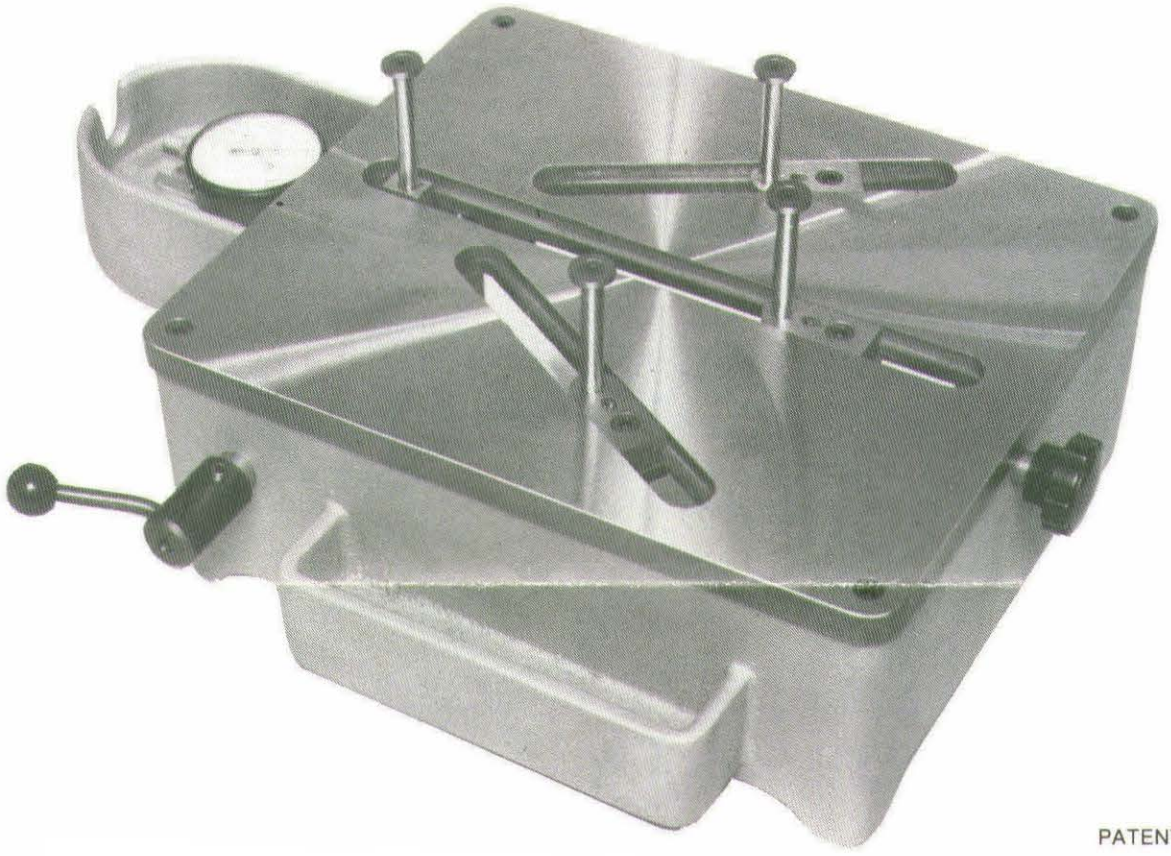
NEW PRODUCT

TRI-CHEK 900™

VERSATILE NEW SYSTEM FOR CHECKING:

- ✓ 3 POINT OUT OF ROUNDNESS
- ✓ STANDARD 2 POINT I.D. AND O.D. CHECK
- ✓ INTERNAL OR EXTERNAL GROOVES
- ✓ SHALLOW COUNTERBORES
- ✓ THIN WALL OR NARROW PARTS
- ✓ SPC ADAPTABLE



PATENT PENDING

TRI CHEK ™

FAIRLANE TOOL INC.

