



Piston Pump Model-Code Revisions Marketing Bulletin

New Model-Code Configurations for Eaton Vickers-Brand Open-Circuit Piston Pumps

Integration of Vickers-brand pump products into the Eaton organization has resulted in a number of key improvements to the product model-coding approach. Eaton business systems use unique model codes to ensure products are built to each customer's requirements and error-free feature details are provided. In addition, unique model-code structures facilitate product configurator and automatic pricing software packages.

New Coding Structure for E Series Design Pumps

The first revision of the codes has started with the PVE12, 19, and 21 models and PVQ25, 40, and 45 models. The Eaton Hutchinson, Kansas, facility has been shipping products with the new codes since January 2001. An announcement regarding this change was created, but not circulated, due to pending revisions to Series E and Q Catalogs. Unfortunately, the announcement delay has caused confusion internally and externally, which we deeply regret. This bulletin will serve to resolve the delay and clarify the new model-code configurations.

Active units in the Eaton ordering system will retain the Vickers-pattern assembly number to provide linkage to the new model-code structure. Any new models established will use the Eaton-pattern assembly number.

No Pricing Changes

The change only impacts the model codes. There are no associated changes to prices for PVE012, PVE19, PVE21, PVQ25, PVQ40, and PVQ45 units.

Cross-Reference List

To assist you in determining your new model codes, please refer to the attached bulletin that cross-references assembly numbers, Vickers models, and the new Eaton models.

Abbreviated Codes

Historically, Vickers used an abbreviated model code on E Series nameplates, and this practice was carried over to Eaton engineering and production systems. Consequently, the full model code was not included on the nameplates. The nameplates or flange areas were stamped with the assembly number, model code up through rotation only, and the build-date code.



Since most of our non-OEM customers use the model code in their business systems, questions were raised as to what product was actually being received from Eaton. Product identification was further confused due to the fact that the build-date codes often closely followed the partial model codes.

Our Hutchinson facility moved quickly to improve the process. As a result, the new model-code system now automatically provides for the assembly number, full model code and build-date code to be stamped/printed on PVE012 and PVQ025 models as the standard "0" default in position 30 of the code.

Build-Date Codes

Examples of stamped/printed build-date codes for Hutchinson facility products are as follows:

23C02UB1 05A02UB2

The first two digits are the day of the month the product was manufactured. The next letter character represents the month, with A for January, B for February, C for March, etc. The 4th and 5th digits designate the year. For example, 02 designate the year 2002. The last three characters represent the Hutchinson plant and the shift designation.

For warranty issues or questions concerning products, Eaton requires customers to provide the build-date code and the assembly number, in order to expedite our response.

Questions

Questions regarding model-code configurations should be directed to your Open-Circuit Piston Product Manager.

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Attachments:

New Model-Code Structure

Eaton's new Vickers model codes are based on a 31-character, fixed-length pattern that fully defines the features for each pump. The codes are listed in the following cross-reference list that is included in the newly revised PVE and PVQ catalogs. For more specific product details, please refer to Eaton Engineering Documents ESP-022 SEC. 139.1 and 140.1.

Cross-Reference List

PRODUCT NO.	NEW EATON VICKERS MODEL CODE	OLD VICKERS MODEL CODE
02-335517	PVQ25AR05AUB0D0100000200100CD0A	PVQ25-B2R-SE3S-20-CGD-30
02-335519	PVQ25AR05AUB0C2100000100100CD0A	PVQ25-B2R-SE3S-20-CD21-21
02-335520	PVQ25AR05AUB0A2100000200100CD0A	PVQ25-B2R-SE3S-20-C21D-12
02-335521	PVQ25AR05AUD0A2100000100100CD0A	PVQ25-B2R-SE3S-20-C21-12-S2
02-335522	PVQ25AR05AUB0A2100000100100CD0A	PVQ25-B2R-SE3S-20-C21-12
02-335523	PVQ25AR01AUB0A0700000100100CD0A	PVQ25-B2R-SE1S-20-CM7-12
02-335524	PVQ25AR01AUB0D0100000100100CD0A	PVQ25-B2R-SE1S-20-CG-30
02-335525	PVQ25AR01AUB0C2100000200100CD0A	PVQ25-B2R-SE1S-20-CD21D-21

02-335526	PVQ25AR01AUB0C2100000100100CD0A	PVQ25-B2R-SE1S-20-CD21-21
02-335527	PVQ25AR01AUB0B2111000100100CD0A	PVQ25-B2R-SE1S-20-C21V11P-13
02-335528	PVQ25AR01AUB0A2100000200100CD0A	PVQ25-B2R-SE1S-20-C21D-12
02-335529	PVQ25AR01AUB0A2100000100100CD0A	PVQ25-B2R-SE1S-20-C21-12
02-335530	PVQ25AR01AUB0A1400000200100CD0A	PVQ25-B2R-SE1S-20-C14D-12
02-335531	PVQ25AR01AUB0B1211000200100CD0A	PVQ25-B2R-SE1S-20-C12V11PD-13
02-335532	PVQ25AL05AUB0B2124000100100CD0A	PVQ25-B2L-SE3S-20-C21VC24P-13
02-335533	PVQ25AL01AUB0D010000C100100CD0A	PVQ25-B2L-SE1S-20-CG-30-S9
02-335534	PVQ25AL01AUB0A2100000100100CD0A	PVQ25-B2L-SE1S-20-C21-12
02-341503	PVE012L05AUB0B251100A100100CD0A	PVE12L-B2-ES-10-C15VP11-B-13
02-341504	PVE012L16AUB0B261100G1001AGCC3A	PVE12L-B37-ES-10-C08VP11-P-13-329
02-341505	PVE012L05AUB0B36240001001AGCC3A	PVE12L-B2-ES-10-C11VPC24-P-13-329
02-341506	PVE012R05AUB0B171700A200100CD0A	PVE12R-B2-ES-10-CC17VP17-B-13-CD
02-341507	PVE012R05AUB0B28110001001AGCC3A	PVE12R-B2-ES-10-C09VP11-P-13-329
02-341508	PVE012R05AUB0B131100A100100CD0A	PVE12R-B2-ES-10-C13VP11-B-13
02-341509	PVE012R05AUB0B2111000100100CD0A	PVE12R-B2-ES-10-C21VP11-P-13
02-341510	PVE012R05AUB0A2100000200100CD0A	PVE12R-B2-ES-10-CC21-12
02-341511	PVE012R01AUB0A2100000200100CD0A	PVE12R-B1-ES-10-CC21-12
02-341514	PVE012L05AUB0B141100A100100CD0A	PVE12L-B2-ES-10-C14VP11-B-13
02-341515	PVE012R01AUB0B2111000100100CD0A	PVE12R-B1-ES-10-C21VP11-P-13
02-341516	PVE012L01AUB0B211100A100100CD0A	PVE12L-B1-ES-10-C21VP11-B-13
02-341517	PVE012L05AUB0A2100000100100CD0A	PVE12L-B2-ES-10-C21-12
02-341518	PVE012R05AUB0A2100000100100CD0A	PVE12R-B2-ES-10-C21-12
02-341519	PVE012L05AUB0B211100A100100CD0A	PVE12L-B2-ES-10-C21VP11-B-13
02-341521	PVE012L05AUB0B212400A100100CD0A	PVE12L-B2-ES-10-C21VPC24-B-13
02-341522	PVE012R01AUB0A2100000100100CD0A	PVE12R-B1-ES-10-C21-12
02-341523	PVE012R05AUB0B171700A100100CD0A	PVE12R-B2-ES-10-C17VP17-B-13
02-341524	PVE012R05AUB0D0100000100100CD0A	PVE12R-B2-ES-10-CG-30
02-341525	PVE012R01AUB0B211100A100100CD0A	PVE12R-B1-ES-10-C21VP11-B-13
02-341527	PVE012L01AUB0A2100000100100CD0A	PVE12L-B1-ES-10-C21-12
02-341528	PVE012R05AV60B20300001001AD0K5A	PVE12R-B2-MS-10-C20VPC30-P-13-271
02-341529	PVE012R05AV60B20220001001AD0K5A	PVE12R-B2-MS-10-C20VPC22-P-13-271
02-341636	PVE19AR05AB10B16240001001AGCD0A	PVE19-B2R-STE9F-41-C15VPC24P-13-294
02-341760	PVE21AR02AC10A18000001AA100CD0A	PVE21-B2R-A9-SFS1F-41-C19-13
02-341761	PVE21AL05AP90B352500A1000000B2A	PVE21-B2L-MTE9N-41-C17VPC25B-13-350
02-341762	PVE21AR11AA10A19000001AE100CD0A	PVE21-B2R-B26-STS6F-41-C19-12
02-341763	PVE21AL08AA10A14000001AE100CD0A	PVE21-B2R-B26-STS2F-41-C14-12
02-341764	PVE21AR12AM62B23210001001AC0K5A	PVE21-B2R-MFE2AF-41-C20VPC21P-13-307
02-341787	PVE19AL05AB10B16240001001AGCD0A	PVE19-B2L-STE9F-41-C16VPC24P-13-294
02-341788	PVE19AR13AP63B23280001001AD0B5A	PVE19-B2R-MTE9AF-41-C20VPC28P-13-320
02-341789	PVE19AR05AA10B1728000100100CD0A	PVE19-B2R-STS9F-41-C17VPC28P-13-CD
02-341790	PVE19AR05AA10B1714000700100CD0A	PVE19-B2R-STS9F-41-C17VP14P-13-349
02-341791	PVE19AL08AC10B212400A1AA100CD0A	PVE19-B2L-A9-SFS2F-41-C21VPC24B-13
02-341793	PVE19AL08AA10B211400A100100CD0A	PVE19-B2L-STS2F-41-C21VP14B-13
02-341794	PVE19AL05AC10J01000001AH100CD0A	PVE19-B2L-A9-SFS9F-41-CG-30-321
02-341795	PVE19AR01AB10A2100000100100CD0A	PVE19-B2R-STE16F-41-C21-12
02-341796	PVE19AL15AA20A160000F600100CD0A	PVE19-B2L-STS5F-41-C16-12-302
02-341797	PVE19AR05AA10A1700000100100CD0A	PVE19-B2R-STS9F-41-C17-12
02-341798	PVE19AR05AA10A3000000100100CD0A	PVE19-B2R-STS9F-41-C19-12
02-341799	PVE19AR05AA10A21000001AE100000A	PVE19-B2R-B26-STS9F-41-C21-12
02-341800	PVE19AL05AB10A070000D100100CD0A	PVE19-B2L-STE9F-41-C07-12-231

