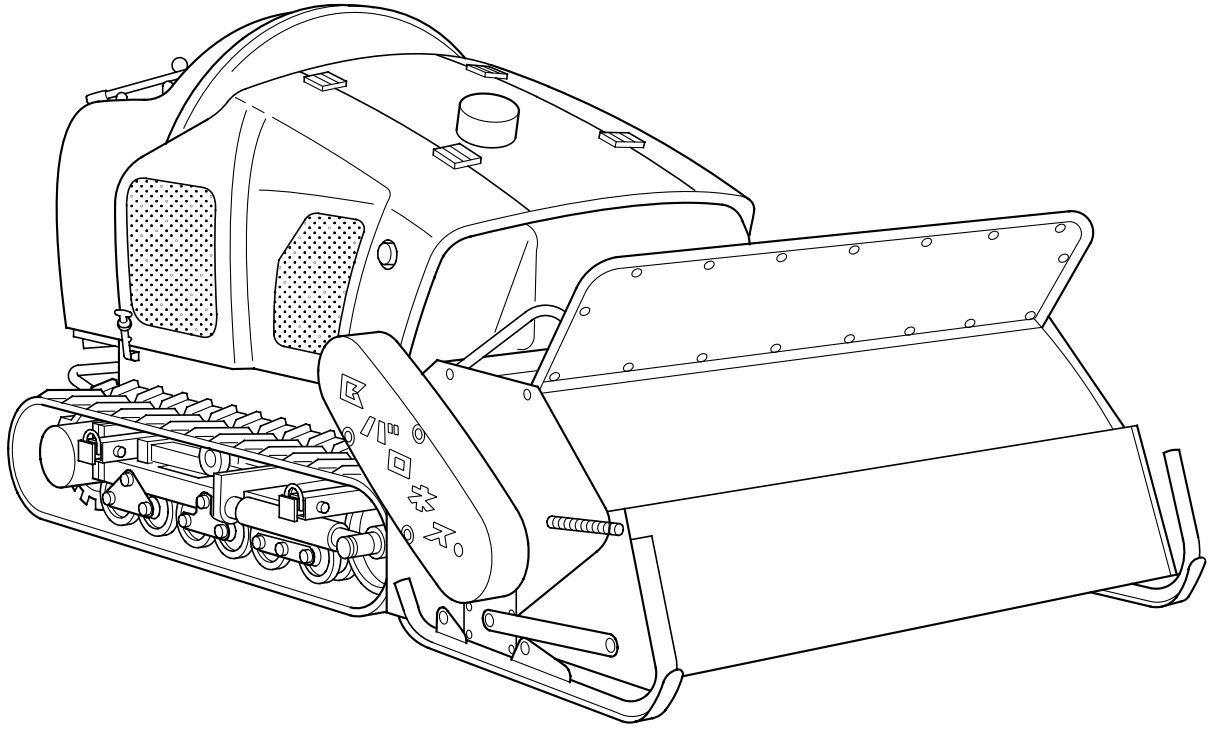
HMA1560
HMA1720

BARONESS
HAMMER KNIFE MOWER

Owner's Handling Manual & Parts Catalogue 2005.2



"Required Reading" Before using the machine please ensure that you have read this manual and the operating and instruction manual for the engine.

BARONESS

CONTENTS《Handling Manual》

Warning for Safety

Warning labels with the ⚠mark have been attached to this machine. The labels indicate the items which are particularly important from the safety point of view, so please work safety and always obey warnings.

Warning Marks

⚠ DANGER	Negligence of the warning will cause death or serious injury.
⚠ WARNING	Negligence of the warning may cause death or serious injury.
⚠ CAUTION	Negligence of the warning may cause injury and / or physical damage.

Symbols


See theHandling Manual


Caution mark
(Rotating parts)


Caution mark
(Hot surface)


Fuel mark
(Light oil No.2)


Caution mark
Exhaust gas


Caution mark
Crushing


Danger mark
Flying objects


Danger mark
Blade rotation

Grease
Every 50hours


Warning mark
High-pressure oil


Strict prohibition of fire

Greeting

Thank you very much for purchasing the BARONESS HAMMER KNIFE MOWER HMA1560/HMA1720.

This handling manual explains the method of correct use, adjustment and inspection of the HAMMER KNIFE MOWER. Carefully read this manual before operation so as to thoroughly understand the machine. The machine is shipped after sufficient trial operation and inspection when it is completed at the factory. However, whether or not the machine can exhibit its expected performance depends greatly on the handling method, as well as the skill of inspection, adjustment, and lubrication before and after operation. Carefully maintain your machine to bring out the best in the machine and for safe operation. Keep this manual near the machine for future reference to confirm unclear points as necessary.

= CAUTION =

◆The type of the machine may change sequentially. Please inform us of the machine No. when making an inquiry.

◆For improvement the contents of this manual are subject to change without notice.

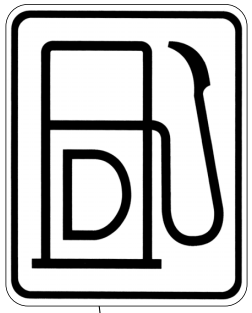
⚠ CAUTION

・Warning marks have been used in this Manual and machine to ensure that you can operate it safely. Please read carefully to understand well.

・Thoroughly understand the operation procedure and safety cautions before you operate this machine.

・The marks and accompanying explanations should be preserved in their entirety. If they become lost or damaged please replace them immediately with new ones.

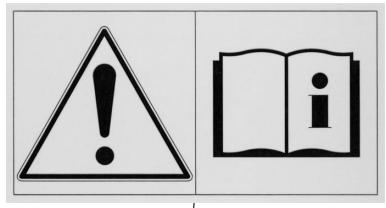
Location of labels

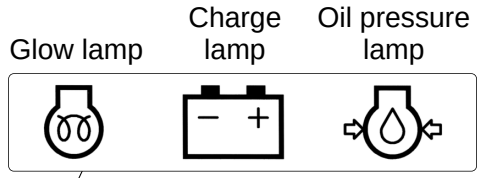


Fuel filler port (diesel)
Refer to p.12 and p.16.

Refer to p.11.

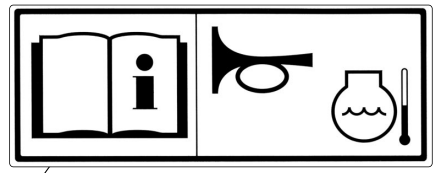
Read the handling manual.

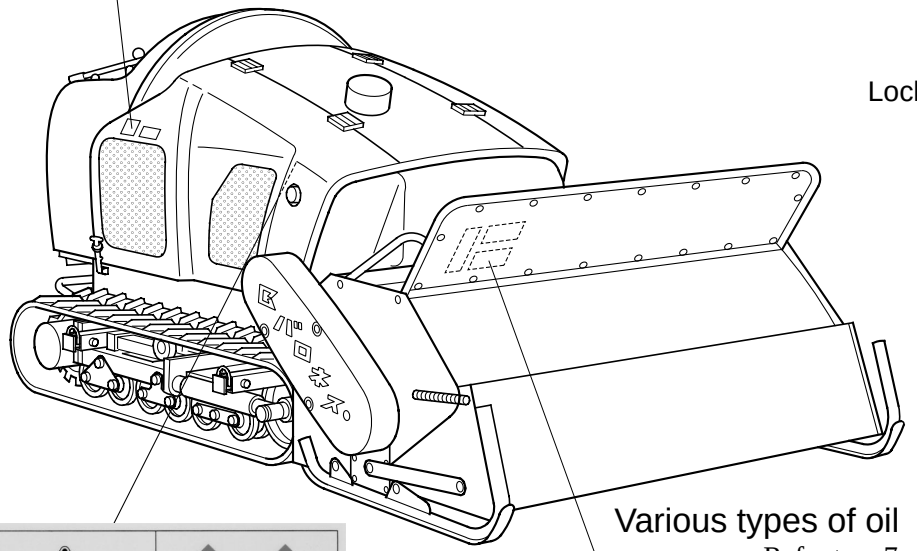


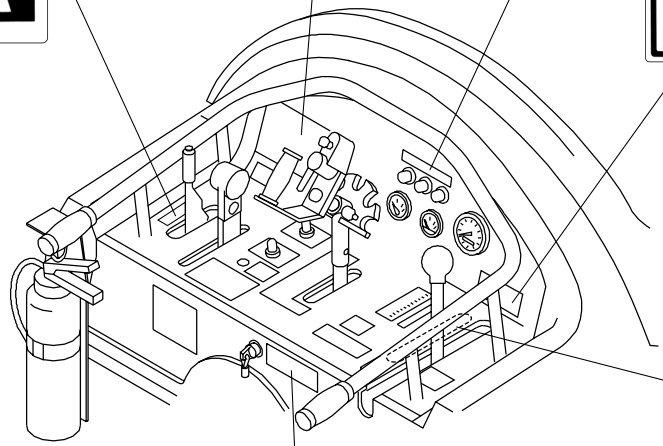


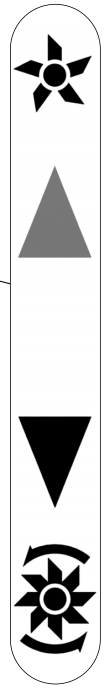
Various pilot lamps

Overheat alarm buzzer
Refer to p.11.







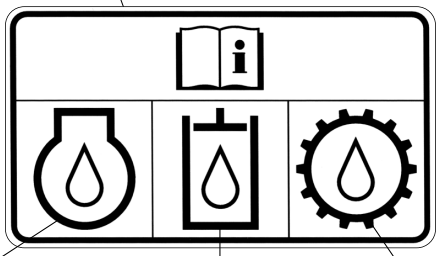


Knife clutch lever mark
Refer to p.10.

Sign of caution against hot section

※Danger of skin burn.
Do not touch.

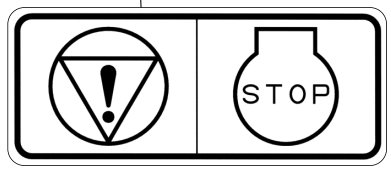
Various types of oil
Refer to p.7



Engine oil
Refer to p.16.

Hydraulic oil
Refer to p.7 and p.12.

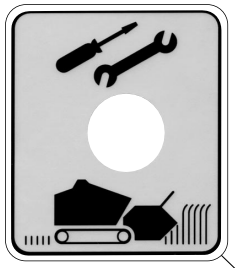
Gear oil
Refer to p.17.



Engine emergency stop unit

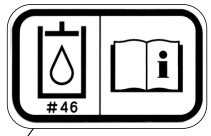
※Be sure to wind the emergency switch cord around the arm or part of the body.
Refer to p.4.

Hydraulic cylinder single-double changeover switch
Refer to p.17.



Mowing height adjustment
Refer to p.10.

Hydraulic oil mark
Refer to p.7.



Caution as to injury by scattered objects

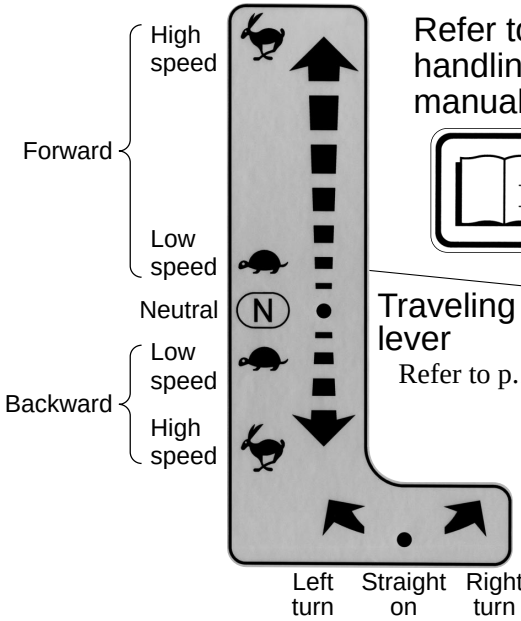
Do not allow people to stand in front of the machine.

Caution as to injury by cutting blade

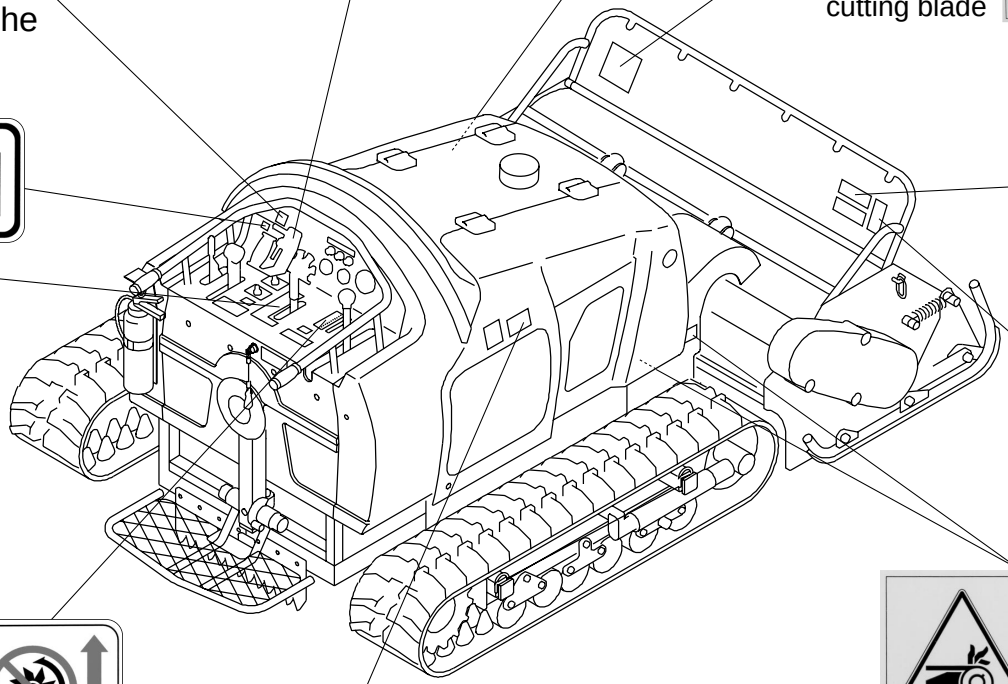
Do not approach the blade.

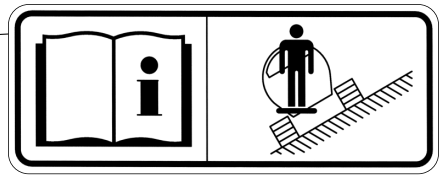
Sign of danger from hammer knife

Refer to the handling manual.

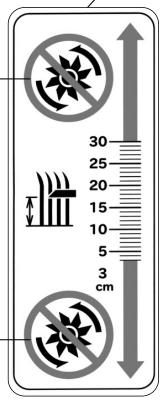


Traveling lever
Refer to p.10.

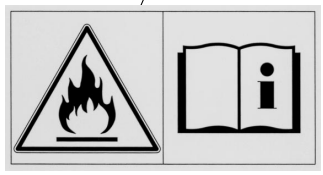




Work on a slope
Refer to pp.11-12.

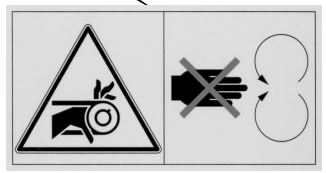


Scale of mowing height
Refer to p.10.



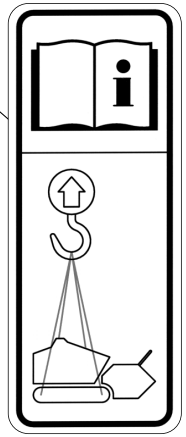
Sign of caution against fire

※Be sure to practice the matter described in "2-4. Fire prevention" on P.5.



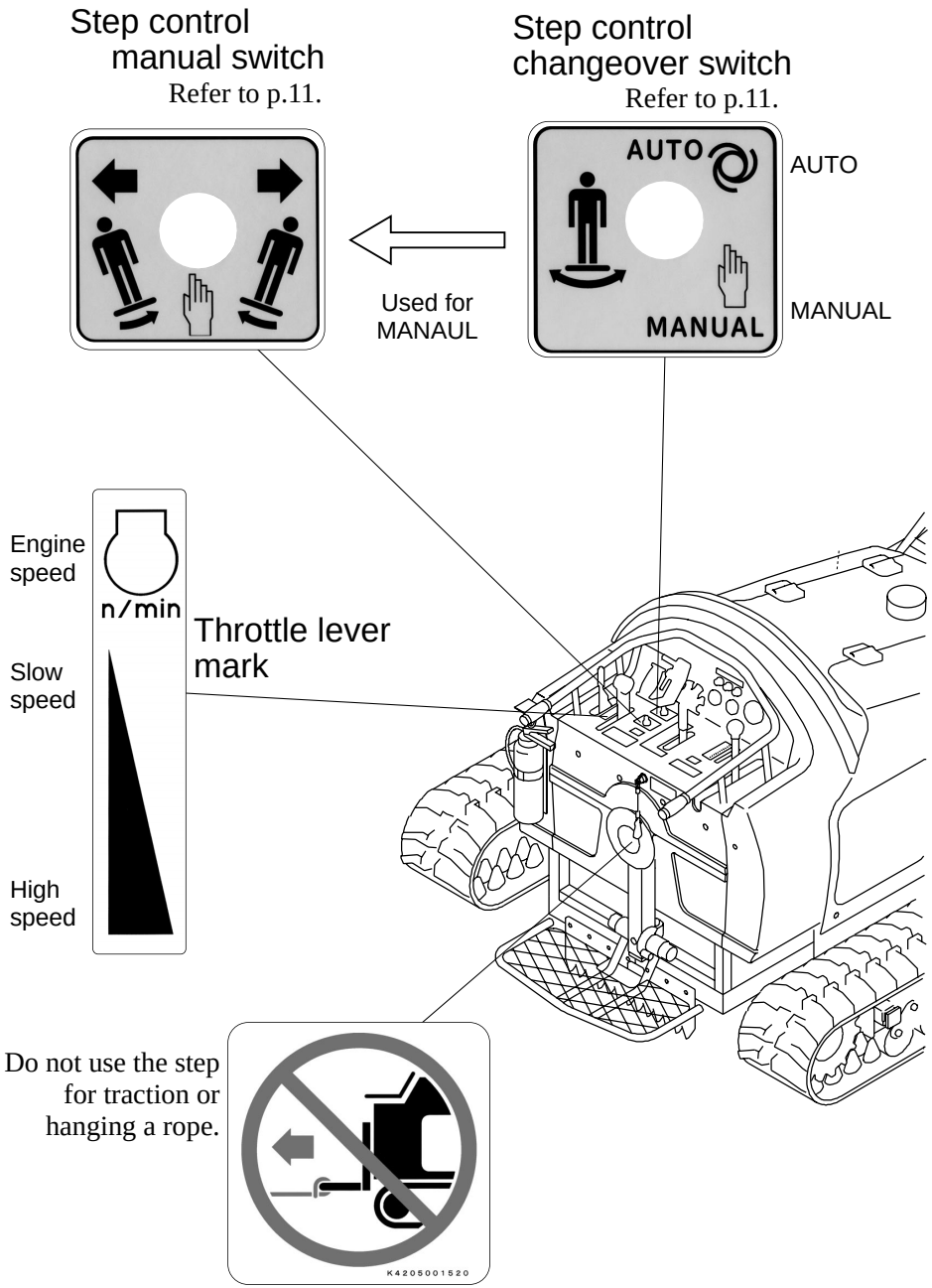
Sing of caution against rotating section

※Keep away to avoid danger of being caught.



Hoisting
Refer to p.16.

Lubrication of each part
Refer to p.8.



1. Precautions as to use

1-1 CAUTION Preparation before use of machine

① Be sure to check and maintain the machine before and after use.

② The protective cover and other protective parts are provided to prevent users from danger. Be sure to install them at the specified locations, and replace them with new ones when they are broken.

③ Carefully read the warning labels and operation manual before operating the machine to thoroughly understand the machine operation.

1-2 WARNING Emergency switch

・Unless the emergency switch is used, the engine may not stop in an emergency, leading to death or serious injury.

・Be sure to install the emergency switch correctly. Wind the string of the emergency switch around your arm or body completely before using the machine.

1-3 DANGER Be careful of rotating parts

① The knife and other rotating parts are dangerous. Do not put your hands, feet, or any other object in them or do not touch them during work or maintenance.

② Check that there is no person or other objects that may break the machine around the machine or in the area within 30 degrees and 100 m at the front of the machine during operation.

③ Stones, wires, sticks, and other obstacles may cause damage to the knife or an accident due to flying objects. Remove them before operating the machine. Wires, vinyl and other objects may be wound around the knife shaft. When you hear an abnormal sound, stop the engine, and remove such objects after the knife shaft has stopped rotation.

④ Should the knife be broken, the knife shaft will be unbalanced, causing vibration, which is very dangerous. Be sure to change the knives, otherwise the machine will be broken.

1-4 CAUTION Be careful of hot part

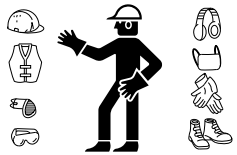
・Do not touch the cover or muffler during operation or right after the machine stops, otherwise a skin burn may result.

2. Safety operation

Blades rotate at high speed in the mowing machine under severe conditions such as vibration, slope, and dust. Operation conditions are subject to the place of use, existence of obstacles, condition of grass, etc. We sincerely desire that users should inspect and maintain the machine completely, make efforts to master the machine operation skill, take measures for safety, use the machine correctly so as not to do harm to others, and give top priority to safety operation.

2-1 ⚠WARNING Clothes for safety

Wear proper clothes that will not be caught in the machine, and wear protective gear, goggles, shoes, helmet, and gloves. Provide a first aid kit and secure a means of communication to deal with an emergency.



2-2 ⚠WARNING Avoid such operation

① Do not use the machine when you are tired. When you feel tired while using the machine, stop the work and take a rest.

② Sick people, drunken people, and people under the influence of drugs are not allowed to use the machine. The visual sense, nimbleness in action, and judgment will be adversely affected.

③ When you are unfamiliar with machine operation, read the handling method and safety precautions to understand them well before operating the machine. Do not allow children to use the machine.

2-3 ⚠CAUTION When lending the machine to others

When lending the machine to others, an unexpected accident may occur because they have no knowledge about the safety precautions and handling method shown in the operation manual. Hand over the operation manual and tell them to read it carefully before using the machine, explaining the handling method well.

2-4 ⚠CAUTION Fire prevention

Do not operate the machine with mown grass, dust, etc. accumulated in the cover or around the engine or the transmission, otherwise fire or other trouble may result. Remove them carefully. Improper maintenance and incorrect operation and dry grass mowing might cause fire. Clean and check the machine as shown below before and during work.

① Remove dry grass, dust, and other obstacles from around the muffler and engine.

② Check the fuel hose for cracks due to deterioration.

③ Check for fuel leakage during fuel supply.

④ Fuel supply during engine operation is prohibited.

⑤ Check the wiring to prevent fire due to a short circuit.

⑥ Inspect the fuel tank and carburetor for fuel leakage due to operation on a slope.

⑦ Be sure to carry a fire extinguisher and water etc. when mowing dry grass.

2-5 ⚠WARNING Prohibition of nighttime traveling and work

The machine is not provided with any lighting equipment. Do not operate the machine at nighttime or when the visibility is poor due to bad weather, etc.

2-6 ⚠CAUTION Remodeling of the machine prohibited

Do not remodel the machine. Use genuine parts for maintenance to ensure safety.

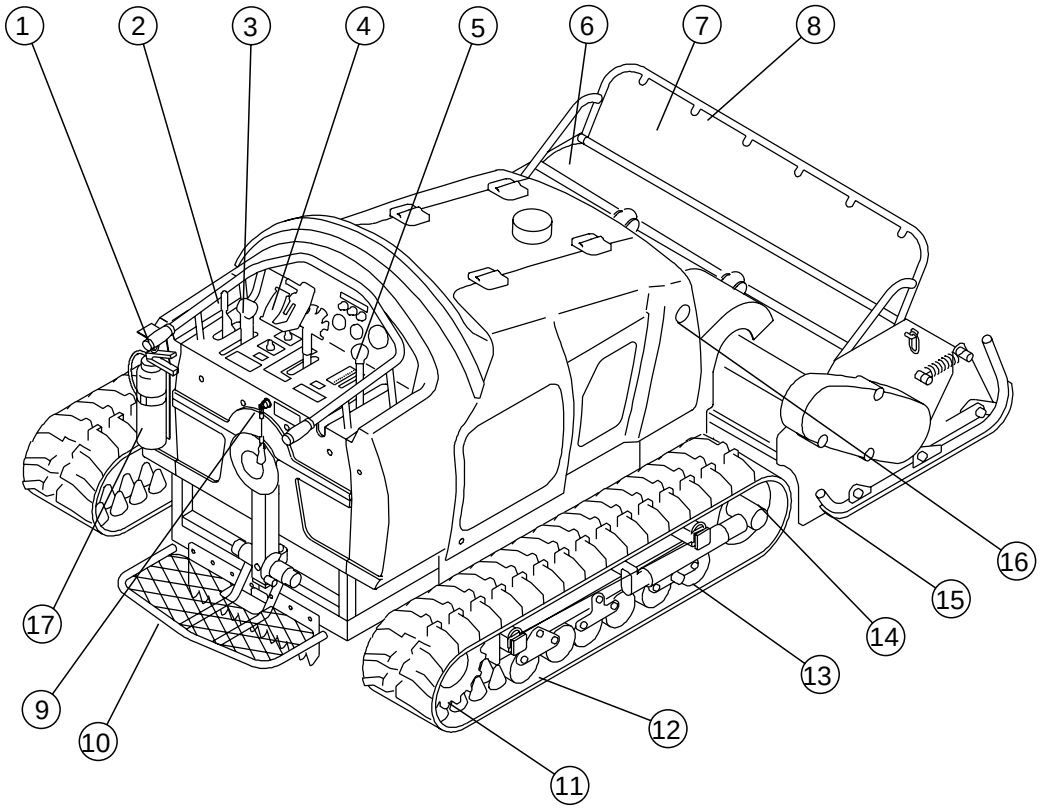
◆Antiscattering chain

The antiscattering chain is used to prevent stones, etc. from scattering forward during mowing, thereby preventing damage to human beings, buildings, vehicles, etc. Refer to "6. Knife frame" in the parts catalog for the installation method.

⚠CAUTION

Observe the precautions in "1. Precautions as to use" and "2. Safety operation" and pay sufficient attention to the area around the machine during operation.

3.Part names



No.	N a m e	No.	N a m e
1	Handle	10	Step
2	Side brake lever	11	Sprocket
3	Throttle lever	12	Crawler
4	Traveling lever	13	Bottom roller
5	Knife clutch lever	14	Front roller
6	Mower portion (Hammer knife)	15	Knife guard
7	Protection plate	16	Muffler
8	Protection plate frame	17	Fire extinguisher
9	Emergency switch		

4.Features

◎This energy-saving type large mowing machine with a diesel engine is manufactured for professional use especially for slope land operation. The mowing width is 154 or 170 cm, and the maximum output is 26.5 kW. The machine is ideal for mowing on river banks, skiing ground and major roads, as well as in other large areas.

◎The rubber crawler ensure great hill climbing ability, and the low center of gravity permits safe work even on a slope. The crawler section is provided with a seesaw roller mechanism to cope with pitching, and the projections inside the crawler are made long to prevent crawlers from coming off. The grease cylinder used for crawler tension adjustment is easy to operate.

◎The machine travels hydraulically at variable speed. The single traveling lever permits simple operation to move the machine forward and backward, change the speed, and turn the machine. The position of the traveling lever can be selected from five angles, ensuring satisfactory operation and improvement of work efficiency.

◎The hydraulic system permits easy adjustment of mowing height. The special structure of the knife frame permits long grass cutting length and easy collection of cut grass. The grass stop shaft (option) makes the cutting length shorter.

◎The step (simple riding unit) keeps the machine horizontal by using an angle sensor so as to enhance safety of the operator.

◎The hammer knives are attached to move freely and the structer lessens impact of stones and other obstacles when they hit against the hammer knives, hardly causing damage to the hammer knives.

◎The hammer knife is made of heat-treated special tough steel, ensuring sharp cutting and durability and permitting use of both sides by changing the right and left knives. The hammer knives are attached by bolts and nuts, permitting easy change.

◎The four-cylinder diesel engine with a starter is easy to start, and the forced lubrication system and large oil pan can withstand the instantaneous maximum inclination of 35 degrees.

◎The hitch method is adopted to install the mower portion, permitting easy installation/removal of the portion.

5.Specifications

		HMA1560	HMA1720
Dimensions	Total length	3,000mm(3,200mm Foot step)	
	Total width	1,717mm	1,910mm
	Total height	1,350mm	
Engine		Mitsubishi Diesel S4L2-E231KM 1.758L (1,758 cm3)	
		Max. output: 26.5 kW/2,800 rpm (36 PS/2,800 rpm)	
		Fuel tank: 33 L (dm3)	
Rubber crawler		30×7.2cm(51P)	35×7.2cm(51P)
Speed change		Forward: 0-6.5 km/h	
(Hydraulic variable speed)		Backward: 0-4.5 km/h	
Hammer knife		120 blades	140 blades
Knife clutch		Belt tension type	
Mowing height		3-28 cm(max. 42 cm)	
Mowing width		154cm	170cm
Efficiency		70 are/h (6.5 km/h)	77 are/h (6.5 km/h)
		(Mowing width×Operation speed×0.7)	
Max. operating inclination		30°	
Ground pressure		16.6kPa	14.6kPa
Dry weight		1,470kg	1,510kg
Curb weight		1,535kg	1,575kg

CAUTION

The idling speed of the engine is approx. 1,500 rpm. Set the idling speed to avoid sympathetic vibration with the machine. The engine revolution may reach 3,000 rpm under no-load condition.

CAUTION

For transportation of the machine, give attention to the width of the loading space.

6. Inspection before use

Inspect the machine according to "13. Maintenance schedule."

6-1. Lubrication to each part

① Supply the specified quantity.
② Don't use old oil.
③ Lubrication the friction surfaces of each part.

Refer to the diesel engine operation manual for the method of handling the engine.

6-2. Inspection of hydraulic oil

Approx. 28 litters of hydraulic oil is in the hydraulic tank. Place the machine horizontally and check that the level of the hydraulic oil is at the center of the oil gauge.

6-3. CAUTION Hydraulic oil change

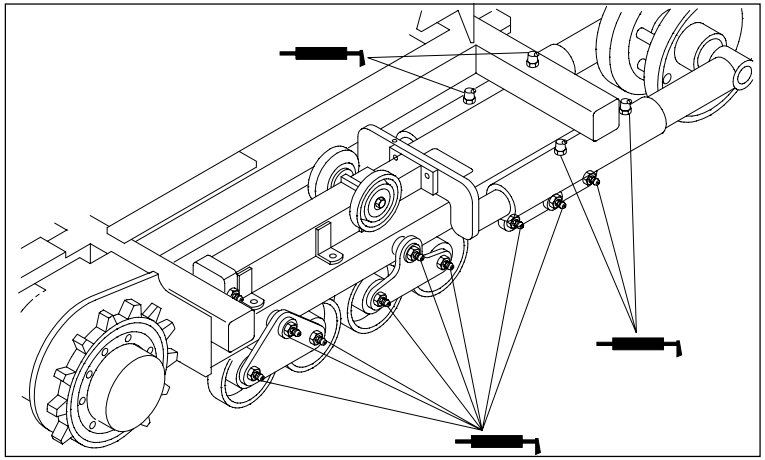
① Change the hydraulic oil one year or 500 hours later, whichever comes earlier.
② Change the filter when the hydraulic oil is changed.
③ When the hydraulic oil is emulsified or its transparency is lost even slightly, change it instantly.
④ Supply the hydraulic oil, Shell Tellus ST46 or TX46(ISO VG46) or its equivalent.

