FOREWORD

Thank you for purchasing the **DAEDONG DSF75GT** combine harvester, designed for harvesting rice and barley crops.

This combine harvester is designed with **DAEDONG** genuine components according to stringent quality standards set by the quality assurance office. Information and knowledge for operation of this combine harvester are based on years of trustworthy service and reliability through many year's study.

This manual is designed to help you familiarize with the **DSF75GT** combine harvester and supply useful information about safety, driving and maintenance. **DAEDONG** is committed to give operators information and knowledge as much as possible for proper operation and self-diagnosis of the **DAEDONG** combine harvester through this manual.

If information you need is not found in this manual, contact your local dealer or service location. We are glad to be your service.

< NOTE >

- Make sure to read this manual carefully and keep it handy for future reference.
- When leasing or transferring this combine harvester, deliver this manual together with the combine harvester.
- The specifications in this manual are subject to change without notice.
  This product may not demonstrate its full efficiency when operating in a limited area or on soft ground or harvesting a large amount of excessively lodged crops.

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SAFETY AND VEHICLE DAMAGE WARNING

This manual includes information titled as **WARNING, CAUTION, IMPORTANT** and **NOTE**. These titles indicate the following:

 **WARNING**	**This indicates that a condition may result in harm, serious injury or death to you or other persons if the warning is not heeded. Follow the advice provided with the warning.**
 **CAUTION**	**This indicates that a condition may result in damage to your vehicle or its equipment if the caution is not heeded. Follow the advice provided with the caution.**
 **IMPORTANT**	**This mark indicates emphasis on notable characteristics of working procedures, and information about technology for easier operation.**
 **NOTE**	**This indicates that interesting or helpful information is being provided.**

UNIVERSAL SYMBOLS

Various universal symbols have been used on the instruments and controls of your **DAEDONG** combine harvester. Below is a list of the universal symbols and their meanings.

 Horn

 Turn signal lamp indicator (turning direction)

 Unloader or vehicle moving direction

 Fuel

 Battery charge warning

 Engine RPM "low speed"

 Headlamp

 Engine stop

 Coolant temperature

 Engine RPM "high speed"

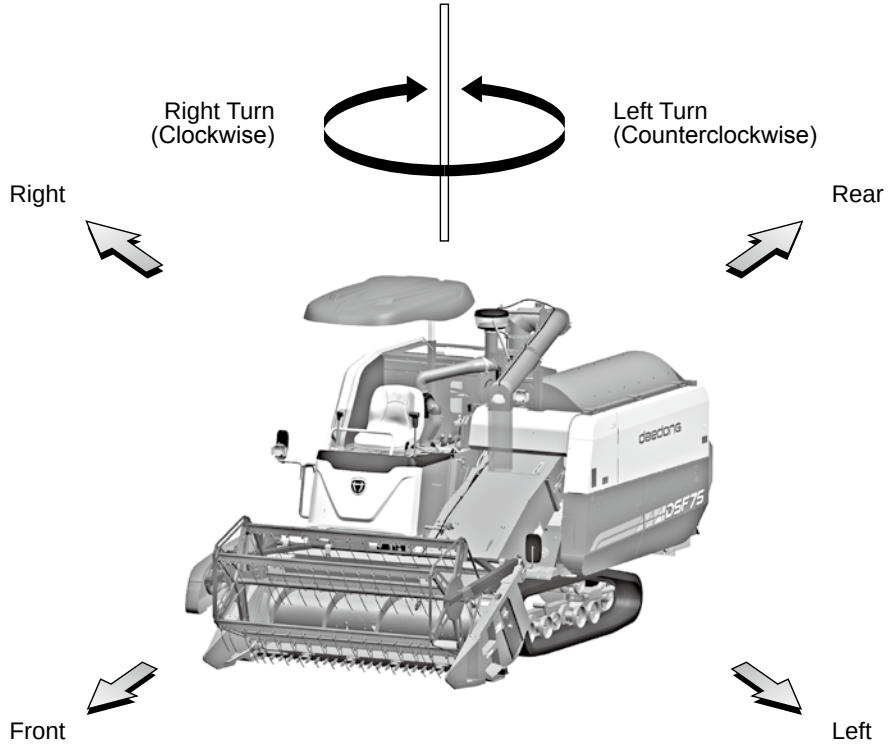
 Vent lamp and work lamp

 Turn signal lamp indicator (blinking for operation)

 Engine oil

TERMS FOR DIRECTIONS

The front, rear, left and right directions referred in this manual are the directions seen from an operator in the driver's seat.



QUALITY POLICY

We, a company that exclusively designs, produces, and sells diesel engines, do our best to secure stability and reliability of products to satisfy customers fully.

Additionally, in order to provide products that satisfy our customers, we strive to understand clearly the requirements of our customers from the design to service stages so we can build a quality management system. We then require that all employees understand and implement the system. Furthermore, we will improve the quality management system continuously to satisfy requirements of ISO9001, 2000/KS A9001, and 2001 and observe national and international laws and regulations in the manufacturing process.

At the same time, we will set and achieve additional mid- and long-term quality goals internally. Our chief of quality assurance unit has responsibility and authority from the CEO for periodically examining the effective operation of the quality management system to take actions for any discrepancy.

ENVIRONMENTAL POLICY

DAEDONG is a company that exclusively designs, produces, and sells agri-machineries and industrial diesel engines. We have minimized environmental pollutants produced while providing products or services. That means our all managerial activities are operated in an "environment-friendly" system by saving resources and observing internal standards, including requirements of environmental regulations and ISO 14001;1996.

We will achieve environmental goals based on policies that contribute to the protection of the environment by improving related regulations continuously. We publish those policies to the public and interested parties and examine periodically whether the environment management system is understood by all employees and implemented effectively, taking actions to correct any discrepancy.

PRODUCT SAFETY AND MANAGEMENT POLICIES

We design, manufacture, and provide safe products with no defects that give satisfaction to customers, and at the same time, provide the best services. To achieve this goal, all of our employees understand the product safety and management policies fully and try to exceed the level required by national or international regulations or standards.

Our chief of service unit has responsibility and authority from the CEO for periodically examining the effective operation of product safety and management policies and taking actions to correct any discrepancies.

SAFETY AND HEALTH POLICY

We, a company that exclusively designs, manufactures, and sells diesel engines, inspect in advance any harmful or hazardous 'components during the manufacturing process to prevent any accident related to safety. We will operate the system by implementing a safety and management system to make a workplace with "no disasters" and observing internal standards including the requirements of health regulations and OHSAS18001;1999 to achieve additional safety and health goals internally.

We publish those policies to all employees and interested parties and examine periodically whether all employees understand and implement effectively the safety and health management system, taking actions to correct any discrepancies.

SAFETY CHARTER FOR COMBINE HARVESTER

1. Clean the cutters with the engine stopped.
2. When threshing manually, stop driving and be careful not to touch the feeding chain.
3. Stop the engine before checking inside of the threshing unit.
4. Be sure to stop the engine before inspecting or adjusting any rotating parts, including the chain and belt.
5. When working with others, secure safety by signaling them with the horn.

Make sure to read the safety charter described above before using this machine.

NOTICE ON ENVIRONMENTAL "USAGE AND DISPOSAL"

We, a company that exclusively designs, manufactures, and sells diesel engines, minimize environmental pollutants generated by our operations, and all managerial activities are operated in environment-friendly ways based on saving resources. All of our employees observe environmental regulations and related standards. To contribute to the protection of the global environment, we measure environmental performance periodically and make the information available to customers and interested parties. We establish and achieve environmental goals internally to secure the transparency of environment management.

In addition, we set guidelines on "usage and disposal' for our customers to protect the environment.

1. Customers using this product should read this manual carefully and avoid any overloaded work. Overloaded work may reduce the service life of products, and emissions combusted incompletely due to overloaded work are a major cause of air pollution, which is the environment of the earth where we breathe.

2. When you replace the used engine oil with new oil, don’t dispose of the used oil in just any place which can cause great soil or water pollution. Please bring the used oil to our local distributor to be disposed lawfully.

3. Use the product with proper operation, and if the service life of the product ends, don't leave or dispose it in just any place.Products left out or disposed improperly by customers generate rust or oil, which may pollute soil or water. Therefore, when disposing out-of-service products, never fail to let authorized "collectors for used wasted agri-machineries" collect them to dispose lawfully.

FOR YOUR SAFETY

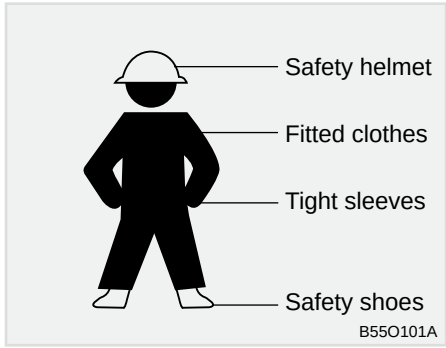
The following contents describe the safety cautions, categorized into WARNING and CAUTION. Before the initial operation, read this manual carefully for your safe.

The safety instructions described in this chapter are for the general issues of the combine harvester. The safety measures are also covered and repeated in the corresponding chapters in this manual.

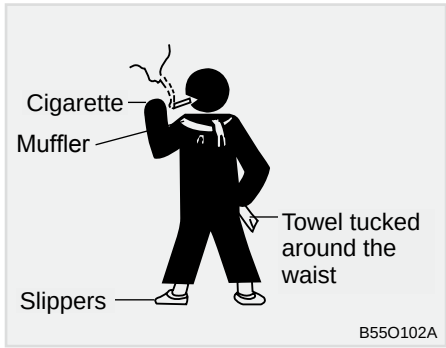
The following should never be allowed to operate this combine harvester. An unexpected accident can occur.

- Those under the influence of alcohol
- Pregnant woman who is ready to bear
- Those under 16
- Inexperienced operator
- Those who are fatigued, sick or under the influence of medicine; others who are not qualified for certain reasons to operate this combine harvester

Do not operate the combine harvester with fatigue. Take a rest if necessary. Otherwise, an unexpected accident can occur.

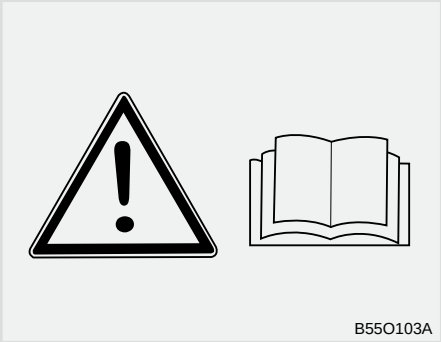


Please wear the appropriate working clothing.

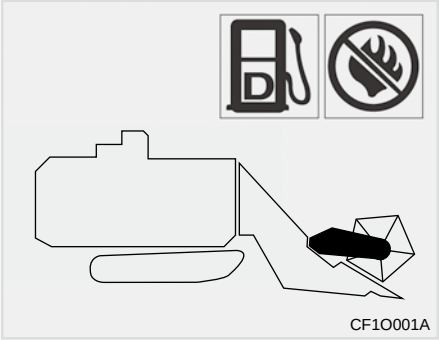


You may be entangled in moving parts or slip on the machine. If these happen, serious injuries may occur.

SAFETY TIPS
CHECK BEFORE OPERATION


B55O103A

When leasing or transferring the combine harvester, deliver this manual together with the machine for future safe operation. Otherwise, the new owner may not become familiar with the combine harvester and can be subject to accidents.


CF1O001A

Apply the parking brake on safe and level ground and stop the engine.

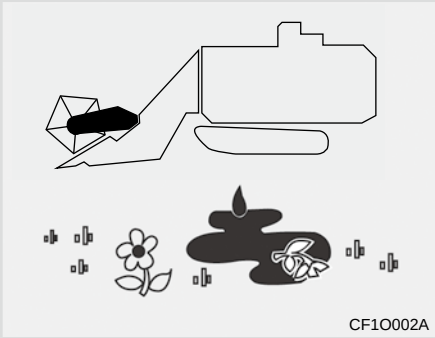
If a safety label on the combine harvester is damaged or is illegible for some reasons, replace it with a new one.

Clean the surrounding area of the engine, battery and fuel tank.

Check the battery cables, electric wiring and fuel hose.

When refueling or adding oil, stop the engine. Do not add fuel, oil and fluid while the engine is running or hot.

1. When refueling, keep flammable items, such as a lighter, lit cigarette, etc., away from the combine harvester.
2. After refueling, install the fuel cap and remove any spilled fuel.


CF1O002A

Check the tightness of each system.

Check the condition of the brake, shift lever and parking brake.

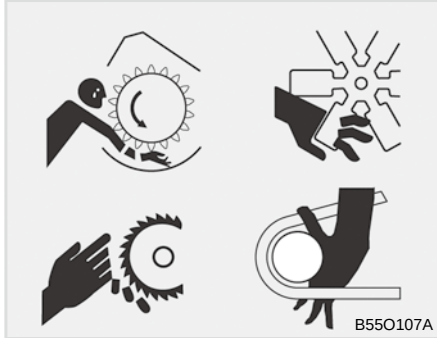
Check if the range shift lever and other levers' free play is intact and they are not excessively swayed.

Check the proper operation of the safety parts, such as turn signal indicators.

Do not modify the combine harvester.


CF1O003A

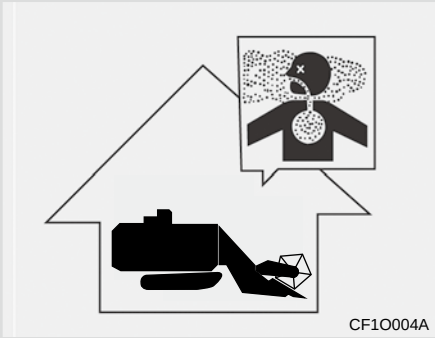
Dispose used oil only in a properly equipped authorized site for used oil disposal.

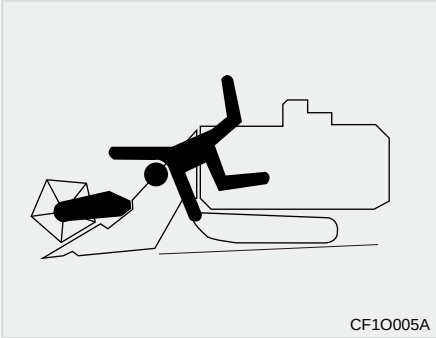

B55O107A

Stop the engine and remove the key before inspection or cleaning.

You can be trapped or entangled into a rotating part and get injured.

DRIVING COMBINE HARVESTER


CF1O004A


CF1O005A

Install all covers and safety frame.

Do not let anyone approach near the combine harvester.

Move the main shift and range shift levers into the neutral position and depress the parking brake pedal before starting the engine.

When starting the engine in an enclosed space, ventilate the area by opening doors or windows.

Make sure that the lock of the parking brake pedal is disengaged.

Never let any passenger ride on the combine harvester. Also, do not put any object on the combine harvester.

Make sure that anyone is around the combine harvester before starting off.

Put the accelerator lever into the mid-speed range (2,000 rpm) to drive off.

Avoid abrupt start, stop or cornering.

When driving, do not get distracted or leave the levers unattended.

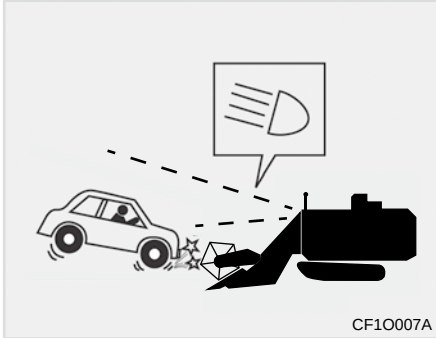
When driving backward, pay attention to the rear wheels' vicinity while remaining at low speed.

When driving backward, the combine harvester moves to the opposite direction of the steering lever. Therefore, pay close attention.


CF1O006A

An assistance should use the seat-back.

Don't jump on or off the combine harvester.


CF1O007A

Follow the traffic rules during driving on a road.

When driving on a road, pay attention to the four directions of the combine harvester and stay on a low speed lane.

Turn on the headlamps when driving at night.

Don't jump on or off the combine harvester when it is moving.

Transport the combine harvester with a trailer on a road, except a rural road.

Make sure to turn on the turn signal lamps when changing a lane or cornering.


CF1O008A

Remain at a low speed when driving on a narrow rural or bumpy road. Do not get too close to the edge of a road to avoid vehicles coming in the opposite direction.

Do not drive on a soft edge of a road or a grass-covered shoulder.

When climbing a slope, don't start abruptly.

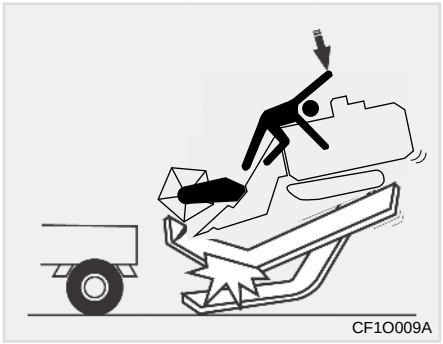
On a downhill, reduce your speed.

When stopping or parking on level ground, apply the parking brake, move the main shift lever into the

neutral position, the range shift lever into the low speed position and turning shift lever to the quick turn or slow turn position, and then stop the engine.

Do not park on a slope. (If necessary, chock the wheels)

When getting off the combine harvester, take the key with you from the combine harvester.


CF1O009A

When loading and unloading the combine harvester to and from an transporting vehicle, use ramps that are strong, wide and long (4 times long as the height of the cargo bed of the vehicle) enough and have anti-slippery hooks.

Ensure the ramps are straightly lined up with the cargo bed of the transporting vehicle and the hooks on the ramps are securely engaged.

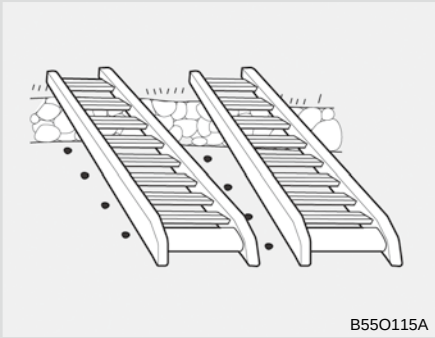
Check immediate vicinity of the combine harvester for bystanders.

Drive the combine harvester forward at a low speed to load it up to the transporting vehicle. Backward slowly to unload the combine harvester from the vehicle.


CF1O010A

Do not operate any shift or the steering lever on the ramps.

HARVESTING


B55O115A

When driving onto or out of the field, drive slowly at a right angle from a field bank.

Use ramps when there is a high field bank, a ditch or slope.

Drive slowly while checking whether or not the bank is collapsing.

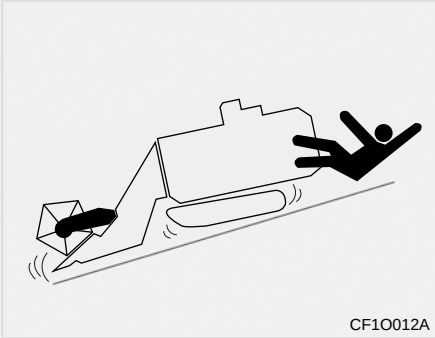
When driving onto the slope, drive backward.


CF1O011A

Do not let anyone, especially children, get near the combine harvester during driving. Also, never let any passenger ride on the combine harvester.

When turning the direction, pay close attention to the surrounding.

When driving, do not get distracted or leave the levers unattended.


CF1O012A

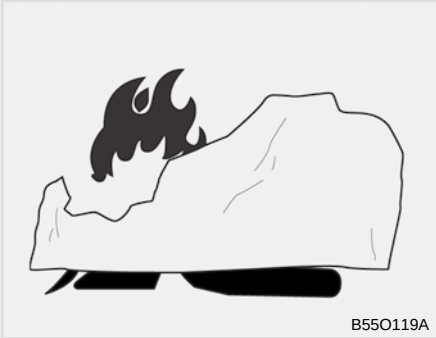
Do not work on a steep slope.

Do not operate the combine harvester with fatigue. Take a rest if necessary.

AFTER COMPLETING INTENDED OPERATION AND STORAGE

CF1O013A

Clay clinging to your shoes sole may result in skidding in the brake operation which is very dangerous. Remove any clay on the sole before driving.



B55O119A

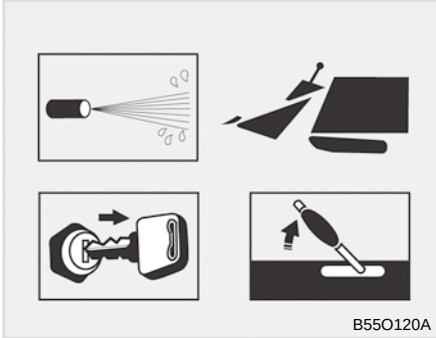
Apply the parking brake on a level ground, stop the engine and pull out the ignition key. Then cover the lock cylinder with its cap. (Some foreign objects such as water can infiltrate into the cylinder and start the engine, causing unexpected problems)

Clean the surrounding area of the engine, battery and fuel tank.

Do not touch the muffler and radiator until they cool down.

When replacing a crawler, use an appropriate jack, jack stands and secure support.

Cover the engine for storage after it cools down.



B55O120A

⚠ WARNING

- ***On level ground, clean the exterior with water, stop the engine, apply the parking brake and remove the ignition key.***
- ***Replenish each part with fuel, oil and fluid for long-term storage.***


B55O121A

⚠ WARNING

- ***When disconnecting the battery, disconnect the negative battery cable first. When connecting the battery, connect the positive battery cable first.***

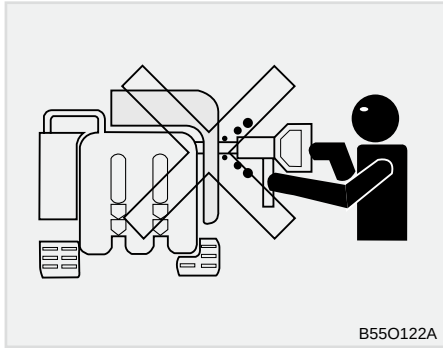
Disconnect the negative battery cable or remove the battery for long-term storage.

Depress the parking brake pedal and engage the pedal lock.

Chock the front and behind the wheels and disengage the parking brake.

When disposing a part (battery, oil, etc.) or the combine harvester, contact your dealer.

GENERAL PRECAUTION BEFORE OPERATION


B55O122A

Do not modify the combine harvester.

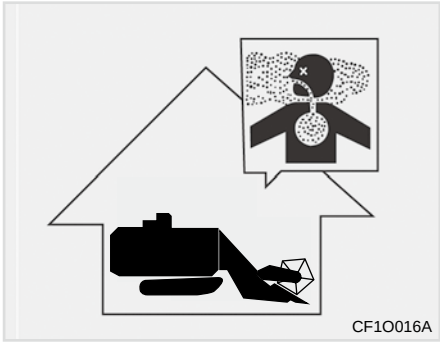
Modifying the combine harvester may damage the system or cause an accident.


CF1O015A

Check the condition of the combine harvester before and after each operation. Repair it immediately as necessary.

Check and repair the combine harvester every season.

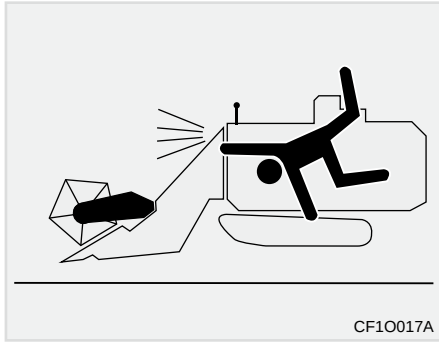
An unexpected accident may happen due to poor servicing.


CF1O016A

When starting the engine in an enclosed space, ventilate the area by opening doors or windows.

Do not operate the combine harvester or warm up the engine in a poorly ventilated area.

Otherwise, exhaust fumes are poisonous and can cause illness or even death.

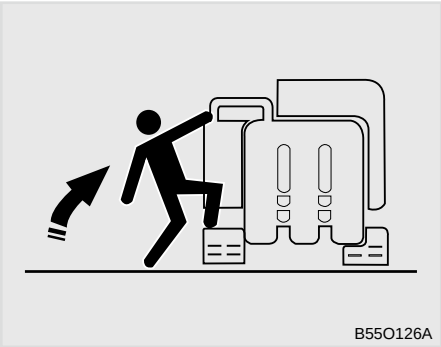

CF1O017A

Never let any passenger mount on the combine harvester. Also, do not put any object on the combine harvester. Keep people away from the combine harvester.

Do not let children get near the combine harvester.

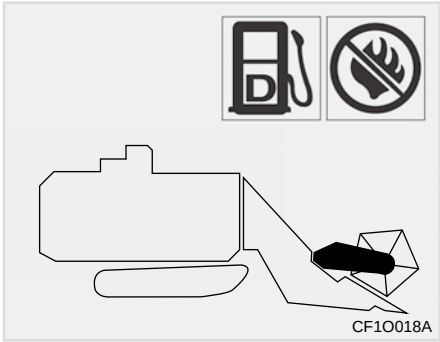
Otherwise, it can cause an unexpected accident.

WHEN SERVICING, REPAIRING AND CLEANING BEFORE OPERATION


B55O126A

Don't jump on or off the combine harvester.

You can be injured.


CF1O018A

When refueling or adding oil, stop the engine. Do not add fuel, oil or fluid while the engine is running or hot.

When refueling, keep flammable items, such as a lighter, lit cigarette, etc., away from the combine harvester.

After refueling, install the fuel cap and remove any spilled fuel.

Otherwise, you may get burnt or it can set fire.


CF1O019A

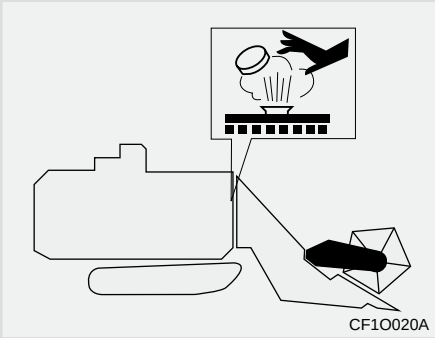
Check for any damage on the fuel hose or leakage.

If there is any leak on the hose, replace it with a new one.

Replace the fuel hose every 2 years.

Keep the area around the battery clean.

It can catch fire.

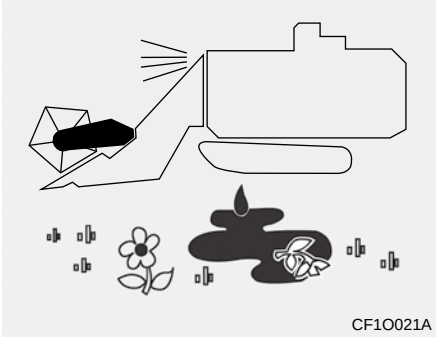

CF1O020A

Do not open the radiator cap if the radiator is hot.

Stop the engine and let the engine cool down before opening the radiator cap.

Check the coolant in the reservoir tank.

Otherwise, steam may be sprayed out and you can get burnt.


CF1O021A

Dispose any used oil only or anti-freeze in a properly equipped authorized site for used oil disposal.

Otherwise, it can pollute the environment.


B55O131A

When checking the battery, keep flammable items, such as lighter, cigarette, etc., away from the combine harvester.

The battery produces hydrogen gas which is flammable and explosive.


B55O132A

Do not allow the battery fluid to contact your skin and clothing.

In case of acid contact with eye, skin, clothing or tools, rinse it thoroughly with water. Get medical attention immediately if acid contacts your eye or is swallowed.

The battery has acid that can burn your skin, eyes or clothing.

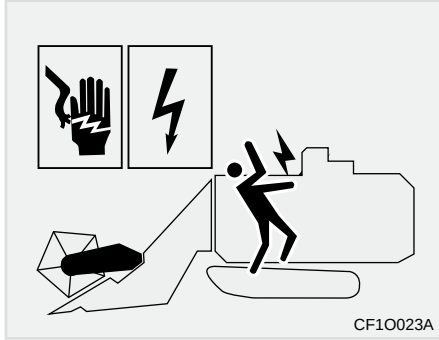

CF1O022A

When disconnecting the battery, disconnect the negative battery cable first. When connecting the battery, connect the positive battery cable first.

Use only a recommended battery.

Do not mix the positive and negative battery cables.

Otherwise, a short circuit can burn your skin or catch fire.


CF1O023A

Check for any loose or disconnected electric connectors.

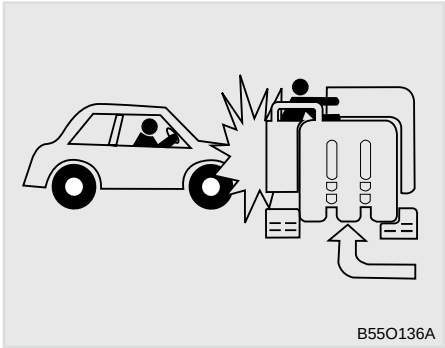
Before removing the electric components, disconnect the negative battery cable first.

Otherwise, a short circuit can burn your skin or catch fire.


CF1O024A

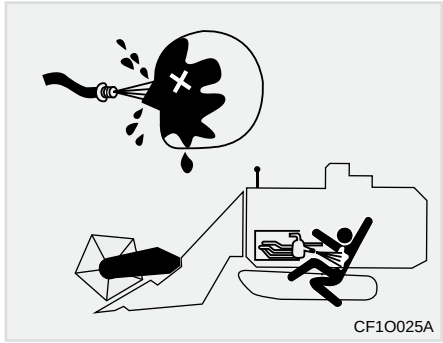
Before any operation, check for any foreign materials caught on the engine, muffler, battery, and the fuel tank. Remove them if there are.

Foreign materials can cause a fire.


B55O136A

Check the safety parts, such as turn signal lamps, before driving the combine harvester.

Otherwise, it can cause an accident.


CF1O025A

Do not touch any highly pressurized hydraulic oil leak.

Before checking or removing the parts related to hydraulic pressure, stop the engine, lower the hydraulic lift system and depressurize it.

If the high-pressure hydraulic oil contacts your skin, flush it with water and contact your doctor.

The high pressurized oil spray can penetrate your skin.

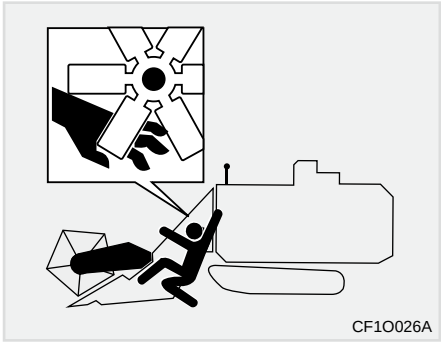
If you do not remove the oil immediately in this case, the oil can cause a disease.


B55O138A

The tools required for inspection and repair should be maintained in the best quality and should be used properly.

The tools required for inspection and repair should be kept handy.

Otherwise, poor maintenance or service can cause an accident.


CF1O026A

The cover and other parts removed for inspection and repair should be installed again after the work is done.

Otherwise, you can be trapped or entangled into the combine harvester and get injured.


B55O140A

Check the maintenance items referred in this manual before driving. If anything is abnormal, take proper action before driving.

Otherwise, poor maintenance or service can cause an accident or injury.

B55O141A

If the safety cover or protective cover was removed, put it back to the original position before operation.

If operating the machine without the cover, you can be trapped or entangled into the rotating part and get injured.

CF1O027A

Never depress the clutch pedal on a slope.

Place the main shift lever in the neutral position before depressing and releasing the clutch pedal even on level ground.

Avoid abrupt turn on a slope or when getting off a truck.

The vehicle might abruptly start, resulting in severe injuries and vehicle damage.

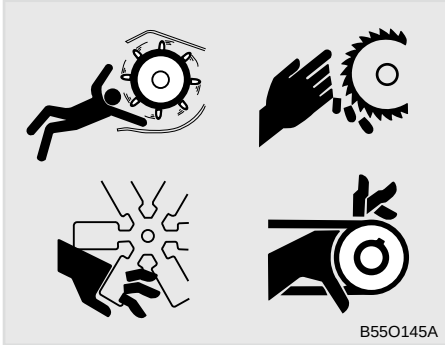
The combine harvester can roll over.

CF1O028A

Remove any straw debris and weeds caught on the muffler, belt, chain and battery.

Otherwise, it can cause a fire.


CF1O029A


B55O145A

⚠ WARNING

- ***When servicing the lower part of the reaping unit, lift and chock the reaping unit beforehand. The reaping unit may be abruptly lowered resulting in an accident.***

When servicing or operating the combine harvester, don't let other people, especially children, approach the combine harvester.

They can be trapped or entangled into the rotating part and get injured.

Stop the engine before opening the body, cutter, binder, dust-proof cover and grain tank.

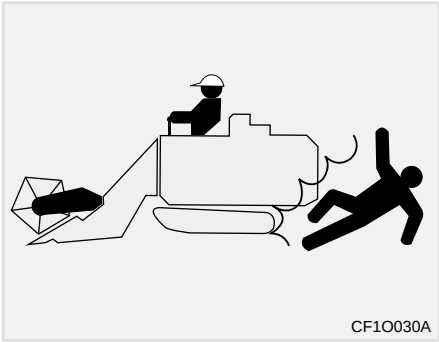
Park the combine harvester on level ground before opening any cover.

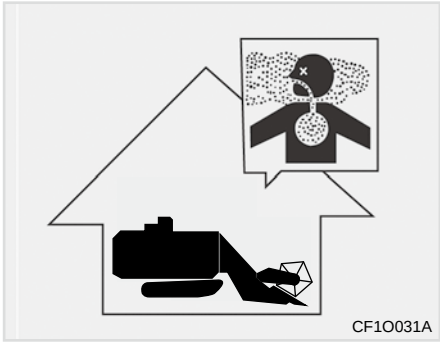
Engage the prop after opening body, cutter and binder.

Do not start the engine with any cover open.

Otherwise, you can be trapped or entangled into the rotating part and get seriously injured.

WHEN STARTING ENGINE


CF1O030A


CF1O031A

Do not allow anyone, especially children, to come near the combine harvester before starting the engine.

If anyone, including a child, approaches the combine harvester, an accident may occur.

When starting the engine in an enclosed space, ventilate the area by opening doors or windows.

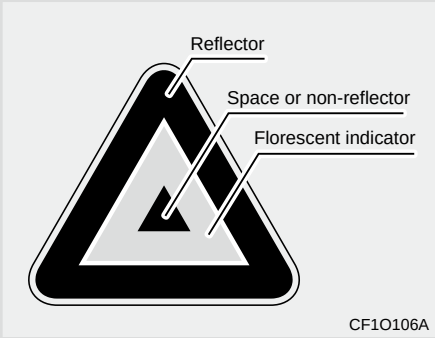
Do not operate the combine harvester or warm up the engine in a poorly ventilated area.

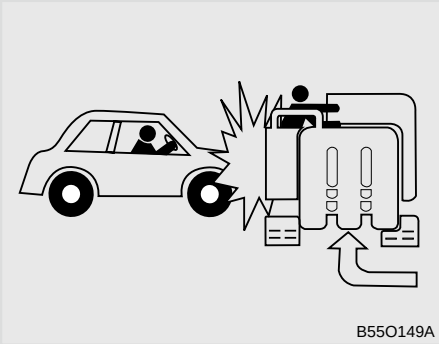
Otherwise, exhaust fumes are poisonous and can cause illness or even death.

DURING DRIVING AND OPERATION

- Follow the traffic rules.
- Avoid driving at night. If it is inevitable, turn on the headlamps to prevent an accident.
- When driving on a road, pay attention to the four directions of the machine and stay on a low-speed lane.
- Turn on the headlamps when driving at night.
- Don't jump on or off the machine when it is moving.
- In case of machine failure: If the vehicle cannot be driven on the roads suddenly due to various reasons, including mechanical failure, move the machine out of the road and take necessary actions as soon as possible.

DURING DRIVING AND OPERATION





- Indication for emergency: If the vehicle cannot be driven on a road suddenly due to various reasons, including mechanical failure, place a warning triangle at least 100 mm behind the vehicle in the daytime and at least 200 mm behind the vehicle at night time.

Check immediate vicinity of the combine harvester for bystanders before starting off.

Do not allow anyone, especially children, to come near the combine harvester before driving off.

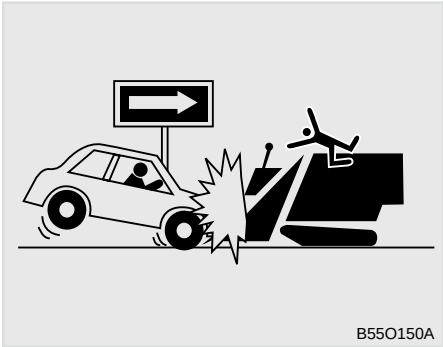
Otherwise, it can cause an injury.

Avoid abrupt start, stop or cornering.

Drive off at a low speed (2,000 rpm).

When turning, move the main shift lever to the low speed position.

The combine harvester can roll over.


B55O150A

Follow the traffic rules when driving on a road.

Do not attach an implement.

Pay attention to the surrounding and drive with care.

Do not get distracted.

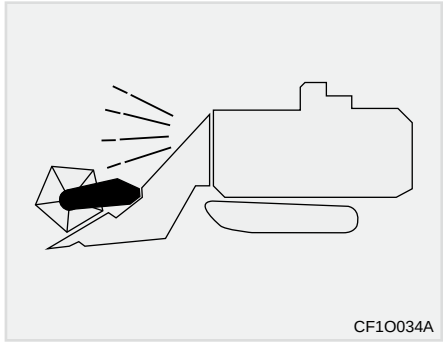
Otherwise, you can cause an accident.

If you do not pay attention, unexpected accident may occur.


CF1O033A

Turn on the headlamps and work lamp when driving at night.

Otherwise, you cannot avoid vehicles coming in the opposite direction resulting in an accident.


CF1O034A

Avoid working and driving at night.

If it is inevitable, turn on the headlamps and work lamp.

Otherwise, it can cause an accident, overturn or fall resulting in an injury or even death.


B55O153A

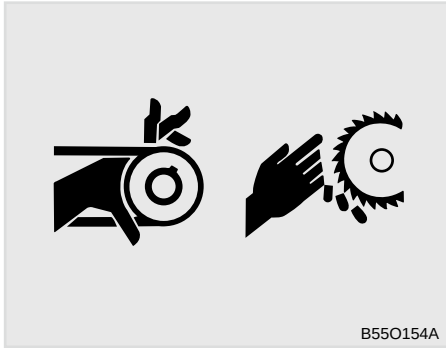
When working manually, keep your hands and arms out of the chain and feed only a small amount each time.

Park the combine harvester on level ground, stop the reaping unit and apply the parking brake.

Keep your sleeves tight and do not wear gloves, headband or neckband. Also, do not carry any towel or cloth at your waist.

Operate the automatic horizontal balance control system only when the vehicle body is fully lowered.

You can be trapped or entangled into the chain and get injured.


B55O154A

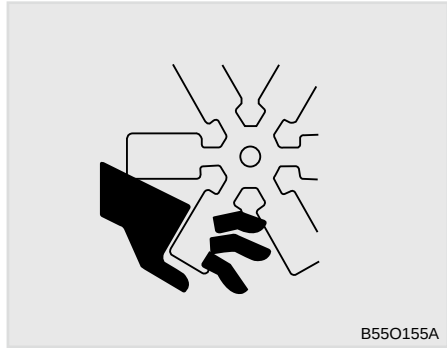
If any abnormal sign is observed, stop the engine immediately and remove the key.

When removing attached or entangled straws, checking grains or cleaning, place each operation clutch (threshing, reaping and grain discharge) to the "Stop" position and stop the engine beforehand.

When removing straws from the cutter, wear thick gloves and remove them little by little.

Do not touch the cutter blade with your bare hands.

Otherwise, you can be entangled or cut by the chain or cutter blade and get injured.


B55O155A

If any cover was removed for inspection or cleaning, have it back to its original position.

Do not drive the combine harvester with the belt cover, chain cover, cleaning-out cover or sight glass cover removed.

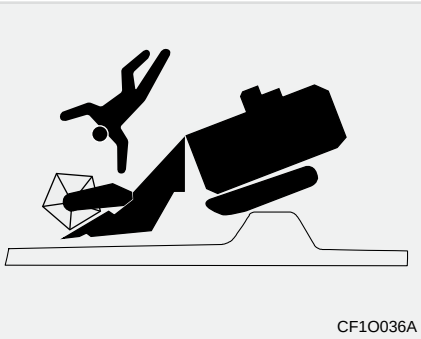
Otherwise, you can be trapped or entangled into the rotating part and get seriously injured.

CF1O035A

If the hopper is used, an assistance should use the seatback.

When cornering, reduce your speed.

Otherwise, an assistance may fall off and get injured.



CF1O036A

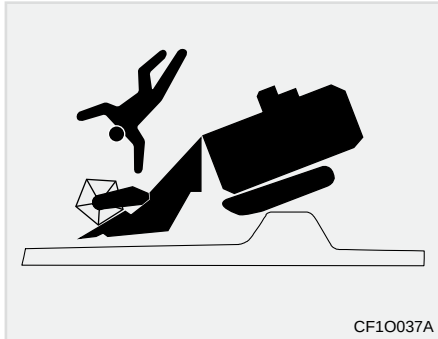
Use ramps when there is a high field bank from the field.

