

# INVESTIGATION GUIDELINE



August 2004  
Appendix 117

## Consumer Fun-Karts (Go-Carts)

### I. INTRODUCTION

#### A. Background Information

CPSC staff has been working with Fun-Kart Industry to develop a voluntary standard that applies to consumer karts. Two standards have been developed, ASTM International F1928-98(2004)e1, "Standard Safety Guide for Consumer Recreational Use of Fun-Karts", approved in 1998, and ASTM International F2011-02e1, "Standard Specification for Safety Performance of Fun-Karts", approved in 2000. Each year there are serious injuries involving exposed moving parts on fun-karts. The voluntary standards were developed to reduce the risk of injury associated with this product.

#### B. Product Class Description

A Fun-Kart is a gasoline powered motorized vehicle having four wheels and is sold for the private, recreational, off-road use of consumers. The vehicle normally travels at speeds above 12 mph, but does not exceed 40 mph. The operator of the vehicle sits behind a steering wheel and operates the accelerator and brake by manipulating foot pedals. The vehicle is not to be confused with an ATV, which the operator straddles and uses hand controls. The hazards associated with fun-karts include the entrapment of long hair or loose clothing in exposed moving parts and collisions with stationary objects and/or other motor vehicles. Both children and adults can be severely injured or killed. Fun-Karts can be found around residences and are used by consumers of all ages in fields, public parking lots, commercial race tracks, and open areas affording access.

#### C. Incidents of Interest

All rollover/entrapment (on moving parts) injuries to children, especially those with a fire, will be assigned for on-site investigations.

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## D. Headquarters Contacts

Natalie Marcy EPHA - (301) 504-7329

Troy Whitfield, ESME - (301) 504-7548

## II. INSTRUCTION FOR COLLECTING SPECIFIC INFORMATION

### INVESTIGATOR:

(1) Confirm with the owner/victim/parent before conducting an on-site investigation that the kart is a **CONSUMER kart**.

(2) If the kart is **NOT** a consumer kart or is a **HOMEMADE**, do an abbreviated telephone investigation.

(3) If the product is **NOT** available or the respondent **does not want** an on-site investigation, do a **TELEPHONE INTERVIEW** using the provided **DATA RECORD SHEET**.

(4) If the kart is **available** and the owner **agrees** to an on-site visit, **do an on-site** investigation. **Please use the DATA RECORD SHEET to record specific information** and also collect other information as described in this guideline.

### A. General Information

A description of the sequence of events, the type of kart, and the conditions existing at the time of the accident are necessary to determine the major hazard patterns and the risk of injury associated with Fun-Karts.

### B. Description of Victim Contact with the Product (Victim/Product/Environment Interface)

Determine the accident sequence and where and how the victim received his/her injuries (chest, back, neck, etc.).

### C. Instructions for Collecting Specific Information

1. Information Collection - use **ATTACHED DATA RECORD SHEET and DIAGRAMS**.

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## 2. Operational Observations:

- Obtain the measurements of the wheel base, tread width, seat location, seat back to the rear/drive axle. (**See Section IV, Measurement Guideline**)
- Observe location of seat belts, engine kill switch, foot pedals and determine whether the unit was intended for single or multiple occupancy.

## 3. Product Information

- Obtain manufacturer of Fun Kart, model number, and serial number.
- Obtain manufacturer of engine, model number, and serial number.
- Be particularly watchful for altered or modified kart. If changes have been made, determine reason for change.
- Note locations and photograph any warning labels on the Fun Kart.
- Obtain copy of the owner's manual and operating instructions

## **D. Description of Victim**

- Indicate the victim's age, sex, height, weight, clothing, competence reducing factors (e.g., impaired vision, physical handicaps, medication, alcohol use, etc.), knowledge of hazards, prior experience, or training.
- Note the victim's activity prior to the incident (if a child, whether the victim was playing with other children, unsupervised by an adult, etc.).

## **E. Description of Environment**

Characterize weather conditions at the time of the accident, including lighting and ground conditions.

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## III. INSTRUCTIONS FOR PHOTOGRAPHING AND/OR DIAGRAMING ACCIDENT SCENE AND FACTORS RELATED TO THE ACCIDENT SEQUENCE

Photograph Fun-Kart showing close-ups of involved part(s), warning labels, rear axle, and any shielding/guards (or location where shield/guard should have been, if missing). Additionally, diagram the incident scene and scenario, include photos from the operator's perspective - side view, front and rear views, etc.

Photographs of entrapment incidents should document the location of the part(s) involved relative to the victim's position.

## IV. MEASUREMENT GUIDELINE

### Unit Measurements.

Obtain the following measurements, if possible, include tape measure in photo:

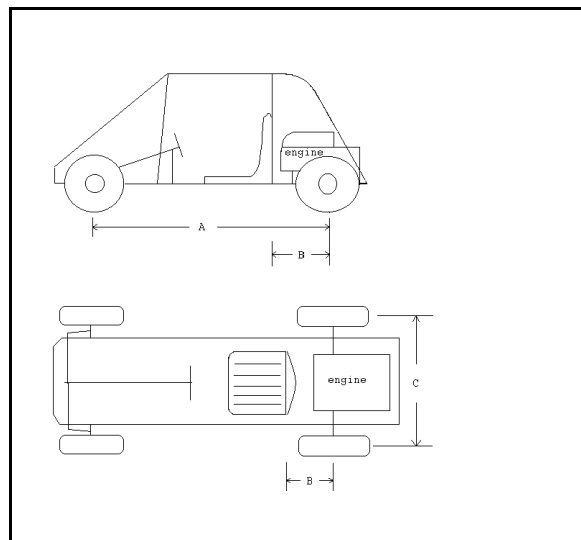
A. **Wheel base:** The distance between center of the front wheel and the rear wheel.

