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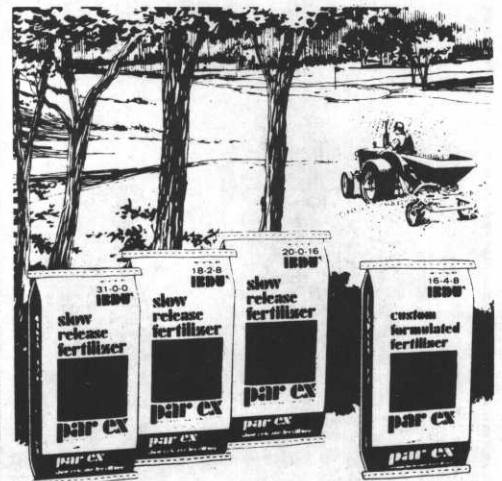
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HOLE NOTES

Official publication of the MINNESOTA
GOLF COURSE SUPERINTENDENTS' ASSOCIATION.

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STILLWATER TRADITION

Lyle Cran reports that for years a growing tradition has developed at the Stillwater Country Club. After a HOLE-IN-ONE is scored the member is awarded the actual flag that was on the flagstick when the shot went in the hole. There has been a rash of HOLES-IN-ONE at Stillwater C.C. lately - so much so that Lyle's flag inventory has been restocked several times.



FROM THE PRESIDENT'S DESK

LARRY MUELLER

July is a month when we find our jobs most challenging. The threat of disease, compaction from heavy play, loss of turf vigor due to high temperatures all test our abilities to provide quality turf under less than ideal weather conditions.

Our crews can help us tremendously if we ask them to report anything unusual such as browning turf, which may be due to disease or perhaps a sprinkler head that didn't come on or isn't turning. Having our crews involved and interested in a quality golf course can make our jobs easier and our courses better.

I would like to thank Scott Hoffman and Jim Madden of Madden's Inn and Golf Club for being such generous hosts of our June meeting and also Jack Kolb and Turf Supply Co. for hosting Dr. Bill Daniel of Purdue as a speaker on the timely topic of "Sand Top-dressing". It was a most interesting and informative presentation.

In July we will have our annual family picnic at Braemar where John Nylund will be our host superintendent and the Wileys of Landscape and Turf Supply will again host the picnic. It's a fun day for the family and a perfect opportunity to visit with family members and friends we don't get to see very often. Get your reservations in early and I'll see you July 12.

Best wishes to Vern Hansen and family who have moved to Arkansas where Vern has accepted a position as Superintendent of five golf courses. I'm sure it will be a challenge and I hope Vern finds it equally rewarding.

Printed in this issue is Nick Dunn's report on the M.G.C.S.A. Survey. It shows our organization is on the right track but we are always open to new suggestions on how to better serve our membership.

MGCSA INSURANCE SURVEY REPORT

by NICK DUNN

17 FORMS RETURNED

INTEREST SHOWN FOR:	LIFE INSURANCE	8
	HEALTH INSURANCE	8
	DENTAL INSURANCE	9
	DISABILITY INSURANCE	10
	I. R. A. 's	10

Based upon the lack of response to this survey I think we can interpret that M.G.C.S.A. members on the most part have adequate coverage personally or through their employers and, therefore, we should not be attempting to pursue any insurance plans for association members.

MEMBERSHIP REPORT - JUNE MEETING

NEW MEMBERS: Jeff Markow, Minneapolis Golf Club, Class D; Bill Feriancek, Theodore Wirth, Class BII; Phillip Sanders, Ponderosa Golf Club, Fargo, North Dakota, Class B; Steven Ladd, Cuyuna Country Club, Deerwood, Minn., Class A; Jeffery John, Minnesota Frac Sand Co., Class F.