6-4. Lubrication of friction surface of each part

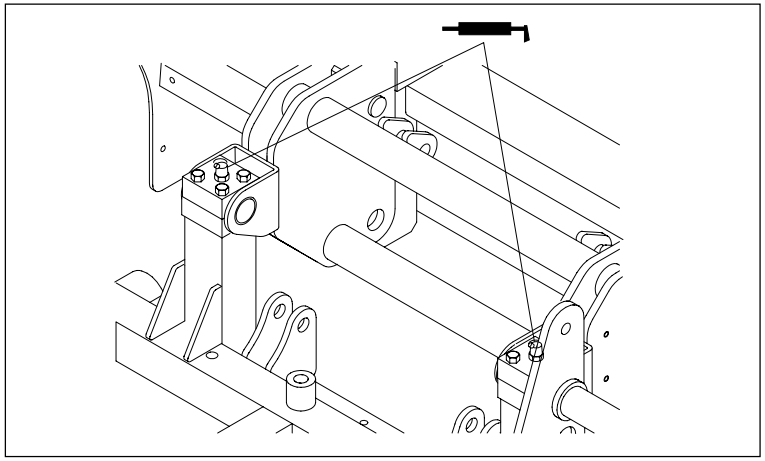
50h

Supply oil constantly to the inlet/outlet of the wire and the joint of each part to prevent rusting. Supply grease to the grease nipple every 50 hours.

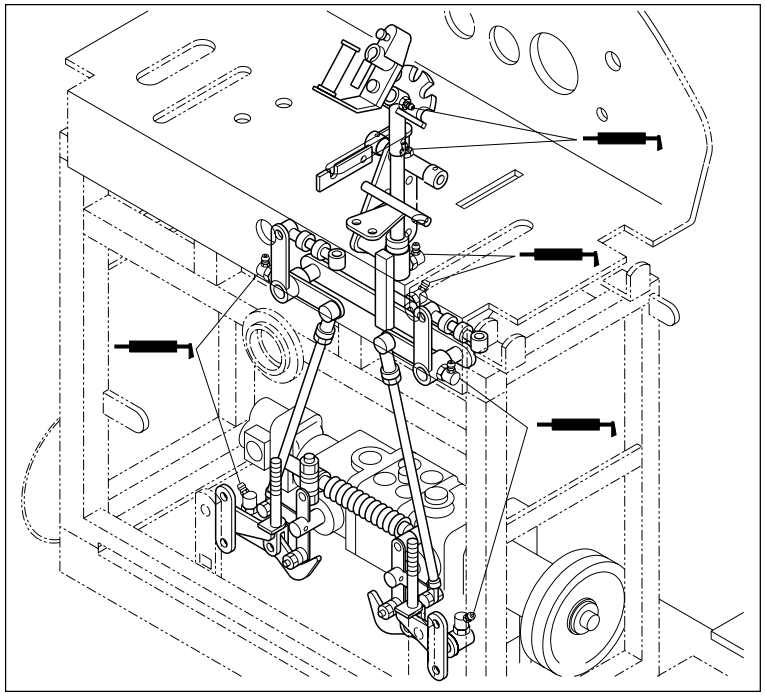
Crawler [26 places]



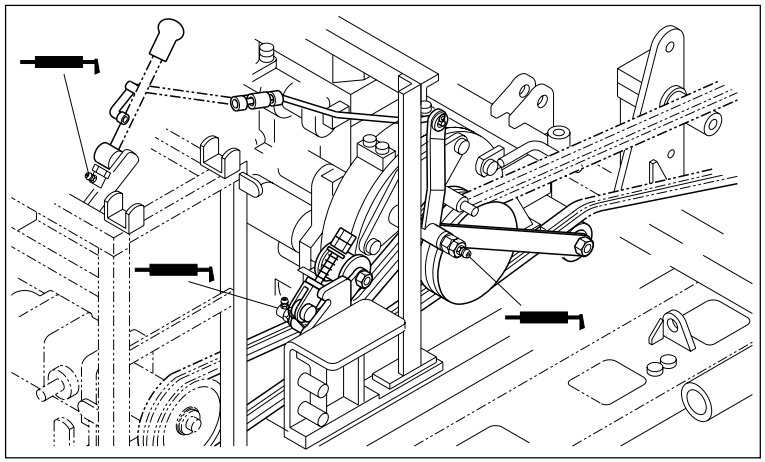
Fulcrum of knife frame [2 places]



Operation lever and neutral positioning [8 places]



Tension [3 places]



7. Tightening each part

Bolts are used for each part. After initial use of the machine, the bolts and nuts may get loose. Tighten loose bolts and nuts.

Optimum tightening torque: N·m (kgf·cm)

	Ordinary bolt	Heat-treated bolt
M 6	8 (80)	16 (160)
M 8	18 (180)	36 (360)
M10	36 (360)	72 (720)
M12	60 (600)	120 (1200)
M14	90 (900)	

8. Engine starting sequence

8-1. ⚠ WARNING Engine start

- Before starting the engine, read the diesel engine operation manual to thoroughly understand the contents.
- Put on the side brake and set all driving units at the neutral position.
- Check that the covers are at correct positions and that there is no one around the machine, and confirm safety before starting the engine.

- Do not start the engine in a room without an appropriate ventilator.
- Check that the knife clutch lever is disengaged before starting the engine.

8-2. Engine start･operation method

① Set the throttle lever in the high-speed range.

② Check the instruments.

[Key] → [ON] (Energization)

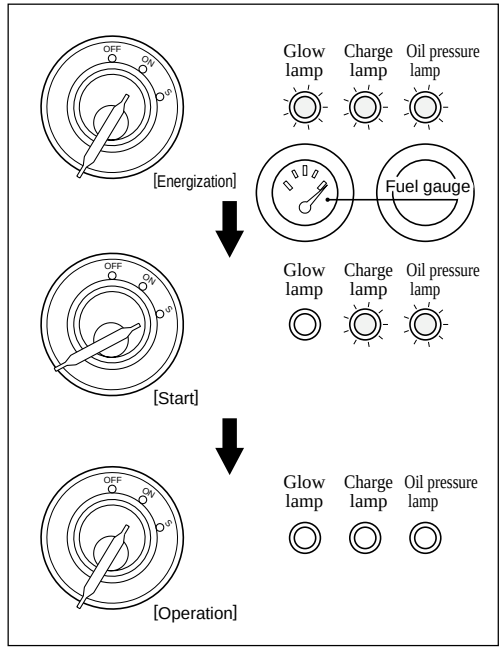
③ Start

After the glow lamp goes out

[Key] → [S] (Start)

④ Operation

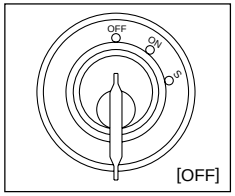
[Key] → [ON] (Operation)



8-3. Engine stop method

① Return the throttle lever to the slow-speed position.

② Turn OFF the switch and remove the key.



8-4. ⚠ CAUTION Precautions to take when leaving the machine

Park the machine in a horizontal state, turn off the engine, and check that all movable sections have stopped. Then put on the side brake and remove the key before leaving the machine. Never park the machine on a slope.

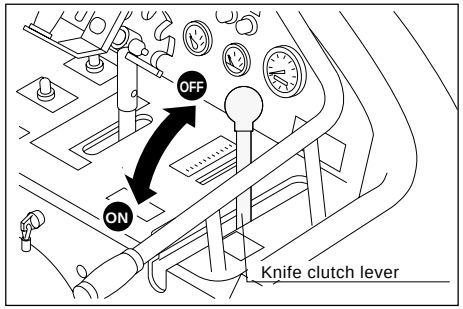
9. Machine operation

9-1. CAUTION Machine operation

- Check that the operating condition of each part especially the safety of the side brake, traveling lever and hammer knife mower before operating the machine.
- Operate the machine at slow speed so that the machine can be stopped immediately in any case.
- Remove obstacles from the operation area so that you and other people around the machine will not be injured.

9-2. Knife clutch

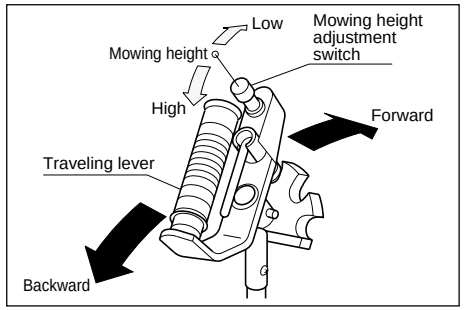
Pull the knife clutch to your side to engage it, and push it forward to disengage it.
The engine cannot be started when the knife clutch is engaged.



CAUTION

- Engage the knife clutch right before starting mowing operation. Be sure to leave it disengaged during any operation other than mowing.
- Since the knife shaft rotates by the centrifugal force, engage the clutch halfway until the rotation is normal. Do not engage the clutch completely at a stroke.

9-3.Traveling lever



- The traveling lever is at the center of the rear section of the machine. Push it forward to move the machine forward, and pull it back to your side to move the machine backward. Adjust the speed by changing the inclination of the lever.
- Turn the traveling lever to the direction of the desired direction of turning. Return the lever to the original position, and the machine will move straight.
- The position of the traveling lever can be selected from five angles. Change the position of the lever according to the operating conditions.

WARNING

When driving the machine on a steep slope, the machine will not stop even if the traveling lever is released. When driving the machine on a slope, hold the traveling lever with one hand and the handle with the other hand so that the machine can stop any time. Never release them during traveling.

9-4. Mowing height adjustment

The hydraulic method, in which a solenoid valve and cylinder are used, is adopted for mowing height adjustment. Tilt the mowing height adjusting switch on the traveling lever to your side to raise the mowing height, and tilt it forward to lower the mowing height. The mowing height adjusting range is 3-30 cm. The knife rotation above the range is prohibited for safety's sake though the mower portion itself can be raised higher for the sake of transportation or storage. Adjust the mowing height appropriately. Adjust the mower portion lowering speed with the valve unit, which will be seen at the back of the fuel filler port when the right side cover is opened.

9-5. Working speed

The working speed is hydraulic variable within the range of 0-6.5 km/h for forward operation and 0-4.5 km/h for backward operation. Adjust the speed appropriately with the traveling lever according to the condition of the geography and grass.

9-6. Step (simple riding unit)

The step is kept horizontal at all times by the angle sensor, automatic level control box and electric cylinder. The "step control changeover switch" at the left side of the traveling lever permits switching from AUTO to MANUAL, and vice versa. When the step control changeover switch is in the "MANUAL" position, the "step control manual switch" under the step control changeover switch permits control.

However, be sure to set the step control changeover switch in the "AUTO" position during mowing. Use the manual position only when maintaining the machine, the automatic control circuit fails, or some other emergency arises. When the automatic circuit fails, replace the part with a new one immediately. Do not operate the machine for mowing on the manual control step.

9-7. ⚠CAUTION Transportation on public roads

For transporting this machine through public roads, follow the appropriate laws of the country where it is moved.

9-8. ⚠CAUTION Alarm buzzer

When the alarm buzzer sounds, the engine is overheated. Stop operation, and remove dust that is jamming in the radiator or air cleaner etc.

9-9. Side brake

When the machine is not to be moved, pull the side brake lever fully to your side, and the brake will be applied to the hydraulic motor and the traveling lever will be locked at the neutral position.

10. Hammer knife

⚠ DANGER

When the balance is lost, the hammer knife will vibrate because it is rotating at high speed, which is very dangerous. Exercise care sufficiently.

10-1. Use of both sides of hammer knife

Both sides of the hammer knife are sharpened. When one side is worn, remove the pair of knives, and attach them reversely. The knife is attached to the knife shaft mounting hitch section by 11 mounting pin 32 and the nut with disc washer, and the knife can be removed easily.

Attach the mounting pin in the same direction as before.

10-2. Replacement of hammer knife

The knife shaft assy is balanced when shipped from our factory; therefore, unless all the knife blades of the same weight each are replaced at one time, or unless replaced symmetrically on the right and left portions of the knife shaft, the weight balance may be lost and vibration may be generated.

Since the hammer knife shaft assy are rotated at high speed, pay attention to the weight balance when replacing the hammer knife.

10-3. Grinding the hammer knife

When both sides of the hammer knife blade are worn, grind each blade in a manner that the weight of each blade will be the same as much as possible.

When the weight balance of the hammer knife shaft assy including the knife blades is poor, the hammer knife shaft assy will generate vibration, breaking the machine.

11. Operation on slope

11-1. ⚠CAUTION Operation on slope

When operating the machine on a slope, move the machine upward gradually from the bottom of the slope along the contour line.

When operating the machine on a slope, push the traveling lever forward to move the machine forward, pull it to your side to move the machine backward, and change the angle of the traveling lever to change the speed. Turn the traveling lever in the direction, in which the machine is to be turned. Release the traveling lever, and the lever will be set in the neutral position, stopping the machine. For safety, stop the machine so that it will be positioned along the contour line. When stopping the machine vertically on a slope, the machine may not be able to stop immediately because of the inertia of the traveling machine. The machine is provided with a hydraulic traveling system, and the step is provided with an automatic level control sensor. When the machine is therefore turned toward the bottom of the slope, the machine will turn smoothly because the center of gravity of the machine changes favorably, also ensuring the operator since this way can avoid his position just below the machine during turn.

11-2. WARNING Precautions as to operation on a steep slope

Be sure to observe the following matters when using the machine on a steep slope of 20 degrees and above.

① Do not operate the machine when there is a risk of falling or slipping.
② Before starting operation on a steep slope, check for holes, rocks, tree roots, illegal throwaways, etc. Remove them, if any, and then carefully operate the machine.
③ On a steep slope, operate the machine along the contour line, and turn the machine in a place with a small angle of inclination as much as possible.
④ Do not operate the machine on a steep slope of 30 degrees and above. Since the machine is very likely to fall down sideways on such a steep slope.
⑤ When ropes are used on a steep slope while working together with an assistant worker, the machine may move to a very steep slope with an angle of inclination that exceeds the allowable angle and the risk of falling down sideways will increase, preventing safe operation. As a maker of the machine, we will prohibit such operation.

12. Precautions as to maintenance

12-1. CAUTION Precautions as to maintenance

- Thoroughly understand the method of required maintenance.
- Do maintenance in a dry, clean place.
- Do not supply oil or do maintenance while the machine is operating.
- Do not bring your hands or feet near the driving and operating parts.
- Stop all driving parts, and operate respective control units to release the pressure.
- Install all parts in a satisfactory state.
- Repair or replace damaged parts immediately.
- Replace worn or damaged parts.
- Do not remodel the machine. Use genuine parts for maintenance to ensure safety.
- Remove dust, grease, and oil adhering to the machine.
- Remove the minus (-) wiring from the battery before maintaining the electric system.

12-2. WARNING Prevention of damage due to high-pressure oil

- The high-pressure oil, when sprayed over the skin, will cause serious injury.
- Release the pressure before removing the high-pressure line, hose, and joints.
- Check the tightness of all joints before starting operation.
- Use a small piece of cardboard to check for leakage. When your skin is sprayed with high-pressure oil, you must see a doctor within two to three hours.

12-3. DANGER (Diesel fuel) Precautions as to fuel handling

- Use of fire is prohibited strictly during fuel supply.
- Stop the engine to cool it outdoors before supplying fuel.
- To prevent fire, keep the machine clean without dust, grease, or oil at all times.
- Wipe off spilt fuel cleanly.

12-4. Precautions as to battery handling

Refer to the battery instruction manual for the method of handling the battery.

DANGER

- Use of fire is prohibited strictly when checking or charging the battery. The electrolyte is dilute sulfuric acid. Do not allow it to contact your body or the machine. If the electrolyte adheres to your body or the machine, wash it off with water immediately. Especially when it enters your eyes or you swallow it by mistake, see a doctor immediately.
- When removing the cable from the battery, remove the negative side first, and when attaching the cable to the battery, attach the positive side first. When the sequence is reversed, tools may touch the machine and cause a short circuit, generating sparks. Connect the battery cables correctly to the positive and negative sides. If the direction of connection is wrong, the battery and its electric equipment will be damaged.

13. CAUTION Maintenance schedule

Refer to the diesel engine operation manual for the method of handling the engine.

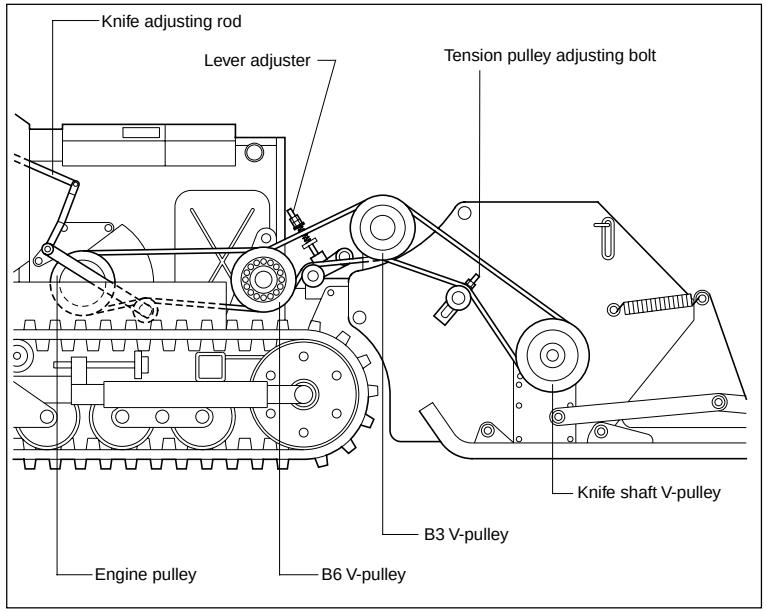
○····Inspection, adjustment, replenishment and cleaning
●····Replacement

Maintenance			Before use	10hrs	every 50hrs	every 200hrs	every 500hrs
Engine	Engine oil	Initial		●			
		After 10 hr	○		●		
	Oil filter				●		
	Fuel filter				○	●	
	Electromagnetic pump filter				○	●	
	Air cleaner element		○			●	
	Air cleaner urethane		○				
	Cooling water (qty, leakage, etc.)		○		●		
	Fuel (qty, leakage, etc.)		○				
Main unit	Hydraulic oil (qty, leakage, etc.)		○				●
	Hydraulic oil filter						●
	Tightening of hydraulic hose/joint		○				
	Hydraulic motor oil	Initial			●		
		After 200 hr				●	
	Electrolyte		○				
	Radiator core		○				
	Side brake		○				
	Traveling lever		○				
	Neutral position		○				
	Emergency switch operation		○				
	Step operation		○				
	Operation of respective switches and meters		○				
	Lighting of pilot lamp		○				
	Knife tension operation		○				
	Strength of knife tension		○				
	V-belt tension		○				
	Crawler tension		○				
Knife section	Breakage of hammer knife		○				
	Looseness of knife mounting bolt		○				
	Knife shaft bearing		○				●
	Dust-proof cover and protection plate		○				
Others	Greasing each section				○		
	Looseness of screw in each section		○				
	Accumulation of dust		○				
	Visible damage		○				

14. Belt adjustment

14-1. Knife

- Remove the knife shaft cover and adjust the tension of the belt put on the B3 V-pulley 30150 and knife shaft V-pulley by using the tension pulley adjusting bolt.
- Adjust the tension of the belt put on the B3 V-pulley 30175 and B6 V-pulley by using the lever adjuster.
- Adjust the tension of the belt put on the B6 V-pulley and engine pulley by using the knife adjusting rod.



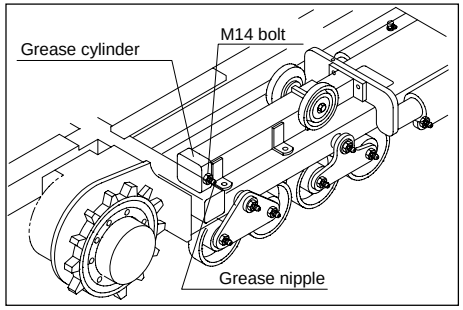
14-2. Hydraulic pump

Adjust the tension of the belt put on the engine pulley and hydraulic pump pulley by using the lever adjuster.

15. Crawler

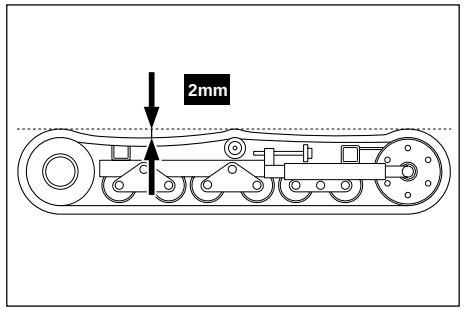
15-1. Crawler tension

Adjust the crawler tension by supplying grease to the grease cylinder. Make adjustment so that the crawler tension will be the same on both sides.



CAUTION

Excessive crawler tension will cause the front roller to lose the clearance, causing the crawler to come off easily and the machine to break easily. Exercise care.



15-2. Installation · removal of crawler

When removing the crawler, loosen the M14 bolt (width across flats: 22) on the grease cylinder, remove the grease, return the front roller to the original position, lift the crawler that is to be removed above the ground, and then remove the crawler. Reverse the order of removal when installing the crawler. Refer to the preceding paragraph for the crawler tension.

15-3. Prevention of crawler tearing loose

Check that the crawler is not slackened and the crawler tension is adjusted appropriately.

15-4. Greasing the crawler

The seesaw roller fulcrum shaft in the crawler section is provided with a grease nipple. Supply grease to the nipple every 50 hours. Use Kyodo Yushi Excelite EP No.2(ISO VG2) or its equivalent. (Refer to "6-4. Lubrication of friction surface of each part")

16. Adjustment of traveling section

Conduct the following work before adjusting the traveling section:

① Remove the crawlers on both sides, or place the machine on a stable base to lift the crawlers on both sides.
② Remove the rear cover.

CAUTION

When lifting the machine, be sure to use an appropriate support to completely secure the machine.

16-1. Adjustment of neutral position of piston pump

① Loosen the mounting bolts of the neutral lever mounting bases for the pump on both sides to keep the bolts loose.
Return the side brake lever to unlock the traveling lever.

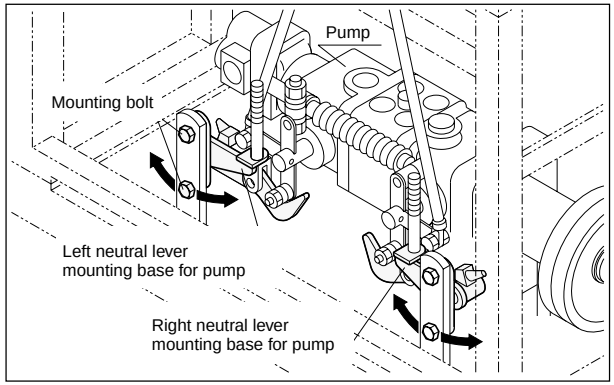
② Start the engine, and move the neutral lever mounting bases for the pump by using a stick, etc. to determine the neutral position.

CAUTION

The engine is rotating. Be careful of the pulley, belt, sprocket (crawler), etc. during operation.

③ When the neutral positions of both bases are determined, stop the engine and tighten the mounting bolts.

④ Start the engine again to check that the sprocket (crawler) will not rotate.

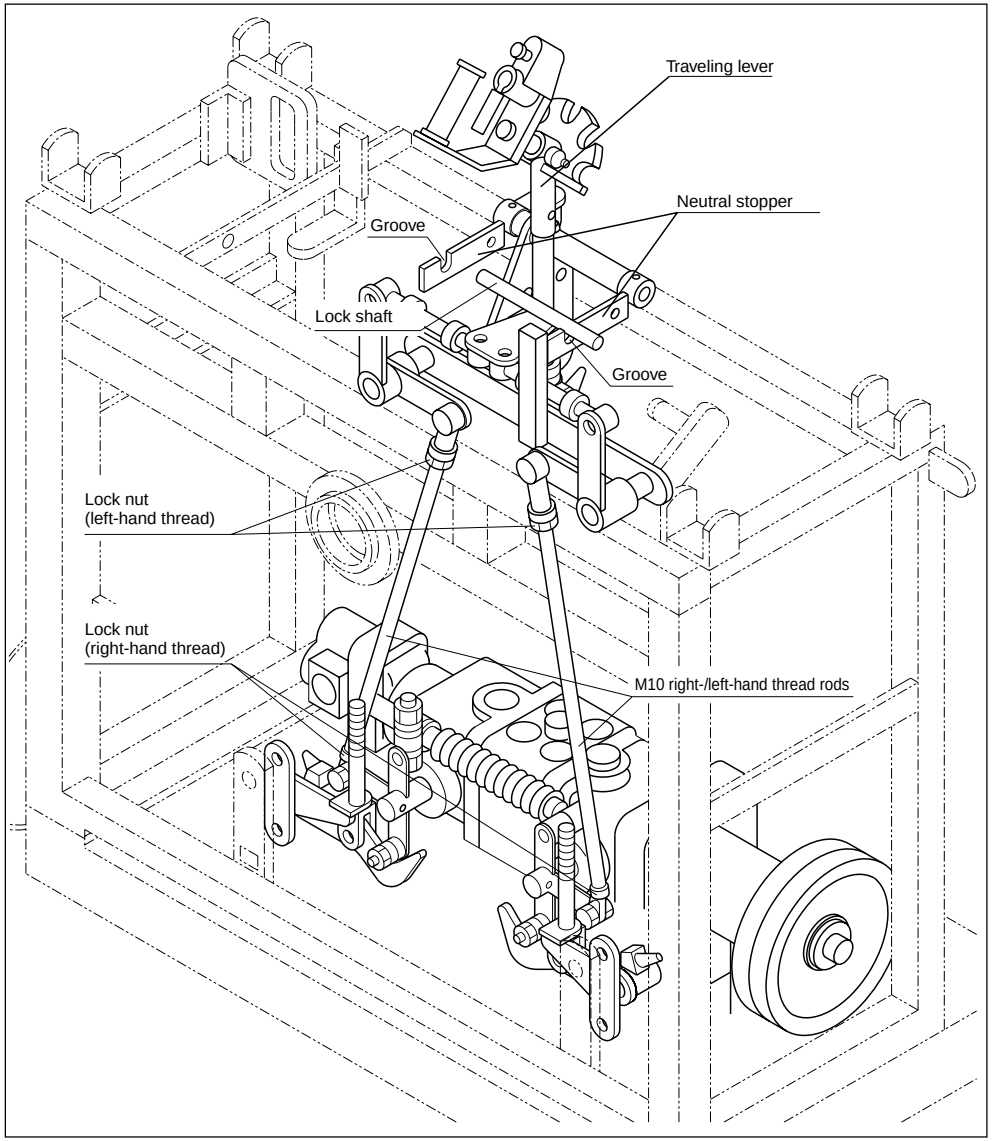


16-2. Adjustment of neutral position of traveling lever

① Loosen all the lock nuts of the M10 right-/left-hand thread rods.

② Turn the two rods at right and left to adjust the length so that the lock shaft of the traveling lever will be set in the neutral stopper groove when the side brake is pulled.

③ Tighten all the lock nuts of the rods and check that the traveling lever is locked completely when the side brake lever is pulled and that the traveling lever is unlocked quickly when the side brake lever is returned.



16-3. Confirmation after adjustment

After the above-mentioned adjustment, confirm the following:

① Stop the engine and move the respective levers to check for interference.

② Check that the machine is in the neutral position and will not move even if the engine is in the full-throttle state.
(When the side brake lever is pulled and returned)

③ After moving the traveling lever to move the machine, release the traveling lever, and check that the machine will not move.

Refer to the diesel engine operation manual for the method of handling the engine.

There is a risk of a skin burn. Do not open the radiator cap during or right after operation.

17. Engine

(Diesel fuel) Precautions as to handling of engine

a) Use diesel fuel as the engine fuel.

b) The machine is to be operated under severe conditions such as vibration, slopes, and dust. Change the entire engine oil 10 hours after the initial operation. Then while continuing inspection and replenishment before use, change the entire quantity every 50 hours thereafter.
Change all the oil filters simultaneously as well.
When using the machine in a dusty place, change oil and the oil filters more frequently.
The quantity of the engine oil is 7.9 liters. Use the diesel engine oil in the service class CC or above specified by the API standard.

c) When air is sucked in the fuel system of a diesel engine, the engine will not be started. Inspect and maintain the diesel engine at all times to prevent entry of air into the fuel system. Operation will be difficult when the fuel filter and electromagnetic pump filter are clogged with dust or when water remains in them. Drain water or clean filters every 50 hours. Replace filters with new ones every 200 hours.

d) Cover the suction port of the air cleaner with polyurethane and cleaner cover at all times during operation. Be sure to clean the air cleaner element before operation, and replace the element with a new one every 200 hours.

e) Mix antiseptics (long-life coolant) into water, and put the mixture in the reserve tank up to the MAX position as a radiator cooling water. Change the cooling water every 50 hours. Check and supply the cooling water before operation. When the temperature is likely to drop below the freezing point, use an antifreeze mixture. When the radiator fins are clogged with dust, blow air to clean them.

18. Hoisting

Precautions as to hoisting

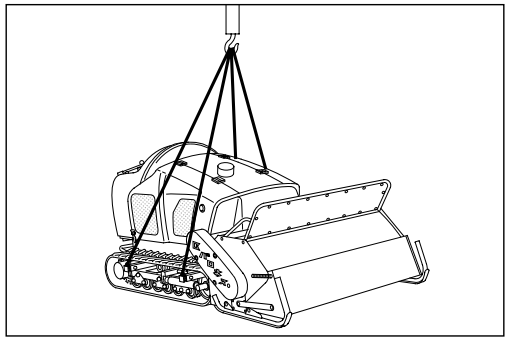
a) Qualification necessary to use a crane to hoist the machine
For hoisting the machine, follow the appropriate laws of the country where it is hoisted.

b) Hoisting procedure

① Lower the mower portion until it touches the ground.

② Pull out the four hoisting hooks and secure them with pins. Hook the wire ropes completely with shackles. Use wire ropes with sufficient strength. Be sure to use four ropes of 2.5 m or more in length.

③ Pay attention to the position of the center of gravity during hoisting to balance the machine sufficiently. Do not approach the machine inadvertently during hoisting.



19. Attaching/detaching the mower portion

CAUTION

Be sure to install and remove the mower portion in a flat horizontal place. Stop the engine unless it is necessary to move the attachment mounting base up and down or to move the machine forward and backward.

19-1. Removal of attachment

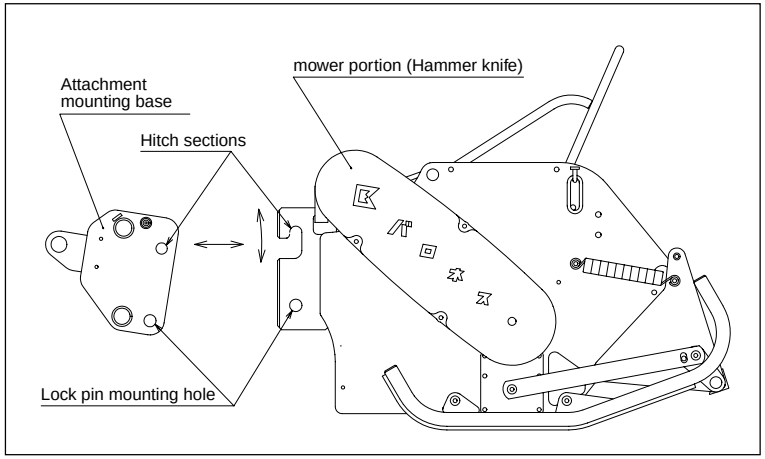
(The numbers in [ ] in the text correspond to the parts catalog Nos.)

① Remove the intermediate shaft belt cover [17-44] and right crawler cover [6-47], and then remove the belt [7-30] that connects the machine and the mower portion.

② Remove the clip pin [6-75] and remove the lock pin [6-74].

③ Set the cylinder single-/double-acting changeover switch [12-40] in the "double-acting" position, and lower the attachment mounting base.

④ After confirming that the hitch sections are separated, slowly move the machine backward, and the operation is complete.



19-2. Installation of the mower portion

(The numbers in [ ] in the text correspond to the parts catalog Nos.)

① While engaging the hitch sections, slowly move the machine forward, and raise the attachment mounting base to engage the hitch sections.

② After confirming that the hitch sections are engaged completely, attach the lock pin [6-74] and secure it with the clip pin [6-75].

③ Set the cylinder single-/double-acting changeover switch [12-40] in the "single-acting" position.

④ After attaching the belt [7-30] and adjusting the tension, attach the right crawler cover [6-47] and intermediate shaft belt cover [17-44], and the operation is complete.

