



TD184

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# HYDRAULIC CHAIN CUTTER CCD0075



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## **1. SAFETY REQUIREMENTS**

### **GENERAL CONSIDERATIONS**

The SIMPLEX hydraulic cutters have been designed in accordance with our quality standards and ISO 9001 rules.



The cutter must be used in accordance with the relevant instructions described in the manual. The user must be aware of the inherent risks when handling high pressure hydraulic devices and ensure that a safe working environment and safe systems of work are in place before operating the equipment.

The tool is designed only for the operations described in this manual. The manufacturer is not responsible for any damage caused by incorrect operation of the tool.

### **SAFETY PRINCIPLES**

1. This manual must be always available to the operator and all safety and operational instructions must be followed.
2. The operator should be trained about the machine operation and the corresponding safety rules regarding prevention of accidents and protection of the environment.
3. The operator must wear personal protective equipment like helmet, glasses, gloves, boots, protective clothing, etc.



Helmet



Glasses



Gloves



Boots



Protective Clothing

4. The operator must be trained in the use and safe operation of the pump being used with the cutter. If a powered pump (electric, air, engine driven, etc.) is being used, all personnel must be aware that the blade will advance immediately when the system is pressurized and hydraulic flow is directed to the cutter.
5. All personnel must keep fingers, hands and other body parts away from the cutter blade to prevent serious personal injury.
6. Do not modify the tool in any way.
7. Follow suggested maintenance operations periodically as recommended in this manual.
8. All repairs should be performed by a qualified technician with genuine SIMPLEX parts. For further information, contact your nearest SIMPLEX authorized service center.
9. After operation, the tool should be cleaned and stored in a clean, dry and secure location.

### **GENERAL SAFETY INSTRUCTIONS**



Before use, visually inspect the tool and accessories for any damage. If any damage is found, do not use the tool until repaired. Ensure that all the components of the hydraulic system can support the maximum pressure.

Before operation, make sure the operator is on solid footing in a well-lit area.



Manufacturer’s rating is the maximum allowable limit. Good practice encourages using the tool below the manufacturer’s rating.



Keep the tool away from flames and heat, such as during welding.

- Perform maintenance operations with all pressure relieved (0 psi/bar).
- Do not exceed equipment ratings. Use gauges or appropriate indicator devices to be aware of the working pressure.
- After operation, clean the tool and store it in a clean, dry and secure location.
- When using a powered pump, make sure that the valve is set to the neutral position before connecting the tool.
- Ensure that the pump reservoir is full. Always check oil level with cutter blade fully retracted.
- Ensure that heavy or sharp objects are positioned away from the hoses.

## 2. TECHNICAL DATA

### GENERAL SPECIFICATIONS

Specification	Model CCD0075	
	Imperial	Metric
<b>Push capacity (@10150 psi or 700 bar)</b>	15.2 ton	135 kN
<b>Length*</b>	13.5 in	343 mm
<b>Height*</b>	5.0 in	126 mm
<b>Width*</b>	3.2 in	81 mm
<b>Maximum Jaw Opening*</b>	0.8 in	20 mm
<b>Weight</b>	18.5 lb	8.4 Kg

\* Due to rounding, the dimensions listed in this chart may be slightly different than the dimensions shown in the diagrams in Section 6.

### CUTTING CAPACITIES

Bar			
Diameter*		Tensile Strength	
in	mm	ksi	MPa
0.75	19	102	700
0.59	15	145	1000
0.51	13	203	1400
0.43	11	232	1600

\*Maximum diameter bar that can be cut at the different tensile strengths.

Chain		
Diameter*		Grades
in	mm	
0.75	19	28-43
0.55	14	60-80

\*Maximum diameter chain that can be cut at the different chain grades.

