Branson 20C series
Operator’s manual
# TABLE OF CONTENTS

**GENERAL PRECAUTIONS** ................................................................. 8
**ABOUT WARRANTY** ........................................................................ 50
**OVERVIEW OF THE TRACTOR** .................................................... 52
**FUNCTIONS** .................................................................................. 56

**SWITCHES AND LEVERS** ............................................................ 57
1. MAIN KEY SWITCH ......................................................................... 58
2. ACCELERATOR LEVER ................................................................. 59
3. F/R SHUTTLE LEVER ................................................................. 59
4. DIRECTION LAMP S/W ............................................................... 60
5. HEAD LAMP & HORN S/W ......................................................... 60
6. STEERING WHEEL TILT LEVER .................................................. 61
7. PTO SHIFT SWITCH ....................................................................... 61
8. EMERGENCY LAMP SWITC ....................................................... 62
9. DASH METER ................................................................................. 63

**PEDALS** .................................................................................... 67
1. CLUTCH PEDAL ............................................................................ 68
2. BRAKE PEDALS AND CONNECTOR ......................................... 68
3. ACCELERATION PEDAL ............................................................ 69

**LEVER OPERATION (A)** ............................................................... 70
1. MID REMOTE VALVE JOYSTICK ............................................. 71
2. MAIN GEAR SHIFT LEVER ....................................................... 71
3. 3PT POSITION CONTROL LEVER ............................................ 72
4. RANGE SHIFT LEVER --------------------------------- 72
5. PARK BRAKE LEVER --------------------------------- 73
6,7. REAR REMOTE CONTROL LEVER --------------------- 73

LEVER OPERATION (B) -------------------------------------- 74
1. STOP/SLOW RETURN VALVE ----------------------------- 75
2. MFWD LEVER --------------------------------------- 75
3. PTO LEVER ----------------------------------------- 76
4. DIFFERENTIAL LOCK PEDAL ------------------------------ 76

OTHERS ----------------------------------------------- 77
1. WORKLAMP SWITCH ----------------------------------- 78
2. POWER OUTLET -------------------------------------- 78
3. WIPER SWITCH -------------------------------------- 78
4. CLIMATE CONTROL ----------------------------------- 80
5. SEAT --------------------------------------------- 81

OPERATION & WORK --------------------------------------- 82
CHECKING BEFORE OPERATION ----------------------------- 83
STARTING/STOPPING THE ENGINE -------------------------- 90
1. TO START THE ENGINE ------------------------------- 91
2. TO STOP THE ENGINE ------------------------------- 93

DRIVING ON THE ROAD ----------------------------------- 94
DRIVING ON THE SLOPE ---------------------------------- 95
ENTERING AND LEAVING THE PAVEMENT ---------------------- 96
TURNING ON THE PAVEMENT -------------------------------- 97
OTHERS

1. RADIATOR SCREEN / AIR CLEANER

2. BATTERY

3. ADJUSTING PARKING BRAKE

4. FUEL PIPES AND HOSES

5. ELECTRICAL CABLES

6. GREASING

7. STEERING WHEEL

8. BRAKE

9. FAN BELT

10. AIR COMPRESSOR BELT

11. TOE-IN

12. FRONT AXLE SWING

13. FUSE AND FUSIBLE LINK

14. COLOR OF EXHAUST GAS

TROUBLESHOOTING

ENGINE

CLUTCH & BRAKE

HYDRAULIC SYSTEM

ELECTRICAL SYSTEM

SPECIFICATIONS
THANK YOU FOR PURCHASING A BRANSON TRACTOR.

Before use, read and understand this manual complete.

