This operator’s manual contains handling tips and precautions for safe operation of your Branson F36R(H)/F42R(H) tractor. Read it carefully before you operate your tractor and make sure that you have a full understanding of this manual. This will ensure correct operation and to keep the tractor optimum condition.

After reading the manual, keep it close to the tractor for immediate reference. When you loan your tractor to someone else, loan the manual as well.

In case the manual is lost or damaged, please contact your local authorized dealer for a copy. Some parts of this product may have been changed for the improvement of quality or for safety reasons, in which case the photographs or drawings of the 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 need further explanation, please contact your authorized dealer.

※ Regarding the purpose of this machine

Do not modify the machine or try to do the job which is beyond purpose of this machine. Otherwise it may cause the warranty cancellation. (Refer to warranty statement for detail)
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This manual includes information titled as **DANGER, WARNING, CAUTION, IMPORTANT**. These safety marks stand for the safety precaution so follow the instruction with special attention:

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<td><strong>DANGER</strong></td>
<td>This symbol indicates that a condition may result in harm, fatal injury or death to you or other persons if this instruction is ignored.</td>
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<tr>
<td><strong>WARNING</strong></td>
<td>This symbol indicates that a condition may result in harm, serious injury or death to you or other persons if this instruction is ignored.</td>
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<td><strong>CAUTION</strong></td>
<td>This symbol indicates that a condition may result in damage to your vehicle or its equipment if this instruction is ignored. Also this symbol alerts the operator’s unstable operation.</td>
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<td><strong>IMPORTANT</strong></td>
<td>This symbol indicates emphasis on notable characteristics of working procedures, and information about technology for easier operation.</td>
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<td><strong>NOTE</strong></td>
<td>This instruction is to give additional description to operator so that he/she can operate the machine more effectively.</td>
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This manual includes "Very important safety tips for safe operation" as a chapter. Be sure to read this chapter before initial operation.
This manual includes symbol marks of the controller to simplify operations for maneuverability and maintenance. These meanings are as below, so carefully read it for a proper function.

- **PTO**
- **Preheat**
- **Parking Brake (Brake)**
- **Left side indicator**
- **Right side indicator**
- **Engine oil pressure**
- **Battery**
- **High beam**
- **Low beam**
"USE AND DISPOSAL" POLICY CONCERNED WITH ENVIRONMENT PRESERVATION

We try our best to preserve the environment, and are always concerned about our environmental impact at each step of planning, development, production, distribution, use and disposal of products, and for our overall operations through an “environmentally friendly” management system. We comply with international environmental regulations, environmental regulations designated by country and local authorities and other requirements with which we are in agreement, and we work towards the prevention of environmental pollution and the conservation of resources. We provide environmental education and have an awareness campaign to raise environmental awareness among all our employees and members of the supporting companies.

We introduce the “Use and Disposal” policy concerned with environment preservation as follows.

1. Please read the operator’s manual though for global environment protection. Overload on the machine shortens the product life and increases the harmful exhaust gas which cause air pollution due to the incomplete combustion.

2. When replacing various fluids (for engine, transmission, hydraulics, etc.) by yourself, don’t dispose the used oil to anywhere not recommended. It can pollute the ground and water. Please contact your local dealer to dispose it legally.

3. Observe the operator’s manual and store or dispose the waste product properly. Rust, oil, etc leaked from waste product improperly stored can pollute the ground and water. Accordingly for a waste product disposal, contact the necessarily “approved waste collection and recycling facility” to discard the used materials legally.
1. FOR SAFE OPERATION

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SAFETY PRECAUTIONS

If the instructions in this chapter are ignored, it may cause a machine failure, a fatal accident with injury or death.
For further detailed information, refer to each chapter.

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<td>• Please understand that some of figures or contents in this manual may not match with your own machine due to the product variation.</td>
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<td>• This tractor is not designed for road driving. Please use a truck to move this machine on the public roads.</td>
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### BEFORE USING THE MACHINE

**WARNING**

Beware of exhaust gas;
- Running the engine, repairing (tightening) an painted part or grinding any painted area should be performed only in a well-ventilated area.

If this instruction is ignored, the exhaust gas or dust can cause intoxication and lead to fatal consequences.

**WARNING**

Wide and flat enough place;
- Inspect or repair the tractor on a wide and flat area.

If this instruction is ignored, an unexpected accident may occur, such as overturning of the tractor.
**FOR YOUR SAFETY**

---

### WARNING

Clean and arranged place;
• Do not mess the place by dust, mud, oil, or parts
If this instruction is ignored, an unexpected accident may occur.

---

### WARNING

Carry out maintenance in a well-lit place;
• Make sure work area is properly lighted.
Use safety work lights with protective covering when working inside or under the machine.
If this instruction is ignored, an unexpected accident may occur, possibly fire or explosion.

---

### WARNING

Prepare for emergencies;
• Keep a first aid kit and fire extinguisher handy at all times while operating machine.
Do not drive if you are;
- Unable to concentrate because of fatigue, under treatment of medicine.
- Under the influence on alcohol
- Pregnant
- Under the age of 18

Wear properly for the job;
- Hair band, loose clothing is not allowed. Wear tight clothes, work hat, and work shoes which have rough bottoms against slippery surface. If this instruction is ignored, you will be exposed to a risk of being entangled, slipping, or falling.

Use only recommended implements;
- Be sure to use only implements which are recommended by manufacturer. If this instruction is ignored, an unexpected accident may occur or tractor may not perform properly.
Pay attention to the shoulder of the road;  
• When moving along the unpaved road with ditches or slanted sides, pay attention to the shoulders.  
If this instruction is ignored, there is a risk of falling over.

Interlock the brake pedals (left and right) when driving on a road;  
• Make sure to interlock the brake pedals (left and right) when driving on a road.  
If this instruction is ignored, there is a risk of abrupt turning or overturning due to one-sided braking.
Observe traffic regulations and drive safely;
• When driving on the road, observe the traffic regulations and wear a hard hat and seat belt.
If this instruction is ignored, there is a risk of accident or injury.

Observe traffic regulations when driving on a road safely;
• If the machine is broke down and stopped on the road, move the machine to a safe place out of the road.
If this instruction is ignored, there is a risk of accident or injury.

Avoid rapid starting, braking, turning, and excessive speed;
• Start and stop the tractor slowly. Reduce engine speed when making a turn and driving on hilly or curved roads.
If this instruction is ignored, there is a risk of overturning or damage to the machine.
Put machine shut down sign if the machine is stopped on the road;
• If the tractor is stopped on the road due to the machine failure, put the machine shut down sign (Emergency triangle reflex reflector) at least 100~200 yards before failed machine in accordance with local traffic laws.
If this instruction is ignored, the machine can be hit by a car and cause a traffic accident with injury or death.

Only driver should be aboard the tractor while in operation;
• This tractor is designed to allow only one operator. The driver must not allow anyone else to get on the tractor.
• Especially never allow children on the machine while in use.
If this instruction is ignored, an unexpected accident may occur.

Do not allow anyone near while operating the tractor or implement;
• When engaging or disengaging the implement by moving the tractor, make sure that no one is around the tractor or between the implement and the tractor.
[If this instruction is ignored, there is a risk of accident or injury.]
Properly train anyone operating;
• Explain the handling tips in detail and make sure the driver reads the Manual before driving.
If this instruction is ignored, there is a risk of death, serious injury, or damage to tractor.

Use Pesticides safely;
• Careless use of agricultural chemicals such as disinfectants, herbicide, pesticides, rat poison, and fertilizer can be harmful to environment and human body. Be sure to observe all relevant regulation and instructions to use the agricultural chemicals efficiently and safely. Then it may prevent injury or accident.
Observe all relevant regulations for disposal;
- Be sure to observe all relevant regulations when you dispose of the engine oil, transmission oil, fuel, coolant, filters and battery.
- Never dispose the used oil directly to the river or drainage, follow legal procedures.

