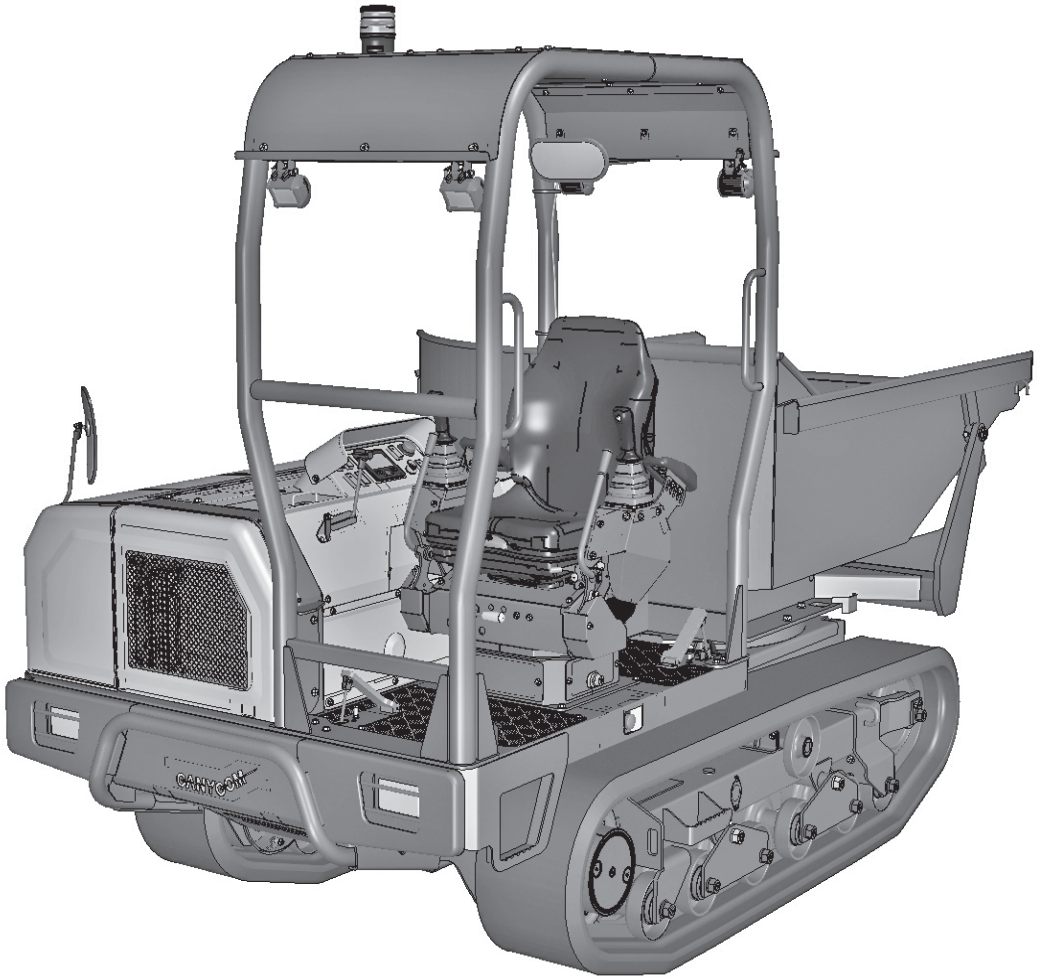
CANYCOM

Off-road Rubber Track Dumper

S300

Operator's Manual



36A3 5605 002

Original Instructions (in English)

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About This Manual

Thank you for using CANYCOM product.
This manual provides information needed for safe and effective use and maintenance of this machine to those who operate or service this machine. Read and understand this manual thoroughly before operating or servicing this machine. Also read the separate **operator's manual for the engine**.

NOTICE

- **Always keep this manual with the machine for easy reference.**
- **Owner of this machine is responsible that anyone who uses or services this machine reads and understands this manual before use or service.**

Warning Terms Used in this Manual

In this manual, the following four warning terms are used to signal the four levels of hazard (or seriousness of possible accidents). Read and understand what they mean and always follow the instructions in this manual to avoid these hazards.

Warning Term	Definition
⚠DANGER	**Indicates an imminently hazardous situation which will result in death or serious injury if not avoided.**
⚠WARNING	**Indicates a potentially hazardous situation which could result in death or serious injury if not avoided.**
⚠CAUTION	**Indicates a potentially hazardous situation which could result in minor to moderate injury if not avoided.**
NOTICE	**Indicates a potentially hazardous situation which could result in property damage if not avoided.**

In addition, the following term is used to indicate important information.

NOTE	**Indicates important information which needs particular attention.**

Notice to Users and Maintenance Personnel

⚠ DANGER

- **This machine can kill you if the safety precautions in this manual and on the labels attached to this machine are not followed. Read and understand this manual and the safety labels on the machine thoroughly before using or servicing this machine. Always follow the instructions and safety precautions, or serious injury or death could result.**

- **Do not modify this machine. Do not operate this machine with its safety covers removed or open, or with its safety devices and features disabled. Serious injury or death could result.**

⚠ WARNING

- **This product should only be used for its intended purpose: hauling and dumping. Any other use could be dangerous.**

- **This product may not be operated on public road or what is considered to be public road. It is the sole responsibility of the operator to consult the local regulations.**

Notice to Owner or Renter

NOTICE

- **Be sure that everyone who uses this product, including those who rent or lease this product, receives a copy of this Operator's Manual and understands the importance of reading and following the information in this manual.**

Warranty and After-Sales Service

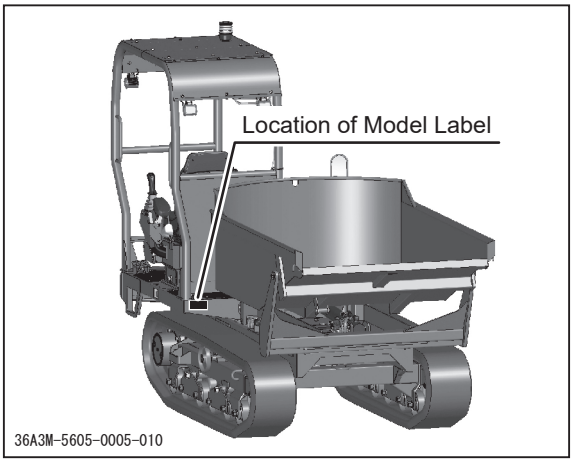
Warranty

CHIKUSUI CANYCOM, INC. guarantees this product, based on the terms of warranty.

After-Sales Service

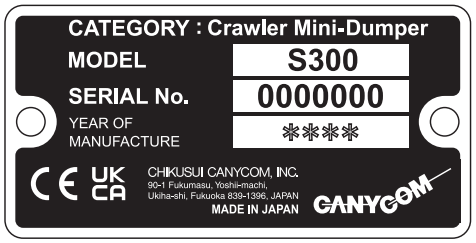
Consult your local CANYCOM dealer or our company's sales department regarding service orders or any questions or problems that may arise when using this Product Prodncte. Please make sure to have the product name, serial number, and the make and type of the engine handy at the time of contact. The model and serial number can be found on the model label as shown below, and the make and type of the engine can be found in Chapter3 "Specifications" of this manual (Page21~24).

Location of Model Label

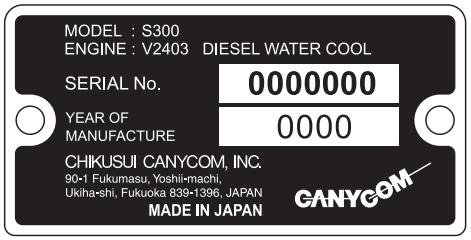


Model Label

EU Models



Other Overseas Models



36A3M-0005-022E

Availability of Spare Parts

The replacement or repair parts for this Product shall remain available for nine years after the production of this type of Prodnct is discontinued.

Contents

Noise and Vibration Levels

• Noise and vibration levels are stated in the end of this manual.

Appendix

• Operator's Manual for the Engine

• Be sure to read and understand it together with this manual.

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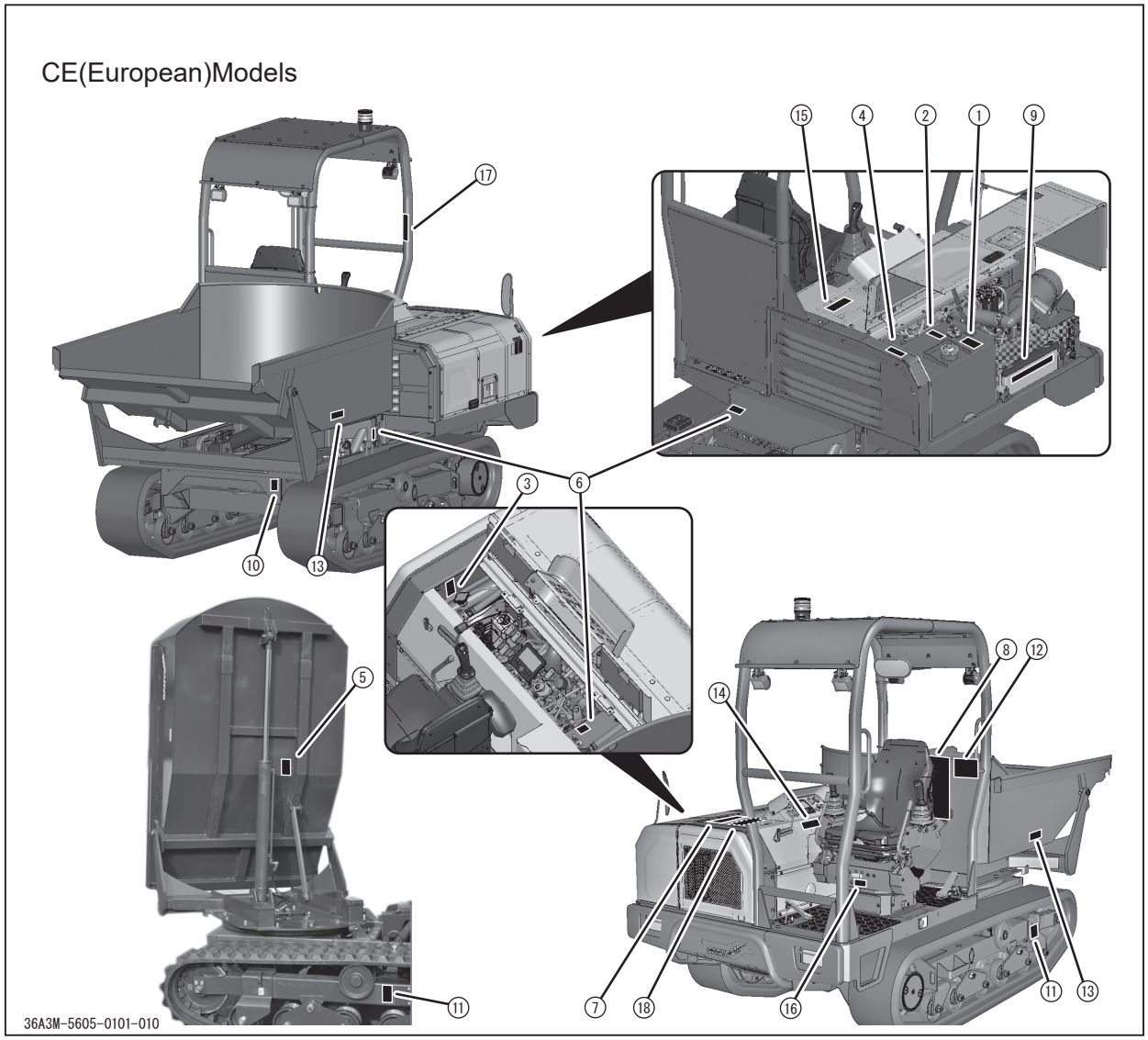
Safety Labels

The safety labels shown in the next pages are attached to the machine. See the illustration in the following pages for the location and the content of each label on the machine.

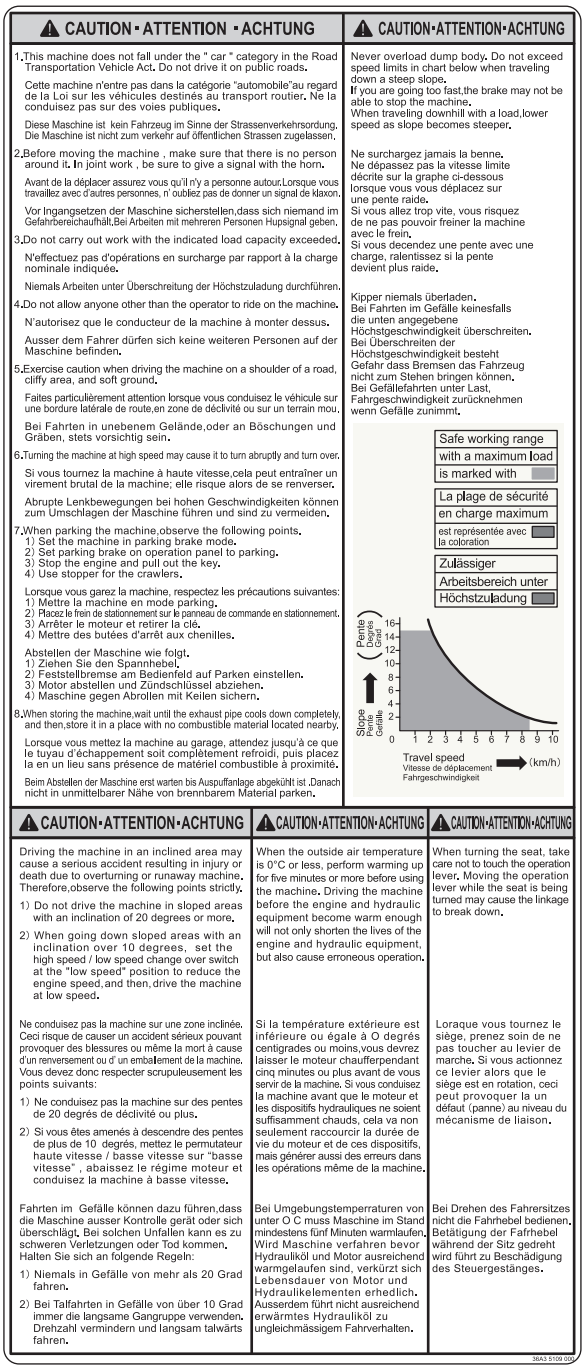
- **Locate all the warning labels attached to this machine. Read and follow the instructions and precautions in them. Failure to do so could result in serious injury or death to the operator or bystanders.**
- **Keep the labels clean and legible. Do not use solvents or gasoline to clean the labels.**
- **Replace these labels immediately if they have been removed, have fallen off or become illegible. Use the part number, on the label or shown in this manual, to order a replacement label from your CANYCOM representative.**

CE (European) Models



CE (European) Models

①5229 5124 000 ②3667 5068 000 ③3667 5065 000 ⑧36A3 5109 000



④5229 5119 000 ⑤3667 5066 000 ⑥3667 5063 000

⑦5229 5104 000

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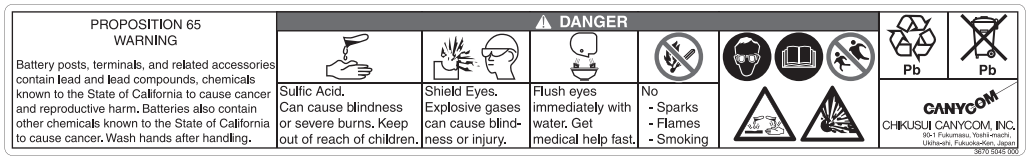
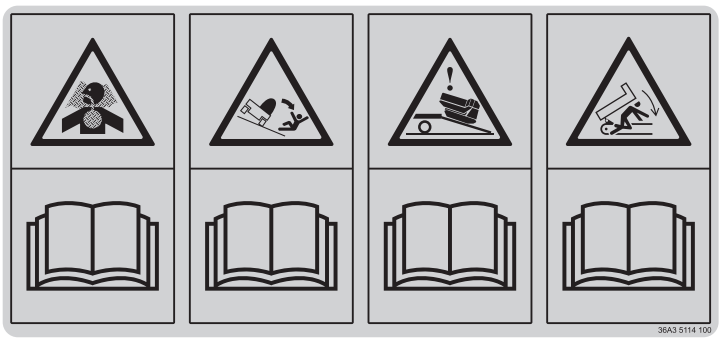
CE (European) Models

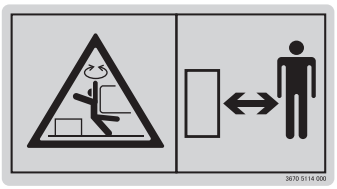
⑨3670 5045 000



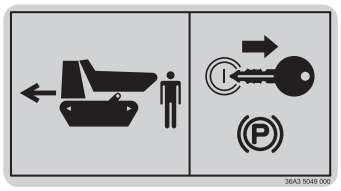
⑩3667 5064 000 ⑪5229 5116 000 ⑫36A3 5114 100



⑬3670 5114 000



⑭36A3 5049 000



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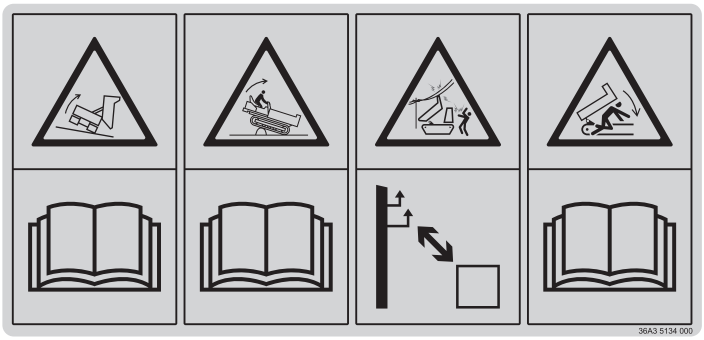
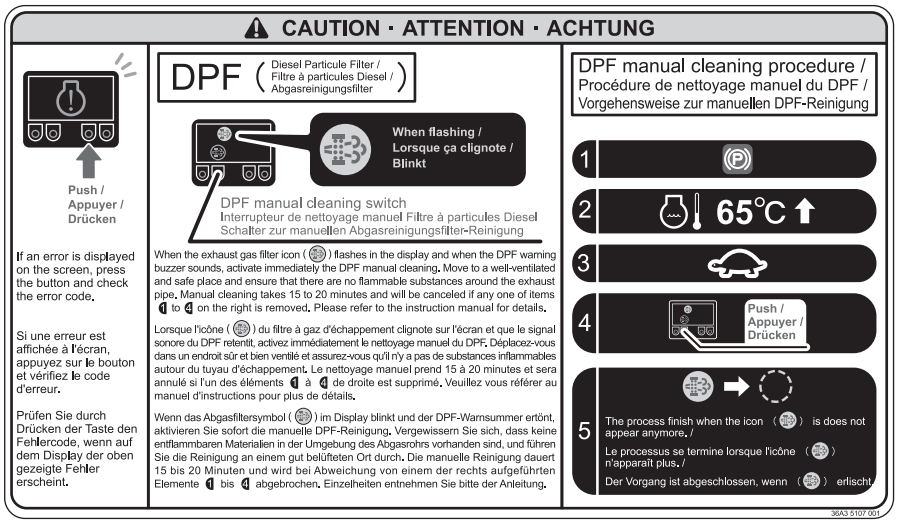
CE (European) Models

⑮36A3 5134 000



⑯36A3 5048 000

⑱36A3 5107 001



⑰36A3 5113 000

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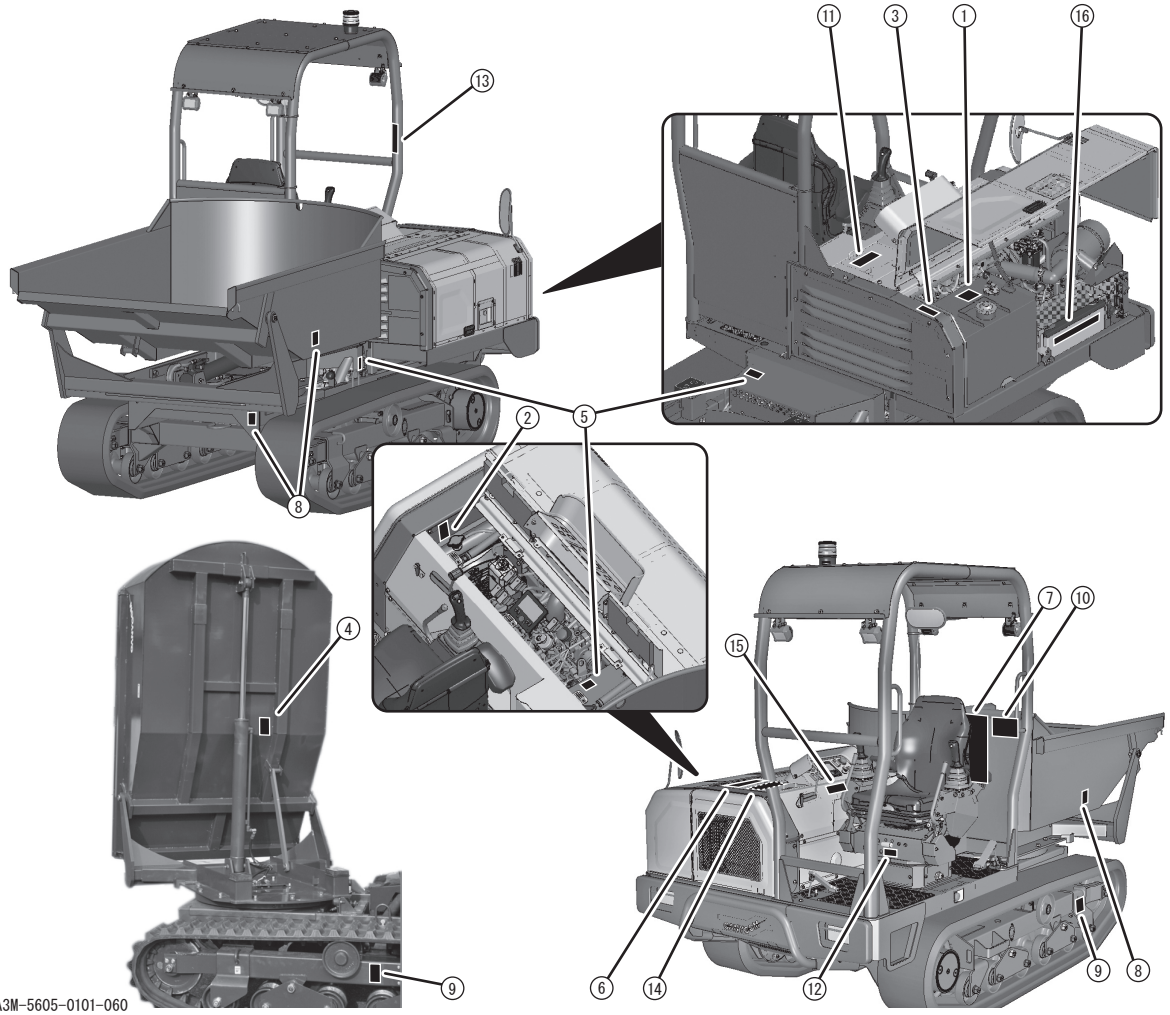
US Models

