



**SnowDogg**

by **Buyers**

# Municipal Snow Plows



**OWNER'S MANUAL**

## Table of Contents

1. Standard Limited Warranty .....	pg 2
2. Registration Information/Website .....	pg. 3
3. Warnings/Safety Information .....	pg. 4
4. Hitch Installation	
Drop Pin.....	pg. 5
Pin Ear .....	pg. 5
Quick Hitch .....	pg. 6
5. Lift Arm Storage .....	pg. 6
6. Adjusting for Level Lift .....	pg. 6
7. Operating Instructions.....	pg. 7
8. Storage and Maintenance .....	pg. 7
9. Compression Spring Disassembly .....	pg. 7
10. Parts Diagrams	
Bumper to Frame Mount.....	pg. 5
36" Full Trip Plow .....	pg. 8
42" Full Trip Plow .....	pg. 9
42" Trip Edge Plow .....	pg. 10
Drop Pin Hitch .....	pg. 11
Pin Ear Hitch.....	pg. 11
Pin Ear Swivel Adapter .....	pg. 12
Quick Hitch .....	pg. 12
Quick Hitch Swivel Adapter .....	pg. 12
Hydraulic Cylinders.....	pg. 13
Compression Spring Assembly.....	pg. 14
11. Accessories	
Rubber Snow Deflectors.....	pg. 14
Carbide Cutting Edge Kits .....	pg. 14
Curb Guards.....	pg. 15
Markers.....	pg. 15
Chain Block Kit .....	pg. 15
Moldboard Shoes.....	pg. 16
Mushroom Shoe Running Gear .....	pg. 16

## LIMITED WARRANTY COVERAGE

Buyers Products Company warrants to the original purchaser of a Buyers Products SnowDogg® brand municipal snowplow that they will be free from defects in materials and workmanship for a period of one (1) year after the date of original purchase. Buyers Products warrants accessories, service parts, and components purchased separately to be free of defects in materials and workmanship for a period of one (1) year after date of original purchase.

These warranties are exclusive and in lieu of all other express and, except to the extent prohibited by applicable law, all implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this warranty.

Buyers Product's liability is expressly limited to repair or replacement of defective parts. Buyers Products shall not be liable for consequential, incidental or contingent damages whatsoever, even if damages are caused by the negligence or fault of Buyers Products.

This warranty gives you specific legal rights. Additional purchaser's rights may vary from state to state.

### WHAT IS NOT COVERED

*The warranty does not apply to:*

- Parts not furnished by Buyers Products or damage resulting from same.
- Parts modified without authorization or damage resulting from same.
- Expendable parts (cutting edges, fluids, etc.).
- Damage resulting from failure to install, maintain or operate the product per the owner's manual, installation instructions, or application guides.
- Damage to vehicle and/or frame of vehicle resulting from plow attachment.

### WARRANTY PROCEDURE

If any part is proven to be defective within that warranty period, Buyers Products will, at its sole discretion, repair or replace said part at its expense FOB Cleveland, OH. Labor will be credited to authorized dealers as determined by published rate charts.

Buyers Products obligation shall be limited to such repair or replacement and shall be further contingent on Buyers Products receiving written notice of the alleged defect and proof of original purchase within ten (10) days of its discovery as well as the return of the allegedly defective part to Buyers Products.

To obtain service, the purchaser must return the defective snowplow to an authorized SnowDogg Municipal plow dealer with proof of purchase and applicable maintenance records. All transportation costs to and from the dealer will be the responsibility of the purchaser.

**WELCOME!**

Congratulations on your purchase of a SnowDogg plow! The SnowDogg plow by Buyers Products is a heavy-duty, professional grade plow built for your toughest plowing applications. By using this manual for maintenance and safety instructions, you can be sure to optimize the life of your plow.

**Your dealer can provide expert assistance and service and is the first line of support. Components and accessories for mounting plows can be custom built by the dealer and/or sourced from other manufacturers. They have firsthand knowledge of your plow and the components used to build it to the finished specification.**

Dealer Name: \_\_\_\_\_ Dealer Phone: \_\_\_\_\_

Be sure to register your plow after purchase at [www.snowdogglows.com](http://www.snowdogglows.com). The required information is shown on the Registration Data Sheet. Registration is required to activate your warranty.

**REGISTRATION DATA SHEET**

Owner's Information

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Purchased From: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Plow Model: 166 SERIES

Plow Serial#: \_\_\_\_\_

Truck Model: \_\_\_\_\_

Truck Year: \_\_\_\_\_

*Register your plow at [www.snowdogglows.com](http://www.snowdogglows.com) to activate your warranty.*

## Warnings and Safety Information:

### WARNING

Read this manual carefully before operating this snowplow. Make sure you fully understand how the plow operates before taking the controls.

### WARNING

Always follow the vehicle manufacturer's recommendations relating to snowplow installation.

### CAUTION

*Do not over load your vehicle:*

- The vehicle with the snowplow installed must comply with applicable Federal Motor Vehicle Safety Standards (FMVSS).
- The vehicle with the snowplow installed must comply with the vehicle manufacturer's stated gross vehicle and axle weight ratings (found on the driver-side door corner post of the vehicle) and the front and rear weight distribution ratio. In some cases, rear ballast may be required to comply with these requirements.
- In some cases there may be additional limitations and requirements.
- Available capacity decreases as the vehicle is loaded with cargo or other truck equipment, or snowplow accessories are installed.
- If there is uncertainty as to whether available capacity exists, the actual vehicle as configured must be weighed.

**NOTE:** Snowplow installers must certify that installation conforms to federal motor vehicle safety standards.

### WARNING

Make sure plow is properly attached before moving vehicle. Make sure all attachment pins are securely in place.

### WARNING

Do not move plow while servicing or place body parts between or under plow parts while moving plow.

### WARNING

Always lower blade when vehicle is not in use.




### CAUTION

Do not plow snow with the plow suspended off the ground. Damage to the plow and/or truck may occur.

### CAUTION

If running gear is used, do not back-up with the plow on the ground. Damage to the running gear and/or plow will occur.

## Recommended Fastener Torque Chart (ft.-lb.)

Size	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893

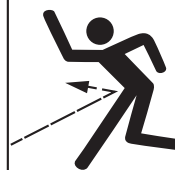
Metric Grade 8.8 (ft.-lb.)			
Size	Torque	Size	Torque
M6	7	M12	60
M8	17	M14	95
M10	35	M16	155

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

### CAUTION

**FOLD DOWN  
LIFT ARM AND  
SECURE WITH PIN  
WHEN PLOW IS  
DISCONNECTED.**

### WARNING

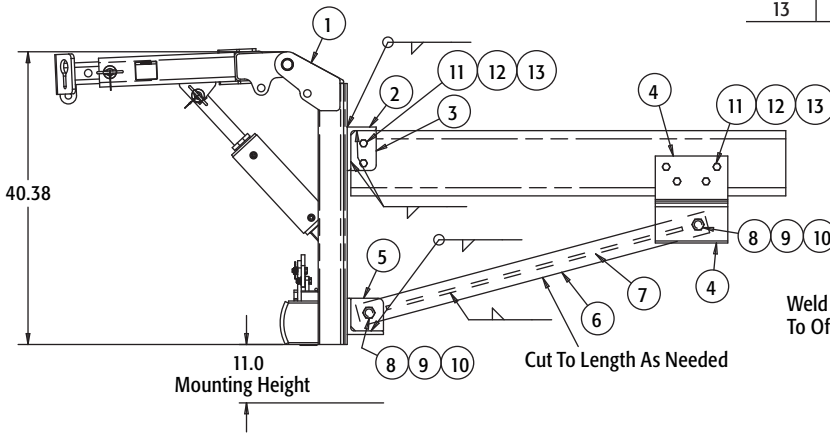
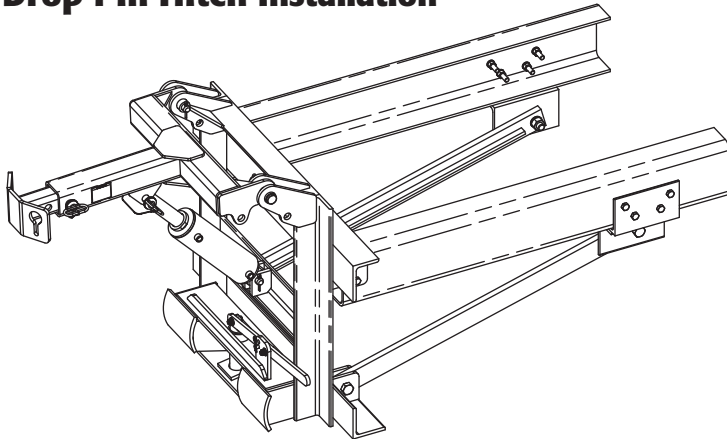


### COMPRESSED SPRING

Refer to operator's manual for proper disassembly and assembly instructions

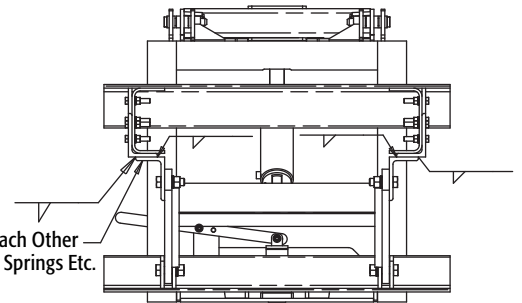


## Drop Pin Hitch Installation



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	-	1	Hitch Assembly, Drop Pin
2-13	16340100	1	Mount Kit, Muni Fab, Bumper To Frame
2	16340102	1	Angle, Mount, Horizontal
3	16340104	2	Plate, Frame Mount, Side
4	16340106	4	Angle, Mount, Frame
5	16340108	4	Plate, Brace Mount, Lower
6	16340110	2	Bar, Brace
7	16340112	2	Bar, Brace Stiffener
8-13	16340114	1	Hardware Bag, Bumper To Frame Mount
8	-	4	Screw, Hex Cap, 1"-8 X 3-1/4, Gr 5, Zn
9	-	4	Washer, Lock, 1", Zn
10	-	4	Nut, Hex, 1"-8, Gr 5, Zn
11	-	12	Screw, Hex Cap, 5/8-11 X 3, Gr 5, Zn
12	-	12	Washer, Lock, 5/8", Zn
13	-	12	Nut, Hex, 5/8-11, Gr5, Zn

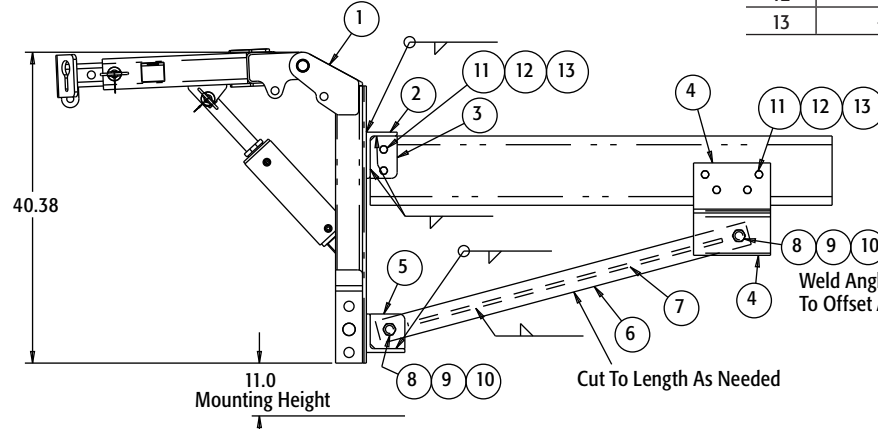
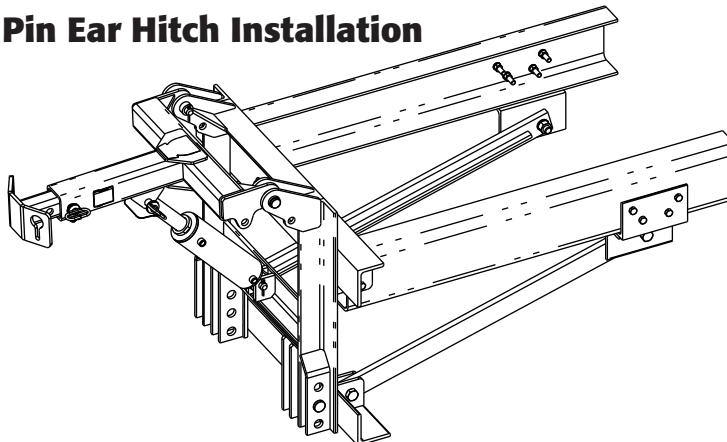


Weld Angles To Each Other  
To Offset Around Springs Etc.