Use ramps 4 times long as the height difference between the bank and field if the height difference is over 10 cm.

Place ramps at a right angle from a field bank.

Discharge all grains.

Otherwise, the vehicle body can loose balance and overturn.



CF1O037A

When entering into field, drive down slowly at a right angle from a field bank.

Use ramps 4 times long as the height difference between the bank and field if the height difference is over 10 cm.

Discharge all grains.

Otherwise, the vehicle body can loose balance and overturn.

DRIVING ON NARROW PATH, BUMPY ROAD OR SLOPE


CF1O038A

Do not get too close to the edge of a road.

Do not get too close to the edge of a road to avoid vehicles coming in the opposite direction.

Do not drive on a soft edge of a road or a grass-covered shoulder.

Drive at a low speed with care when it is raining or after rain.

Otherwise, the edges can collapse and the combine harvester can roll over.


CF1O039A

Drive at a low speed on a slope, bumpy road or curve.

Reduce the speed and drive with care.

Otherwise, the combine harvester can roll over.


CF1O040A

Do not drive or work on a steep hill.

The combine harvester can overturn and you can get injured.

LOADING AND UNLOADING COMBINE HARVESTER TO AND FROM TRANSPORTING VEHICLE


CF1O041A

Use ramps that are strong, wide and long (4 times long as the height of the cargo bed of the vehicle) enough and have anti-slippery hooks.

Use wide ramps so that the wheels cannot fall off the ramps.

Otherwise, the ramps can be broken and the combine harvester can roll over.


CF1O042A

Ensure the ramps are straightly lined up with the cargo bed of the transporting vehicle.

Ensure two ramps are straightly lined up and have a proper distance between them based upon the wheel base distance.

Ensure that the hooks on the ramps are securely engaged.

Otherwise, the combine harvester can lose balance and overturn.


CF1O043A

Drive the combine harvester forward to load it up to the transporting vehicle. Move backward to unload the combine harvester from the vehicle.

Have an assistant help your driving.

Do not allow anyone, especially children, to come near the combine harvester.

Make sure that the brake pedal is engaged.

Do not operate the lever on the ramps otherwise it is unnecessary.

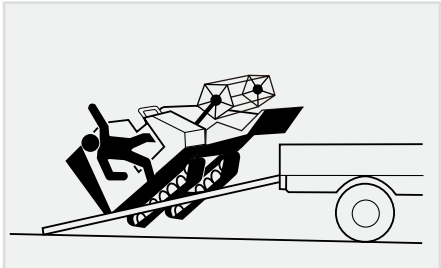
Do not turn the combine harvester. Otherwise, it may lose balance and roll over.


CF1O044A

Avoid operating the clutch pedal on ramps.

When loading or unloading the combine harvester on the transporting vehicle, pay attention to the four directions, horizontality and safety of the combine harvester and stay on a low speed lane.

The combine harvester can slip off the ramps even if the brake pedal is depressed.

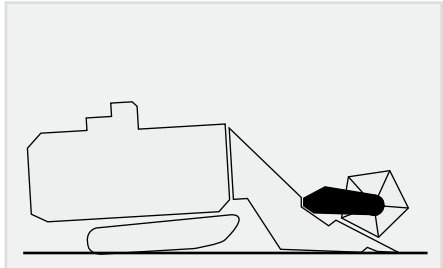

CF1O045A

Do not turn the combine harvester on ramps.

Do not operate the power steering lever, range shift lever, brake pedal, clutch pedal or turning shift lever on ramps.

If it is needed to turn the combine harvester, turn it only on the ground or deck, not on ramps.

The combine harvester may be abruptly turned or driven off and slip off the ramps.


CF1O046A

On the deck, lower the reaping unit onto the deck and apply the parking brake.

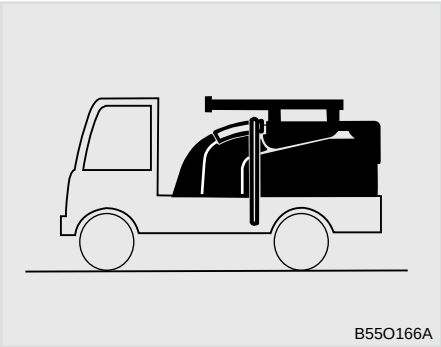
Operate the automatic horizontal balance control system only when the vehicle body is fully lowered.

Move the range shift lever to the low speed position.

Secure the combine harvester by tying it with ropes and engaging the ropes to four hooks.

Make sure that the combine harvester is secured on the deck.

Otherwise, the combine harvester may move during transportation and an severe injury or damage can occur.



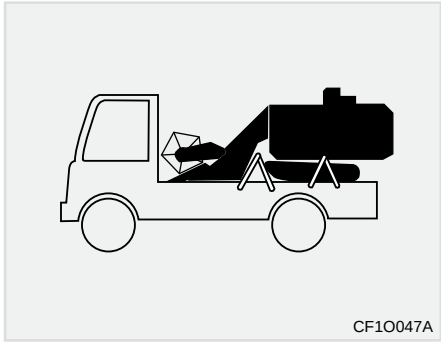
B55O166A

Secure all covers when loading the combine harvester onto the transporting vehicle.

The parts, such as the resin cover, detachable covers and folded parts, should be secured with ropes or loaded separately.

Close the both resin covers on the reaping unit and side cover on the threshing unit.

Otherwise, the parts can be damaged or come off during transportation resulting in an injury or accident.



CF1O047A

Avoid abrupt start, stop or cornering during transportation.

The combine harvester may move and an accident may occur.

Close the both resin covers (detachable) on the reaping unit and side cover on the threshing unit.

Otherwise, the combine harvester may move during transportation and an injury or damage can occur.

AFTER DAILY WORK IS COMPLETED

CF1O048A

When work is completed, stop the engine and check the combine harvester to remove any foreign materials.

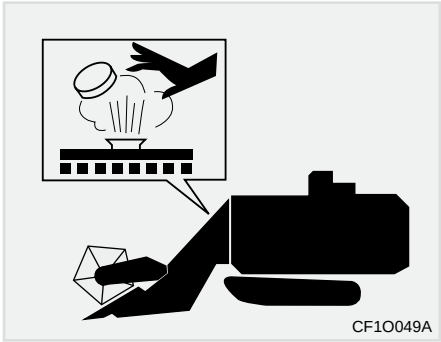
Remove any straw debris and weeds caught on the engine, muffler or fuel tank.

It can catch fire.


B55O169A

Lay a cover on the rice transplanter after the muffler and engine cool down.

Otherwise, the combine harvester can catch fire.


CF1O049A

Do not open the radiator cap if the radiator is hot.

Stop the engine and let the engine cool down before opening the radiator cap.

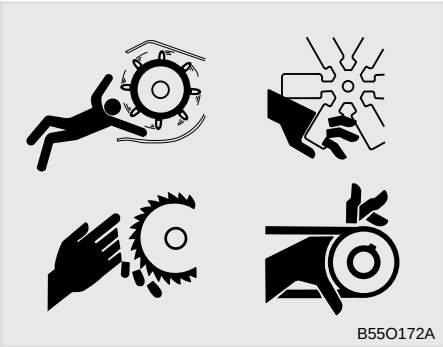
Check the coolant in the reservoir tank.

Otherwise, steam may be sprayed out and you can get burnt.


CF1O050A

Do not park on straw debris and dry weeds.

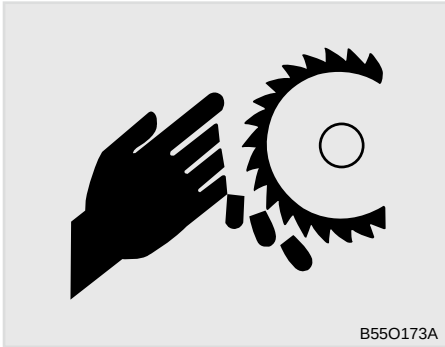
Straw debris and dry weeds are flammable.



B55O172A

Stop the engine and remove the key before inspection or cleaning.

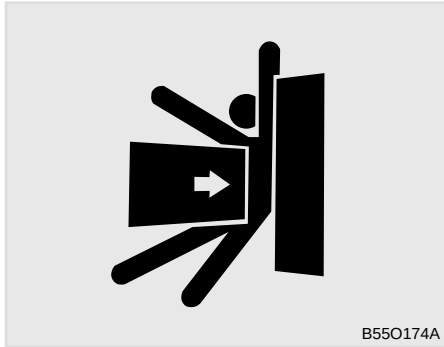
You can be trapped or entangled into the rotating parts and get injured.



B55O173A

Do not touch the cutter and its blade with your bare hands during cleaning.

You can get injured by the blade.

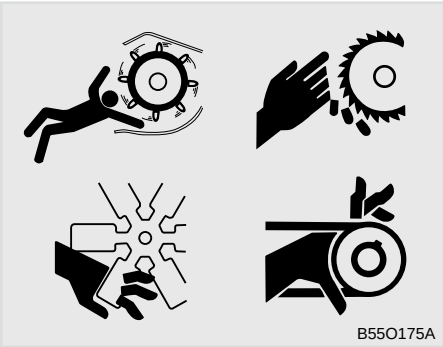


B55O174A

Secure the body, cutter, binder and grain tank with the prop when they are open.

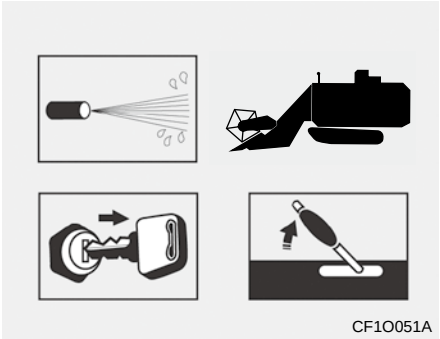
If not, you can be trapped into the rotating part and get injured.

FOR LONG-TERM STORAGE


B55O175A

Do not run the engine with the body, cutter, binder, dust-proof cover and grain tank open.

Otherwise, you can be trapped or entangled into the rotating part and get seriously injured.


CF1O051A

On level ground, clean the exterior with water, stop the engine, apply the parking brake and remove the ignition key.

Replenish each part with fuel, oil and fluid for long-term storage.

Children may climb up to the combine harvester which can lead to an accident.


CF1O052A

Remove the battery from the combine harvester and store it separately. Otherwise, disconnect the negative battery cable.

Otherwise, it may catch fire.

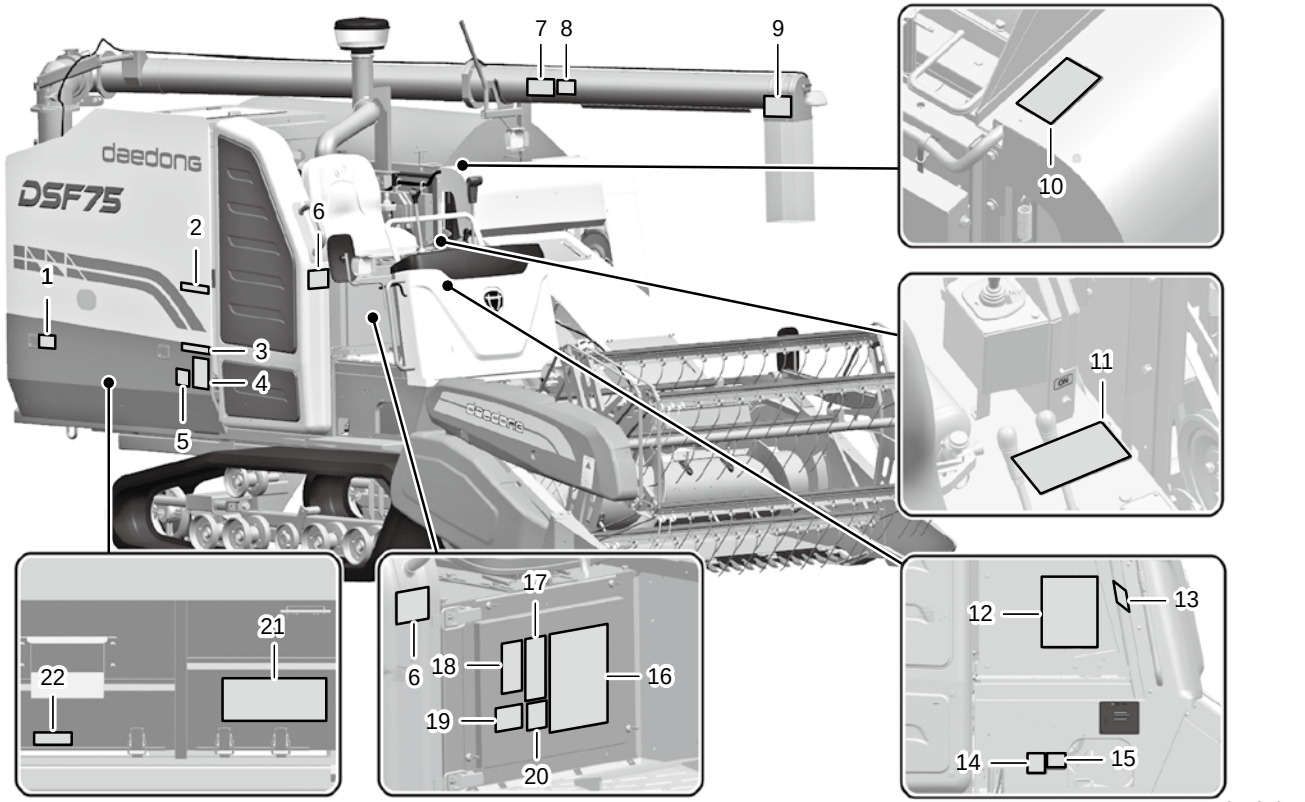
CF1O053A

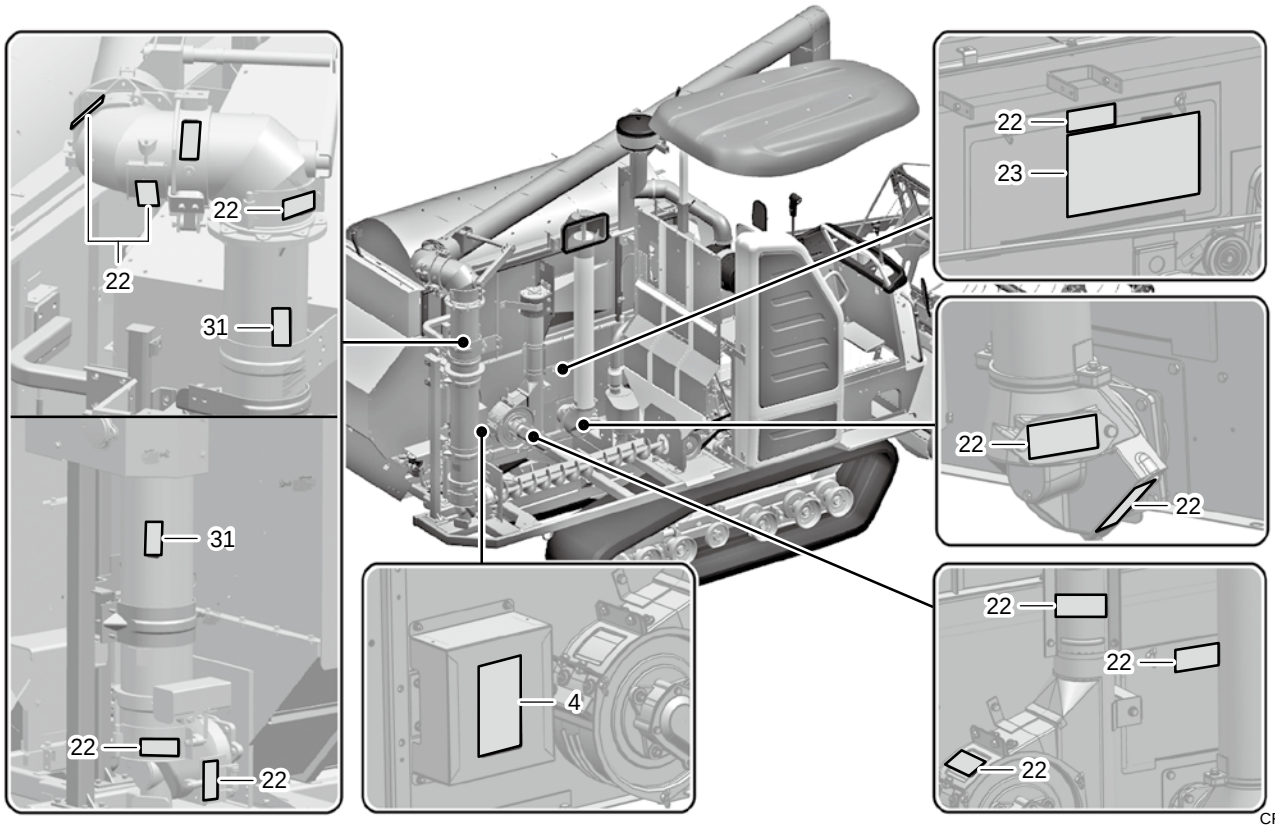
When the harvesting season is over, have the combine harvester checked by the dealer.

When disposing a part (battery, etc.) or the combine harvester, contact your dealer.

Otherwise, an unexpected accident may happen due to poor maintenance.

SAFETY DECALS

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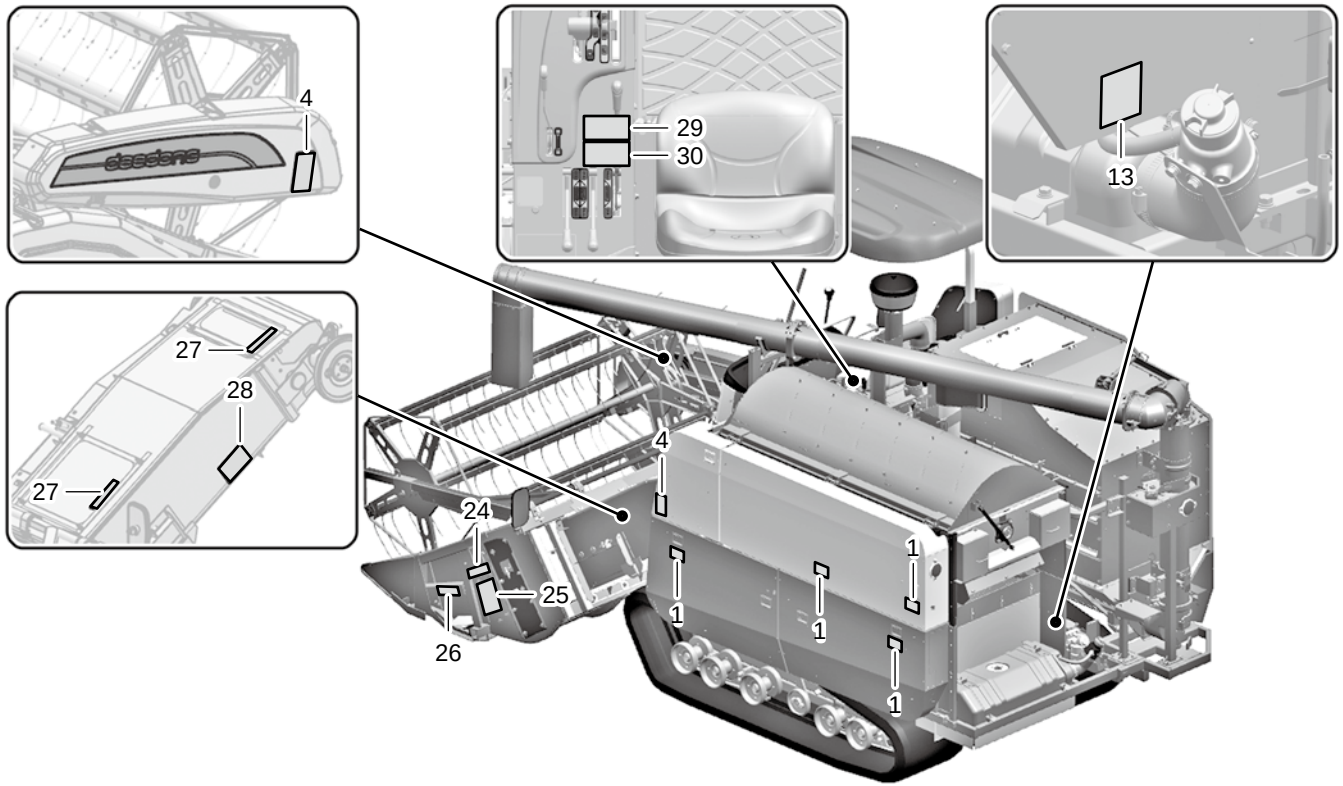
CF1O107A



CF1O108A

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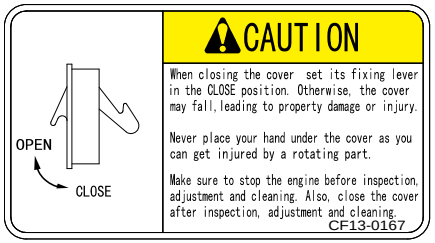

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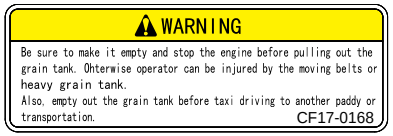

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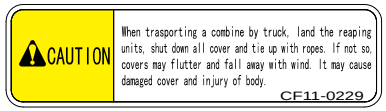

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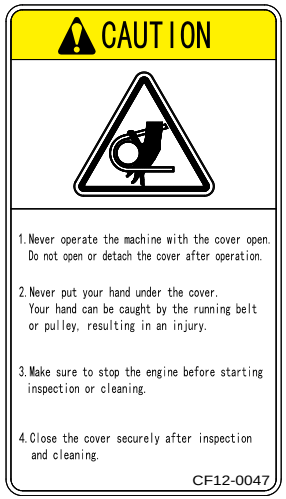

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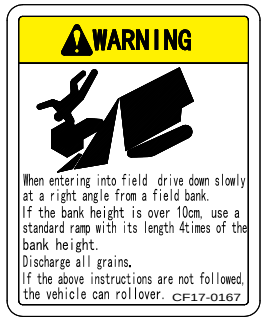

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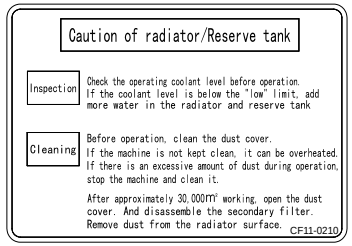

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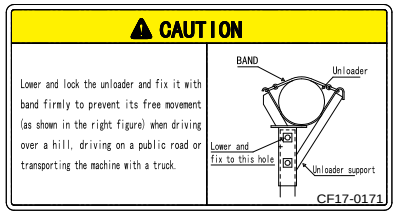

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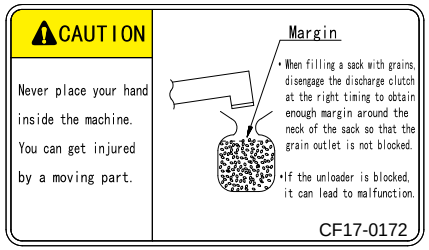

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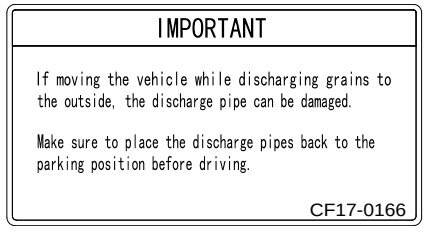

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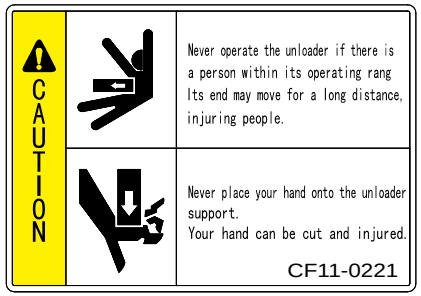

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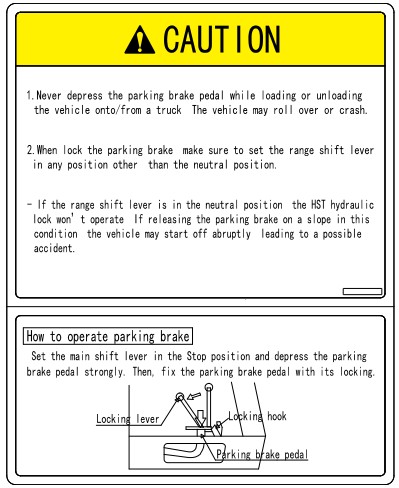

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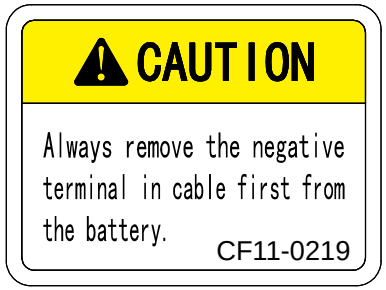

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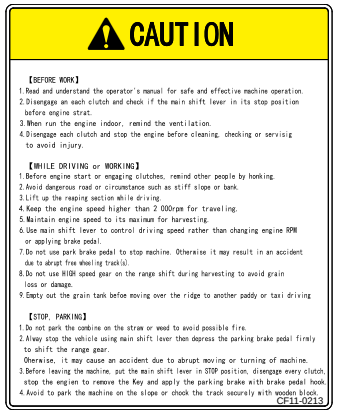

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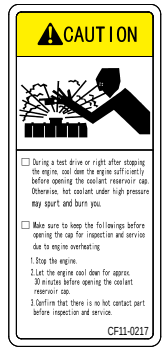
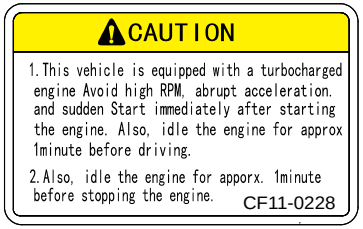


18. Part No. : CF11-0224

19. Part No. : CF11-0228



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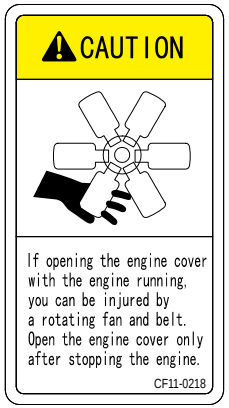

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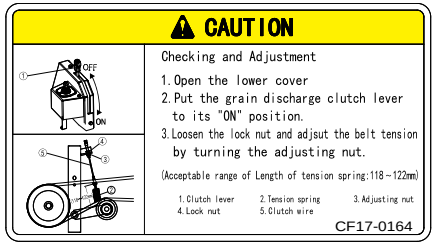

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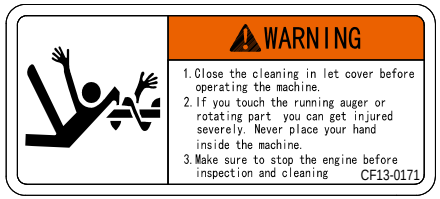
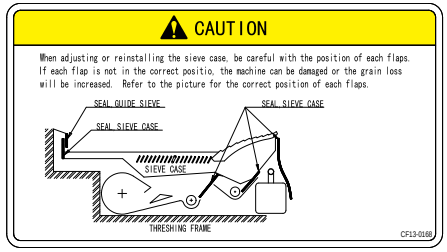


23. Part No. : CF13-0168



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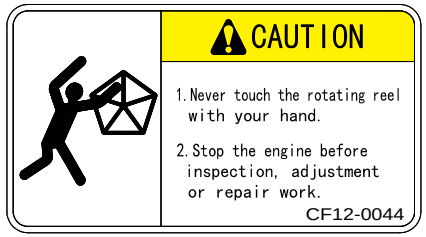

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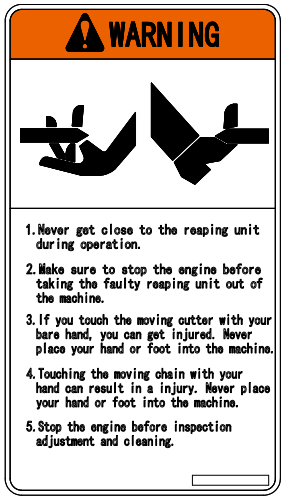

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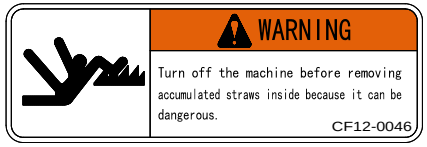

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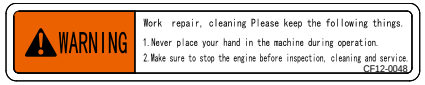

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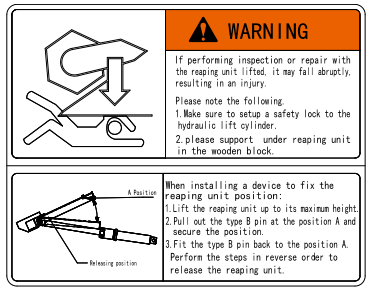
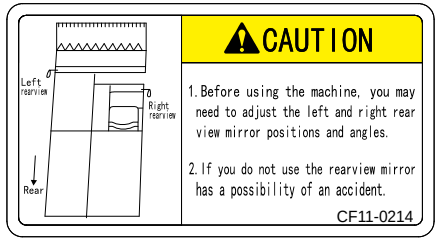
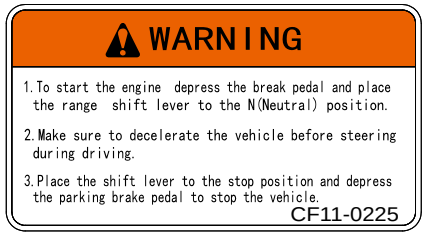


29. Part No. : CF11-0214



FOR LONG-TERM STORAGE

30. Part No. : CF11-0225



31. Part No. : CF17-0174

Cautions for decal maintenance

Safety decals are attached to the combine harvester 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 water 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 vehicle.

IMPORTANT

- **If any decal is damaged or lost, contact your local dealer immediately to install a new decal.**
- **Make sure to attach the decal to 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.**

ABOUT SERVICE

(1) Serial Number Plate

Daedong is committed to help new owners of this combine harvester utilize it fully. It is possible to perform some basic maintenance in person if reading this manual thoroughly.

However, if a part or major service is required, be free to contact your dealer. For other services, contact the dealer of purchase or corresponding service location.

The serial number of the combine harvester is stamped on the side of the step on the right.

Write the serial numbers onto the provided sheet immediately.

When intending to use a part other than genuine parts sold by Daedong dealers, contact your dealer nearby for your safety.

- Manufacture's serial number

- Purchase date

(Written by an owner)

ESSENTIAL REPLACEMENT PART

OILS AND FLUIDS


H11O204A

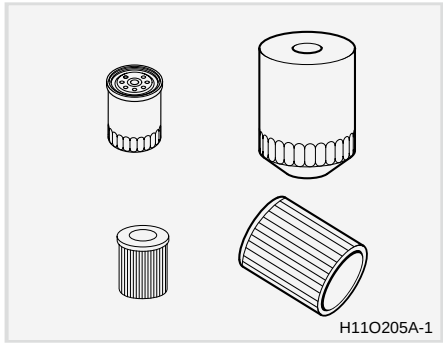
Various oils and fluids are used in this combine harvester for operation, lubrication, cooling, and anti-corrosion of various parts.

If oil or fluid is insufficient, contaminated or degraded, it can cause poor performance, incorrect operation, and seized part of the combine harvester, leading to malfunction.

Regularly add or change the fluid specified on the right to keep the combine harvester in perfect condition.

No.	ITEM	SPECIFICATION	CAPACITY(L)
1	Engine oil (with filter)	SAE 15W40	9.7
2	Transmission fluid	DAEDONG: UTF55 Exxonmobil: Mobilfluid 424 BP:Tractran UTH Exxonmobil: Hydraulic 560 Shell: Donax TD	9.6
3	Hydraulic fluid		24 .0
4	Threshing gear case		2.0
5	Grease	SAE multi purpose type grease	A little
6	Antifreeeze	Fresh clean water with ethylene glycol (50 : 50)	8.5

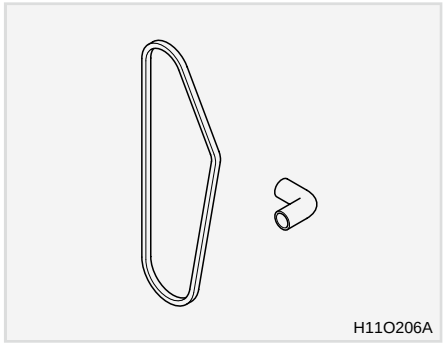
FILTERS


H11O205A-1

Filters for the engine, transmission, air cleaner, and A/C are consumables that purify oil and air. Make sure to replace the these items when changing oil.

No.	PART NO	DESCRIPTION	QTY
1	E6201-32443	Engine Oil Filter	1
2	C7810-46711	HST Oil Filter	1
3	F6720-16801	Fuel Filter	1
4	T4876-11081	Element	1
5	T4876-11071	Secondary element	1

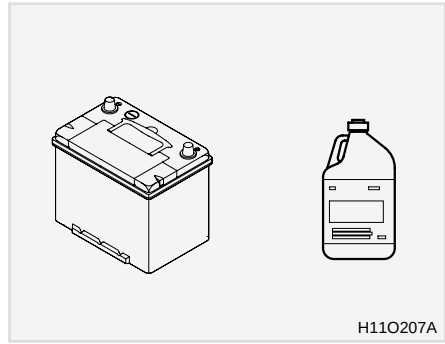
BELTS AND RUBBER PARTS



Belts, hoses and boots, which are made of rubber, get weakened and cracked as they age. If these parts are kept left in this state, they can be broken off, leading to a serious problem in the combine harvester. Therefore, regularly check or replace those items to prevent the failure.

No.	PART NO	DESCRIPTION	QTY
1	F6820-72531	Fan belt	1
2	CF11-0280B	Driving belt	2
3	C1131-61381	Reaping belt	1
4	CF11-0001A	Threshing belt 1	3
5	CF13-0035A	Threshing belt 2	2
6	CF13-0143A	Reaping reverse belt 1	1
7	C1131-22651	Reaping reverse belt 2	1
8	C1131-23111	No. 21 drive belt	1
9	CF13-0027A	Blower belt	1
10	C1131-26661	Rocker drive belt	1
11	C1121-21341	Reel drive belt	1
12	C117M-24232	Tank drive belt	1

OTHER COMPONENTS



The battery condition is very important for engine start performance especially in winter.

Therefore, make sure to check its condition daily.

No.	PART NO	DESCRIPTION	QTY
1	C7910-42205	Battery Ass'y, GB80R	1

GENERAL SPECIFICATIONS

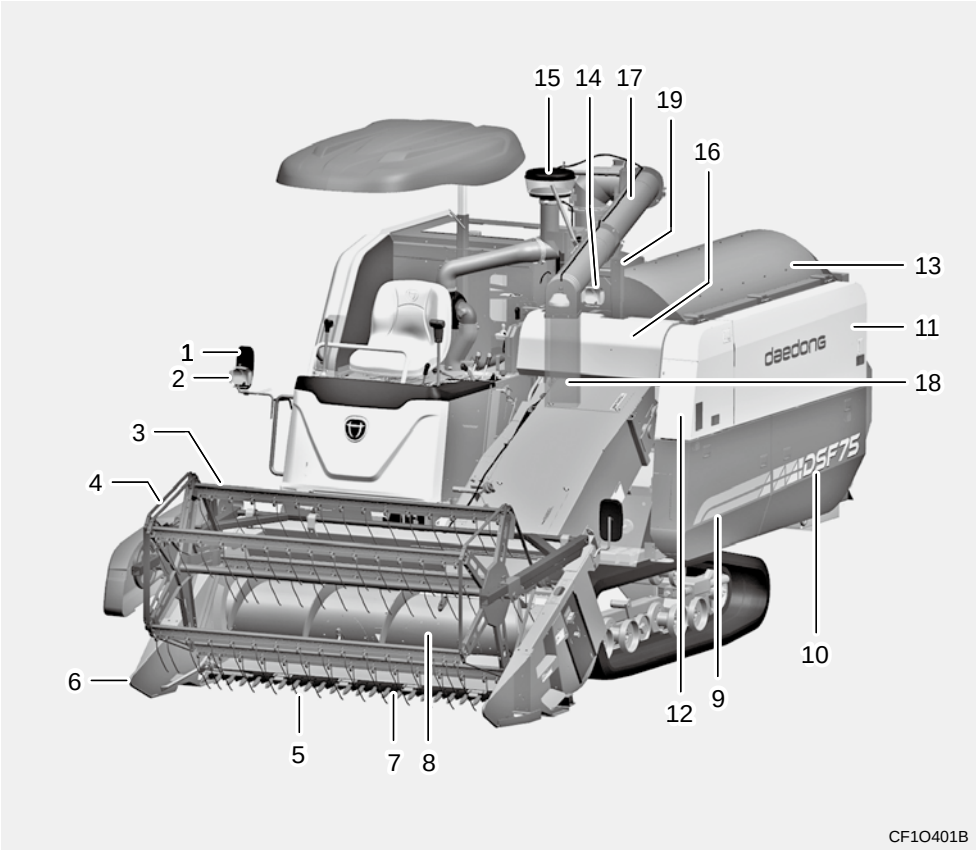
MODEL			DSF75GT
Body dimensions	Overall length (mm)		4,800
	Overall width (mm)		2,260
	Overall height (mm)		2,800
Weight	(kg)		3,330
Engine	Component		4F243DTC-M
	Type		Water-cooled, 4-cylinder, direct injection
	Total displacement (cc)		2,435
	Power/Revolutions (kW/rpm)		54/2,600
	Fuel tank capacity (L)		87
Driving system	Crawler (width x ground contact length) (mm)		500 x 1,700
	Crawler center distance (mm)		1,250
	Transmission type		Hydrostatic continuous shift (HST)
	Min. ground clearance (mm)		307
	Driving speed (m/s)	Forward	Low speed: 1.10 Standard: 1.42 Driving: 2.04
		Reverse	

MODEL			DSF75GT
Reaping Unit	Rotating diameter X Width	(mm)	900 x 1,903
	Reaping width	(mm)	2,075
	Inflow amount	(kg/s)	2.5
Thresh-ing unit	Threshing method / speed	(rpm)	Longitudinal axial flow / 560
	Diameter x Width	(mm)	620 x 1,790
Grain tank	Capacity	(L)	1,250
	Discharge type		Multi-spiral
	Rotating range	(°)	270
Other components	Grain tank vibro-shutter		O
	Automatic reaping unit reversing function		O
	Reel lifting control type		Switch
	Information displayed on instrument cluster		No. 2 outlet clogging, full grain tank, coolant temperature, battery charging and engine oil pressure
	Dust collector fan		O (Option)
	Double edged blade		O (Option)
	Straw processing unit		O (Option)

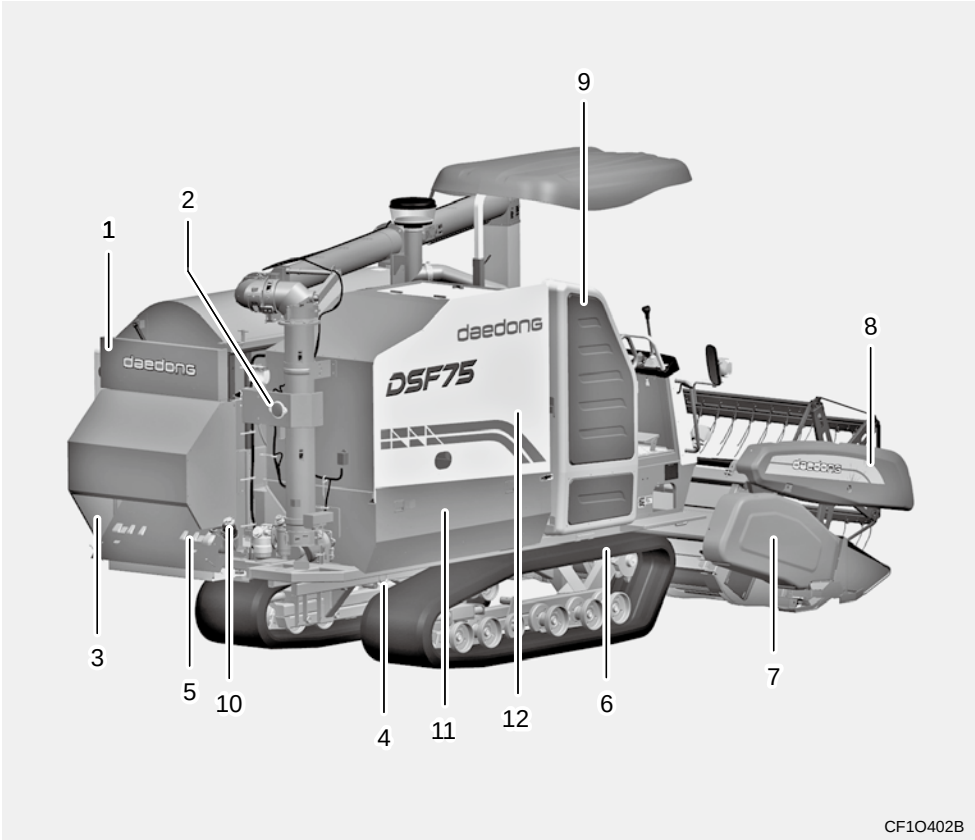
※ These specifications are subject to change without notice.

