



US Department of Transportation  
Federal Aviation Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

*WP27 WDB*

**INSTRUCTIONS:** Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

<b>1. Aircraft</b>	Make <b>Republic</b>	Model <b>RC-3</b>
	Serial No. <b>1000</b>	Nationality and Registration Mark <b>N5166B</b>
<b>2. Owner</b>	Name (As shown on registration certificate)	
	<b>Davey Darrell L</b> <b>Davey Deborah A</b>	
		Address (As shown on registration certificate)
		<b>6613 Santa Rosa Rd</b> <b>Camarillo Ca 93012-5672</b>

**3. For FAA Use Only**

The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, Section 43.7

*9-20-99*      *Mike Blawie*  
DATE                      SIGNATURE                      OAK-FSDO

**4. Unit Identification**

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				<input checked="" type="checkbox"/>
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
<b>Kenneth L. Thompson</b> <b>PO Box 411</b> <b>Vineburg, Ca. 95487</b>	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	<b>545767051</b>
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

**D.** I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date <b>9-20-99</b>	Signature of Authorized Individual <i>Ken Thompson</i>
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**7. Approval for Return To Service**

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

<b>BY</b>	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection <b>9-20-99</b>		Certificate or Designation No. <b>552273581</b>	Signature of Authorized Individual <i>Douglas P. Smith</i>	

## NOTICE

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

### 8. Description of Work Accomplished

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Republic RC-3      N5166B      Ser.# 1000

2. Description: Replaced original 12v battery with Optima Batteries, Inc. 1000M 12v recombinant battery. Aircraft electrical power generation provided by Jasco 50 amp alternator Skytronics P/N 6560-1 and is compatible with this battery. Work done in accordance with AC 43.13 1A, ch.11, sec.8, para. 539, and AC 43.13 2A, ch.10, sec.2, para. 186, 189.

3. Control, operation information: Reference Optima Batteries, Inc. form 110-0007 dated 1/98

4. Servicing information: None

5. Maintenance instructions: Must be inspected annually in accordance with FAR 43 appendix D and FAR part 91.

6. Trouble shooting information: N/A

7. Removal and replacement information: None

8. Diagrams: None

9. Special inspection requirements: None

10. Application of protective treatments: None

11. Data: None

12. List of special tools: None

13. For commuter category aircraft: N/A

14. Recommended overhaul periods: No additional overhaul time limitations

15. Airworthiness limitation section: No additional airworthiness limitations

16. Revision: A letter will be submitted to the local FSDO with a copy of the revised FAA form 337

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Additional Sheets Are Attached

