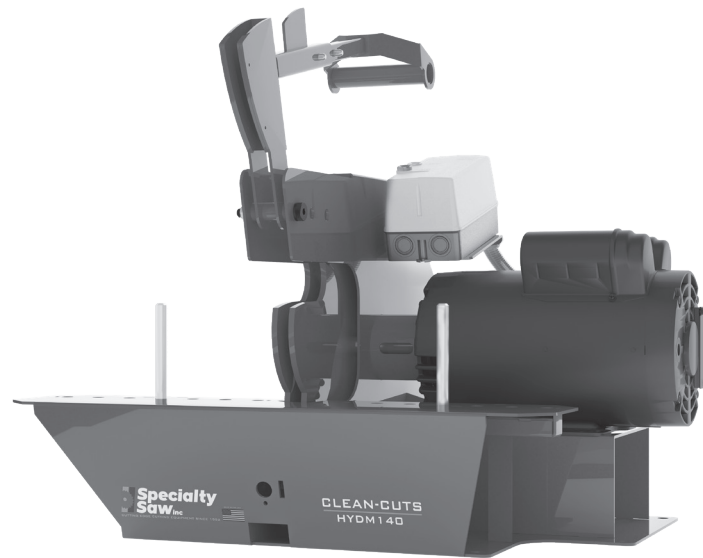


CLEAN-CUTS™

HYDRAULIC HOSE SAWS



INSTRUCTION MANUAL HYDM140



INSTRUCTION MANUAL

Clean-Cuts HYDM140 Hydraulic Hose Saw

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CAUTION

Use extreme caution. Please read all instructions before starting machine. Follow all safety guidelines, do not remove safety guards. Unplug machine prior to servicing.



GLOVES

Proper hand protection should be worn at all times when working with sharp cutting tools.



SAFETY EYE WEAR

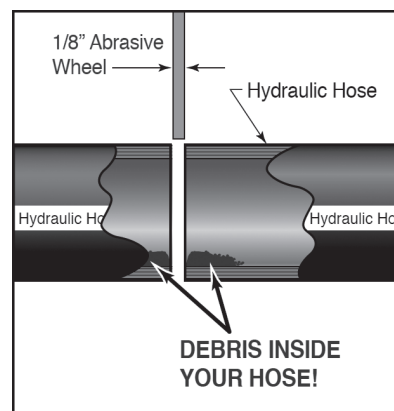
Proper eye protection should be worn at all times when working with high RPM cutting blades.

INTRODUCTION

The Clean-Cuts hydraulic hose cutting system is a break through technology using a toothed blade, cutting with the backs of each tooth, so the blade does not take a kerf. The saw bends the hose into the blade, spreading the cut edges to avoid burning and smoking.