B. **Seat back-to-axle:** The distance from the back of the seat to the rear axle.

**For cases of entrapment, measurement should be taken from the location in the seat (ie. for hair entrapment, where the head was resting on the seat back) to the location of the entrapment.**

C. **Tread width:** The distance between the center of the two rear wheels and the distance between the center of the two front wheels - **the distances may not be equal.**

D. **Entrapment Part:** Document location of the entrapment in relation to the victim - photograph any shielding/covers in place or removed.



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E. **Wheel Size:** Obtain the size from the tire designations. Inquire whether the wheels/tires are original equipment.

F. **Operator Environment:** Measure from the lowest point of the steering wheel to seat back, seat back to control pedals, steering wheel diameter and note the thickness of any padding, safety cushioning/devices present within the operator's environment.

### V. INSTRUCTIONS FOR OBTAINING SAMPLES AND DOCUMENTS RELATED TO THE INVESTIGATION

- o The measurements, photographs/diagrams, and any investigations by the police, coroner, manufacturer, law firm, insurance company, or engineering firm are to be appended to the investigation report.
- o Obtain copies of the operating and installation instructions and repair history (if any) that are available and append them to the investigation report. If necessary these documents could be sent as an addendum to the report.

**INVESTIGATOR: IF YOU HAVE ANY QUESTIONS OR  
COMMENTS CALL Natalie Marcy, EHHA(301)504-7329**

**TROY WHITFIELD, ESME(301)504-7548**

## Fun-Kart/Go-Cart Data Record Sheet

1. Indicate below who is the respondent.

- Victim/Injured person
- Mother of victim
- Father of victim
- Someone else (**Specify:** \_\_\_\_\_)

2. Indicate below who owns the kart.

- Victim's household --->**ASK:** Did your/victim's household **purchase** the kart or **build** it?
  - Purchased ---> Did you purchase  **new**  **use**?
  - Built ---> (**Specify:** \_\_\_\_\_)

Another household---> **IF homemade, STOP** the interview.

Rented

Don't know

3. About how old is the kart?

- Years
- Don't know

4. What is the brand name (manufacturer) and model name /number of the kart?

Mfr. \_\_\_\_\_

Model # \_\_\_\_\_

Don't know

5. What is the brand name (manufacturer), model name/number, and horsepower of the engine of the kart?

Horsepower \_\_\_\_\_

Mfr. \_\_\_\_\_

Model # \_\_\_\_\_

Don't know

6. Had the kart been changed or modified in any way since you've got it?

Yes ---> How was it changed or modified? Who did it?

\_\_\_\_\_

No

Don't know

7. Does the cart have any safety devices such as (**Check as many as applicable**) --->
- steering wheel with pad,
  - chain guard,
  - Belt guard,
  - wheel guards,
  - engine guard,
  - stepboards,
  - brush bar, or
  - anything else?--->(**Specify:**\_\_\_\_\_)
  - No
  - Don't know
8. Who was the injured person?
- Driver
  - Passenger
  - Bystander
  - Other---> (**Specify:**\_\_\_\_\_)
  - Don't know
9. Include the driver, how many persons were riding the cart at the time of the incident?
- One
  - Two
  - Other (**Specify:**\_\_\_\_\_)
  - Don't know
10. Did the accident occur on a road, a yard or lawn, or some other location?
- Road
  - Yard, lawn
  - Other --->(**Specify:**\_\_\_\_\_)
  - Don't know
11. Was the ground surface grass, dirt, sand, gravel or stone, paved or something else?
- Grass
  - Dirt
  - Sand
  - Gravel or Stones
  - Paved
  - Other--->(**Specify:**\_\_\_\_\_)
  - Don't know
12. About how fast was the cart going at the time of the accident?
- Miles per hour
  - Don't know

13. Did the cart hit an obstacle such as a tree, fence, or a vehicle?

- No
- Yes---> (**Specify:**\_\_\_\_\_)

14. At the time of the accident, were you (**the driver**) doing any maneuver such as jumping, high speed stunt, or racing?

- Jumping
- High speed stunt
- Racing
- Don't know

15. Was the driver wearing any special clothing such as:

- helmet,
  - goggles,
  - gloves,
  - long sleeved shirt,
  - long heavy pants, or
  - ankle-length boots?
- 
- No
  - Other (**Specify:**\_\_\_\_\_)
  - Don't know

16. Did any clothing or hair get caught in the kart?

- Yes ---> describe how the clothing or hair was caught.

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- No
- Don't know

17. Exactly where on the kart did (your/victim's) hair or clothing get caught? Was it in the

- opening in the motor,
- Drive shaft, or
- Other --->(**Specify:**\_\_\_\_\_)
- Don't know

18. What were the weather conditions at the time of the injury?

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19. In your opinion, what caused the accident?

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