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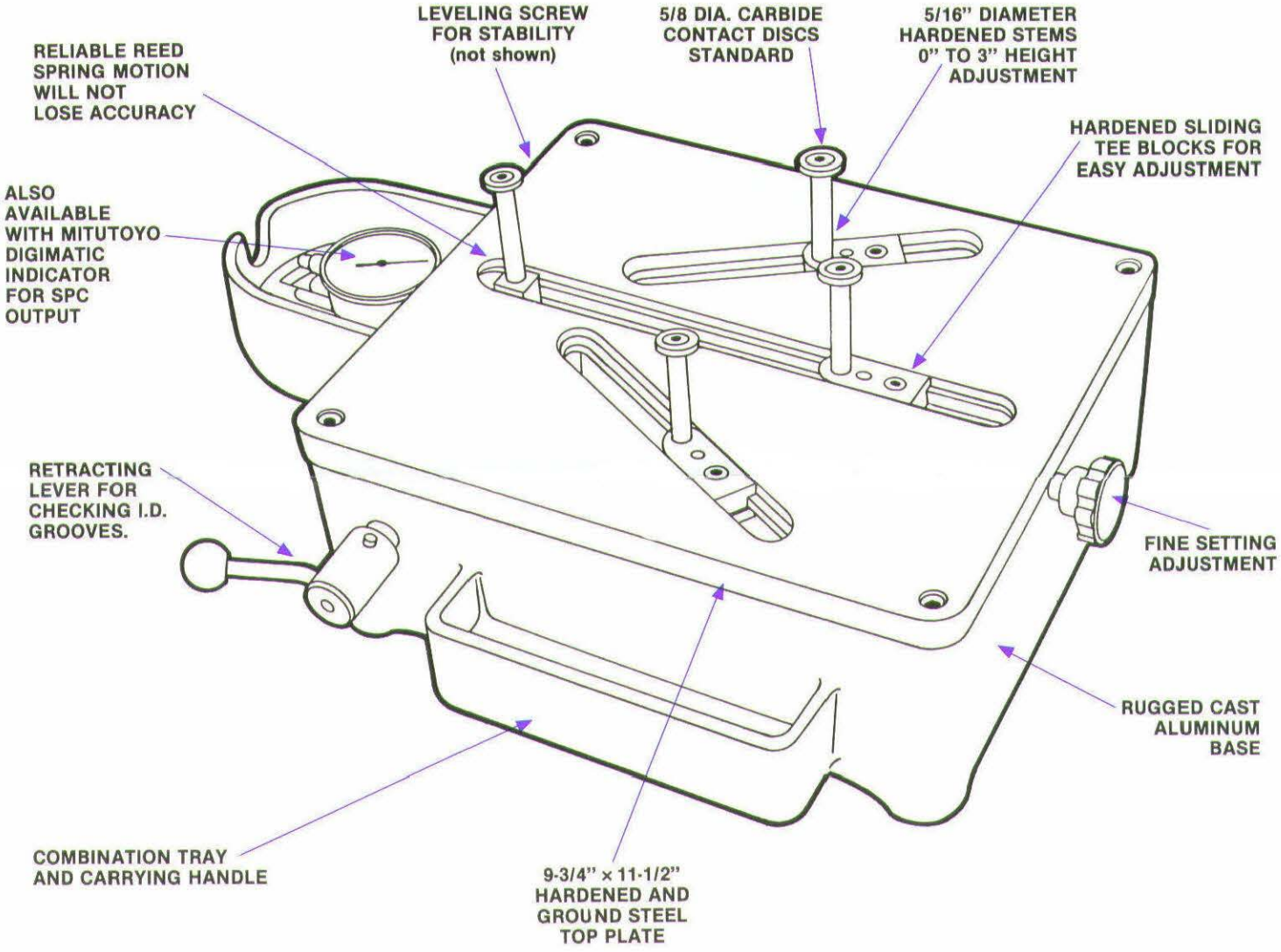
NEW

TRI-CHEK 900 COMPARATOR

FEATURES:

- Easy to set with a Master Ring or Jo Blocks
- Reliable Reed Spring motion—will not lose accuracy.
- Rugged construction for in shop use.
- Solid - Stable - .0001 accuracy built to last for years.
- Light contact pressure for checking thinwall parts.
- Easily checks narrow parts or shallow counterbores.
- Checks ID or OD angles - chamfers - tapers.
- Standard 5/16" diameter stem adaptable for special applications.
- 1-3/4" to 9" ID checking capacity.
- Checks up to 3" high parts with standard contact discs.
- Retracts 1/2" to check internal grooves.



