

JUNIOR WING OPERATION AND MAINTENANCE MANUAL

SERIAL NUMBERS 1258 & UP



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WHEN ORDERING PARTS, PLEASE REFER TO THE MODEL & SERIAL NUMBER OF YOUR PLOW.

THEY ARE ON THE BACK COVER OF THIS MANUAL.

REV 031417 Manual No. BON-000908

SAFETY FIRST

Please read this manual before attempting to install or operate this equipment.



The symbol at left means ALERT. Any time you see this symbol, you are being warned that your safety is in danger! Please be careful!

GUIDELINES TO FOLLOW:

- 1. Turn off all power including truck engine when servicing or installing equipment.
- 2. Follow all recommended operation procedures.
- 3. Follow a regular maintenance schedule so that your equipment is kept in good operating condition at all times. Improper maintenance can lead to failure during operation, which makes for unsafe conditions.
- 4. Recognize and avoid hazardous situations during the installation, operation, maintenance, and servicing of equipment.
- 5. Please pay attention to, and respect, safety decals. They are there to protect you from injury.

AVOID ACCIDENTS

Most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by failure of some individual to follow simple and fundamental safety rules or regulations. For this reason, most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs.

Regardless of the care used in the design and construction of any type of equipment, there are many conditions that cannot be completely safeguarded against without interfering with reasonable accessibility and efficient operation.

A careful operator is the best insurance against an accident. The complete observance of one simple rule would prevent many thousand serious injuries each year. That rule is:

NEVER ATTEMPT TO CLEAN, OIL, OR ADJUST A MACHINE WHILE IT IS IN MOTION.

NATIONAL SAFETY COUNCIL

PLEASE, ALWAYS THINK SAFETY FIRST!

The purpose of this manual is to inform the person using the unit with the necessary information to properly install, operate, and maintain this unit. These instructions cannot replace the fundamental knowledge that a person must possess in order to safely and adequately operate this unit. The person must be qualified and possess the clear thinking necessary to install and operate this equipment. Since the life of any machine depends largely upon the care it is given, we suggest that this manual be read thoroughly and referred to regularly by anyone working on or around this unit. If for any reason you do not understand the instructions, please call your authorized service center or our office at (815) 284-3819. It has been our experience that by following these installation and maintenance instructions, and by observing the operation of this equipment, you will have sufficient understanding of how to troubleshoot and correct all normal problems that you may encounter during the life of the equipment.

THE NEED FOR SAFETY CANNOT BE STRESSED ENOUGH. WE URGE YOU TO MAKE SAFETY YOUR TOP PRIORITY WHEN OPERATING THIS UNIT OR ANY OTHER EQUIPMENT.

ACCIDENTS HURT! ACCIDENTS COST! ACCIDENTS CAN BE AVOIDED!

GENERAL MAINTENANCE GUIDELINES



CAUTION – THE FOLLOWING ITEMS MUST BE CHECKED BEFORE INITIAL START-UP OF THE NEW WING.

INITIAL SERVICING:

- CHECK ALL BOLTS FOR TIGHTNESS. TORQUE AS REQUIRED IF LOOSE.
- CHECK FOR MISSING OR BROKEN COTTER PINS.
- GREASE ALL FITTINGS AS REQUIRED.
- VERIFY ALL HYDRAULIC FITTINGS ARE TIGHT AND NOT LEAKING.
- CHECK ALL HYDRAULIC LINES FOR DAMAGE OR KINKS.

AFTER FIRST HOUR OF OPERATION AND EVERY 8 HOURS THEREAFTER:

- CHECK ALL BOLTS FOR TIGHTNESS. TORQUE AS REQUIRED IF LOOSE.
- CHECK FOR MISSING OR BROKEN COTTER PINS.
- VERIFY ALL HYDRAULIC FITTINGS ARE TIGHT AND NOT LEAKING.
- CHECK CUTTING EDGE WEAR.



CAUTION – FAILURE TO CHECK AND REPLACE WORN CUTTING EDGES WILL RESULT IN DAMAGE TO WING MOLDBOARD!

SUMMER STORAGE:

THE WING MOLDBOARD CAN BE REMOVED DURING THE SUMMER MONTHS. THE FRONT AND BACK TUBE WELDMENTS MAY ALSO BE SLID OUT OF THE SIDE PLATES IF DESIRED.

POWER WASH YOUR EQUIPMENT AFTER EACH USE AND PRIOR TO SUMMER STORAGE TO PREVENT CORROSION DAMAGE.

GENERAL OPERATING INSTRUCTIONS

SPECIAL NOTE: THIS MANUAL IS INTENDED FOR USE AS A SUPPLEMENT TO YOUR SPECIFIC MUNICIPAL GUIDELINES IN SNOW PLOW OPERATION, AND IS NOT INTENDED TO BE A *"COMPLETE SNOW PLOWING GUIDE"*. TRAINING IS THE KEY TO SAFE AND PROPER OPERATION OF THIS EQUIPMENT.



WARNING – MAKE SURE ALL PERSONS ARE IN THE CLEAR BEFORE OPERATING EQUIPMENT.