19-3. Hydraulic cylinder single-/double-acting changeover

CAUTION

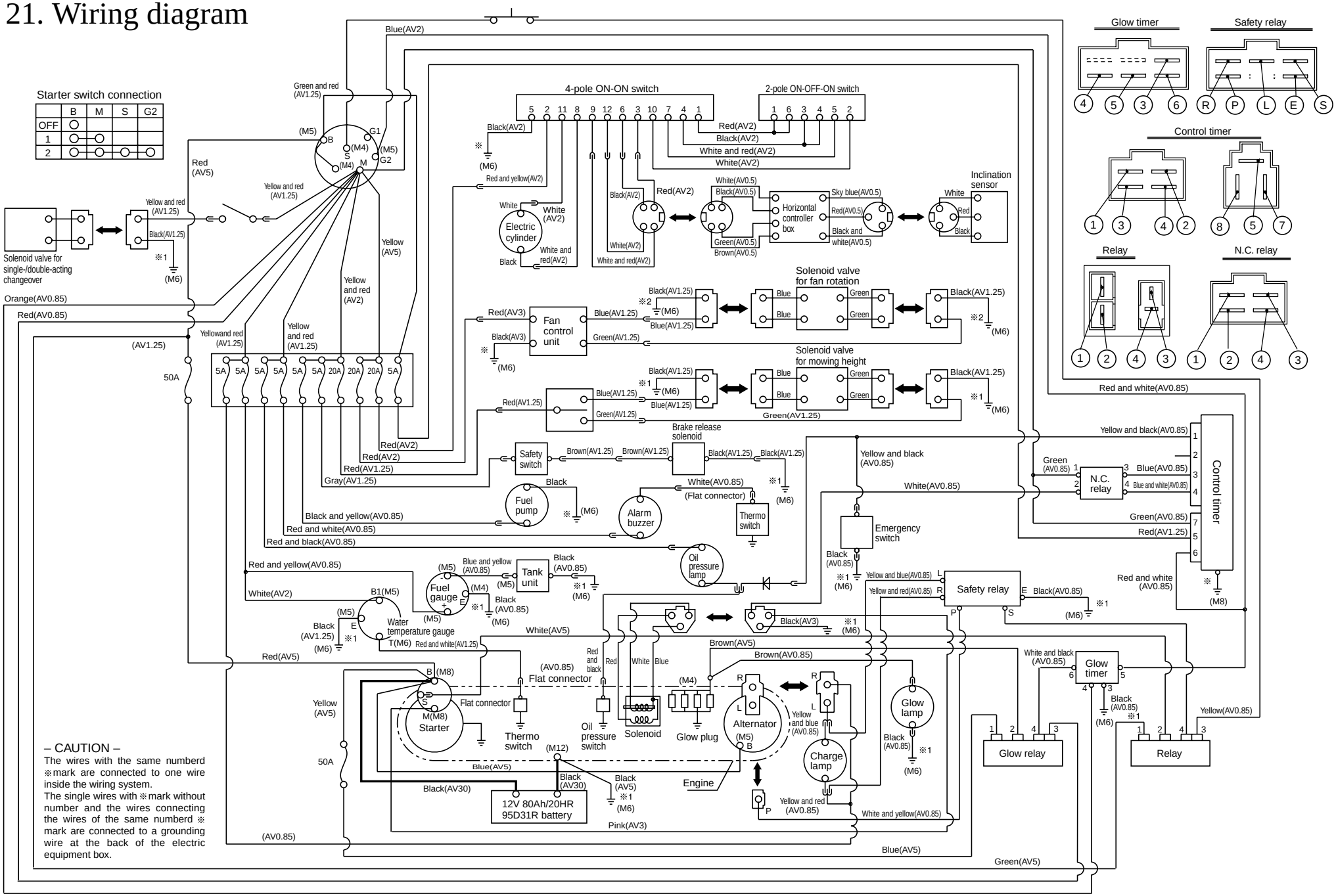
Before starting ordinary operation, be sure to set the cylinder single-/double-acting changeover switch in the "single-acting" position, and change it to the "double-acting" position before installing or removing the mower portion.
Operation with the changeover switch in the "double-acting" position will cause the hitch sections to be subjected to a load when the machine climbs over a large stone or some other obstacle, causing machine failure.

20. Gear oil change for traveling motor

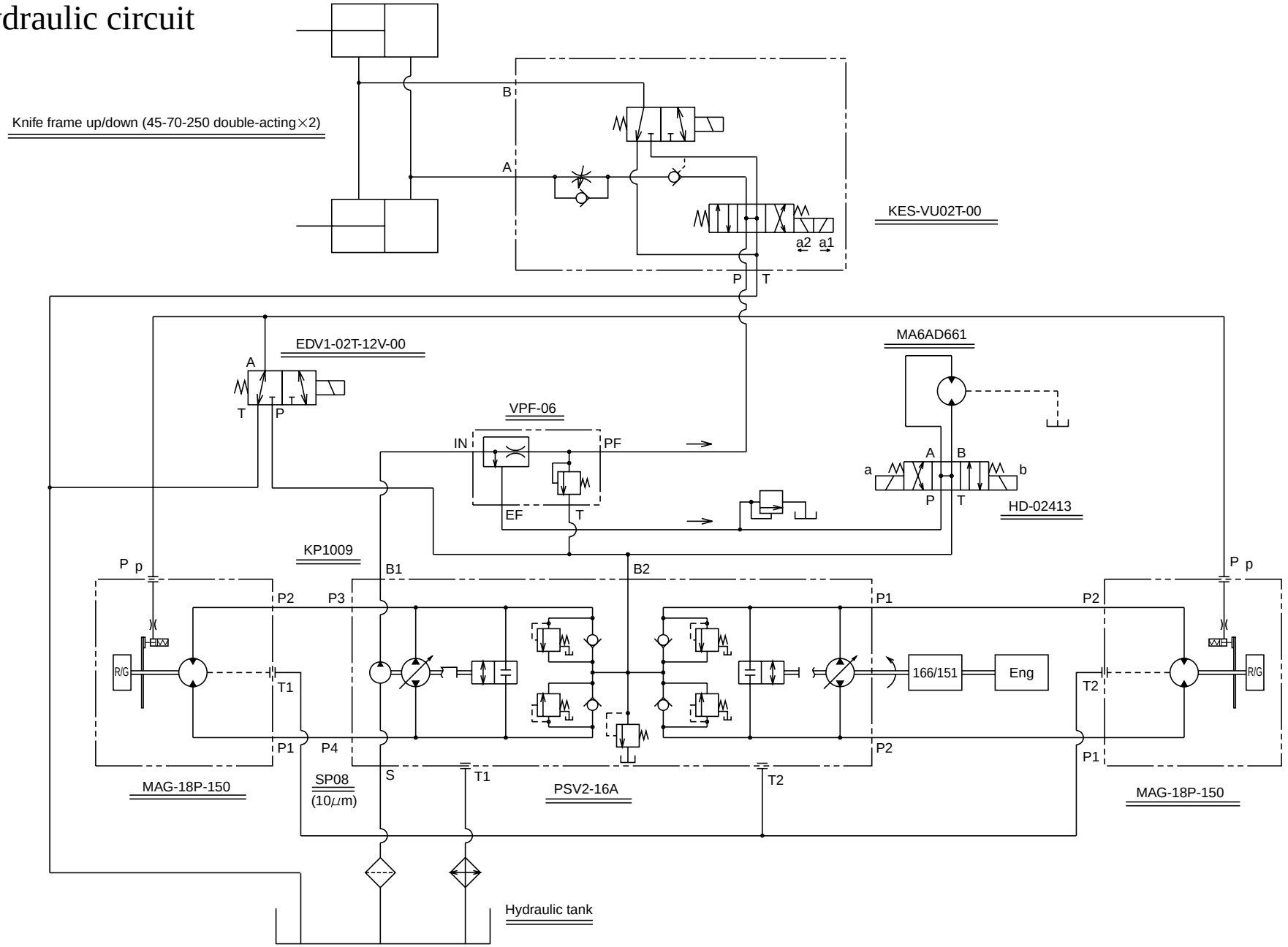
CAUTION

The speed reducer of the hydraulic motor for traveling is filled with 0.35 litter of gear oil. Flush the speed reducer 50 hours after initial operation and every 200 hours after that, and after each flushing, fill the speed reducer with a new gear oil(ISO VG140).
Unless the oil is changed according to the specified time, the motor failure will result. Be sure to change oil as specified.

21. Wiring diagram



22. Hydraulic circuit



CONTENTS《Parts Catalogue》

☆ Placing an order for parts

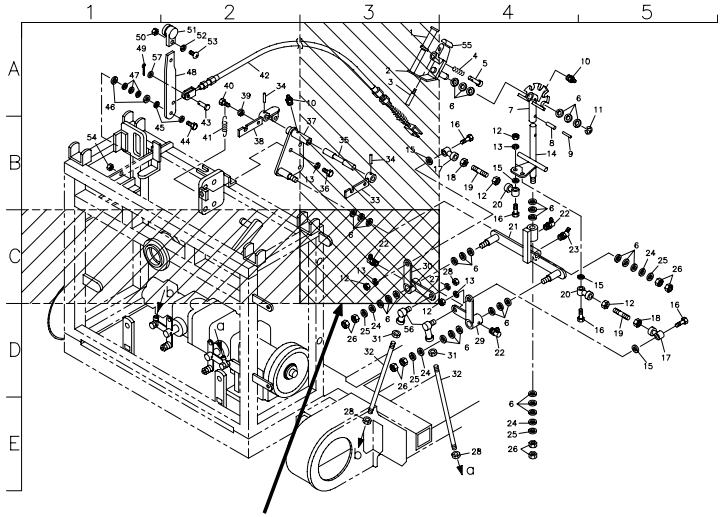
The parts in this parts list are controlled by a computer. Be sure to specify the type of machine, catalog No., code No., and part name when placing orders for parts in order to avoid delivery of wrong parts.

Example:

Catalog No.	Code No.	Part name	Qty	Remarks	Location
1-22	K1440000022	C-type grease nipple	3		C3

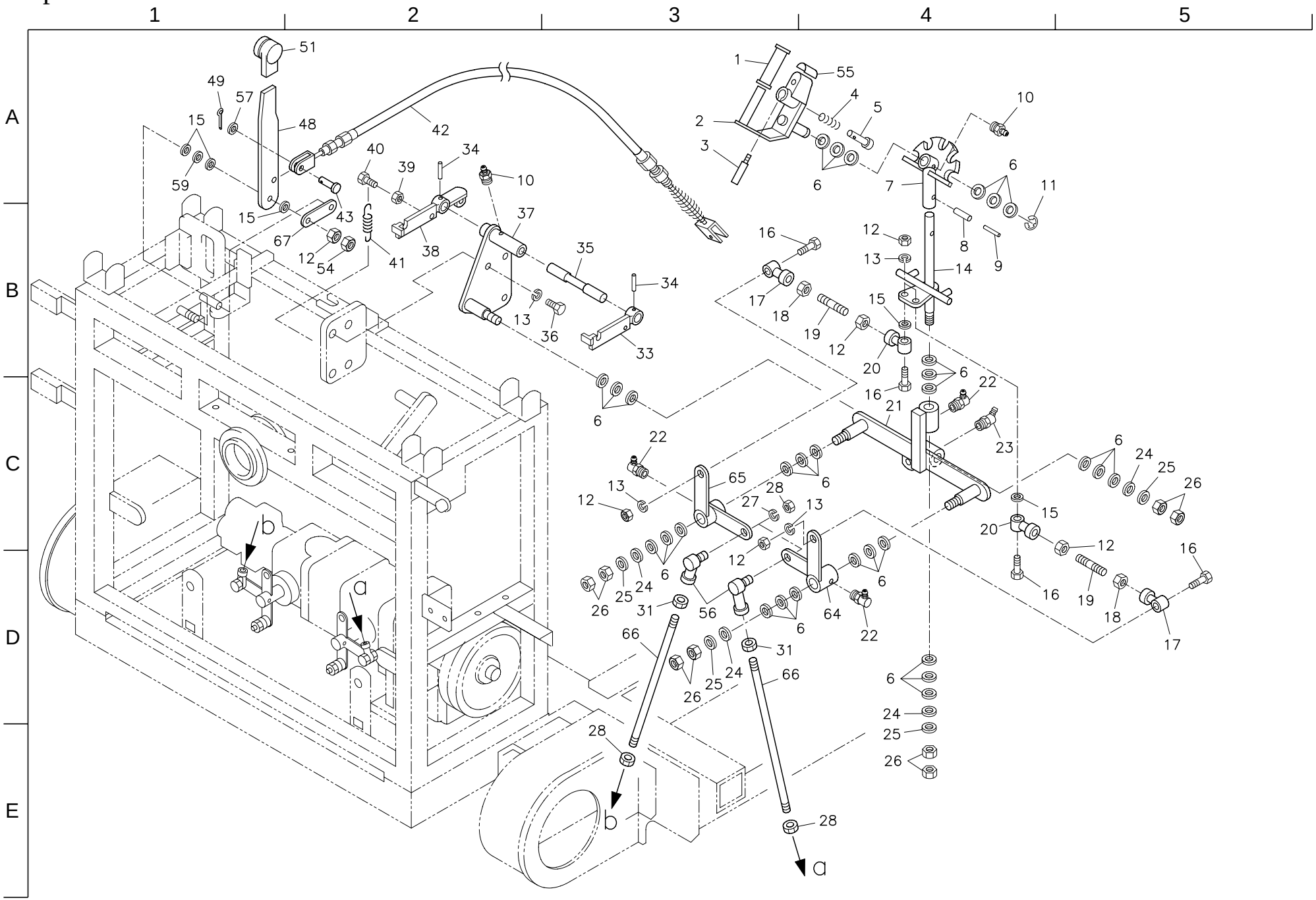
☆ Location of parts in exploded diagram

The alphanumerics in the column of "Location" of the parts list indicate the location of the catalog No. of respective parts in the exploded diagram. In the case of the example shown above, C3 in the column of "Location" indicates that the catalog No. of the part is shown in the area where the slanted lines are overlapped as the diagram below indicates.



When C3 is shown in the column of "Location" of the parts list, the part No. will be found in the area where slanted lines are overlapped.

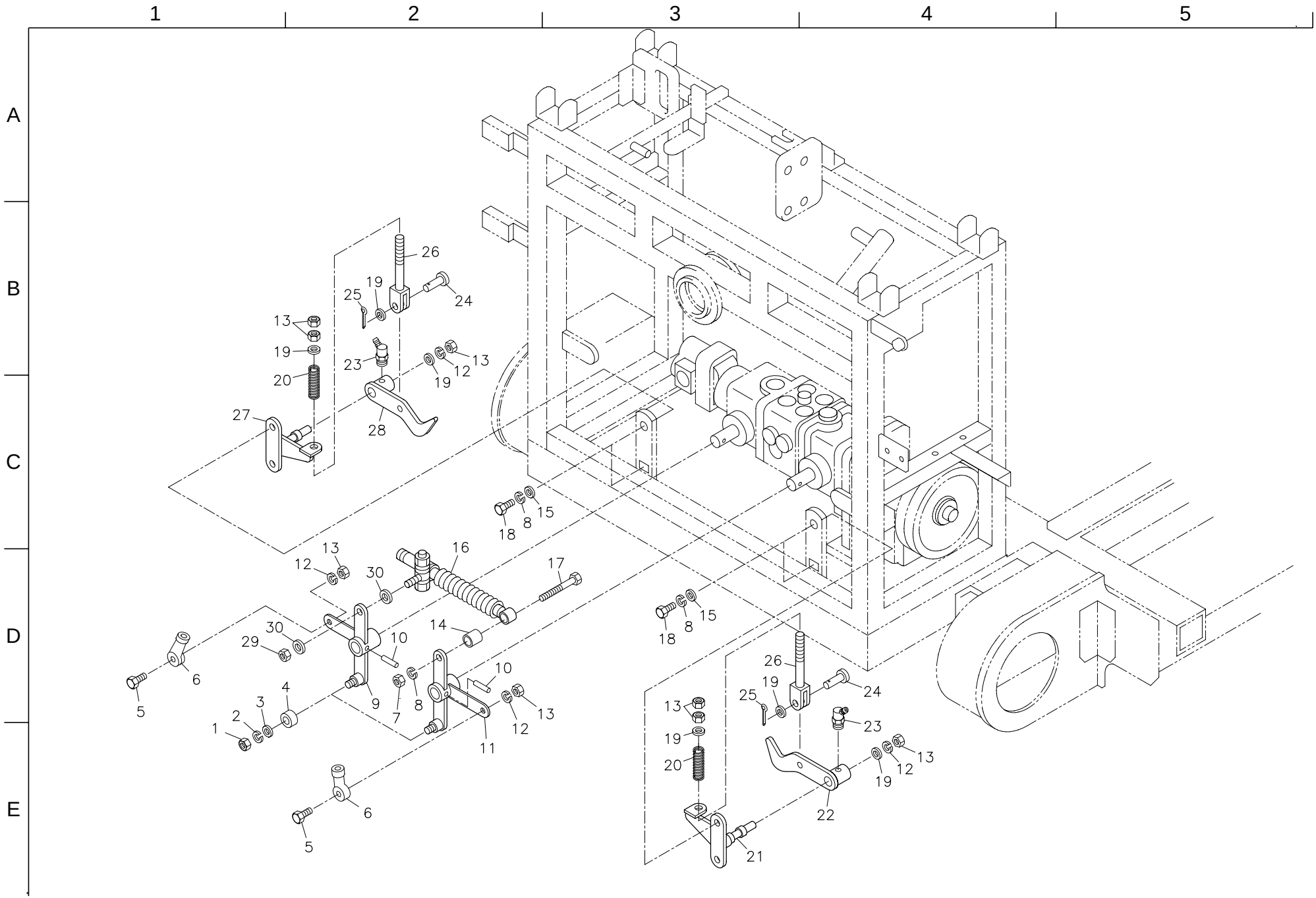
1. Operation lever



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
1- 1	K 1 3 0 0 0 0 0 0 8 0 0 0	Handle grip 15.5	1			A3
1- 2	K 7 3 2 3 0 0 0 1 3 L	Operation lever	1			A3
1- 3	K 6 1 2 0 0 0 0 1 7 2	Neutral positioning stopper lever	1			A3
1- 4	K 1 0 0 0 0 0 0 2 2 8	1.2 compression spring 16.943	1			A4
1- 5	K 6 1 3 1 0 0 0 1 0 2	Angle stopper shaft	1			A4
1- 6	K 5 0 1 1 0 1 5 2 2 2	1SPCC washer 1522	30			A4,C3 etc.
1- 7	K 7 3 2 3 0 0 0 1 4 L	Operation lever mounting metal	1			A4
1- 8	K 0 3 2 0 0 5 0 2 2 1	5 spring pin 22	1			B4
1- 9	K 0 3 2 0 0 3 0 2 2 1	3 spring pin 22	1			B4
1-10	K 1 4 4 0 0 0 0 0 1 2	Grease nipple	2			A2,A4
1-11	K 0 4 0 0 0 1 2 0 0 2	Stop ring E12	1			A5
1-12	K 0 1 0 0 0 8 0 0 0 2	8 nut	7			A4,C3 etc
1-13	K 0 2 0 0 0 8 0 0 0 2	8S washer	7			B3,B4 etc
1-14	K 7 3 2 3 0 0 0 2 2 L	Traveling lever	1			B4
1-15	K 5 0 0 0 0 8 0 0 0 2	8 washer	7			B3,C5 etc
1-16	K 0 0 0 0 0 8 0 3 0 2	8 bolt 30	4			B4,D5 etc
1-17	K 1 6 0 1 0 8 0 0 L 0	Rod end PHS8L	2			B3,D5
1-18	K 0 1 8 0 0 8 0 0 0 2	8 left-hand thread nut	2			B4,D5
1-19	K 6 1 7 5 0 0 0 1 9 2	M8 right-/left-hand thread rod 60	2			B4,D5
1-20	K 1 6 0 1 0 8 0 0 0 0	Rod end PHS8	2			B4,C4
1-21	K 7 3 2 3 0 0 0 1 0 2	Traveling lever metal	1			C4
1-22	K 1 4 4 0 0 0 0 0 2 2	C-type grease nipple	3			C3,B4 etc
1-23	K 1 4 4 0 0 0 0 0 3 2	B-type grease nipple	1			C4
1-24	K 0 2 1 0 1 4 0 0 0 1	14 disc spring L	4			C5,D3 etc
1-25	K 5 0 7 3 2 1 5 3 0 2	3.2SPHC washer 14.530	4			C5,D3 etc
1-26	K 0 1 0 5 1 4 0 0 0 2	14 nut 3P1.5	8			C5,D3 etc
1-27	K 0 2 0 0 1 0 0 0 0 2	10S washer	2			C3
1-28	K 0 1 0 0 1 0 0 0 0 2	10 nut	4			C4,E3 etc
1-29			1			D4
1-30			1			C3

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
1-31	K 0 1 8 0 1 0 0 0 0 2	10 left-hand thread nut	2			D3,D4
1-32						
1-33	K 7 4 2 2 0 0 0 1 4 2	Neutral stopper right	1			B3
1-34	K 0 3 2 0 0 5 0 2 5 1	5 spring pin 25	2			A2,B3
1-35	K 6 1 5 6 0 0 0 0 8 2	Neutral stopper shaft	1			B3
1-36	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	4			B3
1-37	K 7 3 5 5 0 0 0 3 0 D	Traveling lever mounting plate	1			B3
1-38	K 7 4 2 2 0 0 0 1 3 2	Neutral stopper left	1			B2
1-39	K 0 1 0 0 0 6 0 0 0 2	6 nut	1			A2,C1
1-40	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	1			A2
1-41	K 1 0 3 0 0 0 0 0 3 8	1.2U hook spring 10.456	1			B2
1-42	K 1 1 1 0 1 4 4 0 0 0	Throttle wire 1440	1			A2
1-43	K 6 0 3 0 0 5 0 1 2 2	5 flat head pin 12	2			B2
1-48	K 5 1 3 1 0 0 2 1 4 2	Throttle lever	1			A2
1-49	K 0 3 0 0 0 2 0 2 0 2	2 cotter pin 20	2			A1
1-50			1			A1
1-51	K 1 3 2 0 0 0 0 1 5 0	Knob with plug	1			A2
1-52						
1-53						
1-54	K 0 1 4 4 0 8 0 0 0 2	8U nut	1			B2
1-55	K 4 2 0 4 0 0 0 0 7 0	Mowing height switch mark	1			A4
1-56	K 1 6 0 4 1 0 0 0 L 0	Elbow LHSA10L	2			D3
1-57	K 5 0 0 0 0 5 0 0 0 2	5 washer	2			A1
1-58						
1-59	K 0 2 1 3 0 8 0 0 0 2	8 conical spring washer 1H	1			A1
1-64	K 7 3 2 3 0 0 0 2 3 2	Right fulcrum lever	1			D4
1-65	K 7 3 2 3 0 0 0 2 4 2	Left fulcrum lever	1			C3
1-66	K 6 1 7 5 0 0 0 2 3 2	M10 right-/left-hand thread rod 395	2			D3
1-67	H M A 1 5 6 0 0 9 0 8 Z 2	3 plate 2230 with 2-8 hole	1			B2

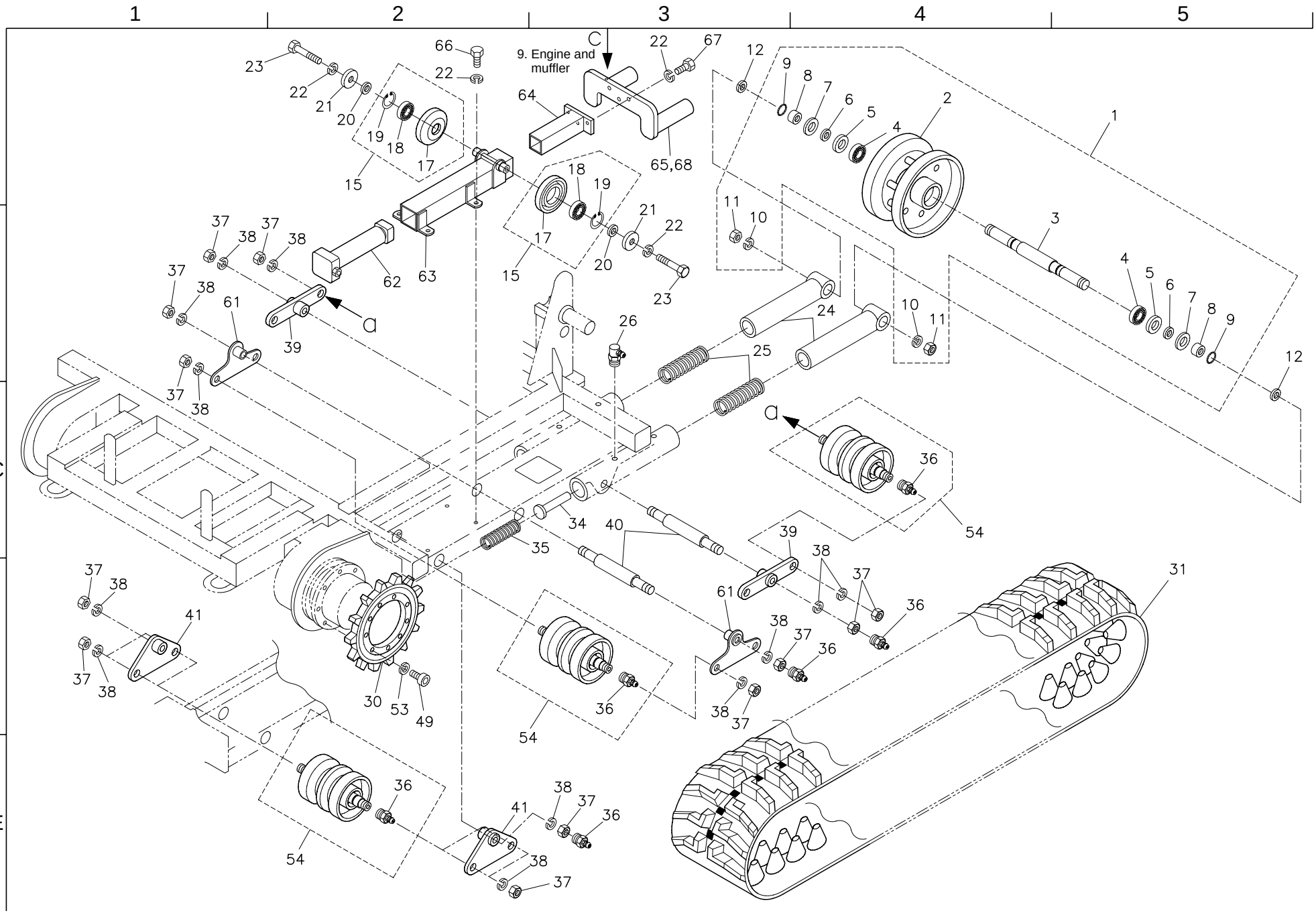
2. Neutral positioning



Catalog No.	Code No.	Part Name	Qty 1560 1720	Remarks 1560 1720	Location
2- 1	K 0 1 0 0 0 6 0 0 0 2	6 nut	2		E1
2- 2	K 0 2 0 0 0 6 0 0 0 2	6S washer	2		D1
2- 3	K 5 0 0 0 0 6 0 0 0 2	6 washer	2		D1
2- 4	K 0 6 0 8 0 0 6 0 7 0	Bearing 6072RS	2		D2
2- 5	K 0 0 0 0 1 0 0 3 0 2	10 bolt 30	2		D1,E2
2- 6	K 1 6 0 7 1 0 0 0 0 0	Rod end PHS10EC	2		D1,E2
2- 7	K 0 1 0 0 0 8 0 0 0 2	8 nut	1		D2
2- 8	K 0 2 0 0 0 8 0 0 0 2	8S washer	5		D2,D3 etc.
2- 9	K 7 3 2 3 0 0 0 1 7 2	Left trunnion lever	1		D2
2-10	K 0 3 2 4 0 6 0 3 2 1	6 spiral pin 32	2		D2
2-11	K 7 3 2 3 0 0 0 1 6 2	Right trunnion lever	1		E2
2-12	K 0 2 0 0 1 0 0 0 0 2	10S washer	4		D2,E4
2-13	K 0 1 0 0 1 0 0 0 0 2	10 nut	8		D3,E4
2-14	K 6 2 1 2 0 0 0 9 8 2	8.5STKM color 149.5	1		D2
2-15	K 5 0 0 0 0 8 0 0 0 2	8 washer	4		C2,D3
2-16	K 3 3 8 0 0 0 0 0 1 0	Lever damper	1		C2
2-17	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	1		D3
2-18	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	4		C2,D3
2-19	K 5 0 0 0 1 0 0 0 0 2	10 washer	6		B1,E4 etc.
2-20	K 1 0 0 0 0 0 0 7 8 D	2 compression spring 1560	2		B1,E3
2-21	K 7 3 2 3 0 0 0 2 0 2	Right neutral lever mounting base for pump	1		E3
2-22	K 7 3 2 3 0 0 0 1 8 2	Right neutral lever for pump	1		E4
2-23	K 1 4 4 0 0 0 0 0 3 2	B-type grease nipple	2		B2,D4
2-24	K 6 0 3 1 1 0 0 2 5 2	10 hardened flat head pin 25	2		B2,D4
2-25	K 0 3 0 0 0 2 5 2 0 2	2.5 cotter pin 20	2		B2,D3
2-26	K 7 3 0 3 0 0 0 0 9 2	Lever adjuster	2		B2,D3
2-27	K 7 3 2 3 0 0 0 2 1 2	Left neutral lever mounting base for pump	1		C1
2-28	K 7 3 2 3 0 0 0 1 9 2	Left neutral lever for pump	1		C2
2-29	K 0 1 4 4 0 8 0 0 0 2	8U nut	1		D1
2-30	K 5 0 1 0 5 0 9 1 6 2	0.5SPCC washer 916	2		D1,D2

Catalog No.	Code No.	Part Name	Qty 1560 1720	Remarks 1560 1720	Location

3. Crawler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9. Engine and muffler
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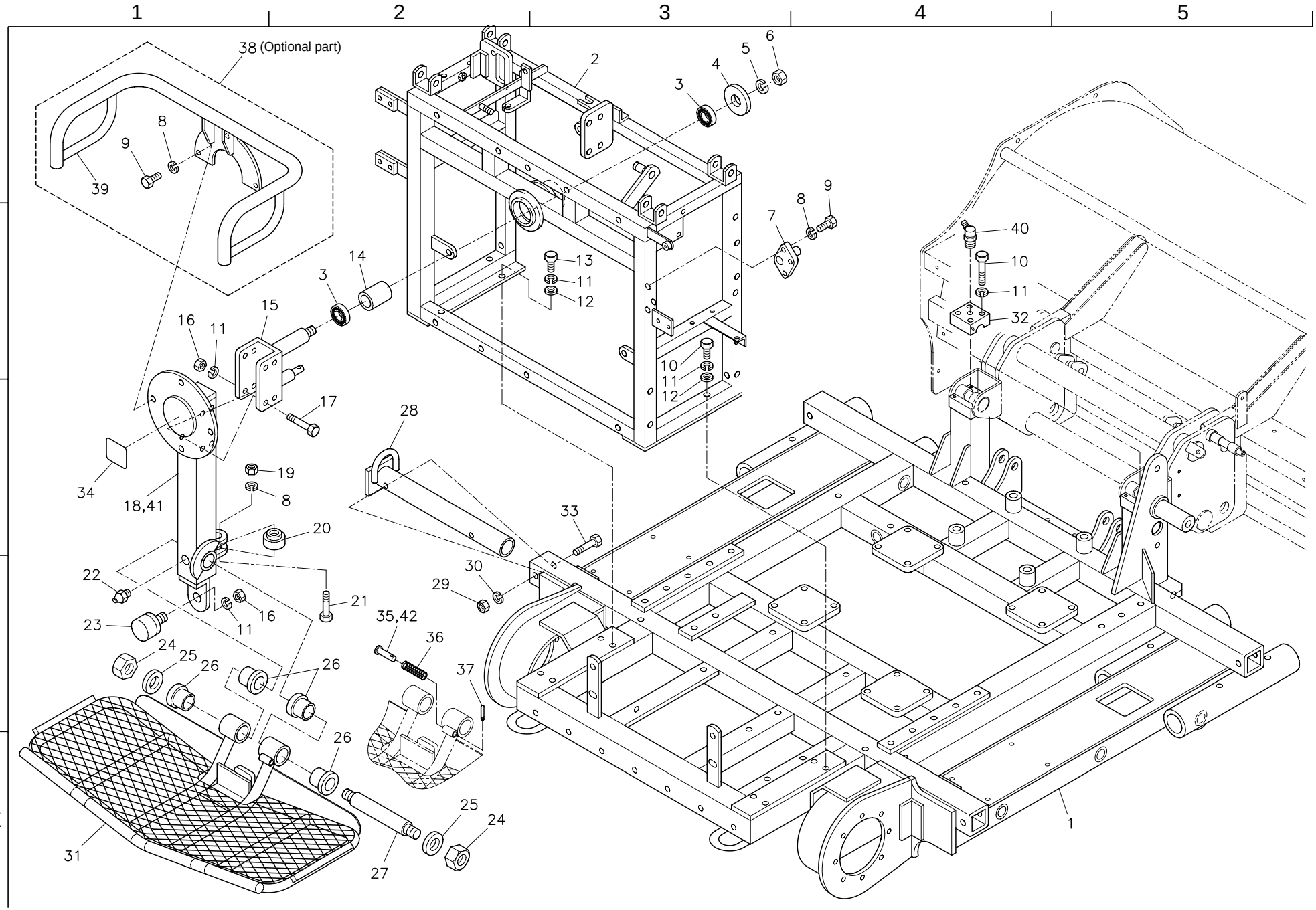
Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
3- 1	K 8 0 2 1 0 0 0 3 6 0	Front roller assy	2			A5
3- 2	K 7 4 0 0 0 0 0 2 2 V	Front roller	2			A4
3- 3	K 6 1 2 1 0 0 0 3 2 2	Front roller shaft	2			B5
3- 4	K 0 6 0 6 0 6 3 0 5 0	Bearing 6305RS	4			A4,B5
3- 5	K 0 8 6 2 0 0 0 0 3 0	Oil seal UE40628	4			A4,B5
3- 6	K 6 2 1 9 0 0 0 3 2 0	25 hardened collar 409	4			A4,B5
3- 7	K 5 0 9 0 0 0 0 1 5 2	Bearing washer 2560	4			A4,B5
3- 8	K 6 2 1 2 0 0 0 0 7 2	25STKM collar 348	4			A4,B5
3- 9	K 0 8 8 1 0 2 1 0 0 0	O-ring P21B	4			A3,B5
3-10	K 0 2 0 0 2 4 0 0 0 2	24S washer	4			B3,B4
3-11	K 0 1 6 0 0 0 0 0 5 2	24 special nut P2	4			A3,B4
3-12	K 5 0 1 1 0 2 4 4 0 2	1SPCC washer 2440	6~10			A3,B5
3-15	K 8 0 2 1 0 0 0 4 6 0	Upper roller assy	4			A2
3-16						
3-17	K 6 2 0 4 0 0 0 3 4 V	Upper roller 105	4			A2,B3
3-18	K 0 6 0 8 0 6 2 0 5 0	Bearing 62052RS	4			A2,A3
3-19	K 0 4 0 2 0 5 2 0 0 1	Stop ring R52	4			A2,A3
3-20	K 6 2 1 2 0 0 0 0 6 2	25STKM collar 344.4	4			A2,B3
3-21	K 5 0 7 3 2 1 0 6 2 2	3.2SPHC washer 1062	4			A2,B3
3-22	K 0 2 0 0 1 0 0 0 0 2	10S washer	18			A2,B3
3-23	K 0 0 0 0 1 0 0 3 0 2	10 bolt 30	4			A1,B3
3-24	K 7 0 8 0 0 0 0 0 5 4	Front roller receiver	4			B4
3-25	K 1 0 0 0 0 0 0 7 0 D	10 compression spring 48165	4			B3
3-26	K 1 4 4 0 0 0 0 0 4 0	C-type grease nipple PT1/8	8			B3
3-30	K 2 2 3 3 0 0 0 0 4 V	14-tooth sprocket	2			D2
3-31	K 2 2 5 0 0 0 0 0 8 0	Rubber crawler 3005172FP	2	0		D5
	K 2 2 5 0 0 0 0 0 4 0	Rubber crawler 3505172FP	0	2		
3-34	K 7 1 4 7 0 0 0 1 8 2	Spring hook	4			C3
3-35	K 1 0 0 0 0 0 0 4 8 D	8 compression spring 38155	4			C3
3-36	K 1 4 4 0 0 0 0 0 1 2	Grease nipple	18			C4,D3 etc.