US Models



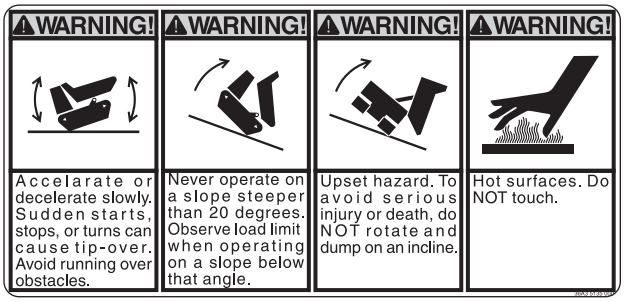
US Models

①36A3 5137 000

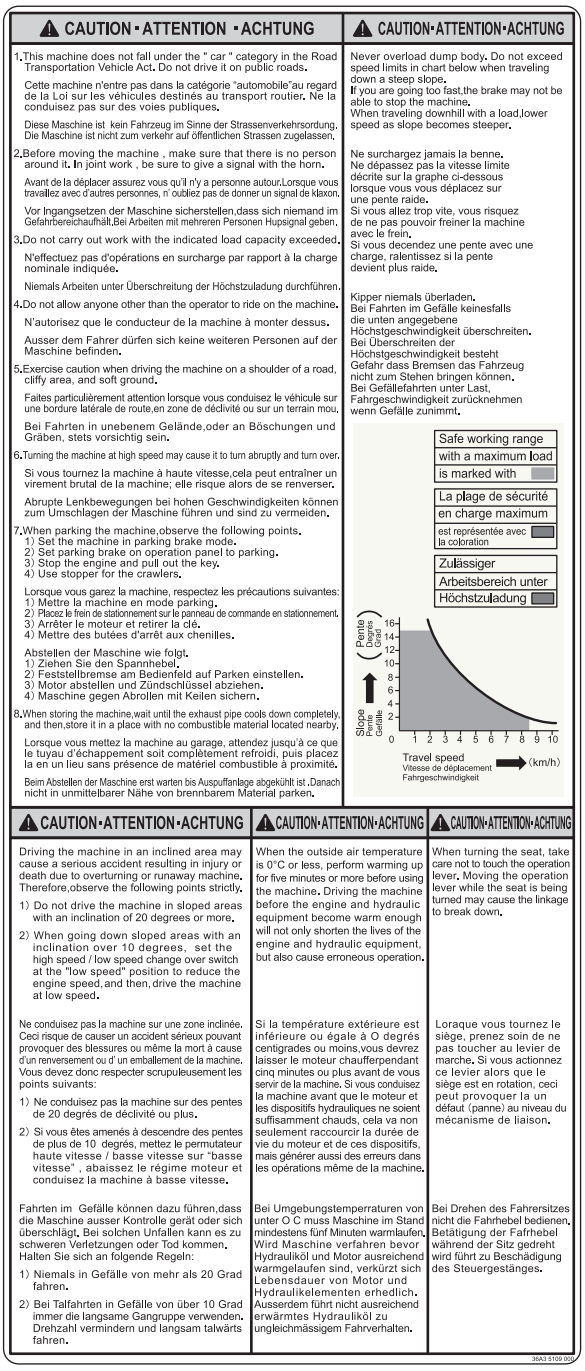
②3677 5045 001

③3670 5136 001 ④3677 5046 001 ⑤3677 5043 001

⑥36A3 5135 000



⑦36A3 5109 000



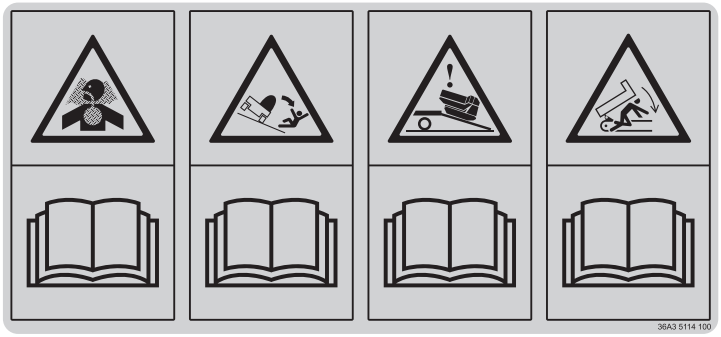
36A3M-5601-0101-070

US Models

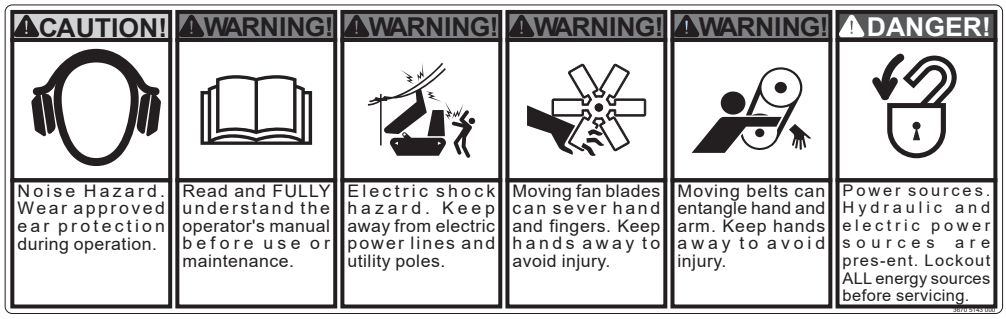
⑧3677 5044 001

⑨3670 5135 001

⑩36A3 5114 100



⑪3670 5143 000



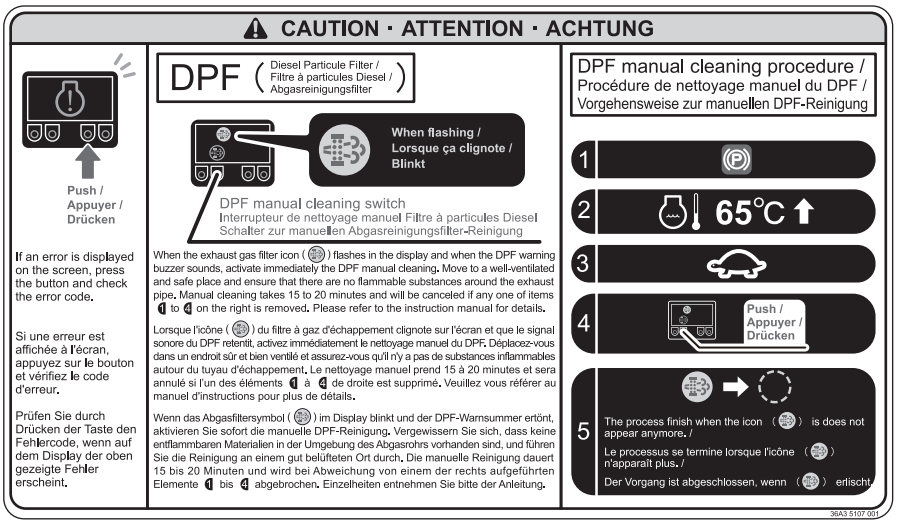
36A3M-5605-0101-080

US Models

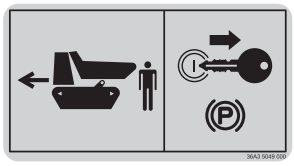
⑫36A3 5048 000

⑬36A3 5113 000

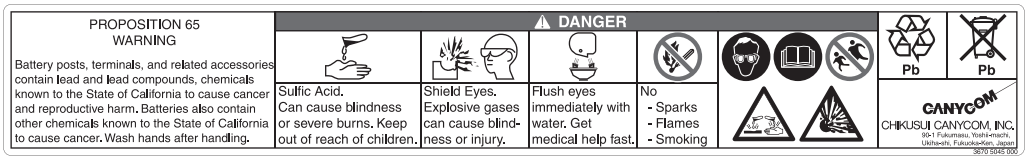
⑭36A3 5107 001



⑮36A3 5049 000



⑯3670 5045 000



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Safety Precautions

This section contains safety precautions to follow when operating and maintaining the machine. Read and understand the precautions in this section as well as throughout this manual and follow them when operating or maintaining the machine. Failure to follow safety precautions could result in property damage, serious injury or death to the operator or bystanders.

Training

All operators and mechanics should receive practical instructions from their employer or renter. Such instructions should cover the following issues:

- **It is essential to familiarize yourself with the controls, safety labels and the proper use of the machine.**

- **Never allow people unfamiliar with these instructions to operate or service the machine. Do not let anyone under 18 years of age to operate this machine. Local regulations may restrict the minimum age for operating the machine. Consult your local authority.**

- **The operator is responsible for the accidents or hazards caused to other people or their property.**

- **This machine has a riding capacity for one person only. Do not carry passengers other than the operator.**

- **Always keep in mind that care and concentration is required when working with ride-on machines.**

- **Loss of control on a slope cannot be regained by the application of the brake. The main reasons for loss of control are:**

→ insufficient grip of tracks.
→ excessive speed.
→ misjudging of the ground conditions, especially slopes.
→ excessive load.
→ incorrect distribution of load.

Preparation

⚠WARNING

- **Fuel is highly flammable. See Checking and Filling Fuel, page 26, for important safety information on handling fuel.**

- **Always wear protective footwear, long trousers, hardhat, safety glasses and ear protection when operating or servicing the machine. Proper clothing will minimize the chance of injury. Do not operate the equipment if you have long hair, loose clothing, or jewelry; all of which may get tangled in the moving parts. Do not operate the machine barefoot or with open sandals.**

- **Prepare beforehand the working rules and procedures such as signaling and trafic control for the work place. Following such rules will reduce the risk of accidents.**

- **Never handle fuel or grease, service the engine, or recharge the battery in the presence of fire or spark.**

- **Perform the daily pre-startup inspection (see Preparation, pages 26) before starting the machine. Repair or replace damaged parts before starting the machine.**

Operation

This machine is intended for carrying sand and dirt. Carrying other materials may damage the machine. Avoid carrying liquid concrete. That will damage the machine.

The stability of the machine is affected by the speed, rate of steering, terrain and the load. Always pay close attention to these factors or a loss of control or tip over could occur, resulting in property damage, serious injury or death.

General Driving

- **Do not operate the engine in a confined space where dangerous carbon monoxide fumes can accumulate.**

- **Do not touch the engine, muffler or exhaust pipe while the engine is running or soon after it has stopped. These areas will be very hot and can cause burns.**

- **Do not operate the machine under the influence of alcohol or drugs. Do not operate the machine when you are tired, ill, or not feeling well.**

- **Always check for obstacles before operating on new terrain.**

- **Before starting the engine and moving the machine, scan around your surroundings and make sure all persons and other vehicles are a safe distance away from the machine. Sound the horn to warn bystanders.**

- **On the machine equipped with the ROPS, always wear the seat belt when in use.**

- **Always stay seated in the operator's seat when driving the machine. Never operate the travel lever off of the machine.**

- **On a slippery surface, travel slowly and exercise caution to reduce the chance of skidding or sliding out of control. Never operate on ice.**

- **Always make certain that there is no obstacle or a person behind the machine when backing up. After confirming that it is safe to back up, move slowly and avoid sharp turns.**

- **To reduce the risk of tip over, pay special attention when encountering an obstacle or a slope, or when braking on a slope or during a turn. See Driving on a Slope on the next page.**

- **Never attempt to drive over a large obstacle such as rock or fallen tree.**

- **Always travel slowly and use extra caution when operating on unfamiliar terrain. Be alert when traveling on changing terrain.**

- **Never operate on terrain that you are not comfortable with. Avoid terrain that is so rough, slippery or loose that you feel like you could tip over.**

- **Do not operate the machine near the edge of a cliff, an overhang or a slide area.**

- **Do not make sudden maneuvers. A sudden start, stop, or turn can make the machine lose control and could cause a tip over. Be especially cautious when traveling on soft or wet ground.**

- **Drive at a safe speed, taking into account the surface gradient, surface conditions and load.**

- **Use an observer to help direct the machine when the visibility is poor, terrain is rugged or hilly, or maneuvering room is limited. The observer should be able to see the machine and its immediate surroundings, and should give pre-arranged signals to direct the operator.**

- **Do not use this machine in puddle or mud deeper than its ground clearance. Water or mud can enter the exhaust pipe or electrical components and damage the machine.**

- **Wash the machine after use in wet or muddy condition and grease up the grease points.**

Driving on a Slope

⚠WARNING

- **Never use on a slope steeper than 20 degrees.**

- **Driving on a slope can be dangerous. It can result in a tip over and cause serious injury or death. Take the following precautions.**

- **Always follow proper procedures for driving on a slope as described in this manual.**

- **Driving on a slope in a wrong manner can cause a loss of control or a vehicle tip over. Check the terrain carefully before attempting to drive on a slope.**

- **Never drive on a slope that you are not comfortable with. Avoid a slope that is so rough, slippery, or loose that you feel like you could tip over.**

- **When driving up a slope, proceed at a steady rate of speed and accelerator position.**

- **Never move the accelerator lever or the travel lever suddenly.**

- If the engine stalls or loses traction during a climb and cannot make it to the top of the slope, do not try to turn the machine around. Carefully back down slowly, straight down the slope.

- Drive straight up or down slopes. Avoid turning on a slope.

- When going over the top of a slope, go slow; an obstacle, a sharp drop, or another vehicle or person could be on the other side of the crest.

- Avoid driving the machine across a slope.

- Without a load, drive the machine backwards up a slope (operator's seat toward the top) when climbing, and drive it forward when going down a slope.

- With a load, drive the machine forward up a slope (operator's seat away from the top) when climbing, and drive it backwards when going down a slope. Be especially cautious when operating on a slope with a load.

- When driving down a slope, use the travel lever so that the machine travels down at the minimum speed. Use the engine speed to help keep the machine speed low.

Loading and Driving with a Load

- The maximum payload for this machine is 29.4 kN (3000 kg,6614 lbs). Do not exceed this maximum payload under any circumstance.

- Do not operate on a slope steeper than 20 degrees when carrying a load. Do not carry more than 1500 kg (3307 lbs)when operating on a slope between 15 and 20 degrees.

- Load cargo in the bucket so the weight is evenly distributed. When carrying a cargo, strap the cargo to the bucket to prevent the cargo from shifting. Ensure that cargo does not obstruct the operator's field of view.

- When carrying a load, drive at a reduced speed. Allow a greater distance for braking.

- Before crossing a bridge or an overpass, make certain that the total combined weight of the machine, the load and the driver is within the stated weight limit for the bridge or the overpass. Then, proceed carefully and at a constant speed.

Dumping/Turning

When swiveling the bucket and dumping material from the bucket, take the following precautions.

- **Always follow the proper procedures for dumping or swiveling as described in this manual.**

- **Only operate the bucket with the engine running.**

- **Always stay seated in the operator's seat when dumping or swiveling the bucket. Never operate the operation lever off of the machine.**

- **Perform the dump operation on a flat, level and stable surface whenever possible. Raising or lowering the bucket on a slope or rough terrain could result in a tip over.**

- **Pay special care when dumping with the bucket swiveled to a side. Be tentative when raising the bucket which is swiveled to a side.**

- **Make certain that all persons are at a safe distance away from the machine when raising, lowering, or swiveling the bucket.**

- **Do not move the machine or leave it unattended with the bucket in the raised position.**

- **Engage the bucket safety prop if you must place any part of your body under the bucket in the raised position.**

Parking

- **Park the machine on a flat, level and stable surface. Never park on a slope steeper than 15 degrees. Avoid parking on a slope less than 15 degrees. If parking on a slope less than 15 degrees is unavoidable, swivel the bucket straight, apply the parking brake and block the tracks at the lower end of the machine.**

→ Without a load, park the machine with the operator's seat facing downhill
→ With a load, park the machine with the operator's seat facing uphill
→ Do not park sideways on a slope.

- **Observe all the previous precautions for driving, driving on a slope, loading and driving with a load, and dumping.**

- Whenever you park the machine, apply the parking brake and stop the engine. Remove the key whenever you leave the machine unattended to prevent unauthorized use or accidental starting.

- Diesel fuel is flammable and can be explosive. When parking the machine indoors, make certain that the building is well ventilated and that the machine is not close to any source of flame or spark, including appliances with pilot lights.

Servicing

- Do not service the machine when the engine is running. If it is absolutely necessary to run the engine while servicing, pay attention to the moving parts; keep hands, feet, clothing and any part of the body away from any moving part, especially the cooling fan and the belts at the side of the engine.

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can accumulate.

- Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition and leak-free before applying hydraulic pressure to the system.

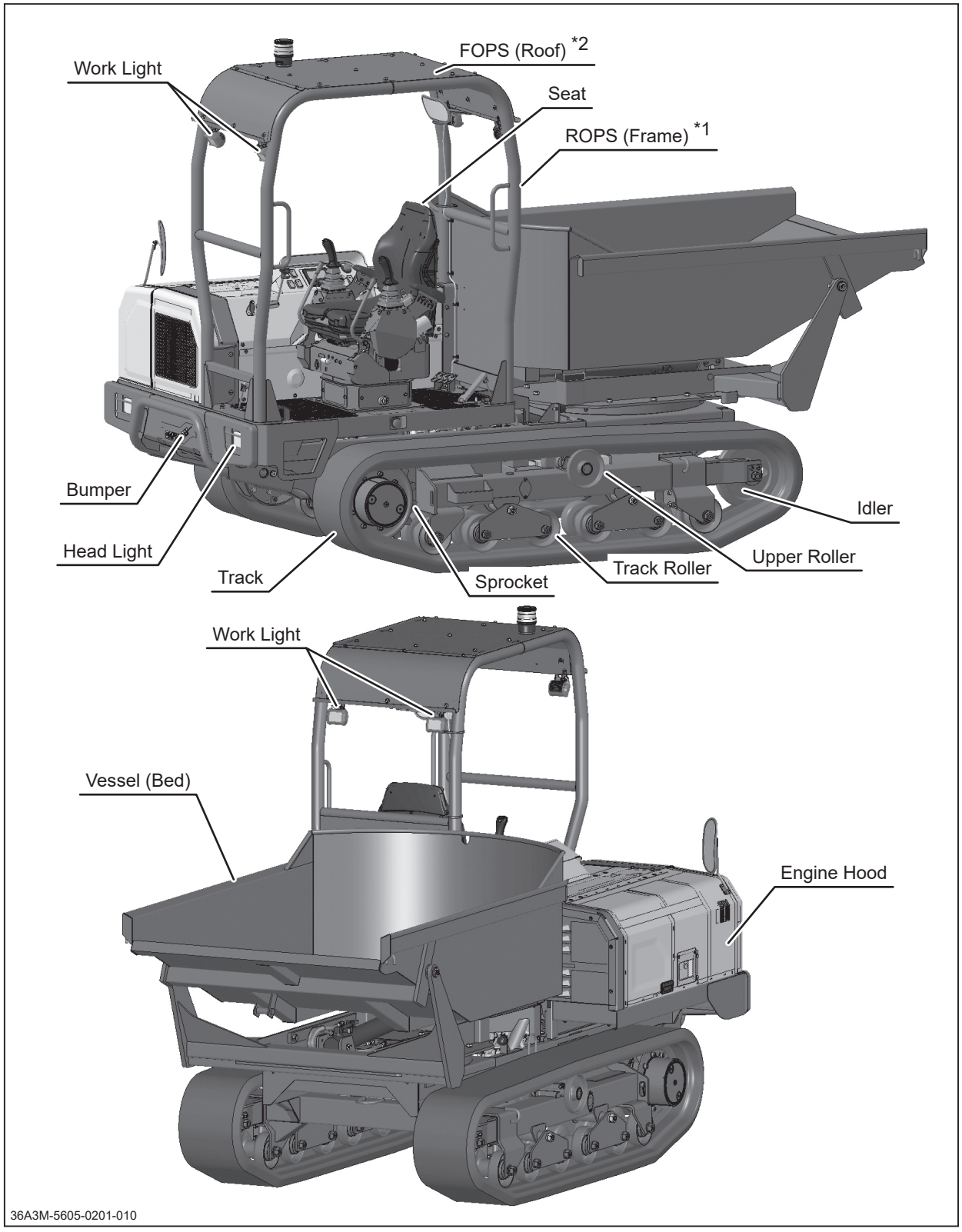
- Keep your body and hands away from pinhole leaks or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, not your hands, to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin and cause serious injury.

- Check all fuel lines on a regular basis for tightness and wear. Tighten or repair them as needed.

- Do not touch the engine, muffler, DPF, or exhaust pipe while the engine is running or soon after it has stopped. These areas will be very hot and can cause burns.

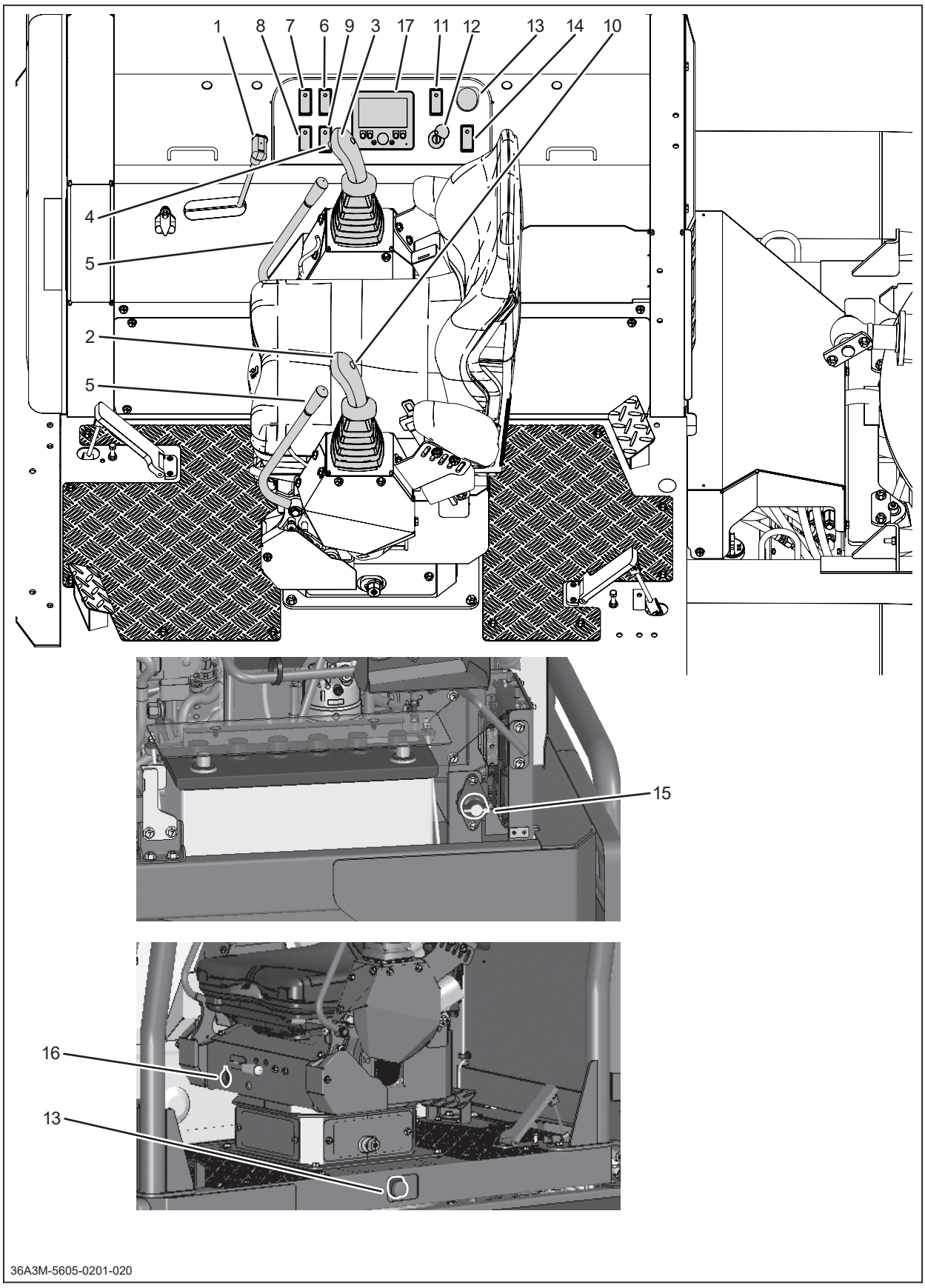
- The engine must be shut off before checking or adding oil.