WARNING
No smoking or open flame when fueling;
- Do not smoke or use match or lighter while refueling.
If this instruction is ignored, fuel can catch fire and lead to explosion or fatal injury with burn.
Inspect for fuel leaking; Check the fuel lines and hoses for damage or leakage. If this instruction is ignored, there is a risk of fire.

Consider the strength, length and width of loading ramps before using; 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. If this instruction is ignored, the tractor may roll backwards or fall off causing accident or injury.

Move the tractor backward when loading, and forward when unloading; Move the tractor backward when loading it on the truck, and forward when unloading from the truck. If this instruction is ignored, the tractor may roll or fall off causing accident or injury.
FOR YOUR SAFETY

BEFORE WORKING

### WARNING

Be careful when driving on the loading ramps;
- Be careful when driving on the loading ramps. Do not disengage the clutch, shift the main shift, range shift, or forward/reverse lever.

If this instruction is ignored, the tractor may roll backwards or fall causing accident or injury.

### WARNING

Do not shift gears on slopes or on the loading ramps;
- When driving on slopes or on loading ramps, select the proper shift gear before approaching the loading ramps and then do not shift the gear on the loading ramps.

If this instruction is ignored, there is a risk of slipping, rolling, or overturning.

### CAUTION

Stop the engine before maintenance;
- Stop the engine before maintenance when checking, repairing or cleaning the machine.

If this instruction is ignored, there is a risk of injury.
Stop and cool down the engine before fueling or lubricating; do not fill the fuel while the engine is running or machine is hot. If this instruction is ignored, fuel can catch fire or lead to fatal injury with burn.

No fire or spark near to the battery; do not fill the fuel while the engine is running or machine is hot. If this instruction is ignored, the battery can cause a blaze or explosion and lead to a fatal injury or death.

Remove dirt and debris from muffler and engine before operating; clean if there is dust, debris or fuel on the engine or muffler before operating the machine every day. If this instruction is ignored, there is a risk of fire.
Use correct tools;
- Use proper tools to carry out all maintenance procedure. Also have available the required tools in the tractor at all times.

If this instruction is ignored, there is a risk of accident due to poor maintenance.

**WARNING**
Check electrical component and wire harness;
- Check before work if the wire harnesses are burned or stuck on any other component, if the cord cover is peeled off or if the wire connectors are loose.
If this instruction is ignored, the electrical short can cause fire and injury.

**CAUTION**
Do not over inflate tires;
- When filling tires with air, do not inflate it beyond the maximum pressure stated in this manual. (Refer to P5-22 of Proper inflation pressure)
If this instruction is ignored, the tire may blow out, causing an injury.
Secure hood and side covers before operating tractor;
- After detaching the covers for checking or maintenance, make sure to put them back in their place.
If this instruction is ignored, there is a risk that you may get entangled in the tractor or get injured.

Observe correct procedures when installing or removing the battery;
- Connect the (+) terminal first when installing the battery, and disconnect the (-) terminal first when removing it.
If this instruction is ignored, there is a risk of burn or fire due to short circuit.

It is necessary inspect the brake and steering wheel;
- Check if the brakes work properly and evenly on both sides or if the steering wheel is loose.
If this instruction is ignored, there is a risk of accident.
Avoid contact with the battery solution;
• Be careful that your body or your clothes do not come in contact with the battery solution. If it contacts with your skin, wash immediately with water.
If this instruction is ignored, it can burn your skin or clothes.

Be sure to check before and after using machine;
• Be sure to check the machine before and after using. Especially inspect and repair controls such as clutch, brake, lever, etc.
If this instruction is ignored, the machine can be broken or lead to an accident or injury.

Lock tilt lever and telescopic knob when adjusting steering wheel;
• Except when you adjust the steering wheel, make sure that the tilt lever and telescopic knob are secured in the "No" and "Lock" positions.
If this instruction is ignored, the tractor may not turn properly, causing an accident.
WHILE WORKING

**WARNING**

Use the loading ramps when crossing a ditch or a dike;
- 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.

If this instruction is ignored, there is a risk of accident that the tractor may slip or turn over.

**WARNING**

Properly ventilate when working in a green house;
- Ventilate the green house to let out the exhaust gas.

If this instruction is ignored, the exhaust gas can cause intoxication and lead to fatal consequences.

**WARNING**

Pay attention and keep hands on the steering wheel while driving;

If this instruction is ignored, there is a risk of accident or injury.
AFTER USING THE MACHINE

**WARNING**
Do not allow anyone near while operating the tractor or implement;
- When engaging or disengaging the implement by moving the tractor, make sure that no one is around the tractor or between the implement and the tractor.
If this instruction is ignored, there is a risk of accident or injury.

**WARNING**
Stop the engine when removing grass, etc. from blades of the cultivator;
- Stop the engine when removing grass, etc. from blades of the cultivator and lock the flow control valve not to lower the implement.
If this instruction is ignored, there is a risk that you will get entangled in the cultivator or sustain a serious injury due to lowering the implement.

**WARNING**
Perform the maintenance on a level and safe location;
- Perform the maintenance on a level and safe location that will keep the tractor in place and will not cause a risk to people passing by. Before carrying out the maintenance, place blocks at the front and rear tires to prevent movement.
If this instruction is ignored, an unexpected accident may occur, such as overturning of the tractor.
CAUTION
Cover the PTO shaft when not in use;
- When the PTO shaft is not in use, apply grease and keep it covered.
If this instruction is ignored, there is a risk that you may get entangled or get injured. Implement shaft installation on the PTO shaft will not be easy due to the rust on it.

CAUTION
Carry out maintenance after the parts have cooled down;
- Carry out the maintenance work after the heated area such as the muffler or the engine is fully cooled down.
If this instruction is ignored, there is a risk of getting burnt.

CAUTION
Stop and cool down the engine before fueling or lubricating;
- Do not fill the fuel while the engine is running or machine is hot.
If this instruction is ignored, fuel can catch fire or lead to fatal injury with severe burns.
FOR YOUR SAFETY

CAUTION

Be careful of high oil pressure;
- 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 by moving the control lever while engine is stopped.

If this instruction is ignored, the oil under high pressure may cause skin injury.

WARNING

Make sure that you are seated in the driver’s seat with your seat belt fastened before starting engine;
- When starting the engine, make sure that you are seated in the driver’s seat with your seat belt fastened and check the seat position and the safety of the tractor.

If this instruction is ignored, an unexpected accident may occur.

CAUTION

Stop the engine before maintenance;
- Stop the engine before maintenance such as checking, repairing or cleaning the machine.

If this instruction is ignored, there is a risk of injury.
**WARNING**

Put tractor rain cover on only after tractor has cooled down;
- Put tractor rain cover on only after parts such as the engine and muffler have cooled down.
If this instruction is ignored, there is a risk of fire.

**WARNING**

Do not open the radiator cap when the radiator is hot;
- Never open the radiator cap when the radiator is heated.
If this instruction is ignored, hot water may spurt, causing burns or damage.

**WARNING**

Remove dirt and debris from muffler and engine before operating;
- Clean if there is dust, debris or fuel on the engine or muffler before operating the machine every day.
If this instruction is ignored, there is a risk of fire.
PRECAUTION FOR PROLONGED STORAGE

- **CAUTION**
  Be careful of hot muffler;
  - During operation and right after the engine is turned off, the muffler is very hot. Avoid touching it.
  If this instruction is ignored, you may get burnt.

- **CAUTION**
  After working, immediately repair if necessary;
  - Immediately repair or replace the faulty parts.
  - Tighten the loose bolt and nut right away.
  If this instruction is ignored, an unexpected accident may occur due to poor maintenance.

