

SWING MOWER *LM54GB · GBF*

BARONESS
LAWN MOWER















Owner's handling manual & parts catalogue for saxon 2006 model




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

BARONESS












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Safety Warning

Warning marks and  signs have been attached to this machine to ensure that you can operate it safely. The warning marks indicate items which are particularly important from the safety point of view, so please work safely and always obey warnings.

Warning marks

-  **Danger** : Indicates that non-compliance with this warning will result in serious injury or death.
-  **Warning** : Indicates that non-compliance with the warning entails the risk of serious injury or death.
-  **Caution** : Indicates that non-compliance with this warning entails the risk of sustaining an injury.
-  . . . danger mark
(Amputation of a limb)
-  . . . danger mark
(flying objects)
-  . . . danger mark
(danger-flammables)
-  . . . warning mark
(caution-exhaust fumes)
-  . . . caution marks
(greasing)
-  . . . caution mark
(joint+rotating parts)
-  . . . caution mark
(hot parts)
-  . . . caution mark
(injury)
-  . . . fuel
-  . . . refer to engine operating
and instruction manual

Introduction

Thank you for buying a Baroness lawn mower, the LM54GB or LM54GBF swing mower. This operating and instruction manual describes the correct methods of handling, adjustment, and inspection. It is essential that this manual is read, and the contents thoroughly understood, before the machine is brought into use.

After completion and before shipment the machine underwent a thorough test run and inspection at the factory, but the method of operation and the usual daily procedures of inspection, adjustment and lubrication before and after work will have a great influence on whether the machine achieves the expected performance. Please operate safely and we expect the machine to produce an excellent performance for a very long time.

Please note

- Gradual changes may be made to the machines.
When making enquiries about the machine please always specify both the model type and the manufacturer's number.
- The items mentioned in this manual may also be altered without prior warning.

Caution When operating

The marks which are stuck to the machinery and referred to in this operating and instruction manual have written safety explanations.

Please read and take note of the handling procedures and safety precautions and only operate the machine after you have understood them completely.

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

Please do not under any circumstances peel off the marks which have been stuck to the machine.

Safety precautions

The lawn mower has a rotating blade reel cylinder (sharp blade), and the safety of operation is subject to the place of use, obstacles, lawn conditions, and many other factors. As a maker, we specifically request the user to thoroughly inspect and maintain the machine, make effort to become skilful in operating the machine, and correctly and safely use the machine in order to avoid injury on yourself and others.

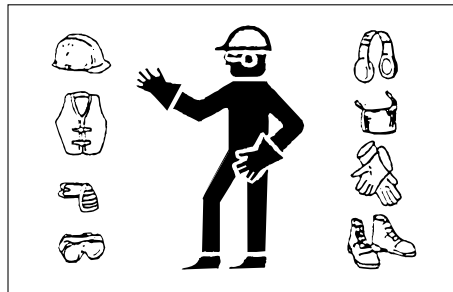
1) Clothes for safety



Wear clothes that will prevent you from being caught in the machine, and wear safety gear, goggles, shoes, helmet, and gloves.

Wearing an apron or using a towel or similar on your lap, especially those with long strings, are a possible cause of danger since they may get trapped.

It is strongly advised that the operators of this machine wear both goggles and ear defenders for their protection.



HEALTH & SAFETY WARNING MARK



NOISE WARNING MARK

2) Emergency relief measures



Understand the methods of stopping the engine in an emergency.

3) Do not operate the machine in such cases



- Do not operate the machine when you are tired. If you get tired during machine operation, stop the work and take a rest.
- Do not use the machine when you are sick, drunk, or under influence of medicine. The visual sensation, nimbleness, or judgment will be adversely affected.
- If you are unaccustomed to the machine operation, thoroughly understand the handling method and safety precautions before use. Do not allow children to operate the machine.

4) When lending the machine to other people



If you lend the machine to a person who has no knowledge about the safety precautions or handling procedures described in the operation manual, an unexpected accident may result. Thoroughly explain the handling methods and hand over the operation manual to the person who will use the machine, having him or her read the operation manual before use.

5) Prohibition of operation or travel at night



Do not operate the machine at night or when the view is unclear because of bad weather, etc.

6) Safety inspection before work



- Check that all covers are in position and that no portion is broken.
- Check that bolts and nuts are not loose. If they are loose, tighten them.
- Check that the operation of the brake, levers and tires is normal.

7) Precautions to take during operation

Danger



- Check that nobody, especially no children or pets, are near the machine when it is in use and that objects that can be broken are not left around the machine during working.
- Check that there is no player in the vicinity, otherwise a flying golf ball might hit against you.
- Exercise adequate care so that you will not get injured by flying objects or the blade.

Caution

- Exercise special care during working on a slope or undulating ground. The inclination of the machine should not exceed 25 degrees.

Danger



- Do not operate the machine in places where there is a risk of toppling or slipping.
- Do not touch rotating parts during operation, otherwise you might have your fingers or hands injured.
- Operate the machine anywhere at a speed that will allow the machine to stop immediately in an emergency. Do not start the machine or operate the handle suddenly. Be sure to move the machine at a slow speed especially when descending a slope.
- Do not move the throttle lever abruptly to increase the speed, otherwise the front of the machine may jump up.
- When you notice abnormal vibration, unusual sound, or other abnormality in the machine, stop the engine immediately and investigate the cause. Completely repair the machine before reuse.

Danger

- When leaving the machine, stop the machine on the level ground and then stop the engine.



DANGER MARK
Keep hands & feet away.



SAFETY INSTRUCTIONS
MARK

8) Precaution as to inspection

Caution

- Place the machine on level ground and switch off the engine for inspection, cleaning and adjustment.

Warning



- Clogging of the cooling air intake of the engine, air intake of the air cleaner, muffler, and exhaust pipe with mown grass or other foreign substances may cause fire due to engine malfunction or overheating. Stop the work immediately, and remove the clogging substance after the overheated section has cooled.
- Do not touch the muffler, engine and other heated parts during operation or immediately after operation stop. Doing so may cause burns.
- Keep the warning marks and explanations clean at all times. Replace them with new ones immediately when they are lost or damaged.
- Do not remodel the machine. Use parts, oil and grease specified by our company when changing them. Remodeling or operation of the machine with some parts that are not specified by our company may cause damage to the machine or injury.

9) Moving on a public road

Caution

- Running the machine on a public road while you are riding on a sulky is prohibited by the law. Walk and move the machine on a public road.

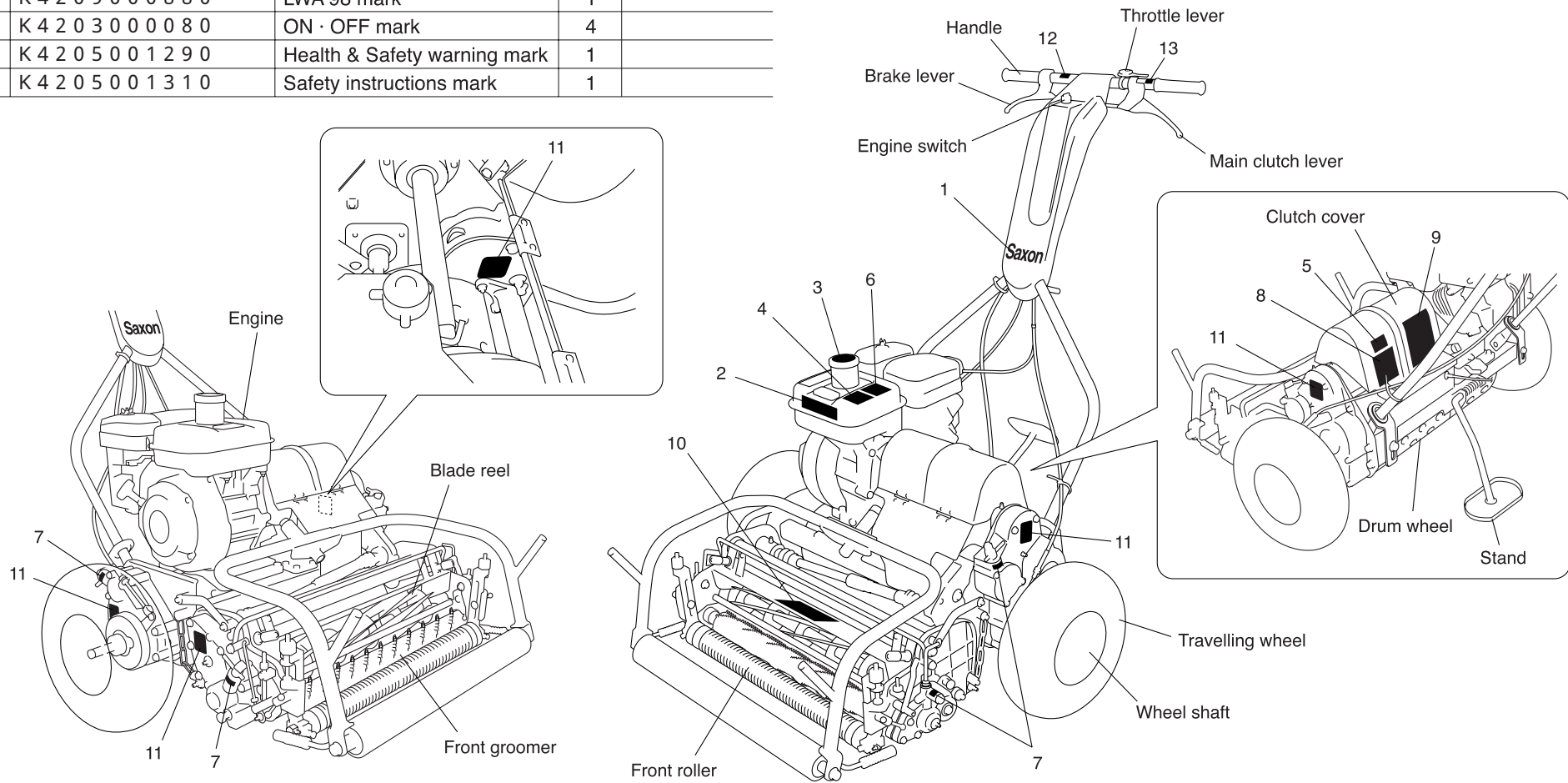
10) Storage

- Wait until the engine cools when covering the machine with a sheet, etc.
- Remove gasoline when the machine will not be operate for more than six month.

Names of the various sections and locations of the warning marks

cat No.	Code No.	Part Name	Qty	Remark
1	K 4 2 0 1 0 0 0 4 2 0	Saxon mark 106	1	
2	LM 5 4 GB - 1 5 0 6 Z 0	Type mark	1	
3	K 4 2 0 5 0 0 1 3 0 0	Engine oil warning mark	1	
4	K 4 2 0 5 0 0 1 3 3 0	Noise caution mark	1	
5	K 4 2 0 9 0 0 0 6 4 0	CE mark	1	
6	K 4 2 0 9 0 0 0 8 8 0	LWA 98 mark	1	
7	K 4 2 0 3 0 0 0 0 8 0	ON · OFF mark	4	
8	K 4 2 0 5 0 0 1 2 9 0	Health & Safety warning mark	1	
9	K 4 2 0 5 0 0 1 3 1 0	Safety instructions mark	1	

cat No.	Code No.	Part Name	Qty	Remark
10	K 4 2 0 5 0 0 1 2 8 0	Danger mark	1	
11	K 4 2 0 9 0 0 0 3 7 0	10 hour greasing mark	4	
12	K 4 2 0 3 0 0 0 9 7 0	Brake mark	1	
13	K 4 2 0 3 0 0 1 0 4 0	Clutch mark	1	



Features of LM54GB

- The travel motion section and cutting unit can tilt independently, and sloping ground and undulations can be cut smoothly, even on hard and difficult greens.
- Because the cutting unit and grass collection section are separate the greens can be cut uniformly.
- The transmission mechanism is of the all-gear type. There is an excellent direct system with a differential transmission device.
- The driving drum is made of rust - proof corrosion - resistant aluminum.
- Engine Brake for safe working.
- The blades are outstandingly sharp due to the full heat treatment, and provide highly effective cutting.
- The GBF model is fitted with Front Groomer.
- The structure of the clutch has been improved for smooth starting.

Specifications

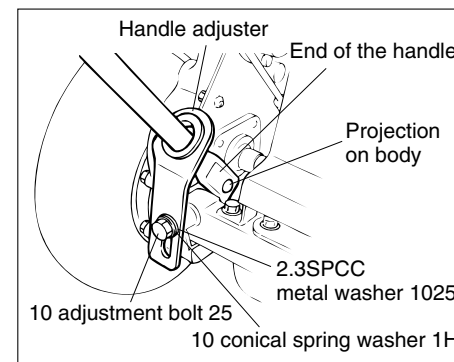
Model	LM54GB	LM54GBF	
Length(with grass catcher)	152cm		
Width(without travelling wheel)	93cm		
Height(handle)	100cm		
Weight	Main unit(without catcher and wheel)	91.5kg	95.5kg
	Mower unit	26kg	30kg
	Grass catcher	3.5kg	
	Travelling wheels (2 pcs)	6.9kg	
Mowing section	Mowing width	55.7cm	
	Reel diameter	Ø10.2cm	
	Number of reel blades	9 blades	
	Mowing height	3.0mm ~ 15mm (bottom blade 2.5mm)	
Engine	Robin EX13D 3.2kw (4.3ps) /4,000rpm		
Speed (Km/h)	4.7km/h (3,000rpm)		

Handling instructions

1. Assembly and adjustment of the body

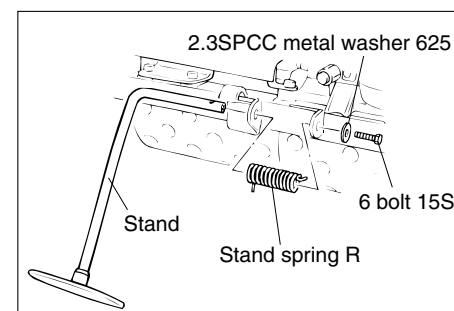
1-1 Attaching the handle to the body

- 1) Insert the ends of the handle from above through the holes in the right and left handle adjusters (6-20 and 6-21) respectively and position on projections on the body.
- 2) Secure the respective right and left handle adjusters to the rear of the body with 10 adjustment bolts 25 (6-24), 10 conical spring washers 1H (6-23) and 2.3SPCC metal washers 1025 (6-22).

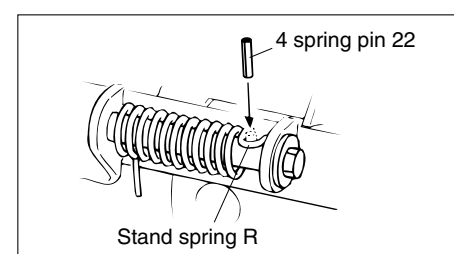


1-2 Attaching the stand

- 1) Secure the stand (3-31) from the left in the stand attachment fitting on the rear of the body, pass it to the right through the stand spring R (3-32), and secure with 6 bolt 15S (3-36) and 2.3SPCC metal washer 625 (3-35).



- 2) Then insert the 4 spring pin 22 (3-34) into the hole in the stand after a tool has been used to hook the spring R securely onto the pin.



1-3 Confirmation of the operation of clutch lever and brake lever

Check that the clutch and brake operate completely.

When adjustment is necessary, make adjustment according to "5-8. [important] Adjustment of engine clutch section."

1-4 Connection of engine switch cord

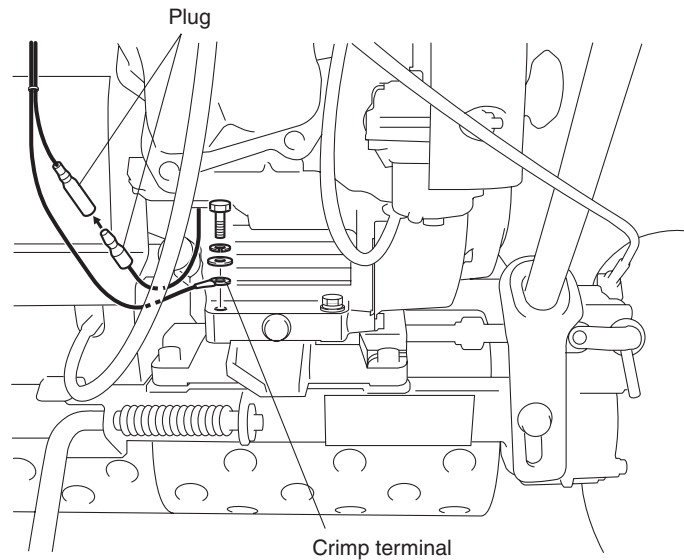
When assembling the handle, check the connection of the engine switch cord. There are two connections - plug and crimp terminal.

