YANMAR

OPERATION & MAINTENANCE MANUAL

LIGHTING TOWER

LIGHT BOY

MODEL ELB 44SC

S/N E8000001 & Above

LIGHTING TOWER

LIGHT BOY

MODEL ELB 114BC

S/N E5000001 & Above

LIGHTING SYSTEM

LIGHT BOY

MODEL ELB 144BW

S/N E6000001 & Above

LIGHTING SYSTEM

LIGHT BOY

MODEL ELB 144BS

S/N E7000001 & Above

Never attempt to operate or service this Lighting system until you have first read and understood all of the applicable Safety Instructions that are set forth in this Manual.
The failure to comply with all relevant Safety Instructions could result in bodily injury.
To assure that this Manual will be conveniently available to future users, store this manual carefully after use.

LGBELB-00001
PUBLISHED: 02/07/2007

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SAFETY

⚠ WARNING

Never attempt to operate or service this lighting tower until you have first read and understood all of the applicable Safety Instructions that are set forth in this Manual.

The failure to comply with all relevant Safety Instructions could result in bodily injury.

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8. Specifications

Model (Code)				ELB (44SC)
Lighting tower	Rated voltage		V	AC230
	Starting current		A	14.0
	Operating current		A	8.16
	Frequency		Hz	50
	Wattage X Number of lamp			400W X 4
	Lamp	Type		Metal Halide Lamp
		Total luminous flux	lm	136000
		Projection angle		Variable
	Mast	Type of mast		Telescopic 3 stage mast
		Mast operation		Manual winch
		Min. & max. height	ft.in.(mm)	6’11" to 18’1" (2100 to 4200)
	Wheel			4 tired wheels Ø12" (Ø300mm)
	Dimension	In operation (L×W×H)	ft.in. (mm)	5’3"×5’1"×6’11" to13’10" (1600×1550×2100 to 4200)
		In storage (L×W×H)	ft.in. (mm)	3’5"×3’×5’7" (1040×920×1700)
	Outside temperature		F(C)	24 to 104 (-5 to 40)
	Mass		lbs.(kg)	364 (165)

Note :