Name and Function of Controls



*1 ROPS (Roll Over Protection Structure) protects the operator in case of rollover.

*2 FOPS (Falling Object Protection Structure) protects the operator from small objects falling from above.



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2 Controls and Components

1. **Accelerator Lever** . . . . . This increases or decreases the engine speed.

2. **Travel Lever** . . . . . This is used when changing the direction of travel (FORWARD or REVERSE) or when turning the machine.

3. **Operation Lever** . . . . . This controls the vessel or implement connected to the PTO.

4. **Safety Switch** . . . . . This enables the operation lever. Press this button to enable the lever function. Until this is activated, the operation lever is disabled as safety measure.

5. **Lock Lever** . . . . . Pulling the lock lever up disables the travel lever. This helps the operator to embark to or disembark from the machine.

6. **H/L Speed Selecter Switch** This is used to switch the travel speed between [HI] and [LO].

7. **Parking Brake Switch** . . . . This is used when parking the machine. (When the parking brake switch is at the Ⓟ position, the machine does not move even when the travel lever is operated.)

8. **Light Switch** . . . . . Pressing this button turns the head lights on.

9. **Eco Mode Switch** . . . . . Pressing this switch reduces the engine output to 80% of maximum. Pressing the parking brake switch or pulling the lock lever while eco mode switch is on reduces the engine speed to low lidling.

10. **Horn Switch** . . . . . Pressing this switch sounds the horn.

11. **Dump/PTO Selector Switch**. This switch selects the function of the fore-and-aft action of the operation lever. (This function is not used on this version.)

12. **Main Switch** . . . . . This is used to start or stop the engine.

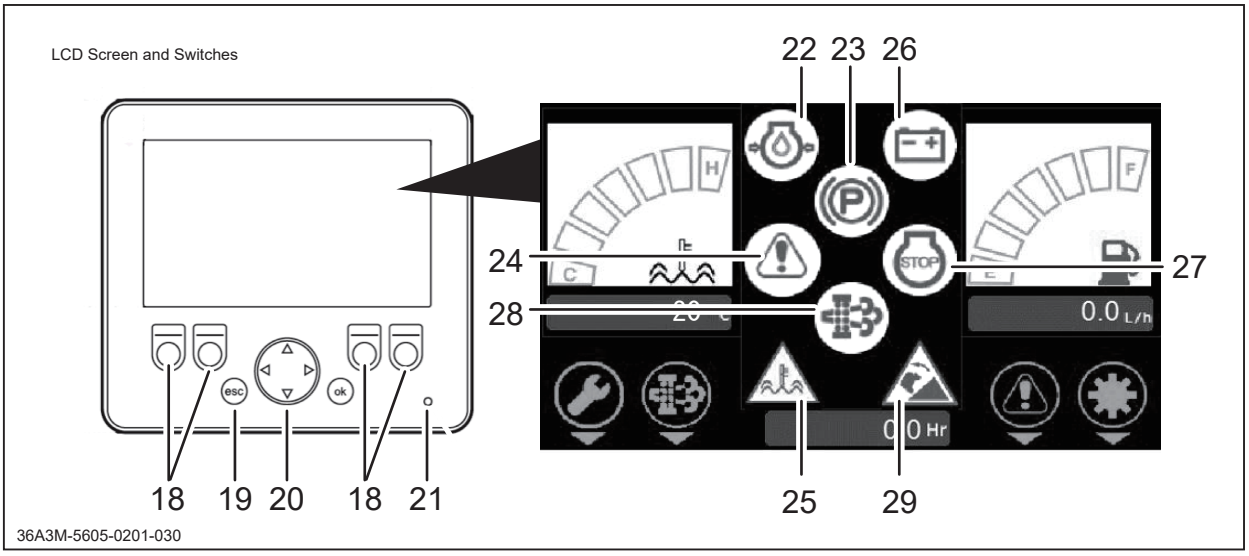
13. **Emergency Switch** . . . . . Pressing this switch kills the engine in case of emergency.

14. **Work Light Switch** . . . . . Turns on the work light.
(Work Lamp)

15. **Battery Cut Off Switch** . . . . This switch cuts off the battery's negative terminal for service or long-term storage.

16. **Accessory Socket (12V)** . . This is used to provide electricity. (12V, 10A maximum.)

17. **LCD** . . . . . Liquid Crystal Display (LCD) shows fuel level, accumlative hours used, and coolant temperature.



18. **Multifunction Switches** . . . These switches serve different purposes, depending on the screen shown on the display. Refer to Pages 40~46.

19. **ESC Button** . . . . . Pressing this button calls up the previous screen.

20. **Cursor Switch** . . . . . .This switch is used to flip through pages or to move the cursor.

21. **Warning LED** . . . . . Red LED turns on when the LCD malfunctions.

22. **Oil Pressure Warning**. . . . . This warns low engine oil pressure. It turns on when the main switch is on and the engine is not running. Once the engine starts, it goes off. If it stays on while the engine is running, oil pressure is low; stop the engine immediately.

23. **Parking Brake Indicator**. . . This turns on when the parking brake is engaged.

24. **Error Warning** . . . . . When this lights up, it indicates either the ECU or the engine itself has an error.

25. **Overheat Warning** . . . . . This lights up when the engine coolant gets 120 degrees Celsius.

26. **Charge Warning** . . . . . This shows if the battery is being charged. It turns on when the main switch is turned on, and under normal condition, it goes off once the engine starts.

27. **Engine Stop Warning**. . . . . This turns on when the engine is stopped by the emergency switch or the tilt sensor.

28. **DPF Service Indicator** . . . . This indicates if the DPF (Diesel Particulate Filter) needs to be manually regenerated. It is off when the DPF does not need to be regenerated or is already regenerated. When it flashes, the DPF needs to be regenerated manually. When it lights up, the DPF is being regenerated.

29. **Roll-over Warning** . . . . . This lights up when the machine rolls more than 27.5 degrees.

Product Specifications

NOTICE

· **Understand the specifications of this machine thoroughly before use.**

CE (European) Models

Model and Type				S300 (Joystick) Swivel Dump (Scoop Bucket)
Machine Mass			kg	2780
Maximum Payload			kN(kgf)	29.4 (3000)
Dimensions	Overall Length		mm	3675
	Overall Width		mm	1620
	Overall Height		mm	2370
	Tumbler Length		mm	1960
	Track Tread		mm	1230
	Minimum Ground Clearance		mm	285
	Floor Height		mm	910
Loading Deck	Inside Dimensions	Length	mm	2155
		Width	mm	1300
		Height	mm	520
	Payload	Struck	m3	1.13
		Heaped	m3	1.50
Engine	Model			Kubota V2403
	Type			4-cycle, Water-cooled Diesel, in-line 4 cylinder
	Cylinder (Bore×Stroke)		mm	87 X 102.4
	Total Displacement		cm3	2434
	Rated Output		kw(PS)/rpm	34.9 (47.5) / 2700 *net
	Maximum Torque		N•m(kgf•m) / rpm	155.0 (15.8) / 1600 *net
	Set Engine Speed		rpm	2400
	Fuel used			Diesel Fuel
	Fuel Consumption		g/kW•h(g/PS•h)	249 (183)
	Fuel Tank Capacity		L	60
	Lubricating Oil Capacity		L	9.5
	Cooling Water Capacity		L	8.5
	Battery Type			130E41R
	Battery Capacity		V/AH	12/92

Model and Type				S300 (Joystick)
				Swivel Dump (Scoop Bucket)
Performance and Operating Range	Travel Speed	Gearshifting		HST（2 Speed Modes）
		High Speed	km/h	0 to 11
		Low Speed	km/h	0 to 6
	Minimum Turning Radius		m	approx. 2.3
	Gradability		Degrees	25 (unloaded)
HST Oil Capacity			L	48
Drive Train	Main Transmission			HST (2-Speed Motor)
	Steering System			2-Pump/2-Motor System / Single Lever
	Brakes			Negative Brake (Hydraulic)
	Track Width		mm	320
Dumping System	Dump System			Hydraulic Dump
	Load Deck Type			Swivel Dump
	Hydraulic Pump	Type		Gear Pump
		Capacity	cc/rev	14.3
	Relief Pressure		MPa(kgf/cm2)	11.8 (120)
	Cylinder(Bore X Stroke)		mm	80 X 780
	Performance	Max. Angle	Degrees	85
		Lifting Time	Sec	approx. 7.5
		Lowering Time	Sec	approx. 5.5
	Hydraulic Fluid Capacity		L	48 (Shared with HST System)
Swivel System	Swivel System			Hydraulic (Twin cylinder)
	Swiveling Angle		°	90(Right) - 90(Left)
	Swiveling Time		Sec	approx. 5 (90°)
	Cylinder(Bore X Stroke)		mm	60×250
Operating Temperature			°C	between -15°C and +40°C *1
Operating Elevation			m	below 1500 *2

*1 In case the machine is to be used below this temperature range (below-15°C), take anti-freezing measures to the machine.

*2 Engine performance is reduced when used above 1500m of elevation.

These specifications are subject to change without notice.

US Models

Model and Type				S300 (Joystick)
				Swivel Dump (Scoop Bucket)
Machine Mass			kg (lbs)	2780 (6130)
Maximum Payload			kN (lbs)	29.4 (6614)
Dimensions	Overall Length		mm (in)	3675 (144.7)
	Overall Width		mm (in)	1620 (63.8)
	Overall Height		mm (in)	2370 (93.3)
	Tumbler Length		mm (in)	1960 (77.2)
	Track Tread		mm (in)	1230 (48.4)
	Minimum Ground Clearance		mm (in)	285 (11.2)
	Floor Height		mm (in)	910 (35.8)
Loading Deck	Inside Dimensions	Length	mm (in)	2155 (84.8)
		Width	mm (in)	1300 (51.2)
		Height	mm (in)	520 (20.5)
	Payload	Struck	m^3 (cu ft)	1.13 (39.9)
		Heaped	m^3 (cu ft)	1.50 (53.0)
Engine	Model			Kubota V2403
	Type			4-cycle, Water-cooled Diesel, in-line 4 cylinder
	Cylinder (Bore×Stroke)		mm (in)	87 X 102.4 (3.43 X 4.03)
	Total Displacement		cm^3 (cu in)	2434 (148.5)
	Rated Output		kw (HP) / rpm	34.9 (46.8) / 2700 *net
	Maximum Torque		N•m (lbf•ft) / rpm	155.0 (114.3) / 1600 *net
	Set Engine Speed		rpm	2400
	Fuel used			Diesel Fuel
	Fuel Consumption		g/kW•h (oz/PS•h)	249 (6.46)
	Fuel Tank Capacity		L (US gal)	60 (15.9)
	Lubricating Oil Capacity		L (US gal)	9.5 (2.5)
	Cooling Water Capacity		L (US gal)	8.5 (2.2)
	Battery Type			130E41R
	Battery Capacity		V/AH	12/92

Model and Type				S300 (Joystick)
				Swivel Dump (Scoop Bucket)
Performance and Operating Range	Travel Speed	Gearshifting		HST (2 speed modes)
		High Speed	km/h (mph)	0 to 11 (0 to 6.8)
		Low Speed	km/h (mph)	0 to 6 (0 to 3.7)
	Minimum Turning Radius		m (ft)	approx. 2.3 (7.55)
	Gradability		Degrees	25 (unloaded)
HST Oil Capacity			L (US gal)	48 (12.7)
Drive Train	Main Transmission			HST (2-Speed Motor)
	Steering System			2-Pump/2-Motor System / Single Lever
	Brakes			Negative Brake (Hydraulic)
	Track Width		mm (in)	320 (12.6)
Dumping System	Dump System			Hydraulic Dump
	Load Deck Type			Swivel Dump
	Hydraulic Pump	Type		Gear Pump
		Capacity	cc/rev	14.3
	Relief Pressure		MPa(psi)	11.8 (1711)
	Cylinder(Bore X Stroke)		mm (in)	80 X 780 (3.15 X 30.71)
	Performance	Max. Angle	Degrees	85
		Lifting Time	Sec	approx. 7.5
		Lowering Time	Sec	approx. 5.5
	Hydraulic Fluid Capacity		L (US gal)	48 (12.7) (Shared with HST System)
Swivel System	Swivel System			Hydraulic (Twin cylinder)
	Swiveling Angle		Degrees	90(Right) - 90 (Left)
	Swiveling Time		Sec	approx. 5 (90°)
	Cylinder(Bore X Stroke)		mm (in)	60 X 250 (2.36 X 9.84)
Operating Temperature			°C (°F)	between -15 (5) and +40 (104) *1
Operating Elevation			m (yd)	below 1500 (1640) *2

*1 In case the machine is to be used below this temperature range (below-15°C (5°F)), take anti-freezing measures to the machine.

*2 Engine performance is reduced when used above 1500 m (1640 yd) of elevation.

These specifications are subject to change without notice.

Contents of Tool Bag

CE (European) Models

Check	No.	Content	Quantity	Note
☐	1	Operator's Manual	1	This Manual
☐	2	Engine Manual	1	
☐	3	Wrench	1	
☐	4	CE Declaration of Conformity	1	

US Models

Check	No.	Content	Quantity	Note
☐	1	Operator's Manual	1	This Manual
☐	2	Engine Manual	1	
☐	3	Wrench	1	

Preparation

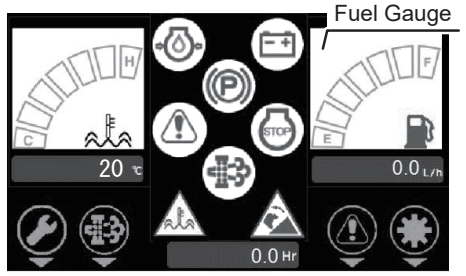
Pre-start up Inspection

Always perform an inspection before use.
Refer to **Maintenance Schedule** (page 47) for the inspection schedule and procedure.

Checking and Filling Fuel

⚠WARNING

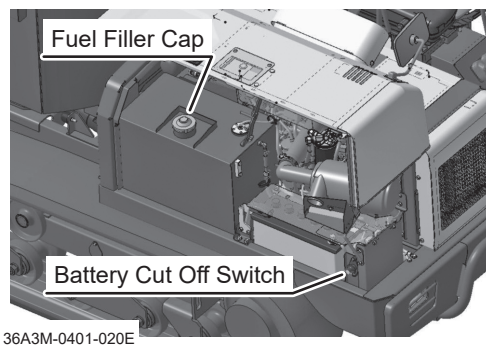
- **Keep fire and spark away when handling fuel.**
- **Always stop the engine before refueling.**
- **Do not overfill fuel above the limit (the bottom of the fuel filler filter) so that fuel will not overflow. In case fuel is spilt, wipe out immediately.**



36A3M-0401-011E

Checking Fuel

1. Make sure the battery cut off switch is in the [| (ON)] postim.
2. Insert the key into the main switch, turn it to the [| (ON)] position, and wait for a few seconds.
3. Check the fuel gauge in the LCD. If the fuel level is low, fill fuel.
4. Turn the main switch to [◯ (OFF)] position and remove the key.



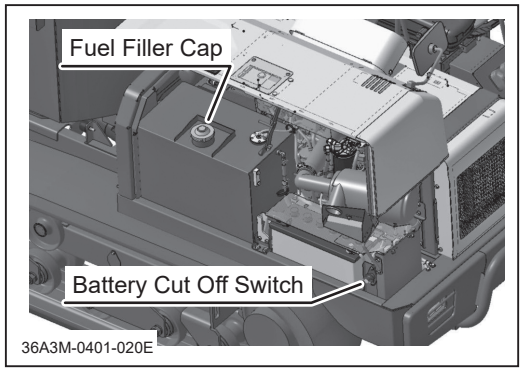
36A3M-0401-020E

Filling Fuel

1. Open the engine hood and open the fuel filler cap.
2. Insert the key in the main switch and turn it to the [| (ON)] position.
3. Fill fuel. Check the fuel gauge when filling.

NOTE

- **Fuel : Diesel Fuel.**
- **Fuel Tank Capacity : 60 L (15.9 US gal)**

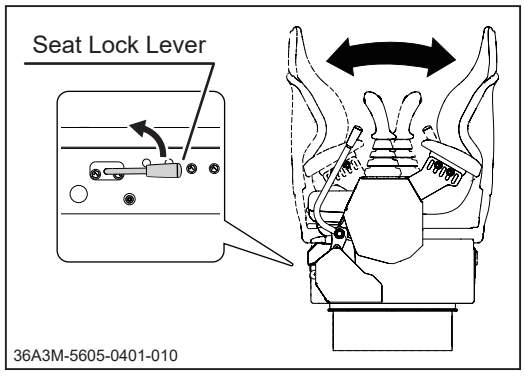


5. Turn the main switch to the [◯ (OFF)] position and remove the key.
6. Put the fuel filler cap back and tighten it securely.
7. Close the engine hood.

Adjusting Seat

⚠WARNING

• When adjusting the seat, make certain the seat is securely locked.

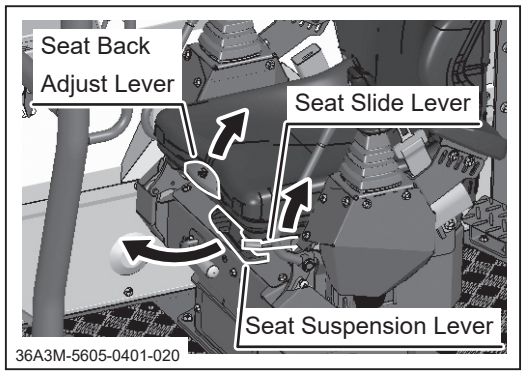


Turning seat

1. Pull up the seat lock lever to turn the seat.

NOTE

• The seat can only be turned when the seat lock levers on the BOTH SIDES are raised.
• When the seat is turned, the direction that the seat is facing is FORWARD for the operation of the travel lever that controls the machine travel.



Adjusting seat

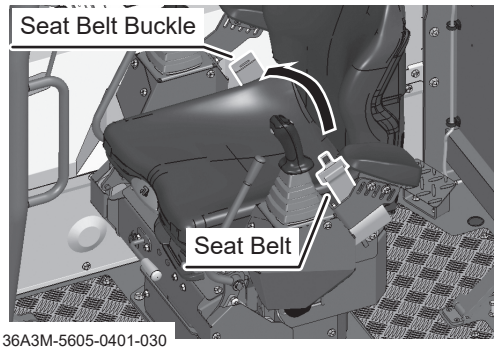
1. Pull the seat slide lever to slide the seat to a desired position.
2. Pull the seat back adjust lever to adjust the seat back to the desired position.
3. Pull the seat suspension lever to adjust the firmness of the seat suspension to suit the operator's weight and preference. Pull the firmness adjuster lever fully to undo it.

Using Seat Belt

⚠WARNING

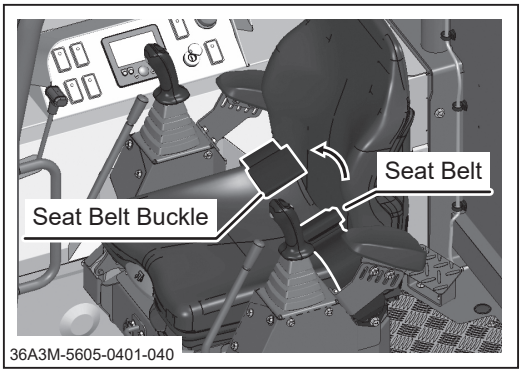
- **On the machine equipped with the ROPS, Always wear the seat belt.**

CE(European) Models



1. Thread the seat belt through the seat rail.
2. Adjust the seat belt so that it holds the pelvis snuggly.

US Models



Driving

Starting

⚠WARNING

- **Always start and run the engine in a well ventilated place.**
- **Always make certain of the safety of your surroundings when starting the engine.**
- **Always stay on the seat when starting the engine. Never attempt to start the engine away from the machine. Run over accident can result.**
- **An engine that has been running is very hot. Avoid touching the engine and its ancillaries, or severe burns may result.**
- **Do not open the engine hood while the engine is running.**

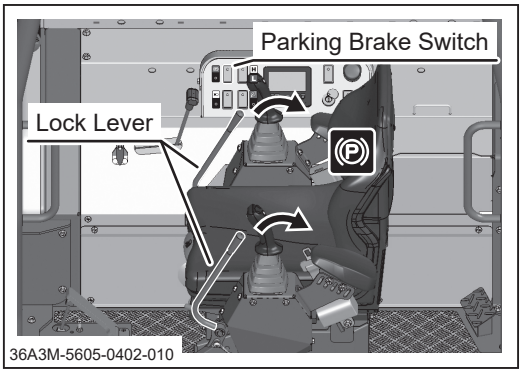
NOTICE

- **Do not turn the starter when the engine is running. Starter motor and/or the engine may be damaged.**
- **Do not turn the starter for more than 15 seconds. If the engine does not start, turn it back to the [◯ OFF] position and wait for 30 seconds or more before attempting to start again.**
- **Do not use this machine in the temperatures above 40 ºC (104 ºF) or below -15ºC (5 ºF). This machine cannot perform adequately in these temperature ranges. Using this machine under such conditions may result in an accident or cause damage to the machine.**
- **In the winter or cold climate, warm up the engine thoroughly before driving the machine. A cold engine delivers poor performance, which can result in an accident. It also causes premature wear.**

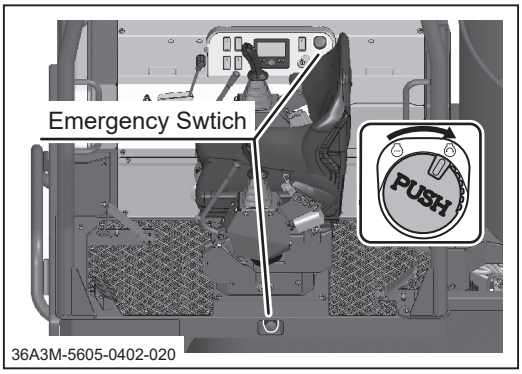
NOTICE

- **Do not use this product in dusty places such as desert. Dust may clog the air cleaner or enter the engine, which may result in loss of performance and an accident. It also causes premature wear.**

- **Do not use this machine in the altitude above 1500m in its original configuration. This machine cannot perform adequately above that altitude. Using this machine under such conditions can result in an accident or cause damage to the machine. If you need to use this machine above that altitude, contact your CANYCOM representative.**



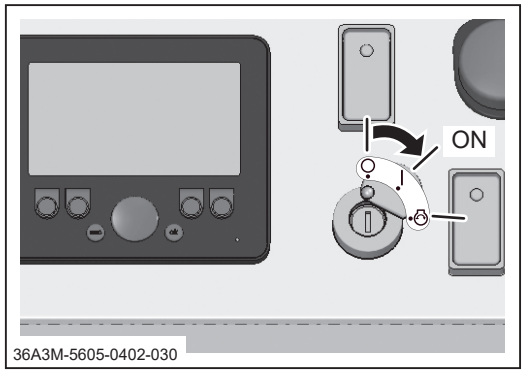
1. Make sure the parking brake switch [Ⓟ] is pressed down.
2. Make sure the lock lever is in the [Ⓟ (PARKING)] position.



