

Compact Light Weight 5-Reel Mower **LM282**  
Riding Type 3-Reel Mower **LM319**

**BARONNESS**  
MOWER

Owner's handling manual & parts catalogue

2007

SN 10011




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

**BARONNESS**

# CONTENTS


Safety Warnings .....	1	3-15 Mower lock lever (LM282 only) .....	10	11-2  When not to operate the unit .....	17
Introduction .....	1	4. Operating the machine   .....	10	11-3  When lending the machine to another person .....	17
Part Names and Warning / Instruction Label Locations .....	2	5. Gauges .....	11	11-4  Do not modify the machine .....	17
Warning Labels and Instruction Labels .....	3	5-1 Water temperature gauge .....	11	11-5  Remove debris from around the muffler and engine .....	17
LM282 / LM319 Features .....	4	5-2 Hour Meter  .....	11	11-6  Do not operate the machine at night .....	17
Specifications .....	4	5-3 Fuel Gauge  .....	11	11-7  Do not drive on public roads .....	18
Operation .....	5	5-4 Oil Pressure Lamp .....	11	12. Long-term storage .....	18
1. Inspection before use  .....	5	5-5 Charge Lamp .....	11	Hydraulic circuit diagram (LM282/LM319) .....	19
1-1 Clean the radiator and oil cooler  .....	5	6. Inspection and Maintenance .....	12	Electrical system (for both models) .....	21
1-2 Inspect the radiator and the water coolant quantity  .....	5	6-1 Changing Engine Oil  .....	12	Parts Catalogue .....	23
1-3 Inspect and refill the engine oil .....	5	6-2 Changing Hydraulic Oil  .....	12	1. Frame parts .....	24
1-4 Inspect the hydraulic oil .....	5	6-3 Applying Grease .....	12	2. Cover parts .....	26
1-5 Clean the air cleaner .....	6	6-4 Inspecting for Leaks .....	12	3. Front wheel parts .....	30
1-6 Inspect around the engine .....	6	6-5 Inspecting the Battery   .....	13	4. Rear wheel parts .....	32
1-7 Inspect the tires .....	6	6-6 NTN Constant-Velocity Joints  .....	13	5. Pedal parts .....	34
1-8 Inspect the brakes  .....	6	7. Maintenance Cautions .....	13	6. Engine parts .....	36
2. Tighten all parts .....	6	7-1  Maintenance procedures  .....	13	7. Hydraulic parts A (power steering, cylinder system) .....	40
3. Machine Operation .....	7	7-2  Preventing injuries from high-pressure oil .....	13	8. Hydraulic parts B (reel motor system) .....	44
3-1  Machine operation .....	7	7-3 Maintenance Schedule .....	14	9. Hydraulic parts C (wheel motor system) .....	48
3-2 Before starting the engine  .....	7	7-4 Maintenance schedule and specified values .....	14	10. Mower lift arm parts .....	52
3-3 Starting up and shutting off the engine .....	7	8. Mower adjustment .....	15	11. Mower parts (LM282/#1, #2, #4, LM319/#1, #3) .....	54
3-4 Safety device .....	7	8-1 Cutting height .....	15	12. Mower parts (LM282/#3, #5 LM319/#2) .....	58
3-5  Fuel handling precautions .....	8	8-2 Blade adjustment   .....	15	13. Roller assembly parts .....	62
3-6  When leaving the machine  .....	8	8-3 Lapping  .....	16	14. Accessory parts .....	64
3-7 Reel raise/lower lever  .....	8	9. Precautions for machine operation .....	16	15. Option .....	64
3-8 Reel rotation lever  .....	8	9-1  hot parts .....	16		
3-9 Reel reverse-rotation prevention stopper  .....	8	9-2  Reel mower .....	16		
3-10 Side brake .....	8	9-3  Raising the unit .....	16		
3-11 Unload valve  .....	9	10. Working on a slope .....	17		
3-12 Stop valve  .....	9	10-1  Precautions when working on a slope .....	17		
3-13 Reel rotation/stop changeover lever  .....	9	11. Safe operation .....	17		
3-14 Adjusting the seat .....	10	11-1  Safety clothing .....	17		


# Safety Warnings


To ensure correct and safe operation, warning labels with a  symbol have been placed on the machine.











These warning labels describe safety precautions and provide important information. Be sure to observe the warnings and to operate the machine safely.

## Warning Labels

 **DANGER** : Failure to comply with these warnings will result in serious injury or loss of life.

 **WARNING** : Failure to comply with these warnings could result in serious injury or loss of life.

 **CAUTION** : Failure to comply with these warnings could result in injury or property damage.

	... Refer to the Operation Manual		... Fuel
		No.2 Diesel Fuel	
	... WARNING symbol (High Pressure Oil)		... DANGER symbol (Hand and Foot Entanglement)
	... CAUTION symbol (Hot Parts)		... DANGER symbol (Thrown Objects)
	... WARNING symbol (Exhaust Gas Hazard)		... DANGER symbol (Open Flame Prohibited)
	... CAUTION symbol (Crush Hazard)		... CAUTION symbol (V-belt / Rotating Parts)

# Introduction

Thank you for purchasing a Baroness LM282 Compact Light Weight 5-Reel Mower or a LM319 Riding Type 3-Reel Mower.

This operation manual serves as a guide to the correct usage, adjustment, and inspection of the mower. Read this manual thoroughly before operating the mower. Use the mower only when you have fully understood the contents of this manual.

Your Baroness mower has been shipped only after thorough post-production inspections and testing, but daily maintenance such as inspections, adjustments, and refuelling is essential in ensuring the machine maintains its original performance levels.

## Caution

- The form of this machine may change gradually.  
Please have both the model number and manufacturer's serial number ready before contacting us with an inquiry.
- The contents of this manual may be changed without notice.

## Caution Operational precautions

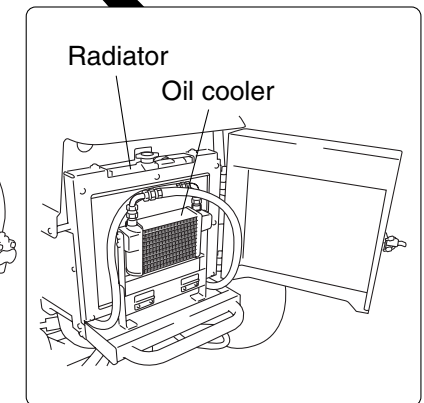
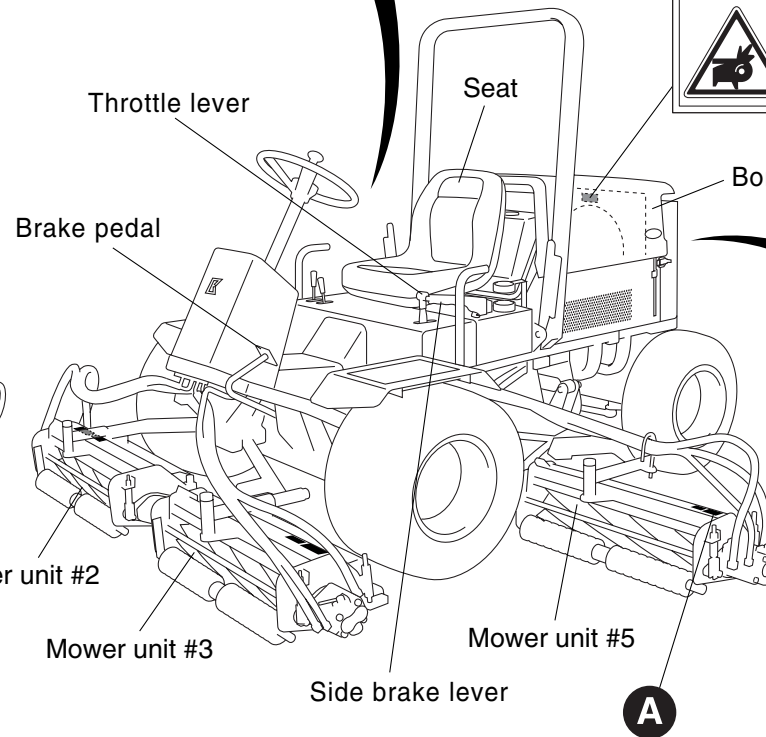
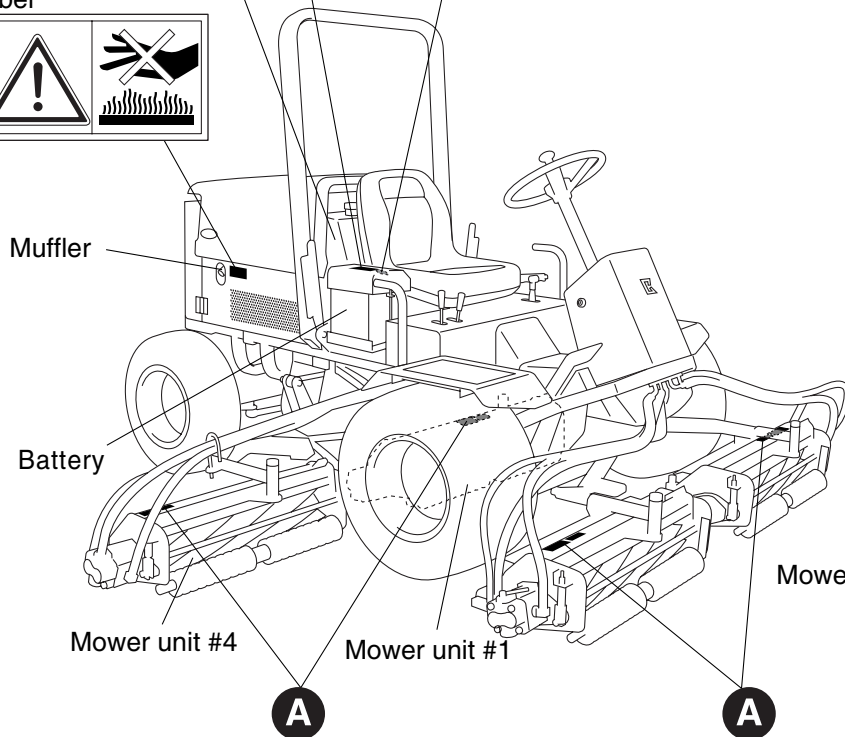
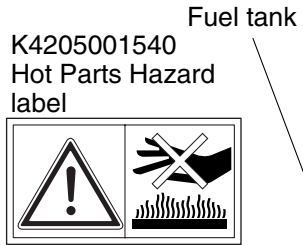
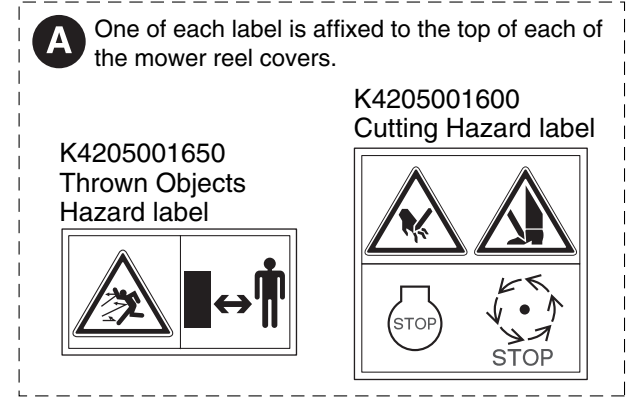
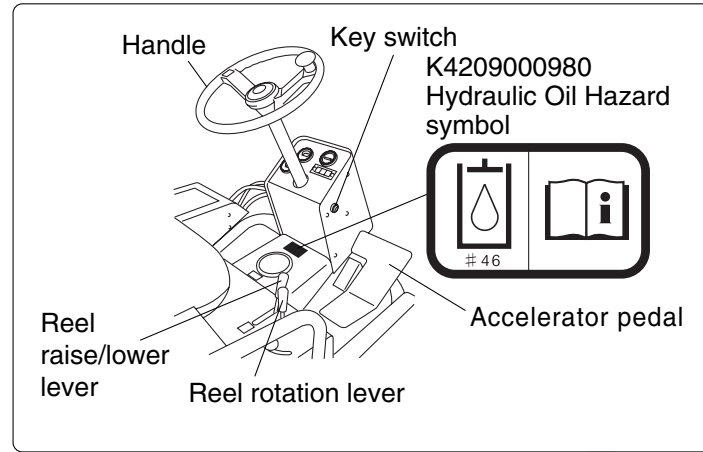
Explanations of the warning labels used in this manual and on the machine are provided to ensure safety.

Make sure you read the operating procedures and safety precautions. Operate the mower only when you have fully understood them.

Keep the warning symbols and their explanations clean. If a label is missing or damaged, replace it with a new one immediately.

**Never remove warning labels from the mower.**

# Part Names and Warning / Instruction Label Locations




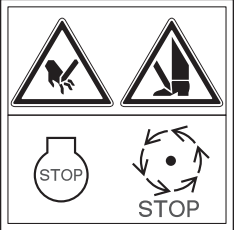
# Warning Labels and Instruction Labels


Warning labels and instruction labels have been placed in clearly visible locations near potential hazards. If a label is damaged or missing, replace it with a new one.


①  **Caution** : Hot  
 To avoid risk of burns, do not touch.


②  **Warning** : Read the Operation Manual.

③  **Caution** : High Noise Levels  
 It is recommended that you wear ear protection to protect your ears from exposure to high noise levels.

④  **Danger** : Cutting of Hand or Foot  
 Risk of injury unless the rotating part is stopped and the engine shut off.

⑤  **Danger** : Thrown Objects  
 Always keep the mower at a safe distance from people.

⑥  **Danger** : Cutting of Hand  
 Placing your hand near the fan and the belt while the engine is running could result in injury.

⑦  Pressurised Oil symbol  
 Read the operation manual.

## LM282 / LM319 Features

### LM282 / LM319 Features

- The LM282 and LM319 employ an oil hydraulic-type full-time 4WD system.
- Vertical shafts are employed at the traction points to reduce shaking.

### LM282 Features

- The LM282 is lighter than other riding-type 5-reel mowers and it uses broad, low-pressure tires to reduce damage to the grass.
- The mower lock lever (manually operated) enables the following.
  - The raising and lowering times for mower units #4 and #5 can be reduced if the mower units are raised or lowered when the mower lock lever is down. This is ideal for moving around the golf course.
  - When mower units #4 and #5 are stored in their raised positions, applying the mower lock lever prevents them from falling.
  - When the mower lock has been applied to mower units #4 and/or #5, the mower can be set to triple mowing or to quadruple mowing on the left and right, for example, enabling you to adjust the mowing width to suit the conditions.

## Specifications

Model		LM282	LM319
Drive type		4-wheel drive	
Mower dimensions	Length	250cm	
	Width (when being moved from one location to another)	180cm	199cm
	(during operation)	315cm	203cm
	Height	130 cm (handle); 183 cm (sunshade frame)	
Weight		1,150kg	1,025kg
Speed		0 to 14.4 km/h (hydraulic variable speed drive)	
Wheels	Front wheels	24 x 13.00-12 4P	
	Rear wheels	23 x 8.50-12 4P	
Engine	Model	Kubota D1105 vertical-type water-cooled four-cycle diesel	
	No. of cylinders	3	
	Exhaust volume	1.123L (1,123cm <sup>3</sup> )	
	Power output	Max: 19.4 kW (26.4 PS) / 3,000 rpm	
Engine RPM		1,200 to 3,000 rpm (when idling)	
Fuel consumption rate (at 3,000 rpm)		255 g/kW.h (188g/PS.h)	
Mowing width		282cm	180cm
Mowing height		10 to 60 mm	
Reel cutter		66cm x 5	66cm x 2, 76cm x 1
		Reel diameter: 16.3 cm	

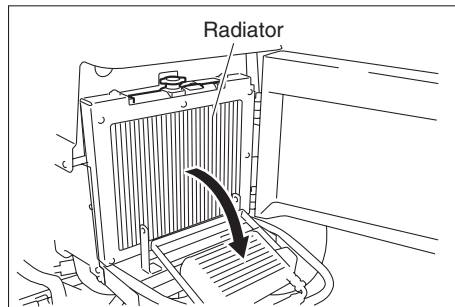
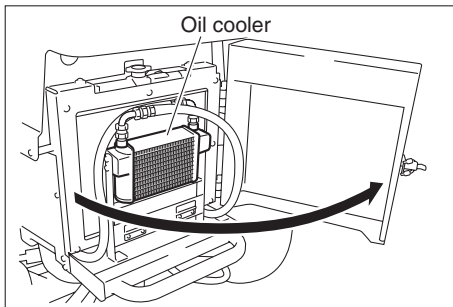
# Operation

## 1. Inspection before use

**⚠ Caution** : Do not start the mower until the following steps have been performed.

### 1-1 Clean the radiator and oil cooler

- If debris has accumulated in the radiator and oil cooler, air-blow clean.



**⚠ Caution** : Failure to clean the radiator and oil cooler could result in damage to the engine and the hydraulics, causing the engine to overheat and char.

### 1-2 Inspect the radiator and the water coolant quantity

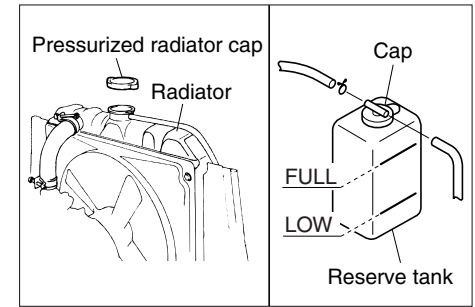
**⚠ Warning** : Allow the engine to cool before beginning the inspection.



The radiator cap is pressurized. Removing the radiator cap while the engine is still hot could result in the release of high-temperature steam, causing burns. Once the water temperature and pressure have fallen, remove the radiator cap by wrapping a thick cloth or other suitable material around it and then turning it slowly to the left.

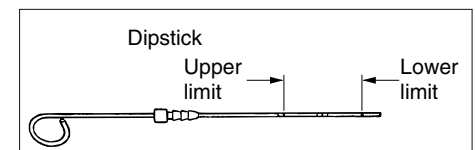
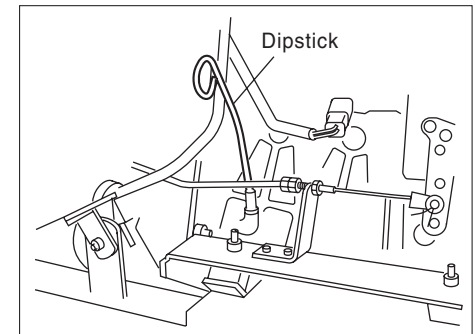
- Make sure that the water coolant level in the reserve tank is between LOW and FULL.
- If the level of water coolant in the reserve tank is below the LOW mark, remove the cap, add water to the FULL mark level of the reserve tank and recap.

- If there is no water coolant in the reserve tank, add water through the radiator cap until the level reaches the mouth.
- During normal inspections, do not open the radiator cap.
- Only use clean water to top up the reserve tank.
- To prevent the liquid in the radiator freezing in winter, either drain the coolant or add anti-freeze.



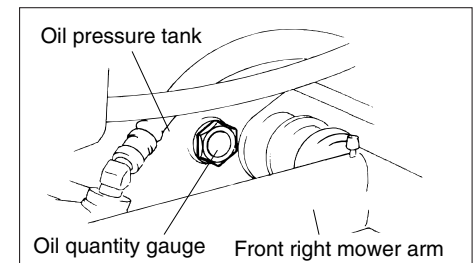
### 1-3 Inspect and refill the engine oil

- Level the engine and then use a dipstick to check the quantity of oil.  
**If the dipstick indicates the quantity of oil is between the upper and lower limits, there is sufficient oil.**
- If there is insufficient oil, add oil. If the oil is dirty, replace it. **(The oil quantity must not exceed the upper limit. Do not add too much oil.)**
- Use engine oil of the **CD class of the SAE viscosity API service classification.**



### 1-4 Inspect the hydraulic oil

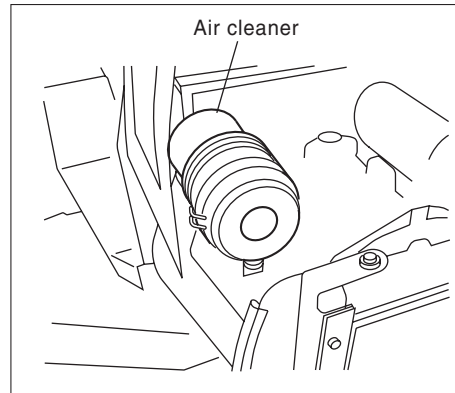
- Level the mower and then check whether the hydraulic oil reaches the center of the oil quantity gauge. If it does not, add hydraulic oil until it does.
- Use only **Shell Tellus Oil 46 or an equivalent.**



### 1-5 Clean the air cleaner

• A dirty air cleaner element could cause engine failure.

If the element is dirty, either air-blow clean from the inside or gently tap it, making sure not to damage it.



### 1-6 Inspect around the engine



... Refer to the engine operation manual for how to operate the engine.

- 1) Check that the fuel system parts have no cracks or leaks. Replace if necessary.
- 2) Should any grass or leaves or flammable materials have accumulated inside or around the muffler, air-blow clean.



### 1-7 Inspect the tires

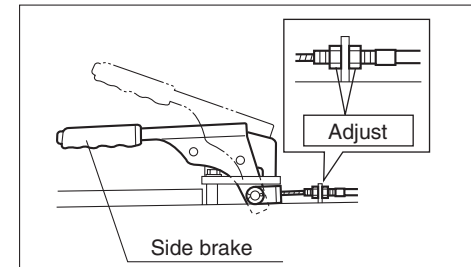
• Check the air pressure of the tires and inspect the tires for cracking, damage, or any abnormal wear.

<b>Air pressure</b>	Front wheels: 120 kPa (1.2 kgf/cm <sup>2</sup> )
	Rear wheels: 150 kPa (1.5 kgf/cm <sup>2</sup> )

### 1-8 Inspect the brakes

#### 1) Side brake

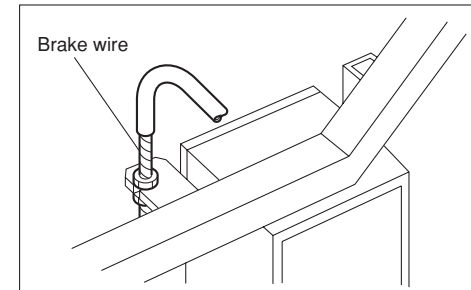
If the side brake wire stretches, tighten the wire by adjusting the adjustor bolts at either end of the wire.



#### 2) Foot brake

If the foot brake wire stretches, tighten the wire by adjusting the adjustor bolts at either end of the wire.

When doing so, make sure that the braking force is evenly distributed between the left and right brakes.



**⚠ Danger** : It is extremely dangerous if a brake wire snaps as you will be unable to bring the mower to a stop. Always inspect the brake wires before starting the mower. If signs of cracking or any other type of damage can be seen, replace immediately.

## 2. Tighten all parts

• Each part is held in place by a number of bolt stops. Bolts, nuts and other parts may begin to loosen after you begin using the mower, so make sure to tighten them.

#### Appropriate tightening torque in N-m (kgf cm)

	Standard bolt	Heat-treated bolt
<b>M6</b>	<b>8 (80)</b>	-
<b>M8</b>	<b>18 (180)</b>	<b>36 (360)</b>
<b>M10</b>	<b>36 (360)</b>	<b>72 (720)</b>
<b>M12</b>	<b>60 (600)</b>	<b>120 (1200)</b>
<b>M14</b>	<b>90 (900)</b>	-




## 3. Machine Operation

### 3-1 : Machine operation

- Before operating the machine, check that all covers, safety devices, and labels are correctly in place and that all parts are in good working condition. Take particular care in checking the brakes, tires, steering, and mower units for abnormalities.
- Maintain a speed at which an emergency stop could be safely performed in any circumstances.
- To prevent injury to the lawnmower operator or anyone else in the area, clear the area to be mown of any obstacles.

### 3-2 Before starting the engine

 : • For safety, make sure that there are no obstacles around the mower or people nearby.

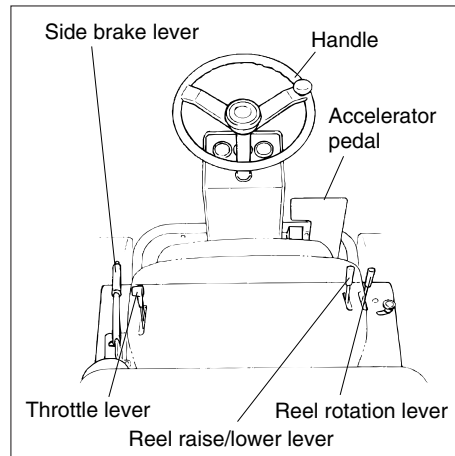



• Make sure that the seat switch, the safety switch, and the various covers are correctly positioned and undamaged.

• Do not start up the mower inside a building that does not have adequate ventilation.

### Before start-up

- 1) Pull up the side brake lever.
- 2) Put the reel raise/lower lever and the reel rotation lever in their neutral positions.
- 3) Put the throttle lever in the middle position.



 : • Never start the engine with your foot on the accelerator pedal. It is extremely dangerous to do so as the mower will begin moving.

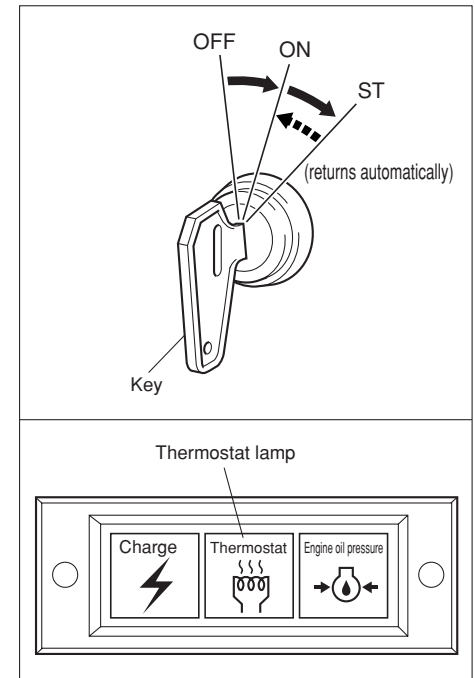



• Do not touch the fan belt, pulleys or other rotating parts while the engine is running.