- **CAUTION**
  Disengage the clutch when storing the tractor for a long time;
  - When storing the tractor for a long period of time, make sure to put the clutch pedal in the disengaging position.
  If this instruction is ignored, the clutch disc can be stuck to the fly wheel after long period time.
Disconnect the Battery and the key when storing the tractor for a long period of time;
• When storing the tractor without use for a long period of time, park the machine on the leveled ground and clean each component, remove the battery and keep the key in a safe place.
If this instruction is ignored, battery power may be weakened and starting will be failed.

Observe correct procedures when installing or removing the battery;
• Connect the (+) terminal first when installing the battery, and disconnect the (-) terminal first when removing it.
If this instruction is ignored, there is a risk of burn or fire due to short circuit.

Confirm that the implement is down on the ground when starting the engine;
• When starting the engine, confirm that the control lever is on "Lowest" position.
If this instruction is ignored, implement may come down suddenly and cause an injury.
OTHER

⚠️ WARNING

Maintenance periodically;
• After using tractor, visit your local dealer for maintenance, such as oil change and filters.
  - Contact the local dealer to discard the parts (battery, etc.) or waste materials.
If this instruction is ignored, there is a risk of accident due to poor maintenance.

⚠️ WARNING

Do not adjust or repair following components. Consult your local BRANSON dealer for these repair;
  • Injection capacity and timing of the engine fuel injection pump.
  • Correction and repair of hydraulic system (safety valve, hydraulic pump, brake valve, PST cylinder, SCV valve).
There is a risk of accident or injury or machinery breakdown. Remember it may cause the warranty cancellation.
If this instruction is ignored, consult your local BRANSON dealer for those repair and adjustment.

⚠️ CAUTION

Do not modify the tractor;
• Use only the genuine parts or other approved parts. Do not modify the tractor.
If this instruction is ignored, there is a risk of accident or injury or machinery breakdown. Remember it may cause the warranty cancellation.
Pay attention when turning with implement;
• Depending on implements, the overall length may become very long. Pay particular attention to people or objects nearby when making a turn.
If this instruction is ignored, there is a risk of person injury or a collision of the implement.

Move wheels to widest setting (width between left and right tires) when working slope or when towing;
If this instruction is ignored, there is a risk of turning over.

Use caution sign when towing a trailer;
• Link the brake of the trailer with the brake of the tractor. Do not shift gears when driving on a hill.
If this instruction is ignored, there is a risk of accident or injury.
Follow the instruction manual when engaging an implement;
• When engaging an implement to the tractor, follow the instruction manual for the implement.
If this instruction is ignored, there is a risk of personal injury or damage to the tractor.

Balance a heavy implement with weights;
• When engaging a heavy implement, load the weights on the front of tractor to keep the balance of the tractor.
If this instruction is ignored, there is a risk of accident or injury due to loss of balance.

Pay attention to the balance between the front and rear side during the front-end-loader operation;
• During the front-end-loader operation, apply weights or implement to avoid losing balance between the front and the rear side of tractor.
If this instruction is ignored, there is a risk of overturning accident due to loss of balance.
**WARNING**

Do not get under or put your feet under the implement;
- Do not get under or put your feet under the implement.

If this instruction is ignored, the implement unit may fall down and there is a risk of injury.

**WARNING**

Do not substitute balance weights with a person or anything else;
- Do not use a person or anything else in place of the balance weight. Use only genuine balance weight.

If this instruction is ignored, there is a risk of accident or injury.

**WARNING**

Be careful of unexpected movement when using the rotary tiller;
- When working with the rotary tiller, put the tiller slowly on soft or rocky ground. The tractor may be pushed in an unexpected direction by the rotating force of the tiller.

If this instruction is ignored, there is a risk of accident or injury.
FOR YOUR SAFETY

**WARNING**
Properly secure tractor during transport;
- When transporting the tractor, apply the parking brake with gear engaged and fasten the tractor to the truck securely using ropes or belts with sufficient strength.

If this instruction is ignored, there is a risk of accident that the tractor may fall off the truck.

**DANGER**
Interlock the brake pedals for both sides when loading or unloading the tractor;
- It is necessary to interlock the brake pedals for both sides when loading or unloading the tractor.

If this instruction is ignored, the tractor may overturn due to one-sided braking when the brake pedal is depressed in an emergency.

**WARNING**
Release the differential gear lock when making a turn;
- Make sure to release the differential gear lock when making a turn.

If this instruction is ignored, the tractor may not turn to the intended direction and cause an accident.


**WARNING**

Use the drawbar when towing;
- Make sure to use the drawbar when towing. Never tow anything with the top link or the lower links.
If this instruction is ignored, the tractor may turn over.

**WARNING**

Pay attention to the shoulder of the road;
- When moving along the unpaved road with ditches or slanted sides, pay attention to the road shoulder.
If this instruction is ignored, there is a risk of falling over.

**WARNING**

Be careful when driving on a hill;
- Be careful when driving on a hill. Do not disengage the clutch on the hill. Do not shift the main shift lever, range shift lever, or shuttle lever in [neutral] on the hill.
If this instruction is ignored, the tractor may roll backwards or fall causing accident or injury.
FOR YOUR SAFETY

**WARNING**

Turn off engine in a level area when leaving the tractor;
- When leaving the tractor, park the tractor on a level and safe area, turn off the engine, and apply the parking brake. Also, lower the implement on the ground.

If this instruction is ignored, the tractor may move and cause an accident.

**WARNING**

Remove spilled excess fuel after closing the fuel cap;
- After filling the fuel tank, close the fuel filler cap completely and wipe off the excess fuel thoroughly.

If this instruction is ignored, there is a risk of fire.

**WARNING**

Be aware of the PTO RPM requirements for the implements;
- Attach or detach the implements on a level area. Supply proper lighting at all times especially at night.

If this instruction is ignored, there is a risk of accident or injury.
**CAUTION**

Engage the parking brake during warming up the engine; If this instruction is ignored, the tractor may move and cause an accident or injury.

---

**WARNING**

Only engage or disengage implements on flat, level area:

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

[Otherwise]

There is a danger of accident.
(1) No.: TA00036924A

(2) No.: TzE5130000C4

(3) No.: TzE5180000C4

(4) No.: TA00040603A [MEC. Model]

**WARNING**

**HOT SURFACE**

**CAUTION**

**WARNING**

**CAUTION**

- For the long storage, please lock clutch pedal in the both traction and PTO clutch are disengaged position.
(5) No.: TzE4190000C4

CAUTION

DIESEL ONLY

(6) No.: TzE5110000B4

DANGER

Start only from seat in park or neutral. Starting in gear kits.

(7) No.: TzE5160000B3

CAUTION

TO AVOID PERSONAL INJURY:
1. Read and understand the operator’s manual before operation.
2. Before starting the engine, make sure that everyone is at a safe distance from the tractor and that the PTO is OFF.
3. Do not allow passengers on the tractor at any time.
4. Before allowing children to operate the tractor, make sure they read the operator’s manual.
5. Never leave the engine running unattended.
6. Keep all wheel in place and stay away from all moving parts.
7. Lock the two brake pedals together before driving on the road.
8. Slow down for turns, or rough roads, or when applying individual brakes.
9. On public roads use SMV emblem and hazard lights, if required by local traffic and safety regulations.
10. Pull only from the drawbar.

(8) No.: TzE5170000B3

WARNING

TO AVOID PERSONAL INJURY, DO NOT ENTER FROM ROLL-OVER PROTECTION STRUCTURE (ROPS) AND EASIT IN-LATCH AT ALL APPLICATIONS.

(9) No.: TzE5140000B3

WARNING

BEFORE DISEMBARKING TRACTOR:
1. PARK ON LEVEL GROUND UNLESS POSSIBLE.
2. If parking on a gradient, position tractor at right angle to the slope.
3. ALWAYS SET PARKING BRAKE.
4. Lowering lift arms after the engine stopped will result in injury to operator.
5. EJECT ALL IMPLEMENTS TO THE GROUND.
6. Failure to comply with this warning may allow the wheels to slip, and could cause injury or death.

