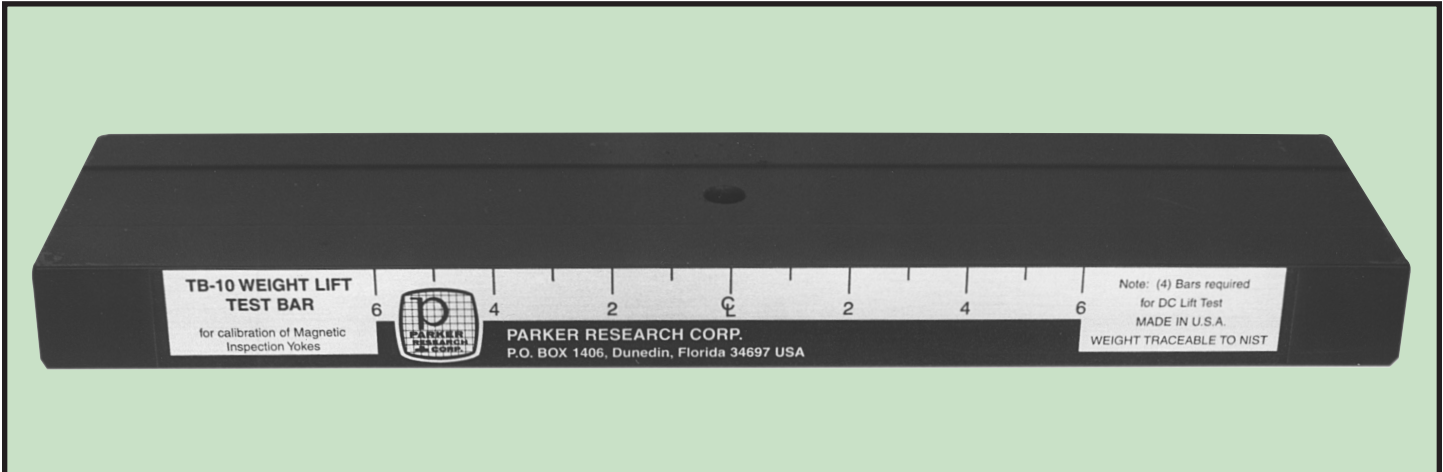


# PARKER

## TB-10 (10-POUND) WEIGHT LIFT TEST BARS



MIL-STD-1949

ASME SECTION V,  
ARTICLE 7

ASTM E709

ASTM E1444

MIL-STD-271E AND  
F (SHIPS)

### SPECIFICATIONS

### AC TEST

### DC TEST

### PERM. MAGNET TEST

The TB-10 Magnetic Weight Lift Test Bar provides for the calibration and certification of Magnetic Particle Inspection Yokes to the following specifications. Bar weight is stamped on each bar and is traceable to NIST.

**INSTRUCTIONS:** Place Yoke legs on the test bar at the recommended spacing. In the AC mode, energize Yoke and lift the test bar (10 pounds). For the DC lift test, (30 to 50 pounds) 3 to 5 test bars must be bolted together through the hole located in the center of each bar. With the Yoke set in the DC mode follow the procedure as described above.

All Parker Research Contour Probes (Yokes) comply with and exceed the requirements of these specifications.

Governing Specification	MIL-STD-1949		ASME V ART 7		ASTM E 709		ASTM E1444		MIL-STD-271	
Weight & Pole Spacing	Weight	Space	Weight	Space	Weight	Space	Weight	Space	Weight	Space
AC Field	10 lb	2-4 in	10 lb	*	10 lb	2-4 in	10 lb	2-4 in	10 lb	3-6 in
DC Field or Permanent Magnet (when allowed)	30 lb	2-4 in	40 lb	*	30 lb	2-4 in	30 lb	2-4 in	40 lb	3-6 in
	50 lb	4-6 in			50 lb	4-6 in	50 lb	4-6 in		
Max Verification Interval	6 months		1 year		6 months		6 months		3 months	

NOTE: Pole spacing is measured from the center line of the pole legs

\*Maximum pole spacing that will be used.



WEB SITE: [www.parkerNDT.com](http://www.parkerNDT.com)