### 3-3 Starting up and shutting off the engine

#### Starting up the engine

- 1) Sit in the seat.
- 2) Pull the throttle lever to slightly beyond the LOW position.
- 3) When the key is turned to the right to the **ON** position, the thermostat light comes on, and the combustion chamber of the diesel engine is heated.
- 4) Once the thermostat lamp has gone off, quickly turn the key to the right. This engages the starter, starting the engine. At this point, the key may be released.
- 5) Check that the charge lamp and the engine oil pressure lamp go out. In the unlikely event that the lamps do not go out, stop the engine and then conduct an inspection and service.



 : Make sure that you are sitting in the driver's seat when you start the engine. If your mower is equipped with a seatbelt, make sure that you fasten it.

#### Shutting off the engine

- 1) Turn the key to the left to the **OFF** position to shut off the engine.

### 3-4 Safety device

This mower is equipped with a safety device that ensures the safe start-up and operation of the mower.

- When starting the engine, the following three conditions must be met.
  - a. You must be seated in the seat.
  - b. The parking brake must be engaged.
  - c. The reel rotation switch must be in neutral.
- Unless the parking brake is engaged, the engine will stop if you leave the seat when the engine is running.

### 3-5 **Danger** : Fuel handling precautions



No.2 Diesel Fuel



- Open flames prohibited when refuelling. Extinguish all open flames and cigarettes.
- Refuel the mower outdoors. Switch off the engine and wait until it has cooled sufficiently before refuelling.
- To prevent a fire, always keep the mower clean. Do not let debris, grease, or oil accumulate.
- Wipe up any spilled oil.

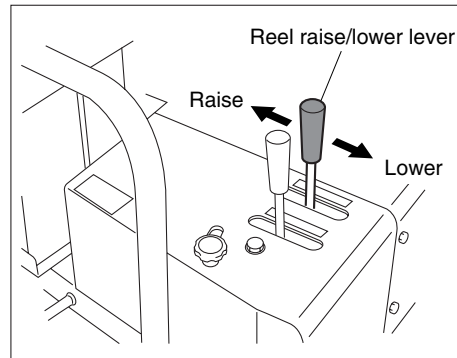
### 3-6 **Caution** : When leaving the machine

- 1) Stop the mower on a flat surface and apply the side brake.
- 2) Put the reel rotation lever in the neutral position and push the reel raise/lower lever forward until the mower units have been fully lowered.
- 3) Stop the engine.
- 4) Remove the key and leave the mower.
- 5) If the brakes are not working properly, chock the mower to keep it in place.

**Caution** : Never park the mower on a slope.

### 3-7 Reel raise/lower lever

- The reel raise/lower lever is located to the right of the seat. Pushing the lever forward to the DOWN position lowers the mower units and pulling it back towards the UP position raises them.



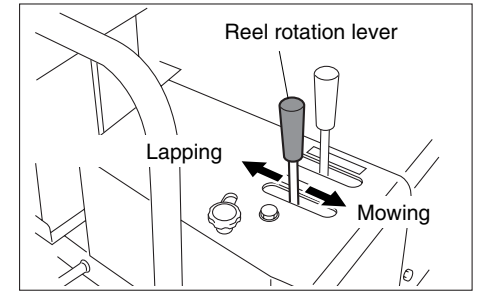
**Caution** : When using the LM282, leaving your hand on the handrest when raising a unit could result in your hand being crushed.



Do not rest your hand on the handrest when raising a unit.  
When operating the reel raise/lower lever, make sure that the stop valve is set to its open position (see 3.12).

### 3-8 Reel rotation lever

- The reel rotation lever is located to the right of the seat. Push the lever forward to the FORWARD position for mowing rotation and pull it back towards the REVERSE position for lapping rotation.



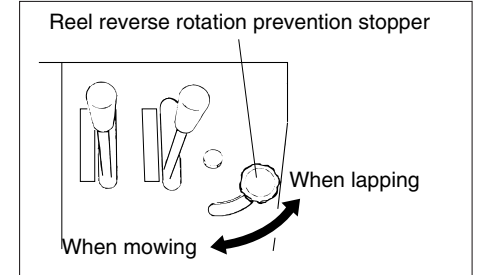
**Caution** : • Make sure that the reel rotation lever is placed in neutral until just before mowing or lapping. The reel rotation lever should be placed in neutral when the mower is being used for anything other than mowing and lapping.



- Make sure that there is no one near the mower before operating the reel raise/lower lever or the reel rotation lever.

### 3-9 Reel reverse-rotation prevention stopper

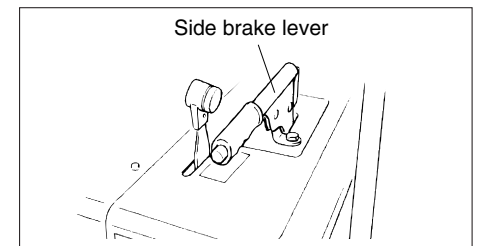
- This stopper prevents the reel from rotating in the reverse direction during mowing.
- Except for when lapping, the stopper should be applied at all times. To apply the stopper, loosen the stopper knob, move the stopper across towards the levers, and then tighten the knob again.



**Caution** : Before mowing, make sure the knob has been securely tightened.

### 3-10 Side brake

- The side brake is located to the left of the seat.  
To park, hold the brake pedal down and pull the side brake up as far as possible.  
To release the side brake, push the button in and lower it completely.

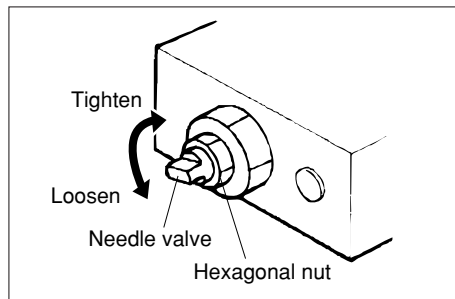
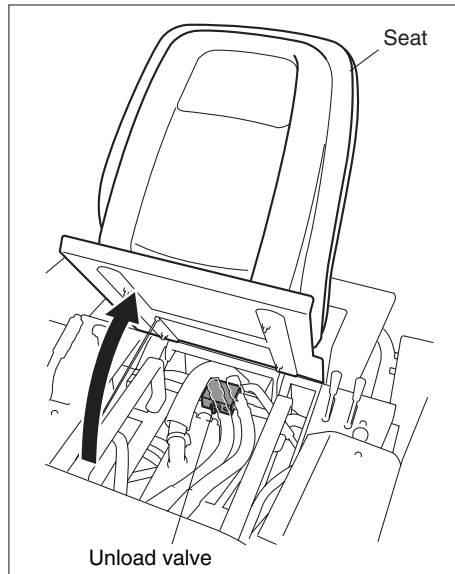
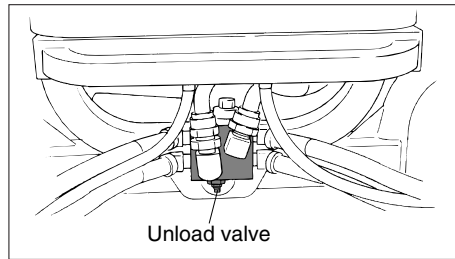


### 3-11 Unload valve

- The unload valves are attached to the frame near the bottom of the seat and below the rear of the frame.

These valves are used when the mower has to be towed because it is experiencing engine trouble, for example, and no longer able to run under its own power. Opening the two valves releases the oil pressure, making it easier to tow.

- To operate the unload valve located under the seat, open the seat platform first.



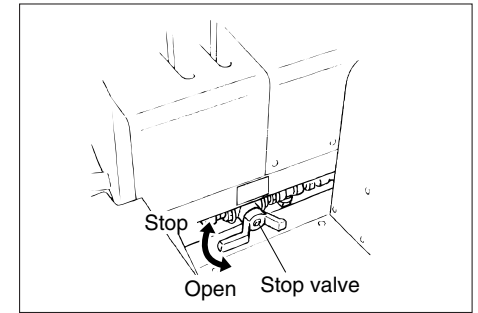
#### Opening the unload valve

- 1) A hexagonal nut is attached to the unload valve.
- 2) Loosening the hexagonal nut and then loosening the needle valve in the center of the nut opens the unload valve.

**Caution** : Except when the mower is being towed, make sure the needle valve is securely tightened at all times.

### 3-12 Stop valve



- The stop valve prevents the mower units from falling when they are in their raised positions. It is attached to the bottom right of the front of the seat.

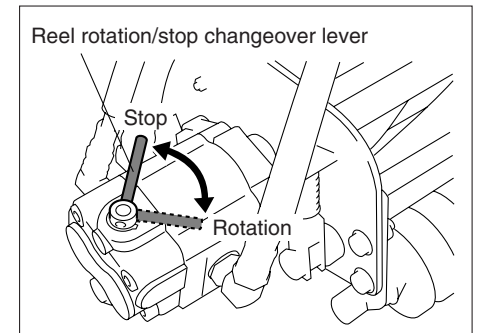


**Caution** : Put the stop valve in the stop position when the mower is being moved from one location to another or the mower units are in their raised positions.

### 3-13 Reel rotation/stop changeover lever

- The reel motors attached to the mower units have reel rotation/stop changeover levers. These levers are used when you wish to mow or lap and when you wish to switch between triple mowing or quadruple mowing using the mower lock lever (LM282 only). See 3.15).

Only the levers for the mower units you wish to mow with or lap should be moved to their rotate position (  ). The levers for all other mower units should be set to their stop position (  ).

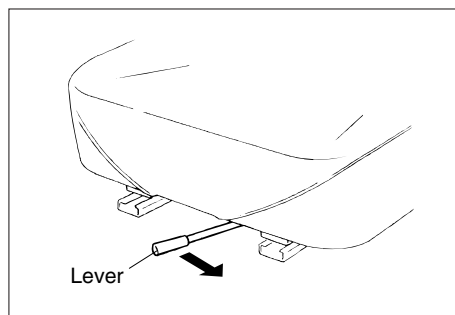


**Caution** : Before operating the reel rotation/stop changeover levers, make sure that the mower's reel rotation lever has been put in the stop position.

### 3-14 Adjusting the seat

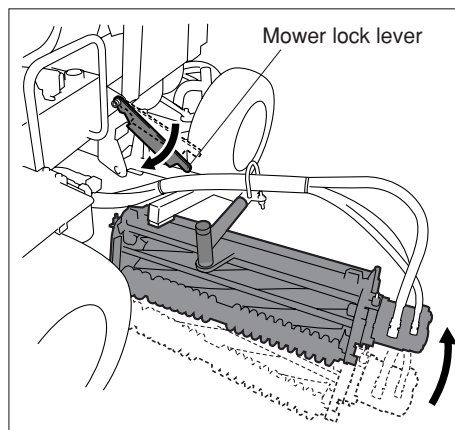
- The seat adjustment lever is located below the front of the saddle.

The saddle can be moved forwards or backwards when the lever is pushed to the left.



### 3-15 Mower lock lever (LM282 only)

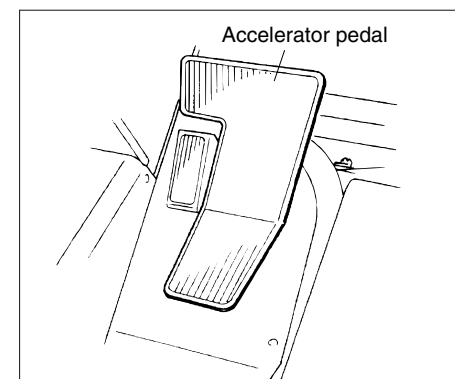
- When mower units #4 and #5 are stored in their raised positions, apply the mower lock lever. Also, if you wish to raise mower units #4 and #5 a little and reduce their raising and lowering times during operation, release the mower lock and raise or lower the mower units.



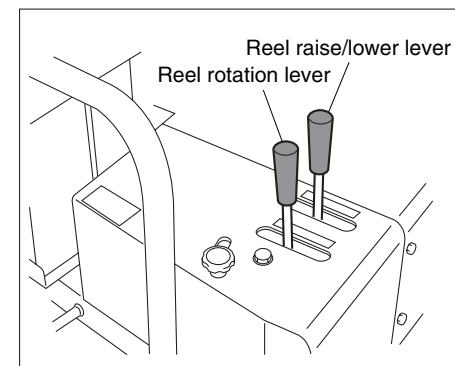
## 4. Operating the machine

- 1) Using the hydraulic variable speed drive, press forwards on the accelerator pedal to travel forwards and press backwards to travel backwards.

**Caution** : For safety, press on the accelerator pedal gradually.



- 2) Push the reel raise/lower lever and the reel rotation lever forwards to fully lower the mower units and rotate the reels. If the reel raise/lower lever is pulled backwards, the mower units are raised causing the reel rotation lever to move to its neutral position, shutting off the reels.



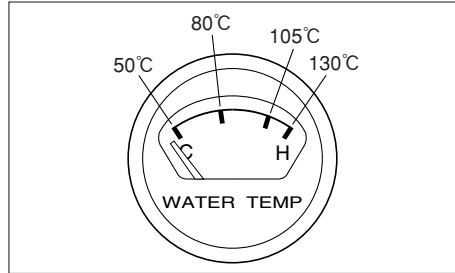
- 3) When mowing an uneven surface, reduce the mowing speed. Only the mowing speed needs to be reduced, the engine rotation can remain the same.

**Warning** : Never suddenly accelerate or bring the mower to a sudden stop. It is dangerous and could result in damage to the hydraulics, causing an oil leak.

## 5. Gauges

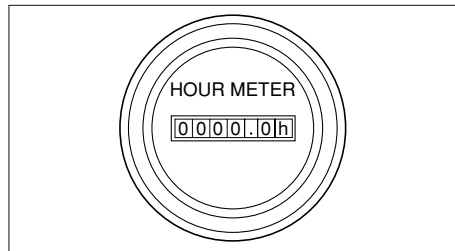
### 5-1 Water temperature gauge

- If the water temperature gauge climbs to **H** (**HEAT**) during operation, the engine is overheating. Remove the load from the engine by idling it for 5 minutes before turning the engine off for inspection and repairs.
- A buzzer will sound if the water temperature reaches 105 °C.



### 5-2 Hour Meter

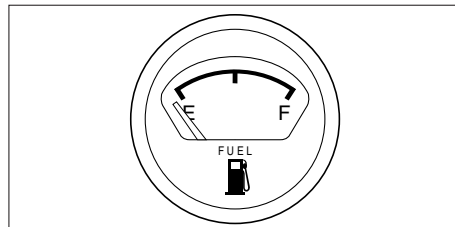
- The Hour Meter measures the total number of hours that the engine has been running. This can be used to estimate when maintenance should be performed.



**Caution** : The Hour Meter will run when the key switch is in the ON position as long as the battery is not removed.

### 5-3 Fuel Gauge

- The Fuel Gauge indicates the amount of fuel (No. 2 diesel fuel) remaining in the fuel tank. Add more fuel as soon as possible when the Fuel Gauge approaches **E** (**empty**).

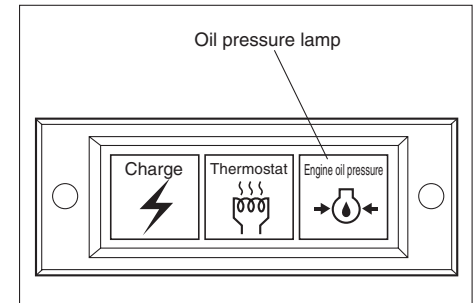


**Danger** : Do not overfill the fuel tank. Fuel may overflow during operation resulting in fire.



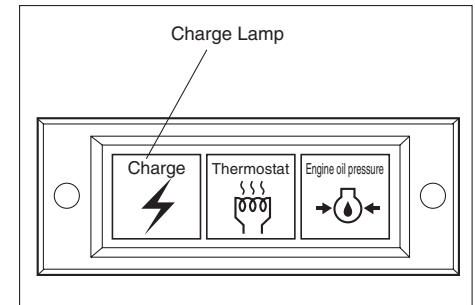
### 5-4 Oil Pressure Lamp

- The lamp turns on when the key switch is turned to the **ON** position. When the engine starts, oil is circulated, and the lamp turns off when normal pressure is achieved. If the lamp turns on during operation, immediately stop the engine to inspect and repair.



### 5-5 Charge Lamp

- The lamp turns on when the key switch is turned to the **ON** position. When the engine starts, the lamp is on when the battery is properly charging. If the lamp turns on during operation, immediately stop the engine to inspect and repair.



## 6. Inspection and Maintenance

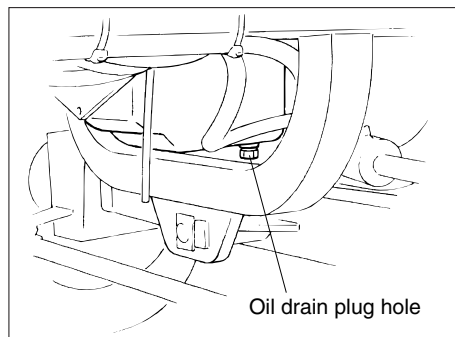
### 6-1 Changing Engine Oil



... For engine inspection and maintenance, please see the engine operation manual.

- 1) Engine oil should be changed after **the first 50 hours of operation**, and then **after every 100 hours of operation**. The oil filter cartridge should be changed at the same time.
- 2) Remove the oil drain plug located on the bottom of the engine to drain the dirty engine oil.

**Changing the oil when the engine is still warm ensures that all the oil will be drained.**



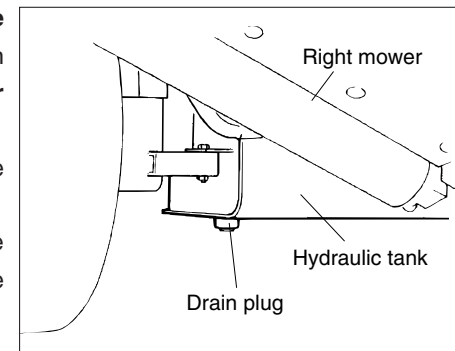
**Caution** : • For engine oil, please use SAE viscosity API Service Category CD class or higher.



• If the engine has been run for a long time, the engine oil is extremely hot. To avoid burn injury, wait for a short while before removing the drain plug.

### 6-2 Changing Hydraulic Oil

- 1) Hydraulic oil should be changed after **the first 100 hours of operation**, and then **after every 500 hours of operation**, or **once a year**, which ever occurs first.
- 2) The filter should be changed at the same time.
- 3) Remove the oil drain plug located on the bottom of the hydraulic oil tank to drain the dirty hydraulic oil.
- 4) If the hydraulic oil becomes cloudy or milky, change it immediately.
- 5) Top up the hydraulic oil with **Shell Tellus 46 hydraulic oil or equivalent**.
- 6) The hydraulic tank hold approximately 24 liters.



**Caution** : If the engine has been run for a long time, the hydraulic oil is extremely hot. To avoid burn injury, wait for a short while before removing the drain plug.



### 6-3 Applying Grease

- There are grease nipples located at the following positions. Grease should be applied here after every 50 hours of operation.

	Parts catalog number
Grooved roller	13-1, 13-36
Rear roller	13-22, 13-40
Mower joint	10-5, 10-28, 10-41
Lift arm	10-20, 10-29, 10-38, 10-40, 10-42

	Parts catalog number
Mower arm	11-52, 11-85
Idle lever	5-24
Pivot	4-19
Kingpin	4-14, 4-15

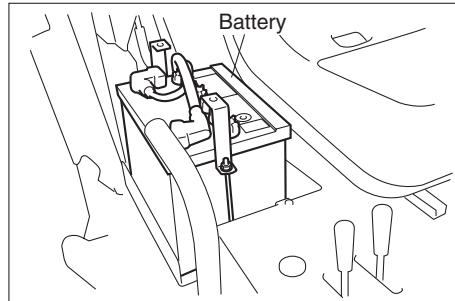
### 6-4 Inspecting for Leaks

- Hydraulic fixtures attached to hoses, and hydraulic fixtures on pumps and cylinders should be tightened after every 50 hours of use to prevent leaks.

## 6-5 Inspecting the Battery

**Caution** : Please refer to the battery manual.

- Battery fluid should be inspected **every 6 month**, and distilled water should be added to bring the level up to the required amount when necessary.



**Danger** : Open flames are prohibited when inspecting or charging the battery. Battery fluid is a dilute sulfuric acid and should not come into contact with the human body or the body of the mower. If battery fluid should spill on your skin or the mower, rinse immediately with water. If battery fluid comes into contact with the eyes or is swallowed, immediate medical attention is required.

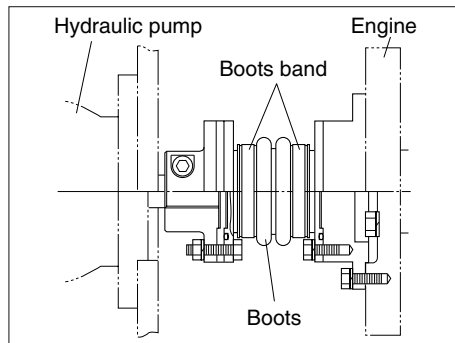


When removing the battery cables, remove the minus cable first. When reconnecting the cables, attach the plus cable first. Removing or connecting the cables in reverse order may result in a short and sparks.

When connecting the battery cables, do not reverse the plus and minus cables. Reversing the cable may damage the battery and the electric equipment connected to the battery.

## 6-6 NTN Constant-Velocity Joints

- If grease leaks from the attaching portions of the joint or the boot bands, replace the boot, o-rings, or other parts as necessary.
- Use brand-new boot bands when you replace the boot since the boot bands cannot be reused.



**Caution** : Do not mix the grease for NTN constant-velocity joint with other types of grease.

## 7. Maintenance Cautions

**7-1 Caution** : Maintenance procedures

- Maintenance should be performed only after becoming familiar with the procedure to be performed.
- Maintenance should only be performed in a level, dry, and clean location.
- Do not attempt to perform maintenance or add oil while the machine is in operation.
- Keep hands and feet away from drive and other moving parts. When performing maintenance on drive or other moving parts, be careful not to get your hands or feet caught.
- Disengage all drive parts and operate all controls to release the pressure on them.
- All parts should be in good condition and be installed properly.
- Perform maintenance after lowering the mower.
- When performing maintenance with the mower in the raised position, make sure that they are safely and firmly supported.
- Damaged parts should be repaired immediately.
- Worn out parts should be replaced.
- Do not modify the machine. For your safety, replace parts only with manufacturer-recommended genuine parts for maintenance.
- Remove trash, grease, and oil.
- Always remove the minus cable from the battery before performing maintenance on the electrical system.



**Caution** : When raising the machine perform maintenance, ensure that it is stable and has the proper support.



**7-2 Warning** : Preventing injuries from high-pressure oil

- High-pressure oil may cause serious injury if sprayed on the skin.
- Release the pressure before removing high-pressure line hoses or couplings.
- Check that all couplings are tightened before operating the machine.
- Use a small piece of cardboard when inspecting for leaks. See a physician within 2 to 3 hours in the event that high-pressure oil is sprayed on the skin.