(10) No.: TzE5120000B4

WARNING

TO AVOID PERSONAL INJURY:
1. Attach pulled or towed loads to the drawbar only.
2. Use the 3-point hitch only with equipment designed for 3-point hitch usage.
1. If descending a slope, never disengage the clutch or shift lever to neutral. Doing so could cause the tractor to speed up out of control.

2. Slow down for slopes, especially when transporting heavy, rear mounted equipment.

3. Before descending a slope, shift to a gear low enough to control speed without using brakes.

**WARNING**

*To avoid personal injury (operating on slopes)*

1. Keep PTO shield in place at all times.
2. Do not operate the PTO at speeds faster than the speed recommended by the implement manufacturer.
3. If towing PTO-driven implements set drawbar at towing position. (see operator’s manual)
4. Keep hands, feet and clothing away.

**CAUTION**

*Connect the left brake with right brake while on the road*

To avoid personal injury (operating on slopes):

1. If descending a slope, never disengage the clutch or shift levers to neutral.
2. Doing so could cause the tractor to speed up out of control.
3. Slow down for slopes, especially when transporting heavy, rear mounted equipment.
4. Before descending a slope, shift to a gear low enough to control speed without using brakes.

**WARNING**

*Use seat belt*

Death or injury may result if the tractor rolls over with the ropes in the folded down position.

Operate this tractor with the ropes folded down only when necessary.

**WARNING**

This structure’s protective capability may be impaired by structural damage, overturn, or alteration.

If any of these conditions occur, the structure must be replaced.
CAUTIONS FOR DECAL MAINTENANCE

Safety decals are attached to the tractor for safe operation. Make sure to follow the instruction on the decals as well as the following instruction:

⚠️ CAUTION

- Keep the decals clean and intact. If any decal is dirty, wash it with soap and dry with a soft cloth.
- Never use a solvent such as thinner or acetone, since it can ruin the decals.
- Do not spray high-pressure water directly onto the decal. The decal may fall off the tractor.

⚠️ IMPORTANT

- If a decal is damaged or lost, contact your local BRANSON dealer immediately to install a new decal.
- Make sure to attach the decal in the correct position cleanly without bubbles after cleaning its mounting surface.
- If a decal is attached to a component to be replaced, replace the decal as well.
2. REGARDING WARRANTY SUPPORT

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REGARDING GENUINE PARTS AND FLUID .............................................. 2-3
REGARDING WARRANTY CERTIFICATE

⚠️ WARNING

- Do not modify the machine. If it is damaged by unapproved modification and misuse against description of manual, it will not be covered under warranty.

REGARDING AFTER-SALES SERVICE
VEHICLE IDENTIFICATION NUMBER (VIN)
PRODUCTION SERIAL NUMBER

1. Model And Production Serial Number

The manufacturer's serial number is marked on the serial number decal which is attached to the front right side of the front axle bracket.

ENGINE SERIAL NUMBER

1. Engine Serial Number

The engine number is stamped on the cylinder block and is specified on the decal which is attached to the cylinder block on the left side of the engine. Also, the decal indicating the engine model and standards is attached on the top of the engine cylinder head cover.
REGARDING AFTER-SALES SERVICE
If you have a problem on your machine, refer to "Troubleshooting" of chapter 7 to check by yourself. Or contact immediately to authorized BRANSON dealer nearby.

BE PREPARE FOR THE FOLLOWING QUESTION BEFORE CALLING
• Model and product serial number
• In case of engine failure, engine serial number
• Working conditions (What kind of job and how fast)
• Run hour of machine
• Describe the problem in detail as possible

REGARDING SUPPLYING SERVICE PARTS
We supply the service parts in accordance with the separated quality assurance regulation. Consult your local dealer for availability and pricing.

REGARDING GENUINE PARTS AND FLUID
Use BRANSON genuine parts only!!

The BRANSON genuine parts and fluid are passed severe durability and performance test. Please use BRANSON genuine parts for your safety.
3. SPECIFICATIONS

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# MAJOR SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Branson F36R(H)</th>
<th>Branson F42R(H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTO Power kW (PS)</td>
<td>22 (30)</td>
<td>25.7 (35)</td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>Vertical, 4-stroke, water-cooled diesel engine</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>A1700N4-UTR_4</td>
<td>A1700T2-UTR_4</td>
</tr>
<tr>
<td>No. of cylinders</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Bore x Stroke mm (in.)</td>
<td>88 × 94 (3.46 × 3.70)</td>
<td></td>
</tr>
<tr>
<td>Displacement cc</td>
<td></td>
<td>1,714 (104.59)</td>
</tr>
<tr>
<td>Horsepower kW (ps)</td>
<td>25.7 (35)</td>
<td>29.4 (40)</td>
</tr>
<tr>
<td>Revolution rpm</td>
<td>2,600</td>
<td></td>
</tr>
<tr>
<td>Max. torque kgf · m/rpm</td>
<td>11.2/1,600</td>
<td>12.7/1,600</td>
</tr>
<tr>
<td>Battery V</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td>Diesel fuel</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel tank ℓ (u.s. gal)</td>
<td>27 (7.13)</td>
<td></td>
</tr>
<tr>
<td>Engine crankcase ℓ (u.s. gal)</td>
<td>4.3 (1.14)</td>
<td></td>
</tr>
<tr>
<td>Coolant ℓ (u.s. gal)</td>
<td>5 (1.32)</td>
<td></td>
</tr>
<tr>
<td>Transmission case ℓ (u.s. gal)</td>
<td>Manual: 34 (8.98) / HST: 37 (9.77)</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall length mm (in.)</td>
<td>3,096 (121.9) (W/O Front Weight)</td>
<td></td>
</tr>
<tr>
<td>Overall width mm (in.)</td>
<td>1,431 (56.34)</td>
<td>1,451 (57.13)</td>
</tr>
<tr>
<td>Overall height mm (in.)</td>
<td>2,643 (104.06)</td>
<td>2,643 (104.06)</td>
</tr>
</tbody>
</table>

※Dimensions and weights are based on 8-16 / 12.4-24.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Branson F36R(H)</th>
<th>Branson F42R(H)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wheel base</strong></td>
<td>1,671 (65.79)</td>
<td></td>
</tr>
<tr>
<td><strong>Ground clearance</strong></td>
<td>306 (12.05)</td>
<td>335 (13.19)</td>
</tr>
<tr>
<td><strong>Front wheel</strong></td>
<td>1,151 (45.31)</td>
<td>1,201 (47.28)</td>
</tr>
<tr>
<td><strong>Rear wheel</strong></td>
<td>1,151 (45.31)</td>
<td>1,165 (45.87)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>1,450 (With front weight)</td>
<td></td>
</tr>
<tr>
<td><strong>Tire (standard)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Front wheel</strong></td>
<td>7.0-16 6PR</td>
<td>8.0-16 6PR</td>
</tr>
<tr>
<td><strong>Rear wheel</strong></td>
<td>11.2-24 6PR</td>
<td>12.4-24 6PR</td>
</tr>
<tr>
<td><strong>Steering system</strong></td>
<td></td>
<td>Electro-hydraulic power steering</td>
</tr>
<tr>
<td><strong>Transmission</strong></td>
<td>Synchro Mesh, Synchro Shuttle</td>
<td></td>
</tr>
<tr>
<td><strong>Brake</strong></td>
<td>Wet multi disc</td>
<td></td>
</tr>
<tr>
<td><strong>Hydraulic control system</strong></td>
<td>Position/Draft</td>
<td></td>
</tr>
<tr>
<td><strong>Pump flow</strong></td>
<td>52 ℓ /min</td>
<td></td>
</tr>
<tr>
<td><strong>3-point hitch</strong></td>
<td>CAT1</td>
<td></td>
</tr>
<tr>
<td><strong>Max. lift</strong></td>
<td>1,500 kg</td>
<td></td>
</tr>
<tr>
<td><strong>PTO</strong></td>
<td></td>
<td>Ø 35 mm - 6 splines</td>
</tr>
<tr>
<td><strong>PTO shaft specification</strong></td>
<td>560/780 (2 gears)</td>
<td></td>
</tr>
</tbody>
</table>

※Dimensions and weights are based on 8-16 / 12.4-24.
### DRIVING SPEED

※ The tractor's speed is changed by the condition of the tires and road surface.
※ To ensure safety, drive at a proper speed.