\*U.S.GPO:1994-568-012/00019

# Blue Top™

# OPTIMA BATTERIES

THE ULTIMATE POWER SOURCE

## Superior Life, Superior Power

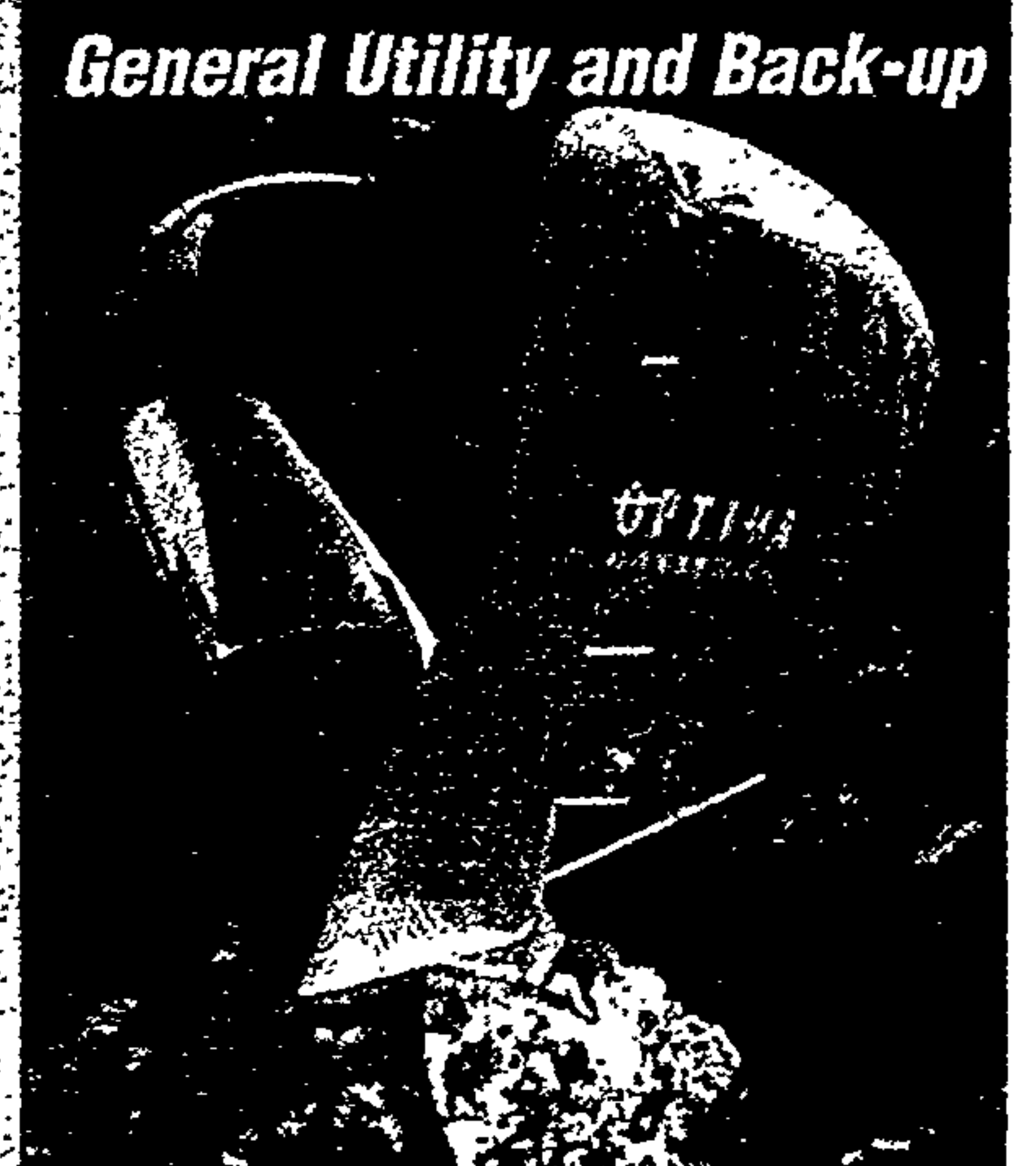
