

Review: *Distillation and Vapor Pressure Measurement in Petroleum Products.*

Rey G. Montemayor, editor.

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This new manual in ASTM's series that dates back nearly 100 years includes 12 comprehensive chapters that provide detailed discussion on distillation and vapor pressure measurement of both crude oils and refined products. The latter cover spark ignition fuels, diesel fuels, aviation fuels, and solvents. A chapter is also included on simulated distillation.

In his introductory chapter, Rey Montemayor says "This work is intended to be a ... practical reference manual for (those) who need a good understanding of the routine measurement test methods and procedures used to determine the characteristics and properties of various petroleum products." He goes on to say "This manual aims to provide information that will be helpful for the practitioners of routine petroleum test measurements, provide better understanding of the standard test methods ... and offer insight on how these measured properties apply to and affect the performance of these products."

This manual very effectively and admirably accomplishes these objectives.

In its 12 chapters, 26 ASTM test methods are discussed and their application to distillation and vapor pressure measurement described. Unfortunately, ASTM D 7169 is not described in any detail in the chapter on "Simulated Distillation", and is not included in the appendix (discussed below). This is an unfortunate oversight on the part of the manual's editor considering the growing importance of rapidly obtaining distillation data in near real time. In many instances, traders, refiners, and others simply cannot wait for the three or more days required to obtain data by conventional distillation methods in deciding whether to purchase a cargo or before running an unknown stream to still.

An appendix provides the procedures sections from the 26 test methods discussed in the preceding chapters. While "intended for a quick reference on the details of performing the measurement test procedures ..." it lacks information essential to determining which test methods are best suited to specific applications. A more useful appendix, especially for those not familiar with a particular application, would have been to include the Scope of each test method and perhaps also its Significance.

Regardless of the shortcomings described above, this manual is an important contribution to the literature on petroleum analysis and needs to be on the bookshelf in every petroleum laboratory. I unconditionally recommend its acquisition by everyone – laboratory and individual – involved in distillation and vapor pressure measurement of crude oil and petroleum products.

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