3. Make sure the emergency switch on the left side of the chassis and the one on the instrument panel, next to the LCD are BOTH in the [RUN] position. If not, turn these switches to the right to the [RUN] position.

NOTE

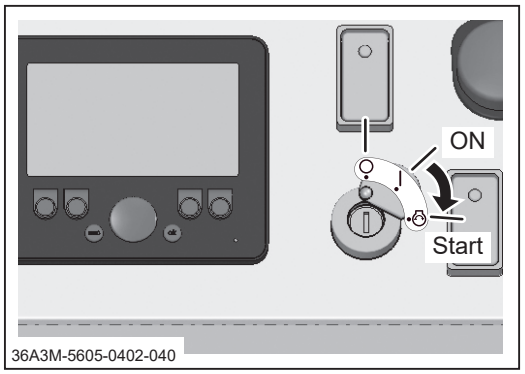
- **When the emergency switch is in the [(OFF)] position, the starter motor runs, but the engine does not start.**



4. Insert the key into the main switch and Turn it to the [| (ON)] position and wait for the LCD screen to come up.

NOTE

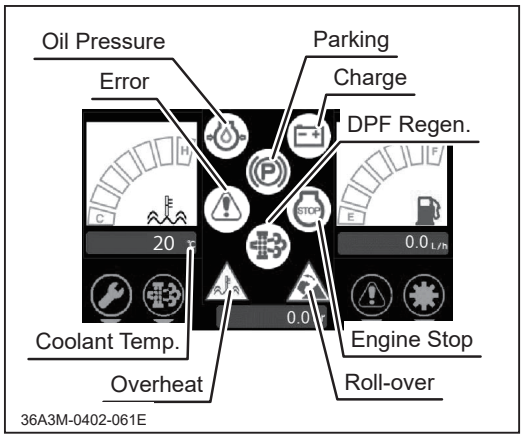
- **When the ambient temperature is 10°C (50°F) or below, automatic preheat is activated for 5 seconds.**



5. Turn the main switch to the [(START)] position to start the engine. Once the engine starts, release the key immediately; switch will automatically return to the [| (ON)] position.

NOTE

- **Avoid frequent restarting. Once the engine starts, run it for a while to charge the battery**



6. Make certain the warning lights are not lit. If any of them is lit, stop the engine immediately and refer to the **Troubleshooting** (page 86) to take an appropriate measure.
7. Allow the engine to warm up by running it for 3-5 minutes without any load. (It is not necessary when the engine is already warm.)

NOTE

- **Drive the machine gently in the first 40 to 50 hours of use after purchase for breaking-in.**

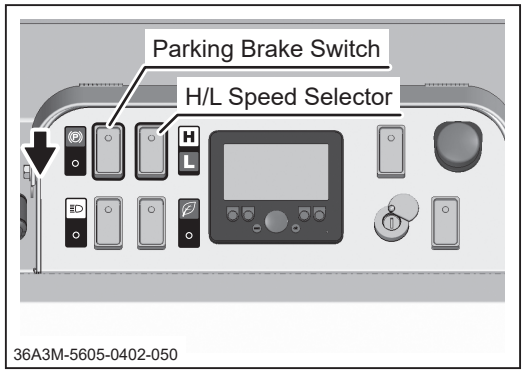
Driving

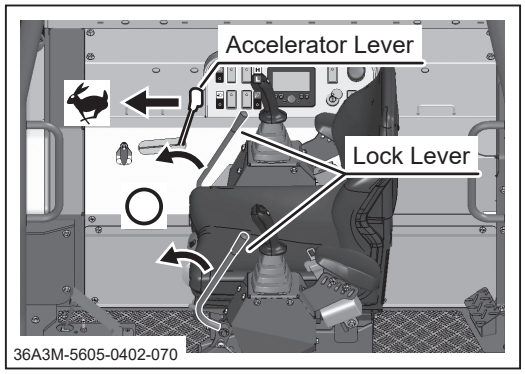
⚠WARNING

- **Do not allow bystanders to come near the machine when driving.**
- **Always stay seated in the operator's seat when driving the machine. Never operate the travel lever off of the machine. This can cause the machine to run over or crush the operator.**
- **Always wear the seat belt.**
- **Always make certain of the safety of your surroundings before driving; start slow.**
- **Always make certain of the safety of your surroundings before turning**
- **Do not make sudden starts, acceralation, change of speed, change of direction, or stop. Do not turn at speed. Avoid sudden maneuvers; this can cause the operator to fall, to be thrown, or the machine to tip over.**
- **Do not turn the key to the [○ (OFF)] position, press the parking brake switch Ⓟ, or move the lock lever to the [Ⓟ (PARKING)] position while traveling. Machine can lose stability and cause the operator to fall, to be thrown, or the machine to tip over.**
- **Always move the travel lever back to the neutral position before releasing. Letting it go from other operating positions can result in sudden deceleration and can cause the machine to tip over or the operator to fall or to be thrown.**

NOTE

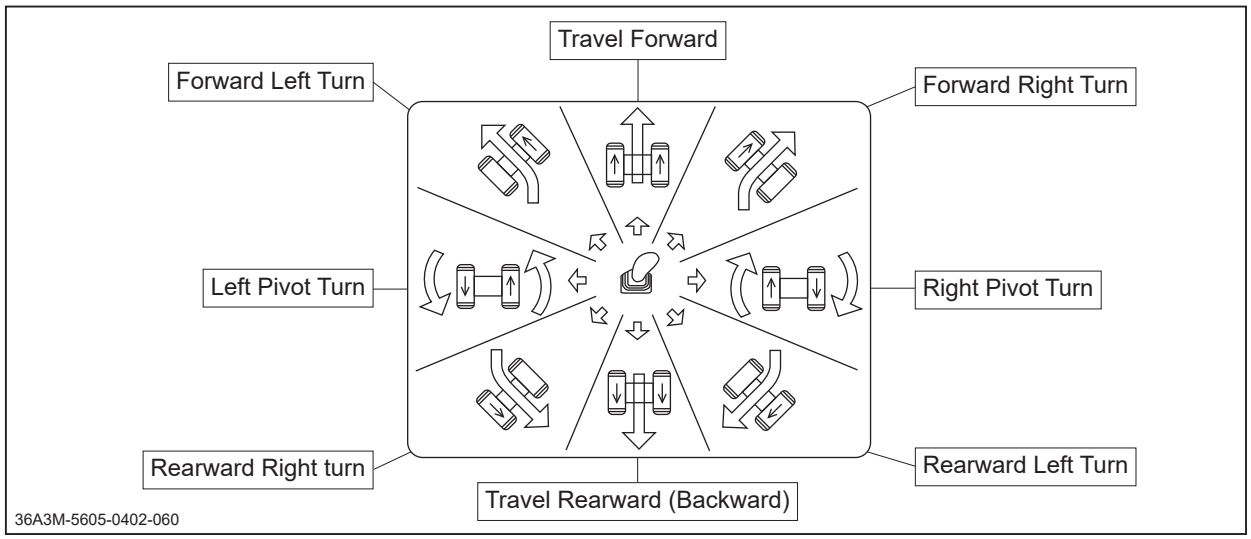
- **If the parking brake switch Ⓟ is [ON] or the lock lever is in the [Ⓟ (PARKING)] position, the machine does not move when the travel lever is operated.**
- **If the parking brake switch Ⓟ is [OFF] and the lock lever is in the [○ (DRIVE)] position, the machine moves when the travel lever is operated.**





1. Make certain of the safety of your surroundings.
2. Turn parking brake switch to the [OFF] position.
3. Move the lock lever to the [○ (DRIVE)] position.
4. Push H/L speed selecter switch to either the [L (LOW)] or the [H (HIGH)] position. For the speed range in either position, see "Product Specification (page 21~24)."
5. Move the accelerator lever toward the [(FAST)] position or depress the accelerator pedal to increase the engine speed.

6. Use the travel lever to drive the machine. The movement of the travel lever and that of the machine correspond as in the illustration below.



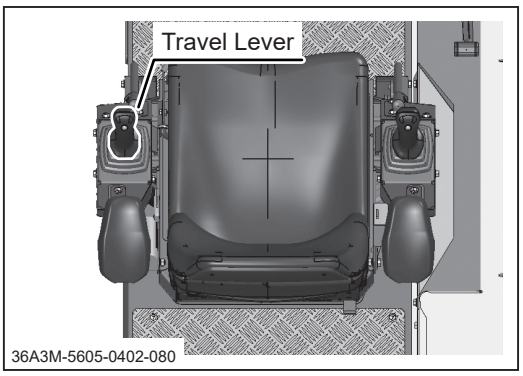
NOTE

- **When the seat is turned, the direction that the seat is facing is FORWARD for the operation of the travel lever.**

Stopping

⚠WARNING

- **Do not make a sudden stop. The machine can skid or tip over.**
- **Do not release the travel lever suddenly when stopping. The machine can stop suddenly and skid or tip over. Operate it gradually so that the machine slows gradually.**
- **Always park on a firm, level place. Never park on a potentially dangerous place.**

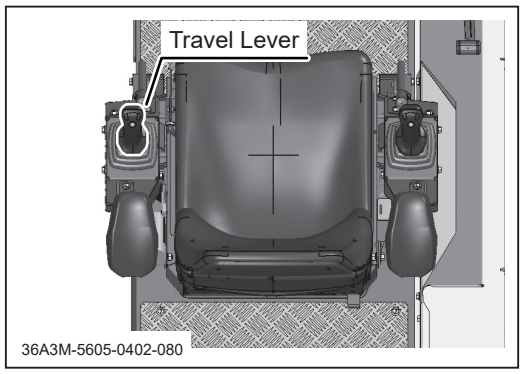


1. Move the travel lever gradually to the neutral position to stop the machine.

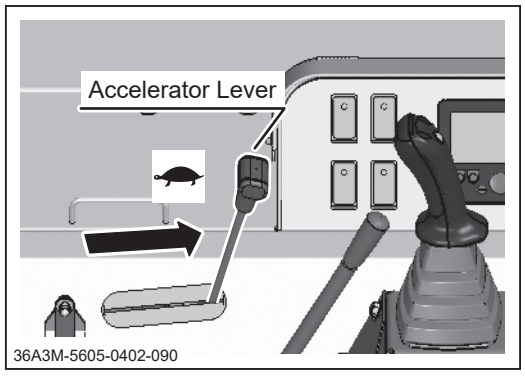
Parking

⚠WARNING

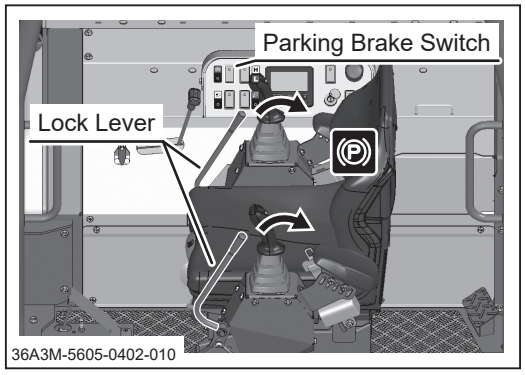
- **Always park on a firm, level place. Never park on a potentially dangerous place.**
- **Avoid parking on a slope. Never park on a slope with an incline of 15 degrees or steeper. If it is absolutely necessary to park the machine on a slope less than 15 degrees, make certain to apply parking brake firmly and block the tracks with chocks.**



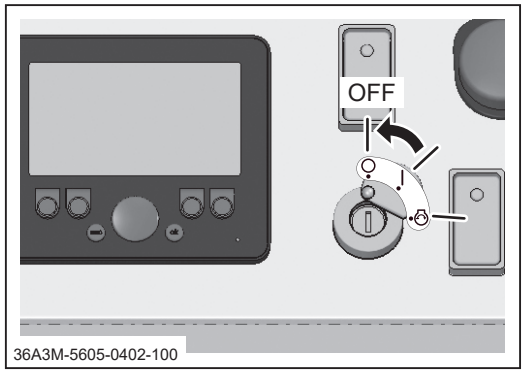
1. Move the travel lever gradually to the neutral position to stop the machine.



2. Move the accelerator lever toward the [(SLOW)] position to decrease the engine speed.



3. Press the parking brake switch Ⓟ [ON] and move the lock lever to the [Ⓟ (PARKING)] position.

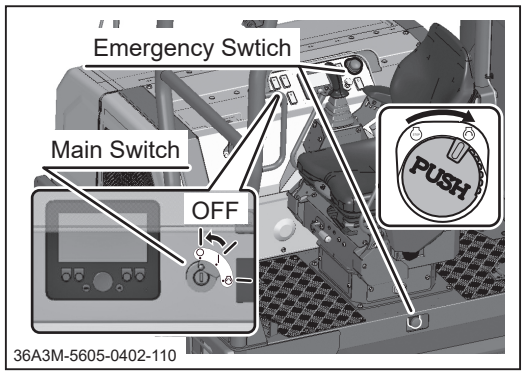


4. Turn the main switch to the [◯ (OFF)] position and remove the key from the main switch.

NOTE

- **Leaving the main switch in [| (ON)] position drains the battery and cause it to discharge.**

Emergency Stop



1. Pushing the emergency switch kills the engine.
2. Turn the emergency switch to the right to the [(DRIVE)] position to reset.

NOTE

- **When stopping the engine with the emergency switch, turn the main switch [◯ (OFF)] as well. Leaving the main switch in [| (ON)] position drains the battery and cause it to discharge.**

Working

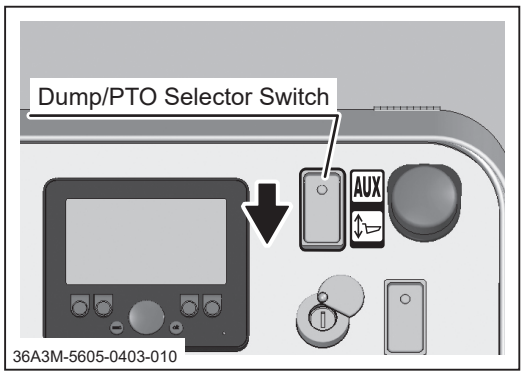
⚠WARNING

- **Always make certain of the safety of your surroundings when dumping or swiveling bucket.**
- **Never operate the operation lever off of the machine. This can cause the vessel (bed) to hit and crush the operator or bystander.**
- **Avoid dumping or swiveling the bucket on a slope. The machine can tip over.**
- **When servicing under the raised bucket, hold it with the safety prop.**

NOTICE

- **Always run the engine when dumping or swiveling bucket.**
- **When lowering the loaded bucket, slow the engine speed and lower the bucket gently.**

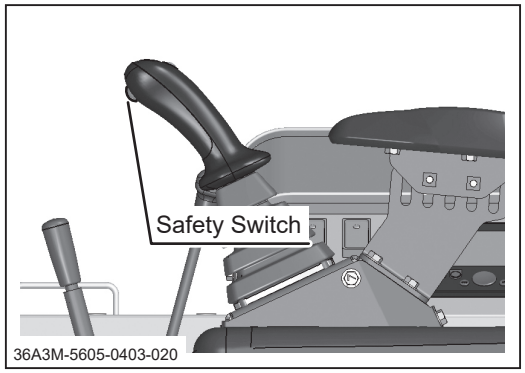
Dumping



1. Start the engine and move the accelerator lever to the [(FAST)] position to increase the engine speed.
2. Make sure the Dump/PTO Selector Switch is in the [DUMP] position.

NOTE

- **If the Dump/PTO Selector Switch is in the [PTO] position, the vessel (bed) does not move. (It still swivels the vessel regardless of the selector position.)**

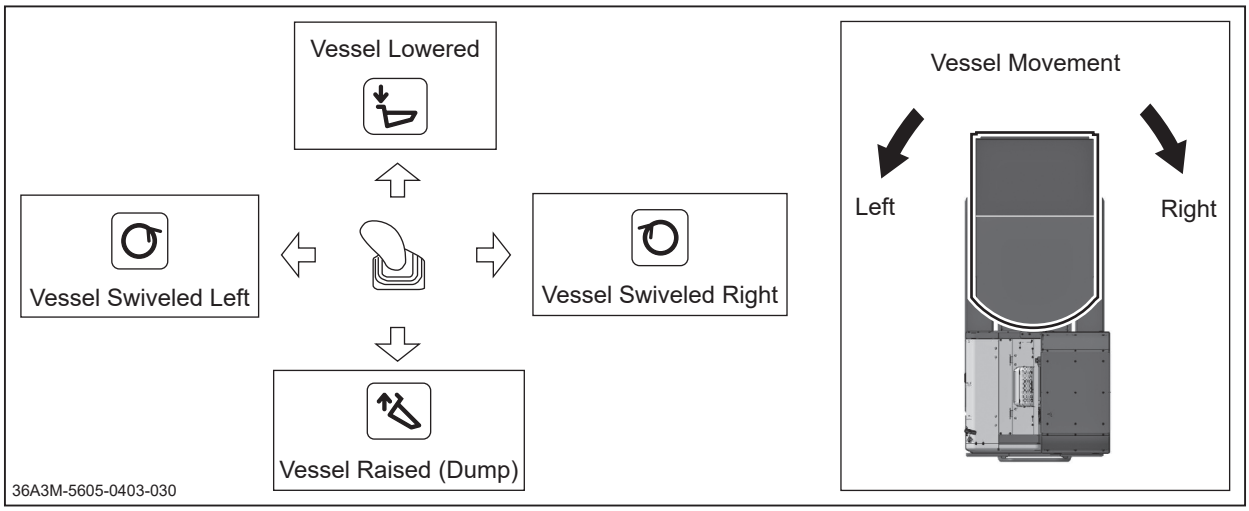


3. Press the safety switch on the operation lever.

NOTE

- **You can turn or dump the vessel (bed) ONLY when the safety switch is pressed.**

4. Use the operation lever to operate (dump or swivel) the vessel. The movement of the operation lever and that of the vessel correspond as in the illustration below.



5. Release the safety switch when the operation is done.

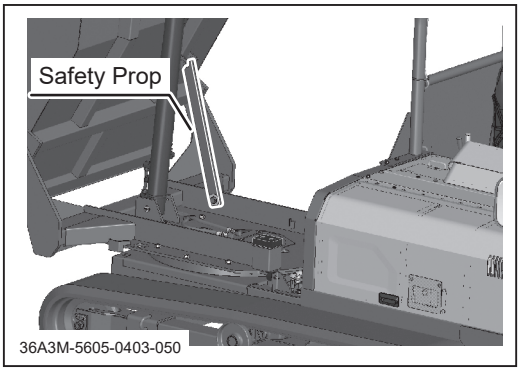
Using Safety Prop

⚠WARNING

- **Place the safety prop under the bucket when inspecting or working under the bucket.**

NOTICE

- **Make certain to undo the safety prop before lowering the bucket.**



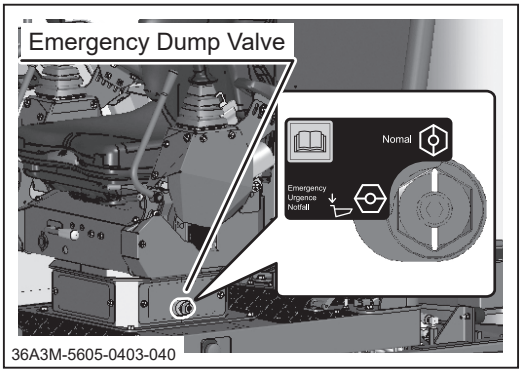
1. Raise the bucket.
2. Hold the bucket with the safety prop.

Emergency Dump Valve

In case the engine or the hydraulic component malfunctions when the vessel (bed) is raised so the vessel cannot be lowered, you can use this valve to lower the vessel.

⚠DANGER

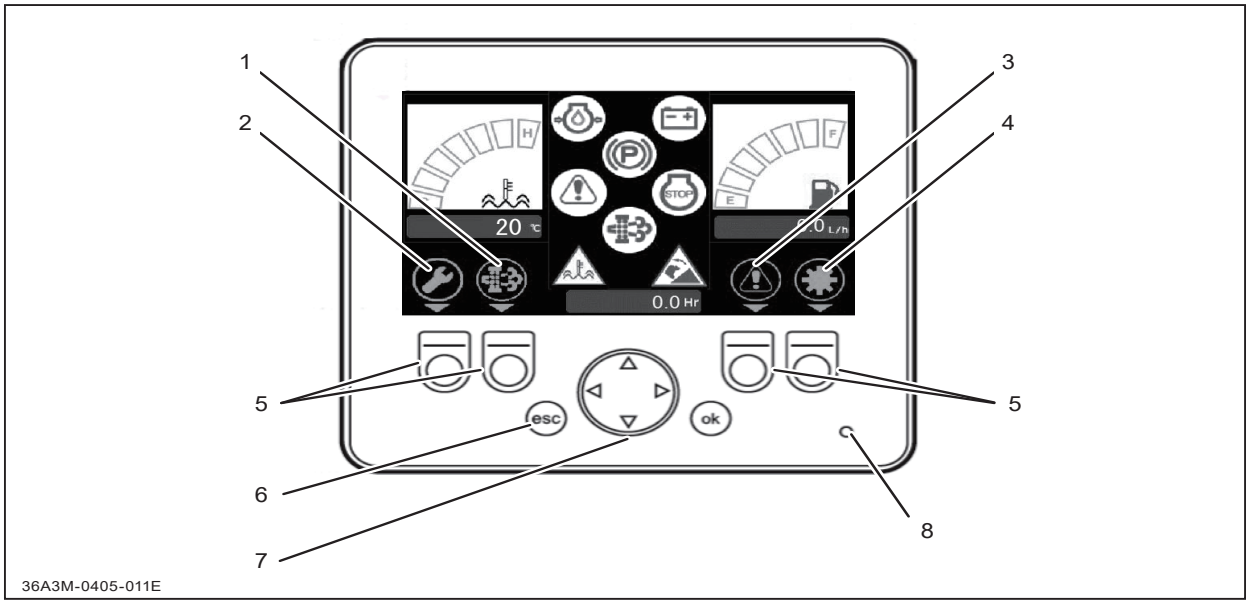
- **Make sure there is no person or an object under or near the vessel (bed).**



1. With the accessory wrench, turn the bolt on the valve 90 degrees counter-clockwise so that the white line in it becomes horizontal.
2. Once the vessel (bed) is fully lowered, turn this bolt 90 degrees clockwise so the white line becomes vertical.

Operating LCD

Switches



1. **DPF Switch** . . . . . Pushing this begins DPF manual regeneration if the DPF Manual Regeneration Indicator is flashes and the condition for regeneration is met.

2. **Maintenance Switch** . . . . . Pushing this brings up the (1) maintenance mode panel. If the maintenance message is present, this icon flashes.

3. **Error Switch** . . . . . Pushing this brings up the (2)-1 current error panel.

4. **Contrast Switch** . . . . . Pushing this brings up the (3) brightness panel.

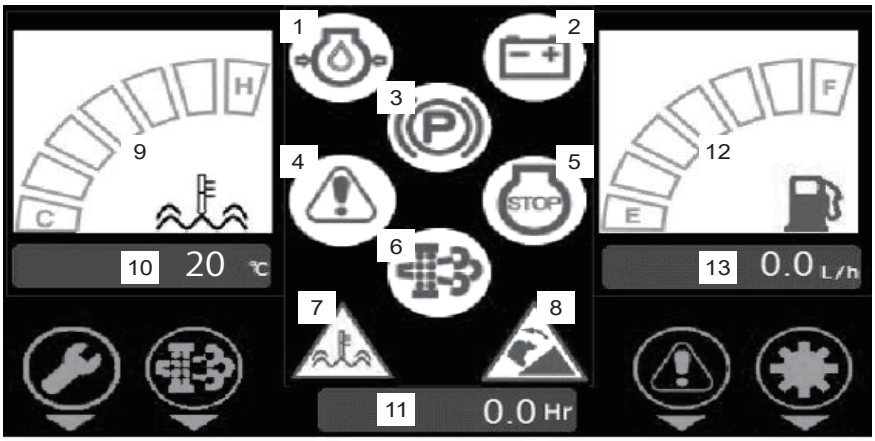
5. **Multifunction Switches** . . . These switches serve different purposes, depending on the screen shown on the display.