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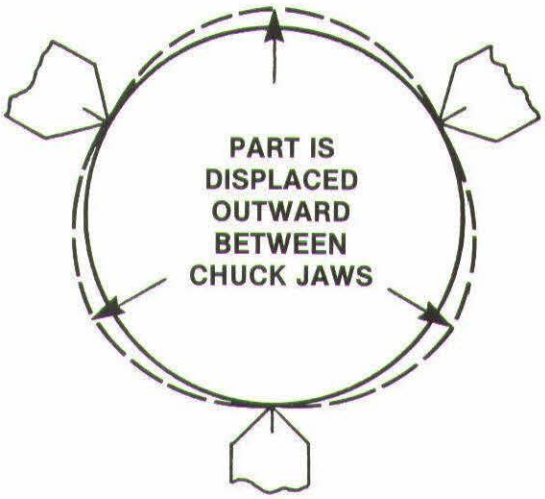
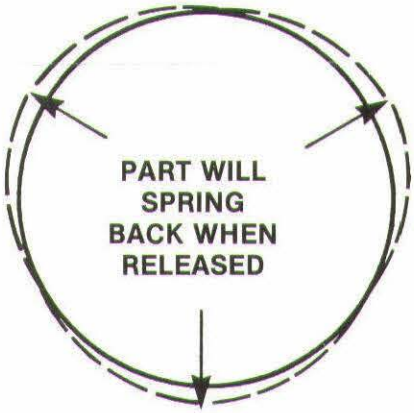


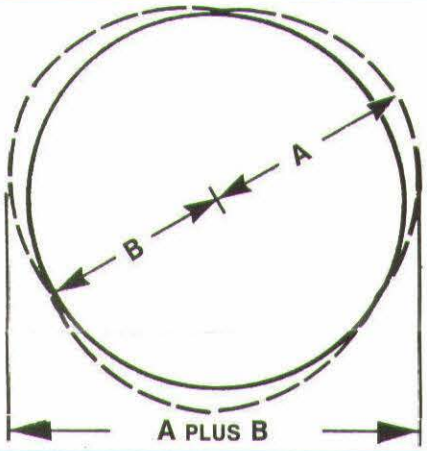
1

When the part is held in a 3 Jaw Chuck, the jaw pressure distorts the part as shown, and while in this distorted condition the machining process produces a true round diameter.



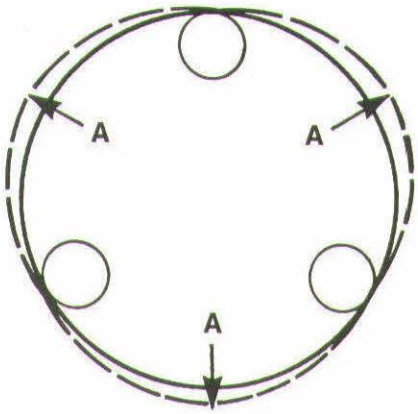
2

When the part is released and returns to it's free state, it will be in a 3 lobe out of round condition relative to the amount of chuck pressure used.



3

The three (3) lobe out out round condition cannot be found by using a standard 2 point check across the diameter because 'A' plus 'B' always check the same anywhere around the diameter.