**7-3 Maintenance Schedule**

	Maintenance operations	Before operating	Every 50 hours	Every 100 hours	Every 200 hours	Every 500 hours	Every 6 months
Engine	Inspecting engine oil	○					
	Changing engine oil		First 50 hours ○	○			
	Changing oil filters		First 50 hours ○	○			
	Cleaning radiator and oil cooler	○					
	Inspecting coolant	○					
	Cleaning the air cleaner	○					
	Changing the air cleaner element				○		
	Inspecting the fan belt	○					
	Inspecting the battery fluid						○
	Inspecting the fuel	○					
	Cleaning the fuel filter			○			
Changing the fuel filter					○		
Body	Inspecting the tires	○					
	Inspecting the hydraulic oil	○					
	Changing the hydraulic oil			First 100 hours ○		○	
	Changing oil filters			First 100 hours ○		○	
	Inspecting the brakes	○					
	Oil leaks	○					
	Inspecting for loose or damaged parts	○					
	Lubrication (rear wheels, mower)		○				
	Inspecting the hydraulic motor housing grease				○		
Adjusting reel cutter blades	○						
Removing grass and debris	○						

**7-4 Maintenance schedule and specified values**

● Maintenance schedule and specified values

Engine oil capacity	About 3.6 liters	CD class or above
Coolant capacity	About 6 liters	Including reserve tank
Tire air pressure	Front tires: 120 kPa (1.2 kgf/cm)	
	Rear tires: 150 kPa (1.5 kgf/cm)	
Fuel tank capacity	About 28 liters	Diesel
Hydraulic oil tank capacity	About 24 liters	Shell Tellus 46 equivalent

● List of expendable products for engine/hydraulics

Parts	Code number	Parts catalog number
Oil element	PF16271 - 3209 - 2	6-121
Air cleaner element	PFT0270 - 1632 - 0	6-122
Fan belt	PF1G345 - 9701 - 0	6-123
Fuel filter element	PF15231 - 4356 - 0	6-120
Battery	K3600000160	6-18
Hydraulic filter element	K3412000060	9-72

● Wire list

Parts	Code number	Parts catalog number
Throttle wire	K1110101000	6-106
Break wire 1410	K1120141010	3-24
Break wire 1020	K1120102000	3-29
Break wire 1250	K1120125000	3-17

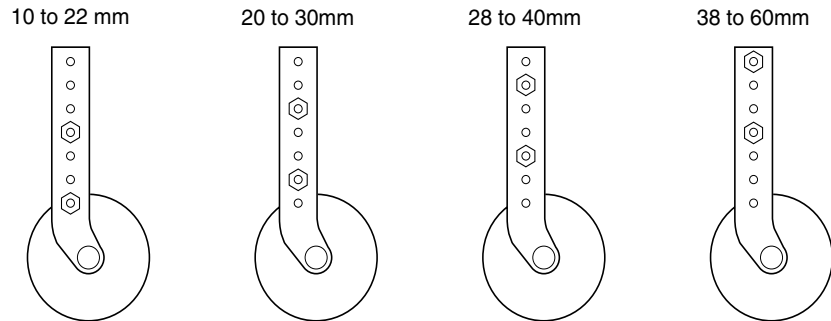


# 8. Mower adjustment

## 8-1 Cutting height

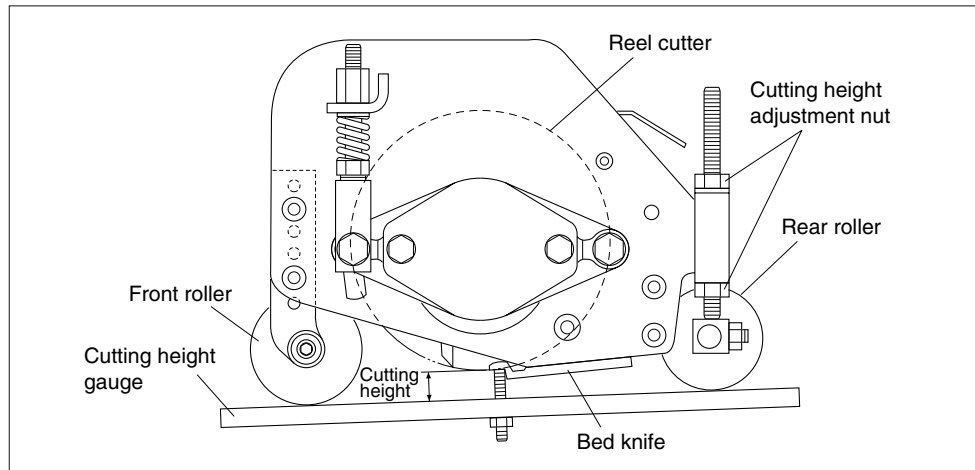
- Adjust the cutting height to the job.

The front roller can be **adjusted to four heights** as shown in the diagram below.

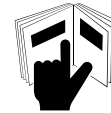


- Attach the front roller to the proper height range for the job before starting.

To adjust the rear roller, loosen the cutting height adjustment nut, set the height at the proper level using the cutting height gauge, then tighten the cutting height adjustment nut.




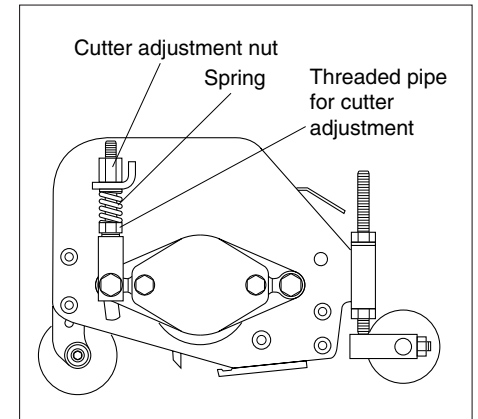
## 8-2 Blade adjustment



: Please see section **3-13**, Reel rotation/stop changeover lever.

**Caution** : When adjusting the blades, stop the engine on a flat surface and apply the side brake.

- Set the reel motor's reel rotate/stop lever to the  (STOP) position.
- To adjust the reel cutter and bed knife, move the cutter adjustment nut so that the blade edges make uniform contact, then adjust so that the blades can cut two newspaper pages. The blade contact pressure increases when the cutter adjustment nut is loosened and becomes less when tightened.
- If the blades still do not cut after adjustment, perform lapping on the blades.
- As the reel cutter becomes smaller through wear, the spring tension becomes weaker. Loosen the threaded pipe for cutter adjustment and adjust the spring tension.



**Danger** : The reel cutter and bed knife are sharp objects. Use caution when handling them.



Take extra care of your fingers when you rotate the reel cutter for performing a test cut with newspaper.

### 8-3 Lapping



... Please see section **3-13**, Reel rotation/stop changeover lever.



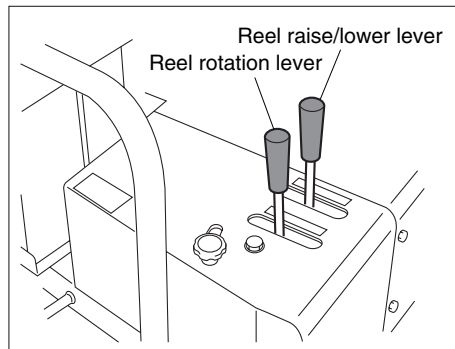
**Caution** : Always use gloves to protect your hands when performing a test cut using newspaper.



However, be careful not get the gloves caught in the reel cutter when it is spinning.



- 1) Check the entire width of the reel cutter blade to locate those sections that do not cut well.
- 2) Start the engine, and run it at a low idling speed.
- 3) Push the reel rotation lever toward the rear to start the reel cutter spinning in the opposite direction.
- 4) Apply polishing agent with a brush to those locations that cut newspaper well. (Do not apply the polishing agent to those locations that do not cut paper well.)  
The polishing agent should be a mixture of lapping power (#150 to #200) and oil, mixed in a **1:3 or 1:4** ratio.
- 5) Rotate the blades for a while, and when the sound of blades makes contact stops, stop the rotation and then the engine.



- 6) Check the entire width of the reel cutter blade to locate those sections that do not cut well.
- 7) Repeat the above process until both the reel cutter and bed knife mesh completely.
- 8) Finally, apply polishing agent to the entire reel cutter, and perform the finishing lapping.
- 9) Stop the engine, and use steam or some other method to complete remove any remaining polishing agent.

## 9. Precautions for machine operation

9-1



**Caution** : hot parts



- During operation and immediately after operation, do not touch the cover or the muffler. Doing so may result in burn injury.
- Immediately after operation, hydraulic oil and hydraulic parts are very hot and may cause burn injury. Be sure to let the machine cool sufficiently before performing maintenance.

9-2



**Danger** : Reel mower



- During operation or maintenance, rotating parts are dangerous. Do not put hands or feet in rotating parts or touch rotating parts.
- Rocks and other obstacles may damage the reel cutter or bed knife, or may become projectiles and cause injury. Remove them before using the machine. If an obstacle becomes caught in the mower, stop the engine, and then make sure that the drive parts have stopped completely before removing the item. Check for damage to the machine, and immediately repair any damage.
- Protective covers and belt covers prevent the user from danger. Replace them if they are damaged, and always keep them attached in the indicated position.

9-3



**Caution** : Raising the unit



- With the LM282, lifting the unit by the hand grips may result in crushing injury to the hands. When raising the unit, do not put hands on the hand grips.

## 10. Working on a slope

### 10-1 : Precautions when working on a slope

Always adhere to the following guidelines when using the machine on a slope of 20 degrees or more.

The machine may suddenly tilt dangerously if the slope contains uneven portions or rocks, so the unit should not be used on a slope of more than 20 degrees.

- **Never use the unit in locations where there is danger of overturning or slipping.**
- **Before operating the unit on a slope, fill any holes and clear away rocks, tree stumps, and other debris, and always be cautious of hidden obstacles when operating the machine.**
- **When working on a slope, follow a line perpendicular to the slope, and only turn where the slope is slight.**
- **Do not operate the unit on steep slopes of 20 degrees or more because the danger of rolling is very high.**
- **To reduce the potential for injury in the event that the unit overturns, it is strongly recommended that the optional 4-post ROPS (safety frame) is attached before starting work.**

**When operating the unit with the 4-post ROPS (roll-over protective structure) attached, please always use the seatbelt. If the 4-post ROPS is not attached, do not use and do not install the seatbelt.**

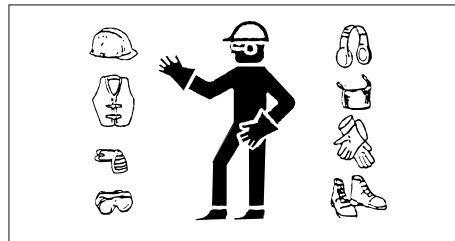
## 11. Safe operation

A lawnmower is a machine with a rotating reel cutter (a sharp blade), and there are many conditions affecting its operation, including location, obstacles, and the condition of the lawn. The operator should be familiar with the inspection and repair of the unit. In addition, the operator should be well trained in the handling of the unit and should operate the unit with safety first in mind to maintain the safety of the operator and others.

### 11-1 : Safety clothing

- For safety reasons, the operator should not wear loose-fitting clothes that may get caught in the machine. The operator should also wear the proper safety equipment, including goggles, boots, helmet, and gloves.

Dangling articles of clothing, such as bibs, rags, or string are dangerous as they may become entangled in the machine.



### 11-2 : When not to operate the unit

- Do not operate the equipment if you feel ill or are not fully familiar with the unit. Doing so may result in accident or injury. Never operate the unit in the following situations.
  - 1) When unable to focus on the operation of the unit due to fatigue, illness, medication, or similar reasons.
  - 2) When under the influence of alcohol.
  - 3) When unfamiliar with the operation of the machine.
  - 4) When pregnant.

### 11-3 : When lending the machine to another person

- Lending the machine to another who is unfamiliar with the safety warnings and important operational points may result in accident or injury. Thoroughly explain the handling of the unit, give them the manuals, and ask them to read it thoroughly before operating the unit.

### 11-4 : Do not modify the machine

- Operating the unit after modification or attaching parts not specifically allowed by the maker may result in accident or injury. Do not modify the machine. When replacing parts, oil, or grease, use only those products indicated by the manufacturer.

### 11-5 : Remove debris from around the muffler and engine

- If grass and other debris collects around the engine cooling air intake, air cleaner air intake, muffler, or exhaust pipe, the engine may not function properly and may overheat, resulting in fire. If this happens, stop work immediately, and wait for the affected part to cool down sufficiently before removing the debris.



### 11-6 : Do not operate the machine at night

- Since this mower does not come equipped with lights, please do not operate the machine at night or when visibility is bad.

**11-7**  **Caution** : **Do not drive on public roads**

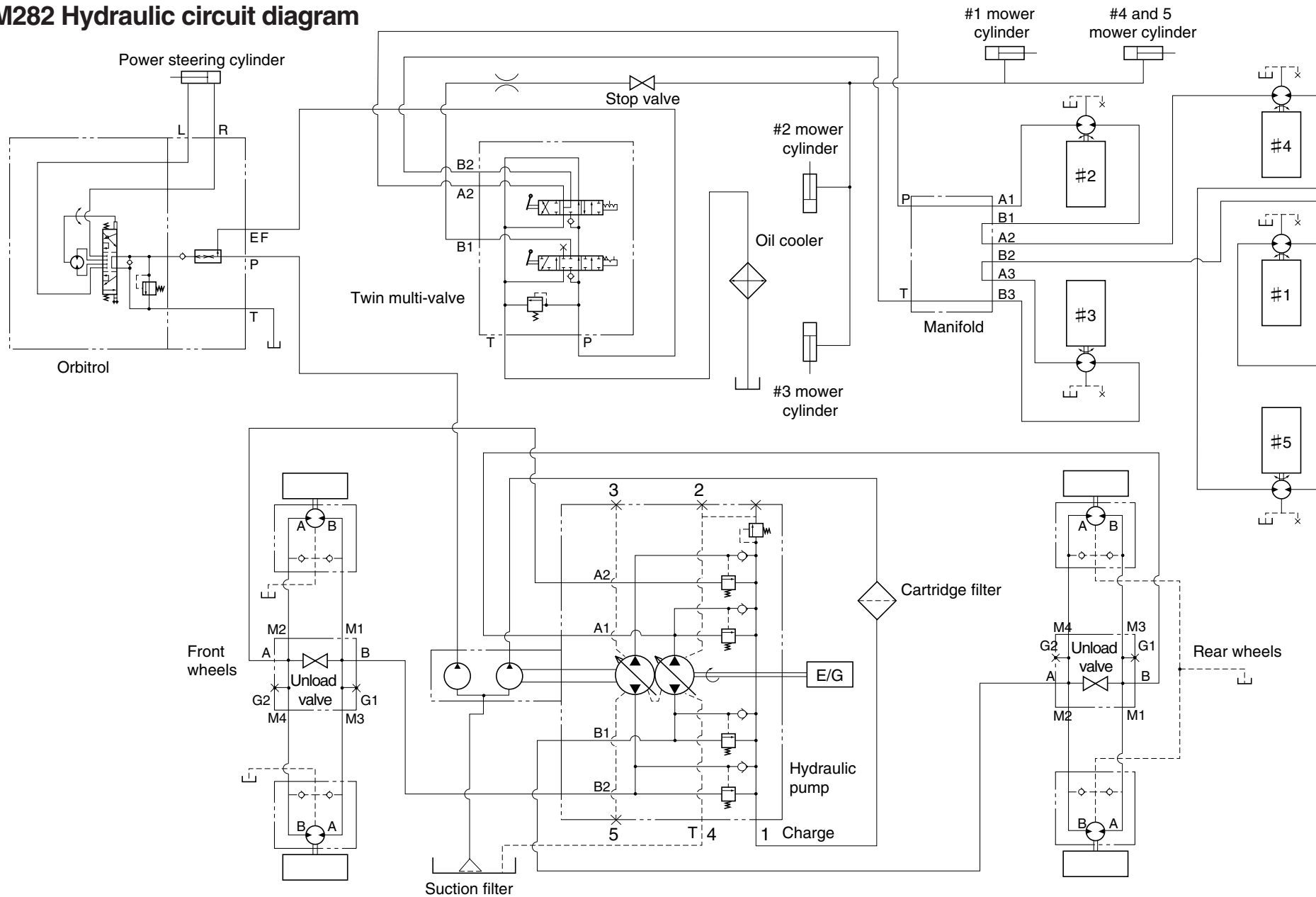
- This machine is not approved for use on public roads and so public road should be avoided.

## 12. Long-term storage

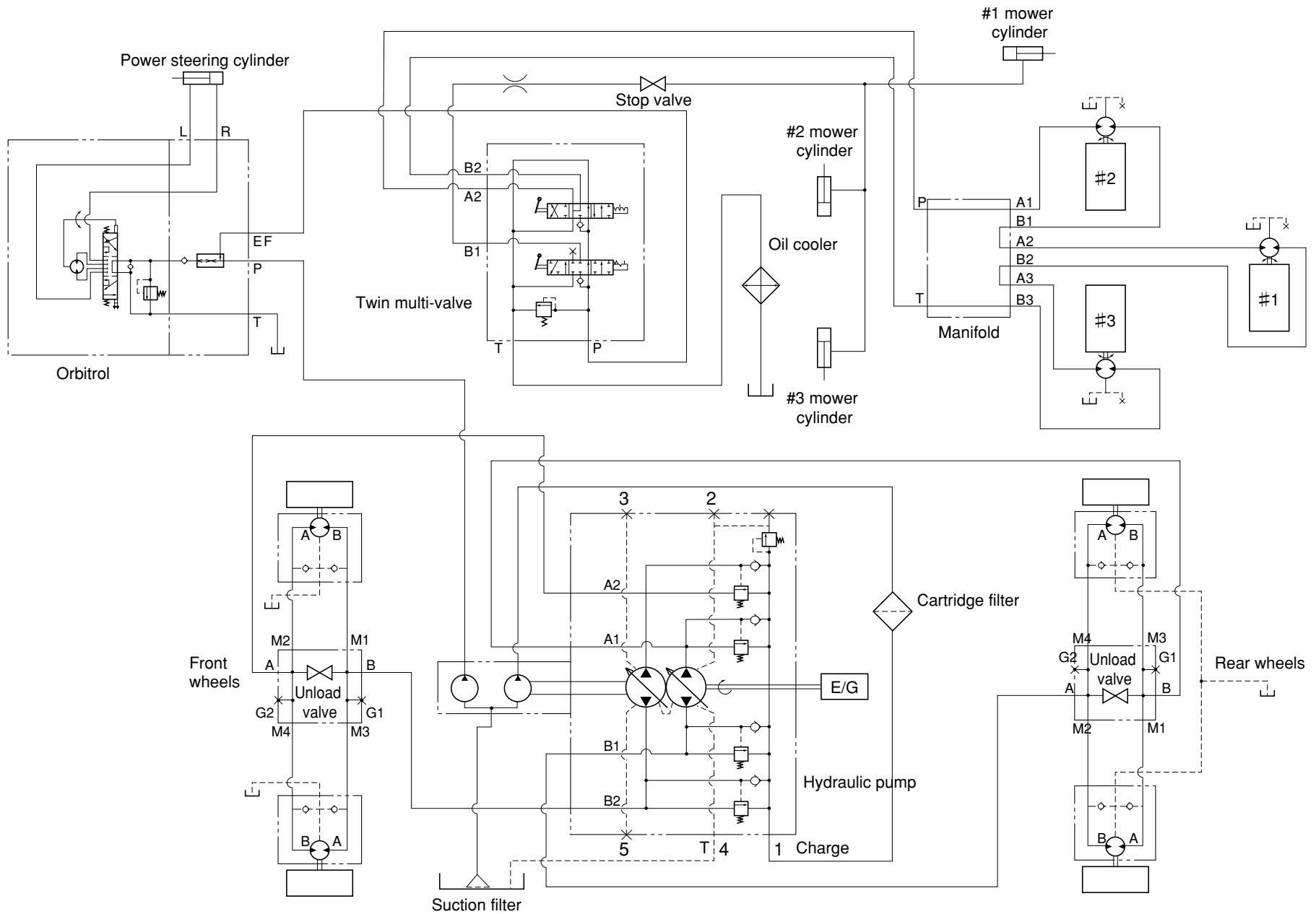
- Please refer to the engine operation manual.
- Clean the unit thoroughly and add grease and oil.
- Remove the battery, and then charge it before storing in a well ventilated room. (For details, see the battery manual)
- Fill the tires to slightly more than the standard air pressure, and park the vehicle on top of wooden planks to protect it from moisture.
- Check for loose or missing bolts and nuts. Tighten or replace those found to be loose or missing.
- Repair any broken parts, and paint any areas where the paint is chipped.
- Store the unit in a dry location, out of the rain.

# Hydraulic circuit diagram (LM282/LM319)

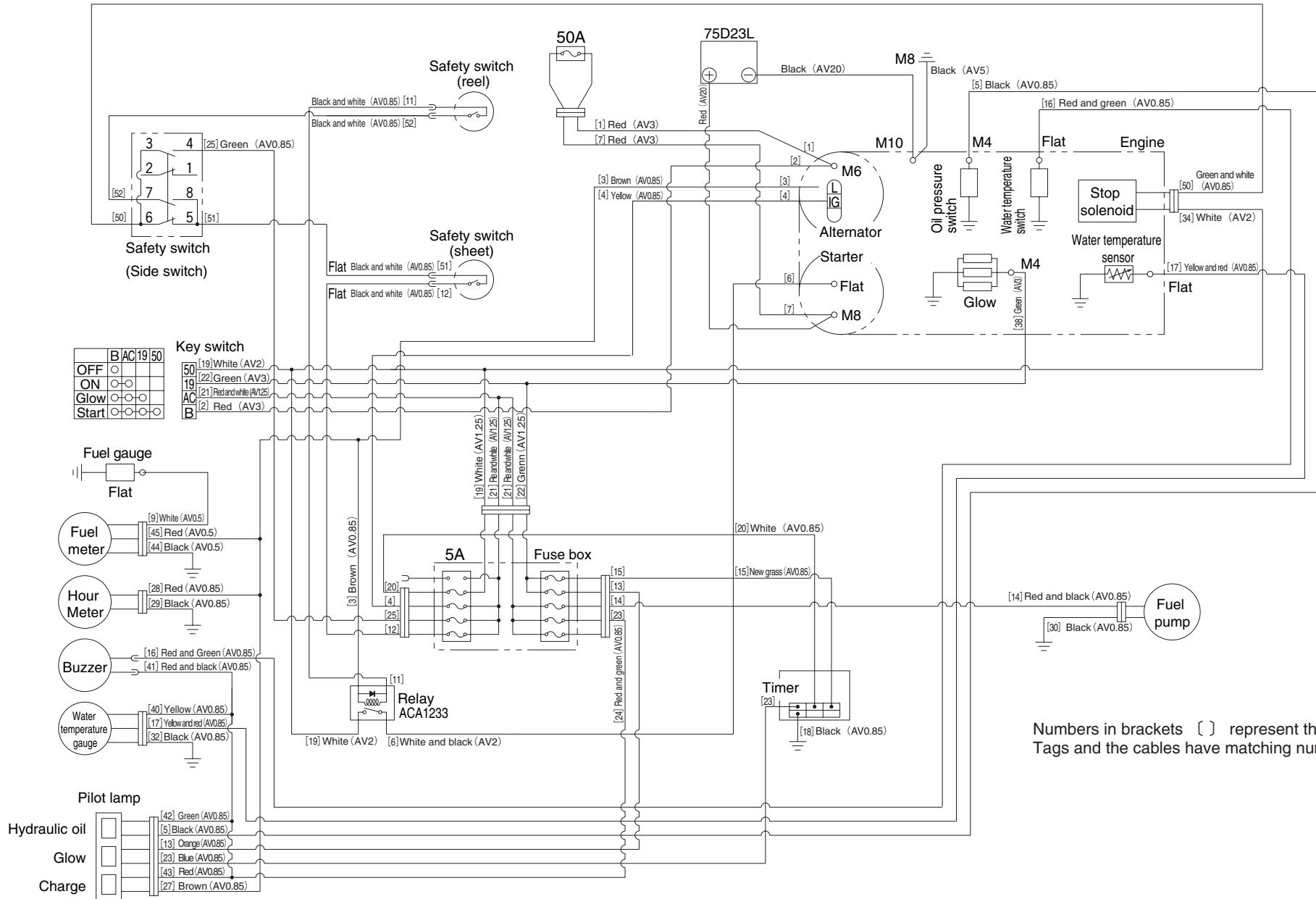
## 1. LM282 Hydraulic circuit diagram



## 2. LM319 Hydraulic circuit diagram



# Electrical system (for both models)



# MEMO



# BARONNESS MOWER

Compact 5-Reel Mower ***LM282***

Riding Type 3-Reel Mower ***LM319***

## PARTS CATALOGUE

☆ **Ordering parts**

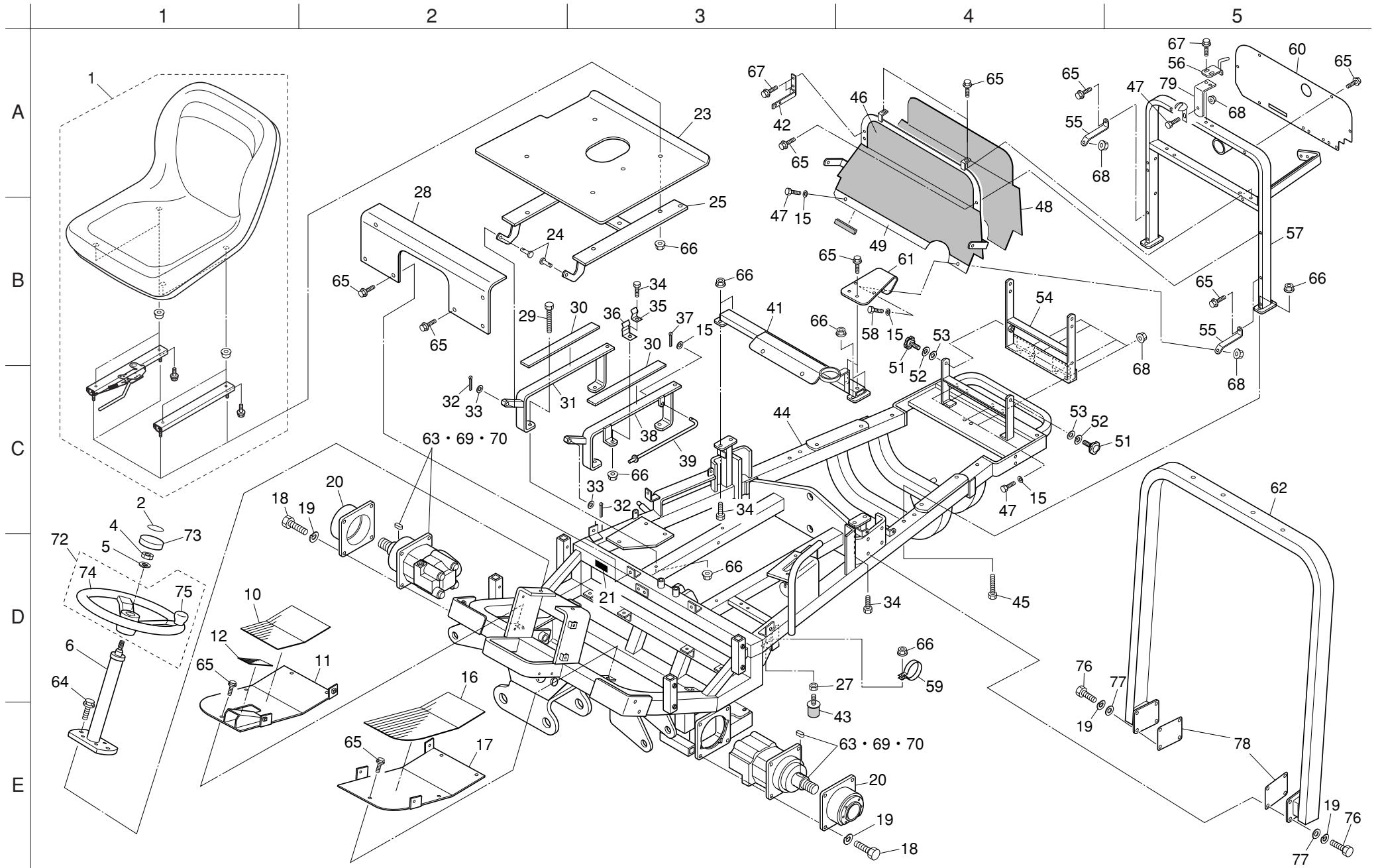
All parts in this parts catalogue are controlled by computer.