RECLASSIFICATION: Orlin Quast, Elk River Country Club, Class A

REINSTATEMENTS: Dan Levendowski, Ortonville Golf Club, Class A; Melvin Henry, Orchard Garden Golf, Class F; Malcom Colby, Colby Peat Co, Class F; Robert Weston, Mille Lacs C.C., Class A.

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- 10 - Toro Greens Mower
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- 12 - Farm All 30 HP Tractor
- 13 - Roseman Gang Mower (5, 7 or 9 gang)
- 14 - Howard 2 speed Rotary Mower, 48" Cut
- 15 - Howard Hydro 60" Cut Rotary Mower
- 16 - Howard Hydro 82" Cut Rotary Mower
- 17 - Heckendorn 88" Cut Rotary Mower
- 18 - National 36" Cut Reel Mower
- 19 - Bolens Garden Tractor w/20 HP Engine w/60" Rotary Mower
- 20 - G.E. Garden Tractor w/42" Rotary Mower

OTHER USED EQUIPMENT ON HAND

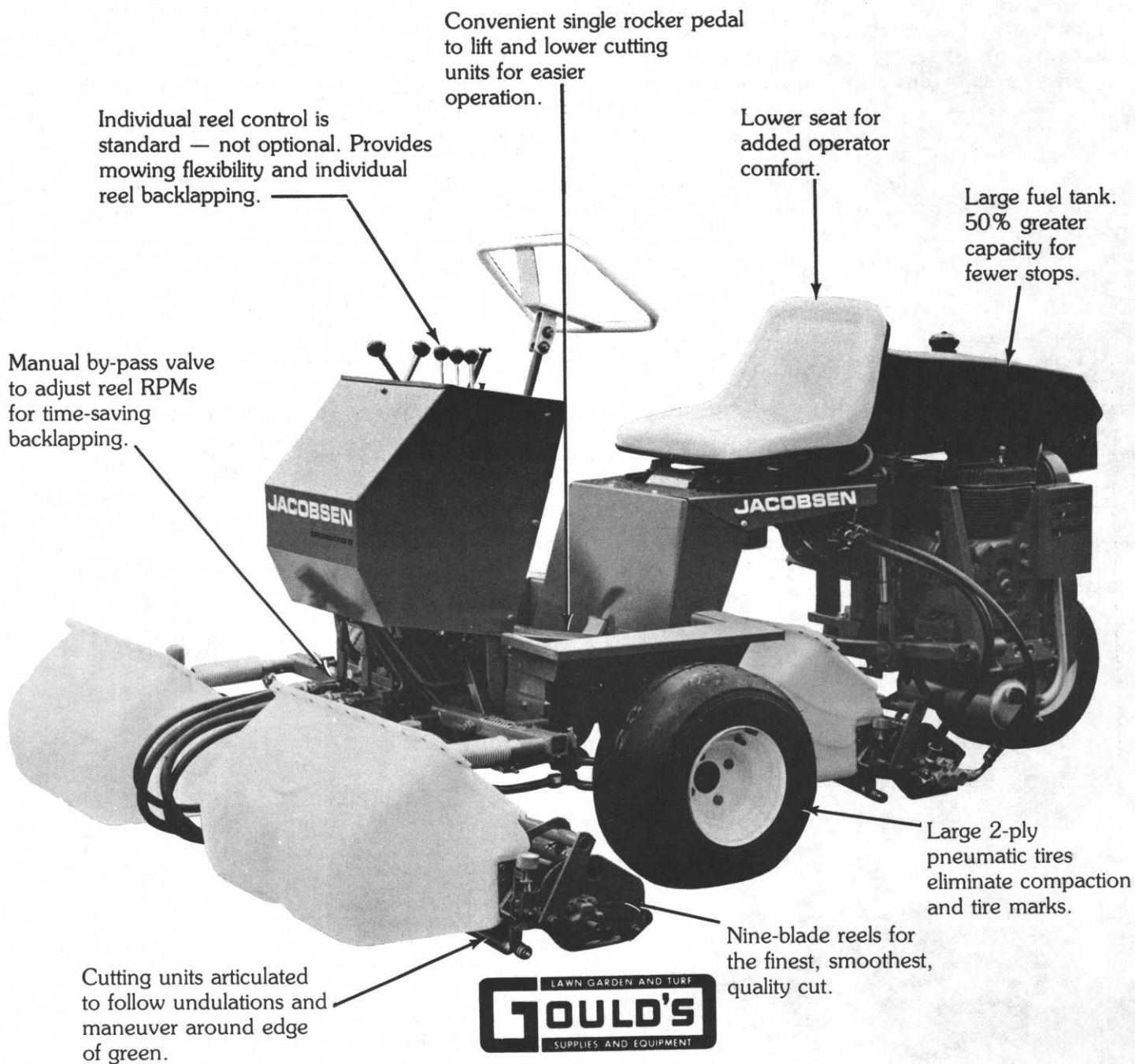
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SOME CONSIDERATIONS ON THATCH AND WATERING