GENERAL OPERATION:

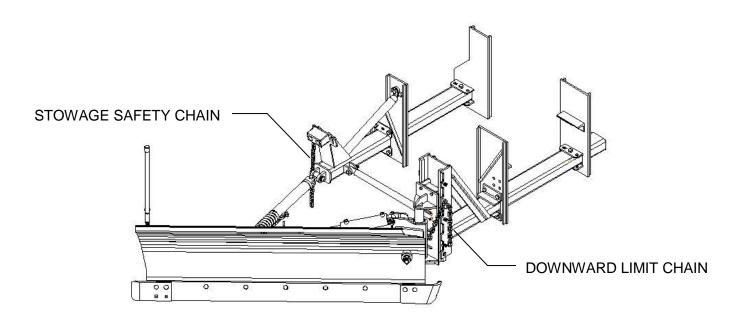
SPECIAL CARE AND ALERTNESS NEEDS TO BE PRACTICED WHEN PLOWING SNOW, BECAUSE OFTEN CONDITIONS ARE HAZARDOUS AND VISIBILITY IS POOR.

- ALWAYS BE SURE TO HAVE THE TRUCK'S HAZARD LIGHTING SYSTEM IN OPERATION WHILE PLOWING. PLOW HOOK UP OR SHIFT CHANGE IS A GOOD TIME TO CHECK THAT ALL LIGHTING IS WORKING PROPERLY.
- MAXIMUM PLOWING SPEEDS ARE RECOMMENDED NOT TO EXCEED 15 MPH WHILE PLOWING CITY STREETS, AND 25 MPH FOR RURAL ROUTES.
- SOME WING MOLDBOARD ARE EQUIPPED WITH A TRIP MECHANISM, ALLOWING THE CUTTING EDGE TO TRIP AND CLEAR OBSTRUCTIONS. THIS TRIPPING MECHANISM SHOULD AUTOMATICALLY RETURN THE CUTTING EDGE TO ITS PLOWING POSITION. HOWEVER, IF THE SPRINGS ARE WEAK OR IF ONE OR MORE ARE BROKEN, THEN THE OPERATOR MAY HAVE TO RAISE THE WING SLIGHTLY TO ALLOW THE CUTTING EDGE TO RETURN TO IT'S NORMAL POSITION.
- WHEN LOWERING THE WING ONTO THE ROAD SURFACE, PICTURE HOW AN AIRPLANE LANDS. ALWAYS TOUCH DOWN THE HEEL (REAR) OF THE MOLDBOARD FIRST, FOLLOWED BY THE TOE (FRONT). THIS WILL PREVENT THE LEAD CORNER OF THE CUTTING EDGE FROM DIGGING INTO THE ROADWAY, AND POTENTIALLY CAUSING DAMAGE TO THE TRUCK OR ROAD SURFACE.

SAFETY CHAINS:

THE WING IS EQUIPPED WITH TWO SAFETY CHAINS: ONE AT THE FRONT, AND ONE AT THE REAR NEAR THE BUFFER BRACE. USE THEM AS FOLLOWS:

- THE CHAIN ATTACHED TO THE FRONT POST IS A DOWNWARD LIMIT CHAIN. THIS CAN BE ADJUSTED TO LIMIT THE EXTREME LOWER POSITION OF THE FRONT OF THE MOLDBOARD. THIS SHOULD BE ADJUSTED WITH THE FRONT OF THE MOLDBOARD APPROX. 2" OFF THE GROUND, AND SHOULD REMAIN HOOKED WHILE IN OPERATION.
- THE CHAIN ATTACHED TO THE BUFFER BRACE IS A STOWAGE SAFETY CHAIN. WHEN THE WING IS STOWED IN THE UP POSITION, THIS CHAIN NEEDS TO BE HOOKED.





The following instructions need to be followed step by step. Bonnell industries had proven these steps to be successful, repeatable and safe. Bonnell industries will not be responsible for any failure or injury with respect to these operations if these guidelines have not been followed. If there are any questions pertaining to these instructions, please contact us before proceeding.

Removing springs:

Tools required:

- One person
- One $\frac{1}{2}$ pneumatic impact
- One helper bar (heavy wall tubing with at least 7/8" id by 4-5' long).
- Two 5/8"-11 x 6" bolts
- One 5/8" flat washer
- One 15/16" impact socket
- One $\frac{1}{2}$ " allen wrench for impact



WARNING – never remove all four bolts on the spring retainer blocks at one time! This may cause the spring to fly out of its position and cause injury to anyone in its path!

1. Flip the plow over on its face and place supports under the cutting edge to hold the springs up at a good working height. Warning – be sure the plow is very secure on stands before proceeding to change springs.

2. Change one spring at a time so that there is always tension against the cutting edge. Failing to do this may allow the plow to start to trip after removing two or more springs which may in turn cause the plow to become unstable on the stands, creating a dangerous situation.

3. Remove the standard hex head bolt on the left (drivers) side of the spring, and replace with a 5/8"x6" bolt.

4. Remove the allen head bolt on the left (drivers) side of the spring, and replace with a 5/8"x6" bolt and flat washer. The flat washer is to keep the bolt from damaging the counter bore in the retainer block.

5. Loosen both bolts on the right (curb) side of the spring about five turns.

6. Slip the helper bar over the left end "tang" of the spring, and slowly but forcefully apply tension to it. Then release slowly. The spring should come up out of its nested position. Note – if the spring is broken, there may be little or no tension on it. If this is the case proceed to step 8.

7. At this point the spring will still hold some tension against the four bolts holding it. To relieve this tension loosen each of the four bolts a little at a time respectively until the spring is loose.

8. Remove the bolts and the spring and proceed to the spring installation section of this manual.

Two person spring installation:

Tools required:

- One ¹/₂" pneumatic impact
- One helper bar (heavy wall tubing with
- At least 7/8" id by 4-5' long).
- One 5/8"-11 tap
- One 15/16" impact socket
- One ¹/₂" allen wrench for impact
- Anti-seize lubricant
- Air nozzle

1. Remove springs following the preceding instructions in this manual. Note – be sure to clean out all threaded holes in the retainer blocks with a tap. Use an air nozzle to blow out these holes, and apply anti-seize to the threads.