- After reading this manual, keep it close to the tractor for immediate reference
- Any one operating this tractor should review this manual.
- In case this manual is lost or damaged, please contact your nearest authorized dealer for a copy.
- Some parts of this product may have been changed for the improvement of quality or for safety reason.
- In this case, the photographs or drawings of such parts in this booklet may not be the same as the actual parts installed on this product.
- If you find anything in this manual unclear or in need of further explanation, please contact your authorized dealer for inquiry.
The instructions given with the following marks are very important for your safety

⚠️ **DANGER** Failure to observe the instruction given with this mark may result in death or injury.

⚠️ **WARNING** Failure to observe the instruction given with this mark may expose you to the risk of death or injury.

⚠️ **CAUTION** Failure to observe the instruction given with this mark may expose you to injury.

• The section, “To Ensure Safe Operation,” on the following pages details safety points to be observed to ensure safe operation of your tractor
• Please make sure you read it carefully before operating the tractor.

Read this Manual for correct and safe use of the product. Failure to use the product properly may result in an accident. Keep this Manual close to the tractor after you have read it.
GENERAL PRECAUTIONS
(TO ENSURE SAFE OPERATION)
GENERAL PRECAUTIONS

• Make sure to observe the instruction given in this section to avoid equipment failure or personal injury or death.

Beware of exhaust gas. Start engine in a well ventilated area.

[Otherwise]
The exhaust gas can cause intoxication and lead to fatal consequences.

WARNING

Select a flat and safe location to secure the tractor in place so it will not cause a risk to people passing by. Before carrying out the maintenance, block the front and rear tires to prevent moving while servicing.

[Otherwise]
An unexpected accident may occur, such as overturning of the tractor.
Make sure work area is properly lighted. Use safety work lights with protection covering.

WARNING

Keep a first aid kit and fire extinguisher handy at all times while operating equipment.

WARNING

[Otherwise]
An unexpected accident may occur, possibly fire or explosion.
Do not operate tractor or any implement attached to tractor while under the influence of alcohol, medication, controlled substances or while fatigued.

Never wear loose, torn or bulky clothing around tractor.

[Otherwise] You will be exposed to a risk of being entangled in the equipment resulting in injury.
WARNING
Fasten your seat belt at all times.

[Otherwise]
You will be exposed to a risk of death or serious injury if the tractor overturns.

WARNING
Before allowing other people to use your tractor, explain how to operate and have them read this manual.

[Otherwise]
There is a danger of death, serious injury, or damage to the tractor.
GENERAL PRECAUTIONS

WARNING

Be sure to use only implements which are recommended by manufacturer.

[Otherwise]
An unexpected accident may occur or tractor may not perform properly.

WARNING

Fully warn children and keep them away from the tractor at all times.

[Otherwise]
There is a risk of injury.
Absolutely no lit cigarettes, matches, or lighters anywhere near when fueling the tank.

[Otherwise]
Fire or explosion may occur.

Inspect electrical wiring contact insulation to avoid shorting or spark.

[Otherwise]
There is a risk of fire due to short circuit.
When filling tires with air, do not inflate it beyond the maximum pressure stated in this booklet.

[Otherwise]
The tire may blow out, causing an injury.

When starting the engine, make sure that you are seated in the driver’s seat with your seat belt fastened and the safety inspection has been performed.

[Otherwise]
An unexpected accident may occur.
During operation and right after the engine is turned off, the muffler is very hot. Avoid touching it, as you may get burnt.

CAUTION
[Otherwise]
There is a risk of getting burnt.

Use only the genuine parts or other approved parts. Do not modify the tractor

CAUTION
[Otherwise]
There is a danger of accident or injury or equipment failure. Please remember that the failure due to modification may not be covered by warranty.
Perform periodic maintenance, keep each part of the tractor in normal condition. Make sure to replace all hydraulic hoses and brake hoses once every two years.

[Otherwise]
There is danger of accident or equipment failure due to poor maintenance.

Check carefully that the various safety lamps such as direction indication lamp before driving the tractor

[Otherwise]
Because signal cannot be seen by nearby workers, agricultural equipment, automobiles, etc. It may result in a cause of accident.
Never fill the fuel tank while the engine is running or when the engine is hot.

