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Howie -
Lets talk about it
Joe

Caching Outboard Motor

June 23, 1958

Dear Howie:

Attached please note our comments and estimate for improving a reusable collapsible outboard motor container.

Since our last meeting the use of a Saran coated material shows even more promise. We believe the type of closure discussed in our proposal will adequately meet the more rigorous requirements of operation that you hope for. We shall be glad to receive your comments and recommendations upon the extension as suggested.

Our final report should be ready in about two weeks.

[redacted] and myself are expecting a trip to Washington before the Fourth which may afford us an opportunity to look over the forms you suggested. 25X1

Very truly yours,

[redacted] 25X1

TLT/a
Attch.

[redacted] 25X1

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PROPOSED EXTENSION OF WORK CONTRACT RD-111

PN-528
June 19, 1958

1. Scope - The purpose of this proposal is to extend the development under Work Task RD-111 for an improved reusable collapsible container for emergency storage of items under water or for limited ground burial.

1.1 Specific physical requirements of the container are to remain the same as in the beginning of the RD-111 Contract, namely:

1.1.1 Optimum waterproof, vaporproof, and fungus resistant material will be sought for a 30-day submergence use in sea water at a depth of 15 feet.

1.1.2 The container shall be designed for emergency field use subject to moderately rough handling under circumstances not permitting the elaborate use of cements, tools, or other preparation for closure.

1.1.3 The container shall be light in weight and flexible as possible for ease in storage and yet remain sufficiently durable for its intended use.

1.1.4 A design of the prototype container will permit flexibility in the selection of size and frequency of future orders without undue delay in delivery.

1.1.5 Conditions of use of this container may require tropic or arctic exposure.

1.1.6 The container should remain subject for use after six months burial in the ground.

1.2 The specific improvements of container development proposed in this extension of the former contract are as follows:

1.2.1 A more easily operated double-slide closure now in use by The General Tire & Rubber Company will be adapted to use on this waterproof container.

1.2.2 Improved water barrier characteristics will be sought for the material used in the container.

1.2.3 Increased resistance to abrasion and scuffing will be sought, if necessary by simply increasing the gauge of the outer coating of the container fabric.

2. Approach

2.1 The manner in which an improved barrier to water transmission will be obtained is as follows:

2.1.1 Continued effort will be made to adapt a Saran coating to the typical container material. This program showed considerable promise in the performance of the first part of subject contract.

2.1.2 The Saran application will be investigated for compatibility as far as:

2.1.2.1 Applied to uncured coated fabric as a spreader operation with Saran outermost or covered by a rubber cement coat.

2.1.2.2 Applied to a cured coated fabric as a spreader operation with the Saran outermost or protected by a covering of cement coat.

2.1.2.3 Applied to fabricated but uncured container components.

2.1.2.4 Applied to fabricated and vulcanized containers.

2.1.2.5 Applied to air cure type fabricated containers.

2.2 The manner in which an improved waterproof closure attachment will be obtained is:

2.2.1 Use of a closure that completely circumscribes the container which will feature a continuous metal or high durometer rubber seal.

2.2.2 The seal will be imbedded in one section of the container with no requirements for positioning the seal upon closure.

2.2.3 Similarly there will be no requirements for positioning the ends of the seal as in the former prototype container.

2.2.4 Consequently, glove-hand operation of the closure will be possible with no preparation required other than operating the slide closures.

2.3 Possible application of the improved slide closure will be attempted to a container of basically a heat sealed construction of optimum reinforced plastic material for the intended use.

3. Schedule of progress intended in pursuit of this extended contract will be:

	Efforts pursued in months after receipt of contract:
3.1 Material: The Saran application to suitable rubber coated fabric will be continued. Feasibility in laboratory samples, factory processing, and use in container fabrication will be noted. Nylon and polyurethane coatings will be evaluated.	1 through 3 months
3.2 Closure: Containers from the best of the above fabric efforts will be outfitted and use tested under simulated submergence conditions as was followed in RD-111.	3 through 5 months
3.3 Heat sealable materials: Plastic coated fabrics, or equivalent, duplicating use characteristics of the rubber container will be evaluated.	1 through 3 months
3.4 Heat sealable containers from the best of the above evaluated materials: Containers will be fabricated and tested to either a positive or negative comparative evaluation with a rubber coated fabric prototype.	3 through 6 months
3.5 Final test and report: A summation of the efforts, tests, and feasibility of the two prototype containers will be accomplished after a 30-day submergence test of each container. Because of limited test facilities, these tests must be conducted in consecutive order.	6 through 9 months

4. Distribution of costs

Item	Eng. Hours	Cen. Dev. Labor Hours	Research Lab Hours	Material Cost	Outside Purchases
3.1	60	40	60	$140.00	$110.00
3.2	60	120	40	230.00	-
3.3	80	40	90	15.00	135.00
3.4	60	90	40	15.00	120.00
3.5	80	40	-	-	-
Totals	340	330	230	$400.00	$365.00

5. Summary of costs

5.1	Factory material	$ 400.00	
5.2	Eng. labor 340 hrs. @ $3.00	1,020.00	
5.3	Overhead	1,020.00	
5.4	Research lab labor 230 hrs. @ $3.50	805.00	
5.5	Overhead	805.00	
5.6	Central Dev. labor 330 hrs. @ $2.40	792.00	
5.7	Overhead	1,188.00	= 150%
5.8	Total	6,030.00	
5.9	Outside purchases	365.00	
5.10	Total	6,395.00	
5.11	G & A	319.75	
5.12	Total	6,714.75	
5.13	Profit	402.88	= 6%
5.14	Total Contract Price	$7,117.63	