1) The plug is connected to the plug that is connected to the engine.

Warning

2) The crimp terminal is secured to the engine crankcase with a hexagon bolt.

When the connection of the engine switch cord is incomplete, the engine will not stop even if the engine switch is operated. Check that the cord is correctly connected.



2. Inspection before use

2-1 Greasing



The transmission and intermediate transmission gears are equipped with needle bearings. Grease them every 10 hours. Shortage of grease will cause damage to the needle bearings.

2-2 Inspection of engine oil

Replenish the engine with engine oil. (A correct level will be shown when the engine is placed horizontally.) Change engine oil 8 hours after the initial operation, and every 50 hours from second time onward. Oil: SAE30.

2-3 Inspection of wire

Check that the clutch wire and brake wire are normal.

3. Fastening of each portion

Many parts are fastened by bolts. Bolts and nuts may be loosened some time after initial operation. Fasten them to the specified torque.

Appropriate fastening torque N.m (kgf-cm)

	Normal bolt	Heat treated bolt
M6	8 (80)	
M8	18 (180)	36 (360)
M10	36 (360)	72 (720)
M16	1.5-pitch left-hand thread:36 (360)	

4. Engine starting sequence

4-1 **Warning** Before starting engine

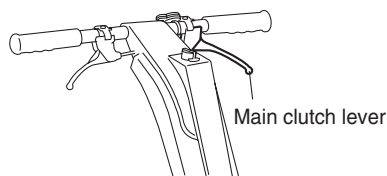



- Carefully read gasoline engine operation manual before starting the engine. The handle cover is equipped with an engine switch. Check the "ON/OFF" position.
- Set the engine switch lever in the ON position, set all moving parts in the neutral position.
- Check for safety - covers are in position and not damaged and there is no person or pet around the machine - before starting the engine.
- Do not start the engine indoors without an appropriate ventilator.

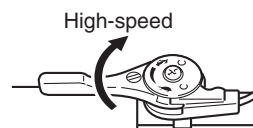


4-2 **Caution** Starting the engine

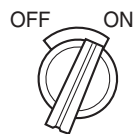
- 1) Do not grip the main clutch lever.



- 2) Set the throttle lever in the high-speed  position.



- 3) Set the engine switch in the ON position.



- 4) Set the strainer lever in the open position.



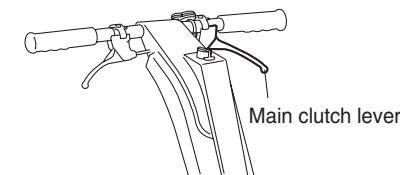
- 5) Pull the choke lever and pull the starter, and the engine will start.


- 6) Return the choke lever.

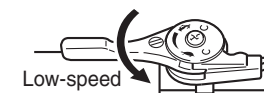
4-3 **Caution** Stopping the engine

* Remember how to stop the engine when emergency.

- 1) Do not grip the main clutch lever.



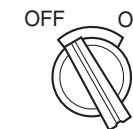
- 2) Set the throttle lever in the low-speed  position.



- 3) Set the strainer lever in the close position.



- 4) Set the engine switch in the OFF position.



- 5) Set the engine lever in the OFF position immediately in an emergency.

4-4 **Danger** Fuel supply



- Keep flame etc. away from the engine when supplying fuel. Make sure that all naked flames and cigarettes are completely extinguished. Stop the engine outdoors and allow it to cool before supplying fuel.
- Wipe out the spilt fuel.
- Keep the machine clean at all times to prevent deposition of dust, grease, or oil.

4-5 **Caution** When leaving the machine

- Park the machine on a flat place.
- Check that the engine has stopped and the engine switch lever is "OFF".
- Never park the machine on a slope.

5. Machine operation

5-1 **Danger** Before operation

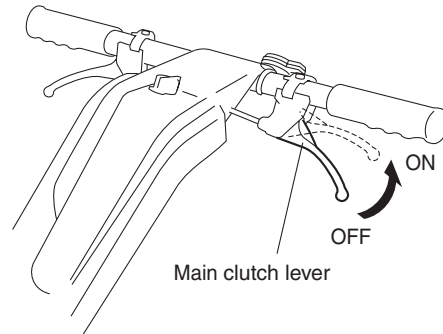
- Check that each portion - especially the brake and clutch - operate satisfactorily before starting machine operation.
- Make sure that the machine can be stopped immediately at any time.
- Exercise care so that you and people around the machine will not be injured.

5-2 Main clutch lever

The clutch lever is on the left side of the handle.

Avoid quick operation. Carefully and slowly operate the machine.

- * Grip the lever, and the travelling drive is turned "ON" and the machine begins to move forward.



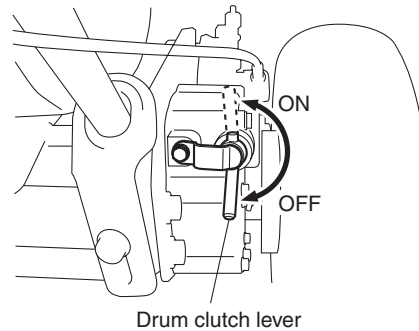
5-3 Change lever

Drum clutch lever

The change lever is at the back of the right frame. When the lever is in the "ON" position, the drum and the traveling wheel operate.

When the lever is in the "OFF" position, it turns neutral.

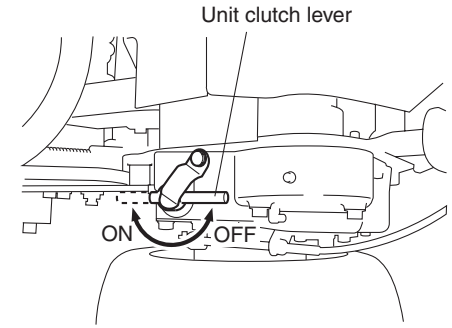
When the engine stopped, set the lever in the "OFF" position to make easy travel.



Unit clutch lever

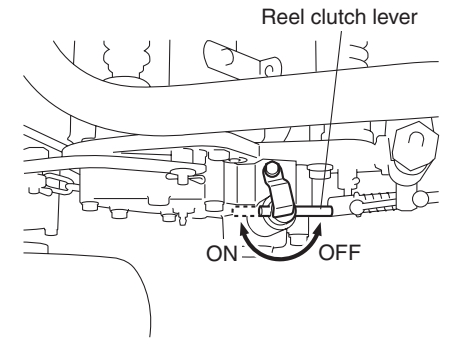
The lever is at the top of the left frame.

When the lever is in the "ON" position, the transmission case supplies power into the unit. Position the lever in the "OFF" when moving.



Reel clutch lever

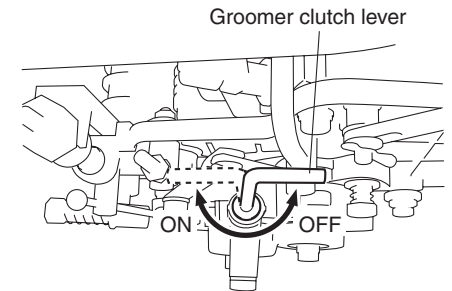
The lever is on the right of the unit. When the lever is in the "ON" position, the reel cutter operates, entering the mowing mode.



5-4 Groomer clutch lever

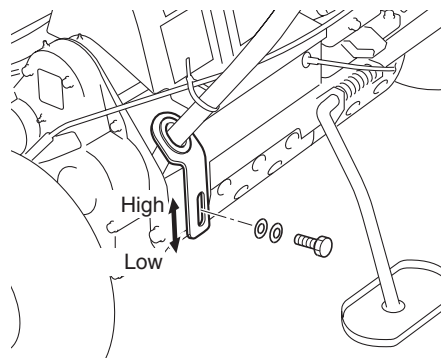
The lever is on the groomer gear case of the left of the unit.

When the lever is in the "ON" position, it starts to rotate in the same direction as the reel cutter rotates, entering the operating mode.



5-5 Adjustment of handle height

Move the securing bolt up and down in the slot of the handle adjuster, which is securing the handle to the frame, in order to adjust the height of the handle according to the operator's working position.



5-6 Warning Brake lever

The brake lever is provided at right.

Grip the lever, and the brake drums set on the right and left drum shafts operate simultaneously. If the braking performance is nonuniform, make adjustment for uniform operation.

5-7 Throttle lever

The throttle lever is on the left side of the handle. The lever controls the engine speed. The speed of rotation is 1,400-3,400 rpm. Operate at about 3,000 rpm.

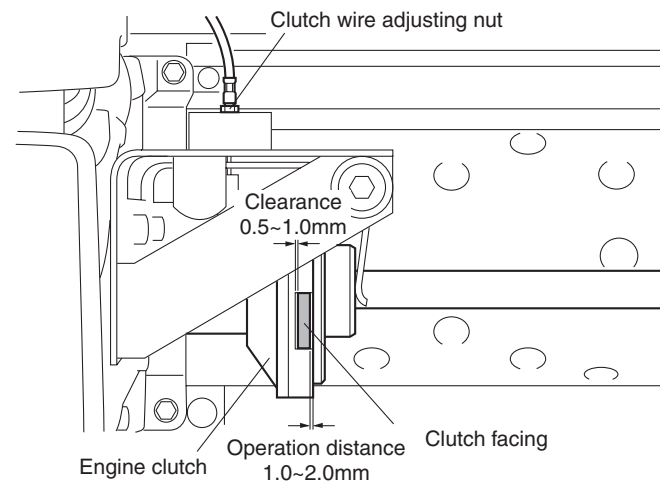
5-8 [IMPORTANT] Adjustment of engine clutch section

• When reinstalling the engine

Adjust the clearance between the engine clutch and the clutch facing so that it will be approx. 0.5 to 1 mm when the travelling clutch is engaged. For adjustment, loosen the four bolts that are securing the engine, and insert a thickness gauge (attached) in to front and rear. Make adjustment so that the gap will be parallel, and then fasten the bolts.

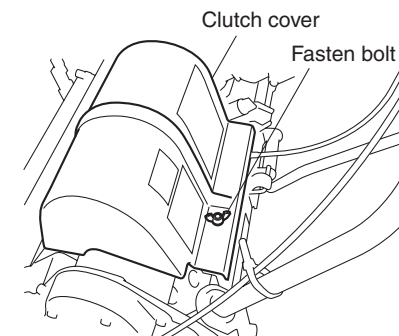
• When adjusting the clutch wire

Make adjustment so that operation distance of the clutch plate between the clutch engagement and disengagement will be 1.0-2.0 mm.



5-9 Clutch cover

The clutch cover is on the left side of the engine, covering the engine clutch. It is secured by turning the fastenbolt clockwise (by 4-5 turns).



5-10 Travelling wheel

The travelling wheel is used to move the machine from green to green. Set the stand up right, pull the tire holding the lever, and the wheel will come off.

* Tire air pressure 120kPa (1.2kg/cm²).

5-11 [IMPORTANT] Greasing

Periodically fill up respective grease nipples.

Exercise special care on greasing the sections where needle bearings are used.

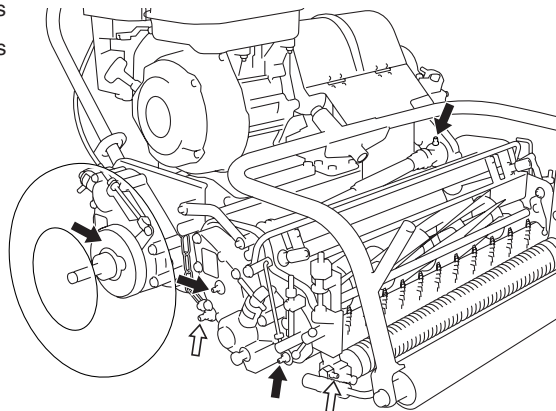
Periodically fill up the grease nipples with approx. 1g of grease (EXCELITE EP No.2) (one or two times with a compact manual grease pump).

Greasing every 10 hours	
• left-hand frame no.2 shaft	• transmission gear case intermediate shaft
• left-hand frame no.4 shaft	• mower no.1 shaft
• right-hand frame no.2 shaft	• mower intermediate shaft
• differential gear section	• right and left vertical gear cases (GBF model only)

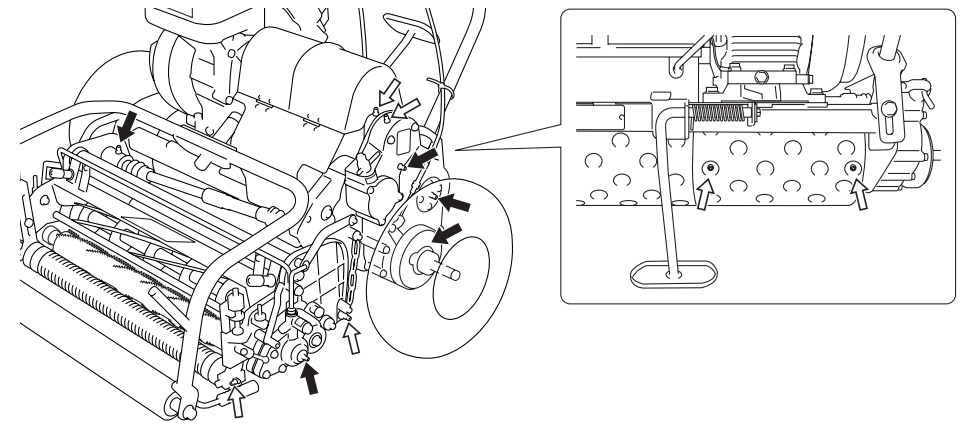
Exercise special care on greasing the above - mentioned parts where bearings are used.

Greasing every 50 hours	
• drum bearing	• upper part of left-hand frame cover
• mower front and rear rollers	• left-hand frame clutch shaft bearing

- ⇨ Every 50 hours
- ➔ Every 10 hours



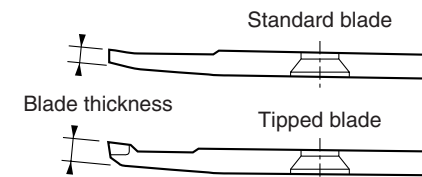
- ⇨ Every 50 hours
- ➔ Every 10 hours



5-12 Setting the mowing height gauge and blade thickness

1) Set the mowing height gauge at the desired height. The minimum mowing height with respect to each bottom blade thickness is shown below.

Model	Type of blade	Blade thickness (mm)	Min. mowing height (mm)	Code No.	Part Name	Note
LM54GB	Standard blade	1.5	3.0	K2511000270	1.5 bottom blade 55G	Option
		2	3.5	K2511000280	2 bottom blade 55G	
		2.5	4.0	K2511000050	2.5 bottom blade 55G	Standard
	Tipped blade	3	4.5	K2510000060	3 bottom blade 62.5-559	Option



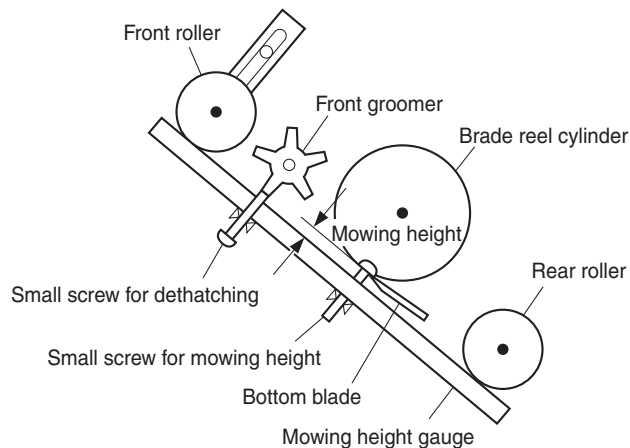
The minimum mowing height is the height on the average condition green. In the case that the undulation of green is substantial, set the mowing height higher lest the lawn be shaved.

