

# O O O O SNOWPLOW

0600 Series Hydraulic Reversible Snowplow owner's manual.

Read before operating.

Important safety and operation instructions inside.

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## **PREFACE**

Congratulations on the purchase of your new Craig Manufacturing Ltd. Snowplow. This manual provides safety, operation and maintenance information. To keep your plow in good condition, please read this manual and follow all recommendations. Failure to do so may invalidate your warranty.

When parts or service are necessary contact Craig at 1-800-565-5007 for genuine Craig Parts. Before using your snowplow, make sure your machine is equipped with all the OEM recommended requirements for plowing.

#### **CRAIG FACTORY ORIGINAL PARTS**



The best way to ensure equipment reliability is to use only genuine Craig Manufacturing Ltd. Factory Original Parts. Our parts department can help you not only find the right part for your application but also offer advice and support for the repair. Using aftermarket non-approved parts can alter your plow's performance characteristics and may affect your warranty.

To help ensure that correct parts are ordered, please record the serial number of your plow. Over time serial tags can become tarnished or difficult to read. Please supply this serial number to your dealership when ordering parts and it will ensure the correct part gets ordered.

Serial:			
Machine:	 	 	
Model:	 		
In-Service Date:	 		
Purchased From:	 		



## **SAFETY**

#### **SAFETY PRECAUTIONS**

Improper installation and/or operation of your Craig Manufacturing Ltd. attachments can cause bodily injury, property damage, and damage to your equipment. Read and understand labels and this booklet before operating or making adjustments. Failure to do so may affect your warranty.

#### **HYDRAULIC SAFETY**

Always inspect hydraulic components before operating your Snowplow. Replace any damaged or worn parts immediately.

Lower the blade when the machine is not in use. Temperature changes can change hydraulic pressure, allowing the blade to drop unexpectedly causing injury or damaging hydraulic components.

Hydraulic fluid under pressure can cause bodily harm. If you suspect a hydraulic leak use a piece of wood or cardboard to investigate, DO NOT use your hand. If you are injured by hydraulic fluid, seek medical attention immediately.

#### WARNING LABELS

Become familiar with and inform users about all warning and instruction labels on the back of your attachment. **NOTE:** If labels are missing or cannot be read, call 1-800-565-5007 to get replacements.

#### PERSONAL SAFETY

Remove ignition key and immobilize the machine during installation, inspection or service. Always follow safe work practices when installing servicing or inspecting your snowplow by wearing only snug-fitting clothing, removing jewelry, and securing long hair. Wear safety goggles to protect your eyes from hydraulic fluid, sparks, dirt and dust. Always have a fire extinguisher rated BC on hand for flammable liquid and electrical fires.

Lift with your legs. Get help and use lifting equipment when applicable. Never trust that the hydraulic system will not fail. Do not work under or around heavy items not supported by stands, blocks or safety chains.



