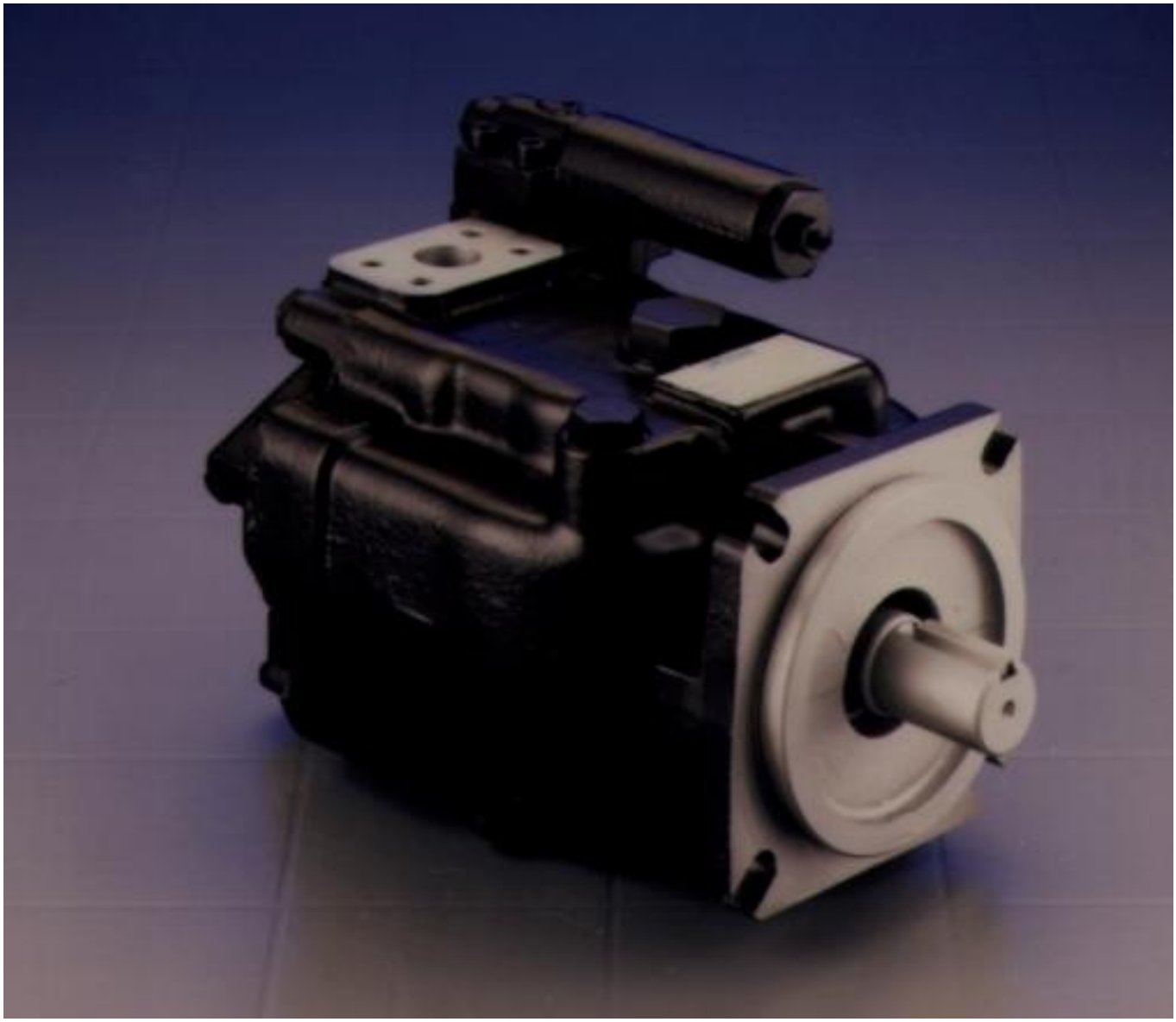
Overhaul Manual

Vickers®

Piston Pumps

PVH Piston Pumps

Including Controls

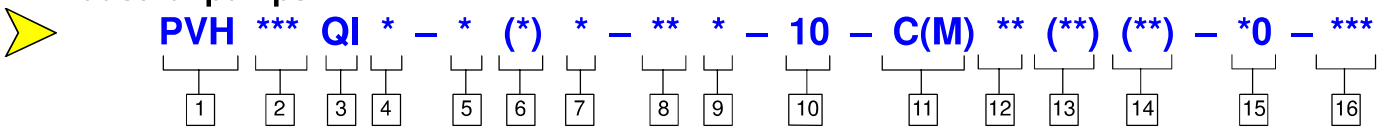


VICKERS
Rev. 2/93

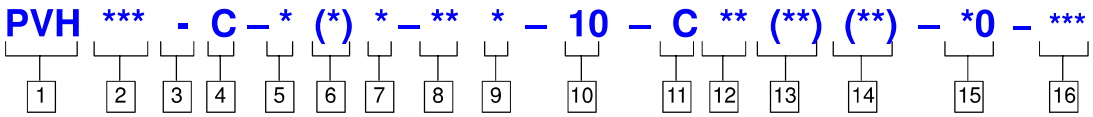
M–2210–S

Model Code

Industrial pumps



Mobile pumps



1 Piston pump, variable displacement

2 Maximum geometric displacement

57 = 57.4 cm^3/r (3.5 in^3/r)
74 = 73.7 cm^3/r (4.5 in^3/r)
98 = 98.3 cm^3/r (6.0 in^3/r)
131 = 131.1 cm^3/r (8.0 in^3/r)

3 Industrial version

4 Mounting flange, prime mover end

C = SAE "C" 4–bolt type (SAE J744-127-4)
M = ISO 3019/2–125B4HW (Option for PVH57QI and PVH/74QI only)

5 Shaft rotation, viewed at prime mover end

R = Right hand, clockwise (Standard on QI models)
L = Left hand, counterclockwise (Optional on QI models)

6 Configuration

Blank = Non-thru-drive (single pump)
A = Thru-drive pump with SAE "A" 2-bolt rear flange mounting (SAE J744-82-2)
B = Thru- drive pump with SAE "B" 2- and 4-bolt rear flange mountings♦ (SAE J744-101-2/4)
C = Thru-drive pump with SAE "C" 2- and 4-bolt rear flange mountings♦(SAE J744-127-2/4)
S = Adjustable maximum volume stop (non-thru-drive and non-torque-control pumps only)

7 Main ports

F = SAE 4-bolt flange pads (standard)
M = SAE 4-bolt pads with metric mounting bolt threads (PVH57 & PVH74 only)

8 Shaft-end type, at prime mover end

N =	ISO 3014/2-E32N	Short straight keyed
1 =	SAE "C" (J744-32-1)	Straight keyed
2 =	SAE "C"▪ (J744-32-4)	Splined 14 tooth 12/24 D.P.
3 =	SAE "CC" (J744-38-4)	Splined 17 tooth 12/24 D.P.
12 =	SAE "D" (J744-44-4)	Splined 13 tooth 8/16 D.P.
13 =	SAE "C (J744-38-1)	Straight keyed
16 =	SAE "D" (J744-44-1)	Straight keyed

9 Shaft seal, prime mover end

S = Single, one-way (standard)
D = Double, two-way (optional) Recommended on second pump of tandem assembly (PVH**/ PVH**)