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
	1-6	K1730000010	steering column	1

# 1. Frame parts

LM282/LM319

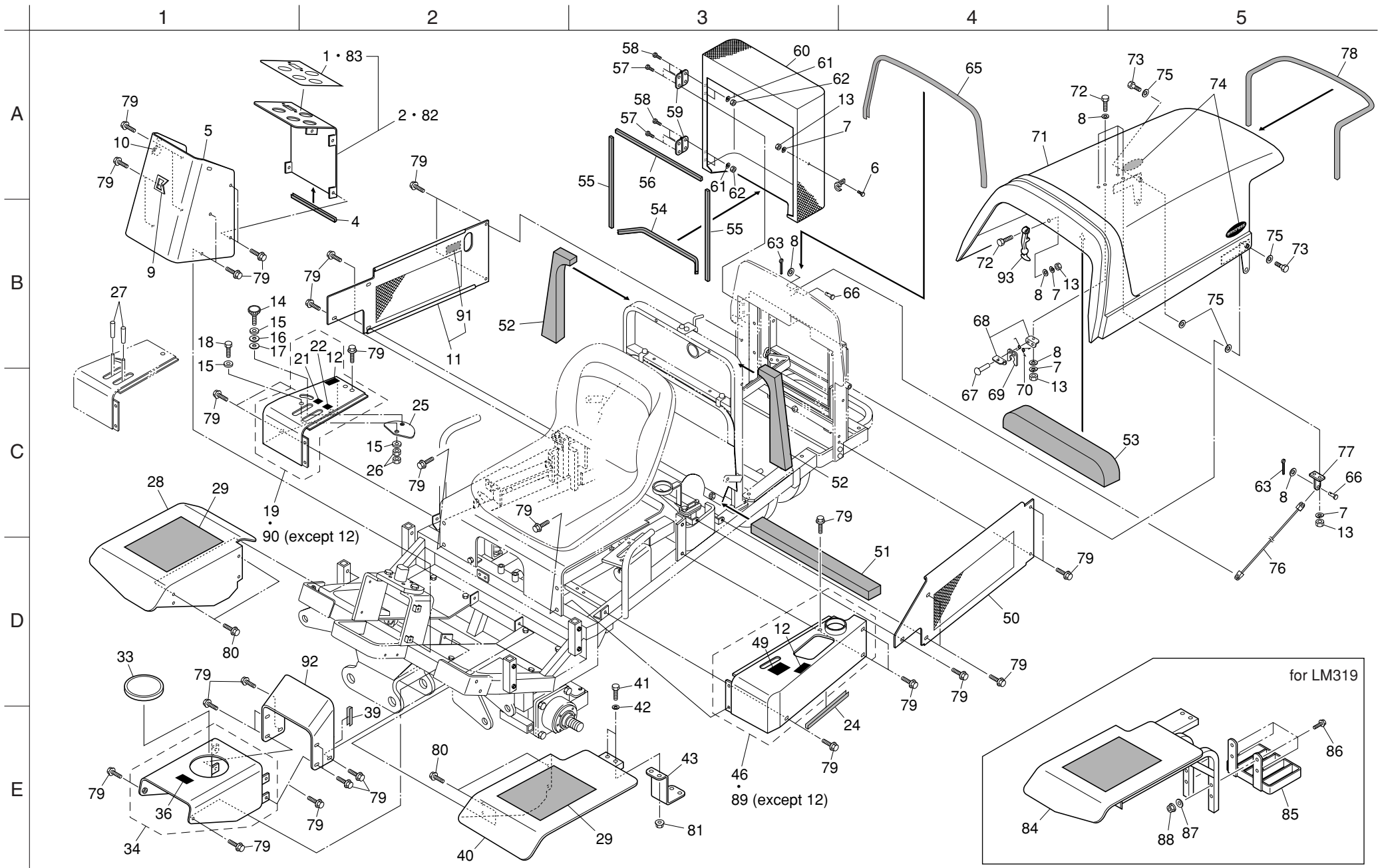


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
1-1	K1700000290	seat assembly with switch spacer	1	1	
1-4	K0103140002	14 nut P1.5	1	1	
1-5	K0200140002	14S washer	1	1	
1-6	K1730000010	steering column	1	1	
1-10	LM318--0623Z0	step (R) rubber	1	1	
1-11	LM318--0648ZD	step (R)	1	1	
1-12	LM318--0625Z0	pedal step plate rubber	1	1	
1-15	K5000060002	6 washer	7	7	
1-16	LM318--0608Z0	step (L) rubber	1	1	
1-17	LM318--0647ZD	step (L)	1	1	
1-18	K0013120602	12 heat-treated bolt 60	8	8	
1-19	K0200120002	12S washer	16	16	
1-20	LM318--0609ZD	hydraulic motor mount	2	2	
1-21	K4203001290	stop valve operation mark	1	1	
1-23	LM282--0959BD	seat undercover	1	1	
1-24	K6030100322	10 flat head pin 32	2	2	
1-25	LM282--0646AD	seat mount plate	1	1	
1-27	K0100080002	8 nut	2	2	
1-28	LM282--0958ZD	front cover center	1	1	
1-29	K0003080602	8 bolt 60	4	4	
1-30	LM282--0606Z0	seat stand rubber	2	2	
1-31	LM282--0605BD	seat mount (R)	1	1	
1-32	K0300025202	2.5 split pin 20	2	2	
1-33	K5011010162	1SPCC metal washer 1016	2	2	
1-34	K0000080202	8 bolt 20	5	5	
1-35	K1090000108	rod receiver B	1	1	
1-36	K5270002052	rod receiver A	1	1	
1-37	K0300016122	1.6 split pin 12	1	1	
1-38	LM282--0603AD	seat mount (L)	1	1	
1-39	MS400--0521Z2	stand	1	1	
1-41	LM282--0638ZD	fuel tank mount front	1	1	
1-42	LM282--0546ZD	fuel filter mount	1	1	
1-43	K4049030000	rubber stopper KI-30	2	2	
1-44	LM282--7301ZD	frame	1	1	
1-45	K0003080702	8 bolt 70	4	4	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
1-46	LM282--0631Z0	heat insulator	1	1	
1-47	K0000060152	6 bolt 15	6	6	
1-48	LM282--0614Z0	heat insulator	1	1	
1-49	LM282--0615ZD	anti-wind plate	1	1	
1-51	K1320000220	M8 knob 4220	2	2	
1-52	K0213080001	8 metal washer with conical disk spring 1H	2	2	
1-53	K5012308202	2.3SPCC metal washer 820	2	2	
1-54	LM282--0642ZD	oil cooler mount	1	1	
1-55	LM318--0621ZD	anti-wind plate support	2	2	
1-56	LM282--0652ZD	bonnet mount	1	1	
1-57	LM282--0650ZD	fuel tank mount rear	1	1	
1-58	K0000060202	6 bolt 20	1	1	
1-59	K4270050080	50 harness clip M8	2	2	
1-60	LM282--0651AD	partition board	1	1	
1-61	LM318--0637ZD	fuel pump mounting plate	1	1	
1-63	K3291000190	wheel motor 2-200BS4S	2	2	
1-64	K0021100252	10 bolt with flange 25	2	2	
1-65	K0021060102	6 bolt with flange 10	23	23	
1-66	K0151080002	8 nut with flange	19	19	
1-67	K0021060152	6 bolt with flange 15	4	4	
1-68	K0151060002	6 nut with flange	7	7	
1-69	Y61090S	2000 orbit motor seal kit (for rear)	2	2	
1-70	Y61091S	2000 orbit motor seal kit (for shaft)	2	2	
1-72	K1710000070	steering with knob V027200-0000	1	1	
1-73	K1310000130	rubber cap	1	1	
1-74	K1710000080	steering V02722-0101	1	1	
1-75	K1710000090	knob assembly V027220-0200	1	1	
1-76	K0013120302	12 heat-treated bolt 30	8	8	
1-77	K640000011D	spacer	0	2	
1-78	LM282--7510ZD	rubber catch mounting plate	1	1	
1-79	K717000013D	roll bar	1	1	
1-80	K4281000020	8.5 harness clamp 80	1	1	

2. Cover parts

LM282/LM319

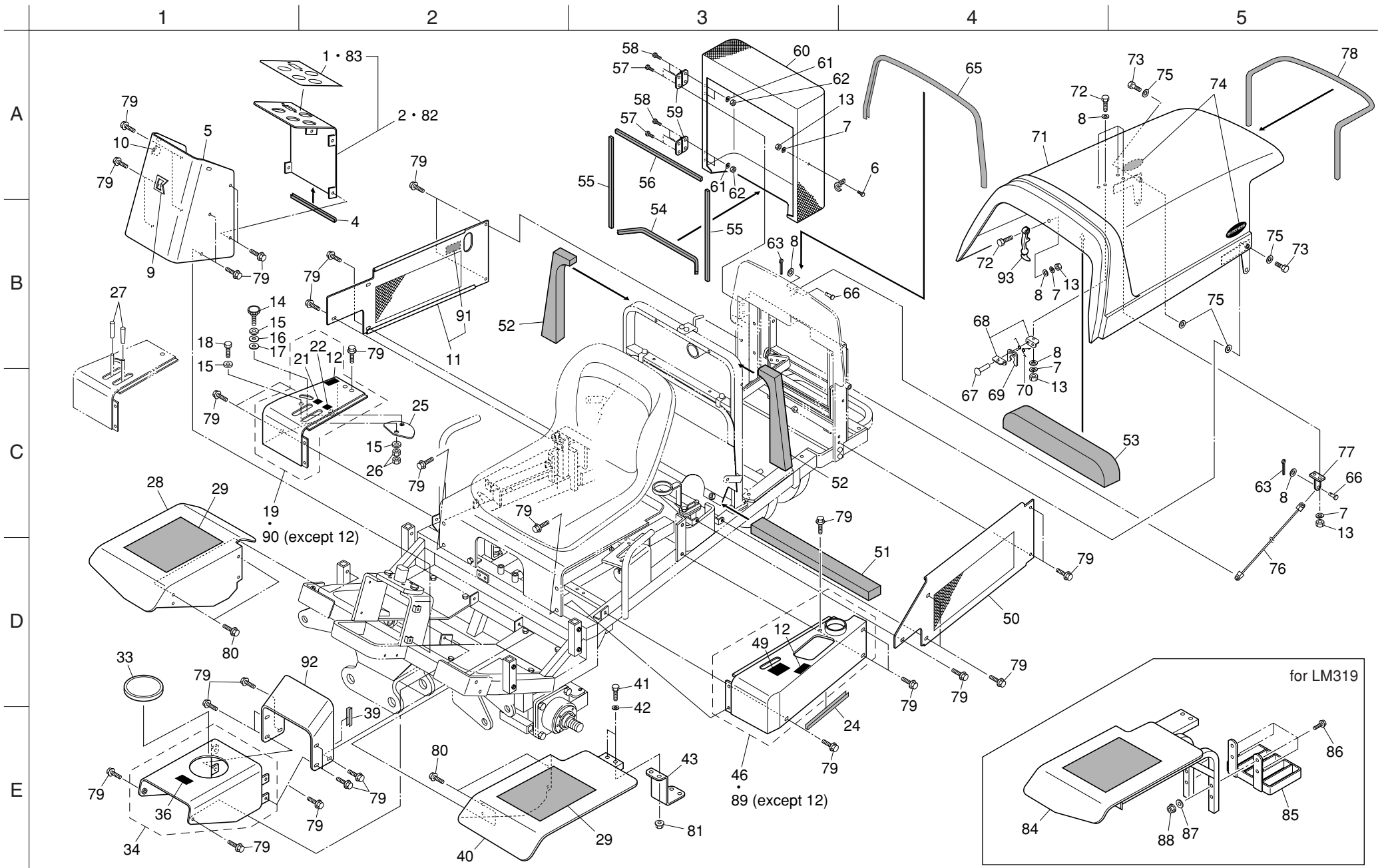


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
2-1	LM282--0970Z0	panel sticker	1	0	
2-2	LM282--0966Z0	instrument mounting plate COMP	1	0	
2-4	K3197002550	trim black (S) 255	1	1	
2-5	LM282--0956ZR	handle cover front	1	1	
2-6	K0000060152	6 bolt 15	1	1	
2-7	K0200060002	6S washer	5	5	
2-8	K5000060002	6 washer	10	10	
2-9	K4201000150	K aluminum mark 54	1	1	
2-10	K4209001190	key switch label	1	1	
2-11	LM282--7533ZD	side cover (R) with mark	1	1	
2-12	K4205001580	crush hazard label	2	0	
2-13	K0100060002	6 nut	4	4	
2-14	K1320000030	M8 knob 4215	1	1	
2-15	K0210080001	8 conical disk spring L	3	3	
2-16	K5012308182	2.3 SPCC metal washer 818	1	1	
2-17	K4015108180	1 fiber 8.518	1	1	
2-18	K0000080202	8 bolt 20	1	1	
2-19	LM282--0949A0	front cover (R) COMP	1	0	
2-21	K4203001280	mowing lapping lever label	1	1	
2-22	K4203001270	raise/lower lever label	1	1	
2-24	K3197002000	trim black (S) 200	1	1	
2-25	LM318--0961ZD	stopper	1	1	
2-26	K0100080002	8 nut	2	2	
2-27	K1300000180	7 handle grip black 23	2	2	
2-28	LM282--7504ZR	wheel shaft cover (R)	1	1	
2-29	LM318--0965Z0	stopper	2	2	
2-33	K0900301200	grommet with film C30SG120A	1	1	
2-34	LM282--7536Z0	center cover front with mark	1	1	
2-36	K4209000980	hydraulic oil mark	1	1	
2-39	K3197000500	trim black (S) 50	1	1	
2-40	LM282--0951AR	wheel shaft cover (L)	1	0	
2-41	K0000100202	10 bolt 20	2	0	
2-42	K5000100002	10 washer	2	0	
2-43	LM282--0637ZD	mount	1	0	
2-46	LM282--0947A0	front cover (L) COMP	1	0	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
2-49	K4203001220	engine rotation mark	1	1	
2-50	LM282--0938ZD	engine side cover (L)	1	1	
2-51	LM318--0938Z0	fuel tank under urethane	1	1	
2-52	LM318--0937Z0	frame urethane	2	2	
2-53	LM282--0936Z0	bonnet urethane	1	1	
2-54	K3198104800	trim seal black 6100-16C-480	1	1	
2-55	LM282--0963Z0	5 rubber sponge 460	2	2	
2-56	LM282--0964Z0	5 rubber sponge 510	1	1	
2-57	K0042050082	5+ round head small screw 8	4	4	
2-58	K0042050152	5+ round head small screw 15	4	4	
2-59	K4520000210	5.2 resin hinge with hole 75	2	2	
2-60	LM282--0940ZD	radiator cover	1	1	
2-61	K0200050002	5S washer	4	4	
2-62	K0100050002	5 washer	4	4	
2-63	K0300020122	2 split pin 12	2	2	
2-65	K3198310500	trim seal black 6100-32C-1050	1	1	
2-66	K6031060172	6 hardened flat head pin 17	2	2	
2-67	K4500000052	5 round rivet 18	2	2	
2-68	K5270000312	stopper receiving plate	2	2	
2-69	K5131000472	bonnet stopper	2	2	
2-70	K1050000078	1.8 helical coil spring 11.6	2	2	
2-71	LM282--0941A0	bonnet COMP	1	1	
2-72	K0000060202	6 bolt 20	5	5	
2-73	LM282--0945Z2	M8 knock bolt 24	2	2	
2-74	K4201000570	BARONESS mark	2	2	
2-75	K5051010200	1C5191P metal washer 1020	4	4	
2-76	LM282--0937Z0	wire for bonnet	1	1	
2-77	LM318--0953ZD	wire hook	1	1	
2-78	K3197312700	trim black 100-48-1270	1	1	
2-79	K0021060102	6 bolt with flange 10	39	39	
2-80	K0021080502	8 bolt with flange 50	8	8	
2-81	K0151100002	10 nut with flange	2	0	
2-82	LM319--0902Z0	instrument mounting plate with mark	0	1	
2-83	LM319--0901Z0	panel sticker	0	1	
2-84	LM282--7502ZR	wheel cover (L)	0	1	

2. Cover parts

LM282/LM319

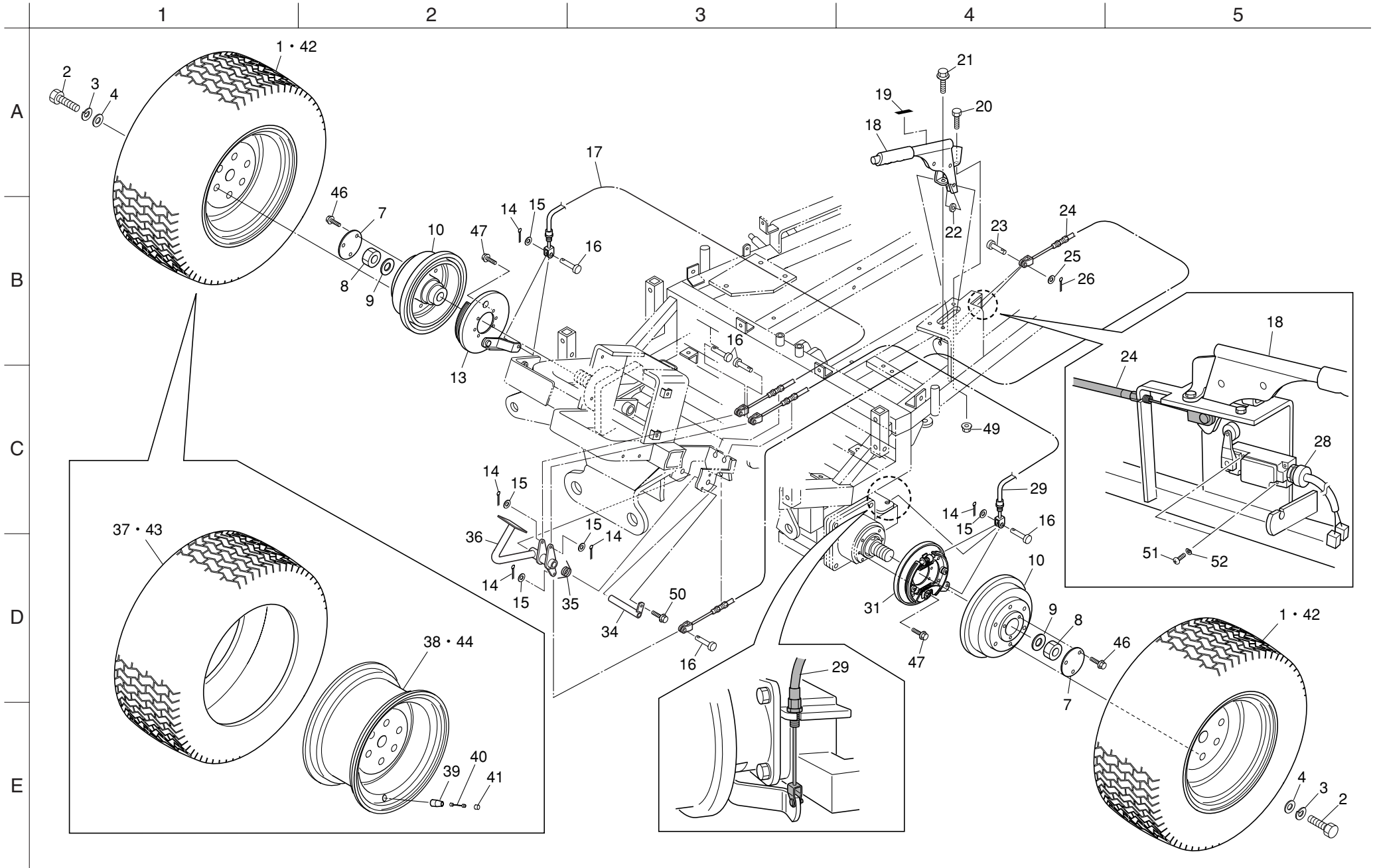


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
2-85	LM282--7503ZR	step	0	1	
2-86	K0021080452	8 bolt with flange 45	0	4	
2-87	K5012308322	2.3SPCC metal washer 832	0	4	
2-88	K0151080002	8 nut with flange	0	4	
2-89	LM282--7531Z0	front cover (L) with mark	0	1	
2-90	LM282--7532Z0	front cover (R) with mark	0	1	
2-91	K4205001540	hot parts hazard label	1	1	
2-92	LM318--0959ZR	center cover rear	1	1	
2-93	K1520000030	rubber catch assembly	1	1	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	