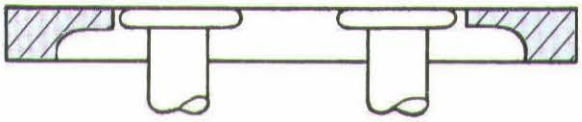


4

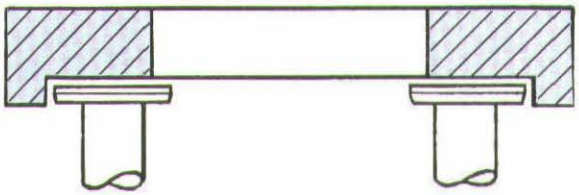
When using the Tri-Chek 3 point system, the 3 lobe out of round condition will be obvious as you rotate the part. The indicator reading increases as you reach the maximum size at the 'A' points.

TRI-CHEK 900

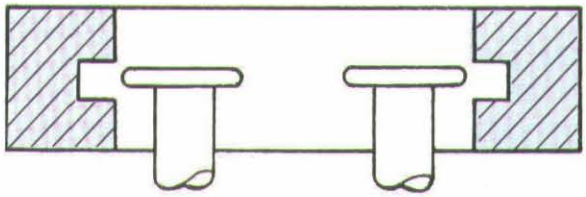
NARROW OR THIN PARTS



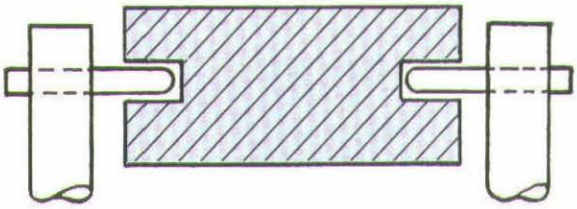
SHALLOW COUNTERBORES OR SHORT STEPS



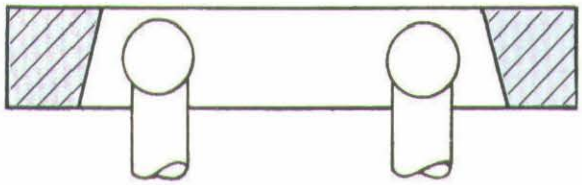
RETRACTS ½" TO CHECK GROOVES



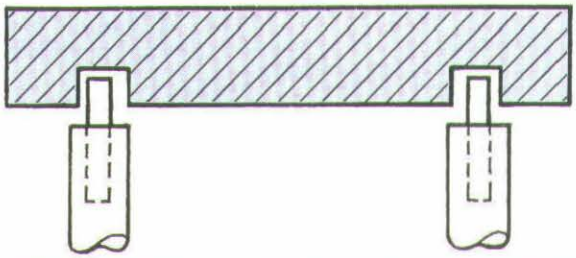
DEEP GROOVES OR OVER OBSTRUCTIONS



TAPERS-ANGLES-CHAMFERS



FACE GROOVES



TRI-CHEK 900 COMPARATOR

Supplied complete as shown with AGD Group 2-.0001 Dial Indicator with Rev. Counter and 4 # 101 Standard Carbide Contact Disc's 5/8 diameter × .100 thick on a 5/16 " × 3-1/2" Long Stem

Optional Measuring Discs

Mounted on a hardened and ground 5/16" diameter × 3-1/2" stem.

Part Number	Description	Price
102	5/8" dia. × .050 Carbide Disc-Crowned	$60.00
103	5/8" dia. × .100 Carbide Sharp Corner	60.00
104	1" dia. × .094 Hardened Steel-Crowned	60.00
105	Carbide End and Cross Pin	60.00
106	3/8" Carbide Ball	60.00
107	3/4" Ball Bearing	60.00
108	Tapped 4-48 For Indicator Ball	60.00

INSTRUCTIONS

1. **PRESET INDICATOR**
   A. Slide indicator forward until revolution counter reads between 2 and 3. This will give you the average reed spring checking pressure.
   WARNING- Do not use a replacement screw unless it is exactly the correct length. Screw must not exceed 3/16" engagement into indicator as this will cause damage to the indicator gears.