#### Notes:

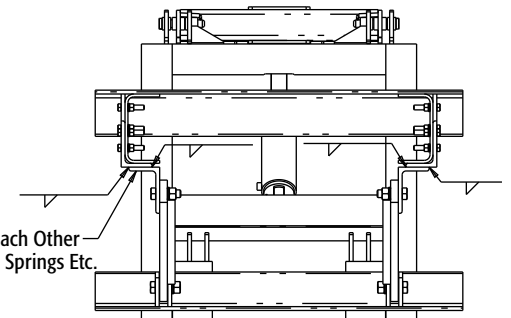
1. Do Not Weld Any Components To The Truck Frame.
2. Torque All Fasteners To Torque Chart Specifications.

## Pin Ear Hitch Installation



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	-	1	Hitch Assembly, Pin Ear
2-13	16340100	1	Mount Kit, Muni Fab, Bumper To Frame
2	16340102	1	Angle, Mount, Horizontal
3	16340104	2	Plate, Frame Mount, Side
4	16340106	4	Angle, Mount, Frame
5	16340108	4	Plate, Brace Mount, Lower
6	16340110	2	Bar, Brace
7	16340112	2	Bar, Brace Stiffener
8-13	16340114	1	Hardware Bag, Bumper To Frame Mount
8	-	4	Screw, Hex Cap, 1"-8 X 3-1/4, Gr 5, Zn
9	-	4	Washer, Lock, 1", Zn
10	-	4	Nut, Hex, 1"-8, Gr 5, Zn
11	-	12	Screw, Hex Cap, 5/8-11 X 3, Gr5, Zn
12	-	12	Washer, Lock, 5/8", Zn
13	-	12	Nut, Hex, 5/8-11, G5, Zn

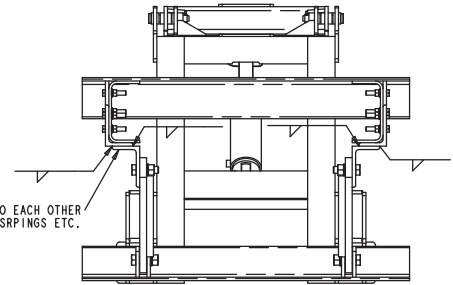
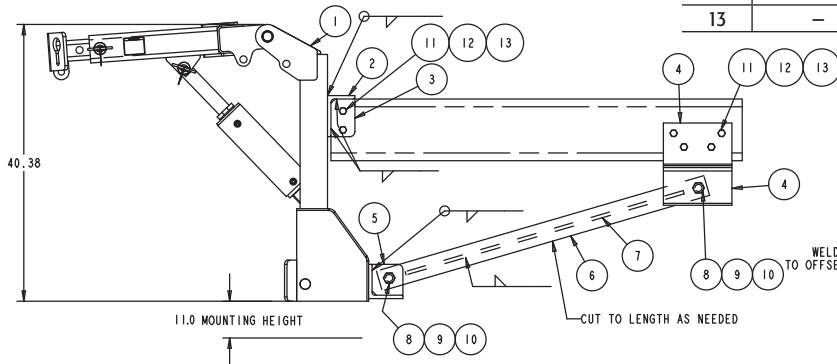
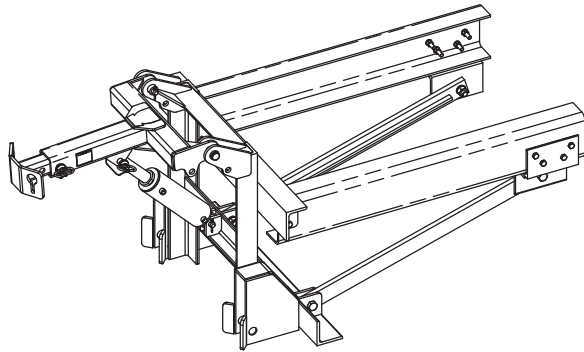


Weld Angles To Each Other  
To Offset Around Springs Etc.

#### Notes:

1. Do Not Weld Any Components To The Truck Frame.
2. Torque All Fasteners To Torque Chart Specifications.

## Quick Hitch Installation



WELD ANGLES TO EACH OTHER TO OFFSET AROUND SRPINGS ETC.

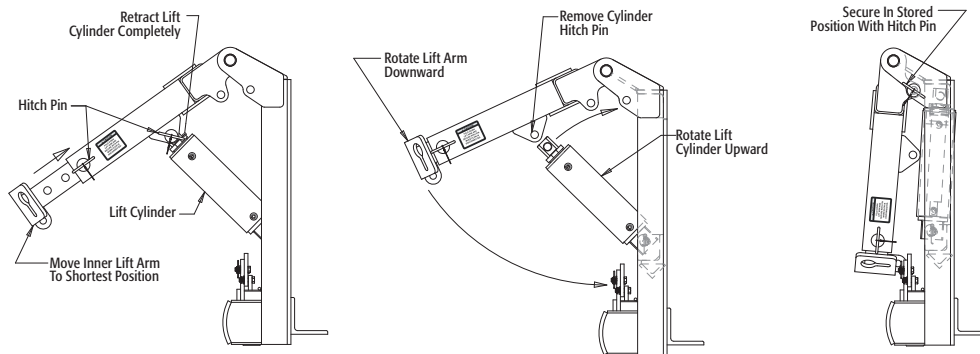
NOTES:  
1. DO NOT WELD ANY COMPONENTS TO THE TRUCK FRAME.  
2. TORQUE ALL FASTENERS TO TORQUE CHART SPECIFICATIONS.

## Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	—	1	HITCH ASSEMBLY, QUICK HITCH
2-13	16340100	1	MOUNT KIT, MUNI FAB, BUMPER TO FRAME
2	16340102	1	ANGLE, MOUNT, HORIZONTAL
3	16340104	2	PLATE, FRAME MOUNT, SIDE
4	16340106	4	ANGLE, MOUNT, FRAME
5	16340108	4	PLATE, BRACE MOUNT, LOWER
6	16340110	2	BAR, BRACE
7	16340112	2	BAR, BRACE STIFFENER
8-13	16340114	1	HARDWARE BAG, BUMPER TO FRAME MOUNT
8	—	4	SCREW, HEX CAP, 1"-8 X 3-1/4, GR 5, ZN
9	—	4	WASHER, LOCK, 1", ZN
10	—	4	NUT, HEX, 1"-8, GR 5, ZN
11	—	12	SCREW, HEX CAP, 5/8-11 X 3, GR5, ZN
12	—	12	WASHER, LOCK, 5/8", ZN
13	—	12	NUT, HEX, 5/8-11, G5, ZN

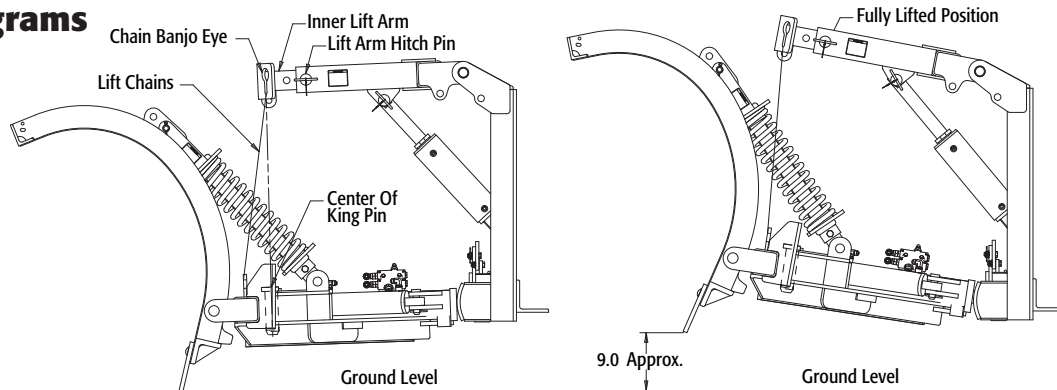
## Lift Arm Storage

**CAUTION** Fold Down Lift Arm And Secure With Pin When Plow Is Disconnected.



1. Retract lift cylinder completely.
2. Adjust inner lift arm to its shortest position.
3. While supporting the lift arm and the lift cylinder, remove the hitch pin that attaches the cylinder rod to the lift arm.
4. Rotate the cylinder towards the hitch frame into its stowed position & then rotate the lift arm downward.
5. Secure the lift arm in the stowed position with the hitch pin as shown.

## Level Lift Diagrams



### Adjusting The Plow And Hitch For Level Lift:

1. On level ground, attach plow's a-frame to the hitch.
2. Adjust lift arm until it is all most 90° as shown.
3. Remove the lift arm hitch pin and adjust the inner lift arm until the chain attachment points are in-line with the center of the king pin. Secure with the hitch pin.
4. Attach lift chains to the lift arm so that when the lift arm is fully lifted the cutting edge approximately 9" off the ground.

## Operating Instructions

- Before plowing make sure plow is properly attached before moving vehicle and make sure all attachment pins are securely in place.
- Before Plowing make sure all maintenance items in this manual have been completed and any problems repaired.
- While plowing, the plow must be resting on the cutting edge or running gear. Attempting to plow with all the weight of the plow on the truck will cause serious damage to the snowplow, and possibly overload the truck's front axle.
- If running gear is used, raise the plow before reversing the vehicle. Damage to the running gear and/or plow will occur if the plow is left on the ground.
- Periodically inspect the cutting edge and running gear for wear. Do not wear these items past their usable life. The cutting edge should be replaced before the lower support structure contacts the ground.

## Storage and Maintenance

**Maintenance:** The SnowDogg line of plows has been simply designed for reliable service. In order to ensure the reliability of your plow, observe the following maintenance items and inspections:

### Inspect the following daily & every 3-4 hours of operation:

- Cutting edge wear. Do not allow cutting edge to wear down past its usable life. Failure to do so will cause damage to the lower support structure of the moldboard.
- Running gear wear. Replace mushroom shoe as the wear surface approaches the heads of the fasteners.

### Inspect the following daily & every 8 hours of operation:

- Check fasteners and retaining devices for proper installation and tightness. Replace and re-torque fasteners as needed.
- Check hydraulic cylinders for damage, pitting or leakage. Repair or replace as needed.