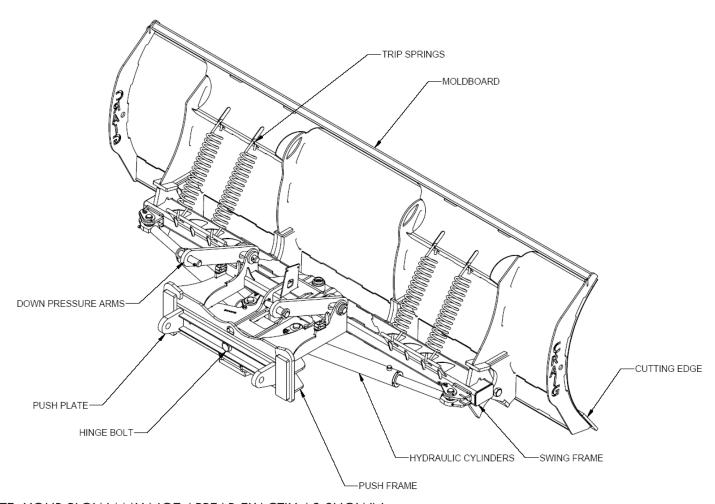






# **OVERVIEW**

#### **GETTING TO KNOW YOUR SNOWPLOW**

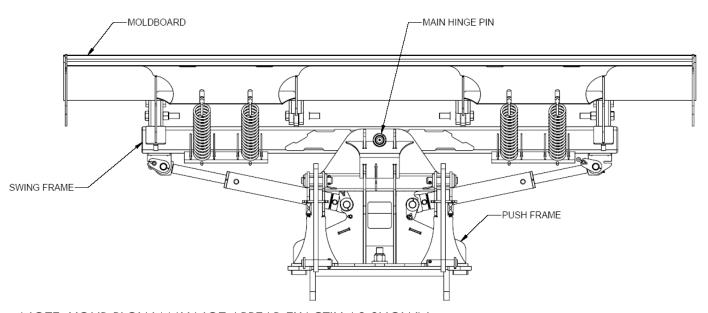


NOTE: YOUR PLOW MAY NOT APPEAR EXACTLY AS SHOWN



# **OVERVIEW**

#### **GETTING TO KNOW YOUR SNOWPLOW**



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### **OVERVIEW**

**TERMINOLOGY** 

**Moldboard:** The working face of the snowplow.

**Cutting Edge:**The consumable wear component located at the bottom of the moldboard.

Cutting edges must be replaced periodically to protect your moldboard.

**Trip:**The ability of a snowplow to temporarily give way under the pressure of an

obstacle. This can be accomplished by a variety of designs, often with the use of

springs.

**Swing Frame:** The portion of the moldboard support frame that follows the moldboard

throughout its range of motion.

**Push Frame:**The portion of the moldboard support frame that remains rigidly secured to the

machine hook-up.

**Down Pressure:** A standard feature of Craig Reversible Snowplows which allows moderate

pressure to be applied to the cutting edge when plowing in heavy snow. (NOTE: The down pressure option should not be used to attempt to lift ice.

Doing so may damage your snowplow)

**Push Plate:** The attachment point at the rear of the Push Frame that attaches to the plow

harness. This plate oscillates to follow the crown of the road.

Wear Shoes: The replaceable runners located under the cutting edge. Properly adjusted wear

shoes protect the Push Frame from abrasion and extend cutting edge life.

#### **ACCESSORIES AND OPTIONS**

Rubber Deflector Kit: Includes a twelve inch wide, half inch thick heavy duty rubber deflector and all

necessary mounting hardware. Attaches to the top of the Moldboard.

Carbide Edge: Superior wear resistance intended for short passes such as ramp clearing.

Prolonged passes can generate heat and premature wear.

High Visibility Kit: Includes two high visibility flag sticks, two square feet of conspicuity tape and all

necessary mounting hardware.

Cast Curb Shoe: Replaceable item that protects the plow from curbs. Install at one or both ends of

the cutting edge.



## **OPERATION**

#### **SETTING WEAR SHOES**

The wear shoes on your reversible plow are meant to take most of the weight of the plow and protect the bottom of the plow from wear. Craig recommends setting shoe height with the plow and machine on a flat shop floor. This way shoes can be set so they contact the ground slightly before the cutting edge. This will ensure that the shoes take most of the load and wear when compared to the moldboard cutting edge.

Often times reversible plows are operated with the machine boom arms in float position on loaders and backhoes. Craig recommends setting wear shoe height with the push plate pins at a height of around 14-16" from the ground. This helps to ensure that the push frame of the plow and machine coupler do not drag on the ground during use. Failing to set the wear shoes and boom arms in a position that keeps the push frame and machine coupler from dragging on the ground will result in damage to the machine's coupler and push frame and will void all warranty.

#### TRIP SPRINGS

Most Craig reversible plows come standard with four trip springs (for trip moldboard plows). Operating a plow with a broken trip spring will overload the other springs and result in premature failure or stretching of the springs.

#### **CROSS PORT RELIEF/CUSHION VALVE**

There is a cushion valve on the push frame of the 0600 series plow. This valve is intended to relieve the cylinders when pressures spike from hitting obstructions such as curbs or frozen banks, thus "cushioning" the plow upon impact. Craig recommends setting the relief on the machine's 3rd spool to 200psi less than the cushion valve. Most cushion valves on Craig reversible plows are set to 1800psi relief. This will ensure that the hydraulic circuit will always relieve before and protect the plow.



## **BEST PRACTICES**

#### **PLOWING SNOW**

Plowing snow on road systems can be dangerous. Drive defensively and adjust your plowing speed to meet changing conditions. Passenger vehicles often do not have the same traction as your machine. Assume that their stopping and steering capabilities will be reduced.