MEMO

EXTERIOR VIEW



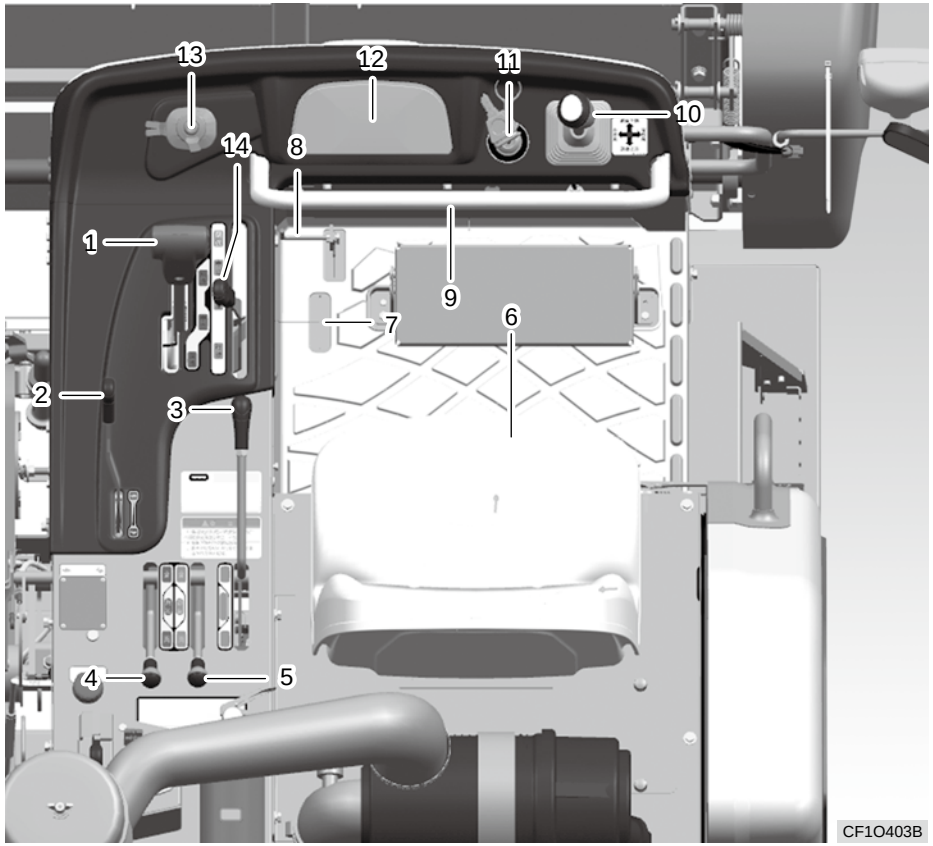
(1) Rearview Mirror
(2) Headlamp
(3) Reel Tine Bar
(4) Reel
(5) Reel Tine
(6) Divider
(7) Cutting Blade
(8) Auger Drum
(9) Threshing Unit Side Cover 3
(10) Threshing Unit Side Cover 4
(11) Threshing Unit Side Cover 2
(12) Threshing Unit Side Cover 1
(13) Threshing Unit Top Cover
(14) Work Lamp
(15) Precleaner
(16) Threshing Unit Front Cover
(17) Unloader
(18) Outlet
(19) Unloader Support



CF1O402B

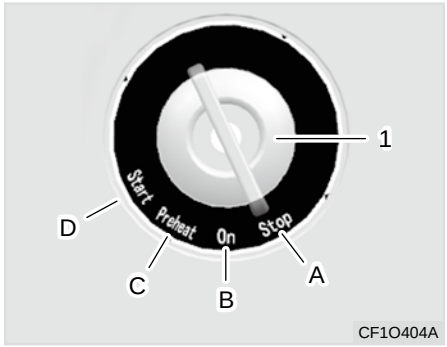
(1) Threshing Unit Rear Cover
(2) Reflector
(3) Dust Discharging Hood
(4) Fixing Hook
(5) Fuel Tank
(6) Crawler
(7) Right Reaping Unit Cover
(8) Reel Cover
(9) Dust Cover
(10) Fuel Filler
(11) Tank Side Cover
(12) Grain Tank

CONTROLS



(1) Main Shift Lever
(2) Throttle Lever
(3) Reaping Unit Reversing Clutch Lever
(4) Threshing Clutch Lever
(5) Reaping Clutch Lever
(6) Driver's Seat
(7) Parking Brake Pedal
(8) Parking Brake Lever
(9) Handle
(10) Power Steering Lever
(11) Key Switch
(12) Instrument Panel
(13) Combination Switch
(14) Range Shift Lever

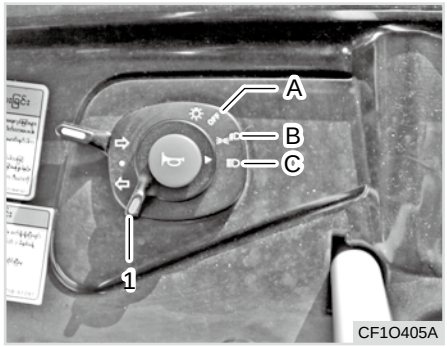
MAIN SWITCH



(1) Main Switch
(A) STOP *(C) ON*
(B) Preheat *(D) Start*

1. STOP: When the key switch is in the position "A", the engine and all electrical devices in the vehicle are turned off.
2. ON: Position to turn on electric systems. The automatic preheating function is activated. (Preheat lamp lights for approx 8 seconds.)
3. Preheat: Position to preheat the combustion chamber
4. Start: Position to start the engine with the main shift lever in the "Stop" position

COMBINATION SWITCH



(1) Turn Signal Lamp Switch
(2) Lamp Switch

LAMP SWITCH

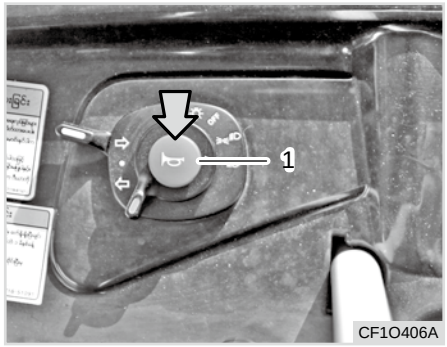
The lamp comes on when operating the lamp switch.

- A (OFF): position to turn off the headlamps and work lamps
- B (low beam): position to turn on the headlamps and work lamps
- C (high beam): position to turn on the headlamps and work lamps

IMPORTANT

- **Avoid turning on the headlamps or work lamps around noon as their resin part can be melted at a high temperature.**

HORN SWITCH

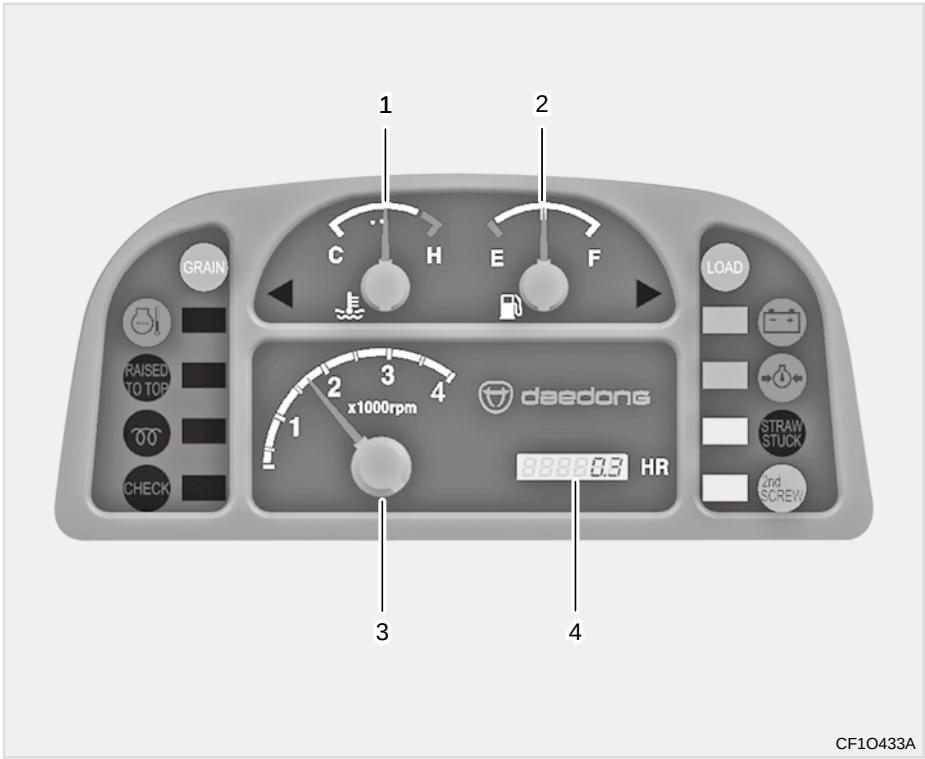


(1) Horn Switch

Place the main switch to the "ON" position and press the horn switch to sound the horn.

When the grain warning function is activated, pressing the horn switch stops the warning sounds.

INSTRUMENT CLUSTER



(1) Coolant Temperature Gauge
(2) Fuel Gauge
(3) Tachometer
(4) Hour Meter

TACHOMETER

(1) Tachometer

This indicates the engine revolutions per minutes.

HOUR METER

(1) Hour Meter

This indicates the amount of hours of operation at the rated engine RPM.

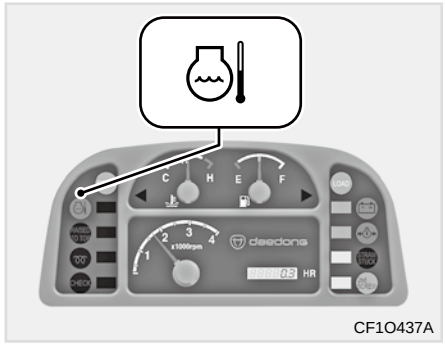
0 0 1 2 4

124 hours

NOTE

- The minute can be obtained by multiplying the fifth number to the right by 6.
- [Example] 12.4HR……12:24

COOLANT TEMPERATURE LAMP



When the engine coolant is excessively hot, this warning lamp blinks and the horn sounds at an interval. To check the coolant, wait until the engine is cooled down. Then, open the radiator pressure cap slowly.

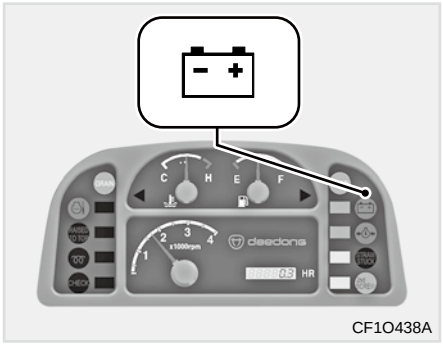
CAUTION

- **You can get burnt if opening it abruptly.**

NOTE

- When the engine coolant temperature drops below the specified level, the warning lamp goes off and the warning buzzer stops.

CHARGE WARNING LAMP

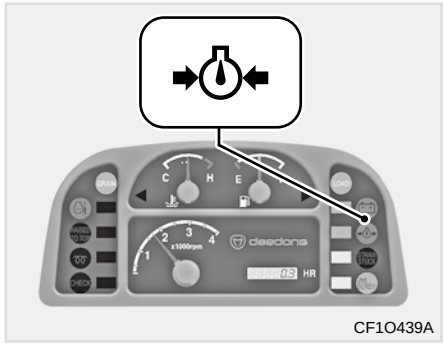


CF1O438A

This warning lamp comes on when the charging system is malfunctioning with the engine running.

When the main switch is initially turned to the "ON" position, this lamp comes on. It goes off after the engine is started. If keeping working with this charge warning lamp ON, the battery can be discharged. Take an appropriate action before keeping working.

OIL LAMP

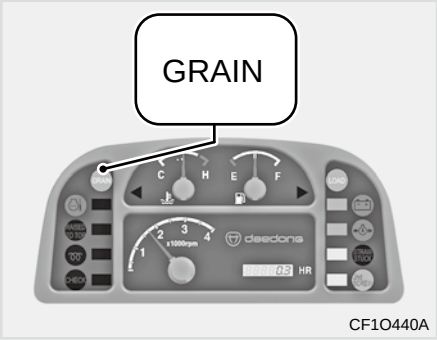


CF1O439A

This warning lamp comes on when the lubrication system is malfunctioning with the engine running.

When the main switch is initially turned to the "ON" position, this lamp comes on. It goes off after the engine is started.

GRAIN WARNING LAMP



CF1O440A

When the hopper (grain tank) is full of grains, this lamp blinks and the horn sounds.

When the main switch is set to the "Drive" position, the grain lamp is displayed.

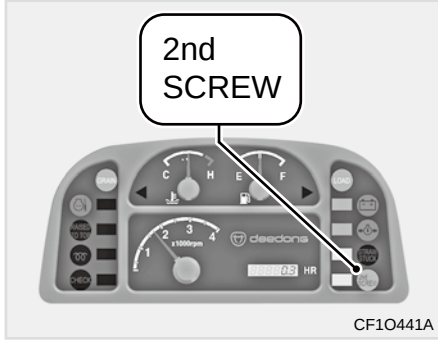
⚠ CAUTION

- **Discharge grains from the grain tank if the horn sounds. Otherwise, it can result in fuel tank deformation, grain damage and belt breakage.**

NOTE

- The warning lamp and warning buzzer go off after discharging grains from the tank. When the threshing clutch lever is set in the OFF position, the warning lamp and warning buzzer stop.

NO. 2 AUGER WARNING LAMP



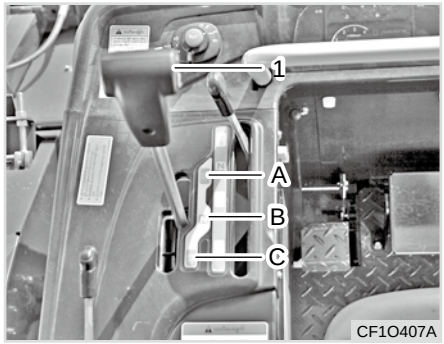
CF1O441A

The lamp is illuminated and the warning buzzer sounds when the rotating speed of the No. 2 auger drops due to grains stuck in the No. 2 processing tank or No. 2 vertical auger or engine overload during reaping.

NOTE

- The warning lamp and warning buzzer turn off once the rotating speed of the No. 2 vertical auger increases over the specified level. When the threshing clutch lever is set in the OFF position, the warning lamp and warning buzzer stop.

MAIN SHIFT LEVER



(1) Main Shift Lever
(A) Forward (B) Neutral (C) Reverse

This lever is used to select the driving direction of the combine harvester. Push the lever forward for forward driving and pull the lever backward for reverse driving.

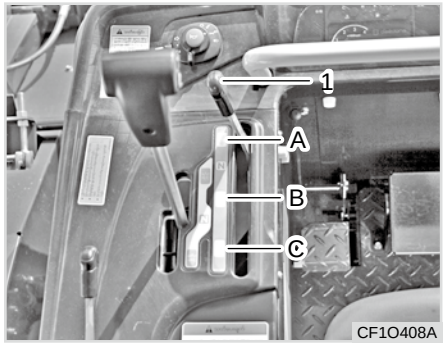
CAUTION

- **The engine can be started only with the main shift lever in the neutral position.**

NOTE

- When the shift lever is placed in the Reverse driving position, the reverse driving warning buzzer sounds.

RANGE SHIFT LEVER



(1) Range Shift Lever
(A) M: Standard (harvesting)
(B) H: Driving (C) L: Low Speed

Operate the range shift lever to select the desired position between "Driving," "Standard" and "Low speed." For harvesting, place the lever in the "Driving" or "Standard" position.

⚠ CAUTION

- **Operate the range shift lever only after setting the main shift lever in the "N" (Neutral) position and stopping driving.**

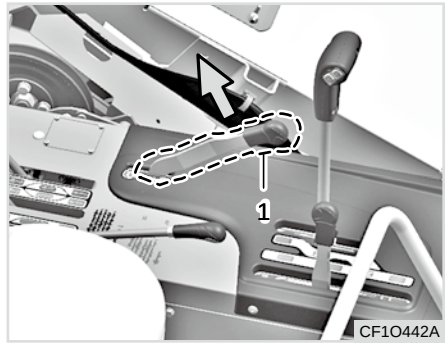
⚠ CAUTION

- **For shifting, operate the lever to the correct position according to the indication on the decal.**

IMPORTANT

- **Do not place the main shift lever in any position other than the "N" (Neutral) position while the parking brake is applied. Operating the machine with the parking brake applied can cause malfunction.**

THROTTLE LEVER

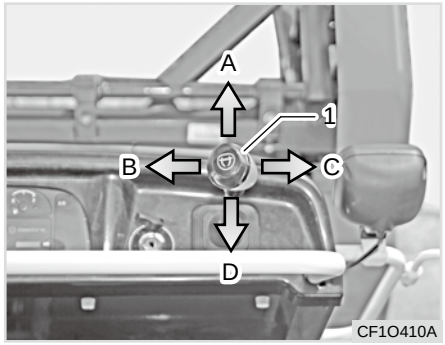


(1) Throttle Lever

This lever controls the engine speed.

	Position to select the engine idle speed
	Position to select for work

POWER STEERING LEVER

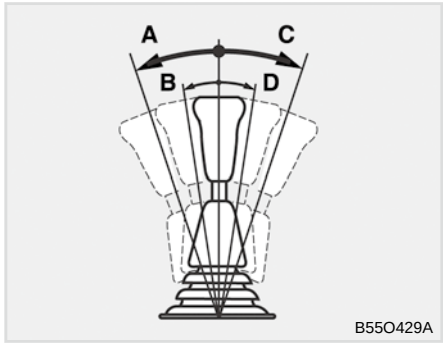


(1) Power Steering Lever
(A) Lower Reaping Unit
(B) Left Turn *(C) Right Turn*
(D) Raise Reaping Unit

1. The power steering lever is used to switch the driving direction and control the vertical movement of the reaping unit. Move the lever forward/backward to lift/lower the reaping unit.

• Up - The driving direction of the machine and height of the reaping unit can be simultaneously adjusted with this lever.

• Down - The reaping unit can be lifted and lowered by pushing and pulling the lever.



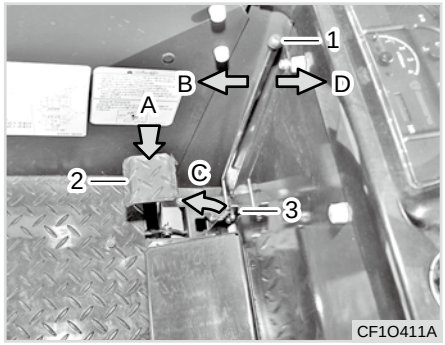
(A) Left Turn (Fast) *(B) Left Turn (Slow)*
(C) Right Turn (Fast) *(D) Right Turn (Slow)*

2. Move the power steering lever to the left or right to adjust the moving direction. The amount of movement of the lever determines the change of steering angle. Move the lever according to the current condition.

• Soft turn- Push the lever to the left/right gently.

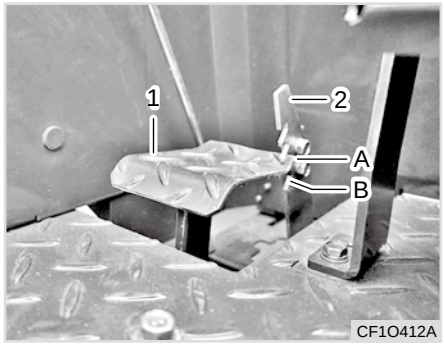
• Quick turn - Push the lever to the left/right fully.

PARKING BRAKE



(1) Parking Brake Lever (2) Parking Brake Pedal
(3) Stopper
(A) Depress (B) Pull
(C) Lock (D) Unlock

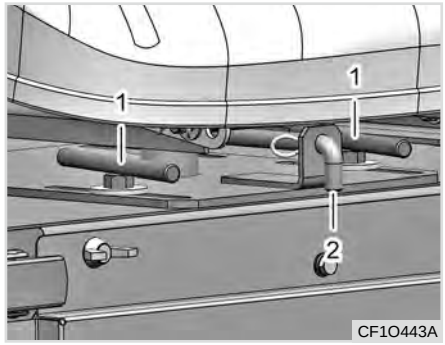
1. To apply the parking brake, depress the parking brake pedal firmly and lock it with the parking brake lever. To release it, depress the parking brake pedal firmly again.
2. Make sure to release the parking brake when starting off and driving. If not, the brake shoe can be prematurely worn or damaged, resulting in malfunction of the parking brake.



(1) Parking brake pedal (2) Stopper
(A) 3rd hole (B) 4th hole

3. To apply the parking brake, lock the pedal to the 3rd or 4th hole of the block.

SEAT

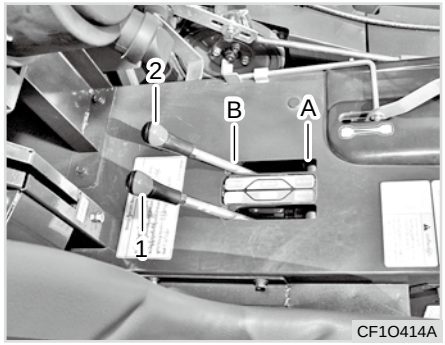


(1) Mounting Bolt (2) Seat Fixing Pin

To adjust the height of the seat, remove the seat fixing pin and move the seat up and down as desired before fixing the seat at the proper position.

To adjust longitudinal position of the seat, remove the mounting bolt, slide the seat forward/backward to the desired position and fit the mounting bolt.

REAPING / THRESHING CLUTCH LEVER



(1) Reaping Clutch Lever
(2) Threshing Clutch Lever
(A) ON *(B) OFF*

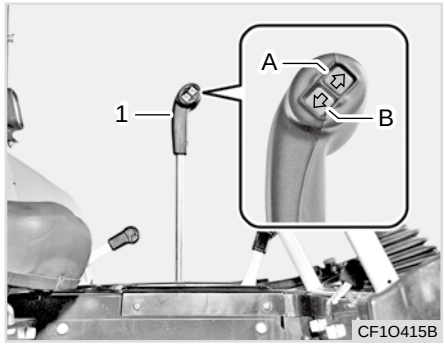
This lever is used to enable reaping and threshing operation.

- A: Reaping/Threshing ON (Reaping and threshing units in operation)
- B: Reaping/Threshing OFF (Reaping and threshing units stopped)

⚠ CAUTION

- **Before operating the reaping/threshing clutch lever, make sure that there is no one around the combine harvester.**
  Especially, when moving the reaping/threshing clutch lever from the ON position to the OFF position, the reaping/threshing unit may turn slightly, becoming a possible danger to people around. Make sure that no one is around before operating the lever.

MANUAL FEEDING DEPTH CONTROL SWITCH

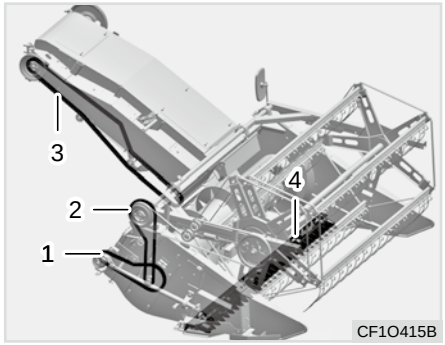


(1) Main shift lever
(A) Up (⇧) *(B) Down (⇩)*

1. This is used to lift or lower the reel.
2. Press the "⇧" section of the switch to lift the reel.
3. Press the "⇩" section of the switch to lower the reel.

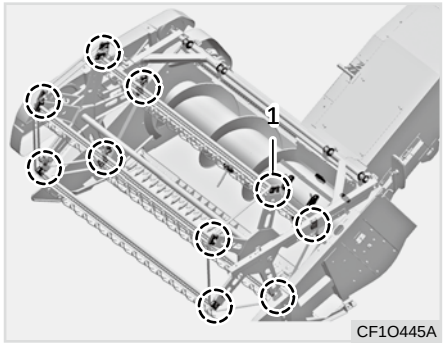
REAPING UNIT LUBRICATION POSITION

APPLY OIL

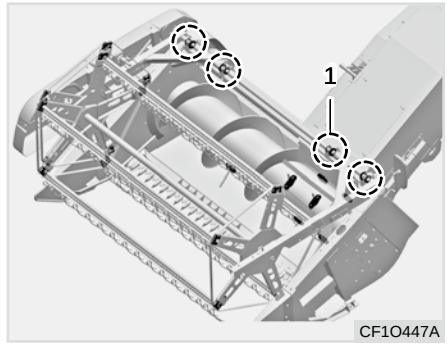


(1) Reaping Unit Drum Drive Chain
(2) Reel Drive Chain
(3) Reaping Unit Drive Chain
(4) Cutting Blade

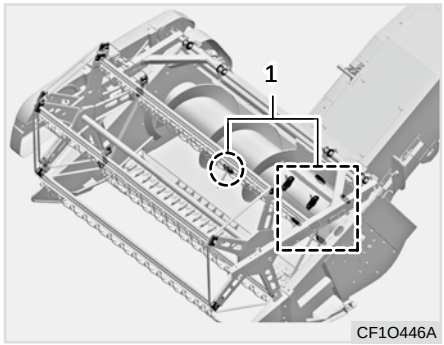
APPLY GREASE



(1) Reel Tine Bar Support



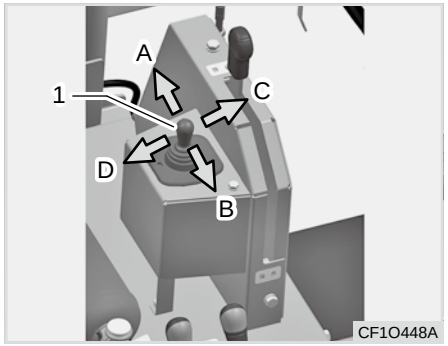
(1) Reel Frame Bush



(1) Finger Guide

TURNING UNLOADER

HOW TO DISCHARGE GRAINS

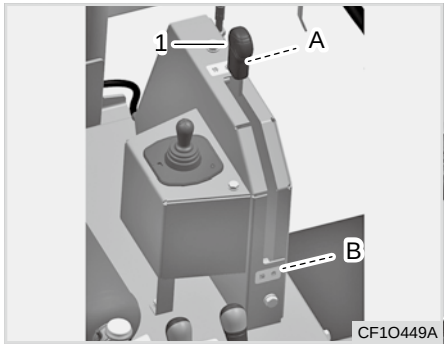


(1) Unloader Lever
(2) Unloader Discharge/stop Switch
(A) Up (B) Down
(C) Left Turn (D) Right Turn

1. Move the unloader lever "Up" (↑) to lift the unloader.
2. Move the unloader lever "Down" (↓) to lower the unloader.
3. Move the unloader lever to the "Left" (←) to turn the unloader to the left.
4. Move the unloader lever to the "Right" (→) to turn the unloader to the right.

⚠ CAUTION

- **Before turning the unloader, lift it to the highest position.**



(1) Grain Discharge Lever
(A) Off (B) On

GRAIN DISCHARGE LEVER

Place the grain discharge lever in the ON position to discharge grains. Placing it in the OFF position stops discharging.

HOW TO DISCHARGE GRAINS

The grain indicators on the instrument cluster come on according to the grain level in the tank. When the tank becomes full, the buzzer sounds. In this case, stop working and discharge grains.

HOW TO WORK ACCORDING TO THE LOAD LAMPS

The work load of the threshing unit is indicated by a square shaped lamps and "LOAD" lamp as shown on the next page.

More illuminated lamps indicates that higher load is applied to the threshing unit.

⚠ CAUTION

- **Select the appropriate vehicle speed according to the indication by the load lamps and perform reaping operation manually within the load level 1 or 2 range. Otherwise, the engine and other parts can be prematurely worn out.**

LOAD LAMP LEVEL 1

CF1O450A

Load lamp + 1 lamp illuminated: acceleration possible

LOAD LAMP LEVEL 3

CF1O452A

Load lamp + 3 lamps illuminated: deceleration desired

LOAD LAMP LEVEL 2

CF1O451A

Load lamp + 2 lamps illuminated: current speed appropriate

LOAD LAMP LEVEL 4

CF1O452A

Load lamp + 4 lamps illuminated: immediate deceleration required

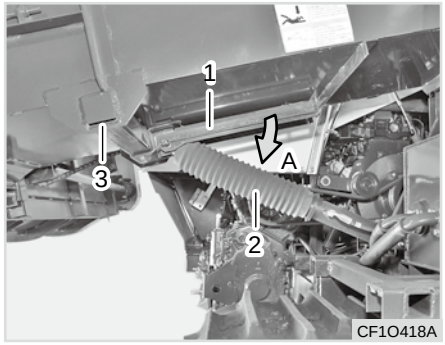
LOAD LAMP LEVEL 5

Load lamp + 4 lamps blinking: immediate deceleration required

ALARM

BLINKING	HORN	ENGINE	ABNORMAL CONDITION	SOLUTION
Grain lamp	YES	—	The grain tank is full.	• Stop reaping and discharge grains.
No. 2 lamp	YES	—	The No. 2 auger is blocked.	• Stop the engine and remove grains from there.
Coolant temperature lamp	YES	—	The coolant temperature is high.	• Coolant and its leakage • Loose fan belt • Chaff or straws stuck into the dust-proof cover, radiator or oil cooler

SAFETY DEVICE FOR REAPING UNIT



(1) Safety Device For Reaping Unit
(2) Reaping Unit Hydraulic Cylinder
(3) Reaping Unit (A) Engage

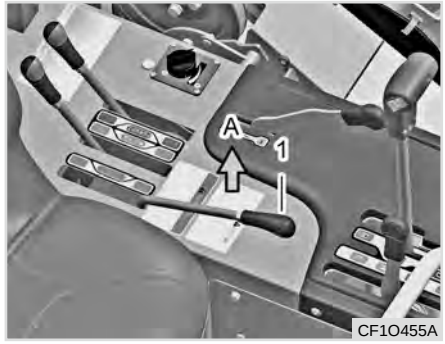
This is a safety device to prevent the reaping unit from dropping. When this safety device is engaged with the reaping unit hydraulic cylinder, the reaping unit cannot be lowered by operating the power steering lever.

To fix the reaping unit, remove the lock and engage the safety device with the reaping unit hydraulic cylinder.

NOTE

- To reinstall the lock, place it back to its original position.
- The reaping unit cannot be moved vertically unless the engine is started.

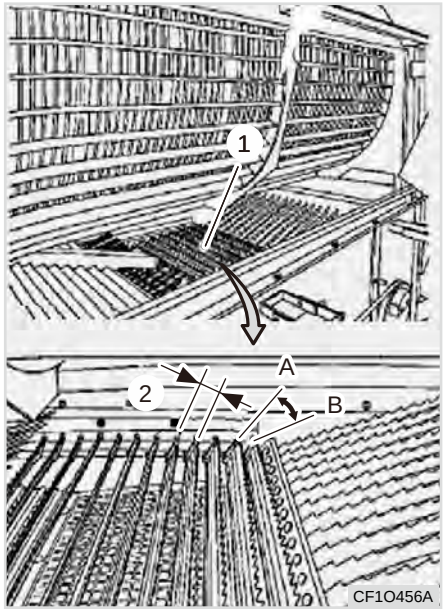
REAPING UNIT REVERSING CLUTCH LEVER



(1) Reaping Unit Reversing Clutch Lever
(A) Up

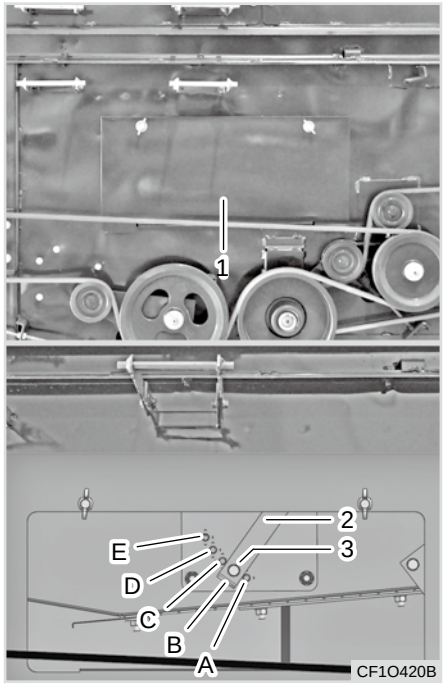
If the reaping unit or feeding unit is producing abnormal noise or is stopped as they are clogged with straws, use this lever to turn the reaping unit in the reverse direction to remove straws.

SIEVE CASE SIEVE CONTROL LEVER



(1) Sieve Case Sieve (2) Space (Opening)
(A) Open (Fully Open)
(B) Close (Fully Closed)

This lever is used to adjust the spacing (opening) of the sieve of the sieve case depending on threshed grains condition.

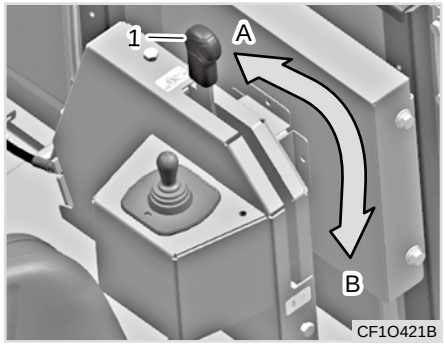


(1) Clean-out Cover On Left Plate Of Threshing Unit
(2) Sieve Case Chaff Control Lever
(3) Lock Bolt
(4) Adjust
(A) 1st (Closed) (B) 2nd
(C) 3rd (D) 4th (Standard)
(E) 5th (Open)

NOTE

- The sieve case chaff control lever is visible and accessible when the threshing unit left cover and clean-out cover of the left plate are removed.
- The spacing (opening) of the sieve case can be adjusted in 5 stages using the sieve case chaff control lever.
- The sieve case chaff control lever is set in the 4th position (standard) at factory.

DISCHARGE CLUTCH LEVER



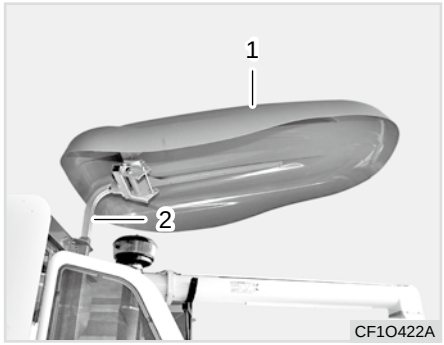
(1) Discharge Clutch Lever
(A) Disengage (B) Engage

This lever is used to discharge grains from the grain tank.

- Engage: Discharging grains
- Disengage: Stopping discharging grains

USING THE CANOPY

HOW TO ADJUST THE CANOPY



(1) Canopy (2) Canopy Pole

Adjust the roof pole and cover angle according to the sunshine amount and other conditions, such as transportation or storage.

⚠ CAUTION

- **Be careful not to get your face or head injured by the canopy during the following operation:**
  - **Reaping operation**
  - **Adjusting or folding the canopy**

⚠ CAUTION

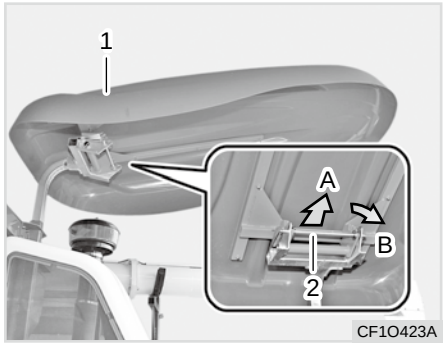
- **Before transporting the combine with a trailer or storing the combine in a garage, fold the canopy. As the canopy can be damaged by wind during transportation, fix it firmly with ropes. If the canopy is hit by a tree or wire during transportation, it can be damaged and dangerous to pedestrians.**

FOLDING THE CANOPY

IMPORTANT

The canopy pole can be adjusted between two positions (work and store) and the roof cover can be adjusted between three positions (upper, mid and lower).

- **Set the canopy pole in the Work position. (It can be set in the Work position by performing its folding procedure in the reverse order.)**
- **Loosen the left and right screws from the canopy pole and canopy. Have another person support the cover so that it is not dropped onto the ground.**
- **After adjusting the canopy angle, tighten both screws firmly to fix the cover.**



(1) Canopy *(2) Pole*
(A) Pull *(B) Lower*

1. Set the canopy in the lower position.
2. Pull the pole to adjust the canopy angle as desired.

MEMO

DAILY INSPECTION

Check the maintenance items before work.

⚠ CAUTION

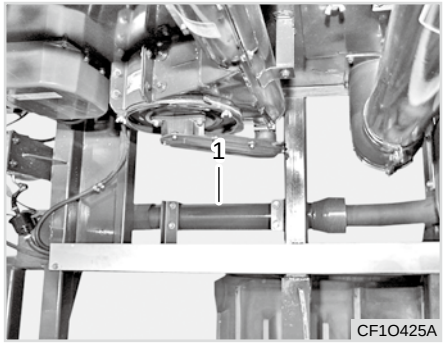
- **Keep flammables away.**
- **Make sure to stop the engine before inspection.**
- **If fuel or oil is overflowing, wipe it clean.**
- **Do not open the radiator cap during or right after driving. Boiling water may be sprayed out and you can get burnt.**
- **If straw debris is accumulated on the engine, muffler and battery, and in the belt cover of the cutter and threshing unit, they can catch fire. Check them frequently to remove any foreign materials.**

[ITEM]		[ACTIONS]	
Engine oil		• O.K. if its level is between the upper and lower limits	• If the amount is insufficient, add oil to the level between the upper and lower limits. (Capacity: 8.0L) SAE15W-40, API CA grade or higher
Coolant		• Is the coolant level in the reservoir proper? (The level should be between the FULL and LOW marks)	• If coolant is insufficient, add clean water. (Do not overfill.)
Air cleaner		• Is the air cleaner clogged with dust?	• Clean.
Turning main switch to ON	Fuel gauge	• Is there enough fuel?	• Add diesel fuel. (Capacity: 67 L)
	Horn	• Does the horn sound when depressing its switch?	• Check if the fuse is blown or the wiring is defective. Take an appropriate action accordingly. • In other case, contact your dealer.
	Lamps	• Are they operated properly?	• Check if the bulb or fuse is blown or the wiring is defective. Take an appropriate action accordingly.
	Reverse alarm	• Does the reverse alarm sound when placing the main shift lever to the "reverse" driving position?	• Check if the fuse is blown or the wiring is defective. Take an appropriate action accordingly. • In other case, contact your dealer.
Engine starting	Instrument cluster	• Are the oil lamp and charge warning lamp turned off? • Is the RPM gauge operated normally?	• Add engine oil. • Charge the battery. • Check for malfunctioning devices and take an appropriate action accordingly.
Reflector		• Is it dirty? • Is it attached firmly?	• Clean. • Attach it firmly.
Dust grill Radiator and oil cooler fin		• Is the dust grill clogged? • Are the radiator and oil cooler clogged?	• Clean with a brush. • Clean the radiator and oil cooler with water or compressed air.
Chain and crawler		• Is it loose or damaged?	• Adjust it to the specification.
Belt cover and muffler surroundings		• Are straws stuck to it?	• Remove.

