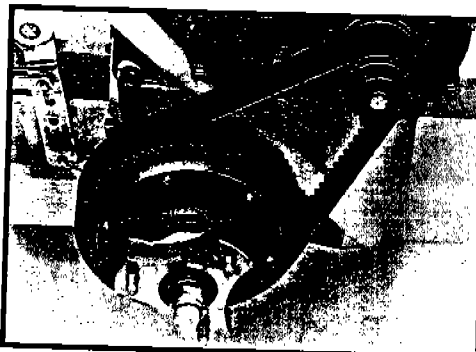
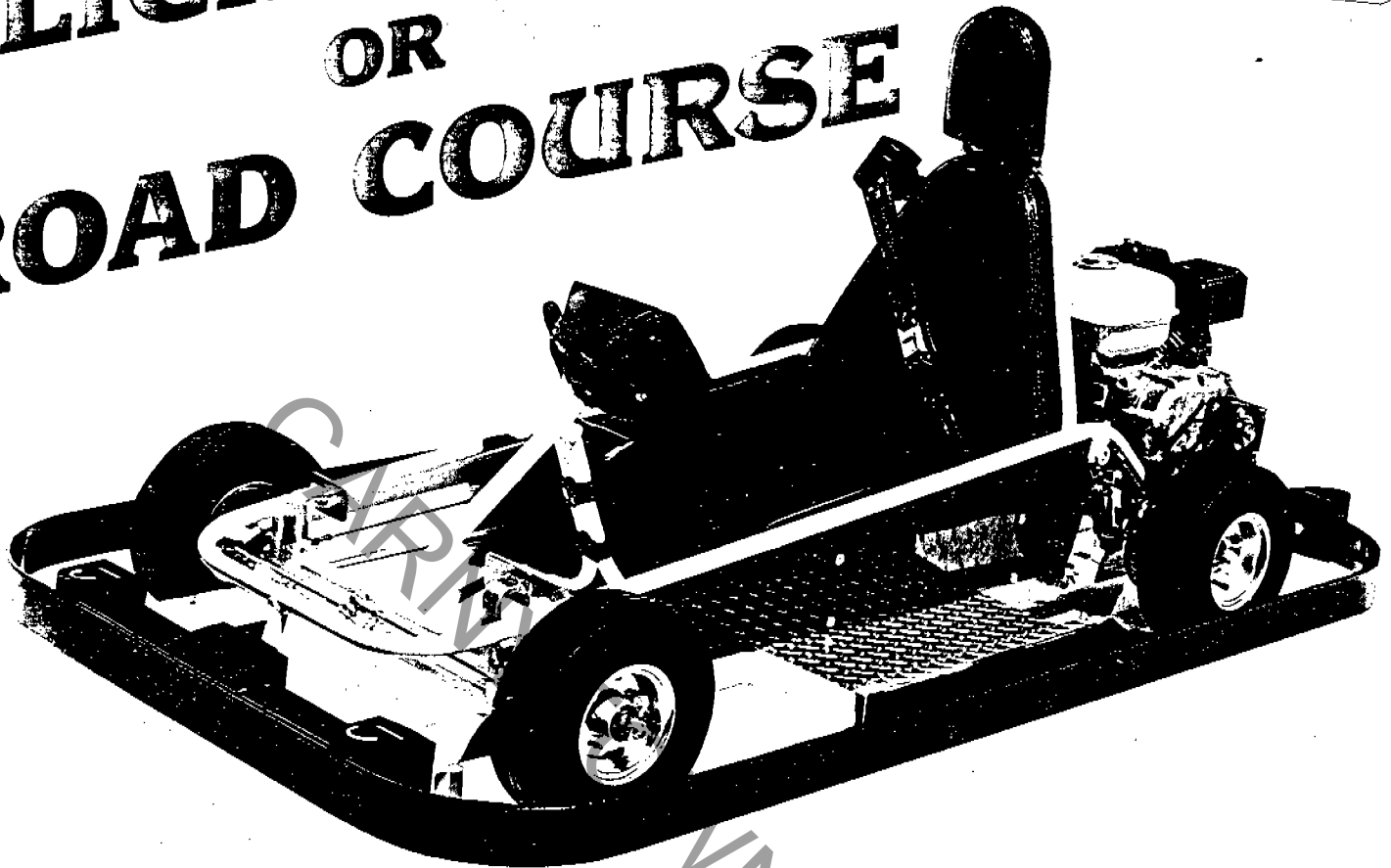
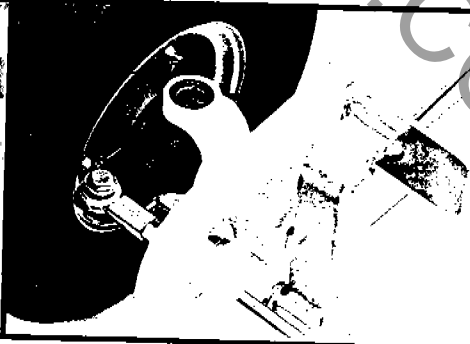