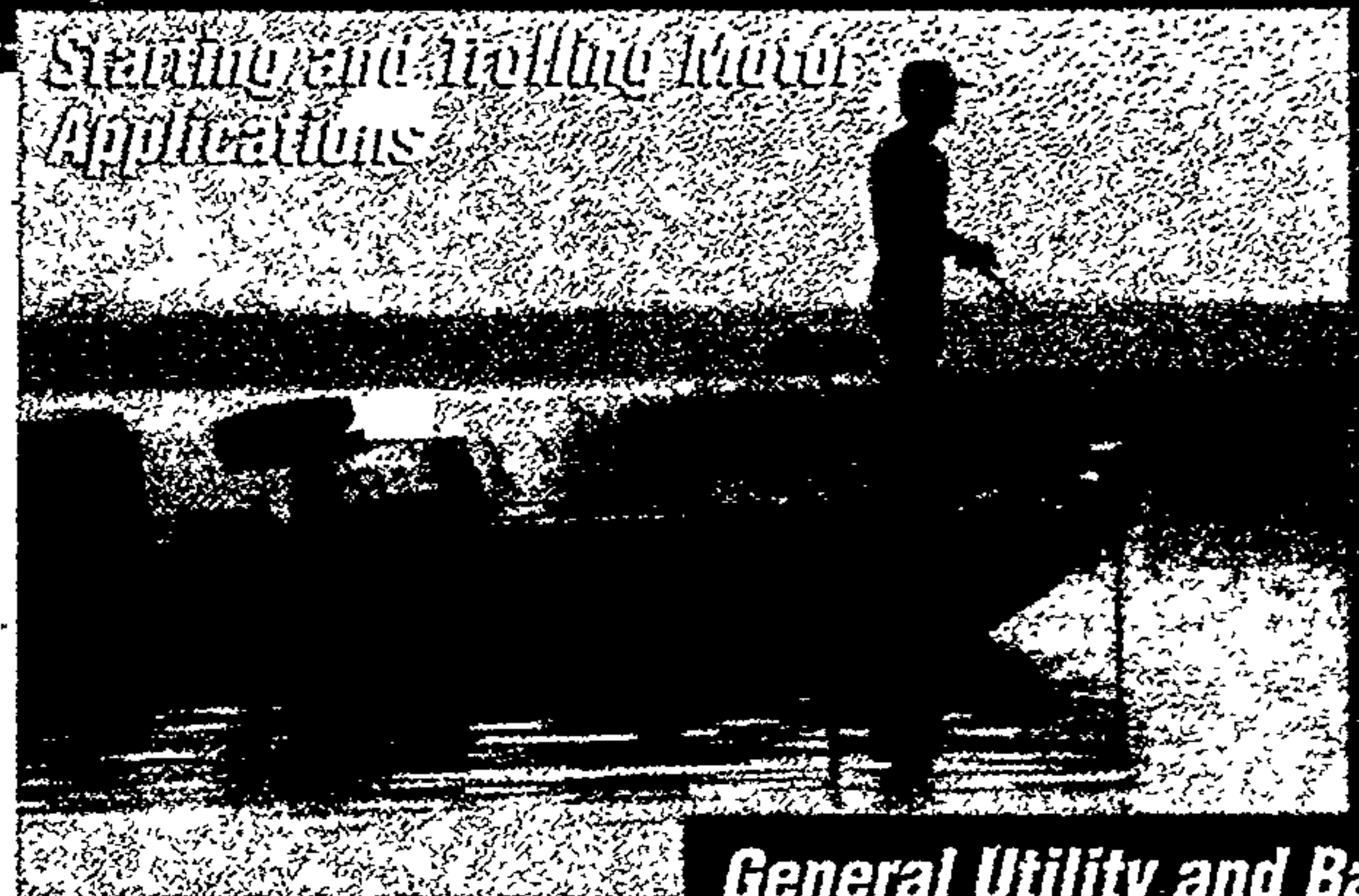
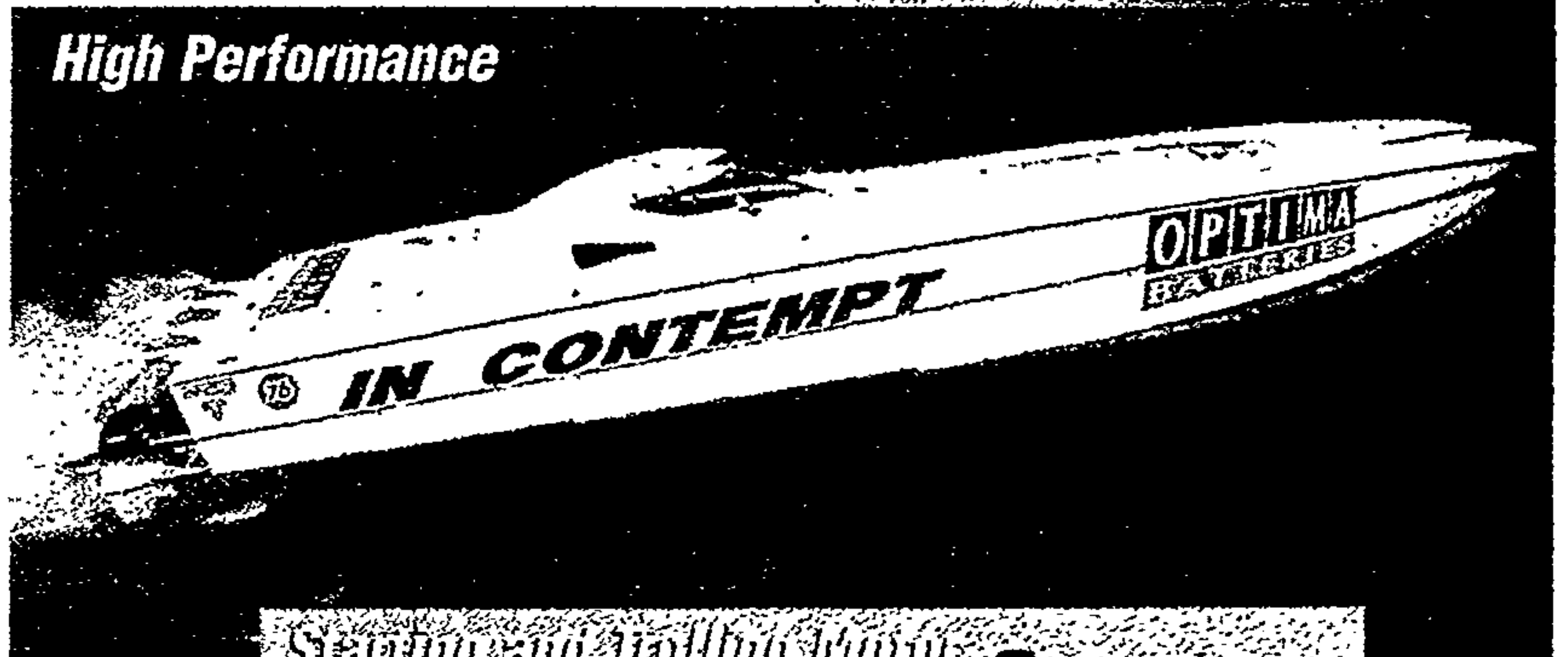
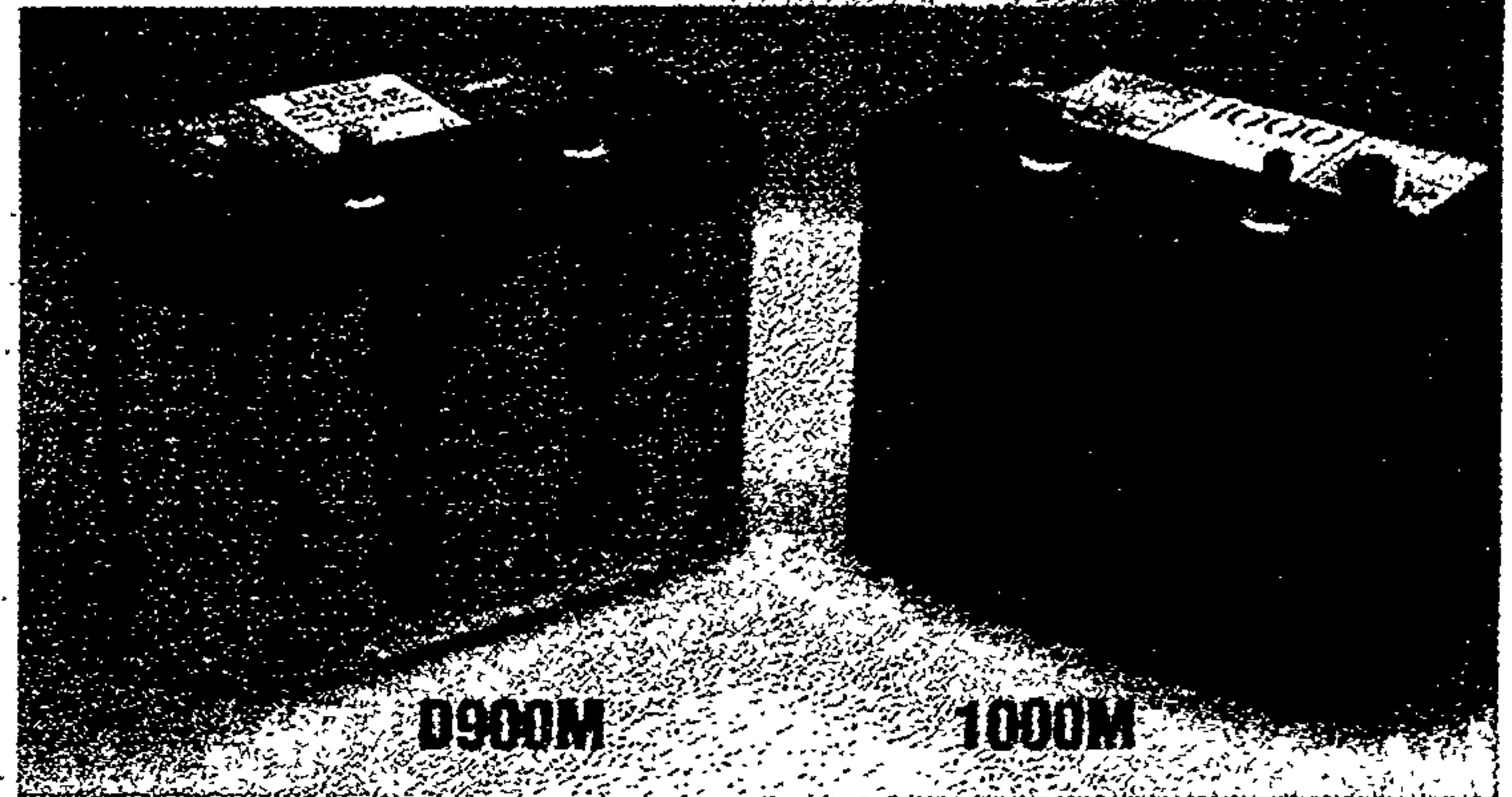
At last — the clean, reliable, high-power output and deep cycle characteristics that have made OPTIMA batteries famous are now available for marine applications.