2. Slip the short end "tang" of the spring into the hole in the lower moldboard angle.

3. Coat the outer surface of the spring tube with anti-seize lubricant **NOTE: spring tube** reqired for springs with ³/₄" diameter wire only!

4. Insert the spring tube into the spring and slide the spring rod through the spring tube until it is nested in the retainer block on the right end of the spring.

5. Place the top half of the retainer block over the rod and start the proper bolts into the block. **Note – be sure to use anti-seize on the bolts.**

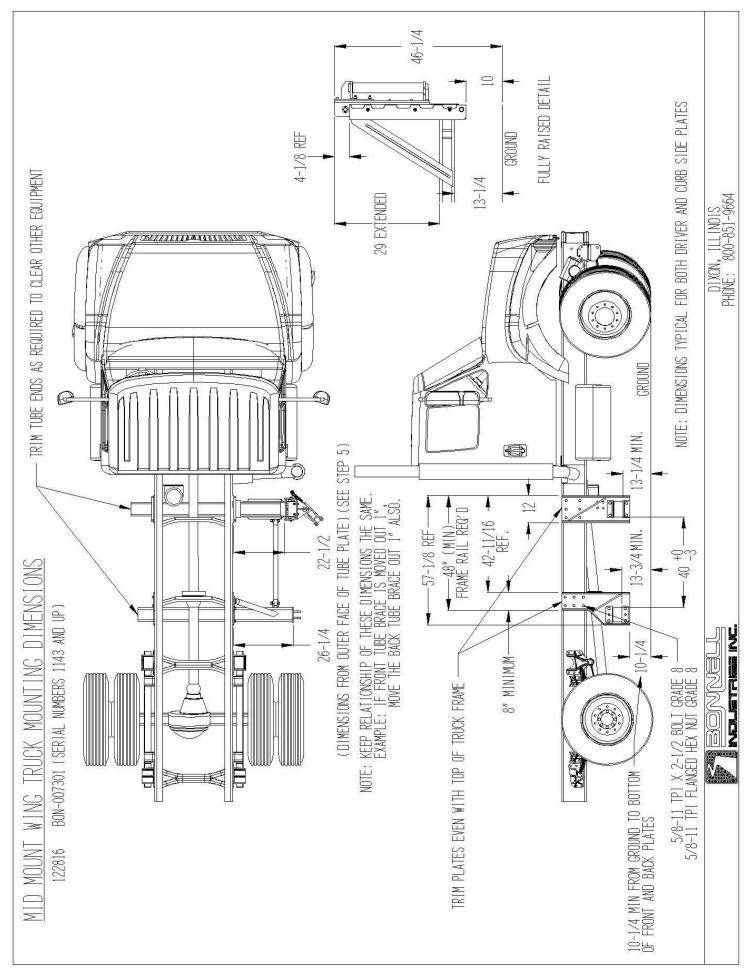
6. Using an impact, turn the bolts in as far as the spring tension will allow.

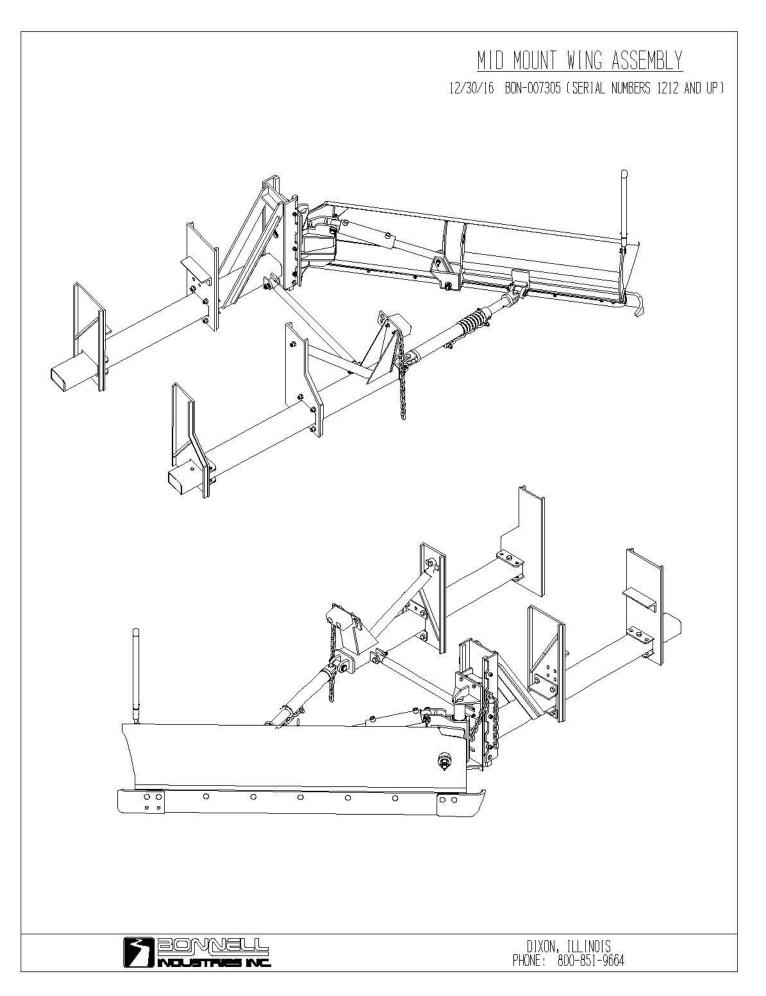
7. Note – this step requires two persons – one person needs to slip the helper bar over the spring and twist it until the spring drops down into its nested position. At the same time a second person needs to tighten the bolts as much as possible. This should bring the spring rod within $\frac{1}{2}$ " of being nested in the left end of the retainer block.