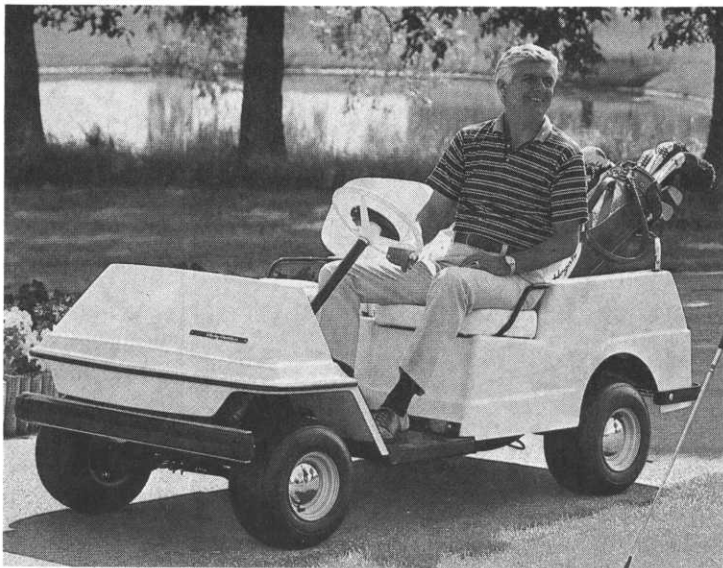
by DON TAYLOR, Assistant Professor, Dept. of Horticultural Science and
GEORGE BLAKE, Professor, Dept. of Soil Science, University of Minn.

The development of thatch is a normal consequence in intensively cultured turfgrass. Due to the nature of golf green culture, thatch development can be particularly rapid. Superintendents have devised several methods of controlling excessive thatch accumulations such as frequent, light vertical mowing; aerification; topdressing; light applications of lime; and reduced nitrogen application. Despite control efforts, seldom, if ever, is there a green with no thatch, nor in our opinion would that be a desirable situation. A small amount of thatch protects the soil surface and provides resiliency and increased tolerance for the turf. Realizing that we will normally be working with some thatch on the greens, whether excessive or not, it is important to know some of the effects thatch may have on the water relations of a golf green.

Studies have shown that thatch contains very large pores as compared to soil, even after compaction. Due to these large pores, the water holding capacity of thatch is low. This can cause problems in cases where the majority of the root system is in the thatch layer and the grass plants are not able to extract significant amounts of water from the soil below the thatch. In such cases irrigation must be inordinately frequent and the thatch is excessive. Reduction of thatch or improvement of soil to encourage root development below the thatch layer is extremely important in order to sustain growth between irrigations. If, on the other hand, roots are down into the soil in sufficient quantity to extract water there, the lack of water holding capacity in the thatch should not present a critical problem. The amount of water available to the plants will then be determined by the water holding capacity of the soil and the depth of roots into the soil.