2. **TO SET-UP COMPARATOR FOR STANDARD 2-POINT I.D. OR O.D. CHECK:**
   A. Depending on the accuracy required, you may use a ring or plug gage, jo blocks or previously calibrated part to set the TRI-CHEK Comparator.
   B. Determine approximate height at which you want to measure part. Use scale or parallel to set height of the 2 center contacts.
   C. Loosen locking screw in center adjustable T-Block approximately 2 to 3 turns. This disengages nut from lead screw. Slide to approximate position required and lightly snug up locking screw while holding master against adjustable contact.
   D. Use fine adjusting knob to move indicator hand approximately 1 turn. Tighten T-Block locking screw and set bezel to zero.
   E. Rock master past center several times and reset indicator to zero.
   F. You may use either the R.H. or L.H. contact as a stop when doing a 2-Point check. The stop can be set with part exactly on center or slightly past the high point reading. Be sure the part has passed **over** the center high point and you are sure you are checking the maximum/minimum size.

3. **3-POINT OUT OF ROUNDNESS REFERENCE CHECK WHILE SET-UP FOR 2-POINT DIAMETER CHECK:**
   A. Objective is to set R.H. and L.H. contacts so they lift the part slightly off center contact.
   B. With L.H. contact set so part is on or slightly past center high point, set R.H. T-Block so that when you slip the contact pin in place, it holds the part approximately .010 off the center contact. It is necessary to lift the part off center contact to properly check 3-Point out of roundness.
   C. It is not recommended that you remove the center contact pin when checking for 3-Point out of roundness as this will affect the accuracy of your 2-Point diameter check reading.
   D. When doing a 3-Point check, the reading on the indicator is not an actual reading, if your part is 3 lobe out of round the indicator reading will be nearly 3 times the actual out of roundness. *Example: If part is .005 3 lobe out of round the indicator reading will be .0145.*
   E. You may use a plastic sleeve, metal sleeve or a rubber band on the 5/16" diameter stem to hold the R.H. contact at the height required rather than having to loosen and tighten the locking screw each time.