**[MEC. MODEL]**

Engine speed: 2600rpm, Tire rolling radius: 540mm (Rear 12.4-24) km/h (mph)

<table>
<thead>
<tr>
<th>RANGE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>FORWARD</td>
<td>1.2 (0.8)</td>
<td>1.8 (1.1)</td>
<td>2.3 (1.4)</td>
</tr>
<tr>
<td>BACKWARD</td>
<td>1.2 (0.7)</td>
<td>1.7 (1.1)</td>
<td>2.2 (1.4)</td>
</tr>
</tbody>
</table>

Engine speed: 2600rpm, Tire rolling radius: 515mm (Rear 11.2-24) km/h (mph)

<table>
<thead>
<tr>
<th>RANGE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>FORWARD</td>
<td>1.2 (0.7)</td>
<td>1.7 (1.1)</td>
<td>2.2 (1.4)</td>
</tr>
<tr>
<td>BACKWARD</td>
<td>1.1 (0.7)</td>
<td>1.6 (1.0)</td>
<td>2.1 (1.3)</td>
</tr>
</tbody>
</table>
The tractor's speed is changed by the condition of the tires and road surface. To ensure safety, drive at a proper speed.

**[HST MODEL]**

Engine speed: 2600rpm, Tire rolling radius: 540mm (Rear 12.4-24) km/h (mph)

<table>
<thead>
<tr>
<th>RANGE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORWARD</td>
<td>5.90 (3.67)</td>
<td>16.1 (10.0)</td>
<td>30.7 (19.07)</td>
</tr>
<tr>
<td>BACKWARD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engine speed: 2600rpm, Tire rolling radius: 515mm (Rear 11.2-24) km/h (mph)

<table>
<thead>
<tr>
<th>RANGE</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORWARD</td>
<td>5.63 (3.50)</td>
<td>15.36 (9.54)</td>
<td>29.27 (18.18)</td>
</tr>
<tr>
<td>BACKWARD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# 4. OPERATION DESCRIPTION

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EXTERIOR VIEW

(1) Steering Wheel  (3) Front Tire  (5) Muffler  (7) Brake Lights
(2) Bonnet  (4) Front Weight Hitch  (6) Rear Tire  (8) Safety Frame
A: Steering Wheel (Handle)
B: Ignition Switch
C: Hazard Warning Flasher Switch
D: PTO Switch
E: Shuttle Shift Lever [MEC. Model]
F: Instrument Cluster
G: Cruise Switch (only forward) [HST Model]
H: Turn Signal / Lamp switch

※ Refer to the relevant content for further detailed information
The main switch is used to start or stop the engine.
OFF: The engine is stopped, and current ends at the ignition switch.
ON: Electric current flows to all switches in the electrical system.
START: When the start motor is engaged, the engine will start. When the engine is started, release the key. The key will return to the "ON" position automatically and the engine will keep running.

CAUTION

To start the engine, put the shuttle shift lever to the "Neutral" position to release the safety start system.

HAZARD WARNING FLASHER SWITCH

Press the hazard flasher warning switch in emergency to warn other vehicles in order to prevent an accident. Pressing this switch blinks all turn signal lamps regardless of the position of the main switch. Pressing it again disables the flasher function.
TURN SIGNAL/LAMP SWITCH

Turning the lamp switch clockwise to the first notch turns on the tail lamps and instrument cluster. Turning it further turns on the high/low beam.

Push up the turn signal lamp knob to turn on the right turn signal lamp and press down the knob to turn on the left turn signal lamp. To sound the horn, press the horn button in center of the switch.

CAUTION

- Prolonged operation can consume electricity excessively. Therefore, use it only in emergency. Use it only when necessary as it can discharge the battery and obstruct other drivers’ view.

SHUTTLE SHIFT LEVER

[MEC. MODEL]

This is used to drive the tractor forward or backward. Shift the lever with the clutch pedal and brake pedal depressed to maximum.

(1) Lamp Switch
(2) Turn Signal Lamp Knob
(3) Horn Button

(1) Shuttle Shift Lever
(A) Forward
(B) Reverse
CRUISE CONTROL SWITCH
[HST MODEL]

1. When the machine has reached the desired speed, press cruise control switch to “ON”. Release the HST pedal and the machine will operate at the selected speed.

2. When applying full pressure to the Brake pedals, the cruise control will deactivated and it will be necessary to reset the cruise control to the desired speed.

3. When applying light pressure to the Brake pedals, the machine's ground speed will be reduced until the Brake pedals released. At that point the machine will continue at the previous setting.

4. To reset the desired speed, you should turn off the cruise control switch then increase machine speed to reach the desired speed. Push cruise switch to on.

CAUTION

- When stop the machine cruise control keep machine stop status.
- Make sure connecting the both Brake pedals when use cruise control function.

[Otherwise]
There is a risk abrupt turning or overturning due to onesided Braking when the Brake pedal is depressed.
INSTRUMENT CLUSTER

(1) PTO Indicator  (4) Parking Brake (Brake) Indicator  (7) Preheat Indicator  (10) Fuel Gauge
(2) Turn Signal Indicator  (5) Engine Hydraulic Pressure Indicator  (8) PTO Rotating Position  (11) Hour Meter
(3) High Beam Indicator  (6) Charge Warning Lamp  (9) Tachometer  (12) Coolant Temperature Gauge
PTO INDICATOR

(1) PTO Indicator

This comes on when the PTO clutch switch is in the "IND" or "LINK" position.

LEFT/RIGHT TURN SIGNAL INDICATOR

(1) Left Turn Signal Indicator
(2) Right Turn Signal Indicator

This indicates the condition when operating one of the turn signal lamps for the desired turning direction.

HIGH BEAM INDICATOR

(1) High Beam Indicator

It indicates the high beam. Select the low beam for driving on a road.
PARKING BRAKE & BRAKE INDICATOR

(1) Parking Brake (Brake) Indicator

ENGINE OIL PRESSURE WARNING LAMP

(1) Engine Oil Pressure Warning Lamp

This comes on when the parking brake is applied or the brake pedal is depressed. [US] This comes on when the parking brake is applied only. [EU] If the parking brake is applied, release the parking brake lever before driving. However, the lamp on the right side does not come on if only one side brake is released.

When setting the main switch into the ON position while the ambient temperature is about 5℃, this indicator comes on to indicate the heater is energized. After the indicator goes off (automatically), turning the switch to the START position can start the engine. The illumination duration of the thermostat pilot lamp varies by the current applying duration of the heater according to the coolant temperature.

NOTE

• Coolant temperature over 5℃: 1 sec. or shorter / Less than 5℃: 3 - 30 seconds
The battery charge warning lamp is turned on when the ignition switch is initially turned to the "ON" position before starting the engine but turned off after starting the engine. If this lamp comes on while driving, the charging system is malfunctioning. In this case, check the fan belt or ask your local dealer for further inspection if necessary.