8. Place the top half of the retainer block over the rod on the left end of the spring and start the standard hex head bolt with a lock washer. Tighten this bolt down securely before trying to start the allen head bolt.

9. Start and tighten the allen head bolt, and retighten the bolts on the right end of the spring.

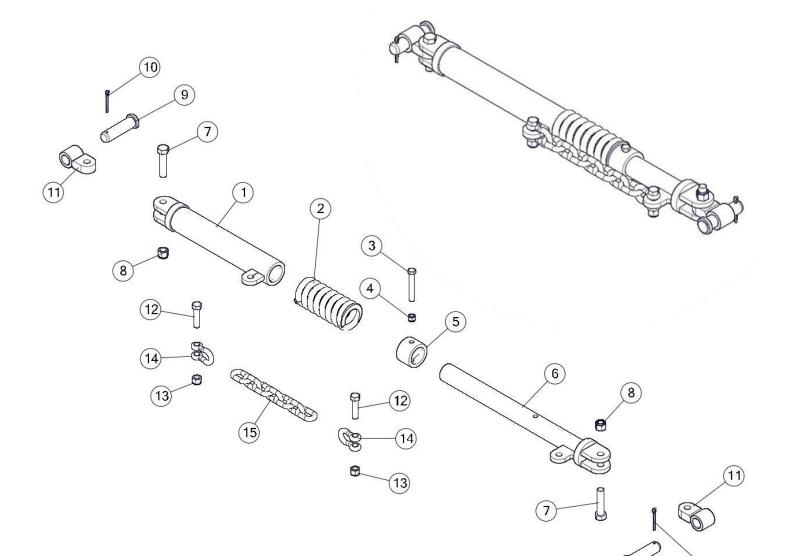
Spring installation complete.





BUFFER BRACE ASSEMBLY FOR MID MOUNT WING

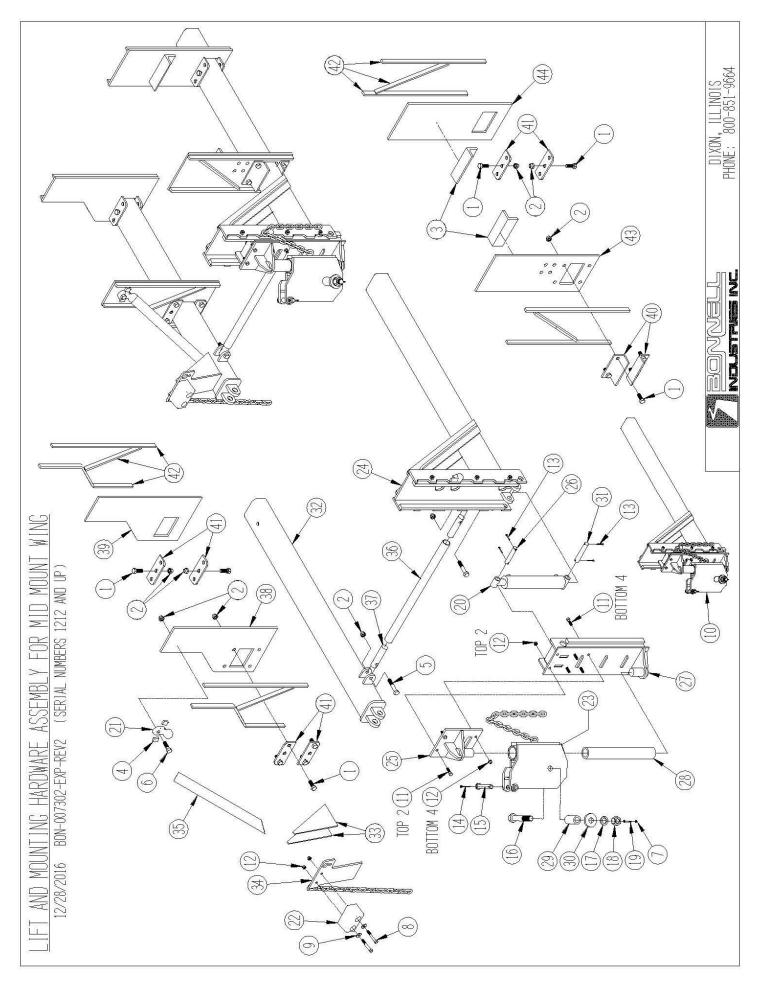
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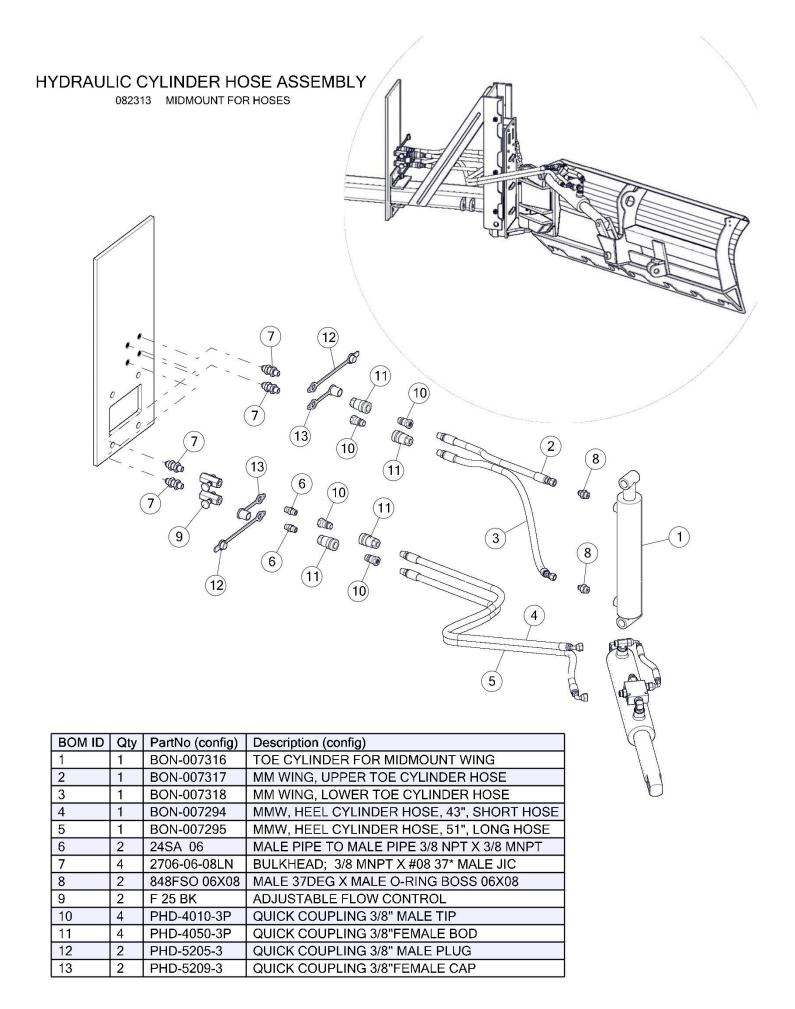
BOM ID	Qty	PartNo (config)	Description (config)
1	1	BON-007343	HOUSING WELDMENT
2	1	BON-007135	SPRING
3	1	BON-000117	1/2-13 x 4" BOLT
4	1	BON-000321	1/2-13 TPI HEX LOCK NUT
5	1	BON-007344	SPRING RETAINER PIPE
6	1	BON-007342	BUFFER BRACE INSERT
7	2	BON-000188	3/4-10 X 3-1/2" BOLT
8	2	BON-000323	3/4-10 TPI HEX LOCK NUT
9	2	BON-003261	1-1/4" PIN
10	2	BON-000385	COTTER PIN 1/4 X 2
11	2	BON-007126	WING, BUFFER BRACE PIVOT END
12	2	BON-000156	5/8-11 X 2-3/4" BOLT
13	2	BON-000322	5/8-11 TPI HEX LOCK NUT
14	2	BON-000660.5	ROUND PIN ANCHOR SHACKLE
15	1	BON-007340	7 LINK CHAIN FOR BUFFER BRACE