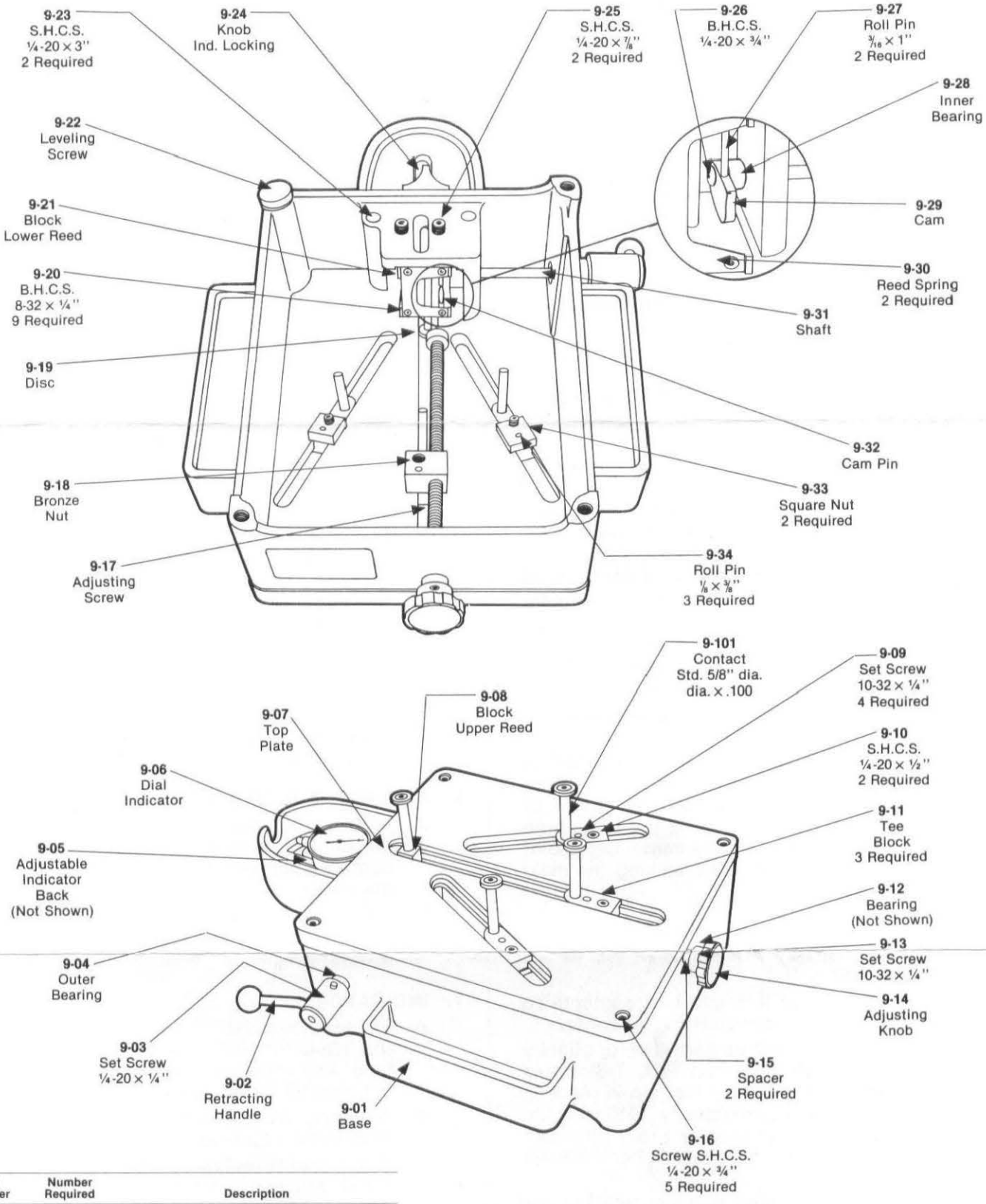
4. **REPEATABILITY:**
   A. It is recommended you repeat your initial checks several times to insure the repeatability and accuracy of your set-up. If Comparator does not repeat within .0001, check all locking screws and be sure the indicator is securely mounted.
   B. As the contact pins are extended to their full 3" height you must be careful not to exert any pressure on the part being checked as it is very easy to deflect the 5/16" contact pins and therefore give an erroneous reading.
   C. You may want to raise the end of the Comparator 3 or 4 inches to allow the part to rest or hang on contact opposite indicator to lessen the problem of your hand pressure influencing the reading.

5. **THIN WALL PARTS:**
   A. You can lessen contact pressure when checking very thin wall parts simply by moving the indicator away from the contact pin holder. *(Less indicator reading).*

6. **GROOVES & UNDERCUTS:**
   A. To check internal grooves or recesses the handle on L.H. side of Comparator will retract contact approximately 1/2" to load or unload the part.
   B. **Warning**—Release handle gently so as not to allow reed spring mechanism to impact against the indicator.

7. **INDICATOR:**
   A. The Mitutoya 2805-10 Indicator furnished with the TRI-CHEK 900 is a six jewel-shockproof type. Any impact to the point is not transmitted directly to the gears.
   B. A spring mechanism protects the gearing from impact loading.
   C. If you need to replace this indicator we recommend you use a shockproof type indicator.

8. **S.P.C. APPLICATIONS:**
   A. You may want to use the TRI-CHEK 900 for SPC applications. Most electronic or digital type indicators will fit this Comparator. Please contact FAIRLANE TOOL COMPANY for availability of these electronic indicators and mounting adaptors.



