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HWRC HYDRAULIC CUTTER



OPERATING INSTRUCTIONS AND GENERAL SAFETY INFORMATION

OPERATING INSTRUCTIONS

Check that all products in the system have the same load capacities and pressure ratings. <u>NOTE</u>: All Hi-Force Hydraulic Cutters have a maximum working pressure of 10,000 psi (700 bar).

Make hydraulic hose connections, checking the couplings are clean and are hand tight only when connected.

The Cutter unit is now set up for use.

<u>WARNING</u>: Check the system is operating correctly by advancing and retracting the piston at least twice. In case of unsatisfactory operation please consult your supplier for advice.

Load the material to be cut into the cutter unit by opening the locking latch. Place the material into the jaw aperture and close the locking latch, making sure it has located behind the latch stop.

<u>SAFETY WARNING</u>: It is important to be at least 6 metres away from the cutting area wearing, a protective face visor, glasses, gloves and clothing.

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<u>WARNING</u>: Do not stand in line with material being cut, it could be ejected at speed. Guard exposed material ends if possible.

Cutting the material can now start, watching carefully that the cutter is operating correctly. <u>WARNING</u>: If the blade becomes struck or breaks under pressure, stop the cut immediately and release the pressure in the system. In case of cutting difficulties please consult your supplier for advice.

After the cutting operation has been completed all cut material must be removed before the process can be repeated.

When all cutting operations have been completed it is important to fully retract the piston, regrease the cutting blade and replace dust caps on hydraulic couplers to prolong equipment performance.

<u>WARNING</u>: It is important to read the following general safety information before proceeding to use the equipment.

GENERAL SAFETY INFORMATION

WARNING DO NOT EXCEED EQUIPMENT RATINGS

Overloading causes equipment failure and possible personal injury. These Cylinders are designed for a maximum pressure of 10,000 psi (700 bar). Do not connect these Cylinders to a Pump with a higher pressure rating.

WARNING ONLY USE HYDRAULIC CYLINDERS IN A COUPLED SYSTEM

Never use a Cylinder with unconnected couplers. If the Cylinder becomes extremely overloaded, the coupler check ball and/ or hydraulic oil may shoot out of the Cylinder causing severe personal injury.

WARNING AVOID DAMAGING HYDRAULIC HOSES

Avoid sharp bends and kinks when routing hydraulic hoses. Using bent or kinked hoses will cause severe back pressure. Also, sharp bends and kinks will internally damage the hoses leading to premature failure. Do not drop heavy objects on hoses. A sharp impact may cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture. Do no use the hydraulic hose to carry hydraulic components (ie. Pumps, Cylinders and valves).

WARNING KEEP HYDRAULIC EQUIPMENT AWAY FROM FLAMES AND HEAT

Excessive heat will soften packing and seals, resulting in fluid leaks. Heat also weakens hose materials and packing. For optimum performance do not expose equipment to temperatures of 150 deg F (65 deg C) or higher. Protect Hoses and Cylinders from weld spatter.

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WARNING DO NOT HANDLE PRESSURISED HOSES

Escaping oil under pressure can penetrate the skin causing serious injury. If oil is injected under the skin, see a doctor immediately.

TROUBLE SHOOTING

WARNING: THIS EQUIPMENT SHOULD BE REPAIRED ONLY BY AN AUTHORISED SERVICE CENTRE, PLEASE CONSULT YOUR SUPPLIER FOR ADVICE.

PROBLEM	POSSIBLE CAUSES
Cylinder will not advance	Pump release valve open
	Coupler not fully tightened
	Oil level in pump is low
	Pump malfunctioning
	Load is too heavy for Cylinder
Cylinder advances part way	Oil level in pump is low
	Coupler not fully tightened
	Cylinder plunger binding
Cylinder advances in spurts	Air in hydraulic system
	Cylinder plunger binding
Cylinder advances slower than normal	Leaking connection
	Coupler not fully tightened
	Pump malfunctioning
Cylinder advances but will not hold	Cylinder seals leaking
	Pump malfunctioning
	Leaking connection
	Incorrect system set up
Cylinder leaks oil	Worn or damaged seals
	Internal cylinder damage
	Loose connection
Cylinder will not retract or retracts slower than normal	Pump release valve is closed
	Coupler not fully tightened
	Pump reservoir over filled
	Narrow hose restricting flow
	Broken or weak retraction spring
	Cylinder damage internally
Oil leaking from external relief valve	Coupler not fully tightened
	Restriction in return line