- 2) Adjust the front groomer according to the condition of the green before use.
 - * If the groomer blades are set deeper than the ground surface, the shaft may bend.
 - * The front groomer, when it is put too low, will apply an excessive load to the engine and transmission section, causing malfunction or failure.
- 3) When using the grooming brush, adjust the height so that it will be equal to the mowing height.

The brush will be worn easily when the height is too low.
- 4) **[IMPORTANT] Adjustment of front roller height**

Bring the mowing height gauge into contact with the front and rear rollers (as shown below), and adjust the height of the bottom blade.

 - a. Loosen the long nut (1-39) of the roller bracket, and move the front roller up or down with roller adjuster (1-24).
 - b. Position the front roller with the mowing height gauge.
 - c. Make adjustment at right and left ends of the mowing unit.
 - d. Tighten the long nut, and secure the roller bracket.



6. Blade engagement

Check that the engine is at rest before making adjustment.

Grind and adjust the blade reel cylinder and bottom blade entirely so that a newspaper will be cut sharply.

6-1 **[IMPORTANT] Lapping**

Conduct lapping after mowing operation (before adjusting the engagement).

- 1) Check the engine portion of the blade reel cylinder to check which portion is dull. (If a newspaper can not be cut in any portion, put in two sheets of paper to carefully check which portion is dull).
- 2) Connect the lapping machine (RM20A) or lapping bolt (option) to the lapping shaft of the mower.
- 3) Rotate the blade reel cylinder in the direction opposite to the mowing direction, and apply abrasive with a brush only to the portion where a newspaper was sharply cut. The portion where a newspaper was not cut is worn away. Do not apply abrasive to such portions.

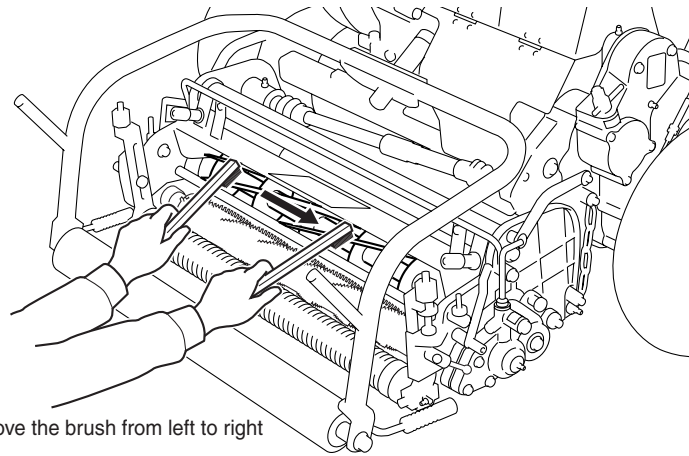
The right side (when viewed from the front of the blade reel cylinder) of the blade reel cylinder will be worn away 3-4 times earlier than the left side. When applying abrasive to the blade reel cylinder, be sure to move the brush from left to right. When the abrasive is a mixture of powder (#200~#400) and oil, mix them at the rate of 1:3 to 4. The gel compound (option) can be used as it is.
- 4) Keep rotating the blade reel cylinder, and stop rotation when the contact sound disappears. Put in a newspaper again to check the blade reel cylinder entirely for the sharpness of each portion.
- 5) Repeat operations (3) and (4). When the blade reel cylinder and bottom blade are in contact with each other uniformly, apply abrasive to the blade reel cylinder entirely for final lapping.
- 6) After lapping, remove the abrasive with steam, etc.

⚠ Danger Both blade reel cylinder and bottom blade are edged. Handle them carefully.



Be careful of the fingers, which turn the blade reel cylinder, when cutting a newspaper to check sharpness. Uniformly lap the right and left sides of the bottom blade in contact with the blade reel cylinder, and the life of the blade will be maximized.

Caution Do not wet the air cleaner and the electrical components when cleaning.

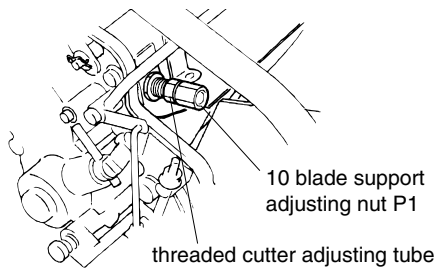


Move the brush from left to right

6-2 [IMPORTANT] Engagement

- 1) Lightly engage the blade reel cylinder and bottom blade uniformly both sides (right and left).
- 2) Uniformly adjust the bottom blade on the right and left sides. Turn 10 blade support adjusting nut P1 (1-53) clockwise for slight engagement, and turn it counterclockwise for firm engagement.
- 3) Lightly engage both sides to the extent that a newspaper will be cut sharply.

When the blade reel cylinder is worn and the spring pressure decreases, loosen the lock nut (1-50) and turn right the threaded cutter adjusting tube (1-49) so that the spring pressure increases.



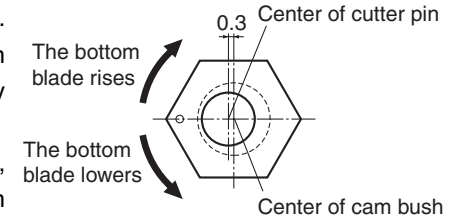
10 blade support adjusting nut P1

threaded cutter adjusting tube

6-3 [IMPORTANT] Cam adjustment

Turn the cam bush on both sides of the bottom blade, and the blade will be raised and lowered within a maximum range of 0.3 mm. The above method is used when the edges of the blade reel cylinder and bottom blade are not in parallel.

- 1) When there is a gap between the blade reel cylinder and the left frame side of the bottom blade loosen the lock nut, and turn the left cam bush clockwise as much as the gap. Turn it clockwise by 30 ° to raise the bottom blade by 1.0 mm. After adjustment, firmly fasten the lock nut.
- 2) When there is a gap on the right frame side, loosen the lock nut, and turn the right cam bush counterclockwise as much as the gap.



6-4 Cylindrical grinding

Cylindrically grind the blade reel cylinder when it is worn away and has become conical. (Ask the dealer you purchased the machine from for cylindrical grinding.)

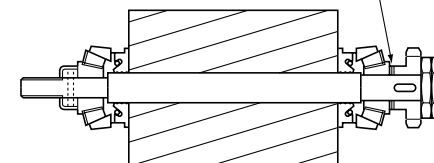
6-5 [IMPORTANT] Method of installing the cutting cylinder

When installing the cutting cylinder, turn the blades gently by hand and carry out the adjustment so that the bearing has no backlash. After tightening the nut temporarily, carry out adjustment by loosening the nut gradually until the cutting cylinder turns easily.

For the bearing in the cutting cylinder section, please use accurate bearing 30204JRP6. Sufficient grease (EXCELITE EP No.1) should be put into the bearing before installing it.

Sufficient grease should also be put into the seal part (while turning the roller). Bearings and seals should always be replaced every season.

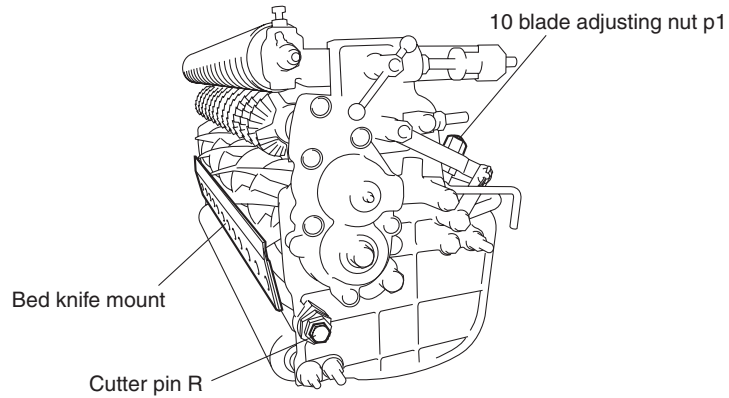
2 pcs. of wave washer (thickness 0.3)



6-6 Attaching/detaching the bottom blade base

After removing the mower unit from the main body, detach the bed knife mount.
Remove the rear roller ass'y first, then remove the cutter pin R, and loosen 10 blade adjusting nut P1 to remove.

When installing, carry out in a reverse procedure.
Be sure to adjust the cam bush when installing.
Refer to 6-3 [IMPORTANT] Cam adjustment.



⚠ Caution



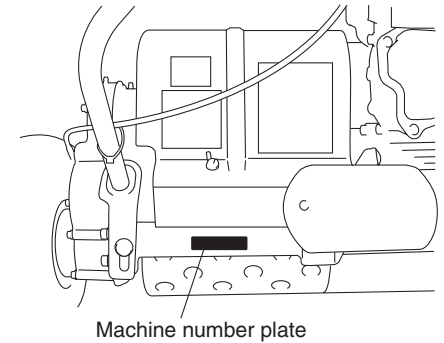
Pay extra attention when detaching the bottom blade base.
Support the base lest it fall when loosening the adjusting nut.
Pay extra attention when handling the cutting cylinder and the bottom blade.



6-7 Machine number plate attaching position

The serial number is marked on the machine number plate.

It is attached to the rear frame stay.

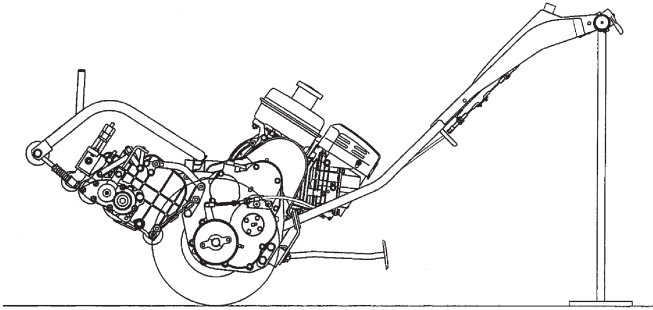


6-8 Specification for maintenance

Qty of engine oil	0.6dm ³ (0.6L)
Plug	BR4HS
Capacity of fuel tank	2.7dm ³ (2.7L)
Tire air pressure	120kPa (1.2kgf/cm ²)
Engine speed	1,400~3,400rpm

6-9 Position of mower during maintenance

When performing maintenance of the machine (LM54GB-GBF), make sure that the engine is placed within 35 degrees of the vertical line. Failure to observe this will cause engine oil to enter the locker cover of the engine, resulting in engine breakdowns, like white smoke from the muffler. To prevent this, keep the traveling wheels attached and tilt the machine slowly toward the handle and use the maintenance stand.



How to use the maintenance stand

Place the machine on level ground, pass the handle grip into the hollow cylindrical part in the upper section of the maintenance stand and make sure that the maintenance stand is positioned upright.

Take care not to use excessive force on the mower unit during maintenance. Doing so will cause the maintenance stand to lift, resulting in the machine being raised.

Caution

The above precautions are given on the assumption that the position of mower is on level ground.

7. Long-term storage

- 1) For the engine, refer to the engine operation manual.
- 2) Cylindrically grind the blade reel cylinder every six months.
- 3) Replace the bearing (30204JRP6) and seal on both sides of the blade reel cylinder every season. (Replace them even if they have not been used for many hours.)
- 4) Clean the machine, and apply grease or oil to respective sliding sections.
- 5) Set the air pressure in the tires slightly higher than normal, place it on a board in order to avoid humidity.
- 6) Check bolts and nuts in respective sections for looseness or omission. If there is looseness or omission, retighten or replace it.
- 7) Repair or replace damaged parts and paint peelings.
- 8) Store it where is dry and free from rain.

8. Precautions for engine operation

For the engine, refer to the engine operation manual



- 1) Use gasoline for automobiles as the fuel of the engine.
- 2) Completely change engine oil when the machine has been used for eight hours after the initial operation, because the machine is used under tough conditions with vibration and dust, and change oil every 50 hours after that. The quantity of engine oil is 0.6 dm³ (0.6L). Use SAE30.
- 3) Be sure to clean the air cleaner element before using the machine.

Danger



- 4) Fire is strictly prohibited during fuel supply. Make sure that all naked flames and cigarettes are completely extinguished. Replenish the fuel tank outdoors after the stopped engine has been cooled. Wipe off the spilt fuel completely.



- 5) Do not start the engine in a building without a proper ventilator.

Caution



- 6) The muffler and the area around the exhaust port of the muffler will become hot. Do not bring gasoline, matches, dry grass, or other inflammables near hot portions.

Caution

- 7) **Inspection before operation**
Check the joint of fuel pipe, etc. for looseness or damage. Check bolts and nuts in respective sections for looseness.

Warning

- 8) Wear appropriate clothes. An apron, towel on the belt, long string, etc. will cause you to be caught in rotating parts.
- 9) When the machine is to be stored for a long time exceeding 5 months, remove gasoline from the engine.
- 10) **Engine maintenance schedule**
To keep the engine in satisfactory status at all times, be sure to conduct maintenance and inspection according to "9. maintenance schedule".

9. Maintenance Schedule

Engine				
Maintenance	Before use	Every 8 hr	Every 10 hr	Every 50 hr
Clearing of each part/inspection of tightening	<input type="radio"/>			
Inspection and addition of fuel	<input type="radio"/>			
Inspection and cleaning of air cleaner	<input type="radio"/>			
Inspection and addition of engine oil	<input type="radio"/>			
Engine oil change		only after the initial operation		<input type="radio"/>
Main unit				
Maintenance	Before use	Every 8 hr	Every 10 hr	Every 50 hr
Inspection and cleaning of recoil starter dust proofing net	<input type="radio"/>			
Cleaning of each part/inspection of tightening	<input type="radio"/>			
Inspection and adjustment of blade engagement	<input type="radio"/>			
Inspection and adjustment of mowing height	<input type="radio"/>			
Greasing and oiling			<input type="radio"/>	<input type="radio"/>
Removal of mown grass and dust	<input type="radio"/>			

BARONNESS

SWING MOWER

LM54GB · GBF

PARTS CATALOGUE

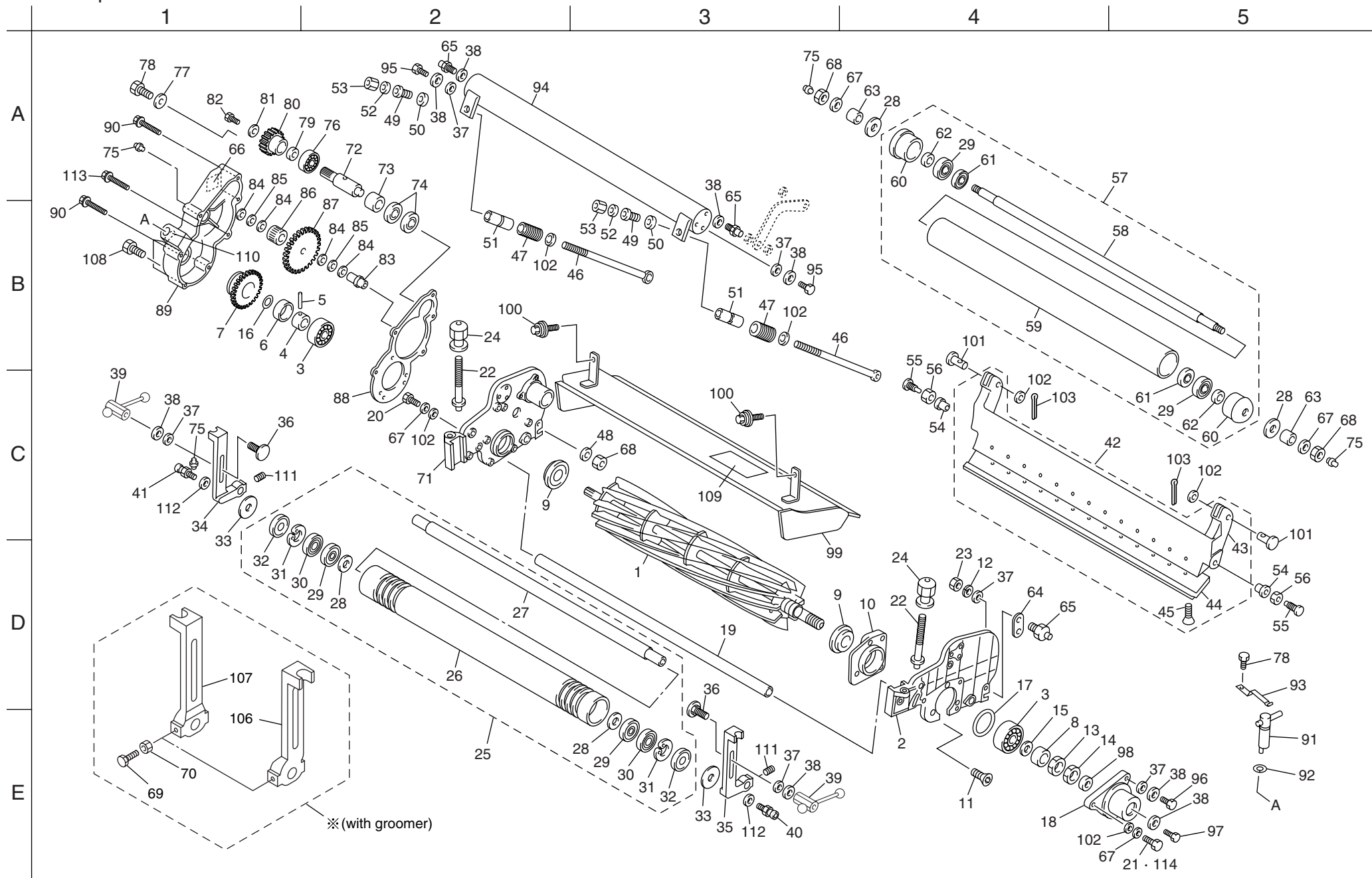
☆ **Ordering parts**

All parts in this parts catalogue are controlled by computer.