# SLICK TRACK OR ROAD COURSE

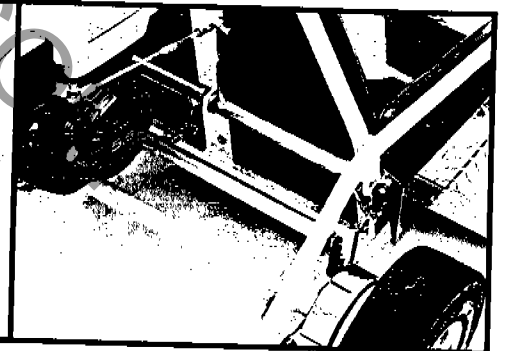
MFG: SHALLER  
NAME: GO-KARTS  
TYPE: NON-KIDDIE



Precision Belt Drive and Massive Aluminum Hubs (both sides)



Heavy Duty Spindles and Pedals, Adjustable Pedal Stop



Twin 6" Drum Brakes, Brake Bias Bar actuates both brakes evenly without adjustment. Linkages used throughout (no cables).

#### Specifications (Bodied & Non-bodied):

Engine ..... 5.5 HP Honda GX 160 RH  
Drive ..... 36mm wide, 8mm pitch, Gates Polychain GT  
Size ..... 48"W x 79½"L x 37"H  
Weight ... 380 lbs., less body. Optional body approx. 50 lbs.  
Wheels ..... Steel, 5", 3 hole

Tires ..... 12" x 4" x 5" Powermaster (extra thick tread)  
Brakes ..... Twin 6" shoe-and-drum type  
Frame ..... Steel tubing (.120" wall) Mig welded in jig  
Body (optional) .... Fiberglass (retained with four 3/8" bolts)  
Bumper... 2-piece, .360" x 3" spring steel, perimeter design

## SHALLER

*enjuneering*

806 James Ave.  
Schulenburg, Texas 78956

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## OPERATION AND SETUP PROCEDURE FOR SHALLER GOKARTS

Shaller GoKarts are not designed nor intended to be used for double riders. Shaller Enjuneering does manufacture a "Kiddie Kart" for ages of approximately four through eight. If these GoKarts are operated with double riders (against our recommendation), be sure that the seat belt is placed around the adult and not the child.

### SETUP

Our GoKarts come completely assembled but without oil and gas. Oil must be added to both the gear box and the engine crankcase. We recommend a good grade of 10W-40 (such as Pennzoil). Use regular or unleaded regular gasoline.

The tire pressure should be set next. We recommend 25 psi but some operators run 35 psi. Slick tracks generally operate on the higher side with 40 psi being the maximum we recommend.

