



SUNNEN DIAL BORE GAGE MODEL GA-2125 OPERATING INSTRUCTIONS DIAMETER RANGE: 2''-8'' (50-200 mm)

NOTE: Metric dimensions shown in this instruction manual are conversion equivalents only . . . items are not graduated in metric dimensions.

HOW TO USE

1. Select the correct Gage Point from Chart 1.

USE GAGE POINT NO.	FOR DIAMETER RANGE	
	INCHES	mm
1	2.000 - 2.375	50 - 60
2	2.375 - 2.750	60 - 70
3	2.750 - 3.125	70 - 79
4	3.125 - 3.500	79 - 89
5	3.500 - 3.875	89 - 98
6	3.875 - 4.250	98 - 108
7 + 2	4.250 - 4.625	108 - 117
7 + 3	4.625 - 5.000	117 - 127
7 + 4	5.000 - 5.375	127 - 137
7 + 5	5.375 - 5.750	137 - 146
7 + 6	5.750 - 6.125	146 - 156
8 + 2	6.125 - 6.500	156 - 165
8 + 3	6.500 - 6.875	165 - 175
8 + 4	6.875 - 7.250	175 - 184
8 + 5	7.250 - 7.625	184 - 194
8 + 6	7.625 - 8.000	194 - 200

CHART 1

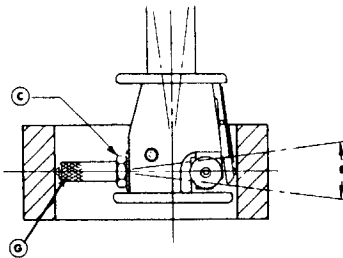


FIGURE 1

2. See Figure 1. Screw correct range Gage Point (G) into gaging head.
3. Set gage to desired size, using a ring gage, micrometer, or the Sunnen CF-1000 Dial Bore Gage Setting Fixture. Set desired size by turning the Gage Point in or out.

NOTE: If the gage nest on your CF-1000 Setting Fixture has vertical dowel pins, you will have to replace it with a CF-140 Nest Kit (horizontal dowel pins) in order to use the CF-1000 with the Model GA-2125 Gage.

4. Lock Gage Point (G) at this position with Locking Nut (C), using wrench furnished.
5. Recheck "0" settings; reset to "0" if necessary by loosening bezel screw, rotating indicator dial face, and tightening bezel screw.
6. Insert gage into bore to be measured and rock as shown at "E" to obtain minimum reading.

HOW TO ADJUST:

To adjust Centralizer Points to size of bore

If Centralizer Points don't touch the walls of the bore, or if they exert too much pressure on the walls, adjust as follows:

1. Insert gaging head approximately 3/4" (20 mm) into bore being measured.

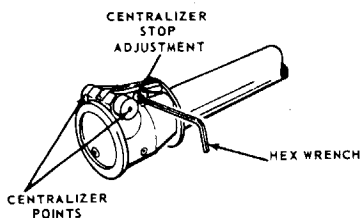


FIGURE 2

2. See Figure 2. Insert 5/64" Hex Wrench into Centralizer Stop Adjustment and rotate Stop Adjustment to retract or expand Points until they barely contact the walls of the bore.
3. Slide gaging head in and out of the bore several times to check adjustment.

NOTE: The closer the Centralizer Points are set to the bore size, the easier it will be to insert the gage into the bore.

To adjust worn Centralizer Points

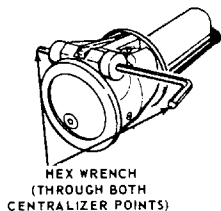


FIGURE 3

See Figure 3. When Centralizer Points must be adjusted because of excessive wear, be sure to adjust both Points at the same time. Insert 3/32" Hex Wrench through both Centralizer Points and turn both Points at the same time until new wear surfaces will contact the walls of the bore.

To interchange sleeve assemblies

Sleeve assemblies are available for gaging depths of 3", 6", 12", and 24" (75, 150, 300, and 600 mm).