The effect of thatch on water infiltration may be different than its effect on water holding capacity. In the past it has generally been felt that thatch reduces the amount of water getting into the soil. Studies done at several Minnesota golf courses as well as laboratory studies at the University of Minnesota suggest two important aspects concerning thatch and water infiltration rate: 1) for a short period of time, dry thatch can reduce severely the rate of water infiltration, and 2) once the thatch is wet with water flowing through it, the thatch will not reduce the rate of water infiltration. In laboratory profiles of sand without thatch and with a thatch layer at the surface which had been allowed to dry, initial water infiltration rate was much different for the thatch-covered profiles

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and the profiles without thatch (Fig. 1). After a short period of time during which water was constantly kept ponded on the surface of the profile, the infiltration rates changed until there was no difference between the thatch-covered profiles and those without thatch. The period of time during which thatch restricted water infiltration was always less than ten minutes. It appeared that this reduction was due to a hydrophobic quality of the thatch.

Infiltration rates, after establishing a constant rate, were measured at six golf greens, one athletic field and two turfgrass roof gardens with the surface thatch layer present. The surface thatch was then removed and the infiltration rate measured again. Removal of thatch did not significantly increase the steady-state infiltration rate at any of the sites. Evidence indicates that thatch, even thin layers of thatch, can have significant effects on the water relations of greens, particularly if the thatch dries out. Though the thatch-water relations are complex and much remains to be learned, the following suggestions seem appropriate.

(1) From the aspect of water relations, thatch is excessive whenever the majority of the plant roots are not growing through the thatch and down into the soil to an acceptable depth.

(2) A syringe irrigation cycle to wet the thatch prior to an expected thunderstorm or irrigation when the thatch is excessively dry will probably increase the amount of water that gets into the soil.

(3) It is important to set the irrigation schedule to apply water long enough to wet the thatch. Once the thatch is thoroughly wet it will not restrict the rate water enters the soil.

(4) If the rate of water infiltration is excessively low even after the thatch is wet, alleviating soil compaction by aeration will probably improve water relations more than thatch reduction.

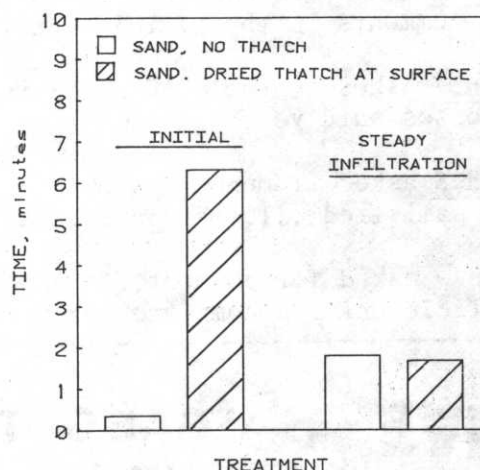


Figure 1. Time required for 2 cm of water to infiltrate laboratory sand profiles at initiation of irrigation and after the infiltration rate has become steady.

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MGCSA OFFICIAL SURVEY REPORT

by NICK DUNN

58 FORMS RETURNED: Questions 1 and 2 pertained to the noon luncheon meeting and the evening dinner meetings of the past. The response was as follows: 38 prefer the noon luncheon meetings...16 prefer the evening dinner meetings...4 did not respond to either question.

Question 3 pertained to the membership being satisfied with the direction our association is taking. 51 responses were satisfied...5 responses were not satisfied...2 did not respond to the question.

Question 4 asked if members thought the employment referral letters were a valuable service provided by the association. 56 responses said the letters are valuable...1 response said no value...1 did not respond to the question.

Question 5 asked if people liked the summer family picnic. 40 responses like the picnic...6 responses do not like the picnic...12 did not respond to the question.

Question 6 asked for comments or suggestions if Question 5 was answered no. I will not put the comments in the article until a complete analysis of suggestions can be made.