Next, the speed should be set. This is done by adjusting the bolt which provides the stop for the gas pedal (on right). Generally the standard GoKarts are designed to operate at speeds (Maximum) from 16-22 MPH. This can be done several ways. Set one GoKart at the speed you want to run at. Then another driver can follow this GoKart (the standard) with each of the others so that the speed will be exactly the same for all GoKarts. A simpler but slightly less accurate method is to raise the left rear tire off of the pavement using a block and checking the RPM of the engine with a wireless tachometer while the throttle is fully depressed. This should be done on the "standard" GoKart which you have determined to be the right speed for your track. Then, simply set all the remaining GoKarts to this RPM. A Dixon wireless tach can be purchased from Northern Hydraulics. On the non-bodied GoKarts, the rear throttle stop must then be set by depressing the gas pedal fully (not running) and screwing out the rear stop bolt until it almost touches the linkage. With new Powermaster tires (36 7/8" circumference), the following formulas can be used:

$$\text{RPM} = 182.13(\text{MPH}) \quad \text{or} \quad \text{MPH} = .0055(\text{RPM})$$

### OPERATION

We feel that the use of the supplied shoulder harness (belt) is mandatory and if the harness is not in good shape or functional, THE GOKART SHOULD NOT BE OPERATED. Usually your state or liability insurance carrier will have specific rules, regulations, or suggestions regarding the safe operation of your GoKart track. In general, we believe in a height requirement of 54", a maximum ride of 4 minutes, and no helmets. It is recommended that you join the International Recreational Go-Kart Association (IRGA) (512) 590-4752.

## MAINTENANCE PROCEDURES FOR SHALLER GOKARTS

### DAILY

Check air cleaner. If dirty, remove the foam part and wash out in solvent. Squeeze out excess solvent and squirt oil on it and squeeze again to distribute oil evenly and remove excess oil. Different tracks and conditions will dictate how often this should be done. Inspect the paper element periodically by looking through the paper at the sun. You should see light. If little or no light is visible, replace the element.

Check oil in both crankcase and clutch. This should be done daily until you develop a feel for usage.

Kick tires to make sure they are hard. You will not necessarily know that a tire is low by just looking at it. Also, glance at front tires to make sure they are both pointed straight ahead (0 toe in or out).

Press on brake to make sure there is a "pedal". A better check for the brakes is to try and pull the kart forward by pulling on just the brake pedal. You should not be able to do this without sliding both rear tires on the pavement.

Check the five clevises ( $\frac{1}{4}$ " ) to make sure the cotter pin is in the  $\frac{1}{4}$ " clevis pin. These are located on each end of the throttle and brake control rods and one in the center of the brake bias bar that connects the two brakes together.

Check to make sure each wheel has three lug nuts.

### WEEKLY

During the peak season, change oil in the crankcase. You might want to follow Honda's recommendations in their manual, but this is what we suggest. The easiest way to do this is to suck the old oil out with a vacuum can which can be purchased from J.C. Whitney or Northern Hydraulics. Then, by trial and error, premark a clean container so that you can premeasure the correct amount of oil and pour it in. This can be done in less than a minute and it is probably the most important thing you can do to extend the life of you engine. It takes a little more than  $\frac{1}{2}$  qt. so cost is negligible.

### MONTHLY

Check all four wheel hubs for adjustment. They should have a slight drag. The spacer that the seal rides on should not turn. Too loose and the spacer will turn and the wheel will have slop; Too tight and there will be too much drag and premature wear of the bearing will occur. A little too loose is better than a little too tight.

## MAINTENANCE CONTD.

Check brake pedal for travel. If excessive travel exists before resistance is felt, remove clevis pin on the rear of the brake control rod and shorten.

Grease front spindles via grease zerk.

Change oil in the gear box. If it comes out clean, you could have gone longer. If it has darkened or smells burnt, you need to do this sooner. Different tracks and different methods of operations require different time intervals for this. Keeping riders from holding down on the gas and the brake at the same time will lengthen the time needed to change the gear box oil.

The belt tension should be checked. It will run pretty loose but it is recommended that it be tight. To tighten, loosen the four engine mounting bolts. Get someone to hold back on the engine while they are retightened. Sometimes it works better to tighten certain bolts first, so if the belt loosens after tightening a certain bolt first, try tightening another one first. The belt will not stretch but wear will cause the belt to loosen over a period of time. If you can not tighten the belt using the above procedure, place four 5/16" fender washers (available from Dorman Products through your local auto parts store) under the engine (one on each bolt) to shim the engine up. This will regain the original adjustment.