Disassembly:

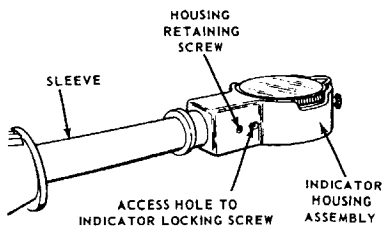


FIGURE 4

1. See Figure 4. Using a 1/8" hex wrench, loosen Housing Retaining Screw approximately two turns.
2. Insert 3/32" hex wrench through Access Hole and loosen Indicator Locking Screw 1/2 turn (no more).
3. Remove Indicator Housing Assembly from Sleeve.

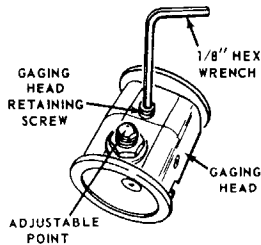


FIGURE 5

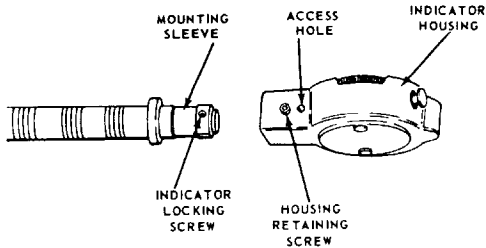


FIGURE 7

4. See Figure 5. If Adjustable Point is installed, remove it.
5. Using 1/8" Hex Wrench, loosen Gaging Head Retaining Screw approximately three turns.
6. Remove Gaging Head from Sleeve.

2. Check Centralizer Yoke for free movement. If it is binding, loosen Gaging Head Retaining Screw until Centralizer Yoke moves freely.
3. See Figure 7. Align Indicator Locking Screw in Mounting Sleeve with Access Hole in Indicator Housing. Slide Mounting Sleeve into Housing until Indicator Locking Screw is visible through Access Hole. Tighten Housing Retaining Screw lightly.

Assembly:

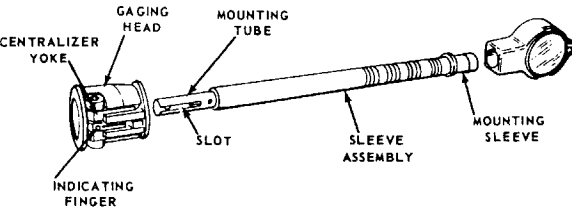


FIGURE 6

1. See Figure 6. Align Slot of new Sleeve Assembly with Indicator Finger in Gaging Head and slide Mounting Tube all the way into Gaging Head. While tightening Gaging Head Retaining Screw, apply enough force against Gaging Head to overcome spring tension of Sleeve Assembly.

CAUTION: Do not overtighten Retaining Screw; it might bind the centralizer yoke.

CAUTION: Overtightening the Housing Retaining Screw might strip the plastic threads.

NOTE: Leave hex wrench inserted in Indicator Locking Screw.

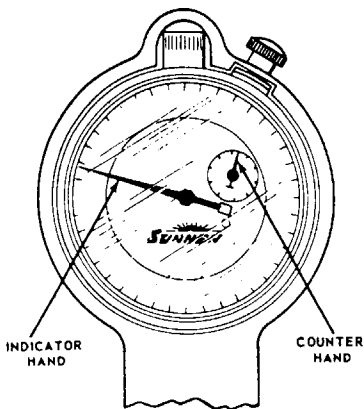


FIGURE 8

4. See Figure 8. Holding Indicator Housing in one hand and Gaging Head in the other, slide Indicator Housing away from Sleeve Assembly. Indicator Hand will move to the 9 o'clock position (its maximum counter-clockwise position).

NOTE: Counter Hand should be at "0" when Indicator Hand is at "0".

5. Slightly twisting the Indicator Housing and Sleeve Assembly from side to side, slide them together until Indicator Hand just begins to move clockwise . . . then, reverse direction, pulling units apart until Hand stops at a position between 9 o'clock and 10 o'clock. Tighten Indicator Locking Screw firmly at this point.