02-341801	PVE19AR05AB10A070000D100100CD0A	PVE19-B2R-STE9F-41-C07-12-231
02-341802	PVE19AL08AA10B223000A1001AHCC1A	PVE19-B2L-STS2F-41-C22VPC30B-13-224
02-341803	PVE19AL02AA10A2100000100100CD0A	PVE19-B2L-STS1F-41-C21-12
02-341804	PVE19AR05AA10A400000F100100CD0A	PVE19-B2R-STS9F-41-C16-12-223
02-341805	PVE19AL05AA10A170000F100100CD0A	PVE19-B2L-STS9F-41-C17-12-222
02-341806	PVE19AR05AB10A2100000100100CD0A	PVE19-B2R-STE9F-41-C21-12
02-341807	PVE19AL05AB10A2100000200100CD0A	PVE19-B2L-STE9F-41-C21D-12
02-341808	PVE19AL05AA10A4100000100100CD0A	PVE19-B2L-STS9F-41-C12-12
02-341809	PVE19AL05AB10A2100000100100CD0A	PVE19-B2L-STE9F-41-C21-12
02-341810	PVE19AL08AA10A2100000100100CD0A	PVE19-B2L-STS2F-41-C21-12
02-341811	PVE19AR05AA10J0100000100100CD0A	PVE19-B2R-STS9F-41-CG-30
02-341812	PVE19AL08AA10J0100000100100CD0A	PVE19-B2L-STS9F-41-CG-30
02-341813	PVE19AR08AA10J0100000100100CD0A	PVE19-B2R-STS2F-41-CG-30
02-341814	PVE19AL05AA10A2100000100100CD0A	PVE19-B2L-STS9F-41-C21-12
02-341815	PVE19AR05AA10A2100000100100CD0A	PVE19-B2R-STS9F-41-C21-12
02-341816	PVE19AR08AA10A2100000100100CD0A	PVE19-B2R-STS2F-41-C21-12
02-341817	PVE19AR05AA10B1728000100100CD0A	PVE19-B2R-STS9F-41-C17VPC28P-13-353
02-341818	PVE19AR02AA10A2100000100100CD0A	PVE19-B2R-STS1F-41-C21-12
02-341819	PVE19AR02AA10A2100000200100CD0A	PVE19-B2R-STS1F-41-C21D-12
02-341820	PVE19AR05AA10B312600A100100CD0A	PVE19-B2R-STS9F-41-C24VPC26B-13-158
02-341821	PVE19AR05AA10B211100A100100CD0A	PVE19-B2R-STS9F-41-C21VP11B-13
02-341822	PVE19AL05AA10B211100A100100CD0A	PVE19-B2L-STS9F-41-C21VP11B-13
02-341823	PVE19AR02AA10B211100A100100CD0A	PVE19-B2R-STS1F-41-C21VP11B-13
02-341824	PVE19AL02AA10B211100A100100CD0A	PVE19-B2L-STS1F-41-C21VP11B-13
02-341825	PVE19AL08AA10B211100A100100CD0A	PVE19-B2L-STS2F-41-C21VP11B-13
02-341826	PVE19AR08AA10B211100A100100CD0A	PVE19-B2R-STS2F-41-C21VP11B-13
02-341827	PVE19AR05AA10B212400A100100CD0A	PVE19-B2R-STS9F-41-C21VPC24B-13-CD
02-341828	PVE19AL05AA10B212400A100100CD0A	PVE19-B2L-STS9F-41-C21VPC24B-13
02-341829	PVE19AL08AA10A140000H100100CD0A	PVE19-B2L-STS2F-41-C14-12-061
02-341830	PVE19AL15AA20A160000F100100CD0A	PVE19-B2L-STS5F-41-C15-12-010
02-341831	PVE19AR05AB10A2100000200100CD0A	PVE19-B2R-STE9F-41-C21D-12
02-341832	PVE21AL08AW21B33240001001AHCDAA	PVE21-B2L-MFE2F-41-C21VPC24P-13-317
02-341833	PVE21AR08AS11B33240001001AHCDAA	PVE21-B2R-MFE2F-41-C21VPC24P-13-316
02-341834	PVE21AR04AA10A3000000100100CD0A	PVE21-B2R-STS13F-41-C19-12
02-341835	PVE21AR05AB10B27240001001AGCD0A	PVE21-B2R-STE9F-41-C20VPC24P-13-295
02-341836	PVE21AL05AB10B27240001001AGCD0A	PVE21-B2L-STE9F-41-C20VPC24P-13-295
02-341837	PVE21AR08AB10B212400A2001AFCD0A	PVE21-B2R-STE2F-41-C21VPC24B-D-13-268
02-341838	PVE21AL14AA20B21170001001AECC3A	PVE21-B2L-STS30F-41-C21VPC17P-13-263
02-341839	PVE21AR17AA10A2900000100100CC3A	PVE21-B2R-STS31F-41-C16-12-261
02-341840	PVE21AR05AA10A1800000200100CD0A	PVE21-B2R-STS9F-41-C19D-12
02-341841	PVE21AL05AD21E1924000100100CD0A	PVE21-B2L-SFE9F-41-UV-20-293
02-341842	PVE21AL17AA20B3014000100100CC3A	PVE21-B2L-STS31F-41-C19VP14P-13-248
02-341843	PVE21AR02AA10A1800000200100CD0A	PVE21-B2R-STS1F-41-C19D-12
02-341844	PVE21AR17AA10A2800000100100CC3A	PVE21-B2R-STS31F-41-C09-12-240
02-341845	PVE21AL08AA10H1811000100100CD0A	PVE21-B2L-STS2F-41-C19VP11P-13-234
02-341846	PVE21AR08AD21B3024000100100CDBA	PVE21-B2R-SFE2F-41-C19VPC24P-13-220
02-341847	PVE21AL08AT21B3024000100100CDBA	PVE21-B2L-SFE2F-41-C19VPC24P-13-219
02-341848	PVE21AR08AA10B35160001AG100CD0A	PVE21G-B2R-STS2F-41-C17VP15P-13-204
02-341849	PVE21AR08AD21B302400A100100CD0A	PVE21-B2R-SFE2F-41-C19VPC24B-13-213
02-341850	PVE21AL08AT21B302400A100100CD0A	PVE21-B2L-SFE2F-41-C19VPC24B-13-212
02-341851	PVE21AL05AB10B181100A100100CD0A	PVE21-B2L-STE9F-41-C19VP11B-13

02-341852	PVE21AR05AB10B191100A100100CD0A	PVE21-B2R-STE9F-41-C19VP11B-13
02-341853	PVE21AR05AA10A1800000100100CD0A	PVE21-B2R-STS9F-41-C19-12
02-341854	PVE21AL05AA10A1800000100100CD0A	PVE21-B2L-STS9F-41-C19-12
02-341855	PVE21AL08AA10A1800000100100CD0A	PVE21-B2L-STS2F-41-C19-12
02-341856	PVE21AL02AA10A1800000100100CD0A	PVE21-B2L-STS1F-41-C19-12
02-341857	PVE21AR02AA10A1800000100100CD0A	PVE21-B2R-STS1F-41-C19-12
02-341858	PVE21AR08AA10A1800000100100CD0A	PVE21-B2R-STS2F-41-C19-12
02-341859	PVE21AR08AA10A19000001AE100CD0A	PVE21-B2R-B26-STS2F-41-C19-12
02-341860	PVE21AL14AA20B18140001001AECC3A	PVE21-B2L-STS30F-41-C19VP14P-13-178
02-341861	PVE21AR04AA10B3425000100100CD0A	PVE21-B2R-STS13F-41-C17VPC25P-13-134
02-341862	PVE21AL05AAA0B3825000100000CD0A	PVE21-B2L-STS9N-41-C18VPC25P-13-043
02-341863	PVE21AR08AB20B351600A100100CDBA	PVE21-B2R-STE2F-41-C17VP15B-13-161
02-341864	PVE21AR05AA10B191100A100100CD0A	PVE21-B2R-STS9F-41-C19VP11B-13
02-341865	PVE21AL05AA10B191100A100100CD0A	PVE21-B2L-STS9F-41-C19VP11B-13
02-341866	PVE21AR02AA10B181100A100100CD0A	PVE21-B2R-STS1F-41-C19VP11B-13
02-341867	PVE21AL02AA10B181100A100100CD0A	PVE21-B2L-STS1F-41-C19VP11B-13
02-341868	PVE21AL05ARA0B1925000100000CD0A	PVE21-B2L-STE9N-41-C19VPC25P-13-166
02-341869	PVE21AL08AA10B181100A100100CD0A	PVE21-B2L-STS2F-41-C19VP11B-13
02-341870	PVE21AR08AA10B181100A100100CD0A	PVE21-B2R-STS2F-41-C19VP11B-13
02-341891	PVE19AR13AP63B23300001001AD0K5A	PVE19-B2R-MTE9AF-41-C20VPC30P-13-264
02-341895	PVQ45AL01AB10A0700000100100CD0A	PVQ45-B2L-SE1F-20-CM7-12
02-341896	PVQ45AR01AB10A1800000100100CD0A	PVQ45-B2R-SE1F-20-C19-12
02-341897	PVQ45AR02AB10B1811000100100CD0A	PVQ45-B2R-SE2F-20-C19V11B-13
02-341898	PVQ45AR01AA10A0700000100100CD0A	PVQ45-B2R-SS1F-20-CM7-12
02-341899	PVQ45AR01AB10A0700000100100CD0A	PVQ45-B2R-SE1F-20-CM7-12
02-341900	PVQ45AR01AB10A1800000200100CD0A	PVQ45-B2R-SE1F-20-C19D-12
02-341901	PVQ45AR01AA10A1800000100100CD0A	PVQ45-B2R-SS1F-20-C19-12
02-341902	PVQ45AR02AA10A3000000100100CD0A	PVQ45-B2R-SS2F-20-C19-12
02-341903	PVQ45AR05AA10A0700000100100CD0A	PVQ45-B2R-SS3F-20-CM7-12
02-341904	PVQ45AR02AA10D0100000100100CD0A	PVQ45-B2R-SS2F-20-CG-30
02-341905	PVQ45AR01AB10B181100A100100CD0A	PVQ45-B2R-SE1F-20-C19V11B-13
02-341906	PVQ45AL01AA10A1400000100100CD0A	PVQ45-B2L-SS1F-20-C14-12
02-341907	PVQ45AR01AA10C1800000100100CD0A	PVQ45-B2R-SS1F-20-CD19-21
02-341908	PVQ45AR01AB10A1400000100100CD0A	PVQ45-B2R-SE1F-20-C14-12
02-341909	PVQ45AR09AA10A0700000100100CD0A	PVQ45-B2R-SS28F-20-CM7-12
02-341910	PVQ45AR08AA10A07000001AE100CD0A	PVQ45-B2R-B26-SS4F-20-CM7-12
02-341911	PVQ45AR02AA10A07000001AE100CD0A	PVQ45-B2R-B26-SS2F-20-CM7-12
02-341912	PVQ45AR02AA30A3000000100100CD0A	PVQ45-B2R-SS2F-20-C19-12-S2
02-341913	PVQ45AR02AA10A18000001AA100CD0A	PVQ45-B2R-A9-SS2F-20-C19-12
02-341914	PVQ45AR02AA10A18000001AE100CD0A	PVQ45-B2R-B26-SS2F-20-C19-12
02-341915	PVQ45AR02AA10C18000001AA100CD0A	PVQ45-B2R-A9-SS2F-20-CD19-21
02-341916	PVQ45AR02AA10A07000001AA100CD0A	PVQ45-B2R-A9-SS2F-20-CM7-12
02-341917	PVQ45AR02AA10B181100A1AE100CD0A	PVQ45-B2R-B26-SS2F-20-C19V11B-13
02-341918	PVQ45AR02AC10A07000001AA100CD0A	PVQ45-B2R-A9-FS2S-20-CM7-12
02-341919	PVQ40AR10AA10A0700000100100CD0A	PVQ40-MBR-SSNF-20-CM7-12
02-341920	PVQ40AR02AB10A2100000100100CD0A	PVQ40-B2R-SE2F-20-C21-12
02-341921	PVQ40AR01AB10D0200000100100CD0A	PVQ40-B2R-SE1F-20-CG-30
02-341922	PVQ40AR05AA10A0700000100100CD0A	PVQ40-B2R-SS3F-20-CM7-12
02-341923	PVQ40AR08AA10B211100A100100CD0A	PVQ40-B2R-SS4F-20-C21V11B-13
02-341924	PVQ40AR01AA10A0700000100100CD0A	PVQ40-B2R-SS1F-20-CM7-12
02-341925	PVQ40AR08AA10A2100000100100CD0A	PVQ40-B2R-SS4F-20-C21-12

