

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS S-L-61.101-GS/PL
		Former Designation: ESP-L-61.101-GS
TITLE: Drain and Shut-Off Cocks - English Series (Noun Code 9620)	CURRENT REV No.: 1506	DATE: June 2015
WRITTEN/EDITED BY: Materials Engineering	APPROVED BY: Materials Engineering	SUPERSEDES: ESP-L-61.101-GS - September 2000
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		
Change Notice: Changed to New MPAPS format; Combined GS, PP.		

1.0 RESTRICTED CHEMICAL SUBSTANCES: Effective January 1, 2007, all product supplied to the requirements of this specification must comply with the requirements of the MPAPS B-50 specification.

2.0 DIMENSIONS AND TOLERANCES: All dimensions will apply to the finished parts, plated, hardened or otherwise processed as specified by the purchaser. Tolerance on all dimensions not otherwise limited will be plus or minus .010 inch. Fitting seats must be concentric with straight thread pitch diameters within .010 inch full indicator reading. Maximum and minimum across flat dimensions will be commercial tolerances of bar or extruded material from which the parts are made. The minimum across corners dimension of hexagons will be 1.092 times the nominal width across flats.

3.0 STRAIGHT THREADS: Unified and American National Standard; Class 2A external and Class 2B internal threads will apply to plain finish (unplated) fittings. For externally threaded parts with additive finish, the maximum diameters of Class 2A may be exceeded by the amount of the allowance, i.e., the basic diameters (Class 2A maximum diameter plus the allowance) apply to an externally threaded part after plating. For internally threaded parts with additive finish, the Class 2B diameters apply after plating.

For straight thread eccentricity tolerances, see EM-16.

External threads will be chamfered to the closest 1/64 inch diameter smaller than the basic minor diameter within a tolerance of minus 1/64 inch on the diameter to produce approximately one incomplete thread and not to exceed one and one-half incomplete threads.

Internal threads will be countersunk 90° included angle to the closest 1/64 inch diameter larger than the nominal diameter within a tolerance of plus 1/64 inch on the diameter.

4.0 PIPE THREADS: The pipe threads will conform with the Dry seal American National Standard Taper Pipe Thread or the Dry seal SAE Short Taper Pipe Thread as specified in the SAE Dry seal Pipe Thread Standard, except as hereinafter noted.

Due to design limitations the full thread lengths and shoulder lengths of some externally threaded fittings specified in section 7.0 have been shortened to the minimum required to meet acceptable

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assembly conditions. The external pipe threads are designated as shown in the illustrations on the following pages and the deviations from standard practice are described below.

Dryseal Special Short External Taper Pipe Thread is shortened one thread at the small end and also one thread at the large end and is gaged the same as the Dryseal SAE Short Taper Pipe Thread, using thin ring gage only.

Dryseal Special Extra Short External Taper Pipe Thread is shortened one thread at the small end and also two threads at the large end and is gaged 1-3/4 to 3-1/4 turns engagement for the 1/8 size, using special thin ring gage with one-half pitch (thread) ground off large end and rechamfered.

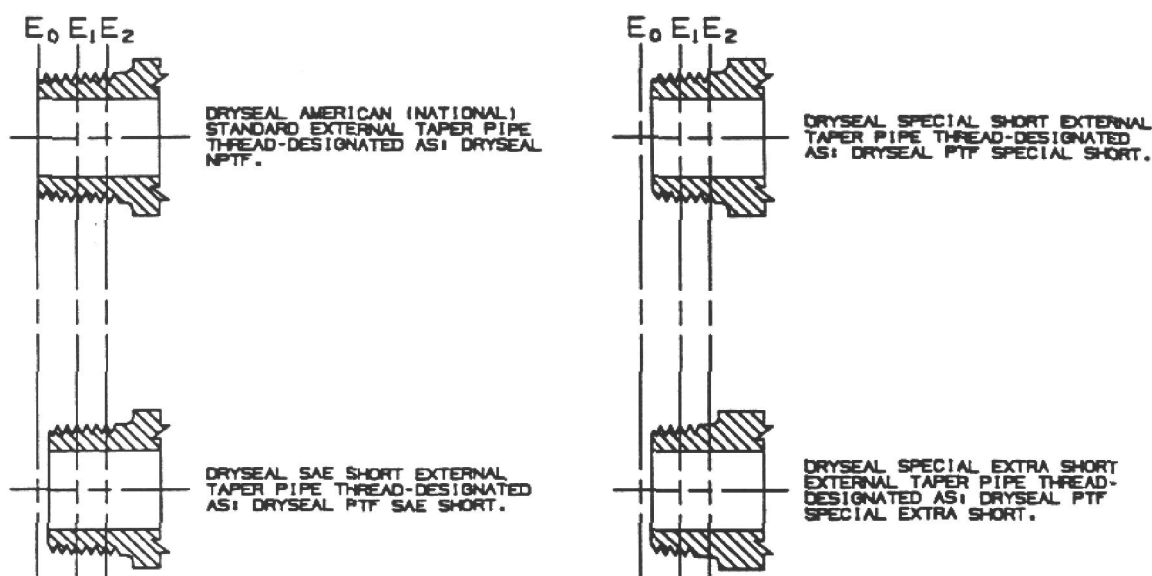
The above deviations are peculiar to these types of fittings, and as special considerations are involved, caution should be exercised in specifying the deviations for any other products.

External pipe threads will be chamfered to the closest 1/64 inch diameter smaller than the minor diameter within a tolerance of minus 1/64 inch on the diameter to produce approximately one incomplete thread and not to exceed one and one-half incomplete thread.

Internal pipe threads will be countersunk 90° included angle to the closest 1/64 inch diameter larger than the major diameter within a tolerance of plus 1/64 inch on the diameter.

Specifications for Dryseal pipe threads and related specifications covering blank sizes, blind hole depths, pipe taps, chasers, tap drills, gages, thread length definitions, etc., are given in detail in the SAE Dryseal Pipe Thread Standards.

Sealant Coating: All fittings that have external pipe threads will be furnished with a pre-applied sealant coating on the pipe threads that meets the requirements of CEMS D-31.



5.0 MATERIAL: Body and stem: brass standard with manufacturer. Handle: steel or brass standard with manufacturer.

6.0 DEFECTS: Fittings will be free from burrs, loose scale, sharp edges, eccentricity of diameters and all other defects which affect their serviceability.

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