



**LMISGS** 







LM56GB

LMGGGB LMGGTB

#### Specification

Model		LM18GB	LM56GB	LM66GB	LM66TB		
	Total length with grass catcher	54.72 in   139 cm	55.51 in   141 cm	55.51 in   141 cm	55.51 in   141 cm		
Dimensions	Total width without traveling whee	33.07 in   84 cm	37.01 in   94 cm	40.55 in   103 cm	40.55 in   103 cm		
	Total length Steering handle	45.28 in   115 cm	40.55 in   103 cm	40.55 in   103 cm	40.55 in   103 cm		
	Main unit without grass catchera travelling wheels	208.11 lb   94.4 kg	198.41 lb   90.0 kg	209.88 lb   95.2 kg	209.88 lb   95.2 kg		
NA(-1-1-1	Grass catcher	6.83 lb   3.1 kg	7.28 lb   3.3 kg	7.94 lb   3.6 kg	7.94 lb   3.6 kg		
Weight	Groomer	6.61 lb   3.0 kg	8.82 lb   4.0 kg	8.82 lb   4.0 kg	_		
	Travelling wheel (for one machine)	15.21 lb   6.9 kg	15.21 <b>l</b> b   6.9 kg	15.21 <b>l</b> b   6.9 kg	15.21 <b>l</b> b   6.9 kg		
Model		SUBARU EX13D					
Engine	Туре	Air-Cooled, 4-Cycle, Slant Single-Cylinder, Horizontal P.T.O. Shaft, OHC Gasoline Engine					
Engine	Total displacement	7.69 cu.in.   126 cm3 (0.126 L)					
Maximum output		3.2 kW (4.3 PS)/4,000 rpm *1					
Fuel tank capacity		Gasoline 0.61 U.S.gal.   Gasoline 2.3 dm3 (2.3 L)	Gasoline 0.61 U.S.gal.   Gasoline 2.3 dm3 (2.3 L)	Gasoline 0.61 U.S.gal.   Gasoline 2.3 dm3 (2.3 L)	Gasoline 0.61 U.S.gal.   Gasoline 2.3 dm3 (2.3 L)		
Operating width (Mowing width)		18 in   45.7 cm	22 in   55.7 cm	26 in   64.6 cm	26 in   64.6 cm		
Operating height (Mowing height)		0.079 - 1.122 in   2.0 - 28.5 mm	0.079 - 1.122 in   2.0 - 28.5 mm	0.079 - 1.122 in   2.0 - 28.5 mm	0.079 - 1.122 in   2.0 - 28.5 mm		
Blades		11	9(option), 11	9, or 11	7, 9, or 11		
Drive		Mechanical	Mechanical	Mechanical	Mechanical		
Speed (Mechanical)		2.98 mph @3,000 rpm   4.8 km/h @3,000 rpm	2.98 mph @3,000 rpm   4.8 km/h @3,000 rpm	2.98 mph @3,000 rpm   4.8 km/h @3,000 rpm	2.98 mph @3,000 rpm   4.8 km/h @3,000 rpm		
Efficiency		0.4 acres/hour (2.98 mph x mowing width x 0.8) 1,755 m2/h (4.8 km/h x mowing width x 0.8)	0.5 acres/hour (2.98 mph x mowing width x 0.8) 2,139 m2/h (4.8 km/h x mowing width x 0.8)	0.6 acres/hour (2.98 mph x mowing width x 0.8) 2,481 m2/h (4.8 km/h x mowing width x 0.8)	0.6 acres/hour (2.98 mph x mowing width x 0.8) 2,481 m2/h (4.8 km/h x mowing width x 0.8)		
Tire size		4.10/3.50-6	4.10/3.50-6	4.10/3.50-6	4.10/3.50-6		

\*The footory default maximum engine rpm is 3,400rpm.



Please read the Owner's Operating Manual and other training material carefully.

Be familiar with the controls, safety signs and the proper use of equipment before operation.

#### C Assurance inspection

Regular inspection of the machine ensures long-lasting superior performance and safety.
 There are parts of machine prone to wear and deterioration from long periods of use.
 Please consult with local dealer or distributor for proper inspection and maintenance schedule.