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
3-37	K 0 1 6 0 0 0 0 0 4 2	20 special nut P1.5	36			B2,D3 etc.
3-38	K 0 2 0 0 2 0 0 0 0 2	20S washer	36			B2,D3 etc.
3-39	K 7 3 5 5 0 0 0 1 3 V	Seesaw roller clamp	4			B2,C3
3-40	K 6 1 2 1 0 0 0 2 4 2	Seesaw roller fulcrum shaft 227	6			C3
3-41	K 7 3 5 5 0 0 0 3 1 V	Seesaw roller clamp	4			D1,E2
3-42						
3-43						
3-44						
3-45						
3-46						
3-47						
3-48						
3-49	K 0 0 2 4 1 0 0 3 5 1	10 hexagon socket head cap screw 35	18			D2
3-50						
3-53	K 0 2 1 5 1 0 0 0 0 2	10 conical spring washer 2H	18			D2
3-54	K 8 0 2 1 0 0 0 4 4 0	Lower roller assy ϕ140 $\times$ 154	12			C4,E2 etc.
3-55						
3-56						
3-57						
3-58						
3-59						
3-60						
3-61	H M A 1 5 6 0 0 2 0 4 Z V	Seesaw roller clamp	4			B1,D3
3-62	K 3 2 0 9 0 0 0 0 1 0	40-115 grease cylinder 270	2			B2
3-63	H M A 1 5 6 0 0 2 0 1 Z V	Support pipe	2			B2
3-64	H M A 1 5 6 0 0 2 0 2 A V	Cylinder pipe	2			A3
3-65	H M A 1 5 6 0 0 2 0 3 B V	Right crawler adjuster	1			A3
3-66	K 0 0 1 0 1 0 0 2 0 2	10 heat-treated bolt 20	8			A2
3-67	K 0 0 1 0 1 0 0 4 0 2	10 heat-treated bolt 40	6			A3
3-68	H M A 1 5 6 0 0 2 0 5 Z V	Left crawler adjuster	1			A3

4. Frame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38 (Optional part)
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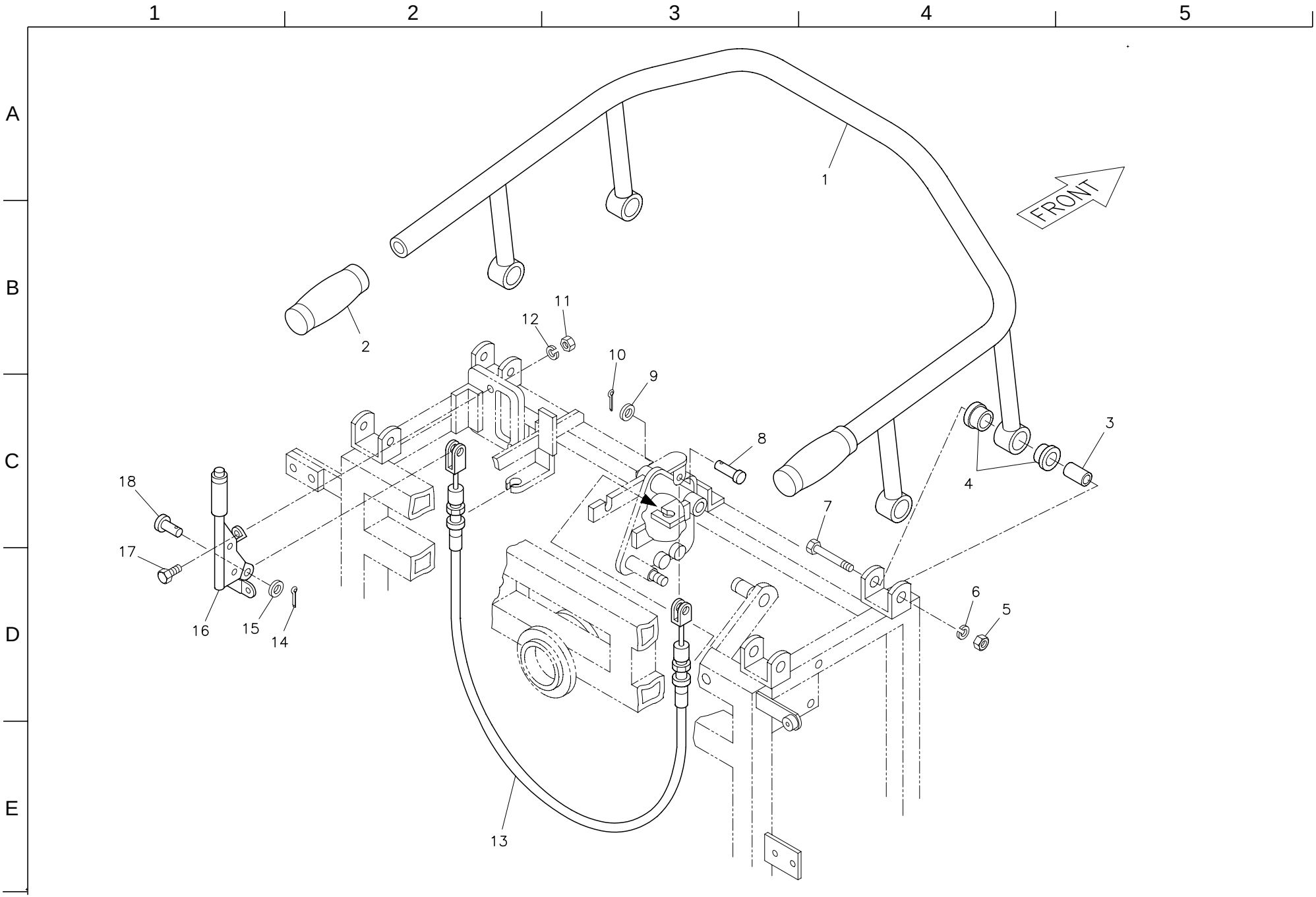
Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
4- 1	H M A 1 5 6 0 0 3 0 1 A V	Frame	1	0		E5
	H M A 1 7 2 0 0 3 0 1 A V	Frame	0	1		
4- 2	H M A 1 5 6 0 0 3 0 2 A 2	Rear frame	1			A3
4- 3	K 0 6 0 8 0 6 0 0 6 0	Bearing 60062RS	2			A3,B2
4- 4	K 5 0 7 3 2 2 0 4 0 2	3.2SPHC washer 2040	1			A3
4- 5	K 0 2 0 0 2 0 0 0 0 2	20S washer	1			A3
4- 6	K 0 1 6 0 0 0 0 0 4 2	20 special nut P1.5	1			A3
4- 7	K 7 3 5 5 0 0 0 2 5 2	Electric cylinder clamp	1			B3
4- 8	K 0 2 0 0 0 8 0 0 0 2	8S washer	7			A3,C2
4- 9	K 0 0 1 0 0 8 0 1 5 2	8 heat-treated bolt 15	6			A1,A4
4-10	K 0 0 1 3 1 0 0 5 0 2	10 heat-treated bolt 50	12			B3,B4
4-11	K 0 2 0 0 1 0 0 0 0 2	10S washer	21			B3,B4 etc.
4-12	K 5 0 0 0 1 0 0 0 0 2	10 washer	8			B3
4-13	K 0 0 0 0 1 0 0 2 0 2	10 bolt 20	4			B3
4-14	K 6 2 1 2 0 0 1 3 3 0	30STKM collar 4080	1			B2
4-15	K 7 2 0 1 0 0 0 0 8 V	Step mounting base shaft	1			B1
4-16	K 0 1 0 0 1 0 0 0 0 2	10 nut	5			B1,D1 etc.
4-17	K 0 0 0 3 1 0 0 9 0 2	10 bolt 90	4			C2
4-18	K 7 2 0 1 0 0 0 0 9 V	Step mounting base	1		~10308 ~10115	C1
4-19	K 0 1 0 0 0 8 0 0 0 2	8 nut	1			C2
4-20	K 2 1 4 1 0 0 0 0 2 0	Caster wheel No.4H-P	1			C2
4-21	K 0 0 0 3 0 8 0 5 5 2	8 bolt 55	1			D2
4-22	K 1 4 4 0 0 0 0 0 1 2	Grease nipple	3			B4,D1
4-23	K 4 0 4 9 0 5 0 0 0 0	Rubber stopper KI-50	1			D1
4-24	K 0 1 6 0 0 0 0 0 4 2	20 special nut P1.5	2			D1,E2
4-25	K 5 0 7 4 5 2 0 5 0 2	4.5SPHC washer 2050	2			D1,E2
4-26	K 4 0 3 1 0 0 0 0 9 0	Rubber 50 for handle	4			D1,D2
4-27	K 6 1 2 1 0 0 0 1 7 2	Double-end threaded 30 shaft 232	1			E2
4-28	H M 1 5 6 0 - 1 1 1 7 A V	Hoisting bracket	4			C2
4-29	K 0 1 0 0 1 2 0 0 0 2	12 nut	4			D2

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
4-30	K 0 2 0 0 1 2 0 0 0 2	12S washer	4			D2
4-31	K 7 2 0 1 0 0 0 1 2 V	Step	1			E1
4-32	K 6 0 9 5 0 0 0 0 2 2	Knife frame mounting fulcrum metal cover	2			B4
4-33	K 0 0 0 3 1 2 0 8 0 2	12 bolt 80	4			C3
4-34	K 4 2 0 5 0 0 1 5 2 0	Rope installation prohibition label	1			C1
4-35	K 6 1 5 8 0 0 0 0 2 2	Step securing shaft	1		~10308 ~10115	D2
4-36	K 1 0 0 0 0 0 0 6 0 8	1.4 compression spring 15.735	1			D2
4-37	K 6 1 7 4 0 0 0 1 0 2	M6 single-end screw 1070	1			D2
4-38	K 8 0 5 0 0 0 0 0 3 0	Holder frame assy	1		option	A1
4-39	K 7 1 0 0 0 0 0 2 5 V	Holder frame	1			A1
4-40	K 1 4 4 0 0 0 0 0 3 2	B-type grease nipple	2			B4
4-41	H M A 1 5 6 0 0 3 0 3 Z V	Step mounting base	1		10309~ 10116~	C1
4-42	K 6 1 5 8 0 0 0 0 6 8	Step securing shaft	1		10309~ 10116~	D2

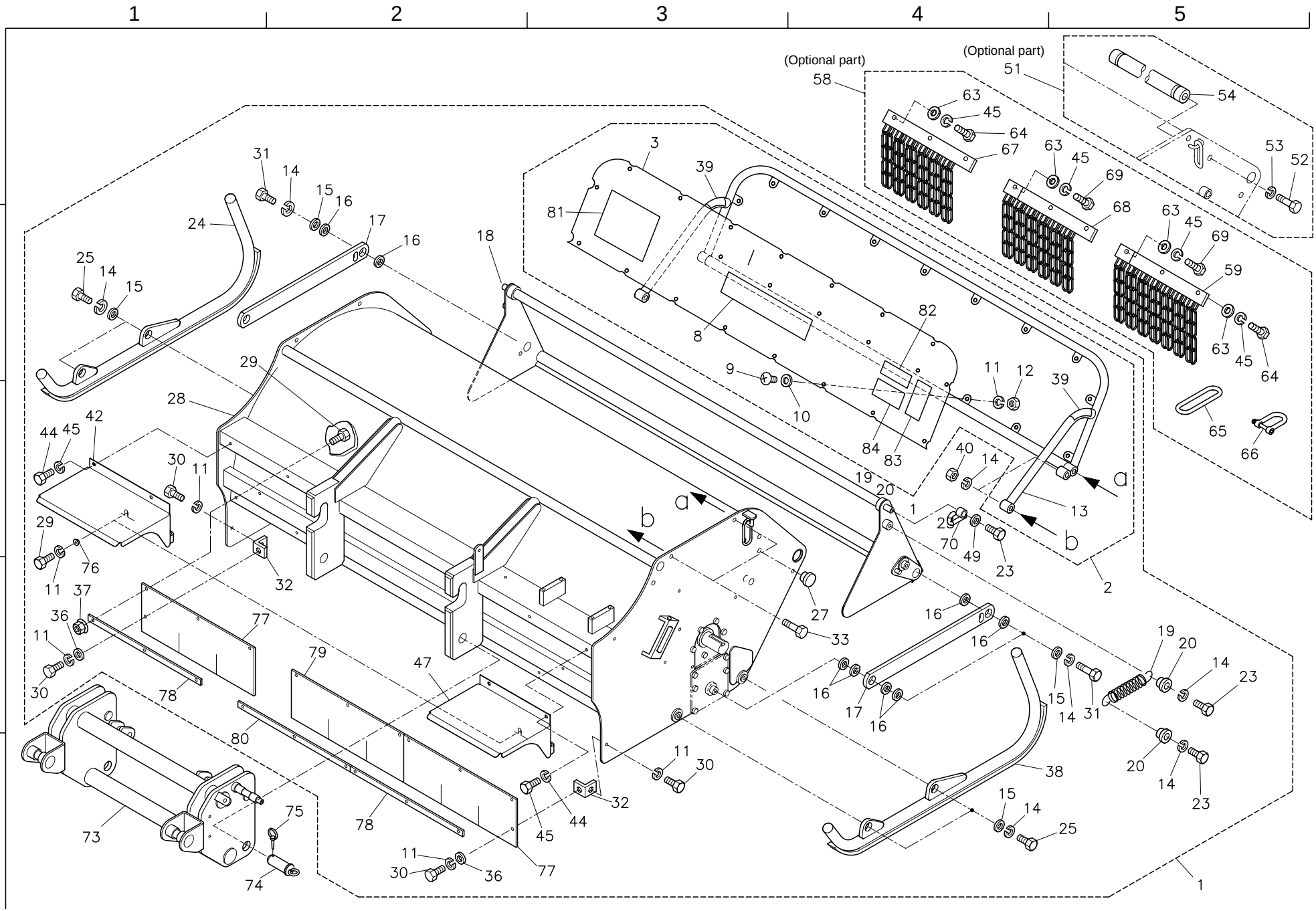
5. Handle and brake



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
5- 1	K 7 1 0 0 0 0 0 2 8 L	Handle	1			A4
5- 2	K 1 3 0 0 0 0 0 0 2 0	Handle grip 25.4	2			B2
5- 3	K 6 2 1 2 0 0 1 2 5 2	10.2 collar 1840	4			C5
5- 4	K 4 0 3 1 0 0 0 0 5 0	Handle rubber 35	8			C4
5- 5	K 0 1 0 0 1 0 0 0 0 2	10 nut	4			D4
5- 6	K 0 2 0 0 1 0 0 0 0 2	10S washer	4			D4
5- 7	K 0 0 0 3 1 0 0 6 5 2	10 bolt 65	4			C4
5- 8	K 6 0 3 1 0 6 0 1 7 2	6 hardened flat head pin 17	1			C3
5- 9	K 5 0 0 0 0 6 0 0 0 2	6 washer	1			B3
5-10	K 0 3 0 0 0 2 0 1 6 2	2 cotter pin 16	1			B3
5-11	K 0 1 0 0 0 8 0 0 0 2	8 nut	2			B3
5-12	K 0 2 0 0 0 8 0 0 0 2	8S washer	2			B2
5-13	K 1 1 2 0 0 8 5 5 0 0	Brake wire 855	1			E2
5-14	K 0 3 0 0 0 2 5 2 5 2	2.5 cotter pin 25	1			D1
5-15	K 5 0 0 0 1 2 0 0 0 2	12 washer	1			D1
5-16	K 1 7 2 4 0 0 0 0 2 0	Side brake lever assy	1			D1
5-17	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	2			C1
5-18	K 6 0 3 0 1 2 0 2 4 2	12 flat head pin 24	1			C1

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location

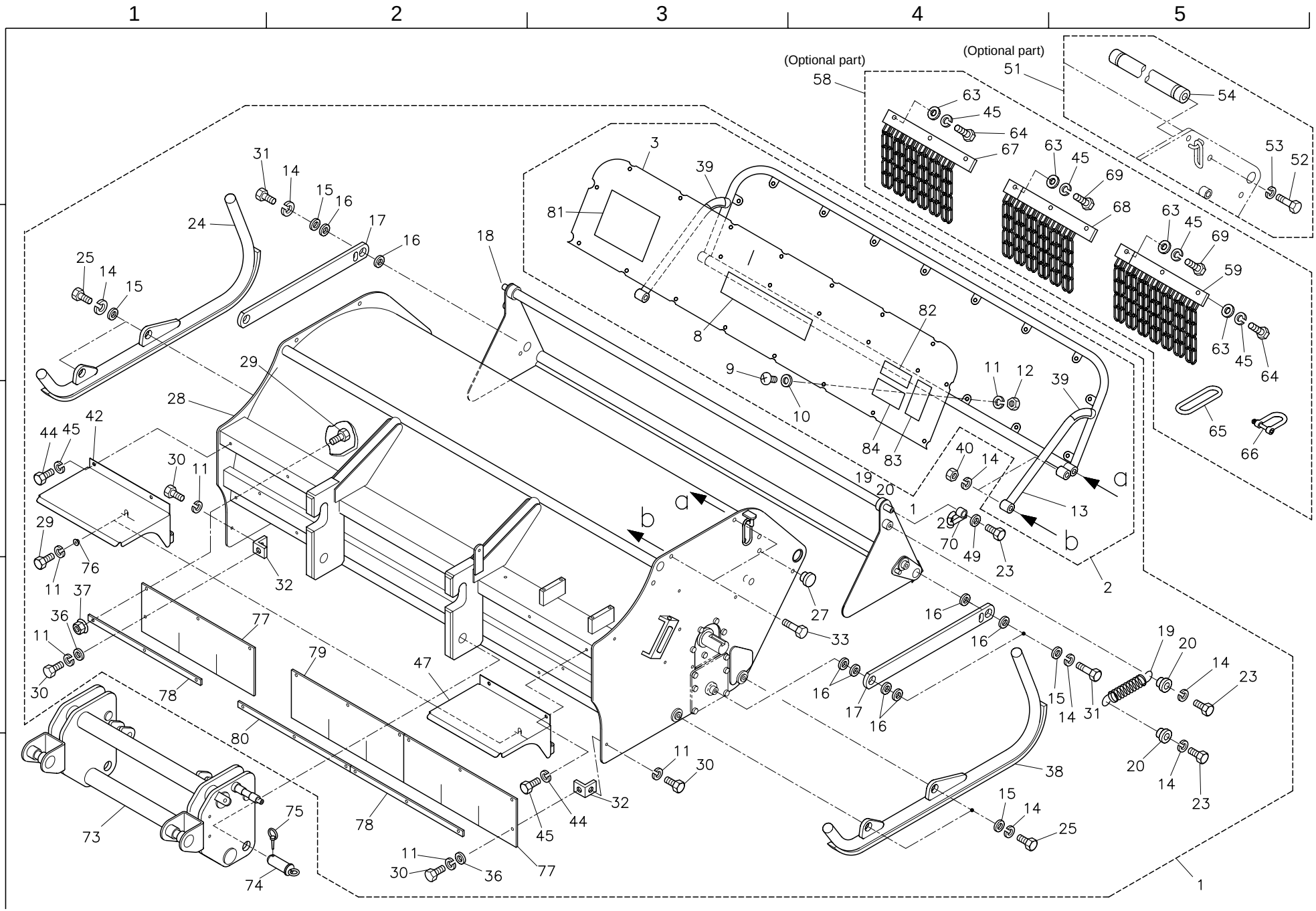
6. Knife frame



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
6- 1	H M A 1 5 6 0 0 5 0 0 Z 0	Knife frame assy	1	0		E5
	H M A 1 7 2 0 0 5 0 0 Z 0	Knife frame assy	0	1		
6- 2	H M 1 5 6 0 - 0 5 0 2 Z 0	Protection plate assy	1	0		D5
	H M 1 7 2 0 - 0 5 0 2 Z 0	Protection plate assy	0	1		
6- 3	H M 1 5 6 0 - 0 5 0 3 Z 0	Protection plate COMP	1	0		A3
	H M 1 7 2 0 - 0 5 0 3 Z 0	Protection plate COMP	0	1		
6- 4						
6- 5						
6- 6						
6- 7						
6- 8	K 4 2 0 1 0 0 0 1 3 0	BARONESS mark 55 white	1			B3
6- 9	K 0 0 4 2 0 6 0 1 5 2	6 cross round-head small screw 15	17			B3
6-10	K 5 0 0 0 0 6 0 0 0 2	6 washer	24	25		B4,E1 etc.
6-11	K 0 2 0 0 0 6 0 0 0 2	6S washer	23			B4,D1 etc.
6-12	K 0 1 0 0 0 6 0 0 0 2	6 nut	17			B4,E1 etc.
6-13	H M 1 5 5 0 - 0 5 0 4 A G	Protection plate frame	1	0		C5
	H M 1 7 1 0 - 0 5 0 3 A G	Protection plate frame	0	1		
6-14	K 0 2 0 0 1 0 0 0 0 2	10S washer	16			C4,D5 etc.
6-15	K 5 0 7 4 5 1 0 4 2 2	4.5SPHC washer 1042	8			A2,D5 etc.
6-16	K 5 0 1 1 0 2 3 4 0 2	1SPCC washer 2340	12			A2,C4 etc.
6-17	H M A 1 5 6 0 0 5 0 9 Z G	Protection cover fulcrum lever	2			A2,D4
6-18	H M A 1 5 6 0 0 5 0 3 Z G	Protection cover	1	0		A2
	H M A 1 7 2 0 0 5 0 2 Z G	Protection cover	0	1		
6-19	K 1 0 2 0 0 0 0 1 4 8	4 round hook spring 35189	2			D5
6-20	K 6 2 0 6 0 0 0 1 3 2	10 staged collar 268	4			D5
6-21						
6-22						
6-23	K 0 0 0 0 1 0 0 2 5 2	10 bolt 25	6			D4,D5
6-24	K 7 1 7 0 0 0 0 0 9 G	Left knife guard	1			A1
6-25	K 0 0 0 0 1 0 0 2 0 2	10 bolt 20	4			B1,E5

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
6-26						
6-27	K 1 4 5 0 0 0 1 4 2 0	Plastic plug 14.2	6			D4
6-28	H M A 1 5 6 0 0 5 0 1 A G	Knife frame	1	0		C1
	H M A 1 7 2 0 0 5 0 1 A G	Knife frame	0	1		
6-29	K 0 0 0 0 0 6 0 2 0 2	6 bolt 20	11			B1,C1
6-30	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	4			D1,E3 etc.
6-31	K 0 0 1 0 1 0 0 3 0 2	10 heat-treated bolt 30	4			A2,D5
6-32	K 5 2 0 6 0 0 0 0 2 2	Apron joint	2			D2,E3 etc.
6-33	K 0 0 0 0 1 0 0 5 0 2	10 bolt 50	4			D3
6-34						
6-35						
6-36	K 5 0 1 1 6 0 6 2 2 2	1.6SPCC washer 622	2			D1,E2
6-37	K 0 1 4 3 0 6 0 0 0 2	6 nut with disc spring	9	10		D1
6-38	K 7 1 7 0 0 0 0 1 0 G	Right knife guard	1			D4
6-39	K 4 2 0 9 0 0 0 6 2 0	Hoisting prohibition mark	2			A3,B5
6-40	K 0 1 0 0 1 0 0 0 0 2	10 nut	4			C4
6-41						
6-42	H M A 1 5 6 0 0 5 0 5 Z G	Left crawler cover	1	0		C1
	H M A 1 7 2 0 0 5 0 4 Z G	Left crawler cover	0	1		
6-43						B1,D1
6-44	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	4			C1,E3
6-45	K 0 2 0 0 0 8 0 0 0 2	8S washer	15	16		C1,E3
6-46						C1,E1
6-47	H M A 1 5 6 0 0 5 0 4 Z G	Right crawler cover	1	0		D1
	H M A 1 7 2 0 0 5 0 3 Z G	Right crawler cover	0	1		
6-48						

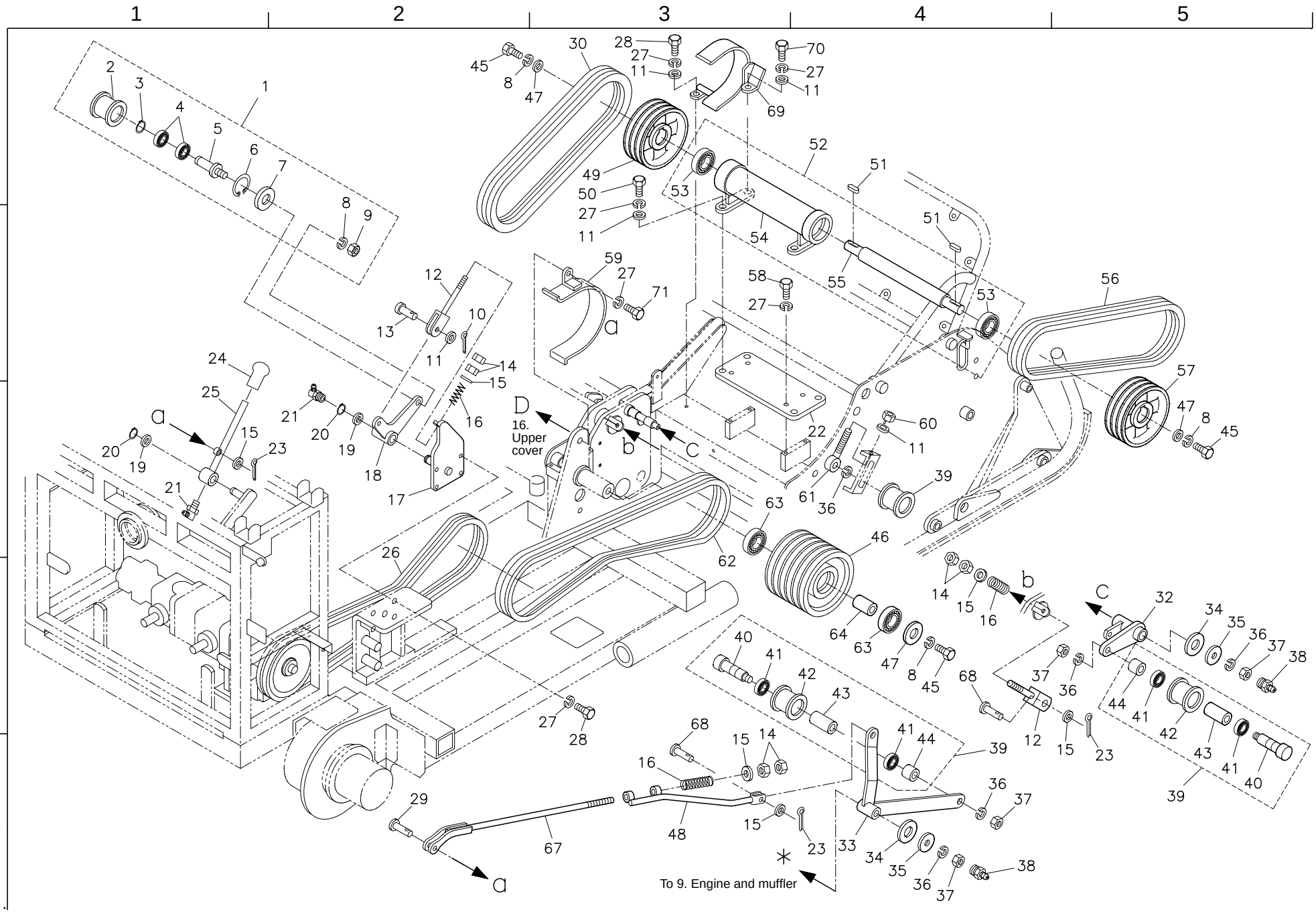
6. Knife frame



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
6-49	K 5 0 7 3 2 1 0 2 6 2	3.2SPHC washer 1026	2			C4
6-50						
6-51	H M 1 5 5 0 - 1 3 0 1 Z 0	Grass stop shaft assy	1	0	option	A4
	H M 1 7 0 0 - 1 3 0 2 Z 0	Grass stop shaft 50 assy	0	1	option	
6-52	K 0 0 0 0 1 2 0 3 0 2	12 bolt 30	2			A5
6-53	K 0 2 0 0 1 2 0 0 0 2	12S washer	2			A5
6-54	H M 1 5 5 0 - 1 3 0 2 Z D	Grass stop shaft	1	0	option	A5
	H M 1 7 0 0 - 1 3 0 1 Z H	Grass stop shaft 50	0	1	option	
6-55						
6-56						
6-57						
6-58	H M 1 5 5 0 - 1 3 0 3 Z 0	Antiscattering chain assy	1	0	option	A4
	H M 1 7 1 0 - 1 3 0 1 Z 0	Antiscattering chain assy	0	1	option	
6-59	H M 1 5 5 0 - 1 3 0 4 Z D	Antiscattering chain	1	0	option	B5
	K 7 8 9 9 0 0 0 9 3 D	Antiscattering chain	0	1	option	
6-60						
6-61						
6-62						
6-63	K 5 0 0 0 0 8 0 0 0 2	8 washer	11	12		A4,B5
6-64	K 0 0 1 0 0 8 0 2 5 2	8 heat-treated bolt 25	7			A4,B5
6-65	K 5 2 7 4 0 0 0 0 3 G	8 link 2257	2		option	C5
6-66	K 0 4 1 0 8 0 0 0 0 2	8 shackle	2		option	C5
6-67	K 7 8 9 9 0 0 0 8 3 D	Antiscattering chain A	1		option	A4
6-68	K 7 8 9 9 0 0 0 8 4 D	Antiscattering chain B	3	4	option	B4
6-69	K 0 0 1 0 0 8 0 3 5 2	8 heat-treated bolt 35	4	5	option	A5,B5
6-70	H M A 1 5 6 0 0 5 1 0 Z 8	Protection cover hook	2			C4
6-71						
6-72						