- Inspect Hydraulic hoses for wear, damage or leakage. Repair or replace as needed.
- Grease king pin and running gear.
- Lubricate all pivot points and moving parts.
- Cycle cylinders daily to maintain a film of hydraulic oil on the chrome rods. This film of hydraulic oil will minimize the chances of corrosion forming on the chrome rods.
- Inspect safety decals. Replace if damaged or missing.

**With proper maintenance and care your SnowDogg plow will provide years of trouble-free service!**

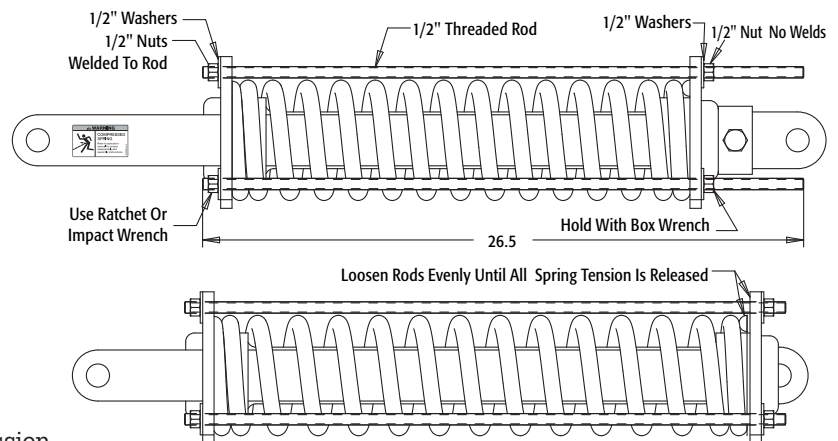
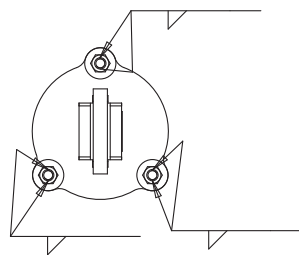
### Storage:

1. Repair/touch up any chipped paint or rusted areas on plow and hitch.
2. Apply a coating of grease to any exposed chrome on angle and lift cylinders. This will displace water, protecting the chrome from corrosion.
3. Grease king pin and lubricate all the other pivot points.
4. Use proper caps and plugs on the hydraulic fittings to keep them clean preventing contamination from entering hydraulic system.
5. If stored outdoors, periodically check that drain holes on top of moldboard are clear of obstructions and water is not pooling on top of the moldboard.

### Removal from Storage:

1. Check all fasteners and hydraulic components for damage and tightness.
2. Replace and properly tighten any damaged or loose components before operating the plow.
3. Remove grease applied to cylinder rods for storage.
4. Grease king pin and lubricate all the other pivot points and moving parts.
5. Connect plow to vehicle and adjust lift chains properly.

## Compression Spring Disassembly

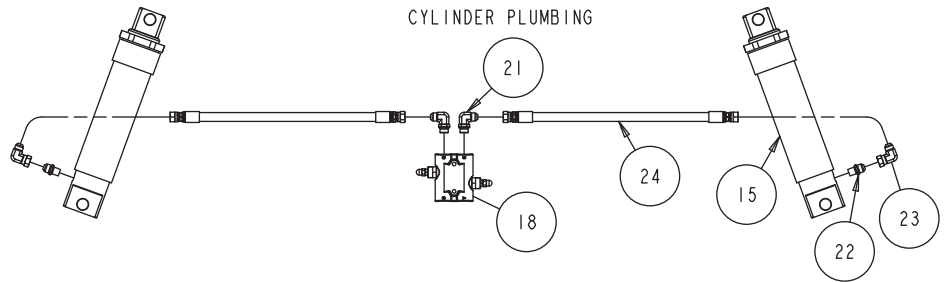
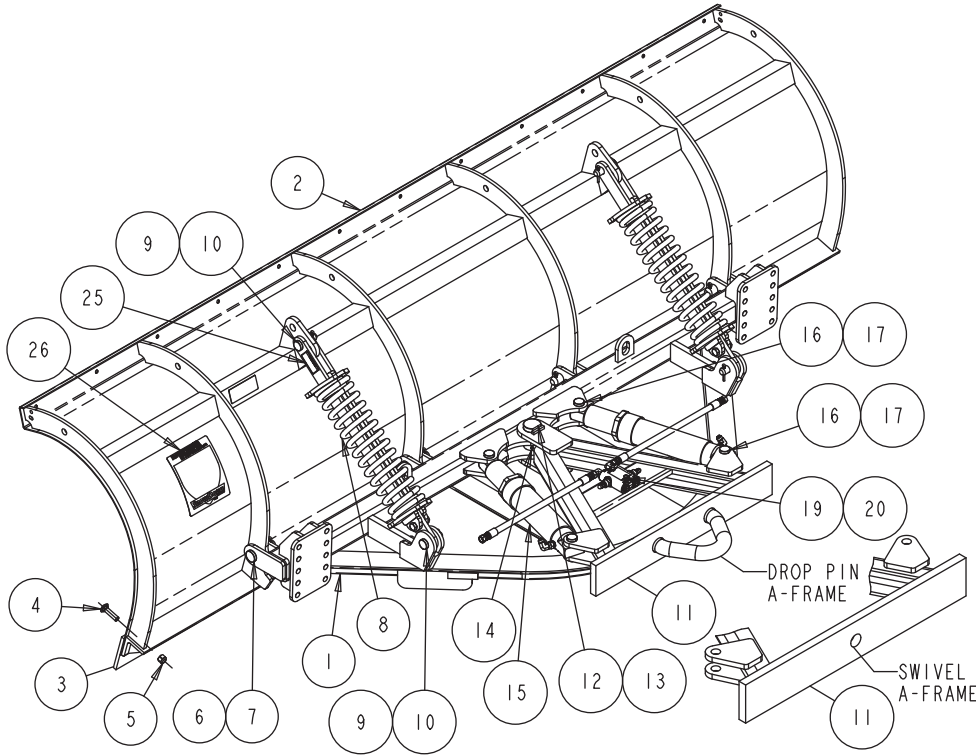


### Compression Spring Disassembly:

1. To service compression spring, remove the compression spring assembly from the plow by removing the 1" pins on either end.
2. Fabricate three 1/2" x 26-1/2" bolts from 1/2" threaded rod and hex nuts as shown.
3. Assemble the three fabricated bolts to the compression spring assembly as shown using six 1/2" flat washers and three 1/2" hex nuts.

4. Tighten each long bolt evenly until the pressure is released from the two stop bars.
5. Remove the 5/8" hardware and stop bars from the spring assembly.
6. Loosen the long fabricated bolts slowly and evenly until all the spring tension has been released.
7. Reassemble in reverse order.

### 36" Full Trip Plow Parts Diagram



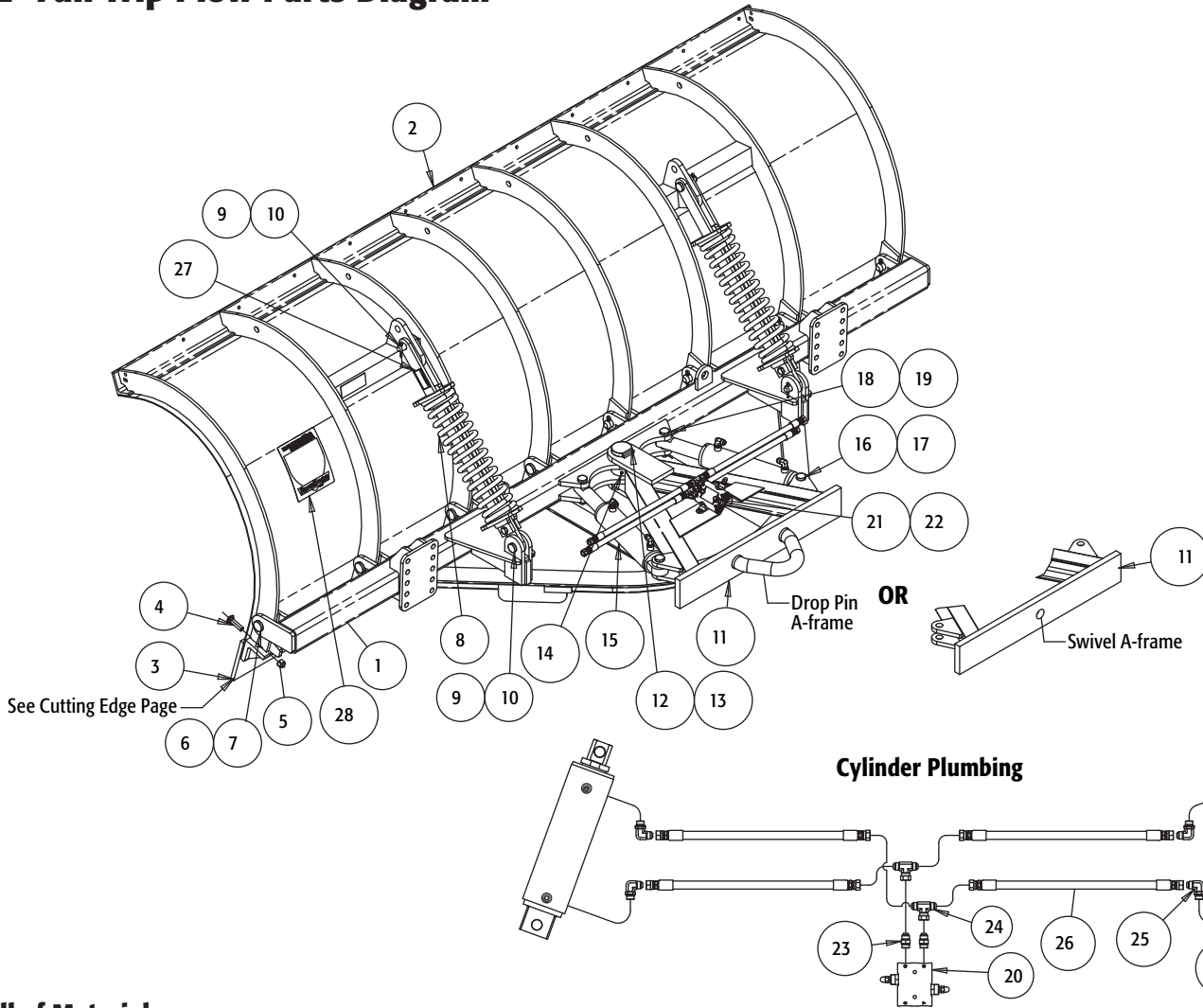
#### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	16326110	1	PUSH FRAME, 36" MUNI PLOW
2	16316110	1	MOLDBOARD, 10' X 36", CS, FT, MUNI
	16317110	1	MOLDBOARD, 11' X 36", CS, FT, MUNI
3	16360453	1	CUTTING EDGE, 120" X 6" X 1/2", STD HWY
	16360454	1	CUTTING EDGE, 132" X 6" X 1/2", STD HWY
4-5	16350431	1	BOLT KIT, CUTTING EDGE, 5/8 X 2-1/2, 14 SETS
4	-	14	CARRIAGE BOLT 5/8-11 X 2.5, FULL THD, GR. 5 ZN
5	-	14	NUT, NYLOCK 5/8-11, ZN
6-7	16351010	4	TRIP PIN, W/ COTTER, 1-1/4 X 4, ZY
6	-	4	PIN, TRIP, 1-1/4" X 4", ZINC YELLOW
7	-	4	PIN, COTTER, 5/16 X 2-1/2, ZINC
8	16350102	2	TRIP SPRING ASSEMBLY, 36" MUNI PLOWS
9-10	16351015	4	PIN KIT, SPRING BAR, W/ COTTER, 1 X 3, ZY
9	-	4	PIN, SPRING BAR, 1" X 3", ZINC YELLOW
10	-	4	PIN, COTTER 1/4 X 2 ZN
11	16330220	1	A-FRAME, SWIVEL, 36" MUNI PLOW
	16330120	1	A-FRAME, DROP PIN, 36" MUNI PLOW
12-13	16351007	1	KING PIN KIT, 1-1/2", W/ COTTER
12	-	1	PIN, KING, 1-1/2" X 6", ZY
13	-	1	PIN, COTTER, 5/16 X 2-1/2, ZINC

