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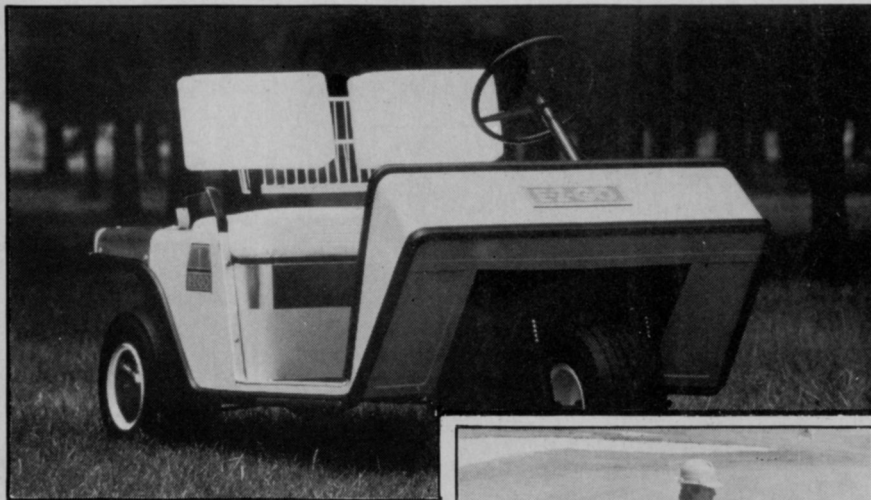
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Golf Car Makers Hope To Break Out of Slump With Innovations in '84

By Bruce Shank, executive editor



The golf car market has suffered for two years as golf course managers have rebuilt their existing fleets and bought used golf cars rather than new ones. Manufacturers, sensing a turnaround, are improving their products for the golf car sales battle of 1984.

Competition is fierce. "We not only have to compete on quality," said Jerry Howell, sales manager for Ross Products, the new manufacturer of the Legend golf car, "but distribution arrangements can save \$150 per car, or the difference between selling a fleet and not selling one. Golf courses can buy cars for less today than two years ago."

"We know from our parts business the last two years golf courses are rebuilding cars rather than buying new ones," Martha Ann Smith of Melex told *Weeds Trees & Turf*. "Our dealers think 1984 will be the year for new car sales to recover."

Changes and introductions

The parts business is showing manufacturers where the problems are with their cars. Electric car makers are simplifying and



improving electrical systems to extend battery life, shorten charging time, and reduce the number of parts which can malfunction. Gas car makers are switching to four-cycle engines or adding oil injection systems to eliminate the need for mixing oil and gas in two-cycle engines.

A number of companies are beefing up suspension and brake systems, totally redesigning electrical and exhaust systems, and most important, changing the appearance of their new models. Steering systems are being upgraded to rack and pinion.

The emphasis is clearly on fuel efficiency, reliability, and appearance.

Club Car, Inc., introduced its first four-cycle engine golf car in August after five years of research and development. The company

says the engine in its new DS Gasoline was designed specifically for use in golf cars. It was designed to run quietly, with less vibration, and to last longer.

Yamaha has added automatic oil mixing to its two-cycle engines as well as solid state ignition, eliminating points and condenser.

American Continental offers an 'electronic speed controller' on its electric cars to cut charging time by 45 percent and increase battery life.

Melex has simplified its electrical system, reduced resistance in its power cables, and added tires with less resistance. Melex will introduce a 'totally new car' next year.

Ross, which took over production of the Legend electric car this year from Pargo, has redesigned its electrical system to include only one solenoid instead of five. The differential has been changed for more efficient use of power from the electric motor. The front suspension has been beefed up, rack and pinion steering has been added, and mechanical cast iron drum brakes have been added. The new Legend car body has been redesigned and weighs less.

Columbia Car Corp. is introducing a shorter version of its four-wheel electric Cruiser, called the Challenger. The Challenger costs \$210 less than the Cruiser. The company has also redesigned its line of three-wheel cars.

