## TO: ALL TURF PRODUCTS DISTRIBUTORS

SUBJECT: SHARE NO-KILL HYDRAULIC FLUID

Recently the Turf Service Department has been receiving many inquiries about using the above mentioned fluid in our hydraulic operated equipment. In order for your personnel to answer inquiries they may receive the following information should be helpful.

At present we do not have the resources necessary for the testing and evaluation of various oils, and we do not recommend any brand names. The following conclusions are based on information from Share Corp. and other published literature on this type of "oil".

There are several features of the Share No-Kill oil that cause us concern:

1. The construction of this oil is an inverted emulsion, which means .3 micron water droplets are surrounded by an oil film. Because of this construction which contains 38% water, the water can evaporate at high temperatures which will change the characteristics of this oil. Although the normal temperature of the oil is below 200°, there are occasions, such as going over relief, when higher temperatures can be obtained.

2. The viscosity is considerably higher than the engine oil now recommended which can cause extra temperature in the system and higher horsepower

draw just to pump the oil.

3. This oil does not have the same contaminent dispersion characteristics as SAE 10W-40 mineral based oil. Share suggests adding more magnets to the system to trap and remove metal particles. The GM-3 does not have these extra magnets.

4. This oil is not compatible with TORO paint.

5. This oil is not compatible with lead and magnesium which are alloying elements used in some of the hydraulic components. We suspect a problem but don't know how severe it will be.

6. The vane pump wear test indicates a weight loss over 3 times the maximum acceptable for a good hydraulic oil. Although the GM-3 doesn't use the kind of pump used for this test, the test is in indication of less desireable anti-wear properties.

7. Cost is high.

We also asked for Webster Electric Company's (GM-3 hydraulic pump and reel motor supplier) recommen-

dation on this "oil". Their statement:

"Webster does NOT recommend the use of Share No-Kill or other inert emulsion type fluids in our hydraulic components. The critical area is the needle bearings in the pumps and motors. Our bearing supplier tells us we can expect the bearing life to be reduced by as much as 50% with these fluids."

Considering the above listed facts we feel the disadvantages far outweigh the potential advantages and would not recommend Share No-Kill oil for use in the GM-3 or other Turf Products.

Tom Dooley, Manager - Field Service
Turf Service Products

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