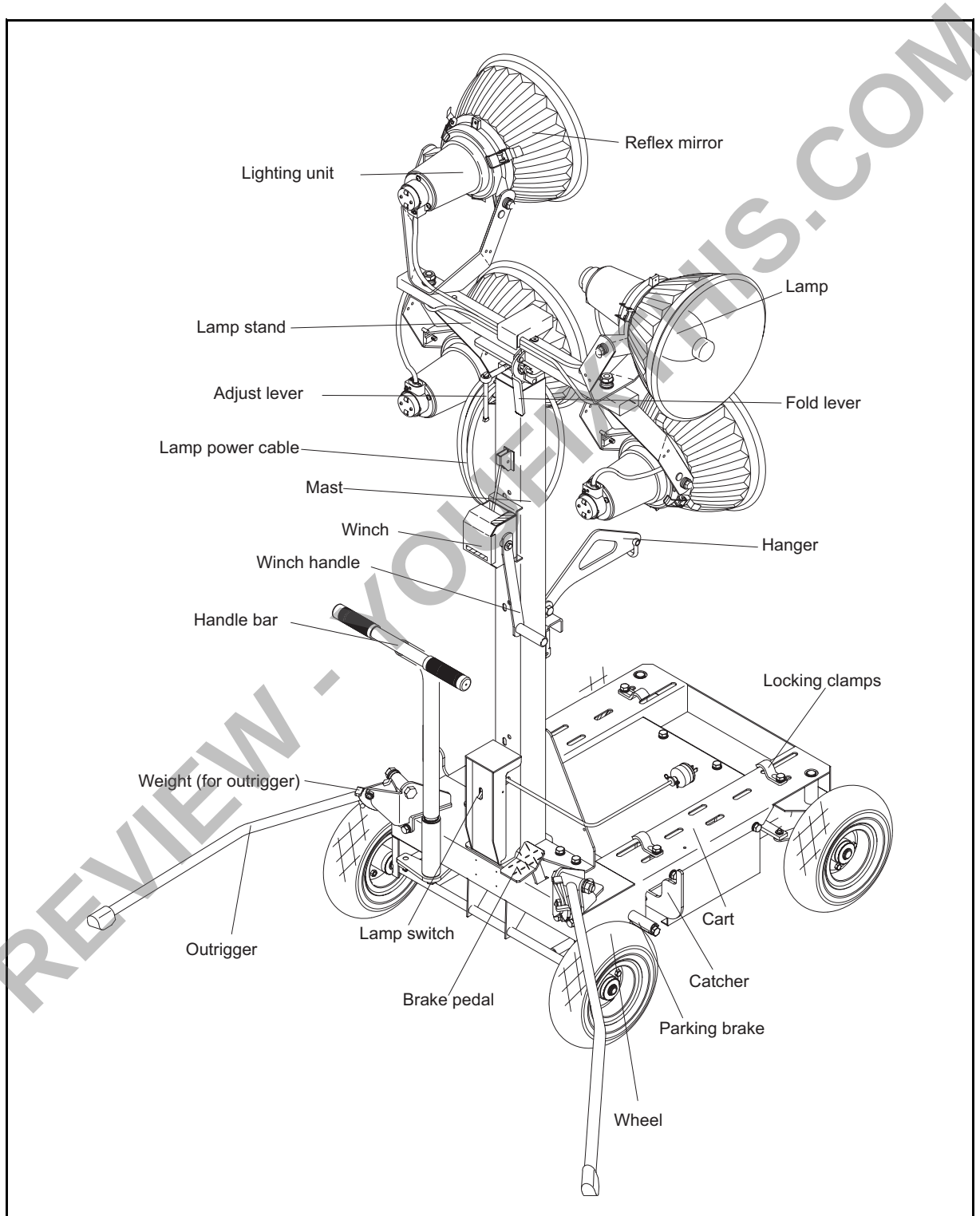
- The specifications could be changed without notice because of the improvements.
- An actual article could differ from the figure in this manual.
- Lighting tower could not light up with the problem of matching of the generator.

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9. Product overview

9-1. Parts name



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ELECTRICAL DIAGRAM

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14. Trouble shooting

Lamp

Trouble	Check item	Content of work
Lamp does not light	• Is power plug connected securely?	Connect power plug securely.
	• Are switch of generator and lamp switch of lighting tower turned on?	Turn on switches.
	• Isn't lamp loosened?	Screw lamp securely.
	• Are connectors correctly connected?	Connect disconnected connectors.
	• Is voltage of generator normal? (Non-load voltage is about 220 V.)	Check connection of power cable. Replace generator.
	• Is model of lamp compatible?	Use YANMAR genuine lamp.
	• Is lamp cold enough to light again? (Interval of 20 to 30 min. is required to light again.)	Wait until lamp gets cold enough.
Light goes out or blinks	• Isn't air cleaner element of generator clogged?	Clean element.
	• Isn't water collected in fuel tank of generator?	Drain water from fuel tank.
	• Is voltage of generator normal? (Non-load voltage is about 220 V.)	Check connection of power cable. Replace generator.
	• Is lamp cold enough to light again? (Interval of 20 to 30 min. is required to light again.)	Wait until lamp gets cold enough.
Lamp only lights for a short time	• Is voltage 135 V, and current 3.25 A while operating generator?	Repair or replace generator.
	• Isn't ambient temperature too high (More than 104°F [40°C])?	Move to proper place or provide good ventilation.

Mast

Trouble	Check item	Content of work
Mast cannot be raised	• Isn't cable caught in mast?	Set caught cable free.
	• Isn't end of wire rope disconnected from winch?	Connect wire rope to winch.
	• Does surface of mast slides smoothly?	Apply grease on sliding surface of mast.
	• Isn't winch used with opposite revolution?	Operate correctly.
Mast keeps on coming down	• Is latch of winch effective?	Replace part if malfunction.
	• Isn't dram shaft on winch loosened?	Tighten dram shaft and check its operation.
The mast cannot be lowered	• Does surface of mast slides smoothly?	Apply grease on sliding surface of mast.
	• Isn't brake disk part of winch held tight?	Holding winch handle securely, remove the latch and lower mast slowly. (Repair.)
	• Does safety stopper working correctly?	Winch up mast a little and lower mast by giving a load on it. (Repair.)