Question 7 asked if the HOLE NOTES is a valuable tool for tying our association together. 58 responses said yes.

Question 8 asked if members were satisfied with the contents of the HOLE NOTES. 47 responses are satisfied...10 responses are not satisfied...1 did not respond to the question.

Question 9 asked for comments to a no answer for Question 8. I will not put the comments in this article until a complete analysis of suggestions can be made.

Question 10 asked if the members like the format of education at the annual conference. 56 responses said yes...1 response said no...1 did not respond to the question.

Question 11 and 12 asked if members preferred the banquet on Thursday or Friday evening. 30 responses like the banquet on Thursday...21 responses like the banquet on Friday...7 did not respond.

Question 13 asked if the membership felt the association has something to offer its membership. 55 responded yes...2 responded no...1 did not respond to the question.

The board will be taking some time to analyze the comments made by the membership and we thank each of you who took the time to complete the survey. I think the numbers do indicate one thing and that in all questions relating to membership services, all questions were answered on a positive note by an excess of 87% of respondents.

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Man's survival depends on water. Less than one percent of the world's total water supply, 359 quadrillion gallons, can be consumed by man. By the year 2000, the demand on the world's per capita water supply will increase

by 33 percent because of greater population alone. It is imperative that alternative sources of water be identified and that nature's water cycle be understood by all, whether they play golf or not.

Golf Courses and other green areas play a vital role in the water cycle. Turfgrass serves as a filter which removes impurities that would otherwise find their way into our rapidly dwindling ground water supplies. It can also purify recycled water from factories and sewage treatment facilities and return it to underground aquifers.

According to James E. McLoughlin, Executive Director of the Golf Course Superintendents Association of America, "What we are trying to get across is that golf courses recycle water, whether it's by using effluent water or simply by filtering water from natural sources. Golf should be looked on as one of the good guys in this scenario instead of part of the problem."

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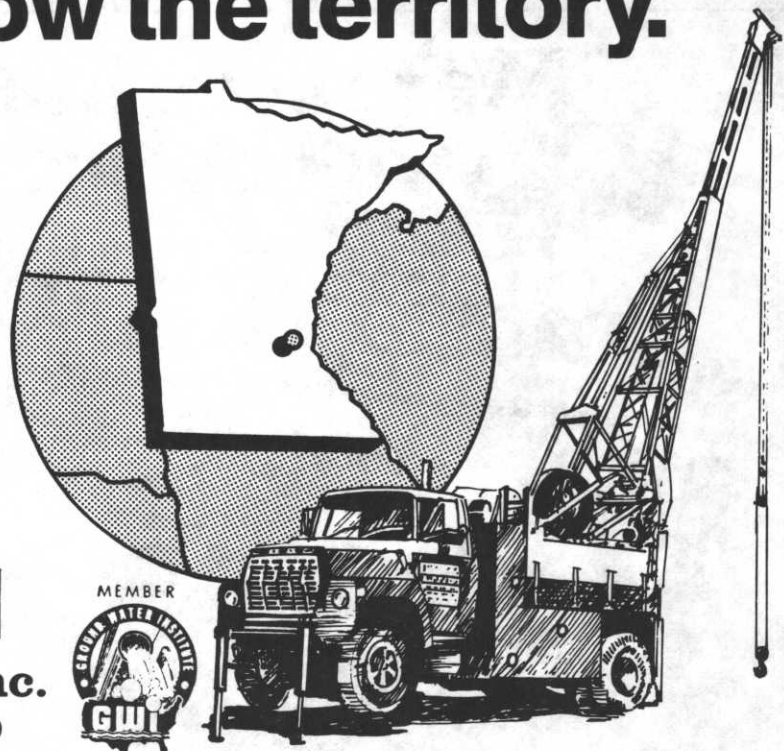
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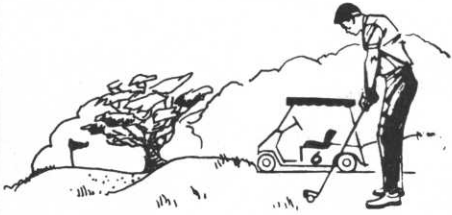
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MGCSA GOLF TOURNAMENT