02-341926	PVQ40AR05AB10A2100000100100CD0A	PVQ40-B2R-SE3F-20-C21-12
02-341927	PVQ40AR01AA10A2100000100100CD0A	PVQ40-B2R-SS1F-20-C21-12
02-341928	PVQ40AR02AA10B211100A100100CD0A	PVQ40-B2R-SS2F-20-C21V11B-13
02-341929	PVQ40AR01AB10A0700000100100CD0A	PVQ40-B2R-SE1F-20-CM7-12
02-341930	PVQ40AR09AA10A0700000100100CD0A	PVQ40-B2R-SS28F-20-CM7-12
02-341948	PVQ40AR01AB10A2100000200100CD0A	PVQ40-B2R-SE1F-20-C21D-12
02-341949	PVQ40AR01AB10A2100000100100CD0A	PVQ40-B2R-SE1F-20-C21-12
02-341950	PVQ40AR02AA10A2100000100100CD0A	PVQ40-B2R-SS2F-20-C21-12
02-341951	PVE19AL01AA10A070000G1001APCD0A	PVQ40-B2L-SS1F-20-C07-12-S15
02-341952	PVQ40AL01AA10A0700000100100CD0A	PVQ40-B2L-SS1F-20-CM7-12
02-341953	PVQ40AR02AB10B2111000200100CD0A	PVQ40-B2R-SE2F-20-C21V11PD-13
02-341954	PVQ40AR02AB10D0300000100100CD0A	PVQ40-B2R-SE2F-20-CG-30
02-341955	PVQ40AR05AA10D0100000100100CD0A	PVQ40-B2R-SS3F-20-CG-30
02-341956	PVQ40AR02AA10A2100000200100CD0A	PVQ40-B2R-SS2F-20-C21D-12
02-341957	PVQ40AR09AB10B211100A100100CD0A	PVQ40-B2R-SE28F-20-C21V11B-13
02-341958	PVQ40AR01AB10B211100A100100CD0A	PVQ40-B2R-SE1F-20-C21V11B-13
02-341959	PVE19AR02AJ10A120000D5001APCD0A	PVQ40-B2R-SE2F-20-C12D-12-S6
02-341960	PVQ40AR01AB10C2100000100100CD0A	PVQ40-B2R-SE1F-20-CD21-21
02-341961	PVQ40AR05AA10A2100000100100CD0A	PVQ40-B2R-SS3F-20-C21-12
02-341962	PVQ40AR02AA10B211100A1AE100CD0A	PVQ40-B2R-B26-SS2F-20-C21V11B-13
02-341963	PVQ40AR02AA10A07000001AE100CD0A	PVQ40-B2R-B26-SS2F-20-CM7-12
02-341964	PVE19AR02AA10A21000001AA1APCD0A	PVQ40-B2R-A9-SS2F-20-C21-12
02-341965	PVE19AR02AC10A21000001AA1APCD0A	PVQ40-B2R-A9-FS2F-20-C21-12
02-341966	PVQ40AR02AA10A21000001AE100CD0A	PVQ40-B2R-B26-SS2F-20-C21-12
02-345338	PVQ25AR05AUB0D0100000100100CD0A	PVQ25-B2R-SE3S-20-CG-30
02-345356	PVQ25AR05AUB0D010000C100100CD0A	PVQ25-B2R-SE3S-20-CG-30-S9
02-345381	PVE19AR08AAA0B402000A1AF000CD0A	PVE19G-B2R-STS2N-41-C16VPC19B-13-305
02-345383	PVE19AL05AP90B32250001000AZ0B2A	PVE19-B2L-MTE9N-41-C21VPC24P-13-363
02-345384	PVE21AR04AA10B34250001AH1BA0B2A	PVE21-B2R-A9-SFS13F-41-C17VPC25P-13-359
02-345420	PVQ45AL01AB10A1800000200100CD0A	PVQ45-B2L-SE1F-20-C19D-12
02-345457	PVE21AR12AM62B23210001001AC005A	PVE21-B2R-MFE2AF-41-C20VPC21P-13-342
02-345458	PVE19AR13AP63B23220001001AD0K5A	PVE19-B2R-MTE9AF-41-C20VPC22P-13-368
02-346056	PVE21AR08AA10B30160001AG100CD0A	PVE21G-B2R-STS2F-41-C19VP15P-13-205
02-346099	PVQ25AR01AUB0B211100A200100CD0A	PVQ25-B2R-SE1S-20-C21V11BD-13
02-346329	PVE21AL08AA20B30280001001ABCC3A	PVE21-B2L-STS2F-41-C19VPC28P-13-336
02-346330	PVE19AL08AC10A42000001AB100CD0A	PVE19-B2L-A11-SFS2F-41-C15-12-367
02-346360	PVE19AL08AA10B2114000100100CD1A	PVE19-B2L-STS2F-41-C21VP14P-13-365
02-346496	PVE21AR12AM62B23210001001AC0K0A	PVE21-B2R-MFE2AF-41-C20VPC21P-13-384
02-346497	PVE21AR12AM62B23210001001AC000A	PVE21-B2R-MFE2AF-41-C20VPC21P-13-385
02-346657	PVQ45AR08AC10A07000001AA100CD0A	PVQ45-B2R-A9-FS4S-20-CM7-12
02-346678	PVQ25AR10AV60A2100000100100CD0A	PVQ25-MBR-MENS-20-C21-12
02-346841	PVE21AL04AA10B20170001001AHCC3A	PVE21-B2L-STS13F-41-C20VPC17P-13-269
02-346908	PVE012R05AUB0B2111000200100CD0A	PVE12R-B2-ES-10-CC21VP11-P-13
02-347021	PVE19AR13AP63B23220001001AN0B5A	PVE19-B2R-MTE9AF-41-C20VPC22P-13-389
02-347063	PVQ40AR05AB10C2100000100100CD0A	PVQ40-B2R-SE3F-20-CD21-21
02-347185	PVQ25AR05AUB0B211100A100100CD0A	PVQ25-B2R-SE3S-20-C21V11B-13
02-347268	PVE21AL05AA10B202400A1001AT0B3A	PVE21-B2L-STS9F-41-C20VPC24B-13-390
02-347303	PVE19AR05AB10B211100A2001AFCD0A	PVE19-B2R-STE9F-41-C21VP11B-D-13-391
02-347332	PVQ45AR05AA10C1800000100100CD0A	PVQ45-B2R-SS3F-20-CD19-21
02-347352	PVE21AL08AA10A1700000100100CD5A	PVE21-B2L-STS2F-41-C17-12-392
02-347396	PVQ45AR01AB10D190000C200100CD0A	PVQ45-B2R-SE1F-20-CGD-30-S30

02-347401	PVE21AL02AC10B181100A1AA100CD0A	PVE21-B2L-A9-SFS1F-41-C19VP11B-13
02-347431	PVQ45AR01AB10B1811000100100CD0A	PVQ45-B2R-SE1F-20-C19V11P-13
02-347439	PVE21AR04AA10A30000001001AFCD0A	PVE21-B2R-STS13F-41-C19-12-391
02-347464	PVE19AR08AA10B21110001AE100CD0A	PVE19-B2R-B26-STS2F-41-C21VP11P-13
02-347486	PVQ40AR10AG40A1100000100100CD0A	PVQ40-MBR-SSNF-20-CM11-12-S3
02-347496	PVQ40AR09AB10A2100000200100CD0A	PVQ40-B2R-SE28F-20-C21D-12
02-347501	PVE19AL08AA10A1700000100100CD0A	PVE19-B2L-STS2F-41-C17-12
02-347521	PVE21AL08AA10B211100A100100CD0A	PVE21-B2L-STS2F-41-C21VP11B-13
02-347556	PVE21AL08AY20B33160001001AYCD0A	PVE21-B2L-MFS2F-41-C21VP15P-13-393
02-347561	PVE19AL08AA10A17000001001AHCD0A	PVE19-B2L-STS2F-41-C17-12-394
02-347569	PVQ40AR01AA10C2100000200100CD0A	PVQ40-B2R-SS1F-20-CD21D-21
02-347574	PVE21AR08AY20B33160001001AYCD0A	PVE21-B2R-MFS2F-41-C21VP15P-13-393
02-347619	PVQ40AR08AA10B211100A400100CD0A	PVQ40-B2R-SS4F-20-C21V11B-13-S33
02-347636	PVE19AR08AA10B211100A1AE100CD0A	PVE19-B2R-B26-STS2F-41-C21VP11B-13
02-347637	PVE19AL08AA10B211100A1AE100CD0A	PVE19-B2L-B26-STS2F-41-C21VP11B-13
02-347664	PVE21AR02AC10B181100A1AA100CD0A	PVE21-B2R-A9-SFS1F-41-C19VP11B-13
02-347669	PVE19AR05AA10H211700J1001AFCD0A	PVQ40-B2R-SS3F-20-C21VC17B-13-S28
02-347672	PVE21AL05AB10A1900000100100CD0A	PVE21-B2L-STE9F-41-C19-12
02-347679	PVQ40AR08AC10C21000001AA100CD0A	PVQ40-B2R-A9-FS4F-20-CD21-21
02-347756	PVQ40AR01AB10B2114000100100CD0A	PVQ40-B2R-SE1F-20-C21V14P-13
02-347757	PVE21AR01AA10D0100000100100CD0A	PVE21-B2R-STS16F-41-CG-30
02-347761	PVQ40AR09AA10A2100000100100CD0A	PVQ40-B2R-SS28F-20-C21-12
02-347783	PVE19AR05AA10B211100A200100CD0A	PVE19-B2R-STS9F-41-C21VP11B-D-13
02-347841	PVE19AL02AC10B211100A1AH100CD0A	PVE19-B2L-A9-SFS1F-41-C21VP11B-13-321
02-347887	PVE19AR08AC10B211100A1AB100CD0A	PVE19-B2R-A11-SFS2F-41-C21VP11B-13
02-347888	PVE21AR08AB10B1811000100100CD0A	PVE21-B2R-STE2F-41-C19VP11P-13
02-347905	PVQ45AR02AA10A14000001AA100CD0A	PVQ45-B2R-A9-SS2F-20-C14-12
02-347925	PVQ25AL01AUB0D0100000100100CD0A	PVQ25-B2L-SE1S-20-CG-30
02-347930	PVE19AL02AA10B211100A200100CD0A	PVE19-B2L-STS1F-41-C21VP11BD-13
02-347970	PVE21AL08AP90B32250001000AL0B2A	PVE21-B2L-MTE2N-41-C20VPC25P-13-395
02-347981	PVQ40AR01AB10B211100A200100CD0A	PVQ40-B2R-SE1F-20-C21V11BD-13
02-347982	PVQ45AR01AB10B191100A200100CD0A	PVQ45-B2R-SE1F-20-C19V11BD-13
02-347983	PVQ40AR01AB30D0200000100100CD0A	PVQ40-B2R-SE1F-20-CG-30-S2
02-347985	PVQ45AR01AB30D0100000100100CD0A	PVQ45-B2R-SE1F-20-CG-30-S2
02-347989	PVE21AL08AY10B33160001AA1AYCD0A	PVE21-B2L-A9-MFS2F-41-C21VP15P-13-214
02-347990	PVE21AR08AY10B33230001AA1AYCD0A	PVE21-B2R-A9-MFS2F-41-C21VP24P-13-333
02-347991	PVE21AR08AY10B33160001AA1AYCD0A	PVE21-B2R-A9-MFS2F-41-C21VP15P-13-311
02-347994	PVQ25AR01AUB0A0700000200100CD0A	PVQ25-B2R-SE1S-20-CM7D-12
02-348016	PVE19AR05AA10D0100000200100CD0A	PVE19-B2R-STS9F-41-CGD-30
02-348029	PVE19AL05AA10D0100000200100CD0A	PVE19-B2L-STS9F-41-CGD-30
02-348034	PVQ40AL01AB10A0700000200100CD0A	PVQ40-B2L-SE1F-20-CM7D-12
02-348041	PVE19AL01AA30A070000G1001APCD0A	PVQ40-B2L-SS1F-20-C07-12-S26
02-348066	PVE19AR02AA20B141100A1AE100CD0A	PVE19-B2R-B26-STS1F-41-C14VP11B-13
02-348067	PVE19AR08AA10B121100A1AB100CD0A	PVE19-B2R-A11-STS2F-41-C12VP11B-13
02-348068	PVE19AR08AA10B121100A1AB1AWCD7A	PVE19-B2R-A11-STS2F-41-C12VP11B-13-203
02-348121	PVQ40AL05AA10A21000001AE100CD0A	PVQ40-B2L-B26-SS3F-20-C21-12
02-348125	PVE19AR05AB10B214100A1001AGCD0A	PVE19-B2R-STE9F-41-C21VPD41B-13-255
02-348172	PVQ25AR10AUB0A0700000100100CD0A	PVQ25-MBR-SENS-20-CM7-12
02-348195	PVE19AL08AY20B122100A1AB100CC3A	PVE19-B2L-A11-MFS2F-41-C12VPC21P-13-369
02-348196	PVE21AR18AA20B3914000100100CC3A	PVE21-B2R-STS27F-41-C18VP14P-13-176
02-348197	PVE21AL05AA10B202400A1001AHCC3A	PVE21-B2L-STS9F-41-C20VPC24B-13-269

