

PREFACE SAFETY NOTICE

Proper service and repair procedures are vital to safe, reliable operation of J&J Bumper Boats, as well as personal safety of those performing repairs. This manual outlines procedures for servicing and repairing J&J Bumper Boats using safe, effective methods. The procedures contain many *NOTES*, *CAUTIONS* and *WARNINGS* which should be followed along with standard safety procedures to eliminate the possibility of personal injury or improper service which could damage the Bumper Boat or compromise its safety.

It is important to note that repair procedures, techniques, tools and parts for servicing J&J Bumper Boats, as well as the skill and experience of the individual performing the work vary widely. It is not possible to anticipate all conceivable ways or conditions under which J&J Bumper Boats may be serviced or to provide cautions to all possible hazards that may result. Standard precautions should be used when handling toxic or flammable fluids, and safety goggles or other protection should be used during cutting, grinding, chiseling, prying or any other process that can cause material removal or projectiles. J&J recommends use of safety goggles or approved glasses during all servicing of J&J Bumper Boats.

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To eliminate unnecessary work, careful reading of the applicable section is recommended before starting to service a bumper boat, . Photographs, diagrams, notes, cautions, warnings, and detailed descriptions have been included wherever necessary. Nevertheless, even a detailed account has limitations, a certain amount of basic knowledge is also required for successful work.

Especially note the following:

Dirt

Before removal and disassembly, clean the bumper boat. Any dirt entering the engine or other parts will work as an abrasive and shorten the life. For the same reason, before installing a new part, clean off any dust or metal filings.

Tightening Sequence

Generally, when installing a part with several bolts, nuts or screws, start them all in their holes and tighten them to a snug fit. Then tighten them evenly in a cross pattern. This is to avoid distortion of the part. Conversely when loosening the bolts, nuts or screws, first loosen all of them by about a quarter of turn and then remove them. Where there is a tightening sequence indication in this Service Manual, the bolts, nuts or screws must be tightened in the order and method indicated.

Torque

When torque values are given in this Service Manual, use them. Either too little or too much torque may lead to serious damage. Use a good quality, reliable torque wrench.

Force

Common sense should dictate how much force is necessary in assembly and disassembly. If a part seems especially difficult to remove or install, stop and examine what may be causing the problem. Whenever tapping is necessary, tap lightly using a wooden or plastic-faced mallet. Use an impact driver for screws (particularly for the removal of screws held by a locking agent) in order to avoid damaging the screw heads. It also may be necessary to apply heat to some parts held with locking compound.

Edges

Watch for sharp edges, especially during major engine disassembly and assembly. Protect your hands with gloves or a piece of thick cloth when lifting the engine or turning it over.

High-Flash Point Solvent

A high-flash point solvent is recommended to reduce fire danger. A commercial solvent commonly available in North America is Stoddard solvent (generic name). Always follow manufacturer and container directions regarding the use of any solvent.

Gasket, O-Ring

Do not reuse a gasket or O-ring once it has been in service. The mating surfaces around the gasket should be free of foreign matter and perfectly smooth.

Liquid Gasket, Non-Permanent Locking Agent

Follow manufacturer's directions for cleaning and preparing surfaces where these compounds will be used. Apply sparingly. Excessive amounts may block engine oil passages and cause serious damage. An example of a non-permanent locking agent commonly available in North America is Loctite® Lock'n Seal (Blue).

Press

A part installed using a press or driver, such as a wheel bearing, should first be coated with oil on its outer or inner circumference so that it will go into place smoothly.

Oil Seal and Grease Seal

Replace any oil or grease seals that were removed with new ones since removal generally damages seals. When pressing in a seal which has manufacturer's marks, press it in with the marks facing out. Seals should be pressed into place using a suitable driver, which contacts evenly with the side of the seal, until the face of the seal is even with the end of the hole. Always use assembly oil or grease on lip (sealing edge) of any seal prior to assembly.

Circlip, Retaining Ring

Replace any circlips and retaining rings that were removed with new ones, as removal weakens and deforms them. When installing circlips and retaining rings, take care to compress or expand them only enough to install them and no more.

Cotter Pin

Replace any cotter pins that were removed with new ones since removal deforms and breaks them.