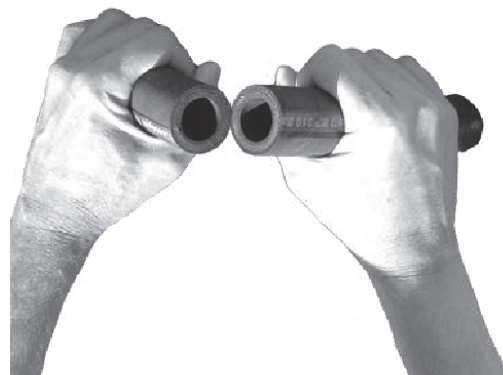
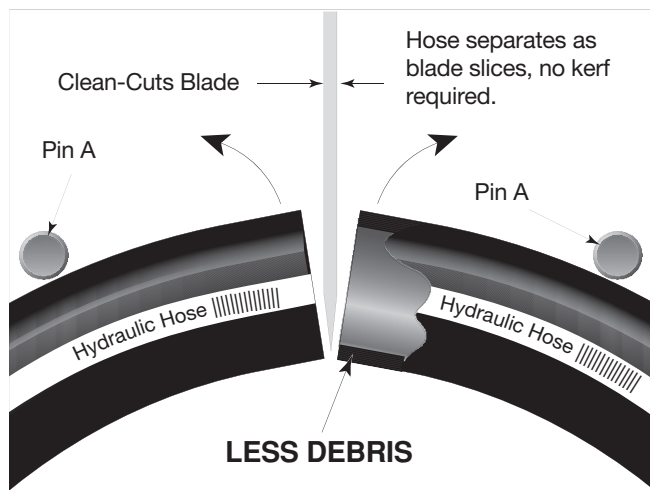
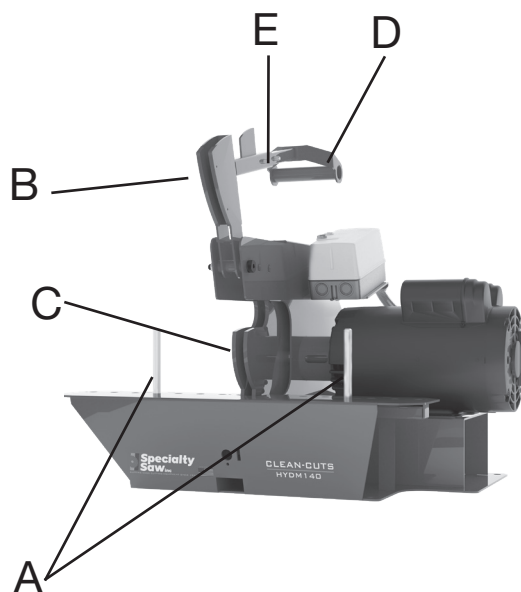
Old Method

The normal sawing method of lowering an abrasive saw blade onto the hose causes the hose to compress and deform. As the blade cuts the compressed hose expands against the blade causing friction, heating and burning. Much of the debris from the kerf of the blade is deposited into your hose.



New Improved Clean-Cuts Method

With the Clean-Cuts hydraulic hose saws, the hose is positioned across two pins (A) and moved into the blade (C) by a feed foot (B) using an extendable handle (D) and adjustable pivot point (E) for cutting larger industrial hose. The feed motion causes the hose to stretch at the point of contact with the blade, allowing it to separate as it is cut (see image at below). This separation allows the hose to pass clear of the saw blade with LESS friction, LESS heating and LESS DEBRIS! A vacuum hose (not shown) is attached to a vacuum port to remove any tiny amount of debris or smoke during cutting.



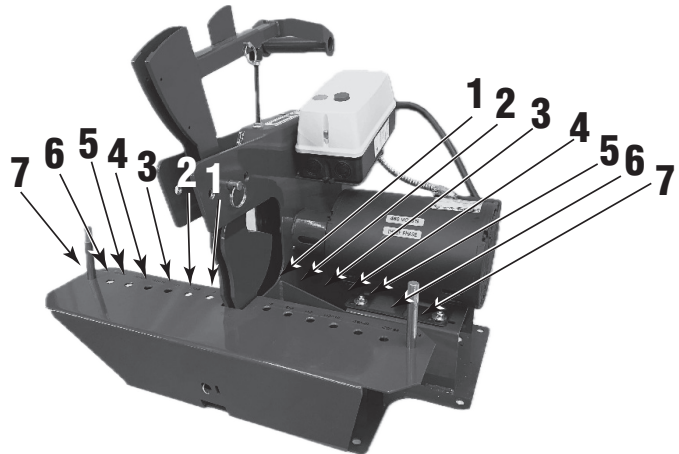
OPERATION

This saw is a rugged and dependable tool when used and maintained properly. Many of these saws have been in daily service for years and are still in good working order. As with any tool, good operating procedure is important for tool life and operator safety.

Operating Procedure

1. Set pin placement for the size hose you are cutting using the following guide:

Hose Size	Pin Location*
-4 (1/4")	1
-6 (3/8")	2
-8 (1/2")	2
-12 (3/4")	3
-16 (1")	3-4
-20 (1 1/4")	4-5
-24 (1 1/2")	5-6
-32 (2")	7



*This guide only “suggests” the best possible pin placement, as there are variables such as new or used hose, brands of hose, braided or spiral wire reinforcement (4 or 6 wire multi-spiral). As an operator you will learn the best pin placement for the hose you are cutting. Remember that the cut hose should be square and clean.