"More than the name has changed," said Columbia District Sales Manager Barry Noll. "We've decreased the sound on our gas models by 30 percent and made major design changes on our complete line. We are also the only U.S. golf car manufacturer that makes its own engines."

Columbia has had its problems since it purchased the Harley



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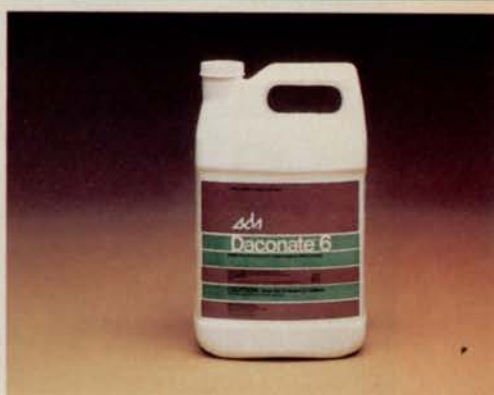
Your hard work and expertise along with our fine line of Turf Care products are the perfect combination for healthier, more vigorous, more beautiful turf.

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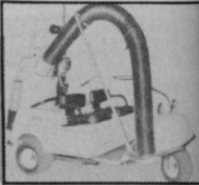



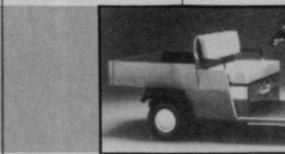


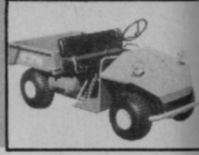

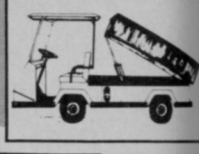




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1984 Turf Vehicle Guide

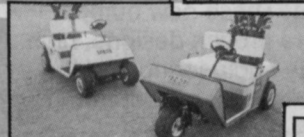
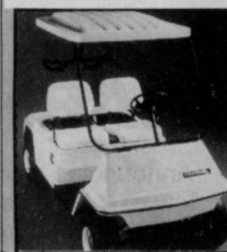
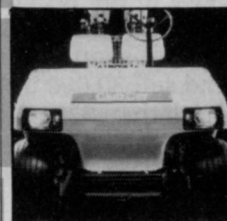
	Model	engine	payload	price	notes	
American Continental, Inc. Box 280 Willmar, MN 56201 (612) 235-1752	Elphant-Vac	17 hp Kohler			vacuum cart	
Bajaj America 1237 Gaddsen St. Columbia, SC 29201 (805) 779-5361	Gopher	10 hp gas	700 lbs	\$2,695		
	Tristar	10 hp gas	700 lbs	\$2,895		
	Autoriksha	10 hp gas	700 lbs	\$3,095		
Columbia Car Corp. P. O. Box 1 Deerfield, WI 53531 (608) 764-5474	Utility Car	2 cycle	500 lbs	\$3,220	4-wheel	
						
Cushman/OMC P. O. Box 82409 Lincoln, NE 68501 (402) 475-9581	530	18 hp gas	1,500 lbs			
	531 and 532	18 hp gas	1,500 lbs			
	534	gas	1,000 lbs			
	549	gas	250 lbs			
E-Z-Go/Textron P. O. Box 388 Augusta, GA 30913 (404) 798-4311	GX-800	244 cc gas	800 lbs			
	GT-7	gas	1,500 lbs			
Hahn Inc. 1625 N. Garvin Evansville, IN 47711 (812) 428-2027	Tournament	gas				
	Spray-Pro	gas				
Carl Heald Inc. P. O. Box 1148 Benton Harbor, MI 49022 (616) 849-3400	Hauler Kits	gas, 4-cy	650 lbs	\$1,500 and up		
Jacobsen/Textron 1721 Packard Ave. Racine, WI 53403 (414) 637-6711	UV-4	gas	1,500 lbs			
Noland Car Co. P. O. Box 957 Edgewater, FL 32032 (904) 427-9645	Model F	electric	1,500 lbs			
Olathe Mfg. Co. 100 Industrial Pkwy. Industrial Airport, KS 66031 (913) 782-4396	492	18 hp gas	1,500 lbs	\$4,400		
Pargo Eagle 8181 Hoyle Ave. Dallas, TX 75227 (214) 388-7431	Estate Car	electric				

