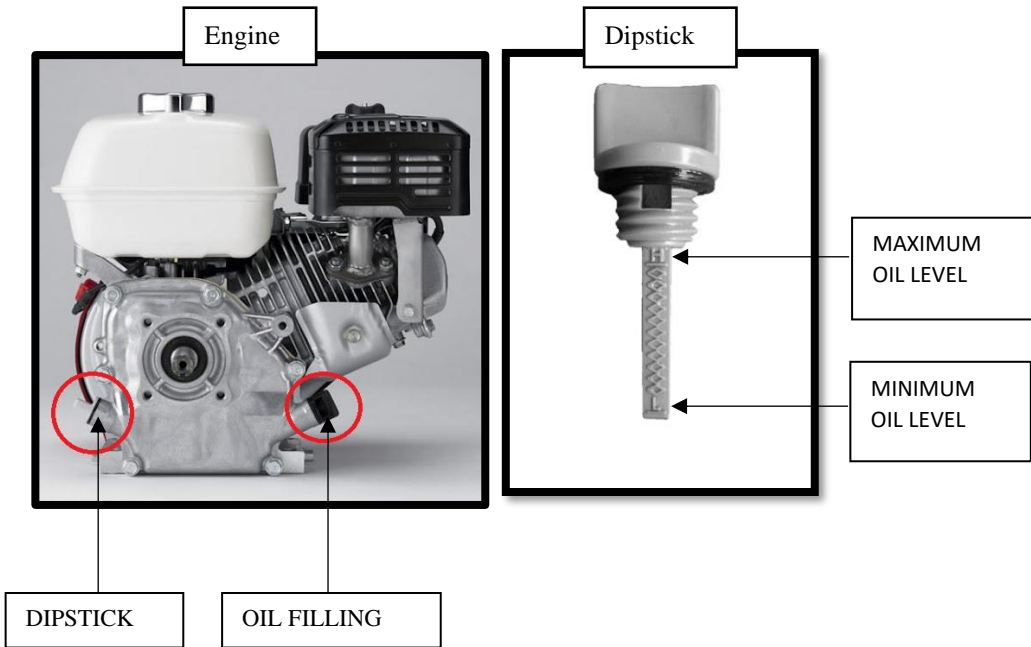
### **NOTICE**

**NOTICE** is used to address practices not related to physical injury

	Read operator's manual before operating this machine.
	Do not touch parts that are hot from operation. Serious burns may result.
	Rotating tines can cause serious injury. Keep hands, feet, and clothing away.
	Indicates WARNING, DANGER, or CAUTION.
	Engine exhaust contains carbon monoxide, an odourless and deadly gas. NEVER run unit indoors or in a poorly ventilated area.
	No smoking, sparks, or flames.

## BEFORE STARTING MACHINE

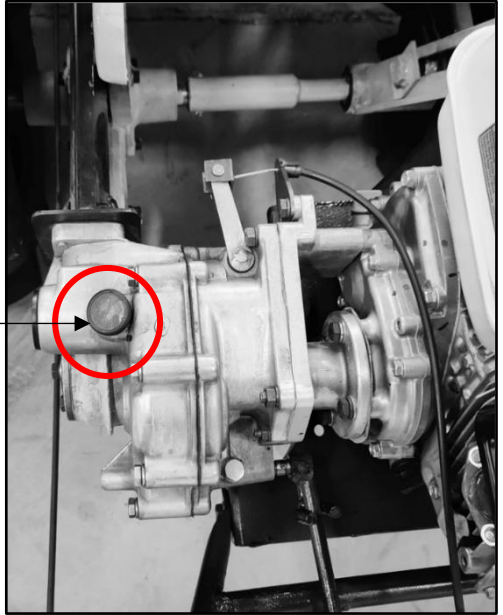
- The Engine is shipped from the factory without oil. Fill with **SAE 15W/40, 10W30, Grade SJ lubricating oil for Petrol engines**, Check oil level before starting engine. If you start engine without oil, The engine will be damaged beyond repair and will not be covered in warranty.
- Check the engine oil level with the engine stopped and the machine in a level position.
- Remove oil filler Cap/Dipstick and wipe it clean.
- Insert the oil filler Cap/Dipstick into the oil filler neck as shown, but do not screw it in, then remove it to check the oil level.
- If the oil level is near or below the lower limit mark on the dipstick, fill with recommended oil to the upper limit, DO NOT overfill.
- Re-install the oil filler Cap/Dipstick.



### BEFORE STARTING MACHINE

- The Gearbox is shipped from the factory without oil. Fill with SAE 90 or higher-grade lubricating oil for gearboxes, Check oil before starting engine. If you start gearbox without oil, The Gearbox will be damaged beyond repair and will not be covered in warranty.
- Check the gearbox oil with the engine stopped and the machine in a level position.

OIL FILLING CAP



# CONTENT

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# INTRODUCTION

## General View and Basic Components of Power Reaper

The Below Shows the power Reaper of Simpson SAM Family. This power Reaper is simple, elegant, Friendly one. This Power Reaper is suitable for harvesting of paddy, Wheat, Mustard, Soya bean, Jowar and Similar crops. It is a multifunctional machine with many functions packed into a small and manageable body. Easily cut and harvest various crops with less effort. Light weighted machine so that it is easy to handle.



# SPECIFICATION

<b>Description</b>	<b>I5RSP</b>
Engine Type	Air cooled, 4 stroke, single cylinder, Manual start, Petrol.
Engine Model	Honda GX160
Power (HP) @ RPM	5 HP, @ 3600 rpm
Engine Oil	10 W30
Engine Oil Capacity -L	0.6 l
Fuel Tank Capacity -L	3.1 litres
Fuel Consumption/hr. *	1.4 l / hr
Gears	1 Forward / 1 Reverse
Cutting Height *	1 to 2 Inch
Cutting Width	1200 mm
Conveyor Mechanism	Chain Drive & star wheel
Working Efficiency *	1.3-1.7 Hr / Acre
Working Speed *	2.9 km/Hr
Overall Weight (kg)	120 kg











- The Operator of the machine is responsible for and has a duty of taking care in making sure that the machine is operated safely and in accordance with the instructions in this user manual. Please note the following safety points
- The machine should never be left in a condition which would allow an untrained or unauthorised person/s to operate this machine.
- All due care and diligence should be taken by the operator for the safety of and with regard to those around whilst using the machine.
- Some or all of the following PPE, Warning Signs and symbols may appear throughout this manual, and you must adhere to their warning/s. Failure to do so may result in personal injury.

## **Personal Protective Clothing (PPE)**



<p> <b>DANGER</b></p> <p>Non-observance will result in the risk of serious injury or death to Oneself or others.</p>	<p> <b>WARNING</b></p> <p>Non- observance will result in the risk of injury to Oneself or others.</p>	<p> <b>CAUTION</b></p> <p>Indicates a hazard which, if not avoided, might result in minor or Moderate injury.</p>	<p> <b>NOTE</b></p> <p><b>NOTE or IMPORTANT</b></p> <p>These give details or further information on what has already been said, and aim to prevent damage to the machine or cause Other damage.</p>	<p> </p> <p>Read Manual</p>
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EXPLOSION



SHOCK



FLYING OBJECTS



MOVING PARTS



KICKBACK



KICKBACK



TOXIC FUMES



FALL



HOT SURFACE



FIRE



SLIPPERY



MOVING PARTS

## ❖ Carbon Monoxide.

- Carbon monoxide is a colourless and odourless gas, inhaling this gas can cause death as well as serious long term health problems such as brain damage.
- The symptoms of carbon monoxide poisoning can include the following: Headaches, dizziness, Nausea, Breathlessness, Collapsing or loss of consciousness.
- Carbon monoxide symptoms are like flu, food poisoning, viral infections and simply tiredness. That's why it's quite common for people to mistake this very dangerous poisoning for something else.
- To avoid carbon monoxide poisoning DO NOT Use Petrol/Diesel powered equipment inside a home or garage even if doors and windows are open.
- If you think you have or someone around, you have been affected by carbon monoxide poisoning.
- Get fresh air immediately.
- Open doors and windows, turn off machine and leave the affected area.