## SEASONALLY

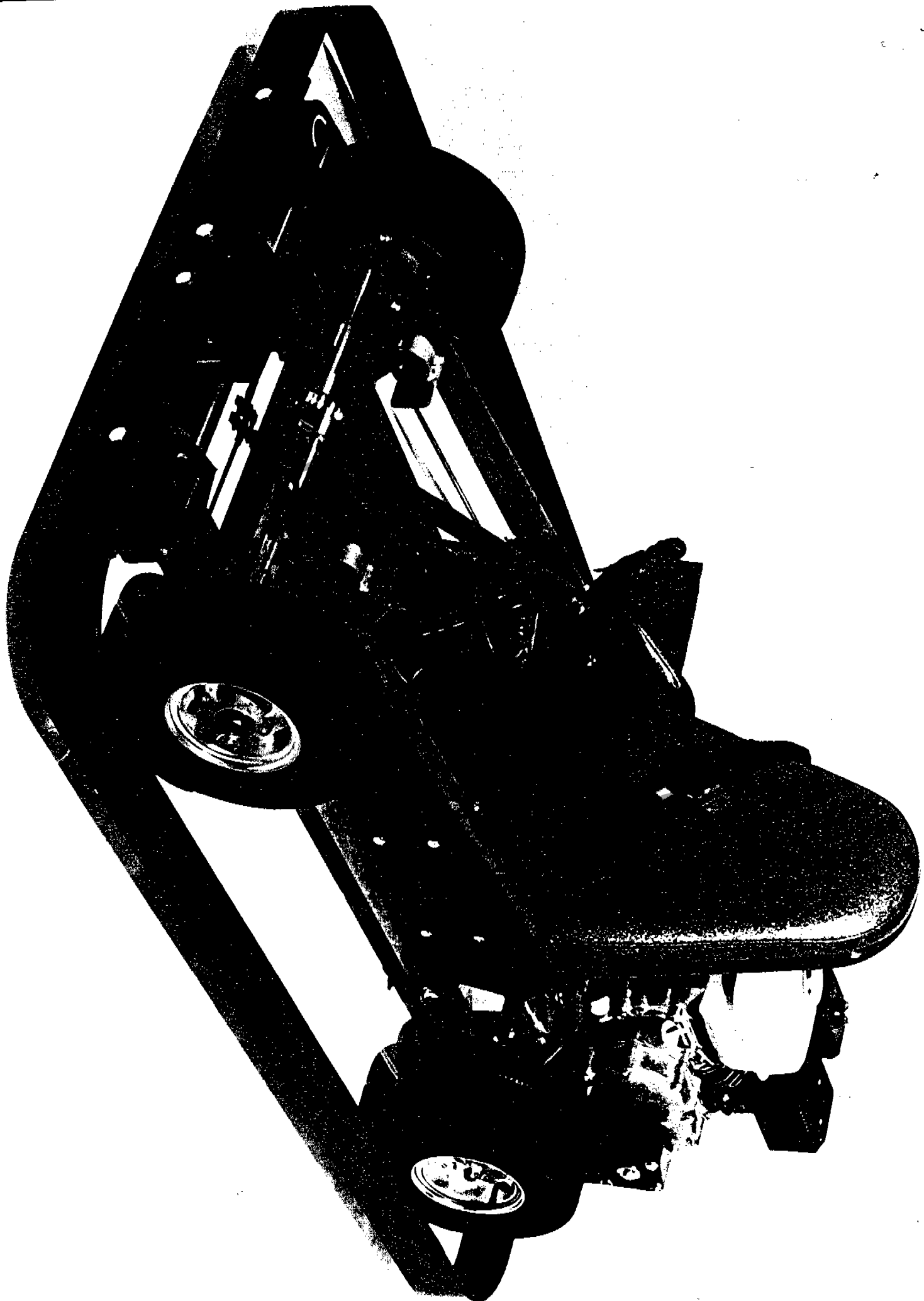
Repack all of the wheel bearings with grease. We use Pennzoil 705. Adjust drag as previously described.