02-348198	PVE19AR05AA10A18000001AE100CC3A	PVE19-B2R-B26-STS9F-41-C19-12-376
02-348278	PVQ25AR01AUB0B211100A100100CD0A	PVQ25-B2R-SE1S-20-C21V11B-13
02-348367	PVQ45AR09AA10B181100A100100CD0A	PVQ45-B2R-SS28F-20-C19V11B-13
02-348391	PVE19AR05AC10B21110001AA100CD0A	PVE19-B2R-A9-SFS9F-41-C21VP11P-13
02-348394	PVE012R05AUE0B37110001001AR0B8A	PVE12R-B2-ES-10-C14VP11-P-13-334
02-348436	PVE19AR05AB10B2111000200100CD0A	PVE19-B2R-STE9F-41-C21VP11P-D-13
02-348437	PVQ40AL01AB10A2100000100100CD0A	PVQ40-B2L-SE1F-20-C21-12-CD
02-348464	PVE19AR05AB10B2135000100100CD0A	PVE19-B2R-STE9F-41-C21VPC35P-13
02-348466	PVE19AR02AA20B212100A1AE100CD0A	PVE19-B2R-B26-STS1F-41-C21VPC21B-13-397
02-348467	PVE19AR09AA20B212400A100100CD0A	PVE19-B2R-STS28F-41-C21VPC24B-13-397
02-348492	PVQ40AR02AC10B211100A1AA100CD0A	PVQ40-B2R-A9-FS2F-20-C21V11B-13
02-348516	PVE21AR19AA10B211400A1AB000CD0A	PVE21-B2R-A11-STS42N-41-C21VP14B-13-399
02-348522	PVE19AL02AC10B212100A1AH100CD0A	PVE19-B2L-A9-SFS1F-41-C21VPC21B-13-321
02-348524	PVQ40AR01AA10B211100A200100CD0A	PVQ40-B2R-SS1F-20-C21V11BD-13
02-348528	PVQ45AR05AA10D01000001AE100CD0A	PVQ45-B2R-B26-SS3F-20-CG-30
02-348590	PVQ40AR01AA10B2111000200100CD0A	PVQ40-B2R-SS1F-20-C21V11PD-13
02-348606	PVQ45AR10AG40A0700000100100CD0A	PVQ45-MBR-SSNF-20-CM7-12-S3
02-348608	PVQ45AR02AA10A1900000200100CD0A	PVQ45-B2R-SS2F-20-C19D-12
02-348609	PVQ40AR02AA10B24240001AE100CD0A	PVQ40-B2R-B26-SS2F-20-C18VC24P-13
02-348614	PVQ45AR05AA10A1800000100100CD0A	PVQ45-B2R-SS3F-20-C19-12
02-348632	PVQ40AR02AA10B24240007AE100000A	PVQ40-B2R-B26-SS2F-20-C18VC24P-13-S20
02-348642	PVQ45AR01AB30D1900000200100CD0A	PVQ45-B2R-SE1F-20-CGD-30-S2
02-348650	PVQ40AR05AA10D0100000200100CD0A	PVQ40-B2R-SS3F-20-CGD-30
02-348662	PVE19AR05AA10A21000001AA1APCD0A	PVQ40-B2R-A9-SS3F-20-C21-12
02-348667	PVQ40AR01AA10C1400000100100CD0A	PVQ40-B2R-SS1F-20-CD14-21
02-348676	PVE21AR08AB10B21240002001AF0B6A	PVE21-B2R-STE2F-41-C21VPC24P-D-13-377
02-348682	PVQ40AR02AA10D01000001AE100CD0A	PVQ40-B2R-B26-SS2F-20-CG-30
02-348684	PVQ40AR02AA10B211100A1AA100CD0A	PVQ40-B2R-A9-SS2F-20-C21V11B-13
02-348691	PVE19AL08AA10B223000A1AL1AHCD1A	PVE19G5-B26L-STS2F-41-C22VPC30B-13-227
02-348696	PVE012R06AUB0B131100A100100CD0A	PVE12R-B38-ES-10-C13VP11-B-13
02-348699	PVQ40AR01AA10B2111000100100CD0A	PVQ40-B2R-SS1F-20-C21V11P-13
02-348712	PVE19AL05AA10A210000F100100CD0A	PVE19-B2L-STS9F-41-C21-12-222
02-348713	PVQ45AL05AB10B181100A100100CD0A	PVQ45-B2L-SE3F-20-C19V11B-13
02-348718	PVQ45AR08AA10A18000001AA100CD0A	PVQ45-B2R-A9-SS4F-20-C19-12
02-348719	PVQ40AR01AB10D0200000200100CD0A	PVQ40-B2R-SE1F-20-CGD-30
02-348720	PVQ40AR01AB10B2111000100100CD0A	PVQ40-B2R-SE1F-20-C21V11P-13
02-348734	PVE19AR05AA10B212600A1001AUCD4A	PVE19-B2R-STS9F-41-C21VPC26B-13-387
02-348739	PVQ40AR02AA10A0700000100100CD0A	PVQ40-B2R-SS2F-20-CM7-12
02-348742	PVQ45AL05AB10A1800000100100CD0A	PVQ45-B2L-SE3F-20-C19-12
02-348743	PVQ45AR05AB10B181100A100100CD0A	PVQ45-B2R-SE3F-20-C19V11B-13
02-348759	PVE19AR09AA20B382000A100000CD0A	PVE19-B2R-STS28N-41-C18VPC19B-13-120
02-348760	PVE19AR08AA10B242000A1AE100CD0A	PVE19-B2R-B26-STS2F-41-C18VP19B-13-124
02-348764	PVQ40AR08AA10B211100A1AE100CD0A	PVQ40-B2R-B26-SS4F-20-C21V11B-13
02-348765	PVQ40AR05AB10A2100000200100CD0A	PVQ40-B2R-SE3F-20-C21D-12
02-348766	PVQ40AR02AA10D01000001AA100CD0A	PVQ40-B2R-A9-SS2F-20-CG-30
02-348775	PVE19AL05AB10B211100A100100CD0A	PVE19-B2L-STE9F-41-C21VP11B-13
02-348776	PVE19AR09AAA0B211100A100000CD0A	PVE19-B2R-STS28N-41-C21VP11B-13-121
02-348777	PVE19AR02AA20A21000001AE100CD0A	PVE19-B2R-B26-STS1F-41-C21-13
02-348804	PVQ40AL02AA10A2100000100100CD0A	PVQ40-B2L-SS2F-20-C21-12
02-348805	PVQ40AR05AB10B211100A100100CD0A	PVQ40-B2R-SE3F-20-C21V11B-13
02-348806	PVQ45AR09AA10A1800000100100CD0A	PVQ45-B2R-SS28F-20-C19-12

02-348807	PVQ45AR01AA10A0700000200100CD0A	PVQ45-B2R-SS1F-20-CM7D-12
02-348808	PVQ40AR05AA10B2111000100100CD0A	PVQ40-B2R-SS3F-20-C21V11P-13
02-348809	PVQ40AR02AA10A07000001AA100CD0A	PVQ40-B2R-A9-SS2F-20-CM7-12
02-348810	PVQ40AR01AA10D0100000100100CD0A	PVQ40-B2R-SS1F-20-CG-30
02-348811	PVQ45AR02AB10A1800000100100CD0A	PVQ45-B2R-SE2F-20-C19-12
02-348812	PVQ40AR05AA10A2100000200100CD0A	PVQ40-B2R-SS3F-20-C21D-12
02-348813	PVQ40AR05AB10D0300000100100CD0A	PVQ40-B2R-SE3F-20-CG-30
02-348814	PVQ40AR02AA10D0100000100100CD0A	PVQ40-B2R-SS2F-20-CG-30
02-348815	PVQ40AR05AA10A21000001AE100CD0A	PVQ40-B2R-B26-SS3F-20-C21-12
02-348816	PVQ45AR01AB10E1824000100100CD0A	PVQ45-B2R-SE1F-20-UV19-21
02-348819	PVQ40AR02AA30D01000001AA100CD0A	PVQ40-B2R-A9-SS2F-20-CG-30-S2
02-348823	PVQ40AR01AB30D010000C100100CD0A	PVQ40-B2R-SE1F-20-CG-30-S30
02-348833	PVE19AR02AA20A120000D100100CD0A	PVE19-B2R-STS1F-41-C12-12-123
02-348834	PVQ40AR01AB10A0700000200100CD0A	PVQ40-B2R-SE1F-20-CM7D-12
02-348838	PVQ45AR01AB10A0700000200100CD0A	PVQ45-B2R-SE1F-20-CM7D-12
02-348842	PVE19AL04AA10A30000001001AMCD0A	PVE19-B2L-STS13F-41-C21-12
02-348843	PVE19AR08AC10B211100A1AA100CD0A	PVE19-B2R-A9-SFS2F-41-C21VP11B-13
02-348844	PVE19AR05AC10D01000001AA100CD0A	PVE19-B2R-A9-SFS9F-41-CG-30
02-348851	PVQ40AR01AB10B051100J100100CD0A	PVQ40-B2R-SE1F-20-C05V11B-13
02-348855	PVQ40AL05AA10B211100A100100CD0A	PVQ40-B2L-SS3F-20-C21V11B-13
02-348858	PVE21AR13AP63B23220001001AC0K5A	PVE21-B2R-MTE9AF-41-C20VPC22P-13-386
02-348859	PVE19AR05AA10A21000001AB100CD0A	PVE19-B2R-A11-STS9F-41-C21-12
02-348861	PVQ40AR02AA10C21000001AA100CD0A	PVQ40-B2R-A9-SS2F-20-CD21-21
02-348867	PVE19AL08AA20A160000F100100CD0A	PVE19-B2L-STS2F-41-C15-12-010
02-348868	PVE21AL04AA10D0100000100100CD0A	PVE21-B2R-STS13F-41-CG-30
02-348869	PVE19AL08AA10B142400A100100CD1A	PVE19-B2L-STS2F-41-C14VPC24B-13-225
02-348874	PVE21AR08AB20B301600A100100CD0A	PVE21-B2R-STE2F-41-C19VP15B-13-149
02-348875	PVE21AR08AY10B35160001AA1AYCD0A	PVE21-B2R-A9-MFS2F-41-C16VP15P-13-310
02-348880	PVE19AR04AD21B37110001001ASCD0A	PVE19-B2R-SFE13F-41-C14VP11P-13-253
02-348897	PVQ40AL05AA10B2111000100100CD0A	PVQ40-B2L-SS3F-20-C21V11P-13
02-348899	PVQ40AR02AA10D0100000200100CD0A	PVQ40-B2R-SS2F-20-CGD-30
02-348905	PVE19AR02AA10F2100000200100CD0A	PVE19-B2R-STS1F-41-CD21D-21
02-348906	PVQ40AL05AB10B1624000100100CD0A	PVQ40-B2L-SE3F-20-C16VPC24P-12
02-348913	PVQ40AR05AA10B211100A1AA100CD0A	PVQ40-B2R-A9-SS3F-20-C21V11B-13
02-348914	PVQ40AL05AA10A2100000100100CD0A	PVQ40-B2L-SS3F-20-C21-12
02-348915	PVQ40AR05AA10B211100A100100CD0A	PVQ40-B2R-SS3F-20-C21V11B-13
02-348922	PVE21AR12AM62B16210001001AC0K5A	PVE21-B2R-MFE2AF-41-C16VPC21P-13-307
02-348933	PVQ45AR02AC10A18000001AA100CD0A	PVQ45-B2R-A9-FS2S-20-C19-12
02-348943	PVQ40AR01AA10A2100000200100CD0A	PVQ40-B2R-SS1F-20-C21D-12
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02-348955	PVQ45AR01AB10D0100000100100CD0A	PVQ45-B2R-SE1F-20-CG-30
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02-348962	PVE19AL05AB10B1624000100100CD0A	PVE19-B2L-STE9F-41-C16VPC24P-13
02-348966	PVE21AL05AN92B322500A1000000B2A	PVE21-B2L-MFE9N-41-C20VPC25B-13-364
02-348992	PVQ40AR02AA10B2124000100100CD0A	PVQ40-B2R-SS2F-20-C21VC24P-13
02-348996	PVE19AL05AB10B214100A1001AGCD0A	PVE19-B2L-STE9F-41-C21VPD41B-13-255
02-348997	PVE19AR08AA10D01000001AE100CD0A	PVE19-B2R-B26-STS2F-41-CG-30
02-348998	PVE19AR05AA10D01000001AA100CD0A	PVE19-B2R-A9-STS9F-41-CG-30
02-465503	PVE19AR02AJ10A120000D5001AGCD0A	PVE19-B2R-STE1F-41-C12D-12-374
02-465504	PVQ40AR10AA10A2100000200100CD0A	PVQ40-MBR-SSNF-20-C21D-12
02-465505	PVE19AR07AA10B121100A1AE1AKCD7A	PVE19-B2R-B26-STS33F-41-C12VP11B-13-203