ITEM	PART NO.	QTY.	DESCRIPTION
14	16101515	1	GREASE FITTING, 1/4 DRIVE SPECIAL
15	16352150	2	CYLINDER, 3" ROD X 10" STROKE
16-17	16351020	4	PIN KIT, CYLINDER, W/ COTTER, 1 X 3-1/2, ZY
16	-	4	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
17	-	4	PIN, COTTER 1/4 X 2 ZN
18	16101515	1	VALVE, CROSSOVER RELIEF, 1/2" SAE ORB
19-20	16335305	1	HARDWARE BAG, CROSSOVER VALVE
19	-	2	SCREW, HHC 5/16-18 X 2-3/4 GR. 5 ZN
20	-	2	NUT, NYLOCK 5/16-18 ZN
21	16352315	2	FITTING, ADAPTOR, 90 DEG, 1/2" JIC TO 1/2" ORB
22	16352325	2	FITTING, ADAPTOR, MALE 3/8 NPT X MALE 1/2" JIC
23	16352330	2	FITTING, ELBOW, SWIVEL NUT, 1/2" JIC
24	16352320	2	HOSE, CYLINDER
25	16350125	2	DECAL, WARNING, COMPRESSION SPRING
26	16350050	1	DECAL, MADE IN USA, SNOW DOGG MOLDBOARD



# 42" Full Trip Plow Parts Diagram

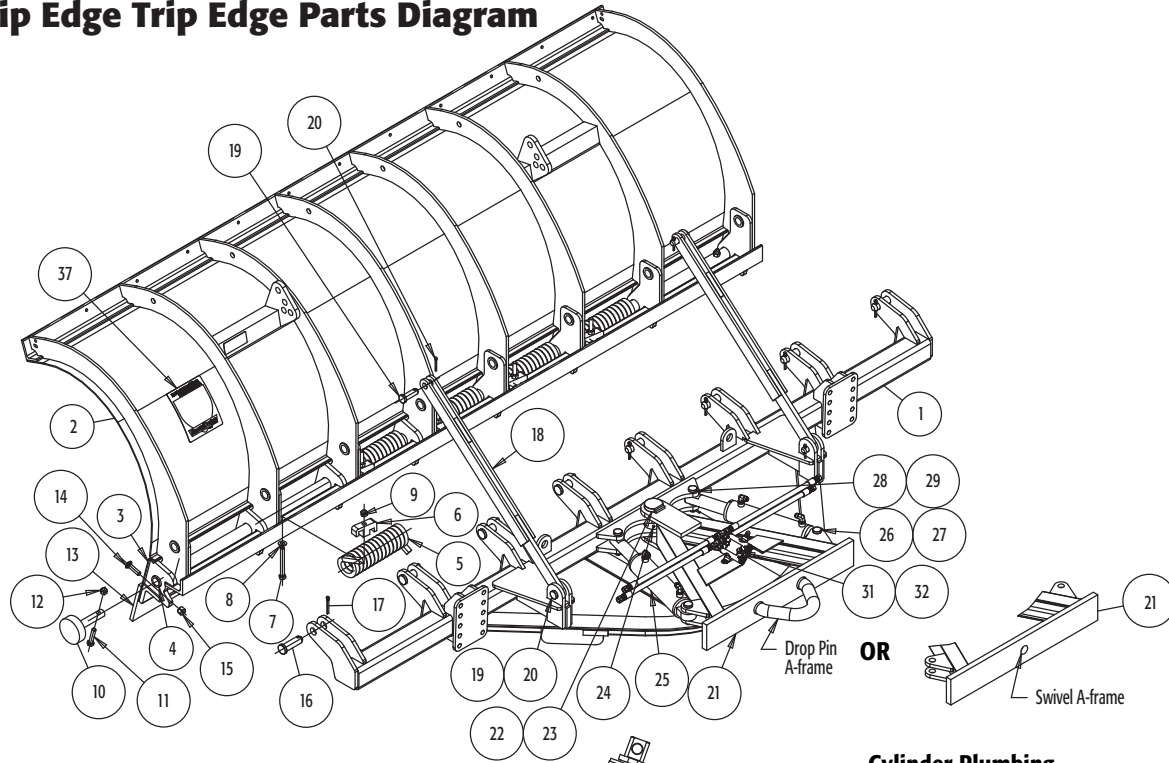


## Bill of Materials

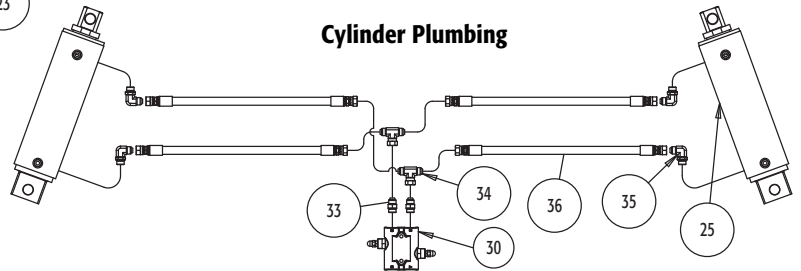
ITEM	PART NO.	QTY.	DESCRIPTION
1	16322110	1	PUSH FRAME, 10' X 42" FULL TRIP
	16323110	1	PUSH FRAME, 11' X 42" FULL TRIP
	16324110	1	PUSH FRAME, 12' X 42" FULL TRIP
2	16312110	1	MOLDBOARD, 10' X 42", CARBON, FULL TRIP
	16313110	1	MOLDBOARD, 11' X 42", CARBON, FULL TRIP
	16314110	1	MOLDBOARD, 12' X 42", CARBON, FULL TRIP
	16312120	1	MOLDBOARD, 10' X 42", STAINLESS, FULL TRIP
	16313120	1	MOLDBOARD, 11' X 42", STAINLESS, FULL TRIP
	16314120	1	MOLDBOARD, 12' X 42", STAINLESS, FULL TRIP
3	16360420	1	CUTTING EDGE, 120" X 8" X 5/8", STD HWY
	16360425	1	CUTTING EDGE, 132" X 8" X 5/8", STD HWY
	16360430	1	CUTTING EDGE, 144" X 8" X 5/8", STD HWY
4-5	16350431	1	BOLT KIT, CUTTING EDGE, 5/8 X 2-1/2, 14 SETS
4	-	14	CARRIAGE BOLT 5/8-11 X 2.5, GR. 5 ZN
5	-	14	NUT, NYLOCK, 5/8-11, ZN
6-7	16351010	8	TRIP PIN, W/ COTTER, 1-1/4 X 4, ZY
6	-	8	PIN, TRIP, 1-1/4" X 4", ZINC YELLOW
7	-	8	PIN, COTTER, 5/16 X 2-1/2, ZINC
8	16350100	2	TRIP SPRING ASSEMBLY, 42" MUNI PLOWS
9-10	16351015	4	PIN KIT, SPRING BAR, W/ COTTER, 1 X 3, ZY
9	-	4	PIN, SPRING BAR, 1" X 3", ZINC YELLOW
10	-	4	PIN, COTTER 1/4 X 2 ZN
11	16330200	1	A-FRAME, SWIVEL, 42" MUNI PLOWS
	16330100	1	A-FRAME, DROP PIN, 42" MUNI PLOWS

ITEM	PART NO.	QTY.	DESCRIPTION
12-13	16351005	1	KING PIN KIT, 2", W/ COTTER
12	-	1	PIN, KING, 2" X 6-3/4", ZY
13	-	1	PIN, COTTER, 5/16 X 3, ZINC
14	16101515	1	GREASE FITTING, 1/4 DRIVE SPECIAL
15	SEE CYL PAGE	2	CYLINDER
16-17	16351020	2	PIN KIT, CYLINDER, W/ COTTER, 1 X 3-1/2, ZY
16	-	2	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
17	-	2	PIN, COTTER 1/4 X 2 ZN
18-19	16351025	2	PIN KIT, CYLINDER, W/ COTTER, 1" X 4-1/8", ZY
18	-	2	PIN, CYLINDER, 1" X 4-1/8", ZINC YELLOW
19	-	2	PIN, COTTER 1/4 X 2 ZN
20	16352300	1	VALVE, CROSSOVER RELIEF, 1/2" SAE ORB
21-22	16335305	1	HARDWARE BAG, CROSSOVER VALVE
21	-	2	SCREW, HHC 5/16-18 X 2-3/4 GR. 5 ZN
22	-	2	NUT, NYLOCK 5/16-18 ZN
23	16352305	2	FITTING, ADAPTOR, STR, 1/2" JIC TO 1/2" SAE ORB
24	16352310	2	FITTING, TEE, SWIVEL NUT BRANCH, 1/2" JIC
25	16352315	4	FITTING, ADAPTOR, 90 DEG, 1/2" JIC TO 1/2" ORB
26	16352320	4	HOSE, CYLINDER
27	16350125	2	DECAL, WARNING, COMPRESSION SPRING
28	16350050	1	DECAL, MADE IN USA, SNOWDOGG MOLDBOARD