- See your doctor immediately or go to hospital - let them know that you suspect carbon monoxide poisoning.
- Only use Petrol/Diesel powered equipment outside in a well-ventilated area.

### ❖ General fuel safety.



All fuels are Flammable.








- Fuel Safety additional information can be obtained from the Health and Safety Executive.
- Keep away from all ignition sources i.e., Heaters, Lamps, sparks from Grinding or welding.
- Hot work on tanks that have contained fuel is extremely dangerous and should not be carried out.
- Keep work area clean and tidy.
- Clean up all spills promptly using correct methods i.e., absorbent granules and a lidded bin.
- Dispose of waste fuels correctly.

### ❖ Petrol safety.



- Always fuel and defuel in well-ventilated area.
- Always wear correct, suitable, and fit for purpose Personal Protective Equipment (PPE), suggested items are as follows, but are not limited too.
- Hand protection.
- Protective clothing.
- When defueling always use a propriety fuel retriever.
- Always carry fuel in the correct and clearly marked container.

## ❖ Machine safety.

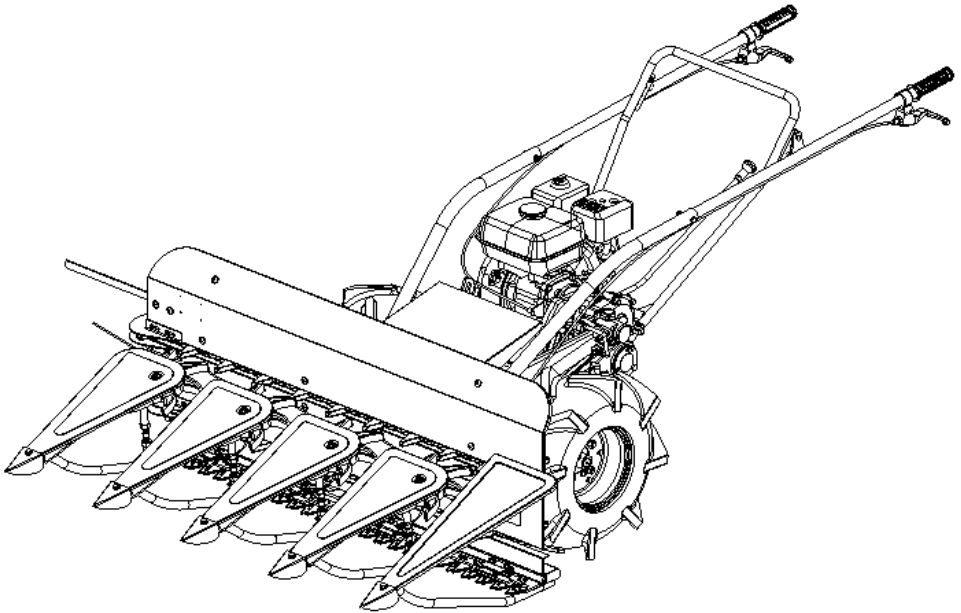
 <b>DANGER</b>	<p>Continual and regular users should monitor closely the condition of their hands with regard to White finger disease or carpal tunnel syndrome. If you think you have been affected seek medical advice immediately.</p>
 <b>WARNING</b>	<p>DO NOT modify the unit in any way. Only use the machine for the job for which it is intended. Always remove HT lead from spark plug when checking machine or changing parts.</p>
 <b>CAUTION</b>	<p>DO NOT operate the equipment when barefoot or wearing open sandals. Recommended PPE but not limited too.</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div>

- ❖ Inspect machine before each use and replace any damaged parts before operation. Check for fuel leaks and make sure all fasteners are secure and in place.
- ❖ Replace parts that are cracked, chipped or damaged in any way before using the machine.
- ❖ Stop the engine before working on machine for maintenance.
- ❖ Never put feet or hands near the machine blades when running. Before Harvesting, remove all large object, which may cause injury or damage.
- ❖ Keep children, people and pets at a safe distance when the Reaper is in use.
- ❖ Do not operate this rotary machine after drinking, taking medication or drugs that can impair your judgment.
- ❖ Use only recommended accessories and parts, approved by the manufacturer. Non approved parts may cause damage to the machine or harm to the user and will also void your machine's warranty.
- ❖ Under no circumstances should you ever take the product apart or alter it in any way even if the item is faulty. You may damage or cause further harm by taking the product apart and you will void your warranty in doing so.
- ❖ This machine is designed exclusively for Harvesting in a private domestic setting. Using it for any other purpose other than those intended qualify as improper use. The operator is solely responsible for assuming all risks.
- ❖ You should prevent the equipment from coming into contact with buried electrical cables, earthing devices, such as pipelines. Making contact with these may cause electric shock and/or damage to your machine.
- ❖ The machine will work better when operated within its specified performance range.
- ❖ If blade is blunt, need to sharpen or replace it. Blunt blades will not cut the crop efficiently so check blade carefully before each use.
- ❖ Before maintaining the equipment, replacing the parts, cut off the power supply.

- ❖ Before cleaning, maintaining, or checking the equipment, cut off the power supply of the machine to ensure that all moving parts have stopped.
- ❖ The machine should be maintained by the professional maintenance personnel. All Maintenance or service by non-professionals may result in users' injury or equipment Damage.
- ❖ If the equipment is running abnormally, please stop the engine, and carefully check all the parts to see if any part is damaged, repair it before re-starting and using the equipment.
- ❖ If the machine comes into contact with big blocks, root or vine, The equipment will spring upwards or leap forwards. Stop machine and remove HT lead before removing any blockages.
- ❖ Avoid pulling the machine whilst the engine is running.
- ❖ Keep and read the instructions often.
- ❖ Use them to show others to operate this machine safely.
- ❖ When the equipment is not being used, please remove the spark plug HT led to avoid accidental starting.
- ❖ You must only work in good natural light.
- ❖ Cut off the Power supply of the cutting platform while cleaning crops. It is strictly forbidden to stretch the hand towards the cutter.
- ❖ When turning or moving the machine in reverse direction, reduce the accelerator and stop cutting.
- ❖ Do Harvesting or Moving the machine in reverse direction, Reduce the accelerator and stop cutting.
- ❖ Do Harvesting only when the machine runs stably. Ensure the machine is in good Working condition, With the handles flexible and reliable, and the transmission parts running normally.
- ❖ For harvesting the loading crop, Converse harvesting gives better efficiency.
- ❖ Check the bolts of the gear box, gear case and the bearing base regularly.