6. **ESC Button** . . . . . Pressing this button calls up the previous screen.

7. **Cursor Switch** . . . . . .This switch is used to flip through pages or to move the cursor.

8. **Warning LED** . . . . . Red LED turns on when the LCD malfunctions.

Contents of Home Panel



1. **Oil Pressure Warning**. . . . . OFF while engine running: normal.
   Lights up while engine running: low engine oil pressure.
   Lights up while engine stopped: normal.

2. **Charge Warning** . . . . . OFF while engine running: normal.
   Lights up while engine running: charge error.
   Lights up while engine stopped: normal.

3. **Parking Brake Indicator**. . . Lights up when the parking brake or the lock lever is engaged..

4. **Error Warning** . . . . . Lights up when either the Engine ECU or Vehicle ECU is reporting an error. Push the error switch to check the description of the error.

5. **Engine Stop Warning**. . . . . Lights up when the engine is stopped by the emergency switch or the tilt sensor.

6. **DPF Service Indicator** . . . . Flashing when manual regeneration is required.
   Lights up: manual regeneration is being preformed.
   OFF: Regeneration is not needed or has just been completed.

7. **Overheat Warning** . . . . . Lights up when the engine coolant gets 120 degrees Celsius or above.

8. **Roll-over Warning** . . . . . Lights up when the machine rolls more than 27.5 degrees.

9. **Coolant Temperature Gauge** . . . . . Displays the relative engine coolant temperature.

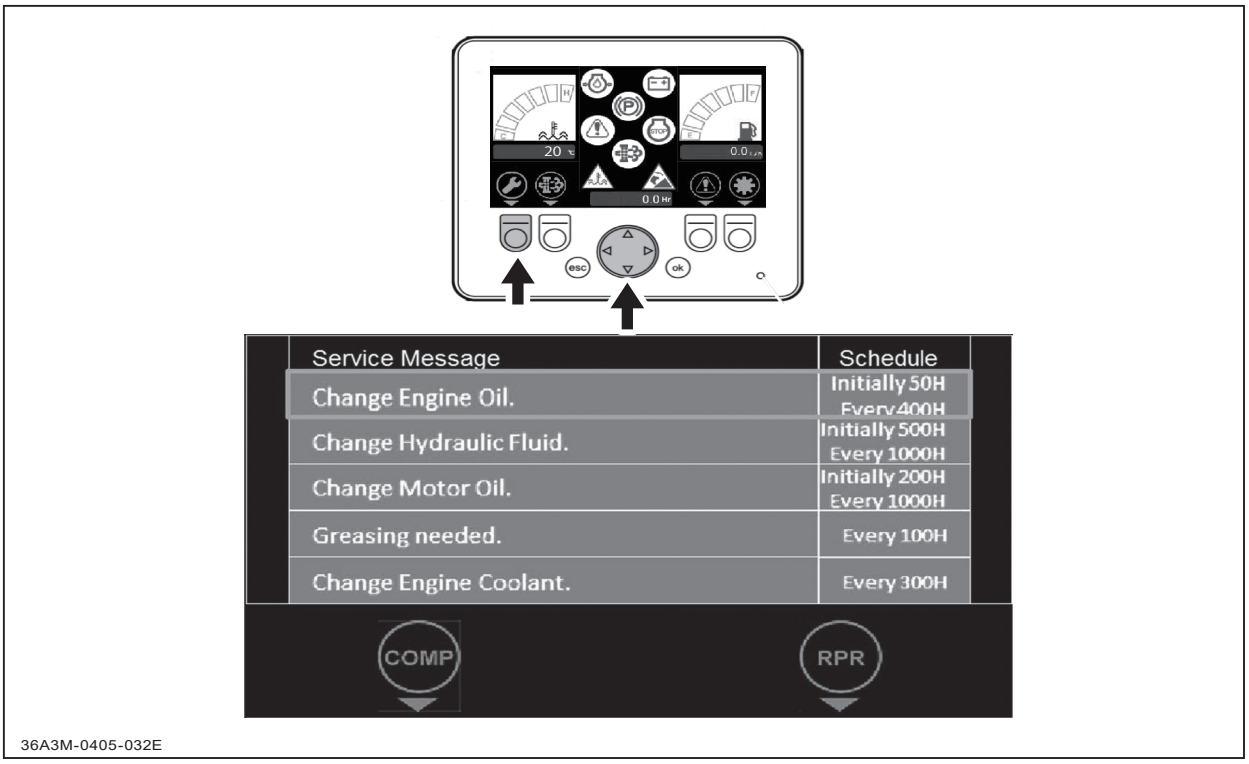
10. **Coolant Temperature** . . . . . Displays the engine coolant temperature.

11. **Hour Meter** . . . . . Displays the total number of hours that the machine has been working in units of 0.1 hour.

12. **Fuel Gauge** . . . . . Shows the remaining amount of fuel.

13. **Fuel Consumption Rate** . . . Displays a sampled rate of fuel consumption.

Maintenance Mode Panel



How to Operate

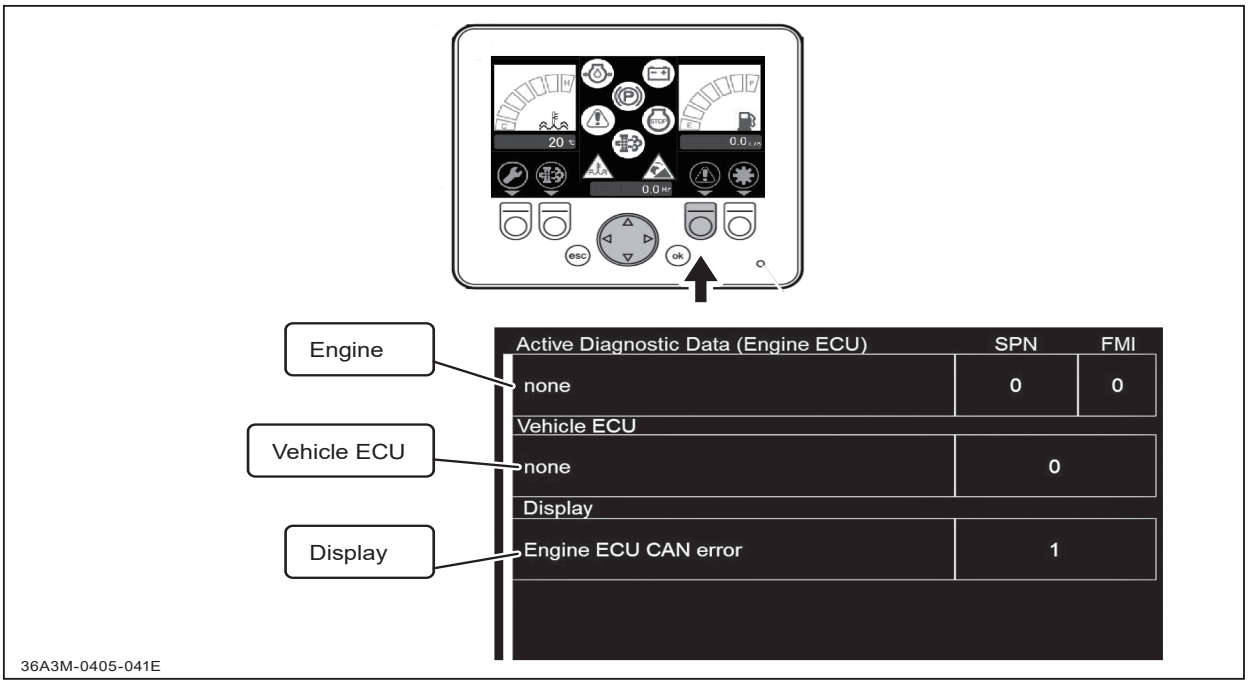
1. Press the left-most multifunction switch and the cursor switch DOWN to bring up the Maintenance Mode Panel.

1. Complete (COMP) Switch . Use up/down cursor switch to highlight the message that is lit up. Then press this switch to turn off the highlight of the message.

2. Repair (RPR) Switch . . . . . This switch is provided for the service personnel to use when servicing this machine.

Message	Interval
Change Engine Oil	Initially 50 hr / Every 400 hr afterwards
Change Hydraulic Fluid	Initially: 500 hr / Every 1000 hr afterwards
Change Motor Oil	Initially: 200 hr / Every 1000 hr afterwards
Greasing Needed	Every 100 hr
Change Engine Coolant	Every 300 hr

Current Error Panel



How to Operate

1. With the [Home Panel] showing, press ⚠ button to bring up the [Current Error Panel].

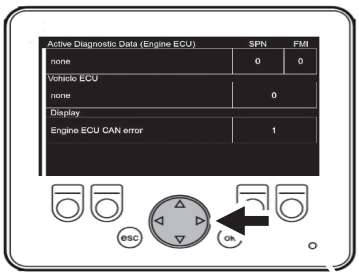
1. Engine . . . . . Displays Engine ECU errors.

2. Vehicle . . . . . Displays Vehicle ECU errors.

3. Display . . . . . Displays LCD unit errors.

Error Code	Descrption
Vehivle ECU	1 Fuel sensor wire (Brown/White) disconnected or short-circuited to 5V.
	2 Fuel sensor wire (Brown/White) disconnected or short-circuited to GND.
	3 Accelerator sensor 1 (White) disconnected or short-circuited to 5V.
	4 Accelerator sensor 1 (White) disconnected or short-circuited to GND.
	10 Pitch axis roll over (60°) detected.
	11 Roll axis roll over (60°) detected.
Display	1 Engine ECU CAN communication error.
	2 Vehicle ECU CAN communication error.
	4 Vehicle ECU error code output.

Previous Error Log Panel



Engine ECU

Previous Error Logs
in ascending order

Only the previous ECU errorsare displayed.

Logged Diagnostic Data (Engine ECU)	SPN	FMI
none	0	0
none	0	0
none	0	0
none	0	0
none	0	0

Vehicle ECU

Display

Logged Diagnostic Data (Other ECU)	ECU	CODE	HOUR
Engine ECU CAN error	Display	1	200
none	none	0	0
none	none	0	0
none	none	0	0
none	none	0	0

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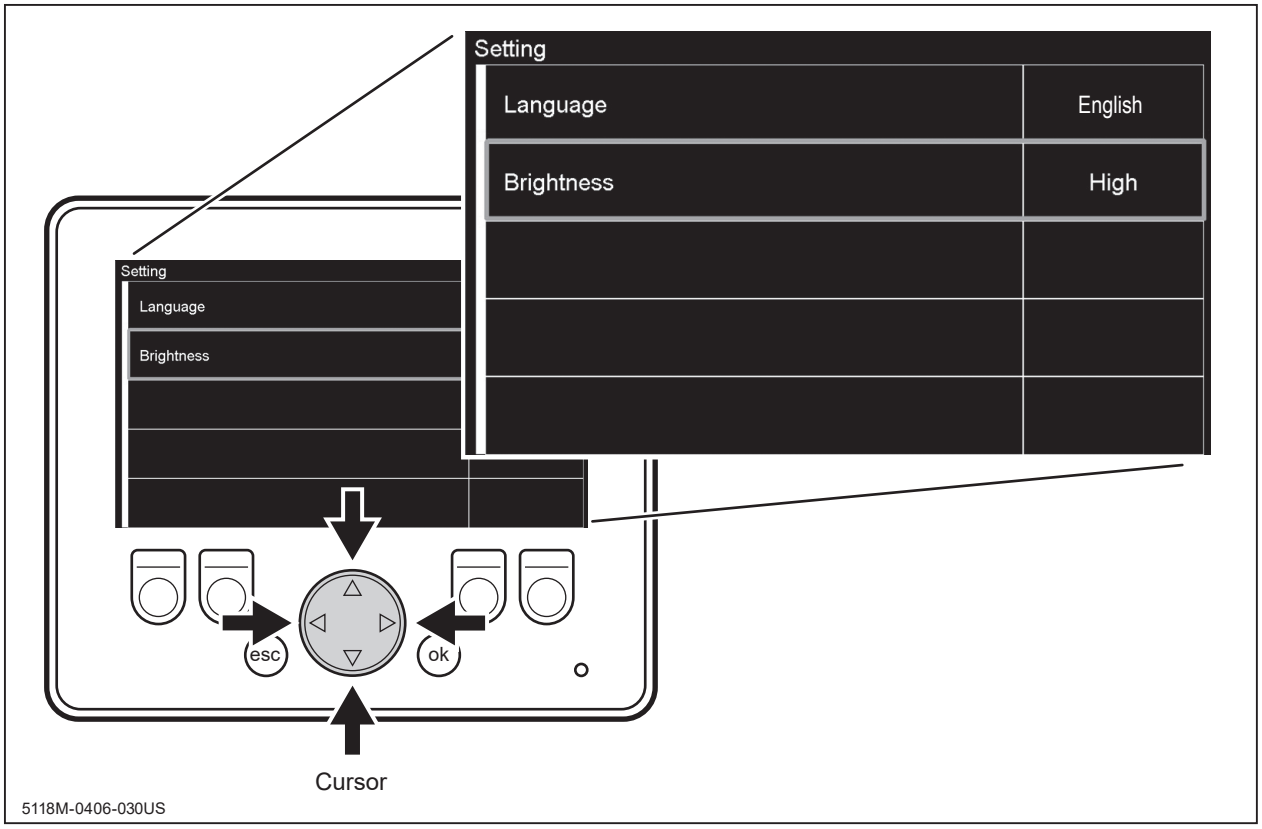
How to Operate

With the [Current Error Panel] showing, press ▸ to bring up the [Previous Error Log Panel]. With this [Previous Error Log Panel] showing, press ▸ again to bring up the [Vehicle ECU, Display Previous Error Log Panel].

Settings Screen



Select the Language and Brightness settings with the curser [UP] and [DOWN], and change the settings with the cursor [LEFT] and [RIGHT].

NOTE

- Lauguage options: English, Japanese.
- Brightness options: Low, Mid, High.

Maintenance Schedule

⚠WARNING

- **Follow the scheduled maintenance as described below. Failure to do so may result in mechanical or property damage, injury or death.**

- **Perform a pre-startup inspection (PSI) before each use, a monthly inspection once a month, and a yearly inspection once a year.**

- **Some maintenance procedures described below may require special knowledge or tools and instruments. Contact your CANYCOM representative to perform such procedures.**

Item			Description	Schedule			Note
				PSI	Mon	Year	
Engine	General	Starting	Engine shall start easily without making any irregular noise.	√	√	√	
		Running	Engine speed shall be set properly at idle and at full without loading. Engine shall stay running smoothly.	√	√	√	Contact your CANYCOM representative for inspection.
			When accelerating engine, accelerator lever shall move smoothly, and engine shall accelerate smoothly without stopping or knocking.	√	√	√	
		Exhaust	Warm up engine thoroughly and observe exhaust sound and gas from idle to fast speed; exhaust sound shall be normal and smoke shall not be excessive.	√	√	√	
			There shall be no leak in exhaust system or muffler.	√	√	√	
		Air Cleaner	Air cleaner case shall not be deformed or cracked. Case lid and connecting air hose shall be firmly in place.		√	√	
			Cleaner element shall be in good shape without damage or excessive dust.	√	*	*	
		Engine Mount	Engine base shall be free of cracks or deformation.			√	
			Mounting bolts and nuts shall not be loose or missing.			√	

* Refer to the separate manual for the engine.

Item			Description	Schedule			Note
				PSI	Mon	Year	
Engine	General	Fuel System	There shall be no leak from fuel tank, injection pump, hosing, or plumbing.	√	√	√	
			Fuel hose shall be free of damage or deterioration.	√	√	√	
			Fuel filter or fuel cooler shall not be excessively dirty or clogged.		√	√	Cleaning: see Page 63
		Lubrication System	Oil shall be clean and at the correct level.	√	√	√	Inspecting/Changing: Page 56~57
			No noticable oil leaks shall be found in head cover, oil pan, or pipes.	√	√	√	
			Oil filter shall not be excessively dirty or damaged.	*			
	Change engine oil.						
	Change oil filter cartridge.						
	Change fuel filter cartridge.						
	Clean sediments and water from fuel tank.						
	Check tightness of fuel hose, return hose, and hose clamps.						
	Change fuel hose, return hose, and hose clamps.						
	Drain water from water separator.						
	Clean water separator.						
	Check intake hose.						
	Change intake hose.						
	Check tightness of coolant hose and hose clamps.						
	Change coolant hose and hose clamps.						
	Flushing radiator.						
	Check tension on fan belt.						
	Change fan belt.						
	Adjust intake and exhaust valve clearances.						
	Check injector tips.						
	Change oil separator element.						
	Check PCV valve.						
	Clean DPF.						
	Check EGR system.						
	Check DPF plumbing.						
	Check EGR pipe.						
	Check exhaust manifold.						
	Change rubber hoses for oil separator.						
	Change rubber hoses for DPF.						
	Change rubber hoses for engine oil.						

* Refer to the separate manual for the engine.

Item			Description	Schedule			Note
				PSI	Mon	Year	
Engine	Cooling System		Coolant shall be clean and at the correct level.	√	√	√	
			Charge coolant.	*			
	Electrical	Battery	Battery electrolyte level shall be correct.		√	√	
			Terminals shall be free of marked corrosion and are tightly secured.		√	√	
			Check battery electrolyte.	*			
			Change battery.				
		Wiring	Connections shall not be loose and shall be securely connected.		√	√	
			Wiring shall be free of damages.		√	√	
			Check damages, wear and loose connections of the wiring.	*			
Transmission	HST Pump		Drive the machine forward and backward, turn left and right in both directions; machine shall move normally and free of irregular noise or overheating.	√	√	√	
			Hydraulic fluid shall be filled to a proper level and shall be clean and free of dirt or contamination.	√	√	√	Inspecting/Changing: see Page 64
			There shall be no fluid leaks in or around fluid tank.	√		√	
Undercarriage	Wheels Sprockets Idlers		Shall be free of cracks, deformation, or excessive wear.	√	√	√	
			There shall be no irregular noise or overheating observed when traveling.	√	√	√	
			Mounting bolt or nut shall not be loose or missing.	√	√	√	
			There shall be no oil leak in or around axle.	√	√	√	
			Swing roller bracket shall follow the contour of the ground smoothly.			√	
			Axles shall be sufficiently greased.		√	√	

* Refer to the separate manual for the engine.

Item		Description	Schedule			Note
			PSI	Mon	Year	
Undercarriage	Tracks	Steel cord of the track shall not be cut or severely damaged.	√	√	√	
		Track shall not be excessively worn, or deteriorated. There shall not be a big chunk of rubber missing.	√	√	√	
		Steel core inside the track shall not be damaged or missing.	√	√	√	
		Track shall be properly tensioned; shall not be too loose or too tight.	√		√	Adjusting: see Page 68
	Track Tensioner	Track tensioner shall work properly when grease is charged into the cylinder.		√	√	
	Track Frame	There shall not be cracks, deformation, damage. If a crack is suspected, check it with crack detector.		√	√	
		Rubbing parts shall not be excessively worn.		√	√	
		Mounting fasteners shall not be loose or missing.	√	√	√	
Brake	Parking Brake	Parking brake shall be able to hold the machine on a 1/5 slope.		√	√	
Hydraulic System	Hydraulic Pump	There shall be no leak in or around hydraulic pump, hose, joints,or seals.	√	√	√	
		No irregular vibration, noise, or heat shall be observed when hydraulic pump is in operation.	√	√	√	
		Amount and pressure of discharge under load shall be within the standard range specified by the manufacturer. *this may be skipped if irregular vibration, noise, or heat described above is not observed.			√	
	Plumbing	Plumbing shall be free of cracks, damage, twists, or deterioration.	√	√	√	
		There shall be no leaks in pipes, hoses, joints, or seals.	√	√	√	
		Plumbing shall be mounted properly, and fastening bolts and nuts shall not be loose or missing.	√	√	√	

Item		Description	Schedule			Note
			PSI	Mon	Year	
Hydraulic System	Hydraulic Cylinders	Shall work smoothly.	√	√	√	
		There shall be no leaks when extending and contracting cylinder.		√	√	
		Extend dump cylinder fully under load and hold. Stroke shall be within the range specified by manufacturer.			√	
		Cylinder tube and rod shall be free of dents, cracks, bends, or scratches.		√	√	
		Cylinder mounting pins shall be free of damage or excessive wear.	√	√	√	
	Hydraulic Valve	Hydraulic valve shall be mounted properly.		√	√	
		When operated, valve shall extend or contract the cylinder, and stop it when released.	√	√	√	
		There shall be no leak in or around hydraulic valve, plumbing , or joints.	√	√	√	
Body, Chassis, Vessel	Vessel (Bucket)	Vessel shall be raised,lowered and swiveled smoothly. Tailgate shall open and close smoothly.	√	√	√	
		Tailgate shall open smoothly when vessel is raised, and closes and locked when it is lowered..	√	√	√	
		Shall be free of cracks, deformation, or corrosion.	√	√	√	
		Fastening bolts or nuts shall not be loose or missing.	√	√	√	
		Raise and lower vessel to make sure that there is no excessive play at the cylinder pin and dump pivot.		√	√	
	Chassis Frame	Shall be free of cracks, deformation, or corrosion.		√	√	
		Fastening bolts or nuts shall not be loose or missing.	√	√	√	
	Body Panels	Shall be free of cracks or deformation.		√	√	
		Doors shall open, close, and lock properly.	√	√	√	
		Fastening bolts or nuts shall not be loose or missing.	√	√	√	

Item		Description	Schedule			Note
			PSI	Mon	Year	
Body, Safety Devices	**Seat**	Seat shall be adjusted properly and shall be locked securely.		√	√	
		Mounting fasteners shall be secure and not missing.	√	√	√	
	Labels	Warning labels and instruction plates shall be clean, legible, and free of damage.	√	√	√	
	Instruments Meters	Instruments shall work properly once engine starts.	√	√	√	
	LHorn	Horn shall work normally.	√	√	√	
	Lights	Lights shall work normally.	√	√	√	
	ROPS, FOPS	ROPS/FOPS shall be free of deformation or corrosion.	√	√	√	
		Mounting fasteners shall be secure and not missing.	√	√	√	
	Seatbelt	Mount shall not be loose.	√	√	√	
		Seatbelt shall be free of cuts or damages.	√	√	√	
	Emergency Switch	Engine shall stop immediately once emergency switch is activated.	√	√	√	

Fluids and Lubricants

Item	Schedule	Grade	Cap.
Fuel	As needed.	Diesel Fuel	60L (15.9 US gal)
Engine Oil	Fill Inspect daily. Fill as needed. Change Initially - After 50 hours of use. Every 400 hours afterwards.	Diesel Engine Oil API rating: CJ-4 JASO rating: DH-2 SAE rating: 10W-30	9.5L (2.5 US gal)
HST Fluid (also used as hydraulic fluid)	Change Initially - After 500 hours. Every 1000 hours afterwards.	High viscosity index hydraulic fluid, PANOLIN 46 *When using in cold areas (below -15°C（5 °F))use wear resistant hydraulic fluid PANOLIN 32	48L (12.7 US gal)
Travel Motor Oil	Change Initially - After 200 hours. Every 1000 hours afterwards.	Gear Oil API rating: GL-4 SAE rating: 90	0.6L (0.6 US qt)
Grease Points	Every 100 hours.	Lithium all-round grease (NLGI No.2 or equivalent)	-
Engine Coolant	Check Everyday Fill as needed Change every 300 hours	Long Life Coolant (LLC) and pure water Mixture (50% dilution)	8.5L (0.5L*1) (2.2 US gal (0.5 US qt*1))
Battery Electrolyte	Inspect every 50 hours. Fill as needed.	Distilled Water	-

*1 Coolant Reservoir.