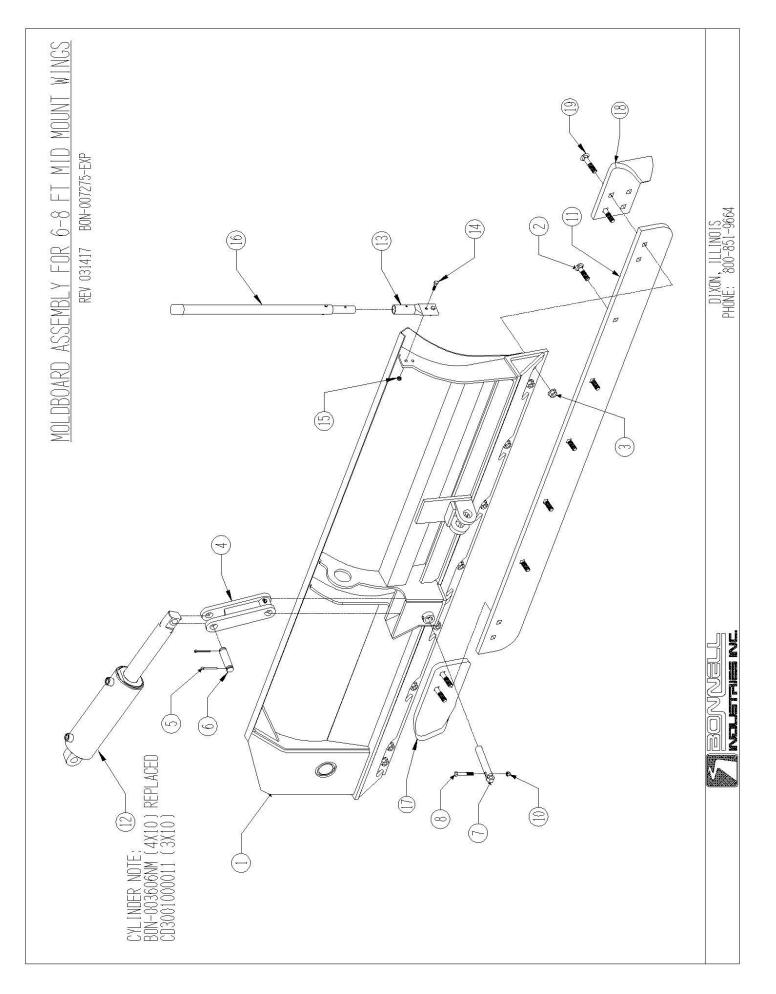


LIFT AND MOUNTING HARDWARE FOR MID MOUNT WING

ITEM #	PART #	QTY.	DESCRIPTION	
1	BON-000182	12	3/4"-10TPI X 2" LONG GR.8 GRADE 8 BOLT	
2	BON-000323	15	3/4"-10TPI HEX LOCK NUT GR 5 NYLON INSERT TYPE	
3	BON-007296	2	KICKER ANGLE	
4	BON-007297	2	PIPE END BRACE	
5	BON-000190	2	3/4"-10TPI X 4"LONG GR.8 GRADE 8 BOLT	
6	BON-000184	1	3/4"-10TPI X 2 1/2" LONG GR.8 GRADE 8 BOLT	
7	BON-000318.5	1	1/4"-20TPI HEX LOCK NUT LOCKNUT	
8	BON-000115	2	1/2"-13TPI X 3 1/2" LONG GR.8 GRADE 8 BOLT	
9	BON-000340	2	FLATWASHER,1/2" U.S.S. ZP	
10	BON-007303	_	RIGHT FRONT POST LIFT ASSEMBLY (FOR SERIAL NUMBERS 1143 AND UP)	
	BON-007303-LH		LEFT FRONT POST LIFT ASSEMBLY (FOR SERIAL NUMBERS 1143 AND UP)	
11	BON-000108	6	1/2"-13TPI X 1 3/4" LONG GR.8 GRADE 8 BOLT	
12	BON-000321	8	1/2"-13TPI HEX LOCK NUT NYLON INSERT	
13	BON-000383	4	COTTER PIN 3/16 X 2	
14	BON-000385	1	COTTER PIN 1/4 X 2	
15	BON-000993	1	PIN - 1"DIAx5-1/4"LG 4-5/8" WORKING LENGTH	
16-19, 29,30	BON-007169	1	WING PIVOT BOLT ASSEMBLY	
16	BON-007163	1	WING MOLDBOARD BOLT, DRILLED 1-1/4X7, GRADE 8, W/LINCH PIN	
17	BON-000361	1	LOCK WASHER 1 1/4"	
18	BON-000311	1	1 1/4"-7TPI HEX NUT GRADE 2 NUT	
19	BON-000009	1	1/4"-20TPI X 2" LONG GR.8 GRADE 8 BOLT	
20	BON-007316	1	WELDED CROSS-TUBE CYLINDER	
21	BON-007105	1	WELD ON PIPE END	
22	BUY-B5500	1	RUBBER BUMPER	
23	BON-007255	1	FLOAT WELDMENT - MID MOUNT WING	
	BON-007255-LH	1	LEFT SIDE FLOAT WELDMENT - MID MOUNT WING	
24	BON-007328	1	OUTER SLIDE & FRONT TUBE WELDMENT	
	BON-007328-LH	1	LEFT SIDE OUTER SLIDE & FRONT TUBE WELDMENT	
25	BON-007254	1	FLOAT TUBE RETAINER CAP WELDMENT - MID MOUNT WING	
26	BON-007253	1	LIFT CYLINDER PIN - TOP - MID MOUNT WING	
27	BON-007252	1	INNER SLIDE WELDMENT - MID MOUNT WING	
28	BON-007256	1	FLOAT TUBE - MID MOUNT WING	
29	BON-007155	1	2X11/32W DOM X 3-3/4 IN. LG BUSHING	
30	BON-007156	1	PIVOT BUSHING RETAINER WASHER	
31	BON-007210-15	1	TOE CYLINDER PIN	
32	BON-007265	1	BACK CROSS BRACE TUBE WELDMENT - MID MOUNT WING	
33	BON-007269	2	CHAIN PLATE GUSSET - BUFFER BRACE STOP	
34	BON-007268	1	BUFFER BRACE STOP CHAIN PLATE WELDMENT	
	BON-007268-LH	1	LEFT SIDE BUFFER BRACE STOP CHAIN PLATE WELDMENT	
35	BON-007272	1	BACK TUBE BRACE - MID MOUNT WING	
36	BON-007271	1	TUBING CENTER BRACE - MID MOUNT WING	
37	BON-007270	2	TUBING CENTER BRACE END PIECE - MID MOUNT WING	
38	BON-007266	1	CURB SIDE BACK TUBE PLATE	
39	BON-007267	1	DRIVER SIDE BACK TUBE PLATE	
40	BON-007149	2	CURB SIDE TUBE MTG ANGLE	
41	BON-007188	6	UNIVERSAL TUBE MTG PLATE	
42	BON-007142	12	STIFF BAR FOR TUBE PLT WELD	
43	BON-007141	1	CURB SIDE FRT TUBE PLT	
44	BON-007143	1	DRIVER SIDE FRONT TUBE PLATE	