# MACHINE MAIN PARTS

## ❖ Parts.



Guide Leaf	Conveyer Chain
Cutter Bar	Main Gearbox Assembly
Petrol Engine	Gearbox for Cutter
Wheels	Star Wheels
Cut sets aside clutch	Main Clutch
Steering handle	Crop separator

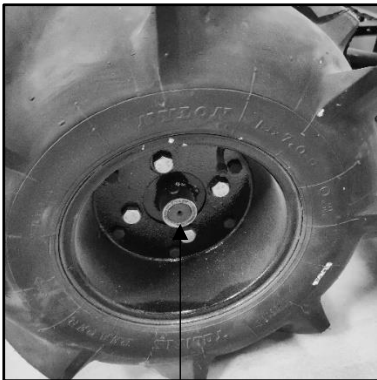
# ASSEMBLY PROCEDURE

## ❖ Remove machine from packaging.

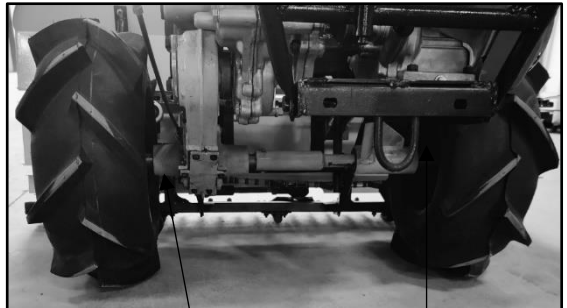
- Dispose packaging in accordance with local recycling regulations. (Check that the machine is undamaged and in working order before disposing of packaging – We recommend that you retain packaging to use should you wish to return the machine for servicing).

## ❖ Wheel assembly.

- Assemble wheel support to wheelbase with bolts and nuts and inflate tyre with 1.5 bar air pressure, notice valve must be directed inwards.
- Align the hole of wheel axles B with the hole of output shaft A and fix them by hex bolt M8 X 1.25 X 60 and hex flange nut M8 x 1.25 as shown in picture.



Hex Bolt



B

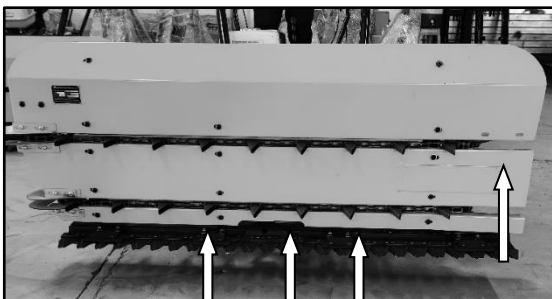
A

## ❖ Guide Leaf Assembly

- Five Guide Leaf Assemblies Provide Along with Machine Separately.
- Assemble Leaf assembly to cutter Bar Assembly With help of two M8 x 1.25 x 25 Pan Head Screws As show in Images.



Leaf Assembly





Before Leaf Assembly



After Leaf Assembly



# OPERATING PROCEDURES

<p> <b>CAUTION</b></p>	<p>Always stop the engine before adding fuel, water or making any adjustments to the machine. Never put feet or hands near the weeder blade especially when machine is running. Before Harvesting, remove all foreign objects from the work area, which may cause injury or damage. Always keep children, people and pets at a safe distance when the weeder is in use. Always wear correct PPE when using this machine.</p> <p>Recommended PPE but not limited too.</p> <div data-bbox="714 533 958 608"></div>
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## ❖ Filling with oil.

- The machine is supplied with no oil.
- Undo and remove filler cap and dipstick (Page 3 & 4).
- Carefully fill with oil approximately 0.6 L in engine & 1.5 L in gearbox, taking care not to spill. Clean up all oil fuel spills before use.
- Replace filler cap and tighten.

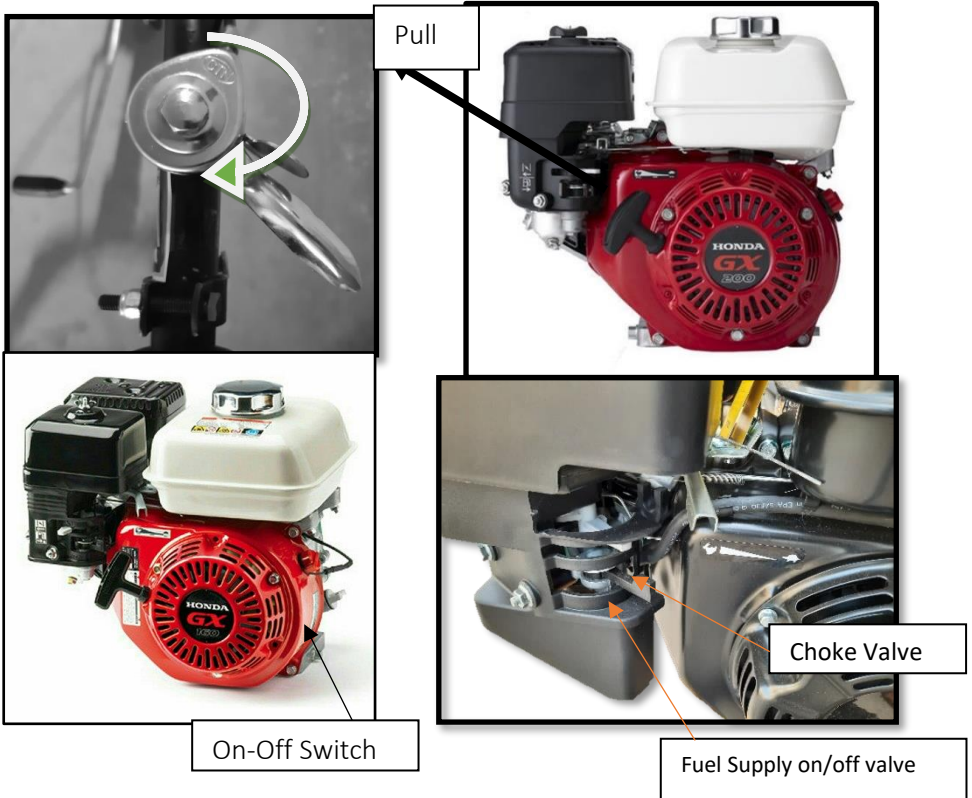
## ❖ Filling with fuel.

- The machine is supplied with no fuel before starting fill with fresh unleaded petrol.
- Pour in fuel (approx. 1 litre). Avoid spillages and clean up all spills straight away.
- Check seal inside the petrol cap for damage and replace if needed.
- Replace cap and screw on firmly by hand.

## ❖ Starting & stopping the machine.

### ➤ Preparation before starting.

- Before starting the engine, check that all components are in correct position and secured correctly.
- Check the oil level as in Oil warning page 3 & 4.
- Oil type-with SAE 15W/40, 10W30, Grade SJ lubricating oil for Petrol engines.
- Check the machine has fuel, use fresh unleaded petrol.



➤ **Starting the engine**

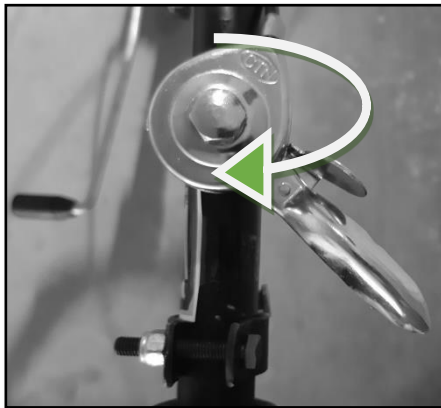
- Push the accelerator lever slightly.
- If machine does not start, then push the accelerator lever once fully.
- Firstly, move fuel supply lever at on position.
- Then switch on the engine as shown in picture by regulating knob.
- Pull the recoil starter gently, then pull sharply, do not let go of recoil starter handle, release slowly and repeat until engine starts.
- Once engine is running, adjust throttle to desired speed.
- If in case engine will not start by above procedure use choke valve & once engine is running move valve to off position.