02-465506	PVE19AR07AA10B121100A1AE100CD0A	PVE19-B2R-B26-STS33F-41-C12VP11B-13
02-465507	PVE19AL07AA10B121100A1AE1AKCD7A	PVE19-B2L-B26-STS33F-41-C12VP11B-13-203
02-465508	PVE19AR09AA10B191100A100100CD0A	PVE19-B2R-STS28F-41-C19VP11B-13
02-465514	PVQ45AR10AB10A1900000100100CD0A	PVQ45-MBR-SENF-20-C19-12
02-465515	PVQ40AR01AB30A2100000100100CD0A	PVQ40-B2R-SE1F-20-C21-12-S2
02-465516	PVQ40AR05AA10A07000001AE100CD0A	PVQ40-B2R-B26-SS3F-20-CM7-12
02-465518	PVE19AR05AA10B17280001001AJCD0A	PVE19-B2R-STS9F-41-C17VPC28P-13-357
02-465519	PVE19AR05AA10B17140003001AJCD0A	PVE19-B2R-STS9F-41-C17VP14P-13-375
02-465529	PVE19AL08AA10B212400A100100CD0A	PVE19-B2L-STS2F-41-C21VPC24B-13
02-465541	PVE19AR08AB10A2100000200100CD0A	PVE19-B2R-STE2F-41-C21D-12
02-465676	PVE19AL09AA10B191100A100100CD0A	PVE19-B2L-STS28F-41-C19VP11B-13
02-465677	PVE19AL07AA10B121100A1AE100CD0A	PVE19-B2L-B26-STS33F-41-C12VP11B-13
02-466005	PVQ45AR05AA10B181100A100100CD0A	PVQ45-B2R-SS3F-20-C19V11B-13
02-466006	PVQ45AR02AA10B192400A100100CD0A	PVQ45-B2R-SS2F-20-C19VC24B-13
02-466012	PVE21AR08AAA0B351600A1AG100CD0A	PVE21G-B2R-STS2F-41-C17VP15B-13-204
02-466014	PVE21AR12AN62B23300001001AC0K5A	PVE21-B2R-MFE2AF-41-C20VPC30P-13-400
02-466015	PVE21AR12AN62B23300001001AC005A	PVE21-B2R-MFE2AF-41-C20VPC30P-13-401
02-466020	PVE21AR05AB10B1911000100100CD0A	PVE21-B2R-STE9F-41-C19VP11P-13
02-466021	PVQ40AR08AA10D01000001AA100CD0A	PVQ40-B2R-A9-SS4F-20-CG-30
02-466022	PVQ40AR01AB10C2100000200100CD0A	PVQ40-B2R-SE1F-20-CD21D-21
02-466023	PVE19AR08AA10A21000001AA1APCD0A	PVQ40-B2R-A9-SS4F-20-C21-12
02-466028	PVQ40AR08AA10B211100A1AA100CD0A	PVQ40-B2R-A9-SS4F-20-C21V11B-13
02-466032	PVQ45AR02AA10D01000001AE100CD0A	PVQ45-B2R-B26-SS2F-20-CG-30
02-466036	PVQ45AR05AA10A07000001AE100CD0A	PVQ45-B2R-B26-SS3F-20-CM7-12
02-466041	PVQ40AR08AA10A07000001AA100CD0A	PVQ40-B2R-A9-SS4F-20-CM7-12
02-466048	PVE21AR05AA20A1800000100100CD0A	PVE21-B2R-STS9F-41-C19-12-382
02-466050	PVE19AR08AA10A2100000200100CD0A	PVE19-B2R-STS2F-41-C21D-12
02-466051	PVQ45AR02AA10D01000001AA100CD0A	PVQ45-B2R-A9-SS2F-20-CG-30
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02-466053	PVE19AR01AA10A140000E100100CD0A	PVE19-B2R-STS16F-41-C14-12-061
02-466060	PVE19AR02AA20B21300001AE100CD0A	PVE19-B2R-B26-STS1F-41-C21VPC30P-13-338
02-466061	PVE19AR09AA20B2130000100100CD0A	PVE19-B2R-STS28F-41-C21VPC30P-13-338
02-466067	PVQ40AL05AA10C2100000100100CD0A	PVQ40-B2L-SS3F-20-CD21-21
02-466072	PVE19AR08AA10B212400A100100CD0A	PVE19-B2R-STS2F-41-C21VPC24B-13
02-466073	PVE19AR01AA10B172400A2001AGCD0A	PVE19-B2R-STS16F-41-C17VPC24BD-13-255
02-466074	PVE21AL05AA10B1720000100100CD0A	PVE21-B2L-STS9F-41-C17VPC21P-13
02-466080	PVQ45AR05AA10D0100000100100CD0A	PVQ45-B2R-SS3F-20-CG-30
02-466095	PVQ45AR02AA10B1911000100100CD0A	PVQ45-B2R-SS2F-20-C19V11P-13
02-466096	PVQ40AR02AA10B2111000100100CD0A	PVQ40-B2R-SS2F-20-C21V11P-13
02-466107	PVQ45AL02AA10B111100A100100CD0A	PVQ45-B2L-A9-SS2F-20-C11V11B-13
02-466111	PVQ40AR08AA10A07000001AE100CD0A	PVQ40-B2R-B26-SS4F-20-CM7-12
02-466112	PVQ45AR02AB10A1800000200100CD0A	PVQ45-B2R-SE2F-20-C19D-12
02-466116	PVQ40AR05AA10D21000001AA100CD0A	PVQ40-B2R-A9-SS3F-20-CG-30
02-466119	PVE21AR12AM62B16210001001AC0B5A	PVE21-B2R-MFE2AF-41-C15VPC21P-13-307
02-466124	PVE19AL08AB10B2124000100100CD0A	PVE19-B2L-STE2F-41-C21VPC24P-13
02-466126	PVE19AR05AB10B212400A100100CD0A	PVE19-B2R-STE9F-41-C21VPC24B-13-CD
02-466127	PVE19AR02AA10A21000001AA100CD0A	PVE19-B2R-A9-STS1F-41-C21-12
02-466128	PVQ40AR10AE60A0700000200100CD0A	PVQ40-MBR-MSNF-20-CM7D-12
02-466141	PVE19AR05AA10B2124000100100CD0A	PVE19-B2R-STS9F-41-C21VPC24P-13
02-466143	PVQ45AR02AA10A0700000100100CD0A	PVQ45-B2R-SS2F-20-CM1-12
02-466196	PVE19AL05AA20B21300001AE100CD0A	PVE19-B2L-B26-STS9F-41-C21VPC30P-13-338

02-466197	PVE19AL09AA20B2130000100100CD0A	PVE19-B2L-STS28F-41-C21VPC30P-13-338
02-466205	PVE19AL08AA20A300000F100100CD0A	PVE19-B2L-STS2F-41-C19-12-300
02-466233	PVQ45AR08AC10A18000001AA100CD0A	PVQ45-B2R-A9-FS4F-20-C19-12
02-466240	PVE21AR12AN62B16300001001AC0K5A	PVE21-B2R-MFE2AF-41-C15VPC30P-13-400
02-466241	PVE19AL05AA20B21210001AE100CD0A	PVE19-B2L-B26-STS9F-41-C21VPC21P-13-338
02-466242	PVE19AL09AA20B2124000100100CD0A	PVE19-B2L-STS28F-41-C21VPC24P-13-338
02-466244	PVE19AR05AA10B17140007001AJCD9A	PVE19-B2R-STS9F-41-C17VPC14P-13-356
02-466249	PVE19AR08AA10B212400A1AB100CD0A	PVE19-B2L-A11-STS2F-41-C21VPC24B-13
02-466251	PVQ45AL01AB10C1800000100100CD0A	PVQ45-B2L-SE1F-20-CD19-12
02-466255	PVQ40AR05AB30D0300000100100CD0A	PVQ40-B2R-SE3F-20-CG-30-S2
02-466256	PVQ40AL01AA10A2100000100100CD0A	PVQ40-B2L-SS1F-20-C21-12
02-466257	PVE19AL08AB10B212400A600100CD0A	PVE19-B2L-STE2F-41-C21VPC24B-13-266
02-466279	PVE19AR02AA10A21000002001BBCD0A	PVE19-B2R-STS1F-41-C21D-12-304
02-466282	PVQ45AR08AA10A18000001AE100CD0A	PVQ45-B2R-B26-SS4F-20-C19-12
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02-466284	PVQ45AR05AA10A07000001AA100CD0A	PVQ40-B2R-A9-SS3F-20-CM7-12
02-466287	PVQ45AR08AA10A07000001AA100CD0A	PVQ45-B2R-A9-SS4F-20-CM7-12
02-466288	PVQ45AR01AB30D190000C100100CD0A	PVQ45-B2R-SE1F-20-CG-30-S30
02-466290	PVQ45AR02AA10B181100A1AA100CD0A	PVQ45-B2R-A9-SS2F-20-C19V11B-13
02-466291	PVE19AR01AA10A2100000200100CD0A	PVE19-B2R-STS16F-41-C21D-12
02-466292	PVQ40AL05AB10A2100000200100CD0A	PVQ40-B2L-SE3F-20-C21D-12
02-466297	PVE19AR09AA10B121100A100100CD0A	PVE19-B2R-STS28F-41-C12VP11B-13-237
02-466298	PVE19AR09AA10B121100A1001AWCD7A	PVE19-B2R-STS28F-41-C12VP11B-13-203
02-466299	PVE19AR07AA10B141100A1AE100CD0A	PVE19-B2R-B26-STS33F-41-C14VP11B-13-228
02-466300	PVE19AR07AA10B141100A1AE1AVCD7A	PVE19-B2R-B26-STS33F-41-C14VP11B-13-203
02-466302	PVE012L01AUB0A17000001003APCD9A	PVQ25-B2L-SE1S-20-C17-12-S37
02-466304	PVE21AR08AA10B1811000100100CD0A	PVE21-B2R-STS2F-41-C19VP11P-13
02-466320	PVQ40AR05AA10D0100000100400CD0A	PVQ40-B2R-SS3S-20-CG-30-S38
02-466321	PVQ40AR02AA30D0100000100100CD0A	PVQ40-B2R-SS2F-20-CG-30-S2
02-466351	PVE19AR05AB10B211100A100100CD0A	PVE19-B2R-STE9F-41-C21VP11B-13
02-466355	PVE19AL05AA10A21000001AE100000A	PVE19-B2L-B26-STS9F-41-C21-12
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02-466365	PVQ45AR05AG40A0700000100100CD0A	PVQ45-B2R-SS3F-20-CM7-12-CD-S3
02-466366	PVQ40AL01AA10B2111000100100CD0A	PVQ40-B2L-SS1F-20-C21V11P-13-CD
02-466368	PVQ40AR01AA10B211100A100100CD0A	PVQ40-B2R-SS1F-20-C21V11B-13-CD
02-466369	PVE19AL01AA30A070000G1001AP000A	PVQ40-B2L-SS1F-20-C07-12-00-S26
02-466378	PVE21AR05AA20B251100A1AE100CD0A	PVE21-B2R-B26-STS9F-41-C15VP11B-13-CD
02-466380	PVQ45AR02AC10B181100A1AA100CD0A	PVQ45-B2R-A9-FS2F-20-C19V11B-13-CD
02-466381	PVQ45AR02AA10B181100A100100CD0A	PVQ45-B2R-SS2F-20-C19V11B-13-CD
02-466382	PVQ45AR02AC30A07000001AA100CD0A	PVQ45-B2R-A9-FS2F-20-CM7-12-CD-S2
02-466387	PVE19AR05AB10B2124000100100CD0A	PVE19-B2R-STE9F-41-C21VPC24P-13-CD
02-466391	PVE19AR20AB10A1400000100100CD0A	PVE19-B2R-STE24F-41-C14-12-CD
02-466397	PVE19AL08AC10A21000001AA1APCD0A	PVQ40-B2L-A9-FS4F-20-C21-12-CD
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02-466439	PVE19AR01AA10B292600A800100CD0A	PVE19-B2R-STS16F-41-C16VPC26B-13-CD-157
02-466442	PVE19AL17AA10B2224000100100CC3A	PVE19-B2L-STS31F-41-C22VPC24P-13-CC-186
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411AK00085A	PVE21AR05AA10B341100A1001AGCD0A	NONE
411AK00086A	PVE19AR02AA20B213000A1AE100CD0A	NONE
411AK00087A	PVE19AR09AA20B213000A100100CD0A	NONE
411AK00088A	PVQ45AR02AA30D01000001AA100CD0A	NONE
411AK00089A	PVE19AR08AA10H211100A1AE1AGCD0A	NONE
411AK00090A	PVE19AR08AA10H211100A1001AGCD0A	NONE
411AK00091A	PVE19AL08AA10H211100A1AE1AGCD0A	NONE
411AK00092A	PVE19AL08AA10H211100A1001AGCD0A	NONE
411AK00093A	PVE19AR02AA20B21210001AE100CDKA	NONE
411AK00094A	PVE19AR09AA20B2124000100100CDKA	NONE
411AK00095A	PVE012R05AUB0A39000004001AF0B0A	NONE
411AK00096A	PVE19AL08AA10A21000001AE100CD0A	NONE
411AK00097A	PVE19AL05AA10B211100A800100CD0A	NONE
411AK00098A	PVQ40AL01AB10A2100000200100CD0A	NONE
411AK00099A	PVQ40AR02AA10A07000001AB100CD0A	NONE
411AK00100A	PVQ45AR02AA10B091100J100100CD0A	NONE
411AK00101A	PVE21AR02AJ10A120000D2001AG0PHA	NONE
411AK00102A	PVQ40AR01AB10D0100000200100CD0A	NONE
411AK00103A	PVE21AL08AA10B34250001001000B2A	NONE
411AK00104A	PVQ40AR02AA30B21240001AE100CD0A	NONE
411AK00105A	PVE19AR08AA10H18110006AE100CD0A	NONE
411AK00106A	PVQ40AR02AC10D010000C7AA100CD0A	NONE

411AK00107A	PVQ40AL01AB10B211100A100100CD0A	NONE
411AK00108A	PVQ40AL01AA10B211100A100100CD0A	NONE
411AK00109A	PVE19AR05AA10A21000001AA100CD0A	NONE
411AK00110A	PVE19AR08AA10B211100A200100CD0A	NONE
411AK00111A	PVE21AR08AA10B18110001AB100CD0A	NONE
411AK00112A	PVE012L01AUB0B21240001001AGCD0A	NONE
411AK00113A	PVE19AR09AA10D0100000200100CD0A	NONE
411AK00114A	PVE19AR08AA10D01000008AE100CD0A	NONE
411AK00115A	PVE21AR08AK10B351600A1AA1AY0BAA	NONE
411AK00116A	PVE21AR08AK10B331600A1AA1AY0BAA	NONE
411AK00117A	PVE19AL08AA10B211100A1AB100CD0A	NONE
411AK00118A	PVE21AL08AP90B3225000100000CD2A	NONE
411AK00119A	PVQ40AR01AA30D0100000100100CD0A	NONE
411AK00120A	PVE19AL01AA10B21110001001AGCD0A	NONE
411AK00121A	PVE19AL05AA10_3300000100100CD9A	NONE
411AK00122A	PVE012L05AUB0B211100A1001000B0A	NONE
411AK00123A	PVE19AR02AA10D0100000100100CD0A	NONE
411AK00124A	PVE21AL05AA10B1824000100100CD0A	NONE
411AK00125A	PVE19AL05AY10_330000_800100CD0A	NONE
411AK00126A	PVE19AR08AA10_330000_1AE100CD0A	NONE
411AK00127A	PVE19AR08AA10_330000_100100CD0A	NONE
411AK00128A	PVE21AL08AA10B1824000100100CD0A	NONE
411AK00129A	PVQ40AR01AB30D0100000200100CD0A	NONE