Replacement Parts

When there is a replacement instruction, replace these parts with new ones every time they are removed. These replacement parts will be damaged or lose their original function once removed.

Inspection

When parts have been disassembled, visually inspect these parts for following conditions or other damage. If there is any doubt as to condition of them, replace them with new ones.

Abrasion	Crack	Hardening	Warp
Bent	Dent	Scratch	Wear
Color change	Deterioration	Seizure	

Specifications

Specification terms are defined as follows:

“**Standards**”: Show dimensions or performances which brand-new parts or systems have.

“**Service Limits**”: Indicate the usable limits. If measurement shows excessive wear or deteriorated performance, replace the damaged parts.

General Specifications Electric

3-Seat Bumper Boat (Electric)	
Code Name:	Blaster Boat
Dimensions:	
Overall Diameter	72" (182 cm)
Overall Height	40" (101 cm)
Water Line to Prop Guard Depth With 180 lb Load	20" (50.8 cm)
Wet Weight	450 lb. (204 kg) w/supertube 390 lb. (177 kg)
Fuel Tank Capacity	4 each 6 volt 245 amp.hr Batteries
Fuel Type	N/A
Preferred Charge System	Automatic 24 volt (WARNING: Read Operating Instructions before using)
Engine/Motor:	
Model	24v 1850 rpm
Type	Continuous Duty 3/4 hp (1118 w), 24 volt, Permanent Magnet
Cooling System	Air
Maximum Horsepower	3/4 hp/1,850 rpm
Maximum Speed	3 mph (4.8 kmh)
Starting System	Push Button
Throttle	On/Off
Spark Plug	N/A
Lubrication System	N/A
Exhaust System	N/A
Degree of rotation	200°
Lower Unit:	
Gear ratio	1:1
Gear case oil capacity	1.2 oz (34 grams)
Propeller	3 - 7.2 x 4.7 in (3 - 184 x 120 mm)
Rotating direction	Clockwise (viewed from rear)

Specifications subject to change without notice.

Monthly Maintenance Chart (Electric)

ITEM NO.	ITEM	SERVICE TYPE	MONTHLY OR 200 HRS.
1	MOTOR	-CHECK CONDITION -CHECK WIRES -SPRAY WITH CORROSION-PROTECTANT*	✓ ✓ ✓
2	BATTERIES	-CHECK LEVEL GAUGE -CHECK ELECTROLYTE LEVEL -CLEAN CONNECTIONS	✓ ✓
3	PIVOT	-CHECK	✓
4	MOTOR POWER CABLE	-CHECK FOR DAMAGE OR BROKEN -CLEAN AND GREASE TERMINALS -REPLACE	✓ ✓ WHEN DAMAGED
5	SUMP PUMP	-CLEAN STRAINER	✓
6	TUBES	-CLEAN	✓
7	PROPELLER GUARD	-INSPECT	REPLACE IF DAMAGED
8	HULL	-CHECK FOR CRACKS & CLEAN -SAFETY DECALS -CLEAN & WAX -POLISH	EVERY 2 MONTHS EVERY YEAR
9	GENERAL WIRES & CONNECTIONS	-CHECK FOR DAMAGE -CLEAN CONNECTIONS -REPLACE -SPRAY WITH CORROSION-PROTECTOR*	✓ ✓ WHEN DAMAGED ✓
10	DRIVE SHAFT HOUSING & GEAR BOX	-CLEAN METAL ANODE -GREASE GEAR BOX	✓ 6 MONTHS
11	SQUIRTER	-CLEAN FILTER -CHECK FOR DAMAGE	✓ ✓

Specifications subject to change without notice.

**Corrosion protector available from J&J*

Monthly Maintenance Chart (Electric)

Below are explanations of services listed in the Monthly Maintenance Charts on previous page.