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12. Periodic checks, maintenance and storage

Figure		Part	Check item	Service item	
Lamp (A)	A1	Lamp (Base)	Check if it is not loosened.	Screw in securely.	◎
	A2	Lamp	Check if bulb is not burned out or lamp is broken.	Replace.	◎
	A3	Pin contact	Check if it is not disconnected or loosened.	Connect securely.	○
	A4	Nut	Check if it is not too loose.	Tighten properly.	◎
	A5	Hinge for lamp stand	Check if it moves smoothly.	Supply grease.	●
	A6	Pivot for lamp stand	Check if it turns smoothly.	Apply grease.	●
	A7	Front glass	Check if it is not dirty.	Wipe off dirt.	◎
	A8	Reflex mirror	Check if it is not too dirty or broken.	Wipe off dirt or replace.	◎
Mast (B)	B1	Fold lever	Check if it is locked and released correctly.	Repair.	◎
	B2	Mast sliding surface	Check if mast slides smoothly.	Apply grease.	●
	B3	Wire rope	Check if it not damaged.	Apply grease or replace.	◎
	B4	Wire rope end	Check if end is not damaged caulking.	Replace.	◎
	B5	Winch	Check if brake works well.	Repair.	◎
	B6	Safety stopper	Slacken wire rope and check if latch sticks out.	Repair.	●
Cart (C)	C1	Weight	Check if it moves smoothly.	Spray grease.	◎
	C2	Outrigger	Check if it moves smoothly.	Spray grease.	◎
	C3	Link of handle and wheels	Check if it is not loose linking.	Tighten securely	◎
	C4	Bolt for handle	Check if it is not loosened.	Tighten securely	●
	C5	Brake pedal	Check if linking part moves smoothly.	Spray grease.	○
	C5	Brake pedal	Check if notch is not worn.	Replace.	◎
	C6	Hanger	Check if installation is not loosened.	Fasten securely.	◎
	C7	Front wheel pivot	Check if it turns smoothly.	Supplying grease.	●
	C8	Tire	Check if air pressure in tire is between 28.4 and 35.5 psi (245 and 294 kPa).	Adjust.	○
	C9	Link for front shaft	Check linkage moves smoothly.	Spray grease.	○
	C10	Brake	Check if it works well.	Adjust.	◎
Electric (D)	D1	Cable	Check if wire is not bared.	Replace.	◎
	D2	Power plug	Check if it is not damaged.	Replace.	◎
	D3	Lamp switches	Check if it works correctly.	Replace.	◎

◎...Daily check ○...Every 20 hrs. ●...Every 100 hrs. △ ...Every 500 hrs. ▲...Every 1000 hrs.

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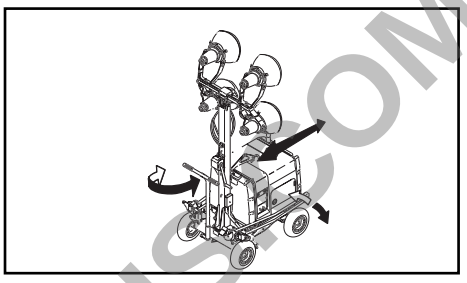
11. Operating each part

11-1. Handle

11-1-1. Handle operation

1) Forward and reverse travel

Pushing the handle bar forward makes the lighting towerlighting tower to travel forward and pulling back the handle makes it to travel reverse.



2) Right and left travel

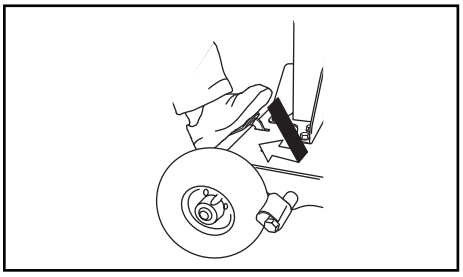
Turn the handle bar in the left (right) direction, and the front wheels turn in the right (left) direction, respectively. The wheels are designed to turn in the opposite direction of the handle operation so that you can apply the force easier.