ENGINEERING STANDARD ESP-022 SEC. 139.1 REV
AA

07/23/02 SERIES PVE012-PVQ25A PUMP - MODEL NUMBER SYSTEM
MOBILE & INDUSTRIAL APPLICATIONS

DOCUMENT BASED ON ANSI Y14.5M-1982
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS [INCHES]
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE REFERENCE

IN ALL OCCURRENCES OF A "0" (ZERO) IN THE MODEL CODE IT IS A NUMERICAL ZERO
THE LETTER "O" IS NOT USED AS A CODE
LETTER

EXAMPLE MODEL CODE: **PV E012 R1 1AA 1 0 B 11 24 00 A 1 AA 1 AF CD 0 A**

Pos	Feature	Code	Description
-----	-----	----	-----
1,2	CODE TITLE	PV	OPEN CIRCUIT PISTON PUMP
3,4,5,6	DISPLACEMENT	E012	25.2 cm ³ /r [1.54 in ³ /r]
		Q25A	25.2 cm ³ /r [1.54 in ³ /r]
7	INPUT SHAFT ROTATION	L	LEFT-HAND ROTATION (CCW)
		R	RIGHT-HAND ROTATION (CW)
8,9	FRONT MOUNTING & INPUT SHAFT	1	2 BOLT B (SAE J744-101-2) WITH 22.2 [.88] DIA STRAIGHT KEY SHAFT (SAE J744-22-1) (KEY INCLUDED)
		2	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA STRAIGHT KEY SHAFT (SAE J744-25-1) (KEY INCLUDED)
		3	2 BOLT B (SAE J744-101-2) WITH 22.2 [.88] DIA TAPERED KEY SHAFT (SAE J744-22-3) (KEY INCLUDED)
		4	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA TAPERED KEY SHAFT (SAE J744-25-3) (KEY INCLUDED) AND .750-16 UNF-2A EXTERNAL THREAD 26.9 [1.06] LONG
		5	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 41.1 [1.62] LONG SPLINED SHAFT (ANS B92.1-1970)
		6	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 53.9 [2.12] LONG SPLINED SHAFT (ANSI B92.1a-1976)
		7	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 101.6 [4.00] LONG SPLINED SHAFT (ANS B92.1-1970)
		8	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT (ANS B92.1-1970)
		9	2 BOLT B (SAE J744-101-2) WITH 26T 32/64DP SPLINED SHAFT (ASA B5.15-1960)
		10	2 BOLT VDMA A WITH 25.0 [.984] DIA STRAIGHT KEY SHAFT - SHORT SPIGOT (KEY INCLUDED)(N)
		11	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT WITH 2 RETAINING RING GROOVES (ANS B92.1-1970)

- 12 2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP
SPLINED SHAFT (SPECIAL) (ANS B92.1-1970)
- 13 2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP
41.1 [1.62] LONG SPLINED SHAFT (SPECIAL)
(ANS B92.1-1970)
- 14 2 BOLT B (SAE J744-101-2) WITH 19T 24/48DP
SPLINED SHAFT (ANS B92.1-1970)

Pos	Feature	Code	Description
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8,9	FRONT MOUNTING & INPUT SHAFT	15	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 41.1 [1.62] LONG SPLINED SHAFT (MAJOR DIA FIT) (ASA B5.15-1960)
		16	2 BOLT B (SAE J744-101-2) WITH 19.0 [.75] DIA TAPERED SHAFT (NO KEY) .750-16 UNF-2A THREAD AND 3.94 [.155] DIA CROSSHOLE
		17	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP 51.1 [2.01] LONG SPLINED SHAFT (ANS B92.1- 1970)
		18	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP 86.4 [3.40] LONG SPLINED SHAFT (ANS B92.1- 1970)
		19	2 BOLT B (SAE J744-101-2) WITH 41T 48/96DP SPLINED SHAFT (ANSI B92.1a-1976)
		20	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 58.9 [2.32] LONG SPLINED SHAFT WITH 2 RETAINING RING GROOVES (ANS B92.1-1970)
		21	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT (ANS B92.1-1970) w/ M12 X 1.75 INTERNAL THREAD 25 [.984] DEEP
		22	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA TAPERED KEY SHAFT (SAE J744-25-3) (KEY INCLUDED) AND .375-24 UNF-2B INTERNAL THREAD 19.0 [.75] DEEP
10,11	MAIN PORTS LOCATION & SIZE	AJ	END PORTS; SUCTION - 1.625-12 UN-2B SAE O- RING PORT; PRESSURE - 1.3125-12 UN-2B SAE O-RING PORT
		AU	END PORTS; SUCTION - 1.625-12 UN-2B SAE O- RING PORT; PRESSURE - 1.0625-12 UN-2B SAE O-RING PORT
		AV	END PORTS; SUCTION - M42 X 2 METRIC O-RING PORT ; PRESSURE - M27 X 2 METRIC O-RING

		PORT	
12	DRAIN PORT SIZE & LOCATION	4	G 1/2 BSP STRAIGHT THREAD PORT - TOP (D1); BOTTOM PLUGGED (D2)
		5	G 1/2 BSP STRAIGHT THREAD PORT - BOTTOM (D2); TOP PLUGGED (D1)
		6	M18 X 1.5 METRIC O-RING PORT - TOP (D1); BOTTOM PLUGGED (D2)
		7	M18 X 1.5 METRIC O-RING PORT - BOTTOM (D2); TOP PLUGGED (D1)
		8	M18 X 1.5 METRIC O-RING PORT - TOP, FRONT (VERTICAL MOUNT); TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
		9	M18 X 1.5 METRIC O-RING PORT - TOP (D1)
Pos	Feature	Code	Description
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			PLUGGED & BOTTOM (D2) PLUGGED
		B	.750-16 UNF-2B SAE O-RING PORT - TOP (D1); BOTTOM PLUGGED (D2)
		C	.750-16 UNF-2B SAE O-RING PORT - BOTTOM (D2); TOP PLUGGED (D1)
		D	.750-16 UNF-2B SAE O-RING PORT - TOP, FRONT (VERTICAL MOUNT); TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
		E	.750-16 UNF-2B SAE O-RING PORT - TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
13	DIAGNOSTIC PRESSURE PORT	0	NO DIAGNOSTIC PRESSURE PORT
14	CONTROLLER TYPE	A	PRESSURE COMPENSATOR
		B	PRESSURE AND FLOW COMPENSATOR
		C	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITH DIRECTIONAL CONTROL VALVE - 110/120 VOLT AC w/ FLYING LEADS
		D	HYDRAULIC REMOTE CONTROL PRESSURE COMPENSATOR
		E	UNLOADING VALVE
		F	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITHOUT DIRECTIONAL CONTROL VALVE
		G	ADJUSTABLE PRESSURE COMPENSATOR (012 ONLY)
		H	ADJUSTABLE PRESSURE AND FLOW COMPENSATOR

			(012 ONLY)
		J	ADJUSTABLE HYDRAULIC REMOTE CONTROL PRESSURE COMPENSATOR (012ONLY)
		K	CFD CONTROL - 12 VOLT DC w/ DIN CONNECTOR
		L	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITH DIRECTIONAL CONTROL VALVE - 24 VOLT DC w/ DIN CONNECTOR
		M	CFD CONTROL - 12 VOLT DC w/ MALE WEATHER PACK CONNECTOR
15,16	PRESSURE COMP./ UNLOADING VALVE SETTING	0	NO PRESSURE COMPENSATOR SETTING
		1	20.68-27.58 bar [300-400 lbf/in2]
		2	22.41-25.86 bar [325-375 lbf/in2]
		3	22.75-25.51 bar [330-370 lbf/in2]
		4	31.03-37.92 bar [450-550 lbf/in2]
		5	46.54-53.43 bar [675-775 lbf/in2]
		6	56.54-63.43 bar [820-920 lbf/in2]
		7	65.50-72.39 bar [950-1050 lbf/in2]
		8	82.74-89.63 bar [1200-1300 lbf/in2]
Pos	Feature	Code	Description
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15,16	PRESSURE COMP./ UNLOADING VALVE SETTING	9	96.53-103.4 bar [1400-1500 lbf/in2]
		10	100.0-106.9 bar [1450-1550 lbf/in2]
		11	106.9-113.8 bar [1550-1650 lbf/in2]
		12	117.2-124.1 bar [1700-1800 lbf/in2]
		13	125.8-132.7 bar [1825-1925 lbf/in2]
		14	134.4-141.3 bar [1950-2050 lbf/in2]
		15	141.3-148.2 bar [2050-2150 lbf/in2]
		16	151.7-158.6 bar [2200-2300 lbf/in2]
		17	168.9-175.8 bar [2450-2550 lbf/in2]
		18	182.7-189.6 bar [2650-2750 lbf/in2]
		19	189.6-196.5 bar [2750-2850 lbf/in2]
		20	196.5-203.4 bar [2850-2950 lbf/in2]
		21	203.4-210.3 bar [2950-3050 lbf/in2]
		22	217.2-224.1 bar [3150-3250 lbf/in2]
		23	199.5-206.4 bar [2893-2993 lbf/in2]
		24	175.8-182.7 bar [2550-2650 lbf/in2]
		25	146.5-153.4 bar [2125-2225 lbf/in2]

26	79.29-86.18 bar [1150-1250 lbf/in2]
27	193.1-199.9 bar [2800-2900 lbf/in2]
28	91.36-98.25 bar [1325-1425 lbf/in2]
29	158.6-165.5 bar [2300-2400 lbf/in2]
30	186.2-193.1 bar [2700-2800 lbf/in2]
31	237.9-244.8 bar [3450-3550 lbf/in2]
32	199.9-206.8 bar [2900-3000 lbf/in2]
33	206.8-213.7 bar [3000-3100 lbf/in2]
34	165.5-172.4 bar [2400-2500 lbf/in2]
35	162.0-168.9 bar [2350-2450 lbf/in2]
36	103.4-110.3 bar [1500-1600 lbf/in2]
37	131.0-137.9 bar [1900-2000 lbf/in2]
38	179.3-193.1 bar [2600-2700 lbf/in2]
39	172.4-179.3 bar [2500-2600 lbf/in2]
40	155.1-162.0 bar [2250-2350 lbf/in2]
41	120.7-127.6 bar [1750-1850 lbf/in2]
42	148.2-155.1 bar [2150-2250 lbf/in2]
43	137.9-144.8 bar [2000-2100 lbf/in2]
44	222.4-229.3 bar [3225-3325 lbf/in2]
45	136.6-143.4 bar [1980-2080 lbf/in2]
46	227.5-231.0 bar [3300-3350 lbf/in2]

17,18 FLOW COMP. SETTING OR
UNLOAD VLV STANDBY

0	NO FLOW COMPENSATOR SETTING
11	9.65-12.41 bar [140-180 lbf/in2]
14	12.41-15.17 bar [180-220 lbf/in2]
15	13.10-15.86 bar [190-230 lbf/in2]
16	13.79-16.55 bar [200-240 lbf/in2]

Pos	Feature	Code	Description
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17,18	FLOW COMP. SETTING OR UNLOAD VLV STANDBY	17	15.86-18.62 bar [230-270 lbf/in2]
		20	17.24-19.99 bar [250-290 lbf/in2]
		21	19.31-22.06 bar [280-320 lbf/in2]
		22	20.68-23.44 bar [300-340 lbf/in2]
		23	23.10-25.17 bar [335-365 lbf/in2]
		24	22.75-25.51 bar [330-370 lbf/in2]
		25	23.44-26.89 bar [340-390 lbf/in2]
		26	24.48-27.23 bar [355-395 lbf/in2]
		28	26.20-28.96 bar [380-420 lbf/in2]
		30	28.27-31.72 bar [410-460 lbf/in2]
		35	32.75-36.20 bar [475-525 lbf/in2]