### **3. OPERATION**

1. Assemble the complete system, and make sure the fitting of pump, hoses, couplers and tool is leak free and correct. This is a double acting tool, so ensure that both couplers are connected.
2. On vented pumps, be sure that vent/fill cap (if equipped) is in the “VENT” position to allow proper pump functioning.
3. Before use, test the circuit by operating the pump with the control valve in the advance position and check that the piston advances. Then, move the control valve to the retract position and check that the piston retracts. Fully advance and retract the piston several more times to remove any trapped air. Be sure that cylinder movement is smooth in both directions.
4. Insert the chain to be cut in the gap between the fixed and movable blades (max. 0.75 inch or 19 mm).
5. Move the control valve to the advance position. Operate the pump until the blade moves forward and the chain is cut.
6. Retract the blade by moving the control valve to the retract position.
7. Remove any traces of chain material before making another cut.

### **4. MAINTENANCE**

#### **REPLACEMENT OF BLADES**

**Note:** Refer to Section 6 of this manual for parts list and item numbers. To help prevent damage to the tool, always perform blade replacement procedures in a clean and dry work area.



To prevent possible serious injury, always relieve hydraulic pressure (0 psi/bar) and disconnect hydraulic hoses from tool before beginning blade replacement procedures.

#### **A. FIXED BLADE:**

1. Loosen and remove the stud (4).
2. Push the old blade (3) out using a nail inserted through the hole in the cutting head. Remove the old blade (3).
3. Apply Loctite 242 to the threads of the stud (4).
4. Insert a new blade (3). Then, reinstall and tighten the stud (4) to secure the blade.

#### **B. MOVABLE BLADE:**

1. Loosen and remove the studs (4), on both sides of the piston (8).
2. Loosen the stud (21).
3. Firmly grasp the cutting head (1). Unscrew the cutter body (7) from the cutting head.
4. Loosen and remove the screw (5). Remove the old blade (2).
5. Mount a new blade (2).
6. Apply Loctite 242 thread sealant to the threads of the screw (5). Then, reinstall and tighten the screw (5) to secure the blade.
7. Thread the cutter body (7) fully into the cutting head (1). Tighten the stud (21).
8. Apply Loctite 242 thread sealant to the threads of the studs (4). Then, reinstall the studs on both sides of the piston (8).
9. Adjust the clearance between the piston (8) and the studs (4).

Note: The studs (4) act as a piston guide. Turn each stud in or out as needed to adjust the clearance. There must be sufficient clearance to allow the piston (8) to slide freely, but with a minimal amount of lateral movement. Clearance should be even on both sides of the piston.