**DANGER**

*Otherwise*
The fuel may ignite and fire may break out.

If fuel pipe is damaged, fuel will leak. Make sure that you check for any leakage.

**DANGER**

*Otherwise*
There is a danger of fire.
GENERAL PRECAUTIONS

DANGER
After filling the fuel tank, close the fuel filler cap completely and wipe off the excess fuel thoroughly.

[Otherwise]
It may result in a fire accident or environmental pollution.

WARNING
Every day before operating the tractor, check for straws, dust, fuel, or other residue on and around the muffler and the engine and remove them.

[Otherwise]
It may result in a fire.
WARNING
Except when you adjust the steering wheel, make sure that the tilt lever is placed in the <Lock> position.

[Otherwise]
The tractor may not turn to the direction you want and may cause an accident.

WARNING
Check if the brakes work properly and evenly on both sides or if the steering wheel is loose.

[Otherwise]
There is a risk of accident.
GENERAL PRECAUTIONS

Engage the parking brake during warming of engine.

WARNING

[Otherwise]
The tractor may move and cause an accident or injury.

Engage or disengage the implement on a flat and safe place. Supply proper lighting at all times and especially night.

WARNING

[Otherwise]
There is a danger of accident.
Treatment of hazardous materials

- Properly discard hazardous materials.
- Hazardous materials from tractor are the following: Coolant, brake oil, oil, filter elements, battery and so on.
- When draining fuel, oil or other liquids, use a container without holes. Do not dispose of chemicals on the ground or in rivers or waterways.

DANGER
Be careful that your body or your clothes do not come in contact with the battery solution. If you come in contact with the battery solution, rinse it off with water immediately.

[Otherwise]
You may get burnt or your clothes may be damaged.
GENERAL PRECAUTIONS

Avoid fire when checking or charging the battery.

WARNING

[Otherwise]
You may get burnt due to ignition or explosion of the battery.

Connect the (+) terminal first when installing the battery, and disconnect the (-) terminal first when removing it.

CAUTION

[Otherwise]
There is a risk of burn or fire due to short circuit.
When checking, repairing, maintaining, or cleaning the tractor, make sure to stop the engine.

[Otherwise]
There is a danger of injury.

Make sure that the hydraulic coupling or the hose is not loose or damaged. Before separating the hydraulic coupling or the hose, eliminate the high pressure inside the hydraulic system.

[Otherwise]
The oil under high pressure may cause damage to the skin or injury.
GENERAL PRECAUTIONS

When the PTO shaft is not in use, apply grease to it and keep it covered.

[Otherwise]
There is a risk that you may get entangled or get injured.

Manage the maintenance tools properly, and use the correct tools for the type of maintenance. Also, always keep the tools for repairs and minor adjustment available on the tractor.

[Otherwise]
There is a danger of accident due to poor maintenance.
After opening the hood for checking or maintenance, make sure to put them in their place.

[Otherwise]
There is a risk that you may get entangled in the tractor or get injured.
Do not use a person on anything else in place of the balance weight. Use only recommended balance weight for the work.

[Otherwise] There is a danger of accident or injury.

When engaging or disengaging the implement by moving the tractor, make sure that no one is allowed around the tractor or between the implement or attachment and the tractor.

[Otherwise] There is a danger of accident or injury.
When engaging a heavy implement or attachment, load the weight on the front to keep the balance of the tractor.

**[Otherwise]**
There is a danger of accident or injury due to loss of balance.

**WARNING**
Do not get under implement or put your feet under it.

**[Otherwise]**
The implement unit may fall down and there is a risk of injury.
Adjust the wheel tread (width between left and right tires) on a slope or when towing.

**WARNING**

[Otherwise]
There is a danger of turning over.

Depending on implements, the overall length may become very long. Pay particular attention to people or objects nearby when making a turn.

