# **1200-D**, **1200-F** Kemmerer "Tugger<sup>TM</sup>" Instructions

### Test before you sample!

WILDCO<sup>®</sup>

We recommend that any new sampler be thoroughly cleaned prior to any sampling. In the event you are performing chemical sampling, before any sampling is done, first fill the sampler with distilled, contaminant-free water and test to determine what contaminants may be present in the sample.

We also recommend that this procedure be repeated throughout the sampling season.

## Note about contamination:

Samplers with blue seals may leach phosphorus and mercury and are not recommended for chemical sampling.

## Safety:

To prevent personal injury, keep your hands clear of open ends of the main tube while the bottle is in the open position.



### **Introduction:**

The Wildco<sup>®</sup> Kemmerer Tugger<sup>™</sup> water sampler does **not** require a messenger for closing. It was designed to be used from **bridges** or from the **shore** of ponds, lagoons or rivers.

Based on a 1927 design by **Dr. George Kemmerer** of the University of Wisconsin, the Kemmerer bottle has long been favored by limnologists and fishery biologists. With few moving parts and a foolproof trip, it offers trouble-free operation.

Operating the Wildco<sup>®</sup> Kemmerer water sampler is simply a matter of lowering the instrument on a suitable sounding line to a desired depth. The Kemmerer Tugger<sup>TM</sup> employs a patented tripping device of Wildco<sup>®</sup> design. This automatic device locks the stoppers open previous to lowering into the water.

Despite its simplicity of design and operating procedure, preliminary practice in handling the Kemmerer water sampler is helpful in developing a good technique. In field work, attention to the key steps in the operation can help assure reliable and uniform samples.

## Set-Up:

When you receive your Kemmerer Tugger<sup>™</sup> sampler, there will be a short length of line attached. This line is included as an example of how to attach your line prior to sampling.

#### Of importance when attaching your line:

- 1. The knot at the bottom of the sampler has to be tied securely, or the unit will come off the line. (See *Diagram 1*.)
- 2. The knot that trips the release mechanism must be from 38mm (1-1/2") minimum to 44mm (1-3/4") maximum from the top of the center shaft to the bottom of the know.
  (See *Diagram 1*.)

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## How to Use:

- 1. Put one hand on the barrel and, with the other hand, grab the end seals and give them a quick jerk. This should partially cock the sampler so it is ready to set the tripping piston (see *Diagram 2*). Place the tripping piston between the "ears" of the trip head as shown in the drawing.
- If you are sampling from a bridge, carefully lower the Tugger<sup>™</sup> sampler down until you reach your desired depth. Once this level is reached, give the line a quick "tug". (Because the sampler is closed by giving the line a "tug", you must be careful not to apply that kind of action to the line when you are lowering it on the line.) The unit will close and secure your sample.
- 3. If sampling from shore, make sure you have enough slack in the line to avoid putting tension at the release mechanism when throwing the sampler. Once the sampler is tossed out, give a "tug" and the unit will close, obtaining your sample.

### 1200-D, F Series Kemmerers (1.2 L)

	· /
Shaft Assembly	1200-L33
Tugger trip head	1270-L40
Top Stopper assembly polyurethane	1200-L11
Main tube assembly, acrylic	1200-L31
Main tube assembly, stainless steel	1200-L32
Cable assembly	1200-L15
Drain valve, delrin plastic	1270-L12
Assorted fasteners (1, 2, 8)	1200-L99
Garter springs, 3 per pack, for PU	1270-L82
Bottom washer w/ drain sleeve	1200-L13
Bottom Stopper, polyurethane	1200-L17
Large bottom washer	1200-L19

#### P/N 005840

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## Maintenance:

- Do not store sampler or net when wet, damp or dirty.
- When returned from sampling, rinse thoroughly to remove any soil, debris, chemicals and oils.
- Allow both sampler and case to air dry thoroughly before placing in storage.
- Mold, mildew, metal corrosion and plastic surface deterioration may occur if instruments or nets are stored wet and/or dirty.
- The foam interior and the case may be damaged or deteriorate if the product is not dried after use.
- Kemmerer end seals (stoppers) should not be sealed, seated or fully closed during storage.
   While end seals are made of tough elastomers, they all have a tendency to take a set under long periods of inactivity and stress. Store the Kemmerer bottle with the end seals slightly open and with the end seals sealing area not touching the outer cylinder.
- Before storing any water bottle, the entire bottle should be rinsed in fresh, clean water and allowed to completely air dry. When fully dry, store in its case or in a **dark**, **cool**, **dry** shelf or cabinet.

#### Accessories:

Braided nylon line, 3/16" in diameter

- 62-C15 (100 feet)
- 62-C20 (200 feet)
- 62-C50 (100 meters)

Plastic carry case, 24.5" x 13" x 7.25"

- **910-G10** Plastic case for thinner bottles
- **910-G11** Plastic case for larger bottles

#### Warranty and Parts:

We replace all missing or defective parts free of charge. All products guaranteed free from defect in materials or workmanship for 90 days after date of shipment. This guarantee does not include accident, misuse, or normal wear and tear and applies to original purchaser only.