Note: All necessary repairs need to be done before boat is operated. Use of J&J or equivalent replacement parts is recommended. Inspections should be done by qualified personal. Explanations of monthly maintenance shall include, but not limited to the following:

1. MOTOR— Remove hood and check connections. Spray motor and wiring with corrosion block.
2. BATTERIES— WARNING: READ BATTERIES SAFETY PRECAUTIONS BEFORE HANDLING BATTERIES. Check for corrosion, spray terminals with battery protect-ant, check electrolyte level and add distilled water if needed.
3. PIVOT— Turn motor and check for smooth operation. Remove motor turns hard, visually inspect pivot and grease if necessary.
4. MOTOR POWER CABLE— Disconnect and grease terminals. Replace terminal if signs of wear are evident. WARNING: DO NOT OPERATE UNTIL DAMAGED CONNECTORS AND/OR CABLE ARE REPLACED.
5. SUMP PUMP— Clean strainer as needed. (Pump will cycle periodically, this is normal.)
6. TUBES—Clean by using a mild detergent.
7. PROPELLER GUARD— Inspect for damage or foreign materials. WARNING: DO NOT OPERATE IF PROPELLER GUARD IS DAMAGED OR MISSING.
8. HULL— Deep clean and wax every 200 hours or every 2 months. Use a UV protectant weekly to reduce color fade.
9. GENERAL WIRES & CONNECTIONS—Check all wires and connections for damage and corrosion. Clean or replace as needed.
10. DRIVE SHAFT HOUSING & GEAR BOX— Clean anode monthly replace every six months. Every six months it is necessary to drain and re-grease gear box.
11. SQUIRTER— Clean inline filter if necessary. Check integrity of pick up line, squirter mount, and pump.

Pre-Opening Bumper Boat Checklist

PRE-OPENING DAILY CHECKLIST

For Battery-Powered Bumper Boats

Week of ___/___/___

BUMPER BOAT ID# _____
 BODY COLOR _____
 ENGINE ID# _____

Attendant must initial in each empty box every day. If anything is NOT OK see a supervisor.

ITEM	SERVICE TYPE	MON	TUE	WED	THU	FRI	SAT	SUN
BOAT								
TUBE	-Check pressure							
HULL	-Visually check							
RECEIVER	-Visually check							
HANDRAILS & HARDWARE	-Visually check							
SUMP PUMP	-Visually check							
BATTERIES	-Visually check volt meter							
ELECTRIC MOTOR								
MOTOR	-Physically check							
MOTOR POWER CABLE	-Visually check							
PIVOT	-Physically check operation							
PROP GUARD	-Visually check							

See explanation of check procedures.

Pre-Opening Bumper Boat Checklist

Below are detailed explanations of services listed in the Pre-Opening Checklist on previous page.

Note: All necessary repairs need to be done before boat is operated. Use of J&J or equivalent replacement parts is recommended. Inspection should be done by qualified personal. Explanations of monthly maintenance shall include, but not limited to the following:

BOAT:

TUBE-Check air pressure using a high quality low pressure gauge. Super-Tube 2-3 PSI. Vinyl Tube 1-1.5 PSI.

HULL-Check for cracks and missing hardware.

RECEIVER-Check for looseness, missing hardware and cracking around mount.

HANDRAILS & HARDWARE-Check for looseness and missing hardware.

SUMP PUMP-Viewing through hull vent check for excessive water.

BATTERIES-Check volt meter for full charge of 24-26 volts. Viewing through hull vent, check battery terminals for visible corrosion.

MOTOR:

MOTOR- Visually and physical check motor operation; go and squirt function, loose hardware, grips, handlebar condition and abnormal noises during operation.

MOTOR POWER CABLE-Check for bare wires, connection, and any signs of excessive heat or melting. WARNING: DO NOT OPERATE UNTIL DAMAGED CONNECTORS AND/ OR CABLE ARE REPLACED

PIVOT-Check for smooth operations by rotating motor lock to lock.

PROP GUARD-Check for damage and foreign material.. WARNING: DO NOT OPERATE IF PROPELLER GUARD IS DAMAGED OR MISSING.

Bumper Boat Area Checklist

BUMPER BOAT AREA CHECKLIST

Week of ___/___/___

Attendant must initial in each empty box every day. If anything is NOT OK see a supervisor.