3. Front wheel parts

LM282/LM319

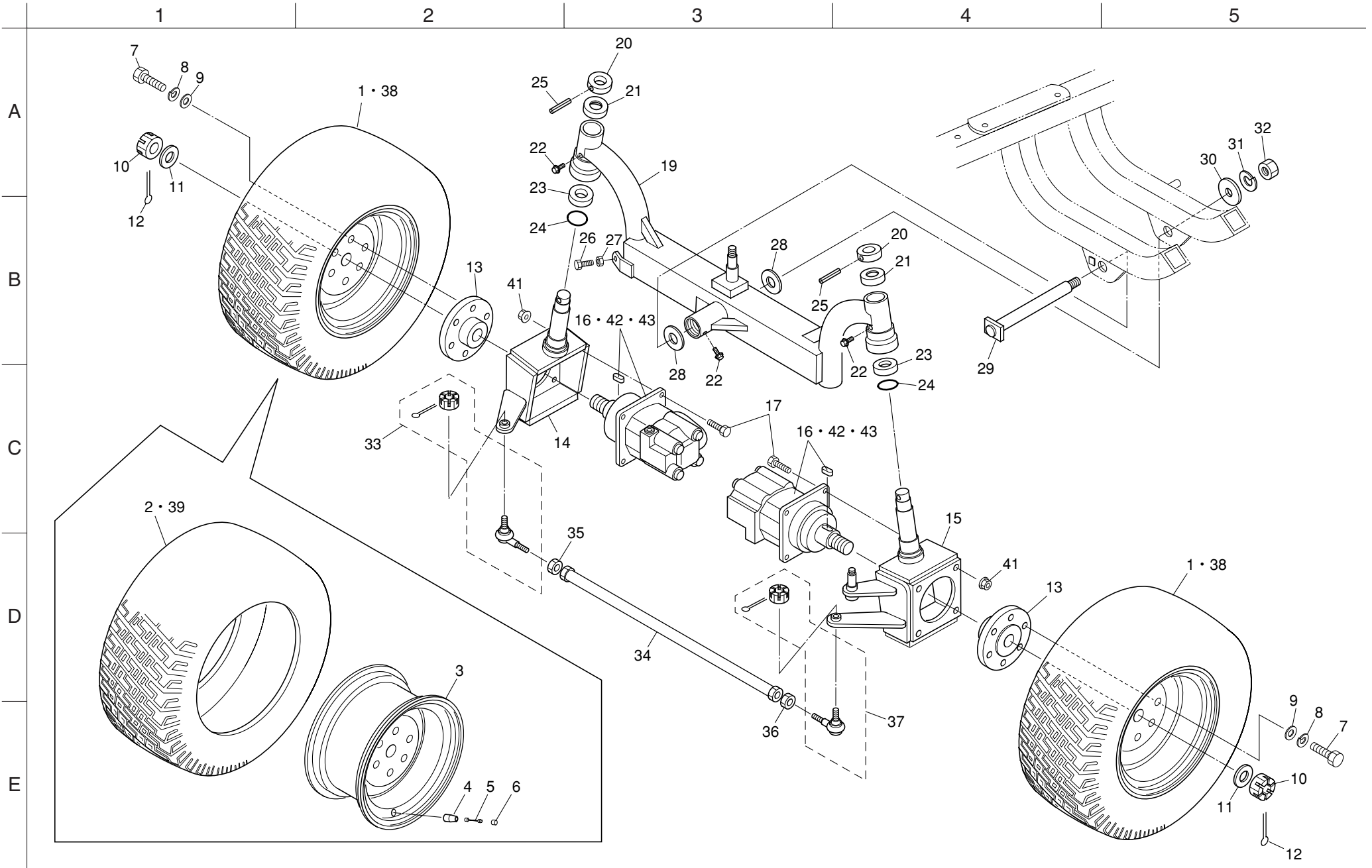






### 4. Rear wheel parts

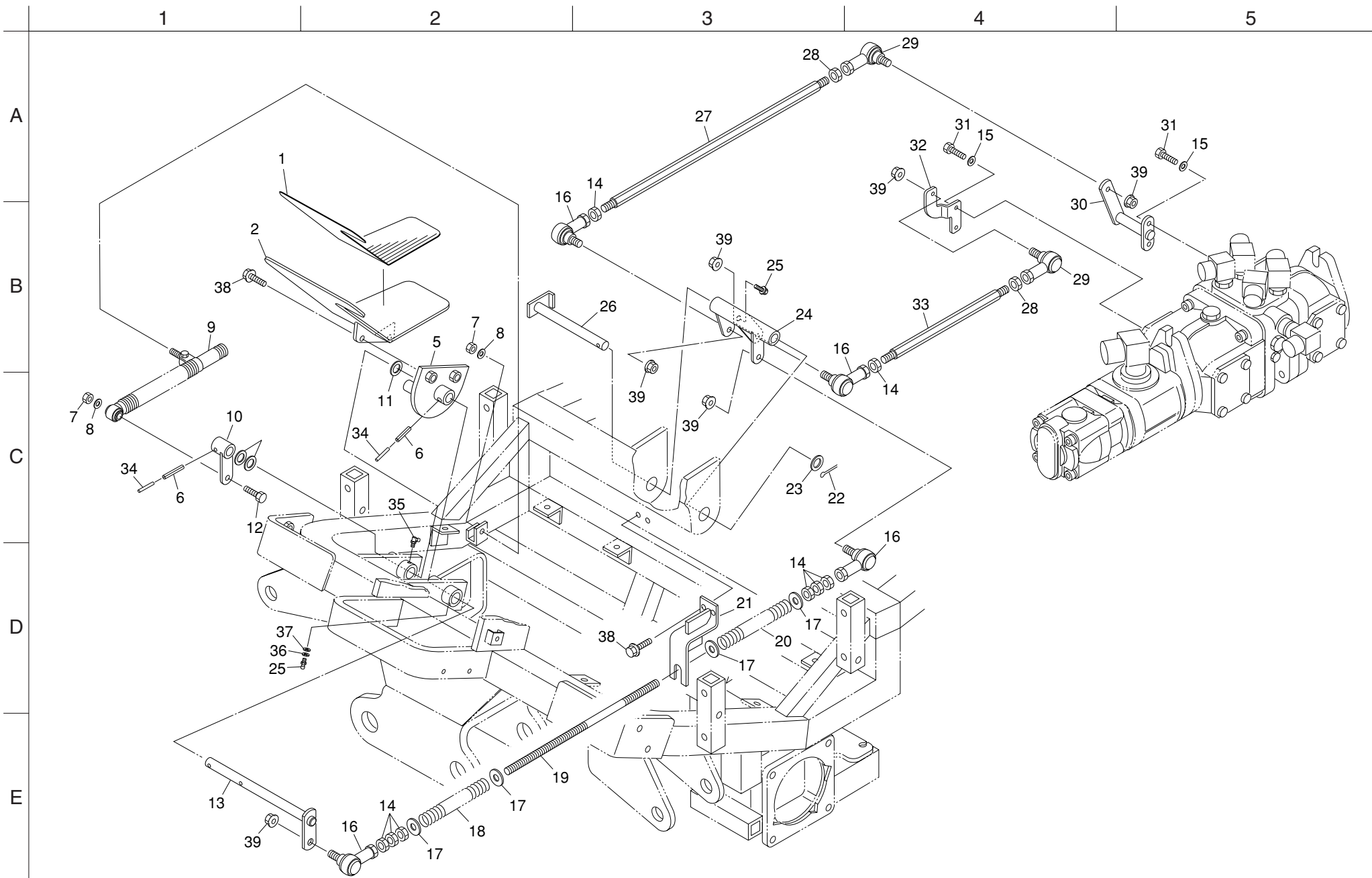
LM282/LM319





5. Pedal parts

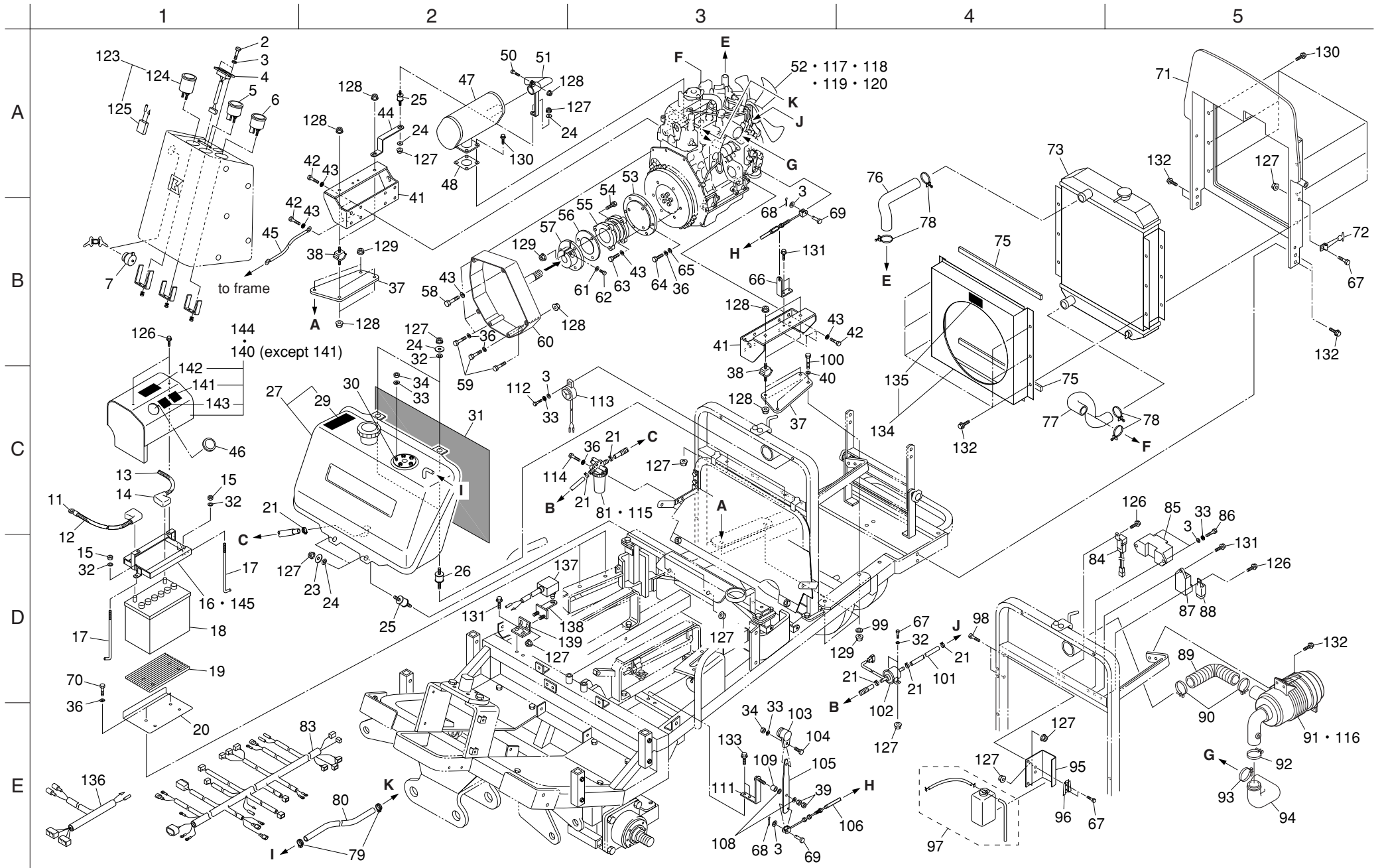
LM282/LM319





6. Engine parts

LM282/LM319

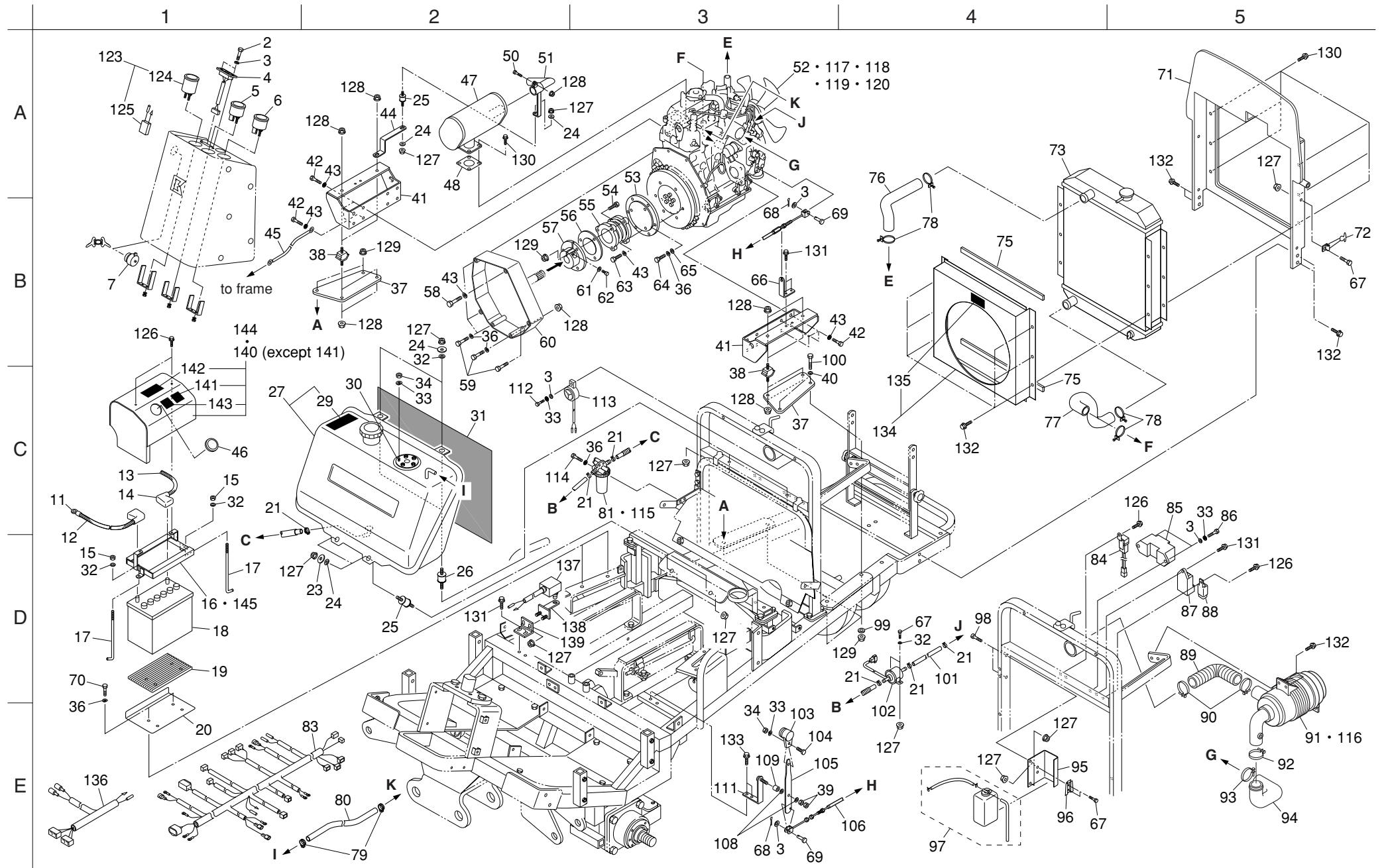


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
6-2	K0042050122	5+ round head small screw 12	2	2	
6-3	K5000050002	5 washer	7	7	
6-4	K3641000040	pilot lamp	1	1	
6-5	PF19488-8303-0	water temperature meter	1	1	
6-6	PF69251-5324-0	fuel meter	1	1	
6-7	PF15248-6359-0	starter switch	1	1	
6-11	K3610000430	(+) battery cable 1050	1	1	
6-12	K3196010000	13 corrugate tube 1000	1	1	
6-13	K3196008500	13 corrugate tube 850	1	1	
6-14	K3611000370	battery earth cable 900	1	1	
6-15	K0144060002	6U nut	2	2	
6-16	LM282--0911ZD	battery mount	1	0	
6-17	LM282--0913Z2	M6 rod	2	2	
6-18	K3600000160	battery FX75D23L	1	1	
6-19	K4035000150	φ20 anti-vibration rubber170x230	1	1	
6-20	LM282--0910AD	battery base	1	1	
6-21	PF14911-4275-1	pipe clip	6	6	
6-23	K5012306252	2.3SPCC metal washer 625	2	2	
6-24	K5011606202	1.6SPCC metal washer 620	6	6	
6-25	K4040000100	anti-vibration rubber	3	3	
6-26	K4040000090	anti-vibration rubber	2	2	
6-27	LM282--7203Z0	fuel tank COMP	1	1	
6-29	K4209001000	light oil refueling hole mark	1	1	
6-30	PF66418-5362-0	fuel unit	1	1	
6-31	LM318--0630Z0	fuel tank heat insulator	1	1	
6-32	K5000060002	6 washer	6	6	
6-33	K0200050002	5S washer	9	9	
6-34	K0100050002	5 nut	6	6	
6-36	K0200080002	8S washer	25	25	
6-37	LM282--0516ZD	engine base	2	2	
6-38	K4040000150	anti-vibration rubber EC4001	4	4	
6-39	K0100100002	10 nut	2	2	
6-40	K5000100002	10 washer	4	4	
6-41	LM282--0517ZD	bracket	2	2	
6-42	K0017100252	10 heat-treated small bolt 25P1.25	16	16	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
6-43	K0200100002	10S washer	19	19	
6-44	LM282--0509ZD	muffler pipe stay	1	1	
6-45	K3620000710	ground wire 400	1	1	
6-46	K0900300420	grommet with film C30SG42A	1	1	
6-47	PF67955-5851-0	muffler	1	1	
6-48	PF15263-1237-0	muffler packing NA	1	1	
6-50	K0000080302	8 bolt 30	1	1	
6-51	LM282--7201ZU	muffler pipe	1	1	
6-52	K2691000050	Kubota engine D1105-EB-LMKY-3	1	1	
6-53	LM282--0542Z2	joint mount	1	1	
6-54	K0013100352	10 heat-treated bolt 35	3	3	
6-55	K1620000120	joint BC75ACP201	1	1	
6-56	LM282--0543Z2	coupling spacer	1	1	
6-57	LM282--0541Z2	pump side drive disk	1	1	
6-58	K0004100802	10 bolt 80P1.25	1	1	
6-59	K0003080752	8 bolt 75	5	5	
6-60	GM1600-0521ZD	flywheel cover	1	1	
6-61	K0215100002	10 metal washer with conical disk spring	1	1	
6-62	K0024100351	10 bolt with hex. hole 35	1	1	
6-63	K0010100202	10 heat-treated bolt 20	3	3	
6-64	K0010080202	8 heat-treated bolt 20	6	6	
6-65	K5000080002	8 washer	6	6	
6-66	LM282--0505Z2	wire receiver	1	1	
6-67	K0000060152	6 bolt 15	5	5	
6-68	K0300020162	2 split pin 16	2	2	
6-69	K6030050122	5 flat head pin 12	2	2	
6-70	K0000080152	8 bolt 15	2	2	
6-71	LM282--0521AD	radiator mount	1	1	
6-72	K1520000030	rubber catch assembly	1	1	
6-73	K2730000030	radiator	1	1	
6-75	LM282--0522Z0	urethane sponge	2	2	
6-76	PF1G345-7294-0	hose (4, water)	1	1	
6-77	PF1G345-7285-0	hose (1, water)	1	1	
6-78	PF09318-8903-9	hose clamp	4	4	
6-79	PF14971-4275-0	pipe clip	2	2	

### 6. Engine parts

LM282/LM319



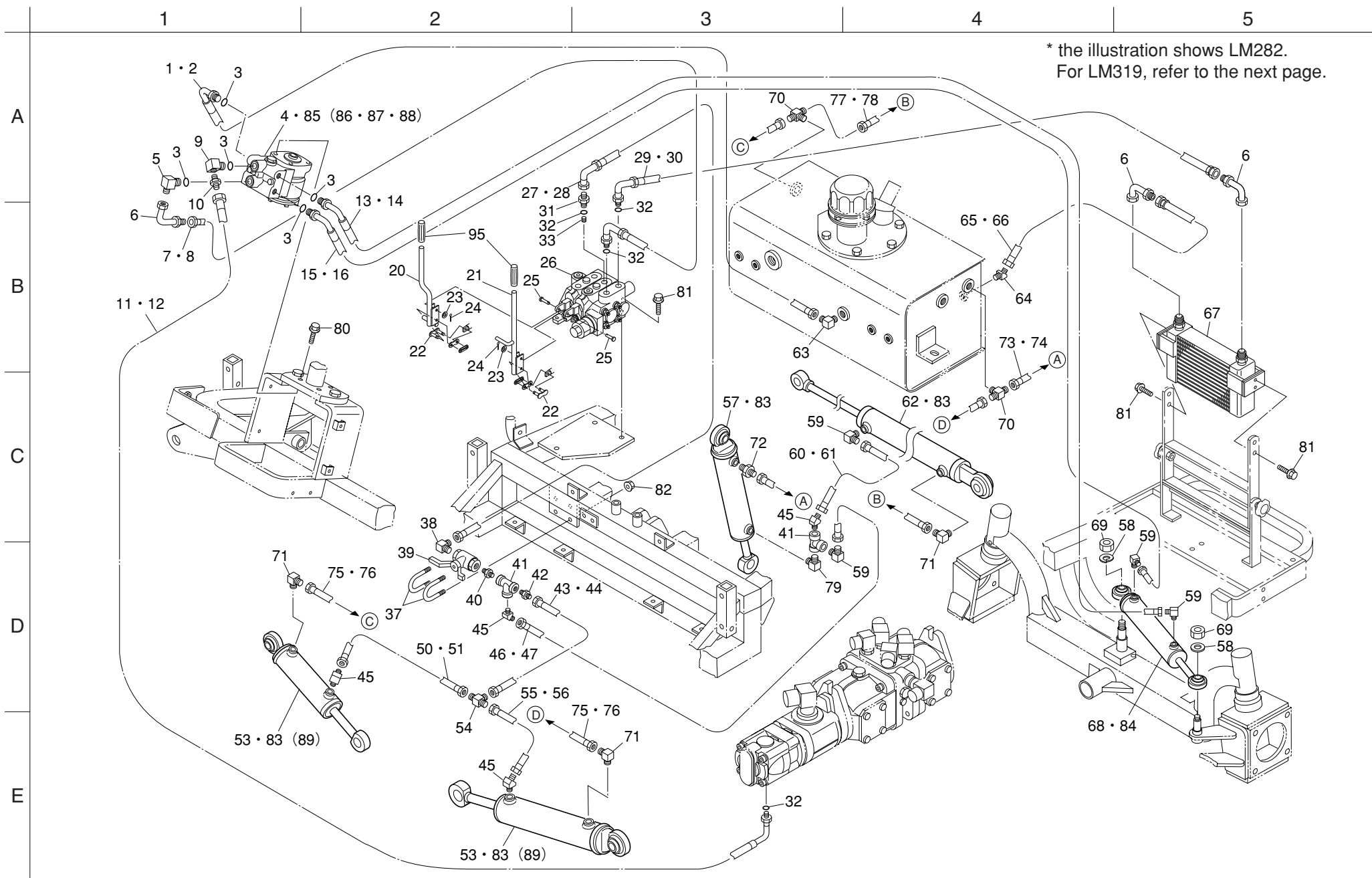


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
6-80	PF09661-4055-0	fuel tube	1	1	
6-81	PF15393-4301-7	fuel filter	1	1	
6-83	LM282--7202Z0	wire harness	1	1	
6-84	K3620000720	fusible link	1	1	
6-85	K3630000080	mini fuse block 10P-8	1	1	
6-86	K0000050152	5 bolt 15	2	2	
6-87	PF15694-6599-0	glow lamp timer	1	1	
6-88	PF1K574-6022-0	relay COMP	1	1	
6-89	K3170004500	50 banner A hose 450	1	1	
6-90	K4262057000	LS band 57	2	2	
6-91	PF17407-1101-0	air cleaner	1	1	
6-92	PF15221-1172-2	pipe band	1	1	
6-93	PF15401-1172-1	pipe band	1	1	
6-94	GM1600-0524Z0	air cleaner pipe	1	1	
6-95	LM282--0545ZD	reservoir tank stay	1	1	
6-96	PF11982-7246-1	reservoir tank stay	1	1	
6-97	PFRC411-4268-1	reservoir tank	1	1	
6-98	K0000060302	6 bolt 30	2	2	
6-99	K5073210352	3.2SPHC metal washer 1035	4	4	
6-100	K0003100902	10 bolt 90	4	4	
6-101	PF09661-8250-0	fuel tube	1	1	
6-102	PFR1401-5135-1	fuel sending pump	1	1	
6-103	K1301000150	throttle lever grip	1	1	
6-104	K0042050082	5+ round head small screw 8	1	1	
6-105	LM318--0510Z2	lever plate	1	1	
6-106	K1110101000	throttle wire 1010	1	1	
6-108	K0210100001	10 conical disk spring L	2	2	
6-109	K6212000092	10STKM collar 1610	1	1	
6-111	LM318--0511Z2	throttle lever mount	1	1	
6-112	K0000050252	5 bolt 25	1	1	
6-113	K3700000010	buzzer EBM-12 type	1	1	
6-114	K0003080602	8 bolt 60	1	1	
6-115	PF15231-4356-0	fuel filter element	1	1	
6-116	PFT0270-1632-0	air cleaner element	1	1	
6-117	PF16271-3209-3	oil element	1	1	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
6-118	PF1G345-9701-0	fan belt	1	1	
6-119	PF15221-3375-0	plug (drain bolt)	1	1	
6-120	PF6C090-5896-0	gasket (drain oil pan)	1	1	
6-121	K3631000100	plug-in fuse 50A	1	1	
6-122	K3631000070	mini-blade type fuse 5A	1	1	
6-123	K9400000040	hour meter assembly	1	1	
6-124	K3650000060	hour meter	1	1	
6-125	K3620000810	hour meter wire	1	1	
6-126	K0021060102	6 bolt with flange 10	4	4	
6-127	K0151060002	6 nut with flange	19	19	
6-128	K0151080002	8 nut with flange	16	16	
6-129	K0151100002	10 nut with flange	9	9	
6-130	K0021080202	8 bolt with flange 20	10	10	
6-131	K0021060152	6 bolt with flange 15	5	5	
6-132	K0021080152	8 bolt with flange 15	14	14	
6-133	K0021060202	6 bolt with flange 20	2	2	
6-134	LM282--7205Z0	shroud with mark	1	1	
6-135	K4205001530	rotating parts hazard label	1	1	
6-136	LM282--7204Z0	switch wire harness	1	1	
6-137	K3671000050	limit SW-SLT	1	1	
6-138	LM282--7512ZD	switch mount	1	1	
6-139	LM282--7511ZD	switch base	1	1	
6-140	LM282--0975Z0	battery cover with mark	1	0	
6-141	K4209000720	noise level Lwa105 mark	0	1	
6-142	K4205001560	read the operation manual label	1	1	
6-143	K4205001330	high noise levels symbol	1	1	
6-144	LM282--7530Z0	battery cover with mark	0	1	
6-145	LM282--7507Z0	battery mount	0	1	

### 7. Hydraulic parts A (power steering, cylinder system)

LM282



Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
7-1	K3145000290	SSC35 hose 560	1	1	
7-2	K3190004450	SP-12 coil tube 445	1	1	
7-3	K0881014000	O-ring P14B	5	5	
7-4	K3294000040	orbit roll with VD5xMED	1	0	
7-5	K3008000192-Y	90 different diameter elbow PF1/2 PF3/8	1	1	
7-6	K3025069082-Y	pipe adaptor 069-08	3	3	
7-7	K3145000390	SSC140 hose 1060	1	1	
7-8	K3191009350	SP-15 coil tube 935	1	1	
7-9	K3008000072-Y	90- adjuster elbow 1125-9	1	1	
7-10	K3009000192-Y	special adaptor PT3/8 PF1/2	1	1	
7-11	K3145000400	SSC140 hose 1000	1	1	
7-12	K3191008700	SP-15 coil tube 870	1	1	
7-13	K3145000120	SSC70 hose 1910	1	1	
7-14	K3190018050	SP-12 coil tube 1805	1	1	
7-15	K3145000130	SSC70 hose 1960	1	1	
7-16	K3190018550	SP-12 coil tube 1855	1	1	
7-20	LM282--7401Z2	reel rotation lever	1	1	
7-21	LM318--0709Z2	reel raise/lower lever	1	1	
7-22	LM318--0732Z0	joint link	2	2	
7-23	K5000050002	5 washer	2	2	
7-24	K0300016102	1.6 split pin 10	2	2	
7-25	K6030050202	5 flat head pin 20	2	2	
7-26	K3302000030	double valve COMP	1	1	
7-27	K3145000140	SSC140 hose 620	1	1	
7-28	K3190005200	SP-12 coil tube 520	1	1	
7-29	K3145000310	SSC35 hose 1950	1	1	
7-30	K3191018200	SP-15 coil tube 1820	1	1	
7-31	K3029000152-Y	O-ring connector short PF3/8 PF1/4	1	1	
7-32	K0881018000	O-ring P18B	3	3	
7-33	K0023000031-Y	tapered plug with hex. hole 1pc 1/8-1	1	1	
7-37	K0073000022	6U bolt 40	2	2	
7-38	K3006000012-Y	different diameter elbow PT3/8 PF1/4	1	1	
7-39	K3360000010	stop valve 397819	1	1	
7-40	K3029000211-Y	different diameter nipple PT3/8 PT1/4	1	1	
7-41	K3021040002-Y	screwed type tee TEF PT1/4	2	1	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
7-42	K3000060002-Y	adaptor 1013-6	1	1	
7-43	K3145000160	SSC140 hose 570	1	1	
7-44	K3190004700	SP-12 coil tube 470	1	1	
7-45	K3003060002-Y	45 elbow 1035-6	4	3	
7-46	K3145000150	IB140 hose 460	1	1	
7-47	K3190003600	SP-12 coil tube 360	1	1	
7-50	K3145000180	IB140 hose 400	1	1	
7-51	K3190003000	SP-12 coil tube 300	1	1	
7-53	K3203000140	40-110 cylinder 307	2	0	
7-54	K3008000092-Y	tee for hose PF1/4	1	1	
7-55	K3145000170	IB140 hose 320	1	1	
7-56	K3190002200	SP-12 coil tube 220	1	1	
7-57	K3203000160	40-70 cylinder 252	1	1	
7-58	K0215140001	14 conical disk spring 2H	2	2	
7-59	K3001060002-Y	90 elbow 1033-6	4	3	
7-60	K3103210850	WP140-6 hose 1-850	1	0	
7-61	K3190007500	SP-12 coil tube 750	1	0	
7-62	K3203000190	40-290 cylinder 754	1	0	
7-63	K3006000022-Y	different diameter elbow PT1/2 PF3/8	1	1	
7-64	K3003120002-Y	45 elbow 1035-12	1	1	
7-65	K3145000300	SSC35 hose 2280	1	1	
7-66	K3191021600	SP-15 coil tube 2160	1	1	
7-67	K3431000030	oil cooler	1	1	
7-68	K3212000300	35-164 cylinder 374A	1	1	
7-69	K0145140002	14U nut P1.5	2	2	
7-70	K3029000352-Y	special tee PT1/4PF1/4	2	3	
7-71	K3006000152-Y	different diameter elbow PT1/8PF1/4	3	2	
7-72	K3007000032-Y	different diameter adaptor PT1/8PF1/4	1	1	
7-73	K3101210450	WP70-6 hose 1-450	1	0	
7-74	K3190003500	SP-12 coil tube 350	1	0	
7-75	K3101230270	WP70-6 hose 3-270	2	0	
7-76	K3190001700	SP-12 coil tube 170	2	0	
7-77	K3101211100	WP70-6 hose 1-1100	1	0	
7-78	K3190010000	SP-12 coil tube 1000	1	0	
7-79	K3006000042-Y	same diameter elbow 1/4	1	0	