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
6-73	H M A 1 5 6 0 0 5 0 2 A V	Attachment mounting base	1			E1
6-74	H M A 1 5 6 0 0 5 1 1 Z 8	Lock pin	2			E1
6-75	K 6 0 6 1 0 6 0 0 0 2	6 clip pin	2			E2
6-76	H M A 1 5 6 0 0 5 0 6 Z 2	6 staged collar 209.5	2			D1
6-77	H M A 1 5 6 0 0 5 1 2 Z 0	External dustproof apron	2	0	10320~	D3,E2
	H M A 1 7 2 0 0 5 0 7 Z 0	External dustproof apron	0	2	10121~	
6-78	H M A 1 5 6 0 0 5 1 3 Z 2	External apron holding plate	2	0	10320~	D1,E2
	H M A 1 7 2 0 0 5 0 8 Z 2	External apron holding plate	0	2	10121~	
6-79	H M A 1 5 6 0 0 5 1 4 Z 0	Internal dustproof apron	1	0	10320~	D2
	H M A 1 7 2 0 0 5 0 9 Z 0	Internal dustproof apron	0	1	10121~	
6-80	H M A 1 5 6 0 0 5 1 5 Z 2	Internal apron holding plate	1	0	10320~	E1
	H M A 1 7 2 0 0 5 1 0 Z 2	Internal apron holding plate	0	1	10121~	
6-81	K 4 2 0 5 0 0 1 5 7 0	Hammer knife danger label	1			B3
6-82	K 4 2 0 9 0 0 1 1 1 0	Slope work instruction label	1			B4
6-83	K 4 2 0 9 0 0 1 0 4 0	Hoisting instruction label	1			C4
6-84	K 4 2 0 9 0 0 1 0 9 0	Oil handling instruction label	1			C4

7. Tension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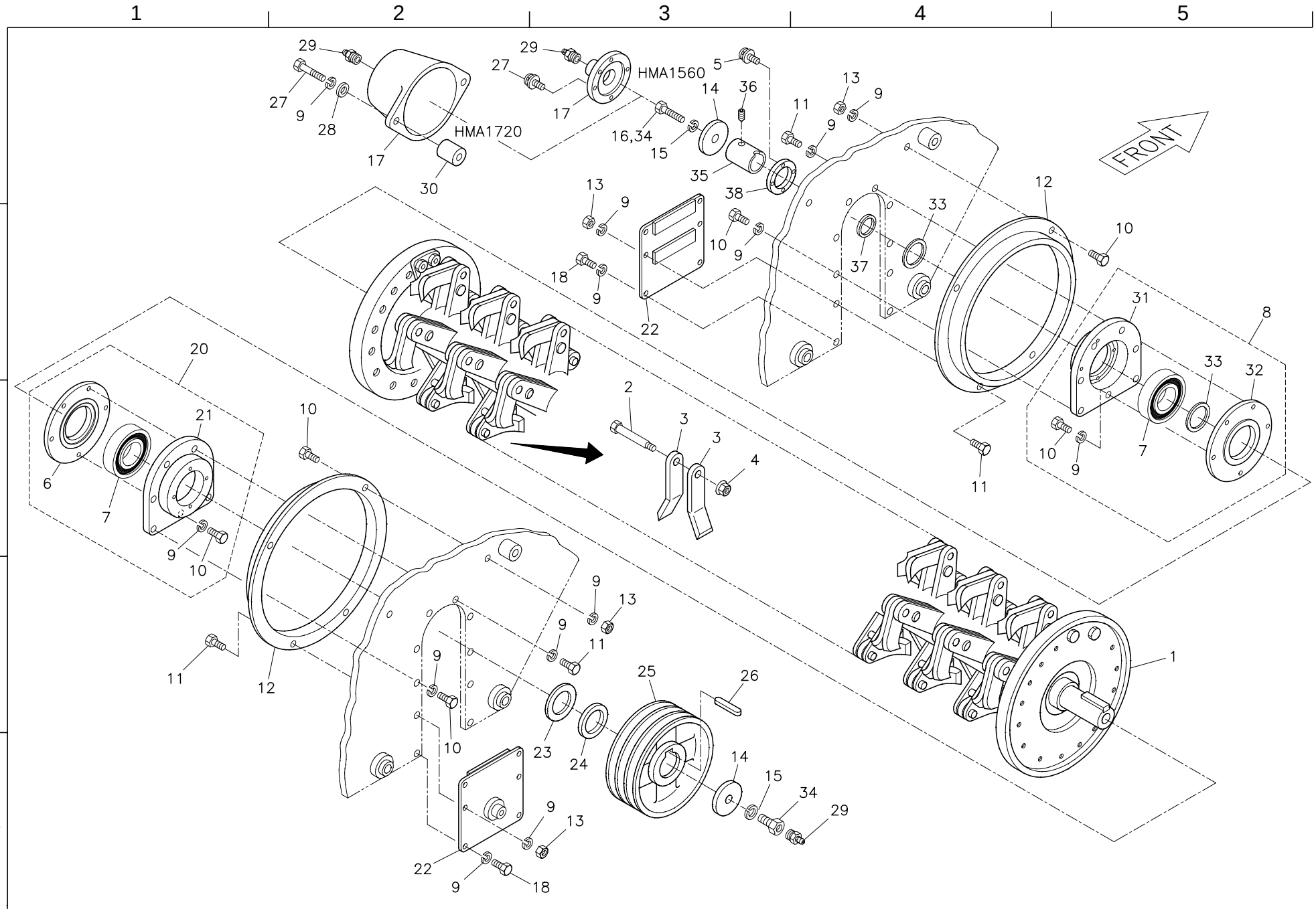
16. Upper cover
To 9. Engine and muffler

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
7- 1	K 8 0 3 0 0 0 0 0 2 0	Tension pulley assy 4155	1			A2
7- 2	K 2 4 7 1 4 1 0 5 5 2	Tension pulley 4155	1			A1
7- 3	K 0 4 0 1 0 2 0 0 0 1	Stop ring S20	1			A1
7- 4	K 0 6 1 2 0 6 2 0 4 0	Bearing 62042RD	2			A1
7- 5	K 6 1 2 3 0 0 0 0 3 2	Tension pin W	1			A1
7- 6	K 0 4 0 2 0 4 7 0 0 1	Stop ring R47	1			A1
7- 7	K 5 0 9 0 0 0 0 1 7 2	Tension cover 1561	1			A2
7- 8	K 0 2 0 0 1 0 0 0 0 2	10S washer	4			B2,B3 etc.
7- 9	K 0 1 0 6 1 0 0 0 0 2	10 nut P1	1			B2
7-10	K 0 3 0 0 0 2 0 1 6 2	2 cotter pin 16	1			B2
7-11	K 5 0 0 0 0 8 0 0 0 2	8 washer	7			A3,B2 etc.
7-12	K 7 3 0 3 0 0 0 1 3 2	Lever adjuster 150	2			B2,E4
7-13	K 6 0 3 1 0 8 0 2 2 2	8 hardened flat head pin 22	1			B2
7-14	K 0 1 0 0 1 0 0 0 0 2	10 nut	6			D4,E3
7-15	K 5 0 0 0 1 0 0 0 0 2	10 washer	5			D4,E3 etc.
7-16	K 1 0 0 0 0 0 0 0 7 8	3.5 compression spring 17.560	3			D4,E3
7-17	K 7 3 5 5 0 0 0 5 0 V	Hydraulic lever clamp	1			C2
7-18	K 7 3 2 0 0 0 0 1 0 2	Hydraulic tension lever	1			C2
7-19	K 5 0 1 2 3 1 7 2 8 2	2.3SPCC washer 1728	2			C1,C2
7-20	K 0 4 0 0 0 1 5 0 0 2	Stop ring E15	2			C1,C2
7-21	K 1 4 4 0 0 0 0 0 2 2	C-type grease nipple	2			C1,C2
7-22	K 5 1 1 7 0 0 0 0 5 G	Intermediate shaft metal plate	1	0		C4
	H M 1 7 1 0 - 0 6 0 2 Z G	Intermediate shaft metal plate 364	0	1		
7-23	K 0 3 0 0 0 3 2 2 0 2	3.2 cotter pin 20	3			C2,E4 etc.
7-24	K 1 3 0 0 0 0 0 0 5 0	9 red grip 35.5	1			B1
7-25	K 7 3 2 1 0 0 0 1 2 2	Clutch lever	1			C1
7-26	K 2 3 7 1 4 0 0 7 2 0	V-belt W4SB72	2			D2
7-27	K 0 2 0 0 0 8 0 0 0 2	8S washer	15			A3,B3 etc.
7-28	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	6			A3,E3 etc.
7-29	K 6 0 3 0 1 0 0 3 2 2	10 flat head pin 32	1			E2
7-30	K 2 3 7 4 2 0 0 5 4 0	Low edge cogged belt H·PXSB54	3			A3
7-31						
7-32	H M A 1 5 6 0 0 6 0 1 Z 2	Tension lever	1			D5
7-33	K 7 3 2 0 0 0 0 1 2 2	Tension lever	1			E4
7-34	K 5 0 1 1 0 2 2 3 0 2	1SPCC washer 2230	2			D5,E4
7-35	K 5 0 7 4 5 1 4 3 2 2	4.5SPHC washer 1432	2			D5,E4
7-36	K 0 2 0 0 1 4 0 0 0 2	14S washer	5			C4,D5 etc.
7-37	K 0 1 0 5 1 4 0 0 0 2	14 nut 3P1.5	4			D5,E4
7-38	K 1 4 4 0 0 0 0 0 1 2	Grease nipple	2			D5,E4
7-39	K 8 0 3 0 0 0 0 0 5 0	Tension pulley assy 5752	3			C4,E5 etc.

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
7-40	K 6 0 8 3 0 0 0 0 2 2	Hexagon head tension pin 81	3			D3,E5
7-41	K 0 6 1 2 0 6 2 0 3 0	Bearing 62032RD	6			D3,E5 etc.
7-42	K 2 4 7 3 5 7 0 5 2 2	Tension pulley 5752	3			D4,E5
7-43	K 6 2 1 2 0 0 0 1 2 0	17STKM collar 25.427	3			D4,E5
7-44	K 6 2 1 2 0 0 0 1 1 2	17STKM collar 25.49	3			D5,E4
7-45	K 0 0 0 0 1 0 0 3 0 2	10 bolt 30	3			A2,C5 etc.
7-46	K 2 4 4 0 0 0 0 0 4 2	B6 V-pulley 54175	1			C4
7-47	K 5 0 7 4 5 1 0 4 2 2	4.5SPHC washer 1042	3			A3,D4 etc.
7-48	K 7 3 0 0 0 0 0 0 7 2	Knife tension release rod	1			E3
7-49	K 2 4 2 3 0 0 0 0 8 D	B3 V-pulley 301755F	1			A3
7-50	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	3			A3
7-51	K 0 5 0 0 8 0 7 5 5 0	8 both-end round key 755	2			A4,B4
7-52	K 8 0 1 0 0 0 0 0 8 0	Intermediate shaft assy 456	1	0		A4
	H M 1 7 1 0 - 0 6 0 1 Z 0	Intermediate shaft assy 528	0	1		
7-53	K 0 6 0 8 0 6 2 0 6 0	Bearing 62062RS	2			A3,B4
7-54	K 6 9 0 3 0 0 0 1 8 G	Intermediate shaft metal 342	1	0		B3
	H M 1 7 0 0 - 0 6 0 7 A G	Intermediate shaft metal 414	0	1		
7-55	K 6 1 1 1 0 0 0 0 1 0	30 intermediate shaft 456	1	0		B4
	H M 1 7 0 0 - 0 6 0 6 Z 0	30 intermediate shaft 528	0	1		
7-56	K 2 3 7 1 4 0 0 5 9 0	V-belt W4SB59	3			B5
7-57	K 2 4 2 3 0 0 0 0 6 D	B3 V-pulley 30150-20	1			B5
7-58	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	4			B3
7-59	K 7 3 6 0 0 0 0 0 3 2	Belt stopper for intermediate shaft	1			B3
7-60	K 0 1 0 0 0 8 0 0 0 2	8 nut	1			C4
7-61	K 7 3 0 3 0 0 0 1 1 2	Tension pulley adjusting bolt	1			C4
7-62	K 2 3 7 1 4 0 0 6 4 0	V-belt W4SB64	3			D3
7-63	K 0 6 1 2 0 6 2 0 6 0	Bearing 62062RD	2			C3,D4
7-64	K 6 2 1 2 0 0 1 6 0 0	30STKM collar 4063	1			D4
7-67	K 7 3 0 1 0 0 0 0 8 2	Knife tension adjusting rod	1			E3
7-68	K 6 0 3 1 1 0 0 2 5 8	10 hardened flat head pin 25	2			D3,D4
7-69	K 7 3 6 0 0 0 0 0 5 2	Pulley cover	1			A3
7-70	K 0 0 0 0 0 8 0 3 0 2	8 bolt 30	1			A4
7-71	K 0 0 0 0 0 8 0 3 5 2	8 bolt 35	1			B3

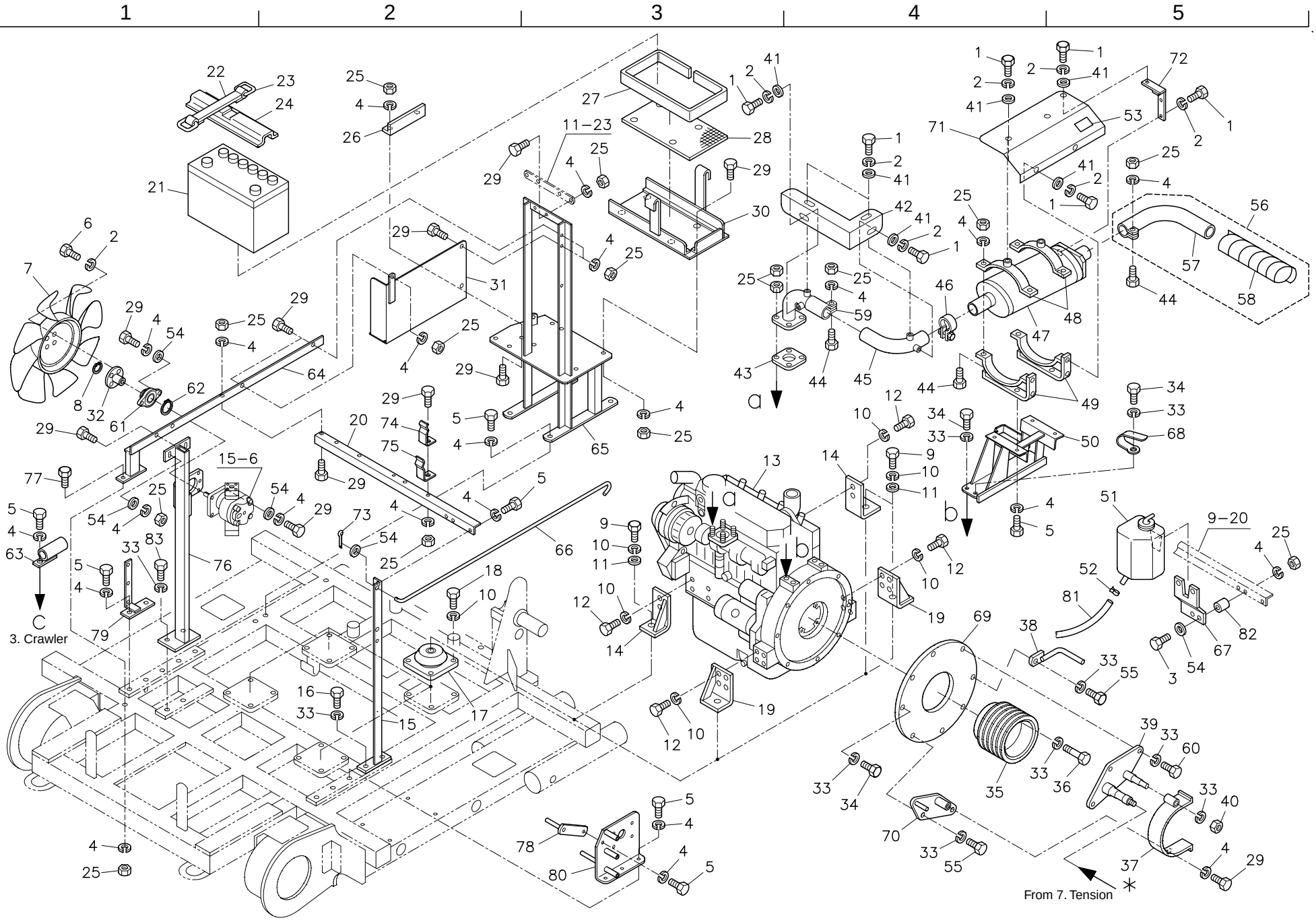
8. Knife



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
8- 1	K 8 1 1 0 1 5 5 0 0 R	Knife shaft assy 1550	1	0		D5
	K 8 1 1 0 1 7 0 0 0 R	Knife shaft assy 1700	0	1		
8- 2	K 6 0 8 3 0 0 0 0 7 8	11 mounting pin 32	60	70		C3
8- 3	K 2 5 2 0 0 0 0 0 4 B	Hammer knife 6110	120	140		C3
8- 4	K 0 1 4 3 1 0 0 0 0 2	10 nut with disc spring	60	70		C3
8- 5	K 0 0 2 1 0 6 0 1 6 2	6 flanged bolt 16	4			A3
8- 6	K 6 2 0 4 0 0 0 4 0 2	Knife shaft metal cover	1			C1
8- 7	K 0 6 7 9 0 6 3 0 8 0	P bearing 6308LLU	2			C1,C5
8- 8	K 8 0 1 0 0 0 0 0 9 0	Left knife shaft metal assy	1			B5
8- 9	K 0 2 0 0 0 8 0 0 0 2	8S washer	30			A2,A4 etc.
8-10	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	10			B5,C5 etc.
8-11	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	12			A4,D1 etc.
8-12	K 5 3 0 0 0 0 0 0 7 2	Knife shaft grass twining prevention plate 320	2			B5,D2
8-13	K 0 1 0 0 0 8 0 0 0 2	8 nut	8			A3,D3 etc.
8-14	K 5 0 7 6 0 1 4 6 0 2	6SPHC washer 1460	2			A3,E3
8-15	K 0 2 0 0 1 4 0 0 0 2	14S washer	2			A3,E3
8-16	K 0 0 0 1 1 4 0 5 0 2	14 bolt 50P1.5	1	0		A3
8-17	H M 1 5 6 0 - 0 7 0 2 Z 2	Left knife shaft cover	1	0		A3
	H M 1 7 1 0 - 0 7 0 1 Z G	Nipple cover	0	1		A2
8-18	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	8			B3,E3
8-19						
8-20	K 8 0 1 0 0 0 0 0 6 0	40-dia. knife shaft metal assy	1			B1
8-21	K 6 9 0 3 0 0 0 0 9 2	Knife shaft metal 90106	1			C1
8-22	H M A 1 5 6 0 0 7 0 1 Z G	Knife cover side plate joint plate	2			E2
8-23	K 5 0 1 1 0 4 0 5 2 2	1SPCC washer 4052	1			E3
8-24	K 5 0 1 0 6 4 0 5 2 2	0.6SPCC washer 4052	1			E3
8-25	K 2 4 2 3 0 0 0 0 7 D	Knife shaft pulley 40170	1			D3
8-26	K 0 5 0 0 8 0 7 5 5 0	8 both-end round key 755	1			D3
8-27	K 0 0 2 1 0 6 0 1 6 2	6 flanged bolt 16	4	0		A2
	K 0 0 0 3 0 8 0 5 5 2	8 bolt 55	0	2		A2

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
8-28	K 5 0 0 0 0 8 0 0 0 2	8 washer	0	2		A2
8-29	K 1 4 4 0 0 0 0 0 1 0	Grease nipple	2			A2,A3 etc.
8-30	K 6 2 1 2 0 0 1 5 8 2	8.5STKM collar 1722	0	2		A2
8-31	K 6 9 0 3 0 0 0 1 3 2	Left knife shaft metal	1			B5
8-32	K 6 2 0 4 0 0 0 5 1 2	Left knife shaft metal cover	1			C5
8-33	K 6 2 1 2 0 0 1 6 9 2	40STKM collar 502.5	2	1		B4,B5
8-34	K 0 0 7 1 0 0 0 1 2 2	14 bolt 50 with nipple hole	1	2		A3,E4
8-35	H M 1 7 1 0 - 0 7 0 3 Z 2	Knife shaft collar	0	1		A3,E4
8-36	K 0 0 2 3 0 6 0 1 0 1	6 hollow set 10	0	1		A3
8-37	K 0 8 2 5 0 6 5 0 9 0	Oil seal MHSA50659	0	1		B4
8-38	H M 1 7 1 0 - 0 7 0 2 Z 2	Seal housing	0	1		A3

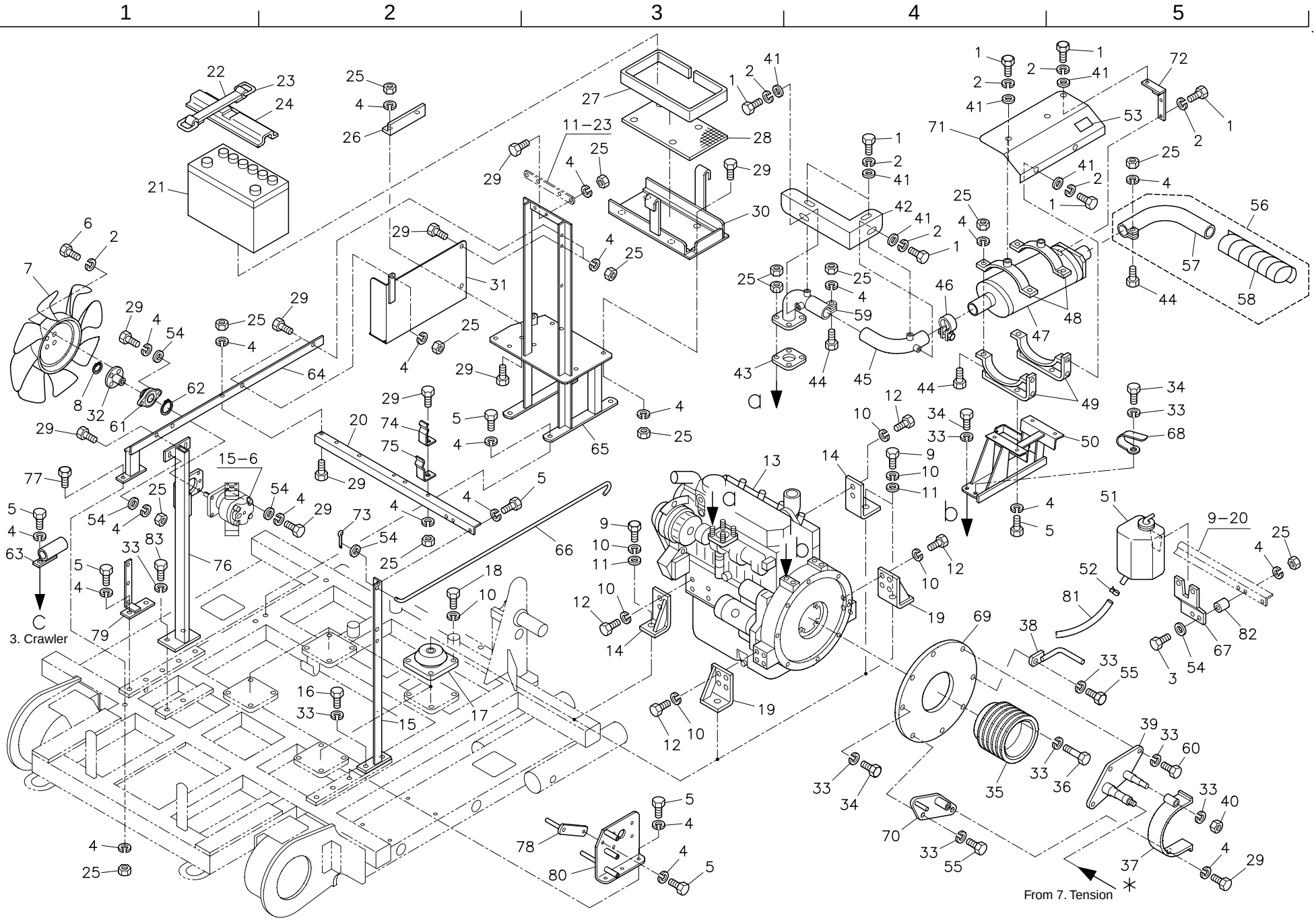
9. Engine and muffler



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
9- 1	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	11			A3,A4 etc.
9- 2	K 0 2 0 0 0 6 0 0 0 2	6S washer	14			A3,A4 etc.
9- 3	K 0 0 0 0 0 8 0 4 0 2	8 bolt 40	2			D5
9- 4	K 0 2 0 0 0 8 0 0 0 2	8S washer	51			A2,A3 etc.
9- 5	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	17			D1,E3 etc.
9- 6	K 0 0 0 0 0 6 0 1 2 2	6 bolt 12	4			B1
9- 7	K 2 6 0 3 0 0 0 8 5 0	Cooling fan 30H48-00500	1			B1
9- 8	K 0 4 0 2 0 1 3 0 0 1	Stop ring R13	1			C1
9- 9	K 0 0 0 0 1 2 0 2 5 2	12 bolt 25	4			C3,C4
9-10	K 0 2 0 0 1 2 0 0 0 2	12S washer	32			C3,C4 etc.
9-11	K 5 0 0 0 1 2 0 0 0 2	12 washer	4			C4,D3
9-12	K 0 0 0 9 1 2 0 3 0 2	12 small bolt 30P1.25	12			C4,D3 etc.
9-13	K 2 6 0 2 0 0 0 1 8 0	Mitsubishi engine S4L2-E231KM	1			C3
9-14	K 7 3 5 5 0 0 0 2 8 D	Left engine mounting bracket	2			C4,D3
9-15	H M A 1 5 6 0 0 9 0 4 Z V	Right radiator auxiliary stay	1			D2
9-16	K 0 0 1 0 0 8 0 1 5 2	8 heat-treated bolt 15	2			D2
9-17	K 4 0 4 2 0 0 0 0 5 0	Cup mount RC40	4			D2
9-18	K 0 0 0 0 1 2 0 2 0 2	12 bolt 20	16			D2
9-19	K 7 3 5 5 0 0 0 2 7 D	Right engine mounting bracket	2			D3,D4
9-20	H M A 1 5 6 0 0 9 0 3 A V	Auxiliary stay joint bracket	1			C2
9-21	K 3 6 0 0 0 0 0 0 9 0	Battery 105D31R	1			A1
9-22	K 4 0 3 9 0 0 0 0 1 0	Battery stop rubber	1			A1
9-23	K 5 2 7 4 0 0 0 0 1 2	Battery holding bracket	2			A2
9-24	K 7 1 6 3 0 0 0 1 4 D	Battery cover	1			A2
9-25	K 0 1 0 0 0 8 0 0 0 2	8 nut	32			A2,A3 etc.
9-26	K 5 2 7 0 0 0 1 1 4 V	Battery clamp	1			A2
9-27	K 4 0 3 3 0 0 0 1 7 0	2 sheet rubber 45980	1			A3
9-28	K 4 0 3 5 0 0 0 1 3 0	Battery vibration-proof rubber	1			A3
9-29	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	23			A3,B1 etc.
9-30	H M 1 5 6 0 - 0 8 0 1 Z V	Battery base	1			B3

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
9-31	H M 1 5 6 0 - 1 1 1 6 Z V	Tool box	1			B2
9-32	H M 1 5 6 0 - 0 8 1 4 Z 2	Cooling fan clamp	1			C1
9-33	K 0 2 0 0 1 0 0 0 0 2	10S washer	7			C4,C5 etc.
9-34	K 0 0 0 1 1 0 0 2 0 2	10 bolt 20P1.25	6			C4,C5 etc.
9-35	K 2 4 2 4 0 0 0 0 1 2	B5 engine pulley 175	1			E4
9-36	K 0 0 1 4 1 0 0 6 0 2	10 heat-treated bolt 60P1.25	4			E5
9-37	K 7 3 6 0 0 0 0 0 4 2	Belt stopper for engine	1			E5
9-38	K 7 8 9 9 0 0 0 5 6 D	Belt stopper	1			D4
9-39	K 7 3 5 5 0 0 0 4 9 2	Belt stopper mounting plate	1			D5
9-40	K 0 1 0 0 1 0 0 0 0 2	10 nut	1			E5
9-41	K 5 0 1 1 6 0 6 2 2 2	1.6SPCC washer 622	9			A3,B4 etc.
9-42	K 5 2 7 0 0 0 1 1 8 U	Muffler exhaust pipe cover	1			B4
9-43	K 2 6 0 3 0 0 0 6 5 0	EX gasket 30A30-00200	1			B3
9-44	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	6			B5,C4
9-45	K 7 8 9 9 0 0 0 5 9 T	Muffler joint	1			C4
9-46	K 2 6 0 3 0 0 0 5 7 0	Muffler clamp MM317772	1			B4
9-47	K 7 1 9 0 0 0 0 0 7 T	Muffler	1			B4
9-48	K 7 8 9 9 0 0 0 1 4 T	Muffler mounting plate	2			B5
9-49	K 7 8 9 9 0 0 0 1 3 T	Muffler clamp	2			C5
9-50	H M A 1 5 6 0 0 9 0 1 Z U	Muffler mounting base	1			C5
9-51	K 2 6 0 3 0 0 0 7 9 0	Reserve tank MM407370	1			C5
9-52	K 2 6 0 3 0 0 0 1 7 0	Hose band for reserve tank	4			D5
9-53	K 4 2 0 5 0 0 1 5 4 0	"Caution against hot section" label	1			A5
9-54	K 5 0 0 0 0 8 0 0 0 2	8 washer	9			B1,C1 etc.
9-55	K 0 0 0 1 1 0 0 2 5 2	10 bolt 25P1.25	3			D5,E4
9-56	K 9 2 6 0 0 0 0 0 2 0	Muffler tail pipe COMP	1			B5
9-57	K 7 1 9 0 0 0 0 0 5 T	Muffler tail pipe	1			B5
9-58	K 4 2 3 0 0 0 0 0 7 0	1.6 heat intercepting board 40400	1			B5
9-59	K 7 8 9 9 0 0 0 5 8 T	Muffler exhaust pipe	1			B4
9-60	K 0 0 0 1 1 0 0 3 0 2	10 bolt 30P1.25	3			E5