Your distributor or dealer



1-26, Miyuki-cho, Toyokawa-city, Aichi-pref, 442-8530 Japan TEL: +81 533-84-1390 FAX: +81 533-89-3623

#### www.baroness.co.jp

- Content and designs provided here are subject to change without notice.
- Colors in print may slightly vary from actual colors.
   Cotolog No. LMECCR. U.S.(16.4, 1000, APRISE.)
- Catalog No: LM56GB-US/16A-1000-APRISE



# Quality on Demand

Our goal at BARONESS is provide the golf course with a machine that will consistantly cut grass cleanly, leaving a healthy uniformed cut and appearance.

Golf greens are the most recognized and talked about part of the golf course.

The most important feature on any greens mower is the quality of cut.

The BARONESS walk behind greens mower has been recognized as the mower with the world's highest quality of cut.

Our mowers are of the highest quality, our design process puts cutting quality as the top priority and our craftsman take the time to carefully handcraft each mower to perfection.

BARONESS does not believe in compromising quality, and have spared no expense investing in the development of our Walk Behind Greens Mowers.

Our products incorporate many ideas to support the creation of the ideal green including a high quality and long lasting reel cutter and bedknife, in addition to the adoption of a superior durability all-gear drive.

We offer a unique lineup of products and tools that can accommodate any type of work.

Our mission is to create the world's highest quality greens mowers.

BARONESS provides greens mowers that are loved by greens keepers around the world.

Walk Behind Greens Mower

LMIBGB-56GB-66GB
Walk Behind Tee Mower
LM66TB





ALL-GEAR
DRIVE

# Traditional All-Gear Drive

The BARONESS Walk Behind Greens Mower utilizes BARONESS' traditional all-gear drive. BARONESS' all-gear drive has 100% drive transmission rate with no slippage or lag between the drive (drum roatation) to reel roation ratio. Additionally, it has extremely high durability compared to a belt or chain type. This gives peace of mind to the operator and allows them to provide a balanced cut.

SPECIAL TOOLS FOR CREATING PERFECT GREEN CONDITION

# New Standard in BARONESS Walk Behind Greens Mowers!





# Independent Grass Catcher Arm

IGCA (Independent Grass Catcher Arm) is a mechanism which doesn't allow the mower cutting height to change even if the amount of grass in the grass catcher increases. BARONESS eliminated as much operator error as possible by allowing more movement on the handle without effecting the cutting head. The cutting head will stay in the same stable position and continue cutting the turf, even if the handle is operated in a rough manner, the cutting height will not change from start to finish.

The operator is able to cut the green with the same balanced uniformed cut and consistant HOC cut regardless of the operator's skill level or ability. (IGCA can be equipped to the LM18GB and LM56GB.)



#### For cutting all the greens to the same uniformed height,

#### Issue 1

As the weight of the grass clippings in the grass catcher increases and decreases it has direct effect on the HOC. The weight of the basket weighs the cutting head down lowering the HOC, when the basket is then emptied, the cutting head and HOC both rise too.

#### Solution

The grass catcher is supported on its own roller and support arm. This means the weight of grass clipping, thatch, sand etc. in the grass catcher increases it will have no impact on the cutting head's set HOC. The operator can confidently cut the green with the same even cut from start to finish.



#### Issue 2

Operator error and rough usage of handle causes the cutting height to fluctuate. As the operator pushes to hard or forward on the handle the cutting head can scalp, if the operator pulls back or leans on the handle the cutting head will lift or jump, changing the HOC.

#### Solution

The grass catcher and handle are linked to eliminate movement of the cutting head during mowing. Adjusting the linking rod on the IGCA to center the handle arms in the handle adjusters keeps the cutting head's pressure consistent and allows tolerance for operator error.



#### Benefit 1

The mower will maintain a constant HOC regardless of the operator's skill level as long as the handle is within the hole of the handle adjuster. It is especially effective when the operator rapidly accelerates or when cutting on an undulation.



#### Benefit

The weight of the grass catcher does not have an impact on the cutting head's front roller which reduces sinking (gouging or digging) due to the front roller's intial contact when entering a green.