CHECKING FUEL

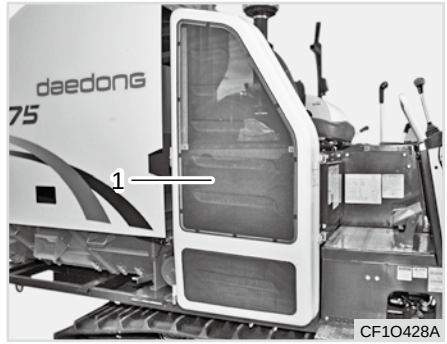
(1) Fuel Filler Hole *(2) Fuel Gauge*

CLEANING MUFFLER AND PIPE



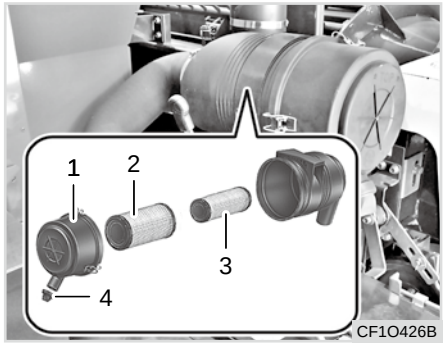
(1) Muffler And Pipe

CHECKING DUST GRILL, RADIATOR FIN AND OIL COOLER FIN



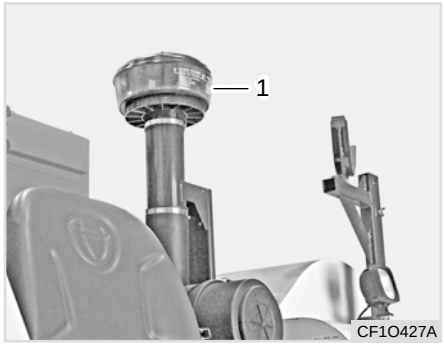
(1) Dust Grill

CLEANING AIR CLEANER

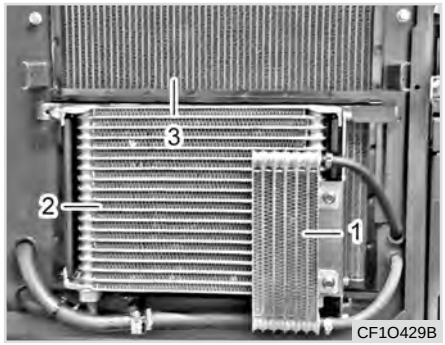


(1) Cap *(2) Element*
(3) Auxiliary Element *(4) Discharge Valve*

CLEANING PRECLEANER

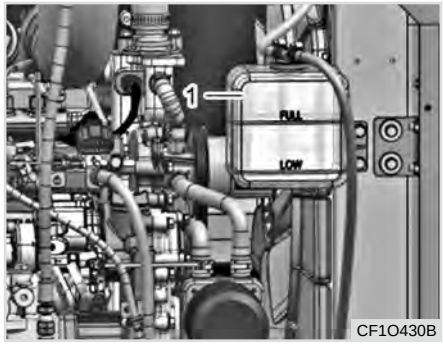


(1) Precleaner



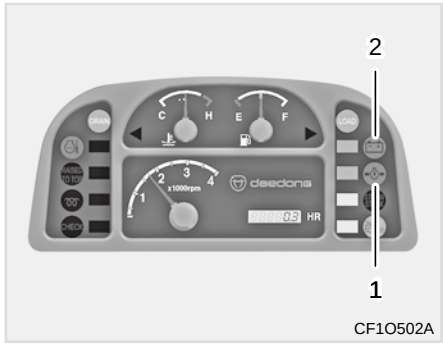
(1) Fuel Cooler *(2) Oil Cooler*
(3) Radiator

CHECKING ENGINE OIL AND COOLANT



(1) Reservoir Tank

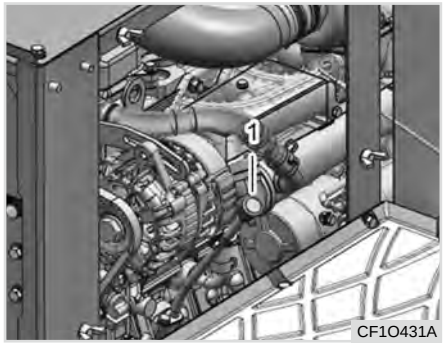
CHECKING INDICATORS



(1) Oil Lamp
(2) Charge Warning Lamp

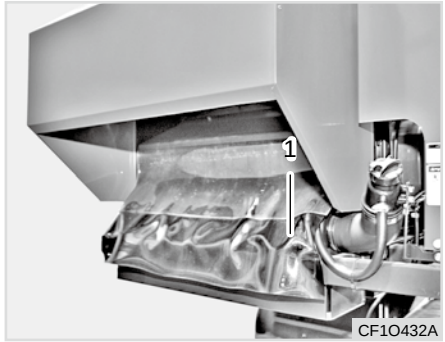
NOTE

- Remove the bolts (A) at 2 locations and clean the 2nd screen.



(1) Oil Gauge

CLEANING FUEL TANK SURROUNDINGS



(1) Straws Stuck In Fuel Tank

5

MEMO

STARTING AND STOPPING ENGINE

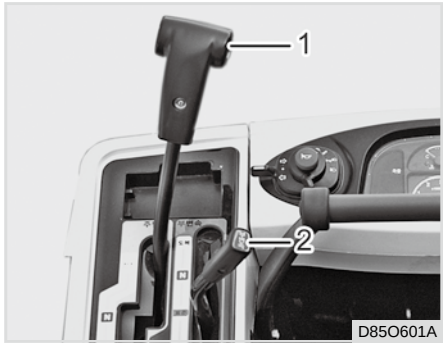
⚠ CAUTION

- **Start the engine, sitting on the driver's seat.**
- **Inform everyone around of engine starting before doing so.**
- **Start the engine with each clutch lever in the "Disengage" position.**
- **The engine cannot be started due to the safety switch unless the main shift lever is in the "Neutral" position.**
- **If the engine fails to start in 10 seconds after turning the main switch to the "START" position, turn the main switch to the "OFF" position, wait for 30 seconds and try again. Keeping the main switch in the "START" position for over 10 seconds can damage the start motor.**

⚠ CAUTION

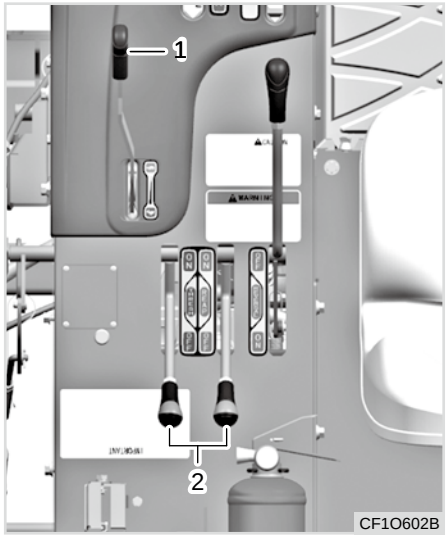
- **After the engine is started, idle the engine for 5 to 10 minutes before work. (Make sure to warm up the engine to facilitate rapid oil circulation especially when the ambient temperature is below 0℃.)**
- **When starting the engine on a steep slope, depress the parking brake pedal and place the range shift lever out of the neutral position.**

STARTING ENGINE



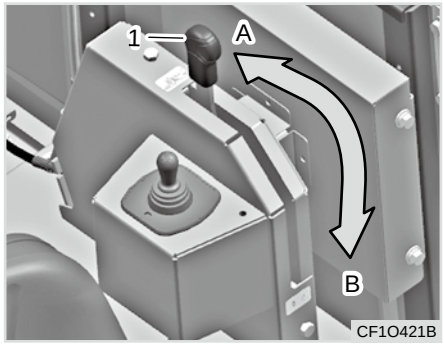
(1) Main Shift Lever *(2) Range Shift Lever*

1. Set the main shift lever and range shift lever to the "Neutral" position.



(1) Throttle Lever
(2) Reaping/threshing Clutch Lever

2. Raise the throttle lever moderately.
3. Set the reaping/threshing clutch lever in the OFF position.

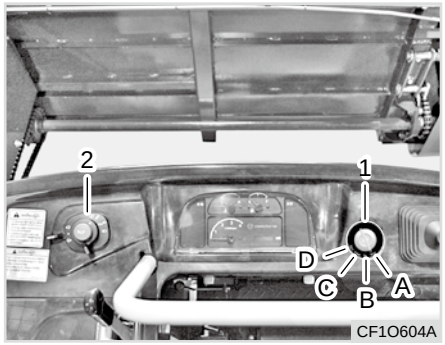


(1) Grain Discharge Clutch Lever
(A) Engage (B) Disengage

4. Set the grain discharge clutch lever in the Disengage position.

(1) Throttle Lever
(A) Accelerating direction

5. Pull the throttle lever in the direction A to increase the engine RPM.



(1) Main Switch *(2) Horn Switch*
(A) STOP *(C) ON*
(B) Preheat *(D) Start*

9. In cold weather, place the main switch in the PREHEAT position to preheat the engine for 5 to 10 minutes before placing the main switch in the START position to start the engine.
10. If the vehicle runs out of fuel so the engine is stopped during driving, start the engine again according to the following procedure:
    - Set the main shift lever in the OFF position.
    - Place the threshing clutch lever and reaping clutch lever in the OFF position.
    - Add fuel into the fuel tank.
    - After performing the Steps 1 through 4 above, cycle the main switch between the ON position and the START position 2 to 3 times.

NOTE

- Place the main switch in the ON position and discharge exhaust gas for 30 seconds.

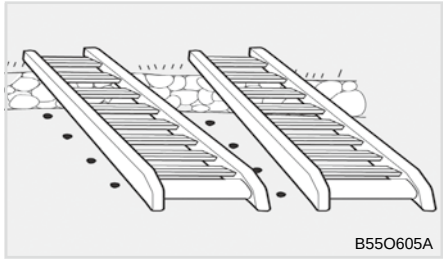
11. If the engine cannot be started due to the discharged battery, charge or replace the battery. If this action cannot be performed immediately, connect the battery to another intact battery of another vehicle with jump cables to start the engine.

STOPPING ENGINE

(1) Reaping / Threshing Clutch Lever

1. Stop the machine in level ground and lower the reaping unit.
2. Set the reaping/threshing clutch lever in the OFF position.
3. Apply the parking brake, idle the engine for 2 to 3 minutes, and set the main switch in the OFF position.
4. Remove the key from the main switch and store it separately.

DRIVING ON PAVED ROAD

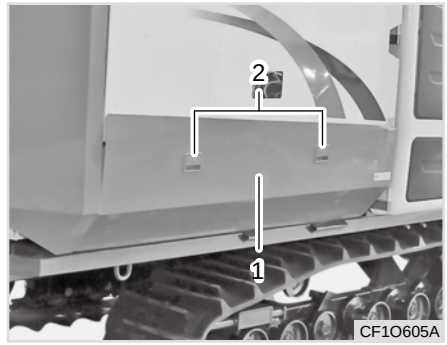


⚠ CAUTION

- **A sharp turn at a high speed is very dangerous. Make sure to decelerate and operate the power steering lever gradually.**
- **When passing over a bank, keep a low speed and enter at a right angle to the bank.**
- **If the height of the bank or ridge is over 10 cm, use ramps.**
- **Fix the tank firmly with its mounting pin.**
- **Store and fix the unloader to its support.**

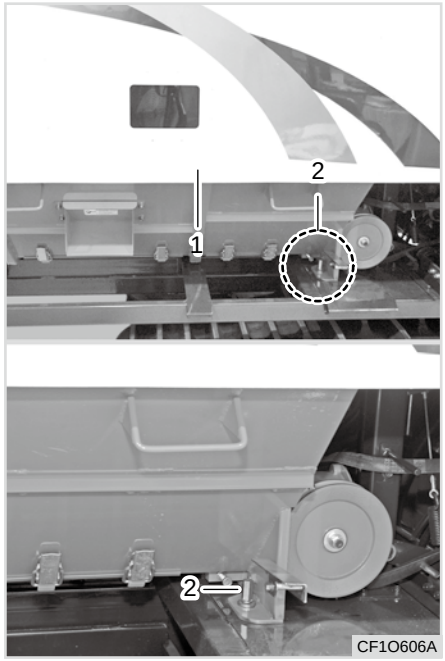
⚠ CAUTION

- **When crossing a railroad, stop first, check for any coming train and drive fast.**
- **Lower the vehicle body to its lowest position for driving and getting on and off it.**
- **Fold the canopy and unloader. Otherwise, they can be hit and damaged by a tree or telephone pole or injure others.**



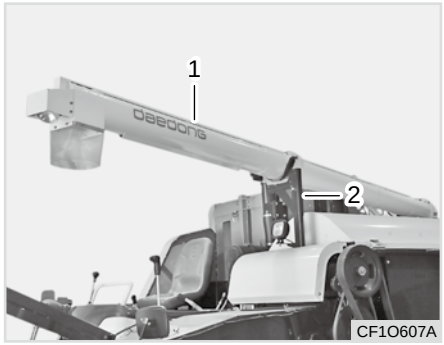
(1) Lower Cover Of The Grain Tank
(2) Handle

1. Discharge grains from the grain tank completely.
2. Pull the handle to open the lower cover of the grain tank.



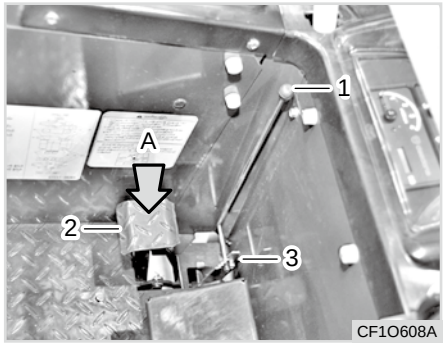
(1) Grain Tank *(2) Fixing Bolt*

3. Fix the grain tank to the vehicle body with the fixing bolt.
4. Fit the lower cover to the grain tank.



(1) Unloader *(2) Support*

5. Set and fix the unloader to its support.
6. Confirm that the horn and headlamps are correctly operated.
7. Place the reaping and threshing clutch levers in the OFF position and the main shift lever in the OFF position, and start the engine. Set the engine speed over 2,000 RPM. (The engine cannot be started unless the main shift lever is in the "OFF" position.)
8. Lift and fix the reaping unit with the power steering lever.
9. To steer the vehicle, move the power steering lever to the left or right gently.



(1) Parking Brake Lever
(2) Parking Brake Pedal
(3) Stopper (A) Release

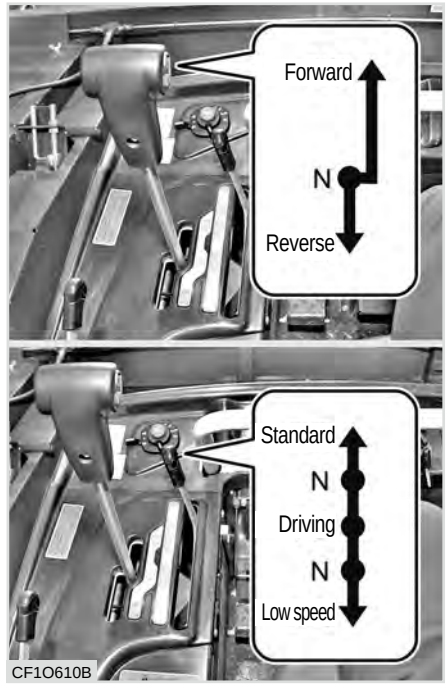
9. Depress the parking brake pedal to release its lock.

⚠ CAUTION

- **If driving the vehicle with the parking brake applied, the friction plate in the transmission can be damaged and abnormal load can be applied. Make sure to release the parking brake before driving.**
- **Drive the vehicle after emptying the grain tank.**

⚠ CAUTION

- **Avoid abrupt turning on a gravel road. Gravels and foreign materials may get into the crawler, causing malfunction.**
- **Set the main shift lever to the "Neutral" position and stop the vehicle before shifting the range shift lever.**
- **Set the engine speed over 2000 RPM during driving.**
- **If the reaping unit is lifted for an extended period of time, it may fall by its weight.**

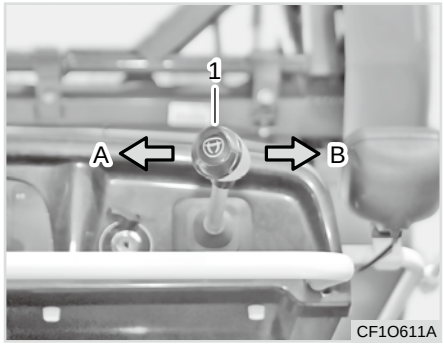


(1) Main Shift Lever
(2) Range Shift Lever

11. Set the range shift lever in the Driving position.

12. Push the main shift lever gradually toward the forward driving position to move forward, keeping a proper speed.

    Pull the main shift lever toward the reverse driving position to drive backwards.



(1) Power Steering Lever
(A) Left Turn (B) Right Turn

13. To make a turn, move the power steering lever in the desired direction. The tilt angle of the power steering lever determines the turning degree of the body. When the lever is tilted fully, the vehicle makes a sharp turn.

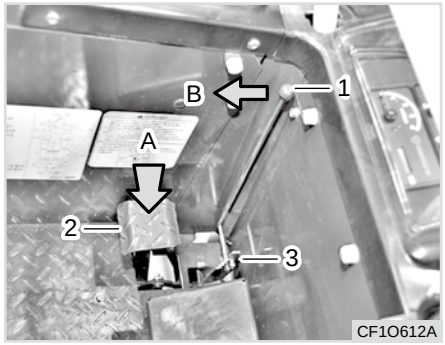
⚠ CAUTION

- **If operating the power steering lever forcibly during driving, the vehicle turns rapidly, resulting in a dangerous situation. Lower your speed before making a turn.**

IMPORTANT

- **Avoid a sharp turn in a poor road condition (ex: stones scattered over the road). The crawlers can be deformed, cut or broken.**

PARKING



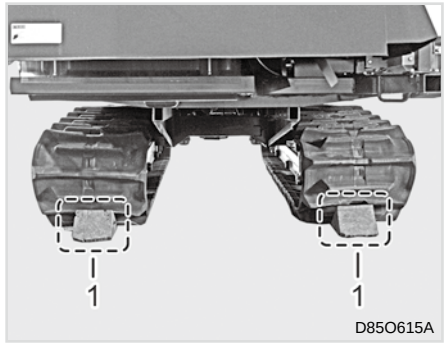
(1) Parking Brake Lever
(2) Parking Brake Pedal *(3) Stopper*
(A) Depress *(B) Lock*

1. Place the main shift lever to the "Stop" position.
2. Set the range shift lever to the "Neutral" position.
3. Apply the parking brake.
4. Stop the engine and remove the key.

Operate the parking brake as follows:

1. To lock the parking brake pedal, depress it firmly and lock it with the parking brake lever.
2. To release it, depress the parking brake pedal firmly again.

CHOCKING THE CRAWLERS



(1) Chock

- Parking on uphill road: behind the crawlers
- Parking on downhill road: in front of the crawlers

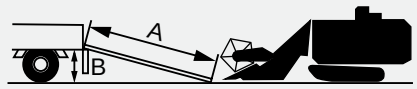
⚠ CAUTION

- **When stopping the combine harvester, stop it on safe and level ground, lower the reaping unit, stop the engine and apply the parking brake.**

LOADING AND UNLOADING TO AND FROM TRANSPORTING VEHICLE

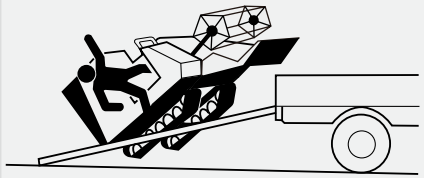
⚠ CAUTION

- **Never depress the parking brake pedal during driving or loading or unloading it to or from a truck. If depressed, the vehicle body may be pulled to one side. If the vehicle needs to be stopped immediately, place the main shift lever in the OFF position.**
- **When parking on a slope, choke the crawlers to prevent the vehicle from rolling down the road.**



CF1O616A

(A) 4 times long as height of cargo bed of transporting vehicle
(B) Cargo bed height

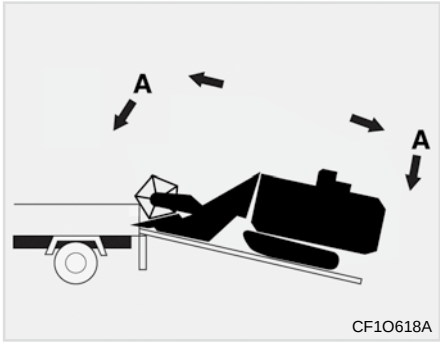


CF1O045A

⚠ CAUTION

- **Use ramps that are strong (enough to withstand the weight of the combine harvester), wide (1.2 times long as the tire width) and long (4 times long as the height of the cargo bed of the vehicle) enough with an anti-skid surface.**
- **Hooks at the end of ramps should be set firmly to the cargo bed and there should be no gap or step between the ramps and cargo bed.**
- **Do not move the power steering lever left or right on ramps. The vehicle may fall off the ramps.**
- **If it is needed to turn the combine harvester, turn it only on the ground or deck, not on ramps.**
- **Do not allow anyone to come near the combine harvester for everyone's safety.**


CF1O617A



CF1O618A

(A) Drop

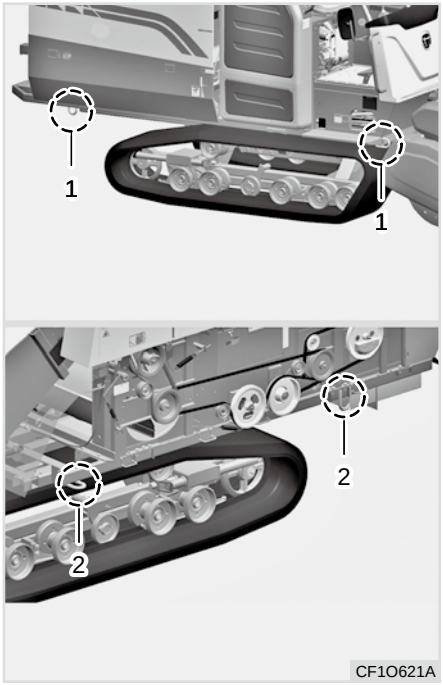
⚠ CAUTION

- **Load or unload the combine harvester on level ground and follow instructions of an assistant. Also, do not allow anyone to come near the combine harvester.**

1. Raise the reaping unit completely.
2. Set the engine speed over 2000 RPM, place the range shift lever to the low speed position and push the main shift lever gradually to drive at a low speed.
3. Set the left and right wheels properly on ramps so that there will be no need to operate the power steering lever.

⚠ CAUTION

- **Be careful when crossing a bump. The position of the vehicle may change abruptly.**



(1) Rope Hook (Front: 2 Pieces)
(2) Rope Hook (Rear: 2 Pieces)

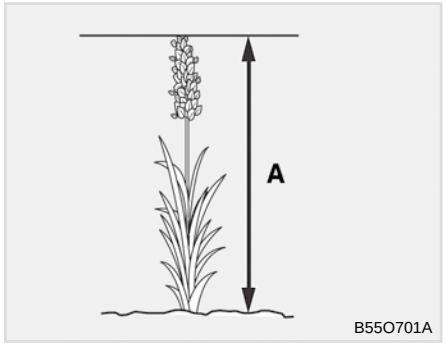
⚠ CAUTION

- **When transporting the combine harvester with a trailer or transporting vehicle, fix it with ropes. Fix the rope to 4 rope hooks on the frame and lock the parking brake lever.**
- **Tie the covers with ropes so that they do not fall off by wind during transportation.**
- **Tie the support band of the unloader during transportation.**

CROP AND FIELD CONDITION FOR COMBINE HARVESTER

CROP CONDITION

CROP LENGTH

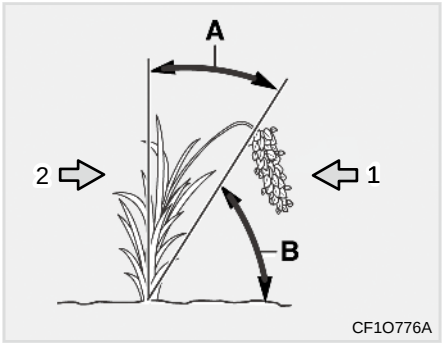


Crop Length (A)
55 - 130 cm

⚠ CAUTION

- **The normal operation of the combine harvester may not be possible depending on the conditions of crops and field. Make sure to check the conditions of the corresponding crops and field before work.**

LODGED CROP

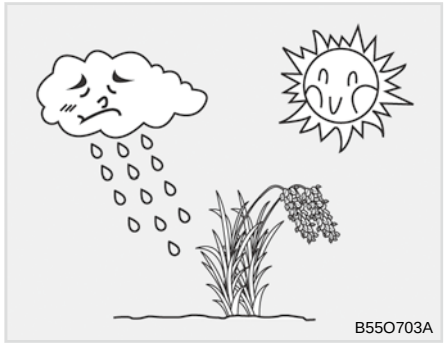


(1, 2) Working Direction
(A) Lodged Angle
(B) Standing Angle Of Crop

When working from direction (1)
(A) angle of crops should be less than 70 °

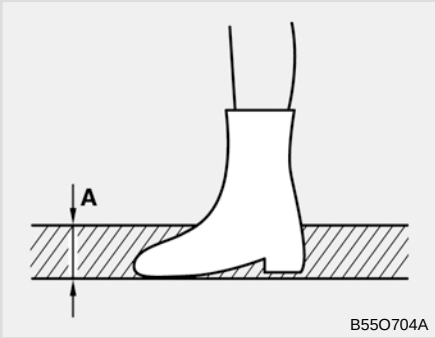
When working from direction (2)
(A) angle of crops should be less than 85 °

MOISTURE IN CROPS



Moisture in crops
Dry (Felt dry when touching it with a hand)

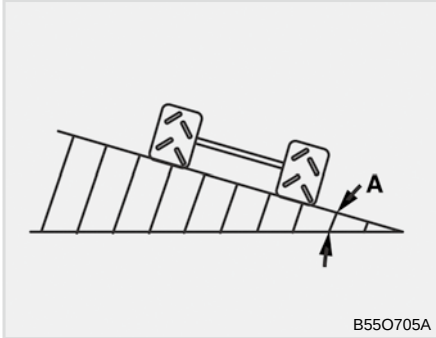
FIELD CONDITIONS



Field Condition (A)
Foot sinking in field within 15 cm

⚠ CAUTION

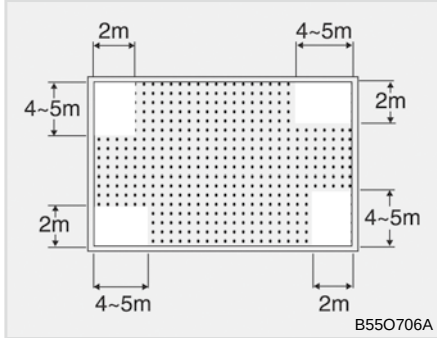
- **The reaping operation cannot be done if there are too many weeds on the field. Weed the field with care.**



The reaping operation cannot be performed if the angle of the vehicle body is over 5˚.

PREPARATION BEFORE WORK WITH COMBINE HARVESTER

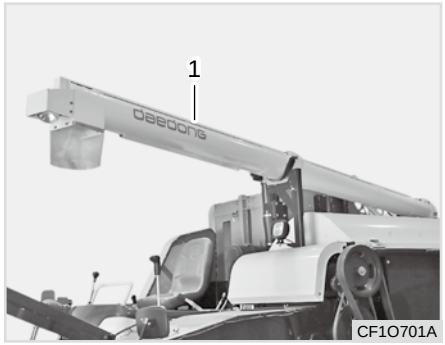
REAPING CROPS ON FIELD EDGES



For efficiency, reap crops on the four corners (within the turning radius) with a sickle before driving the combine harvest onto the field.

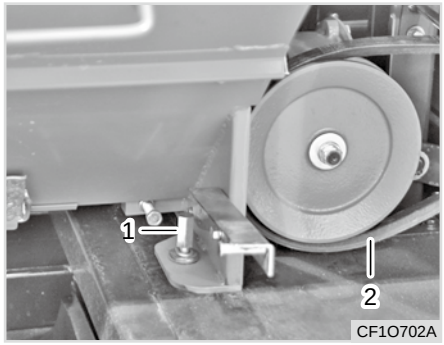
PREPARATION OF EACH PART BEFORE WORK

INSPECTING TANK



(1) Unloader

1. Store and fix the unloader to its support.



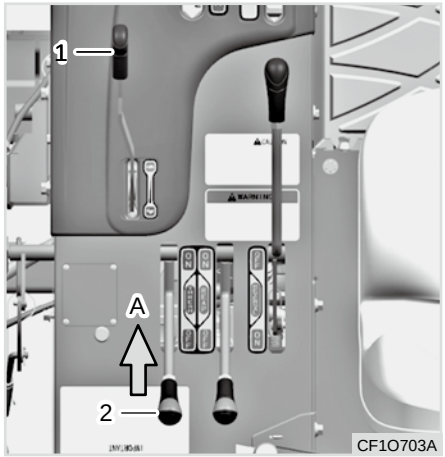
(1) Tank Mounting Bolt
(2) Tank Driving Belt

2. Check that the tank drive belt is tight and the tank mounting bolt is tightened firmly.

CAUTIONS DURING WORK

1. Never operate the threshing clutch lever while the engine is running at a low speed. The threshing unit can be clogged or damaged.
2. It is hard to work on a small field or on the edge of a field. For your safety, work with care at a low speed.
3. When switching between the cutter and dropper operations, stop the threshing unit in advance.
4. When the dust-proof cover on the engine gets dusty during work, clean it as necessary. If keeping working with the dusty dust-roof cover, the engine can be overheated.

REAPING OPERATION SEQUENCE

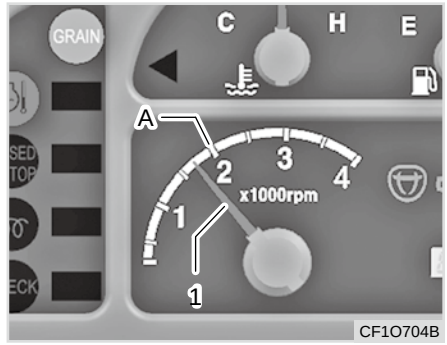


(1) Throttle Lever
(2) Threshing Clutch Lever
(A) Engage

1. To stop the machine after entering a field, place the main shift lever in the OFF position and the range shift lever in the Neutral position.
2. Operate the throttle lever to raise the engine speed up to 2,000 RPM.
3. Set the threshing clutch lever in the Engage position.

IMPORTANT

- **When the threshing clutch lever is in the Engage position with the engine running at 2,000 RPM or higher, the drive belt can be damaged.**

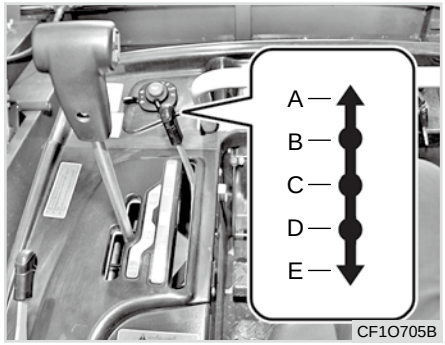


(1) Needle
(A) 2,000rpm

4. Operate the throttle lever to set the needle on the tachometer at 2,000 RPM which is suitable for field operation.

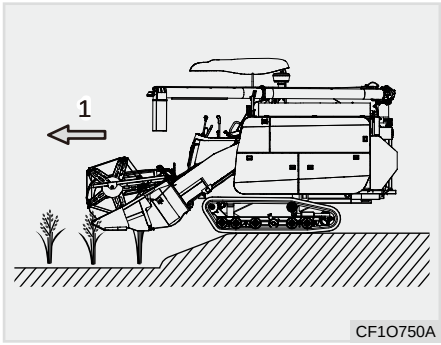
NOTE

- Adjust the engine speed with the threshing clutch lever set in the Engage position and the vehicle stopped.



(1) Range Shift Lever
(A) Standard (B) Neutral
(C) Driving (D) Neutral (E) Low Speed

5. Set the range shift lever in the Low speed, Standard or Driving position.



6. If the height difference between the field and bank is small and there is an entrance to the field, prepare for reaping operation, place the range shift lever in the Standard position and drive slowly onto the field.

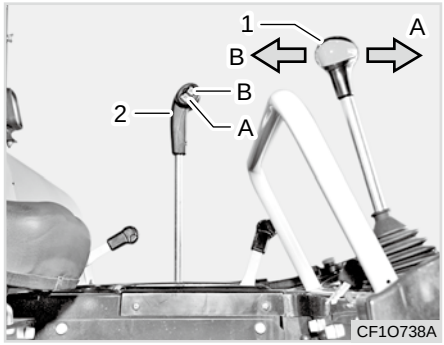
REAPING OPERATION STEPS

⚠ WARNING

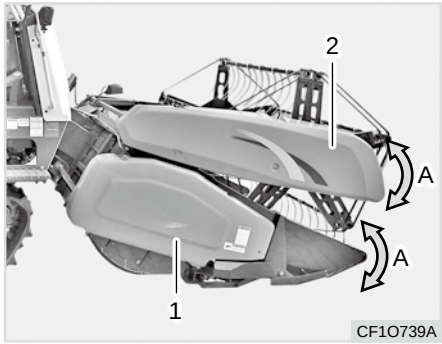
- ***Do not stop on straw debris or dry weeds. Otherwise, it can catch a fire.***
- ***Stop the engine if any abnormal condition is found.***
- ***Drive at a low speed to ensure safety in a small field or at the corner of a field.***
- ***Keep the headlamps or work lamps illuminated when working at night or in a dark condition.***
- ***When working with others, operate the horn as a signal.***

IMPORTANT

- **If there is a large amount of foreign materials stuck onto the dust grill around the engine during operation, remove them immediately. If keeping working under this condition, the engine can be overheated.**
- **If working in one direction continuously or backing up repeatedly in a wet field, straw debris can be accumulated under the combine, causing malfunction. Back up where there is no straw debris.**

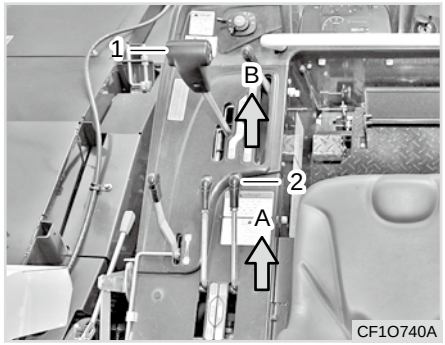


(1) Power Steering Lever
(2) Main Shift Lever
(A) Down of Reel (B) Up of Reel



(1) Reaping unit (2) Reel
(A) Adjust

6. Adjust the reaping height and reel height of the reaping unit according to the crop conditions.
   (1) Operate the power steering lever to adjust the reaping height within 40 - 130 cm.
   (2) Adjust the height of the reel with the reel up/down button.



(1) Main Shift Lever
(2) Reaping Clutch Lever
(A) Engage (B) Forward Driving

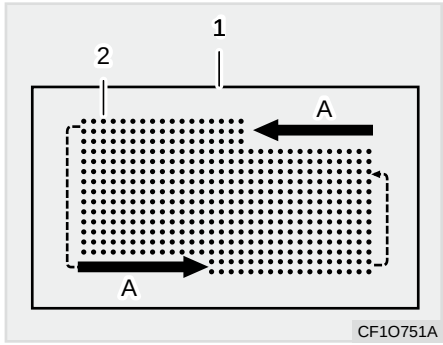
7. Place the reaping clutch lever in the Engage position. Then, push the main shift lever into the Forward driving position to start reaping.

IMPORTANT

- **When the reaping unit (auger or feeding unit) is clogged, move the reaping clutch lever to the OFF position immediately to pause reaping. Otherwise, the reaping drive belt may spin and may not feed crops to the threshing unit, resulting in belt damage.**

8. After reaping, check the separation quality and threshed crops. Adjust components if necessary.
9. After reaping, set the reaping clutch lever in the disengaged position and confirm that every grain is fed into the threshing cylinder or grain tank before moving the threshing clutch lever to the disengaged position.

REAPING AND TURNING METHOD IN THE FIELD



(1) Field (2) Crops
(A) Reaping Direction

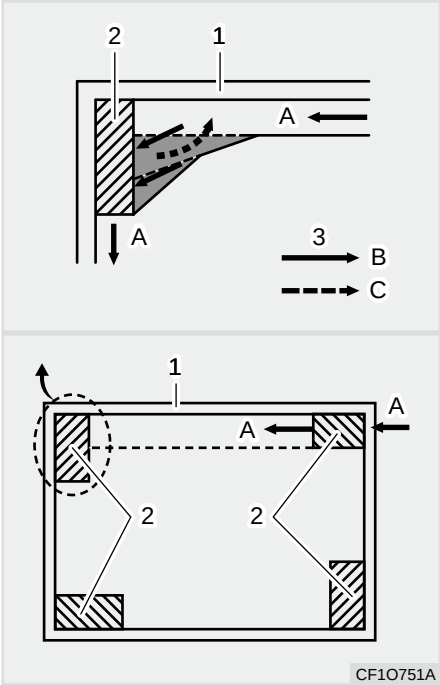
NOTE

Place the range shift lever in the Low speed position when reaping in the following conditions:

- Making a first turn during reaping after entering the field
- Splitting a large field in half for efficient reaping operation
- Reaping in a small field or at the corner of the field

NOTE

- Check the separation quality and threshed crops. If a problem occurs, take a proper action, referring to the troubleshooting information.



(1) Ridge
(2) Reaping In Corners
(3) Reaping In Corners *(4) Entrance*
(A) Reaping Direction *(B) Forward*
(C) Backward

1. Drive the combine to enter the field.
2. To secure an enough space to make a turn, reap crops in the corners first.

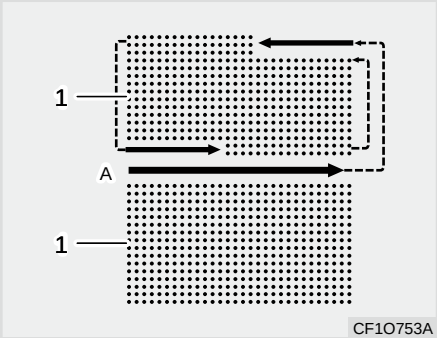
IMPORTANT

- **When reaping crops along ridges, be careful not to let the divider hit a hard object, such as a ridge or stone wall.**

NOTE

- Drive at a low speed when reaping in a small field or at the corner of the field.

7



(1) Crops *(A) Reaping Direction*

3. Reap the field in the counterclockwise direction.

NOTE

- When reaping crops in a large field, split the field for efficient operation as shown in the figure.

TURNING

Prepare for reaping operation, place the range shift lever in the Standard position and drive slowly onto the field.

IMPORTANT

- **Do not slow down the engine speed. If lowering the engine speed, separation efficiency can be degraded or the unit can be clogged.**

NOTE

- Raising the reaping unit before reaping operation is completed can leave some spots unreaped.
- If the engine speed needs to be lowered abruptly, lower it before turning.

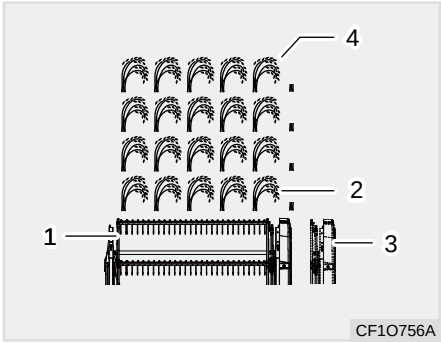
WORKING IN SEVERE CONDITIONS

If wet or unripe crops need to be reaped, reap them at a slower speed than usual. Also, check the concave and feeding unit regularly and remove any accumulated crops or blockage immediately.

POSITIONING AND ADJUSTING THE DIVIDER

When harvesting lodged crops, set the divider position according to the crop conditions to reduce crop loss.

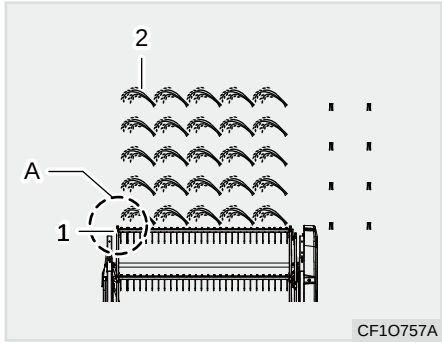
SLIGHTLY LODGED CROPS



(1) Divider
(2) Unreaped Crops
(3) Divider Position In Normal Condition
(4) Slightly Lodged Crops

When reaping slightly lodged crops, some grains around the right side of the reaping unit may be cut out. In this case, reap unreaped crops around the right divider first. Keep the speed low during this operation.

COMPLETELY LODGED CROPS



(1) Divider *(2) Lodged Crops*
(A) Passing Over Crops

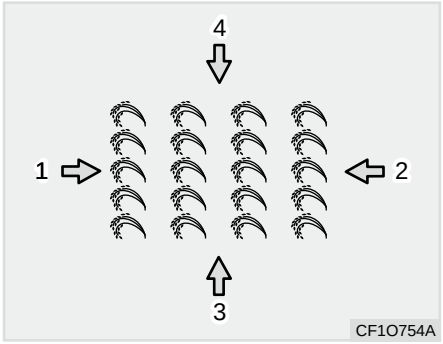
Adjust the position of the left divider so that it can pass over the top of the crops.

