

# 1200-G Kemmerer Operating Instructions

## Test before you sample!

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 the above procedure be repeated throughout the sampling season.

## Introduction:

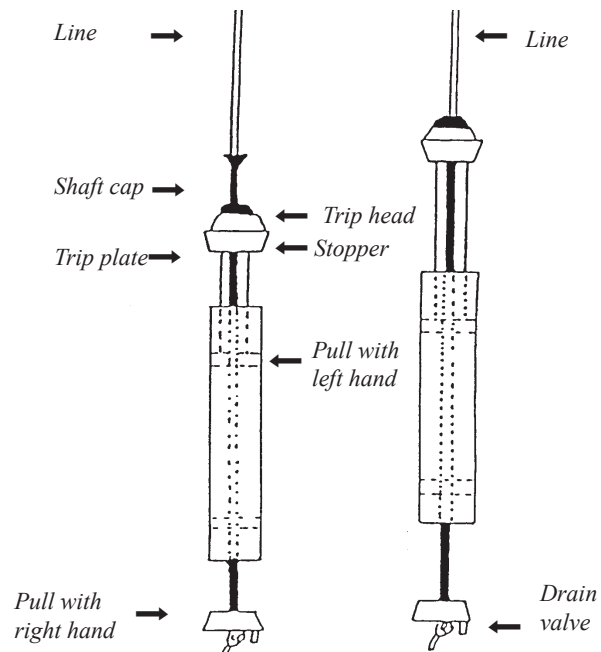
Operating the Wildco® Kemmerer Water sampler is simply a matter of lowering it on a suitable line to a desired depth. The 1200 series uses a patented tripping device of Wildco® design which automatically locks the stoppers open before lowering. Despite its simplicity, it is best to practice before sampling. In field work, attention to the key steps in the operation can help assure reliable and uniform samples.

### How to test your sampler before sampling:

- Run a line (or light chain) through the central tube and fasten securely below the lower stopper to prevent the line from pulling back through the hole. Depending on the type of line, tie or pin it at the bottom of the sampler. A washer or nut will help.
- To cock the sampler, pull the trip head into the trip plate. This is done by holding top and bottom stoppers and giving a short, hard pull to the bottom stopper. [Note: Bottom stopper must make watertight seal with main tube. Drain tube gasket must also make watertight seal.]
- Attach a messenger to the line. When the sampler is at the desired depth, release the messenger, which falls and closes both upper and lower stoppers. The stoppers seal by their own weight.

## Safety:

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



## Tips for trace sampling:

1. All samplers contaminate or distort in some way.
  - Plastic may leach metals from ultraviolet inhibitors, metal-organic plasticizers, (rarely) metal catalysts.
  - Teflon® has a rough porous surface that traps ions and fine charged particles. Errors may occur in your first sample.
  - Metal and glass may dissolve into the sample, usually at the nanogram/liter level.
  - The sample may react with the sampler, causing errors.
2. Are you using the right sampler? Is the sampler clean? Have you run a test blank?
3. Selecting a particular sampler may depend upon the material(s) sought or environment being sampled.
4. Alconox detergent is suggested to remove oil and most soils. Rinse. A 3% acid solution (HCl or HNO<sub>3</sub>) will remove detergent. Rinse with distilled water. Air dry.
5. Run a test blank by filling the sampler with distilled water, holding for at least as long as the sample will be held in the sampler, and running test analysis.
6. Air dry and store in a clean plastic bag until needed.

## Operation:

1. To set the sampler, pull the bottom stopper down until the shaft assembly snaps into the trip head.
2. If using a solid messenger, run a line through the messenger prior to attaching the line to the sampler. Attach the split messenger to the line once the sampler is at the desired depth.
3. We recommend using our 5 mm (3/16") braided polyester line, such as **62-C15** (see page 4). The line should be run through the shaft assembly and secured by knotting it at the bottom of the sampler with a washer.
4. Lower the bottle down to the desired depth. Release the messenger to close the sampler. The stoppers seal by their own weight, thus ensuring a complete closure.

**Important note:** The maximum height a messenger should be dropped through the air is 30 feet (10m). Distances greater than this can damage the bottle. Use a Wildco® shock absorber (**45-B40**) for long air drops.

**Do not use a messenger heavier than 11 oz!**

Damage to your sampler may result.

## 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:

**Split messenger.** Our most popular messenger, this can be placed anywhere on your line, not just at the end, like our solid version. Of 316 corrosion-resistant stainless steel, it features a split barrel and tapered nose. Literally comes on and off with one hand, a great boon in sloppy weather. Includes an interior spring mechanism to hold the barrel closed and a built-in hole for attaching a safety lanyard. [Safety lanyards are used for series sampling, which requires a special water bottle.] Fits 3 to 6 mm (1/8 to 1/4") line, works best with 3/16" line (below). 227 or 312 grams in weight (8 or 11 ounces)

**45-B10** Split messenger, 11 oz. (312 g)

**45-B20** Split messenger, 8 oz (227 g)

**Braided nylon line.** 3/16" in diameter. Tight, solid braid for extra firmness, strength and minimum stretch. No filler in center to distort. Will not kink or untwist. Easy on hands; can be marked and spliced. Solid in 100 ft, 200 ft, and 100 meter lengths. Working load 110 pounds maximum - breaks at approximately 750 lbs.