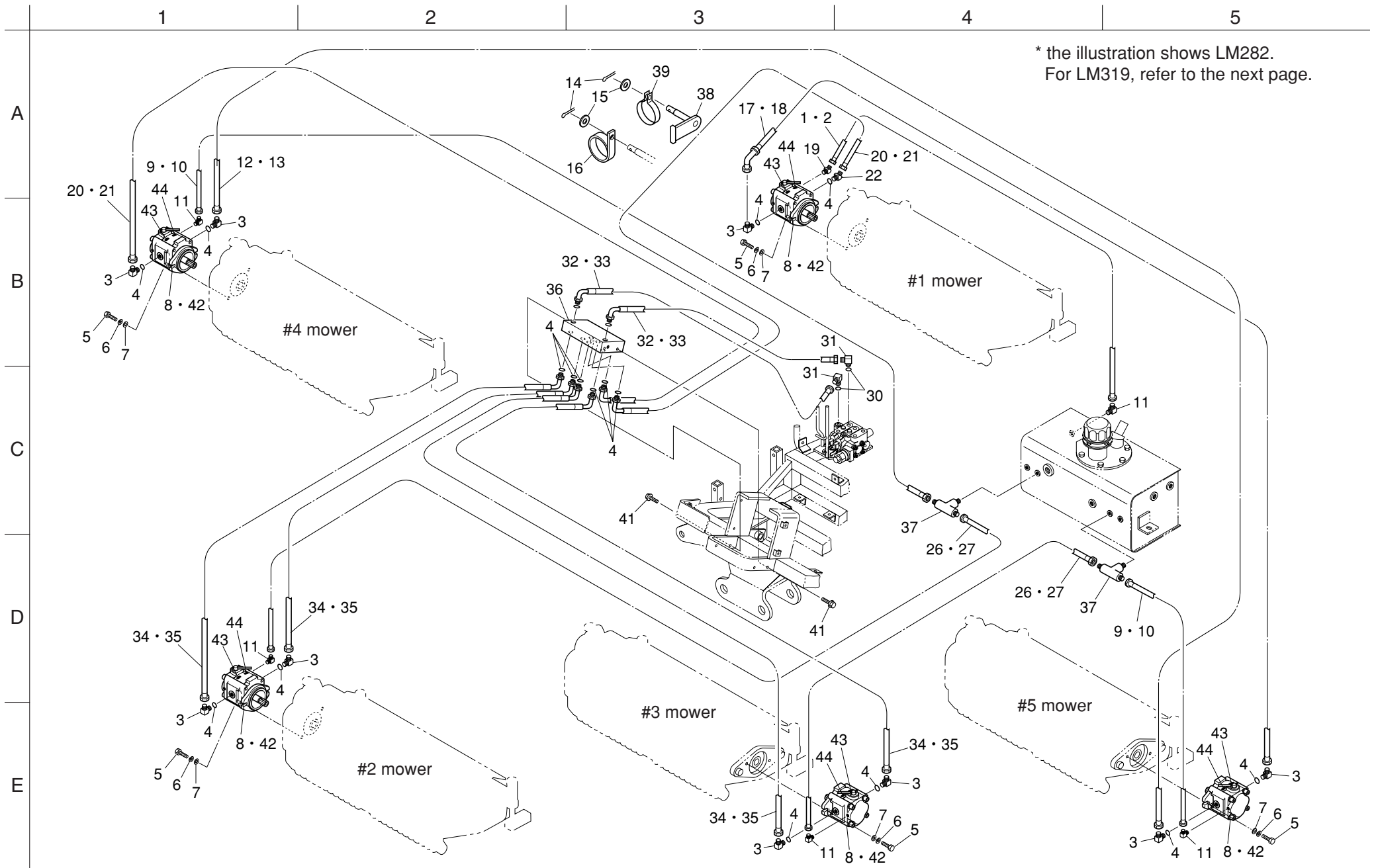


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
7-80	K0021100252	10 bolt with flange 25	4	4	
7-81	K0021080202	8 bolt with flange 20	7	7	
7-82	K0151060002	6 nut with flange	4	4	
7-83	Y80209-00301	cylinder seal kit	4	3	
7-84	Y80209-00401	cylinder seal kit	1	1	
7-85	YBA0272A	orbit roll UAS070A08B2D seal kit	1	0	
7-86	K3294000060	orbit roll UBS070A08GCD	0	1	
7-87	YBA0274A	orbit roll UBS070A08GCD seal kit	0	1	
7-88	YBA0056A	orbit roll UBS070A08GCD valve seal kit	0	1	
7-89	K3203000220	40-90 cylinder 340	0	2	
7-90	K3101210680	WP70-6 hose 1-680	0	2	
7-91	K3190005800	SP-12 coil tube 580	0	2	
7-92	K3101220750	WP70-6 hose 2-750	0	1	
7-93	K3190006500	SP-12 coil tube 650	0	1	
7-94	K1422104001	tapered plug with hex. hole 1pc 1/4	0	2	
7-95	K1300000180	7 handle grip black 23	2	2	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	

### 8. Hydraulic parts B (reel motor system)

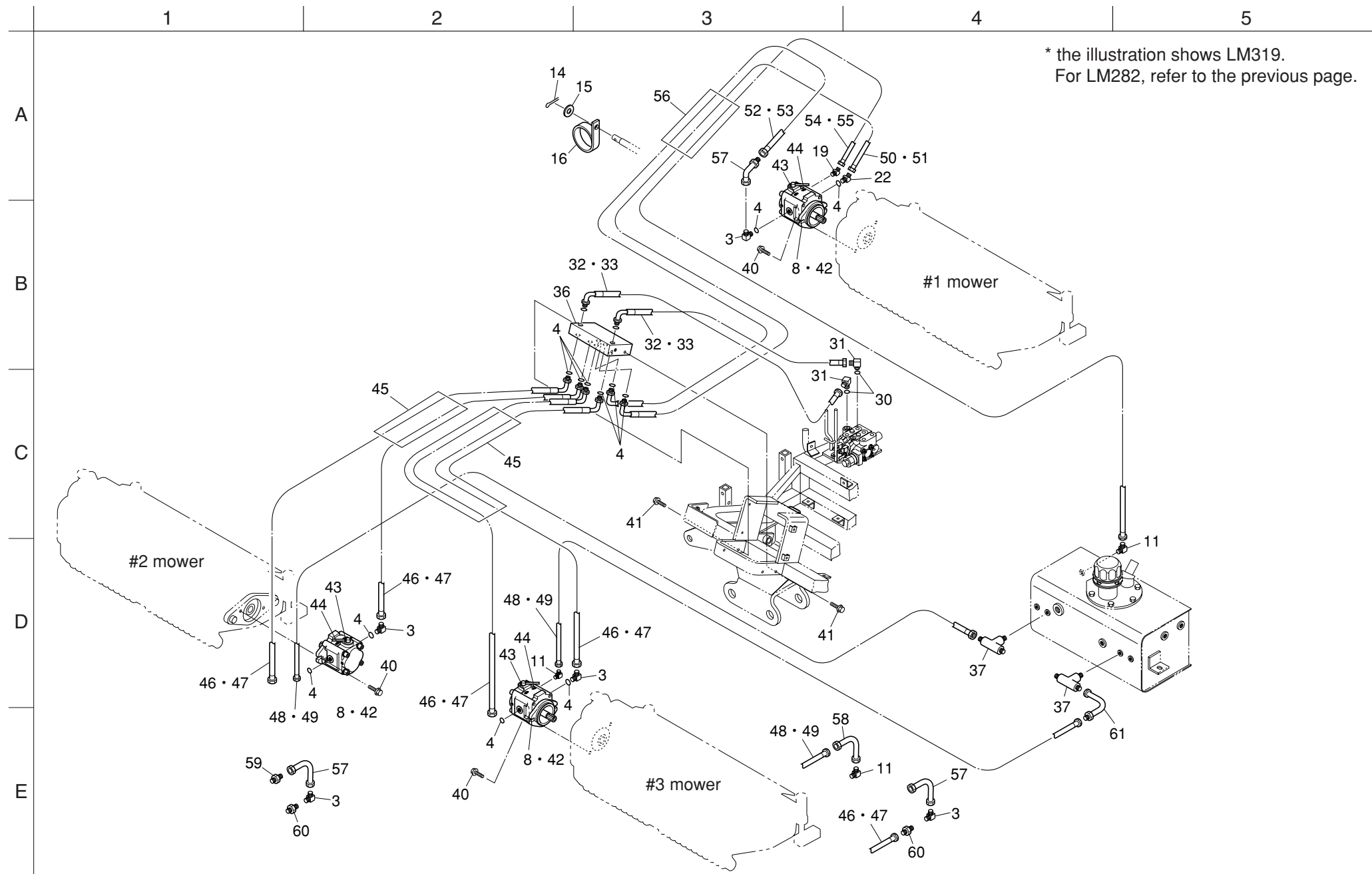
LM282





### 8. Hydraulic parts B (reel motor system)

LM319



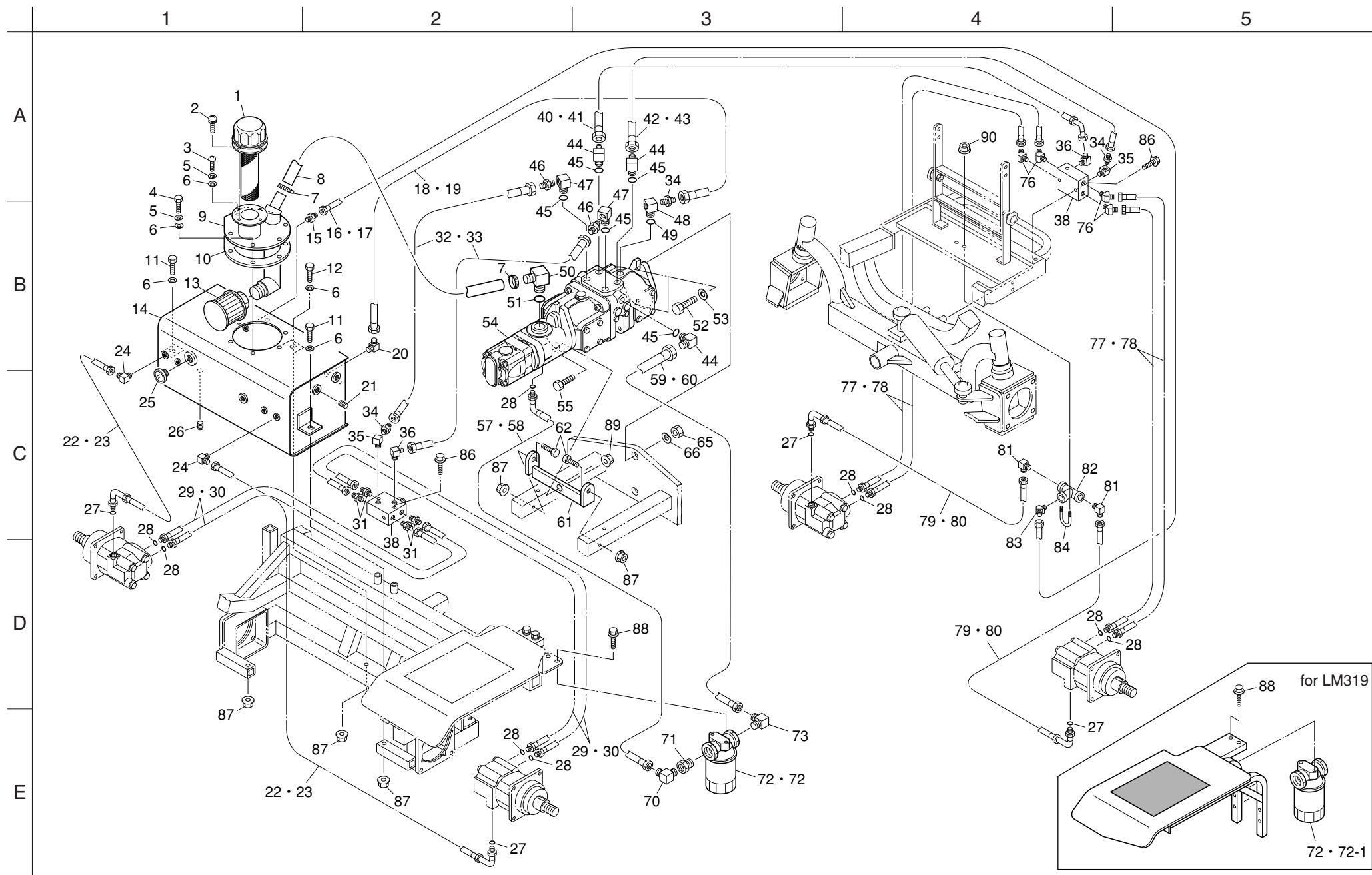


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
8-1	K3101211550	WP70-6 hose 1-1550	1	0	
8-2	K3190014200	SP-12 coil tube 1420	1	0	
8-3	K3008000042-Y	90 adjuster elbow 1086-12	9	3	
8-4	K0881018000	O-ring P18B	16	12	
8-5	K0000100302	10 bolt 30	10	6	
8-6	K0200100002	10S washer	10	6	
8-7	K5000100002	10 washer	10	6	
8-8	K3280000200	gear motor MB6AK379	5	3	
8-9	K3101212320	WP70-6 hose 1-2320	2	0	
8-10	K3190021900	SP-12 coil tube 2190	2	0	
8-11	K3001060002-Y	90 elbow 1033-6	5	2	
8-12	K3103413600	WP140-12 hose 1-3600	1	0	
8-13	K3191034700	SP-15 coil tube 3470	1	0	
8-14	K0330800008	8 snap pin	2	1	
8-15	K5000080002	8 washer	2	1	
8-16	LM318--0649ZD	hose hook	1	1	
8-17	K3103423500	WP140-12 hose 2-3500	1	0	
8-18	K3191033700	SP-15 coil tube 3370	1	0	
8-19	K3003060002-Y	45 elbow 1035-6	1	1	
8-20	K3145000870	IB140 hose 2600	2	0	
8-21	K3191024700	SP-15 coil tube 2470	2	0	
8-22	K3008000182-Y	45 adjustable elbow	1	1	
8-26	K3101211600	WP70-6 hose 1-1600	2	0	
8-27	K3190014700	SP-12 coil tube 1470	2	0	
8-30	K0881014000	O-ring P14B	2	2	
8-31	K3008000192-Y	90 different diameter elbow PF1/2 PF3/8	2	2	
8-32	K3145000230	SSC140 hose 1320	2	2	
8-33	K3191011900	SP-15 coil tube 1190	2	2	
8-34	K3145000880	IB140 hose 1200	4	0	
8-35	K3191010700	SP-15 coil tube 1070	4	0	
8-36	LM282--0701Z2	manifold	1	1	
8-37	K3029000352-Y	special tee PT1/4PF1/4	2	2	
8-38	LM282--0230ZD	plate with shaft	1	0	
8-39	K4270050080	50 harness clip M8	1	0	
8-41	K0021080202	8 bolt with flange 20	4	4	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
8-42	YCG0038A	gear motor MB6AK379 seal kit	5	3	
8-43	K4203001300	reel rotation mark	5	3	
8-44	K4203001310	reel stop mark	5	3	
8-45	K3171006500	hose cover 650	0	2	
8-46	K3145000210	IB140 hose 940	0	4	
8-47	K3191008100	SP-15 coil tube 810	0	4	
8-48	K3100211400	WP35-6 hose 1-1400	0	2	
8-49	K3190012500	SP-12 coil tube 1250	0	2	
8-50	K3145000220	SSC140 hose 2180	0	1	
8-51	K3191020500	SP-15 coil tube 2050	0	1	
8-52	K3145000190	SSC140 hose 2300	0	1	
8-53	K3191021700	SP-15 coil tube 2170	0	1	
8-54	K3100211350	WP35-6 hose 1-1350	0	1	
8-55	K3190012350	SP-12 coil tube 1250	0	1	
8-56	K3171011000	hose cover 1100	0	1	
8-57	K302506L082-Y	pipe adaptor 06L-08	0	3	
8-58	K302506L042-Y	pipe adaptor 06L-04	0	1	
8-59	K3009000092-Y	special adaptor PF1/2PF1/2	0	2	
8-60	K3000060002-Y	adaptor 1013-6	0	1	
8-61	K3025069042-Y	pipe adaptor 069-04	0	1	

### 9. Hydraulic parts C (wheel motor system)

LM282/LM319

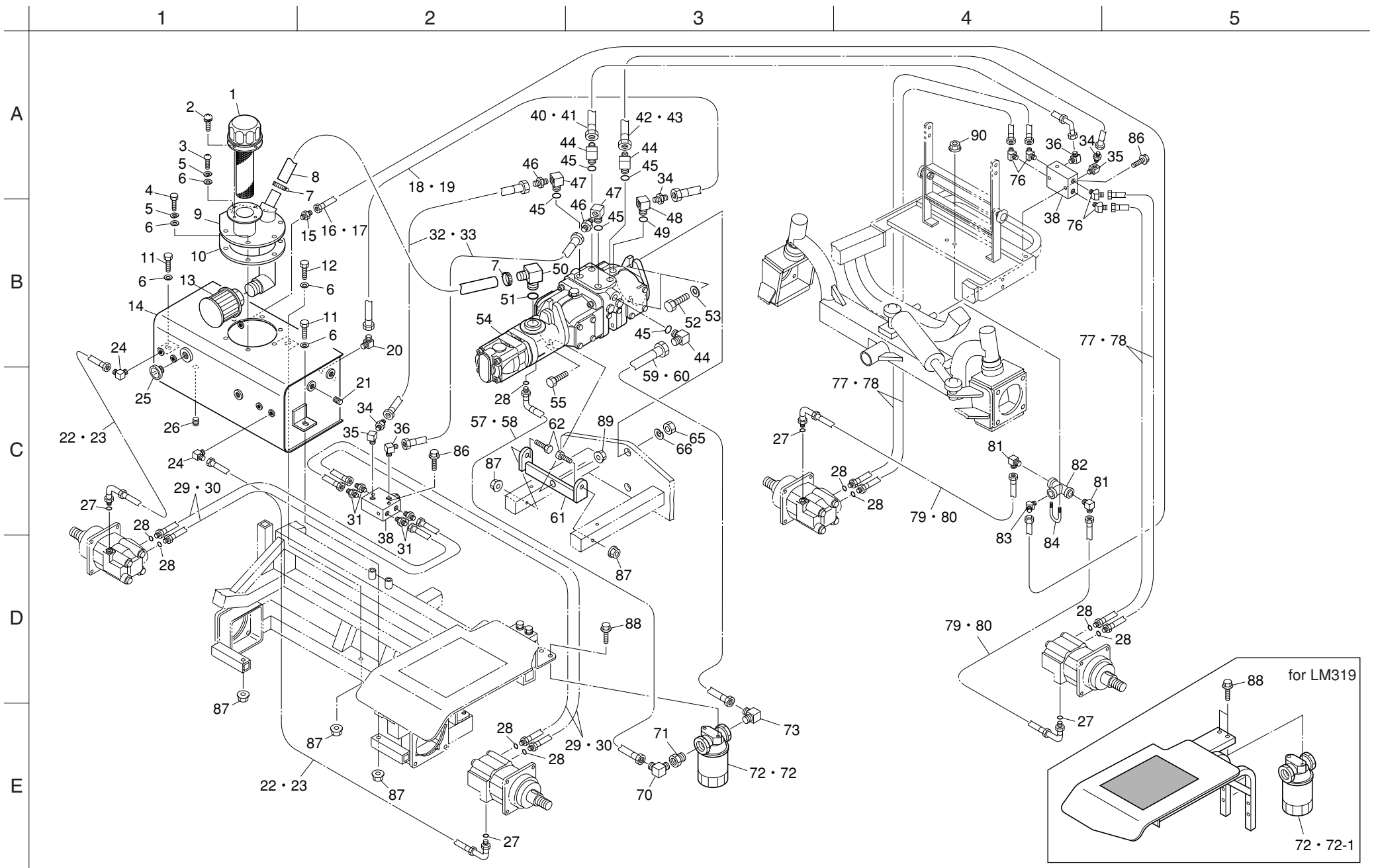


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
9-1	K3400000030	refueling hole breather FAB-50	1	1	
9-2	K0044050102	5+ round head small screw 10SW	4	4	
9-3	K0045080202	8+ truss small screw 20	1	1	
9-4	K0000080202	8 bolt 20	5	5	
9-5	K0200080002	8S washer	6	6	
9-6	K5000080002	8 washer	9	9	
9-7	K4260000200	jubilee band 2A	2	2	
9-8	LM318--0730Z0	WP35-32x500 hose	1	1	
9-9	LM318--0705Z2-Y	hydraulic pressure suction port	1	1	
9-10	LM318--0711Z0	packing	1	1	
9-11	K0000080502	8 bolt 50	2	2	
9-12	K0003080702	8 bolt 70	1	1	
9-13	K3413000020	suction filter SFT-08-150W	1	1	
9-14	LM318--0701AD-Y	hydraulic pressure tank	1	1	
9-15	K3007000022-Y	different diameter adaptor PT1/2 PF3/8	1	1	
9-16	K3101311700	WP70-9 hose 1-1700	1	1	
9-17	K3190014900	SP-12 coil tube 1490	1	1	
9-18	K3145000340	SSC35 hose 1000	1	1	
9-19	K3192008500	SP-20 coil tube 850	1	1	
9-20	K3003190002-Y	45 elbow 1035-19	1	1	
9-21	K1422108001-Y	tapered plug with hex. hole 1pc 1/2	1	1	
9-22	K3145000270	SSC35 hose 250	2	2	
9-23	K3190001550	SP-12 coil tube 155	2	2	
9-24	K3001060002-Y	90 elbow 1033-6	2	2	
9-25	K1400000044-Y	PF3/4 oil filler plug M type	1	1	
9-26	K1422106001-Y	tapered plug with hex. hole 1pc 3/8	1	1	
9-27	K0881011000	O-ring P11B	4	4	
9-28	K0881018000	O-ring P18B	9	9	
9-29	K3145000420	SSC175 hose 685	4	4	
9-30	K3191005500	SP-15 coil tube 550	4	4	
9-31	K3000120002-Y	adaptor 1013-12	4	4	
9-32	K3145000450	IB175 hose 440	2	2	
9-33	K3190003000	SP-12 coil tube 300	2	2	
9-34	K3007000012-Y	different diameter adaptor PT1/2 PF3/4	3	3	
9-35	K3022080002-Y	female-male elbow STE PT1/2	2	2	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
9-36	K3006000122-Y	different diameter elbow PT1/2 PF3/4	2	2	
9-38	K3321000020	manifold with pressure relief valve	2	2	
9-40	K3145000440	IB175 hose 970	1	1	
9-41	K3192008150	SP-20 coil tube 815	1	1	
9-42	K3145000620	IB175 hose 1010	1	1	
9-43	K3192007550	SP-20 coil tube 755	1	1	
9-44	K3008000162-Y	UNF90 adjustable elbow	3	3	
9-45	K0887009100	O-ring AS568-910	5	5	
9-46	K3000190002-Y	adaptor 1013-19	2	2	
9-47	K3008000142-Y	90 adjustable elbow	2	2	
9-48	K3008000172-Y	UNF90 adjustable elbow	1	1	
9-49	K0887009080	O-ring AS568-908	1	1	
9-50	K3008000152-Y	90 elbow nipple	1	1	
9-51	K0881029000	O-ring P29B	1	1	
9-52	K0000140502	14 bolt 50	2	2	
9-53	K5000140002	14 washer	2	2	
9-54	K3240000020	piston pump PV1616AR	1	1	
9-55	K0000120402	12 bolt 40	1	1	
9-57	K3145000610	SSC35 hose 710	1	1	
9-58	K3191006100	SP-15 coil tube 610	1	1	
9-59	K3145000600	SSC35 hose 660	1	1	
9-60	K3192005600	SP-20 coil tube 560	1	1	
9-61	LM318--0708ZD	pump support	1	1	
9-62	K0003080602	8 bolt 60	2	2	
9-65	K0100140002	14 nut	2	2	
9-66	K0200140002	14S washer	2	2	
9-70	K3006000102-Y	different diameter elbow PT3/4 PF1/2	1	1	
9-71	K3024000012-Y	cast iron bush 1x3/4	1	1	
9-72	K3412000030	filter SP08-10-03	1	1	
9-72-1	K3412000060	filter for the substitute C-SP08H-10	1	1	
9-73	K3006000112-Y	different diameter elbow PT1 PF3/4	1	1	
9-76	K3003120002-Y	45 elbow 1035-12	4	4	
9-77	K3145000410	IB175 hose 650	4	4	
9-78	K3191005150	SP-15 coil tube 515	4	4	
9-79	K3145000260	SSC35 hose 770	2	2	