For prevention of delivery of wrong parts, advise us of the catalogue No., code No., and part name.

(Example)	Catalogue No.	Code No.	Part Name	Qty
	1-2	LM54GA-0103DR	left-hand frame	1

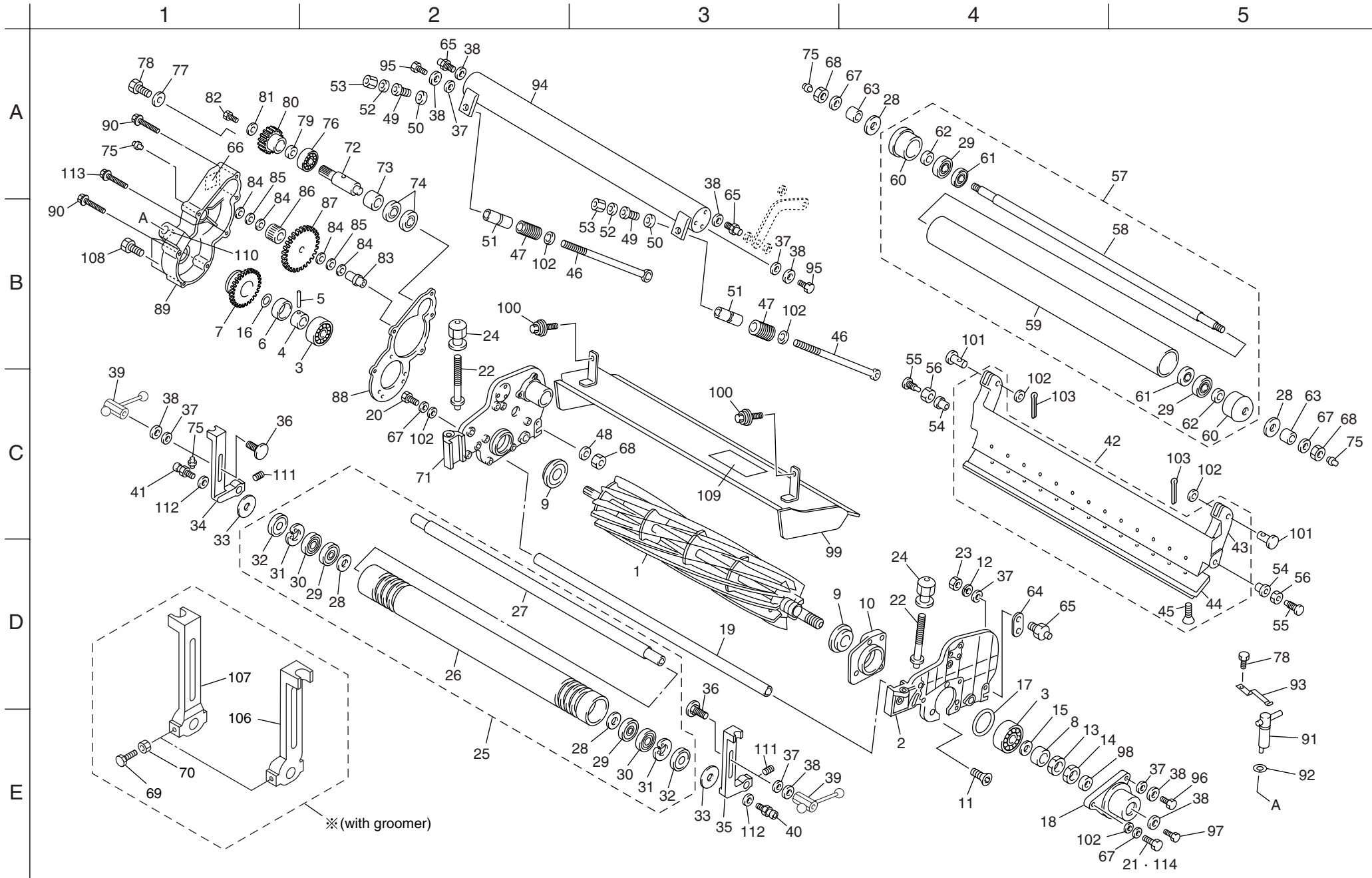
1. Mower parts



cat No.	Code No.	Part Name	Qty	Rmark
1-1	K280540090R	cutting cylinder-557	1	
1-2	LM54GA 0103DR	left-hand frame	1	
1-3	K0631302040	tapered roller-30204JRP6	2	
1-4	K6213000040	bearing collar-left	1	
1-5	K6051045280	4.5 hardened pin 28	1	
1-6	K5300000282	pin retaining collar	1	
1-7	LM54G 0108Z0	32 tooth gear	1	
1-8	K6212000250	20.2 STKM collar 25.417	1	
1-9	K0830000020	oil seal 254210FA	2	
1-10	LM54GA 0110BR	left-hand cylinder housing	1	
1-11	K0053080202	8 hexagon socket countersunk bolt 20	3	
1-12	K0200080002	8 S washer	1	
1-13	K0160000132	20 small nut 10P1.5	1	
1-14	K0160000082	20 small nut 8P1.5	1	
1-15	K0220200001	20 corrugated metal washer	2	
1-16	K0880018000	O-ring P18	1	
1-17	K0880050000	O-ring P50	1	
1-18	LM54G 0111ZR	cylinder shaft cover	1	
1-19	LM54GA 0114A3	mower front stay 603.4	1	
1-20	LM54GA 0115Z3	knock bolt 25	1	
1-21	K0071000593	10 knock bolt 40	1	
1-22	LM54G 0134A0	adjusting screw	2	
1-23	K0102080002	8 nut 3	4	
1-24	K6084000063	roller adjuster	2	
1-25	LM54GA 0129Z0	front roller assembly	1	
1-26	LM54GA 0131Z3	grooved roller	1	
1-27	K6131000010	front roller shaft	1	
1-28	K5051015280	1C5191P metal washer 1528	4	
1-29	K0613062020	bearing 62022RDC3	4	
1-30	K0861000030	oil seal 6202	2	
1-31	K0402042001	stop ring R42	2	
1-32	K0861000020	oil seal TA1542.38	2	
1-33	K5051015470	1C5191P metal washer 1547	2	
1-34	LM54GA 0106Z0	right-hand roller bracket	1	
1-35	LM54GA 0105Z0	left-hand roller bracket	1	

cat No.	Code No.	Part Name	Qty	Rmark
1-36	K0025080303	8 round head square neck bolt 30	2	
1-37	K5000080003	8 washer	2	
1-38	K0213080001	8 conical spring metal washer 1H	4	
1-39	K1330000050	nut with handle P1.25	2	
1-40	LM54G 0132Z0	left-hand mower attachment bolt	1	
1-41	LM54G 0133Z0	right-hand mower attachment bolt	1	
1-42	LM54GA 0119A0	bed knife COMP	1	
1-43	LM54GA 0120AR	bed knife mount	1	
1-44	K2511000050	55G bed knife No.1	1	
1-45	K0071000222	6 heat-treated countersunk screw 12	13	
1-46	K6511000052	cutter adjusting bolt 185	2	
1-47	K1000000078	3.5 compression spring 17.560	2	
1-48	K0210100001	10 conical disc spring L	1	
1-49	K6081000032	threaded cutter adjusting tube	2	
1-50	K0160000122	lock nut	2	
1-51	LM54GA 0117Z2	collar 53.5	2	
1-52	K5011010162	1 SPCC metal washer 1016	2	
1-53	K0160000032	10 blade support adjusting nut P1	2	
1-54	K6010000010	cam bush	2	
1-55	K6082000010	cutter pin R	2	
1-56	K0160000112	lock nut	2	
1-57	LM54GA 0136Z0	rear roller assembly	1	
1-58	LM54GA 0137Z0	rear roller shaft	1	
1-59	LM54G 0138Z0	rear roller	1	
1-60	LM54G 0139Z0	rear roller housing	2	
1-61	K0811635090	oil seal MHS16359	2	
1-62	K0801525040	oil seal MH15254	2	
1-63	LM54GA 0140Z3	collar	2	
1-64	LM54G 0148Z3	stop	2	
1-65	LM54GA 0149Z3	bolt 45	4	
1-66	K4209000370	10 hour greasing label	1	
1-67	K0211100001	10 conical disc spring H	4	
1-68	K0160000282	10 nut 3P1OH1	3	
1-69	K0000060252	6 bolt 25	2	
1-70	K0100060002	6 nut	2	

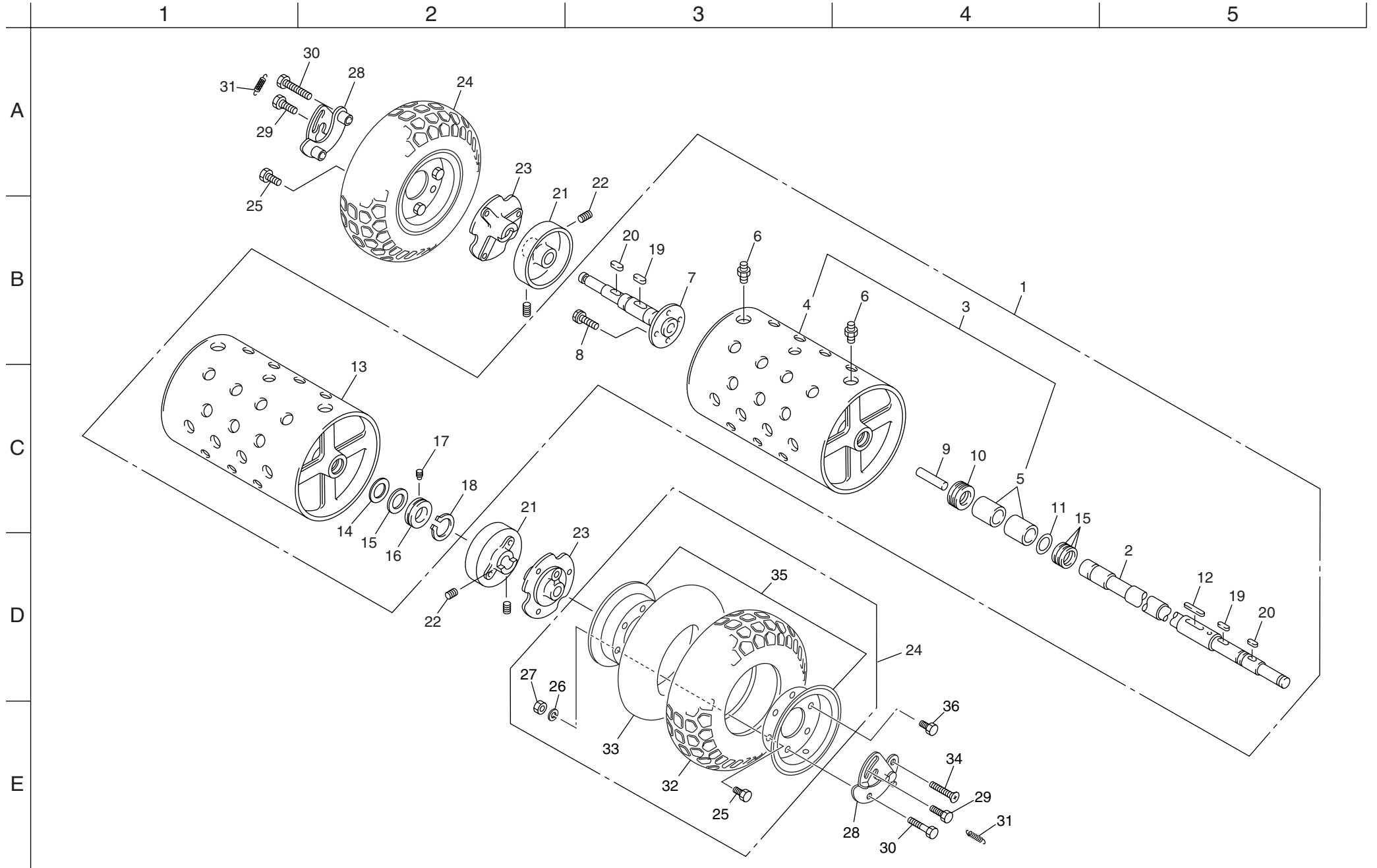
1. Mower parts



cat No.	Code No.	Part Name	Qty	Rmark
1-71	LM54GA 0102CR	right-hand frame	1	
1-72	LM54G 0123Z9	no.1 shaft	1	
1-73	K0736000010	needle bearing TAF212920OG	1	
1-74	K0871212940	seal DS21294 for needle bearing	2	
1-75	K1440000010	grease nipple	6	
1-76	K0613060030	bearing 60032RDC3	1	
1-77	K5090000602	2.3 SPCC special metal washer 625	1	
1-78	K0006060152	6 bolt 15S	2	
1-79	LM54G 0124Z0	collar	1	
1-80	K6180000140	16 tooth gear	1	
1-81	K5012308202	2.3 SPCC metal washer 820	1	
1-82	K0006080152	8 bolt 15S	1	
1-83	LM54GA 0125Z0	intermediate shaft	1	
1-84	K5051013280	1C5191P metal washer 1328	4	
1-85	K5020813280	0.8 NBS55 metal washer 1328	2	
1-86	K0701317120	needle bearing KT131712	1	
1-87	LM54G 0126Z0	37 tooth gear	1	
1-88	LM54G 0127Z0	case gasket	1	
1-89	LM54GA 0151Z0	right-hand gear cover with mark	1	
1-90	K0007060502	6 bolt 50SW	6	
1-91	K7321000102	clutch handle	1	
1-92	K0880015000	o-ring P15	1	
1-93	K1090000058	clutch operating spring	1	
1-94	LM54GA 0113ZR	mower stay	1	
1-95	K0080080202	8 bolt 20 HW	4	
1-96	K0080080302	8 bolt 30 HW	2	
1-97	K0001080152	8 bolt 15P1	1	
1-98	K0821628070	oil seal MH16287	1	
1-99	LM54GA 0150Z0	cutting cylinder cover with mark	1	
1-100	K0007060152	6 bolt 15SW	2	
1-101	K6030010322	10 flat head pin 32	2	
1-102	K5000100002	10 washer	6	
1-103	K0300250202	2.5 split pin 20	2	
1-104	K2929000000	Dynamax EP no.1 grease	200g	gear cover
1-105	K2931000000	Exelite EP no.2 grease	40g	Fr.roller, cylinder bearing

cat No.	Code No.	Part Name	Qty	Rmark
1-106	LM54GAS0105A0	left-hand roller bracket	1	
1-107	LM54GAS0106A0	right-hand roller bracket	1	
1-108	K0007080152	8 bolt 15SW	1	
1-109	K4205001280	danger mark	1	
1-110	K4203000080	ON/OFF mark	1	
1-111	K0028060100	6 hollow set screw 10	2	
1-112	K5050310140	0.3C5191P washer 1014	0~6	
1-113	K50007060452	6 bolt 45 SW	1	
1-114	LM54GA 0115Z3	knock bolt 25	1	with groomer