11-2. Parking brake

11-2-1. Operation of parking brake

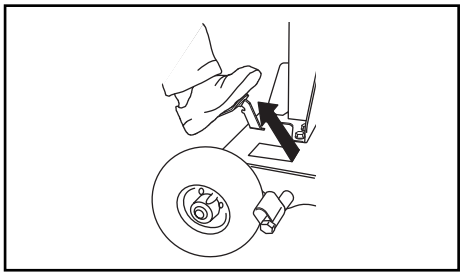
1) Braking

Step on the brake pedal and draw it toward you, so that the wheels are locked to apply the brake.



2) Releasing brake

Push the brake pedal forward to release the brake lock.



⚠ DANGER

When parking on a sloping road or ground, be sure to provide stoppers using stones or blocks for the wheels with as well as apply the brake lock. Without them, the lighting tower could move and cause accidents or injuries.

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Read this manual carefully to learn how to operate and service your machine correctly.
Failure to do so could result in personal injury or equipment damage

This manual should be considered a permanent part of your machine and should remain with the machine when you sell it.

This machine is of metric design, and consequently the measurements in this manual are also metric.
Use only metric hardware and tools as specified.

Warranty is provided as a part of Yanmar's product support program for customers who operate and maintain their equipment as described in this manual. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements under warranty may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

All information, illustrations and specifications in this manual are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

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REFERENCE INFORMATION

Write the correct information for your YANMAR Lighting tower in the spaces bellow.
Always use these numbers when referring to your YANMAR Lighting tower.

Model name : _____
Serial Number (Lighting tower) : _____
_____

Your YANMAR Dealer : _____
Address : _____
Phone : _____

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OPERATION

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12. Operating each part

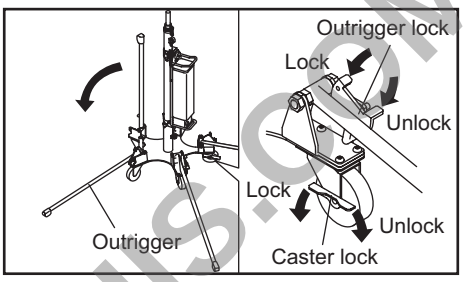
12-1. Preparation for turning light on

12-1-1. Setup of outrigger

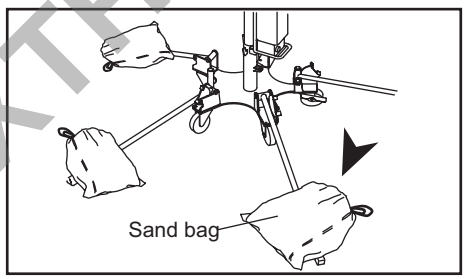
1) Verify the place where to install the outriggers completely.

2) Lock the three caster locks.

3) Pull outriggers downward at the ends until they lock in place in the ground.



4) Put the sandbags or the poly- tank on the outriggers.

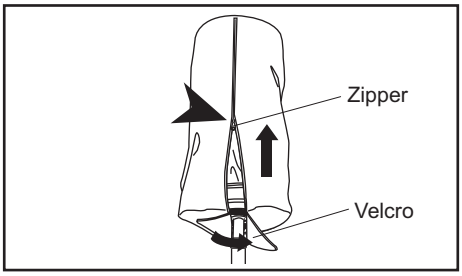


⚠ DANGER

Lower the mast fully and stow the outrigger when moving.Failure to do so could cause the lighting system to be overturned and result in bodily injuries.

12-1-2. Exposing balloon

1) Pull down on the Velcro tabs and unzip the zipper of the balloon cover.



2) Roll up the balloon cover.

⚠ CAUTION

Make sure to remove the balloon cover from the balloon when turning light on.If the cover is on the balloon,an alarm buzzer will sound.

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