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**HEAVY DUTY  
SOLUTION BALANCE**

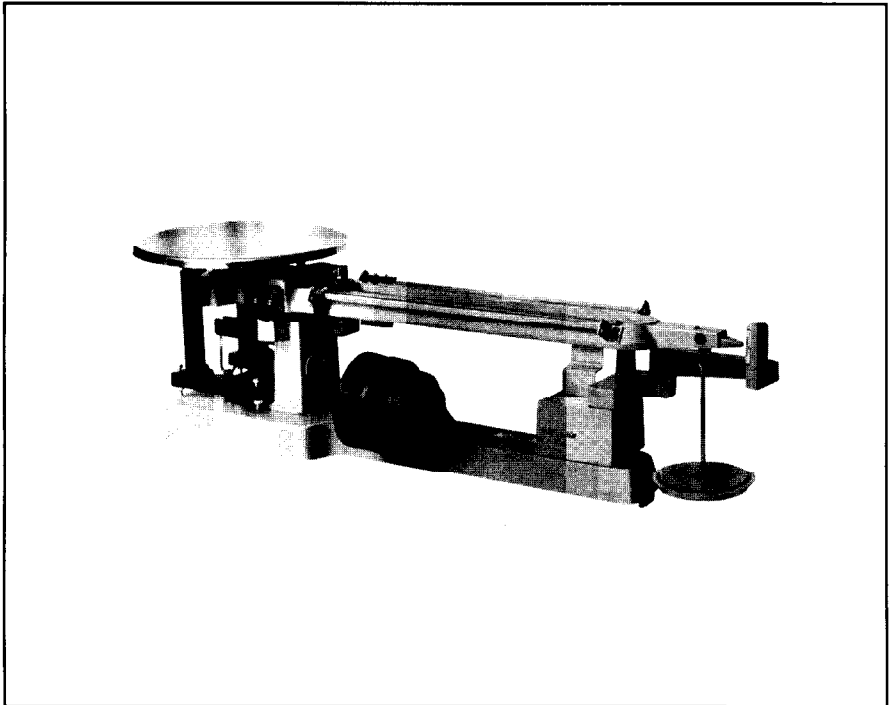
**Instruction Manual**

## INTRODUCTION

This manual contains installation, operation and maintenance instructions for the Ohaus Heavy Duty Solution Balance, Model 1119D. To ensure proper operation of the Balance, please read this manual completely.

## DESCRIPTION

The Model 1119D Heavy Duty Solution Balance is a high precision, dual beam, mechanical balance with a maximum capacity of 20 kilograms. The Balance is readable to 1 gram over the entire weighing range. A dual-faced Balance Indicator Plate permits front and rear loading and weighing with parallax-free readout. The Balance is constructed using an aluminum base finished with a durable epoxy powder paint which is resistant to commonly used acids. Numerous other components are made from stainless-steel for additional corrosion resistance. It has a large, unobstructed stainless-steel platform and an extra large lockable tare for containers up to 2270 grams (5 lbs). The locking Tare Poise assists in repetitive weighing. Fine balancing may be accomplished rapidly by using the small Vernier Tare Poise, which is also spring-loaded to prevent accidental movement. Magnetic damping speeds the weighing process by minimizing oscillations. The bearings are covered which ensures a long, maintenance-free life. Readings up to 1100 grams may be taken directly from the two weigh beams. The Front Beam capacity is 100 grams x 1 gram. The Rear Beam is 1,000 grams x 100 grams. The slotted masses, which are provided with the Balance, are stored in the base and extend the capacity up to 20 kilograms.



Heavy Duty Solution Balance, Model 1119D

## **UNPACKING AND SET-UP**

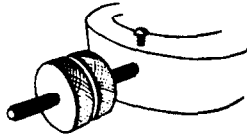
The Balance has been individually packed in a specially designed corrugated carton which protected it during shipment.

1. Place the opened carton with the Beam Pointer facing toward the right.
2. Remove the corrugated liners from the front and rear of the carton. Remove the *Scale Plate from the rear liner and set it aside.*
3. Remove the corrugated box, that contains the Slotted Masses, from the left end of the carton and set it aside.
4. Grasp the Balance at both ends and *lift it from the carton.*
5. Remove the corrugated liner (that protects the Base) and the wooden wedge from under the *Scale Plate support.*
6. Place the Balance on a bench or other level surface.
7. Remove the wire from the Mass Hanger Assembly, the Poises, and the left end of the Beam.
8. *Remove the wooden beam end block.*
9. Unpack the Slotted Masses from the corrugated box and place them on the Mass Rack.
10. *Place the Scale Plate on the four vertical Support Posts, with the solid weld stud resting on the left front Post (with the two Lock Nuts).*
11. Hook the Mass Hanger Assembly on the Ring that is located at the right end of the Beam.

# USING THE BALANCE

## ZEROING

1. Move all four Poises to their ZERO positions at the extreme left end of their travel. The Rear Poise is equipped with a pawl that will position it accurately in the detent notches. The two Tare Poises, on the middle slide, are only used to balance an empty container, so that the Balance will indicate net weight.
2. If the Balance does not come to rest exactly at zero, it can be rebalanced by using the two knurled, brass Adjustment Nuts of the Balance Compensator Assembly. To adjust, unlock the Nuts by turning them apart about a quarter turn, so they can be adjusted easily. When correct balance has been restored, be sure to lock the Balance Nuts against each other to prevent any movement.