Greasing Points

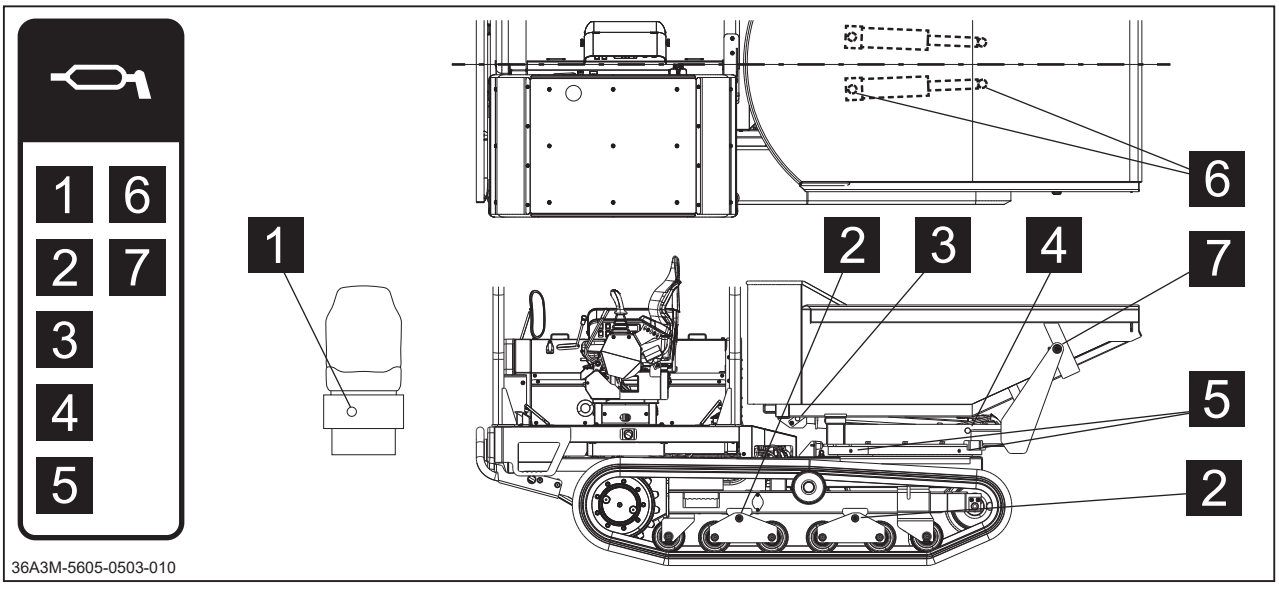
NOTICE

- **Grease regularly. Insufficient greasing may result in seizure or rusting, affecting smooth operation of the machine.**

NOTE

- **When using a manual grease pump, pump 5-6 times. When the handle of the pump becomes heavy, stop pumping.**
- **When using a pneumatic grease pump, pump it for a few seconds.**
- **Grease to use: see Page 53**

	Location	Lubrication points	Grade
1	Seat stopper Pin	1	Chassis Grease
2	Swing Axle	4	
3	Dump Cylinder Pin (Top)	1	
4	Dump Cylinder Pin (Bottom)	1	
5	Turn Table Bearing (Turret Bearing)	2	
6	Swivel Cylinder Pin	4	
7	Dump Pivot	2	



Consumables and Spares

NOTICE

- **Use only CANYCOM genuine parts when replacement or repair is required. CANYCOM assumes no liability whatsoever if any problem occurs as a result of using any part that is not a genuine CANYCOM part.**

NOTE

- Rubber products deteriorate over time. Replace them every 2 years.
- You can see our online parts manual at the URL or the QR code below:

  https://www.canycom.jp/eng/maintenance/parts/

  Go to the site and look up your model in the list.

- Consumable parts are listed in a separate page for your convenience.

  https://www.canycom.jp/maintenance/recomment/consumables_S30000.pdf

  (This links to a PDF file. You need Adobe Reader or similar software to read it.) This file contains a list of items such as oil filter cartridge, air cleaner element, spark plug, drive belts and mower blades. Open this file to look up your model in the list. For other parts, refer to the parts catalog above.

- In case you cannot see the above parts manual, contact your CANYCOM representative.
- Order replacement parts through your local CANYCOM representative.

Engine

⚠WARNING

- **Always stop the engine and remove the key before servicing.**
- **An engine that has been running is very hot. Allow the engine to cool before servicing, or severe burns may result.**
- **Keep fire and spark away when servicing the engine or handling fuel.**

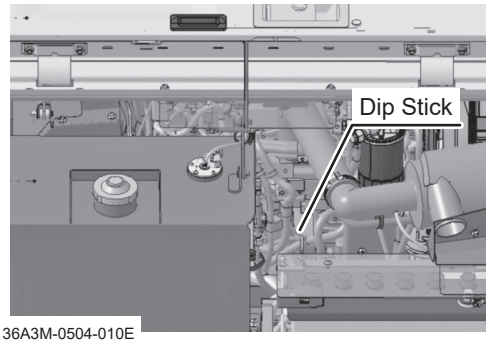
Engine Oil

NOTICE

- **Make certain to fill the engine with correct grade of oil to the specified level. Insufficient amount or wrong grade of oil reduces performance and can cause permanent damage to the engine.**
- **Dispose of the drained oil properly. Check the national and local regulations for discarding engine oil.**

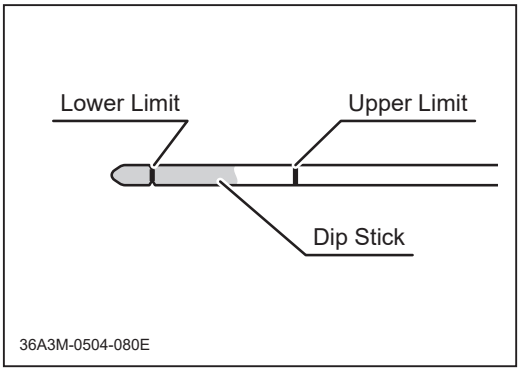
NOTE

- **To obtain correct reading, check oil level before starting, or wait about 10 minutes after stopping the engine to allow oil to drain back to the oil pan.**
- **Always check oil level on a level surface.**
- **Refer to the Operator's Manual for the Engine when servicing the engine.**
- **Oil to use and amount: see Page 53.**

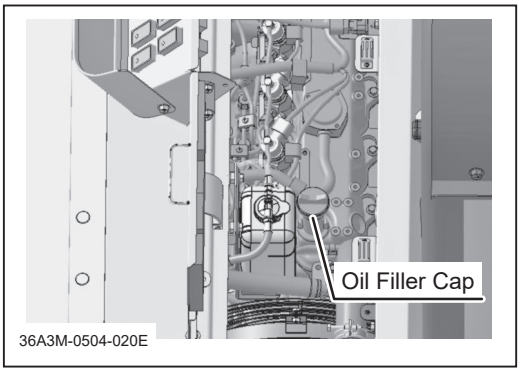


Inspecting

1. Park the machine on a level surface.
2. Open the engine hood and secure it.
3. Pull out the dip stick and wipe it clean. Insert the dip stick fully and pull it out again.

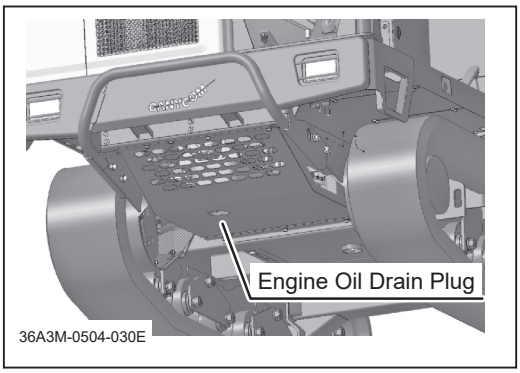


4. Visually inspect oil level. If it is below the lower limit, add oil.
5. Visually inspect the condition of oil. If it is too dirty or viscosity is not normal, change oil.
6. Put dipstick back in place.
7. Close engine hood.



Filling

1. Open the engine hood and secure it.
2. Remove the oil filler cap.
3. Fill specified amount of correct oil into the filler.
4. Check oil level. Make sure the oil level is as specified.
5. Put the oil filler cap back in place.
6. Close the engine hood.



Changing

1. Have an appropriate oil drain pan.
2. Open the engine hood and secure it.
3. Remove the oil filler cap.
4. Remove the engine oil drain plug to drain oil.
5. Clean drain plug and put it back in place and tighten it securely.
6. Fill specified amount of correct oil into the filler.
7. Check oil level. Make sure the oil level is as specified.
8. Put the oil filler cap back in place.
9. Close the engine hood.

NOTE

- **Refer to the Operator's Manual for the Engine for other engine service items.**

Manual DPF (Diesel Particulate Filter) Regeneration

⚠WARNING

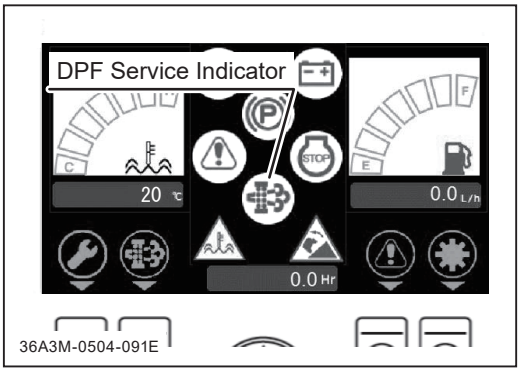
- **Perform manual DPF regeneration in a well ventilated place. Running the engine and performing DPF regeneration emit carbon monoxide, and can cause carbon monoxide poisoning.**
- **Make certain that there is no accumulation of flammable dust or debris on or around the exhaust system. The exhaust system can get extremely hot during manual DPF regeneration and catch fire.**

NOTICE

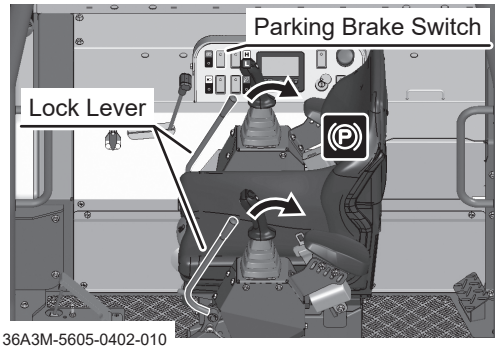
- **DPF requires periodical regeneration. When the DPF service icon in the LCD flashes, perform DPF regeneration, or loss of performance or damage to the engine can result.**
- **DPF regeneration requires certain conditions to be met, and it will be cancelled if two of the conditions are out. Monitor the machine while the DPF is being regenerated.**

NOTE

- **The Engine ECU continuously monitors the condition of the DPF and may perfom automatic regeneration. However, when accumulation of particulate reaches to a certain level, manual regeneration is required.**
- **DPF regeneration may take 15 to 20 minutes.**



1. When the DPF service indicator flashes and DPF warning buzzer sounds, DPF needs to be manually regenerated. Park the machine on a level surface in a safe, well ventilated place.



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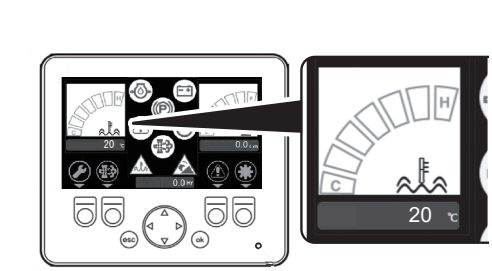
2. Press the parking brake switch Ⓟ [ON] and move the lock lever to the [Ⓟ (PARKING)] position.

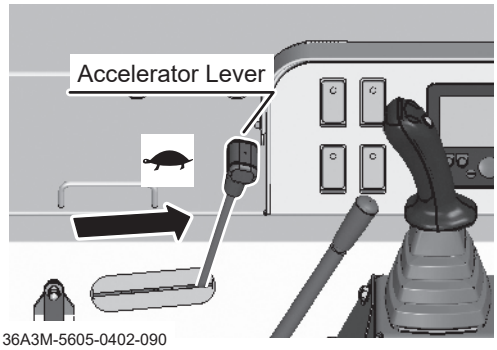


36A3M-0504-041E

3. Run the engine to raise the engine coolant temperature above 65 °C (149 °F).

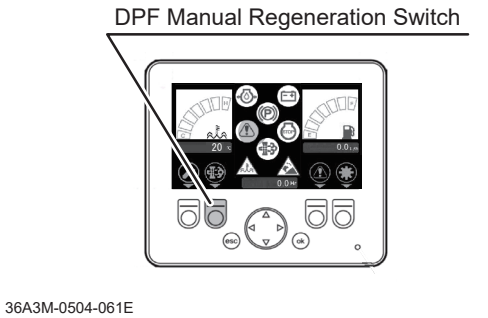
NOTE

- **DPF regeneration requires the engine coolant temperatur to be above 65°C (149°F). Adjust the engine speed to raise the temerature.**



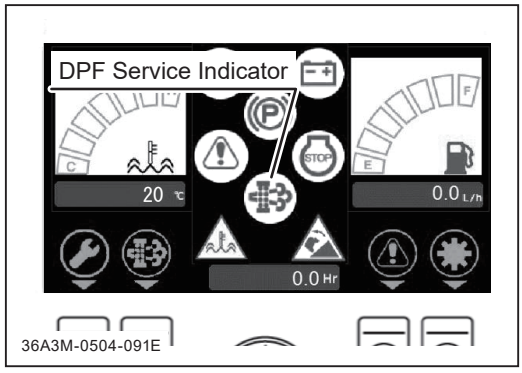
36A3M-5605-0402-090

4. Move the accelerator lever to the [🐢 (SLOW)] position.



36A3M-0504-061E

5. Press the DPF Manual Regeneration Switch to begin regeneration.When regeneration bigins, DPF warning buzzer stops.



6. When the DPF Service Indicator turns off, regeneration is done.

Fuel System

⚠WARNING

- **Always stop the engine when servicing the fuel system.**
- **Fuel is highly flammable. Keep fire and spark away when servicing the fuel system or handling fuel. If fuel is spilt, wipe immediately.**

NOTICE

- **Dispose risidual fuel in fuel filter or drained fuel or water properly. Check the national and local regulation for discarding such fluids.**

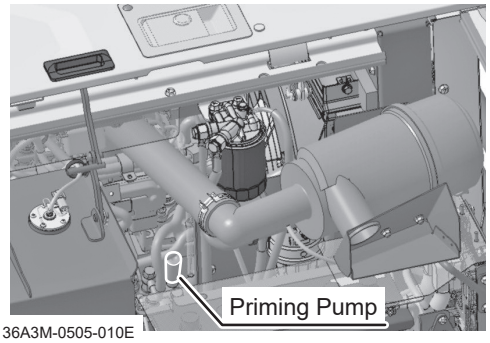
Bleeding Air in the Fuel System

NOTE

Bleed air when air enters the fuel system

- **After changing fuel filter or disconnecting fuel line.**
- **After running engine until fuel tank is completely dry.**

When air is in the fuel system, the engine cannot run.

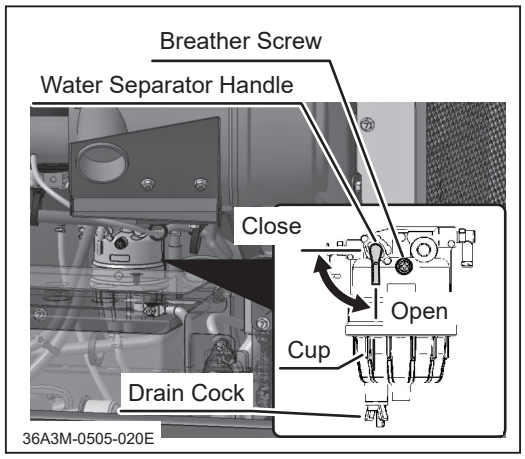


1. Open engine hood.
2. Fill fuel.
3. Push fuel priming pump by the fuel pump manually to bleed air.
4. When the pump gets heavy, bleeding is complete.
5. Close the engine hood.

Draining Water Separator

NOTE

• Water separator collects water and impurities in the fuel. When the red float in the water separator cup goes up, drain the water separator as described below.



1. Turn the water separator handle to the [CLOSE] position.
2. Loosen the drain cock and breather screw to drain water and impurities.
3. Tighten the drain cock and breather screw.
4. Turn the water separator handle to the [OPEN] position.
5. Bleed air from the fuel system.

NOTE

• Refer to the Operator's Manual for the Engine for other engine service items.

Draining Water From Fuel Tank

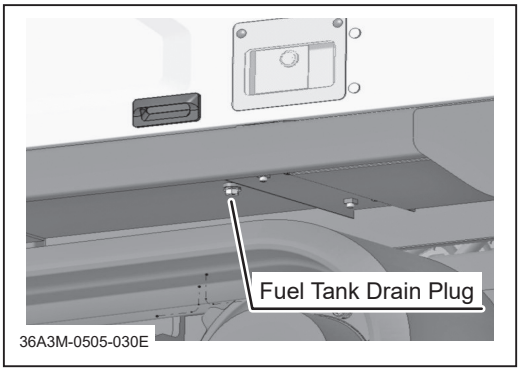
⚠WARNING

• Keep fire and spark away when handling fuel.

• When emptying the tank, use only the pump designed for diesel fuel. Wrong kind of pump can catch fire.

NOTICE

• Dispose of the drained oil properly. Check the national and local regulations for discarding engine oil.

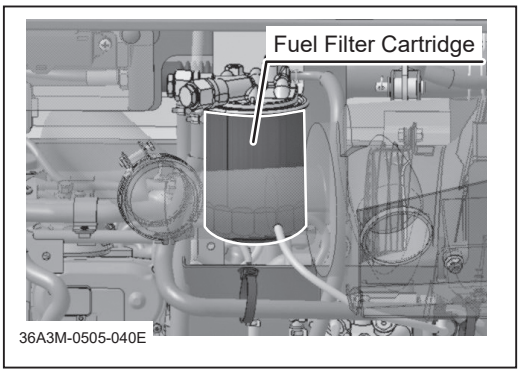


1. Use pump to empty fuel tank.
2. Have an appropriate oil drain pan to catch remaining fuel and water.
3. Remove the fuel tank drain plug to drain remaining fuel with water and sediments in the tank.
4. Install the fuel tank drain plug.
5. Fill fuel in the tank and bleed air from the fuel system.

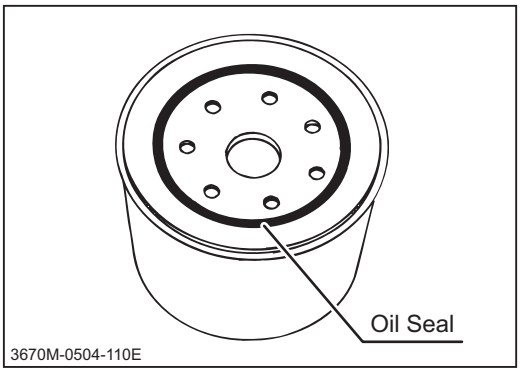
Fuel Filter Cartridge

NOTICE

• Use only the genuine fuel filter. Non-genuine filter can damage the engine.



1. Open the engine hood.
2. Using an oil filter wrench, remove the fuel filter cartridge.



3. Apply a thin coat of new oil on the oil seal on the new fuel filter cartridge.
4. Install the fuel filter cartridge. Tighten it fully by hand.
5. Fill fuel and bleed air from the fuel system.
6. Start the engine and visually inspect the filter to make sure that there is no leak.
7. Close the engine hood.

Hydraulic System

⚠WARNING

- **Always stop the engine when servicing.**
- **A machine that has been running is very hot. Allow the machine and oil to cool before servicing, or severe burns may result.**

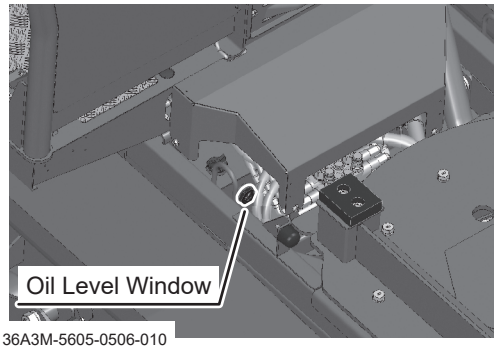
Hydraulic Oil

NOTICE

- **When hydraulic oil level gets low, air can enter the hydraulic system and impairs its performance. Make certain to fill the hydraulic system with correct grade of oil to the specified level.**
- **Dispose of the drained oil properly. Check the national and local regulations for discarding engine oil.**

NOTE

- **To obtain correct reading, check oil level before starting the engine. Hot oil expands in volume, and correct reading cannot be obtained.**
- **Always check oil level on a level surface.**
- **Change suction filter when changing hydraulic oil.**
- **Oil to use and amount: see Page 53.**



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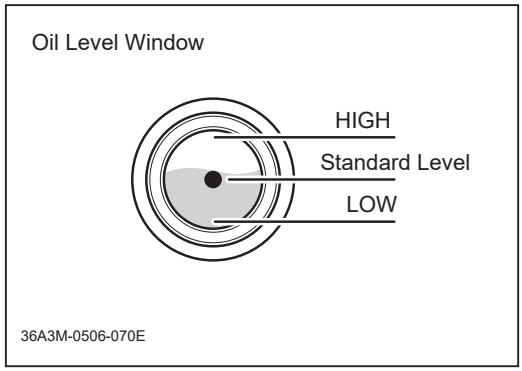
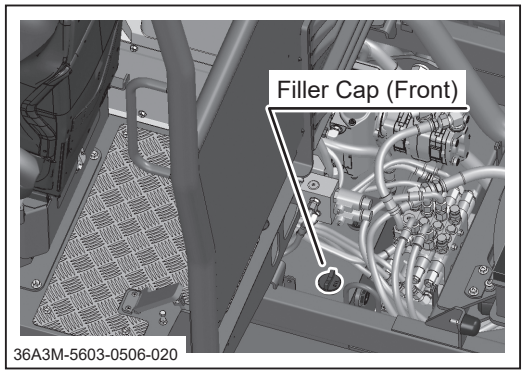
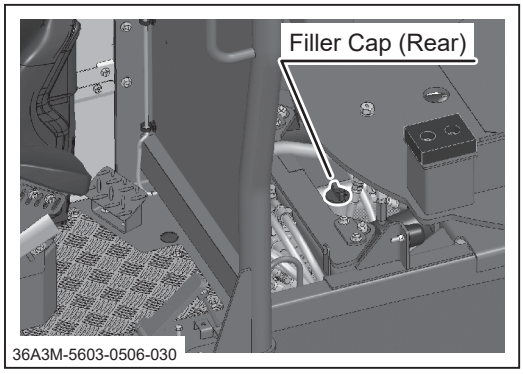
Inspecting/Filling

1. Park the machine on a level ground.
2. Open the engine hood.



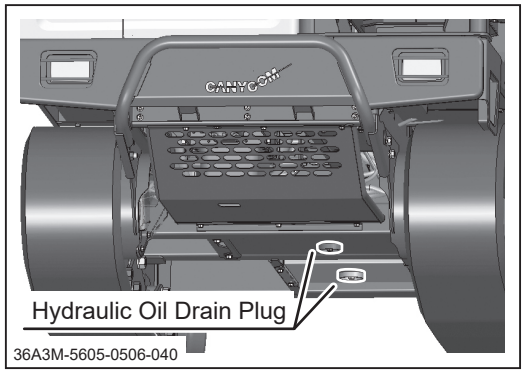
3. Visually inspect the oil level window for oil level and condition.
4. If the level is low, fill oil.
5. If oil is dirty, change oil.