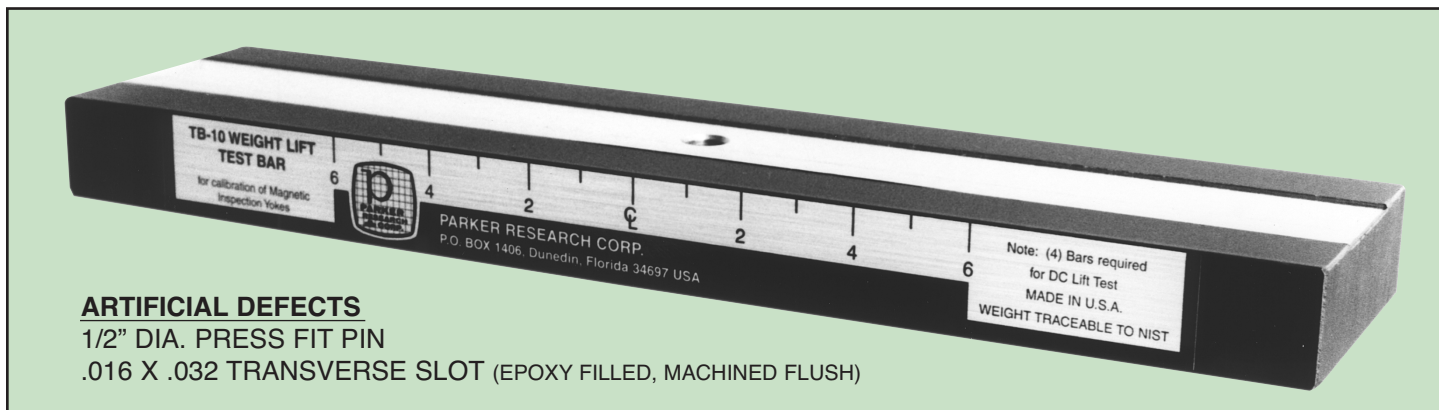
**1-800-525-3935**

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# TB10-SP WEIGHT LIFT/DEFECT TEST BAR



## ARTIFICIAL DEFECTS

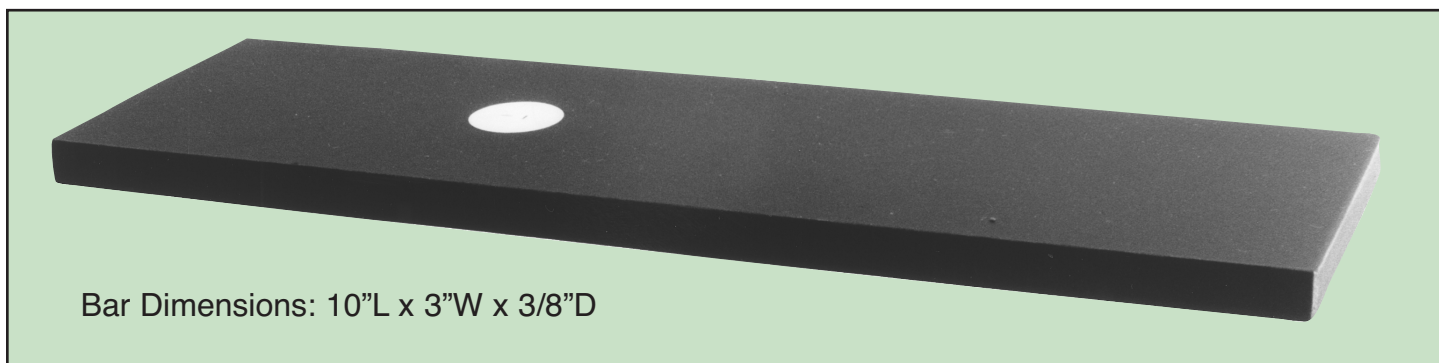
1/2" DIA. PRESS FIT PIN

.016 X .032 TRANSVERSE SLOT (EPOXY FILLED, MACHINED FLUSH)

The **TB10-SP Magnetic Weight Lift / Defect Test Bar** provides for the 10 pound AC weight lift calibration of Magnetic Particle Inspection Yokes, as shown on page 1. Bar weight is certified and traceable to NIST standards. In addition, the reverse side of the TB10-SP bar contains artificial defects as indicated above. Demonstration of actual defect indications is very useful for visual and operational performance purposes.

NOTE: The TB10-SP bar has no center bolt hole for mating with additional TB10 bars.

# NA-16 NOTCH TEST BAR



Bar Dimensions: 10"L x 3"W x 3/8"D

The NA16 Notch Test Bar complies with the requirements of old MIL-STD-271 E and F (Ships) paragraph 4.3.1.2 and NAVSEA-TB-T9074-AS-GIB-101-271. The requirement reads as follows:

4.3.1.2 PROCEDURE. Magnetic Particle inspection shall be performed in accordance with a written procedure which has proven ability to detect the smallest rejectable surface defects, artificial or natural, in a test spectrum. The Yoke and Prods methods shall have the proven ability to detect a 1/16-inch long by 0.006-inch wide by 0.02-inch deep notch (maximum dimensions) oriented 90 degrees to the magnetic flux. The notch shall be cut in a 3/8-inch low alloy metal steel plate and it shall be filled flush to the surface with a non-conducting material, such as epoxy, to prevent the mechanical holding of the indicating medium. Each activity shall certify the procedure in accordance with this standard, and upon request by the Government inspector, shall make the procedure available and demonstrate its validity by performing inspection on the test specimen.

**TESTING:** Place the Yoke or Prods upon the test side of the NA16 test bar, indicated by the unpainted circle. Energize the magnetic field and apply the inspection medium.

The test defects as described above are located within the circle. One notch is oriented 90 degrees to the bar parallel for Yoke tests. The second notch is located longitudinally with the bar parallel for Prod tests.

**NOTE:** Unless specified otherwise, test should be performed with the Yoke or Prods in the AC mode. If Prods are used it may be necessary to remove paint from the test bar at contact points.



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