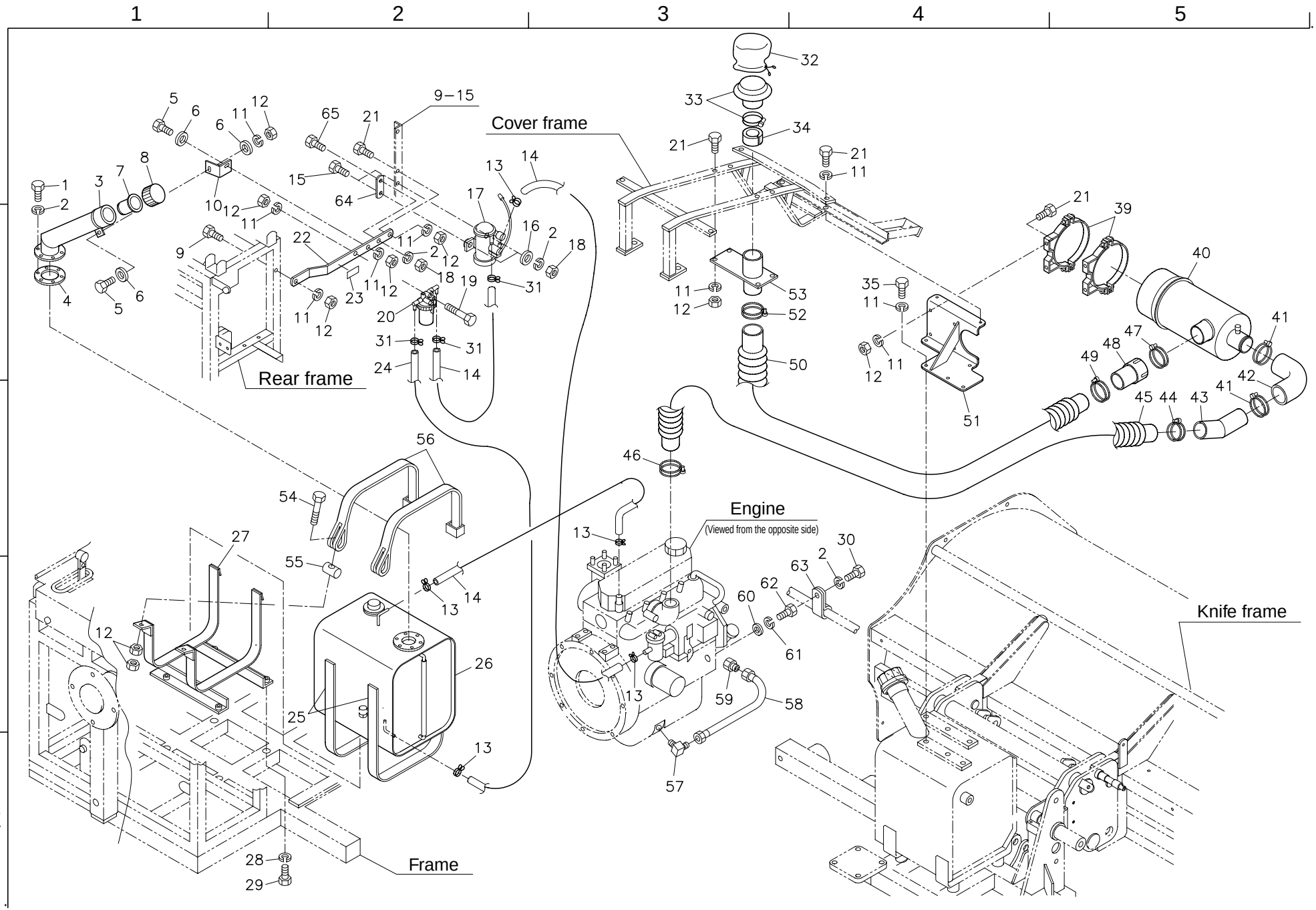
9. Engine and muffler



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
9-61	K 0 6 6 3 0 0 5 0 0 0	Rhombic flange unit UFL005	1			C1
9-62	K 0 4 0 1 0 2 5 0 0 1	Stop ring S25	1			C1
9-63	K 7 3 5 5 0 0 0 1 2 V	Drain hose holder	1			C1
9-64	H M 1 5 6 0 - 0 9 0 5 Z V	Left radiator assist stay	1			B2
9-65	H M 1 5 6 0 - 0 8 0 2 A V	Battery mounting base	1			C3
9-66	K 6 1 7 3 0 0 0 1 7 2	Right cover stop shaft	1			C3
9-67	K 5 2 7 0 0 0 0 4 9 2	Reserve tank mounting plate	1			D5
9-68	K 4 2 8 1 0 0 0 0 3 0	10.5 harness clamp 50	1			C5
9-69	K 5 1 0 1 0 0 0 4 7 D	Flywheel cover	1			D4
9-70	K 7 3 5 5 0 0 0 5 1 D	Belt stopper mounting bracket	1			E4
9-71	K 5 2 7 0 0 0 2 1 2 U	Muffler cover	1			A4
9-72	K 7 1 9 0 0 0 0 0 6 U	Muffler cover support	1			A5
9-73	K 0 3 0 0 0 2 0 1 6 2	2 cotter pin 16	1			C2
9-74	K 1 0 9 0 0 0 0 1 0 0	Rod receiver B	1			C2
9-75	K 5 2 7 0 0 0 2 0 5 2	Rod receiver A	1			C2
9-76	H M 1 5 6 0 - 1 0 0 6 Z D	Hydraulic motor mounting bracket	1			D1
9-77	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	1			C1
9-78	K 7 3 6 0 0 0 0 0 6 2	Belt stopper	1			E3
9-79	H M 1 5 6 0 - 1 1 1 3 Z V	Cover stopper	1			D1
9-80	H M 1 5 6 0 - 0 8 1 2 Z V	Tension pulley mounting base	1			E3
9-81	K 2 6 0 3 0 0 0 9 2 0	Reserve tank hose	1			D5
9-82	K 6 2 1 2 0 0 1 5 8 2	8.5STKM collar 1722	2			D5
9-83	K 0 0 0 0 1 0 0 2 5 2	10 bolt 25	2			C1

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location

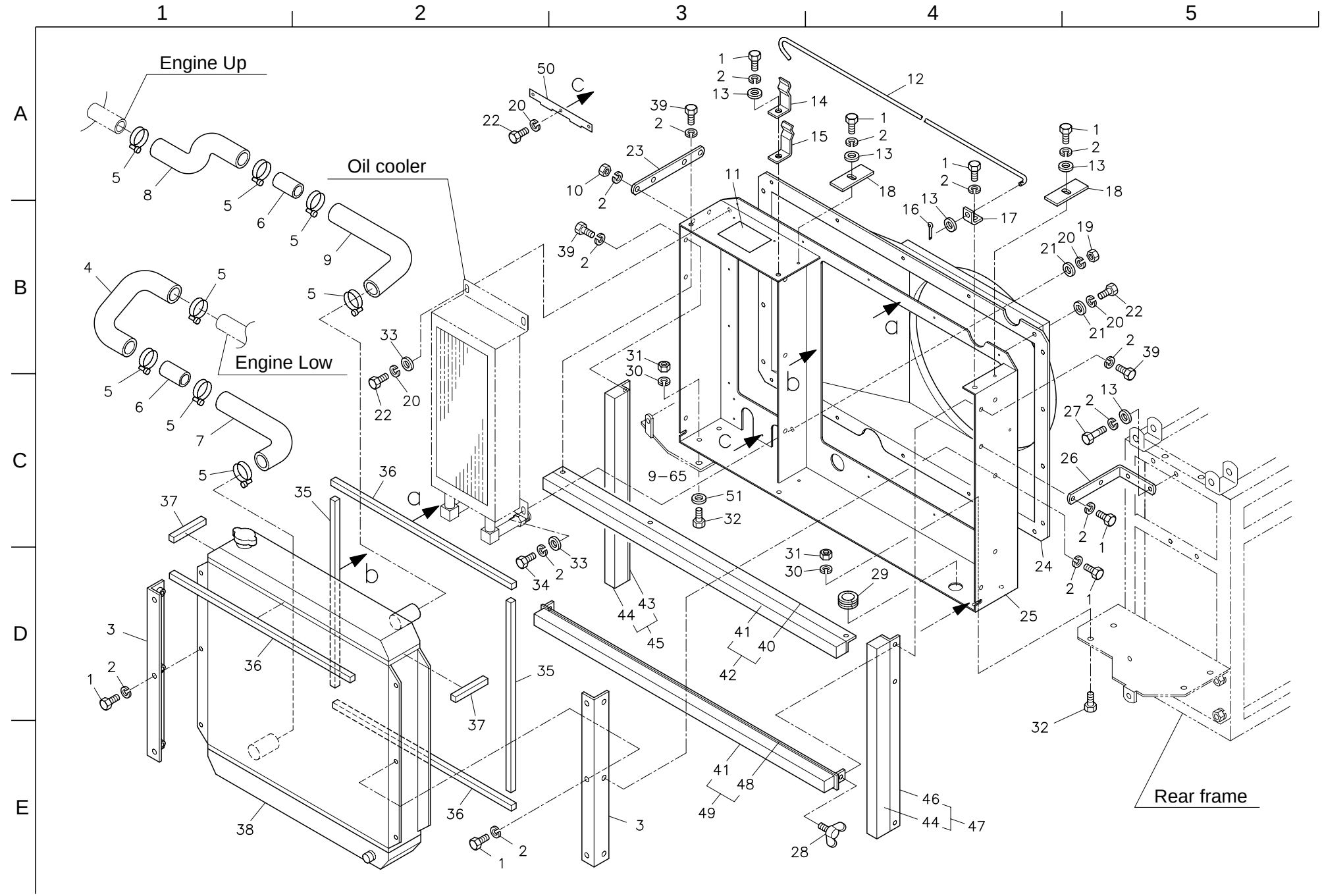
10. Fuel tank and air cleaner



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
10- 1	K 0 0 0 0 0 6 0 1 2 2	6 bolt 12	6			A1
10- 2	K 0 2 0 0 0 6 0 0 0 2	6S washer	10			A1
10- 3	H M 1 5 6 0 - 0 8 1 0 Z 2	Filler port	1			A1
10- 4	K 4 0 3 1 0 0 0 2 8 0	Filler port packing	1			B1
10- 5	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	2			A1,B1
10- 6	K 5 0 0 0 0 8 0 0 0 2	8 washer	3			A1,B1
10- 7	K 3 4 2 0 0 0 0 0 4 0	Strainer FS-45	1			A1
10- 8	K 1 3 1 0 0 0 0 1 1 0	Filler cap	1			A1
10- 9	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	1			B1
10-10	H M 1 5 6 0 - 0 8 1 1 Z 2	Filler port support	1			B1
10-11	K 0 2 0 0 0 8 0 0 0 2	8S washer	21			A1,B1 etc.
10-12	K 0 1 0 0 0 8 0 0 0 2	8 nut	17			A1,B1 etc.
10-13	K 2 6 0 3 0 0 0 0 4 0	Fuel hose clamp MM660004	6			A2,C3 etc.
10-14	K 2 6 0 3 0 0 0 8 1 0	Fuel hose MS602121	3			A3,B2
10-15	K 0 0 0 0 0 6 0 3 0 2	6 bolt 30	2			A2
10-16	K 5 0 1 2 3 0 6 2 0 2	2.3SPCC washer 620	2			A2
10-17	K 2 6 0 3 0 0 0 0 2 0	Fuel pump MM200543	1			A2
10-18	K 0 1 0 0 0 6 0 0 0 2	6 nut	3			B3
10-19	K 0 0 0 3 0 8 0 7 0 2	8 bolt 70	1			B2
10-20	K 2 6 0 3 0 0 0 8 0 0	Water sedimenter MM130552	1			B2
10-21	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	11			A2,A3 etc.
10-22	H M A 1 5 6 0 0 9 0 5 Z V	Frame joint plate	1			B2
10-23	K 4 2 0 9 0 0 1 0 1 0	DIESEL mark	1			B2
10-24	K 2 6 0 3 0 0 0 9 4 0	Fuel hose MS602147	1			B2
10-25	K 4 0 3 3 0 0 0 3 4 0	2 sheet rubber 401230	2			D2
10-26	K 2 7 2 0 0 0 0 0 8 0	Fuel tank 33	1			D2
10-27	H M 1 5 6 0 - 0 8 0 9 Z D	Fuel tank mounting base	1			C1
10-28	K 0 2 0 0 1 0 0 0 0 2	10S washer	4			E1
10-29	K 0 0 0 0 1 0 0 2 5 2	10 bolt 25	4			E1
10-30	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	1			C4
10-31	K 2 6 0 3 0 0 0 4 5 0	Clip MS660164	3			B2
10-32	K 4 1 1 0 0 0 0 0 3 0	Large cleaner cover	1			A4
10-33	K 2 6 0 3 0 0 0 6 7 0	Air cleaner cap 34430-03041	1			A3
10-34	K 4 1 2 5 0 0 0 0 1 0	Cleaner urethane	1			A4
10-35	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	6			A4,B4

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
10-36						
10-37						
10-38						
10-39	K 2 6 0 3 0 0 0 6 8 0	Air cleaner band MM130803	2			B5
10-40	K 2 6 0 3 0 0 0 7 5 0	Air cleaner MM130829	1			B5
10-41	K 2 6 0 3 0 0 0 9 1 0	Clamp MF661032	2			B5,C5
10-42	K 2 6 0 3 0 0 0 9 0 0	Air hose 32A30-02100	1			B5
10-43	H M 1 5 6 0 - 0 9 1 3 A 2	Air outlet pipe	1			C5
10-44	K 2 6 0 3 0 0 0 7 1 0	Air hose clamp MF661030	1			C5
10-45	K 2 6 0 3 0 0 0 6 9 0	Air hose MM436953	1			C5
10-46	K 2 6 0 3 0 0 0 7 0 0	Air hose clamp MS660031	1			C3
10-47	K 4 2 6 1 0 3 6 0 0 0	4669 clamp	1			B5
10-48	H M 1 5 6 0 - 0 9 1 2 Z D	Air inlet pipe	1			B5
10-49	K 2 6 0 3 0 0 0 8 9 0	Clamp F4300-07201	1			B5
10-50	K 2 6 0 3 0 0 0 8 7 0	Air hose 32A30-01500	1			B4
10-51	H M A 1 5 6 0 1 1 0 5 Z D	Air cleaner mounting base	1			C4
10-52	K 2 6 0 3 0 0 0 8 8 0	Clamp MF661031	1			B4
10-53	H M 1 5 6 0 - 0 9 1 1 Z D	Rain cap pipe	1			B4
10-54	K 0 0 0 3 0 8 0 5 0 2	8 bolt 50	2			C2
10-55	K 6 1 5 0 0 0 0 0 8 2	Band tightening shaft	2			D2
10-56	K 7 3 5 1 0 0 0 0 1 2	Fuel tank tightening band	2			C2
10-57	K 3 0 0 1 1 2 0 0 0 2	90 elbow 1033-12	1			E3
10-58	K 3 1 4 0 0 0 0 1 8 0	2556-08 hose 4-1180	1			D4
10-59	K 1 4 2 0 0 0 0 0 2 2	PF1/2 screw for drain hose	1			D3
10-60	K 5 0 0 0 1 2 0 0 0 2	12 washer	1			D3
10-61	K 0 2 0 0 1 2 0 0 0 2	12S washer	1			D4
10-62	K 0 0 7 1 0 0 1 0 0 2	12 small bolt 25P1.25 with M6	1			D3
10-63	K 4 2 7 0 0 1 5 0 6 0	15 harness clip M6	3			D4
10-64	K 5 1 4 1 0 0 0 1 2 2	Slow return valve washer	1			A2
10-65	K 0 0 0 0 0 6 0 2 0 2	6 bolt 20	1			

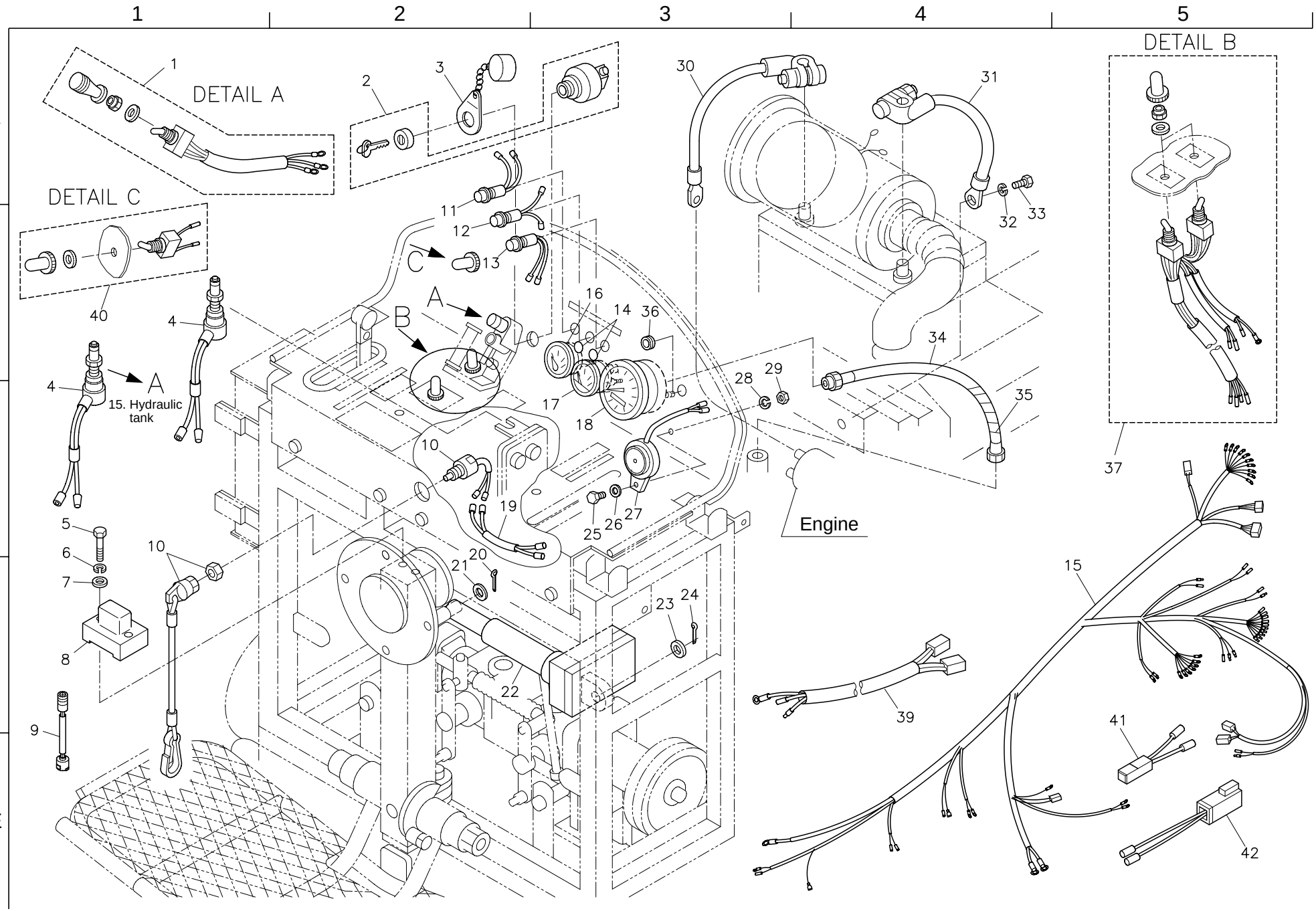
11. Radiator



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
11- 1	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	19			A3,A4 etc.
11- 2	K 0 2 0 0 0 8 0 0 0 2	8S washer	27			A3,A4 etc.
11- 3	H M 1 5 6 0 - 0 9 0 2 Z D	Radiator mounting bracket	2			A4,A5 etc.
11- 4	K 2 6 0 3 0 0 0 6 3 0	Water hose 31A47-00200	1			B1
11- 5	K 2 6 0 3 0 0 0 9 3 0	Hose clamp MF661021	8			A1,B1 etc.
11- 6	H M 1 5 6 0 - 0 8 1 3 A 2	Water hose collar	2			B1,C1
11- 7	H M 1 5 6 0 - 0 9 2 3 Z 0	Water hose radiator lower	1			C1
11- 8	H M 1 5 6 0 - 0 9 2 4 Z 0	Water hose engine out	1			A1
11- 9	H M 1 5 6 0 - 0 9 2 2 Z 0	Water hose radiator upper	1			B3
11-10	K 0 1 0 0 0 8 0 0 0 2	8 nut	2			A3,D4
11-11	K 4 2 0 0 0 0 0 2 4 0	Nameplate HMA1560	1			A3
11-12	H M 1 5 6 0 - 1 1 1 0 Z 2	Left cover stop shaft	1			A4
11-13	K 5 0 0 0 0 8 0 0 0 2	8 washer	6			A3,A4
11-14	K 1 0 9 0 0 0 0 1 0 0	Rod receiver B	1			A4
11-15	K 5 2 7 0 0 0 2 0 5 2	Rod receiver A	1			A4
11-16	K 0 3 0 0 0 2 0 1 6 2	2 cotter pin 16	1			B4
11-17	H M 1 5 6 0 - 1 1 1 2 Z 2	Rod hanging bracket	1			B4
11-18	H M 1 5 6 0 - 0 9 0 9 Z D	Radiator box dust-proof plate	2			A4,A5
11-19	K 0 1 0 0 0 6 0 0 0 2	6 nut	2			B5
11-20	K 0 2 0 0 0 6 0 0 0 2	6S washer	25			B5,C2
11-21	K 5 0 1 1 6 0 6 2 2 2	1.6SPCC washer 622	18			B4,B5 etc.
11-22	K 0 0 0 0 0 6 0 1 2 2	6 bolt 12	21			A2,B5
11-23	H M 1 5 6 0 - 0 9 0 3 Z 2	Radiator box mounting plate	1			A3
11-24	H M A 1 5 6 0 0 9 0 6 Z 0	Shroud	1			D4
11-25	H M A 1 5 6 0 0 9 0 2 Z D	Radiator box	1			D4
11-26	H M 1 5 6 0 - 0 9 0 4 A 2	Radiator box mounting bracket	1			C4
11-27	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	2			C5,D5
11-28	K 0 0 2 2 0 8 0 2 0 2	8 wing bolt 20	2			E3
11-29	K 0 9 0 0 3 0 0 3 0 0	Grommet with diaphragm C30SG30A	2			D4
11-30	K 0 2 0 0 1 0 0 0 0 2	10S washer	1			B3,D3

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
11-31	K 0 1 0 0 1 0 0 0 0 2	10 nut	4			B3,D3
11-32	K 0 0 0 0 1 0 0 2 0 2	10 bolt 20	4			C3,E4
11-33	K 5 0 1 1 6 0 6 1 6 2	1.6SPCC washer 616	4			C2,D3
11-34	K 0 0 0 0 0 6 0 2 0 2	6 bolt 20	2			D2
11-35	K 4 2 2 0 0 0 0 0 2 3 0	10 urethane sponge 10500	2			C1,D2
11-36	K 4 2 2 0 0 0 0 0 2 2 0	10 urethane sponge 10550	3			C2,D1 etc.
11-37	K 4 2 2 0 0 0 0 0 2 4 0	10 urethane sponge 1095	2			C1,E2
11-38	K 2 7 3 0 0 0 0 0 0 1 0	Radiator	1			E1
11-39	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	6			A3,B3 etc.
11-40	H M 1 5 6 0 - 0 9 1 5 Z D	Box dust-proof fitting top	1			D3
11-41	K 4 2 2 0 0 0 0 1 9 0	30 urethane sponge 30890	2			E3
11-42	H M 1 5 6 0 - 0 9 1 4 Z 0	Box dust-proof fitting top COMP	1			D3
11-43	H M 1 5 6 0 - 0 9 1 9 Z D	Box dust-proof fitting front	1			D3
11-44	K 4 2 2 0 0 0 0 2 0 0	40 urethane sponge 30500	2			D3,E4
11-45	H M 1 5 6 0 - 0 9 1 8 Z 0	Box dust-proof fitting front COMP	1			D3
11-46	H M 1 5 6 0 - 0 9 2 1 Z D	Box dust-proof fitting rear	1			E4
11-47	H M 1 5 6 0 - 0 9 2 0 Z 0	Box dust-proof fitting rear COMP	1			E4
11-48	H M 1 5 6 0 - 0 9 1 7 Z D	Box dust-proof fitting bottom	1			E3
11-49	H M 1 5 6 0 - 0 9 1 6 Z 0	Box dust-proof fitting bottom COMP	1			E3
11-50	H M A 1 5 6 0 0 9 0 7 Z D	Radiator box dust-proof plate bottom	1			A2
11-51	K 5 0 0 0 1 0 0 0 0 2	10 washer	2			C3

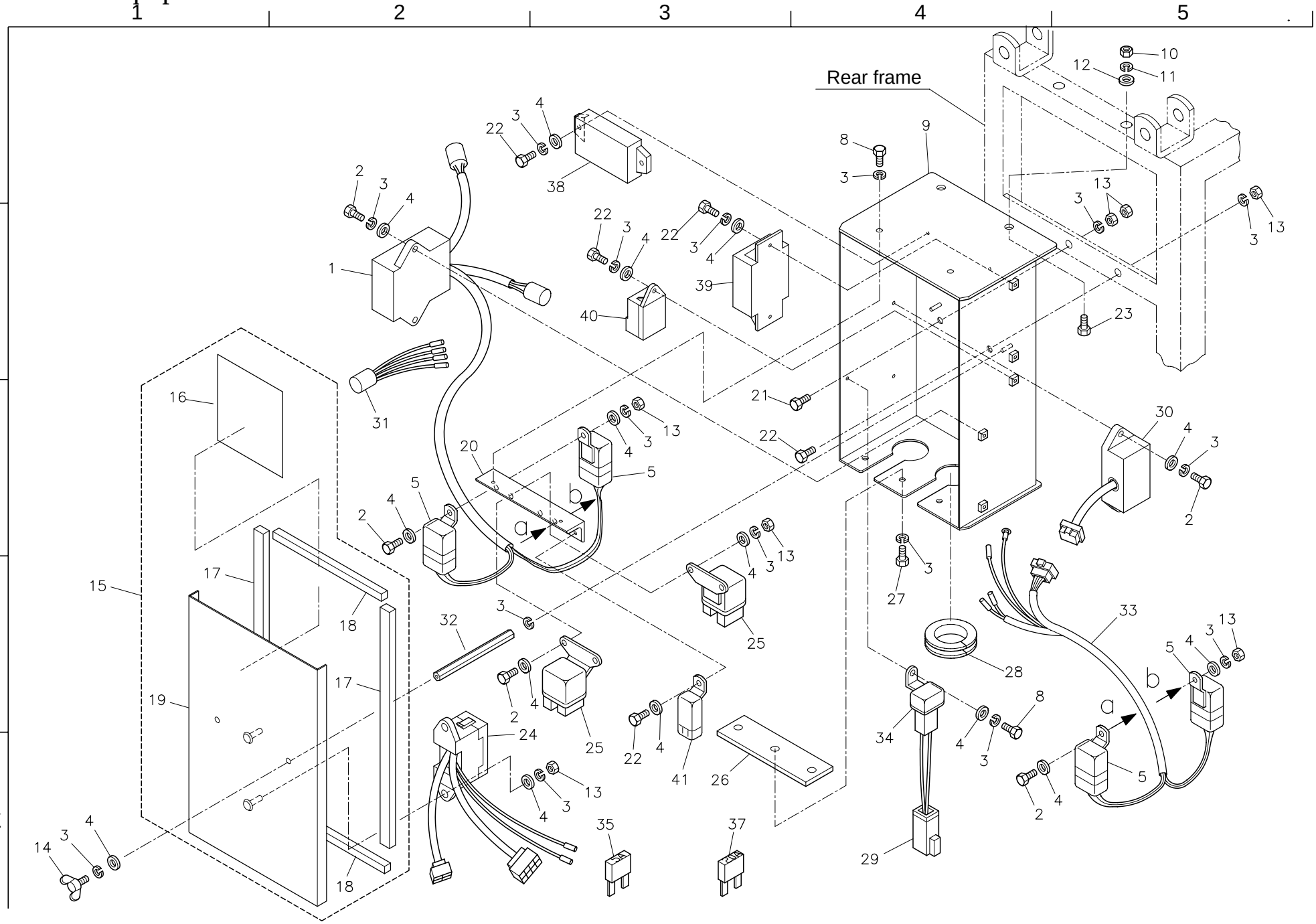
12. Electric equipment



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
12- 1	K 3 6 6 2 0 0 0 0 3 0	Auto-return type switch ET115G	1			A1
12- 2	K 2 6 0 3 0 0 0 6 1 0	Main switch JP0445350	1			A2
12- 3	K 1 3 1 0 0 0 0 0 8 0	Rubber cap assy for switch	1			A2
12- 4	K 3 6 7 1 0 0 0 0 3 0	Safety switch G1780	2			B1,D1
12- 5	K 0 0 0 0 0 6 0 3 0 2	6 bolt 30	2			C1
12- 6	K 0 2 0 0 0 6 0 0 0 2	6S washer	2			D1
12- 7	K 5 0 0 0 0 6 0 0 0 2	6 washer	2			D1
12- 8	K 3 7 2 0 0 0 0 0 1 0	Analog sensor slope eye 30	1			D1
12- 9	H M 1 5 6 0 - 0 8 1 8 Z 0	Horizontal sensor extension wire	1			E1
12-10	K 3 6 7 1 0 0 0 1 4 0	Emergency switch USA1G	1			C1,C2
12-11	K 2 6 0 3 0 0 0 4 0 0	Blue pilot lamp MM201124	1			B2
12-12	K 2 6 0 3 0 0 0 1 0 0	Yellow pilot lamp MM201123	1			B2
12-13	K 2 6 0 3 0 0 0 0 9 0	Red pilot lamp MM201122	1			B2
12-14	K 4 2 2 9 0 0 0 0 2 0	Air permeable dust-proof seal 20	2			B3
12-15	H M A 1 5 6 0 0 8 0 6 A 0	Wiring	1			D4
12-16	K 9 4 0 0 0 0 0 0 2 0	Fuel gauge AFMC-12COMP	1			B3
12-17	K 2 6 0 3 0 0 0 1 1 0	Water gauge 04525-13000	1			C3
12-18	K 2 6 0 3 0 0 0 0 5 0	Tachometer JP010026-0	1			C3
12-19	K 3 6 2 0 0 0 0 6 0 0	Extension wire 150	1			C2
12-20	K 0 3 0 0 0 3 2 2 5 2	3.2 cotter pin 25	1			D2
12-21	K 5 0 0 0 1 2 0 0 0 2	12 washer	1			D2
12-22	K 3 8 3 0 0 0 0 0 1 0	100 electric cylinder 303	1			D2
12-23	K 5 0 0 0 1 6 0 0 0 2	16 washer	1			D3
12-24	K 0 3 0 0 0 4 0 3 2 2	4 cotter pin 32	1			D3
12-25	K 0 0 0 0 0 5 0 2 0 2	5 bolt 20	1			C3
12-26	K 5 0 0 0 0 5 0 0 0 2	5 washer	1			C3
12-27	K 3 7 0 0 0 0 0 0 1 0	Buzzer EBM-12 type	1			C3
12-28	K 0 2 0 0 0 5 0 0 0 2	5S washer	1			B3
12-29	K 0 1 0 0 0 5 0 0 0 2	5 nut	1			B3
12-30	K 3 6 1 0 0 0 0 1 5 0	Battery wiring 1100	1			A3

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
12-31	K 3 6 1 1 0 0 0 2 4 0	Battery earth cord 500	1			A4,D1
12-32	K 0 2 0 0 1 2 0 0 0 2	12S washer	1			B4
12-33	K 0 0 0 9 1 2 0 2 5 2	12 small bolt 25P1.25	1			B4
12-34	K 2 6 0 3 0 0 0 0 6 0	Cable JP0301100	1			B4
12-35	K 4 2 3 0 0 0 0 0 1 0	1.6 adiabatic board 12500	1			C4
12-36	K 0 9 0 0 3 0 0 1 4 0	Grommet with diaphragm C30SG14A	3			B3
12-37	H M 1 5 6 0 - 0 8 2 0 Z 0	Changeover switch wiring	1			C5
12-38						
12-39	H M 1 5 6 0 - 0 8 1 9 Z 0	Solenoid valve wiring	1			D4
12-40	K 3 6 6 2 0 0 0 1 1 0	National switch WD1011	1			B1
12-41	K 3 7 3 0 0 0 0 0 1 0	Diode unit V087860	1			E5
12-42	K 3 6 2 0 0 0 0 7 2 0	Fusible link	1			E5