OPTIMA's Marine batteries use the same unique SPIRALCELL Technology® that outperforms and outlasts conventional flat plate batteries, with a life span two to three times longer than the competition. The OPTIMA design uses high purity lead plates wound with a glass mat that absorbs electrolyte like a sponge. This design gives the OPTIMA extremely *high power*, *very low internal resistance* and other features that translate into the following benefits:

- OPTIMA provides high power output faster and longer than conventional batteries, resulting in greater cranking ability and less capacity reduction at high current loads.
- OPTIMA batteries can be fully recharged in as little as one hour — more than twice as fast as other batteries.
- OPTIMA's Marine Deep Cycle battery has been verified in Life Cycle testing to exceed 350 complete discharges — outcycling conventional Marine Deep Cycle batteries by 30-50%.
- OPTIMA won't spill, leak, or corrode; it's the safest, cleanest battery on the market. The OPTIMA can be mounted in any position — sideways, or even upside down.
- OPTIMA lasts two to three times longer than conventional batteries providing years of reliable, convenient performance, and exceptional value. Our high purity lead design provides a much longer shelf life, meaning the OPTIMA can sit unused for up to one year and still start your boat.

No other Marine battery offers the unique advantages of OPTIMA's SPIRALCELL Technology. Turn this sheet over to review our performance specifications.