		36	34.47-37.23 bar [500-540 lbf/in ²]
		39	37.23-39.99 bar [540-580 lbf/in ²]
		41	39.99-42.75 bar [580-620 lbf/in ²]
19,20	SECONDARY COMPENSATOR SETTING	0	NO SECONDARY COMPENSATOR SETTING
		4	186.2-193.1 bar [2700-2800 lbf/in ²]
21	CONTROL SPECIAL FEATURES	0	NO SPECIAL FEATURES
		A	BLEED DOWN ORIFICE
		B	EXTERNAL LOAD SENSING ADJUSTMENT
		C	SPECIAL DAMPENING SPOOL
		D	SPECIAL ADJUSTMENT PLUG
		E	SPECIAL ADJUSTMENT PLUG, SPOOL & BODY; LOCKWASHERS UNDER COMPENSATOR BOLTS
		F	SPECIAL PRESSURE SPOOL & BODY
		G	HIGH RATE SPRING FOR LOW PRESSURE SETTING
		H	SPECIAL PRESSURE SPOOL & BODY; LOCKWASHERS UNDER COMPENSATOR BOLTS; NOT LOCKWIRED
		J	BLEED DOWN ORIFICE & HIGH RATE SPRING FOR LOW PRESSURE SETTING
22	MAXIMUM DISPLACEMENT OPTION	1	STANDARD DISPLACEMENT
		2	ADJUSTABLE MAXIMUM DISPLACEMENT (SET AT MAXIMUM)
		4	DISPLACEMENT LIMITED TO 20.4 cm ³ /r [1.25 in ³ /r]
		5	ADJUSTABLE MAXIMUM DISPLACEMENT (SET AT 35.9-39.7 L/min [9.5-10.5 gal/min])
23,24	AUXILIARY MOUNTING & OUTPUT SHAFT	0	NO AUXILIARY MOUNTING OR OUTPUT SHAFT
Pos	Feature	Code	Description
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25	SHAFT SEALS	0	NO SHAFT SEAL
		1	STANDARD SHAFT SEAL (NITRILE)
		2	(NOT AVAILABLE)
		3	FLUOROCARBON SHAFT SEAL
		4	HNBR SHAFT SEAL (MAY BE USED WITH WATER-

		5	GLYCOL FLUIDS) (NOT AVAILABLE)
26,27	SPECIAL FEATURES	0	NO SPECIAL FEATURES
		AA	AUXILIARY MOUNTING COVER PLATE
		AB	HOUSING WITH RIB REMOVED
		AC	PLATED FASTENERS
		AD	SPECIAL VALVE PLATE NO.1 & PLATED FASTENERS
		AF	CAST IRON HOUSING
		AG	Q1830 VALVE PLATE
		AH	UPRATED TRUNNION BEARINGS
		AJ	AIR BLEED IN CONTROL PISTON SIDE OF TRUNNION COVER
		AL	SPECIAL VALVE PLATE NO.2
		AM	NUT ON SHAFT
		AN	SPECIAL VALVE PLATE NO.1, CAST IRON HOUSING & PLATED FASTENERS
		AP	Q1830 VALVE PLATE & CAST IRON HOUSING
		AR	Q1830 VALVE PLATE, NO CASE TO INLET CHECK VALVE & LOW PROFILE TRUNNION COVERS
		AS	Q1830 VALVE PLATE & SELF LOCKING NUT ON SHAFT
		AT	REPOSITIONING MANIFOLD COMPENSATOR MOUNTING & UPRATED TRUNNION BEARINGS
		AU	Q1830 VALVE PLATE & SLOW ON STROKE TIME
		AY	Q1830 VALVE PLATE & UPRATED TRUNNION BEARINGS
		AZ	SPECIAL VALVE PLATE NO.3
		BB	MINIMUM FLOW STOP
		BC	LOW PROFILE FASTENERS
		BE	PUMP TO BE TESTED AT 1800 r/min
28,29	PAINT	0	NO PAINT
		CD	BLUE PRIMER
Pos	Feature	Code	Description
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30	CUSTOMER & UNIT IDENTIFICATION	0	NONE - MARK ASSEMBLY NUMBER, COMPLETE MODEL CODE AND BUILD DATE CODE ON PLATE
31	DESIGN CODE	A	FIRST DESIGN

ENGINEERING STANDARD ESP-022 SEC. 140.1
REV AC

07/23/02 SERIES PVE19A/21A-PVQ40A/45A PUMP - MODEL NUMBER SYSTEM
MOBILE & INDUSTRIAL
APPLICATIONS

DOCUMENT BASED ON ANSI Y14.5M-
1982

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS [INCHES]
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE REFERENCE

IN ALL OCCURRENCES OF A "0" (ZERO) IN THE MODEL CODE IT IS A NUMERICAL ZERO
THE LETTER "O" IS NOT USED AS A CODE
LETTER

EXAMPLE MODEL CODE: **PV E19A R1 1AA 1 0 B 11 24 00 A 1 AA 1 AF CD 0 A**

Pos	Feature	Code	Description
-----	-----	----	-----
1,2	CODE TITLE	PV	OPEN CIRCUIT PISTON PUMP
3,4,5,6	DISPLACEMENT	E19A	41.0 cm ³ /r [2.50 in ³ /r]
		E21A	45.1 cm ³ /r [2.75 in ³ /r]
		Q40A	41.0 cm ³ /r [2.50 in ³ /r]
		Q45A	45.1 cm ³ /r [2.75 in ³ /r]
7	INPUT SHAFT ROTATION	L	LEFT-HAND ROTATION (CCW)
		R	RIGHT-HAND ROTATION (CW)
8,9	FRONT MOUNTING & INPUT SHAFT	1	2 BOLT B (SAE J744-101-2) WITH 22.2 [.88] DIA STRAIGHT KEY SHAFT (SAE J744-22-1) (KEY INCLUDED)
		2	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA STRAIGHT KEY SHAFT (SAE J744-25-1) (KEY INCLUDED)
		3	2 BOLT B (SAE J744-101-2) WITH 22.2 [.88] DIA TAPERED KEY SHAFT (SAE J744-22-3) (KEY INCLUDED)
		4	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA TAPERED KEY SHAFT (SAE J744-25-3) (KEY INCLUDED) AND .750-16 UNF-2A EXTERNAL THREAD 26.9 [1.06] LONG
		5	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 41.1 [1.62] LONG SPLINED SHAFT (ANS B92.1- 1970)

- 6 2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP
53.9 [2.12] LONG SPLINED SHAFT (ANSI
B92.1a-1976)
- 7 2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP
101.6 [4.00] LONG SPLINED SHAFT (ANS B92.1
-1970)
- 8 2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP
SPLINED SHAFT (ANS B92.1-1970)
- 9 2 BOLT B (SAE J744-101-2) WITH 26T 32/64DP
SPLINED SHAFT (ASA B5.15-1960)

Pos	Feature	Code	Description
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		10	2 BOLT VDMA A WITH 25.0 [.984] DIA STRAIGHT KEY SHAFT - SHORT SPIGOT (KEY INCLUDED)(N)
		11	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT WITH 2 RETAINING RING GROOVES (ANS B92.1-1970)
		12	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT (SPECIAL) (ANS B92.1-1970)
		13	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 41.1 [1.62] LONG SPLINED SHAFT (SPECIAL) (ANS B92.1-1970)
8,9	FRONT MOUNTING & INPUT SHAFT	14	2 BOLT B (SAE J744-101-2) WITH 19T 24/48DP SPLINED SHAFT (ANS B92.1-1970)
		15	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 41.1 [1.62] LONG SPLINED SHAFT (MAJOR DIA FIT) (ASA B5.15-1960)
		16	2 BOLT B (SAE J744-101-2) WITH 19.0 [.75] DIA TAPERED SHAFT (NO KEY) .750-16 UNF-2A THREAD AND 3.94 [.155] DIA CROSSHOLE
		17	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP 51.1 [2.01] LONG SPLINED SHAFT (ANS B92.1- 1970)
		18	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP 86.4 [3.40] LONG SPLINED SHAFT (ANS B92.1- 1970)
		19	2 BOLT B (SAE J744-101-2) WITH 41T 48/96DP SPLINED SHAFT (ANSI B92.1a-1976)
		20	2 BOLT B (SAE J744-101-2) WITH 13T 16/32DP 58.9 [2.32] LONG SPLINED SHAFT WITH 2 RETAINING RING GROOVES (ANS B92.1-1970)
		21	2 BOLT B (SAE J744-101-2) WITH 15T 16/32DP SPLINED SHAFT (ANS B92.1-1970) w/ M12 X 1.75 INTERNAL THREAD 25 [.984] DEEP

		22	2 BOLT B (SAE J744-101-2) WITH 25.4 [1.00] DIA TAPERED KEY SHAFT (SAE J744-25-3) (KEY INCLUDED) AND .375-24 UNF-2B INTERNAL THREAD 19.0 [.75] DEEP
10,11	MAIN PORTS LOCATION & SIZE	AA	SIDE PORTS; SUCTION - 1.875-12 UN-2B SAE O-RING PORT; PRESSURE - 1.3125-12 UN-2B SAE O-RING PORT
		AB	END PORTS; SUCTION - 1.875-12 UN-2B SAE O-RING PORT; PRESSURE - 1.3125-12 UN-2B SAE O-RING PORT
		AC	SIDE PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61); PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES
Pos	Feature	Code	Description
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		AD	(CODE 61) END PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61); PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61)
		AE	SIDE PORTS; SUCTION - M48 X 2 METRIC O-RING PORT ; PRESSURE - M33 X 2 METRIC O-RING PORT
		AF	END PORTS; SUCTION - M48 X 2 METRIC O-RING PORT ; PRESSURE - M33 X 2 METRIC O-RING PORT
		AG	SIDE PORTS; SUCTION - G 1 1/2 BSP STRAIGHT THREAD PORT ; PRESSURE - G 1 BSP STRAIGHT THREAD PORT
		AH	END PORTS; SUCTION - G 1 1/2 BSP STRAIGHT THREAD PORT ; PRESSURE - G 1 BSP STRAIGHT THREAD PORT
		AJ	END PORTS; SUCTION - 1.625-12 UN-2B SAE O-RING PORT; PRESSURE - 1.3125-12 UN-2B SAE O-RING PORT (FOR FULL FLOW SUPERCHARGE)
		AK	SIDE PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M14 X 2 THREADS; PRESSURE -

	1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M10 X 1.5 THREADS
AL	END PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M14 X 2 THREADS; PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M10 X 1.5 THREADS
AM	END PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M12 X 1.75 THREADS; PRESSURE - M27 X 2 METRIC O-RING PORT
AN	END PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M12 X 1.75 THREADS; PRESSURE - M33 X 2 METRIC O-RING PORT
AP	END PORTS; SUCTION - M42 X 2 METRIC O-RING PORT ; PRESSURE - M33 X 2 METRIC O-RING PORT (FOR FULL FLOW SUPERCHARGE)
AR	END PORTS, LONG; SUCTION - 1.875-12 UN-2B SAE O-RING PORT; PRESSURE - 1.3125-12 UN- 2B SAE O-RING PORT
AS	END PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES

Pos	Feature
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Code	Description
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	(CODE 61) WITH M12 X 1.75 THREADS; PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M10 X 1.5 THREADS
AT	END PORTS; SUCTION - SHORT, 1.500 SAE 4- BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61); PRESSURE - 1.000 SAE 4- BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61)
AW	END PORTS; SUCTION - SHORT, 1.500 SAE 4- BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M12 X 1.75 THREADS; PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M10 X 1.5 THREADS

		AY	SIDE PORTS; SUCTION - 1.500 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M12 X 1.75 THREADS; PRESSURE - 1.000 SAE 4-BOLT SPLIT FLANGE PORT STANDARD PRESSURE SERIES (CODE 61) WITH M10 X 1.5 THREADS
12	DRAIN PORT SIZE & LOCATION	1	.875-14 UNF-2B SAE O-RING PORT - TOP (D1); BOTTOM PLUGGED (D2)
		2	.875-14 UNF-2B SAE O-RING PORT - BOTTOM (D2); TOP PLUGGED (D1)
		3	.875-14 UNF-2B SAE O-RING PORT - TOP, FRONT (VERTICAL MOUNT); TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
		4	G 1/2 BSP STRAIGHT THREAD PORT - TOP (D1); BOTTOM PLUGGED (D2)
		5	G 1/2 BSP STRAIGHT THREAD PORT - BOTTOM (D2); TOP PLUGGED (D1)
		6	M18 X 1.5 METRIC O-RING PORT - TOP (D1); BOTTOM PLUGGED (D2)
		7	M18 X 1.5 METRIC O-RING PORT - BOTTOM (D2); TOP PLUGGED (D1)
		8	M18 X 1.5 METRIC O-RING PORT - TOP, FRONT (VERTICAL MOUNT); TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
		9	M18 X 1.5 METRIC O-RING PORT - TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
		A	.875-14 UNF-2B SAE O-RING PORT - TOP (D1) PLUGGED & BOTTOM (D2) PLUGGED
13	DIAGNOSTIC PRESSURE PORT	0	NO DIAGNOSTIC PRESSURE PORT
		1	.4375-20 UNF-2B SAE O-RING PORT - PLUGGED
		2	M14 X 1.5 METRIC O-RING PORT - PLUGGED
Pos	Feature	Code	Description
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		3	M14 X 1.5 METRIC O-RING PORT
14	CONTROLLER TYPE	A	PRESSURE COMPENSATOR
		B	PRESSURE AND FLOW COMPENSATOR
		C	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITH DIRECTIONAL CONTROL VALVE - 110/120 VOLT AC w/ FLYING LEADS
		D	HYDRAULIC REMOTE CONTROL PRESSURE