ADJUSTING THE REAPING SPEED

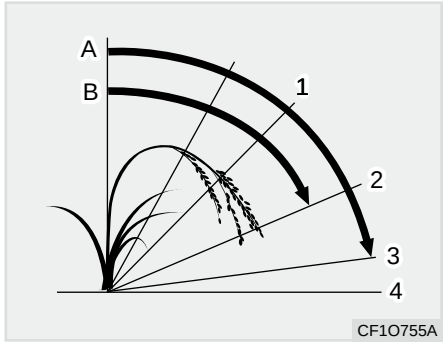
IMPORTANT

Avoid reaping the following types of crops as the reaping unit and threshing unit can be clogged or the yield can be decreased due to reaping or threshing loss:

- **Wet field (wet crops)**
- **Dry crops but with watery grains (crops with relatively high moisture content)**
- **Excessively lodged crops**
- **Rotten crops**
- **Unripe crops**
- **Avoid reaping the following types of fields as the reaping unit and threshing unit can be clogged, resulting in decrease in yield or reaping operation is impossible:**
- **Wet field that booted feet are drawn into mud to the depth of 30 cm or deeper**
- **Field inclined at 5 degrees or higher**
- **Weedy field**



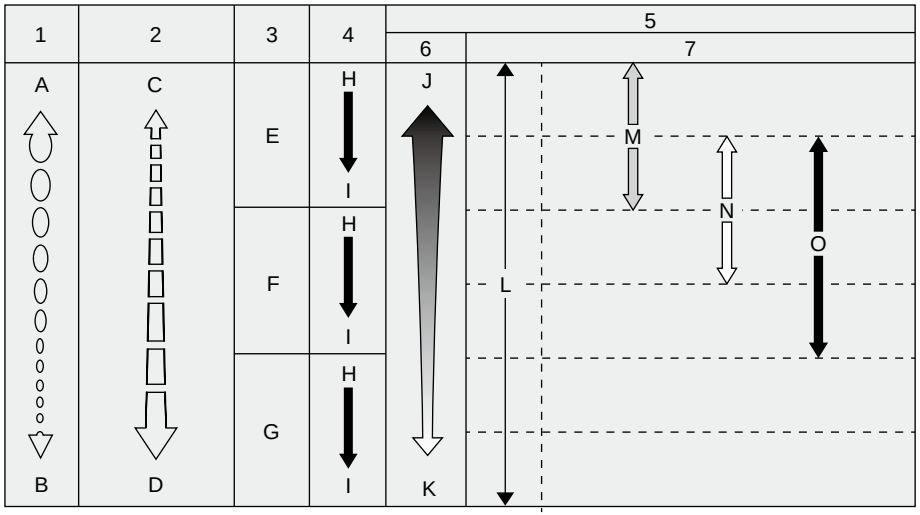
(1) Cutting Bottom First
(2) Cutting Crops Lodged To The Left
(3) Cutting Head First
(4) Cutting Crops Lodged To The Right



(1) 45˚ *(2) 70˚ Or Less*
(3) 85˚ Or Less
(4) 90˚(Completely Lodged)
(A) Range Suitable For Cutting The Bottom First
(B) Range Suitable For Cutting The Head First

When reaping excessively lodged crops or reaping crops with high moisture content, keep the reaping speed low. When reaping erect crops or reaping crops with low moisture content, increase the reaping speed. When reaping lodged crops, select the appropriate reaping direction according to the crop condition.

Refer to the following chart to operate the range shift lever and main shift lever in order to select the proper reaping speed.



(1) Moisture Content Of Crops
(2) Working Speed
(3) Range Shift Lever Position
(4) Main Shift Lever Position
(5) Lodging Condition Of Crops
(6) Lodged Angle
(7) Reaping Direction And Speed

(A) High Moisture Content (Wet Crops)
(B) Low Moisture Content (Dry Crops)
(C) Slow
(D) Fast
(E) Low Speed
(F) Standard
(G) Driving
(H) Off
(I) Forward Driving
(J) Large
(K) Small
(L) Erect Crops
(M) Cutting Bottom First
(N) Cutting From The Side
(O) Cutting Head First

NOTE

- Refer to the above chart as standard.
- The proper reaping speed depends on the crop yield, crop ripening condition and others.
- For lodged crops, move the machine in the direction that the crops are lying. (Such crops cannot be reaped by moving the machine against the crops or from the side.)
- When the lodged crops are 130 cm or longer, divide and reap them at a slow speed.

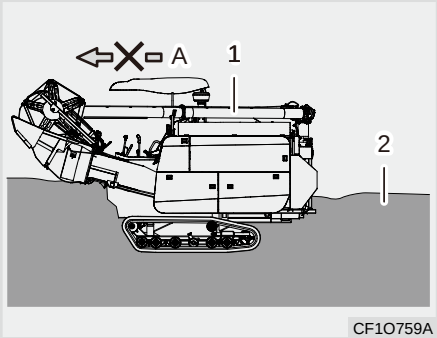
WORKING IN A WET FIELD

⚠ CAUTION

- **Make sure to stop the engine and take a proper action when a malfunction is found.**
- **If the vehicle body is tilted to one side excessively, do not allow an assistant to leave the vehicle. Otherwise, it can cause overturn, leading to injuries.**

When working in a wet field, inspect the crop condition (such as an angle of the crops) and field condition (such as moisture content and inclination of the surface) carefully. If any abnormal condition is found, refer to the following chart for proper action.

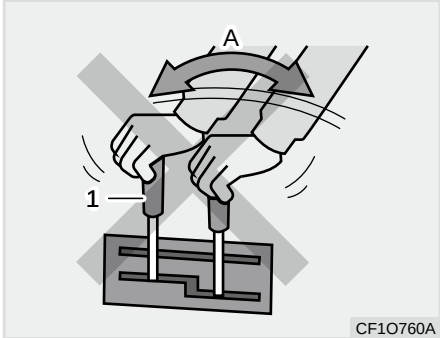
SYMPTOM	ACTION
• The vehicle is slipping • The crawler is stuck and cannot move • The vehicle is leaning to one side	• Keep the reaping speed low. • Never turn on the same spot. • Avoid abrupt turning. (Operate the power steering lever slowly for bigger turning radius.) • Avoid abrupt starts. • If the combine is caught in a drain or puddle, reduce its weight in order to reap. (Discharge all grains from the threshing cylinder or grain tank.)
• The reaping unit is clogged	• Select the suitable reaping method according to the crop and field conditions. • Reap severely lodged crops separately. (Especially, when reaping long crops in the lying direction, grains may enter and block the reaping unit before cutting crops.) • Remove straw debris and mud. (Feeding unit opening and conveyor) • Decrease the reaping speed. • Increase the reaping height. (Adjust the amount of reaped crops.)



(1) Vehicle *(2) Field*
(A) Stuck

IMPORTANT

- **If the vehicle is stuck in a wet field, operation or action as above can cause failure or crawler damage.**

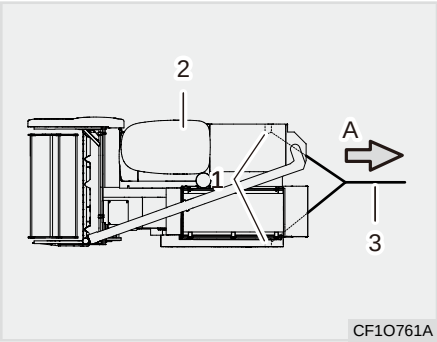


(1) Main Shift Lever
(A) Never Operate For Over 10 Sec.

IMPORTANT

- **Never operate the main shift lever forward or backward for over 10 seconds. Also, never move the lever forward and backward repeatedly. (Operating the main shift lever with the vehicle body stuck in a wet field can damage the HST, making driving impossible.)**

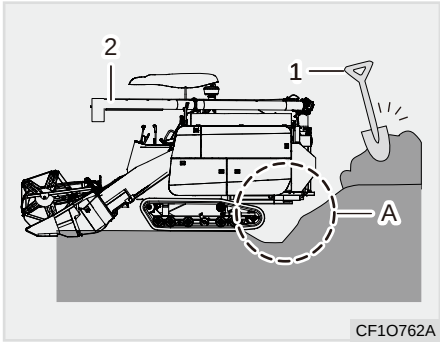
Do not drop a stick or sharp object onto the bottom of the crawler. (The crawler can be damaged.)



(1) Rope Hook (2) Vehicle
(3) Steel Rope, Etc.
(A) Towing

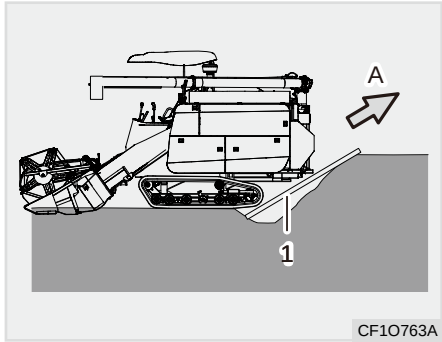
When the vehicle is stuck in a wet field, escape with help from a tow truck.

To pull out the vehicle from a wet field, engage a steel rope to the rope hooks and pull it out slowly using a crane or tow truck. When using a tow truck, keep the towing direction straight ahead. If making a turn, the rope hook can be damaged so the rope can be released.



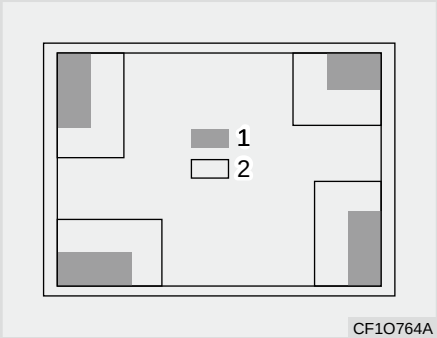
(1) Shovel (2) Vehicle
(A) Digging

If it is impossible to pull out the vehicle with a tow truck, use other tools, such as ramps, to enable towing. Remove any dirt from the crawlers as much as possible. Otherwise, the crawlers may slip, making towing impossible.



(1) Ramps
(A) Towing (Pulling)

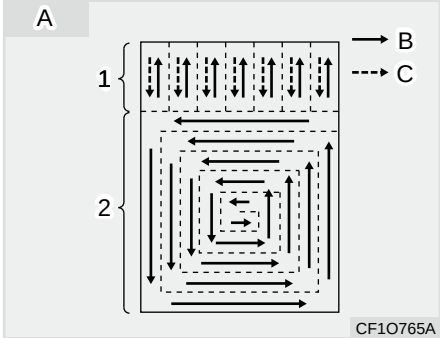
Do not tow the Vehicle using another vehicle. Otherwise, it can result in failure.



(1) Area for reaping in the corners in normal condition
(A) Area for a wet field

If making a turn repeatedly in one spot, the field can be damaged or the combine can be stuck in that spot.

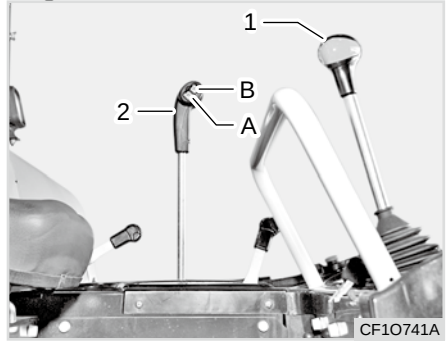
Reap the area in the corners larger than usual.



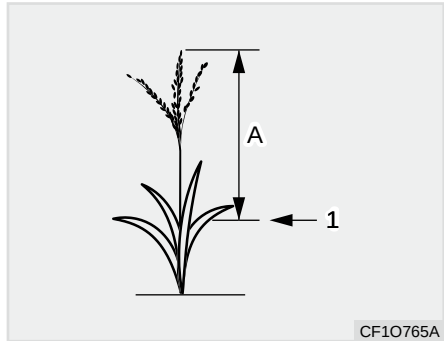
(1) Wet field *(2) Firm field*
(A) Example *(B) Forward*
(C) Backward

When the field consists of both soft sections and firm sections, reap the firm sections first and avoid driving or turning over soft sections repeatedly.

Adjusting the reaping height and reel height



(1) Power Steering Lever
(2) Main Shift Lever
(A) Down *(B) Up*

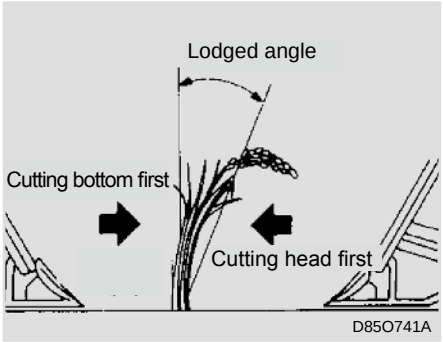


(1) Proper Reaping Height
(A) 40~130cm

7

The length of crops fed into the reaping unit should be 40 to 130 cm. While reaping crops, operate the power steering lever to adjust the height of the reaping unit. The height of the reel should be adjusted using its up/down control button.

REAPING LODGED CROPS



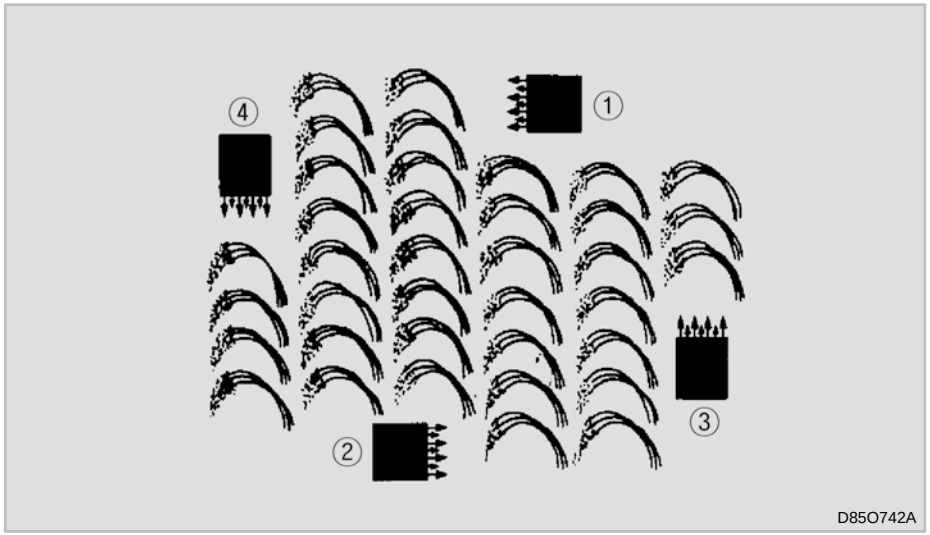
Select the appropriate reaping direction according to the condition of lodged crops.

- The reaping height should be adjusted to be close to the ground so that there are no missing crops.
- Keep the reaping speed as slow as possible as long as there is no missing spot.

Cutting head first	Up to 70˚ of lodged angle
Cutting bottom first	Up to 85˚ of lodged angle

IMPORTANT

- **When reaping barley, drive the combine in the direction that the crops are lying. Driving the combine in the opposite direction can cause clogging in the reaping drum and feeding unit.**



◎: Reap freely ○: Reap with care
△: Reap slowly with care ×: Reaping not allowed Range shift: Low speed

Lodging condition / Cutting direction	Completely lodged	Halfway lodged	Slightly lodged
① Cutting bottom first	△	○	○
② Cutting head first	×	△	△
③ Cutting from left side	△	△	○
④ Cutting from right side	×	△	△

CHANGE DIRECTION DURING WORK

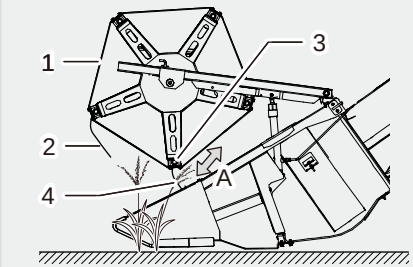
Before turning after reaping crops in one row, operate the power steering lever to lift the reaping unit 10 - 15 cm off the ground so that it does not drag discharged straws.

IMPORTANT

- **Do not disengage the clutch or slow down the engine even when turning after reaping operation is completed.**
- **When the automatic reaping unit lifting function is activated, the reaping unit is automatically lifted to the preset height.**

7

REEL TINE HEIGHT ADJUSTMENT



(1) Reel *(2) Reel Tine*
(3) Reel Tine Bar *(4) Ear*
(A) Adjust

In a normal condition, adjust the reel tine height so that it is placed below ears of crops for easy passing. In other cases, set the reel height properly according to the reaping direction and lodged condition of crops.

Crop condition and reaping direction	Adjusting reel height
1. Stand erect	Adjust the reel height so that the reel tine can pass under ears of grains
2. Cutting head first	Adjust the reel height as low as possible
3. Cutting bottom first	Adjust the reel height so that the reel tine can raise ears of crops
4. Cutting from sides	Adjust the reel height as low as possible
5. Completely lodged crops	

NOTE

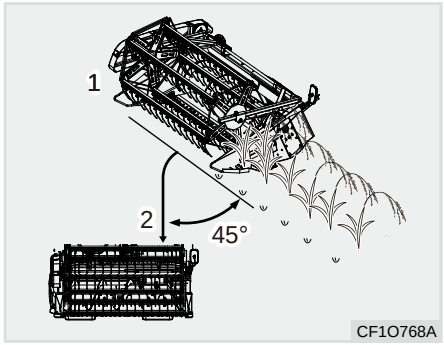
- Set the reel height as low as possible when reaping crops while facing crops' head side.
- Lower the reel as soon as reaping operation is completed so crops do not fall off the reaping unit.
- If reaping crops with the reel tine set under ears of crops, crops may be entangled into the reel or may fall onto the ground.

DRIVING SPEED CONTROL

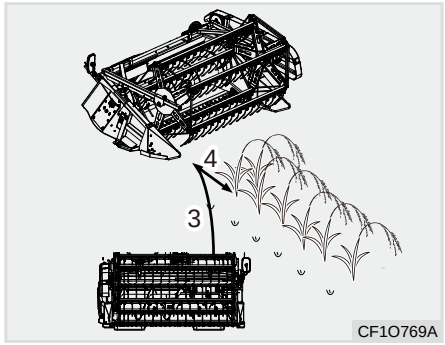
(1) Main Shift Lever
(2) Range Shift Lever

1. Set the range shift lever and elevator shift lever to the proper position according to conditions of crops and field.
2. Work at the optimum speed by setting the proper forward/reverse driving speed with the main shift lever.
3. Do not move the main shift lever to the forward/reverse driving position with the engine stopped.

TURNING IN FIELD



1. After reaping, lift the reaping unit slowly while driving forward. (Be careful not to lift the reaping unit too fast.)
2. Push the power steering lever to the left completely to turn for approx. 45˚ and stop the vehicle.



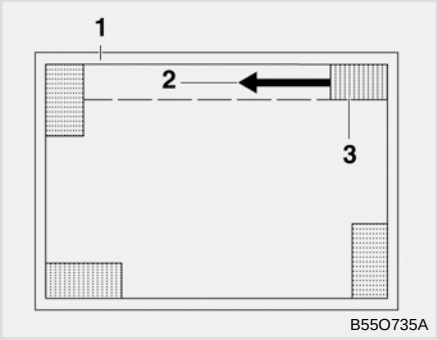
3. Move the main shift lever to the "Reverse" driving position. While moving backwards, pull the power steering lever to the right fully to align the reaping unit to the desired reaping direction.
4. Lower the reaping unit and drive forward.

⚠ CAUTION

- **Make sure to lift the reaping unit before turning.**

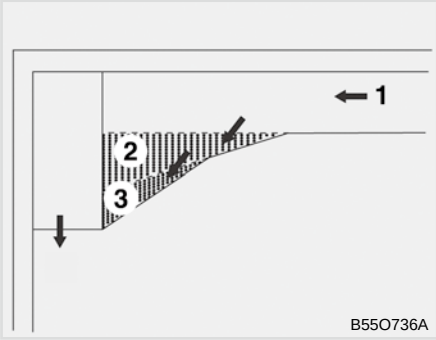
REAPING METHOD

GENERAL FIELD



(1) Bank (2) Reaping on field edges
(3) Reaping counterclockwise

1. Reap 3 to 4 rows along the bank in the counterclockwise direction.



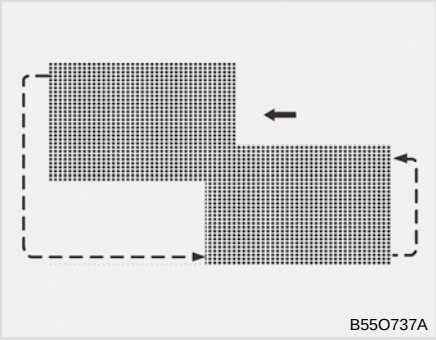
(1) Reaping on field edges

2. Crops in the corner should be reaped as shown in the figure above.

⚠ CAUTION

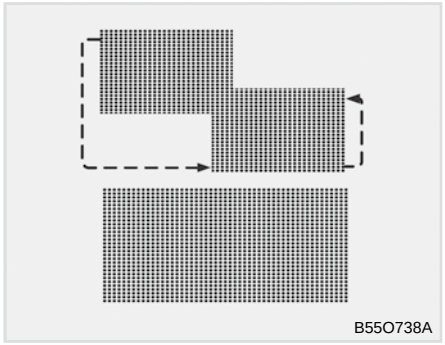
- **If crops in the corner is hard to reap by 2 to 3 turns, go over unreaped crops again.**
- **When reaping along a bank, make sure that the dividers are not bumped against banks.**

FIELD WITH SIDES DIFFERENT IN LENGTH



Reap crops on the edges of the field to obtain areas for turning and start to reap along the long side for better efficiency.

WIDE FIELD



Reap crops on the edges of the field to obtain areas for turning and reap crops in the center to divide the field. Then, reap the remainder with the same method for reaping field with sides different in length

⚠ CAUTION

- **Do not decrease the engine speed during turning. Low engine speed can create poor separation quality and blockage.**

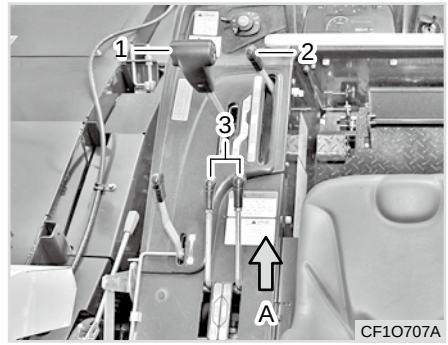
CAUTIONS DURING REAPING OPERATION

(1) Grain Lamp

⚠ CAUTION

- **When working in a watery field, empty the grain tank after every turn.**
- **If the tank is full with grains, the "Grain" lamp on the instrument cluster blinks and the buzzer sounds at short intervals. If this happens, stop reaping immediately and empty the grain tank**
- **If keeping reaping with this warning, the grain tank overflows with grains or is blocked by grains, resulting in its malfunction.**

THRESHING CROPS REAPED ON FIELD EDGES



(1) Main Shift Lever (2) Range Shift Lever
(3) Reaping Clutch Lever / Threshing Clutch Lever
(A) Engage

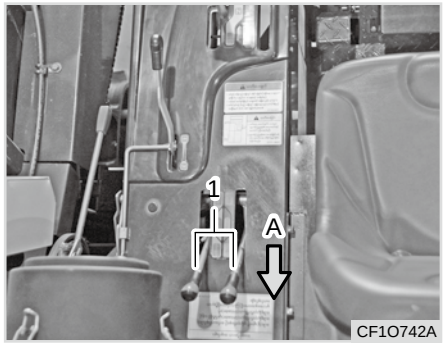
1. Move the main shift lever to the "Neutral" position.
2. Move the range shift lever to the "Neutral" position.
3. After lifting the reaping unit slightly, set the reel to the highest position.
4. Start the engine, set the reaping/ threshing clutch levers in the Engage position, and set the engine speed at 2,500 RPM.

5. Feed only a small amount of manually cut crops into the reaping unit.

⚠ CAUTION

- **It is dangerous to work in the driving mode.**
- **Do not permit loose clothing or your body near the chain or power train.**
- **When threshing crops reaped from the edge of banks, thresh only a small amount at once.**

DISCHARGING GRAINS

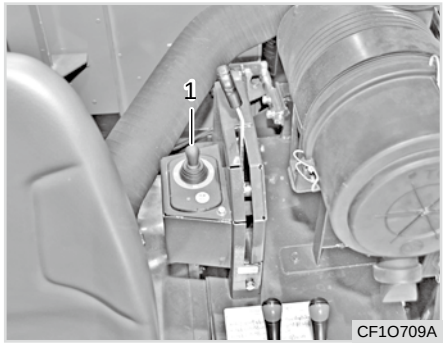


(1) Reaping Clutch Lever / Threshing Clutch Lever
(A) Disengage

1. When the warning buzzer sounds at short intervals due to the full grain tank, stop reaping immediately, wait for 20 to 30 seconds, move the reaping clutch lever to the "Disengage" position and drive the vehicle to an appropriate place for emptying the tank.

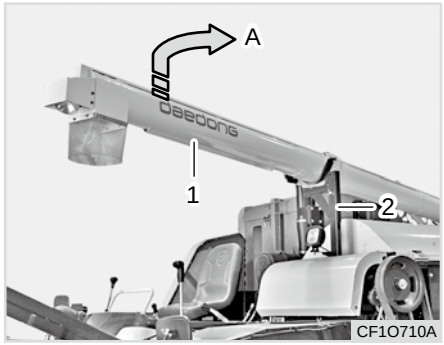
(1) RPM Gauge

2. When discharging grains from the grain tank, set the engine speed same for the reaping operation. If reaping weak crops, lower the engine speed down to 2000 RPM.



(1) Unloader Lever

3. The unloader can be lifted, lowered and turned by operating the unloader lever.

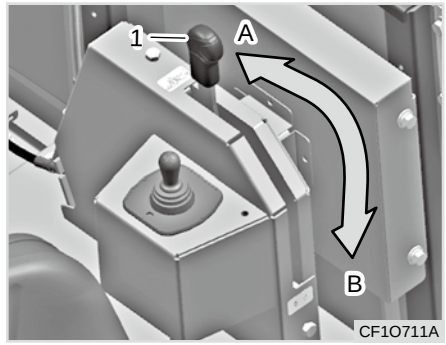


(1) Unloader *(2) Unloader Support*
(A) Turn

4. Place the unloader on its support and turn the unloader to its discharging position.

⚠ CAUTION

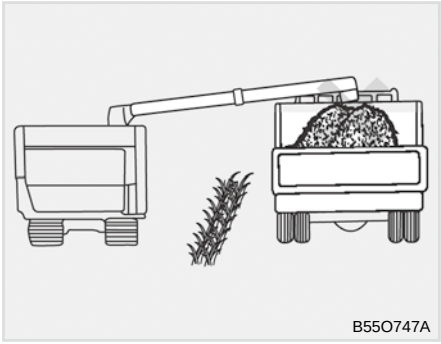
- **The unloader and tank come close to each other during turning. Therefore, make sure to lift the unloader to its highest position before making a turn.**



(1) Tank Clutch Lever
(A) Stop *(B) Discharge Grain*

5. Move the tank clutch lever to the position "B" to discharge grains. Move the lever to the position "A" to stop discharging grains.
6. After discharging all grains, move the tank clutch lever to the "A" position, lift the unloader to its highest position and turn the unloader onto its unloader for storage.

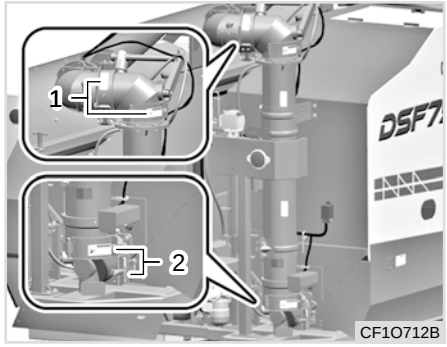
CAUTIONS FOR DISCHARGE OPERATION



1. Make sure that the outlet of the unloader is not blocked.
2. Do not hang any object on the unloader.

> **⚠ CAUTION**
>
> - **Drive the combine harvester after the unloader is stored to its support completely. Otherwise, the automatic unloader storing system can be deformed.**

WHEN UNLOADER IS CLOGGED



(1) Top Unloader Cleaning Hole
(2) Lower Unloader Cleaning Hole

1. Stop the engine and find the cause. If foreign materials are stuck, open the cleaning-out, remove foreign materials, check for any defect and operate the grain discharge switch again.
2. If the tank is clogged by chaffs due to insufficient power driving the belt, adjust the belt as follows:
   - Open the engine compartment and stretch the tension spring tight with the turnbuckle.
   - Close the tank and move the tank clutch lever to the Engage position to discharge grains.
3. Increase the engine speed. If the engine is low, grains may not be discharged but block the tank.

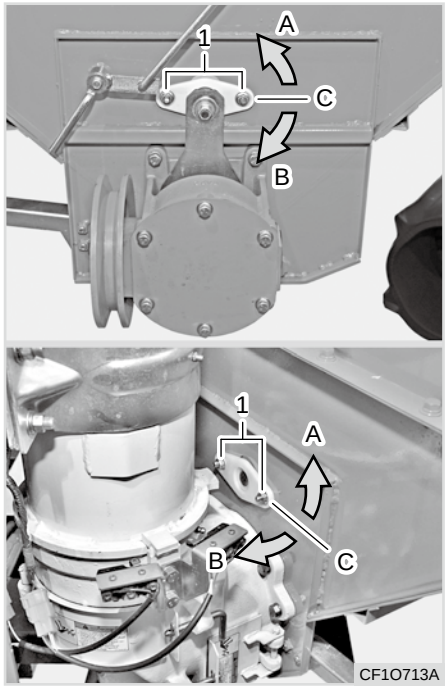
FOR EXCESSIVE GRAIN DAMAGE

Decrease the engine speed down to 2000 RPM or lower the discharge amount control plate.

IF UNLOADER CANNOT BE LIFTED

Press the unloader valve activation lever on the lower section of the control panel and press the Up section of the unloader valve to check if the unloader is lifted.

ADJUSTING GRAIN DISCHARGE AMOUNT



(1) Mounting Bolt (2 Pices For Front And Rear)
(A) Increase (Discharge Position)
(B) Decrease (C) Standard

Unscrew the mounting bolts from the discharge amount adjusting plate on the front, back and side of the tank. Then, move the bolt to the desired position to adjust the grain discharge amount.

1. The standard position is the center of the long hole.
2. If grains are not conveyed properly or it takes more than 5 minutes to empty the grain tank, move the bolt (adjusting plate) to the upper position.
3. For weak crops, move the bolt (adjusting plate) to the lower position.

⚠ CAUTION

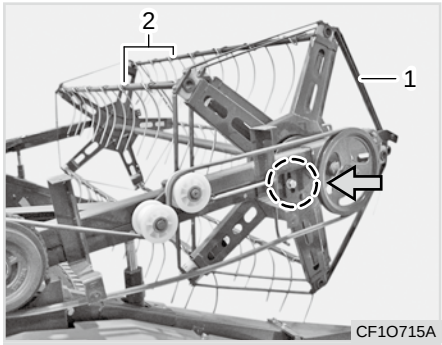
- **Make sure to stop the engine in advance.**

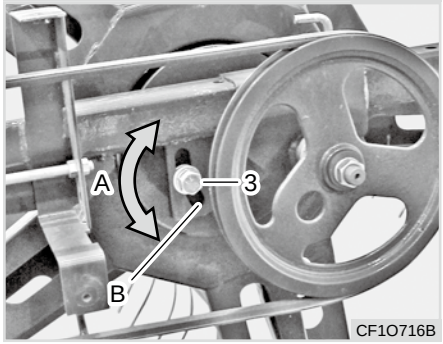
REEL TINE ANGLE ADJUSTMENT

(1) Reel Cover

When reaping lodged crops, adjust the angle of the reel tine according to the reel rotating direction in case crops are left in front of the auger.

1. After lowering the reel to the lowest position, lower the reaping unit to the ground.
2. Stop the engine.
3. Remove the side cover of the reel.





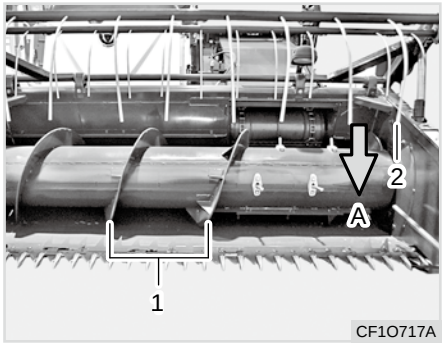
(1) Reel *(2) Reel Tine Bar*
(3) Screw
(A) Adjust *(B) Initial Position*

4. Loosen the screw.
5. Move the reel to the most suitable position while checking the reel tine angle before fixing it.

NOTE

- If cut crops are entangled into the reel tine and they are not fed into the reaping unit but fall onto the ground (reel spinning), adjust the angle again.

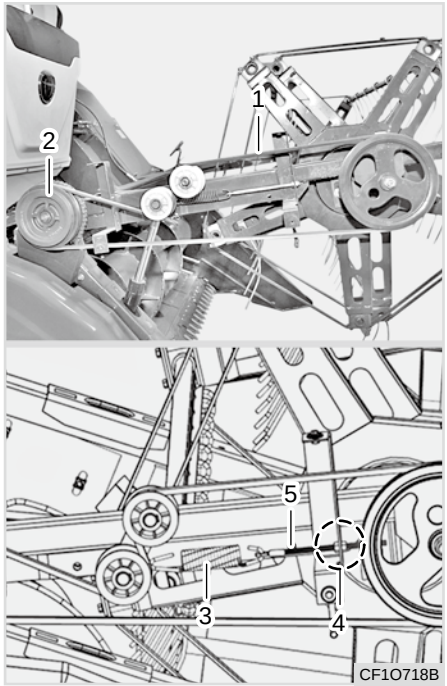
ADJUSTING REEL ROTATING SPEED



(1) Auger Blade *(2) Reel Tine*
(A) Lower

NOTE

- If the auger blade hits the reel tine when the reel is lowered, re-adjust it.

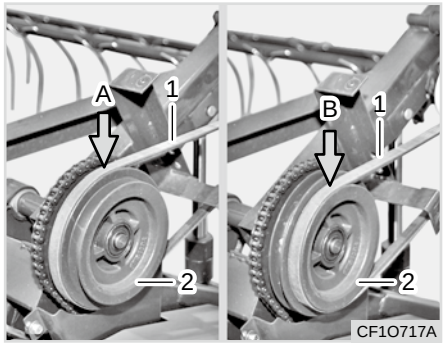


(1) Reel Drive Belt *(2) V-pulley*
(3) Tension Spring *(4) Lock Nut*
(5) Adjusting Bolt

If crops collected by the reel tines are scattered excessively before being fed to the reaping unit (grain loss), change the reel drive belt pulley and adjust the reel rotating speed.

1. After lowering the reel to the lowest position, lower the reaping unit to the ground.
2. Stop the engine.
3. Remove the side cover of the reel.
4. Loosen the lock nut and release the tension of the belt by adjusting bolt (5).
5. Remove the reel drive belt from the V-pulley (2) and fit it to groove on another side.

THRESHING UNIT



(1) Reel Drive Belt (2) V-pulley
(A) Under Normal Condition
(B) For Excessive Grain Loss

6. Adjust the tension of the tension spring.
7. Install the side cover of the reel.

The separation quality of grains in the threshing cylinder or grain tank is poor or grains discharged from the dust discharge cover are not intact, adjust, install, remove or replace each part accordingly.

Refer to the following table for major information for the above conditions.

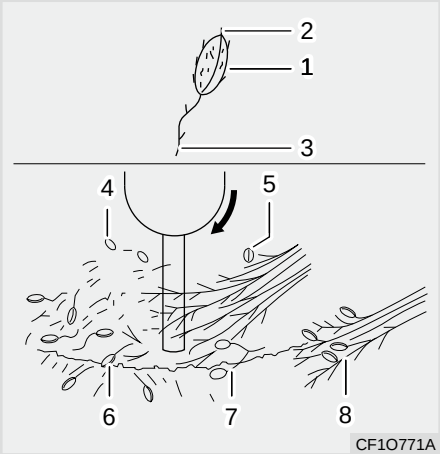
Symptom (condition)	Contents
• Poor separation quality	• A large amount of straw debris or foreign materials is mixed in grains. • A lot of grains are cut or attached with awns and stems
• Excessive loss from dust discharge (grains scattered excessively)	• Adjust the reel height as low as possible
• Excessive grain loss	• A lot of grains are hulled and shattered

NOTE

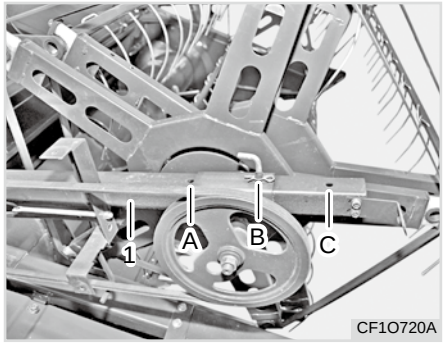
For abnormal grain conditions, refer to the following:

- Ear falling off - several grains clumping together
- Grains mixed with foreign materials - grains attached to straws
- Hulled grains - grains are hulled
- Cracked - grains are cracked or dented

ADJUSTING REEL POSITION



(1) Ear
(2) Awn
(3) Straw
(4) Hulled Ear
(5) Damaged Ear
(6) Ear Attached With Stem
(7) Ear Detached
(8) Ear Firmly Attached To Middle Of Stem

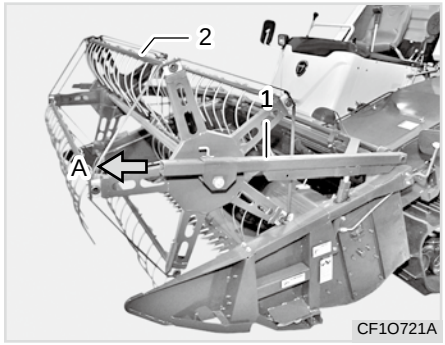


(1) Reel Frame
(A) Hole (Rear Position)
(B) Hole (Standard Position)
(C) Hole (Front Position)

Refer to the following chart to adjust the reel position according to the type and lodging condition of crops.

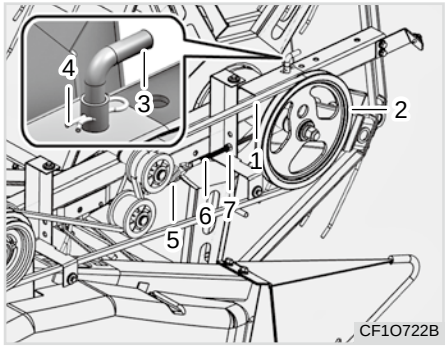
Positions (longitudinal position)	The type and lodging condition of crops
(A) (rear)	• When harvesting rice and barley that are low in volume and easy to fall off
↕	
(B) (standard)	• When harvesting rice and barley • When harvesting rapeseed seeds that are low in quantity and prone to fall
↕	
(C) (front)	• When harvesting rape seeds

7



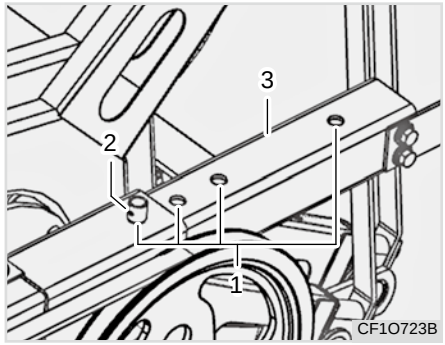
(1) Reel frame *(2) Reel*
(A) Horizontal

1. Lower the reaping unit onto the ground, set the reel frame parallel to the ground, and stop the engine.



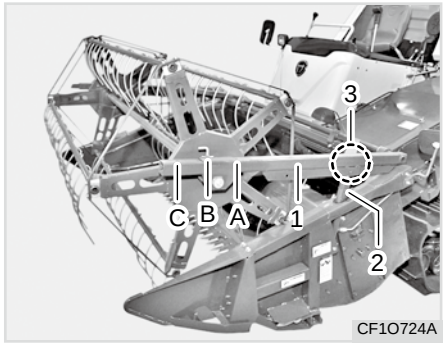
(1) Reel Drive Belt *(2) Reel Drive Pulley*
(3) Hook *(4) Retaining Pin*
(5) Tension Spring *(6) Adjusting Bolt*
(7) Lock Nut

2. Remove the reel cover.
3. Loosen the tension spring screw to adjust the spring. Then, remove the belt from the reel drive pulley.
4. Remove on both sides retaining pins (4) and hooks (3) that fix the reel onto the reel frame.



(1) Hole (Reel) *(2) Hole (Reel Frame)*
(3) Reel Frame
(A) Adjust

5. Move the reel to the front or back to align the holes of the reel and reel frame.
6. Fit the hooks into the holes on both sides. Then, fit the retaining pins.
7. Adjust the tension of the tension spring.



(1) Reel Frame (2) Cylinder
(3) Reel Anti-drop Bracket
(A) Hole (Rear) (B) Hole (Default)
(C) Hole (Front)

8. If the reel is set in the rear or front position (not default position) after adjustment, fit the reel anti-drop brackets onto the cylinders at the joint point of the reel frame and left/right cylinder.

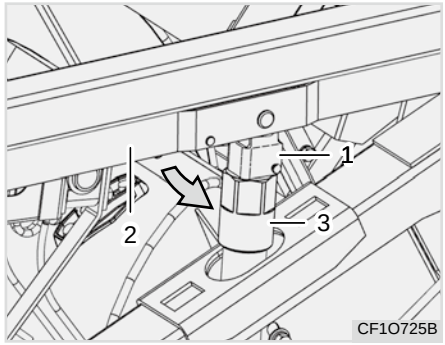
IMPORTANT

If the reel is lowered without fitting its anti-drop brackets to the cylinders, the reel may hit the cutting blades, resulting in damage.

(1) Remove the retaining pins and head pins from the reel anti-drop brackets on the reel frame.

(2) Lower the reel anti-drop brackets to fit it onto the cylinders.

(3) Install the removed head pins and retaining pins back onto the reel anti-drop brackets.



(1) Reel Anti-drop Bracket (2) Reel Frame
(3) Reel Cylinder

9. Install the reel cover.

NOTE

- When using the reel with the default position selected, make sure to detach the reel anti-drop brackets.