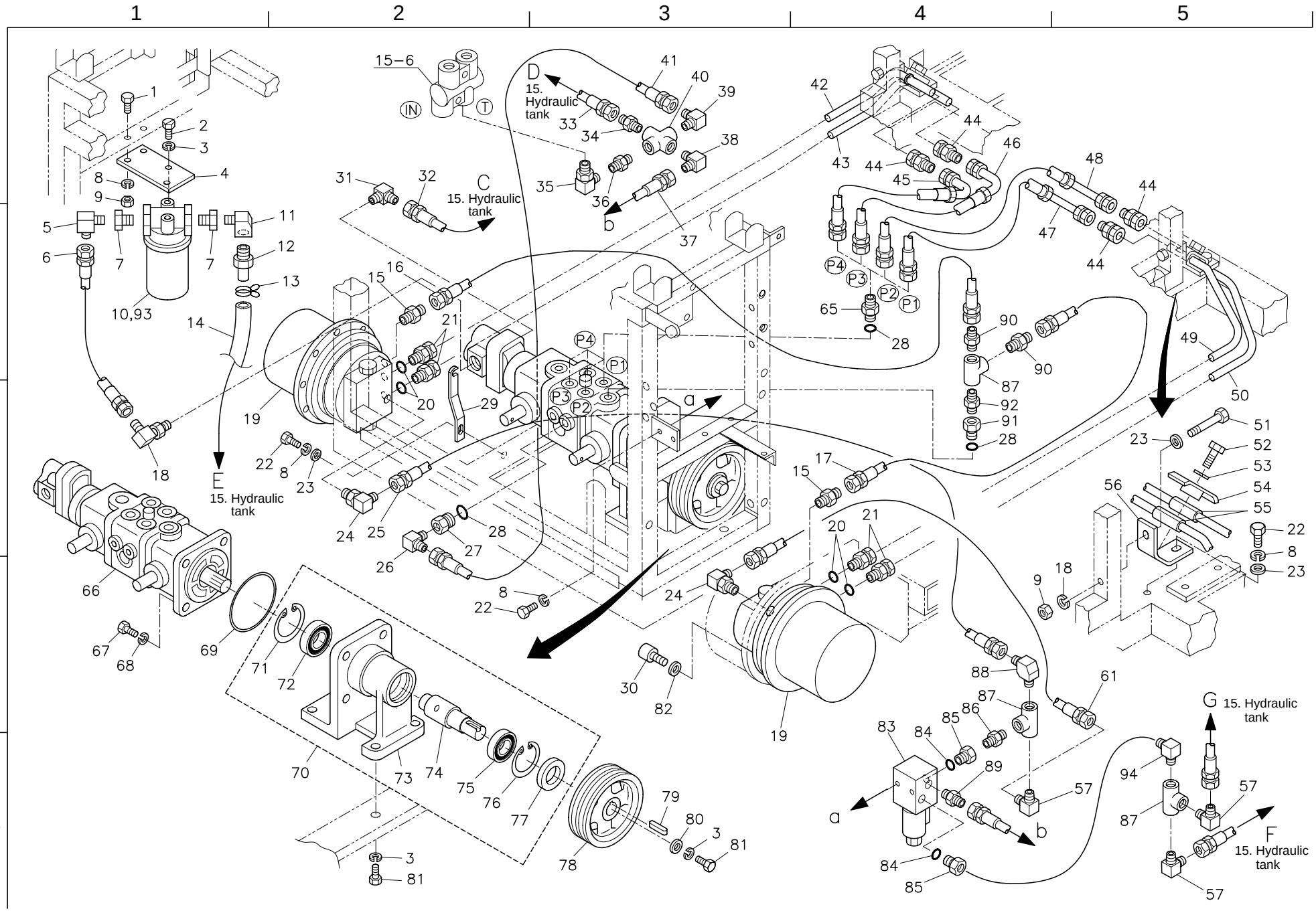
13. Electric equipment box



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
13- 1	K 3 6 9 0 0 0 0 0 2 0	Horizontal controller box	1			B2
13- 2	K 0 0 0 0 0 6 0 2 0 2	6 bolt 20	8			A2,A3 etc.
13- 3	K 0 2 0 0 0 6 0 0 0 2	6S washer	29			A2,B3 etc.
13- 4	K 5 0 0 0 0 6 0 0 0 2	6 washer	21			A2,A3 etc.
13- 5	K 3 6 8 1 0 0 0 0 1 0	Relay CA1-DC12V-N	4			C2,C3 etc.
13- 6						
13- 7						
13- 8	K 0 0 0 0 0 6 0 1 2 2	6 bolt 12	3			A4
13- 9	H M A 1 5 6 0 0 8 0 1 Z V	Electric equipment box	1			A4
13-10	K 0 1 0 0 0 8 0 0 0 2	8 nut	2			A5
13-11	K 0 2 0 0 0 8 0 0 0 2	8S washer	2			A5
13-12	K 5 0 0 0 0 8 0 0 0 2	8 washer	2			A5
13-13	K 0 1 0 0 0 6 0 0 0 2	6 nut	8			A5,B5 etc.
13-14	K 0 0 2 2 0 6 0 1 5 2	6 wing bolt 15	2			E1
13-15	H M A 1 5 6 0 0 8 0 2 Z 0	Electric equipment box cover COMP	1			D1
13-16	K 4 2 0 9 0 0 1 1 2 0	Fuse list label	1			C1
13-17	K 4 2 2 0 0 0 0 0 1 0	10 urethane sponge 15330	2			D1,D2
13-18	K 4 2 2 0 0 0 0 0 3 0	10 urethane sponge 10170	2			D2,E2
13-19	H M A 1 5 6 0 0 8 0 3 Z V	Electric equipment box cover	1			D1
13-20	H M A 1 5 6 0 0 8 0 5 Z V	Relay mounting bracket	1			C2
13-21	K 0 0 0 0 0 6 0 3 5 2	6 bolt 35	1			B3
13-22	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	7			C3
13-23	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	2			B5
13-24	H M A 1 5 6 0 0 8 0 7 Z 0	Fuse box	1			D3
13-25	K 2 6 0 3 0 0 0 4 1 0	Glow relay MM43128201	2			D3
13-26	H M 1 5 6 0 - 0 8 0 8 Z V	Electric equipment box dust-proof plate	1			E3
13-27	K 0 0 0 0 0 6 0 1 0 2	6 bolt 10	3			D4
13-28	K 0 9 0 0 3 0 0 4 2 0	Grommet with diaphragm C30SG42A	2			D4
13-29	K 3 6 2 0 0 0 0 7 2 0	Fusible link	1			E4
13-30	K 3 6 9 0 0 0 0 0 5 0	Fan control unit	1			C5

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
13-31	K 3 6 2 0 0 0 0 0 5 0	Horizontal sensor wiring	1			C2
13-32	H M A 1 5 6 0 0 8 0 4 Z 2	Hexagon shaft 125 with 2-M6	2			D2
13-33	H M 1 5 6 0 - 0 8 2 1 Z 0	Fan control unit wiring	1			D5
13-34	K 3 6 3 1 0 0 0 1 0 0	Plug-in fuse 50A	1			D4
13-35	K 3 6 3 1 0 0 0 0 7 0	Mini-blade type fuse 5A	11			E3
13-36						
13-37	K 3 6 3 1 0 0 0 0 9 0	Mini-blade type fuse 20A	3			E3
13-38	K 2 6 0 3 0 0 0 9 6 0	Control timer 16A12-02001	1			A3
13-39	K 2 6 0 3 0 0 0 9 7 0	Safety relay MM130-767	1			B3
13-40	K 2 6 0 3 0 0 0 9 8 0	Glow timer MM431-762	1			B3
13-41	K 2 6 0 3 0 0 0 9 9 0	Relay 31A90-05100	1			E3

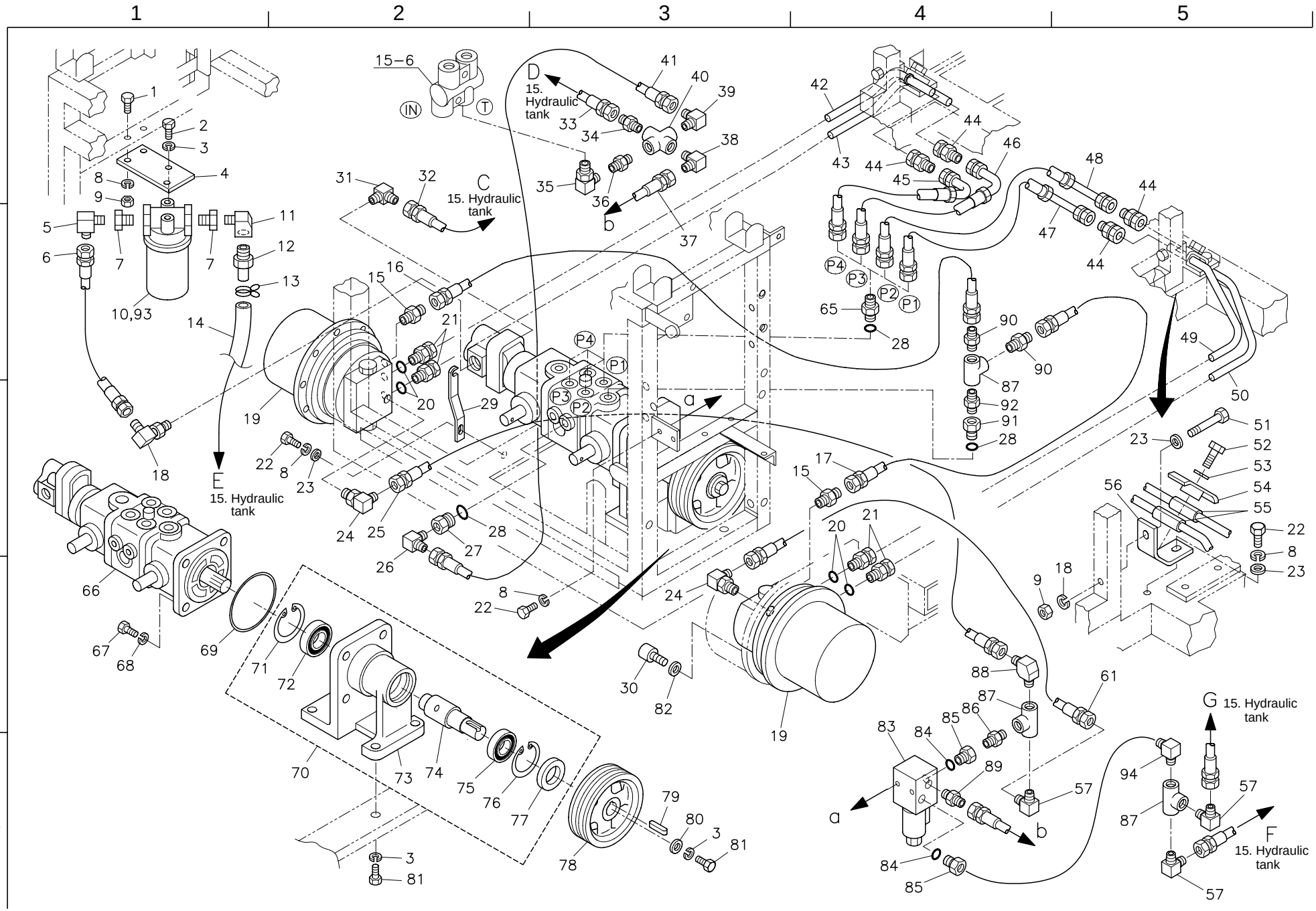
14. Hydraulic pump



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
14- 1	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	2			A1,B3
14- 2	K 0 0 0 0 1 0 0 2 0 2	10 bolt 20	2			A1
14- 3	K 0 2 0 0 1 0 0 0 0 2	10S washer	7			A1,E2 etc.
14- 4	K 5 1 4 1 0 0 0 2 2 2	Filter mounting plate	1			A1
14- 5	K 3 0 0 1 1 9 0 0 0 2 - Y	90 elbow 1033-19	1			B1
14- 6	K 3 1 4 5 0 0 0 6 8 0	SSC70-19 hose 1-250	1			B1
14- 7	K 3 0 2 4 0 0 0 0 1 2 - Y	Cast iron bush 1 x 3/4	2			B1
14- 8	K 0 2 0 0 0 8 0 0 0 2	8S washer	8			A1,C1 etc.
14- 9	K 0 1 0 0 0 8 0 0 0 2	8 nut	4			A1,D4
14-10	K 3 4 1 2 0 0 0 0 3 0	Filter SP08H-10-03	1			B1
14-11	K 3 0 2 2 1 2 0 0 0 2 - Y	Male-female elbow STE PT3/4	1			B1
14-12	K 3 0 0 9 0 0 0 1 2 2 - Y	Special PT adapter MO-JS-19	1			B1
14-13	K 4 2 6 1 0 1 2 0 0 0	Clamp 13-32	1			B1
14-14	K 3 1 0 0 6 0 1 6 0 0	WP35-19 hose 1600	1			B1
14-15	K 3 0 0 8 0 0 0 2 3 2 - Y	O-ring connector PF1/4PF1/4	2			B2,C3
14-16	K 3 1 0 1 2 1 1 3 3 0	WP70-6 hose 1-1330	1	0		B2
	K 3 1 0 1 2 1 1 3 6 0	WP70-6 hose 1-1360	0	1		B2
14-17	K 3 1 0 1 2 1 0 9 6 0	WP70-6 hose 1-1960	1	0		C4
	K 3 1 0 1 2 1 1 0 0 0	WP70-6 hose 1-1000	0	1		C4
14-18	K 3 0 0 8 0 0 0 0 5 2 - Y	90 adjuster elbow 1086-19	1			C1
14-19	K 3 2 7 0 0 0 0 0 3 0	MAG motor 18P-150	2			C1,D4
14-20	K 0 8 8 1 0 1 4 0 0 0	O-ring P14B	4			C2,C4
14-21	K 3 0 2 6 3 1 2 0 6 1 - Y	Connector KOC12-030E	4			B2,C4
14-22	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	5			C1,C5
14-23	K 5 0 0 0 0 8 0 0 0 2	8 washer	5			C2,C5 etc.
14-24	K 3 0 0 8 0 0 0 2 2 2 - Y	90 adjuster elbow PF1/8PF1/4	2			C2,D3
14-25	K 3 1 0 1 2 6 1 2 0 0	WP70-6 hose 6-1200	1			C2
14-26	K 3 0 0 1 1 2 0 0 0 2 - Y	90 elbow 1033-12	1			D2
14-27	K 3 0 2 9 0 0 0 0 6 2 - Y	Special bushing PF1/2PT1/235	1			D2
14-28	K 0 8 8 1 0 1 8 0 0 0	O-ring P18B	6			B4,C2

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
14-29	K 5 2 2 0 0 0 0 4 0 2	Pump stop plate	1			C2
14-30	K 0 0 2 4 1 0 0 2 5 1	10 bolt 25 with hexagon hole	16			D3
14-31	K 3 0 0 8 0 0 0 0 3 2 - Y	90 adjuster elbow 1089-9	1			A2
14-32	K 3 1 0 3 3 1 0 7 8 0	WP140-9 hose 1-780	1			A2
14-33	K 3 1 0 1 3 1 0 5 3 0	WP70-9 hose 1-530	1			A3
14-34	K 3 0 0 0 0 9 0 0 0 2 - Y	Adapter 1013-9	1			A3
14-35	K 3 0 0 8 0 0 0 0 7 2 - Y	90 adjuster elbow 1125-9	1			A3
14-36	K 3 0 2 3 0 6 0 0 0 1 - Y	Nipple NSPT3/8	1			A3
14-37	K 3 1 0 2 2 3 0 4 2 0	WP105-6 hose 3-420	1			B3
14-38	K 3 0 0 6 0 0 0 0 1 2 - Y	Different-diameter elbow PT3/8PF1/4	1			A3
14-39	K 3 0 0 6 0 0 0 0 8 2 - Y	Different-diameter elbow PT3/8PF1/2	1			A3
14-40	K 3 0 2 6 0 6 0 0 0 2 - Y	Screw-in cross SXA03	1			A3
14-41	K 3 1 0 1 4 2 0 6 2 0	WP70-12 hose 2-620	1			A3
14-42	H M 1 5 5 0 - 1 0 0 3 Z 2 - Y	Motor piping left P1	1	0		A4
	H M 1 7 1 0 - 1 0 0 3 Z 2 - Y	Motor piping left P1	0	1		A4
14-43	H M 1 5 5 0 - 1 0 0 4 Z 2 - Y	Motor piping left P2	1	0		A4
	H M 1 7 1 0 - 1 0 0 4 Z 2 - Y	Motor piping left P2	0	1		A4
14-44	K 3 0 2 7 3 1 2 0 8 1 - Y	Nipple KUC12 · 040E	4			A4,A5 etc.
14-45	K 3 1 0 5 4 3 0 7 5 0	WP210-12 hose 3-750	1			A4
14-46	K 3 1 0 5 4 3 0 9 0 0	WP210-12 hose 3-900	1			A4
14-47	K 3 1 0 5 4 3 0 7 0 0	WP210-12 hose 3-700	1			B4
14-48	K 3 1 0 5 4 3 0 8 5 0	WP210-12 hose 3-850	1			A5
14-49	H M 1 5 5 0 - 1 0 0 2 Z 2 - Y	Motor piping right P2	1	0		B5
	H M 1 7 1 0 - 1 0 0 2 Z 2 - Y	Motor piping right P2	0	1		B5
14-50	H M 1 5 5 0 - 1 0 0 1 Z 2 - Y	Motor piping right P1	1	0		B5
	H M 1 7 1 0 - 1 0 0 1 Z 2 - Y	Motor piping right P1	0	1		B5
14-51	K 0 0 0 0 0 8 0 5 0 2	8 bolt 50	2			C5
14-52	K 0 0 0 0 0 6 0 3 0 2	6 bolt 30	2			C5
14-53	K 0 2 0 0 0 6 0 0 0 2	6S washer	2			C5
14-54	K 7 3 8 0 0 0 0 1 3 2	Piping stopper	2			C5

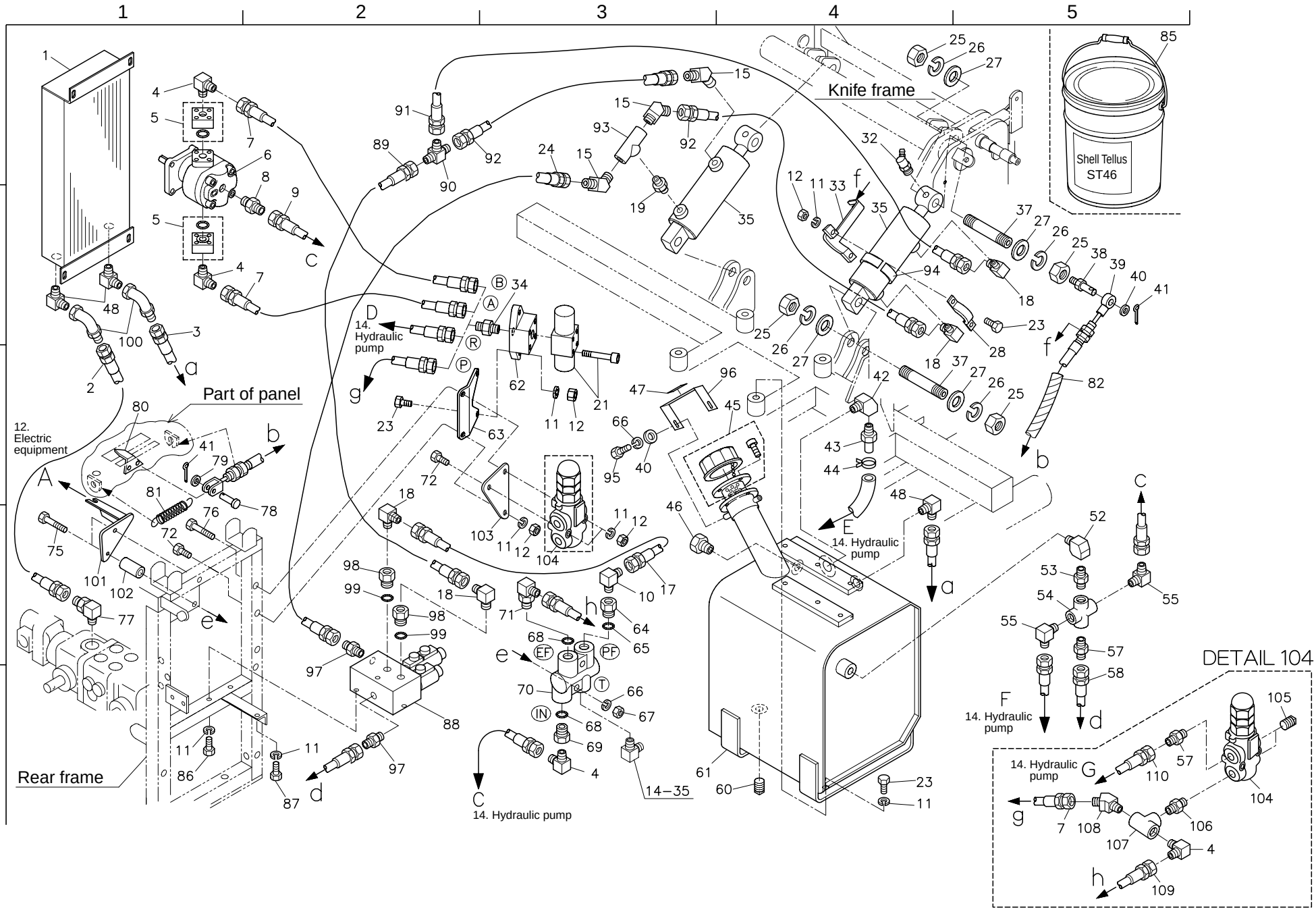
14. Hydraulic pump



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
14-55	K 4 0 3 2 0 0 0 1 0 0	12 pipe cover 50	4			C5
14-56	K 5 2 7 6 0 0 0 2 2 2	Piping receiver	2			C5
14-57	K 3 0 0 1 0 6 0 0 0 2 - Y	90 elbow 1033-6	3			E4,E5
14-58						
14-59						
14-60						
14-61	K 3 1 0 1 2 6 1 0 0 0	WP70-6 hose 6-1000	1			D5
14-62						
14-63						
14-64						
14-65	K 3 0 0 9 0 0 0 0 9 2 - Y	Special adapter PF1/2PF1/2	4			B4
14-66	K 3 2 4 1 0 0 0 1 2 0	Piston pump PSV2-16A	1			D1
14-67	K 0 0 0 0 1 2 0 3 5 2	12 bolt 35	4			D1
14-68	K 0 2 0 0 1 2 0 0 0 2	12S washer	4			D1
14-69	K 0 8 8 5 1 2 0 0 0 0	O-ring S120	1			D1
14-70	K 8 0 1 0 0 0 0 0 7 0	Hydraulic pump shaft assy	1			E2
14-71	K 0 4 0 2 0 7 2 0 0 1	Stop ring R72	1			D1
14-72	K 0 6 0 0 0 6 2 0 7 0	Bearing 6207	1			D2
14-73	K 6 9 0 3 0 0 0 1 0 D	Pump shaft case	1			E2
14-74	K 7 3 8 0 0 0 0 1 4 0	Hydraulic pump shaft	1			E2
14-75	K 0 6 0 6 0 6 2 0 6 0	Bearing 6206RS	1			E2
14-76	K 0 4 0 2 0 6 2 0 0 1	Stop ring R62	1			E2
14-77	K 0 8 6 2 0 0 0 0 4 0	Oil seal UE306210	1			E2
14-78	K 2 4 2 1 0 0 0 0 4 D	B2 V-pulley 25160F	1			E3
14-79	K 0 5 0 0 7 0 7 4 0 0	7 double-end round key 740	1			E3
14-80	K 5 0 7 4 5 1 0 4 2 2	4.5SPHC washer 1042	1			E3
14-81	K 0 0 0 0 1 0 0 3 0 2	10 bolt 30	5			E2,E3
14-82	K 0 2 1 5 1 0 0 0 0 2	10 conical spring washer 2H	16			D3
14-83	K 3 3 1 3 0 0 0 1 6 0	Solenoid valve EDV1-02T-12V-00	1			D4
14-84	K 0 8 8 1 0 1 1 0 0 0	O-ring P11B	2			D4

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
14-85	K 3 0 2 9 0 0 0 0 3 2 - Y	Special bushing PF1/4PT1/4	2			D4
14-86	K 3 0 2 3 0 4 0 0 0 1 - Y	Nipple NSPT1/4	1			D4
14-87	K 3 0 2 1 0 4 0 0 0 2 - Y	Screw-in tee TEFPT1/4	3			B4,D4
14-88	K 3 0 0 3 0 6 0 0 0 2 - Y	45 elbow 1035-6	1			D4
14-89	K 3 0 0 8 0 0 0 2 3 2 - Y	O-ring connector PF1/4PF1/4	1			E4
14-90	K 3 0 0 0 0 6 0 0 0 2 - Y	Adapter 1013-6	2			B4
14-91	K 3 0 2 9 0 0 0 0 4 2 - Y	Special bushing PF1/2PT3/8	1			C4
14-92	K 3 0 2 9 0 0 0 2 1 1 - Y	Different-diameter nipple PT3/8PT1/4	1			C4
14-93	K 3 4 1 2 0 0 0 0 6 0	Replacement filter C-SP08H-10	1			B1
14-94	K 3 0 0 6 0 0 0 0 4 2	Same-diameter elbow: PT1/4	1			E5

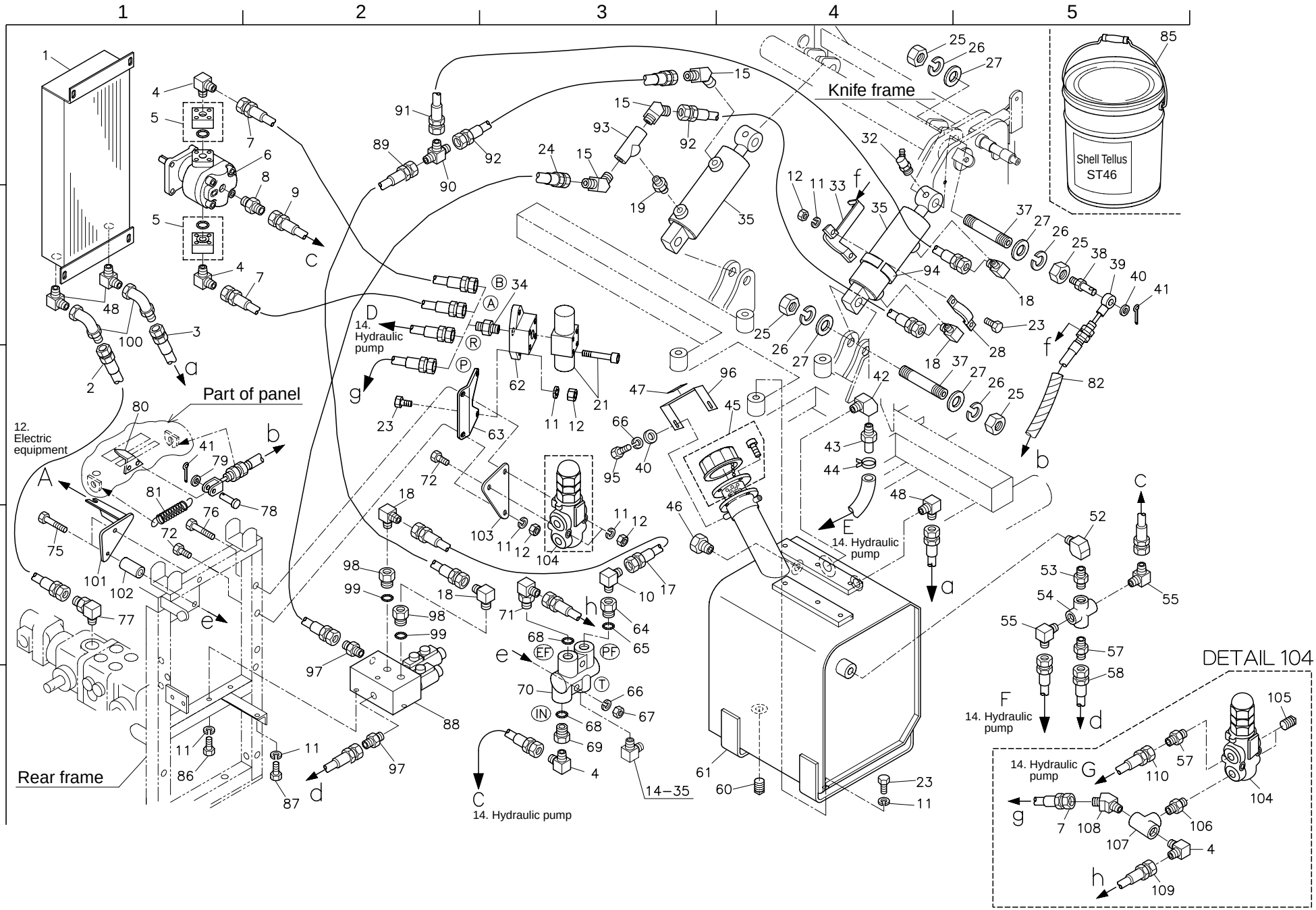
15. Hydraulic tank



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
15- 1	K 3 4 3 0 0 0 0 0 2 0	Oil cooler	1			B1
15- 2	K 3 1 0 1 4 3 1 2 0 0	WP70-12 hose 3-1200	1			B1
15- 3	K 3 1 0 2 4 1 0 9 0 0	WP105-12 hose 1-900	1			B1
15- 4	K 3 0 0 1 0 9 0 0 0 2 - Y	90 elbow 1033-9	4			A1,B1 etc.
15- 5	K 3 2 8 1 0 0 0 0 1 0 - Y	ϕ14.8 port flange type D	2			A1,B1
15- 6	K 3 2 8 0 0 0 0 1 5 0	Gear motor MA6AD661	1			A2
15- 7	K 3 1 0 3 3 1 0 7 8 0	WP140-9 hose 1-780	3			A2,B2 etc.
15- 8	K 3 0 0 7 0 0 0 0 3 2 - Y	Different-diameter adapter PT1/8PF1/4	1			A2
15- 9	K 3 1 0 1 2 3 1 0 6 0	WP70-6 hose 3-1060	1			B2
15-10	K 3 0 0 6 0 0 0 0 1 2 - Y	Different-diameter elbow PT3/8PF1/4	1			D3
15-11	K 0 2 0 0 0 8 0 0 0 2	8S washer	14			B4,C3 etc.
15-12	K 0 1 0 0 0 8 0 0 0 2	8 nut	7			A4,C3 etc.
15-13						
15-14						
15-15	K 3 0 0 3 0 6 0 0 0 2 - Y	45 elbow 1035-6	3			A4,A3 etc.
15-16						
15-17	K 3 1 0 3 2 1 0 5 9 0	WP140-6 hose 1-590	1			D3
15-18	K 3 0 0 1 0 6 0 0 0 2 - Y	90 elbow 1033-6	3			B5,C4 etc.
15-19	K 3 0 2 3 0 4 0 0 0 1	Nipple NSPT1/4	1			B3
15-20						
15-21	K 3 3 1 3 0 0 0 0 7 0	Solenoid valve HD-02413	1			C3
15-22						
15-23	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	4			B5,C2
15-24	K 3 1 0 3 2 1 1 8 0 0	WP140-6 hose 1-1800	1			A3
15-25	K 0 1 0 5 1 4 0 0 0 2	14 nut 3P1.5	8			A5,B5 etc.
15-26	K 0 2 0 0 1 4 0 0 0 2	14S washer	8			A5,B5 etc.
15-27	K 5 0 9 0 0 0 0 0 4 2	4.5SPHC washer 1432	8			A5,B5 etc.
15-28	K 5 2 1 1 0 0 0 0 3 2	Mowing height wire mounting plate	1			C5
15-29						
15-30						

