February 15, 2025 Lit. No. 30599EN, Rev. 02



# PIEDRIMER" TRACE

## **PILE DRIVER™ Snowplow**

30708-1, 31616-2, 30710-1, 32016-2, 30712-2, 32058-2, 30714-2, 30716-2
Pusher Plow with TRACE™ Carbide Trip Edge

Owner's Manual and Installation Instructions

**Original Instructions** 

#### **A** CAUTION

Read this document before operating or servicing the snowplow.

#### CAUTION

Read this document before installing the snowplow.

#### A CAUTION

See your WESTERN® outlet/website for specific vehicle application recommendations before installation. The Quick Match selection system has specific vehicle and snowplow requirements.

This document supersedes all editions with an earlier date.

Lit. No. 30599EN, Rev. 02 2 February 15, 2025

#### **OWNER INFORMATION**

# 

Blade Serial Number:

### **TABLE OF CONTENTS**

PREFACE	6
Factory Original Products	6
SAFETY	7
Safety Definitions	7
Safety Precautions	
Personal Safety	
Cell Phones	
Noise	7
Vibration	7
Torque Chart	8
Snowplow Blade Weights	8
GETTING TO KNOW YOUR SNOWPLOW	9
ASSEMBLY INSTRUCTIONS	10
MAINTENANCE	12
Long Lasting Cutting Edges	12
Wear Shoes	12

#### **PREFACE**

Welcome to the growing family of WESTERN® pusher plow owners.

This manual provides safety, operation, and maintenance information for your new WESTERN pusher plow. To keep your pusher plow in good condition, read and understand this manual and follow its recommendations. Failure to do so may affect your warranty coverage.

When service is necessary, your local WESTERN outlet knows your pusher plow best. Contact your pusher plow outlet for maintenance, service, or any other assistance you may require.

Keep this manual accessible. It is a handy reference in case minor service is required.

Before using your WESTERN pusher plow, make sure that your vehicle is equipped with all the vehicle manufacturer's and our required options for plowing.

The illustrations found in this manual represent typical components. They may not match your exact installation.

#### **FACTORY ORIGINAL PRODUCTS**

Your WESTERN pusher plow is a valuable investment. The best way to assure original equipment reliability and efficiency is to purchase only genuine **Factory Original parts and accessories**. "Will-fit" parts and accessories can alter your pusher plow's performance characteristics and may affect your product warranty.

Protect your investment by staying with the best—original WESTERN parts and accessories from your local WESTERN outlet.



#### **SAFETY DEFINITIONS**

#### **A** WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

#### **A** CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

#### SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury and/or equipment and property damage. Read and understand this Owner's Manual before installing, operating, or making adjustments.

- NEVER get under the unit during maintenance procedures without properly securing the unit.
- ALWAYS take a few minutes to properly secure your pusher plow using dunnage or jack stands to ensure safety during maintenance.
- DO NOT rely solely upon the hydraulics of your machine to secure the pusher plow during maintenance.
- NEVER get between the bucket of the machine and the plow box while attaching the unit.
- ALWAYS be sure to keep hands and feet away from designated pinch points.
- DO NOT place hands or feet under the unit or your bucket.
- NEVER stand in front of a pusher plow while machine is in operation.

#### **PERSONAL SAFETY**

- Remove the ignition key and put the vehicle in PARK or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt, and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses, and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

#### **CELL PHONES**

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate mobile communication equipment such as cell phones, text messaging devices, pagers, or two-way radios.

#### NOISE

Airborne noise emission during use is below 70 dB(A) for the snowplow operator.

#### **VIBRATION**

Operating snowplow vibration does not exceed 2.5 m/s<sup>2</sup> to the hand-arm or 0.5 m/s<sup>2</sup> to the whole body.

#### **TORQUE CHART**

#### **A** CAUTION

Read instructions before assembling.
Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow, including proper personal protective safety equipment.