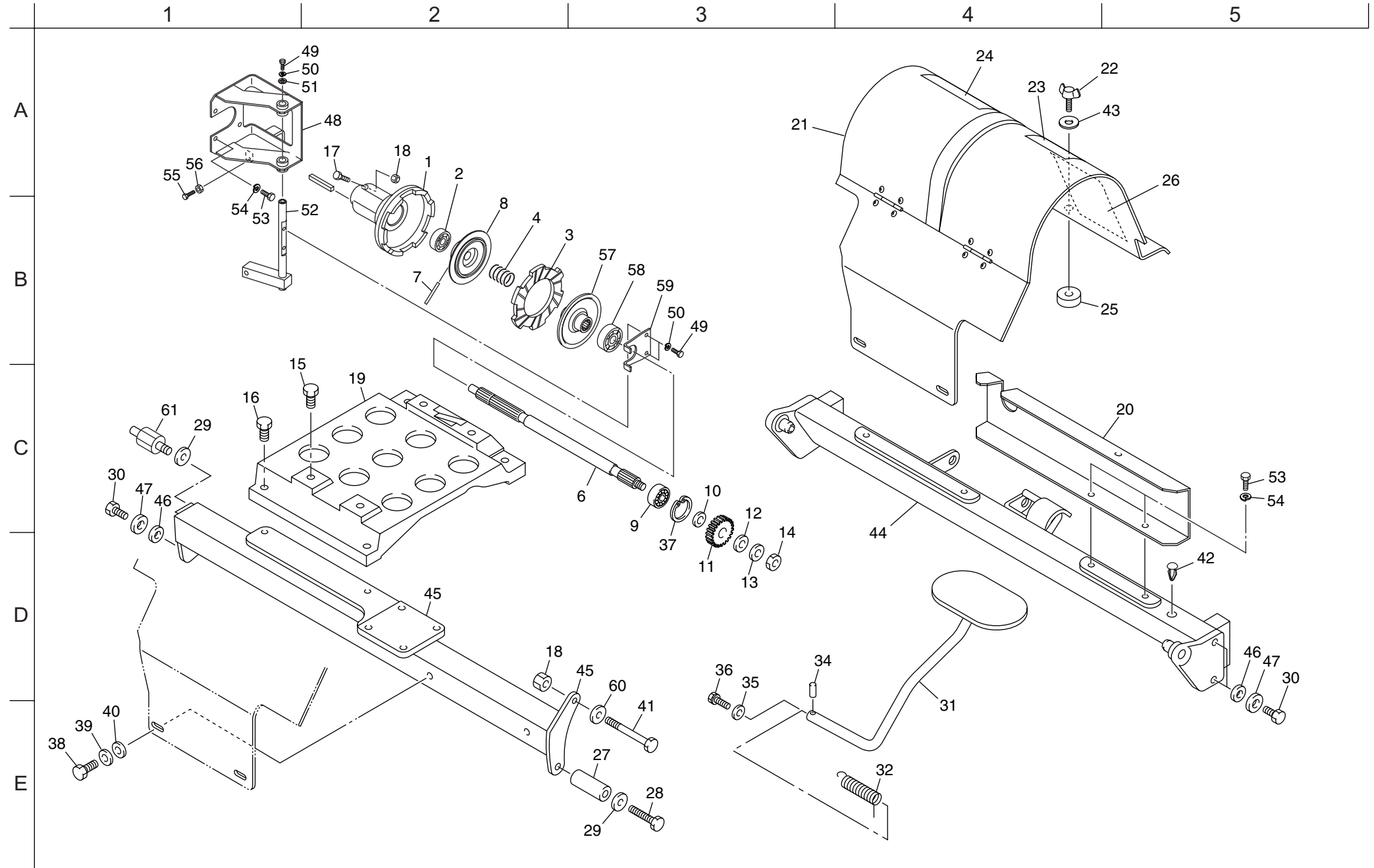
2. Drum wheel parts



cat No.	Code No.	Part Name	Qty	Rmark
2-1	LM54G 0230B0	drum assembly	1	
2-2	LM55GB 0231F2	drum left-hand shaft	1	
2-3	LM54G 0236A0	right-hand drum COMP(2-4,5 set)	1	
2-4	LM54G 0237A0	right-hand drum	1	
2-5	K6000000030	25.4 bush 30.142	2	
2-6	K1440000010	grease nipple	2	
2-7	LM54G 0232A3	drum right-hand shaft	1	
2-8	K0006080202	8 bolt 20S	4	
2-9	LM55GB 0233Z0	drum intermediate shaft	1	
2-10	K5051013300	1C5191P metal washer 1330	3	
2-11	K0880025500	O-ring P25.5	1	
2-12	K0500505350	5 double key 535.5	1	
2-13	LM54G 0235A0	left-hand drum	1	
2-14	K5050325420	0.3C5191P metal washer 25.442	1 ~ 2	
2-15	K5051025420	1C5191P metal washer 25.442	4	
2-16	LM55GB 0249Z2	drum collar	1	
2-17	K0071000772	drum collar stopper	1	
2-18	K0401042001	stop ring S42	1	
2-19	K0500505160	5 double key 516	2	
2-20	K0500505280	5 double key 528	2	
2-21	LM55GD 0238Z2	brake drum	2	
2-22	K0023080101	8 hollow set screw 10	4	
2-23	LM55GD 0239ZD	wheel clamping seat	2	
2-24	K2020000050	tyre 4.10/3.50-6 assembly	2	
2-25	K0000080122	8 bolt 12	6	
2-26	K0200080002	8 S washer	6	
2-27	K0100080002	8 nut	6	
2-28	LM55GB 0242C2	wheel clamping plate	2	
2-29	K6082000023	8 lock bolt 10	2	
2-30	K0006080402	8 bolt 40S	2	
2-31	K1030000068	1.5U hook spring 8.5 35.5	2	
2-32	K2021000030	tyre 4.10/3.50-6	2	
2-33	K2091000220	tube 4.10/3.50-6	2	
2-34	K0041080352	8 cross-head countersunk screw 35	2	
2-35	K2080000060	wheel 3SP-6 COMP	2	

cat No.	Code No.	Part Name	Qty	Rmark
2-36	K0006080152	8 bolt 15S	2	

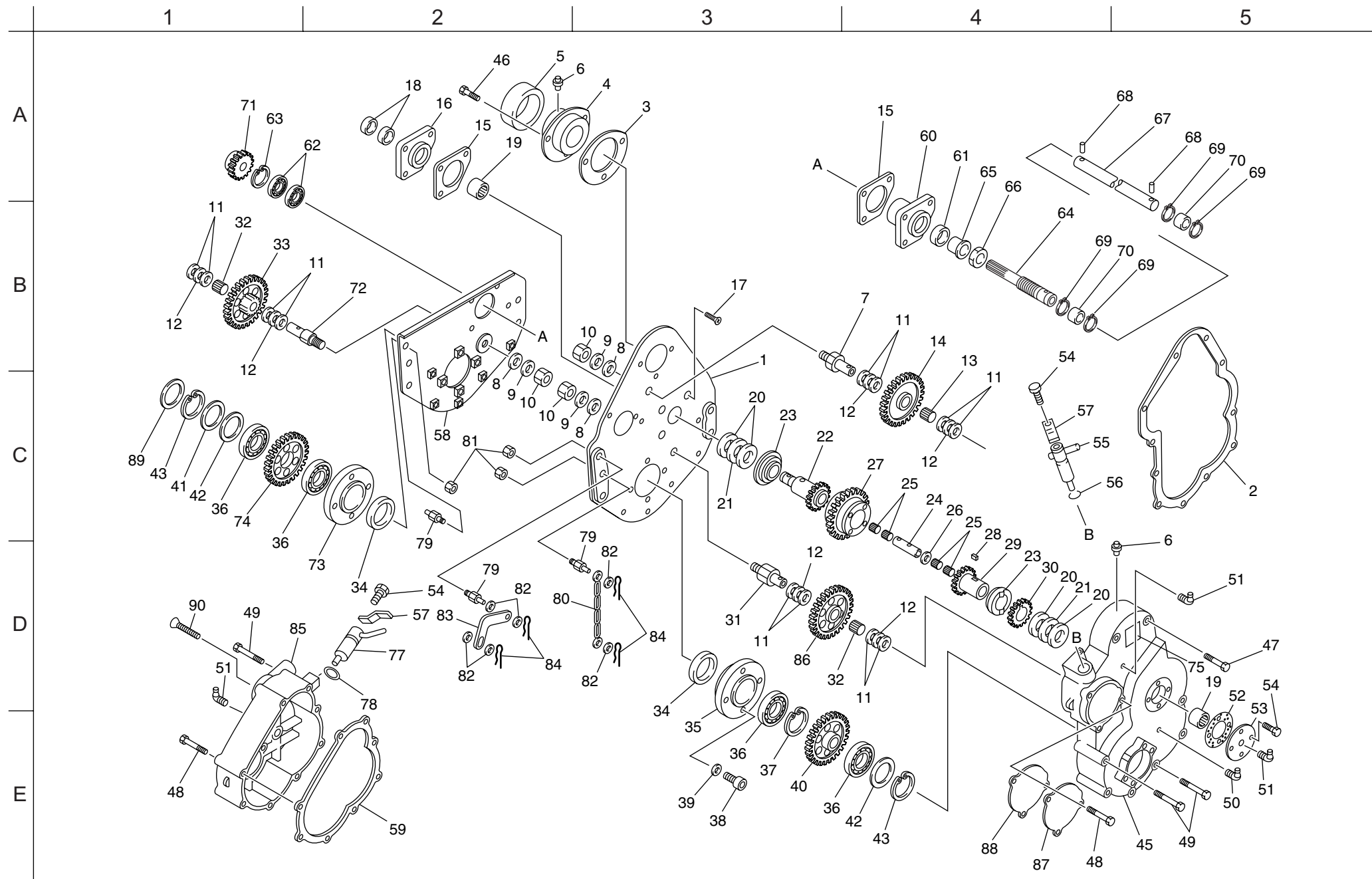
3. Clutch parts



cat No.	Code No.	Part Name	Qty	Rmark
3-1	K6911000050	engine clutch	1	
3-2	K0616062020	bearing 62022NSEC3	1	
3-3	K1810000030	clutch facing	1	
3-4	K1000000160	3.5 compression spring 3415	1	
3-5	K4205000810	joint revolving parts caution mark	1	
3-6	K6100000023	engine clutch shaft303	1	
3-7	K0310050402	5 tapered pin 40	1	
3-8	K6911000043	facing receiver 15	1	
3-9	K0616062030	bearing 62032NSEC3	1	
3-10	K6212001060	17.1STKM collar 2214	1	
3-11	K6180000140	16 tooth gear	1	
3-12	K5002100002	10 washer 22	1	
3-13	K0214100001	10 conical spring metal washer 2L	1	
3-14	K0160000282	10 nut 3P1OH1	1	
3-15	K0007080402	8 bolt 40SW	4	
3-16	K0007080352	8 bolt 35SW	4	
3-17	K0000060302	6 bolt 30	1	
3-18	K0143060002	6 nut with conical disk spring	2	
3-19	LM54GA 0727AR	engine base 106	1	
3-20	LM54GB 0304ZR	cover plate	1	
3-21	LM54GB 1503Z0	clutch cover assembly	1	
3-22	K0022080202	8 wing bolt 20	1	
3-23	K4209000640	CE mark	1	
3-24	K4205001310	safety instructions mark	1	
3-25	K4031000070	5 anti-vibration rubber 825	1	
3-26	K4205001290	health & safety mark	1	
3-27	LM54G 0615Z3	10.2 collar 59.8	1	
3-28	K0003100802	10 bolt 80	1	
3-29	K0213100001	10 conical spring metal washer 1H	2	
3-30	K0080100202	10 bolt 20HW	5	
3-31	K789900041D	stand	1	
3-32	K1090000029	stand spring R	1	
3-33	K0007080152	8 bolt 15SW	2	
3-34	K0320040221	4 spring pin 22	1	
3-35	K5012306252	2.3 SPCC metal washer 625	1	

cat No.	Code No.	Part Name	Qty	Rmark
3-36	K0006060152	6 bolt 15S	1	
3-37	K0402040001	stop ring R40	1	
3-38	K0000050102	5 bolt 10	2	
3-39	K0200050002	5 S washer	2	
3-40	K5000050002	5 washer	2	
3-41	K0003061302	6 bolt 130	1	
3-42	K4021000010	anchor clip 7.5	1	
3-43	K5000080002	8 washer	1	
3-44	LM54G 0714CR	frame rear stay	1	
3-45	LM54G 0713ZR	frame front stay	1	
3-46	K5000100002	10 washer	5	
3-47	K0213100001	10 S washer 1H	5	
3-48	LM54GB 1505ZD	clutch box S	1	
3-49	K0000060152	6 bolt 15	3	
3-50	K0200060002	6 S washer	3	
3-51	K5012306202	2.3 SPCC metal washer 620	1	
3-52	LM56G 2202Z2	clutch lever S	1	
3-53	K0000080152	8 bolt 15	6	
3-54	K0200080002	8 S washer	8	
3-55	K0000060302	6 bolt 30	2	
3-56	K0100060002	6 nut	1	
3-57	LM56G 0304Z2	clutch plate	1	
3-58	K0659000020	release bearing RCT2850	1	
3-59	LM56G 2203Z2	support plates	1	
3-60	K5000060002	6 washer	1	
3-61	LM54G 0614Z3	chain - holding bolt	1	

