OPERATING MANUAL



5 6043 0010

4" Stainless Steel Hydraulic Band Saw



Contents

Chapter	Description	Page
1.	Safety Instructions	3-4
2.	Technical Data	5
3.	Scope of Delivery / Accessories	6
4.	Use / Cutting Hints	7
4.1	Trouble Shooting	8
4.2	Changing Saw Bands / Instructions	9-10

Chapter 1: Safety Instructions

Make sure that you are familiar with the Safety Instructions before

Operating the STANLEY Band Saw

Chapter 2: Technical Data of the Hydraulic Band Saw

Chapter 3: Scope of Delivery and Accessories

Chapter 4: Use and Cutting Hints of the Band Saw

May 1999 Page 2 of 10

Safety Instructions

WARNING!

Risk of serious personal injury or death. Read and follow instructions for proper use of this product.

Because of the harsh environment to which Band Saws are exposed, it is necessary that you carefully follow all instructions accompanying your saw and its cutting attachments. In particular, the following instructions are highlighted.

- 1. Plan ahead lay the work out before starting. Always work in a steady manner. Fatigue leads to carelessness and accidents. Never operate your tool while you are under the influence of medication, alcohol, or other drugs.
- 2. Keep your work area clean and uncluttered and keep children and unnecessary personnel away from your saw and work area.
- 3. Wear proper clothing. Clothing which is too tight or too loose is not suitable; it can restrict your movements or be caught up by the saw band.
- 4. Protect your head and hair, eyes and ears, hands, legs and feet.
 - ° Wear a hard hat, ear protectors and safety glasses
 - ° Wear non-slip gloves to protect your hands
 - ° Wear safety boots to protect feet and legs
- 5. Always disconnect hydraulic hoses before attaching a saw band or working on the saw.
- 6. Do not operate the saw unless your body and weight are firmly balanced and secure. Never use the saw while leaning from a ladder, scaffold or other structure. Grab the Saw with both hands during use. Keep hands and other body parts away from Cutting area. Exercise extreme care to prevent hands from contacting the saw band.
- 7. No obstructions. Be certain the object being cut does not contain electrical wires. Use clamps or make sure the material to be cut is firmly held to prevent movement.
- 8. Slurry is very slick. Remove or control to prevent yourself, or others, slipping while cutting.
- 9. Never carry the band saw with the motor running! Do not carry the saw with the finger on or nearby valve lever.

May 1999 Page 3 of 10

10.	Be alert for pieces which might fall do (Solid steel of 4" dia. and 12" length	own. weighs about 40 lbs !)	
11.	Avoid sparks in hazardous environme Flush the material to be cut and the cu Sufficient water.		
12.	Use saw only with secured closed cov	ver.	
13.	Do not operate saw with a damaged, i	modified, or broken cover.	
May 1999			Page 4 of 10
	L	<u> </u>	

Technical Data

Housing	Stainless Steel
Cutting Capacity, dia. max.	4.7"
Cutting Capacity, rectangular max.	4.7" x 4.7"
Saw Band Size	45" x 1/2" x 0.025"
Overall Length	21.6"
Height including Motor	10.5"
Width	8"
Weight	26 LBS
Hydraulic connection	Quick couplings ½"
Hose diameter	1/2"
Nominal pressure	2000 PSI
Motor flow	4 GPM
Max. input flow	13.2 GPM
Motor Output	1.6 HP
Noise Level (Free Speed)	81,5 dB(A)
(measured in a distance of 1m)	
Free Surface Speed	250 ft/min

Hydraulic Oil Supply

To get the full power of your machine a minimum oil flow of 4 gpm (15 lpm) is reqired. Too much flow from your hydraulic oil supply up to 13.2 gpm (50 lpm) is internally bypassed to the tank. The whole hydraulic circuit has to be protected by a pressure relief valve with a maximum pressure of 2200 psi (150 bar).

WARNING! Never use your hydraulic tool without a pressure relief valve in line!