Recommended Fastener Torque Chart						
Inch Fasteners Grade 5 and Grade 8						
	Torque	e (ft-lb)		Torque	Torque (ft-lb)	
Size	Grade 5	Grade 8	Size	Grade 5	Grade 8	
1/4-20	8.4	11.9	9/16-12	109	154	
1/4-28	9.7	13.7	9/16-18	121	171	
5/16-18	17.4	24.6	5/8-11	150	212	
5/16-24	19.2	27.3	5/8-18	170	240	
3/8-16	30.8	43.6	3/4-10	269	376	
3/8-24	35.0	49.4	3/4-16	297	420	
7/16-14	49.4	69.8	7/8-9	429	606	
7/16-20	55.2	77.9	7/8-14	474	669	
1/2-13	75.3	106.4	1-8	644	909	
1/2-20	85.0	120.0	1-12	704	995	

## Metric Fasteners Class 8.8 and 10.9

	Torque (ft-lb)			Torque	(ft-lb)
Size	Class 8.8	Class 10.9	Size	Class 8.8	Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701

These torque values apply to fasteners except those noted in the instructions.

#### **SNOWPLOW BLADE WEIGHTS**

Weights are of snowplow only without mounts.

Size	Blade Assembly	Wt (lb)	Wt (kg)
8'	30" Tall Pusher Plow	2127	965
8'	36" Tall Pusher Plow	2221	1007
10'	30" Tall Pusher Plow	2249	1020
10'	36" Tall Pusher Plow	2377	1078
10'	42" Tall Pusher Plow	2508	1137
12'	42" Tall Pusher Plow	2644	1199
14'	42" Tall Pusher Plow	2907	1319
16'	42" Tall Pusher Plow	3170	1438

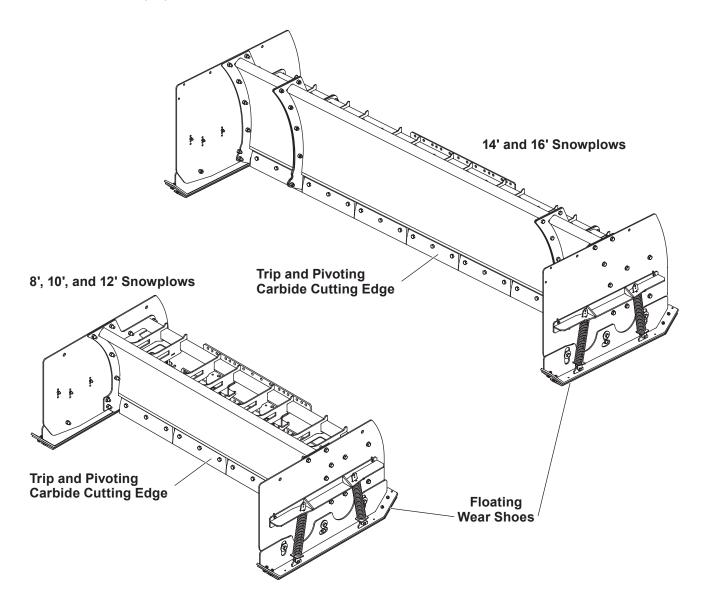
#### GETTING TO KNOW YOUR SNOWPLOW

Your pusher plow is designed with several exclusive features to ensure safe and efficient snow removal.

Floating carbide cutting edges are combined with front- and rear-angled wear shoes. The cutting edges feature a trip and pivoting mechanism that minimizes potential damage to your machine by enabling the snowplow to move over raised manhole covers, low curbs, and other obstructions.

The floating wear shoes on the ends of the snowplow allow the cutting edges to better contour to the surface and give the operator more control to maintain surface contact close enough for superior snow, flood, and waste water removal purposes. To ensure that your pusher plow will provide years of service with minimal maintenance, follow these simple guidelines:

