



TEREX®

Manual of use and maintenance
SW45 TF

machinecatalogic.com

Translation of the original manual

Winch code: **82 45 13 12 2I**
Manual code: **M96 – REV08**

Edition: **12/2013**

rev0 del 01/10/2012



Third generation closed center load sensing is here...today

The time has arrived when you can move up to higher levels of vehicle performance by incorporating the Vickers CMX load sensing controls in your next design. It's no longer necessary to demand that the machine operator demonstrate outstanding skills to obtain maximum performance.

By incorporating advanced state-of-the-art valve element concepts, the CMX provides "velvet smooth" controllability of the raw brute force available from your hydraulic system. No other system offers the flexibility to easily tailor individual function control to your exact needs!

Today's load sensing systems will dramatically reduce the overall power requirements of your machine's hydraulic system by eliminating unnecessary losses when multiple unequal loads are operated simultaneously.

However, care must be taken to insure proper phasing to avoid unnecessary power waste in unequal displacement functions such as typical cylinder applications. Competitive systems require careful and lengthy spool development to match each operating section to its specific functional load requirements. Since each spool must be matched to its individual function, service support is costly.

The CMX family has been designed from the first line on the computer screen with your needs in mind. Thanks to its modular element construction, it can be easily tailored to your exact specifications. Prototype system development and debugging is reduced to a matter of days rather than the traditional weeks or months necessary with competitive designs. On-site service is a breeze. Service and production support inventory is dramatically reduced.

And best of all, it's available today in all the popular basic and optional configurations, just the way you want it. Hydraulic or electrohydraulic controls, mid-inlets, and mixed flow arrangements are just a few of the almost endless features available.

This application guide has been developed to assist in selection of the features desired to meet your system requirements. Additional assistance with your CMX valve requirements is as near as your local Vickers distributor. With Vickers EZSpec CMX Program, which incorporates the use of *pre-engineered* components, he can quickly design, price, assemble, test, and ship valve banks that satisfy the requirements of most applications.

Consult your Vickers sales representative if special features – beyond those shown in the following pages – are desired.

HRC2-S2 to -S8 Models and HRC2-LV2 to -LV8 Models

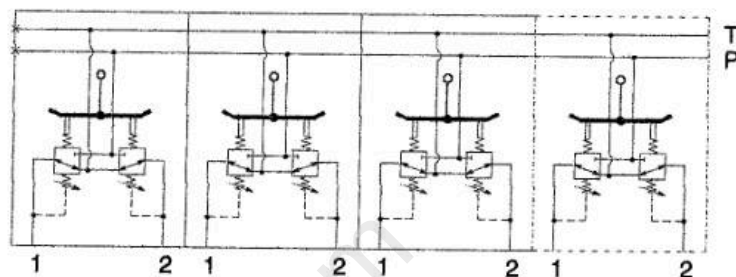
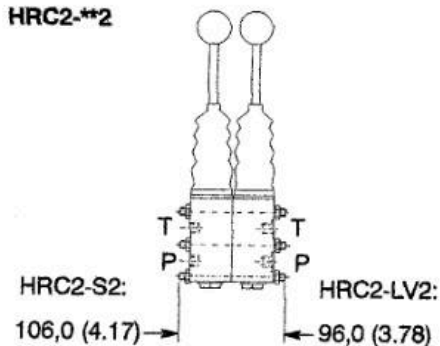
See previous two pages for details of single sections, HRC2-S1 and HRC2-LV1.

Functional Symbol

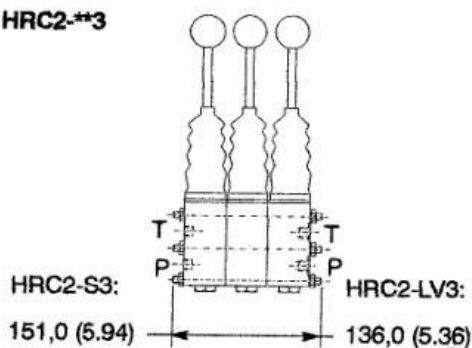
Two control ports per section, single-function