			COMPENSATOR
		E	UNLOADING VALVE
		F	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITHOUT DIRECTIONAL CONTROL VALVE
		G	ADJUSTABLE PRESSURE COMPENSATOR (190 & 210 ONLY)
		H	ADJUSTABLE PRESSURE AND FLOW COMPENSATOR (190 & 210 ONLY)
		J	ADJUSTABLE HYDRAULIC REMOTE CONTROL PRESSURE COMPENSATOR (190 & 210 ONLY)
		K	CFD CONTROL - 12 VOLT DC w/ DIN CONNECTOR
		L	ELECTRIC DUAL RANGE PRESSURE COMPENSATOR WITH DIRECTIONAL CONTROL VALVE - 24 VOLT DC w/ DIN CONNECTOR
		M	CFD CONTROL - 12 VOLT DC w/ MALE WEATHER PACK CONNECTOR
15,16	PRESSURE COMP./ UNLOADING VALVE SETTING	0	NO PRESSURE COMPENSATOR SETTING
		1	20.68-27.58 bar [300-400 lbf/in ²]
		2	22.41-25.86 bar [325-375 lbf/in ²]
		3	22.75-25.51 bar [330-370 lbf/in ²]
		4	31.03-37.92 bar [450-550 lbf/in ²]
		5	46.54-53.43 bar [675-775 lbf/in ²]
		6	56.54-63.43 bar [820-920 lbf/in ²]
		7	65.50-72.39 bar [950-1050 lbf/in ²]
		8	82.74-89.63 bar [1200-1300 lbf/in ²]
		9	96.53-103.4 bar [1400-1500 lbf/in ²]
		10	100.0-106.9 bar [1450-1550 lbf/in ²]
		11	106.9-113.8 bar [1550-1650 lbf/in ²]
		12	117.2-124.1 bar [1700-1800 lbf/in ²]
		13	125.8-132.7 bar [1825-1925 lbf/in ²]
		14	134.4-141.3 bar [1950-2050 lbf/in ²]
		15	141.3-148.2 bar [2050-2150 lbf/in ²]
		16	151.7-158.6 bar [2200-2300 lbf/in ²]
		17	168.9-175.8 bar [2450-2550 lbf/in ²]
		18	182.7-189.6 bar [2650-2750 lbf/in ²]
		19	189.6-196.5 bar [2750-2850 lbf/in ²]
		20	196.5-203.4 bar [2850-2950 lbf/in ²]
		21	203.4-210.3 bar [2950-3050 lbf/in ²]

Pos	Feature	Code	Description
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15,16 PRESSURE COMP./
UNLOADING VALVE
SETTING

22	217.2-224.1 bar [3150-3250 lbf/in2]
23	199.5-206.4 bar [2893-2993 lbf/in2]
24	175.8-182.7 bar [2550-2650 lbf/in2]
25	146.5-153.4 bar [2125-2225 lbf/in2]
26	79.29-86.18 bar [1150-1250 lbf/in2]
27	193.1-199.9 bar [2800-2900 lbf/in2]
28	91.36-98.25 bar [1325-1425 lbf/in2]
29	158.6-165.5 bar [2300-2400 lbf/in2]
30	186.2-193.1 bar [2700-2800 lbf/in2]
31	237.9-244.8 bar [3450-3550 lbf/in2]
32	199.9-206.8 bar [2900-3000 lbf/in2]
33	206.8-213.7 bar [3000-3100 lbf/in2]
34	165.5-172.4 bar [2400-2500 lbf/in2]
35	162.0-168.9 bar [2350-2450 lbf/in2]
36	103.4-110.3 bar [1500-1600 lbf/in2]
37	131.0-137.9 bar [1900-2000 lbf/in2]
38	179.3-193.1 bar [2600-2700 lbf/in2]
39	172.4-179.3 bar [2500-2600 lbf/in2]
40	155.1-162.0 bar [2250-2350 lbf/in2]
41	120.7-127.6 bar [1750-1850 lbf/in2]
42	148.2-155.1 bar [2150-2250 lbf/in2]
43	137.9-144.8 bar [2000-2100 lbf/in2]
44	222.4-229.3 bar [3225-3325 lbf/in2]
45	136.6-143.4 bar [1980-2080 lbf/in2]
46	227.5-231.0 bar [3300-3350 lbf/in2]

17,18 FLOW COMP. SETTING OR
UNLOAD VLV STANDBY

0	NO FLOW COMPENSATOR SETTING
11	9.65-12.41 bar [140-180 lbf/in2]
14	12.41-15.17 bar [180-220 lbf/in2]
15	13.10-15.86 bar [190-230 lbf/in2]
16	13.79-16.55 bar [200-240 lbf/in2]
17	15.86-18.62 bar [230-270 lbf/in2]
20	17.24-19.99 bar [250-290 lbf/in2]
21	19.31-22.06 bar [280-320 lbf/in2]
22	20.68-23.44 bar [300-340 lbf/in2]
23	23.10-25.17 bar [335-365 lbf/in2]
24	22.75-25.51 bar [330-370 lbf/in2]
25	23.44-26.89 bar [340-390 lbf/in2]
26	24.48-27.23 bar [355-395 lbf/in2]
28	26.20-28.96 bar [380-420 lbf/in2]
30	28.27-31.72 bar [410-460 lbf/in2]
35	32.75-36.20 bar [475-525 lbf/in2]
36	34.47-37.23 bar [500-540 lbf/in2]
39	37.23-39.99 bar [540-580 lbf/in2]
41	39.99-42.75 bar [580-620 lbf/in2]

19,20	SECONDARY COMPENSATOR SETTING	0	NO SECONDARY COMPENSATOR SETTING
Pos	Feature	Code	Description
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19,20	SECONDARY COMPENSATOR SETTING	4	186.2-193.1 bar [2700-2800 lbf/in ²]
21	CONTROL SPECIAL FEATURES	0	NO SPECIAL FEATURES
		A	BLEED DOWN ORIFICE
		B	EXTERNAL LOAD SENSING ADJUSTMENT
		C	SPECIAL DAMPENING SPOOL
		D	SPECIAL ADJUSTMENT PLUG
		E	SPECIAL ADJUSTMENT PLUG, SPOOL & BODY; LOCKWASHERS UNDER COMPENSATOR BOLTS
		F	SPECIAL PRESSURE SPOOL & BODY
		G	HIGH RATE SPRING FOR LOW PRESSURE SETTING
		H	SPECIAL PRESSURE SPOOL & BODY; LOCKWASHERS
		J	UNDER COMPENSATOR BOLTS; NOT LOCKWIRED BLEED DOWN ORIFICE & HIGH RATE SPRING FOR LOW PRESSURE SETTING
22	MAXIMUM DISPLACEMENT OPTION	1	STANDARD DISPLACEMENT
		2	ADJUSTABLE MAXIMUM DISPLACEMENT (SET AT MAXIMUM)
		3	DISPLACEMENT LIMITED TO 37.4 cm ³ /r [2.28 in ³ /r]
		4	DISPLACEMENT LIMITED TO 20.4 cm ³ /r [1.25 in ³ /r]
		5	ADJUSTABLE MAXIMUM DISPLACEMENT (SET AT 35.9-39.7 L/min [9.5-10.5 gal/min])
		6	DISPLACEMENT LIMITED TO 34.4 cm ³ /r [2.10 in ³ /r]
		7	DISPLACEMENT LIMITED TO 28.0 cm ³ /r [1.71 in ³ /r]
		8	DISPLACEMENT LIMITED TO 31.1 cm ³ /r [1.90 in ³ /r]
23,24	AUXILIARY MOUNTING & OUTPUT SHAFT	0	NO AUXILIARY MOUNTING OR OUTPUT SHAFT
		AA	2 BOLT A (SAE J744-82-2) W/ 9T 16/32DP EXTERNAL SPLINED SHAFT (ASA B5.15-1960)

AB	2 BOLT A (SAE J744-82-2) W/ 11T 16/32DP EXTERNAL SPLINED SHAFT (ASA B92.1-1970)
AC	2 BOLT B (SAE J744-101-2) W/ 13T 16/32DP INTERNAL SPLINED COUPLING (ANS B92.1-1976)
AD	2 BOLT B (SAE J744-101-2) W/ 15T 16/32DP INTERNAL SPLINED COUPLING (ASA B5.15-1960)
AE	2 BOLT B (SAE J744-101-2) W/ 26T 32/64DP EXTERNAL SPLINED SHAFT (ASA B5.15-1960)

Pos	Feature	Code	Description
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23,24	AUXILIARY MOUNTING & OUTPUT SHAFT	AF	2 BOLT G5 W/ 16T 24/48 DP EXTERNAL SPLINED SHAFT (ANS B92.1-1970)
		AG	2 BOLT G5 W/ 1.25 X 14T EXTERNAL SPLINED SHAFT (DIN 5480)
		AH	2 BOLT A (SAE J744-82-2) W/ 9T 16/32DP INTERNAL SPLINED COUPLING (ASA B5.15-1960)
		AJ	2 BOLT A (SAE J744-82-2) W/ 11T 16/32DP INTERNAL SPLINED COUPLING (ASA B92.1-1970)
		AK	2 BOLT B (SAE J744-101-2) W/ 26T 32/64DP INTERNAL SPLINED COUPLING (ASA B5.15-1960)
		AL	2 BOLT G5 W/ 16T 24/48 DP INTERNAL SPLINED COUPLING (ANS B92.1-1970)
25	SHAFT SEALS	0	NO SHAFT SEAL
		1	STANDARD SHAFT SEAL (FLUOROCARBON)
		2	(NOT AVAILABLE)
		3	NITRILE SHAFT SEAL (NOT AVAILABLE)
		4	HNBR SHAFT SEAL (MAY BE USED WITH WATER- GLYCOL FLUIDS)
		5	(NOT AVAILABLE)
26,27	SPECIAL FEATURES	0	NO SPECIAL FEATURES
		AA	AUXILIARY MOUNTING COVER PLATE
		AB	HOUSING WITH RIB REMOVED
		AC	PLATED FASTENERS
		AD	SPECIAL VALVE PLATE NO.1 & PLATED FASTENERS
		AE	90 DEGREE ELBOW FITTING IN SUCTION PORT
		AF	CAST IRON HOUSING
		AG	Q1830 VALVE PLATE
		AH	UPRATED TRUNNION BEARINGS
		AJ	AIR BLEED IN CONTROL PISTON SIDE OF TRUNNION COVER
		AK	CONSTANT FLOW ADAPTOR SET AT 30.2 L/min [8 gal/min] WITH HOSE POSITION TOWARD REAR OF PUMP

AL	SPECIAL VALVE PLATE NO.2
AM	NUT ON SHAFT
AN	SPECIAL VALVE PLATE NO.1, CAST IRON HOUSING & PLATED FASTENERS
AP	Q1830 VALVE PLATE & CAST IRON HOUSING
AR	Q1830 VALVE PLATE, NO CASE TO INLET CHECK VALVE & LOW PROFILE TRUNNION COVERS
AS	Q1830 VALVE PLATE & SELF LOCKING NUT ON SHAFT
AT	REPOSITIONING MANIFOLD COMPENSATOR MOUNTING & UPRATED TRUNNION BEARINGS

Pos	Feature	Code	Description
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26,27	SPECIAL FEATURES	AU	Q1830 VALVE PLATE & SLOW ON STROKE TIME
		AV	CONSTANT FLOW ADAPTOR SET AT 26.5 L/min [7 gal/min] WITH HOSE POSITION TOWARD REAR OF PUMP
		AW	CONSTANT FLOW ADAPTOR SET AT 22.7 L/min [6 gal/min] WITH HOSE POSITION TOWARD REAR OF PUMP
		AY	Q1830 VALVE PLATE & UPRATED TRUNNION BEARINGS
		AZ	SPECIAL VALVE PLATE NO.3
		BA	WITHOUT AUXILIARY MOUNTING FLANGE O-RING
		BB	MINIMUM FLOW STOP
		BC	LOW PROFILE FASTENERS
		BD	CONSTANT FLOW ADAPTOR SET AT 22.7 L/min [6 gal/min] WITH HOSE POSITION TOWARD FRONT OF PUMP
		BE	PUMP TO BE TESTED AT 1800 r/min
28,29	PAINT	0	NO PAINT
		CD	BLUE PRIMER
30	CUSTOMER & UNIT IDENTIFICATION	0	NONE - MARK ASSEMBLY NUMBER, COMPLETE MODEL CODE AND BUILD DATE CODE ON PLATE
31	DESIGN CODE	A	FIRST DESIGN

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