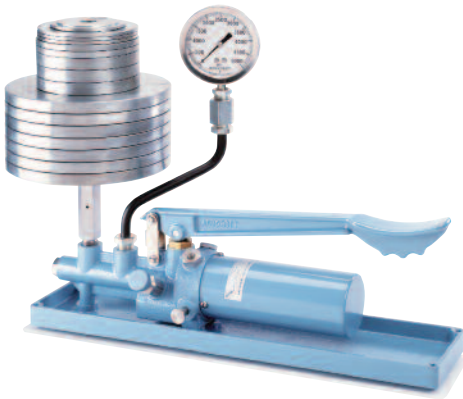


## Type 1305D Deadweight Tester



### APPLICATION

- *For calibration and test applications requiring a primary standard*

### FEATURES

- **Accuracy:** 0.1% of reading
- **Operating Pressure:** 15 psi to 10,000 psi
- **Operating Media:**
  - 1305D: SAE 20 weight automotive or machine oil
  - 1305DH: Phosphate-based or glycol fluids

The Ashcroft 1305D Deadweight Tester is an affordable, portable primary pressure standard, specifically designed for the precise calibration of industrial service gauges and transducers. Accurate to 0.1% of reading, each deadweight tester is carefully calibrated and certified traceable to the National Institute of Standards and Technology (NIST).

The 1305D is a "dual-range" system which provides a "high" and a "low" pressure piston assembly and a complete set of weights labeled with corresponding high and low pressure values. Each system includes a "2 speed" lever action hydraulic pressure pump capable of achieving pressures up to 10,000 psi. By repositioning a shuttle valve, the operator can select between 2 different rates of pressure generation, thereby reducing the effort necessary to develop higher pressures. To "fine tune" the pressure output to a specific calibration point, the pump is equipped with a secondary micro-adjust vernier displacement valve.

The standard 1305D pump is designed to operate with 20 weight petroleum based motor or machine oil. For applications requiring the use of glycol or phosphate ester based "hydraulic" fluids, the pump is optionally available with special seals suitable for these media.

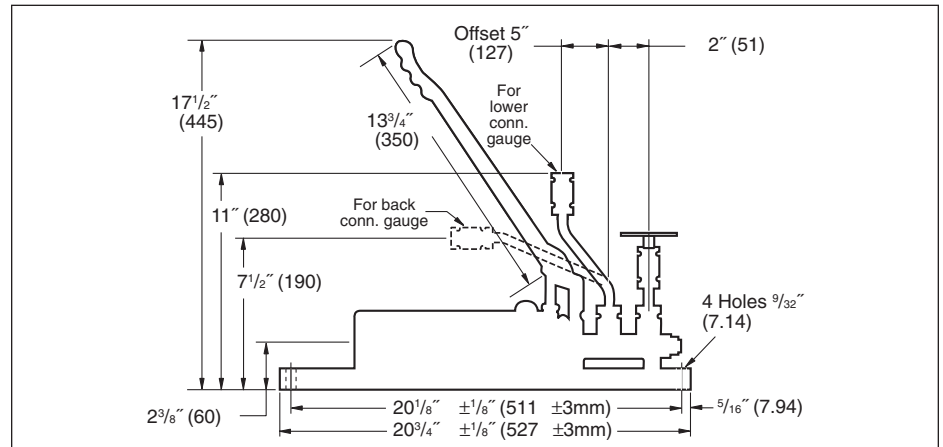
In addition, each set includes the tools, adapters and accessories necessary to accommodate most field or lab calibration requirements. All of the components are conveniently stored in a metal "tool box" for maximum protection and portability. Weight sets are also protected in separate metal storage boxes.

The 1305D offers a rugged field ready primary standard, certified to yield consistent, accurate results.

### SPECIFICATIONS – 1305D

|                                                                    |                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accuracy:</b>                                                   | Within 0.1% of produced pressure (adjusted for standard gravity conditions; compensation for local gravity effects may be required)                                                                                                                   |
| <b>Operating Pressure:</b>                                         | 15 psi to 10,000 psi maximum                                                                                                                                                                                                                          |
| <b>Reservoir Volume:</b>                                           | Approximately 1.5 pints (0.7 liter)                                                                                                                                                                                                                   |
| <b>Pump Body Material:</b>                                         | Aluminum alloy                                                                                                                                                                                                                                        |
| <b>Piston and Cylinder Material:</b>                               | Piston: 440C Stainless Steel<br>Cylinder: 416 Stainless Steel                                                                                                                                                                                         |
| <b>Operating Fluid:</b>                                            | 1305D – SAE 20 automotive or machine oil<br>1305DH – Phosphate or glycol base hydraulic fluids, (Monsanto Skydrol 500B-4 or equal)<br><b>Note:</b> Not for use with water medium. For oxygen service applications, refer to models 1327DO or 1327CMO. |
| <b>Weight Material:</b>                                            | Non-magnetic die cast zinc alloy, ASTM AC41A                                                                                                                                                                                                          |
| <b>O-Ring Seals:</b>                                               | Standard (1305D) – Buna-N<br>Optional (1305DH) – Ethylene Propylene                                                                                                                                                                                   |
| <b>Accessories:</b>                                                | Metal carrying and storage boxes<br>Lower connection offset pipe assembly<br>Back connection pipe<br>¼ & ½ NPT Female adapters<br>Wrenches (1"x1½"), (¼"x1"), (⅝")<br>Pointer puller set<br>Installation and Operation Manual<br>Spare O-ring kit     |
| <b>Certification:</b>                                              | Standard: NIST traceability document provided with each unit.                                                                                                                                                                                         |
| <b>Carrying Case Dimensions:</b>                                   | 10 x 10 x 22 (inches)                                                                                                                                                                                                                                 |
| <b>Weight Box Dimensions*:</b>                                     | 9 x 9 x 8.5 (inches)                                                                                                                                                                                                                                  |
| *Two boxes required for type 1305D-100, all others require one box |                                                                                                                                                                                                                                                       |

## Type 1305D Deadweight Tester



| MODEL<br>NUMBER | PISTON ASSEMBLY<br>PRESSURE RANGE |           | PISTON<br>VALUE |      | NUMBERS OF WEIGHTS BY VALUE |              |               |               |                | APPROX.<br>NET WEIGHT |     |
|-----------------|-----------------------------------|-----------|-----------------|------|-----------------------------|--------------|---------------|---------------|----------------|-----------------------|-----|
|                 | Low                               | High      | Low             | High | L-5<br>H-25                 | L-10<br>H-50 | L-20<br>H-100 | L-40<br>H-200 | L-100<br>H-500 | lbs.                  | kg. |
| 1305D-10        | 15/200                            | 75/1000   | 5               | 25   | 1                           | 3            | 2             | 3             | —              | 60                    | 27  |
| 1305D-20        | 15/400                            | 75/2000   | 5               | 25   | 1                           | 3            | 2             | 3             | 2              | 70                    | 32  |
| 1305D-30        | 15/600                            | 75/3000   | 5               | 25   | 1                           | 3            | 2             | 3             | 4              | 85                    | 39  |
| 1305D-50        | 15/1000                           | 75/5000   | 5               | 25   | 1                           | 3            | 2             | 3             | 8              | 105                   | 48  |
| 1305D-100       | 15/2000                           | 75/10,000 | 5               | 25   | 1                           | 3            | 2             | 3             | 18             | 175                   | 80  |