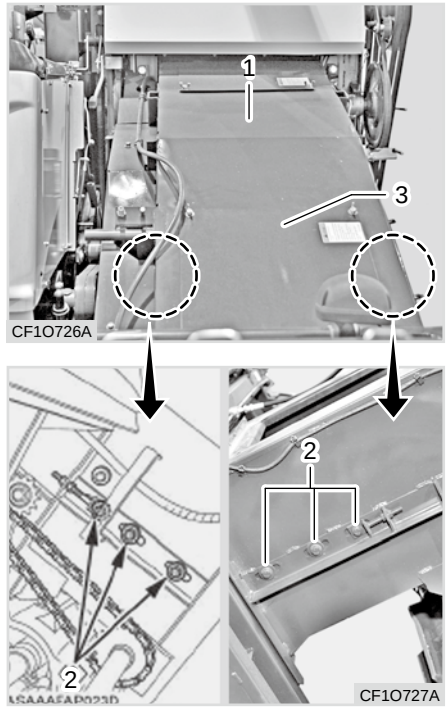
7

ADJUSTING VERTICAL POSITION OF FEEDING DRUM

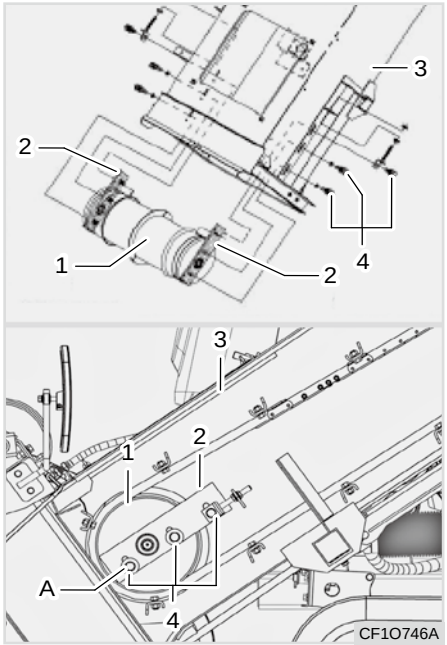
If crops are accumulated between the auger and feeding drum while reaping lodged crops, lower the position of the feeding drum.

IMPORTANT

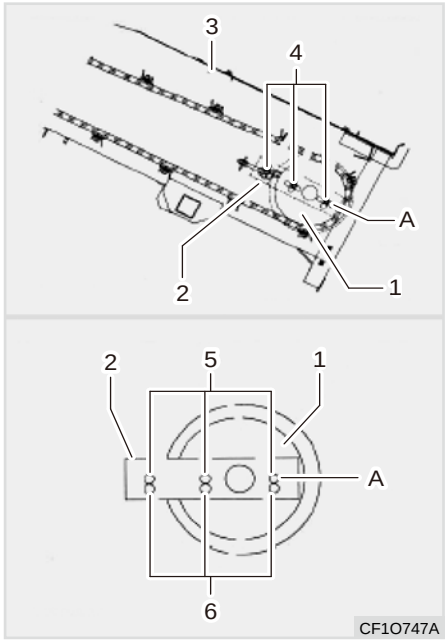
When reaping upright crops, return the drum back to its original position (raise its position). If reaping upright crops with the feeding drum lowered, the amount of crops delivered from the feeding unit is increased, resulting in clogging in the feeding unit and slipping and damage of the reaping drive belt.



(1) Feeding Unit (2) Mounting Bolt
(3) Clean-out Cover



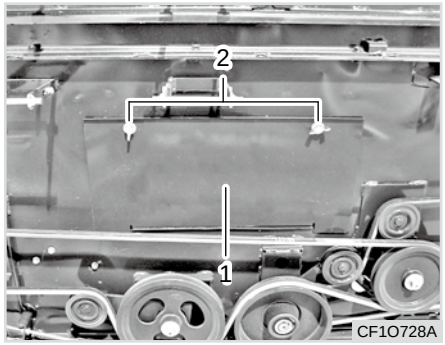
(1) Feeding Drum (2) Drum Support
(3) Feeding Unit (4) Mounting Bolt
(A) Default Position



(1) Feeding Drum (2) Drum Support
(3) Feeding Unit (4) Mounting Bolt
(5) Lower Adjusting Hole
(6) Upper Adjusting Hole (Default)
(A) Feeding Drum Lower Position

1. Lower the reaping unit to the ground and stop the engine.
2. Remove the right cover of the feeding unit.
3. Remove the clean-out cover 2 on top of the feeding unit.
4. Loosen the left and right screws that fix the feeding drum to the feeding unit from the feeding drum mounting panel.
5. With the feeding drum raised, insert the screw into the upper hole on the top of the drum support to fix the drum in place.
6. Adjust the tension of the feeding chain.
7. Install the clean-out cover 2 onto the top of the feeding unit.

ADJUSTING SIEVE CASE CHAFF



(1) Clean-out cover on left plate of threshing unit
(2) Wing Bolt

Adjust the lever according to crop separation and splashed grain conditions. Refer to the following table.

1. Remove the left threshing unit covers (3 & 4).
2. Remove the wing bolt to remove the clean-out cover of the threshing unit left plate.
3. Remove the bolt.
4. Operate the sieve case chaff control lever as desired for change and then fix it with the bolt.

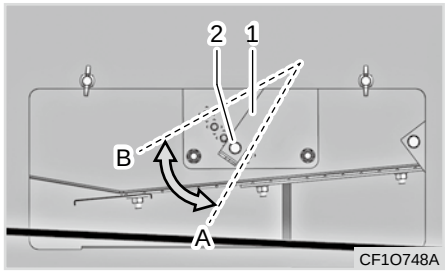
▶Adjusting sieve case chaff

Sieve case chaff lever

Adjusting direction	Symptom (condition)
(Open) ⇕ (Closed)	• Excessive grain loss
	• Poor separation quality

NOTE

- If the No. 2 section (opening/closing) is deteriorated, crop separation quality can become poor.



(1) Chaff Control Lever *(2) Mounting Bolt*
(A) Open *(B) Close*

ADJUSTING THE SIEVE CASE AUXILIARY PLATE POSITION AND REPLACING THE NET

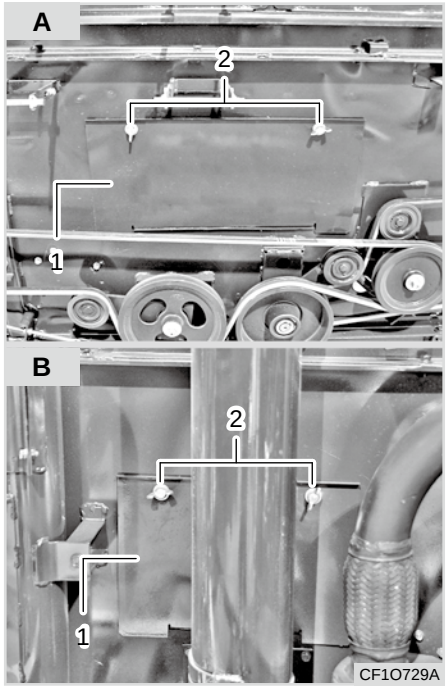
After checking the crop and separation conditions, adjust the sieve case auxiliary plate or replace the net, referring to the following table.

▶Adjusting the sieve case auxiliary plate position

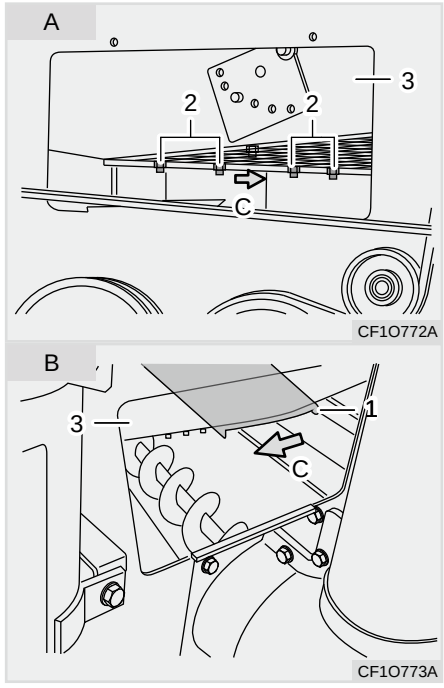
Adjusting direction	Symptom (condition)
(Open) ⇕ (Closed)	• A lot of grains are hulled and shattered • Excessive grain loss
	• Poor separation quality

NOTE

- The front section is fully pulled as standard.



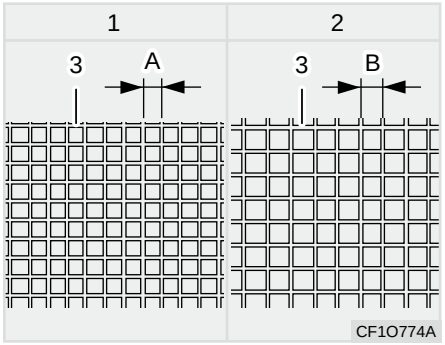
(1) Clean-out Cover (2) Wing Bolt
(A) Left (B) Right



(1) Sieve Case Auxiliary Plate 2 (2) Nut
(3) Sieve Case
(A) Left (B) Right
(C) Adjust

1. Remove the left covers (3 & 4) of the threshing unit and open the grain tank.
2. Remove the clean-out covers from the left and right plates of the threshing unit.
3. Loosen the nut and move the sieve case auxiliary plate 2 toward the back of the vehicle body.
4. Tighten the nut.

REPLACING SIEVE CASE NET

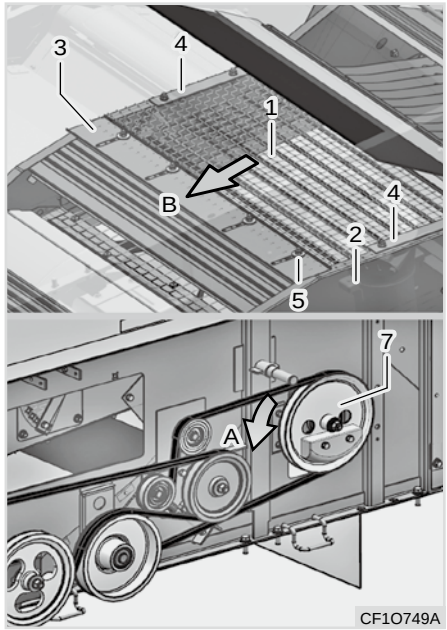


(1) 21.5mm meshes (2) 23.5mm meshes
(3) Net
(A) 21.5mm (B) 23.5mm

Adjusting direction	Symptom (condition)
21.5mm ⇕ 23.5mm	• A lot of grains are hulled and shattered • Excessive grain loss
	• Poor separation quality

NOTE

- The mesh size of the net installed at factory is 21.5 mm. (Models for export)
- The net with 23.5 mm meshes is optional.



(1) Net (2) Sieve Case
(3) Sieve Case Auxiliary Plate
(4) Net Presser
(5) Nut (6) Plain Washer
(7) Rocker Pulley
(A) Turn (B) Move

Perform this procedure with 2 to 3 people.

1. Have another person turn the rocker bracket with a hand to place the net in the position in which the net can be pulled out from the left clean-out.
2. Remove the nut and plain washer that fix the net.

NOTE

- As the mounting plate and sieve case auxiliary plate are connected to the net, they can be removed with the net by removing the nut and plain washer.
- When installing the removed sieve case auxiliary plate, make sure to install it in the correct orientation.

3. Pull out the left clean-out of the grain sieve.
4. Install a new grain sieve in the reverse order of removal.
5. Adjust the sieve case auxiliary plate 2, replace the grain sieve, and install the left and right clean-out covers.
6. Install the left covers (2 & 3) of the threshing unit. Then, close the grain tank.

ADJUSTING DUST DISCHARGE CONTROL PLATE

NOTE

- The dust discharge control plate is located behind the dust discharge cover.

1. Loosen the wing nut.

NOTE

The standard (default) position of the dust discharge control plate is as follows:

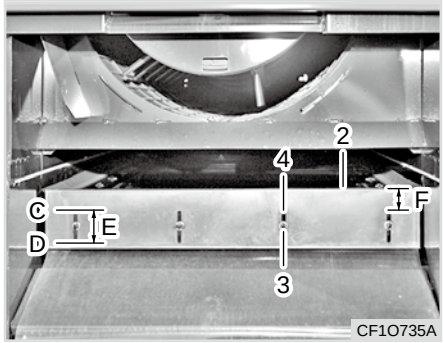
- The dust discharge control plate can be located in the center by placing the shorter section from the tip of the plate to the hole downward.

2. Move the dust discharge control plate to adjust it.

Adjusting direction	Symptom (condition)
UP ⇕ Lower	• Excessive grain loss
	• Poor separation quality • Crops with high moisture content • Excessive weeds • Unripe crops

NOTE

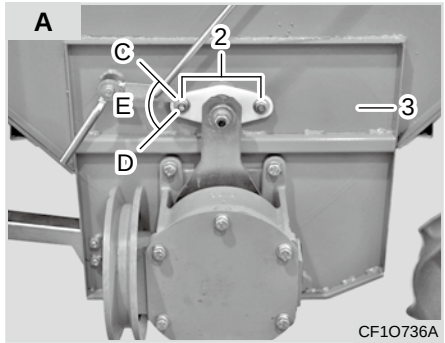
- When reaping watery or unripe crops or there is a lot of weeds, select the lower position to prevent clogging and excessive grain loss.
- If there is a lot of grains or straw debris left on the sieve case slide, adjust the dust discharge control plate downwards. Otherwise, the unit can be clogged, leading to increase in grain loss.

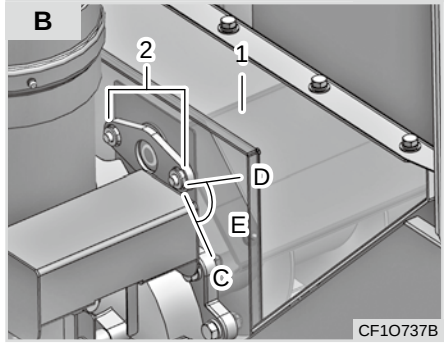


(1) Dust Discharge Cover
(2) Dust Discharge Control Plate
(3) Wing Nut
(4) Hole
(C) Upper
(D) Lower
(E) Adjusting
(F) Longer Side

GRAIN TANK

ADJUSTING DISCHARGE CONTROL PLATE





(1) Discharge Control Plate (Inside tank)
(2) Nut
(3) Grain Tank
(A) Front
(B) Rear
(C) Highest Position
(D) Lowest Position
(E) Adjusting

If reaping dry crops with the discharge control plate placed at the highest position, the auger can be clogged. In this condition, adjust the discharge control plate to the lowest position. When reaping crops with high moisture content and low fluidity (other than wheat), adjust the discharge control plate to the highest position to prevent overflow.

1. Open the grain tank.
2. Adjust the position of the discharge control plates on the front and back sides of the grain tank.
   (1) Loosen the nut (2).
   (2) Set the discharge control plates to the highest or lowest position.
   (3) Tighten the nut (2).

MEMO

8

PERIODIC MAINTENANCE SCHEDULE TABLE

1. Check the maintenance items at the specified intervals (marked with ○) as specified in the following table.
2. The maintenance items specified in the period maintenance schedule table are based on general conditions. Any time abnormal operation is suspected, service the corresponding item as necessary.
3. Mark ✓ in ○ for checked items.

⚠ CAUTION

- **Cracked or damaged belts should be replaced.**
- **When expertise, professional skills or special tools are required, contact your dealer or our service team.**
- **Stop the engine before adjustment, inspection and replacement.**

ITEM \ INTERVAL			OPERATING HOUR																	OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Engine rotation part	Radiator oil cooler	Check	○																			Every 50 hr
	Engine oil	Check	○																			Every 50 hr
		Replace				○																Every 200 hr
	Engine oil filter	Replace				○															○	Every 200 hr
	Radiator coolant	Check	○																			Every 50 hr
		Replace																			○	Every 2 yr
	Fuel filter	Replace				○																Every 200 hr
	Water separator	Replace				○																Every 200 hr
	Battery wire	Check	○																			Every 50 hr
	Air cleaner element	Check	○																			Every 50 hr
		Replace						○														Every 300 hr

※ The specifications above are subject to change without notice for standard improvement and they may vary depending on conditions of crops and fields.

ITEM		INTERVAL	OPERATING HOUR																	OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Engine rotation part	Fan belt	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Timing cable	Check				○																Every 200 hr
		Replace																○				Every 800 hr
	Accelerator cable	Replace		○																		Every 100 hr
	Fuel pipe	Check			○																	Every 150 hr
		Replace																			○	Every 2 yr
	Radiator hose	Check				○																Every 200 hr
		Replace																			○	Every 2 yr
	Hydraulic hose	Check				○																Every 200 hr
		Replace										○										Every 500 hr
Driving system	Transmission fluid Hydraulic oil	Check	○																			Every 50 hr
		Replace						○														Every 300 hr
	HST oil filter Hydraulic oil filter	Replace						○														Every 300 hr
	Hydraulic pump suction strainer	Replace				○																Every 200 hr
	Parking brake cable	Check	○																			Every 50 hr
		Replace						○														Every 300 hr

ITEM		INTERVAL	OPERATING HOUR																OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Driving system	Drive roller	Replace							○													Every 350 hr
	Power brake cable	Check	○																			Every 50 hr
		Replace										○										Every 500 hr
	Transmission drive belt	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Crawler, crawler guide	Check		○																		Every 100 hr
		Replace																○				Every 800 hr
	Track roller, idle roller, drive roller, ball bearing and seal	Replace																○				Every 800 hr
	Floating seal	Replace																○				Every 800 hr
	Axle, axle cover, oil seal	Replace																	○			Every 1000 hr
Reaping unit	Reaping clutch cable	Check	○																			Every 50 hr
		Replace										○										Every 500 hr
	Reaping drive belt	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Feeding unit reversing belt tension roller	Replace						○														Every 300 hr

ITEM		INTERVAL	OPERATING HOUR																	OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Reaping unit	Reel drive belt	Check		○																		Every 100 hr
		Replace						○														Every 300 hr
	Auger drive belt	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Feeding depth control chain	Check		○																		Every 100 hr
		Replace								○												Every 400 hr
	Cutting blade	Check		○																		Every 100 hr
		Replace				○																Every 200 hr
	Reaping drive chain	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Reel tine shaft, reel tine / Guide, support	Replace						○														Every 300 hr
	Reaping unit hydraulic cylinder Clevis pin	Replace										○										Every 500 hr
	Reel support bush	Replace								○												Every 400 hr
	Reel bush Reel roller	Replace										○										Every 500 hr
	Reel tine	Replace																				At each time of deformation or damage

ITEM		INTERVAL	OPERATING HOUR																OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Reaping unit	Reel tine bar	Replace										○										Every 500 hr
	Cage seal	Replace						○														Every 300 hr
	Feeding unit rail	Replace										○										Every 500 hr
	Feeding unit shaft cover	Replace										○							○			Every 500 hr
	Feeding unit shaft guide	Replace	○																			Every 50 hr
	Conveyor plate	Replace										○										Every 500 hr
	Grease on each gear case	-																				When disassembled
Threshing unit	Threshing drive belt,Threshing cylinder drive belt	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	No. 1-2 auger drive belt	Check		○																		Every 100 hr
		Replace						○														Every 300 hr
	No. 1-2 auger drive belt tension roller	Replace						○														Every 300 hr
	Rocker drive belt	Check		○																		Every 100 hr
		Replace						○														Every 300 hr
	Rocker drive belt tension roller	Replace						○														Every 300 hr
	No. 2 drive chain	Replace										○										Every 500 hr

ITEM		INTERVAL	OPERATING HOUR																	OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Reaping unit	Spring of each auger shaft	Replace										○										Every 500 hr
	Threshing teeth and threshing tooth pipe	Check		○																		Every 100 hr
		Replace										○										Every 500 hr
	Sieve	Check		○																		Every 100 hr
		Replace								○												Every 400 hr
	No. 1 / No. 2 vertical and horizontal auger shaft	Replace										○										Every 500 hr
	Plates, Internal bushings	Replace										○										Every 500 hr
	Seals and sponges, Packings and liners	Replace						○														Every 300 hr
	Bearings	Replace										○										Every 500 hr
Grain tank	Grain discharge clutch cable	Check		○																		Every 100 hr
		Replace						○														Every 300 hr
	Grain discharge clutch belt	Check		○																		Every 100 hr
		Replace						○														Every 300 hr
	Outlet cap	Replace										○										Every 500 hr

ITEM		INTERVAL	OPERATING HOUR																	OPERATING YEAR		From purchase
			50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	1000	1YR	2YR	
Grain tank	Grain tank bottom auger shaft	Check										○										Every 500 hr
	Unloader auger shaft	-										○										Every 500 hr
Electric parts	Battery	Recharge																				In case of bad start
		Replace																				Inability to start
	Wiring harness Battery cable	Check	○																			Every 50 hr
		Replace																				At breakage
	Fuse Slow-blow fuse	Check		○																		Every 100 hr
		Replace																				At breakage
	Work lamp	Replace																				At breakage
	Horn switch	-																				At breakage

NOTE

- Critical component repair

  Never repair critical components that can greatly affect the product performance by yourself. Have them repaired by the designated Dealer. The vehicle performance can be deteriorated, leading to a serious accident.

  * Critical component: Engine, transmission, etc.
- When replacing the transmission drive belt, threshing unit drive belt or threshing cylinder drive belt, replace two belts together. If replacing one belt only, the belt's service life can be shortened.

INSPECTION AND LUBRICATION LIST

○: Check, △: Replace

ITEM	INTERVAL	OPERATING HOUR							Remarks
		Before work	50	100	150	200	250	300	
Engine unit	Fuel	○							
	Coolant	○	Drain during storage in winter. Otherwise, add 50% of anti-freeze						
	Engine oil	○					△		Every 250 hr
	Air cleaner element	○							
Driving system	Transmission case oil, Oil in oil tank (HST)		○					△	Every 300 hr
	Grease on reaping cam clutch	Grease during disassembly							
	Battery fluid	Check and add before and after work							
Reaping unit	Intensive lubrication system oil	Add if insufficient							
	Grease on each gear case	Add during disassembly							
	Each chain and blade assembly	Grease properly at every 20 hours of operation							
Threshing unit	Chain drive case oil, Grease on each gear case	Grease during disassembly							
	Each chain	Grease properly at every 20 hours of operation							
	Threshing cylinder drive section grease	Grease at every 100 hours of operation							
Unloader section	Rotating parts	Grease at every 200 hours of operation							
	Unloader case 1, 2, 3 Tank drive case	Add during disassembly							

SPECIFIED OIL AND CAPACITY

NO.	ITEM		CAPACITY	SPECIFICATION
1	Fuel		87	Ultra-low sulfur diesel (Sulfur content: 15 ppm or less)
2	Coolant (anti-freeze)		8.5	Fresh clean water with ethyleneglycol (50:50)
3	Engine oil (With filter)		9.7	Diesel engine oil 15W-40
4	Transmission fluid		9.6 (Transmission: 9.0L / Left and right Axle: 0.3L each)	Daedong UTF 55 or Shell: DONAX-TD Exxonmobil: Mobilfluid 423 or 424
5	Oil in oil tank		24.0	
6	Oil for chain drive case		1.5	Gear oil #90 or #80, or Daedong UTF55
7	Grease	Reaping unit	Proper amount	SAE multi purpose type grease
		Threshing unit		

⚠ WARNING

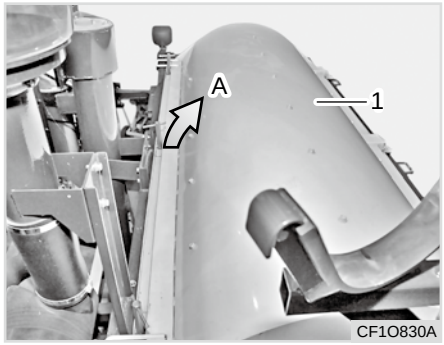
- ***Check the oil level regularly. Correct the oil level, if needed, before operating.***
- ***Always check and add oil with the combine on flat level surface.***

OPENING AND CLOSING EACH SECTION

OPENING ENGINE COMPARTMENT

1. This combine harvester is designed for convenient removal/installation of the threshing unit, full opening of the engine hood, opening the threshing unit and easy access to the cutter in order to ensure easy inspection and service of the internal parts.
2. Make sure to stop the engine before opening or closing each part.

OPENING THRESHING UNIT TOP COVER



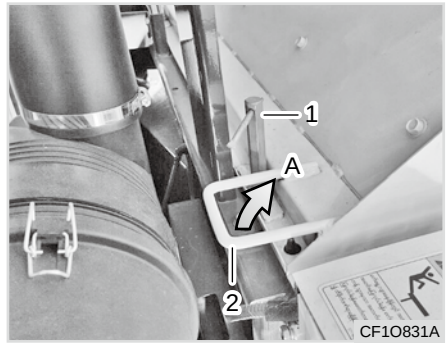
(1) Threshing Unit Top Cover
(A) Open

1. If the threshing cylinder is clogged by straws, open the threshing unit top cover to remove them.
2. Open the threshing unit top cover as well to remove or install the threshing cylinder concave.

⚠ CAUTION

- **Make sure to close the threshing cylinder cover before reaping or driving.**

HOW TO OPEN



(1) Fixing Handle (2) Handle
(A) Pull Up

1. After lifting the unloader, unscrew the fixing handle and pull up the handle to open the cover.

HOW TO FIX THRESHING CYLINDER

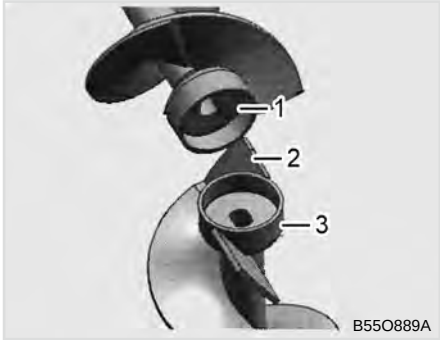
1. Hold the handle and push it down to close the threshing unit top cover.
2. Fix it with the fixing handle.

⚠ CAUTION

- **If reaping with the fixing handle not in the closing position, the threshing unit frame can be deformed, resulting in poor reaping performance.**

CAUTIONS FOR AUGER INSTALLATION

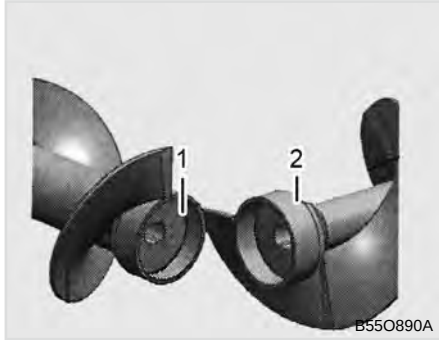
INSTALLING UNLOADER AUGER SHAFT ASSEMBLY 1 AND CONTACT AUGER ASSEMBLY



(1) Contact Auger Assembly (Bottom) Marking
(2) Main Blade
(3) Unloader Auger Shaft Assembly 1 (End)

When installing the contact auger assembly, its boss 2 part marked as (bottom) should face the unloader auger shaft assembly and should be 90° behind the main blade direction of the unloader auger shaft.

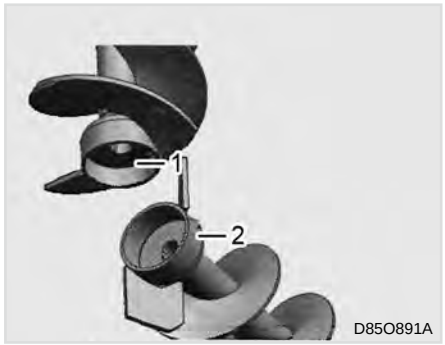
INSTALLING CONTACT AUGER ASSEMBLY AND UNLOADER AUGER 2 ASSEMBLY



(1) Unloader Auger 2 Assembly (Bottom) Marking
(2) Contact Auger Assembly (End)

When installing the unloader auger 2 assembly, its rod part marked as (bottom) should face the contact auger assembly and should be 90° behind the blade direction of the contact auger assembly.

INSTALLING TANK AUGER ASSEMBLY AND UNLOADER AUGER SHAFT ASSEMBLY 1



(1) Unloader Auger Shaft Assembly 1
(2) Tank Auger Assembly (End)

When installing the unloader auger shaft assembly 1, its boss 4 part marked as (bottom) should face down and should be 90° behind the blade direction of the tank auger.

⚠ CAUTION

- **Incorrect installation can result in interference and damage of the auger and abnormal operation of the tank auger.**

OPENING GRAIN TANK

(1) Unloader *(2) Unloader Support*

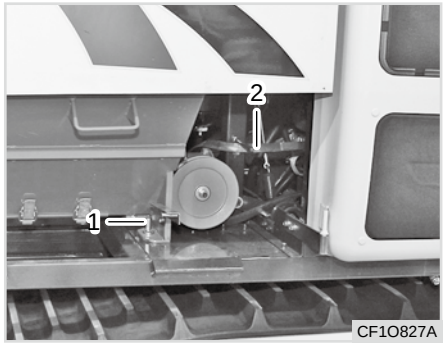
1. If there are grains in the tank, empty the tank according to the instructions specified in the section "Discharging grains."
2. Store and fix the unloader to its support.

⚠ CAUTION

- **Make sure to open the grain tank only when it is empty.**
- **Set the shift levers to the neutral position and the reaping and threshing clutch levers to the "Disengage" position.**

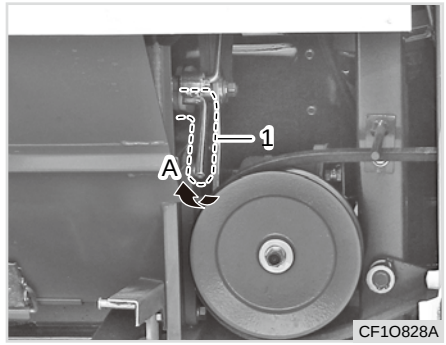
(1) Tank Side Cover

3. Remove the tank side cover.



(1) Mounting bolt (2) Belt

4. Loosen the mounting bolt and remove the belt from the pulley, starting from the inner section towards the outer section.



(1) Retaining Lever
(A) Fit

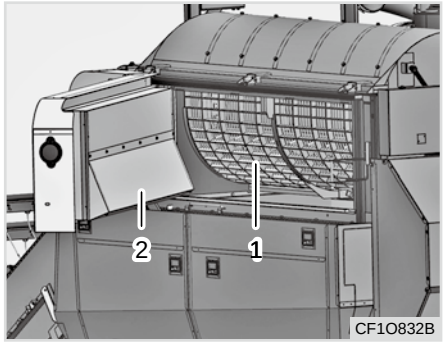
5. Pull out the grain tank with pull the retaining lever up.
6. Close the tank following the procedures in the reverse order of opening the tank. Make sure to fix the tank with the retaining pin and fit the belt.

REMOVING AND INSTALLING CONCAVE

⚠ CAUTION

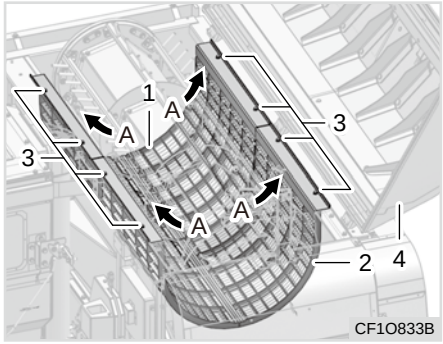
- **When installing or removing the concave, do it slowly to prevent injuries.**
- **When installing or removing the concave, ensure the safety of your footing and posture so that you do not slip or fall off the combine.**

INSTALLATION AND REMOVAL



(1) Concave
(2) Threshing Cylinder Side Cover

1. Open the threshing cylinder side cover.



(1) Back Side Of Concave
(2) Front Side Of Concave
(3) Screw
(4) Threshing Unit Top Cover
(A) Pull Up

2. Open the threshing unit top cover.
3. Loosen the screw and pull up the concave to remove it.

⚠ CAUTION

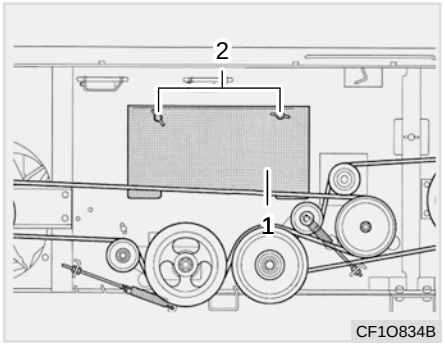
- **The front section and rear section of the concave are different in length. Make sure to install it in the correct orientation.**

REMOVING/INSTALLING SIEVE CASE

⚠ CAUTION

- **As the sieve case is heavy, its installation and removal should be performed by two or more people.**

REMOVAL

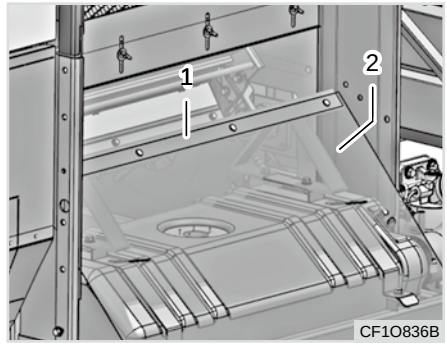


(1) Clean-out Cover On Left Plate Of Threshing Unit
(2) Wing Bolt

1. Remove left-hand covers (3 & 4) of the threshing unit.
2. Loosen the wing nut to remove the clean-out cover panel of the left plate of the threshing unit.

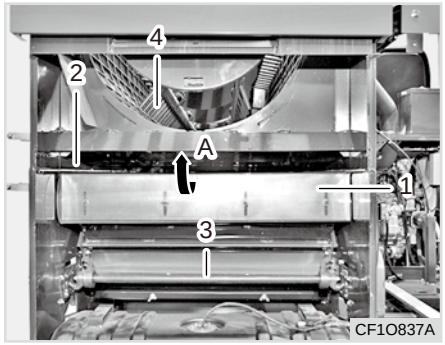
(1) Dust Cover (Rear) *(2) Screw*

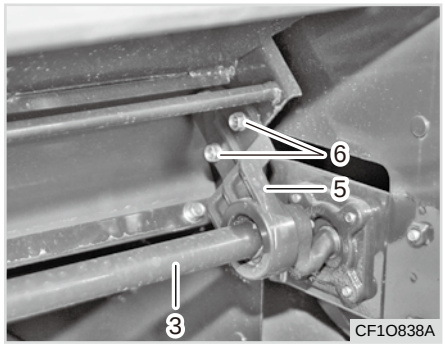
3. Remove the dust cover (rear).
   (1) Loosen the screw that fixes the dust cover (rear).
   (2) Lift the dust cover (rear) with two people or more to remove it.
4. Fold up the rocker shaft seal toward the sieve case and fix it in place with adhesive tape.



(1) Seal Fixing Base *(2) Fuel Tank Seal*

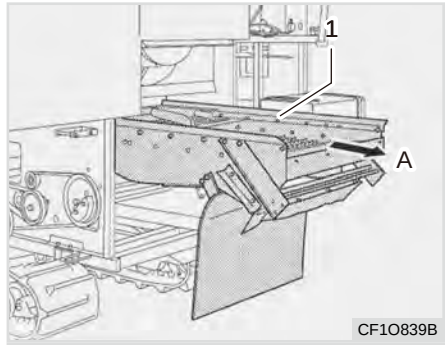
5. Remove the seal fixing base.





(1) Sieve Case *(2) Rocker Shaft Seal*
(3) Rocker Shaft *(4) Threshing Tooth*
(5) Rocker Arm *(6) Screw*
(A) Roll Up

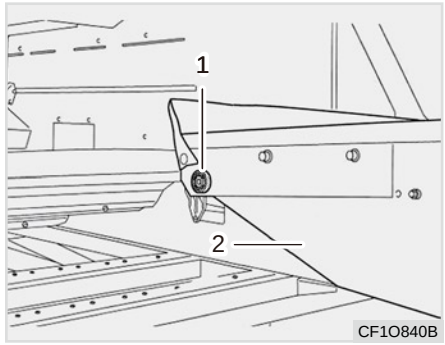
6. Turn the threshing tooth of the threshing unit with your hand to lift the rocker shaft as high as possible to remove the rocker arm of the rocker shaft from the sieve case.



(1) Sieve Case *(2) Side Cover 2*
(A) Pull

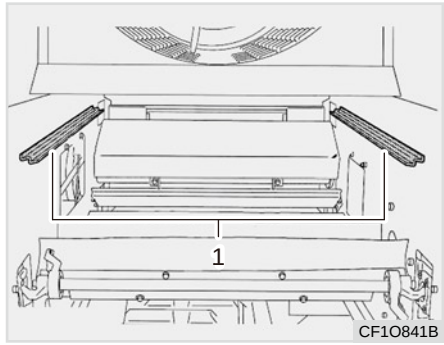
7. Open the threshing unit side cover 2.
8. Pull the sieve case with an assistant.

INSTALLATION

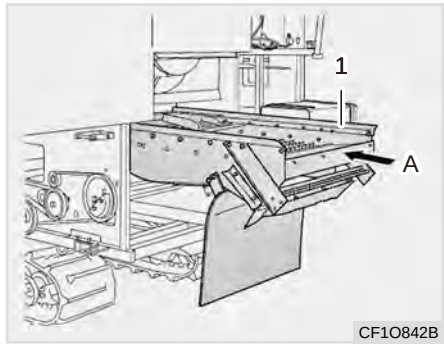


(1) Bearings (2 Ea For Lh/rh)
(2) Sieve Case

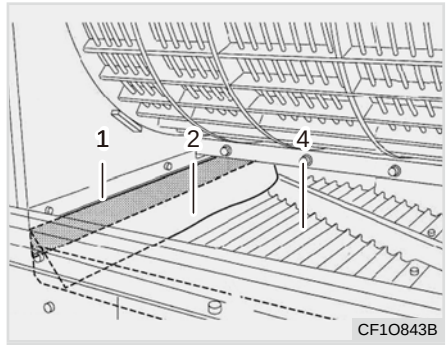
1. Place the bearings at both sides of the sieve case onto the rail. Then, with an assistant, push in the sieve case.

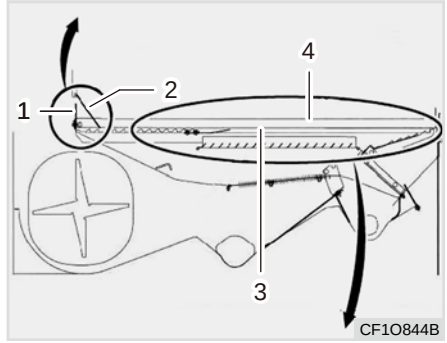


(1) Rail

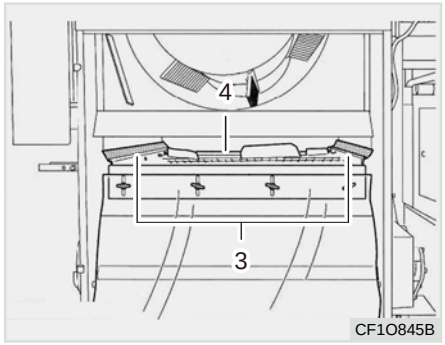


(1) Sieve Case *(A) Push In*



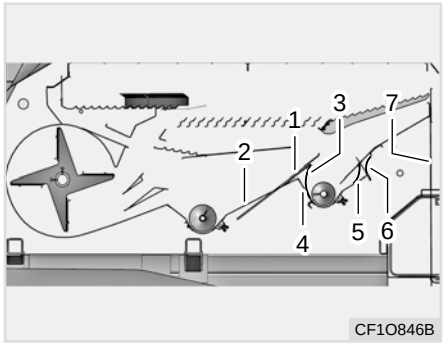


(1) Sieve Case Front Seal
(2) Threshing Unit Front Seal
(3) Side Seal
(4) Sieve Case

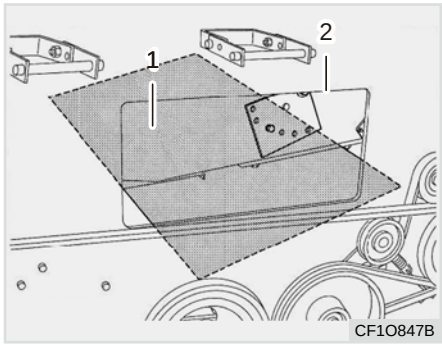


(3) Side Seal (4) Sieve Case

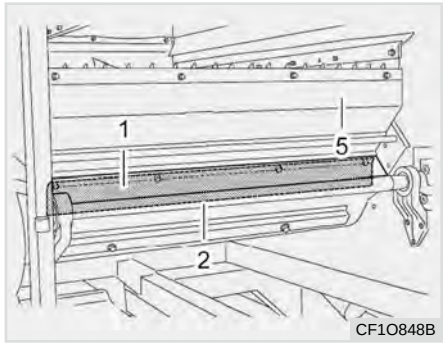
2. Install each seal.
   (1) Pull the front seal of the sieve case up to the back of the front seal position of the threshing rack for installation.
   (2) When installing the side seals, make sure that their tips are not folded.