9. Hydraulic parts C (wheel motor system)

LM282/LM319

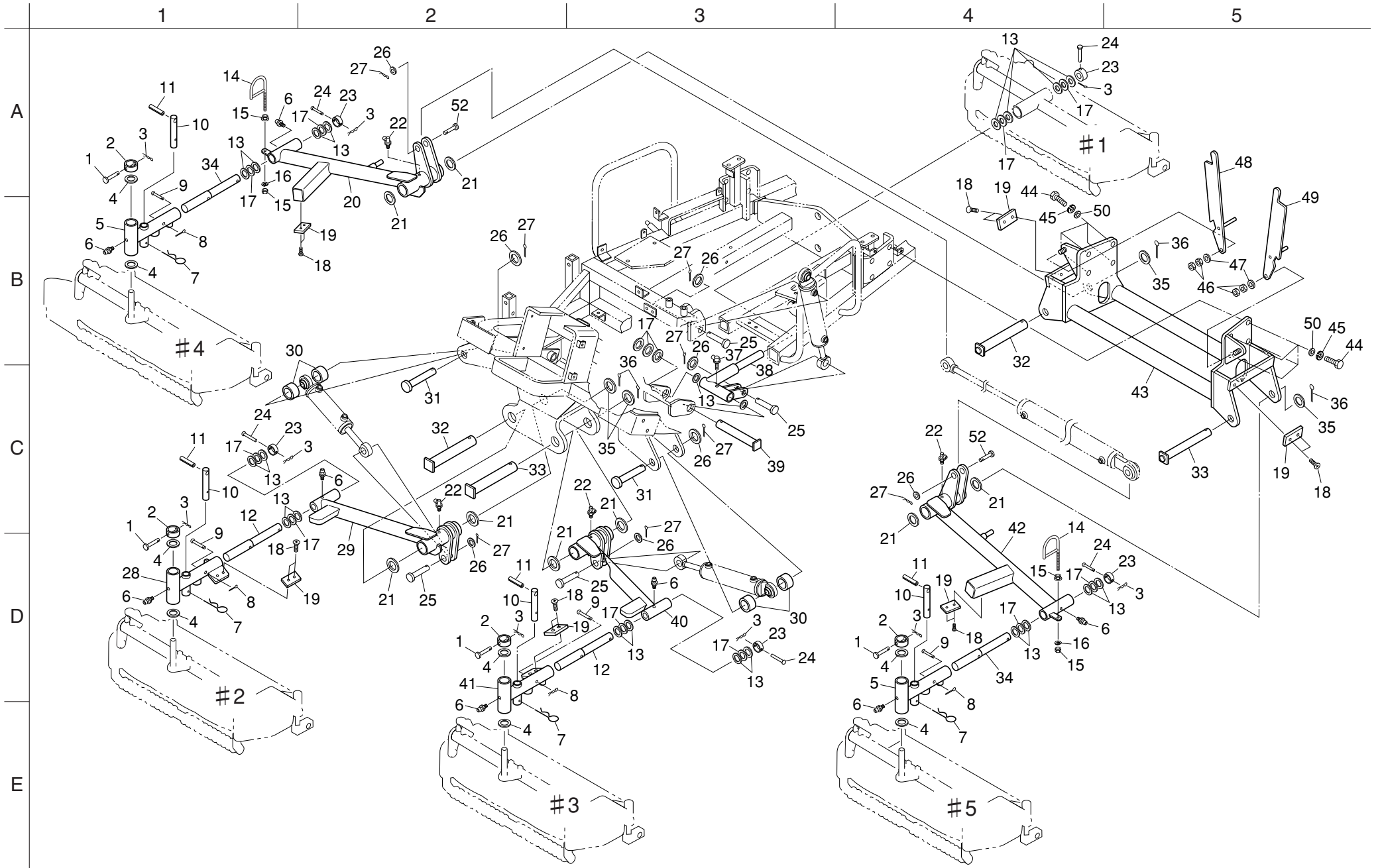


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
9-80	K 3 1 9 0 0 0 6 7 5 0	SP-12 coil tube 675	2	2	
9-81	K 3 0 0 6 0 0 0 0 1 2 - Y	different diameter elbow PT3/8 PF1/4	2	2	
9-82	K 3 0 2 1 0 6 0 0 0 2 - Y	screwed type tee TEF PT3/8	1	1	
9-83	K 3 0 0 3 0 9 0 0 0 2 - Y	45 elbow 1035-9	1	1	
9-84	K 0 0 7 3 0 0 0 0 2 2	6U bolt 40	1	1	
9-86	K 0 0 2 1 0 8 0 5 0 2	8 bolt with flange 50	4	4	
9-87	K 0 1 5 1 0 8 0 0 0 2	8 nut with flange	5	5	
9-88	K 0 0 2 1 1 0 0 2 0 2	10 bolt with flange 20	2	2	
9-89	K 0 1 5 1 1 2 0 0 0 2	12 nut with flange	1	1	
9-90	K 0 1 5 1 0 6 0 0 0 2	6 nut with flange	2	2	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	

10. Mower lift arm parts

LM282/LM319

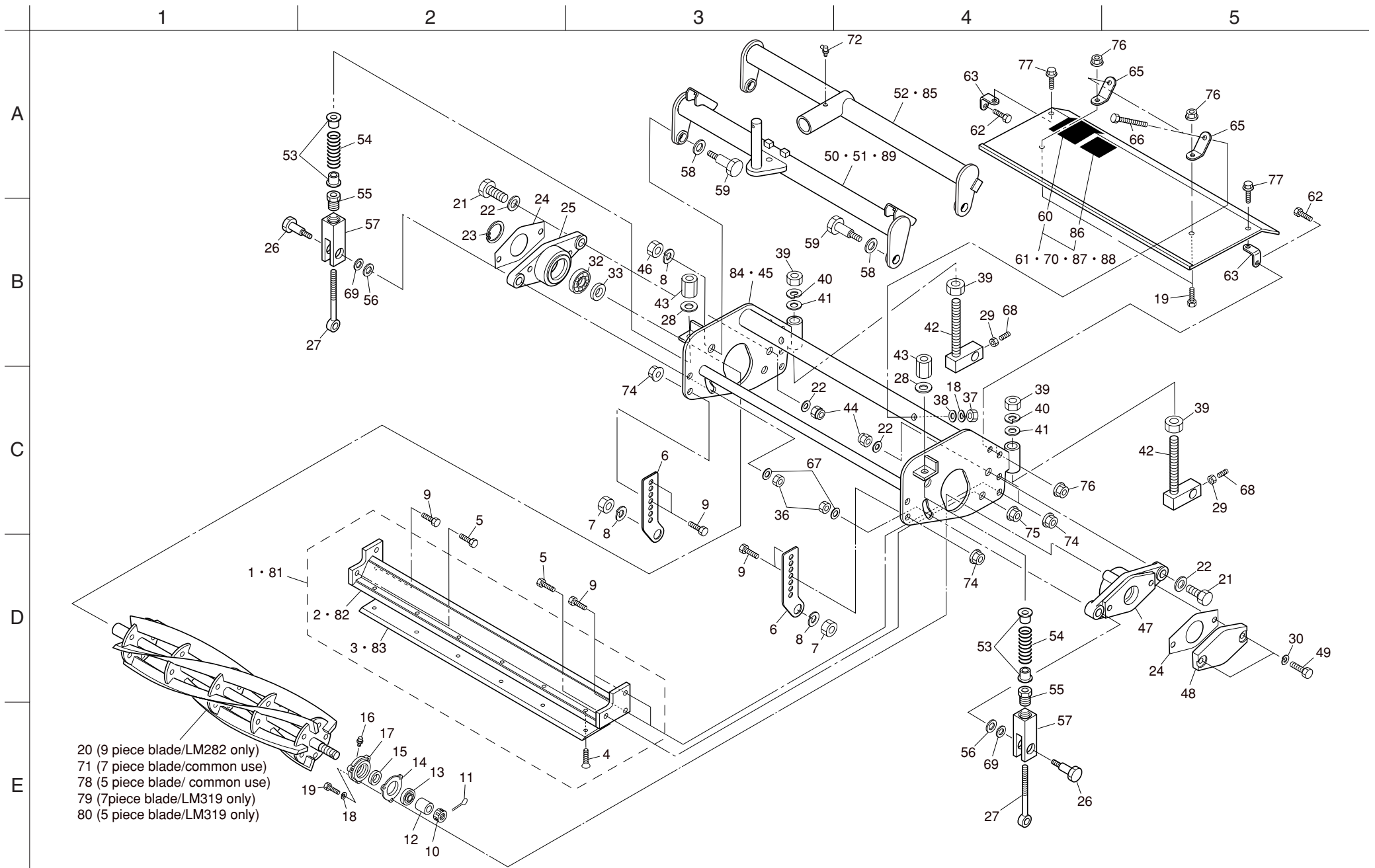


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
10-1	K6031090458	9.6 hardened round head pin 45.5	4	2	
10-2	LM526A-0209Z2	collar	4	2	
10-3	K0340800002	8 snap pin with stopper	9	5	
10-4	K5051025350	1C5191P metal washer 2535	8	4	
10-5	LM282--0208ZR	mower joint rear	2	0	
10-6	K1440000010	grease nipple	8	4	
10-7	K0332200008	22 snap pin	4	2	
10-8	K0300032202	3.2 split pin 20	4	2	
10-9	K6041080488	8 hardened round head pin 48.5	4	2	
10-10	LM526A-0208A8	stopper shaft	4	2	
10-11	K0320080501	8 spring pin 50	4	2	
10-12	K6155000220	shaft	2	2	
10-13	K5051025370	1C5191P metal washer 25.437	22	14	
10-14	LM526--0217Z2	hose guide	2	0	
10-15	K0100100002	10 nut	4	0	
10-16	K0200100002	10S washer	2	0	
10-17	K5011025372	1SPCC metal washer 25.437	14	10	
10-18	K0041060152	6+ countersunk head screw 15	12	4	
10-19	K4033000380	stopper rubber	6	2	
10-20	LM282--0201AD	rear lift arm (R)	1	0	
10-21	K5051030420	1C5191P metal washer 3042	8	4	
10-22	K1440000030	B-shaped grease nipple	4	2	
10-23	K6215000142	26 collar with hole 3215	5	3	
10-24	K6040080402	8 round head pin 40	5	3	
10-25	K6030200572	20 flat head pin 57	4	4	
10-26	K5012320402	2.3SPCC metal washer 2040	8	6	
10-27	K0300032322	3.2 split pin 32	8	6	
10-28	LM282--0204BR	mower joint (R)	1	1	
10-29	LM282--0226ZD	front lift arm (R)	1	1	
10-30	K6212000372	20.2STKM collar 25.414.5	4	4	
10-31	LM318--0209Z2	cylinder pin 84	2	2	
10-32	K7147000232	pin with $\phi$ 30-hole 196	2	1	
10-33	LM318--0221Z2	front mower arm shaft (L)	2	1	
10-34	LM282--0209Z0	horizontal shaft	2	0	
10-35	K5012330452	2.3SPCC metal washer 3045	4	2	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
10-36	K0300040402	4 split pin 40	5	3	
10-37	K1440000020	C-shaped grease nipple	1	1	
10-38	LM318--0220AD	rear lift arm	1	1	
10-39	K7147000242	25.4 pin with hole 160	1	1	
10-40	LM282--0227ZD	front lift arm (L)	1	1	
10-41	LM282--0203BR	mower joint (L)	1	1	
10-42	LM282--0202AD	rear lift arm (L)	1	0	
10-43	LM282--0205ZD	arm frame	1	0	
10-46	K0105140002	14 nut 3P1.5	4	0	
10-47	K0213140001	14 conical disk spring 1H	2	0	
10-48	LM282--0207ZD	lock lever (R)	1	0	
10-49	LM282--0206ZD	lock lever (L)	1	0	
10-52	K6030200802	20 flat head pin 80	2	0	

11. Mower parts (LM282/#1, #2, #4, LM319/#1, #3)

LM282/LM319



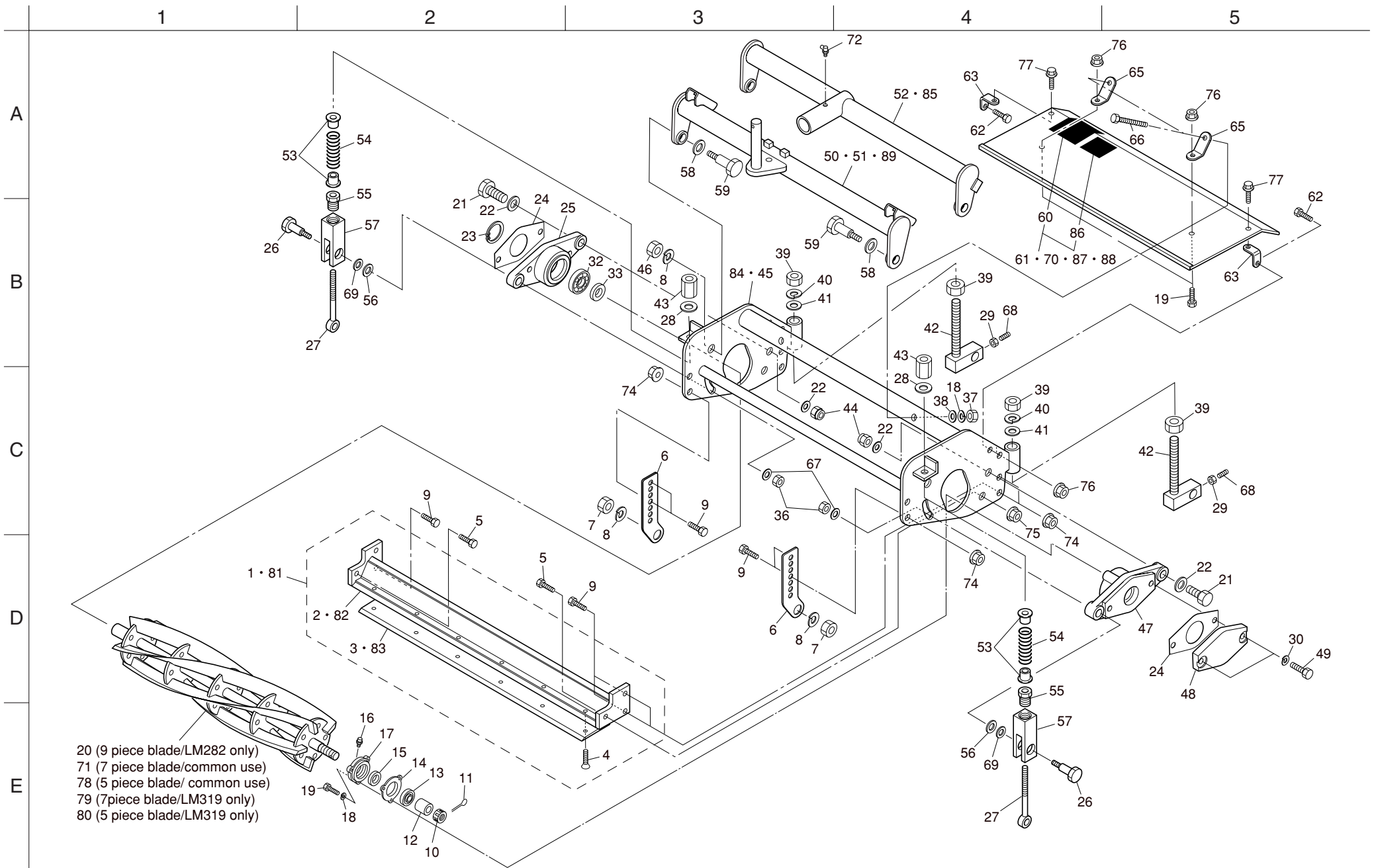


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
11-1	K8022000020	180 left and right blade assembly	3	1	
11-2	K744200006R	bed knife mount base 732	3	1	
11-3	K2510000030	7 bed knife 85-662	3	1	
11-4	K0071000092	10 heat-treated countersunk head screw 20	18	13	
11-5	K0000120302	12 bolt 30	6	4	
11-6	K5131001882	roller bracket	6	4	
11-7	K0160000532	14 high nut 20	6	4	
11-8	K0200140002	14S washer	12	8	
11-9	K0000100302	10 bolt 30	24	16	
11-10	K0170000012	20 grooved special nut	3	2	
11-11	K0300032252	3.2 split pin 25	3	2	
11-12	K6212001742	20.2STKM collar 2818	3	2	
11-13	K0602063040	bearing 6304Z	3	2	
11-14	K4011000150	packing	3	2	
11-15	K0822542080	oil seal MHSA25428	3	2	
11-16	K1440000010	grease nipple	3	2	
11-17	K6903000042	housing cover	3	2	
11-18	K0200060002	6S washer	15	10	
11-19	K0000060152	6 bolt 15	15	10	
11-20	K285260R90R	reel cutter 660-9R	3	0	
11-21	K0071001062	support shaft bolt	6	4	
11-22	K5012314252	2.3SPCC metal washer 1425	12	8	
11-23	K0402072001	stop ring R72	3	2	
11-24	K4011000290	packing	6	4	
11-25	K6903000202	hydraulic motor housing B	3	2	
11-26	K6082000122	housing bolt	6	4	
11-27	K7303000182	cutter adjusting bolt	6	4	
11-28	K5051010200	1C5191P metal washer 1020	6	4	
11-29	K0100100002	10 nut	6	4	
11-30	K0200100002	10S washer	6	4	
11-32	K0602062070	bearing 6207Z	3	2	
11-33	K0823560120	oil seal MHSA356012	3	2	
11-36	K0145100002	10U nut P1.25	6	4	
11-37	K0100060002	6 nut	6	4	
11-38	K5000060002	6 washer	6	4	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
11-39	K0108180002	18 nut 3P1.5	12	8	
11-40	K0200180002	18S washer	6	4	
11-41	K5012018282	2SPCC metal washer 1828	6	4	
11-42	LM526A-0108Z2	cutting height adjusting screw	6	4	
11-43	K0160000032	10 receiving blade adjusting nut P1	6	4	
11-44	K0145140002	14U nut P1.5	6	4	
11-45	K705200001R	mower frame	3	1	
11-46	K0105140002	14 nut 3P1.5	6	4	
11-47	K6903000212	reel housing	3	2	
11-48	K690300017D	reel housing cover	3	2	
11-49	K0000100452	10 bolt 45	6	4	
11-50	LM282--0104ZR	#2, #3 mower arm	1	0	#2 mower
11-51	LM526A-0103ZR	#1, #2, #5 mower arm	1	0	#4 mower
11-52	LM282--0158ZR	rear mower frame	1	0	#1 mower
11-53	K6206000052	spring receiver	12	8	
11-54	K1000000458	5 compression spring 2560	6	4	
11-55	K6081000082	threaded pipe for cutter adjustment	6	4	
11-56	K5012310172	2.3SPCC metal washer 1017	6	4	
11-57	K6090000552	adjusting screw mount base	6	4	
11-58	K5011020282	1SPCC metal washer 2028	6	4	
11-59	K6082000132	frame bolt	6	4	
11-60	K4205001600	cutting hazard label	3	2	
11-61	LM282--7104Z0	reel cover left with mark	2	0	#2, #4 mower
11-62	K0000060202	6 bolt 20	6	4	
11-63	K5206000522	cover mounting plate	6	4	
11-65	K527600041R	cover mounting plate	6	4	
11-66	K0003060552	6 bolt 55	6	4	
11-67	K5012310252	2.3SPCC metal washer 1025	6	4	
11-68	K0023100251	10 hollow set screw 25	6	4	
11-69	K0214100002	10 metal washer with conical disk spring 2L	6	4	
11-70	LM282--0140Z0	reel cover rear COMP	1	0	#1 mower
11-71	K285260R70R	reel cutter 660-7R	3	1	
11-72	K1440000020	C-shaped grease nipple	1	1	
11-74	K0151100002	10 nut with flange	24	16	
11-75	K0151120002	12 nut with flange	6	4	

11. Mower parts (LM282/#1, #2, #4, LM319/#1, #3)

LM282/LM319

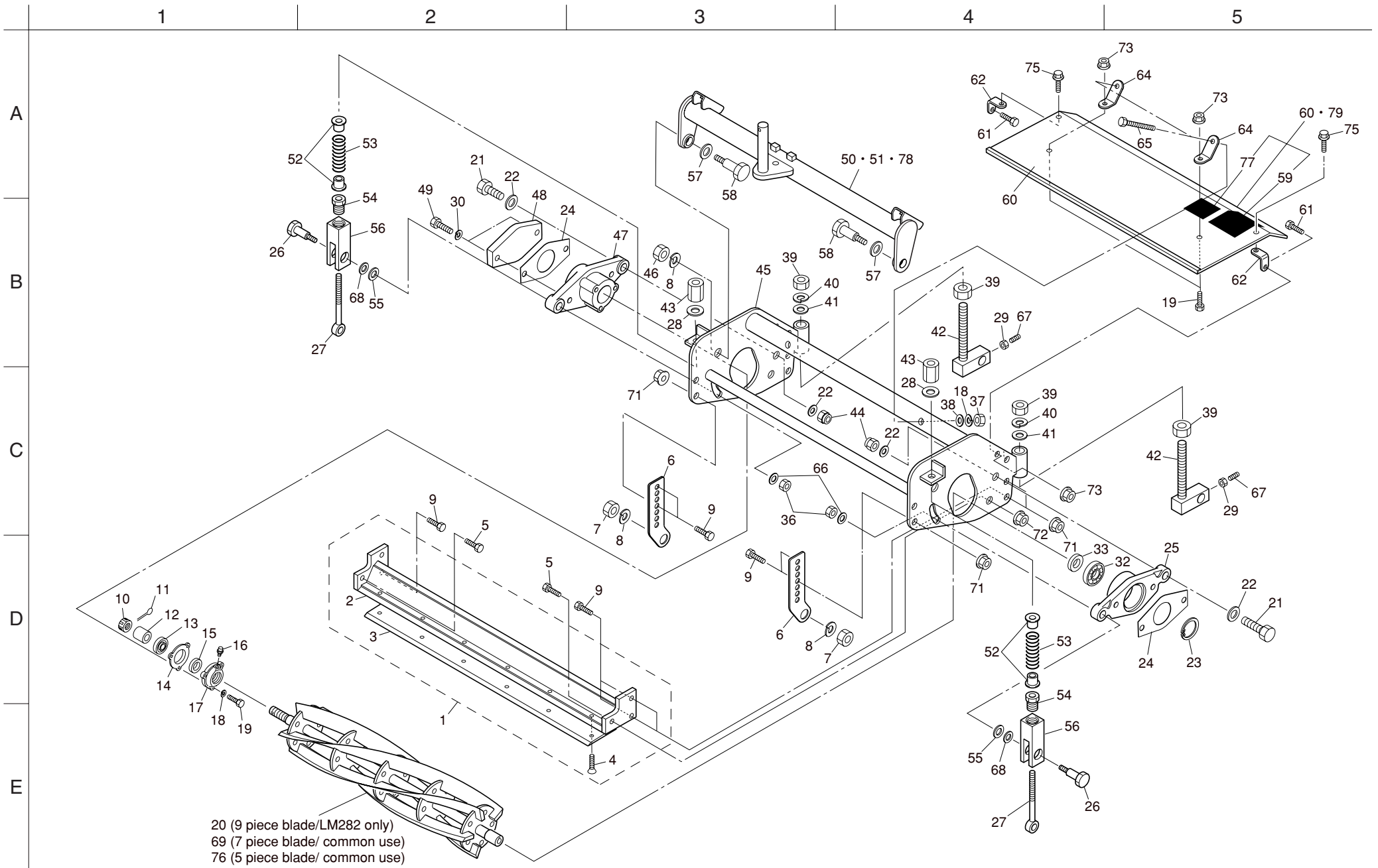


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
11-76	K0151060002	6 nut with flange	12	8	
11-78	K285260R50R	reel cutter 660-5R	3	1	option
11-79	K283181L71R	reel cutter 766-7	0	1	#1 mower
11-80	K283181L51R	reel cutter 766-5	0	1	#1 mower
11-81	K8022000030	180 rear knife assembly	0	1	#1 mower
11-82	K744200007R	bed knife mount base 840	0	1	#1 mower
11-83	K2510000020	7 bed knife 85-770-51	0	1	#1 mower
11-84	LM318--0157ZR	mower frame rear	0	1	#1 mower
11-85	LM318--0158AR	rear mower frame	0	1	#1 mower
11-86	K4205001650	thrown objects hazard label	3	2	
11-87	LM282--7106Z0	reel cover rear with mark	0	1	#1 mower
11-88	LM282--7105Z0	reel cover right with mark	0	1	#3 mower
11-89	LM526A-0104ZR	#3, #4 mower arm	0	1	#3 mower
11-90	K0021060102	6 bolt with flange 10	6	4	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	