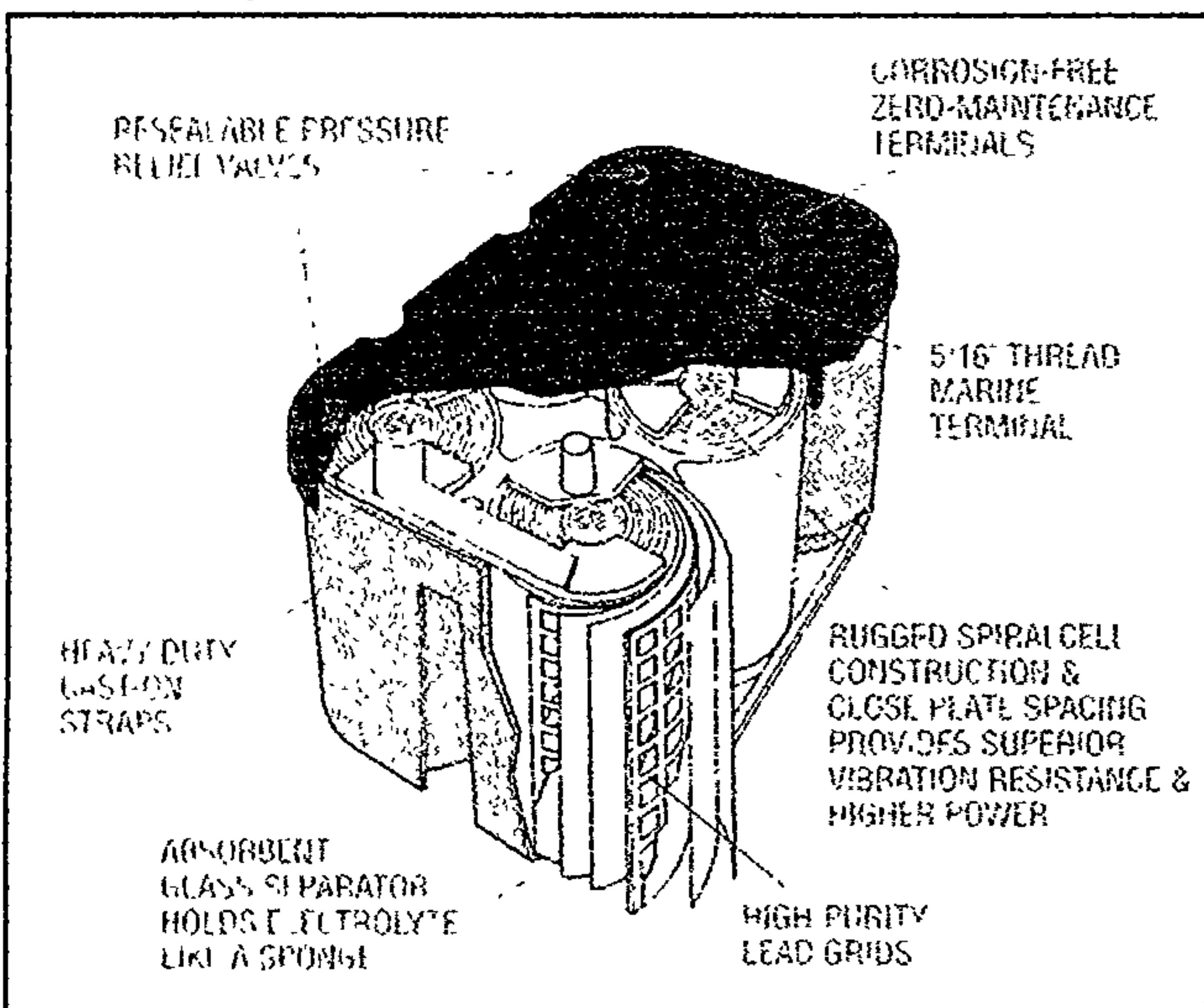
**You'll agree: there is simply no competition for the OPTIMA Blue Top!**



OPTIMA Batteries, Inc.  
 17500 E. 22nd Avenue / Aurora, CO 80011  
 Phone (303) 340-7440 / Fax (303) 340-7474  
 E-mail: sales@optimabatteries.com

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**Only OPTIMA's SPIRALCELL Technology™ Offers All These Benefits:**

OPTIMA is the most advanced battery available. Our patented SPIRALCELL Technology provides many features and benefits not found in conventional batteries.