It would be a good idea to replace the spark plug (use only NGK) and set the valves. Consult your Honda manual for specs.

If you are going to store your karts in the winter, drain all the fuel from the tank by removing the drain plug on the bottom of the carb fuel bowl. Also, remove sediment bowl, clean, and replace. Also, remove spark plug and pour a couple of ounces of Shaler Rislone oil into the spark plug hole and pull starter cord very slowly a couple of times to distribute oil on cylinder. Replace spark plug. Leave the oil in the crankcase, but replace when you return the karts to service.

Note: We use "red" Loctite on the steering hub, rear wheel studs, and the bolts that hold the brake drum on. Use heat from a propane or acetylene torch before trying to remove these (remove while hot).





# STANDARD GOKART

(Shown with optional body)

## SPECIFICATIONS (Bodied & Non-bodied):

Engine .....	5.5 HP Honda GX 160 RH
Drive .....	.36mm wide, 8mm pitch, Gates Polychain GT belt
Size .....	48"W x 79-1/2"L x 37"H
Weight .....	.380 lbs., less body, optional body approx. 50 lbs.
Wheels .....	Steel, 5", 3 hole
Tires .....	.12" x 4" x 5" Powermaster (extra thick tread) slick
Brakes .....	Twin 6" shoe-and-drum type
Frame .....	Steel Tubing (.120" wall) MIG welded in jigs
Body (optional) .....	Fiberglass mounted on rubber cushions, retained with four 3/8" bolts

## SAFETY FEATURES:

Bumper .....	2-piece .360" X 3" spring steel, perimeter design
Roll Bar .....	Combination headrest/roll bar integral with seat back which is integral with frame (not attached to body)
Padding .....	Crotch pad on steering column support and steering wheel pad on butterfly steering wheel
Shoulder Harness .....	Automotive Quality
Low Center of Gravity .....	The bottom of the chassis is well below the center of the wheels to prevent any chance of tipping

This GoKart is basically the same GoKart as the original design which has been manufactured for ten years. It does, however, incorporate many subtle changes (always to improve and never to "cheapen"). The frame is the same for both bodied and non-bodied versions except for the addition of body mounting tabs. This GoKart has the capability of going from one version to another with a minimal amount of parts and expenses.