Hydraulic fluid: High quality wear resistant hydraulic oil

Viscosity: min. 13 cSt, opt. 20-43 cSt Oil temperature: -31°F to 176°F (-35°C to 80 °C)

Oil filtration: ISO class 18/13

May 1999 Page 5 of 10

Scope of Delivery / Accessories

Standard Equipment		
	Description	Part No.
1.	Band Saw 4-3/5" dia.	5 6052 0000
2.	Saw Band 10-14 TPI	9 2506 0030

Additional Saw Bands			
	Description	1	Part No.
1.	Saw Band	24 TPI	9 2506 0050
2.	Saw Band	18 TPI	9 2506 0010
3.	Saw Band	14 TPI	9 2506 0020
4.	Saw Band	8-12 TPI	9 2506 0040

Accessories		
	Description	Part No.
1.	Handle	5 6032 6010
2.	Strap	9 5102 6000

May 1999 Page 6 of 10

Use and Cutting Hints

- Plan the cut.
- Connect oil supply hoses. Pressure port: Female, Tank port: Male
- Know the material to be cut. If necessary, slow down surface speed of saw band by reducing the oil flow.
- Verify material to be cut is firmly held to prevent movement.
- Hold the saw with the work stop contacting the work and saw band teeth clear of the work.
- To start the hydraulic motor press valve lever with fingers.

Lower saw onto work. Allow weight of saw to control cutting pressure. Additional pressure will slow down speed of the saw band.

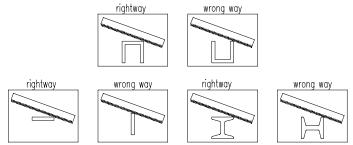
Hold saw straight in the cut. Any twisting or cocking of the band results in shorter saw band life.

If the saw band binds or jams in the cut shut off the motor and disconnect the hydraulic oil supply. Free the saw band carefully.

CAUTION: Stay clear of end pieces that may fall down after being cut off.

At completion of cut **do not** allow saw to fall against your body, the work or any person nearby.

• When finishing a cut, back off on feed force to prevent stalling the band



The proper cutting position for various shapes

- To stop the hydraulic motor release the valve lever.
- Saw band must be in motion before re-entering a cut.

May 1999 Page 7 of 10

Troubleshooting

Problem:

Motor runs properly but cut is not sufficient.

Probable Cause

- Saw band is not sharp
 - \Rightarrow Replace saw band
- Teeth point to the wrong direction
 - ⇒ Remove saw band, change teeth direction, and install it again.
- Saw band is not tightened
 - ⇒ Tighten saw band
- Saw band type (Material, TPI) is wrong for cutting the material
 - ⇒ Exchange saw band
- Cutting speed is wrong
 - ⇒ Increase or decrease hydraulic oil flow
- Saw band guide bearing or pulleys were not maintained sufficiently after cutting in wet surrounding
 - \Rightarrow Replace damaged parts

Problem:

Vibration

Probable Cause:

- Material to be cut is not firmly held
 - ⇒ Clamp the material near the cutting location
- Fixed TPI instead of variable
 - ⇒ Exchange saw band

Problem:

Motor does not start

Probable Cause:

- Low oil pressure or volume
 - \Rightarrow Check oil supply
- Wrong hose connections
 - \Rightarrow Change oil supply hoses

May 1999 Page 8 of 10

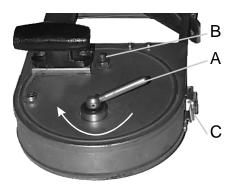
Changing Saw Bands

Observe the following safety instructions before changing saw bands.

1. Disconnect hydraulic hoses

2. To remove saw band

Turn adjustment handle (A) clockwise to release tension on the saw band. After that unlock closures (C) of the coating by turning and open the cover lid. Remove the saw bands from tire pulleys and then from guide.



3. Before installing a new saw band, clean chips and wax, which may have accumulated on guide and tire pulleys.

4. To install saw band

Make sure teeth point in the right direction

(see below).

Install saw band in guides and then position on pulleys.

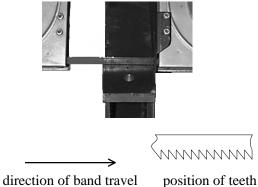
Turn adjustment handle counter-clockwise as far as it will go.

Close cover lid, connect air hose and start and stop saw two or

three times to seat saw band on pulleys.

If the saw band fails to track correctly, adjust band tracking by means of

Adjusting screw (B).



May 1999 Page 9 of 10

Selection of Saw Band

Which saw band to use

In general, select a saw band which will allow at least two teeth to be Engaged in the material thickness. The thinner or the harder the material, the finer the saw band teeth.

Ask your dealer for the right selection of saw bands.

WARNING:

Exercise extreme care to prevent hand from contacting the saw band

May 1999 Page 10 of 10