To adjust indicator for easier reading

The indicator housing can be rotated (in one direction) up to 90° in relation to the gaging head, as follows:

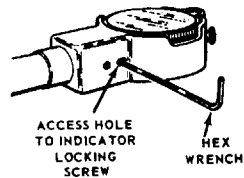


FIGURE 9

1. See Figure 9. Insert 3/32" Hex Wrench through Access Hole and loosen Indicator Locking Screw 1/2 turn only.
2. Rotate indicator housing to position desired.

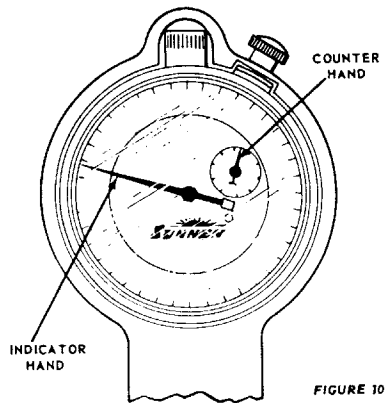


FIGURE 10

3. See Figure 10. Holding indicator housing in one hand and gaging head in the other, slide indicator housing away from sleeve assembly. Indicator Hand will move to the 9 o'clock position (its maximum counter-clockwise position).

NOTE: Counter Hand should be at "0" when Indicator Hand is at "0".

4. Slightly twisting the indicator housing and sleeve assembly from side to side, slide them together until Indicator Hand begins to move clockwise . . . then, reverse direction, pulling units apart until Hand stops at a position between 9 o'clock and 10 o'clock. Retighten Indicator Locking Screw at this point.

To rotate gage point Ball

When a gage point Ball gets a flat worn on it, the Ball can be rotated to a new position, as follows:

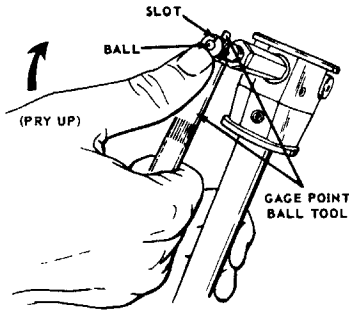


FIGURE 11

NOTE: While performing this operation, hold gage point over a clean cloth in case the Ball should be dropped.

1. See Figure 11. Hold thumb over Ball and pry it out with the Gage Point Ball Tool.
2. Rotate Ball so an unworn area will protrude from gage point. Reinstall Ball by pressing in with blade of Gage Point Ball Tool.
3. Seat Ball by pressing it against hard surface.

To rotate Indicating Finger Ball

When the Indicating Finger Ball gets a flat worn on it, the Ball can be rotated to a new position, as follows:

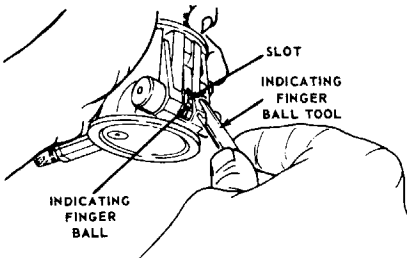


FIGURE 12

NOTE: While performing this operation, hold gage over a clean cloth in case the Ball should be dropped.

1. See Figure 12. Insert Indicating Finger Ball Tool into Slot under Ball and pry upward to remove Ball. Ball will stay in Tool.
2. Rotate Ball so unworn area will protrude from Indicating Finger.

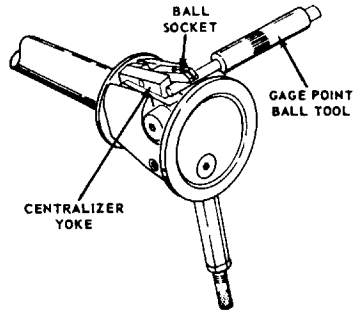


FIGURE 13

3. Depress Centralizer Yoke and insert Gage Point Ball Tool as shown in Figure 13 to prevent damage to gage when reinstalling Ball.
4. With Ball still captivated in Indicating Finger Ball Tool, reinsert Tool into Slot, locating Ball over Ball Socket. Press Ball firmly into place and remove Indicating Finger Ball Tool.
5. Make sure Ball is seated by pressing it down firmly with flat back of Indicating Finger Ball Tool.
6. Remove Gage Point Ball Tool.