# 42" Trip Edge Trip Edge Parts Diagram



## Cylinder Plumbing

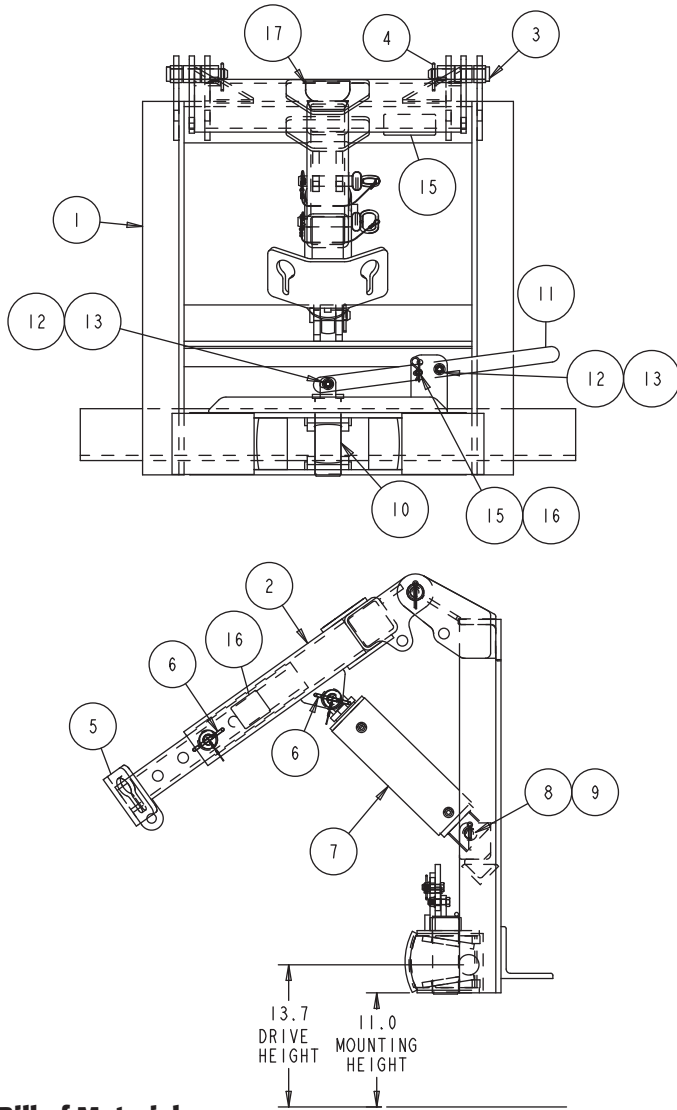


### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	16322210	1	PUSH FRAME, 10' X 42" TRIP EDGE
	16323210	1	PUSH FRAME, 11' X 42" TRIP EDGE
2	16312210	1	MOLDBOARD, 10' X 42", CARBON, TRIP EDGE
	16313210	1	MOLDBOARD, 11' X 42", CARBON, TRIP EDGE
	16312220	1	MOLDBOARD, 10' X 42", STAINLESS, TRIP EDGE
	16313220	1	MOLDBOARD, 11' X 42", STAINLESS, TRIP EDGE
3	16312212	1	ANGLE WELDMENT, TRIP, 10' CARBON STEEL
	16313212	1	ANGLE WELDMENT, TRIP, 11' CARBON STEEL
	16312222	1	ANGLE WELDMENT, TRIP, 10' STAINLESS STEEL
	16313222	1	ANGLE WELDMENT, TRIP, 11' STAINLESS STEEL
4	16350205	1	TUBE, 10' TRIP
	16350210	1	TUBE, 11' TRIP
5	16350200	5	SPRING, TORSION, TRIP EDGE
6	16350215	5	DOG, RETENTION, TRIP SPRING
8-9	16350220	5	HARDWARE BAG, TRIP DOG
7	-	5	BOLT, TAP, 5/8-11 X 5-1/2", GR5, ZN
8	-	5	WASHER, 5/8", HARDENED, ZY
9	-	5	NUT, NYLOCK, 5/8-11, ZN
10-12	16350225	2	SHOE, TRIP EDGE W/ HDW
10	-	2	SHOE ONLY, TRIP EDGE
11	-	2	SCREW, HHC, 5/8-11 X 3, GR 8, ZN
12	-	2	NUT, NYLOCK, 5/8-11, ZN
13	16360420	1	CUTTING EDGE, 120" X 8" X 5/8", STD HWY
	16360425	1	CUTTING EDGE, 132" X 8" X 5/8", STD HWY
	16360430	1	CUTTING EDGE, 144" X 8" X 5/8", STD HWY
14-15	16350431	1	BOLT KIT, CUTTING EDGE, 5/8 X 2-1/2, 14 SETS
14	-	14	CARRIAGE BOLT 5/8-11 X 2.5, GR. 5 ZN
15	-	14	NUT, NYLOCK, 5/8-11, ZN
16-17	16351010	8	TRIP PIN, W/ COTTER, 1-1/4 X 4, ZY

ITEM	PART NO.	QTY.	DESCRIPTION
16	-	8	PIN, TRIP, 1-1/4" X 4", ZINC YELLOW
17	-	8	PIN, COTTER, 5/16 X 2-1/2, ZINC
18	16350230	2	BRACE, MOLDBOARD, TRIP EDGE
19-20	16351015	4	PIN KIT, SPRING BAR, W/ COTTER, 1 X 3, ZY
19	-	4	PIN, SPRING BAR, 1" X 3", ZINC YELLOW
20	-	4	PIN, COTTER 1/4 X 2 ZN
21	16330200	1	A-FRAME, SWIVEL, 42" MUNI PLOWS
	16330100	1	A-FRAME, DROP PIN, 42" MUNI PLOWS
22-23	16351005	1	KING PIN KIT, 2", W/ COTTER
22	-	1	PIN, KING, 2" X 6-3/4", ZY
23	-	1	PIN, COTTER, 5/16 X 3, ZINC
24	16101515	1	GREASE FITTING, 1/4 DRIVE SPECIAL
25	SEE CYL PAGE	2	CYLINDER
26-27	16351020	2	PIN KIT, CYLINDER, W/ COTTER, 1 X 3-1/2, ZY
26	-	2	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
27	-	2	PIN, COTTER 1/4 X 2 ZN
28-29	16351025	2	PIN KIT, CYLINDER, W/ COTTER, 1" X 4-1/8", ZY
28	-	2	PIN, CYLINDER, 1" X 4-1/8", ZINC YELLOW
29	-	2	PIN, COTTER 1/4 X 2 ZN
30	16352300	1	VALVE, CROSSOVER RELIEF, 1/2" SAE ORB
31-32	16335305	1	HARDWARE BAG, CROSSOVER VALVE
31	-	2	SCREW, HHC 5/16-18 X 2-3/4 GR. 5 ZN
32	-	2	NUT, NYLOCK 5/16-18 ZN
33	16352305	2	FITTING, ADAPTOR, STR, 1/2" JIC TO 1/2" SAE ORB
34	16352310	2	FITTING, TEE, SWIVEL NUT BRANCH, 1/2" JIC
35	16352315	4	FITTING, ADAPTOR, 90 DEG, 1/2" JIC TO 1/2" ORB
36	16352320	4	HOSE, CYLINDER
37	16350050	1	DECAL, MADE IN USA, SNOW DOGG MOLDBOARD

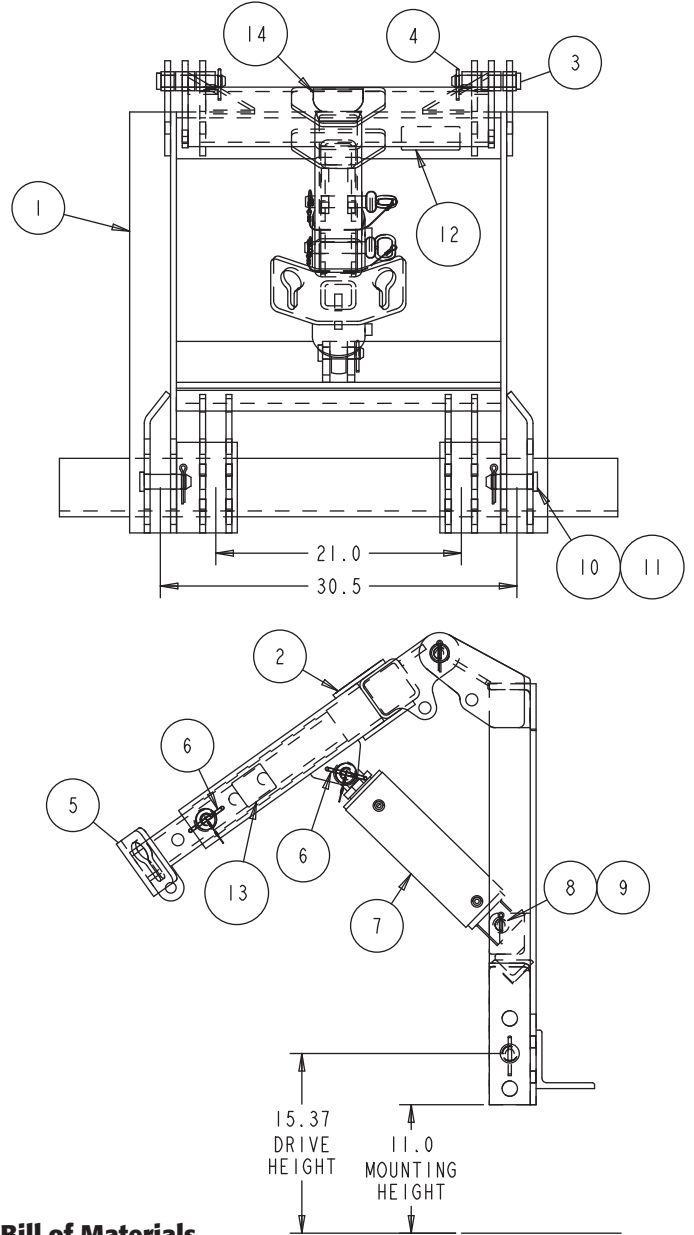
## Drop Pin Hitch Assembly



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	16410100	1	FRAME WELDMENT, DROP PIN HITCH
2	16410005	1	LIFT ARM, OUTER, MUNI HITCH, 27-3/4"W
3-4	16351030	2	HITCH PIN, W/ COTTER, 1" X 5-1/2", ZY
3	-	2	PIN, LIFT ARM, 1" X 5-1/2", ZY
4	-	2	PIN, COTTER, 1/4 X 2, ZN
5	16410010	1	LIFT ARM, INNER, MUNI HITCH
6	16351035	2	HITCH PIN, W/ LYNCH PIN 1" X 4-1/2"
7	SEE CYL PAGE	1	CYLINDER
8-9	16351020	1	CYLINDER PIN, W/ COTTER, 1" X 3-1/2", ZN
8	-	1	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
9	-	1	PIN, COTTER, 1/4 X 2, ZN
10	16410105	1	PIN, DROP
11	16410110	1	BAR, ACTUATOR, DROP PIN
12-13	16353015	2	HARDWARE BAG, DROP PIN RECIEVER
12	-	2	SCREW, HHC, 1/2-13 X 1-3/4, GR 5, ZN
13	-	2	NUT, 1/2-13 FLANGE, NYLOCK, ZN
13-14	16353020	1	CLEVIS PIN, W/ COTTER, 1/2" X 1-9/16", ZN
13	-	1	PIN, CLEVIS, 1/2 X 1-9/16, ZN
14	-	1	PIN, HAIR COTTER
15	N/A	1	PLATE, SERIAL NUMBER, BUYERS MUNI HITCHES
16	16410015	1	DECAL, CAUTION, MUNI LIFT ARM
17	16410020	1	DECAL, SNOWDOGG HITCH