➤ **Stopping the engine.**

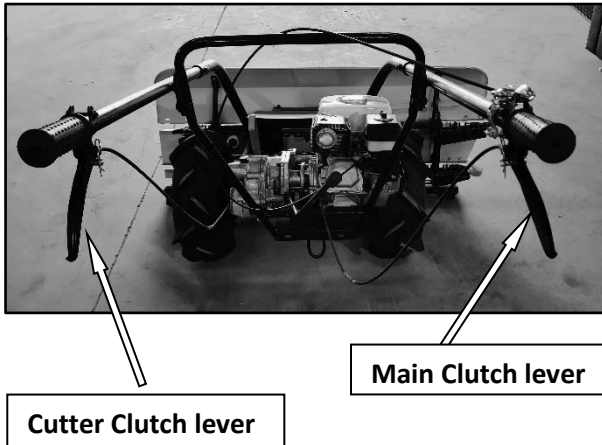
- To stop the engine, move regulating knob to off position as shown in the picture.

❖ **Accelerator lever**

- Speed of machine can maintain with the help of accelerator lever.
- To increase the speed of machine, push lever in clockwise direction as shown in picture.
- To decrease the speed of machine, push lever in anticlockwise direction.



## ❖ Clutch levers



- Before operating the clutch, reduce the speed of the engine.
- The clutch connects/dis-connects the engine to the Wheels.
- When the clutch is released, the wheels start to turn.
- When the Cutter-clutch is closed the cutter blades will come to a stop. The engine Continues to run.
- Clutch lever must be pressed before Following operation:
  1. Before stopping the machine.
  2. Before shifting of gear 1st or 2nd.

(Note: if any of the above operations is done without the use of a clutch lever can damage machine parts and will not cover under warranty.)

## ❖ Clutch Lever adjustment

- Clutch lever can be adjusted with the help of screw as shown in the picture.
- If the machine or PTO shaft will not stop after pressing clutch lever move screw upward with the help of spanner to adjust lever as shown In the picture.



## ❖ Working Of Conveyor Chain

- For the proper tension rate of the upper and lower conveying chain, it should make the crop conveying smoothly. It is available by losing the adjustable nut of the passive sprocket to move left and right, so as to change the tension of the conveying chain.
- Check the tines and riveting of the upper and lower conveying chains and repair them accordingly if there is any loosening or is lost.
- Check the correspondence of the tines on the upper and lower conveying chain. Please adjust if it is not correspondent.

## ❖ Working Of Cutter

- The Working faces of the moving and fixed knives should be on same plane, with the difference not more than 3mm. The space in the front should be not more than 0.4 mm, and the space on the back should not more than 1.5mm. The space between the moving knife, the rod and the friction plate of the knife pressure should be not more than 0.5mm. It is necessary to adjust the space, keep the knife rod vertical, Adjust the knife pressure by increasing or decreasing the spacer, or to replace the knife, so as to keep the above status.
- The beginning and ending lines of the centre route of all moving knives should be coincide with the central lines of the neighbouring fixed knives, with the difference not more than 5mm. if it does not coincide, adjust the length of connecting rod accordingly.
- Check the riveting of the moving and fixed knives if there are more than 1/3 knives lost or damaged. It would be necessary to replace the knives. It is also require to check bolt of the knife pressure to avoid any loosening.

## ❖ Normal operating angle.

- The Angle Between the placing and the moving direction could be  $90^\circ \pm 20^\circ$ . It could be adjusted according to the actual status by adjusting the bending degree of the crop leading plate.
- The required final depth of weeding may only be reached by increasing depth over several passes.
- During the first pass, the you should keep the depth shallow.
- If the machine bounces or shakes, you should adjust the speed to reduce bouncing and shaking.
- If the machine does not move forwards, but only digs on the spot, re-balance the machine to help it to move along.
- Avoid weeding if the soil is very hard, irrigate it a few days before the cultivation.

- Do not work on wet ground. If there has been a heavy rain on the working site, wait one to two days to make the soil dry.

## ❖ Guidance for Oil filling & Drain in Transmission & Engine

Oil Filling (Capacity -600ml)




Engine Oil



Drain Oil

# WARRANTY POLICY

Product: Simpson Self Propelled Power Reaper	Simpsons Invoice number / Date
Brand: <b>Simpson</b> 	Dealer Name: Complete Address: Phone Number: GST Number:
Dealer Invoice Number & Date	
Reaper Serial Number & Engine No:	
Warranty Period:	12 months from the date of Simpsons' Invoice.
Buyer's Name: Complete Address: Phone Number:	
Dealer's Signature and Stamp	
Buyer's Signature	



General Condition	This Warranty is in lieu of and excludes all conditions, warranties and liabilities express or implied whether in common law in statute or otherwise, not expressly set out here.
Warranty Coverage	Simpson & Co. Ltd., (Simpson) warrant this product to be from defects in material or workmanship. Normal wear and tear is not covered under this warranty. All the parts, excepting Nylon/Plastic/Rubber parts and consumables such as blades, filters, seals are not covered under this warranty. This warranty will only cover defects under normal usage.
Condition of Warranty	<p>This warranty shall become null and void and Simpson &amp; Co. Ltd or its dealers does not assume any responsibility, if the failure is caused by the following:</p> <ol style="list-style-type: none"> <li>1. Operation of product with incorrect fuel or lubricants</li> <li>2. Improper usage of the machine or misuse. Improper set up, adjustments, tampering or altered products,</li> <li>3. Lack of maintenance</li> <li>4. Negligence</li> <li>5. Accident or damage</li> <li>6. Repairs made by unauthorised parties and/or with non-genuine spare parts.</li> </ol>
Incidental and Consequential Loss	Simpson Or its dealers will not be liable for general damages, bodily injuries, incidental or consequential damages, loss of usage, loss of production, loss of profits, etc.
Modifications of Warranty	No agent, Company representative or employee of Simpson or its dealers, employee of the dealers has the authority to alter the obligations of this warranty.
Transfer / Assignment of this Warranty	This warranty is extended only to the original purchaser (i.e., the first buyer from Simpson’s authorised dealers.) This warranty cannot be assigned or transferred to any other buyer.
Liability of the Company	The liability of the Company is limited to replacing or repairing the part/parts/Reaper assemblies against accepted claims or to give credit in lieu thereof