The 4WD indicator comes on when the 4WD lever is placed in "ON" position. This indicates the remaining fuel level. Immediately fill the fuel tank if the needle reads the red area.
OPERATION DESCRIPTION

TACHOMETER/HOUR METER

The tachometer indicates the engine rpm and the hour meter indicates the total run hour of the tractor.

COOLANT TEMPERATURE GAUGE

This coolant temperature gauge indicates the engine coolant temperature after the ignition switch is turned to the "ON" position. If the needle reads the red area, immediately stop working and then inspect the tractor.
CONTROLS 1
FOOT CONTROLS

[HST MODEL]

(1) Brake Pedal
(2) Forward Pedal
(3) Backward Pedal
OPERATION DESCRIPTION

CLUTCH PEDAL

If the clutch pedal is depressed, driving power is stopped supplying. When the clutch pedal is depressed, the main/range shift lever can be operated. To start off smoothly, release the clutch pedal slowly.
FOOT THROTTLE PEDAL

The foot throttle pedal and the hand throttle lever are separated. If the pedal is depressed, the engine rpm becomes faster. While the pedal is released, the engine is idling.

To speed up during driving, use this pedal.

BRAKE PEDALS (LEFT/RIGHT)

Each brake pedal is activated independently. To make a sharp turn, depress one of the brake pedals on the turning direction to brake the rear wheel on the same side.

Make sure to interlock the brake pedals with the link bracket before driving on a public road.

<table>
<thead>
<tr>
<th>(1) Left Brake Pedal</th>
<th>(2) Right Brake Pedal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Link Bracket</td>
<td>(A) Release</td>
</tr>
<tr>
<td>(B) Engage</td>
<td></td>
</tr>
</tbody>
</table>

WARNING

- Make sure to interlock the left and right brake pedals with the link bracket while driving for travel.
- If this instruction is ignored, there is a risk of an accident such as rollover due to unintended movement.
**OPERATION DESCRIPTION**

**CONTROLS 2**

**HAND CONTROLS**

(1) Main Shift Lever
(2) Range Shift Lever
(3) Hand Throttle Lever
(4) PTO ON/OFF Switch

**MAIN SHIFT LEVER**

Four speeds can be selected by moving this main shift lever in “H” shaped path. 

you can shift this lever from the 1st to 4th gears even when the tractor is moving by disengaging the clutch during driving as these gears are synchromesh type gears.
3 speeds can be selected by the range shift lever. Therefore, in total, 12 forward driving speeds and 12 reverse driving speeds are provided by combination of the main shift lever and range shift lever.

Make sure to operate the lever while the tractor is stationary. Shift the lever with the clutch pedal firmly depressed.

The hand throttle lever is to increase or decrease the engine rpm. This lever is mainly used while working on a field with the constant engine rpm.

- Increasing engine RPM
- Decreasing engine RPM

**NOTE**
- Use the foot throttle pedal during driving for travel, not the hand throttle lever.

**IND**: In the IND position, the PTO shaft rotates constantly regardless of the position of the rear implement.

**LINK**: In the LINK position, the PTO shaft stops rotation when the rear implement is lifted to a certain level. The PTO shaft rotates again as soon as the rear implement is lowered.
**DIFFERENTIAL LOCK PEDAL**

The differential lock pedal is to keep the wheel rotation on both sides the same when one of the rear wheels is idling or spinning without traction. Be sure to use the steering wheel only while the wheels are set in a straight ahead position. Otherwise, the differential system may be damaged.

**WARNING**

- Be sure to release the differential lock before making a turn.

**PARKING BRAKE**

(1) Parking Brake Lever
To apply the brake, depress the brake pedals firmly and push the lever forward. To release the brake, depress the brake pedals firmly.
5. OPERATION

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DAILY INSPECTION BEFORE STARTING

1. Check the engine oil level.
   After wiping out the dipstick, insert it fully and then withdraw it. Oil should be between the two marks on dipstick.
   Do not operate the engine if oil level is below minimum mark. If below, add the corresponding grade oil according to the season through the filler.

2. Feed grease to all greasing points indicated below every 10 hours when working in damp and muddy conditions.
   • Front axle pin
   • Steering shaft and Cylinder end
   • Tie rod both ends
   • Front axle supporter

3. After cleaning the machine with highly pressurized water, lubricate the indicated points with grease below if necessary.
   • Bonnet latch
   • Seat sliding rail

PRE-OPERATION CHECK

PRE-OPERATION
Check the engine operation carefully.

+ IMPORTANT
• The engine is tuned or set for normal use. In case of a new tractor, especially carry out inspection and check within first 100 hours.
• Be sure to warm up the engine. Inspect the battery charge warning lamp, oil pressure warning lamp and engine coolant temperature gauge.
• Avoid any unnecessary engine idling.
• Frequently check the engine oil, coolant, transmission fluid and front axle oil levels. Also, inspect for leakage of those fluids.

NOTE
• Make sure to add the corresponding grade oil for the season. Use only genuine oil specified by BRANSON.

BEFORE STARTING THE ENGINE

CAUTION
• Avoid running the engine in an enclosed area. Exhaust gas can be very harmful to your health. If it is unavoidable to run the engine in an enclosed area, extend the exhaust pipe to the outside to release exhaust gas to the atmosphere.
OPERATION 5-3

RUNNING-IN PERIOD

**IMPORTANT**

- **Always keep wheel bolts tightened to prevent any accident.** Confirm that the wheel bolts are tight before operation. Check wheel bolt torque at least twice within the first 10 hours of operation, check it periodically at every 50 hours thereafter. Change the oil and filter after first 50 hours of operation.

- **Within first 10 hours of operation**
  - Inspect daily or every 10 hours
  - Tighten the wheel bolts

- **After first 50 hours of operation**
  - Tighten the wheel, disc and hub bolts
  - Check the alternator and fan belt tension as well as air inlet
  - Tighten the cooling system's hose and clamp
  - Perform the scheduled 50-hour maintenance

**STARTING ENGINE**

**HOW TO START**

1. Check the fuel gauge. Make sure that a sufficient amount of fuel is in the tank.

- Change the transmission/hydraulic oil and oil filter element
- Change the engine oil and filter
- Change the front axle fluid
2. Set the shuttle shift lever in the neutral position. If not, the engine won't be started.

3. Confirm that the PTO switch is set in the OFF position. If not, the engine won't be started. Turn off the PTO switch to the OFF position.

4. Check the position of the implement. Push the control lever forward to lower the implement down onto the ground.
5. Place the hand throttle lever to the Minimum position.

7. Turn the main switch to the "START" position. When the engine is started, take your hand off the key.

**IMPORTANT**

- Do not operate the start motor more than 20 seconds at a time. If the start motor won't start, wait until the motor is cooled down at least for 2 minutes and then try again.
COLD START

⚠ CAUTION

- In case of the tractor equipped with the cold start system, do not use starting fluid.

1. When starting in cold weather, turn the ignition switch to the "ON" position and then wait until the pre-heat indicator is turned off.

2. For safe operation, turn the ignition switch to the "START" position with the clutch pedal depressed.

3. Repeat the above procedures until the engine is operated smoothly.

4. Let the engine idle at 1,200 rpm to warm up the engine up to the operating temperature.

STOPPING ENGINE

Make sure to reduce the engine rpm with the hand throttle lever in the Low speed position before stopping the engine. Depress the clutch pedal and put all shift levers in the neutral position.

And then turn the main switch to the "OFF" position to stop the engine.

TRACTOR OPERATION WHEN ATTACHING WEIGHT

⚠ CAUTION

- Do not drive on a road under a heavily loaded condition. Otherwise, it can lead to an injury or machine damage.

1. Reduce the speed when driving on a bumpy or rough ground.

2. Attach the additional weight needed for stability and safe cornering if required.

3. Make sure that the front wheels are not risen up when transporting implements or towing a heavy load.
REDUCE SPEED WHEN TOWING LOAD

Observe the guideline for towing speed and capacity as below.