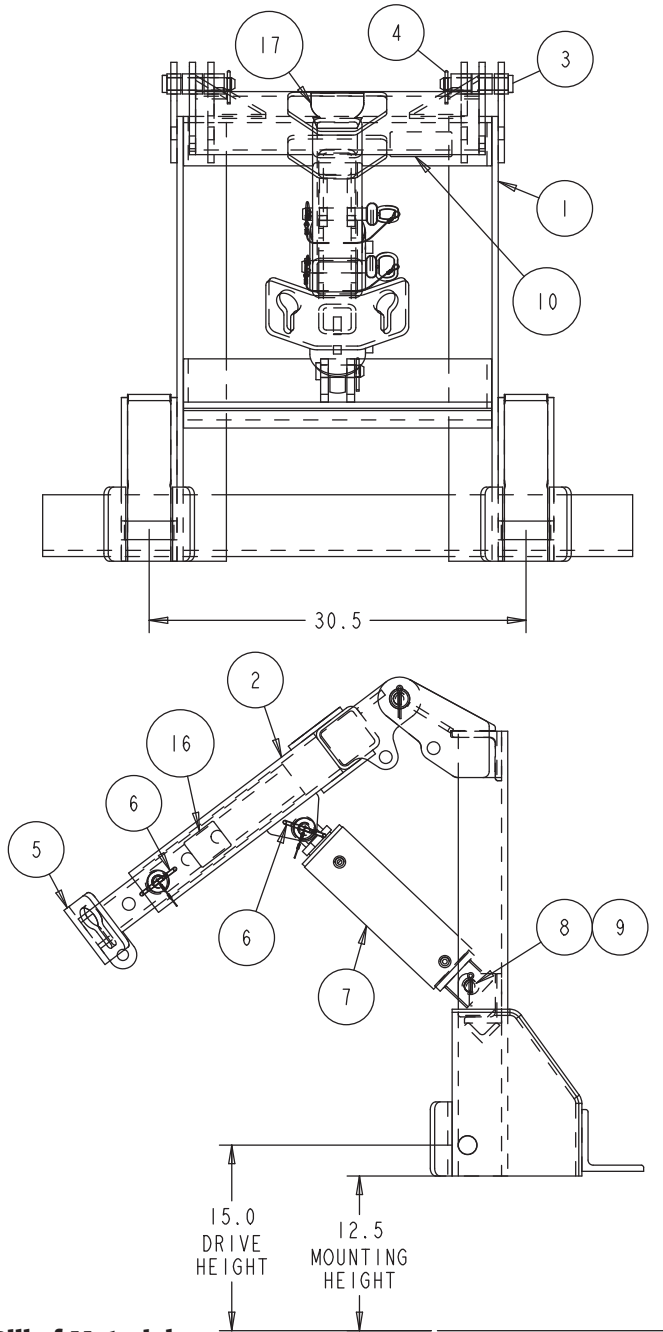
## Pin Ear Hitch Assembly



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	16410200	1	FRAME WELDMENT, PIN EAR
2	16410005	1	LIFT ARM, OUTER, MUNI HITCH, 27-3/4"W
3-4	16351030	2	HITCH PIN, W/ COTTER, 1" X 5-1/2", ZY
3	-	2	PIN, LIFT ARM, 1" X 5-1/2", ZY
4	-	2	PIN, COTTER, 1/4 X 2, ZN
5	16410010	1	LIFT ARM, INNER, MUNI HITCH
6	16351035	2	HITCH PIN, W/ LYNCH PIN 1" X 4-1/2"
7	SEE CYL PAGE	1	CYLINDER
8-9	16351020	1	CYLINDER PIN, W/ COTTER, 1" X 3-1/2", ZN
8	-	1	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
9	-	1	PIN, COTTER, 1/4 X 2, ZN
10-11	16351010	2	TRIP PIN, W/ COTTER, 1-1/4 X 4, ZY
10	-	2	PIN, TRIP, 1-1/4" X 4", ZINC YELLOW
11	-	2	PIN, COTTER, 5/16 X 2-1/2, ZINC
12	N/A	1	PLATE, SERIAL NUMBER, BUYERS MUNI HITCHES
13	16410015	1	DECAL, CAUTION, MUNI LIFT ARM
14	16410020	1	DECAL, SNOWDOGG HITCH

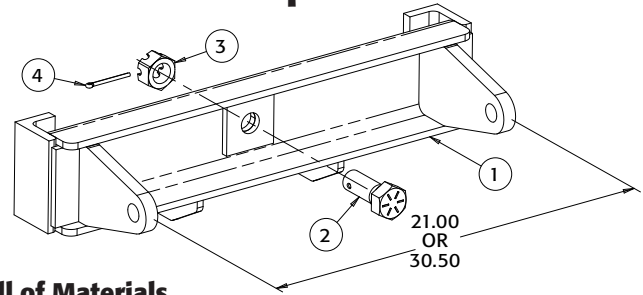
## Quick Hitch Assembly



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1	16410300	1	FRAME WELDMENT, QUICK HITCH
2	16410007	1	LIFT ARM, OUTER, MUNI HITCH, 25"W
3-4	16351030	2	HITCH PIN, W/ COTTER, 1" X 5-1/2", ZY
3	-	2	PIN, LIFT ARM, 1" X 5-1/2", ZY
4	-	2	PIN, COTTER, 1/4 X 2, ZN
5	16410010	1	LIFT ARM, INNER, MUNI HITCH
6	16351035	2	HITCH PIN, W/ LYNCH PIN 1" X 4-1/2"
7	SEE CYL PAGE	1	CYLINDER
8-9	16351020	1	CYLINDER PIN, W/ COTTER, 1" X 3-1/2", ZN
8	-	1	PIN, CYLINDER, 1" X 3-1/2", ZINC YELLOW
9	-	1	PIN, COTTER, 1/4 X 2, ZN
10	N/A	1	PLATE, SERIAL NUMBER, BUYERS MUNI HITCHES
11	16410015	1	DECAL, CAUTION, MUNI LIFT ARM
12	16410020	1	DECAL, SNOWDOGG HITCH

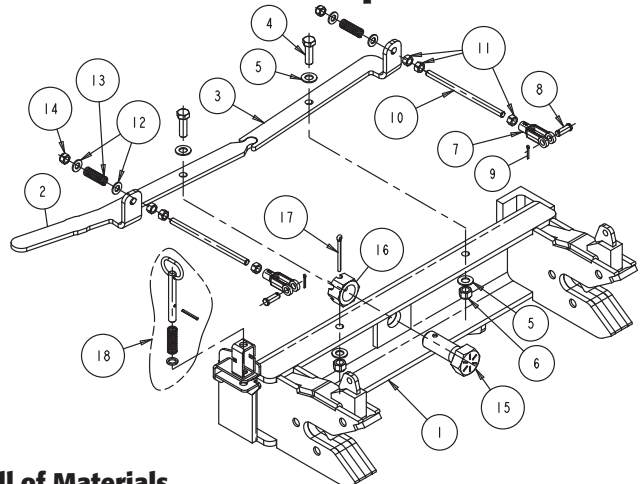
## Pin Ear Swivel Adapters



### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-4	16500205	1	SWIVEL ADAPTOR, 21" PIN EAR HITCH W/ HDW
	16500210	1	SWIVEL ADAPTOR, 30.5" PIN EAR HITCH W/ HDW
1	16410205	1	SWIVEL ADAPTOR, WELDMENT, 21" PIN EAR HITCH
	16410210	1	SWIVEL ADAPTOR, WELDMENT, 30.5" PIN EAR HITCH
2-4	16351040	1	HARDWARE KIT, SWIVEL ADAPTORS
2	-	1	SCREW, HHC, 1.5"-6 X 4", GR8, ZY, W/HOLE
3	-	1	NUT, SLOTTED HEX, 1.5"-6, ZY
4	-	1	PIN, COTTER, 1/4" X 3", ZINC

## Quick Hitch Swivel Adapter

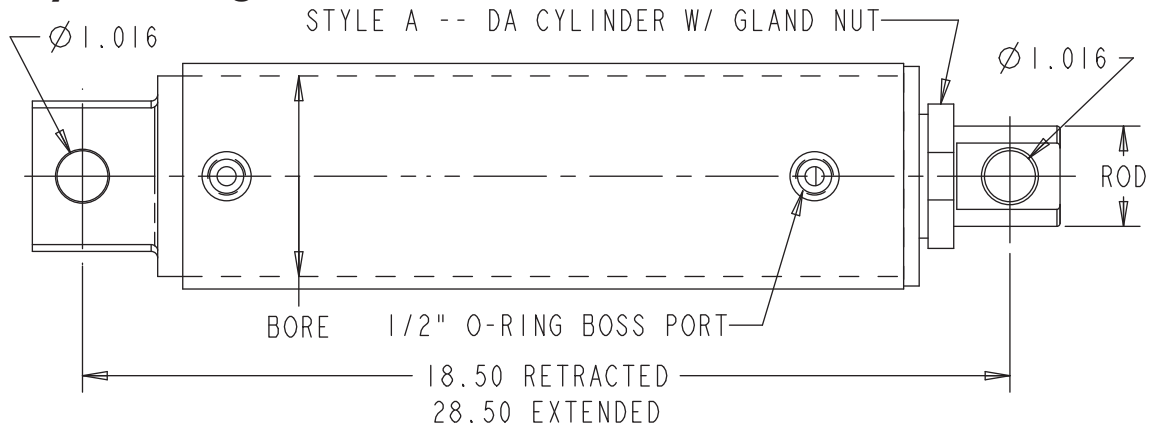


### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-18	16500310	1	SWIVEL ADAPTOR, 30.5" QUICK HITCH W/ HDW
1	16410310	1	QUICK HITCH, MAIN WELDMENT, 30.5", NO HDW
2	16410315	1	ACTUATOR, DRIVER'S SIDE
3	16410320	1	ACTUATOR, PASSENGER'S SIDE
4-6	16353025	2	HARDWARE BAG, ACTUATOR MOUNT
4	--	2	SCREW, HEX CAP 5/8-11 X 2, GR8 ZY
5	--	4	WASHER, 5/8 SAE FLAT ZN
6	--	2	NUT, NYLOCK 5/8-11, ZN
7-10	16353030	2	CLEVIS KIT, INCLUDES CLEVIS PIN & COTTER
7	--	2	ADJ YOKE END, 1/2-20 UNF, STD, ZN
8	--	2	CLEVIS PIN, 1/2" SAE, ZINC PLATED
9	--	2	COTTER PIN, 1/8 X 1, ZINC
10	16353035	2	ROD, THREADED, 1/2-20 X 9, ZN
11-14	16351045	2	HARDWARE KIT, SPRING ROD
11	--	6	NUT, HEX, 1/2-20, ZN
12	--	4	WASHER, FLAT 1/2" SAE ZINC
13	--	2	SPRING, COMPRESSION
14	--	2	NUT, HEX, NYLOCK 1/2-20 ZINC
15-17	16351040	1	HARDWARE KIT, SWIVEL ADAPTORS
15	--	1	SCREW, HHC, 1.5"-6 X 4", GR8, ZY, W/HOLE
16	--	1	NUT, SLOTTED HEX, 1.5"-6, ZY
17	--	1	PIN, COTTER, 1/4" X 3", ZINC
18	16351050	1	PIN KIT, SPRING LATCH, REPAIR



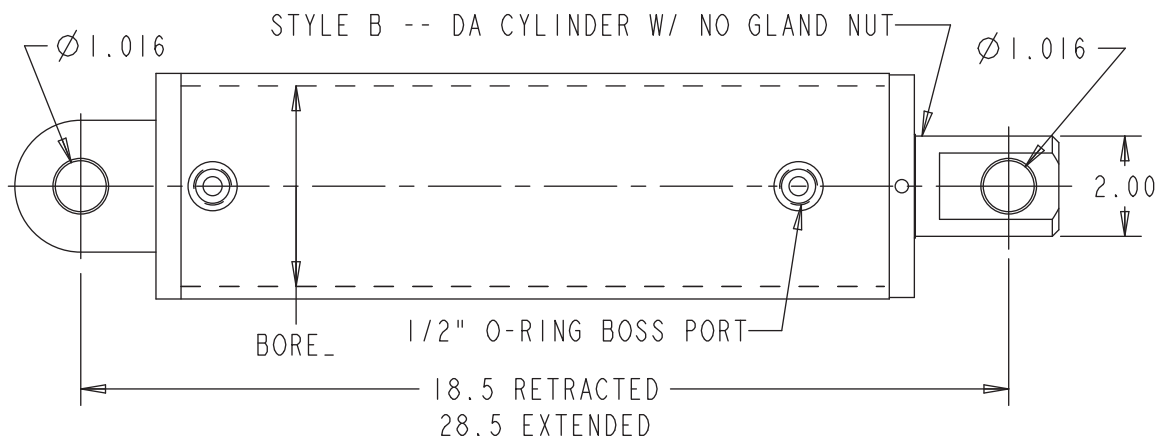
## Hydraulic Cylinder Diagrams



### Double Acting Cylinders - Style A

PART NO.	DESCRIPTION	BORE	SEAL KIT
16352100	CYLINDER, 3"X10", DA, 1-1/2" CHROME ROD	3"	16352105
16352200	CYLINDER, 4"X10", DA, 2" CHROME ROD	4"	16352205

