SERVICE MANUAL

MOYNO®
1000 Pumps

MOYNO

Always the Right Solution™

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MOYNO® 1000 PUMPS

1-1. INTRODUCTION

1-2. GENERAL

The Moyno 1000 pump is the most versatile positive displacement pump available. Its design parameters have been proven in thousands of applications over the past 60 years, and it is backed by this same half century-plus of experience in application and manufacturing know-how.

The Moyno 1000 pump is a progressing cavity pump. The pumping action is created by a single helical rotor rolling eccentrically in the double-threaded helix of the stator. In its revolution, the rotor forms, in conjunction with the stator, a series of sealed cavities 180 degrees apart. As the rotor turns, the cavities progress from the suction to the discharge. As one cavity diminishes, the opposing cavity increases at exactly the same rate. Thus, the sum of the two discharges is a constant volume. The result is a pulsationless, positive displacement flow.

1-3. SCOPE

This service manual covers the standard, close-coupled, and open throat configurations of the Moyno 1000 pump line. Disassembly and assembly procedures are also covered in this manual.

1-4. NAMEPLATE DATA

The pump nameplate, located on the bearing housing, or drive adaptor, contains important information relative to the operation and servicing of the pump. This information includes the direction of rotation arrow and the pump model and serial numbers.

The model and serial numbers must be used when ordering spare parts. To facilitate parts ordering, the nameplate data for your pump has been recorded on the nameplate drawing on the front cover of this manual.

1-5. Pump Rotation. The direction of rotation is indicated by a rotation arrow on the nameplate. Standard rotation of Moyno 1000 pumps is clockwise, when viewed from the driven end of the pump. Close-coupled models only, are not to be run in reverse.

1-6. Model Number. The pump model number is a series of letters and numbers which identifies the pump's basic design and materials of construction. A typical model number, for example, might be A2E CDQ3AAA, as shown on the nameplate in Figure 1-1.

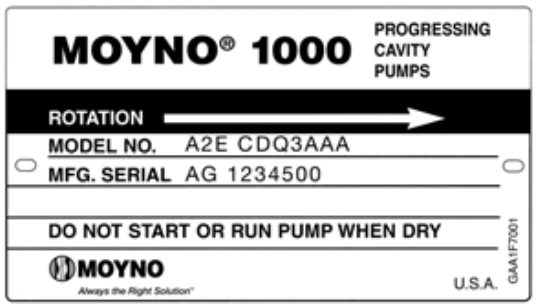

Figure 1-1. Typical nameplate showing rotation arrow, model, and manufacturing serial numbers.

The first three letters and numbers identify the pump's basic design characteristics.

In the first space, a letter designates the pump type. Letters used and their corresponding design types are as follows:

A = Standard
B = Close-coupled
C = Open throat
D = High Abrasion, Standard
E = High Abrasion, Close-coupled

The second position number identifies the number of stages in the pumping elements. This will generally be a 1, 2, or 4.

The third position is a letter, A through K, which identifies the pump's capacity in terms of gallons (gal.) per 100 revolutions. Sometimes the third position is followed by the letter "E" which denotes the pumping element is our Ultra Pro 23 geometry.The letters, with their corresponding capacities, are:

A – .38 gal./100 revs.
B – .75 gal./100 revs.
C – 1.5 gal./100 revs.
D – 3.0 gal./100 revs.
E – 6.0 gal./100 revs.
F – 12.0 gal./100 revs.
G – 22.0 gal./100 revs.
H – 36.0 gal./100 revs.
J – 48.0 gal./100 revs.
K – 62.0 gal./100 revs.
L – 115.0 gal./100 revs.

The next 3 positions, always letters, describe the pump's "Materials of Construction" in component groups of parts.

The first letter in this group identifies the material of the suction chamber casting.

The second letter indicates the material used in the rotating parts, i.e., the drive shaft, connecting rod, rotor,