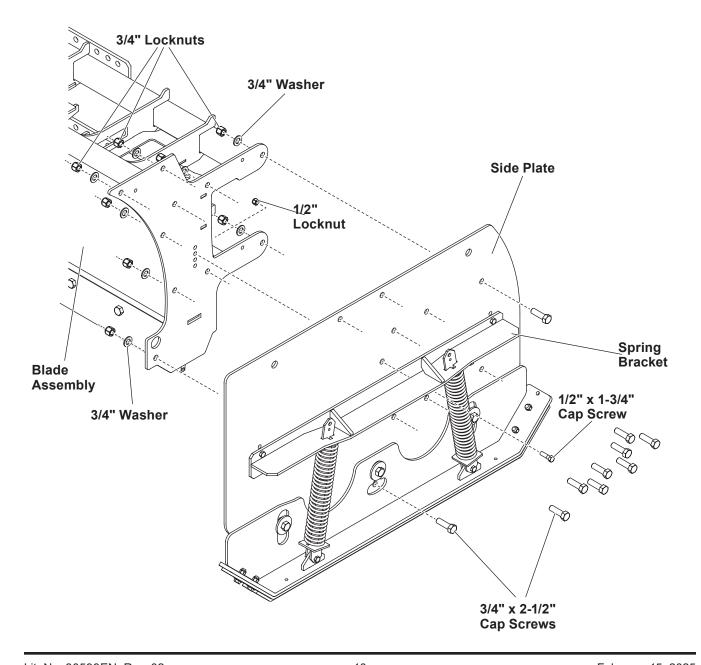
- Once the plow is properly attached to your machine it MUST be leveled BEFORE plowing.
- To level the blade, set it down and adjust the curl of your bucket, making sure that BOTH wear shoes are resting squarely on the plowing surface.
- DO NOT apply down force to the blade while plowing. This will considerably shorten the life of your wear shoes and is NOT necessary for effective snow removal.



#### **ASSEMBLY INSTRUCTIONS**

Your pusher plow ships from the factory with the trip and cutting edges already installed and the wear shoes pre-assembled to the side plates. To complete the snowplow assembly follow the steps below.

- 1. Carefully remove the bolt bag, side plate assemblies, and braces from the shipping pallet and set them aside.
- 2. Safely support the blade assembly while removing the remaining shipping materials.
- 3. Install each side plate to the blade assembly with ten 3/4" x 2-1/2" cap screws, ten 3/4" flat washers, and ten 3/4" locknuts. Install one 1/2" x 1-3/4" cap screw and one 1/2" locknut through the hole in the spring bracket and the blade assembly on each side. Tighten according to the torque chart.
- 4. Refer to the instructions packed with the attachment device to install it to your pusher plow and connect it to your vehicle.



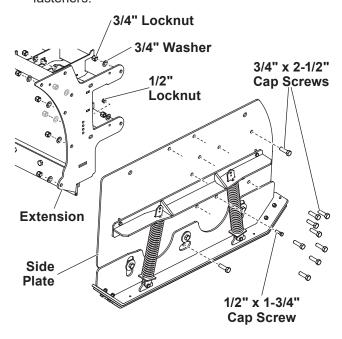
#### **ASSEMBLY INSTRUCTIONS**

Some pushers can be adapted for different plowing needs. The 14' and 16' pusher models may be converted to smaller size plows if desired.

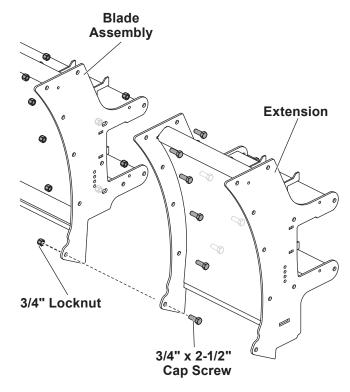
Extensions can be removed from 14' pushers to make a 10' pusher.

Extensions can be removed from 16' pushers to make a 12' pusher.

1. Raise the pusher plow slightly and safely support the side plate. Remove the ten 3/4" x 2-1/2" cap screws, ten 3/4" flat washers, ten 3/4" locknuts, one 1/2" x 1-3/4" cap screw, and one 1/2" locknut securing the side plate to the extension. Remove the side plate. Retain the side plate and all fasteners.



2. Safely support the extension. Remove the ten 3/4" x 2" cap screws and ten 3/4" locknuts securing the extension to the blade assembly. Remove the extension. Retain the extension and all fasteners.



