

# CLARK PORTABLE HARDNESS TESTER MODEL "CPT" FOR ROCKWELL READINGS

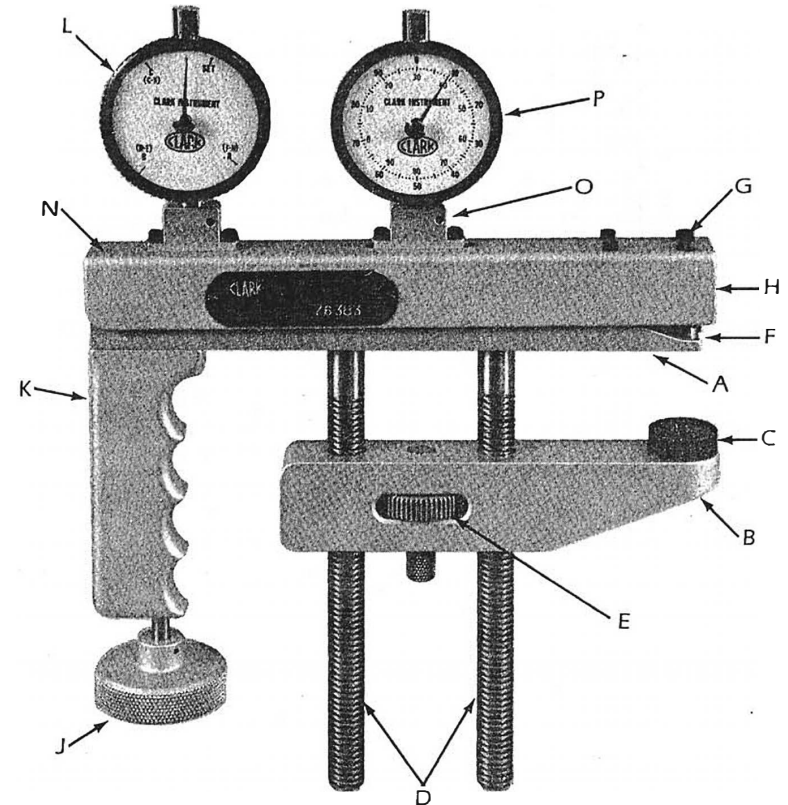
## OPERATING PROCEDURE

- Select Penetrator (F) to be used.
  - Use diamond penetrator for hardened or heat treated steel. (Read Black Numbers.)
  - Use ball penetrator for non-ferrous or materials softer than 20 HRC. (Read Red Numbers.)
- Select proper anvil (C) for shape of part being tested.
- Make sure loading knob (J) is backed off sufficiently so that the penetrator does not project beyond upper clamp (A).
- Clamp work firmly between upper clamp (A) and anvil (C) by rotating adjusting knob (E) DO NOT FORCE.
- Check the setting of load indicator (L). Rotate bezel to bring pointer over small black dot for zero load.
- Apply 10 Kg. minor load (Pointer to "set") by means of loading knob (J).  
Caution: Hold instrument steady to avoid twisting motion of penetrator on the work.
- Check zero setting of hardness indicator (P). Rotate bezel to bring pointer to "0" on the Black scale.
- Apply major load by rotating load knob (J) clockwise. Example:

Rockwell Scale	Major Load	Penetrator	Hardness Indicator Color Nos. to Read	Remarks
C	150 Kg	Diamond	Black	For other Rockwell
A	60 Kg	Diamond	Black	hardness scales see
B	100 Kg	1/16" Ball	Red	pocket chart enclosed.
F	60 Kg	1/16" Ball	Red	

- Remove major load to "set" by rotating load knob (J) counter clockwise.
- Hardness is indicated on hardness indicator (P).
  - Read black figures when using diamond penetrator.
  - Read red figures when using ball penetrator.
- Release load completely by backing off load knob (J).
- Rotate adjusting knob (E) to left to loosen lower clamp.

For more detailed information covering the use, operation and maintenance, see separate instruction folder supplied with this instrument.



- |                          |                           |
|--------------------------|---------------------------|
| A—Upper Clamp            | H—Weigh Bar               |
| B—Lower Clamp            | J—Load Knob               |
| C—Anvil                  | K—Grip                    |
| D—Adjusting Screws       | L—Load Indicator          |
| E—Adjusting Knob         | N—Indicator Support       |
| F—Penetrator             | O—Indicator Clamp Bracket |
| G—Penetrator Clamp Screw | P—Hardness Indicator      |

**NDT Supply.com, Inc.**  
7952 Nieman Road  
Lenexa, KS 66214-1560 USA

Phone: 913-685-0675, Fax: 913-685-1125  
e-mail: [sales@ndtsupply.com](mailto:sales@ndtsupply.com), [www.ndtsupply.com](http://www.ndtsupply.com)



**Hardness Testing Specialist**  
Sales, Service, and Calibration  
New and Rebuilt Hardness Testers  
Rockwell • Portable • Micro • Brinell • Ductility

CLARK INSTRUMENT INC.  
145 ENTERPRISE DRIVE  
ANN ARBOR, MICHIGAN 48103

**CLARK PORTABLE  
HARDNESS TESTER  
MODEL "CPT"**

P/N	PART NAME	REQ.
01	FLAT ANVIL	1
02	"V" ANVIL	1
03	CONVEX ANVIL	1
09	Ø6 OR Ø10, PENETRATOR	1 ea.
11	CONTACT PIN	2
12	RETAINER, CONTACT PIN	1
13	PIVOT PIN	1
14	SPACER, PIVOT PIN	2
15	ACTUATING LEVER	1
16	SPRING	1
17	CLAMP, INDICATOR	2
19	HOLDING PIECE, PIVOT CONE	1
20	PIVOT CONE	1
22	LOADING KNOB	1
23	SHAFT, LOADING KNOB	1
24	PIN, LOADING SHAFT	1
26	SCREW	2
27	PINION, SHAFT	1
28	GEAR, PINION (LARGE)	1
29	GEAR (SMALL)	2
30	SCREW, RETAINING PENETRATOR	1
31	SUPPORT, INDICATOR SEAT	1
32	WEIGHT BAR	1
33	CLAMP, UPPER	1
34	CLAMP, LOWER	1
35	HANDLE (GRIP)	1
39	LOAD INDICATOR	1
40	HARDNESS INDICATOR	1
41	KEY	4
42	SCREW, ANVIL	1

P/N	LIST OF FASTENERS	REQ.
*A	Ø.80 x 1/8 SLOTTED, MACHINE SCREW FILL&T	2
B	5-40 x 5/16 SOCKET CAP SCREW	6
C	5-40 x 3/8 OVAL HEAD MS. SS. PP	4
D		
E	5-40 x 1/2 SOCKET CAP SCREW	6
F	5-40 x 5/8 SOCKET CAP SCREW	4
G	6-32 x 3/16 SOCKET SET CUP POINT SCREW	2
H	6-32 x 3/8 SOCKET SET CUP POINT SCREW	2
I	10-32 x 3/8 SOCKET CAP SCREW	1
J	1/16 x 5/8 ROLL PIN	1
K	3/16 x 1/2 DOWEL PINS	2
L	SNAP RING #1RR5133	1
M	10-32 x 3/8 JAM SCREW	1
N	1/4 x .148 SPRING	1
O	5/32 BALL	1