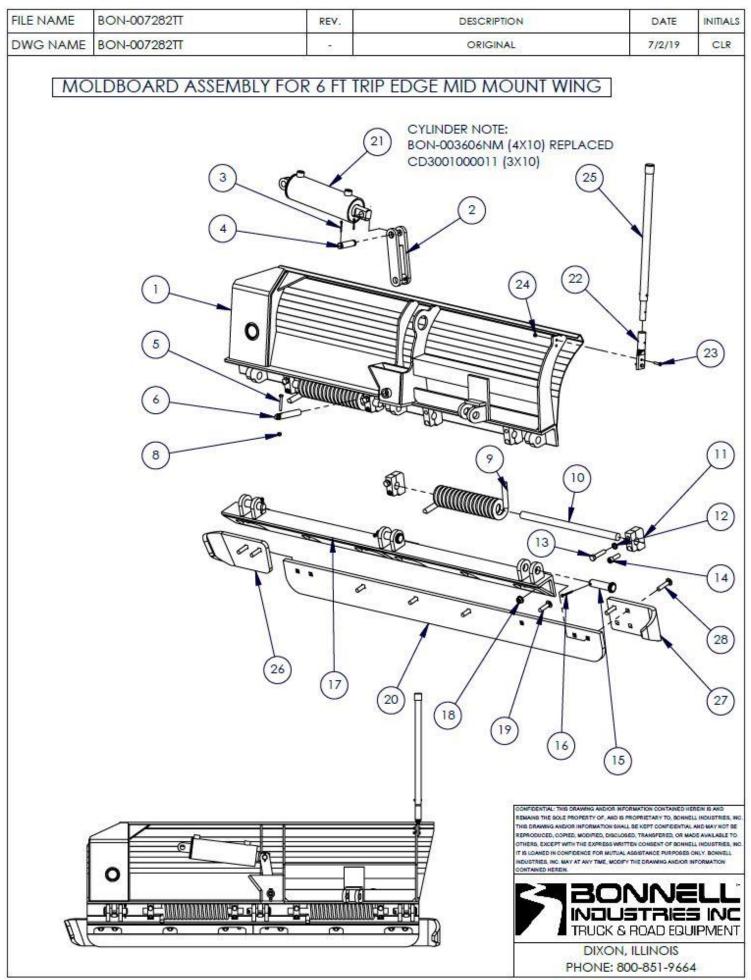
	MID MOUNT WINGLOC-EXPREV2
INSTALLATION NOTE: ADD ADJUSTABLE RELIEF VALVE	500 PS1 - 2,000 PSI) ON THE UP SIDE OF THE CYLINDER.
ITEM QTY PART # DESCRIPTIO	N
1 1 BON-003606NM CYLINDER	,
	RTS BODY & CARTRIDGE ONLY
3 1 6807-8-8 NWO 90 DEG ELBOW, MALE O-R	
	TER MALE 11/16"-16 ORFS X 7/16"-20 ORB
	TER MALE 11/16"-16 X 3/4"-16 ORB STRT
6 1 FF6803-6-6-8 TEE FITTING 1 & 2 MAL	
7 1 BON-007291 MMW, CHECK VALVE HOSE	
	DIXON, [LL[NO]S PHONE: 800-851-9664





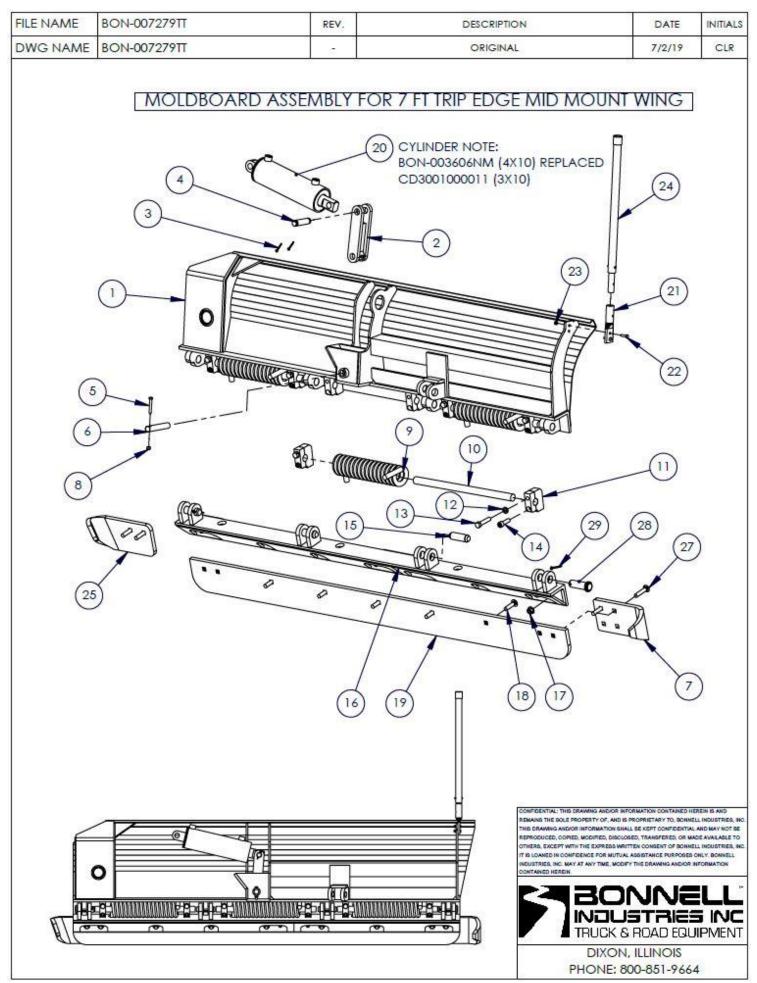
MOLDBOARD ASSEMBLY FOR 6-8 FT. MID MOUNT WINGS