(1) Separator Seal (2) No. 1 Walker
(3) Seal 4 (4) No. 2 Walker (5) Seal 5
(6) No. 2 Walker Seal (7) Rocker Shaft Seal

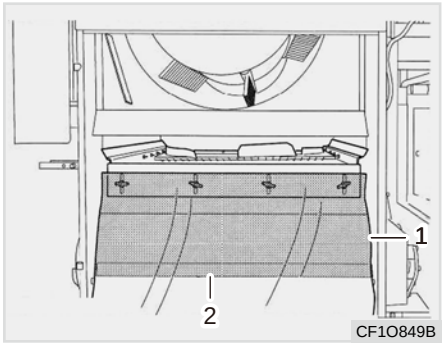


(1) Separator seal (Inside)
(2) Clean-out on left plate of threshing unit



(1) Seal 5 (2) No. 2 Walker Seal

(3) Pull the separator seal and seal 4 from the left plate clean-out of the threshing unit up to the No. 1 and 2 walkers for correct installation.
(4) Pull the No. 2 walker seal to the back of the seal 5 for installation.

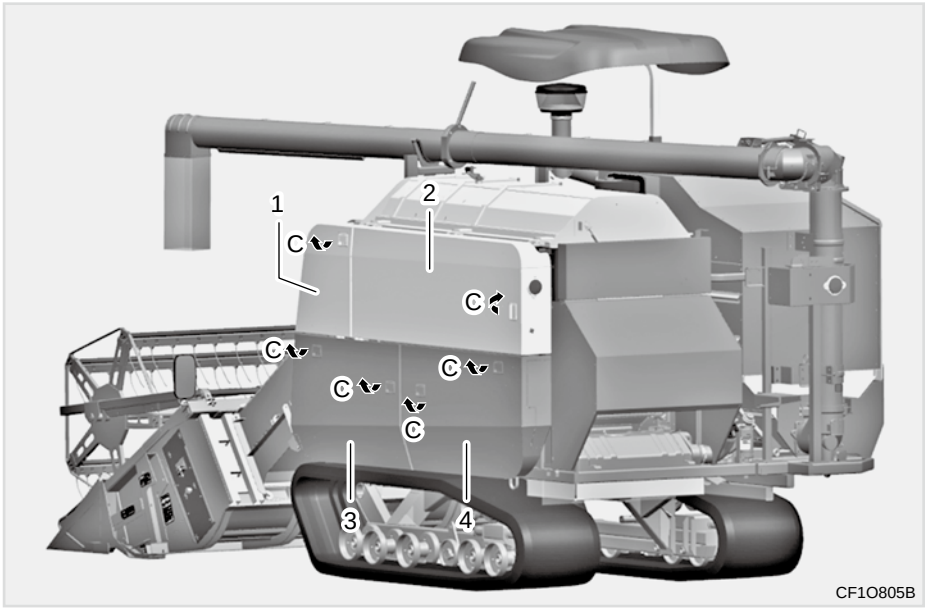


(1) Rocker Shaft Seal
(2) Fuel Tank Seal

3. Install the rocker arm of the rocker shaft onto the sieve case.
4. Place the rocker shaft seal properly so that it comes below the fuel tank seal.
5. Install the dust cover (rear) in the reverse order of removal.
6. Install the clean-out cover on the left plate of the threshing unit.
7. Install the left covers (3 & 4) onto the threshing unit. Then, close the threshing unit lever cover 2.

ATTACHING AND DETACHING COVER

FIXING HANDLE



(1) Side Cover 1
(2) Side Cover 2
(3) Side Cover 3
(4) Side Cover 4
(C) Attach / Detach Cover (One-touch)

1. Remove the cover by pulling the fixing handle.
2. Install the cover by fitting its lower groove to the fixing rod. After installation, push the fixing handle to lock the cover in place.

CLEANING INSIDE OF VEHICLE BODY

⚠ CAUTION

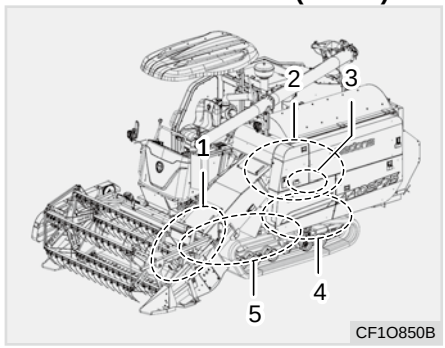
- **When opening the cutter, pulling the lever abruptly can open the cutter very fast, resulting in an injury. Make sure to remove and install the cover with care.**

Remove any grains remained in the vehicle body after harvesting to avoid mixture of varieties.

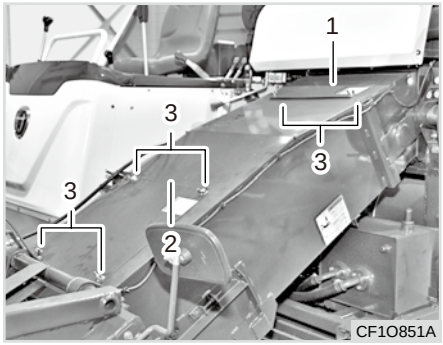
⚠ CAUTION

- **Disengage the threshing clutch and stop the engine before adjustment, inspection, replacement, removal/ installation and manual cleaning.**
- **Fix the threshing cylinder and close the grain tank and cutter during idling.**
- **When closing the cleaning-out, move the lever 2 to 3 times to check that no grains are attached to the cleaning-out.**
- **Clean the vehicle body after drying it. If the body is wet, grains tend to remain inside the vehicle.**
- **Fix the cover onto the cleaning-out after cleaning. Grains may fly out of it if it has no cover.**
- **Remove straws from the blower shaft.**
- **Make sure to clean the No. 1 auger case after reaping watery crops.**

CLEANING SECTIONS (BODY)



(1) Inside Of Feeding Unit Clean-out
(2) Inside Of Threshing Cylinder
(3) Inside Of Threshing Cylinder Side Cover
(4) Inside Of Clean-out On Left Plate Of Threshing Unit, Inside Of Threshing Unit Side Cover
(5) Below No. 1 And 2 Horizontal Augers



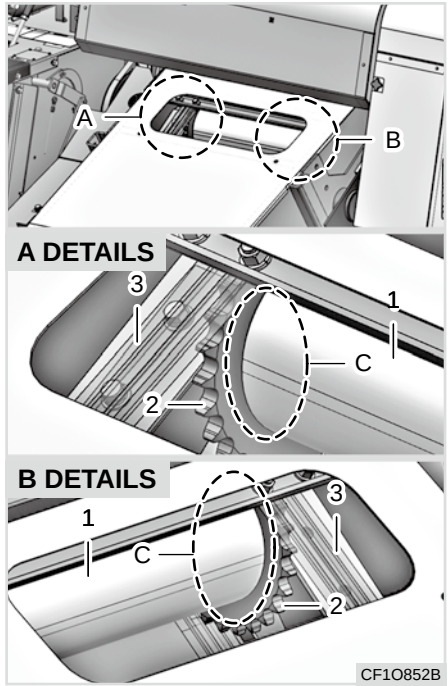
(1) Top Clean-out Cover Panel 1 Of Feeding Unit
(2) Top Clean-out Cover Panel 2 Of Feeding Unit
(3) Wing Bolt

1. Inside of feeding unit clean-out

   Remove each wing nut and screw, and clean the clean-out covers 1 and 2 on the top of the feeding unit. After cleaning the inside, place the clean-out cover panels back in their place.

NOTE

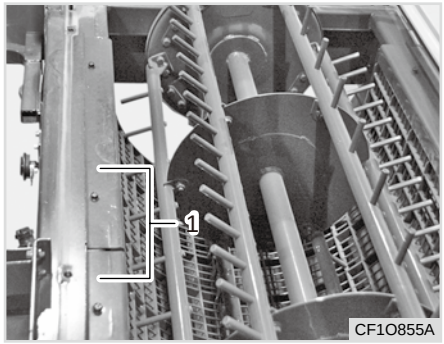
- When reaping wet or moist crops, residue from them can easily be left in the feeding unit. Therefore, clean the inside of the feeding unit after every reaping operation.



(1) Anti-roll Drum (2) Sprocket
(3) Feeding Unit Conveyor Chain
(C) Remove Straw

IMPORTANT

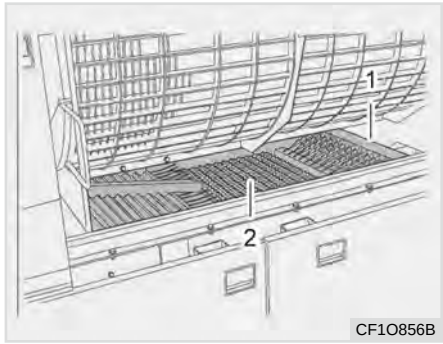
- **Remove all straw left in the machine after every reaping operation. Otherwise, the feeding unit conveyor chain can be stopped by straw stuck between the anti-roll drum and sprocket.**



(1) Concave

2. Inside of threshing cylinder

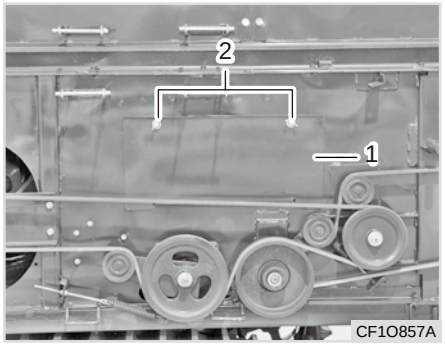
Open the threshing unit top cover to remove the concave for cleaning. After cleaning the concave, reinstall it in its place and close the threshing unit top cover.



(1) Sieve Case *(2) Sieve Case Slide*

3. Inside of threshing unit side cover (on sieve case slide)

Open the threshing unit side cover 2 for cleaning. After cleaning the inside, close the threshing unit side cover 2.



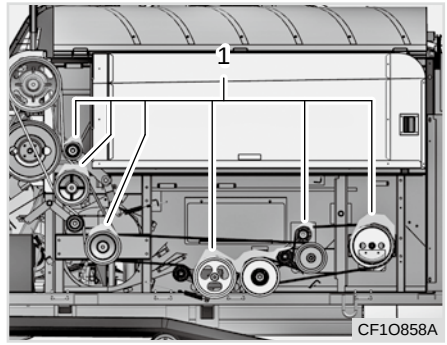
(1) Clean-out Cover On Left Plate Of Threshing Unit
(2) Wing Bolt

4. Inside of clean-out on left plate of threshing unit

   Remove the threshing unit left covers (3 & 4) and loosen the wing bolt to open the clean-out cover on the left plate of the threshing unit for cleaning. After cleaning, install the clean-out cover back in its place and then reinstall threshing unit left-hand covers (3 & 4).

NOTE

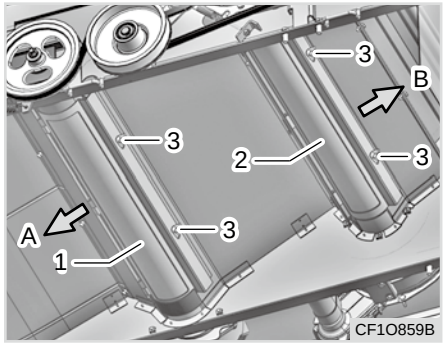
- When necessary, loosen the screw and remove the net to clean it.



(1) Straw

5. Inside of left-hand cover of threshing unit

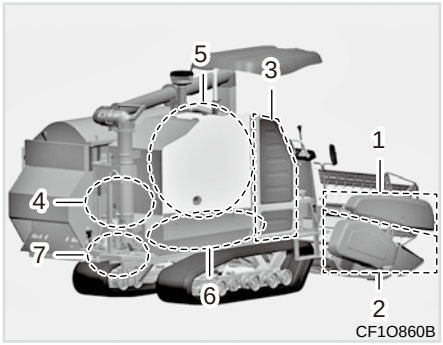
   Remove the left threshing unit covers (1, 3 & 4) for cleaning. After cleaning the inside, install the left threshing unit covers (1, 3 & 4).



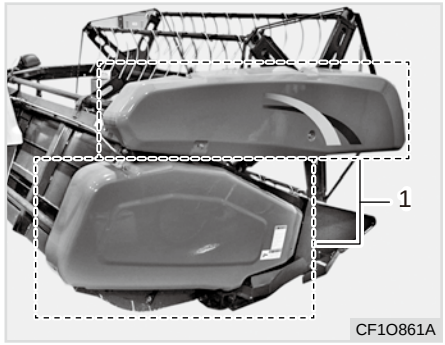
(1) Lower Cover Of No. 1 Horizontal Auger
(2) Lower Cover Of No. 2 Horizontal Auger
(3) Wing Bolt
(A) Front (B) Back

6. No. 1 and 2 horizontal auger lower covers

   Loosen the wing bolts and remove the No. 1 and 2 horizontal auger lower covers to clean the inside. After cleaning the inside, fit the lower covers and install the wing bolts.



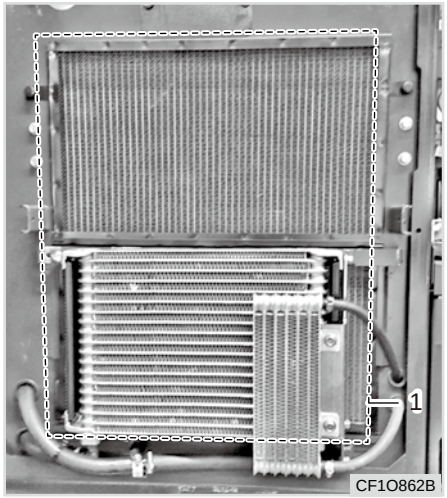
(1) Reel Cover
(2) Inside Of Reaping Unit Right-hand Cover
(3) Inside Of Dust Cover
(4) Opening Grain Tank
(5) Inside Of Grain Tank
(6) Opening Grain Tank Lower Cover
(7) Unloader Auger Clean-out/grain Tank Lower Auger Clean-out



(1) Inside Of Side Cover

7. Inside of reel cover
8. Inside of reaping unit right-hand cover

   Remove the reel cover and reaping unit right-hand cover to clean the inside. After cleaning the inside, place the reel cover and reaping unit right-hand cover back in their original positions.



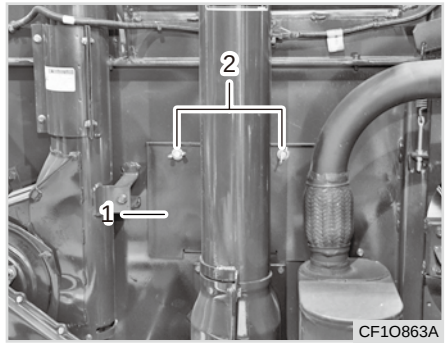
(1) Inside Of Dust Cover

9. Inside of dust cover

   Open the dust cover and remove the secondary strainer in front of the engine compartment to clean the inside. After cleaning the inside, fit the secondary strainer and close the dust cover.

NOTE

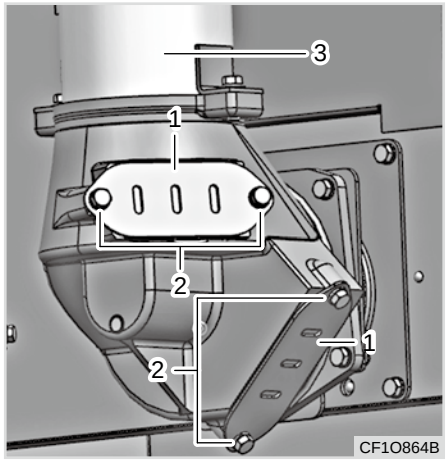
- If necessary, clean the dust cover, the radiator cooling fins, and the engine oil cooler cooling fins.



(1) Clean-out Cover On Right Plate Of Threshing Unit
(2) Wing Bolt

10. Inside of clean-out on right plate of threshing unit

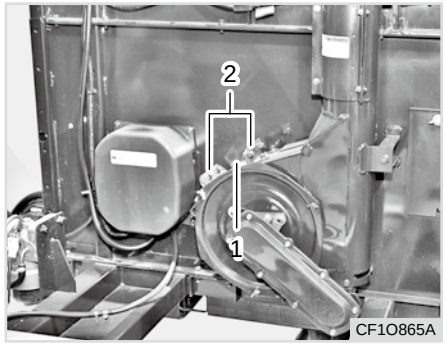
    To clean the inside of the clean-out on the right plate of the threshing unit, open the grain tank. After loosening the wing bolts, remove the clean-out cover on the right-hand plate of the threshing unit for cleaning. After cleaning the inside, install the clean-out cover and close the grain tank.

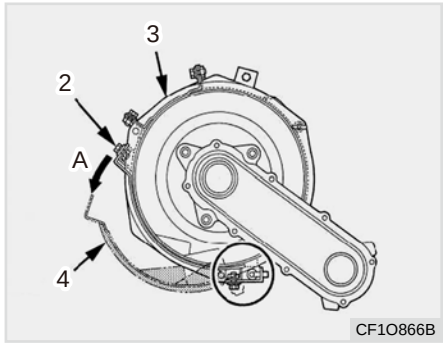


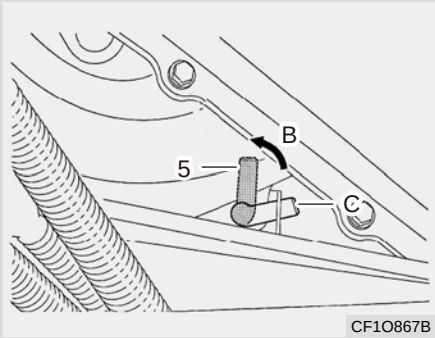
(1) Clean-out for No. 1 Vertical Screw Case
(2) Screw
(3) No. 1 Vertical Screw Case

11. Inside clean-out of No. 1 horizontal/vertical screw case

    Clean the inside of the No. 1 horizontal/vertical auger clean-out by opening the grain tank. Loosen the screw and remove (1) clean-out covers to clean the inside. After cleaning the inside, install the clean-out covers back in their place. After cleaning, close the grain tank.



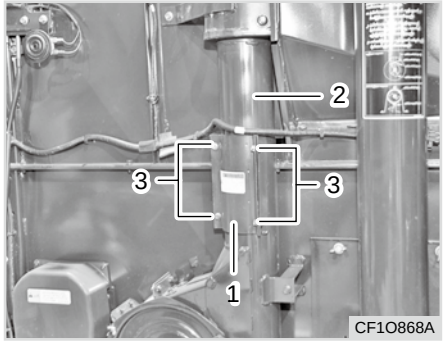




(1) No. 2 Processing Cylinder (2) Screw
(3) No. 2 Processing Cylinder Clean-out Cover
(4) No. 2 Processing Tooth
(5) Support Pin
(A) Open (B) Unlock
(C) Lock

NOTE

- Release the No. 2 processing teeth right after releasing the support pin.

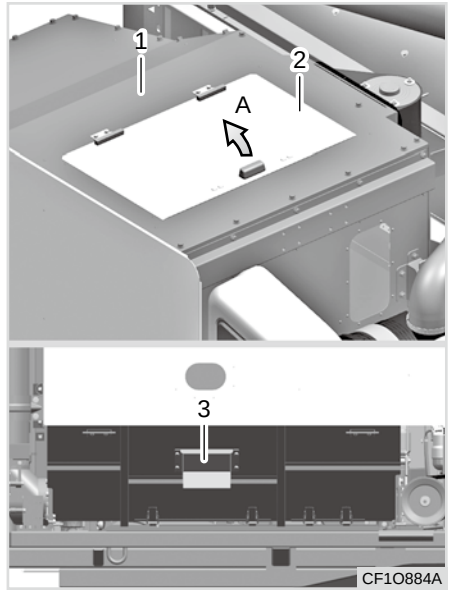


(1) No. 2 Vertical Auger Clean-out Cover
(2) No. 2 Vertical Auger Case
(3) Screw

12. No. 2 vertical auger case clean-out

    Open the grain tank to clean the inside. Loosen the screw and open the No. 2 vertical auger case clean-out cover to clean the inside.

    After cleaning the inside, install the clean-out covers back in their place. After cleaning, close the grain tank.

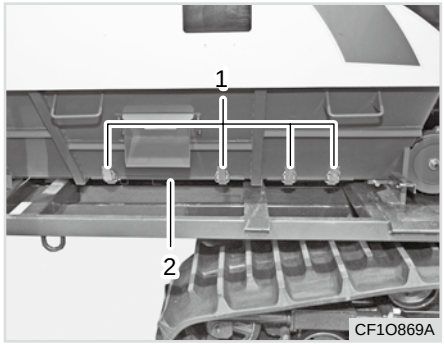


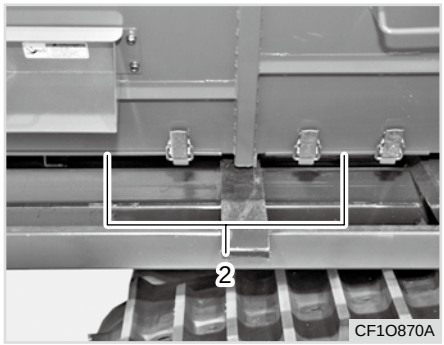
(1) Grain Tank (2) Top Sight Glass
(3) Lower Clean-out
(A) Open

13. Inside of grain tank (models for export)

    Clean the inside of the grain tank by opening its top sight glass. After removing the grain tank lower

cover, open the grain tank lower clean-out to clean the inside. After cleaning the inside, install the cover back in its place.





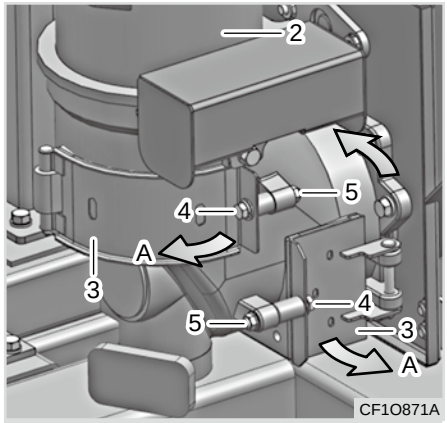
(1) Buckle
(2) Grain Tank Lower Clean-out Cover

14. Inside of grain tank lower clean-out

    Detach the grain tank lower cover, release the buckle, and open the grain tank lower clean-out cover downwards to clean the inside.

    After cleaning the inside, fix the clean-out cover back in place and reinstall the grain tank lower cover.

BATTERY



(1) Unloader Case Assembly
(2) Unloader Base Assembly
(3) Clean-out Cover (4) Bolt
(5) Nut (A) Open

15. Unloader auger / grain tank auger clean out

    Loosen the clean-out mounting bolts of the unloader auger case and grain tank auger case and open the clean-out covers to clean the inside. After cleaning the inside, close the clean-out covers.

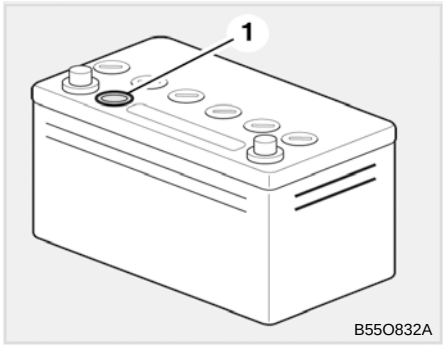
ORGANIZING AND CHECKING AFTER CLEANING

After cleaning the inside, place the clean-out cover and safety net back in their original positions

⚠ CAUTION

- **Do not allow the battery fluid to contact your skin and clothing. (The battery has acid that can burn your skin, eyes or clothing.) In case of acid contact with body or clothing, rise it thoroughly with water.**
- **Keep flames or sparks away from the battery and avoid a short circuit to prevent the battery from explosion.**
- **When checking or disconnecting the battery, stop the engine and set the main switch to the OFF position.**

CHECKING CHARGING STATUS



(1) Charging Indicator

Charge or replace the battery according to its charging condition.

[CHARGING STATUS]

NORMAL	CHARGE	REPLACE
⊙	⊙	○
Green	Black	White

⚠ CAUTION

- **Charge the battery as soon as possible if it is hard to start the engine or the lamps are dim.**
- **Do not tilt the battery or place it upside down when removing or installing it. Its electrolyte may drain from it.**

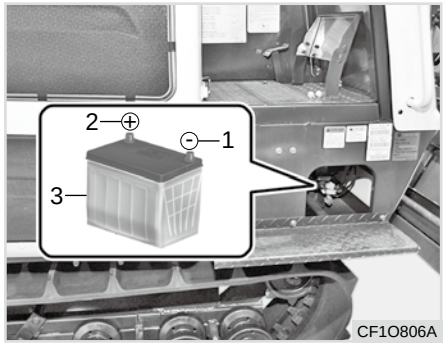
CHARGING

Charge the battery after disconnecting it from the vehicle body. Otherwise, the electrical system and wiring can be damaged.

Connect the positive (+) charging cable to the positive (+) terminal of the discharged battery and the negative (-) cable to the negative (-) terminal of the battery. Charge it in a normal way.

If using a quick charger in an emergency, make sure to charge the battery after work.

REMOVING AND INSTALLING BATTERY



(1) Negative Cable (2) Positive Cable
(3) Battery

1. When disconnecting the battery cables, disconnect the negative cable first. (Otherwise, a short circuit can occur when touching it with a tool.)
2. When connecting the battery, connect the positive battery cable first and then the negative battery cable.
3. Never connect the battery cables to the wrong terminals. The electrical system can be damaged.
4. Use the specified battery only.
5. Make sure to connect the positive and negative cables correctly. Especially, the positive battery cable should not contact with any sharp edge.

CHECKING POSITIVE BATTERY CABLE

If the wiring or positive battery cable is damaged, a short circuit can occur. Make sure to check the cable condition.

▶ Otherwise,

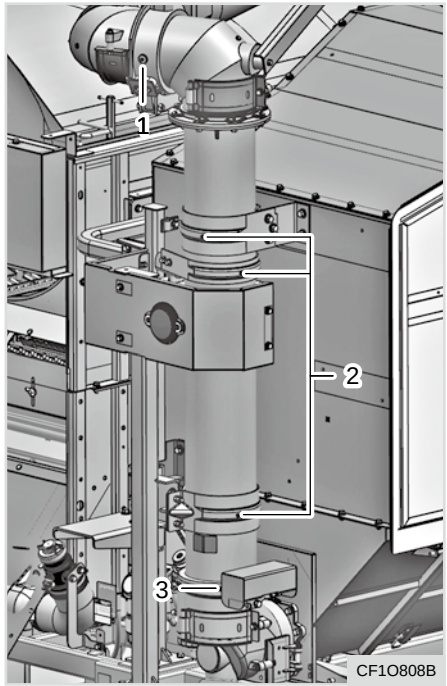
It can lead to fire or damage.

⚠ CAUTION

1. The wiring holder is not damaged and the clamp is tight.
2. They are firmly connected to terminals and contact of the socket.
3. Each switch operates correctly.

GREASING AND LUBRICATING EACH SECTION

UNLOADER SECTION



(1) Grease Nipple (Unloader Case 3)
(2) Grease Nipple (Unloader Holder)
(3) Grease Nipple (Unloader Case 1)

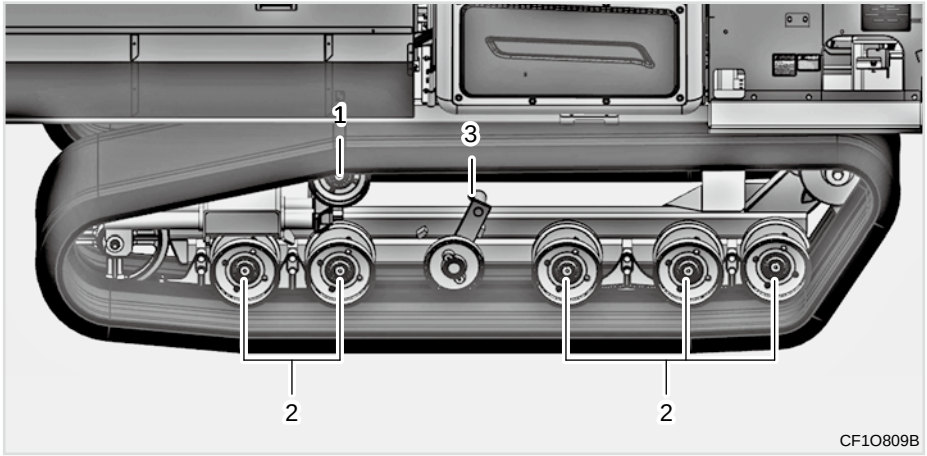
8

1. Grease the moving parts of the unloader before long-term storage.
2. Grease it during disassembly.

⚠ CAUTION

- **After adding grease to the unloader cases 1 and 3, open the cleaning-out and wipe grease coming out of the inside thoroughly.**

DRIVING SYSTEM



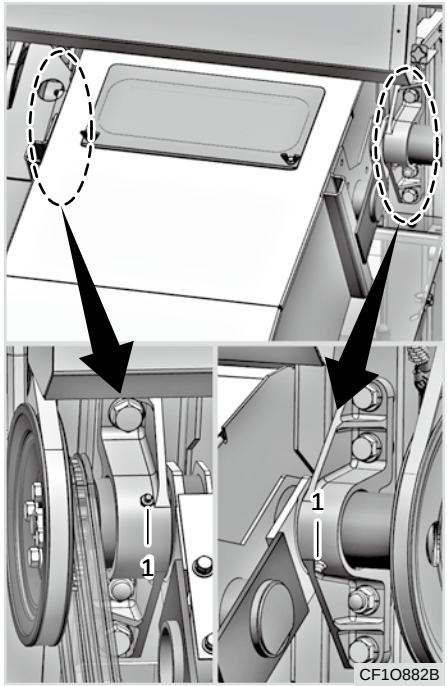
(1) Grease Nipple (Idle Roller Section) *(2) Grease Nipple (Track Roller Section)*
(3) Grease Nipple (Tension Roller Section)

1. Add grease and oil to the grease application point of the track roller section before long-term storage or disassembly/assembly.
2. When tightening the filler hole mounting bolt, tape it for 2 to 3 turns.

⚠ CAUTION

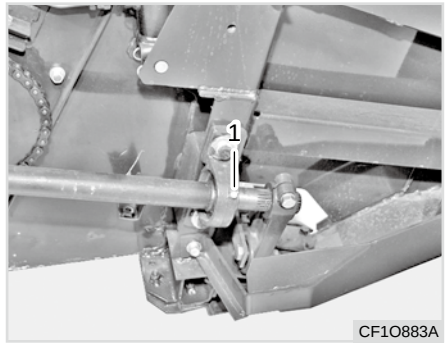
- **Apply grease to the track roller only when replacing the roller, bearings or shafts or servicing the internal part.**
- **If an excessive amount of grease is applied, water may enter the seal, causing damage of the roller.**

REAPING UNIT



(1) Feeding Unit Support Section

1. Apply grease to the feeding unit support sections (2 EA).



(1) Cutting Blade Drive Section

2. Apply grease to the cutting blade drive sections.

LUBRICATION

Fill each part with oil or apply grease to each part after cleaning each part of the combine or before starting reaping.

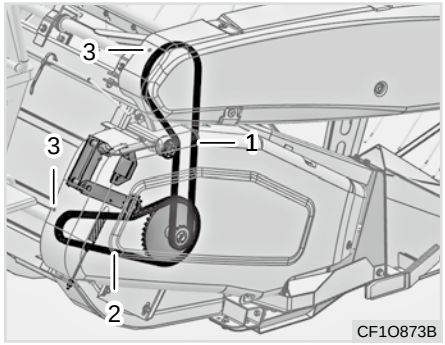
Use the oil feeder for lubrication.

LUBRICATION

On level ground, lower the reaping unit onto the ground and apply the parking brake.

LUBRICATION POINTS

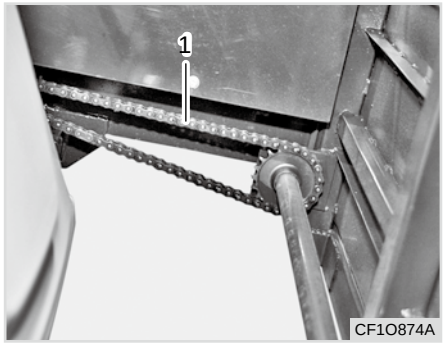
AUGER DRUM DRIVE CHAIN / REEL DRIVE CHAIN



(1) Reel Drive Chain
(2) Auger Drum Drive Chain
(3) Filler Inlet

Add a sufficient amount of engine oil through the filler inlets of the reaping unit right-hand cover and reel cover.

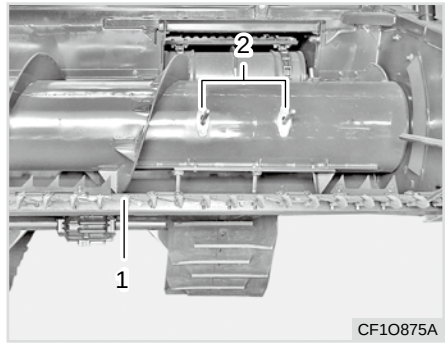
REAPING UNIT DRIVE CHAIN



(1) Reaping Unit Drive Chain

Add a proper amount of engine oil through the oil inlet on the feeding unit right-hand cover.

CUTTING BLADE / FINGER SHAFT

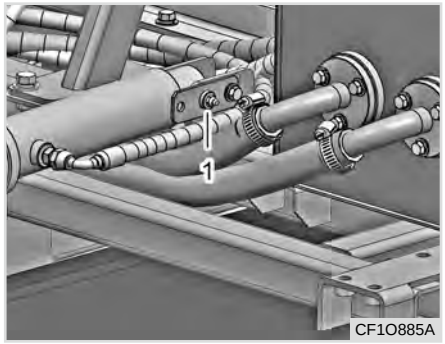


(1) Cutting Blade *(2) Finger Shaft*

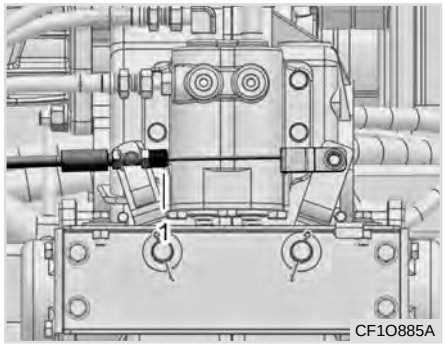
After raising the reel, stop the engine, apply grease between the finger shaft and finger guide, and apply a sufficient amount engine oil to the whole cutting blade.

ROUTINE MAINTENANCE AND ADJUSTMENT

APPLY GREASE



(1) Reaping Cylinder Support Section

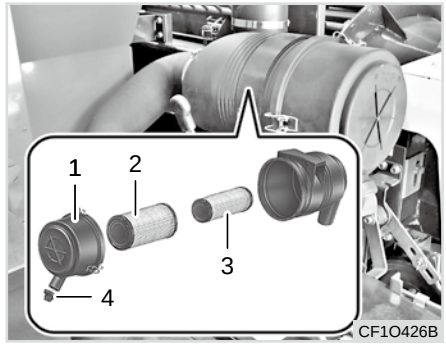


(1) Parking Brake Cable

IMPORTANT

- **Stop the engine before adjustment and inspection.**
- **When checking the oil and coolant levels, lubricating each part and checking the battery, stop the engine in advance.**
- **If the reaping unit is lifted for an extended period of time, it may fall by its weight.**

CLEANING AIR CLEANER ELEMENT



(1) Cover (2) Element
(3) Secondary Element
(4) Outlet Valve

Before daily operation, remove any dust by blowing air from the inside of the element or tapping it lightly.

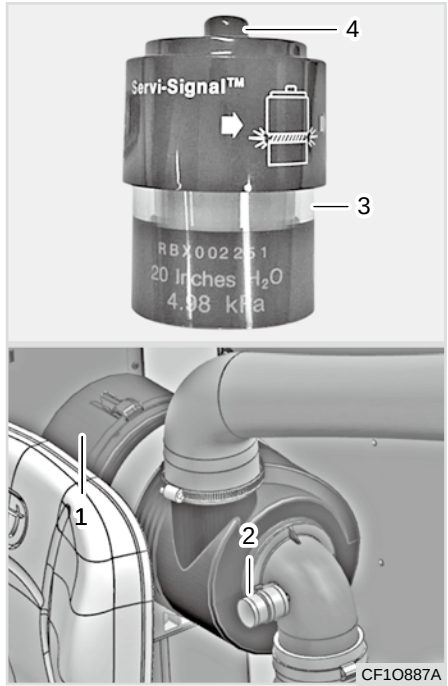
The compressed air pressure must be below 7 kg/cm².

When carbon or oil is on the element, use an element detergent to remove it.

⚠ CAUTION

- **As this vehicle is equipped with the high-performance cyclone multi-use dry type element, do not use oil.**
- **Do not apply excessive force.**

CHECK

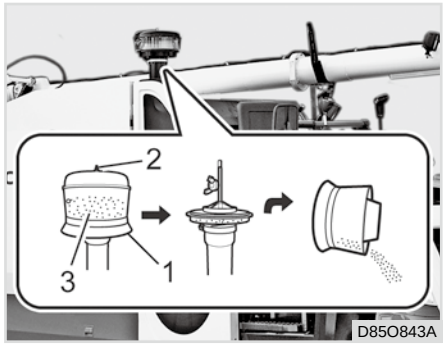


(1) Air Cleaner *(2) Pressure Switch*
(3) Sight Glass *(4) Reset Button*

When the sight glass of the pressure switch, which is installed to the air cleaner, becomes red, the air cleaner is filled with dust. Clean the air cleaner immediately.

After cleaning, press the reset button.

CLEANING AIR FILTER



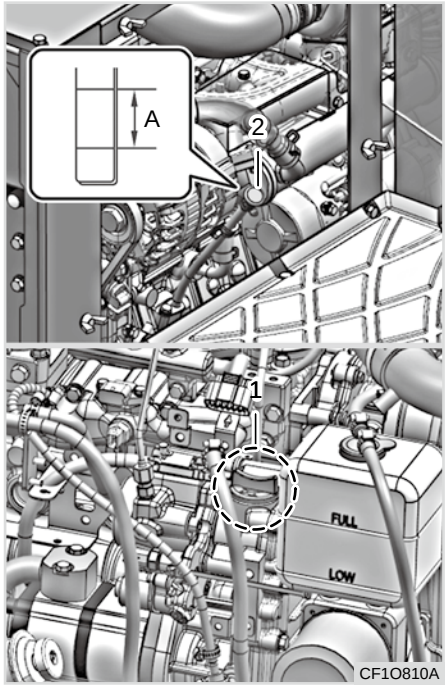
(1) Air Filter *(2) Wing Nut*

1. When dust is accumulated over the mark on the side of the air filter, remove the wing nut and remove the dust.

⚠ CAUTION

- **Never let water enter the air intake of the air cleaner. The engine can be damaged.**

CHECKING ENGINE OIL

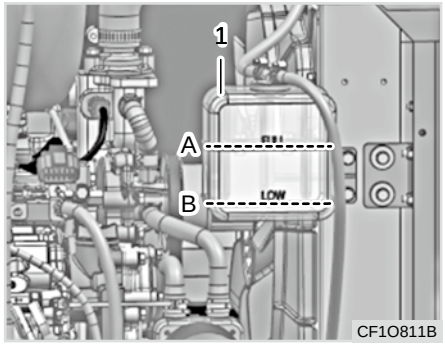


(1) Oil Filling Hole *(2) Oil Gauge*
(A) Oil level is acceptable within this range

If it is hard to purchase genuine oil, use oil of CD grade or higher. In this case, use oil according to the following table by temperature.

OIL TYPE	CAPACITY
SAE 15W40	9.7 L

CHECKING RADIATOR COOLANT

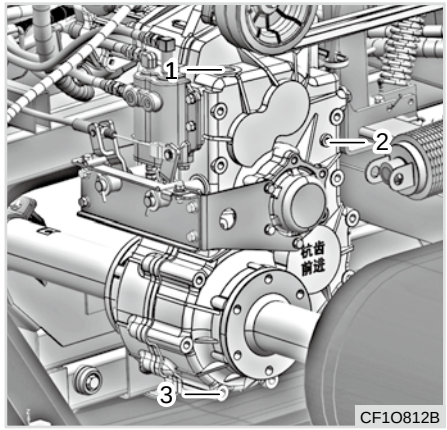


(1) Reservoir Tank
(A) Full *(B) Low*

The radiator is equipped with the reservoir tank which supplies coolant to the radiator when the coolant level in the radiator is low. Therefore, check the coolant level in the reservoir tank. When the level is between the marks "FULL" and "LOW," it is normal. If the coolant level is below the mark "LOW," add water to the level between the marks "LOW" and "FULL." Do not overfill.

Coolant Capacity
8.5 L

TRANSMISSION CASE OIL INSPECTION

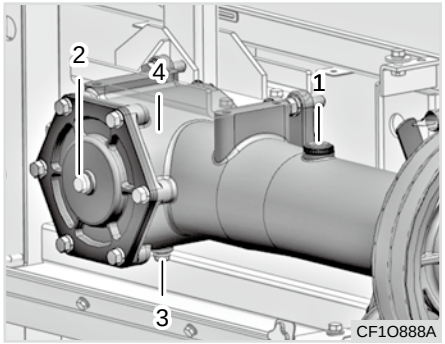


(1) Oil Filling Hole *(2) Inspection Bolt*
(3) Drain Plug

When unscrewing the inspection bolt (M8), oil flowing out of the hole means that the oil level is proper.