10 Pump design number

10 (Subject to change. Installation dimensions unaltered for design numbers 10 to 19 inclusive.)

11 Pressure compensator adjustment range

C = 70-250 bar (1015-3625 psi) (standard)
CM = 40-130 bar ((580-1885 psi) (optional QI version)
IC = Industrial control
UV = Unloading valve control for accumulator circuits

♦ Built from pump with SAE "A" rear pad to which suitable flange adapter is bolted. For best availability and flexibility, order PVH SAE "A" thru-drive pump and SAE "B" or "C" adapter kit separately.

12 Pressure compensator factory setting in tens of bar

25 = Normal factory setting of 250 bar for "C" models.
7 = Normal factory setting of 70 bar for "CM" models.

13 Additional control functions

Blank = No additional controls
V = Load sensing, 20 bar differential pressure setting
T = Torque limiter
VT = Load sensing and torque limiter

14 Torque limiter factory setting

** = Customer desired torque limiter setting specified in ten bar (145 psi) increments, e.g.:
8 = 80 bar (1160 psi);
18 = 180 bar (2610 psi).
The torque setting range is from 30–80% of the specified compensator setting.

15 Control design number

31 = C, CM, or C**V controls.
13 = C**T controls
14 = C**VT controls
10 = UV and IC controls

16 Special features suffix

027= Composite 2-bolt/4-bolt mounting conforming to SAE "C" (except PVH131)
031= Thru-drive SAE "A" pad cover
041= No case-to-inlet relief (for use with supercharged circuits)
057= Shaft-up operation (vertical mount)

▪ Torque restrictions apply to #2 shaft in PVH74 and 98 thru-drive, and PVH131 single and thru-drive, pumps. Vickers is not responsible for misapplied usage of these shafts. Please contact a Vickers representative for review of your application.