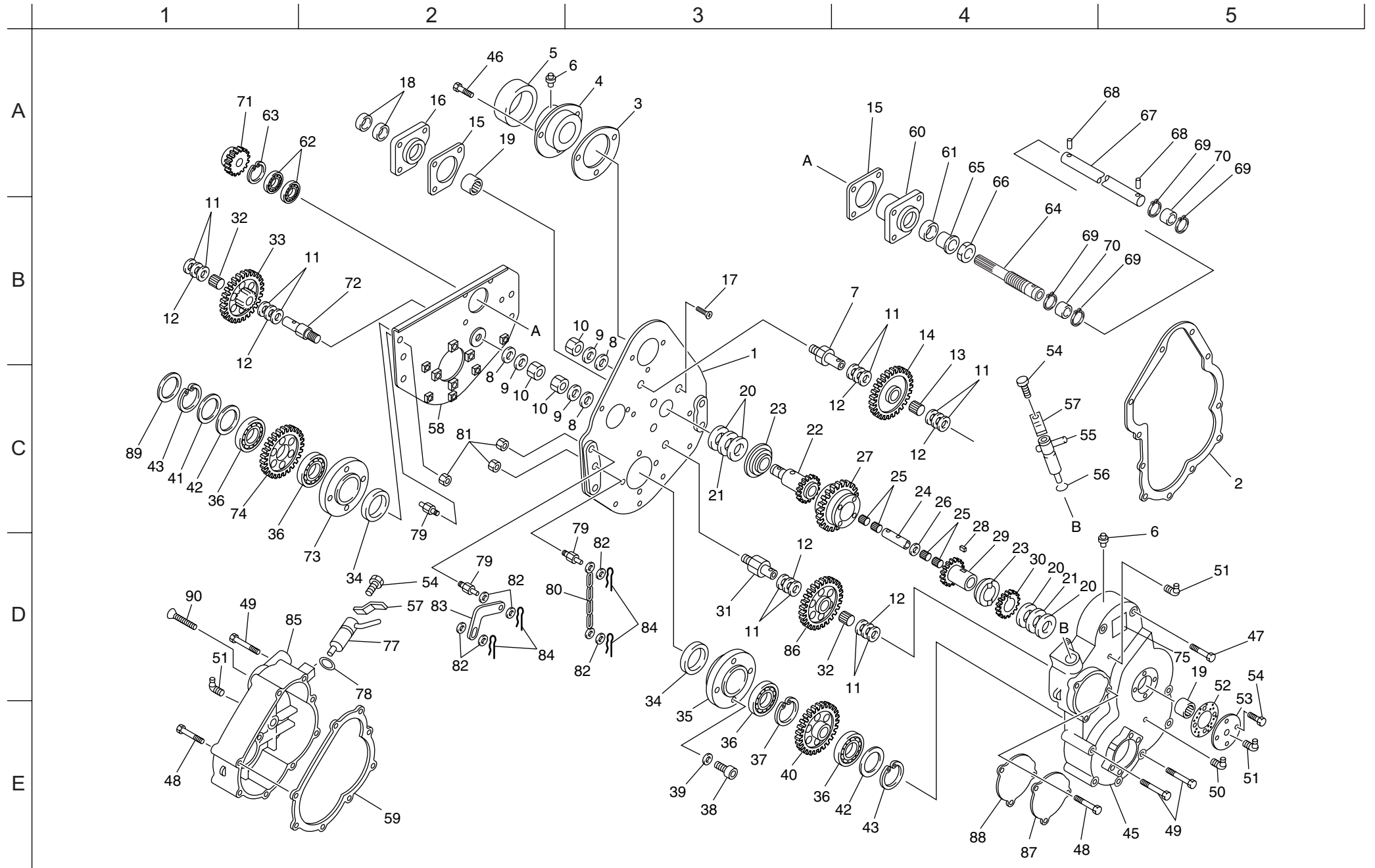
4. Parts associated with the frame



cat No.	Code No.	Part Name	Qty	Rmark
4-1	LM54G 0601A3	left-hand frame	1	
4-2	LM54G 0603A0	large gasket	1	
4-3	LM54G 0607Z0	no.1 shaft gasket	1	
4-4	LM54G 0608Z3	no.1 shaft housing	1	
4-5	K0811930070	oil seal MHS19307	1	
4-6	K1440000010	grease nipple	2	
4-7	LM54G 0201Z0	no.2 shaft	1	
4-8	K5000100002	10 washer	3	
4-9	K0211100001	10 conical disk spring H	3	
4-10	K0160000282	10 nut 3P1OH1	3	
4-11	K5051013220	1C5191P metal washer 1322	12	
4-12	K5020813220	0.8NBS55 metal washer 1322	6	
4-13	K0701317120	needle bearing KT 131712	1	
4-14	LM54G 0202Z0	38 tooth gear	1	
4-15	LM54G 0609Z0	differential housing gasket	2	
4-16	LM54G 0610ZD	left-hand differential housing	1	
4-17	K0041060122	6 cross-head countersunk screw 12	3	
4-18	K0871182640	seal DS18264 for needle bearing	2	
4-19	K0722210000	needle bearing TA2210Z	2	
4-20	K5051022300	1C5191P metal washer 2230	4	
4-21	K5020822300	0.8NBS55 metal washer 2230	2	
4-22	LM55GB 0210A3	right-hand 16 tooth differential gear	1	
4-23	K6202000140	differential gear bearing	2	
4-24	K6150000150	10 differential pin 55	1	
4-25	K0701013100	needle bearing KT 101310	4	
4-26	K5051010220	1C5191P metal washer 1022	1	
4-27	LM54G 0203Z0	50 tooth differential gear assembly	1	
4-28	K0520504060	5 single key 46.3	1	
4-29	LM55GB 0209C0	left-hand 16 tooth differential gear	1	
4-30	LM55GB 0214A0	left-hand 18 tooth gear	1	
4-31	LM54G 0218Z0	left-hand frame no.4 shaft	1	
4-32	K0711317200	needle bearing KTW131720	2	
4-33	LM54GA 0219A0	46 tooth 17 tooth right-hand gear	1	
4-34	K0822542080	oil seal MHSA25428	2	
4-35	LM54G 0222Z0	left-hand shaft housing	1	

cat No.	Code No.	Part Name	Qty	Rmark
4-36	K0601062040	bearing 6204C3	4	
4-37	K0402047001	stop ring R47	1	
4-38	K0024080201	8 bolt with hexagon hole 20	8	
4-39	K0215080001	8 conical spring metal washer 2H	8	
4-40	LM54GA 0223A0	left-hand 45 tooth shaft gear	1	
4-41	K5011020282	1 SPCC metal washer 2028	2	
4-42	K5010320282	0.3 SPCC metal washer 2028(for adjustment)	4	
4-43	K0401020001	stop ring S20	2	
4-44	K292900000	Dynamax no.1 grease	500g	left-hand frame
4-45	LM54GA 0621Z0	left-hand frame cover with mark	1	
4-46	K0007060202	6 bolt 20SW	2	
4-47	K0007060502	6 bolt 50SW	2	
4-48	K0007060652	6 bolt 65SW	9	
4-49	K0007060702	6 bolt 70SW	7	
4-50	K1440000030	B grease nipple	2	
4-51	K1440000020	C grease nipple	2	
4-52	LM55GB 0208Z0	gasket	1 ~ 2	
4-53	LM55GB 0217Z0	bearing pressure plate	1	
4-54	K0007060152	6 bolt 15SW	6	
4-55	K7321000092	clutch handle	1	
4-56	K0880015000	O-ring P15	1	
4-57	K1090000058	clutch pressure spring	2	
4-58	LM54G 0602Z3	right-hand frame	1	
4-59	LM54G 0606Z0	right-hand gasket	1	
4-60	LM54G 0612ZD	right-hand differential housing	1	
4-61	K0822030070	oil seal MHSA20307	1	
4-62	K0616062020	6202-2NSEC3	2	
4-63	K0402035001	stop ring R35	1	
4-64	K6100000049	right-hand transmission shaft	1	
4-65	K0160000510	17 special nut P1-22	1	
4-66	K0160000332	17 special nut P1-7	1	
4-67	LM54G 0225Z3	transmission shaft	1	
4-68	K0311040170	4 needle roller 17.8	2	
4-69	K0401018001	stop ring S18	4	
4-70	LM55GB 0224Z2	differential coupling shaft collar	2	

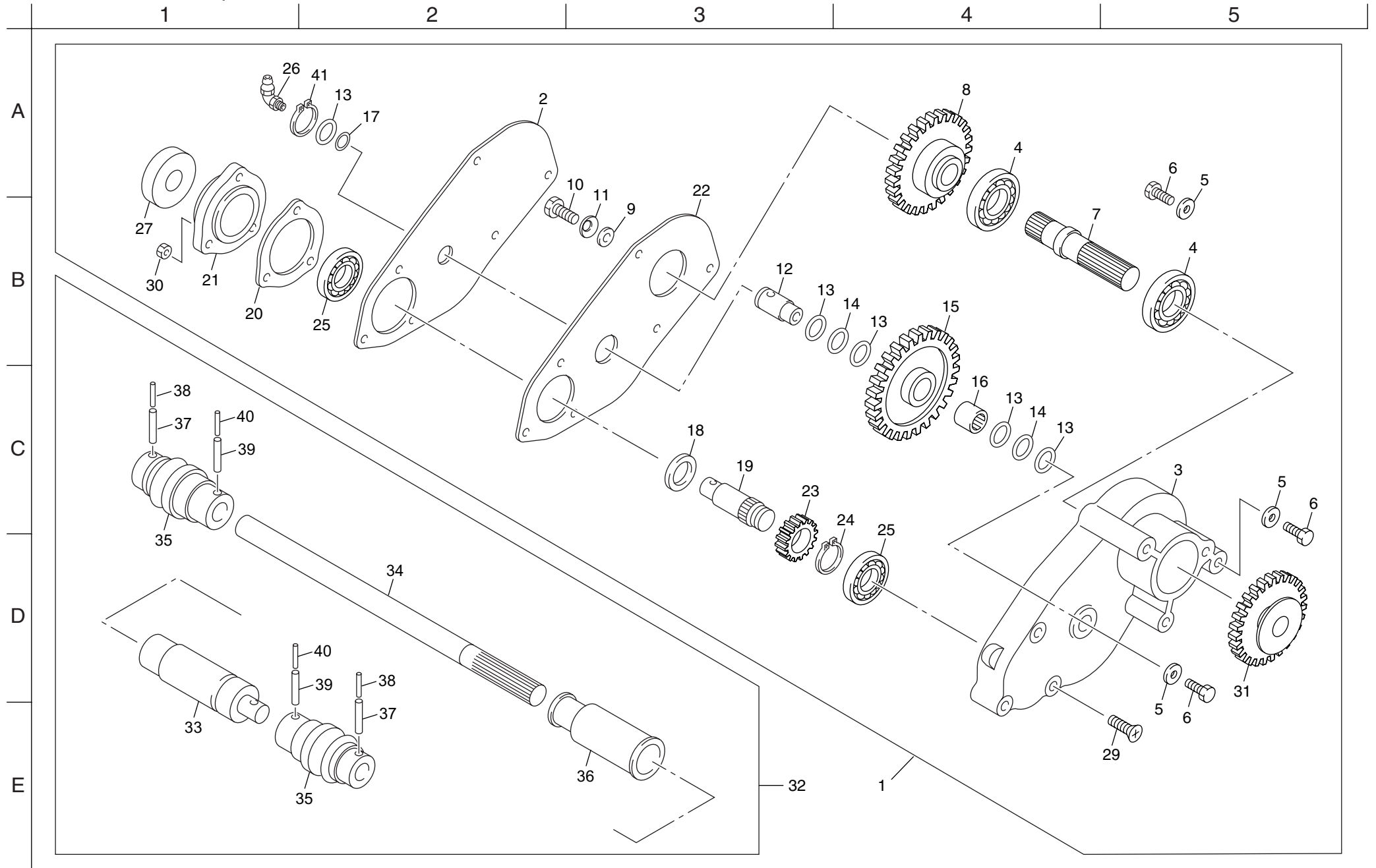
4. Parts associated with the frame



cat No.	Code No.	Part Name	Qty	Rmark
4-71	K6180000090	18 tooth gear M2	1	
4-72	LM54G 0228Z0	right-hand frame no.2 shaft	1	
4-73	LM54G 0229Z0	right-hand shaft housing	1	
4-74	LM54GA 0221A0	right-hand 45 tooth shaft gear	1	
4-75	K4209000370	10 hour greasing mark	1	
4-76	K2929000000	Dynamax no.1 grease	100g	right-hand frame
4-77	LM54G 0618Z3	clutch handle	1	
4-78	K0880012500	O-ring P12.5	1	
4-79	LM54G 0614Z3	chain-holding bolt	3	
4-80	LM54G 0617Z0	chain	2	
4-81	K0143100002	10 nut with conical disc spring	3	
4-82	K5000080002	8 washer	12	
4-83	LM54G 0616Z3	mower supporting piece	2	
4-84	K0340800002	8 positive lock snap pin	8	
4-85	LM54GA 0622Z0	right-hand frame cover with mark	1	
4-86	LM54GA 0220A0	left-hand 46 tooth 17 tooth gear	1	
4-87	LM54G 0619Z3	cover	1	
4-88	LM54G 0620Z0	gasket	1	
4-89	K5010340462	0.3SPCC washer 4046.5	1	
4-90	K0041060652	6 cross-head countersunk screw 65	1	