1. If the trailed weight is the same or lighter than the tractor, maintain the maximum speed of 26 km/h.
2. If the trailed weight is twice the tractor or less, maintain the maximum speed of 13 km/h.
3. If the trailed weight is more than twice the tractor, do not tow it.
4. Be careful especially when towing a load on a bad condition of ground, slope or corner.

CAUTION

- The stopping distance becomes longer on a downhill in proportion to the speed and load weight. If the towed weight is heavier than the tractor and the braking system is not installed on the trailer, reduce the speed. Observe the guideline for towing speed and capacity.

HOW TO DRIVE

(1) Safety belt  (2) Seat sliding lever
1. Adjust the seat properly and fasten the seat belt. Adjust the seat to easily reach the pedal and the steering wheel.

If the seat belt is worn across the abdomen or waist, not the hips, an injury can occur in case of an accident or impact.

Adjust the levers properly according to the driver's physical condition.

---

**CAUTION**

If the tractor is out of control, it can cause a personal injury or even death. Keep the following instructions on a road:

- Interlock the both brake pedals.
- Use the foot throttle pedal.
- Reduce the speed while driving on a slippery, or gravel road.
- Attach the proper weight.
- When reducing the speed, use the brake gently and carefully.

---

**IMPORTANT**

- Don't put a foot on the brake pedal unnecessarily during driving. Such action can reduce the brake's service life.
2. Check if both brake pedals are interlocked.

3. Lift the implement. To lift the installed implement, pull the control lever backward.

4. Control the hand throttle lever. Increase the engine rpm from low to high speed gradually.
5. Release the parking brake. It can be released by depressing the brake pedal firmly.

6. Put the main and range shift levers into the proper positions as the operator's intention.

7. Operate the shuttle shift lever. This lever is used to select forward or reverse driving of the tractor. Shift the lever with the clutch pedal and brake pedal depressed to maximum.

**CAUTION**

- The range shift lever should be operated while the vehicle is stationary. If not, there is a risk of machinery damage.
STOPPING

1. Stop the tractor with the brake pedal and clutch pedal.
2. Put the main shift lever to the neutral position.
3. Put the shuttle shift lever to the neutral position.
4. Put all SCV levers to the neutral position.
5. Set the PTO switch in the OFF position.
6. Lower all implements on the ground.
7. Push the hand throttle lever back slowly to decelerate the engine and keep the engine for 1 - 2 minutes of unloaded idling.
8. Make sure the parking brake is applied.
9. Turn the main switch to the 「OFF」 position to stop the engine.

⚠️ CAUTION

- Don’t put a foot on the clutch pedal unnecessarily during driving. Otherwise, the clutch is set in the slip position, resulting in premature wear of the clutch.
- Do not change the tractor speed abruptly for safe driving.
- Be careful of all directions of the tractor before driving. If not, it can cause an accident.
- When driving on a steep slope or moving to a location for loading or unloading, do not put your hand on the main shift lever. If the shift lever is half engaged, it can lead to an accident. Make sure to place the lever in the low speed position in advance.

⚠️ CAUTION

- When leaving the tractor, put the shuttle shift lever into the neutral position. If not, the tractor may move even though the engine is stopped.
PARKING

**IMPORTANT**

- The tractor needs to be stationary before making a shift. If the parking brake is applied while the tractor is moving, the transmission can be damaged.
- Each part of the engine is cooled down by the engine oil. If the hot engine is suddenly stopped, its high temperature or insufficient lubricant can cause damage to the related parts.

**CAUTION**

- Remove the ignition key before leaving the tractor to prevent its use by an unqualified person.

When parking the tractor, securely engage the parking brake by pulling the parking brake lever completely. To release the parking brake, depress the parking brake pedal firmly.

**CAUTION**

- The brake disc can be rapidly worn if you drive with the parking brake applied. To park the vehicle, apply the parking brake and then place prop under the rear wheels.

(1) Parking brake lever
DIFFERENTIAL LOCK

**CAUTION**

- Do not drive the tractor at high speed or make a turn with the differential lock engaged.

**IMPORTANT**

- To prevent the power train from damage, do not press the differential lock pedal when one wheel is spinning fast and the other wheel is stopped.

1. When the speed at one wheel starts to drop, depress the differential lock pedal to activate the differential lock.

2. If the wheel traction resistance on both wheel is not even, the differential lock keeps being engaged. While both wheel traction resistance is even, the differential lock is automatically disengaged. If the differential lock is not disengaged, depress one and another brake pedal separately.

3. If the tire is rotating idle repeatedly, try to engage the differential lock again.

**[MEC. MODEL]**

(1) Differential Lock Pedal
(A) Release  (B) Engage

**[HST MODEL]**
HOW TO FOLD ROPS

1. Loosen the bolt (3) and nut (6) of the frame. (Do not unscrew them completely.)

2. Unfold the upper frame backward after removing the snap pins (4) and pins (5) on both sides.

3. Fit the pins (5) through the holes of the frames (1 & 7) and fit the snap pins (4) into the holes of the pins (5) to fix the frames.

4. Tighten the bolt (3) and nut (6) firmly.

---

**WARNING**

- If the safety frame is incorrectly installed, it can lead to a severe accident during a rollover accident.
- Make sure to install the bolts, pins and nuts properly to set the safety frame upright securely.
- To fold the safety frame
  - The safety frame is heavy. Have others help you with folding or unfolding the frame.
  - The safety frame may fold abruptly by its weight. Make sure no injury is occurred by dropping frame.
  - While the safety frame is folded, do not wear the seat belt.
  - When the safety frame is unfolded back and work is done, set the frame upright immediately before starting to drive.

---

**CAUTION**

- Be careful as the frame can fold by its weight, resulting in injuries, including head, shoulder and hand injuries.

---

**WARNING**

- Do not modify or disassemble the safety frame without approval.
CONTROL LEVER

1. This control lever can be used to lower and lift an implement freely.
2. Pulling the lever back lifts the implement while pushing it forward lowers the implement.

⚠️ CAUTION

- To avoid a personal injury, use the control lever when attaching/detaching the implement.
ATTACHMENT OF IMPLEMENT
ATTACHMENT POSITION

(1) Lift link
(2) Check bar
(3) Center link
(4) Lower link
(5) Draw bar

⚠️ CAUTION
Select an implement to match the tractor horse power;
The tractor horse power should correspond with the size of an implement. If the power level of tractor is exceeded, the implement may be damaged. Also, if the implement is too big, the tractor may be damaged. Be sure of the maximum and minimum power of the tractor before attaching an implement.
CENTER LINK ADJUSTMENT

C: If the center link is attached to the top position, the draft system will not be activated. Therefore, it is good for the implement such as a drilling machine or equivalent which does not require any traction force.

The center link can be installed to 3 selective positions according to the working condition.

A: If the center link is attached to the bottom position, the draft system will be activated with highest sensitivity which is suitable for the implement such as a plow or equivalent which requires traction force.

B: The center hole is the standard installation hole for a rotary tiller.

ATTACHING IMPLEMENT

1. Drive the tractor backward to move close to an implement to fit the position of 3-point hitch.
2. Apply the parking brake and stop the engine.
3. After inserting the hitch pins of the implement into the lower links, secure it with the lock pin.
### WARNING

- To prevent the rocker shaft from unexpected movement, turn "OFF" the traction (draft) control before attaching the implement to the hitch.

<table>
<thead>
<tr>
<th><img src="https://tractormanualz.com" alt="Image" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Center link</td>
</tr>
<tr>
<td>(2) Fixing bracket</td>
</tr>
</tbody>
</table>

### CAUTION

- Always check if there's no interference with the implement, quick-coupler of the implement, and other attachments when attaching to the 3-point hitch to avoid fatal personal injury or machinery damage.