**COMPLETELY SEALED/ZERO MAINTENANCE.**  
With its absorbed electrolyte and sealed construction, the OPTIMA won't cause corrosion or leak. OPTIMA is safer for people, equipment, and the environment, and you never add water!

**UNIVERSAL SIZE, FIT & USE.**  
The OPTIMA fits a wide variety of boats and equipment. The OPTIMA can be mounted in any position, even upside down.

**LONGER BATTERY LIFE, GREATER SAVINGS.**  
In performance tests, the OPTIMA lasts longer than conventional, flat-plate batteries.

**UNEQUALED VIBRATION RESISTANCE.**  
Vibration is a primary killer of conventional batteries. OPTIMA's tightly wound SPIRALCELL design resists jarring and vibration, and eliminates plate shedding.

**COMPATIBLE WITH MOST CHARGING SYSTEMS.**  
Unlike gel cells, the OPTIMA does not require special charging equipment.

Available from Authorized Dealers displaying this sign.



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**Recommended Charging Information**

Alternator	13.8 to 15.0 volts								
Battery charger: (Constant Voltage)	13.8 to 15.0 volts, 10 amps maximum, 8-10 hours approximate								
Float Charge:	13.2 to 13.8 volts, 1 amp maximum current								
Rapid Recharge:	(Constant Voltage charger) Maximum voltage 15.6 volts No current limit as long as temperature remains below 125°F Charge until current drops below 1 amp								
Recharge time (example assuming 100% discharge - 10.5 volts)									
	<table border="1"> <tr> <th>Current</th> <th>Approx. time to 90% charge</th> </tr> <tr> <td>100 amps</td> <td>35 minutes</td> </tr> <tr> <td>50 amps</td> <td>75 minutes</td> </tr> <tr> <td>25 amps</td> <td>140 minutes</td> </tr> </table>	Current	Approx. time to 90% charge	100 amps	35 minutes	50 amps	75 minutes	25 amps	140 minutes
Current	Approx. time to 90% charge								
100 amps	35 minutes								
50 amps	75 minutes								
25 amps	140 minutes								

Recharge time will vary according to temperature and charger characteristics. When using Constant Voltage chargers amperage will taper down as the battery becomes recharged. When amperage drops below 1 amp, the battery will be close to a full state of charge.

Cyclic application or series string applications (CV/CC) D900M only:

Constant Voltage with Constant Current finish:  
14.7 volts, temperature < 125°F, no current limits. When current falls below 1 amp, finish with 2 amp constant current for 1 hour

For additional charging information contact your distributor, or OPTIMA.

**Warranty Information**

Marine engine starting - model 1000M (36 months)	12 months free replacement, remaining 24 months prorated
Marine/RV - model D900M only (24 months)	12 months free replacement, remaining 12 months prorated
Series String applications - model D900M only	1 month
With CV/CC charge system or battery management system	12 months

	1000M	D900M
<b>PERFORMANCE SPECIFICATIONS</b>	<b>STARTING</b>	<b>DEEP CYCLE*</b>
Voltage	12	12
Marine Cranking Amps, 32°F	1000	900
Cold Cranking Amps, 0°F	800	750
Reserve Capacity - Minutes	120	124
Capacity (C/2 rate) - Amp Hours	47	52
Capacity (C/20 rate) - Amp Hours	56	65
Battery Power - kW	9.6	9.0
Internal Resistance - Ohms	.0030	.0028
BCI/SAE CYCLE LIFE	N/A	350
<b>PHYSICAL SPECIFICATIONS</b>		
Length (inches)	10	10
Width (inches)	6.8	6.8
Height (inches)	7.8	7.8
Weight (min. lbs.)	38.2	43.5
Type Post/Terminal	Dual, SAE & 5/16" Stainless Stud	Dual, SAE & 5/16" Stainless Stud
BCI Group	34	34

\*Specs for a battery that has cycled up to full capacity.

**YOUR AUTHORIZED DEALER / DISTRIBUTOR**