cat No.	Code No.	Part Name	Qty	Rmark

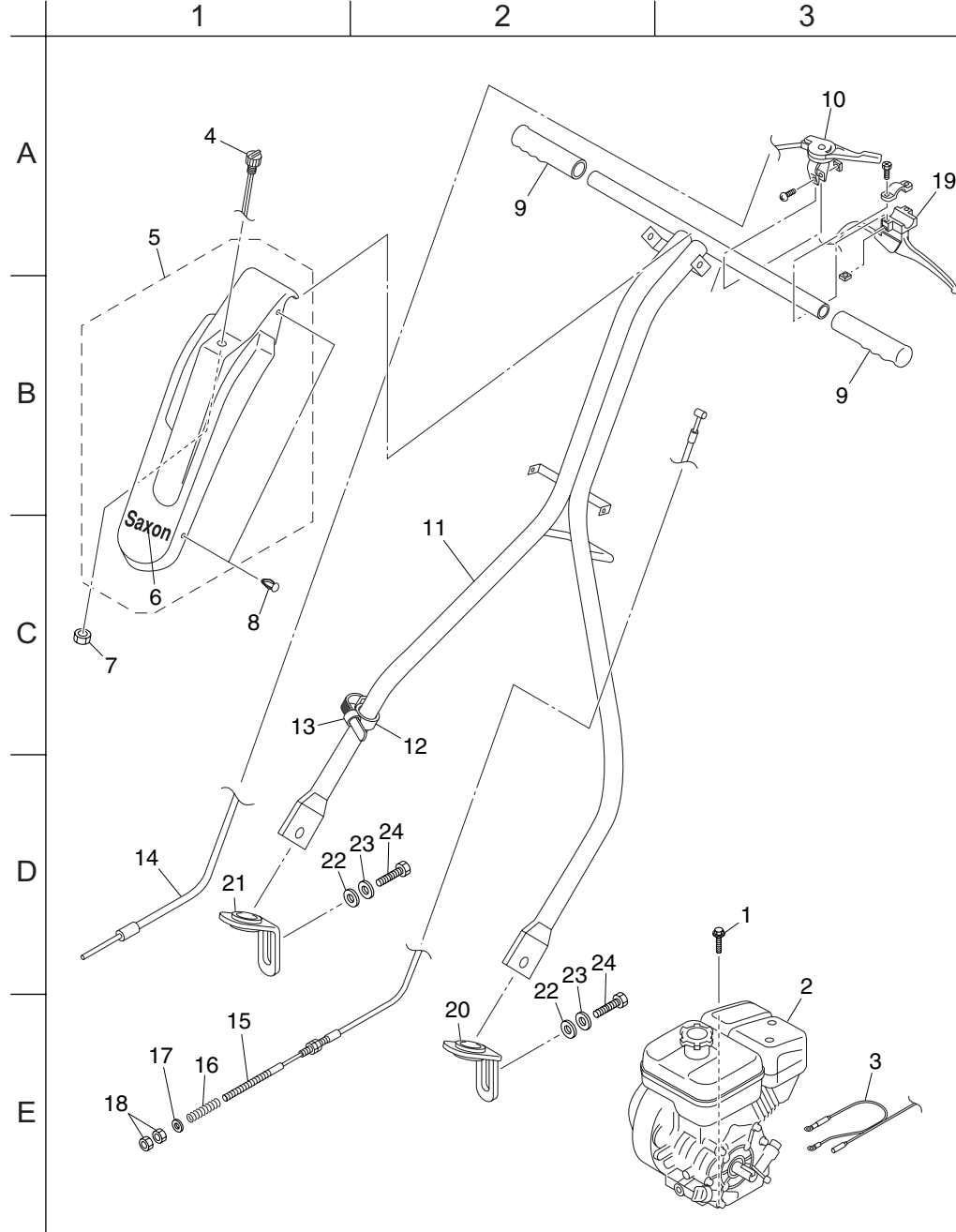
5. Mower transmission parts



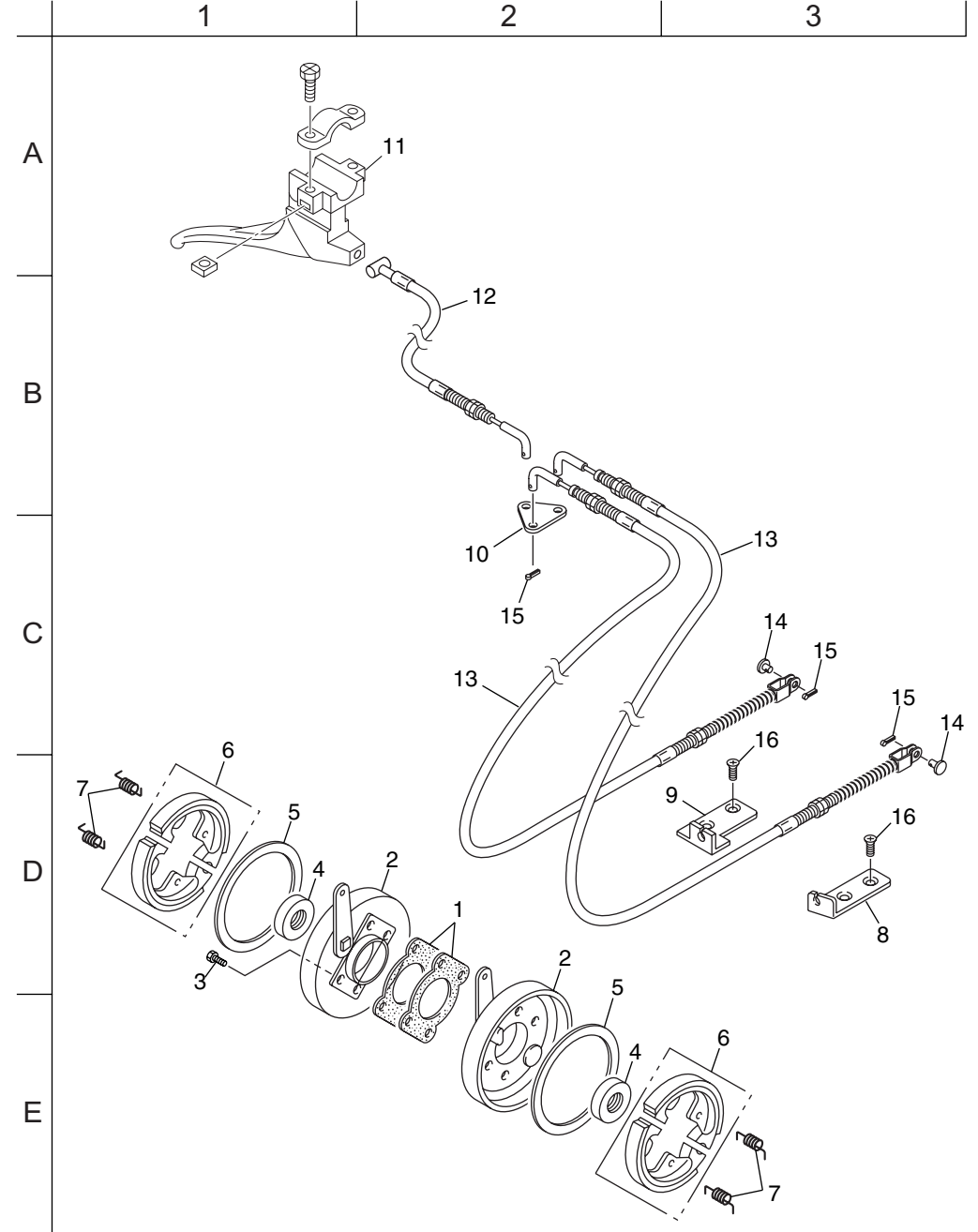
cat No.	Code No.	Part Name	Qty	Rmark
5-1	LM54G 0513A0	gear case assembly	1	
5-2	LM54GA 0513Z0	plate with mark	1	
5-3	LM54G 0502ZD	gear case	1	
5-4	K0616062030	bearing 62032NSEC3	2	
5-5	K5012306202	2.3 SPCC metal washer 620	4	
5-6	K0006060152	6 bolt 15S	4	
5-7	LM54G 0503Z0	no.1 shaft	1	
5-8	LM54G 0504Z0	31 tooth gear	1	
5-9	K5012308202	2.3 SPCC washer 820	1	
5-10	K0000080152	8 bolt 15	1	
5-11	K0213080001	8 conical spring metal washer 1H	1	
5-12	LM54G 0505A0	intermediate shaft	1	
5-13	K5051013220	1C5191P metal washer 1322	5	
5-14	K5020813220	0.8NBS55 metal washer 1322	2	
5-15	LM54G 0506Z0	intermediate 35 tooth gear	1	
5-16	K0701317120	needle bearing KT131712	1	
5-17	K0880012500	O-ring P12.5	1	
5-18	LM54G 0507Z0	3 collar 1522	1	
5-19	LM54G 0508Z9	coupling shaft	1	
5-20	LM54G 0509Z0	gasket	1	
5-21	LM54G 0510B3	housing	1	
5-22	LM54G 0511Z0	large gasket	1	
5-23	K6180000140	16 tooth gear	1	
5-24	K0401015001	stop ring S15	1	
5-25	K0601060020	bearing 6002C3	2	
5-26	K1440000040	C grease nipple PT1/8	1	
5-27	K0841535070	oil seal AJN15357	1	
5-28	K2931000000	Exelite EP no.2 grease	50g	gear case
5-29	K0049060452	6 stainless cross-head countersunk screw 45	3	
5-30	K0100060002	6 nut	5	
5-31	LM54G 0512Z0	27 tooth gear	1	
5-32	LM54G 0403Z0	joint assembly	1	
5-33	LM54G 0401AD	spline sleeve with boss	1	
5-34	LM54G 0402A9	spline shaft	1	
5-35	K1620000040	joint TBJ14SBC	2	

cat No.	Code No.	Part Name	Qty	Rmark
5-36	K4032000030	24 boot 250	1	
5-37	K0320040221	4 spring pin 22	2	
5-38	K0320025221	2.5 spring pin 22	2	
5-39	K0320040251	4 spring pin 25	2	
5-40	K0320025251	2.5 spring pin 25	2	
5-41	K0401013001	stop ring S13	1	

6. Handle parts



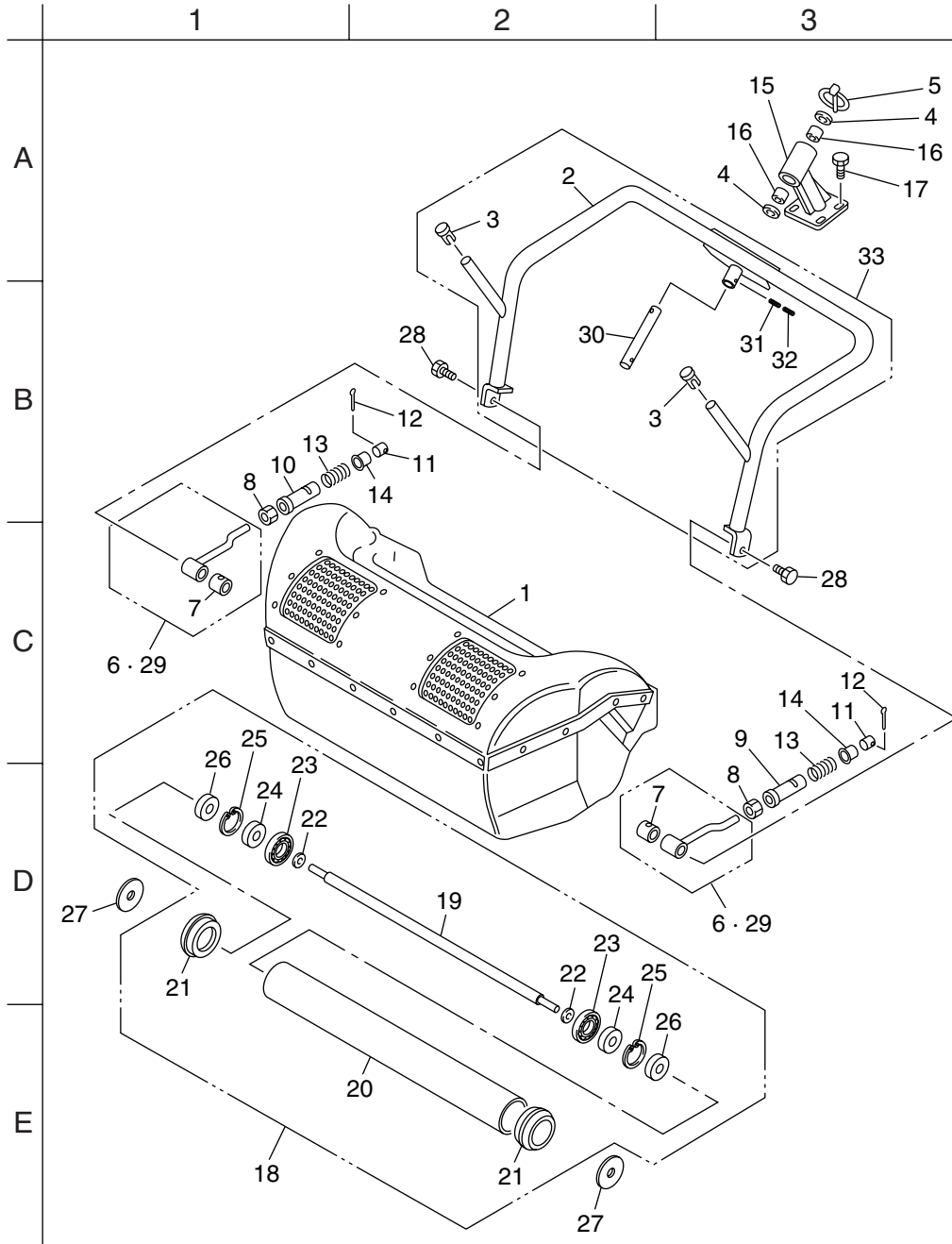
7. Brake parts



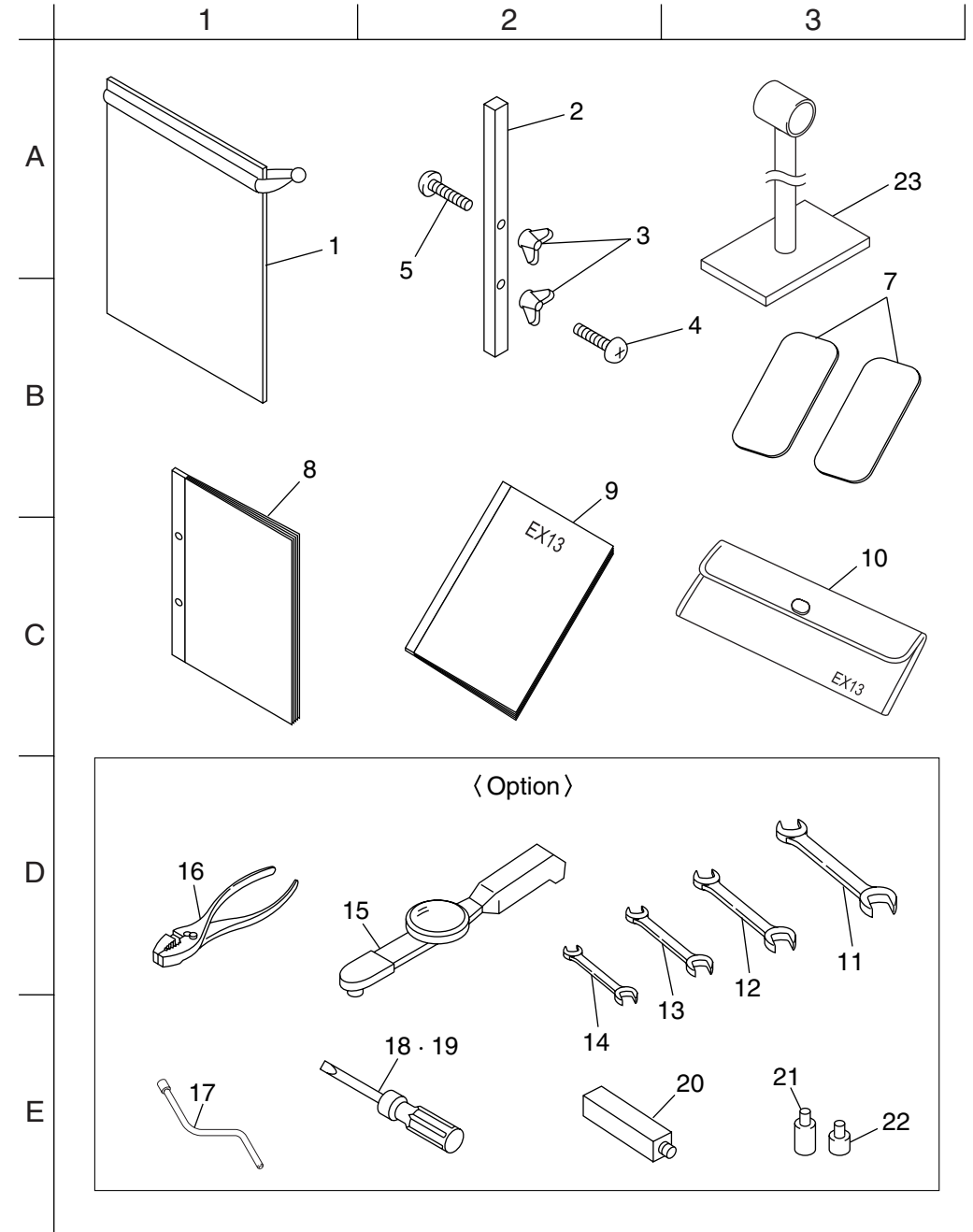
cat No.	Code No.	Part Name	Qty	Rmark
6-1	K0007080402	8 bolt 40SW	4	
6-2	K2620000370	Robin EX13D	1	
6-3	K3620000550	engine switch cord 8A	1	
6-4	K3662000050	engine switch	1	
6-5	LM56G 2503Z0	handle cover with mark S	1	
6-6	K4201000420	saxon mark 106	1	
6-7	K0143080002	8 nut with conical disc spring	1	
6-8	K4021000010	anchor clip 7.5	4	
6-9	K1300000140	handle grip black 21	2	
6-10	K1203521000	throttle lever E352100	1	
6-11	LM54GB 1401ZL	handle 54S	1	
6-12	K4241000010	nylon band 140	3	
6-13	K4241000070	urethane tube 7	3	
6-14	K1110110000	throttle wire 1100	1	
6-15	K1130137400	clutch wire 1374	1	
6-16	K100000082D	2.6 compression spring 17.270	1	
6-17	K5000080002	8 washer	1	
6-18	K0100080002	8 nut	2	
6-19	K1211460010	clutch lever E146001	1	
6-20	LM55GB 0715E0	left-hand handle adjuster	1	
6-21	LM55GB 0716E0	right-hand handle adjuster	1	
6-22	K5012310252	2.3 SPCC metal washer 1025	2	
6-23	K0213100001	10 conical spring metal washer 1H	2	
6-24	K0010100251	10 heat-treated bolt 25	2	

cat No.	Code No.	Part Name	Qty	Rmark
7-1	LM55GB 1101Z0	gasket	2	
7-2	LM55GB 1102Z3	brake mounting plate	2	
7-3	K0006060202	6 bolt 20S	8	
7-4	K0852042080	oil seal PJN20428	2	
7-5	K4009000010	1 felt 96110	2	
7-6	K1725000040	brake shoe 100 assembly	2	
7-7	K1040000010	1.6 hooked spring 845	4	
7-8	LM55GB 1113A3	left-hand brake cable mount	1	
7-9	LM54G 1112Z3	right-hand brake cable mount	1	
7-10	LM54GB 1101Z2	wire joint plate	1	
7-11	K1211260040	clutch lever E126004	1	
7-12	K1120042000	brake wire 420	1	
7-13	K1120095300	brake wire 953	1	
7-14	K6030050152	5 flat-head pin 15	2	
7-15	K0300020162	2 split pin 16	5	
7-16	K0040060152	6 cross-head countersunk screw 15	4	