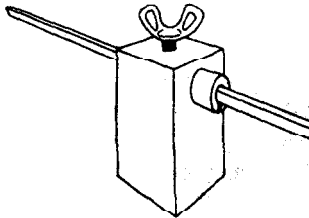


Balance Compensator

## WEIGHING

Net Weight can be determined rapidly by following these steps:

1. Counterbalance the EMPTY container with the two Tare Poises. Loosen the Thumb Screw of the larger Tare Poise and move both Poises to the right. The larger Tare Poise is used for *COARSE* balancing and then is locked with the thumb screw. The smaller vernier Tare Poise is used for *FINE* balancing. It is spring-loaded to protect against accidental movement.

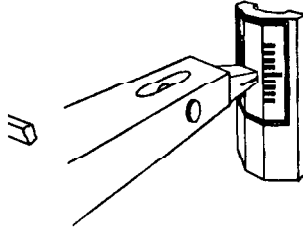


Tare Poise

2. Place the specimen as near the center of the Scale Plate as possible.
3. Move the Rear Poise to the right until it is in the first notch that will cause the Beam to DROP below the Balance Indicator at the pointer end of the beam. Move it to the left one notch and the Beam will RISE.

## WEIGHING (Cont.)

4. Move the Front Poise to the right until balance is obtained.



Balance Indicator

5. Read the weight of the specimen directly by adding the values indicated by the Poises.
6. If the Rear Poise can be moved to the extreme right notch but it does not cause the Beam to DROP, return both the Front and Rear Poises to ZERO and add Slotted Attachment Masses to the Mass Hanger Assembly. Add sufficient masses to cause the Beam to DROP below the Balance Indicator at the pointer end of the Beam. Remove the smallest (lightest) mass and follow Steps 3, 4 and 5. Add the total value of the Attachment Masses on the Mass Hanger Assembly to the values indicated by the positions of the two poises to obtain weight of the specimen.

## CARE AND MAINTENANCE

The following practices will assure that your Heavy Duty Solution Balance will give years of satisfactory and trouble-free service.

1. When not in use, remove any load from the Scale Plate and place the Slotted Masses on the Mass Rack. Slide one of the Poises away from ZERO, so that the Balance is not in equilibrium. This will stop the Balance from oscillating and will prevent unnecessary wear.
2. Use and store the Balance in places that are free from vibration, which can cause unnecessary wear.
3. Keep the Balance clean at all times, being particularly careful to not let dirt accumulate in the vicinity of the bearings. Never use oil, or any lubricant, on the knives or bearings. Lubrication will reduce the readability and accuracy of the Balance.
4. Occasionally, it will be necessary to clean accumulated debris from the Magnet Faces in the base of the Trig Loop Post Assembly. Insert a piece of adhesive-backed tape into the Magnet slot that the aluminum Damper Vane enters. Press the tape against the Magnet Face with a ruler or a similar thin strip. Dirt or magnetic particles will adhere to the tape when it is removed and the Damper Vane will be able to oscillate freely.

## ACCESSORIES

### Description

### Ohaus Part No.

Mass Set - 1-10kg, 1-5kg, 2-2kg, 1-1kg

127-MO

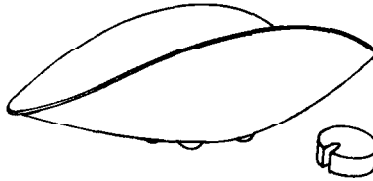


Aluminum Scoop and Counterweight (in/cm)

126-00

18.38 x 14.13 x 5.63/

46.7 x 35.9 x 14.3



## SPECIFICATIONS

Model	Weighing capacity	Beam weighing range	Readability	Tare	Platform type and size (in/cm)	Dimensions W x H x D (in/cm)	Carton size W x H x D (in/cm)	Shipping weight (lb/kg)
1119D	20kg	1100g	1g	2270g	Stainless steel 11/27.9	34 x 11 x 11/ 86.36 x 27.94 x 27.94	36 x 12 x 10/ 91.44 x 30.48 x 25.4	44/19.9

## LIMITED WARRANTY

Ohaus products are warranted against defects in materials and workmanship from the date of delivery through the duration of the warranty period. During the warranty period Ohaus will repair, or, at its option, replace any component(s) that proves to be defective at no charge, provided that the product is returned, freight prepaid, to Ohaus.

This warranty does not apply if the product has been damaged by accident or misuse, exposed to radioactive or corrosive materials, has foreign material penetrating to the inside of the product, or as a result of service or modification by other than Ohaus. The warranty period shall begin at the date of installation, or three months from shipment to the buyer, whichever occurs first. A properly completed Warranty Registration Card must be received by Ohaus within 30 days from date of purchase to initiate coverage under the warranty. No other express or implied warranty is given by Ohaus Corporation. Ohaus Corporation shall not be liable for any consequential damages.

As warranty legislation differs from state to state and country to country, please contact Ohaus or your local Ohaus dealer for further details.



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