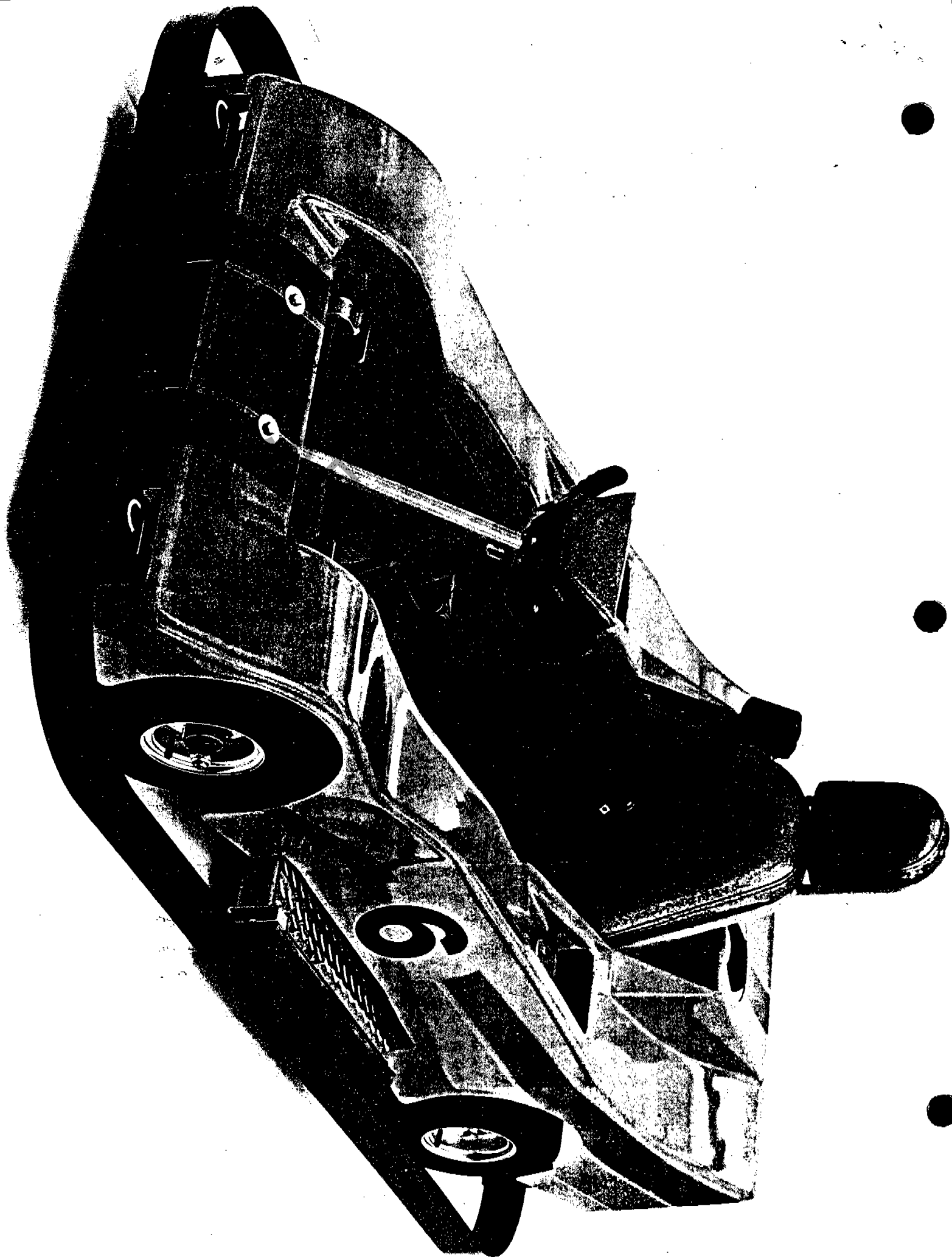
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# 8 HP GOKART

## SPECIFICATIONS:

Engine ..... 8 HP Honda GX 240 RA  
Drive ..... 36mm wide, 8mm pitch, Gates Polychain GT belt  
Size ..... 48"W x 79-1/2"L x 37"H  
Weight ..... 390 lbs., less body, optional body approx. 50 lbs.  
Wheels ..... Steel, 5", 3 hole  
Tires ..... 12" x 4" x 5" Powermaster (extra thick tread) slick  
Brakes ..... Twin 6" shoe-and-drum type  
Frame ..... Steel Tubing (.120" wall) MIG welded in jigs  
Body (optional) ..... Fiberglass mounted on rubber cushions, retained with  
four 3/8" bolts

## SAFETY FEATURES:

Bumper ..... 2-piece .360" x 3" spring steel, perimeter design  
Roll Bar ..... Combination headrest/roll bar integral with seat back  
which is integral with frame (not attached to body)  
Padding ..... Crotch pad on steering column support and steering wheel  
pad on butterfly steering wheel  
Shoulder Harness ..... Automotive Quality  
Low Center of Gravity ..... The bottom of the chassis is well below the center  
of the wheels to prevent any chance of tipping

This design is essentially the same as the Standard GoKart except the 8 HP motor mount has been lowered approximately 4" to lower the center of gravity and allow the optional body to fit.

