



STANDARD EQUIPMENT

No	Description	Qty	Type
1	MAIN VALVE HYTROL-DELUGE AE/GE	1	100G/2100G*
2A	3-WAY SOLENOID VALVE (NO)	1	311-D
2B	3-WAY SOLENOID VALVE (NC)	1	311-C
3	AUXILIARY VALVE HYTROL	1	100-KHR
4	RESTRICTION ASSEMBLY	1	X58
5	EMERGENCY MANUAL OPERATOR WITH WARNING LABEL	1	CMD-12
6	PRESSURE REDUCING CONTROL	1	CRD

OPTIONAL FEATURES

No	Description	Qty	Type
A	FLOW CLEAN STRAINER	1	X46A
B1	ISOLATION BALL VALVE	1	RB-117
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
G1	CHECK VALVE	1	81-01
S	ONE-WAY FLOW CONTROL (OPENING SPEED)	1	CV
Y	STRAINER	1	X43

NOTES

AE/GE : DN 80 - DN 400

* Main Valve 100G/2100G on DN 80 - 100 - 150 - 200 - 250 & 300
100G/KX 2100G/KX on DN 400

OPTIONAL FEATURES : _____
NOT FURNISHED BY CLA-VAL : _____



► Operating data

1.1 ► SOLENOID CONTROL FEATURE

Solenoid control (2A) or (2B) is direct acting, 3-way solenoid control that changes position when the coil is energized or de-energized. This applies or relieves pressure in the cover chamber of auxiliary valve (3) providing the operations shown in the following table:

134E-83			
Solenoid (2A)		Auxiliary valve (3)	Main valve (1)
State	Ports connected	Position	Position
Energized	1 - 2	Open	Open under command of control (6)
De-energized	0 - 1	Closed	Closed

134D-83			
Solenoid (2B)		Auxiliary valve (3)	Main valve (1)
State	Ports connected	Position	Position
Energized	2 - 1	Closed	Closed
De-energized	1 - 0	Open	Open under command of control (6)

Note: Solenoid control (2) may be equipped with a manual actuator which can be used to operate the solenoid without electrical power. After manual actuation, always return the actuator to its original position or the solenoid will not return to the de-energized position.

1.2 REMOTE HYDRAULIC CONTROL / EMERGENCY OPENING ON SITE

Open emergency manual operator (5) to by-pass the action of the solenoid valve (2A) or (2B). The main valve (1) opens fully.

Note: Emergency manual operator (5) must be closed during normal operation.

1.3 ► PRESSURE REDUCING FEATURE

Pressure reducing control (6) is a normally open control that senses main valve outlet pressure changes. An increase in outlet pressure tends to close control (6) and a decrease in outlet pressure tends to open control (6). This causes main valve cover pressure to vary and the main valve (1) modulates (opens and closes) maintaining a relatively constant outlet pressure.

Pressure reducing control (6) adjustment: Turn the adjusting screw clockwise to increase the setting.

1.4 ► OPTIONAL FEATURES

No (A) - self-cleaning strainer:

The self-cleaning strainer CLA-VAL, type (A) is at the inlet of the main valve (1) screwed. The assembly of the self-cleaning strainer (A) removes the assembly of an external filter.

The check of the self-cleaning strainer (A) is requesting its removal from the main valve body (1).

No (B1) - Isolation ball valve:



CLA-VAL 134E/D-83

Electrically Actuated Hydraulic Deluge Valve with Manual Bypass and Downstream Pressure Control

Isolation ball valve (**B1**) is used to isolate the pilot system from main line pressure. These isolation ball valves must be open during normal operation.

No (**C**) - Closing speed:

Flow control (**C**) controls the closing speed of the main valve (**1**).

Flow control (C) adjustment: Turn the adjusting screw clockwise to make the main valve (**1**) close slower.

No (**G1**) - Check valve feature:

When cover pressure is higher than inlet pressure, check valve (**G1**) closes. This maintains the higher pressure in the main valve cover chamber keeping the main valve (**1**) closed.

No (**S**) - Opening speed control:

Flow control (**S**) controls the opening speed of the main valve (**1**).

Flow control (S) adjustment: Turn the adjusting screw clockwise to make the main valve (**1**) open slower.

No (**Y**) - Strainer:

A strainer (**Y**) is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer (**Y**) screen must be cleaned periodically.

1.5 ▶ CHECK LIST FOR PROPER OPERATION

- System valves open upstream and downstream.
- Air removed from the main valve cover and pilot system at all high points.
- Emergency manual operator (**5**) closed.
- Isolation ball valve (**B1**) open during normal operation.
- Correct voltage to solenoid control (**2A**) or (**2B**).
- Manual operator of solenoid control (**2A**) or (**2B**) disengaged.
- Periodical checking of the self-cleaning strainer [optional feature (**A**)].
- Periodical cleaning of the filter screen [optional feature (**Y**)].
- Flow controls [optional feature (**C**) and (**S**)] open at least 1 turn.