ITEM	SERVICE TYPE	MON	TUE	WED	THU	FRI	SAT	SUN
POND								
BOAT ROPE & HOOKS	-Check for broken hooks and unsafe ropes							
DOCK RAILS	-Check for cracks or loose.							
POND WATER	-Check chemical condition and clarity							
FILTRATION PUMP	-Check for leaks and operation							
SAFETY EQUIPMENT	-Check							
SIGNAGE	-Check							
FENCING	-Check							
DOCK AREA	-Check							

Maintenance Work Order Tags


**Maintenance
Work Order**

Batting Cage # _____

Go Kart # _____

Bumper Boat # _____

Explanation:

Employee Name _____

FRONT

Work Done:

Parts Used #:

Date/Time _____

Mechanic _____

Manager _____

BACK

These sample maintenance work order tags can be copied for use in your facility. They can easily be attached to a machine in need of repair. When maintenance work is finished, file with service and maintenance information.

ELECTRIC BUMPER BOAT LIMITED WARRANTY

J&J Amusements, Inc., Accessories, Product and Replacement Parts. This warranty is limited to J&J Amusements, Inc. products, parts and accessories when distributed by J&J Amusements, Inc., 4897 Indian School Road NE, Suite 150, Salem, Oregon 97305-1126 USA.

Products Covered By This Warranty:

Bumper Boat Hull
 Bumper Boat Tube
 Bumper Boat Motor
 Parts and Accessories
 Master Charger
 Japler Battery Charger
 Lester Electrical Battery Charger
 Deep Cycle Batteries
 **See Specific Exclusions

Length Of Warranty:

1 Year**
 1 Year**
 1 Year**
 90 Days**
 1 Year**
 2 Years- By Japler Group*
 2 Years - By Lester Electrical*
 See Local Battery Distributor

To Qualify For This Warranty:

1. The accessories, product, or replacement parts must be purchased from J&J Amusements, Inc.
2. You must be the first retail purchaser. This warranty is not transferable to subsequent owners.
3. You must provide proof of original purchase.

What J&J Amusements, Inc. Will Repair Or Replace Under Warranty:

J&J Amusements, Inc. will repair or replace, at their option, any product, accessories, or replacement parts that are proven to be defective in material or workmanship under normal use during the applicable warranty time period. Anything replaced under warranty becomes the property of J&J Amusements, Inc. All parts replaced under warranty will be considered as part of the original product and any warranty of those parts will expire concurrent with the original product warranty. Accessories and replacement parts, installed by J&J Amusements, Inc., will be repaired or replaced under warranty without charge for parts. If installed by anyone else, charges will be the responsibility of the purchaser.

To Obtain Warranty Service:

You must obtain a Return Merchandise Authorization (RMA) number from J&J Amusements, Inc., phone number 800-854-3140 or 503-304-8899. Return the accessory, product or part and proof of purchase, at your expense, to J&J Amusements, Inc.

Exclusions:

This warranty does not extend to products, accessories or parts affected or damaged by accident and/or collision, normal wear, fuel contamination, not sold by J&J, used in applications for which the product was not designed or any other misuse, neglect, incorporation or use of unsuitable attachments or parts, unauthorized alteration, improper installation, or any causes other than defects in material or workmanship of the product. J&J reserves the right to forward warranty to the original manufacturer of any defective part. This warranty does not extend to products, accessories or parts purchased for use outside of the United States and Canada or contact us for your country.

**Specific Exclusions:

Normal wear and tear items. Such as: *Filters, anode, hand grips, over inflated tubes, tube wear from rough pool walls, pivot bushings, switches, relays and brush or communicator wear.* Appearance-related damage; *scratches, nicks, dents, fading paint/trim and corrosion.* A Magnehelic Low Pressure Gauge (part#013510) or equivalent must be used for consideration of Bumper Boat Tube warranty. **Service Logs-The customer must use maintenance logs provided from J&J Amusements, Inc. Warranty will not be covered if you cannot provide these records.**

*Japler Battery Charger is only covered by Japler Group.

*Lester Battery Charger is only covered by Lester Electrical.

Disclaimer Of Consequential Damage And Limitation Of Implied Warranties:

J&J Amusements, Inc. disclaims any responsibility for loss of time or use of the product, transportation, commercial loss or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty.

Some states do not allow limitations on how long an implied warranty last and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you. This warranty gives specific legal rights, and you may also have other rights which vary from state to state. Any legal action arising from claims against this warranty shall have venue in Marion County, State of Oregon USA.

March 30, 1998

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