	Model	engine	payload	price	notes
Smithco Inc. 11 West Ave. Wayne, PA 19087	Red Rider	gas	1,000 lbs		
Turf-Vac Corp. P.O. Box 90129 Long Beach, CA 90809 (213) 426-9376	Sandancer #1	11 hp Briggs	1,100 lbs	\$3,862	4 ft. bed, 3-wheel
	Sandancer #2	18 hp Briggs	1,500 lbs	\$4,546	4 ft. bed, 3-wheel
	Sandancer #5	11 hp Briggs	1,100 lbs	\$4,377	5 ft. bed, 4-wheel
	Sandancer #6	18 hp Briggs	1,500 lbs	\$5,080	5 ft. bed, 4-wheel



1984 Golf Car Guide

	Model	engine	payload	price	notes
American Continental Inc. Box 280 Willmar, MN 56201 (612) 235-1752	ACG 300	4-cycle	2,000 lbs	\$2,950	3-wheel
	ACG 4000	4-cycle	2,000 lbs	\$3,195	4-wheel
	ACE 300	electric	2,000 lbs	\$2,950	3-wheel
	ACE 4000	electric	2,000 lbs	\$3,195	4-wheel
Club Car P. O. Box 4658 Augusta, Georgia 30907 (404) 863-3000	DS Electric	electric	750 lbs	\$3,295	4-wheel
	DS Gas	4-cycle	750 lbs	\$3,492	4-wheel
	DS Villager	electric	1,000 lbs	\$3,623	4-wheel
	DS Carryall	electric	1,000 lbs	\$3,623	4-wheel
Columbia Car Corp. P. O. Box 1 Deerfield, WI 53531 (608) 764-5474	Classic G3T	2-cycle	615 lbs	\$3,175	tiller, 3-wheel
	Classic G3S	2-cycle	615 lbs	\$3,225	steer, 3-wheel
	Classic E3T	electric	523 lbs	\$3,110	tiller, 3-wheel
	Classic E3S	electric	523 lbs	\$3,190	steer, 3-wheel
	Cruiser G4S	2-cycle	716 lbs	\$3,500	4-wheel
	Cruiser E4S	electric	641 lbs	\$3,650	4-wheel
E-Z-Go/Textron P. O. Box 388 Augusta, GA 30913 (404) 798-4311	X440	electric	500 lbs		
	X444	electric	500 lbs		
	GX440	2-cycle	500 lbs		
	GX444	2-cycle	500 lbs		
Melex USA 1201 Front St. Raleigh, NC 27609 (919) 828-7645	Turtle 112	electric	500 lbs	\$3,050	3-wheel
	Turtle 212	electric	500 lbs	\$3,215	4-wheel
Ross Products 145 NW 20th St. Boca Raton, FL 33431 (305) 395-4414	Legend RV3	electric	750 lbs	\$3,085	3-wheel
	Legend RV4	electric	750 lbs	\$3,215	4-wheel
Yamaha Motor Corp. 6555 Katella Ave. Cypress, CA 90630 (714) 761-7300	Electric Car	electric	1,000 lbs	\$2,850	4-wheel
	Gas Car	2-cycle	1,000 lbs	\$3,450	4-wheel



Davidson golf car line. A fire at its Madison, WI, plant held up production for four months. The company has moved a second time to Deerfield, WI, and is back in production.

The stakes

Although the market has experienced the departure of Harley Davidson and Cushman in the past few years, it has attracted Yamaha and Melex.

The National Golf Foundation has estimated there are roughly 450,000 golf cars in use in this country. Five to seven years is the most commonly quoted life expectancy for a golf car. In a normal year, manufacturers would expect to sell a total of 60,000 to 90,000 replacement cars, plus any sales to the roughly 50 to 75 new courses built each year. So, the market should normally produce and sell 80,000 units at a value of more than \$200 million.

