NATIONAL PHYSICAL LABORATORY

STANDARDS DIVISION

Ref: MOY/SCMI/68 (Issue 3)

SPECIFICATION OF ACCURACY

for

A THREAD FORM DIAGRAM

Type: An opaque type thread form diagram on a metal base for use in screw thread projection.

		LIMITING VALUE OR MAXIMUM PERMISSIBLE ERROR
1.	**GENERAL**	
1.1	Each diagram shall be provided with an identification plate marked as follows: -	
	(i) Thread form ……..	
	(ii) Magnification ……	
	(iii) Serial No. ……...	
	(iv) Maker's name or trade mark.	
	Note: A space should be provided on the plate for adding the NPL monogram.	
1.2	The edges of the metal base shall be smoothly finished and the corners rounded.	
1.3	The long edges of the metal base shall be parallel with the pitch line of the thread	1/32 in. over their length.
1.4	The handles shall not project beyond the edges of the metal base.	
1.5	The diagram shall be free from blemishes.	
1.6	The colour density of the diagram shall be within the limiting shades held by the NPL.	
2.	**OUTLINE**	
2.1	The edges of the outline shall be clearly defined and free from noticeable defects.	
2.2	Blending of the flanks with any crest or root roundings shall, to visual inspection, be smooth and regular.	
2.3	The pitch line of the thread shall be parallel to the line used for lining up the diagram on the projector. (i.e., the inner edge of the blue bar)	0.005 in. overall.
2.4	The outline shall not depart from the nominal outline at any point by more than	±0.005 in.

		LIMITING VALUE OR MAXIMUM PERMISSIBLE ERROR
2.5	The error in inclination of any flank, measured over its length, shall not exceed	0.005 in.

G.B.B.M. SUTHERLAND

Director

H. Barrell

Superintendent, Standards Division

December 1960