12. Mower parts (LM282/#3, #5 LM319/#2)

LM282/LM319

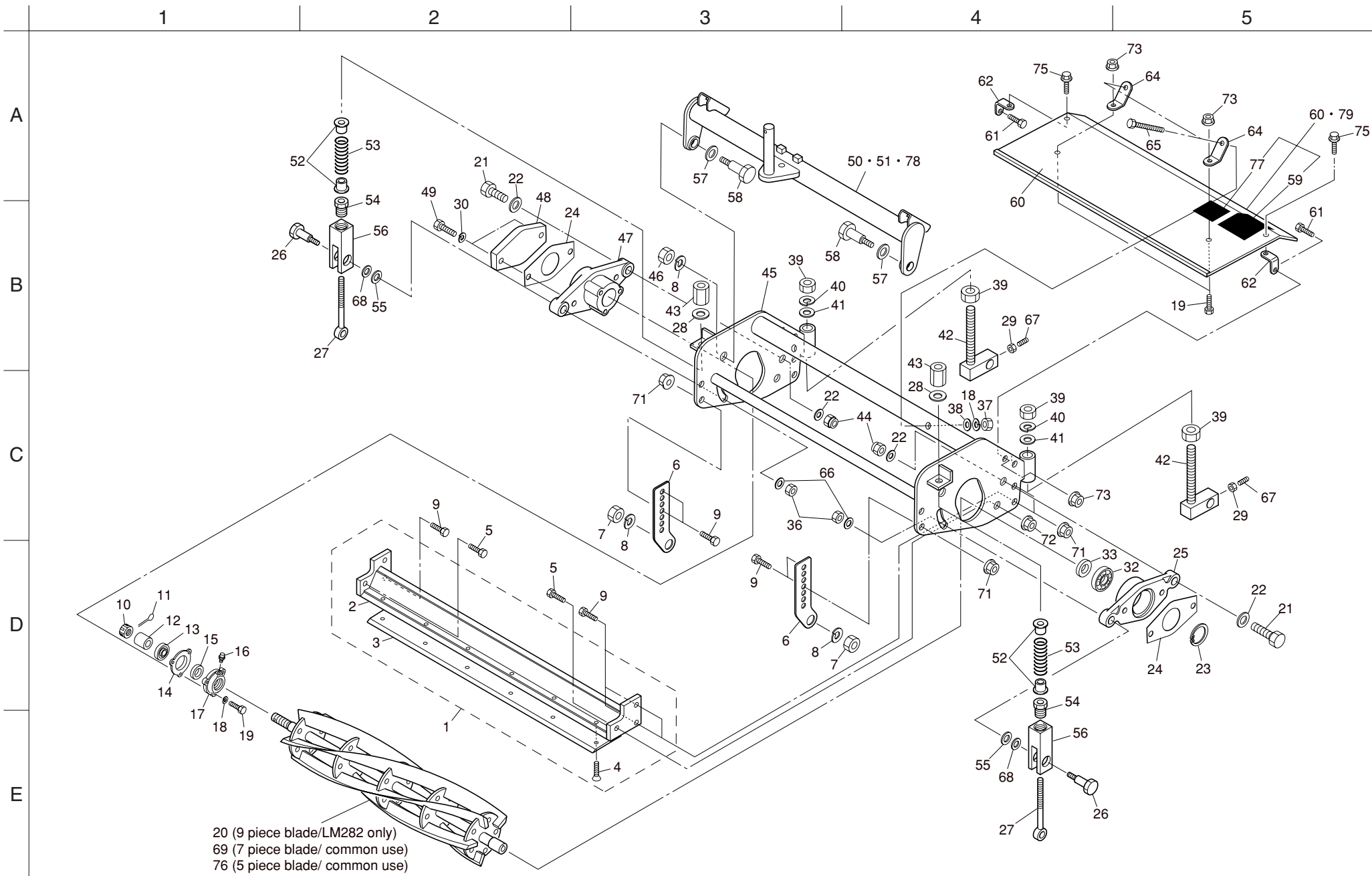


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
12-1	K8022000020	180 left and right blade assembly	2	1	
12-2	K744200006R	bed knife mount base 732	2	1	
12-3	K2510000030	7 bed knife 85-662	2	1	
12-4	K0071000092	10 heat-treated, countersunk head screw 20	12	6	
12-5	K0000120302	12 bolt 30	4	2	
12-6	K5131001882	roller bracket	4	2	
12-7	K0160000532	14 high nut 20	4	2	
12-8	K0200140002	14S washer	8	4	
12-9	K0000100302	10 bolt 30	16	8	
12-10	K0170000012	20 grooved special nut	2	1	
12-11	K0300032252	3.2 split pin 25	2	1	
12-12	K6212001742	20.2STKM collar 2818	2	1	
12-13	K0602063040	bearing 6304Z	2	1	
12-14	K4011000150	packing	2	1	
12-15	K0822542080	oil seal MHSA25428	2	1	
12-16	K1440000010	grease nipple	2	1	
12-17	K6903000042	housing cover	2	1	
12-18	K0200060002	6S washer	10	5	
12-19	K0000060152	6 bolt 15	10	5	
12-20	K285260L90R	reel cutter 660-9L	2	1	
12-21	K0071001062	support shaft bolt	4	2	
12-22	K5012314252	2.3SPCC metal washer 1425	8	4	
12-23	K0402072001	stop ring R72	2	1	
12-24	K4011000290	packing	4	2	
12-25	K6903000192	hydraulic motor housing A	2	1	
12-26	K6082000122	housing bolt	4	2	
12-27	K7303000182	cutter adjusting bolt	4	2	
12-28	K5051010200	1C5191P metal washer 1020	4	2	
12-29	K0100100002	10 nut	4	2	
12-30	K0200100002	10S washer	4	2	
12-32	K0602062070	bearing 6207Z	2	1	
12-33	K0823560120	oil seal MHSA356012	2	1	
12-36	K0145100002	10U nut P1.25	4	2	
12-37	K0100060002	6 nut	4	2	
12-38	K5000060002	6 washer	4	2	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
12-39	K0108180002	18 nut 3P1.5	8	4	
12-40	K0200180002	18S washer	4	2	
12-41	K5012018282	2SPCC metal washer 1828	4	2	
12-42	LM526A-0108Z2	cutting height adjusting screw	4	2	
12-43	K0160000032	10 receiving blade adjusting nut P1	4	2	
12-44	K0145140002	14U nut P1.5	4	2	
12-45	K705200001R	mower frame	2	1	
12-46	K0105140002	14 nut 3P1.5	4	2	
12-47	K6903000212	reel housing	2	1	
12-48	K690300017D	reel housing cover	2	1	
12-49	K0000100452	10 bolt 45	4	2	
12-50	LM282--0104ZR	#2, #3 mower arm	1	0	#3 mower
12-51	LM526A-0104ZR	#3, #4 mower arm	1	0	#5 mower
12-52	K6206000052	spring receiver	8	4	
12-53	K1000000458	5 compression spring 2560	4	2	
12-54	K6081000082	threaded pipe for cutter adjustment	4	2	
12-55	K5012310172	2.3SPCC metal washer 1017	4	2	
12-56	K6090000552	adjusting screw mount base	4	2	
12-57	K5011020282	1SPCC metal washer 2028	4	2	
12-58	K6082000132	frame bolt	4	2	
12-59	K4205001600	cutting hazard label	2	1	
12-60	LM282--7105Z0	reel cover right with mark	2	0	#3, #5 mower
12-61	K0000060202	6 bolt 20	4	2	
12-62	K5206000522	cover mounting plate	4	2	
12-64	K527600041R	cover mounting plate	4	2	
12-65	K0003060552	6 bolt 55	4	2	
12-66	K5012310252	2.3SPCC metal washer 1025	4	2	
12-67	K0023100251	10 hollow set screw 25	4	2	
12-68	K0214100002	10 metal washer with conical disk spring 2L	4	2	
12-69	K285260L70R	reel cutter 660-7L	2	1	
12-71	K0151100002	10 nut with flange	16	8	
12-72	K0151120002	12 nut with flange	4	2	
12-73	K0151060002	6 nut with flange	8	4	
12-75	K0021060102	6 bolt with flange 10	4	2	
12-76	K285260L50R	reel cutter 660-5L	2	1	

12. Mower parts (LM282/#3, #5 LM319/#2)

LM282/LM319

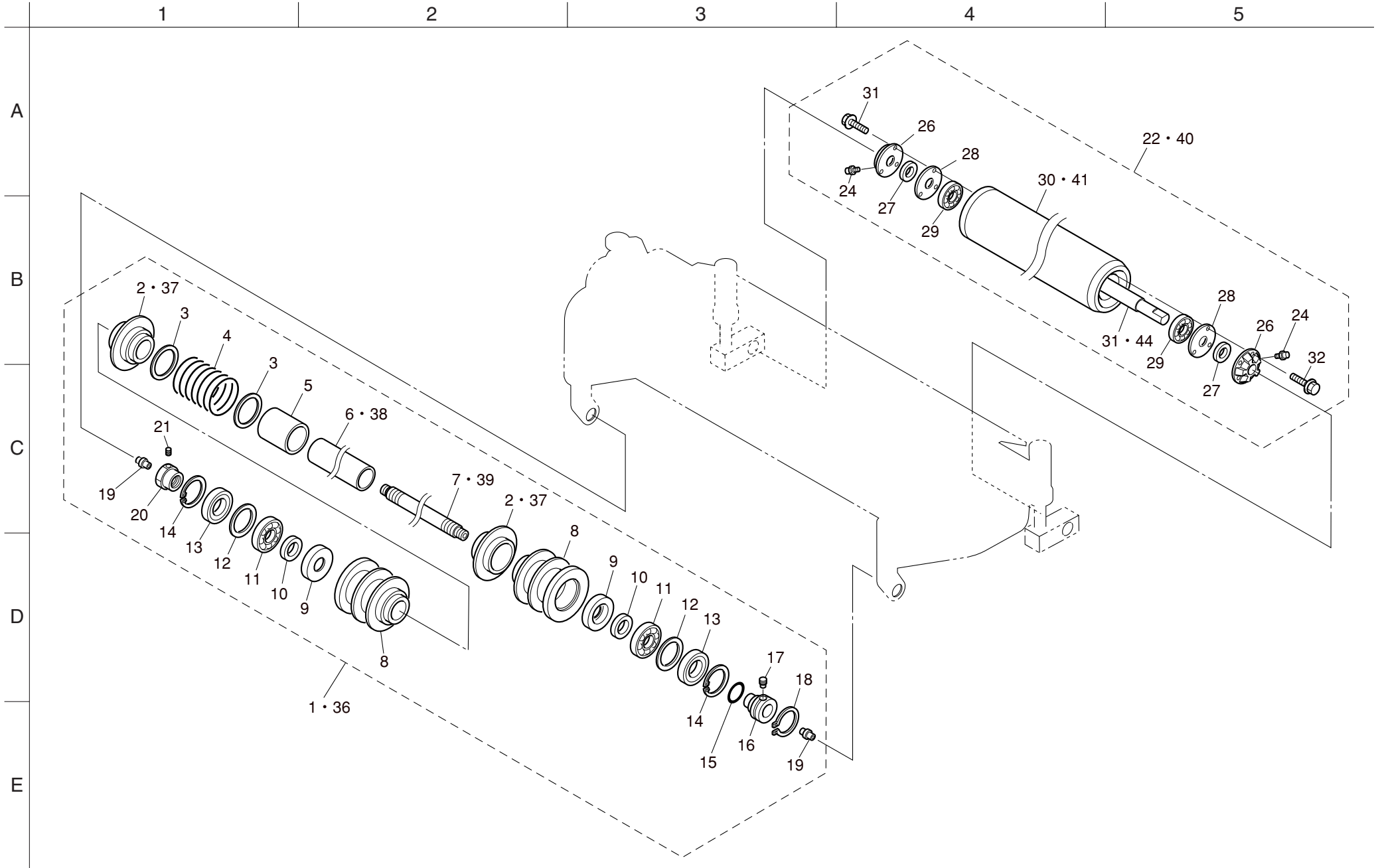


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
12-77	K 4 2 0 5 0 0 1 6 5 0	thrown objects hazard label	2	1	
12-78	LM2 8 2 - - 7 1 0 4 Z 0	reel cover left with mark	0	1	#2 mower
12-79	LM5 2 6 A - 0 1 0 3 Z R	#1, #2, #5 mower arm	0	1	#2 mower

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	

13. Roller assembly parts

LM282/LM319



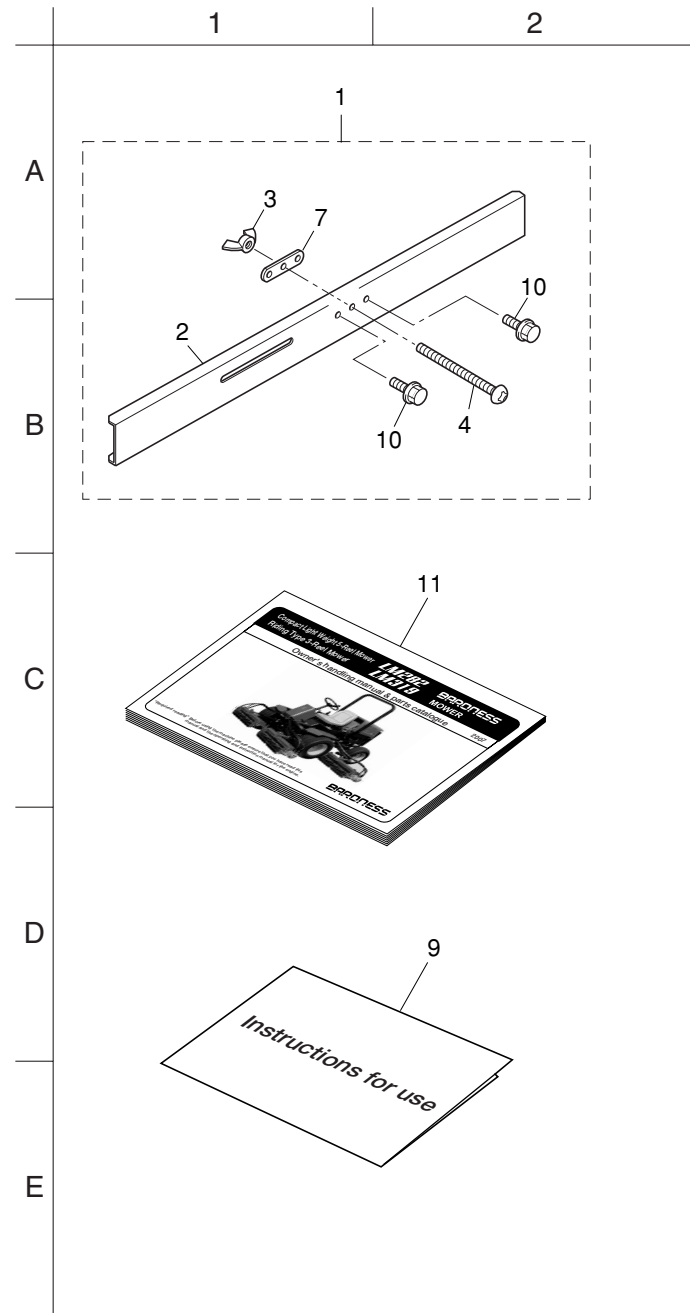


Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
13-1	K 8 0 2 1 0 0 0 4 2 0	grooved roller assembly	1	1	
13-2	K 5 9 2 0 0 0 0 0 6 0	80 roller	18	18	
13-3	K 5 0 5 1 0 3 5 4 7 0	1C5191P metal washer 3547	2	2	
13-4	K 1 0 0 0 0 0 0 7 3 D	5 compression spring 5175	1	1	
13-5	K 6 2 1 2 0 0 1 6 1 2	35STKM collar 4049	1	1	
13-6	K 6 2 2 6 0 0 0 0 8 2	28 roller pipe 34578	1	1	
13-7	K 6 1 2 1 0 0 0 3 4 0	roller shaft 762	1	1	
13-8	K 6 2 0 2 0 0 0 4 6 D	grooved roller housing 77	2	2	
13-9	K 6 8 0 3 0 0 0 0 3 0	seal housing	2	2	
13-10	K 0 8 2 2 0 3 5 0 8 0	oil seal MHSA20358	2	2	
13-11	K 0 6 3 1 3 0 2 0 4 0	tapered roller 30204 JRP6	2	2	
13-12	K 6 2 1 2 0 0 1 1 9 2	42STKM collar 473.25	2	2	
13-13	K 0 8 2 2 5 4 7 0 8 0	oil seal MHSA25478	2	2	
13-14	K 0 4 0 2 0 4 7 0 0 1	stop ring R47	2	2	
13-15	K 0 8 8 0 0 2 0 0 0 0	O-ring P20	1	1	
13-16	K 6 2 1 9 0 0 0 2 1 0	17 collar 3628.25	1	1	
13-17	K 0 0 7 1 0 0 0 7 7 8	drum collar stopper	1	1	
13-18	K 0 4 0 1 0 3 6 0 0 1	stop ring S36	1	1	
13-19	K 1 4 4 0 0 0 0 0 5 0	M8 grease nipple	2	2	
13-20	K 0 1 6 0 0 0 0 5 5 0	20 nut 27	1	1	
13-21	K 0 0 2 3 0 6 0 0 8 1	6 hollow set screw 8	1	1	
13-22	K 8 0 2 1 0 0 0 4 3 0	roller assembly 764	1	1	
13-24	K 1 4 4 0 0 0 0 0 1 0	grease nipple	2	2	
13-26	K 6 8 1 0 0 0 0 0 7 0	seal housing	2	2	
13-27	K 0 8 2 1 7 3 0 0 8 0	oil seal MHSA17308	2	2	
13-28	K 4 0 1 5 1 3 6 6 5 0	1 fiber 3665	2	2	
13-29	K 0 6 0 2 0 6 2 0 3 0	bearing 6203Z	2	2	
13-30	K 7 4 0 0 0 0 0 1 6 D	76.2 roller 674	1	1	
13-31	K 6 1 5 5 0 0 0 1 9 0	roller shaft 764	1	1	
13-32	K 0 0 2 1 0 6 0 1 0 2	6 bolt with flange 10	6	6	
13-36	LM318--0172Z0	rear mower grooved roller assembly	0	1	#1 mower
13-37	K 5 9 2 0 0 0 0 0 6 0	80 roller	0	22	#1 mower
13-38	K 6 2 2 6 0 0 0 0 9 2	28 roller pipe 34681.2	0	1	#1 mower
13-39	LM318--0173Z0	grooved roller shaft rear	0	1	#1 mower
13-40	LM318--0140Z0	rear roller assembly 872	0	1	#1 mower

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
13-41	K 7 4 0 0 0 0 0 1 8 D	76.2 roller 782	0	1	#1 mower
13-42	LM318--0129Z0	roller shaft rear	0	1	#1 mower

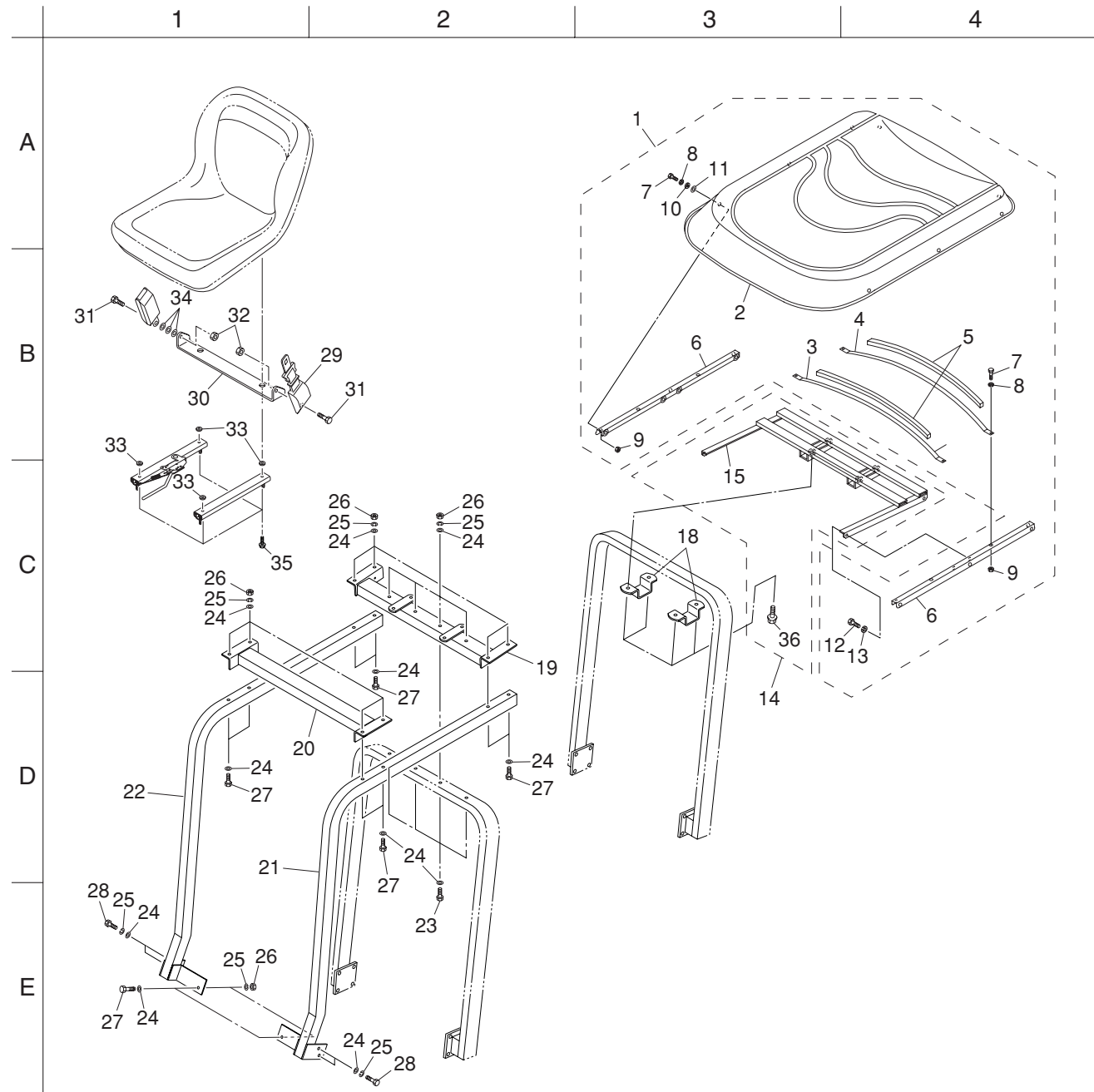
14. Accessory parts

LM282/LM319



15. Optional parts

LM282/LM319



Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
14-1	K4825000060	cutting height gauge 600 assembly	1	1	
14-2	K482500003D	cutting height gauge 600	1	1	
14-3	K0141060002	6 wing nut 3	1	1	
14-4	K0071000522	6 cutting height screw 75	1	1	
14-7	K4825000042	screw mounting plate	1	1	
14-8					
14-9	PF17203-8911-7	instructions for use of D1105-EB engine	1	1	
14-10	K0021060102	6 bolt with flange 10	2	2	
14-11	750101-59	LM282/319 parts catalogue	1	1	

Cat No.	Code No.	Part Name	Qty		Remark
			LM282	LM319	
15-1	K9120000030	roof assembly	1	1	
15-2	K1900000080	roof	1	1	
15-3	K190000010D	arch B	1	1	
15-4	K190000009D	arch A	1	1	
15-5	K1900000120	20 urethane sponge 20840	2	2	
15-6	K190000011D	hood support	2	2	
15-7	K0000080152	8 bolt 15	10	10	
15-8	K0200080002	8S washer	10	10	
15-9	K0100080002	8 nut	10	10	
15-10	K5012308322	2.3SPCC metal washer 832	6	6	
15-11	K1900000130	rubber for roof	6	6	
15-12	K0000100202	10 bolt 20	4	4	
15-13	K0200100002	10S washer	4	4	
15-14	K9120000020	awning frame assembly	1	1	
15-15	K722000007D	awning frame	1	1	
15-18	K5202000223	awning mounting plate	2	2	
15-19	LM282--7804ZD	reinforcement rear	0	1	
15-20	LM282--7805ZD	reinforcement front	0	1	
15-21	LM282--7802ZD	roll bar (L)	0	1	
15-22	LM282--7803ZD	roll bar (R)	0	1	
15-23	K0013121102	12 heat-treated bolt 110	0	4	
15-24	K5000120002	12 washer	0	26	
15-25	K0200120002	12S washer	0	18	
15-26	K0100120002	12 nut	0	14	
15-27	K0013120851	12 heat-treated bolt 85	0	10	
15-28	K0013120302	12 heat-treated bolt 30	0	4	
15-29	K1701000100	seatbelt	0	1	
15-30	K1701000110	XB-180 seatbelt bracket	0	1	
15-31	K0011120252	12 heat-treated bolt 25P1.5	0	2	
15-32	K0145120002	12U nut P1.5	0	2	
15-33	K5074510262	4.5SPHC metal washer 1026	0	2	
15-34	K5012013322	2SPCC metal washer 12.832	0	3	
15-35	K0021080302	8 bolt with flange 30	0	4	
15-36	K0021120202	12 bolt with flange 20	4	4	



**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

Lawnmowers

Model name / number

BARONESS / LM319

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 :

Katsunaki Makino

Position :

Development Dept. Manager

Date :

July 3, 2007

## 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 :

Lawnmowers  
BARONESS  
LM319  
10002  
LWA 103.62 dB  
LWA 105 dB

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

### Technical Documentation

Keeper's Name :  
Keeper's Address :

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

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  
Luxembourg

### Technical Construction File

Date :  
Technical Construction File No. :  
Test Laboratory

May 24, 2007  
No. TC319-00  
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 :



Katsuaki Makino  
Manager  
Development Dept  
Kyoeisha Co., Ltd.

Date :

July 3, 2007



**KYOISHA CO., LTD.**

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

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