It's questionable whether manufacturers have realized the full

potential of the market, especially the last two years. They seem ready to make the necessary investment in 1984. But, there is also a sense that they won't wait forever for business to recover.

"It's as if no one at golf courses wants to be responsible for golf cars." Dealer.

Who is in charge?

A problem mentioned frequently by golf car makers is finding out who is in charge of golf cars at a course. They know how important money maker cars can be to a club and they can't understand why the person responsible for the cars varies from the superintendent, to the pro, to the club manager.

"It's as if no one wants to be responsible for golf cars," one dis-

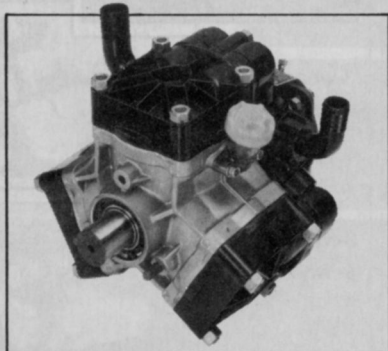
tributor said. "The superintendent views golf cars as the enemy, tearing up his beloved turf. The pro wants a piece of the action and the club manager wants the cars to make as much money as possible by spending as little as possible." It seems manufacturers would like golf courses to make some standard commitment to golf car operations rather than treating it as a necessary evil.

"Clubs the last few years have been playing one golf car dealer against another, seeking a rock bottom price," one dealer said. "In some cases, they have gone around the dealer directly to the manufacturer. They should be thinking more about service and quality than price. When we are trying to sell a fleet of 20 cars worth \$60,000, we get anxious and start making concessions we really shouldn't make."

One short-term solution has been leasing. Some clubs have chosen to lease cars at \$750 per car per year rather than pay \$3,000

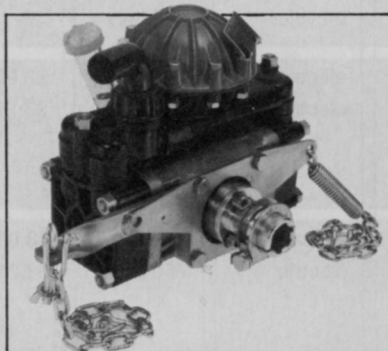
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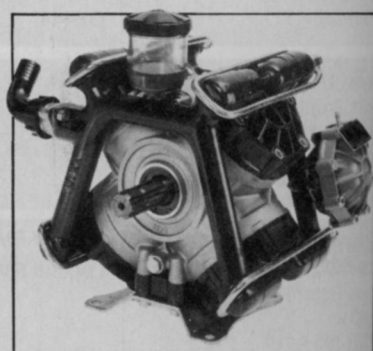
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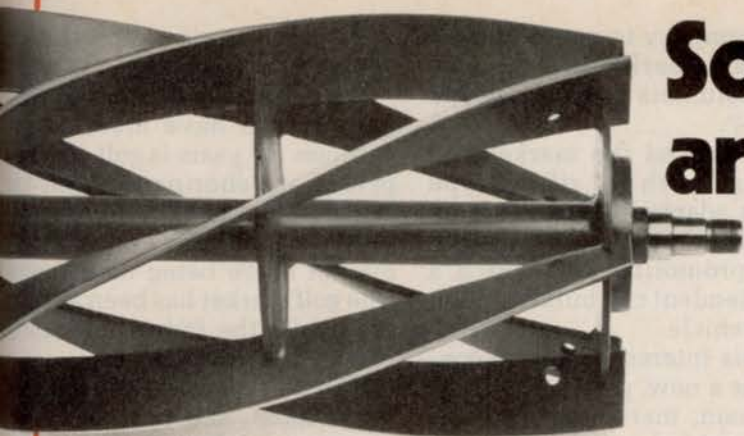
High pressure diaphragm pumps, to 850 psi, with outputs to 50 gpm.