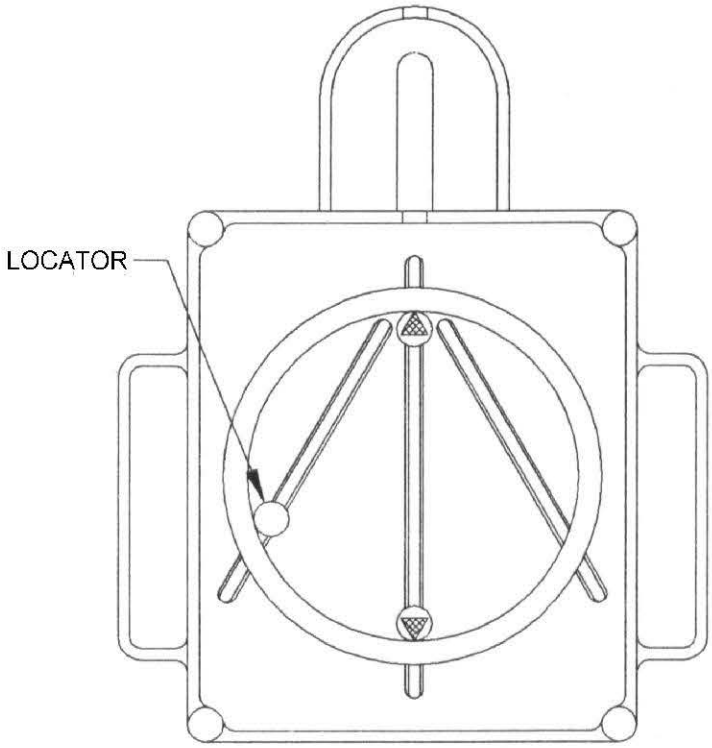
Part Number	Number Required	Description
101	4	5/8" dia. × .100 Carbide Disc-Crowned
102	2	5/8" dia. × .050 Carbide Disc-Crowned
103	2	5/8" dia. × .100 Carbide Sharp Corner
104	2	1" dia. × .125 Hardened Steel-Crowned
105	2	Carbide End and Cross Pin
106	2	3/8" Carbide Ball
107	2	¾" Ball Bearing
108	2	Tapped 4-48 For Indicator Ball

ALLEN WRENCHES
1 each
5/64 - 3/32
1/8 - 3/16

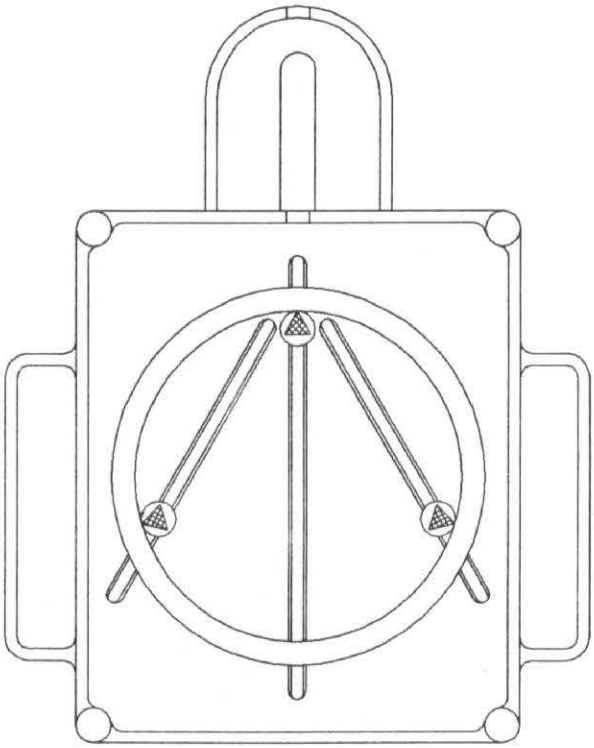
NOTICE

If you are using your Tri-Chek to do a standard 2-point diametrical check, you should only use ONE of the side contacts, either right or left, to locate your part on center. DO NOT use all 4 contacts because this could raise your part off the center contact and you will get an erroneous reading.

If you wish to check your part for a 3-point out-of-round condition (example - after machining using a 3-jaw chuck), you MUST remove the center (4th) contact to get an accurate reading. Leaving the center (4th) contact in will cause the gage to check the part inaccurately.



STANDARD 2-POINT
DIAMETER CHECK



3-POINT
OUT-OF-ROUND CHECK

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