Majestic Oaks Country Club
SEPTEMBER 20, 1982

First call for the M.G.C.S.A. Fall Spectacular at demanding Majestic Oaks Golf Club!! This year there will be a double shotgun format. Starting times are 7:45 a.m. and 1:15 p.m. with a limit of 132 in each group. The cost is \$25.00 per person (the same as last year) which includes golf, dinner and prizes. The choice of morning or afternoon is on a first come basis. Payment must accompany reservations. Single reservations will be paired to make foursomes. Cancellations made prior to September 10, 1982 will receive a full refund. Cancellations after that date will not receive a refund. No reservations except for dinner only will be accepted after the 10th. Cocktails are at 6:30 p.m. with dinner at 7:30 p.m. Lunch will be available on a cash basis.

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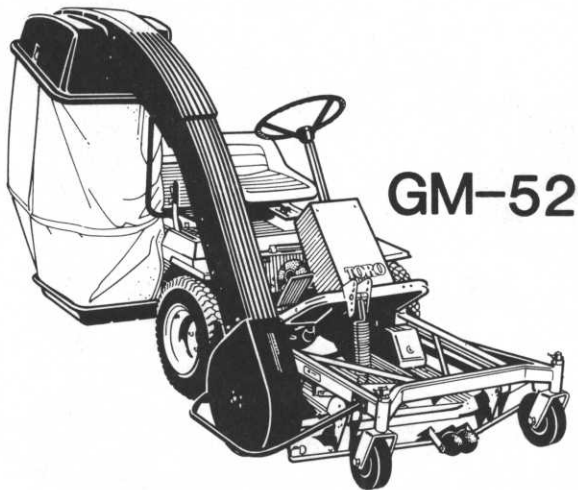
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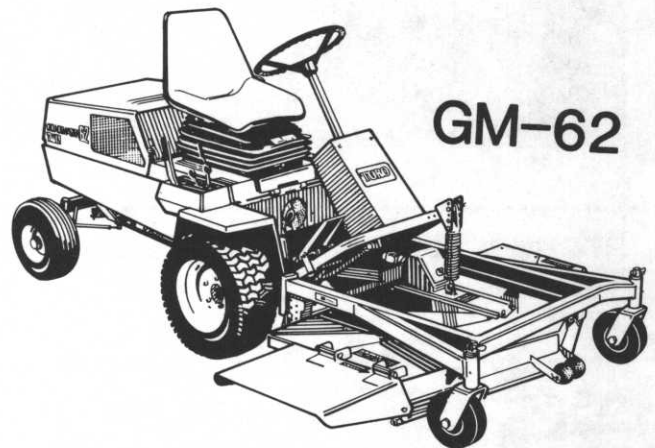
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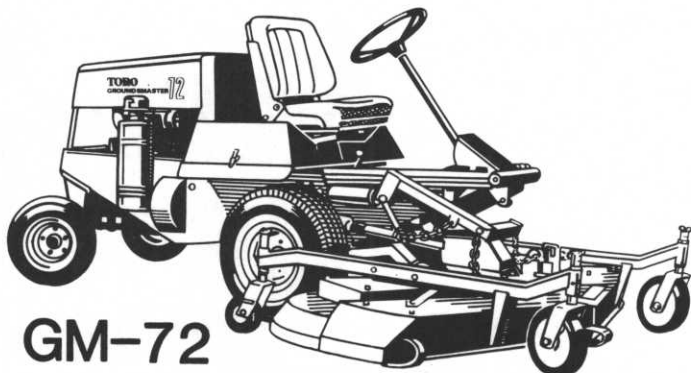
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