#### **FOC efficiency (High/Low Clip)**

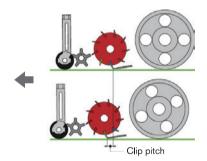
The FOC efficiency (High/Low Clip) switching mechanism comes standard. This mechanically controls the reel rpm in two different stages so that the operator can control the cut according to the condition of the green. (\*CE not supported)



#### **BARONESS Green Mower FOC (Clip pitch)**

Walk Behind					
LM18GB·56GB·66GB·LM66TB			LM18GB·56GB·66GB·LM66TB		
3,000					
	High Clip		Low Clip		
1,818			1,143		
2.98mph   4.8km/h			2.98mph   4.8km/h		
11	9	7	11	9	7
0.157in/cut   4.0mm/cut	0.193in/cut   4.9mm/cut	0.248in/cut   6.3mm/cut	0.252in/cut   6.4mm/cut	0.307in/cut   7.8mm/cut	0.378in/cut   9.6mm/cut
	11	High Clip 1,818 2,98mph   4.8km	LM18GB·56GB·66GB·LM66TB  3,0  High Clip  1,818  2.98mph   4.8km/h  11  9  7	LM18GB·56GB·66GB·LM66TB     LM186       3,000       High Clip       1,818       2,98mph   4,8km/h       11     9     7     11	LM18GB·56GB·66GB·LM66TB         LM18GB·56GB·66GB·L           3,000         3,000           High Clip         Low Clip           1,818         1,143           2.98mph   4.8km/h         2.98mph   4.8km/h           11         9         7         11         9

#### Tips



#### What is FOC(Clip pitch)?

The FOC is the distance the cutting head moves between on reel blade to the next when cutting grass. This can also be explained as clip pitch, clip rate, or clip cutting frequency.

FOC efficiency	High Clip	Low Clip	
Cut (grass cross section)	Fine Clip pitch	Regular Clip pitch	
Ball roll	Fast	Regular	
Benefits	•The finished cut creates a flatter green surface and promotes new offshoots (branches). •BARONESS mowers are able to evenly cut greens with a larger number of sprouts, resulting in a smoother surface for truer ball roll.	Reduces stress on the grass.  Lowering the wear on the reel cutter and bedknife reduces running costs and maintenance time.	

#### Why is there a need to switch the FOC efficiency?

The advantages of a high clip frequency is a faster rotation of the reel cutter which shortens the FOC and enables a more uniform cutting of the green. This promotes new offshoots (branches), increases the number of sprouts and the density of the grass. After cutting the green, the grass surface will be smoother, which gives the ball a more truer roll.

However, when the reel is moving at a high clip frequency issues can arise such as an increased amount of grass clippings after cut, a greater amount of wear on the reel cutter and bedknife due to sand when top dressing and the risk of increased stress during the summer months.

#### What is the benefits of selecting the FOC efficiency.

- Select the best FOC efficiency for the type of turf (bent grass, korai grass, Bermuda grass, etc.)
- The mower can also be used to cut the tee are if set to low clip frequency.
- Stress on the grass can be reduced by using the low clip frequency when cutting the surrounding area around greens (clean-up pass).
- Suppress chances of scalping by using the low clip frequency when de-thatching to leave the green soft.
- Cutting the green at a low frequency will reduce the collection of sand when top dressing and decrease the wear on the reel cutter and bedknife from mowing sand. (reduces running costs and maintenance time)

#### **Groomer, De-thatcher and Rotary brush**

Optional groomer can be attached, optional attachments are bi-directional. Can choose forward direction or reverse direction with a simple move of a lever.



#### Benefits of Forward and Reverse Rotation

- Forward rotation stands up grass that has laid-down for a better cut. Correcting the angle of the turf (grain of the turf) when cutting helps keep the length of the grass (cutting height) uniform and leads to improved putting quality. As a result this promotes off shoots in the grass, increases the number of sprouts, unifies the leaf area and makes the turf stronger.
- In reverse rotation the optional attachment can remove thatch between the surface and the grass. This prevents the occurance of disease and harmful insects. This also makes it easier for the sand to penetrate down into the surface when top dressing.

