Rheometer Cup Heater

Instruction Sheet

Manual No. D01036128 Revision B

Instruments No. 206961 (115V)

206966 (230V)

Rheometer Cup Heater Instruction Sheet

Houston, Texas, USA

Printed in USA.

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1 Introduction

This Rheometer Cup Heater is intended for controlling temperature of a drilling fluid sample while taking readings with a Rheometer or Viscometer. The low thermal conductivity of a drilling fluid requires that it be agitated while heating in order to reach a uniform temperature in a reasonable length of time.

1.1 Document Conventions

The following icons are used in this instruction manual.

NOTE. Notes emphasize additional information that may be useful to the reader.

CAUTION. Describes a situation or practice that requires operator awareness or action in order to avoid undesirable consequences.

2 Safety

Safe operation of the Cup Heater requires the operator understand and practice the correct assembly and operation of the equipment. Improper assembly, operation, or the use of defective parts could result in serious injury and damage.

Do not immerse the Cup Heater in water for cleaning. Immersing the unit in water could cause electrical problems, damage to the equipment and possible serious injury.

Cup Heaters are electrically heated, and as with any electrical device if the wiring is allowed to become faulty, electrical shorts can occur causing damage to the instrument and possible injury to the operator. These instruments should always be used on a grounded circuit.

CAUTION. The Cup Heater is hot during operation. The operator should use caution when operating the Cup Heater. Burns can result from touching hot equipment during normal operation.

3 Procedure

1. Place heating well (with sample cup removed) on base of Rheometer.
2. Plug the power cord into the proper voltage outlet as indicated on the name plate. Make sure the power receptacle is grounded.
3. Turn the thermostat clockwise to approximately 75% of full range, which will be approximately 185°F, (85°C) and allow 15 minutes for heat-up. The pilot light will illuminate to indicate the heating well has reached the set temperature.
4. Place a dial thermometer in the thermometer hole on the side of the heating well to read well temperature.
5. Pre-heat the well to approximately 50°F, (28°C) above the desired test temperature.
6. Fill the Stainless Steel sample cup to the scribed line with the sample to be tested.
7. Insert the sample cup with the sample into the heating well. Stir the sample frequently, while checking the temperature.
8. When the sample approaches the desired temperature, adjust the thermostat back 1/4 turn to avoid overheating.

CAUTION. Do not use a Hollow Bob at temperatures above 200°F (93°C).

9. Immerse rotor to proper depth, and stir. A scribed line on the rotor indicates proper immersion depth. Damage to the bob shaft bearings may occur if this immersion depth is exceeded. If other sample holders are used, the space between the bottom of the rotor and the bottom of the sample holder should be one-half inch (1.27cm) or greater.
10. Once the temperature has stabilized as indicated on the dial thermometer, the sample is ready for testing.
11.

NOTE. Adjustment of temperature may be needed if the instrument Bob and Rotor are cold.

NOTE. Do not leave Rotor immersed for long period in the sample, as vapors will move up into the bearings and condense, causing corrosion and bearing failure.

4 Parts List

Table 4-1 Rheometer Cup Heater Parts List

Part Number	Description
206961	Rheometer Cup Heater, 115 Volts
206966	Rheometer Cup Heater, 230 Volts
207030	Stainless Steel Rheometer Cup
206037	Thermometer, 0 - 220°F, 5" Stem
206038	Thermometer, 50 - 350°F, 5" Stem

5 Warranty and Returns

5.1 Warranty

Fann Instrument Company warrants only title to the equipment, products and materials supplied and that the same are free from defects in workmanship and materials for one year from date of delivery. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED OF MERCHANTABILITY, FITNESS OR OTHERWISE BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Fann's sole liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale, lease or use of any equipment, products or materials is expressly limited to the replacement of such on their return to Fann or, at Fann's option, to the allowance to Customer of credit for the cost of such items. In no event shall Fann be liable for special, incidental, indirect, consequential or punitive damages. Notwithstanding any specification or description in its catalogs, literature or brochures of materials used in the manufacture of its products, Fann reserves the right to substitute other materials without notice. Fann does not warrant in any way equipment, products, and material not manufactured by Fann, and such will be sold only with the warranties, if any, that are given by the manufacturer thereof. Fann will only pass through to Customer the warranty granted to it by the manufacturer of such items.

5.2 Returns

For your protection, items being returned must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Fann will not be responsible for damage resulting from careless or insufficient packing.

Before returning items for any reason, authorization must be obtained from Fann Instrument Company. When applying for authorization, please include information regarding the reason the items are to be returned.

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