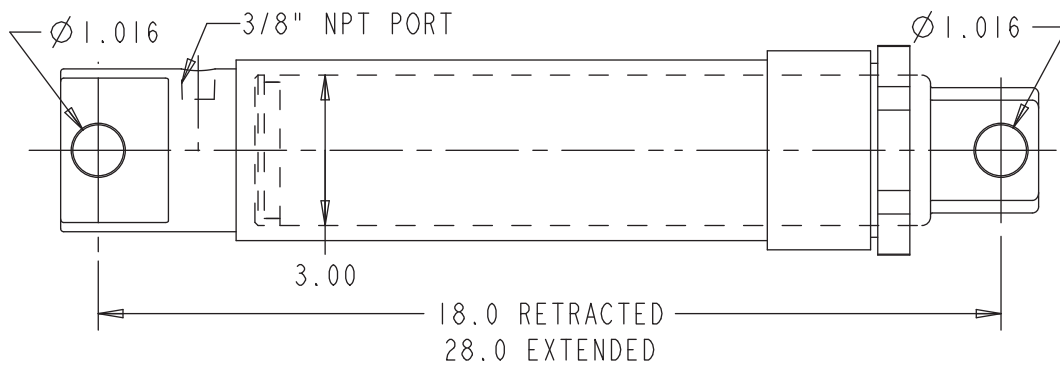
NOTE: FOR USE ONLY ON 42" TALL PLOWS



### Double Acting Cylinders - Style B

PART NO.	DESCRIPTION	BORE	SEAL KIT
16352102	CYLINDER, 3"X10", DA, 2" CHROME ROD	3"	16352107
16352202	CYLINDER, 4"X10", DA, 2" CHROME ROD	4"	16352207

NOTE: FOR USE ONLY ON 42" TALL PLOWS



### Single Acting Cylinder

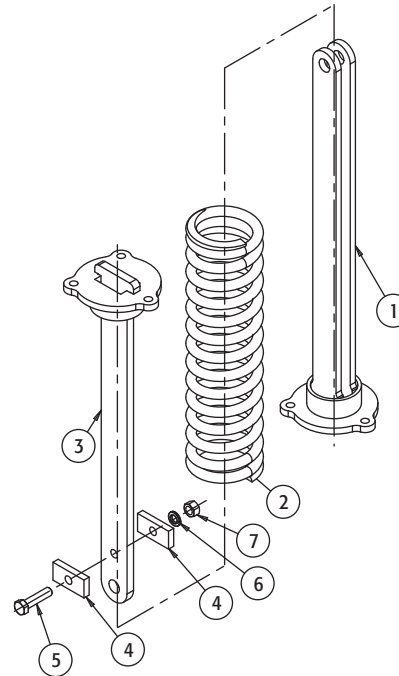
PART NO.	DESCRIPTION	BORE	SEAL KIT
16352150	CYLINDER, 3"X10", SINGLE ACTING	3"	16352155

NOTE: FOR USE ONLY ON 36" TALL PLOWS

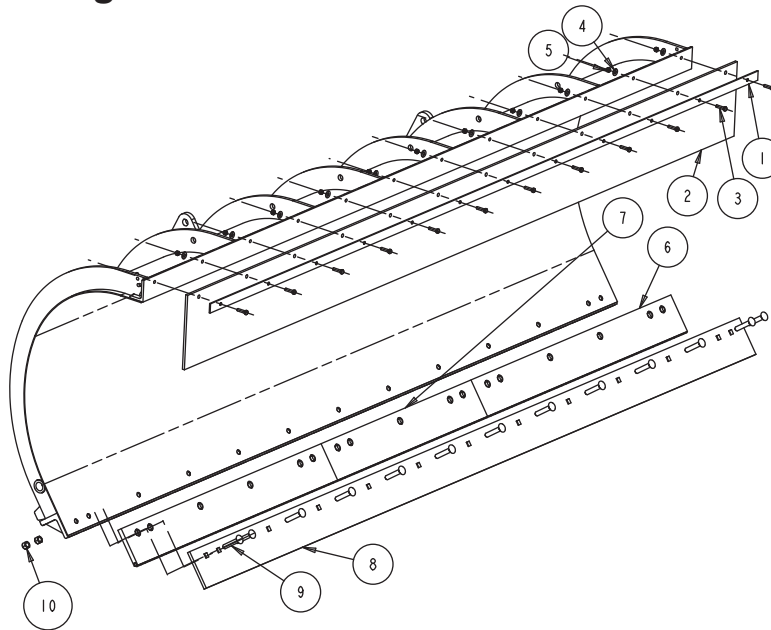
## Trip Spring Assembly

### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-7	16350100	1	TRIP SPRING ASSEMBLY, 42" MUNI PLOW
	16350102	1	TRIP SPRING ASSEMBLY, 36" MUNI PLOW
1	16350105	1	SPRING BAR WELDMENT, UPPER, 42" PLOW
	16350107	1	SPRING BAR WELDMENT, UPPER, 36" PLOW
2	16350110	1	SPRING, COMPRESSION, MUNI
3	16350115	1	SPRING BAR WELDMENT, LOWER
4	16350120	2	BAR, STOP, SPRING BAR
5-7	16353010	1	HARDWARE BAG, TRIP SPRING, MUNI
5	-	1	SCREW, HEX CAP, 5/8-11 X 2.5, GR8, ZY
6	-	1	WASHER, LOCK, 5/8", ZN
7	-	1	NUT, HEX, 5/8-11, GR5, ZN



## Deflector and Carbide Edge

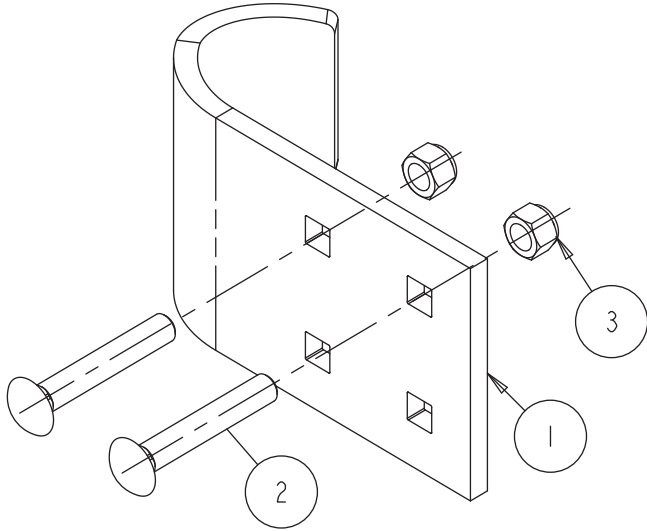


### Bill of Materials

ITEM	PART NO.	10'	11'	12'	DESCRIPTION
1-5	16360200	1	-	-	DEFLECTOR KIT, 10FT, W/ CLAMP STRIP & HDW
	16360205	-	1	-	DEFLECTOR KIT, 11FT, W/ CLAMP STRIP & HDW
	16360210	-	-	1	DEFLECTOR KIT, 12FT, W/ CLAMP STRIP & HDW
1	16120264	1	-	-	STRIP, 10FT DEFLECTOR CLAMP
	16360207	-	1	-	STRIP, 11FT DEFLECTOR CLAMP
	16360212	-	-	1	STRIP, 12FT DEFLECTOR CLAMP
2-5	16360201	1	-	-	DEFLECTOR KIT, 10FT, W/ HARDWARE
	16360206	-	1	-	DEFLECTOR KIT, 11FT, W/ HARDWARE
	16360211	-	-	1	DEFLECTOR KIT, 12FT, W/ HARDWARE
2	-	1	-	-	SNOW DEFLECTOR, 10FT SNOW DOGG
	-	-	1	-	SNOW DEFLECTOR, 11FT SNOW DOGG
	-	-	-	1	SNOW DEFLECTOR, 12FT SNOW DOGG
3-5	16360215	1	1	1	HARDWARE BAG, MUNI SNOW DEFLECTORS

ITEM	PART NO.	10'	11'	12'	DESCRIPTION
3	-	12	12	12	SCREW, HEX CAP, 3/8-16 X 1-1/2, SST
4	-	12	12	12	WASHER, FLAT, 3/8, SST
5	-	12	12	12	NUT, NYLOCK, 3/8-16, ZN
6-10	16360450	1	-	-	CUTTING EDGE KIT, 10FT CARBIDE, W/ HDW
	16360455	-	1	-	CUTTING EDGE KIT, 11FT CARBIDE, W/ HDW
	16360460	-	-	1	CUTTING EDGE KIT, 12FT CARBIDE, W/ HDW
6	16360452	1	2	3	CUTTING EDGE, 48" CARBIDE
7	16360451	2	1	-	CUTTING EDGE, 36" CARBIDE
8	16360453	1	-	-	CUTTING EDGE, 120 X 6 X 1/2, STD HWY
	16360454	-	1	-	CUTTING EDGE, 132 X 6 X 1/2, STD HWY
	16360457	-	-	1	CUTTING EDGE, 144 X 6 X 1/2, STD HWY
9-10	16360456	1	1	1	BOLT KIT, CUTTING EDGE, 5/8-11 X 3, 14 SETS
9	-	14	14	14	BOLT, CARRIAGE, 5/8-11 X 3-1/2", GR5, ZN
10	-	14	14	14	NUT, NYLOCK, 5/8-11, ZN

## Curb Guards

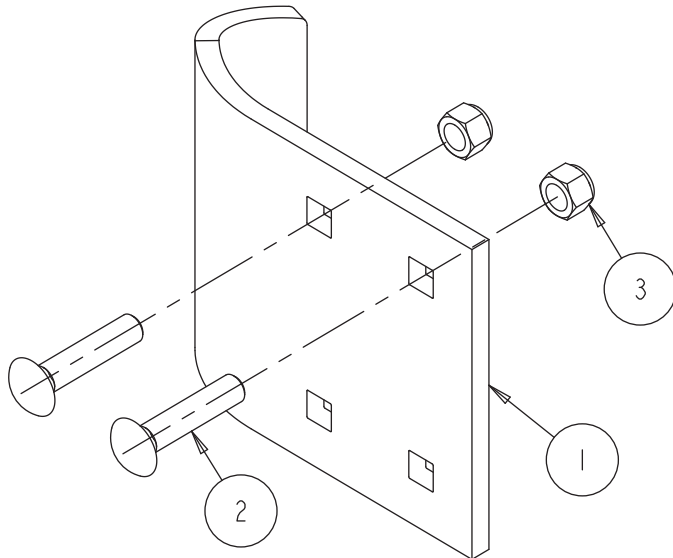


**6" Curb Guard**

### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-3	16360405	1	CURB GUARD, 6", SINGLE, W/ HARDWARE
1	-	1	GUARD, CURB, 6" UNIVERSAL
2	-	2	BOLT, CARRIAGE, 5/8-11 X 4, GR5, ZN
3	-	2	NUT, NYLOCK, 5/8-11, ZN