- 3. Install the side plate directly to the blade assembly with the ten 3/4" x 2-1/2" cap screws, ten 3/4" flat washers, ten 3/4" locknuts, one 1/2" x 1-3/4" cap screw, and one 1/2" locknut removed in Step 1. Tighten according to the torque chart.
- 4. Repeat for the opposite side of the pusher plow.

#### **MAINTENANCE**

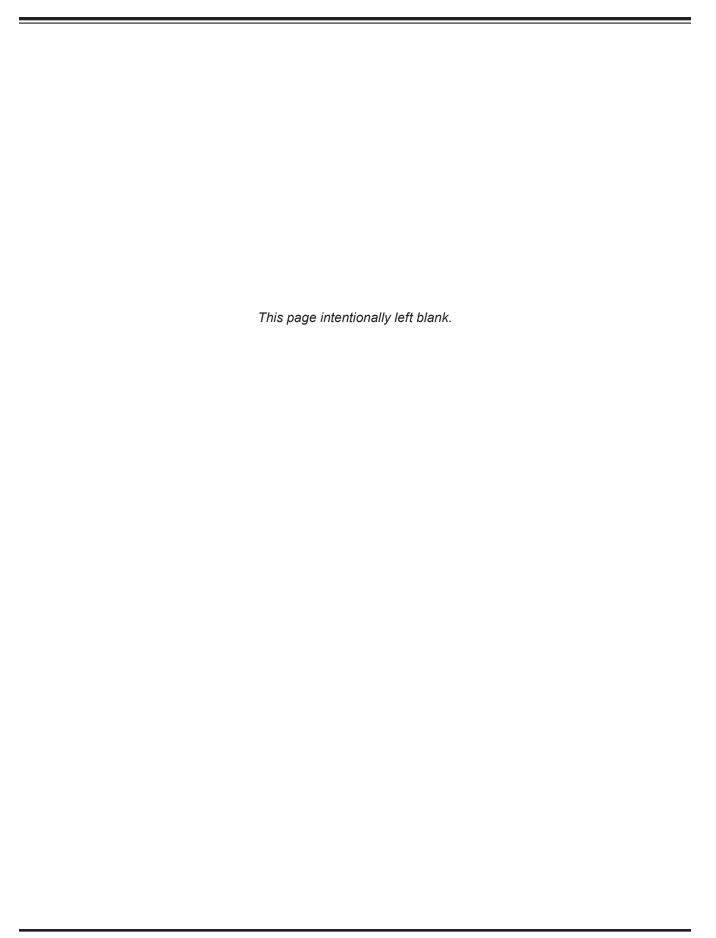
Your pusher plow requires only minimal service to remain in top condition. Follow these simple procedures to ensure proper plowing and long life.

#### LONG LASTING CUTTING EDGES

The carbide cutting edge segments may be replaced individually when worn. Refer to the instructions included with the replacement service parts. Adjust the wear shoes to align with the new cutting edge.

#### **WEAR SHOES**

The pusher plow is equipped with replaceable high-carbon alloy wear shoes to offer superior protection against wear and tear. Refer to the instructions included with the replacement service parts.



Lit. No. 30599EN, Rev. 02 13 February 15, 2025

This page intentionally left blank.





Western Products PO Box 245038 Milwaukee, WI 53224-9538 www.westernplows.com

#### A DIVISION OF DOUGLAS DYNAMICS, LLC

## **(**E

This product conforms to EU Machinery Directive 2006/42/EC, The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment - Directive 2011/65/EU (RoHS2), and UNECE R10.05.



This product conforms to the UK Supply of Machinery (Safety) Regulations 2008, The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS2), and UNECE R10.05.

Copyright © 2025 Douglas Dynamics, LLC. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film, or other distribution and storage media, without the written consent of Western Products. Authorization to photocopy items for internal or personal use by Western Products outlets or snowplow owner is granted.

Western Products reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. Western Products or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. Patents pending. Western Products offers a limited warranty for all snowplows and accessories. See separately printed page for this important information. The following are registered (®) or unregistered (TM) trademarks of Douglas Dynamics, LLC: PILE DRIVERTM, TRACETM, WESTERN®.

#### Printed in U.S.A.

Lit. No. 30599EN, Rev. 02 February 15, 2025