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
15-31						
15-32	K 1 4 4 0 0 0 0 0 3 2	B-type grease nipple	2			A4
15-33	K 7 3 5 0 0 0 0 0 2 2	Mowing height wire mounting clamp	1			A4
15-34	K 3 0 0 0 0 9 0 0 0 2 - Y	Adapter 1013-9	4			B3
15-35	K 3 2 1 3 0 0 0 1 2 0	45-70 cylinder 250	2			B4
15-36						
15-37	K 6 1 2 3 0 0 0 1 0 2	Cylinder mounting shaft 82.5 with groove	4			B5,C5
15-38	K 6 0 8 3 0 0 0 0 1 2	Mowing height wire fulcrum pin	1			B5
15-39	K 1 1 6 0 1 9 0 0 1 0	Mowing height wire 1900	1			B5
15-40	K 5 0 0 0 0 6 0 0 0 2	6 washer	3			B5
15-41	K 0 3 0 0 0 2 0 2 0 2	2 cotter pin 20	2			B5,C1
15-42	K 3 0 2 2 1 2 0 0 0 2 - Y	Male-female elbow STE PT3/4	1			C4
15-43	K 3 0 0 9 0 0 0 1 2 2 - Y	Special PT adapter MO-JS-19	1			C4
15-44	K 4 2 6 1 0 1 2 0 0 0	Clamp 13-32	1			C4
15-45	K 3 4 0 0 0 0 0 0 2 0 - Y	Filler port breather FA-50	1			C4
15-46	K 1 4 0 0 0 0 0 0 4 4 - Y	PF3/4 oil plug M type	1			C3
15-47	K 4 2 0 9 0 0 0 9 8 0	Hydraulic oil mark	1			C3
15-48	K 3 0 0 1 1 2 0 0 0 2 - Y	90 elbow 1033-12	3			C4
15-49						
15-50						
15-51	K 3 1 0 1 2 3 1 5 0 0	WP70-6 hose 3-1500	1			D5
15-52	K 3 0 2 2 0 8 0 0 0 2 - Y	Male-female elbow STE PT1/2	1			D5
15-53	K 3 0 2 9 0 0 0 0 9 1 - Y	Different-diameter nipple PT3/8PT1/2	1			D5
15-54	K 3 0 2 6 0 6 0 0 0 2 - Y	Screw-in cross SXA03	3			D5
15-55	K 3 0 0 6 0 0 0 0 1 2 - Y	Different-diameter elbow PT3/8PF1/4	2			D5
15-56						
15-57	K 3 0 0 9 0 0 0 0 4 2 - Y	Special adapter PF1/4PT3/8	2			E5
15-58	K 3 1 0 1 2 3 1 4 0 0	WP70-6 hose 3-1400	1			E5
15-59						
15-60	K 1 4 2 1 0 8 0 0 0 2 - Y	Taper plug with square head PT1/2	1			E4

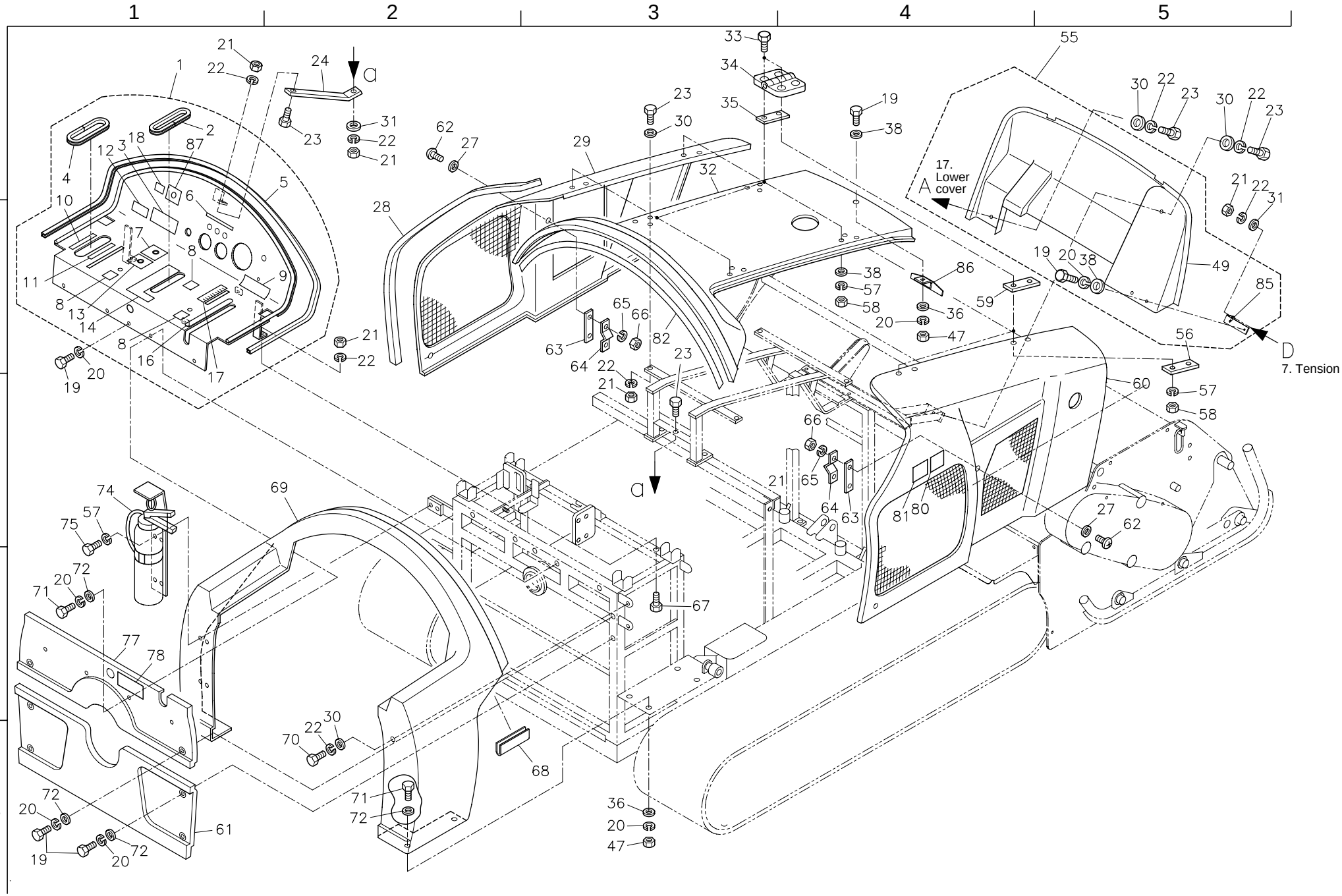
15. Hydraulic tank



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
15-61	H M A 1 5 6 0 1 0 0 1 A D - Y	Hydraulic tank	1			E3
15-62	K 3 3 1 4 0 0 0 0 4 0	Sub-plate SHD-025-03T1A	1			C3
15-63	H M 1 5 6 0 - 1 0 0 8 Z V	Solenoid valve mounting plate	1			C3
15-64	K 3 0 2 9 0 0 0 0 7 2 - Y	Special bushing PF3/8PT3/8	1			D3
15-65	K 0 8 8 1 0 1 4 0 0 0	O-ring P14B	1			D3
15-66	K 0 2 0 0 0 6 0 0 0 2	6S washer	4			C3,E3
15-67	K 0 1 0 0 0 6 0 0 0 2	6 nut	2			E3
15-68	K 0 8 8 1 0 1 8 0 0 0	O-ring P18B	2			D3,E3
15-69	K 3 0 2 9 0 0 0 0 4 2 - Y	Special bushing PF1/2PT3/8	1			E3
15-70	K 3 3 7 1 0 0 0 0 1 0	Flow priority VPF-06	1			E3
15-71	K 3 0 0 8 0 0 0 3 5 2 - Y	90 different-diameter elbow PF3/8PF1/2	1			D3
15-72	K 0 0 0 0 0 8 0 5 5 2	8 bolt 55	2			D1
15-73						
15-74						
15-75	K 0 0 0 3 0 6 0 8 5 2	6 bolt 85	2			D1
15-76	K 0 0 0 3 0 8 0 9 5 2	8 bolt 95	1			D1
15-77	K 3 0 0 8 0 0 0 0 4 2 - Y	90 adjuster elbow 1086-12	1			D1
15-78	K 6 0 3 0 0 5 0 1 5 2	5 flat head pin 15	1			D2
15-79	K 5 0 0 0 0 5 0 0 0 2	5 washer	1			C1
15-80	K 5 2 7 0 0 0 0 0 6 2	Mowing height pointer	1			C1
15-81	K 1 0 2 0 0 0 0 0 6 8	1.6 round hook spring 13.6104	1			C1
15-82	K 3 1 9 4 0 1 6 0 0 0	7 corrugated tube 1600	1			C5
15-83						
15-84						
15-85	K 2 9 1 3 3 0 0 2 0 0	Shell Tellus ST46 (20L can)	2			A5
15-86	K 0 0 0 0 0 8 0 4 0 2	8 bolt 40	2			E1
15-87	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	1			E2
15-88	K 3 3 1 3 0 0 0 1 8 0	Valve unit KES-VU02T-02	1			E2
15-89	K 3 1 0 3 2 1 1 6 0 0	WP140-6 hose 1-1600	1			A2
15-90	K 3 0 0 8 0 0 0 0 9 2 - Y	Hose tee PF1/4	1			A2

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
15-91	K 3 1 0 3 2 1 0 7 0 0	WP140-6 hose 1-700	1			A2
15-92	K 3 1 0 3 2 1 0 5 0 0	WP140-6 hose 1-500	2			A3
15-93	K 3 0 2 1 0 4 0 0 0 2 - Y	Screw-in tee TEFPT1/4	1			A3
15-94	K 4 0 3 3 0 0 0 2 7 0	4 sheet rubber 25150	1			B4
15-95	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	2			C3
15-96	H M A 1 5 6 0 1 0 0 2 Z 2	Filler port retainer plate	1			C4
15-97	K 3 0 0 8 0 0 0 2 3 2 - Y	O-ring connector PF1/4PF1/4	2			E2
15-98	K 3 0 2 9 0 0 0 0 3 2 - Y	Special bushing PF1/4PT1/4	2			D2
15-99	K 0 8 8 1 0 1 1 0 0 0	O-ring P11B	2			D2
15-100	K 3 0 2 5 0 6 4 0 8 2 - Y	Pipe adapter 064-08	2			B1
15-101	H M A 1 5 6 E 0 8 0 1 X D	Limit switch mounting bracket	1			D1
15-102	H M A 1 5 6 E 0 8 0 2 X 2	6.2 collar 1625.5	1			D1
15-103	H M A 1 5 6 E 1 0 5 0 X V	Relief valve mounting plate	1			D3
15-104	V R D - 0 3 - 0 5	Direct-acting relief valve	1			D3
15-105	K 1 4 2 2 1 0 6 0 0 1	Taper plug with hex. hole : Type 1 3/8	2			E5
15-106	K 3 0 2 3 0 6 0 0 0 1	Nipple: NSPT 3/8	1			E5
15-107	K 3 0 2 1 0 6 0 0 0 2	Screw-in tee: TEFPT 3/8	1			E5
15-108	K 3 0 0 3 0 9 0 0 0 2	45 elbow 1035-9	1			E5
15-109	K 3 1 0 3 3 1 0 5 0 0	WP140-9 hose 1-500	1			E5
15-110	K 3 1 0 1 2 1 0 3 5 0	WP70-6 hose 1-350	1			E5

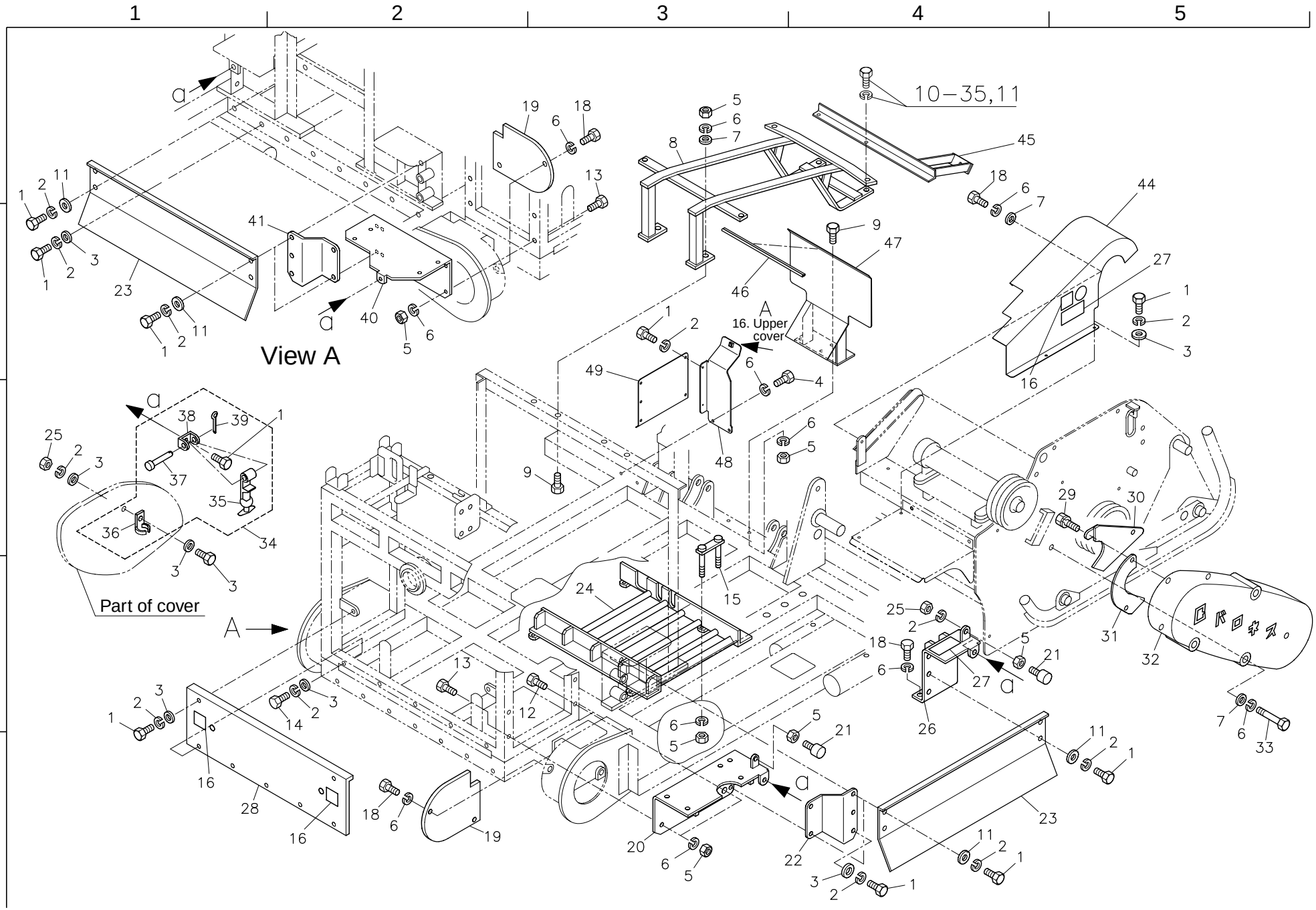
16. Upper cover



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
16- 1	H M A 1 5 6 0 1 1 0 3 Z 0	Operation panel COMP	1			A1
16- 2	K 3 1 9 7 0 0 3 2 0 0	Black trim 75-16-320	1			A1
16- 3	K 4 2 0 5 0 0 1 5 6 0	"Read the handling manual" mark	1			A1
16- 4	K 3 1 9 7 0 0 3 6 0 0	Black trim 75-16-360	1			A1
16- 5	K 3 1 9 8 2 1 6 0 0 0	Black trim seal 4100-32A-1600	1			B2
16- 6	K 4 2 0 9 0 0 0 9 9 0	Pilot lamp plate	1			A1
16- 7	K 4 2 0 9 0 0 1 0 6 0	Step control changeover switch mark	1			B1
16- 8	K 4 2 0 9 0 0 0 3 8 0	Greasing 50 hr mark	3			B1
16- 9	K 4 2 0 9 0 0 1 0 3 0	Overheat alarm buzzer label	1			B2
16-10	K 4 2 0 3 0 0 1 2 1 0	P-brake mark	1			B1
16-11	K 4 2 0 3 0 0 1 2 2 0	Engine rotation mark	1			B1
16-12	K 4 2 0 9 0 0 0 6 4 0	CE mark	1			A1
16-13	K 4 2 0 9 0 0 1 0 7 0	Step control manual mark	1			B1
16-14	K 4 2 0 3 0 0 1 2 0 0	Traveling lever mark	1			B1
16-15						
16-16	K 4 2 0 3 0 0 1 2 3 0	Knife clutch lever mark	1			B1
16-17	K 4 2 0 4 0 0 0 0 8 0	Mowing height scale mark	1			B1
16-18	K 4 2 0 9 0 0 1 0 2 0	"Refer to the handling manual" mark	1			A1
16-19	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	10			A4,B5 etc.
16-20	K 0 2 0 0 0 6 0 0 0 2	6S washer	17			A4,A5 etc.
16-21	K 0 1 0 0 0 8 0 0 0 2	8 nut	8			A1,A2 etc.
16-22	K 0 2 0 0 0 8 0 0 0 2	8S washer	11			A1,A2 etc.
16-23	K 0 0 0 0 0 8 0 2 0 2	8 bolt 20	8			A2,A3 etc.
16-24	K 5 2 7 6 0 0 0 3 6 D	Panel supporter	1			A2
16-25						
16-27	K 5 0 0 0 0 4 0 0 0 2	4 washer	4			A2,C5
16-28	K 3 1 9 7 2 1 3 0 0 0	Black trim 100-32-1300	1			B2
16-29	H M 1 5 6 0 - 1 1 0 1 A 0	Left side cover	1			A3
16-30	K 5 0 1 2 3 0 8 2 4 2	2.3 SPCC washer 824	7			A3
16-31	K 5 0 0 0 0 8 0 0 0 2	8 washer	2			A2,A5 etc.
16-32	H M 1 5 6 0 - 1 1 0 3 Z 0	Center cover	1			A3
16-33	K 0 0 1 0 0 5 0 2 5 2	5 heat-treated bolt 25	16			A3
16-34	K 4 5 2 0 0 0 0 2 1 0	5.2 resin hinge with hole 75	4			A3
16-35	K 6 8 0 9 0 0 0 2 4 D	Spacer A	4			A3
16-36	K 5 0 0 0 0 6 0 0 0 2	6 washer	4			A4,A5 etc.
16-37						
16-38	K 5 0 1 2 3 0 6 2 0 2	2.3 SPCC washer 620	11			A4,A5 etc.
16-39						
16-40						
16-41						
16-42						
16-43						

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
16-44						
16-45						
16-46						
16-47	K 0 1 0 0 0 6 0 0 0 2	6 nut	4			E3,B4
16-48						
16-49	H M A 1 5 6 0 1 1 0 8 Z 0	Front cover	1			B5
16-50						
16-51						
16-52						
16-53						
16-54						
16-55	H M A 1 5 6 0 1 1 0 7 Z 0	Front cover COMP	1			A5
16-56	K 5 1 4 1 0 0 0 3 6 V	Hinge stopping plate	4			C5
16-57	K 0 2 0 0 0 5 0 0 0 2	5S washer	20			B4,C1 etc.
16-58	K 0 1 0 0 0 5 0 0 0 2	5 nut	16			B4,C5
16-59	K 6 8 0 9 0 0 0 2 5 D	Spacer B	4			B5
16-60	H M 1 5 6 0 - 1 1 0 4 Z 0	Right side cover	1			C5
16-61	K 5 9 1 0 0 0 0 1 8 G	Rear cover	1			E1
16-62	K 0 0 4 2 0 4 0 1 2 2	4 cross round head small screw 12	4			A2,D5
16-63	K 5 1 1 6 0 0 0 1 4 2	Stopper plate	2			C3,D3
16-64	K 5 2 7 0 0 0 2 1 5 2	Cover stopper	2			C3,C4
16-65	K 0 2 0 0 0 4 0 0 0 2	4S washer	4			B3,C4
16-66	K 0 1 0 0 0 4 0 0 0 2	4 nut	4			B3,C4
16-67	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	2			D3
16-68	K 3 1 9 7 4 0 2 0 0 0	Black trim 1375-32-200	1			E3,E2
16-69	H M 1 5 6 0 - 1 1 0 2 Z 0	Base cover	1			C2
16-70	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	1			E2
16-71	K 0 0 0 0 0 6 0 2 0 2	6 bolt 20	7			D1,E2
16-72	K 5 0 1 2 3 0 6 2 5 2	2.3 SPCC washer 625	13			D1,E1 etc.
16-73						
16-74		Fire extinguisher	1			C1
16-75	K 0 0 0 0 0 5 0 1 5 2	5 bolt 15	4			D1
16-76						
16-77	K 9 1 0 0 0 0 0 1 4 0	Panel cover COMP	1			D1
16-78	K 4 2 0 9 0 0 1 0 5 0	Emergency engine stop unit label	1			D1
16-79						
16-80	K 4 2 0 5 0 0 1 5 5 0	Fire caution label	1			C4
16-81	K 4 2 0 9 0 0 1 0 0 0	Fuel filler port mark(diesel)	1			C4
16-82	K 3 1 9 7 3 1 0 5 0 0	Black trim 100-48-1050	1			B3
16-85	H M A 1 5 6 0 1 1 0 9 Z V	Front cover mounting plate	1			B4
16-86	H M A 1 5 6 0 1 1 1 0 Z 0	Front cover holding bracket	1			B5
16-87	K 4 2 0 9 0 0 1 0 8 0	Cylinder single-double changeover mark	1			A1

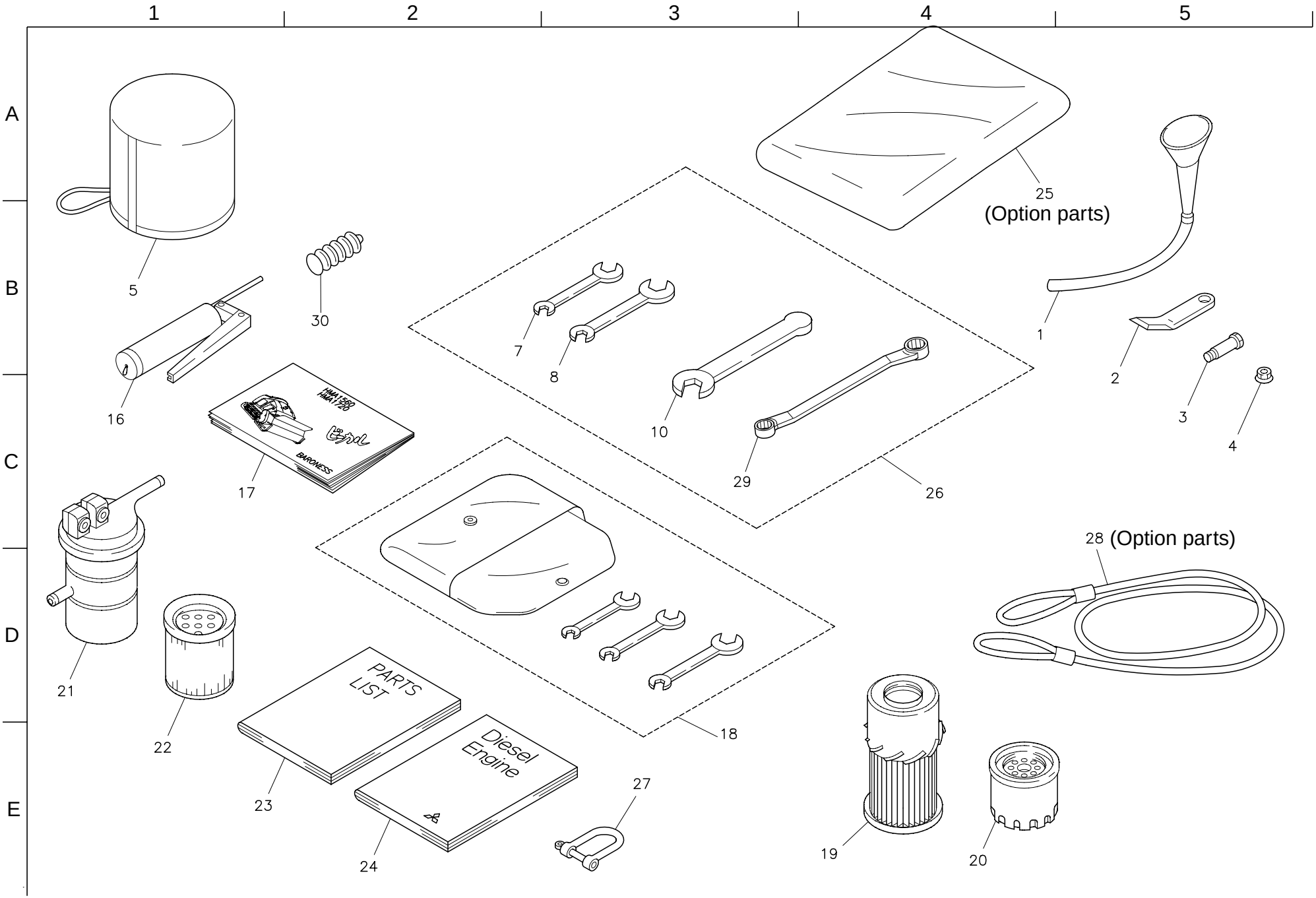
17. Lower cover



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
17- 1	K 0 0 0 0 0 6 0 1 5 2	6 bolt 15	27			B1,C2 etc.
17- 2	K 0 2 0 0 0 6 0 0 0 2	6S washer	33			B1,C1 etc.
17- 3	K 5 0 0 0 0 6 0 0 0 2	6 washer	10			B1,C1 etc.
17- 4	K 0 0 0 0 0 8 0 1 0 2	8 bolt 10	2			B3
17- 5	K 0 1 0 0 0 8 0 0 0 2	8 nut	28			B2,B3 etc.
17- 6	K 0 2 0 0 0 8 0 0 0 2	8S washer	49			B2,B3 etc.
17- 7	K 5 0 0 0 0 8 0 0 0 2	8 washer	8			A3
17- 8	H M A 1 5 6 0 1 1 1 5 Z V	Cover frame	1			A3
17- 9	K 0 0 0 0 0 8 0 2 5 2	8 bolt 25	6			B4,C2
17-10						
17-11	K 5 0 1 1 6 0 6 1 6 2	1.6SPCC washer 616	15			A1,B1 etc.
17-12	K 0 0 0 0 0 8 0 4 5 2	8 bolt 45	4			D3
17-13	K 0 0 0 3 0 8 0 5 5 2	8 bolt 55	4			A3,D2
17-14	K 0 0 0 0 0 6 0 4 5 2	6 bolt 45	5			D2
17-15	K 7 3 5 5 0 0 0 4 7 2	Oil pan guard mounting bracket	4			D3
17-16	K 4 2 0 9 0 0 0 3 8 0	Greasing 50 hr mark	3			E1,E2 etc.
17-17						
17-18	K 0 0 0 0 0 8 0 1 5 2	8 bolt 15	8			D4,E2 etc.
17-19	K 5 1 3 0 0 0 0 3 7 V	Motor cover	2			A2,E2
17-20	K 7 3 5 5 0 0 0 3 3 V	Right base cover mounting bracket	1			E3
17-21	K 4 0 3 9 0 0 0 1 0 0	Rubber stopper	3			A1,D4 etc.
17-22	K 5 3 2 0 0 0 0 0 5 V	Rear-right side under cover	1			E4
17-23	K 5 3 2 0 0 0 0 0 9 V	Middle-right side under cover	2			B1,E4
17-24	H M A 1 5 6 0 1 1 0 6 Z V	Oil pan guard	1			D3
17-25	K 0 1 0 0 0 6 0 0 0 2	6 nut	8			C1,D4
17-26	K 9 2 4 0 0 0 0 0 1 0	Side cover mounting bracket COMP	1			D4
17-27	K 4 2 0 5 0 0 1 5 3 0	"Caution against rotating object" label	2			B5,D4
17-28	K 7 1 6 3 0 0 0 3 4 V	Lower rear cover	1			E1
17-29	K 0 0 0 6 0 6 0 1 6 2	6 bolt 16S	3			C5
17-30	K 7 1 6 3 0 0 0 1 1 G	Knife belt cover	1			C5

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
17-31	K 5 1 3 0 0 0 0 2 1 G	Rear knife shaft cover	1			D5
17-32	K 6 8 0 2 0 0 0 0 3 G	Knife shaft cover	1			D5
17-33	K 0 0 0 3 0 8 1 0 0 2	8 bolt 100	3			E5
17-34	K 1 5 2 0 0 0 0 0 3 0	Rubber catch assy	4			A5
17-35	K 1 5 2 0 0 0 0 0 4 0	Rubber catch	4			A5
17-36	K 1 5 2 0 0 0 0 0 7 0	Rubber catch receiver	4			C1
17-37	K 1 5 2 0 0 0 0 0 6 2	Rubber catch pin	4			C1
17-38	K 1 5 2 0 0 0 0 0 8 2	Rubber catch stopper	4			C1
17-39	K 1 5 2 0 0 0 0 0 5 2	Rubber catch cotter pin	4			C1
17-40	H M 1 5 6 0 - 1 1 0 5 A V	Left base cover mounting bracket	1			B2
17-41	K 5 3 2 0 0 0 0 0 6 V	Rear-left side under cover	1			B2
17-42						
17-43						
17-44	H M A 1 5 6 0 1 1 1 3 B V	Intermediate shaft belt cover	1			A5
17-45	H M A 1 5 6 0 1 1 1 1 Z V	Front cover mounting bracket	1			A4
17-46	K 3 1 9 8 2 0 3 5 0 0	Black trim seal 4100-32A-350	1			B3
17-47	H M A 1 5 6 0 1 1 1 2 A V	Front under cover	1			B4
17-48	H M A 1 5 6 0 1 1 0 1 Z V	Left front under cover	1			B3
17-49	H M A 1 5 6 0 1 1 0 2 Z V	Front-left side under cover	1			B3

18. Tools and spares



Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location
18- 1	K 4 8 7 0 0 0 0 0 2 0	Engine oil funnel 18	1			B4
18- 2	K 2 5 2 0 0 0 0 0 4 B	Hammer knife 6110	6			C5
18- 3	K 6 0 8 3 0 0 0 0 7 8	11 mounting pin 32	3			C5
18- 4	K 0 1 4 3 1 0 0 0 0 2	10 nut with disc spring	3			C5
18- 5	K 4 1 1 0 0 0 0 0 3 0	Large cleaner cover	1			B1
18- 6						
18- 7	K 4 8 1 0 1 3 0 1 7 2	Wrench 13 x 17	1			B2
18- 8	K 4 8 1 0 1 9 0 2 2 2	Wrench 19 x 22	1			C3
18- 9						
18-10	K 4 8 1 1 3 0 0 0 0 2	Single-ended wrench 30	1			C3
18-11						
18-12						
18-13						
18-14						
18-15						
18-16	K 4 8 5 0 0 0 0 0 2 2	Special grease pump	1			C1
18-17	H M A 1 5 6 0 0 4 E - 0 2	Handling manual and parts catalog	1			C1
18-18	K 2 6 0 9 S 4 L 2 3 1 1 0	A set of Mitsubishi S4L2-31KM tools	1			E3
18-19	K 2 6 0 3 0 0 0 7 6 0	Air element 34430-06201	1			E3
18-20	K 2 6 0 3 0 0 0 7 2 0	Oil filter 30A40-00103	1			E4
18-21	K 2 6 0 3 0 0 0 3 3 0	Fuel filter MM435190	1			D1
18-22	K 2 6 0 3 0 0 0 3 1 0	Electromagnetic pump filter MM408992	1			E1
18-23	K 2 6 0 9 S 4 L 2 E 2 0 2	S4L2-E231KM parts list	1			E1
18-24	9 9 6 1 0 - 1 2 9 1 0	Diesel engine operation manual	1			E2
18-25	K 4 1 2 0 0 0 0 0 2 0	Sheet 3000	1		option	B4
18-26	K 4 8 0 9 0 0 0 0 2 0	Tool set	1			C4
18-27	K 0 4 1 1 4 0 0 0 0 2	14 shackle	4			E3
18-28	H M 1 5 6 0 - 1 3 0 1 Z 0	Hoisting wire	4		option	C5
18-29	K 4 8 1 9 1 3 0 1 7 0	Box wrench 13 × 17	1			C3
18-30	K 2 9 3 1 0 0 0 4 0 0	Excelite EP2 400 mL	1			B2

Catalog No.	Code No.	Part Name	Qty 1560	Qty 1720	Remarks 1560 1720	Location

EC Declaration of Conformity

Kyoeisha Co., Ltd.
1-26 Miyuki-cho
Toyokawa
Aichi-pref., Japan

Hereby declares that the HAMMER KNIFE MOWER:

Model: Baroness HMA1560
Machine Type No. HMA156E

Complies with the provisions of the "Machinery" Directive 98/37/EC.

Signed by : Katsuaki Makino

Name : Katsuaki Makino

Position : Development Dept. Manager

Date : February 1, 2005

KYOEISHA CO.,LTD.

Head Office 1-26, Miyuki-cho, Toyokawa,
Aichi-Pref. 442-8530 Japan.

BARONESS
Turf Care Machinery
Tel : (0533)84-1221
Fax : (0533)84-1220