Filling

1. Remove four (4) M8 bolts to remove the pump cover.
2. Remove the filler caps from the front and the rear oil tanks.
3. Fill specified grade of oil into the filler.
4. Check oil levels. For the front tank, it is the standard level in the level window. For the rear tank, it is 10mm below the filler.
5. Put the filler cap back in place.
6. Install the pump cover with four (4) M8 bolts.



Changing

1. Park the machine on a level ground.
2. Have an appropriate oil drain pan.
3. Remove the hydraulic oil drain plug to drain oil.
4. Install drain plug.
5. Check oil levels. It should be at the standard level in the front tank, and at 10mm below the filler in the rear tank.
6. Start the engine and bleed air from the hydraulic system.
7. Check oil level again to make sure the level is correct.

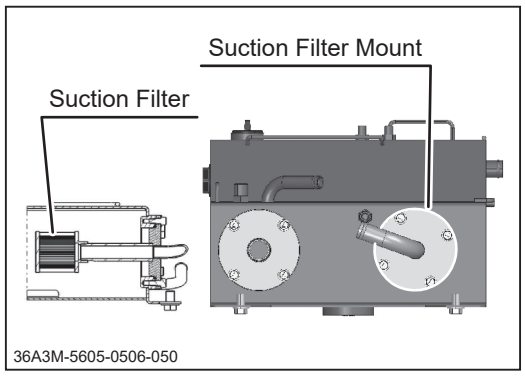
NOTE

• Oil level may get lower after bleeding air from the hydraulic system.

Suction Filter

NOTE

• Change suction filter when changing hydraulic oil.



1. Drain oil.
2. Loosen hose bands and remove hoses.
3. Remove bolts on the flange to remove the suction filter mount.
4. Remove the suction filter element from the filter mount.
5. Install a new suction filter element.
6. Install the suction filter mount.

NOTE

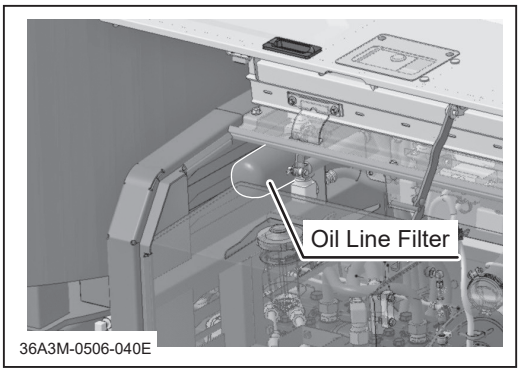
• Take extra care not to damage the O-ring when installing the suction filter mount.

7. Install the hoses and secure them with the hose bands.
8. Fill oil.

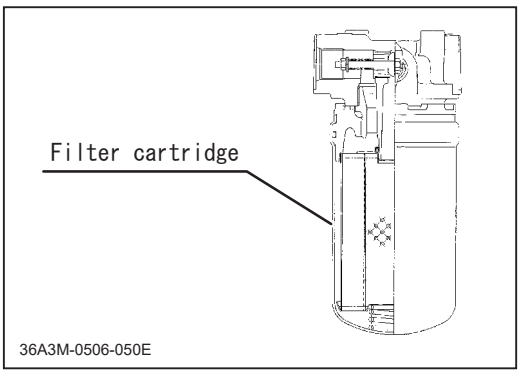
NOTE

- **Make sure there is no leak in the hose joints and filter mount.**

Oil Line Filter



1. Remove the engine room rear panel.
2. Remove the filter cartridge.



3. Apply a thin coat of new oil on the oil seal on the new fuel filter cartridge.
4. Install the new cartridge.
5. Start the engine and run a while to circulate oil.
6. Stop the engine to check oil level. If it is low, fill.

Drive Train

⚠WARNING

- **Stop the engine when servicing the drive train.**
- **Allow the machine to cool off before servicing. The machine is very hot after operation and may pose a burn hazard.**

Tracks

⚠WARNING

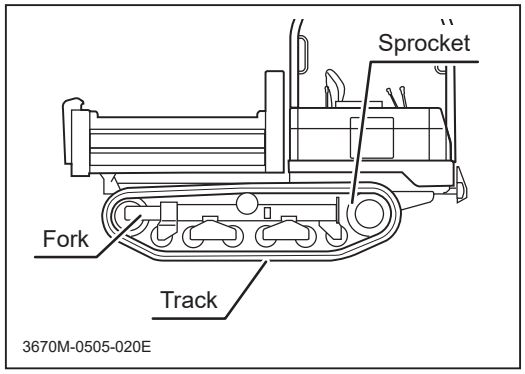
- **Jack up the machine securely with a jack capable of supporting the machine's weight when inspecting or adjusting the track. Follow jack manufacturer's instructions to raise one side of the machine until the track is off the ground.**
- **Once jacked up, support the machine securely with rigid racks.**
- **Make certain to adjust track tension properly. Inproperly tensioned tracks may wear or come off, resulting in property damage, serious injury or death.**
- **When loosening track adjuster valve, loosen slowly and gradually so that it will not come off. Track adjuster cylinder is under pressure, and if adjuster valve comes off, it may be projected out, possibly causing injury or damage.**
- **Always unload machine before jacking up.**

⚠CAUTION

- **Track is very heavy. Handle it with care.**

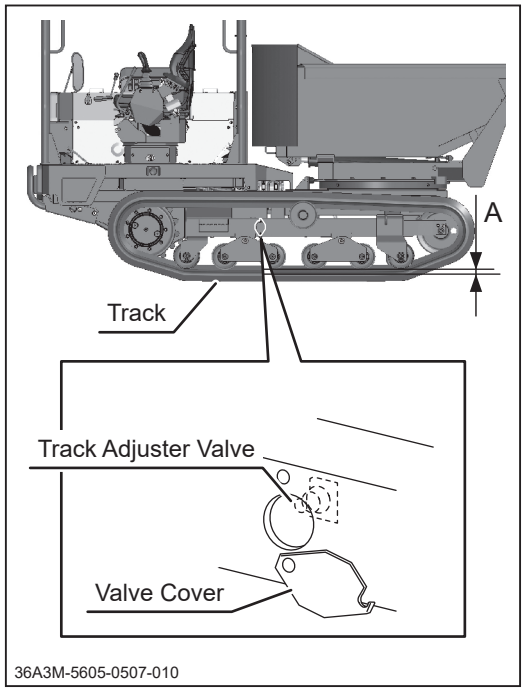
NOTE

- **During the initial hours of use, track tends to get broken in and stretch more than usual. Inspect often and adjust as necessary.**
- **Track tension gets loose during its use-life for wear or bedding of the sprocket and track. Inspect and adjust regularly.**

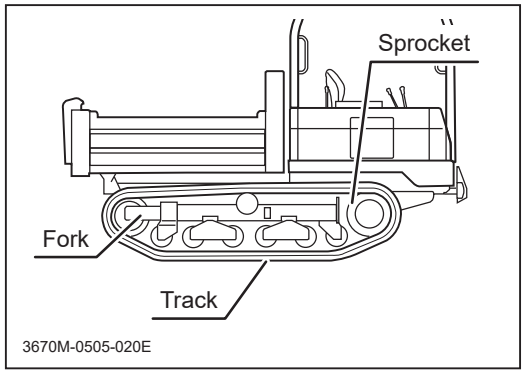


Adjusting

1. Park machine on a horizontal ground.
2. Jack up the front and the rear of the chassis to raise track on one side off the ground. Make sure track is parallel to the ground surface.



3. Remove track adjuster valve cover.
4. Inspect the gap between track and track roller (A) to be between 30 and 40 mm (1.2 and 1.6 in).
5. If the gap (A) is wider (the track is too loose), attach a grease pump to track adjuster valve nipple and pump grease into track adjuster cylinder until the gap is within the specified range.
6. If the gap (A) is smaller (the track is too tight) slowly loosen the track adjuster valve nipple for 4-5 turns with a box wrench and let grease come out around the valve to let the track loosen.
7. Tighten valve nipple tightly. Make sure not to have the valve O-ring get caught.
8. Install valve cover.



Replacing/Installing

1. When the track needs replacing, or in case the track is derailed, park or somehow move the machine onto a horizontal ground.
2. Jack up the front and the rear of the chassis to raise the track off the ground. Make sure track frame is parallel to the ground surface.
3. Remove the track adjuster valve cover.
4. Slowly loosen the track adjuster valve nipple to let grease come out around valve to reduce pressure inside the rack adjuster cylinder.
5. Remove the valve nipple.
6. Push idler wheel fork in.
7. For replacement, remove the old track and fit a new one.
8. When fitting the new track, first it on the sprocket, then on the idler.
9. Reinstall and tighten the valve nipple securely. Make sure not to have the valve O-ring get caught.
10. Adjust the track tension.
11. Remove grease pump, install valve cover, and lower the machine.

Travel Motor Oil

⚠WARNING

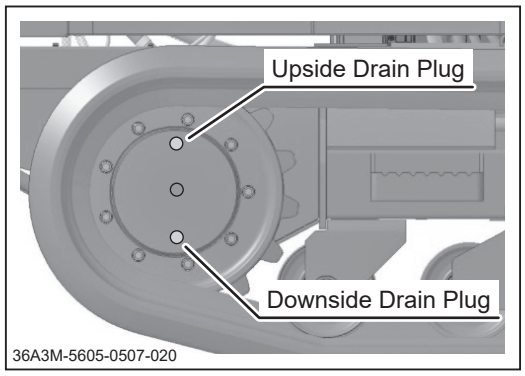
- **Always park machine on a level surface and block tracks with chocks when working under machine.**

NOTICE

- **Dispose of the drained oil properly, according to the national and local regulations.**

NOTE

- **Oil to use and amount: see Page 53.**



1. Park the machine on a level ground in such a way that the two drain plugs on the drive motor lines up vertically.
2. Have an appropriate oil drain pan.
3. Remove the drain plug on the downside of the motor to drain oil.
6. Reinstall the drain plug into the downside drain hole. Remove the upside drain plug and the oil check plug.
7. Fill lubricant into the upside drain plug until oil comes out of the check port.
8. Reinstall the upside drain plug and the check plug.

Electrical System

⚠WARNING

- **Always stop the engine and turn the main switch to [◯ (OFF)] position, and disconnect the negative (-) terminal of battery when servicing the electrical system.**

- **Do not work on the electrical system with wet hands. Electric shoc can result.**

Battery

⚠WARNING

- **Never use or charge battery when the fluid level is below the lower limit. Charging battery with insufficient fluid may shorten battery life or cause an explosion.**

- **Battery fluid (diluted sulfic acid) is corrosive and causes severe burns. Be extremeley cautious when handling battery fluid. If battery fluid is spilt on clothes, immediately rinse with plenty of water. If spilt on skin or in an eye, immediately rinse with plenty of water and promptly consult a physician.**

- **Explosion hazard. Keep open flame or spark away from the battery. Hydrogen gas generated during charging is extremely explosive.**

- **Use wet cloth to clean the battery. Dry cloth may generate static electricity, which may cause explosion.**

- **Do not touch the battery terminals. Electric shock may occur.**

- **Always disconnect the negative (-) terminal first, and connect the positive (+) terminal first. Disconnecting or connecting in the opposite order may cause a short circuit.**

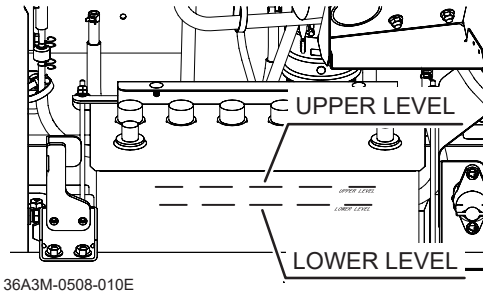
- **When installing the battery, make certain to connect the positive (+) and negative (-) terminals to their respective original positions. Avoid contact between terminals and other surrounding parts.**

⚠CAUTION

- **Never fill battery fluid beyond the [UPPER LEVEL] line. Battery fluid can spill and cause damage to the machine or personal injury.**

NOTICE

- **Always remove the battery from the machine before charging. Failure to do so can cause damage to the electrical components and wiring.**
- **Follow the battery charger user's manual when charging.**



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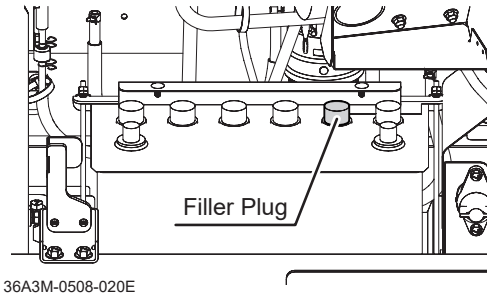
Inspecting

1. Park the machine on a level ground. Open engine hood.
2. Visually inspect that the battery fluid level is between the [UPPER LEVEL] and [LOEWER LEVEL] lines.
3. If the fluid level is below the "Lower Level," fill.



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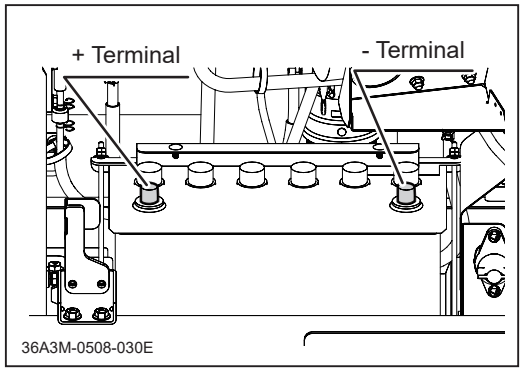
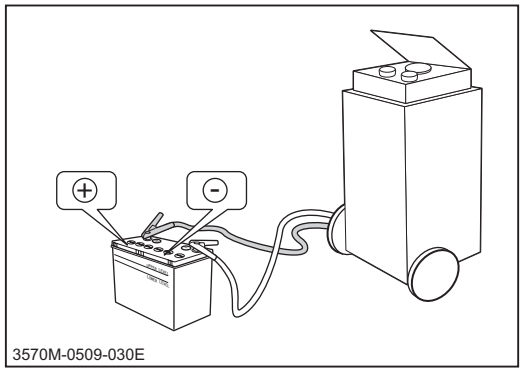
Filling

1. Open the access door on the engine compartment to access to the battery.
2. Remove the battery filler plugs and add distilled water up to "Upper Level" line.
4. Reinstall the filler plugs.
5. Close the access door.





Charging

1. Park the machine on a level ground. Open the access door on the engine compartment.
2. Remove the cable from the negative (-) terminal.
3. Remove the cable from the positive (+) terminal.
4. Remove the battery from the machine.
5. Remove all the battery filler plugs.
6. Follow the instructions in **the battery charger user's manual** to charge the battery.
7. When the battery is fully charged, put the filler plugs back in place.
8. Reinstall the battery, attach the electrical cables in the reverse order of removal.
9. Close the Access Door.

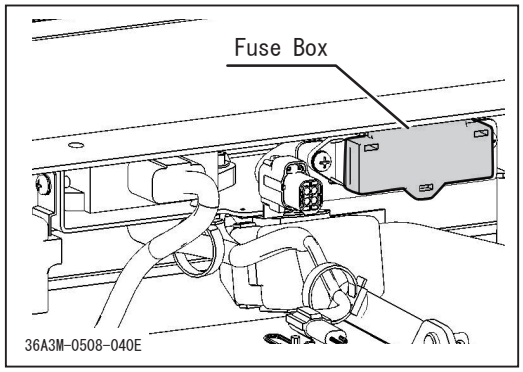
NOTE

- **Rapid charging is only an emergency measure. This method uses a large amount of current to compensate the lost charge in a short time. However, the battery needs to be fully charged in the ordinary method for a longer service life.**

Fuses

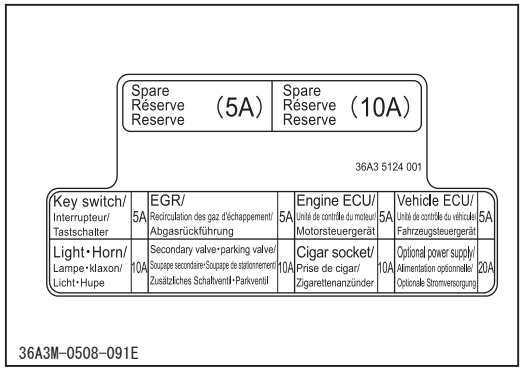
NOTICE

- **If a fuse blows, investigate the cause and repair it before replacing the fuse.**
- **Always replace a fuse with the one of the correct rating.**



Fuses

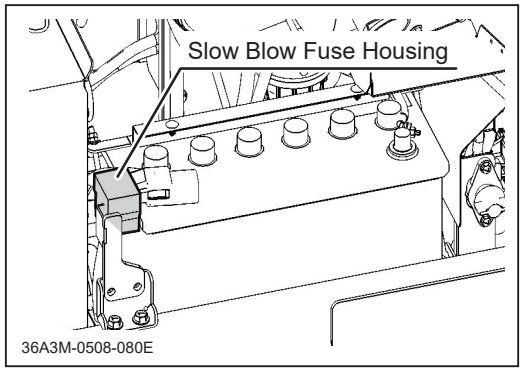
1. Open the engine hood.
2. Open the fuse box lid.



3. Locate the blown fuse and replace it with a new one of the correct rating.
4. Put the lid back in place.
5. Close the engine hood.

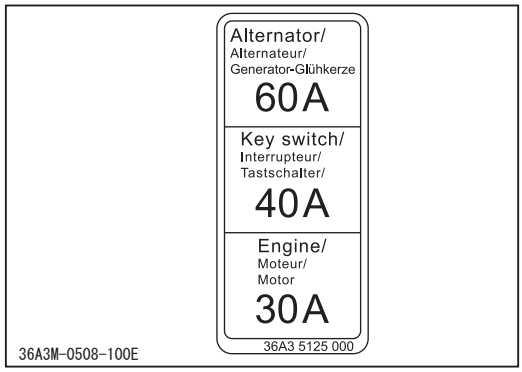
NOTE

- **Key Switch, EGR, Engine ECU, Vehicle ECU: 5A**
- **Lights and Horn, H/L Speed Valve and Parking Brake Valve, Accessory Outlet, Optional Power: 20A**
- **Spare: 5A, 10A**



Slow Blow Fuses

1. Open the engine hood.
2. Open the lid of the Slow Blow Fuse housing and visually inspect if the fuse is blown.
3. If it is blown, replace it.
4. Close the housing lid and close the engine hood.



NOTE

- **Engine: 30A**
- **Key Switch: 40A**
- **Alternator and Glow Plug: 60A**

Cooling System

Engine Coolant

⚠CAUTION

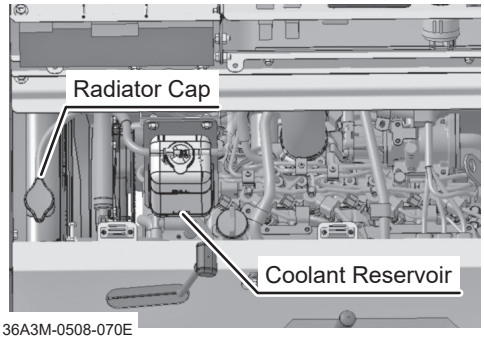
• Do not open the radiator cap when the engine is still running or right after it has stopped. The cooling system is hot and under pressure, so opening the cap when they are still hot can release boiling coolant and cause severe burns. Wait for the engine to cool after stopping (about 30 minutes) before opening.

• Take extreme care when handling the coolant; antifreeze solution is inflammable. Avoid exposure to open flame. It is also toxic. If coolant is caught in the eye, wash the eye clean with running water and consult a physician immediately.

NOTICE

• When the overheat warning indicator is on, it warns that the engine coolant level is low and the engine is not sufficiently cooled. Check the cooling system.

• Dispose of the drained coolant properly. Check the national and local regulations.



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Inspecting/Filling

1. Open the engine hood.
2. Visually inspect the coolant level in the coolant reservoir. Make sure it is between the [FULL] and [LOW] lines.
3. If the coolant level is close to, or below the [LOW] line, open the radiator cap and fill.

NOTE

• Coolant grade and amount: see Page 53.

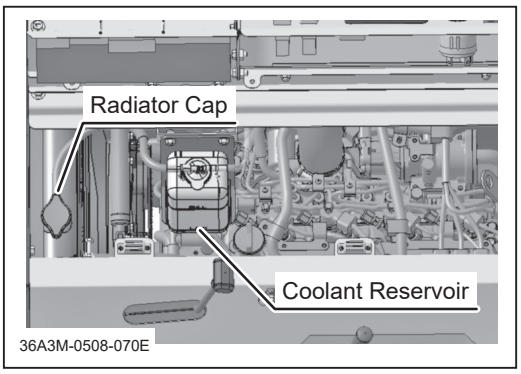
4. Put the radiator cap back and tighten it securely.
5. Close the engine hood.

Changing

1. Have an approproate drain pan big enough to hold all the coolant.

NOTE

• Coolant grade and amount: see Page 53.



2. Open the coolant drain cock at the bottom of the radiator to drain coolant.
3. Open the engine hood.
4. Remove the radiator cap and wash inside the radiator with running water.
5. Close the drain cock.
6. Fill coolant into the radiator and the reservoir tank.
7. Close the engine hood.

Cleaning, Replacement, Adjustment

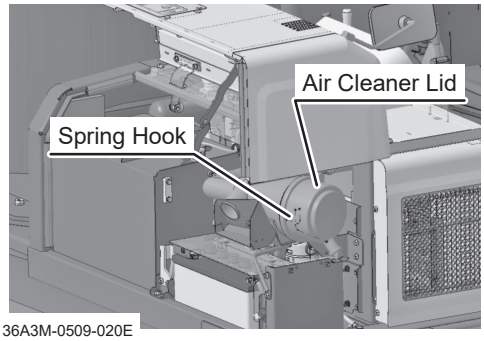
Air Cleaner Element

NOTICE

- **Clean air cleaner element regularly. Dirty cleaner element reduces engine performance and life.**
- **Replace air cleaner element if damaged.**
- **Use compressed air to clean the element. Do not tap it to clean. It can deform.**

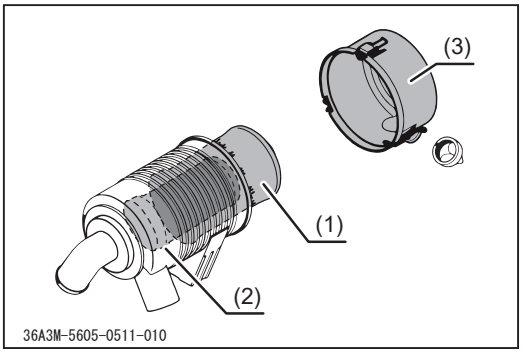
NOTE

- **Never apply oil onto the air cleaner element. The one used on this machine is of dry type.**
- **Replace the air cleaner element once every six cleanings or once a year, whichever comes before.**
- **Replace the air cleaner element immediately if punctured or air leaking through it.**



Cleaning Vacuator Valve

1. Open the engine hood.
2. Pinch the Vacuator rubber valve to expel dust caught in it. If water comes pout, clean the air cleaner element.
3. Close the right-hand side engine cover.