4. Detach the center link from the fixing bracket.
5. Attach the center link to the top mast of the implement.
6. Adjust the length of the center link and lower link if required.
1. To let the implement float along contour of the ground, turn the rectangular steel plate to the vertical position.
2. To secure the implement, turn the rectangular steel plate to the horizontal position.

ADJUSTMENT OF VER TICAL HEIGHT

(1) Rectangular steel plate

ADJUSTMENT OF CHECK BAR

(1) Stabilizer

1. For implements such as a plow and disc harrow, adjust the length so that it can be moved for 5 - 6 cm sideways.
2. For implements such as a rotary tiller and mower, adjust the length so that it cannot be swayed sideways.

IMPORTANT

- Do not extend the center link excessively out of the limit. The center link’s body or thread can be damaged.
POSITIONING OF DRAW BAR

3. When towing a heavy load, tow it with shortest draw bar position.

Make sure to use the drawbar when towing the implement such as a trailer. In case of using the 3-point hitch (PTO drive), retract the draw bar to its shortest position and secure it.

The draw bar is adjusted in 2 stages.
1. Hold the draw bar and pull out the lock pin from the bracket.
2. Move the draw bar front and back to fit the lock pin.

INSTALLATION OF PTO DRIVEN IMPLEMENT

1. Attach the implement to the tractor.
2. Lift the implement off the ground.
3. Stop the engine and put the PTO shift lever in the neutral position.
4. After opening the PTO cover, connect the universal joint shaft while turning the PTO shaft by hand so as to align the splines.
5. To check the PTO shaft is secured, check if the pin is returned to the original position by pulling the universal joint shaft.
6. Close the PTO cover.
7. Adjust the PTO shift lever according to the working speed.
8. Check if the safety shields are in place and working environment is normal. If the master safety shield is not installed, do not operate the PTO. Stop the engine to check the PTO shaft and its guards. Repair or lubricate if required.
9. The PTO shaft should not be interfered by any surrounding parts.

⚠️ CAUTION

- If someone is entangled in the rotating part, it can cause a fatal injury. Always wear protective gear and install the safety shields and guards to the drive line. Don’t wear loose clothing.
- Do not remove the installed protective cover of the PTO drive shaft without permission. If working with this protective cover removed, it can cause a severe injury. Refer to the warning decal on the cover.

⚠️ CAUTION

- Before installing a loader, make sure to stop the engine in advance and connect its hydraulic hose.

When installing a loader, the plug of the port R1 should be fit to the port
CONTROL AND OPERATION OF HYDRAULIC SYSTEM

SCV CONTROL LEVER AND COUPLER

1. Distinguish the hoses for expansion and retraction. The hose for expansion should be connected to the left coupler while the hose for retraction should be connected to the right coupler.

2. Remove the dust cap from the hose end.

3. Push the coupler cap.

4. Check if the hose end and the coupler are clean. Insert the hose tip into the coupler correctly. Pull the hose one time to check that it is properly inserted.

5. When connecting the outer hydraulic hose, be careful not to allow foreign material to enter it. Necessarily keep the connector clean during installation.

R2 to enable correct operation of the loader.

**CAUTION**

- The hydraulic hoses are subject to physical wear, aging and explosion.
- Make sure to inspect the hoses on a regular basis.
- If any hose is damaged, replace it with a new one immediately.

The levers (1 and 2) adjust the oil flow rate and direction of the SVC valves located on the rear side of the tractor. The left coupler is for expansion and the right coupler is for retraction.
**CAUTION**

- Escaping hydraulic fluid under pressure has sufficient force to penetrate skin, causing a serious personal injury. Be sure to release all residual pressure before disconnecting hydraulic lines. Before adding pressure to the hydraulic system, make sure to tighten all connections.

- To check leakage, use a cardboard and protect your hands and feet from the pressurized fluid.

- If injured by escaping fluid, see a medical doctor at once. This fluid injected in the skin can produce gangrene and/or severe allergic reaction.

- The outer hydraulic pipes are subject to physical wear, aging and explosion. Failure to perform periodic inspections may lead to a fluid leak. Periodically inspect the hoses and immediately replace if required.

---

**TIRES, WHEELS AND BALLAST**

**TIRE TYPE**

- (1) Tire
- (2) Wheel nut
- (3) Rim bolt
- (4) Rim

**PROPER INFLATION PRESSURE**

<table>
<thead>
<tr>
<th></th>
<th>Tire size</th>
<th>Inflation pressure (Kg/cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front wheel</td>
<td>7-16/8-16</td>
<td>2.0</td>
</tr>
<tr>
<td>Rear wheel</td>
<td>11.2-24/12.4-24</td>
<td>1.3</td>
</tr>
<tr>
<td>With rotary tiller</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front wheel</td>
<td>7-16/8-16</td>
<td>3.0</td>
</tr>
<tr>
<td>Rear wheel</td>
<td>11.2-24/12.4-24</td>
<td>2.0</td>
</tr>
<tr>
<td>With loader</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TIGHTENING TORQUE**

<table>
<thead>
<tr>
<th></th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel &amp; axle mounting bolt</td>
<td>167 - 206 N.m (17 - 21 kgf.m)</td>
</tr>
<tr>
<td>Wheel rim and disc mounting bolt</td>
<td>167 - 206 N.m (17 - 21 kgf.m)</td>
</tr>
</tbody>
</table>

Though the tire pressure is factory set to the prescribed level, it naturally drops slowly in the course of time. Thus, check it everyday and inflate as necessary.
If the wheel or axle is loosened, tighten to the specified torque.

1. Drive the tractor about 100 m and tighten it to the specified torque.
2. Inspect the wheel and axle every 10 hours of engine run or every 3 hours of working.
3. Inspect all wheels and axles frequently and securely tighten if necessary.

**CAUTION**

- Never operate the tractor with a loose rim, wheel, hub or axle.

**NOTE**

- When operating a new tractor or when removing the wheel, follow the procedures above.
# 6. MAINTENANCE

## MAINTENANCE SCHEDULE CHART

- 6-2

## FLUIDS

- 6-4
  - FLUIDS AND CAPACITY

## ROUTINE MAINTENANCE

- 6-5
  - OPENING HOOD
  - CHECKING AND REPLACING ENGINE OIL
  - CHECKING AND CHANGING TRANSMISSION FLUID
  - CHECKING AND CHANGING FRONT AXLE OIL
  - REPLACING ENGINE OIL FILTER
  - REPLACING TRANSMISSION FLUID FILTER
  - CHECKING AND CHANGING COOLANT
  - ANTI-FREEZE
  - CHECKING AND ADDING FUEL
  - CHECKING BATTERY
  - CHECKING HOSES AND PIPES
  - CHECKING ELECTRIC WIRING
  - GREASING
  - CHECKING AND ADJUSTING STEERING WHEEL
  - CHECKING AND ADJUSTING BRAKE

## Additional Maintenance Tasks

- 6-13
  - BLEEDING FUEL SYSTEM
  - CHECKING EXHAUST GAS
  - CHECKING FUSE AND FUSIBLE LINK
  - CHECKING AND ADJUSTING TOE-IN
  - CHECKING AND ADJUSTING FAN BELT
# MAINTENANCE SCHEDULE CHART

<table>
<thead>
<tr>
<th>CHECK ITEMS</th>
<th>50</th>
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<th>150</th>
<th>200</th>
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<td>1. Engine oil</td>
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<td>2. Engine oil filter</td>
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<td>3. Transmission fluid</td>
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<td>4. Transmission fluid filter</td>
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<td>5. Front axle fluid</td>
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<td>6. Radiator cleaning</td>
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<td>7. Fuel oil filter and element</td>
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- **R** Regular inspection required
- **C** Check before every work
- **CL** At the time the coolant is replaced
- **●** Replace every two years
- **○** Replace every year

**Note:** Check before every work (Replace every year)