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TO: W. B. Lenkard Pittsburgh date: 1-10-56 Refer to: RAW
SUBJECT: OUTBOARD MOTOR FUEL AND OIL
RECOMMENDATIONS

We list below the current outboard engine manufacturers' fuel and oil recommendations for the information and guidance of those personnel covering the "Boat Show".

These recommendations reflect the 2-cycle engine manufacturers' realization that leaded gasoline causes spark plug fouling. We therefore recommend and market GULF MARINE WHITE GASOLINE which is entirely free from lead.

Many of the manufacturers recommend regular grade automobile gasoline on the mistaken idea that this grade contains substantially less lead than premium grades and that unleaded marine white gasolines do not have wide enough distribution. These manufacturers do not yet specifically recommend marine white gasoline because they believe their customers normally buy their gasoline from automobile service stations, (The manufacturers are all located in the Northern Midwest.) and will know enough to buy the higher quality marine white gasoline where they can get it. Mercury and Elgin are the notable exceptions. We expect our educational program to result in other manufacturers including marine white gasoline in their recommendations in the near future.

GULF MARINE WHITE GASOLINE has considerably higher octane rating than the minimum recommended. Octane requirement is no problem with 2-cycle outboard engines.

Outboard engines require a clean burning, substantially ashless, lubricating oil for their 2-cycle systems. GULFPRIDE MARINE OUTBOARD meets these requirements and contains no additives. Its film strength is at least as good as that advocated by Scott-Atwater and its quality gives excellent performance in Mercury outboards. These two companies have oils of their own on the market, not because of the inadequate quality of outboard oils available from major oil marketers, but because this product adds a substantial source of income for themselves and their dealers.

The excerpts quoted below are from the latest engine operating manuals.

MERCURY (KIEKHAEFER) - "RECOMMENDED FUEL MIXTURE - Mix thoroughly, one can (12 ozs.) of Kiekhaefer Aeromarine 2-Cycle Engine Oil to each 2-gallons of marine white, automotive white, or light aircraft gasoline of not less than 72 octane rating. If these fuels are not available, use a good grade automotive gasoline, preferably one containing no tri-cresyl-phosphate or other phosphorus compounds and a minimum of tetra-ethyl lead. 'Marine White' gasolines are straight run fuels, void of tetra-ethyl lead and other metallic additives which are

detrimental to spark plug life. They are excellent from the standpoint of engine cleanliness. In an emergency, when Kiekhaefer Aeromarine 2-cycle Engine Oil is not available, substitute highest quality, non detergent, SAE 30 engine oil, refined from 100% Pennsylvania crude and increase proportion of oil to 1-pt. (16 ozs.) to each 2-gallons of gasoline."

EVINRUDE - "TYPE OF GASOLINE - Use a good grade of regular gasoline such as used in automobiles. High octane or highly leaded fuel gives no advantage.

"LUBRICANT - We recommend a reputable SAE 30 outboard motor oil, or a regular SAE 30 automobile engine oil (not heavy duty). Avoid use of low priced, third grade (ML) oils."

ELGIN (Sears Roebuck) -

- "1. Use good quality Marine or regular gasoline.
2. Use 1/2 pint of Allstate, or any other good outboard motor oil, per gallon of gasoline. "

JOHNSON - "Mix one quart of SAE 30 outboard motor oil to each full tank of regular gasoline. For small quantities, mix 1/2 pint of SAE 30 outboard motor oil per gallon of gasoline.

"We recommend a reputable SAE 30 outboard motor oil or a regular SAE 30 automotive engine oil (not heavy duty). Avoid use of low price, third grade (ML) oils."

SCOTT-ATWATER - "Mix 1/2 of a pint of SAE 30 oil per gallon of gasoline. For best results, use Scott-Atwater Outboard Motor Oil (a special high film strength lubricating oil blended expressly for Scott-Atwater motors) or a reputable brand of 'Outboard' or 'Regular' straight run or non-detergent type oil and regular gas. Heavily leaded ('Ethyl') gasoline is fine for your car, but it tends to foul outboard spark plugs. And 'Heavy Duty' or 'Premium' oils contain detergent additives which also form abnormal deposits in outboard motors."

We list below the line up of outboard motor oils classified as detergent and non-detergent.

DETERGENT: Mobiloil, Sinclair, Shell, Dew Coated. (Dow has a detergent glycol based lubricant in Michigan called Dowlube).

NON-DETERGENT: Gulf, Esso, Texaco, Sohio, Kiekhaefer, Amoco.

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