	<p>The Company accepts no liability for loss or damage direct or consequential or for any accident resulting from defective material, faulty workmanship or otherwise.</p> <p>Warranty labour cost will be borne by Simpson’s authorised dealer. A credit note will be issued in settlement of an accepted claim the credit value will be on the basis of prevailing price of part/parts/Reaper assemblies as applicable to Simpson’s Authorised Dealers.</p>
<p>Procedure for submission of warranty claims</p>	<p>All parts/Reaper assemblies, under claim, duly packed before despatch to avoid transit damage, should be sent to the Company’s Marketing Department, on freight prepaid basis, within 30 days from the date of failure, otherwise the Company may not entertain any claim.</p> <p>In case the part/parts/Reaper assembly found damaged due to rough handling or during transit, the Company will not be able to entertain the claim. All the machined surfaces of parts with alleged defects should be protected against rust before despatch.</p> <p>The declaration on the above to be duly signed by the authorised person of the dealer and should be enclosed along with the warranty claim.</p> <p>Each part/Reaper assembly/sub-assembly should be tagged, duly furnishing all relevant information.</p>
<p>Methodology for disposal of Reaper assembly or parts thereof after it</p>	<p>Please follow the following procedure to dispose the Reaper assembly after its life when intended to scrap the product.</p> <ul style="list-style-type: none"> <li>• Dismantle the assembly and sub-assemblies to their final element.</li> <li>• Segregate the components to metallic, non-metallic, rubber items, oil, etc.</li> <li>• Wash all the segregated components separately and dry off with air.</li> <li>• All metallic and non-metallic components under recyclable category to concerned recyclers.</li> <li>• All rubber items, sealant scraps, and other hazardous items under hazardous waste disposal procedure laid by CPCB and / or concerned State Pollution Control Boards.</li> </ul>

	<ul style="list-style-type: none"> <li>• All waste oil and used oil to either authorised recyclers or retreater by CPCB and or concerned State Pollution Board.</li> <li>• All Electrical and electronic elements and wiring items to authorised e-waste handler under e-waste Management Rule framed by CPCB and / or concerned State Pollution Control Boards.</li> </ul>
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<p>General Condition to the buyer</p>	<p>*To ensure to collect this warranty document from Simpson authorised dealer.          *In case of any issue within the warranty period specified above, please approach the nearest authorised dealer of Simpson &amp; Co. Ltd.          *Simpson or its dealers reserve the right to carryout inspection of the claimed part or parts for examination.          * Simpson is the final decision authority with respect to any warranty claim</p>
<p>Jurisdiction: All disputes are subject to Chennai Court’s Jurisdiction.</p>	



Manufacturer's copy



SMALL AGRICULTURAL MACHINES  
& E-DRIVES DIVISION

# WARRANTY CARD



MODEL: \_\_\_\_\_

Engine No: \_\_\_\_\_

Invoice No: \_\_\_\_\_

Frame No: \_\_\_\_\_

Invoice Date: \_\_\_\_\_

Warranty start Date: \_\_\_\_\_

Warranty End Date: \_\_\_\_\_

CUSTOMER DETAILS:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Mobile No\Mail: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Customer Singature: \_\_\_\_\_

Dealer Seal & Singature: \_\_\_\_\_

(I acknowledge that I have read, understood and I accept the warranty policy and terms.)

The warranty is null, if you fail to register the warranty with Simpson by submitting the manufacturer copy with Dealer Seal and Signature.

Dealer copy



SMALL AGRICULTURAL MACHINES  
& E-DRIVES DIVISION

# WARRANTY CARD



MODEL: \_\_\_\_\_

Engine No: \_\_\_\_\_

Invoice No: \_\_\_\_\_

Frame No: \_\_\_\_\_

Invoice Date: \_\_\_\_\_

Warranty start Date: \_\_\_\_\_

Warranty End Date: \_\_\_\_\_

CUSTOMER DETAILS:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Mobile No\Mail: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Customer Singature: \_\_\_\_\_

Dealer Seal & Singature: \_\_\_\_\_

(I acknowledge that I have read, understood and I accept the warranty policy and terms.)

The warranty is null, if you fail to register the warranty with Simpson by submitting the manufacturer copy with Dealer Seal and Signature.







Customer copy

 SMALL AGRICULTURAL MACHINES & E-DRIVES DIVISION	<h1>WARRANTY CARD</h1>	
MODEL: _____		
Engine No: _____	Invoice No: _____	
Frame No: _____	Invoice Date: _____	
Warranty start Date: _____	Warranty End Date: _____	
CUSTOMER DETAILS:		
Name: _____	Address: _____	
Mobile No\Mail: _____	_____	
_____	_____	
Customer Singature: _____	Dealer Seal & Singature: _____	
<small>(I acknowledge that I have read, understood and I accept the warranty policy and terms.)</small>	<small>The warranty is null, if you fail to register the warranty with Simpson by submitting the manufacturer copy with Dealer Seal and Signature.</small>	

# MAINTENANCE

## ⚡ MAINTENANCE |


 <b>WARNING</b>	<p>Do not touch rotating blade.            Stop the engine and unplug the spark plug before doing any repairs or maintenance. For four stroke engines, regularly check the oil level and add some oil or replace it if necessary.            Frequently check the weeder and ensure that all deposits are removed from the weeding blade.            For security and condition - Check the blade, in order to obtain a good cut, the blade should always be sharp and well balanced. At regular intervals, check the tightness of all nuts, bolts and screws.            If the blade hits an obstacle, stop the weeder, assess for damage. If beyond safe repair, you must replace it.</p>
 <b>CAUTION</b>	<p>Refuel in a well-ventilated area with the engine off.</p>
 <b>CAUTION</b>	<p>Whilst carrying out maintenance you must wear correct PPE, suggest PPE but not limited too;</p> 

### ○ Cleaning.

- Keep the machine clean. Do not use chemical solvent to clean it.
- Remove all debris and remnants of other materials from the blades and machine.

### ○ Air Filter.

- Your machine will run more efficiently if you clean the air filter after every 8 working hours.
- Remove filter, check for contamination, and clean as required.
- Clean filter by blowing air through it using an air gun not exceeding 30psi.
- Never use a brush to clean the filter it will only drive dirt into the fibres of the filter.
- Wipe dirt from the air cleaner body by using a moist rag, be careful to prevent dirt or debris entering the air ducts into the carburettor.

 <b>CAUTION</b>	<p>Using old or stale fuel will impair starting and running of machine.            Make sure that the machine has fresh unleaded fuel and always remove fuel before storing for long periods.</p>
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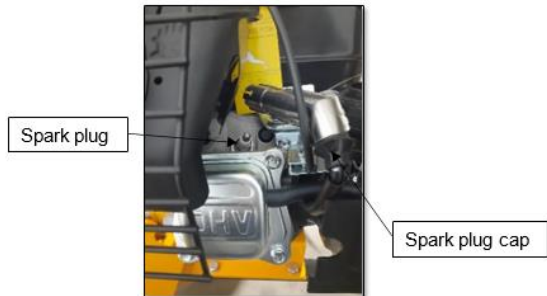
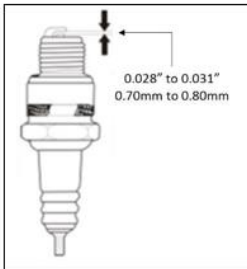
## ○ Spark plug.

- Spark plug type (or equivalent) F7RTC.
- To check spark plug, remove spark plug cap and remove spark plug using the supplied spark plug wrench.
- Clean the spark plug electrode also making sure that there is no damage to the insulator or electrode.
- The spark plug gap should be 0.70mm to 0.80mm adjust as necessary by carefully bending side electrode.
- Install cleaned and adjusted spark plug by hand to avoid cross-threading.
- After spark plug seats then tighten as necessary but avoid over-tightening.
- Attach spark plug cap.



NOTE

Loose spark plugs can overheat and damage engine.



## ➤ **ATTENTION OF OPERATING ENGINE:**

### ○ **RUNNING – IN OF NEW ENGINE:**

- If your engine has not breaking in yet, improper usage will shorten the life of engine. The initial 20 hours is the break-in-period.
1. **RUNNING IN FOR 5-MINS AFTER FIRST START.** Running with low speed and low load before the engine gets hot. Avoid running with high speed and full load speed and no load.
  2. **AVOID RUNNING WITH OVERLOAD.** During break-in-period, the engine can't run with full load, but can run with 3600 rpm and 50% load.
  3. **CHANGE ENGINE OIL REGULARLY.** After working for 20 hrs, change the oil.  
when engine is still warm, otherwise it will be difficult to drain the residual oil in the engine.