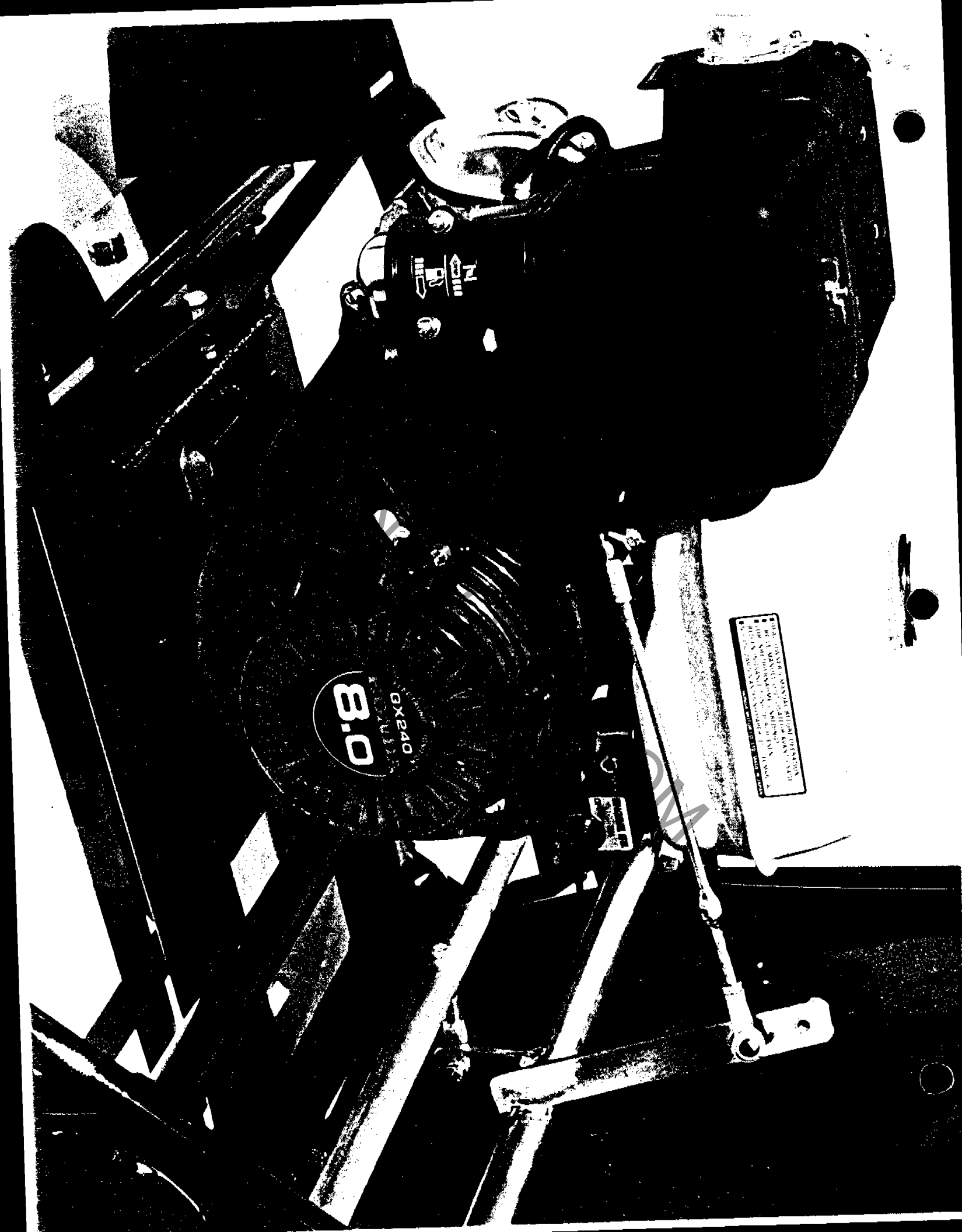
806 James Ave.  
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8.0 OX240

FOR INFORMATION, MANUFACTURER'S RECOMMENDED  
LOADING CAPACITY IS 1000 LBS. (450 KG.)  
DO NOT EXCEED THIS WEIGHT. ALWAYS USE  
THE LIFT IN ACCORDANCE WITH THE OPERATING  
INSTRUCTIONS.