While operating your snowplow be aware of obstacles that may catch your moldboard such as bridge joints, manholes, railroad tracks, and broken pavement.

#### HARD PACK SNOW

When plowing hard pack snow, adjust your down pressure just enough so that the plow is not digging in and tripping. This is the safe plowing setting ensuring that your machine will not be unexpectedly jarred by the snow while also retaining effective plowing contact.

#### **DEEP SNOW**

Deep snow requires plowing at lower speeds using a lower gear to push the snowplow. Angle the plow to its full extent in order to cut with less resistance. If the snow is too deep you may need to use a Craig Vee Plow to open the initial windrows which can then be plowed by conventional one-way or reversible moldboards. NEVER RAM SNOW WITH A REVERSIBLE PLOW. DOING SO MAY DAMAGE THE PLOW AND VOID YOUR WARRANTY.

#### HIGH SPEED PLOWING

High Speed Plowing should be done with the moldboard angled at half of it's full movement and without down pressure. This allows the cylinders and cushion valve to give when hitting obstacles. Applying down pressure in a high-speed scenario could cause the machine to lurch in the direction of the plow upon encountering an obstacle.

#### **ICE**

Your Craig Snowplow is not designed to lift ice. Use chemical ice-melt products to deal with these conditions. Applying too much downpressure in an attempt to lift ice may damage the pivot point between your swing frame and push frame. THIS TYPE OF DAMAGE IS NOT COVERED UNDER WARRANTY

ALWAYS LIFT YOUR PLOW FROM THE GROUND BEFORE BACKING UP. YOUR CRAIG SNOWPLOW IS NOT DESIGNED FOR BACK DRAGGING. DOING SO MAY VOID YOUR WARRANTY.



## MAINTENANCE

#### **INSPECTION BEFORE USE**

- Check all bolts and nuts. Tighten any loose bolts or replace if they are worn or missing. When replacing worn or missing bolts, do not replace with bolts that are smaller or of a different grade.
- Check the cutting edge for wear. When replacing the cutting edges, the bolts, nuts and lock washers should be replaced with new ones.
- Check trip springs and linkage to ensure that all bolts are tight and that they are not worn or missing. Adjust the spring if it is loose by screwing the locknuts back tight against the spring. This complete assembly should be greased daily, especially the shaft that is inside the spring. Replace the spring if it is broken or if it cannot be tightened anymore by the locknuts.
- Check the adjustable brace and pin for wear or bend. Replace as necessary.
- Adjust the moldboard angle as desired. It is possible to set the moldboard at 45° to 63°.

DO NOT WELD THE TRIP LINKAGE SOLID OR INHIBIT THE MOVEMENT OF THE TRIP LINKAGE. DO NOT REMOVE THE WEAR SHOES. SEVERE DAMAGE OR INJURY MAY OCCUR.

#### STORING THE SNOW PLOW

When storing your snowplow for extended periods of time the following precautions should be taken to avoid unnecessary damage.

- Thoroughly clean your snowplow to remove all salt and grime.
- Store your plow off the ground. Laying the plow on a simple set of 4"x 4" blocks can keep your plow from sitting in water or damp ground.
- Paint exposed steel surfaces.
- Apply fresh grease to all grease points.
- Apply penetrating oil/rust inhibitor to trip assembly.

#### **PAINT**

The finish on your Craig attachment has been applied with a special primer and adhesion enhancer to promote a durable finish. Because of the nature of heavy equipment attachments scraping and wear are normal. **The finish on your Craig attachment is not covered under warranty.** For best results your Craig Snowplow should be cleaned, inspected and re-painted at the end of each season. Matching paint and primer can purchased from your local original equipment dealer.



## MAINTENANCE

#### **TECHNICAL SUPPORT**

If you have followed the maintenance instructions contained in this manual you should have years of trouble-free operation from your Craig attachment.

Should you encounter any issue or have any questions about your plow please contact us at 1-800-565-5007 and ask for technical support.

#### READING YOUR PRODUCT ID TAG

Craig Manufacturing Ltd. stamps a blue serial tag onto every attachment. The tag is often located on the rear of the attachment in the upper left corner. The information contained on this tag will be required for parts and support. Craig serial numbers begin with a "T" followed by the year then month of construction. For example T1203 would denote the year 2012 and 03 the month of March.



# **NOTES**



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