If oil is insufficient, add oil through the filler hole using a funnel.

OILING CHAIN DRIVE CASE

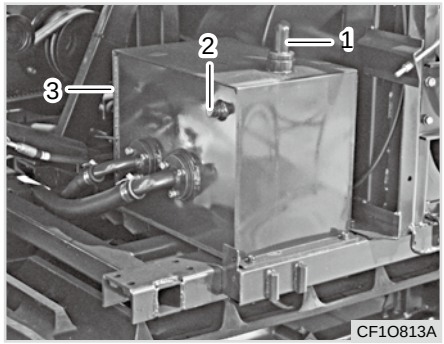


(1) Oil Filler (2) Inspection Bolt
(3) Drain Plug
(4) Threshing Unit Drive Case Assembly

Loosen the inspection bolt and check for oil.

Gear oil #90 or #80 or Daedong UTF55
1.5 L

CHECKING OIL LEVEL IN OIL TANK

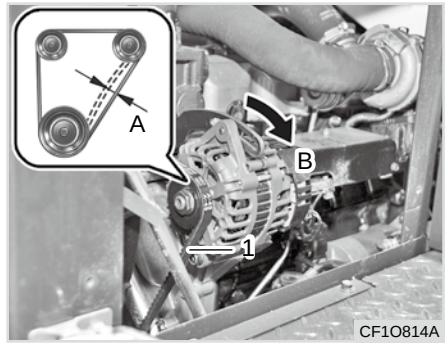


(1) Oil Filler (2) Oil Gauge
(3) Oil Tank

When unscrewing the inspection bolt (M17), a small amount of oil flowing out of the hole means that the oil level is proper.

If oil is insufficient, add oil through the filler hole using a funnel.

CHECKING FAN DRIVE BELT

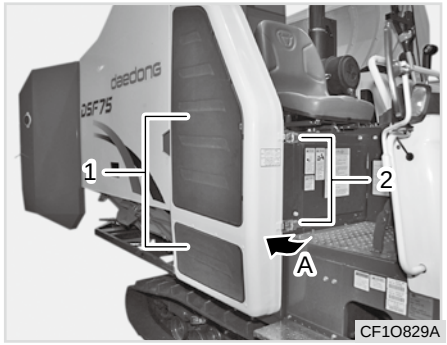


(1) Fan Drive Belt
(A) Deflection (B) Pull

Check the deflection of the fan drive belt by pressing its center with force of 10 kgf with a thumb. If the deflected amount is over the specification, unscrew the battery mounting bolt. Then, tighten the mounting bolt while pulling the battery to adjust the tension.

Deflection at center of belt
5 - 10 mm

CLEANING RADIATOR AIR INTAKE SECTION



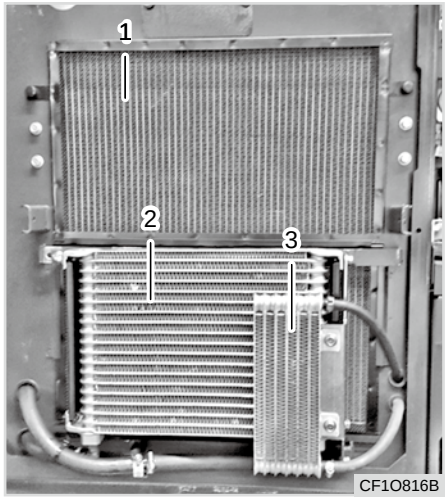
(1) Dust Cover (2) Buckle
(A) Pull

Cleaning radiator air intake section.

Release the buckle and pull the dust cover forward to open it. Then, remove straws and foreign materials.

⚠ CAUTION

- **Clean the face of the dust grill and radiator air intake section with compressed air or a brush regularly to facilitate air flow. Otherwise, the engine efficiency can be deteriorated.**

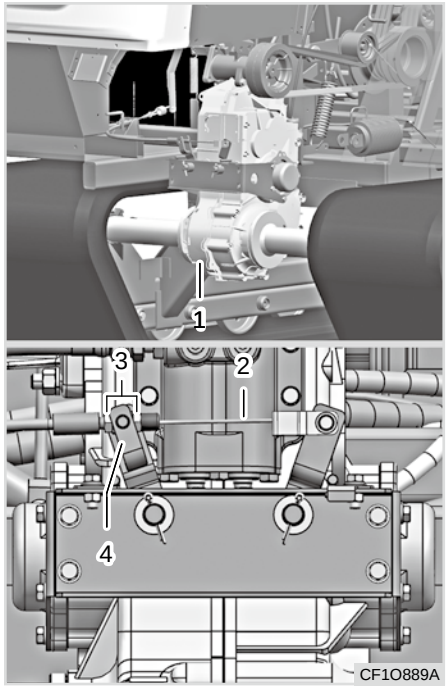


(1) Radiator Pin (2) Oil Cooler Pin
(3) Fuel Cooler Pin

⚠ CAUTION

- **Do not clean the component with a hard object, such as a paddle or screwdriver. The special fin can be damaged, resulting in deterioration of the radiator performance.**
- **Never let water enter the air intake of the air cleaner. The engine can be damaged.**

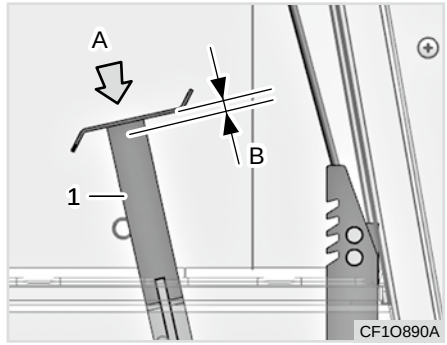
ADJUSTING PARKING BRAKE PEDAL



(1) Transmission (2) Parking Brake Cable
(3) Adjusting Screw
(4) Right-hand Clutch Lever

Adjust the free play of the parking brake pedal to 3 - 10 mm.

1. Raise the reaping unit to the highest position and set its safety lock in the Lock position to prevent it from dropping. Then, stop the engine.
2. If the parking brake is applied, release it.
3. Loosen the adjusting screw that tightens the right-hand clutch lever of the transmission.
4. Press the brake pedal with your hand gently to check for free play (backlash).
5. If the free play of the brake pedal is not within 3 - 10 mm range, adjust it with the adjusting



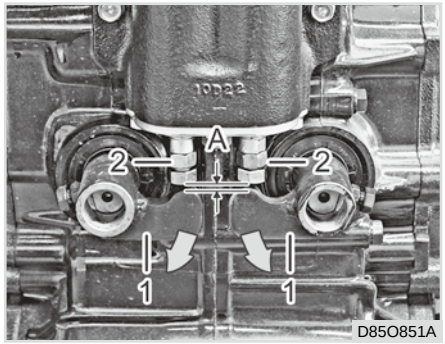
(1) Parking Brake Pedal
(A) Press Gently With Hand
(B) Free Play (Backlash): 3 - 10 Mm

6. Tighten the adjusting nut.
7. When engaging the pedal fixing lever, make sure that the brake pedal plate is engaged with the 3rd or 4th groove of the fixing lever.

⚠ CAUTION

- **Replace it every 300 hours of use or every 2 years.**

ADJUSTING POWER BRAKE LEVER

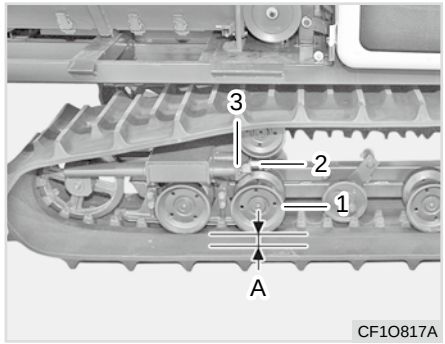


(1) Clutch Lever (2) Brake Bolt
(A) Clearance

1. When installing the clutch cylinder, set it parallel and symmetrical to the center line of the transmission case.
2. Apply LOCTITE to the mounting bolt (M8) of the side clutch arm before installing it (tightening torque: 190 - 330 kg·cm).
3. Adjust the clearance A between the brake bolt and side clutch lever to 2 mm (±0.5mm). Then, tighten the lock nut firmly.
4. Inspection during driving: Engage the side clutch firmly with the clutch cylinder in the 1st stroke (15.5 mm) condition.

Standard for clearance A between brake bolt tip and side clutch lever	2.0±0.5mm
Tightening torque for mounting nut	260±30kgf·cm

ADJUSTING CRAWLER TENSION



(1) Front Wheel (2) Tension Bolt
(3) Mounting Nut (A) 13 - 18 mm

1. Unscrew the mounting nut of the tension bolt and tighten the tension bolt.
2. Lift the rear section of the frame with a jack. Then, set the distance between the second front wheel and crawler to 13 to 18 mm.
3. Check that the both crawlers have the same tension.

Distance between 2nd front wheel and crawler
Within 13 - 18 mm

ADJUSTING EACH BELT LENGTH

⚠ CAUTION

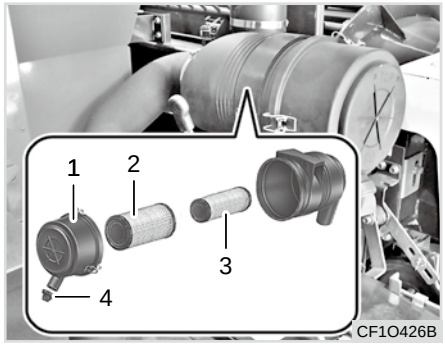
- **If the crawler's tension is excessive, the engine power and driving section durability can be deteriorated. Make sure to set the tension within the specified range.**

Adjust the adjusting bolt and cable adjusting bolt so that the spring mounting length of the belt is within the specified range in the following table:

No.		Belt	Specification	Quantity	Spring mounting length (mm)
Area around engine	A	Transmission drive belt	COKE SC-65	2	215~219
	B	Threshing drive belt	SB-55	3	275~279
	C	Reaping unit reversing belt-1	B59	1	119~121
	D	Reaping unit reversing belt-2	LB-43.75	1	125~127
Around reaping unit	E	Reaping belt	SB-54	1	123~127
	F	Reel drive belt	LB-107	1	217~219
Around threshing unit	G	Threshing belt 2	C70	2	144~148
	H	Blower belt	C47	1	124~128
	I	No. 1 drive belt	B104.25		145~148
	J	Rocker drive belt	B66		120~126
Others	K	Straw separator drive belt	C64.5	1	118~122

(※) : Cabin model only

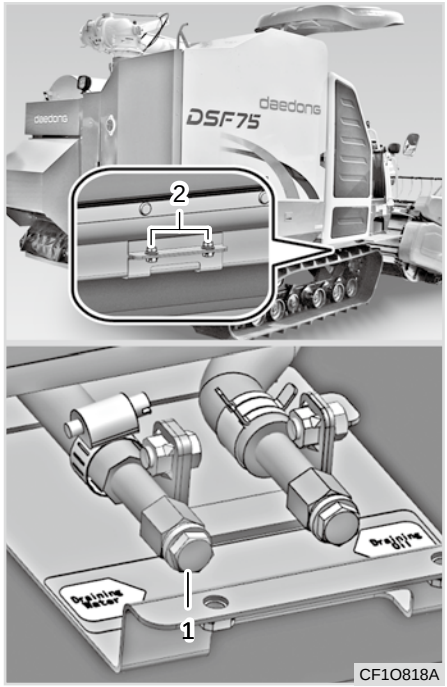
PERIODIC CHANGE
REPLACING ELEMENT



(1) Cover *(2) Element*
(3) Secondary Element
(4) Outlet Valve

The element should be replaced every 300 hours.

CHANGING RADIATOR COOLANT
CHANGING



(1) Drain Bolt *(2) Mounting Screw*

1. Remove the cover from the top of the crawler and open the drain plug and radiator cap to drain coolant completely. Drain coolant from the reservoir tank by disconnecting the overflow pipe from the radiator cap.
2. When adding water after draining or flushing the radiator, fit the drain plug and add coolant to the radiator. Then, add coolant to the reservoir tank to the proper level.

ANTI-FREEZE USE

Anti-freeze prevents damage of the cylinder block and radiator by frozen coolant as it lowers the freezing temperature of water.

When the ambient temperature is below 0℃, add mixture of water and anti-freeze to the radiator or drain coolant completely.

Coolant mixed with anti-freeze in 50/50 is added to the vehicle at factory.

⚠ CAUTION

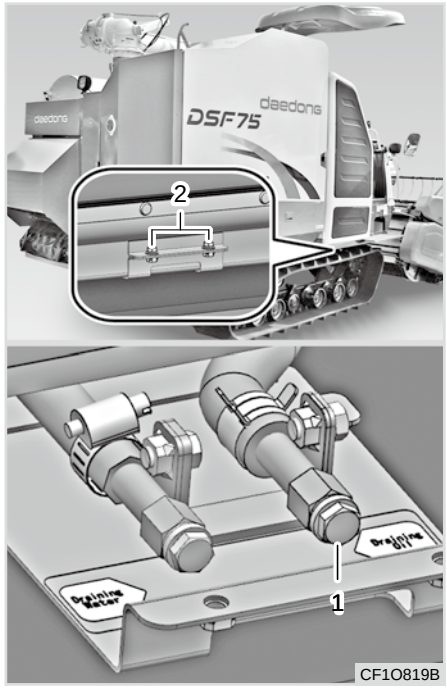
- **Mix water with a proper amount of anti-freeze for coolant.**
- **If water and anti-freeze are not mixed in the specified ratio, coolant can froze in winter and overheat the engine in summer.**
- **Do not add radiator additive if using anti-freeze.**
- **Anti-freeze contains anti-rust additive. If anti-freeze is mixed with radiator additive, it can create particles, affecting the engine components adversely.**

⚠ CAUTION

- **Anti-freeze is valid for two years.**
- **Make sure to change anti-free every 2 years.**

CHANGING ENGINE OIL

DRAINING

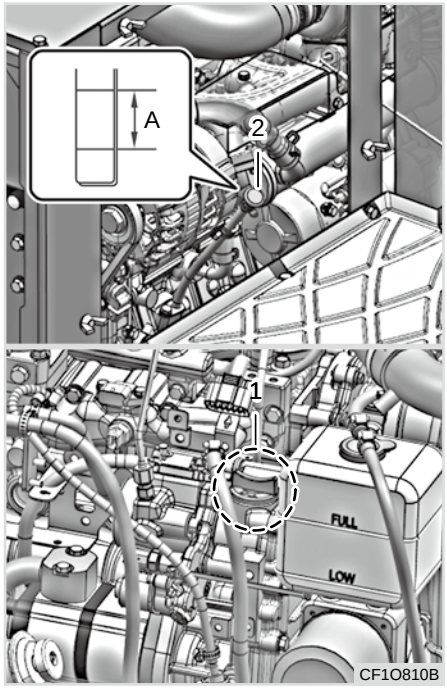


(1) Drain Plug *(2) Screw*

Loosen two bolts, pull out the drain plug mounting plate and unscrew the oil filler plug to drain oil easier.

When the engine is warm, engine oil is drained faster due to its fluidity.

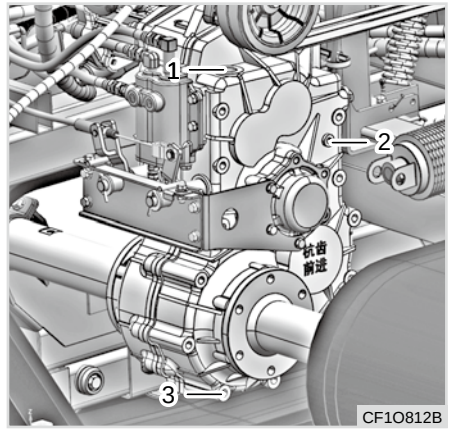
FILLING



(1) Oil Filler Hole (2) Oil Gauge
(A) Oil Level Is Acceptable Within This Range

Tighten the drain plug, add fluid to the specified level and tighten the oil filler plug firmly.

CHANGING TRANSMISSION CASE FLUID



(1) Oil Filler Hole (2) Level Check Bolt
(3) Drain Plug

Remove the drain plug from the bottom of the transmission case to drain used fluid. After draining fluid, tighten the drain plug firmly. Then, add fluid through the filler hole.

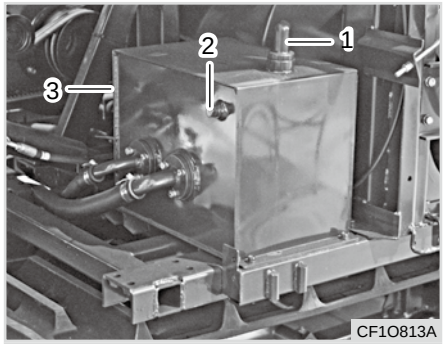
If oil flows out from the level check hole, the oil level is proper. Tighten the inspection bolt (M8).

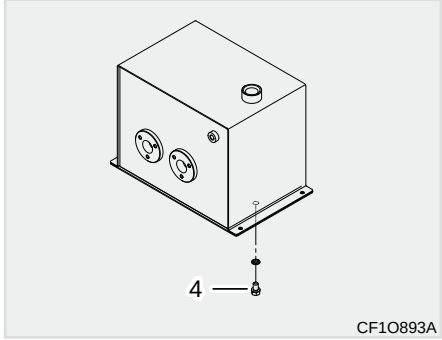
CHANGING OIL IN OIL TANK

OIL TYPE	CAPACITY
Daedong UTF 55	9.6 (Transmission: 9.0L / Left and right Axle: 0.3L each)

⚠ CAUTION

- **Use only specified oil.**





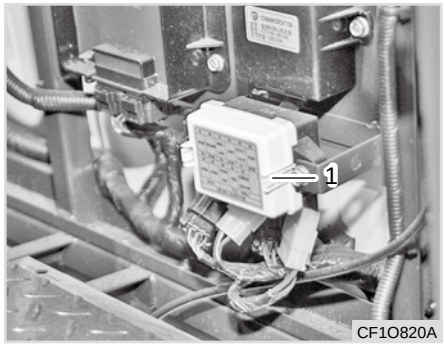
(1) Oil Filler Hole *(2) Oil Gauge*
(3) Oil Tank *(4) Drain Plug*

Remove the drain plug from the left bottom of the case to drain used oil. Then, install the drain plug and add oil through the filler hole.

Change it every 300 hours. Make sure no foreign materials enter the case during changing oil. Replace the oil filter with a new one as well.

OIL TYPE	CAPACITY
Daedong UTF 55	24 L

REPLACING FUSE

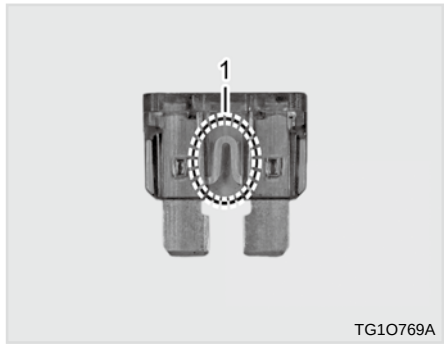


(1) Fuse Box

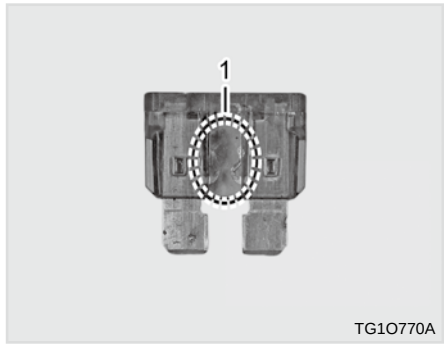
1. Open the cover of the fuse box.
2. Remove the fuse.
3. Replace any blown fuse with a new one with the same capacity.

⚠ CAUTION

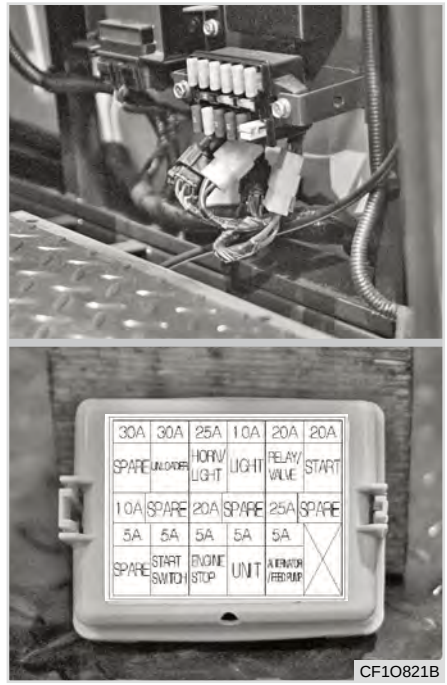
- **If the replaced fuse blows up immediately, do not replace it with other metal wires or aluminum foil. Contact your dealer and have it serviced.**



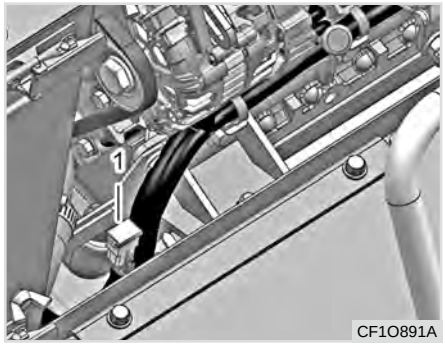
(1) Normal Fuse



(1) Blown Fuse



REPLACING SLOW-BLOW FUSE

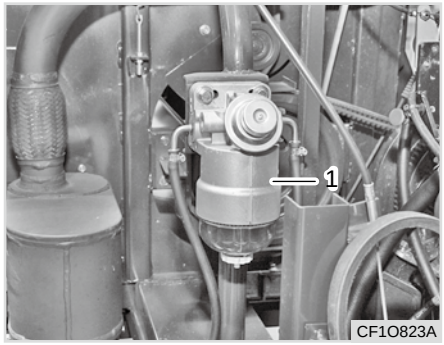


(1) Slow-blow Fuse

The slow-blow fuse is to protect wiring.

Make sure that it does not touch any other part. If any fuse is blown, look for its cause and use only genuine fuses.

REPLACING FUEL FILTER AND WATER SEPARATOR



(1) Fuel Filter

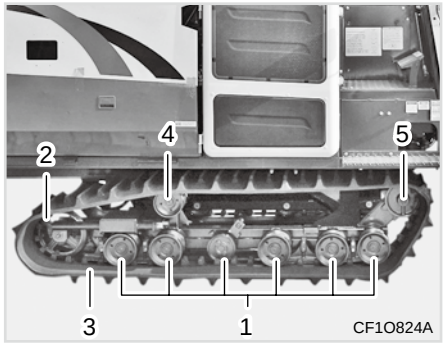
1. Remove the filter with a hand or a tool.
2. Apply oil thinly on packing surface of new fuel filter and tighten firmly.

⚠ CAUTION

- **Make sure that there is no foreign material during assembly.**
- **Add fuel as soon as possible before the tank becomes empty.**

(1) Water Separator

PERIODIC REPLACEMENT OF ROLLER SEAL



(1) Track Roller Seal *(2) Tension Roller Seal*
(3) Crawler *(4) Drive Roller Seal*
(5) Axle Seal

1. Replace the roller shaft connecting seal every 500 hours of use or 2 years.
2. Components to be replaced
   1) Track roller seal
   2) Tension roller seal
   3) Drive roller seal
   4) Axle seal

CHECKING AND REPLACING PIPES AND HOSES

IMPORTANT

- **If any rubber hose of the fuel system is damaged, fuel can leak, leading to an accident. Make sure to inspect the hoses thoroughly. Otherwise, it can result in fire, damage and injury.**
- **If the radiator hose is disconnected during driving, hot water can be surged from it, leading to an accident.**

Rubber parts, such as rubber fuel hoses and radiator hose, are consumables so they should be replaced periodically.

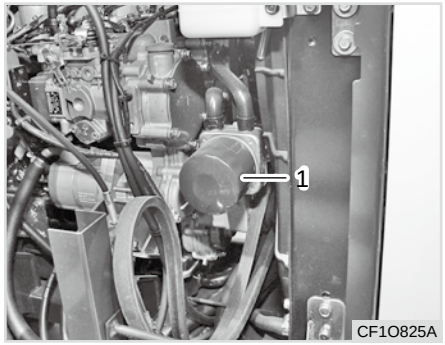
They should be replaced every 2 years (500 hours of use or 2 year for the rubber oil hose) with their tightening bands. Also, they should be replaced immediately if any damage is found.

Check the pipes and hoses for damage and loose band periodically.

⚠ CAUTION

- **Make sure that dust does not enter the pipe and injection pump during replacement. Dust can lead to malfunction of the injection pump.**

REPLACING ENGINE OIL FILTER CARTRIDGE



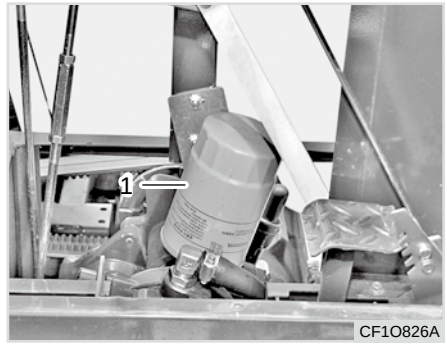
(1) Engine Oil Filter Cartridge

1. Remove the engine oil filter cartridge.

   For a new cartridge, apply a thin film of oil to its O-ring before installing it.
2. When the cartridge is replaced, the engine oil level is decreased for the amount of oil in the cartridge.

   Add oil to the indication mark of the oil gauge, run the engine for 5 minutes and check each section. Then, stop the engine and check the oil level again.
3. Replace the engine oil filter cartridge after initial 50 hours of use and then every 200 hours.

HST OIL FILTER

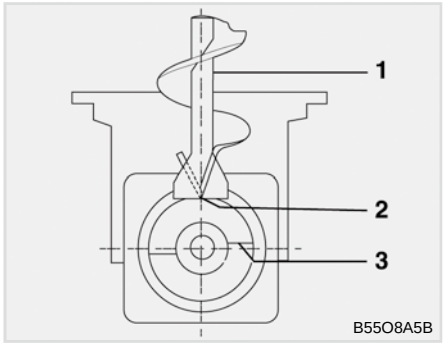


(1) Hst Oil Filter

1. Remove the HST oil filter.
2. Install a new cartridge with the O-ring applied with oil slightly.
3. When installing the HST oil filter, turn it with a hand until it is seated onto the mounting surface. Then, rotate it a half turn further.
4. After replacing hydraulic oil and filter, run the engine at the lowest speed with the vehicle stopped for a few minutes (for oil supply).

INSTALLING VERTICAL AUGER SHAFT

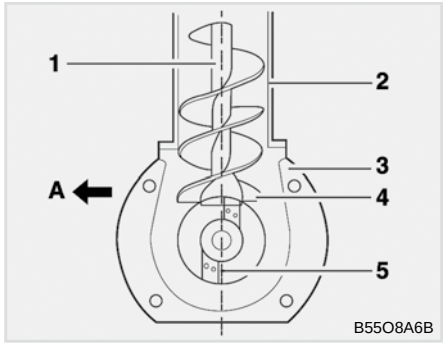
CAUTIONS FOR VERTICAL AUGER INSTALLATION



(1) No.1 Auger Shaft
(2) Rear End Of No.1 Discharge Wing
(3) Front End Of Vertical Auger

When removing and reinstalling the vertical auger, install it to the following position:

1. Set the rear end of the No. 1 discharge wing in the center of the vehicle longitudinally.
2. Set the front end of the vertical auger parallel to the vehicle body longitudinally.
3. After installation, rotate the vertical auger one turn to check for any interference.



(1) Vertical Auger Shaft
(2) Vertical Auger Case
(3) No.1 Bevel Case
(4) Front End Of Vertical Auger
(5) Rear End Of No. 1 Discharge Wing
(A) Front Of Vehicle Body

STORING COMBINE
DAILY STORAGE

1. Before storing combine, clean it thoroughly. Make sure to wash it after operation.
2. Store it indoors if possible. If it should be kept outside, cover it.

⚠ WARNING

- ***When operating the combine in an enclosed area, ventilate the area to release exhaust gas to the outside. Exhaust gas is colorless and not visible, but is harmful.***

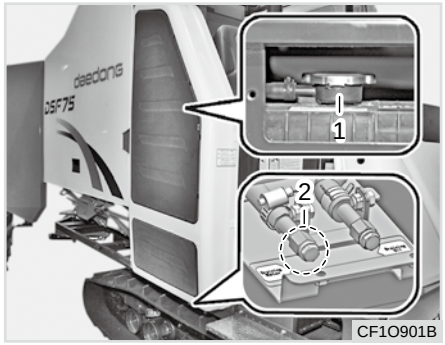
3. Remove the battery from the combine in winter and store it indoors.
4. Add anti-freeze to the combine in winter season in order to prevent the radiator from freezing.
5. Remove the ignition key and store it separately.

LONG-TERM STORAGE

1. Clean dirt and other foreign materials from each section thoroughly with water and wipe it out with a dry cloth.
2. Remove weeds and straws from each rotating part, cutting section, belt and chain completely.
3. Lubricate each rotating part and friction part sufficiently to prevent rust.
4. Lubricate each chain sufficiently to prevent rust.
5. If grains or straws remain in each section, wirings can be damaged by animals, such as a rat. Remove them thoroughly.
6. If paint is chipped on any section, apply paint to the corresponding section to prevent rust.
7. In winter, the coolant in the radiator should be drained completely or mixed with anti-freeze to prevent freezing.
8. Place the throttle lever to the neutral position before stopping the engine.
9. Make sure to remove the key from the main switch and store it in a safe place after work.
10. The battery discharges by itself during storage. Therefore, it needs to be charged every month in summer and every two months in winter. When keeping it installed into the vehicle, make sure to disconnect its negative cable.
11. Place the reaping clutch lever and threshing clutch lever to the "Disengage" position.
12. Cover the vehicle when keep it in an outdoor area to avoid rain.

⚠ CAUTION

- **When washing the vehicle body, make sure that no water enters any electrical device. It can be damaged.**



(1) Drain Plug *(2) Radiator Cap*

Drain coolant according to the following instructions (coolant completely cooled down):

1. Open the radiator cap.
2. Open the drain plug.
3. With the drain plug removed, place a sign, "No water," on the radiator cap.

USING COMBINE AFTER LONG-TERM STORAGE

1. Install the battery again. Check that the battery is fully charged before installing it.
2. Check the fan belt tension.
3. Check all fluid levels. (Engine oil, transmission/hydraulic oil, engine coolant)
4. Remove grease from the exposed cylinder rod.
5. Apply grease to the lubrication points.
6. Depress the clutch pedal and undo the latch hook.
7. Get onto the combine and start the engine.
8. Check if the instrument panel and all parts operate correctly while running the engine for a few minutes.
9. Drive the combine outside and check if it is operating properly. Park the combine outside and idle engine for at least 5 minutes. Stop the engine and visually inspect the combine. Check if there is leakage.
10. Start the engine, release the parking brake, and check the brake condition by depressing the brake pedal. Adjust the free play of the brake pedals if necessary.
11. Stop the engine and check for leakage. Repair any part as required.

⚠ CAUTION

- **If the battery is not to be removed, disconnect the negative battery cable at least. The wiring can be gnawed by rodents, leading to a fire.**

USE AND DISPOSAL

In order to protect the environment, use and dispose of the combine keeping the following in mind:

1. When changing the oil or coolant by yourself, be careful not to spill it and dispose of used oil and coolant properly according to the applicable regulations.
2. Never leave or discard the expired combine, but contact your local dealer to dispose it according to the regulations.
3. Avoid working under high load as it can cause excessive exhaust gas, which is harmful to the environment.

10

This troubleshooting chart summarizes simple service items for users who are familiar with mechanical systems. For more detailed service items, contact your local **DAEDONG** Dealer.

TROUBLESHOOTING FOR ENGINE

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
1. The start motor operates but the engine cannot be started	No fuel	Fuel gauge	• Check the fuel level. If insufficient, add fuel. (Keep flammables away)
	Fuel filter	Fuel filter	• Check if the fuel filter is clogged and clean it as necessary. • Check if the fuel pipe is bent or damaged. If it is defective, replace it.
	Fuel type	Fuel type	•Add diesel fuel.
2. The start motor does not operate and the engine cannot be started	Main shift lever not in OFF position	Main shift lever	• Place the main shift lever to the "Neutral" position. Unless the main shift lever is in the "Neutral" position, the safety switch operates to prevent the engine from starting.
	Discharged battery	Battery (small horn sound)	• Charge the battery.
	Blown fuse or fusible link (slow•blow)	Fuse box Fusible link	(The fusible link is in the battery box.) (Be careful with its ampere.)  *(1) Fuse Box 1*

TROUBLESHOOTING FOR REAPING UNIT

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
1. Excessive load at front of reaping unit	The reel spins too quickly.	Reel drive belt	Stop operation temporarily, place the reaping clutch lever in the OFF position and lower the reel speed.
	The reel tine is stretched too deeply into crops.	Reel lifting/lowering switch	Stop operation temporarily, place the reaping clutch lever in the OFF position and lift the reel.
	The reel tine's angle is too wide.	Reel tine	Stop operation temporarily, place the reaping clutch lever in the OFF position and decrease the angle of the reel tine.
	The reel angle is not suitable to the reaping conditions.	Reel lifting/lowering switch	Stop operation temporarily, place the reaping clutch lever in the OFF position and adjust to the proper position.
2. Crops are accumulated in the reaping unit.	The reel height is not suitable to the reaping conditions.	Reel lifting/lowering switch	Stop operation temporarily, place the reaping clutch lever in the OFF position and adjust to the proper position.
	The reel speed is low.	Reel drive belt	Stop operation temporarily, place the reaping clutch lever in the OFF position and increase the reel speed.
	The gap between the auger and bottom panel is too wide.	Auger	Stop operation temporarily, stop the engine and adjust the gap properly.
	The gap between the feeding drum and bottom panel is too wide.	Feeding drum height	Stop operation temporarily, stop the engine and lower the feeding drum.
3. The reaping unit does not cut crops but rather pushes them aside.	Foreign materials (roots, straw, mud, pebbles, etc.) are stuck to the cutting blades or conveying section.	Cutting blade and conveying section	Stop operation temporarily, stop the engine and remove foreign materials. Then, check the cutting blades and conveying section again.
	The reaping drive belt is sliding.	Reaping drive belt	Stop operation temporarily, stop the engine and replace it.
		Reaping drive belt tension spring	Stop operation temporarily, stop the engine and adjust the tension.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
3. The reaping unit does not cut crops but rather pushes them aside.	Cutting blades are dull	Cutting blade	Stop operation temporarily, stop the engine and adjust the gap.
			Stop operation temporarily, stop the engine and replace it.
	The working speed is too fast.	Main shift lever Range shift lever	Adjust the working speed according to crop and field conditions.
4. An excessive amount of stems are reaped off while reaping crops.	Crops are too light or short.	Reel position	Stop operation temporarily, place the reaping clutch lever in the OFF position and lower the reel close to the auger. (Release the reel anti-drop stopper.)

TROUBLESHOOTING FOR THRESHING UNIT

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
1. There is a lot of separated abnormal grains.	The threshing teeth are worn.	Threshing teeth	Stop operation temporarily, stop the engine and adjust or replace it.
	The threshing cylinder concave is clogged.	Threshing cylinder concave	Stop operation temporarily, stop the engine and clean it.
	The engine speed is too low.	Throttle lever	Increase the engine speed.
	The working speed is too fast.	Main and range shift levers	Adjust the working speed according to crop and field conditions.
2. Threshing performance is poor.	The threshing teeth are worn or deformed.	Threshing teeth	Stop operation temporarily, stop the engine and adjust or replace it.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
2. Threshing performance is poor.	The threshing cylinder concave is worn.	Threshing cylinder concave	Stop operation temporarily, stop the engine and adjust or replace it.
	The threshing cylinder concave is clogged.	Threshing cylinder concave	Stop operation temporarily, stop the engine and clean it.
	The dust discharge valve for the threshing cylinder is open excessively.	Threshing cylinder dust discharge valve control lever	Stop operation temporarily, stop the engine and adjust it to the Close position.
	The engine speed is too low.	Throttle lever	Increase the engine speed.
	The engine speed is too low.	Main and range shift levers	Adjust the working speed according to crop and field conditions.
	The reaping height is too high.	Power steering lever	Lower the reaping unit.
	The threshing cylinder's rotation speed is too low.	Threshing unit drive case drive belt	Stop operation and use another part that can increase the rotating speed of the threshing cylinder.
3. Grains are scattered.	The engine speed is too low.	Throttle lever	Increase the engine speed.
	The blower speed is too high.	Blower control slide	Stop operation temporarily, stop the engine and adjust it to the Close (low) position.
	Each part of the sieve case is not properly adjusted.	Dust discharge control plate	Stop operation temporarily, stop the engine and adjust it upward.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
3. Grains are scattered.	The working speed is too slow.	Main and range shift levers	Increase the working speed according to crop and field conditions.
4. Crops are poorly sorted.	The engine speed is too low.	Throttle lever	Increase the engine speed.
	The blower speed is too low.	Blower control slide	Stop operation temporarily, stop the engine and adjust it to the Open (high) position.
	Each part of the sieve case is not properly adjusted.	Sieve case auxiliary plate	Stop operation temporarily, stop the engine and adjust it rearward.
		Net	Stop operation temporarily, stop the engine and replace the net with another net that has 21.5 mm meshes.
	The sieve case chaffer is open excessively.	Sieve case chaff control lever	Stop operation temporarily, stop the engine and close the chaffer with the sieve case chaff control lever.
	Straw debris is accumulated in front of the blower.	Blower outlet	Stop operation temporarily, stop the engine and clean it.
5. Thumping sound is heard from the threshing cylinder.	The blower speed is too low.	Throttle lever	Increase the engine speed.
	The crop range is excessive. The working speed is too fast.	Main and range shift levers	Set the working speed according to crop and field conditions.
	Crops are too wet.	Crop	Stop operation and reap crops after they are dried enough.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
6. The No. 2 auger is clogged.	Crops are too wet.	Crop	Stop operation and reap crops after they are dried enough.
	The engine speed is too low.	Throttle lever	Increase the engine speed.
	The No. 2 auger is overloaded.	Sieve case auxiliary plate	Stop operation, stop the engine and adjust it forward.
		Chaff control lever	Stop operation, stop the engine and adjust the chaff control lever to the Open position.
		Net	Stop operation, stop the engine and replace the net with another net that has 23.5 mm meshes.
		Blower control slide	Stop operation temporarily, stop the engine and adjust it to the Close (low) position.
	Each part of the sieve case is not properly adjusted.	Sieve case auxiliary plate	Stop operation, stop the engine and adjust it forward.
		Chaff control lever	Stop operation, stop the engine and adjust the chaff control lever to the Open position.
		Net	Stop operation, stop the engine and replace the net with another net that has 23.5 mm meshes.
		Dust discharge control plate	Stop operation, stop the engine and adjust it downward.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
6. The No. 2 auger is clogged.	The working speed is too fast.	Main and range shift levers	Adjust the working speed according to crop and field conditions.
	Crops are too wet.	Crop	Stop operation and reap crops after they are dried enough.
	The auger and processing teeth are worn.	Auger and processing teeth	Stop operation and replace worn parts.
7. A lot of grains are hulled and shattered.	Crop supply is unstable.	Working speed	Increase the working speed slightly.
	The engine speed is too high.	Throttle lever	Decrease the engine speed.
	The No. 2 auger is overloaded.	Sieve case auxiliary plate	Stop operation, stop the engine and adjust it forward.
		Net	Stop operation, stop the engine and replace the net with another net that has 23.5 mm meshes.
	The net is clogged or No. 2 auger is gradually overloaded.	Net	Stop operation temporarily, stop the engine and clean it.
		Net	Stop operation temporarily, stop the engine and adjust the chaff control lever to the Close position.
	The No. 1 horizontal/ vertical auger clean-out is clogged with foreign material such as mud.	No. 1 vertical/ horizontal auger clean-out	Stop operation temporarily, stop the engine and clean it.
8. The sieve case overflows.	The working speed is too fast.	Main and range shift levers	Set the working speed according to crop and field conditions.
	Crops are too wet.	Crop	Stop operation and reap crops after they are dried enough. Stop operation and reap crops after it is ripe enough.

SYMPTOM	CAUSE	INSPECTION ITEM	SOLUTION
8. The sieve case overflows.	Each part of the sieve case is not properly adjusted.	Chaff control lever	Stop operation temporarily, stop the engine and open the slide more with the chaff control lever.
		Sieve case auxiliary plate	Stop operation temporarily, stop the engine and adjust it forward.
		Net	Stop operation, stop the engine and replace the net with another net that has 23.5 mm meshes.
		Dust discharge control plate	Stop operation, stop the engine and lower the dust discharge control plate.
	The dust discharge valve for the threshing cylinder is open excessively.	Threshing cylinder dust discharge valve control lever	Stop operation temporarily and adjust it to the Close position.
	The net is clogged.	Net	Stop operation temporarily, stop the engine and clean it.

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