**62-C15** 100 foot length

**62-C20** 200 foot length

**62-C50** 100 meter length

**Messenger shock absorber.** Here is permanent protection for the trip head on long air drops. This custom-molded polyurethane "pillow" slips onto your line before your messenger. When the messenger falls, it hits the shock absorber first, protecting the trip from possible damage.

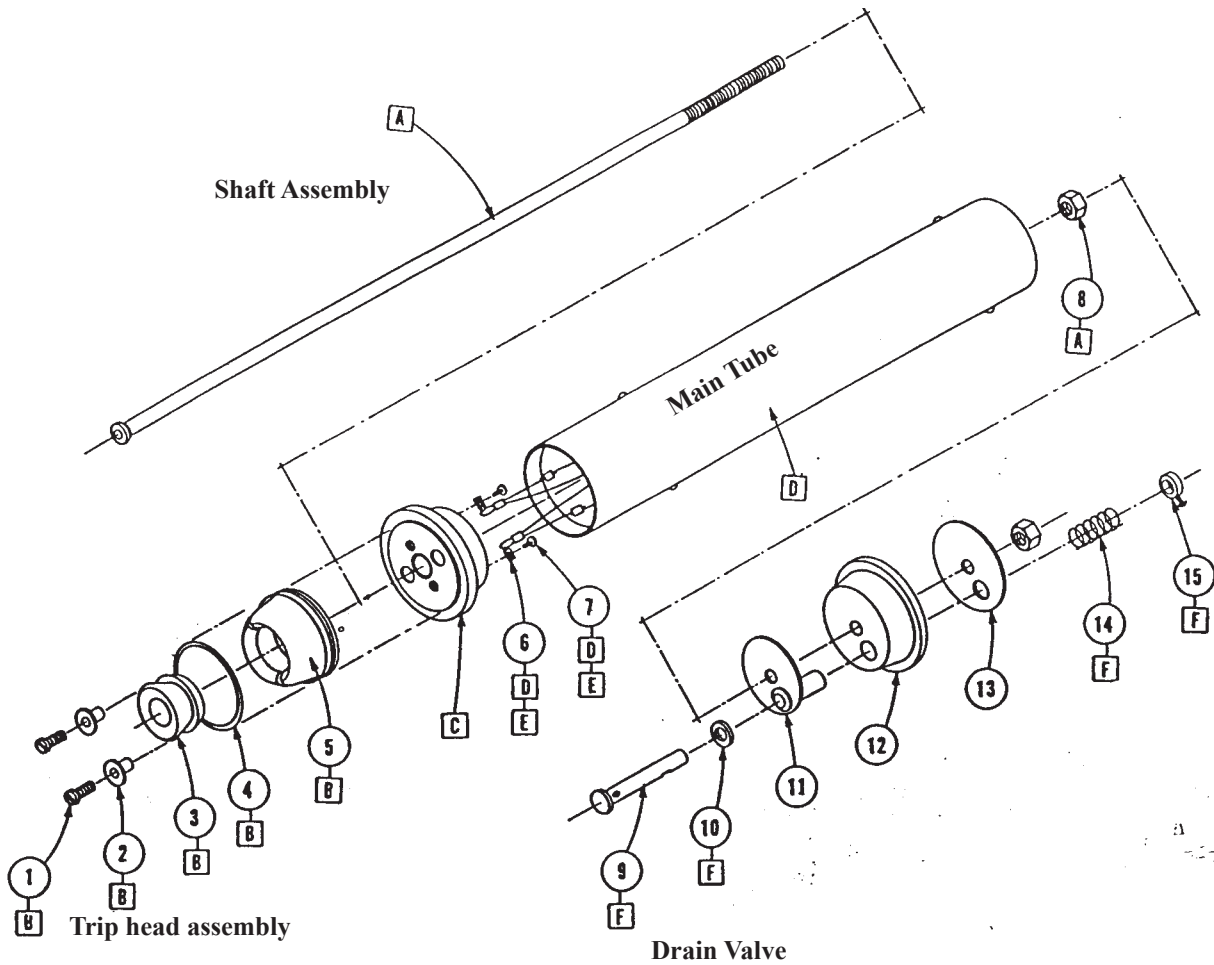
**45-B40** Polyurethane messenger shock absorber

## 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.

### P/N 005839

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1200-G Series Kemmerers (1.2 L)		P/N
A.	Shaft Assembly	1200-L33
B.	Trip head assembly (1-5) SS	1270-L14
C.	Top Stopper, teflon	1200-L25
D.	Main tube assembly, SS	1200-L32
E.	Cable assembly (6, 7)	1200-L15
F.	Drain valve (9, 10, 14, 15), SS	1270-L13
	Assorted fasteners (1, 2, 8)	1200-L99
4.	Garter springs, 3 per pack, for PU	1270-L82
11.	Small bottom washer/drain sleeve	1200-L13
12.	Bottom stopper, teflon	1295-L17
13.	Large bottom washer	1200-L19

**Specifications:**

- Tube OD: 2.6"
- Tube length: 16"
- Length with stoppers set: 28"
- Takes plastic carry case: **910-G34**
- Transparent acrylic cylinder and interior
- Blue polyurethane end seals
- 1/8" cable used for trip (**61-B14**)
- Takes **45-B10** 11 oz. messenger