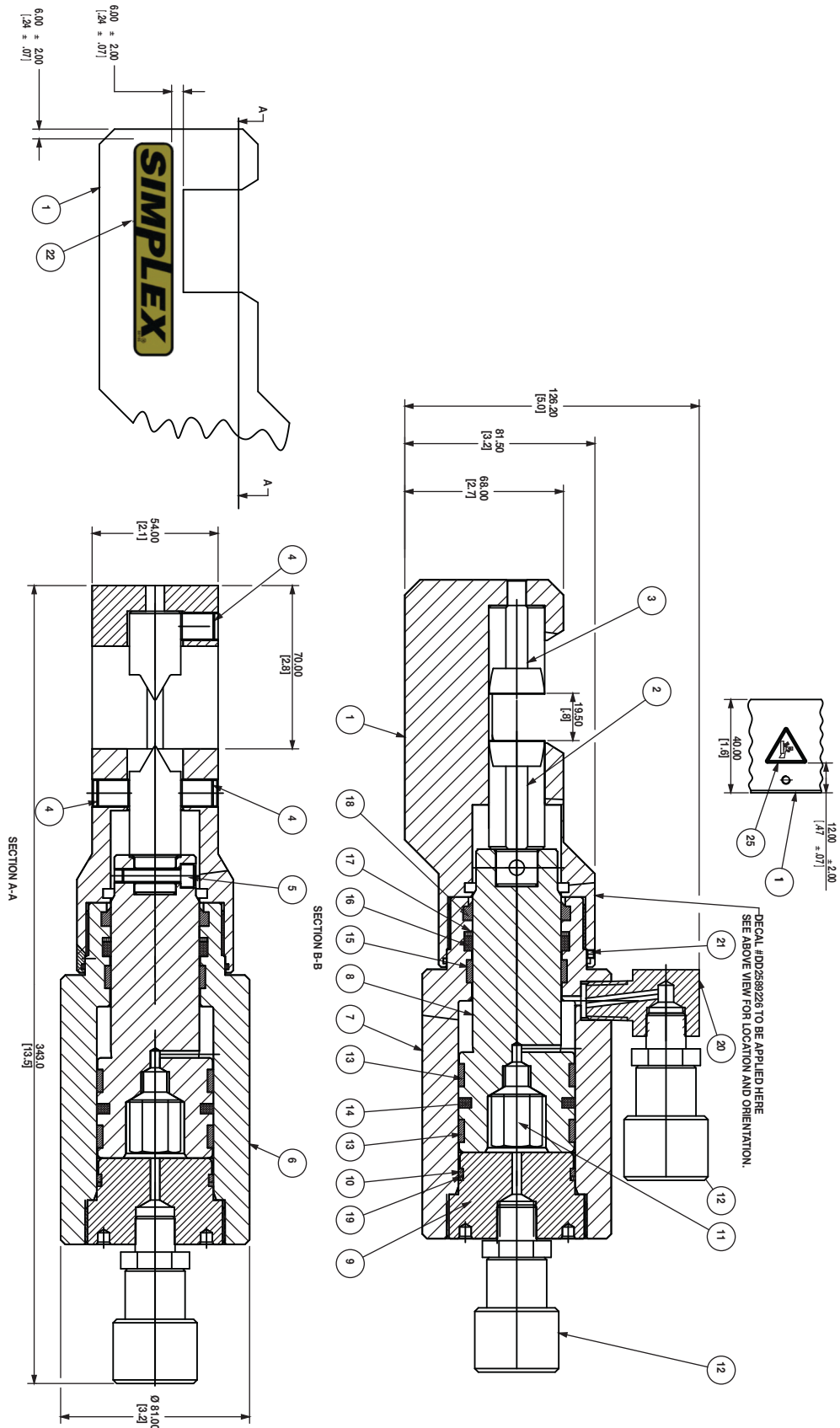
### **5. ADDITIONAL INFORMATION**

All information, illustrations and specifications in this operation manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place before operating the equipment.

Simplex declares that this product has been tested and conforms to applicable standards and complies with all CE requirements.

**6. ASSEMBLY DIAGRAMS AND PARTS LISTS**



ITEM NUMBER		DESCRIPTION	QTY
1		CUTTING HEAD	1
**2		MOVABLE BLADE	1
**3		FIXED BLADE	1
4		ALLEN STUD M12 x 16	3
5		ALLEN SCREW M6 x 25	1
6		DOUBLE ACTING CYLINDER (complete, assembled)	1
7	†	BODY	1
8	†	PISTON	1
9	†	GUIDE	1
*10	†	O-RING Ø45.69 x 2.62	1
11	†	SAFETY VALVE RATED 350kg/cm <sup>2</sup>	1
12	†	FEMALE BALL QUICK COUPLER 3/8 NPT	2
*13	†	GUIDE RING Ø50 x Ø45 x 9.7	2
*14	†	PISTON JOINT Ø50 x Ø39 x 4.2	1
*15	†	GUIDE RING Ø40 x Ø45 x 9.7	1
*16	†	COLLAR Ø38 x Ø45 x 5.5	1
*17	†	SEGMENT	1
*18	†	SCRAPER Ø38 x Ø48 x 6	1
*19	†	SEGMENT	1
20	†	CONNECTOR	1
21	†	ALLEN STUD M4 x 5	1
22		SIMPLEX DECAL #89967	2
25		SIMPLEX DECAL #DD2589226	1

\* Included in service kit CCD0075K.

\*\* Included in blade kit CC0075BK.

† Included in double acting cylinder (item 6).



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