2. Start the saw and let the motor come up to full speed. This is most important with the DC saws as they take a moment to come up to “ramp up.” Cutting before they’re at full speed can cause very high amperage draw and shorten the life of the motor.
3. Push the hose into the saw with steady, even pressure. Let the blade do its’ job by cutting the hose not ripping it. This becomes more important as the hose size becomes larger, especially with the 6 wire multi-spiral hose. If there is a lot of smoke and sparks you may be forcing the hose too fast or the blade may be excessively dull.

After the hose is cut, be careful as the blade spins down to a stop. A coasting blade is still dangerous!

4. Examine the hose. Look at the squareness and how clean the cut is. A good square cut goes a long way toward making a strong hose assembly.
5. The extendable handle can be adjusted to give more leverage for more difficult cuts if needed. The adjustable pivot point of the arm may be moved to adjust for hose diameter.

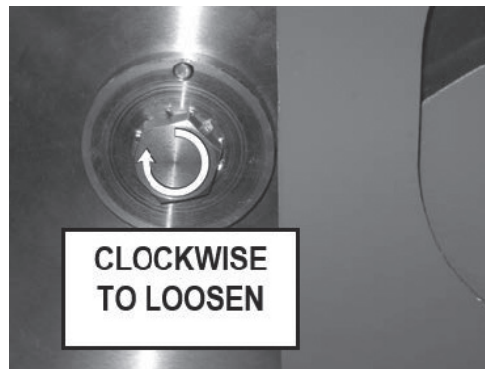
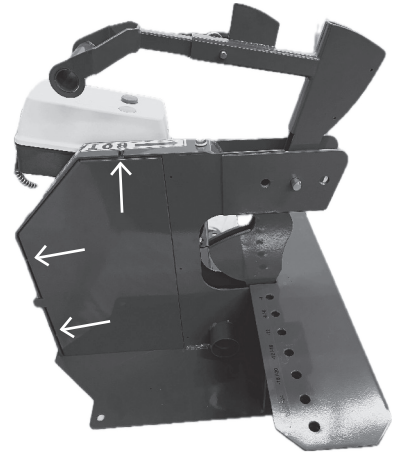
CHANGING THE BLADE



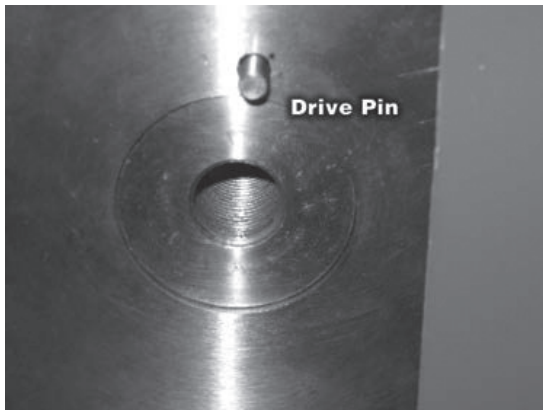
Blades have very sharp edges, even worn blades! *ALWAYS WEAR GLOVES WHEN HANDLING BLADES!*



1. Disconnect the saw from the power source.
2. Remove the screws (right) holding blade cover and remove cover.
3. Place a 1/4" rod/pin through arbor shaft to lock the drive shaft while the bolt is being removed. Please note that the blade retaining bolt is **left hand threaded**. To remove it, turn clockwise.



4. Remove the old blade and put a new one on over the drive pin (below left) and arbor shaft. Be sure to follow the blade rotation arrow (below right).



5. Place the clamping flange over the drive pin and bolt the blade onto the shaft. Tighten the bolt to 78 foot-lbs. Do not over-tighten. Then remove the 1/4" rod/pin which locks the shaft.
6. Replace the blade cover and tighten the cover screws.



VACUUM PORT

All bench mounted models have a vacuum port in the cover. You can attach a 2" shop vac hose to this port. A shop vac attached to the vacuum port will remove dust, smoke and odor that can occur while cutting hose. It is important to check and clean the vacuum filter regularly as it will plug up with the fine rubber dust that is associated with hose cutting.

