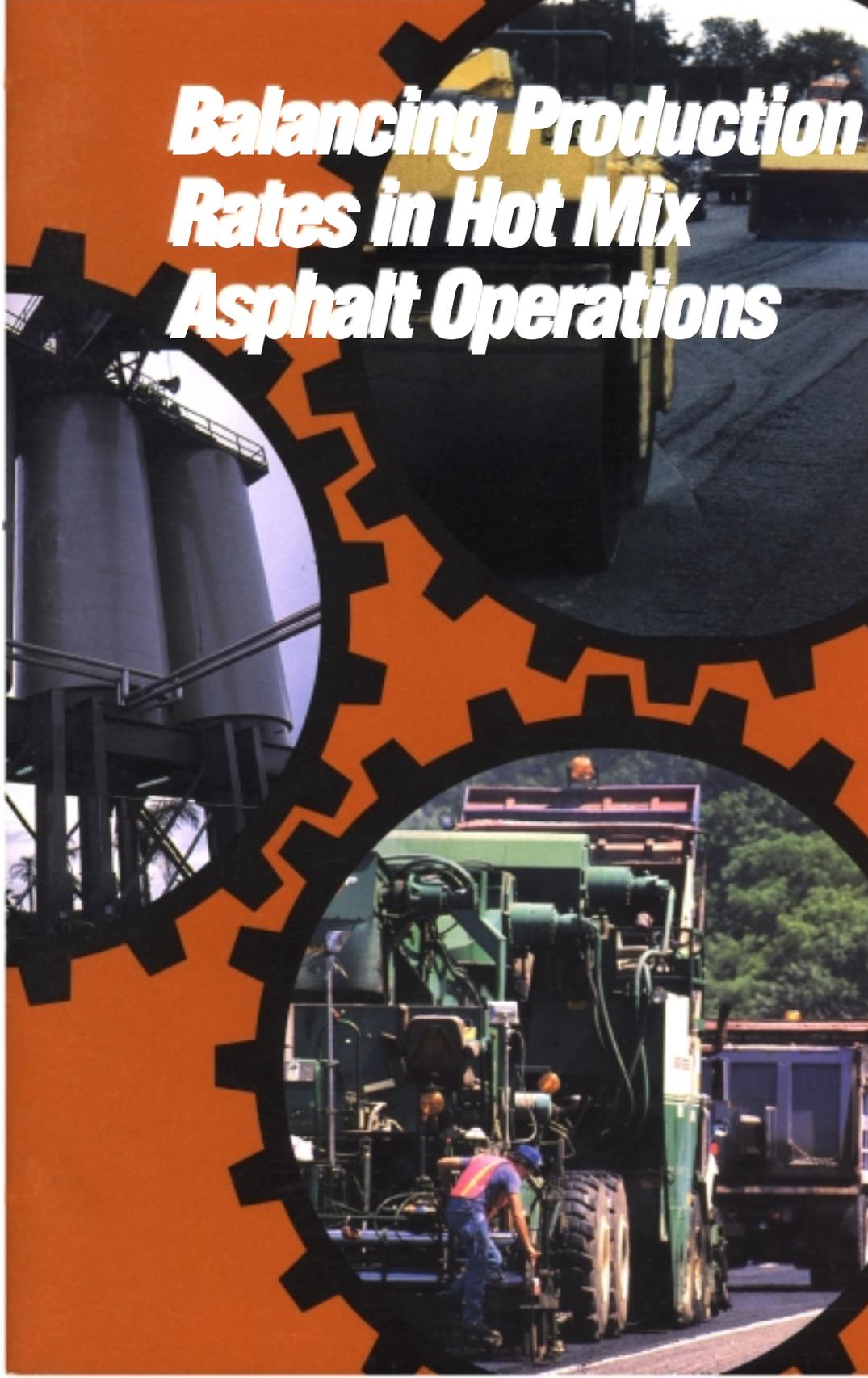


Information Series 120



Balancing Production Rates in Hot Mix Asphalt Operations



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Abstract

Constructing Hot Mix Asphalt (HMA) projects takes the combined effort of significant manpower and equipment. The HMA Industry is very much like other manufacturing industries in which large volumes of high quality, tightly-controlled products must be produced at the lowest possible unit cost. As with most manufacturing facilities, raw materials must be shipped in (asphalt binder and aggregate), and finished products must be shipped out (HMA). Probably the major difficulty in manufacturing an HMA pavement is that it must be accomplished under conditions (environmental and traffic) that can be extremely variable. Compensating for these variable conditions while maintaining a continuous process is a large challenge to say the least.

The process can be divided into four discreet operations: facility, hauling, paving, and compaction. Developing and maintaining a balance of these operations is critical in order to produce high quality material at the lowest unit cost. The purpose of this publication is two part: (1) to discuss the variables involved in balancing these rates, and (2) to present a method to calculate production rates for each area (for any condition) in order to determine if rates are indeed balanced.

Key Words:

HMA Facility Production Rates
Hauling/Truck Driving
Paver Speed
Rolling
Compaction
Smoothness

Acknowledgement: This document was developed by Jim Warren, former NAPA Director of Professional Development, and managed by Dale Decker, NAPA Vice President—Research & Technology, and Kent Hansen, NAPA Assistant Director of Engineering.