Four section example, i.e. HRC2-S4

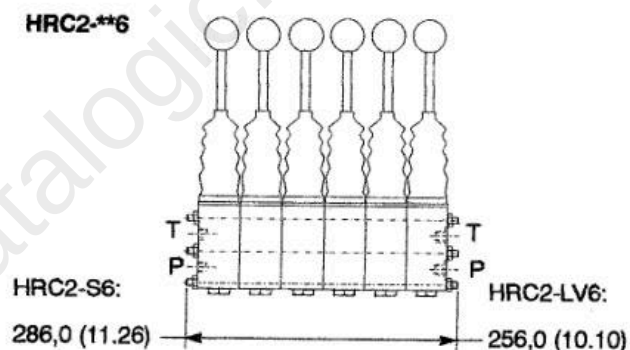
HRC2-2**



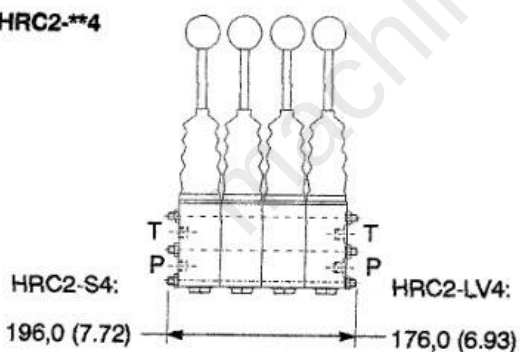
HRC2-3**



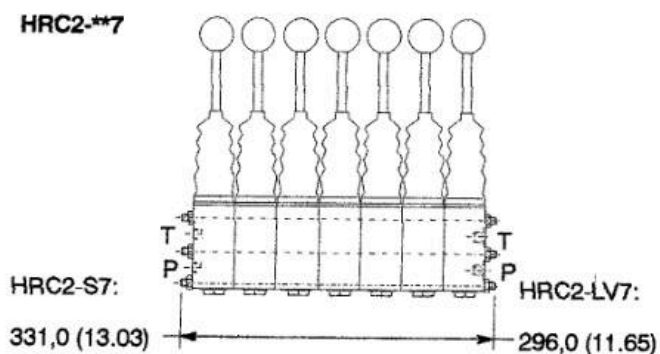
HRC2-6**



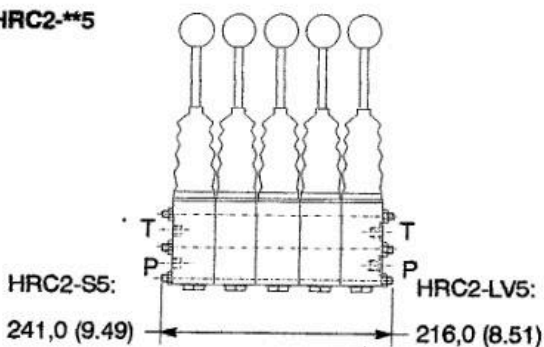
HRC2-4**



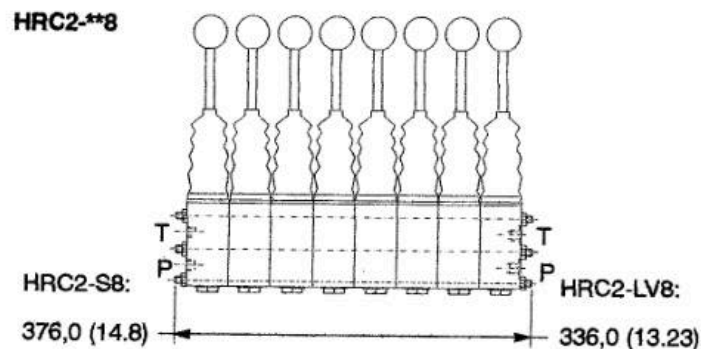
HRC2-7**



HRC2-5**



HRC2-8**



Possible Sources of Trouble	Suggested Remedy
1. O-ring cut	Replace O-ring lubricating with petrolatum or fluid to be sealed. Use thimble, Figure 6, to protect ring. Inspect for burr.
2. O-ring pinched on assembly into port	Inspect roughness of port sealing surface. Repair or replace part if finish exceeds 100 micro. Lubricate O-ring before assembly.
3. Sealing surfaces of port or fitting are scratched or gouged	Repair if possible, otherwise replace.
4. Sealing surfaces of port or fitting are dirty	Clean and lubricate before reassembly of parts.
5. Port spotface is too small. Nut or washer hangs up on spot-face shoulder	Enlarge spotface so fitting can seat properly, or replace faulty part.
6. O-ring edges nibbled because pressure is lifting fitting	Check pressure relief valve setting. Increase seating torque on fitting.

Table III. Straight Thread Leakage Analysis

Tube Fittings

Three Broad Groups

A wide variety of tube fittings is found in hydraulic installations. They all fall into three broad groups: flared, flareless, and welded or brazed. None is a universal fitting. Each is designed to do a specific job. In making a choice of fittings, effectiveness for the job is measured against cost.

Flared fittings are generally less expensive and more readily available in a wider variety of sizes and materials than any other type. Some bite-type flareless are recommended over flared fittings where vibration fatigue failures have been a problem. But flareless are very sensitive to proper assembly torque. They are prone to leak if over or under torqued. In normal service, both flared and flareless are equally effective. Welded fittings meet the most severe requirements of high pressures, temperature and severe mechanical load, and cost the most.

Flared Fittings

A typical three-piece flared fitting – body, nut and sleeve – is shown in Figure 9. The metal-to-metal seal occurs when the softer tubing is pressed against the hardened, conical seat area of the connector body. As the nut is tightened, the sleeve is pushed against the tube. The sleeve absorbs the twisting friction of the nut, transferring only axial forces against the flared tube. This eliminates tube twisting found with two-piece fittings.

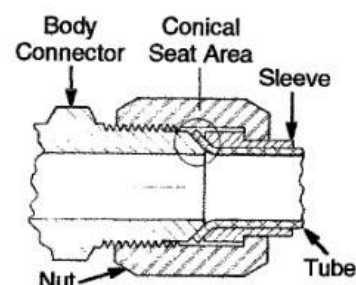


Figure 9. Three-Piece Flared Fitting

The 37° Flare (SAE J514)

The standard flange angle for hydraulic tubing is 37° from the center line, Figure 10. Most tube end flares are made by hand or power tools which swage the tube end over a split die. Flares made in this manner tend to have a ridge of metal extruded from the outer surface at the parting line of the die. This ridge will provide a leak path unless cleaned up. Common fabrication errors are to make the flare too broad or too narrow. See Figures 10 and 11.

Full Version Available

Franna SW45 TF Winch Use and Maintenance Manual

Franna SW45 TF winch use and maintenance manual, with service intervals, lubrication and inspections. 115-page English PDF. Instant PDF download.

VIEW THE FULL MANUAL

<https://machinecatalogic.com/franna-sw45-tf-winch-use-and-maintenance-manual/>

Book No: M96 ? REV08 · File Pages: 115 · File Count: 1 · File Language: English