**WARNING**

[Otherwise]
There is a danger of person injury or a collision of the implement.
Link the brake of the trailer with the brake of the tractor. Do not shift gear when driving on a hill.

[Otherwise]
There is a risk of accident or injury.

When engaging an implement to the tractor, follow the instruction manual for the implement.

[Otherwise]
There is a risk of personal injury or damage to the tractor.
During loader operation, apply weights or an implement to avoid losing balance between the front and the rear side of tractor.

[Otherwise] There is a risk of overturning accident due to loss of balance.

Do not use a low-revolution implement at high revolution. Be sure to know the designated PTO requirements for the implements.

[Otherwise] The performance of the implement may not properly work and there is a risk of accident or injury or damage to the tractor.
Check and perform maintenance to loader after lifting it. And fix the joystick safety lever when dismantling.

[Otherwise]
There is a danger of an unexpected death accident.

Make sure to use the drawbar when towing. Never tow anything with the top link or the lower link.

[Otherwise]
Tractor may turn over.
When working with the rotary, put the rotary slowly on soft or rocky ground. The tractor may be pushed in an unexpected direction by the rotating force of the rotary.

**WARNING**

[Otherwise]
There is a risk of accident or injury.

Make sure to release the differential gear lock when making a turn.

**WARNING**

[Otherwise]
The tractor may not turn to the direction you want and cause an accident and damage the tractor.
Loading or unloading must be done on a flat and safe place, the tractor engine switched off, and the parking brake engaged. The loading ramps must be non-slip and have sufficient strength, length, and width for the tractor.

[Otherwise]
The tractor may roll backward or fall off causing accident or injury.

Move the tractor backward when loading it on the truck, and forward when unloading from the truck.

[Otherwise]
The tractor may roll backward or fall off causing accident or injury.
GENERAL PRECAUTIONS

Make sure to connect the brakes on both sides when loading or unloading the tractor.

[Otherwise] The tractor may overturn due to one-sided braking when the brake pedal is depressed in an emergency.

DANGER

Pay particular attention to driving on the loading ramp. Do not operate the tractor as you do with normal use, such as stepping on the clutch, or putting the main gear or range gear or shuttle lever to “Neutral”.

WARNING

[Otherwise] The tractor may roll backward or fall off causing accident or injury.
When driving on slopes or on the loading ramps, select the proper gear and then do not shift the gear.

[Otherwise]
There is a risk of slipping, rolling, or overturning.

WARNING

When transporting the tractor, apply the parking brake with gear engaged and fasten the tractor to the truck securely with sufficient strength.

[Otherwise]
There is a risk of accident that the tractor may fall off the truck.
GENERAL PRECAUTIONS

Only operate tractor while people or animals are at safe distance away. Check around the tractor, start the engine, and move slowly.

Otherwise
There is a risk of injury.

Do not allow passengers to ride on any part of the tractor at any time. (Especially, children)
The operator must remain in the seat at all time.

Otherwise
An unexpected accident may occur.
GENERAL PRECAUTIONS

WARNING

When moving along the unpaved road with ditches or slanted sides, pay attention to the shoulders.

[Otherwise] There is a risk of falling over.

WARNING

When driving on the road, observe the traffic regulations.

[Otherwise] There is a danger of accident or injury.
GENERAL PRECAUTIONS

[Otherwise] There is a danger of abrupt turning or overturning due to one-sided braking when the brake pedal is depressed.

[Otherwise] There is a risk of overturning.

Make sure to connect the brake pedals when driving on a road.

Reduce throttle speed when making a turn, apply brake when driving on hilly or curved roads.
Check if the brakes work properly and evenly on both sides or if the steering wheel is loose.

WARNING

[Otherwise]
There is a risk of overturning.

Be sure to use the loading ramps when crossing a ditch or dike, or when passing through soft land. The loading ramps must be suitable for the tractor in width, length and strength.