To simultaneously start the vacuum and the saw together, purchase our automated tool starting attachment (sold separately).



MAINTENANCE

Examine the blade periodically (blade cover in place) for tooth condition and sharpness. A sharp blade cuts the best but as the teeth wear they will still cut well.

With the saw disconnected from the power source, occasionally pull the blade cover off and perform a closer inspection of the blade paying attention to any cracks that may have occurred. If cracks are observed, the blade should be thrown away as it could break while spinning. Cracks are very rare as these blades are high quality steel and are tempered to the correct hardness for this application. With the cover off, clean the hose dust that has accumulated inside.

Lubricate the pivot points of the blade guard and pusher with oil on a regular basis (once a month). Whenever the blade cover is removed, use that opportunity to **grease** the pivot points.

Check the condition of the wiring as it may wear over time, especially the DC saws that flex the wiring from the handle mounted switch. The motors require little maintenance (wipe or blow the accumulated dirt off) as the bearings are sealed.

Keep the area around the saw uncluttered. The DC van saws have high amp connectors with rubber boot protectors. If those protectors wear over time and grounded metal comes in contact, it will spark and be a fire hazard!

Speaking of grounding, for proper performance from the DC saws, always have a good, clean ground connection.

Benefits

Cleaner Cuts | Safer Cuts | Less Smoke

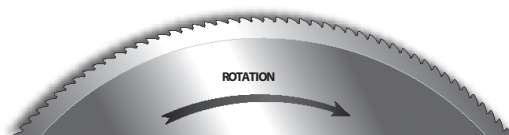


MODEL	MODEL	BLADE	CUTTING CAPACITY
HYDM140-220V	5 HP, 220 VAC, 1 Phase, 60 Cycle, 3,490 RPM	one 14" OD x .160 THK X 40 mm arbor	2" ID x 6 Wire Hydraulic Hose — 5" OD Industrial Hose
HYDM140-220V3	3 HP, 220 VAC, 3 Phase, 60 Cycle, 3,490 RPM	one 14" OD x .160 THK X 40 mm arbor	2" ID x 6 Wire Hydraulic Hose — 5" OD Industrial Hose
HYDM140-440V3	3 HP, 440 VAC, 3 Phase, 60 Cycle, 3,490 RPM	one 14" OD x .160 THK X 40 mm arbor	2" ID x 6 Wire Hydraulic Hose — 5" OD Industrial Hose

Hose Cutting Blades

The following 5 types of blades are designed to cut hydraulic hose. If you're not sure which is best suited to your application please call for our recommendation.

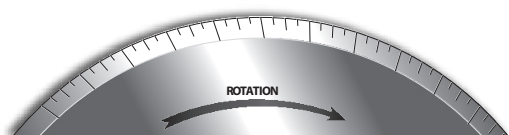
Clean-Cuts blades are manufactured in: M-2, D-2, M-35, & High Speed Steels.



Advanced Scalped



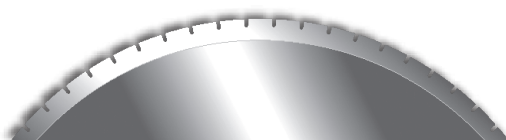
Smooth Edge



Micro-Slotted



Notched Scalped



Slotted Edge

MODEL	TYPE	BLADE	CUTTING CAPACITY
HYD14X160X40	Advanced Scallop	14" OD x .160 THK X 40 mm arbor	2" ID x 4 Wire Hydraulic Hose — 5" OD Industrial Hose
MSE14X160X40	Micro-Slotted	14" OD x .160 THK X 40 mm arbor	2" ID x 4 Wire Hydraulic Hose — 5" OD Industrial Hose
CDBK14X160X40	Smooth Blade	14" OD x .160 THK X 40 mm arbor	2" ID x 4 Wire Hydraulic Hose — 5" OD Industrial Hose
SSE14X160X40	Slotted Blade	14" OD x .160 THK X 40 mm arbor	2" ID x 4 Wire Hydraulic Hose — 5" OD Industrial Hose



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