### † **SERVICE:**

Your simpson power reaper is designed to provide many hours of trouble-free service. Regular scheduled maintenance will help your power reaper achieve that goal. If you are unsure or are not equipped with the necessary tools, you may want to take your unit to a simpson service dealer for servicing. To help you decide whether you want to DO IT YOURSELF or have the simpson dealer do it, each maintenance task has been graded. If the task is not listed, see your simpson dealer for servicing

- **SKILL LEVEL**

- LEVEL 1 = Easy to do. Most required tools come with unit.
- LEVEL 2 = Moderate difficulty. Some specialized tools may be required.
- LEVEL 3 = Experience required. Specialized tools are required.

Recommended that the unit be returned to your simpson dealer for servicing.

Switch off the engine before maintenance and wait for the engine to cool down.

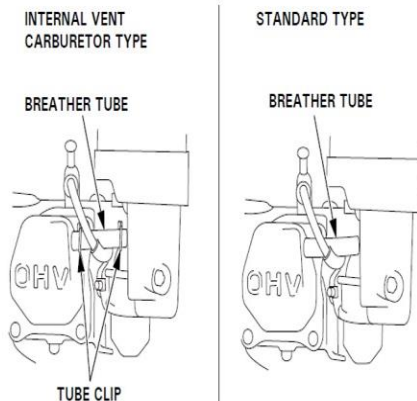
Working intervals and maintenance contents	Every day	Work with weeder under load for 8 hrs	Work for one month or 20 hrs	Work for 6 months or 100 hrs	Every year or 200 hrs	Per 2 years or 500 hrs	REQUIRED SKILL LEVEL
Check and tighten nuts and bolts	✓						1
Check and refuel lube	✓						2
Check and change lube		✓ (First time)	✓ (Second time)	✓ (Third time or more)			2
Check if there is oil leakage	✓						1
Clean mud, grass and oil stain	✓						1
Debug malfunction	✓						3
Adjust operation parts	✓						3
Friction plate of clutch						✓	3
Air cleaner (Check & Clean)	✓						
Spark Plug (Check & Clean)					✓		
Gears and bearings					✓		3

# SERVICING YOUR ENGINE

## MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD (3) Perform at every indicated month or operating hour interval, whichever comes first.		Each Use	First Month or 20 Hrs	Every 3 Months or 50 Hrs	Every 6 Months or 100 Hrs	Every Year or 300 Hrs
ITEM						
Engine oil	Check level	o				
	Change		o		o	
Reduction case oil (applicable types)	Check level	o				
	Change		o		o	
Air cleaner	Check	o				
	Clean			o (1)	o *(1)	
	Replace					o **
Sediment cup	Clean				o	
Spark plug	Check-adjust				o	
	Replace					o
Spark arrester (applicable types)	Clean				o (4)	
Idle speed	Check-adjust					o (2)
Valve clearance	Check-adjust					o (2)
Combustion chamber	Clean	After every 500 Hrs. (2)				
Fuel tank & filter	Clean				o (2)	
Fuel tube	Check	Every 2 years (Replace if necessary) (2)				

- \* • Internal vent carburetor with dual element type only.
- Cyclone type every 6 months or 150 hours.



- \*\* • Replace paper element type only.
- Cyclone type every 2 years or 600 hours.

- (1) Service more frequently when used in dusty areas.
- (2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.
- (3) For commercial use, log hours of operation to determine proper maintenance intervals.
- (4) In Europe and other countries where the machinery directive 2006/42/EC is enforced, this cleaning should be done by your servicing dealer.

Failure to follow this maintenance schedule could result in non-warrantable failures.

## ➤ SAFETY INSTRUCTIONS:

# DOs

- ✓ Do visual check before starting every time.
- ✓ Keep agriculture weeder clean.
- ✓ Do use recommended fuel and lubricants only.
- ✓ Do check fuel level.
- ✓ Do check air intake filter oil level.
- ✓ Do check engine oil and gear oil levels.
- ✓ Do check for any leakage.
- ✓ Do check decompression knob before starting.
- ✓ Do check gear in neutral position before starting.
- ✓ Do use recommended attachments only.
- ✓ Do maintain distance of 1ft from buildings and other equipments when operating, to avoid any accidents.
- ✓ Only operator with knowledge of machine and its operation must be permitted to operate agriculture weeder.
- ✓ Let agriculture weeder cool down before storing indoors.

# DON'Ts

- ✗ Don't overflow the fuel, but also never let fuel tank run out empty.
- ✗ Don't use adulterated fuel.
- ✗ Don't smoke or allow flame or spark where agriculture weeder is refueled or where fuel is stored.
- ✗ Don't inhale exhaust for it can contain poisonous carbon monoxide.
- ✗ Don't run agriculture weeder without adequate ventilation.
- ✗ Don't lean/tilt weeder more than 20°, otherwise fuel may spill.
- ✗ Don't cover agriculture weeder top so as to avoid fire.
- ✗ Don't touch muffler/exhaust, as it gets hot when operating and stays hot for sometime after stopping.
- ✗ Don't delay on service schedules.
- ✗ Don't operate weeder continuously more than 2hrs.30mins for any given operation
- ✗ Give break of 20mins.
- ✗ Don't take any alterations in design, operations and functioning of agriculture weeder other than company's recommendation.

## ○ THE REAPER CUTTERBAR BLADE

- The blade is made of steel, in order to obtain a good cut the blade frequently change around every 400 hours of work.
- Every 20 hours lubrication on cutter bar & conveyor chain.
- Make sure that the blade is always well balanced.
- To remove the blade, unscrew the bolt, check the blade support and change all spare parts if they are worn out or damaged.

# REAPER ATTACHMENT TROUBLESHOOTS

Problem	Probable Cause	Remedy
The conveying is blocked	The upper & lower conveying chains are lost or broken	Adjust the tension of the upper & lower conveying chains.
	The crop is too wet, Dew or Rain	Harvest after the crop is quite dry.
	The pressing spring is loose	Adjust the thickness accordingly
	The cutting knife digs the land.	Increase the cutting stubble Property.
	The Crop falls heavily or Disorderly.	Have the single direction harvest or cut part fallen crop manually
	The crop is too short.	It should be not shorter than 35 cm
	The crop is too high and the crop inclines on the conveying.	Increase the cutting stubble property if the crop is higher than 1.2 M.
	The crop inclines on the conveying when harvesting.	Adjust the tension of the upper and lower conveying chains and makes it consistent.
The grain lifter star wheel doesn't work	The tines of the star wheel are broken.	Replace the star wheel.
	The star wheel and the tines are not meshing.	Adjust them to make them mesh.
The grain lifter star wheel runs on and off	The conveying chain belt is broken, or the tines are lost.	Repair the tines.
The conveying chain doesn't Work.	The chain buckle is broken.	Replace the chain buckle.
	The transmission sprocket of the conveying chain is broken.	Replace the sprocket.
The cutting stubble is uneven, with the laceration	The moving speed is too rapid.	Adjust the accelerator.
	The cutting knife is blunt, or the gap is too large.	Repair or replace the cutting knife and adjust the gap accordingly.
The crop is fallen	The cutting knife digs the land.	Clean and increase the cutting stubble accordingly.
	There's one row left on the cutting Range.	Add the knives for the missing row.
Abnormal noise	The bolt is loose.	Check and fasten it.
	The lubricating part is lack of lubricant.	Check and add the lubricant.

## SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.

### Group 1 – Chassis Assembly

#### 1. Handlebar Assembly Fig – 1

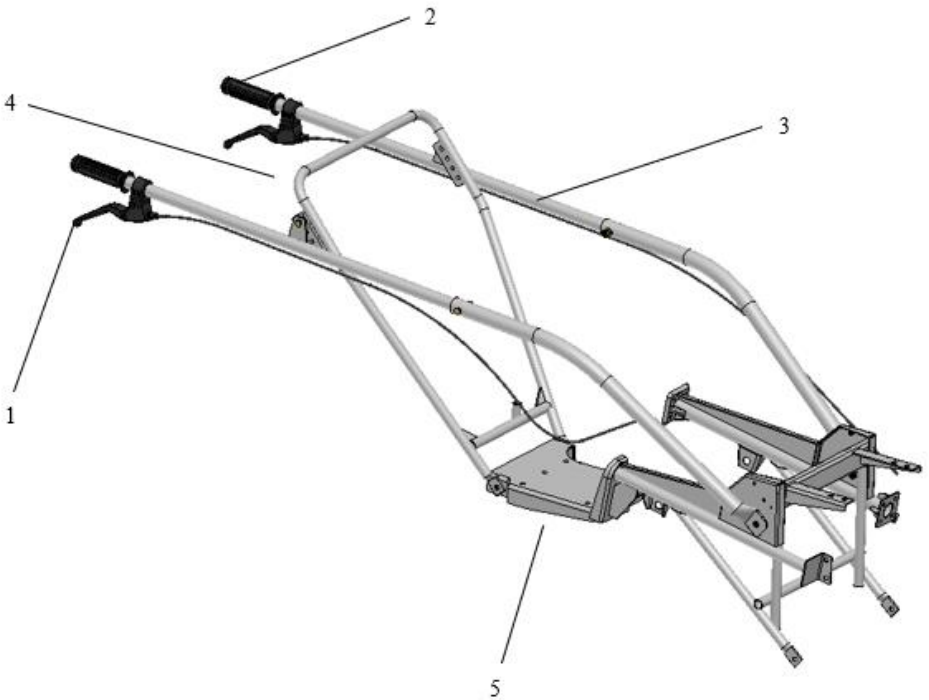


Fig – 1



**SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.**

**Group 1 – Chassis Assembly**

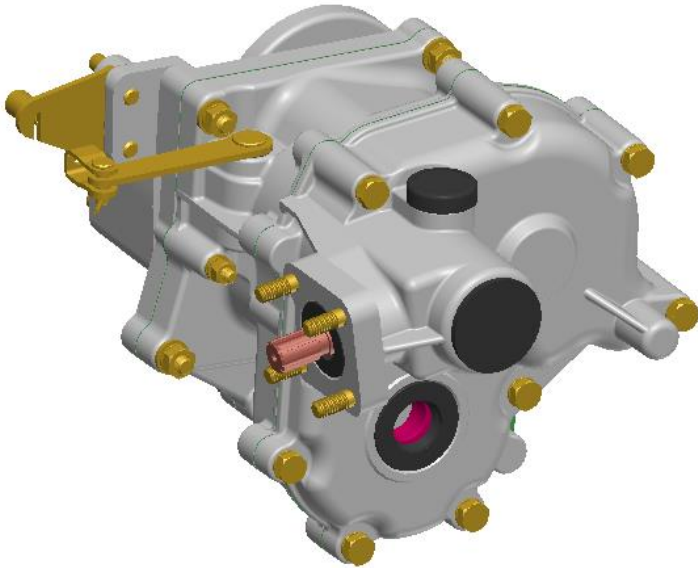
**1. Handle Part Assembly Part Name Fig -1**

<b>S. No.</b>	<b>Part No.</b>	<b>Part Name</b>	<b>QTY.</b>	<b>Remarks</b>
1	KRH00015	Clutch Lever	2	
2	KRH00015	Handle Grip	2	
3	KRH00013	Handlebar	2	
4	KRH00006	Steering Height Adjustment Frame	1	
5	KLC00016	Machine Main Frame	1	

**SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.**

**Group 2 – Gear Box & Transmission Assembly**

**1. Gear Box Assembly Fig -2**



**Fig -2**

## SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.

### Group 2 – Gear Box & Transmission Assembly

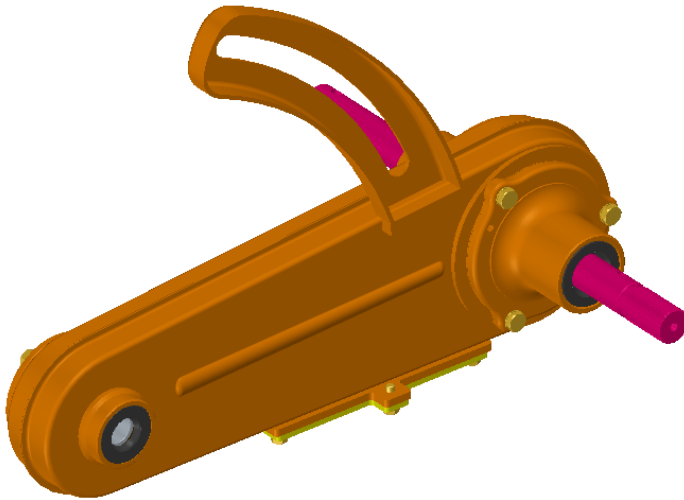
#### 1. Gear Box Assembly Part Name Fig -2

S. No.	Part No.	Part Name	Qty per Assy.	Remarks
1	KRT00083	Main Gearbox Assembly	1	
2	KRT00075	Transmission Case-2	1	
3	KRT00076	Transmission Case-1	1	
4	KRT00077	Engine Mounting Case	1	
5	KRT00009	Spur Gear-1	1	
6	KRT00004	Clutch Adjuster	1	
7	KRT00011	Shaft-1	1	
8	KRT00037	Shaft-2	1	
9	KRT00081	Bevel Gear-1	1	
10	KRT00018	Bevel Gear-2	1	
11	KRT00020	Oil filling Cap	1	
12	KRT00016	Double Spur Gear Assembly	1	
13	KRT00159	Gasket	1	
14	KRT00017	Spur Gear-2	1	
15	KRT00034	Gear Shifter	1	
16	KRT00158	Chain	1	
17	KBO00105	Ball Bearing 6203	3	
18	KBO00108	Ball Bearing 6004	1	
19	KBO00108	Ball Bearing 6004 2Z	1	
20	KBO00107	Ball Bearing 6202 2Z	3	
21	KBO00168	Cotter Pin 2.3 x 16	2	
22	KBO00004	Hex Bolt M8 x 1.25 x 16 (8.8)	2	
23	KBO00197	Allen Bolt M8 x 1.25 x 70 (8.8)	2	
24	KBO00034	HEX NUT M6 X 1.0 (8.8)	2	
25	KBO00031	HEX NUT M8 X 1.25 (8.8)	6	
26	KBO00046	Plane Washer M5	1	
27	KBO00045	Plane Washer M6	3	
28	KBO00041	Plane Washer M8	6	
29	KBO00054	Spring Washer M6	2	
31	KBO00249	Chain D10001 5/8" x 0.6 Meter	1	

**SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER (REAPTEK KI120).**

**Group 2 – Gear Box & Transmission Assembly**

**1. Transmission Case (Drive case) Assembly Fig -03**



**Fig -03**

## SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.

### Group 2 – Gear Box & Transmission Assembly

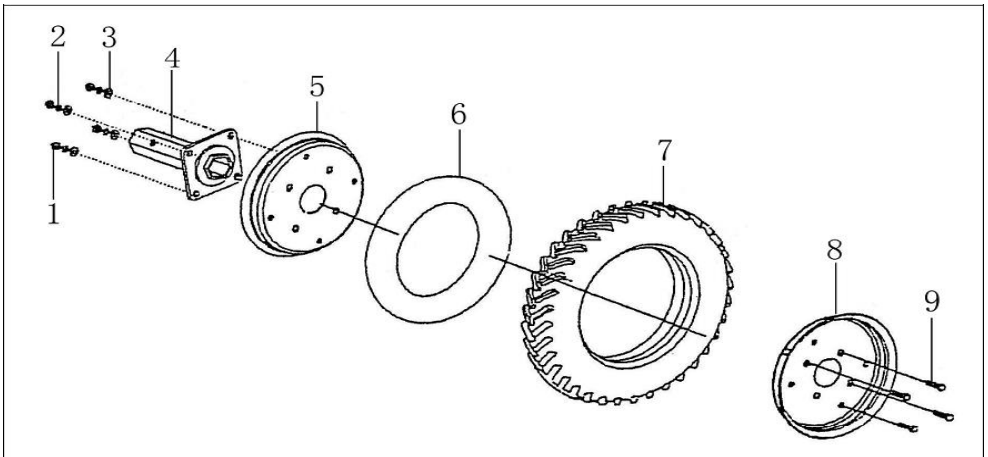
#### 1. Transmission Case/Final drive case Part Name Fig -03

S. No.	Part No	Part Name	(Qty) per Assy	Remarks
1	KRT00120	Chain Case	1	
2	KRT00119	Chain Case-1	1	
3	KRT00121	Chain Case-2	1	
4	KRT00121	Chain Cover Bush	2	
5	KRT00069	Shaft	1	
6	KRT00088	Bottom Plate	1	
7	KBO00261	Roller Chain 5/8" x 1 Meter	1	
8	KBO00261	Roller Chain Full Lock 5/8"	1	
9	KBO00108	Ball Bearing 6004 2Z	1	
10	KBO00128	Internal Circlip 42 MM	1	
11	KBO00138	Oil Seal 42 x 20 x 7	1	
12	KBO00051	SPRING WASHER M8	9	
13	KBO00054	SPRING WASHER M6	6	
14	KBO00045	PLANE WASHER M6	6	
15	KBO00001	Hex Bolt M6 x 1 x 16 (8.8)	12	
16	KBO00017	Hex Bolt M8 x 1.25 x 20 (8.8)	9	

**SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.**

**Group 3 – Traction Assembly**

**1. Wheel Assembly Part Name Fig -04**



**Fig -04**

## SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.

### Group 3 – Traction Assembly

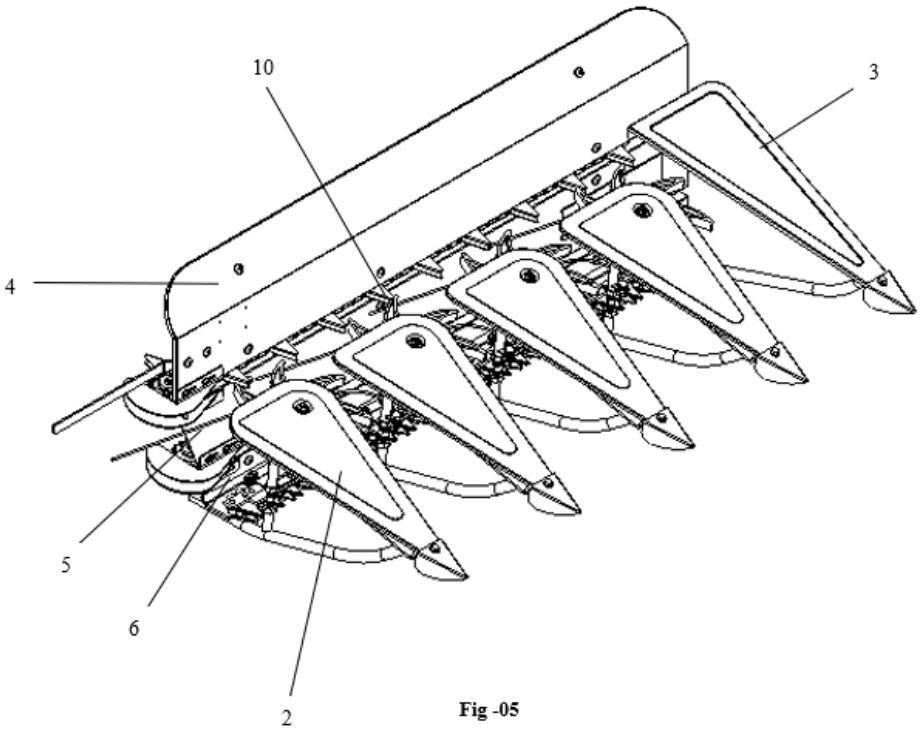
#### 1. Wheel Assembly Part Name Fig -04

S.No	Part No	Part Name	Qty Per Assembly	Remarks
1	KBO00031	Hex flange nut M8 x 1.5	4	
2	KBO00051	Spring washer M8	4	
3	KBO00041	Plane washer M8	4	
4	KRT00061	Wheel Hex Assembly	2	
5	KRT00095	Wheel rim-inner	2	
6	KWR00035	Wheel tube	2	
7	KRT00097	Rubber tyre	2	
8	KRT00096	Wheel rim outer	2	
9	KWB00004	Hex bolt M8 x 1 x 16	6	
10	KRT00098	Tyre Assembly	2	

**SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.**

**Group 4 – Reaper Head**

**1. Reaper Head Part Fig-05**



**Fig -05**



## SPARE PARTS CATALOGUE - SIMPSON SELF-PROPELLED REAPER.

### Group 4 – Reaper Head

#### 1. Reaper Head Part Fig-05

S.No	Part No	Part Name	Qty Per Assembly	Remarks
1	KLC00001	Reaper Attachment Frame	1	
2	KFL00028	Leaf Assembly	4	
3	KFL00034	Leaf Assembly-Big	1	
4	KFC00019	Top Front Cover	1	
5	KFC00023	Middle Front Cover	1	
6	KFC00027	Bottom Front Cover	1	
7	KFD00023	Chain Sprocket-19 Teeth	2	
8	KFD00040	Chain Sprocket-20 Teeth	2	
9	KFD00017	Lower Chain	1	
10	KFD00015	Upper Chain	1	
11	KFD00029	Chain Guide Roller	2	
12	KFD00037	Chain Tightner	1	
13	KFD00041	Drive Sprocket Shaft	1	
14	KFS00019	Fixed Cutter Plate Assembly	1	
15	KFS00012	Reciprocating Cutter Plate Assembly	1	
16	KFS00011	Cutter Blade	48	
17	KLG00001	Cutter Gear Box Assembly	1	
18	KFG00010	Chain Sprocket-25 Teeth	1	

*Simpson & Co. Ltd*



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