WARNING

[Otherwise]
There is a risk of accident that the tractor may slip or turn over.
When leaving the tractor, park the tractor on a flat and safe area, turn off the engine, and apply the parking brake. Also, let the implement rest on the ground.

**WARNING**

[Otherwise]
The tractor may move and cause an accident.

Ventilate the area to let out the exhaust gas.

**WARNING**

[Otherwise]
The exhaust gas can cause intoxication and lead to fatal consequences.
Pay attention and keep hands on the steering wheel while driving.

**WARNING**

[Otherwise]
There is a risk of accident to injury.

Stop the engine when removing grass, etc. from the blades of the cultivator

**WARNING**

[Otherwise]
There is a danger that you will get entangled in the cultivator or sustain a serious injury.
Do not look away or take hands off the steering wheel while driving.

**WARNING**

[Otherwise] There is a danger of accident or injury.

When entering or leaving the farming field, or moving across a dike or a raised ground, use the loading ramp and lower the implement as much as possible but that it does not touch the ground.

**WARNING**

[Otherwise] There is a danger that the tractor may turn over due to loss of balance.
When starting the engine, confirm that the implement is down on ground.

*WARNING*

[Otherwise]
The implement may come down suddenly and cause an injury.

Never open the radiator cap when the radiator is heated.

*WARNING*

[Otherwise]
Hot water may splash, causing burns or damage.
Every day before operating the tractor, check if the electrical wiring is contact with other parts, or if the insulation is peeling off, or the contact points are loose.

**WARNING**

[Otherwise]
There is a danger of fire due to short circuit.

Every day before operating the tractor, check for straw, dust, fuel, or other residue on and around the muffler and the engine and remove them.

**WARNING**

[Otherwise]
There is a danger of fire.
When storing the tractor for a long period of time, make sure to put the clutch pedal in the “Disconnect” position.

**WARNING**

[Otherwise]
The tractor may move and cause injury or an accident.

Put tractor cover on only after parts such as the engine and muffler cooled down.

**WARNING**

[Otherwise]
There is a risk of fire.
GENERAL PRECAUTIONS

![Image of tractor in a garage](image1)

**WARNING**
When storing the tractor without use for a long period of time, remove the battery and keep the key in a safe place.

*Otherwise*
There is a risk of an accident.

![Image of tractor and warning sign](image2)

**WARNING**
Install the indication of disable car in accordance with the local regulation at the rear of the tractor when a failure occurs during travelling.

*Otherwise*
It may cause a danger of rear-end accident.
Item regarding lighting devices (alarm lamp and safety device)

- When the tractor has an implement attached or is moving slowly, you must often watch the rear side traffic status to avoid a collision accident when travelling on the road. In particular, be careful when you change directions. If necessary, the signal must be given by hand or direction indication lamp must be used.

- Always turn on the head light, and/or emergency lamp at night and day as requested by the local traffic regulation.

- Maintain the light and indication plate so it can be visible always. Immediately repair or attach the broken or missed light and indicating plates.
The following items, maintenance and adjustment should not be attempted, but contact the nearest authorized dealer, if necessary.

- Adjustment of injection pump without pre-approval. May cause components to deteriorate the durability and performance of the engine and may cause a fatal malfunction.

- Adjustment of hydraulic pressure set at shipment. May cause a fatal failure of related components and a subsequent accident.

- If you intend to adjust the components that may deteriorate durability and performance, always contact your nearest authorized dealer or service department of the head office.

[Otherwise]
Be careful it may cause a fatal error or may not be covered by the warranty.

Use agricultural chemicals in a safe manner.

Agricultural chemicals must be sprayed properly. Spraying of agricultural chemicals needs to be planned in advanced and be aware of potential damage to surroundings.

Do wear the protective clothing (mask, glove) for agricultural chemicals before spray work.

Clean the equipment and tractor just after spraying work.

[Otherwise]
You may be exposed to agricultural chemicals spray.
ABOUT WARRANTY