8. Grass catcher parts



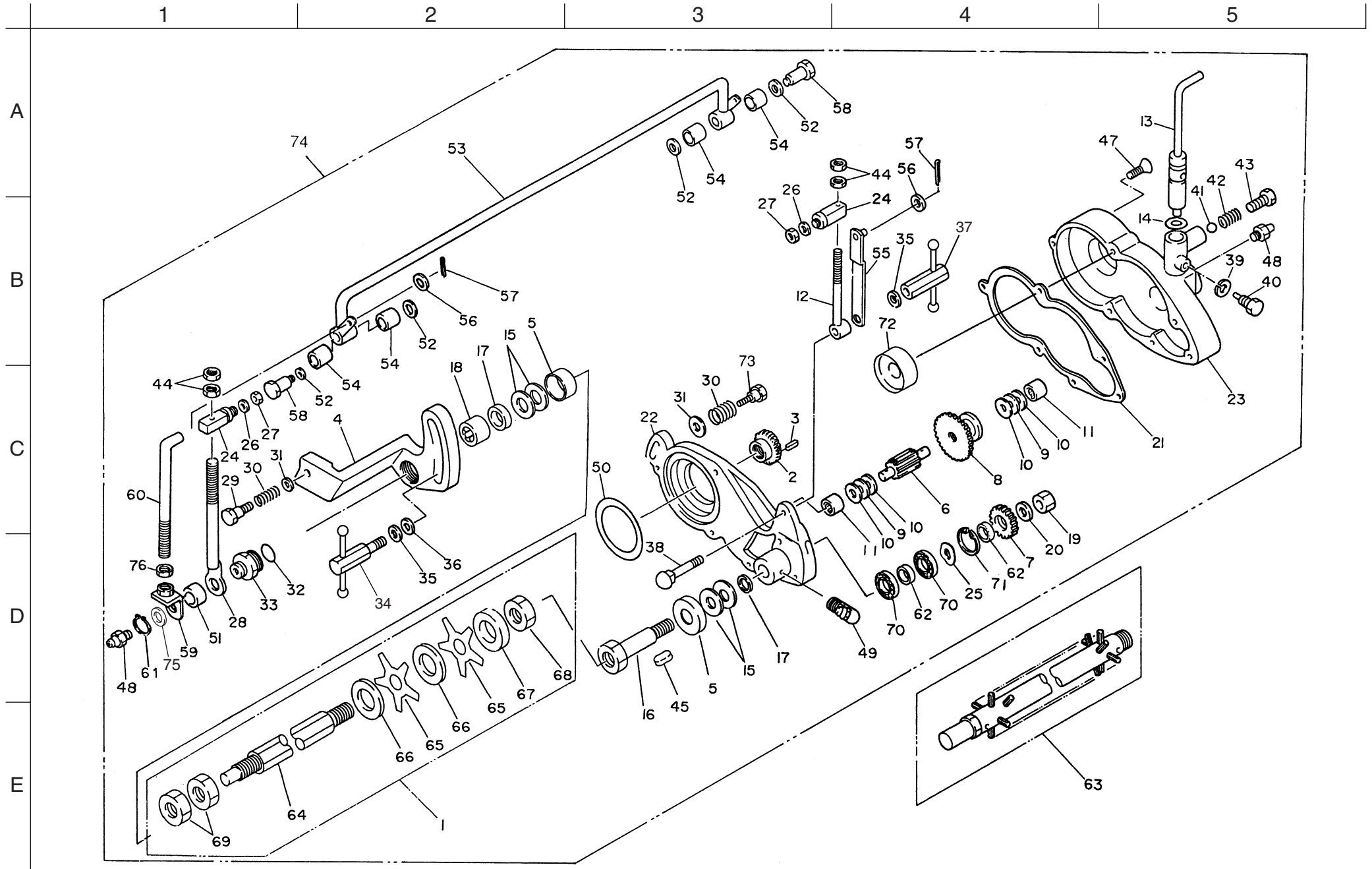
9. Tools



cat No.	Code No.	Part Name	Qty	Rmark
8-1	LM54G 0821Z0	grass catcher 54 COMP	1	
8-2	LM54G 0802BD	grass catcher attachment piece	1	
8-3	K1310000060	stopped cap 12.7	2	
8-4	K5051017280	1C5191P metal washer 1728	2	
8-5	K6061060003	6 clip pin	1	
8-6	LM54G 0823Z0	mower attachment piece COMP for LM54GB	2	without groomer
8-7	K6000000150	15 bush with hole 2029	2	
8-8	K0160000282	10 nut 3P10H1	2	
8-9	LM54G 0804Z9	left-hand tube	1	
8-10	LM54G 0805Z9	right-hand tube	1	
8-11	LM54G 0806Z3	set screw	2	
8-12	K0300025252	2.5 split pin 25	2	
8-13	K1000000678	1 compression spring 1843	2	
8-14	LM54G 0808Z9	stopper	2	
8-15	LM54G 0719BD	arm attachment hitch	1	
8-16	K6000000240	17 bush 2019	2	
8-17	K0007080152	8 bolt 15SW	4	
8-18	LM54G 0810B0	60 roller 590 assembly	1	
8-19	K6131000060	roller shaft 651	1	
8-20	K6226000100	55 roller tube 60560	1	
8-21	LM54GA 0812A0	roller housing 60	2	
8-22	K5051015280	1C5191P metal washer 1528	2	
8-23	K0613062020	bearing 62022RDC3	2	
8-24	K0861000030	oil seal 6202	2	
8-25	K0402042001	stop ring R42	2	
8-26	K0861000020	oil seal TA1542.38	2	
8-27	K5051015470	1C5191P metal washer 1547	2	
8-28	K0007100302	10 bolt 30SW	2	
8-29	LM54GS 0823Z0	mower attachment piece COMP for LM54GBF	2	with groomer
8-30	LM54G 0825Z8	arm shaft	1	
8-31	K0320050251	5 spring pin 25	1	
8-32	K0320035251	3.5 spring pin 25	1	
8-33	LM54GA 2505Z0	grass catcher attachment COMP	1	

cat No.	Code No.	Part Name	Qty	Rmark
9-1	K4801000050	large tool bag	1	
9-2	K6090000072	cutting height gauge 3	1	
9-3	K0046060302	6 cross-head tapping screw C-1 pan head 30	1	
9-4	K0141060002	6 wing nut 3	2	
9-5	K0046060502	6 cross-head tapping screw C-1 pan head 50	1	
9-6				
9-7	K4802000120	0.5 thickness gauge	2	
9-8	LM54GB 2006	LM54GB parts catalogue	1	
9-9	K2620EX13D 01	EX13D operation manual	1	
9-10	K2620EX13D 10	EX13D tool	1	
9-11	K4810240272	spanner 24x27mm	1	option
9-12	K4810190222	spanner 19x22mm	1	option
9-13	K4810130172	spanner 13x17mm	1	option
9-14	K4810080102	spanner 8x10mm	1	option
9-15	K4802000370	torque wrench 6-60	1	option
9-16	K4830000012	pliers	1	option
9-17	K4802000380	Lapping handle	1	option
9-18	K4820000010	+/- screwdriver	1	option
9-19	K4820000020	- screwdriver through 200	1	option
9-20	K6090000332	reel lapping shaft	1	option
9-21	K4802000364	socket adapter 9.5x12.7mm	1	option
9-22	K4802000354	socket adapter 6.35x9.5mm	1	option
9-23	LM54GB 0901ZD	Maintenance stand	1	

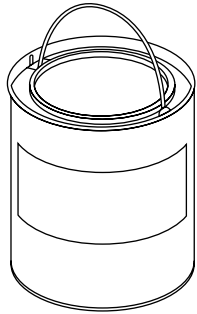
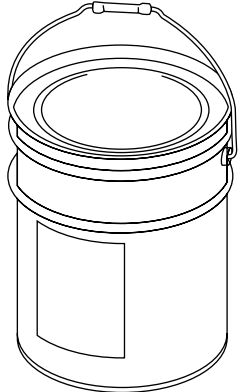
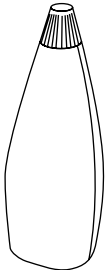
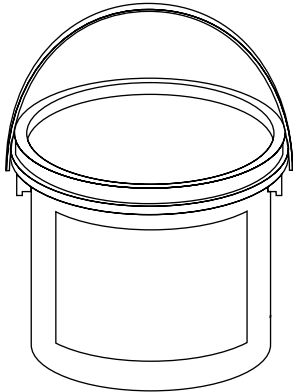
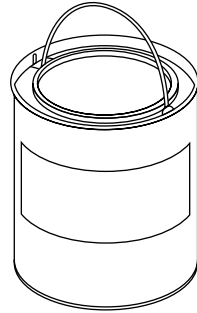
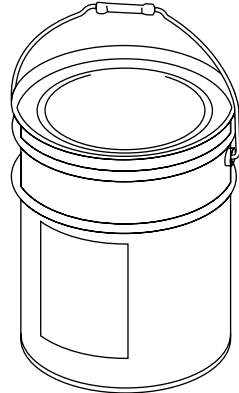
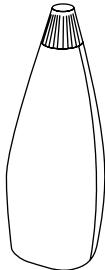
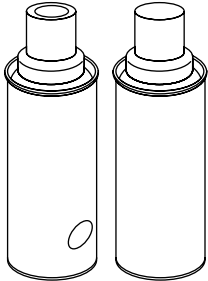
10. Groomer / Brush parts



cat No.	Code No.	Part Name	Qty	Rmark
10-1	LM54GAS1209C0	G groomer reel	1	
10-2	LM54GS 1206Z0	23 tooth reel gear	1	
10-3	K0520404140	4 single key 414	1	
10-4	LM54GS 1207AR	right-hand vertical housing	1	
10-5	K5300000293	dust proof cover	2	
10-6	LM54GS 1215Z0	intermediate shaft	1	
10-7	LM54GS 1216Z0	17 tooth gear	1	
10-8	LM54GS 1217Z0	37 tooth gear	1	
10-9	K5020808180	0.8 NBS55 metal washer 818	2	
10-10	K5051008180	1C5191P metal washer 818	4	
10-11	K0720810000	needle bearing TA810Z	2	
10-12	LM54GS 1220A3	left-hand stopper	1	
10-13	LM54GS 1221A9	clutch lever	1	
10-14	K0880011000	O-ring P11	1	
10-15	K5051015280	1C5191P metal washer 1528	4	
10-16	LM54GAS1223Z3	small vertical shaft	1	
10-17	K0821522070	oil seal MHS A 15227	2	
10-18	K0721520000	needle bearing TA1520Z	1	
10-19	K0160000282	10 nut 3P10H1	1	
10-20	K0210100001	10 conical disc spring L	1	
10-21	LM54GS 1224Z0	gasket	1	
10-22	LM54GAS1225AR	left-hand reel housing	1	
10-23	LM54GAS1247Z0	cover with mark	1	
10-24	LM54GAS1227Z3	adjuster	2	
10-25	K0220160110	16011 corrugated washer	1	
10-26	K5012306202	2.3 SPCC metal washer 620	2	
10-27	K0143060002	6 nut with conical disc spring	3	
10-28	LM54GS 1229A3	mounting screw	1	
10-29	K6083000143	right-hand case retaining bolt	1	
10-30	K1000000309	1.6 compressing spring 13.720	2	
10-31	K5090000250	2C5191P metal washer 8.522	2	
10-32	K0880018000	O-ring P18	1	
10-33	LM54GS 1231A0	screw	1	
10-34	K1330000060	bolt with handle P1.25	1	
10-35	K0213080001	8 conical spring metal washer 1H	2	

cat No.	Code No.	Part Name	Qty	Rmark
10-36	K5000080002	8 washer	1	
10-37	K1330000050	nut with handle P1.25	1	
10-38	K0025080552	8 round head square neck bolt 55	1	
10-39	K0200080002	8 S washer	1	
10-40	K0071000953	stop bolt	1	
10-41	K1500635000	6.35 steel ball	1	
10-42	K1000000090	1 compression spring 618	1	
10-43	K0007080152	8 bolt 15SW	1	
10-44	K0102008002	8 nut 3	4	
10-45	K0520404050	4 single key 45.8	1	
10-46	K2931000000	Exelite EP no.2	50g	groomer case
10-47	K0040060352	6 cross-head countersunk screw 35	6	
10-48	K1440000010	grease nipple	2	
10-49	K1440000030	B grease nipple	1	
10-50	K0880050000	O-ring P50	1	
10-51	LM54GS 1237Z3	17.3 collar 8	1	
10-52	K5051010180	1C5191P metal washer 1018	4	
10-53	LM54GS 1238Z3	lever	1	
10-54	K6000000170	10 bush 1210	4	
10-55	LM54GS 1239Z3	connecting piece	1	
10-56	K5000060002	6 washer	2	
10-57	K0302020160	2 stainless split pin 16	2	
10-58	LM54GS 1240A3	pivot shaft	2	
10-59	LM54GS 1241Z3	right-hand mount	1	
10-60	LM54GS 1242Z3	6L rod 115	1	
10-61	K0401013001	stop ring S13	1	
10-62	LM54GS 1246Z0	12STKM collar 175.6	2	
10-63	K4150000010	brush shaft assembly	1	
10-64	LM55TBS1201E9	vertical shaft	1	
10-65	K2570000013	thatching blade 63	77	
10-66	K6214000030	19.7 AC collar 8	77	
10-67	LM55GBS1204Z0	collar	1	
10-68	K0185160002	16 left-hand-thread nut 3 P1.5	1	
10-69	K0160000302	17 special nut P1	2	
10-70	K0611069010	ball bearing 6901RDC3	2	
10-71	K0402024001	stop ring R24	1	
10-72	K0821628070	oil seal MH16287	1	
10-73	LM54GAS1230Z3	left-hand case retaining bolt	1	
10-74	LM54GAS1200	vertical assembly	1	
10-75	K5051013220	1C5191P metal washer 1322	1	
10-76	K0100060002	6 nut	1	

11. Maintenance supplies

	1	2	3	4	5
A	■ DYNAMAX EP1 grease (K2929000000)/for gear transmission and sliding sections			■ Gel compound	
B					
C	2.5kg Can (K2929002500)	16kg Can (K2929016000)	500g tube (K2929000500)	Gel compound #220 1 Can (3.5kg) (6902110) Gel compound #220 1 case (4 Cans) (6902111)	
D	■ EXCELITE EP2 grease (K2931000000)/for bearing			■ BARONESS lacquer spray (400 ml)	
E					
	2.5kg Can (K2931002500)	18kg Can (K2931018000)	400g tube (K2931000400)	Wine red (750301) Light gray (7503021)	



KYOEISHA CO., LTD.

BARONESS

CE Declaration of Conformity

We, Kyoeisha Co., Ltd. of 1-26 Miyuki-cho, Toyokawa, Aichi-pref. 442-8530 Japan
declare that :

Equipment Walk-behind lawnmower
Model name / number BARONESS / LM54GB

in accordance with the following Directives :

98/37/EC The Machinery Directive and its amending directives

has been designed and manufactured using the following specifications :

EN 292-1 Safety of machinery – Basic concepts, general principles for design –
Part 1 : Basic terminology, methodology

EN 292-2 Safety of machinery – Basic concepts, general principles for design –
Part 2 : Technical principles and specifications

EN 836 Garden equipment – Powered lawnmowers – Safety

Signed :

Name : Katsuoaki Makino

Position : Development Dept. Manager

Date : January 23, 2006

Manufacturer's Declaration of Conformity for

Product Identification

Product :
Brand :
Type :
Starting Serial No. :
Measured Sound Power Level :
Guaranteed Sound Power Level :
Manufacturer
Name :
Address :

Walk-behind lawnmower
BARONESS (Saxon)
LM54GB
10036
LWA **95.91** dB
LWA **98** dB

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

Technical Documentation

Keeper's Name :
Keeper's Address :

Kyoeisha Co., Ltd.
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Conformity Assessment Procedure :

Internal Control of Production with Assessment of
Technical Documentation and Periodical Checking
(Annex VI) of 2000/14/EC

Involved Notified Body

Name :
Address :

SNC-H
11, Route de Sandweiler
5230 Sandweiler
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Technical Construction File

Date :
Technical Construction File No. :
Test Laboratory

January 25 2006
No. TC054GB-01
TUV Rheinland Luxembourg GmbH
Centre Commercial "Le2000"Z.I. Route de Bettembourg
L-3378 LIVANGE Luxembourg

Means of conformity

The product is in conformity with the Directive relating to the noise emission in the environment by equipment for use outdoors 2000/14/EC, in accordance with Article 12 of the Directive.

References of other Community Directives applied

98/37/EC


Signature :



Katsunaki Makino
Manager
Development Dept.
Kyoeisha Co., Ltd.

Date :

January 25, 2006

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