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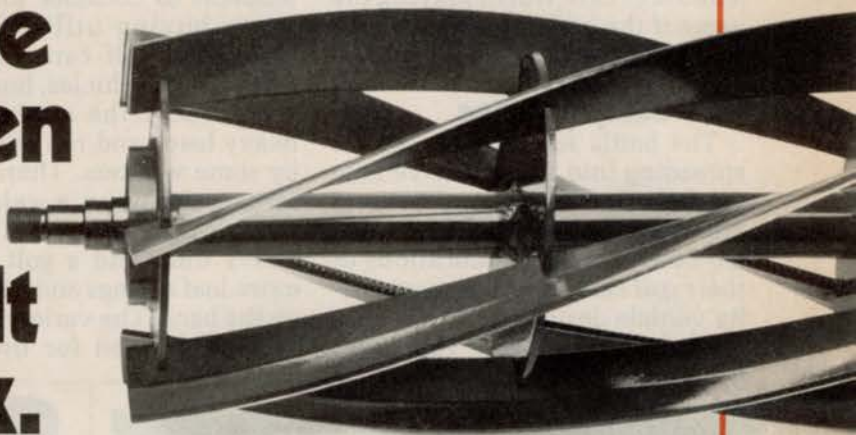
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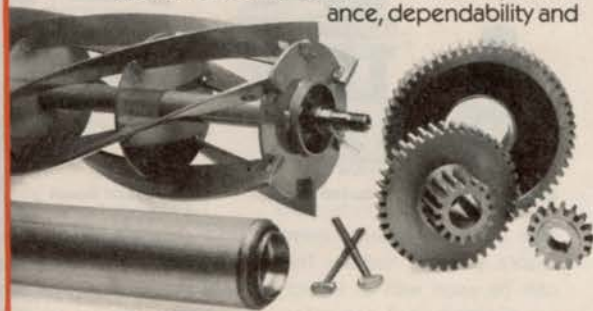
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per car to buy. Operation costs for golf cars have been determined and published by NGF and the Golf Course Superintendents Association. Leasing may or may not be the best use of golf course dollars depending upon the cash position of the course.

It would seem that golf courses should decide either to encourage use of golf cars and manage them properly or restrict their use on the course. The halfway position currently taken by many courses is causing manufacturers confusion and doubt. The stakes are worth playing the game if the odds improve for the manufacturers.

New utility vehicles

The battle for golf car sales is spreading into the utility vehicle market. Golf car manufacturers are expanding into the turf vehicle market with modifications of their golf cars as well as new utility vehicle designs.

Columbia Car is the most

recent company to enter the utility vehicle market. E-Z-Go preceded Columbia with its GX-800 and GT-7.

Bajaj entered the market two years ago with its riksha-type vehicles adapted for carrying up to 700 lbs of payload. Carl Heald Inc. is promoting kits which a superintendent can build his own utility vehicle.

All this interest might be construed as a new, growing market. Gary Sloan, marketing manager for turf and industrial vehicles at Cushman/OMC, urges superintendents to consider their needs when buying utility vehicles. "Modified golf cars are fine as light utility vehicles, but may fall short under the strain of daily heavy loads and rough treatment by some workers. There is a difference between a vehicle that was designed and built to be heavy duty and a golf car with extra leaf springs and a metal box on the back. The variety of attachments designed for use with a

vehicle is also very important to a superintendent."

The general sentiment by companies who have made utility vehicles for years is golf car companies are shoring up their car business by modifying cars for other uses. They see some of their market share being taken away. The golf market has been a steady one while the industrial vehicle market has faltered.

Golf car manufacturers, on the other hand, see it as a natural extension of their manufacturing process and their distribution and service networks. They are evaluating attachments for their utility vehicles.

Over the next few years superintendents and other users of turf utility vehicles will have a larger selection of turf vehicles and attachments for them. The modified golf cars will probably cost less than heavy-duty vehicles. In the long run it will be durability and variety of attachments that will win the war.

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