	Groomer		De-thatcher		Rotary brush	
	blades	Blade thickness	blades	Blade thickness	brushes	Diameter
LM18GB	64	0.020in   0.5mm	32	0.039in   1.0mm (0.020in   0.5mm)	30	2.36in   60mm
LM56GB	78	0.020in   0.5mm	39	0.039in   1.0mm (0.020in   0.5mm)	47	2.36in   60mm
LM66GB	92	0.020in   0.5mm	46	0.039in   1.0mm (0.020in   0.5mm)	55	2.36in   60mm
Intended Use	This has the benefit of straightening the green's turf and standing up laid-down grass to cut. The recommended attachment direction is forward.		This is used to eliminate thatch and also benefits the green by standing up the grass blades vertically. The recommended attachment direction is reverse.		This benefits the greens by smoothing out the green's turf, eliminating debris and removing morning dew. These options can be operated in either forward or reverse direction according to the intended use.	

\*LM66TB does not have this setting.

#### **Front Roller**

Select the optimal roller according conditions and requirements such as quality of cut, reducing turf stress and such.





Grooved roller

Smooth roller

#### **Dew Roller**

The Dew roller icreases cutting quality without stressing the green's with morning dew. Reduce the amount of work involved by cutting the grass and removing dew at the same time. \*Cannot be used in conjunction with IGCA.



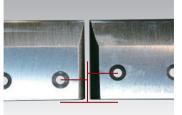
#### **Bedknife**

The standard bedknife position is set at an aggressive distance and angle to provide the most truest cut. The reel cutter and bedknife distance on BARONESS Walk Behind Greens Mower is set to stand the grass up and firmly grab a large amount of grass for cutting.



	Model	Blade thickness	Parts name	Extended
	LM18GB	0.059in   1.5mm	1.5 Bedknife 18G	STD
			1.5 Bedknife 18G-44.5	0.098in   2.5mm
			1.5 Bedknife 18G-47	0.197in   5.0mm
		0.059in   1.5mm	1.5 Bedknife 55G	STD
			1.5 Bedknife 55G-44.5	0.098in   2.5mm
			1.5 Bedknife 55G-47	0.197in   5.0mm
	LM56GB		2 Bedknife 55G	0.098in   2.5mm
Bedknife options		0.079in   2.0mm		0.098in   2.5mm
Beakine options			2 Bedknife 55G-47	0.197in   5.0mm
		0.118in   3.0mm	3 Bedknife 62.5-559	STD
		0.059in   1.5mm	1.5 Bedknife 65G	STD
			1.5 Bedknife 65G-44.5	0.098in   2.5mm
			1.5 Bedknife 65G-47	0.197in   5.0mm
		0.079in   2.0mm	2 Bedknife 65G	STD
			2 Bedknife 65G-44.5	0.098in   2.5mm
			2 Bedknife 65G-47	0.197in   5.0mm
		0.118in   3.0mm	3 Bedknife 62.5-648.4	STD

#### **Extended Bedknife**



The holes for the extended bedknives ar positioned differently than the standard bedknives. The distance between the bedknife edge and cutting reel is shorter or closer than a standard bedknife to lessen the risk of scalping.

#### Benefits and Disadvantages of Extended Bedknives

	Benefits	Disadvantages
Large	Large amount of cut grass Good contact between the end of the reel cutter and bedknife Good cutting quality	Possibility of scalping occurring     Large amount of sand collected from the top dressing
Extended -	Suppress scalping Small amount of sand collected from the top dressing	Small amount of cut grass     Reduced contact between the end of the reel cutter and bedknife     Reduced quality of cut

## **Support Rollers**

This is an optional roller that can be mounted on either side of the mower to reduce scalping which occurs when the edge of the reel cutter makes contact with the green surface due to eneven undulations.





#### Benefits of Support Rollers

A support roller prevents scalping when the reel cutter edge makes contact with the green surface usually in undulations or uneven surface.





#### **Drum**

Select the type of drum which corresponds to the desired green quality.



No Dimple Drum



Dimpled Drum



LM18GB·56GB·66GB / LM66TB

RUG Drum

#### Handle

BARONESS offers optional handles to fit every operator's preference.



Straight Handle





Straight Handle (Type:S) Drop handle (Type:S)

### Light

Safely cut grass during the morning or evening.