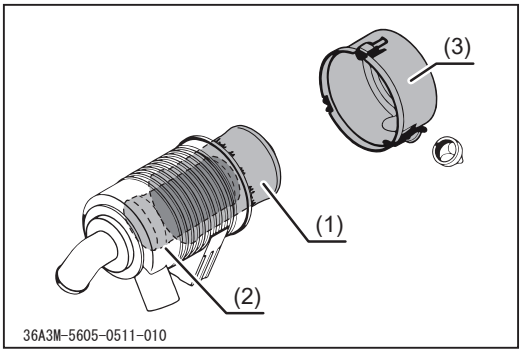


Primary Element – Cleaning

1. Open the right-hand side engine cover.
2. Undo the spring hooks that secure the air cleaner lid.
3. Blow air from inside to clean the primary element(1). Air pressure must not exceed 205kPa (2.1kgf/cm^2). Allow enough space between the element and the nozzle and blow carefully so as not to damage the element.
4. Install the air cleaner lid (3) with its [↑] pointing upwards. Fasten the spring latches.
5. Close the right-hand side engine cover.

Primary Element – Replacing

1. Replace the element once a year or six cleanings, whichever comes sooner.



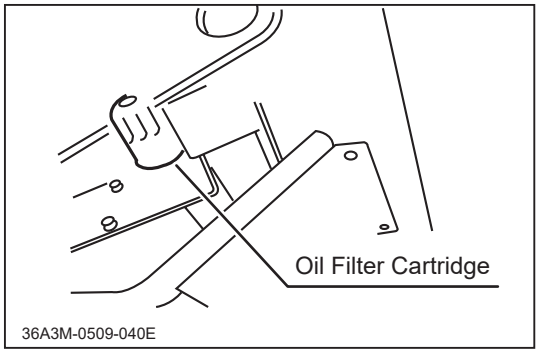
Secondary Element – Replacing

NOTE

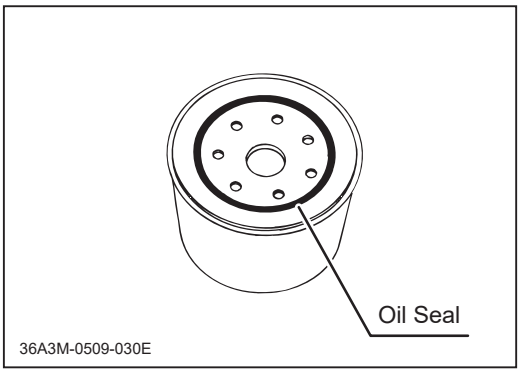
• Secondary element is not intended to be cleaned. Replace it when necessary.

1. Replace the secondary element (2) when replacing the primary element (1).
2. Install the air cleaner lid (3) with its [↑] pointing upwards. Fasten the spring latches.

Oil Filter Cartridge



1. Remove the oil filter cartridge with a filter wrench.
2. Clean the filter base.



3. Apply a thin coat of new oil on the oil seal on the new oil filter cartridge.
4. Install the oil filter cartridge. Tighten it fully by hand.
5. Start the engine and visually inspect the filter to make sure that there is no leak.

Track Roller

NOTICE

- **Do not rotate the fixed and floated track rollers as their components are different. Doing so can damage the machine.**

1. When servicing the track rollers, mark the fixed rollers and floated (on the swing) rollers so that they can be identified. Do not mix them when installing them back.

NOTE

- **The fixed and floated rollers use different bearings and other components.**

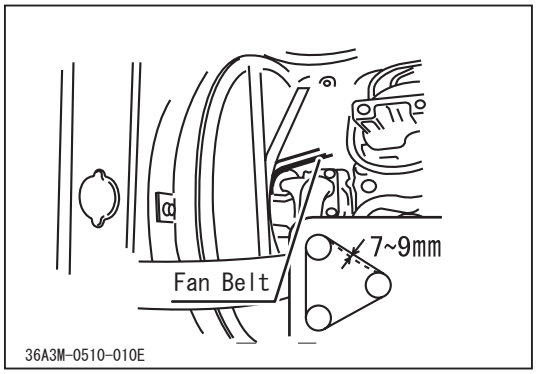
Fan Belt

⚠WARNING

- **Always stop the engine and remove the key before servicing. A moving fan or belt can cause injury.**
- **An engine that has been running is very hot. Allow the engine to cool before servicing, or severe burns may result.**

NOTICE

- **Check belt tension regularly. Loose fan belt causes premature wear on belt or insufficient cooling.**



Inspecting/Adjusting

1. Open the engine hood.
2. Press the middle of the fan belt with a finger to check belt tension: with a force of 10 kgf (98 N , 22 lbf), belt deflection should be between 7 and 9 mm (0.28 and 0.35 in).
3. If the deflection is not within this range, loosen the alternator mounting bolts and move the alternator to adjust belt tension.
4. Tighten the alternator mounting bolts.
5. Close the engine hood.

After Use Care

NOTICE

- **Do not wash the engine, control panel, electrical parts, or tank caps with air breather with running water; water may enter inside and cause rust or damage.**
- **Clean the machine after use; leaving dirt or foreign objects may cause damage.**
- **Do not attempt to move the machine when it becomes inoperable due to freezing.**
- **Dispose of the risidual oir spent fuel, oil, coolant,or other fluids, replaced filters, cartridges, damaged parts, etc. properly. There may be regulations for their disposal, and it can be unlawful to dispose them in a wat other than prescribed by these regulations. Check the national and local regulations for discarding such materials.**
- **Wash the machine particularly thoroughly after use near the sea or in the areas where de-icing agent is used to wash off salt or other corrosive chemicals.**

After Normal Use

1. Clean the machine; wash off dirt, mud, and other foreign matter after use.
2. If the machine is to be left outside, cover the machine with protective, water-proof covering after the machine is cooled off.

After Cold Weather Use

1. Clean the machine; wash off dirt, mud, and other foreign matter after use.
2. Park the machine on a paved or firm, dry surface or on a layer of lumber.
3. If the machine is to be left outside, cover the machine with protective, water-proof covering after it is cooled off.

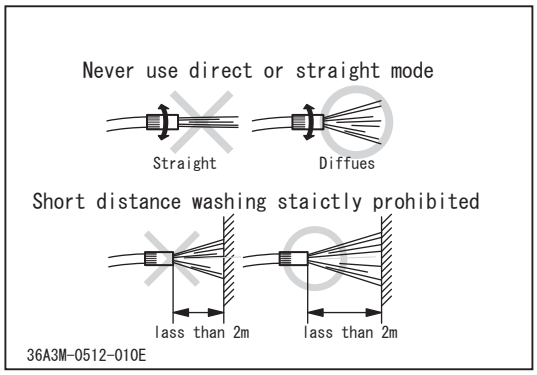
Washing

⚠WARNING

- **High-pressure washer can be dangerous. Never point it to a person. Make sure no one is behind the machine when washing the machine with a high-pressure washer. Follow the instruction manual of the high-pressure washer and familialize with its use.**

NOTICE

- **Never point the high-pressure washer or running water to the engine, ECUs and other electrical parts, control panel, LCD, or caps with a breather. Water can enter and cause damage.**
- **High-pressure washer can peel off the sticker labels.**



1. Set the washer nozzle (of a hose or a high-pressure washer) to diffuse mode. Never use direct or straight mode.
2. When washing the machine with a running water from a hose or with a high-pressure washer, keep enough distance from the machine (2 m (2.2 yd) or more with running water. With a high-pressure washer, refer to its instruction manual).

NOTE

- **Water under high pressure can damage the wiring and insulation of the electrical components, which can result in damage, electrical shock, or fire.**
- **Water under high pressure can damage the hydraulic plumbing, which in turn can cause the hydraulic oil under very high pressure to escape and cause damage or severe injury.**
- **Water under high pressure can peel off sticker lables, paint and plating, or damage rubber, plastic, or glass parts.**
- **Water under high pressure can enter inside the engine, transmission, electrical parts, tanks, cabin, etc. to cause damages.**

Storage

⚠WARNING

- **Fire hazard; do not store the machine where there is a possiblity of ignition.**

NOTICE

- **Do not wash the engine or control panel with running water; water may enter inside and cause rust or damage.**
- **Clean the machine before storage; leaving dirt or foreign objects may cause rust or damage.**
- **Do not store the machine in a humid, dusty, or hot place.**

1. Follow the instructions in **Parking** (page 35) to park the machine.
2. Move the accelerator lever to [(SLOW)] position and press the parking brake switch Ⓟ.
3. Clean dirt off of the machine.
4. Follow the **Maintenance Schedule** (Page 47) to perform scheduled services.
5. Wipe clean the steel parts with oiled cloth.
6. Grease the greasing points.
7. Change engine oil (Page 57).
8. Completely drain engine coolant.
9. Clean the air cleaner element (page 79).
10. Completely drain the fuel tank.
11. Turn the battery kill switch to the [○ (OFF)] position. Service battery (page 72).
12. Cover the machine with protective, water-proof covering after the machine is cooled off.

NOTE

- **Battery dischages even when it is not in use. A battery may hold charge for a few months, but it is a good practice to charge battery before it goes flat; it will extend the battery life.**
- **Refer to the Operation Manual for the engine, for detailed instructions on preparing the engine for storage.**
- **Before starting up the machine after storage, make sure to fill engine coolant and fill fuel and bleed air from the fuel system. After starting, check for leaks and drive slowly to make sure everything is in order.**

Troubleshooting

• If any malfunction or abnormal condition is found, immediately stop using the machine and take an appropriate measure according to the Troubleshooting chart below. If the malfunction or abnormal condition is not listed in the chart, or the suggested measure does not solve the problem, consult with your CANYCOM representative.

• Some corrective measures listed below require special knowledge and/or equipment. Please contact your CANYCOM representative in such a case.

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Engine	Engine does not start, or is difficult to start	Out of fuel.	→Fill fuel.	Page 26
		Air in fuel system.	→Bleed air.	Page 61
		Water in fuel.	→Drain water.	Page 62
		Battery is discharged.	→Add battery fluid →Charge battery. →Replace battery.	Page 72
		Battery cable is disconnected.	→Connect battery cable.	
		Bad connection or breakage in the wiring.	→Please contact your CANYCOM representative.	
		Starter switch, relay or motor is defective.	→Please contact your CANYCOM representative.	
		Insufficient or wrong oil.	→Fill or change oil.	Page 56
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Engine stalls	Out of fuel.	→Fill fuel.	Page 26
		Air in fuel system.	→Bleed air.	Page 61
		Cold engine.	→Warm up engine.	
		Other (other than the above).	→Please contact your CANYCOM representative.	

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Engine	Engine stops abruptly	Out of fuel.	→Fill fuel.	Page 26
		Piston seizure due to insufficient or bad oil.	→Please contact your CANYCOM representative.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Engine does not stop	Electrical malfunction	→Please contact your CANYCOM representative.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Idling is not stable	Insufficient intake air (clogged air cleaner).	→Clean or replace air cleaner.	Page 79
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Poor power or acceleration	Bad fuel	→Change fuel.	
		Wrong oil (improper viscosity)	→Change to suitable oil.	Page 53
		Accelerator is not properly adjusted.	→Please contact your CANYCOM representative.	
		Insufficient intake air (clogged air cleaner).	→Clean or replace air cleaner.	Page 79
		Excessive load	→Reduce load.	
		DPF is clogged.	→Please contact your CANYCOM representative.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Irregular noise or vibration from or around the engine	Loose engine mount.	→Tighten.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Excessive oil consumption		→Please contact your CANYCOM representative.	

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Engine	Engine overheats	Insufficient amount of engine oil.	→Fill oil.	Page 56
		Insufficient amount of coolant.	→Fill coolant.	Page 77
		Radiator is clogged or blocked.	→Clean.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Excessive fuel consumption	Leak in the fuel system.	→Please contact your CANYCOM representative for a repair.	
		Clogged air cleaner.	→Clean or replace air cleaner.	Page 79
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Black smoke comes out of exhaust	Bad fuel.	→Change fuel.	
		Clogged air cleaner.	→Clean or replace air cleaner.	Page 79
		Other (other than the above).	→Please contact your CANYCOM representative.	
	White or blue smoke comes out of exhaust	Engine oil level is too high.	→Adjust the oil level.	
		Wrong oil (improper viscosity)	→Change to suitable oil.	Page 56
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Accelerator lever does not move smoothly	Deformed or rusty linkage or wire.	→Please contact your CANYCOM representative.	
		Other (other than the above).		
	Error warning lights up	ECU or VCU error.	→Please contact your CANYCOM representative.	

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Drive Train	Machine does not move (forward, backward, turning) when the travel lever is in the corresponding position.	Parking brake is applied	→Release parking brake.	Page33
		Excessive load	→Reduce load.	
		Insufficient or deterlorated HST fluid.	→Add or change fluid.	Page 71
		Other malfunction in the hydraulic drive system.	→Refer to the "Hydraulics" section	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Irregular noise or heat is observed at or around the track.		→Please contact your CANYCOM representative.	
Brake	Parking brake does not work well.	Problem in hydraulic system.	→Refer to the "Hydraulics" section	
		Other (other than the above).	→Please contact your CANYCOM representative.	
Hydraulic System	Dump does not operate normally. Vessel (bed) does not go up or go up very slowly.	Emergency Dump Valve is open. (The white line on the valve bolt is not vertical.)	→Turn the valve bolt clockwise so that the white line becomes vertical.	Page 39
	Hydraulic components (hydraulic motor, cylinder) does not work properly.	Insufficient or deteriorated hydraulic oil.	→Fill or change oil.	Page 64
		Hydraulic oil is contaminated	→Change oil.	Page 66
		Oil filter is clogged.	→Change filter.	Page 67
		Oil leaks	→Repair leak.	
		Insufficient discharge from hydralic pump.	→Please contact your CANYCOM representative.	
		Other (other than the above).	→Please contact your CANYCOM representative.	

Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Chassis	Track does not move smoothly.	Not properly adjusted.	→Adjust.	Page 69
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine vibrates	Track is loose.	→Adjust.	Page 69
		Track is derailed.	→Put it back and adjust its tension	
		Mount bolt on track roller, upper roller, sprocket, or idler is loose.	→Tighten.	
		Track roller bearing is damaged.	→Please contact your CANYCOM representative to replace..	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Machine does not travel straight.	Roller, upper roller, idler or sprocket is damaged.	→Repair or replace.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
Safety Devices	Light does not turn on.	Damaged wiring.	→Repair.	
		Blown fuse.	→Replace.	Page 75
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Oil pressure warning stays on after the engine starts.	Low oil level.	→Fill.	Page 64
		Other (other than the above).	→Please contact your CANYCOM representative.	

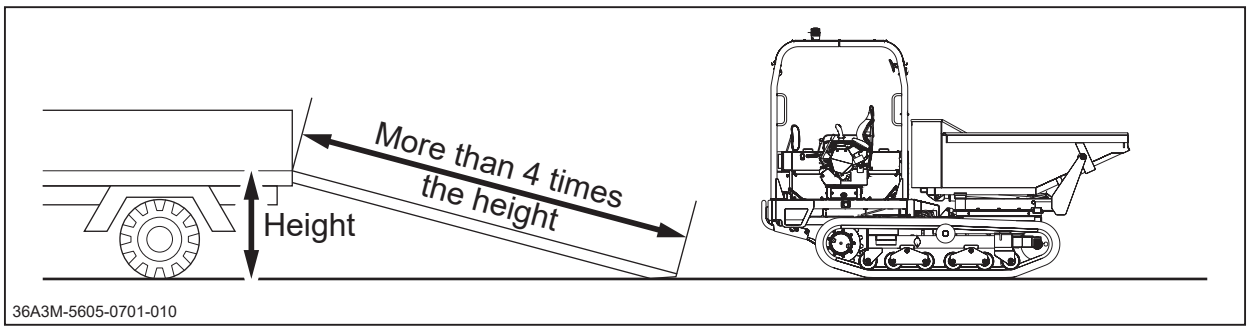
Area	Malfunction	Possible Cause	Corrective Measure	Ref.
Safety Devices	Overheat warning stays on after the engine starts.	Engine is overheating.	→Refer to the Operator's Manual for the engine.	
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Charge warning stays on after the engine starts.	Blown fuse.	→Replace.	Page 75
		Other (other than the above).	→Please contact your CANYCOM representative.	
	Horn does not work.	Blown fuse.	→Replace.	Page 75
		Other (other than the above).	→Please contact your CANYCOM representative.	

Hauling

Loading and Unloading

⚠WARNING

- **Park the transporter (truck) on a level ground and apply parking brake. Always use chocks to secure wheels.**
- **Do not allow bystandars to come close to the machine or the transporter when loading or unloading the machine.**
- **Use only the loading ramps with suffient strength(to withstand the combined weight of the machine and the operator), width (more than 1.2 times the width of the track), and length (more than 4 times the height of the bed of the transporter), and have anti-slip ramp surfaces.**
- **Secure the hooks of the loading ramps firmly and flush with the bed of the transporter.**
- **Move slowly foreward when loading onto, and move slowly backward when unloading off of the transporter. Pay special care when going over the joint between the bed and the ramps; the machine may tip.**
- **Do not turn on the loading ramps. The machine may fall.**
- **Tie down the machine securely. Make sure the machine does not move around on the bed of the transporter.**



Loading to the Transporter

1. Park the transporter and apply parking brake. Secure the wheels with chocks.
2. Place the loading ramps. Secure the hooks of the ramps firmly and flush with the bed of the transporter.
3. Set the H/L Speed Selecter switch to [(LO)] mode and drive the machine slowly forward onto the bed of the truck.
4. Park the machine according to the instructions in "Parking" (Page 35).
5. Tie the machine at lift hooks with rope or tie-down belts and secure it onto the bed of the transporter securely.

Unloading from the Transporter

1. Park the transporter and apply parking brake. Secure the wheels with chocks.
2. Undo rope or tie-downs that secure the machine.
3. Place the loading ramps. Secure the hooks of the amps firmly and flush with the bed of the transporter.
4. Set the H/L Speed Selector switch to [(LO)] mode and drive the machine slowly backward from the loading deck to the ground.

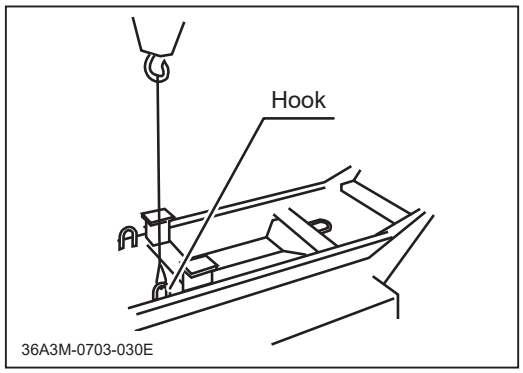
Hoisting and Towing

Hoisting

⚠WARNING

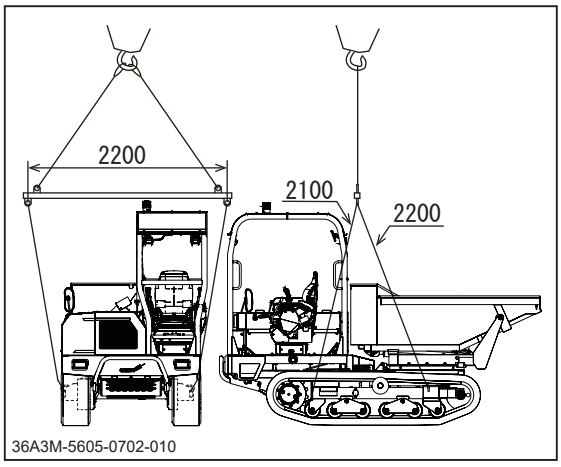
- **Hoisting requires qualifications. Check with your local authority for necessary qualifications and licenses for hoisting.**
- **Use hoisting wire rope, slings and hooks (shackles) of strength sufficient for the weight of the machine.**
- **Beware of the shift in the center of gravity and balance of the machine when hoisting.**
- **Always unload the machine before hoisting.**

Hoisting one side of the machine (when changing tracks or track rollers.)



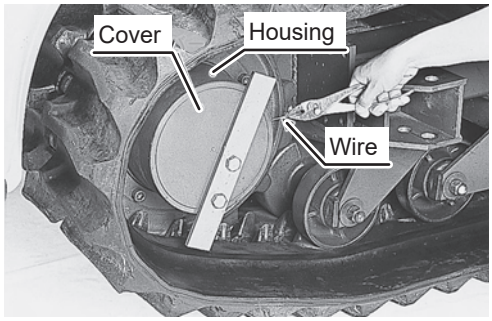
Attach sling or wire rope to the hoisting hook on the side of the chassis that needs to be lifted and hoist.

Hoisting the whole machine



1. Prepare a cross-bar and wire rope or slings of appropriate lengths as in the illustration.
2. Attach wire rope or slings to the hoisting hooks on the chassis as in the illustration.
3. Attach wire rope or slings to the cross-bar and hoist it lightly so there is no slack. Adjust the lengths of the rope or slings so they do not rub against the body panels.
4. Hoist slowly until the tracks are slightly off the ground and stop to see if the machine is balanced, and adjust as necessary.
5. If it is balanced, hoist up slowly.

Towing



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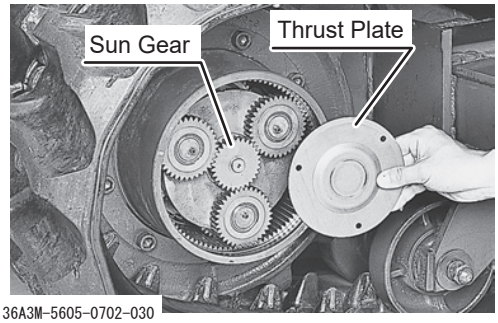
When the machine cannot be driven due to the engine or HST failure, follow the procedure below to release its brake (negative brake) and tow it to a safe place.

*When towing, keep it slow (below 3km/h) and short (within 30m). Avoid towing for any longer.

Clean the dust and mud off the motor so it does not enter inside the motor.



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Removing the Sun Gear and Releaseng Brake

1. Remove the drain plugs (R3/8) and Filler Plug (R3/8) to drain oil.
2. Remove the plug from the housing, pull the wire end from the plug hole, pull off the wire to remove the cover.
3. Remove the thrust plate.
4. Pull the sun gear out from the planetary gear set.
5. Reinstall all the parts except the sun gear in the reverse order of removal.

NOTE

Reassembly

- **Bend the wire, at the point 8mm from the end, 90 degrees, insert it into the plug hole on the housing, and turn the cover to wind the wire in.**
- **Fill the specified oil for the required amount.**
  Reduction gearbox oil …SAE 3#90, GL-4
  Amount: 0.6L Each

6. Tow the machine.

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NOISE LEVEL(ISO 6395:2008,ISO 6396:2008)

Model	Engine		LpA	LwA
Type	Type	Speed rpm	86 dB (A)	
S300	Kubota V2403	2400 rpm		101 dB (A)

VIBRATION(ISO 5349:2001,ISO 2631:1997)

Model	Engine Speed	Vibration	
		Travel Lever	Seat
S300	2700 rpm	m/s^2 (uncerfainty K=0.45m/s^2)	m/s^2 (uncerfainty K=0.15m/s^2)

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