**NOTE: RECOMMENDED FOR 6" TALL CARBIDE CUTTING EDGE KIT**

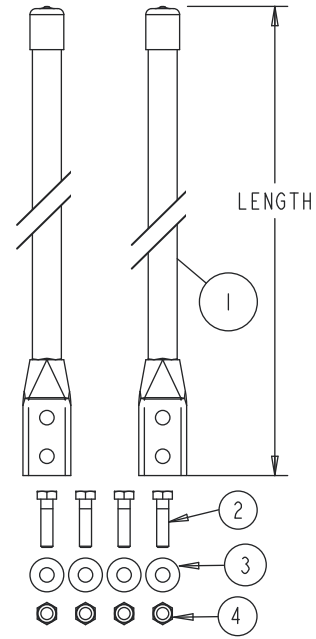


**8" Curb Guard**

### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-3	16360400	1	CURB GUARD, 8", SINGLE, W/ HARDWARE
1	-	1	GUARD, CURB, 8" UNIVERSAL
2	-	2	BOLT, CARRIAGE, 5/8-11 X 3, GR5, ZN
3	-	2	NUT, NYLOCK, 5/8-11, ZN

## Markers



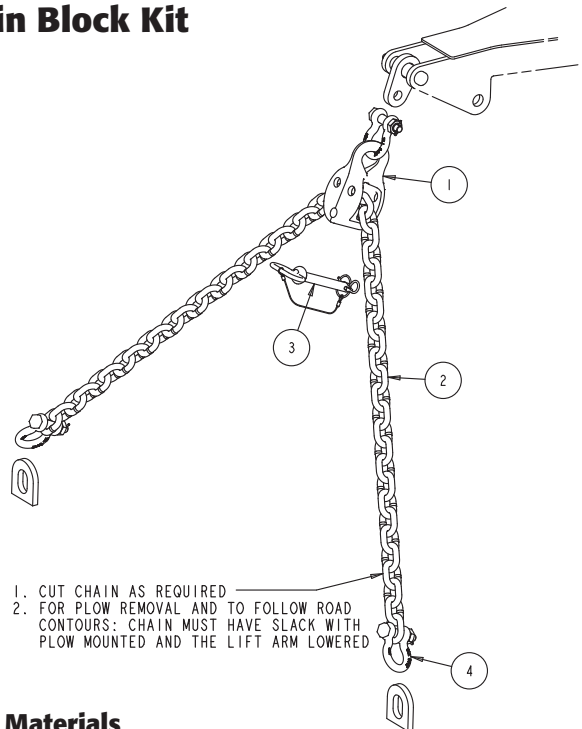
### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-4	16360100	1	MARKER KIT, MUNI PLOW, 36", ORANGE
	16360110	1	MARKER KIT, MUNI PLOW, 28", ORANGE
1	--	2	MARKER, 36", ORANGE
	--	2	MARKER, 28", ORANGE
2	--	4	SCREW, HEX CAP, 5/16-18 X 1.25, GR 5, ZN
3	--	4	WASHER, FLAT, 5/16", ZN
4	--	4	NUT, NYLOCK, 5/16-18, ZN

**NOTE: 28" MARKERS RECOMMENDED FOR 36" TALL PLOWS**

**NOTE: 36" MARKERS RECOMMENDED FOR 42" TALL PLOWS**

## Chain Block Kit



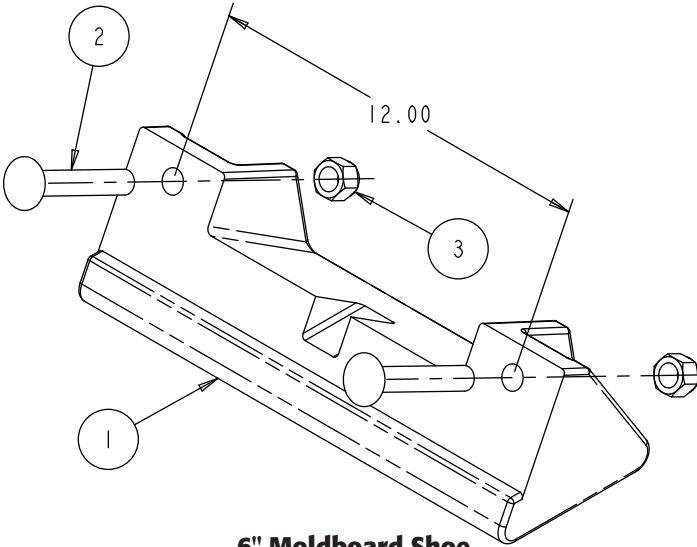
1. CUT CHAIN AS REQUIRED
2. FOR PLOW REMOVAL AND TO FOLLOW ROAD CONTOURS: CHAIN MUST HAVE SLACK WITH PLOW MOUNTED AND THE LIFT ARM LOWERED

### Bill of Materials

ITEM	PART NO.	QTY.	DESCRIPTION
1-4	16360380	1	CHAIN BLOCK KIT, W/ CHAIN & SHACKLES
1	16360381	1	BLOCK, CHAIN, FITS 7/16 & 1/2" CHAIN
2	16360383	1	CHAIN, 1/2", GRADE 43, 8FT LONG, ZY
3	16351037	1	HITCH PIN, W/ LYNCH PIN, 3/4" X 4-1/2"
4	16360384	3	SHACKLE, ANCHOR, 5/8", BOLT SYTLE, GALV

**NOTE: RECOMMENDED FOR USE WITH NON-TELESCOPING HITCHES**

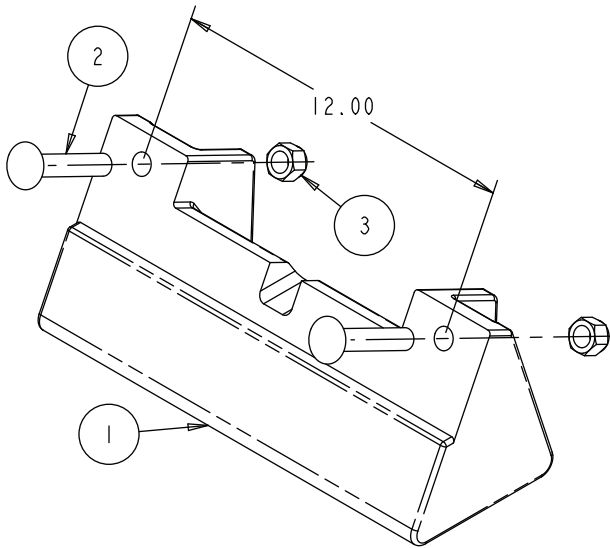
### Moldboard Shoes



**6" Moldboard Shoe**

**Bill of Materials**

ITEM	PART NO.	QTY.	DESCRIPTION
1-3	16360350	1	SHOE KIT, 6" MOLDBOARD, CAST W/ HDW
1	-	1	SHOE, 6" MOLDBOARD, CAST
2	-	2	BOLT, CARRIAGE, 5/8-11 X 4, GR5, ZN
3	-	2	NUT, NYLOCK, 5/8-11, ZN

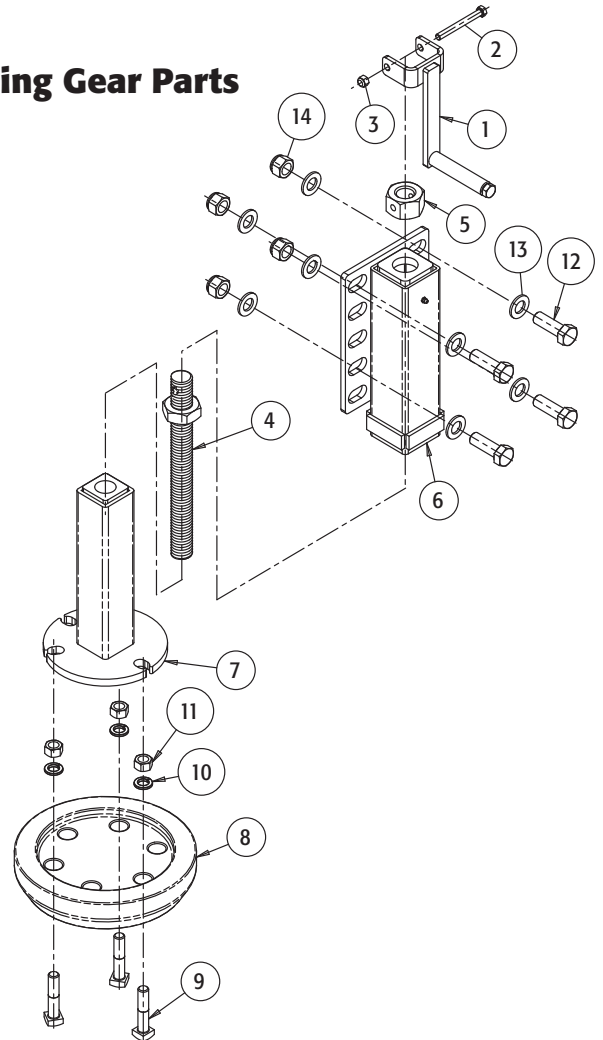


**8" Moldboard Shoe**

**Bill of Materials**

ITEM	PART NO.	QTY.	DESCRIPTION
1-3	16360352	1	SHOE KIT, 8" MOLDBOARD, CAST W/ HDW
1	-	1	SHOE, 8" MOLDBOARD, CAST
2	-	2	BOLT, CARRIAGE, 5/8-11 X 3.5, GR5, ZN
3	-	2	NUT, NYLOCK, 5/8-11, ZN

### Running Gear Parts



**Bill of Materials**

ITEM	PART NO.	QTY.	DESCRIPTION
1-14	16360300	1	RUNNING GEAR, 3", W/ MUSHROOM SHOE & HDW
	16360310	1	RUNNING GEAR, 2-1/2", W/ MUSHROOM SHOE & HDW
1-3	16360311	1	HANDLE, CRANK, PLOW RUNNING GEAR,W/ HDW
1	--	1	HANDLE WELDMENT, RUNNING GEAR
2	--	1	SCREW, HEX CAP, 3/8-16 X 3.5, GR 5, ZN
3	--	1	NUT, NYLOCK, 3/8-16, ZN
4-5	16360312	1	SCREW, PLOW JACK, 1.25", W/ NUT
	16360322	1	SCREW, PLOW JACK, 1", W/ NUT
4	--	1	SCREW, ADJUSTMENT, 1.25"-5, ZY
	--	1	SCREW, ADJUSTMENT, 1"-5, ZY
5	--	1	NUT, 1.25"-5, ACME THREAD, ZY
	--	1	NUT, 1"-5, ACME THREAD, ZY
6	16360313	1	SHOE HOUSING, PLOW, 3" W/ GREASE FITTING
	16360323	1	SHOE HOUSING, PLOW, 2-1/2" W/ GREASE FITTING
7	16360314	1	SHOE POST, PLOW, 2.5"
	16360324	1	SHOE POST, PLOW, 2", W/ GUSSETS
8	16360315	1	SHOE, MUSHROOM, PLOW RUNNING GEAR
9-11	16360316	1	HARDWARE BAG, SHOE MOUNTING
9	--	3	SCREW, SQ HEAD, 5/8-11 X 3
10	--	3	WASHER, LOCK, 5/8", ZN
11	--	3	NUT, HEX, 5/8-11, GR5, ZINC
12-14	16360317	1	HARDWARE BAG, RUNNING GEAR MOUNTING
12	--	4	SCREW, HEX CAP, 3/4-10 X 2-1/4, GR 5, ZN
13	--	8	WASHER, FLAT, 3/4", ZN
14	--	4	NUT, NYLOCK, 3/4-10, ZY

**NOTE: 3" RUNNING GEAR RECOMMENDED FOR 42" TALL PLOWS**

**NOTE: 2-1/2" RUNNING GEAR RECOMMENDED FOR 36" TALL PLOWS**