ITEM #	PART #	QTY.	DESCRIPTION
1-17 & 19	BON-007287	1	6FT WING MOLDBOARD COMPLETE ASSEMBLY
1-17 & 19	BON-007275	1	7FT WING MOLDBOARD COMPLETE ASSEMBLY
1-17 & 19	BON-007275-LH	1	7FT WING MOLDBOARD COMPLETE ASSEMBLY, LEFT HAND
1-17 & 19	BON-007289	1	8FT WING MOLDBOARD COMPLETE ASSEMBLY
1	BON-007286	1	6FT MOLDBOARD WELDMENT
1	BON-007257	1	7FT MOLDBOARD WELDMENT
1	BON-007257-LH	1	7FT MOLDBOARD WELDMENT, LEFT HAND
1	BON-007288	1	8FT MOLDBOARD WELDMENT
2	BON-CB8250	AR	CARRIAGE BOLT, 5/8"-11TPI X 2 1/2" GRADE 8
3	BON-000307F	AR	5/8"-11TPI HEX NUT FLANGED GRADE 8 LOCK NUT
4	BON-007258	1	FLOAT LINK WELDMENT
5	BON-000382	2	COTTER PIN 3/16 X 1-1/2 LONG
6	PMC-190400004	1	CLEVIS PIN, 1" X 3-1/4" WORKING LENGTH
7	BON-007259	1	HEEL FLOAT LINK PIN WELDMENT
8	BON-000063	1	3/8"-16TPI X 2 1/2" LONG GR.8 GRADE 8 BOLT
10	BON-000319	1	3/8"-16TPI HEX LOCK NUT NYLON INSERT
11	X300640	1	3/4"X6"X 6FT WING BLADE
11	X300641	1	3/4"X6"X 7FT WING BLADE
11	X300642	1	3/4"X6"X 8FT WING BLADE
12	BON-003606NM	1	CYLINDER
13	BON-008000	1	BLADE GUIDE BRACKET BOLT ON, SOLD AS PAIR
14	BON-000031	2	5/16"-18TPI X 1 1/4" LONG GR.8 GRADE 8 BOLT
15	BON-000320	2	5/16"-18TPI HEX LOCK NUT NYLON INSERT
16	BON-008000-24	1	JUMBO BLADE GUIDE, 24", PAIR WITH HOSES, & COTTER PINS
17A	BON-003234.3	AR	CURB SHOE, FOR RIGHT HAND WING ONLY
17B	BON-003234.3-LH	AR	CURB SHOE, FOR LEFT HAND WING ONLY
18	BON-003233.6	1	CURB SHOE, 3/4" X 6"
19	BON-CB8300	AR	CARRIAGE BOLT, 5/8"-11TPI X 3" GRADE 8



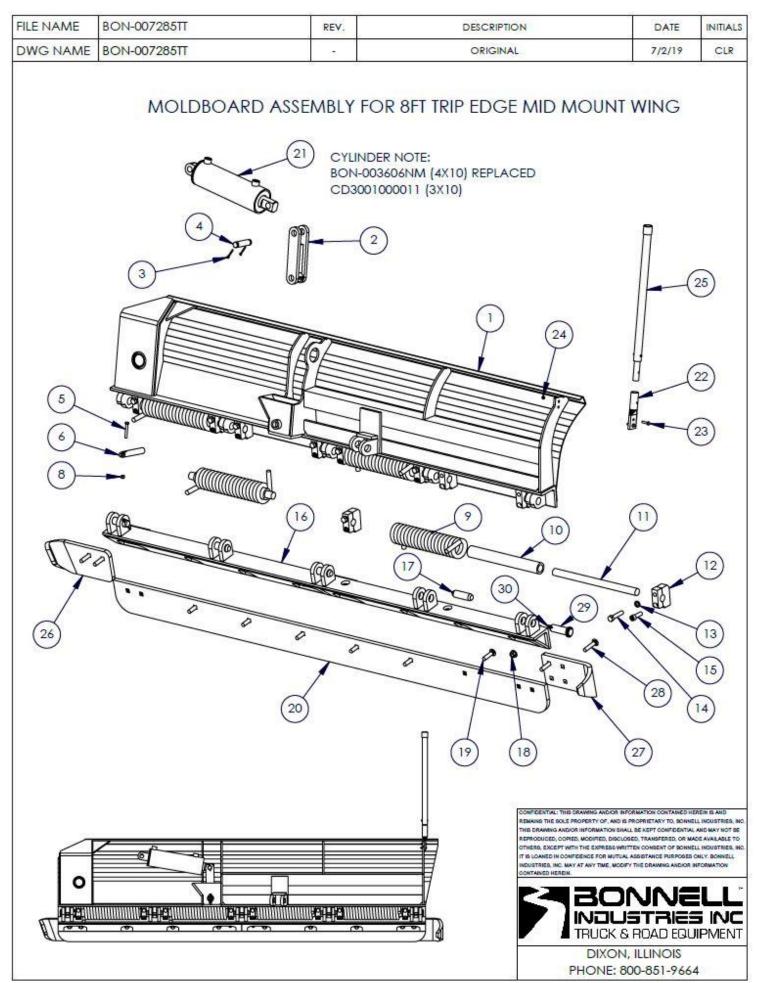
MOLDBOARD ASSEMBLY FOR 6 FT. TRIP EDGE MID MOUNT WING

ITEM #	PART #	QTY.	DESCRIPTION	
1-26 & 28	BON-007282TT	1	6FT TRIP EDGE WING MOLDBOARD COMPLETE ASSEMBLY	
1	BON-007281TT	1	6FT TRIP EDGE MOLDBOARD WELDMENT	
2	BON-007258	1	FLOAT LINK WELDMENT	
3	BON-000382	2	COTTER PIN 3/16 X 1-1/2 LONG	
4	PMC-190400004	1	CLEVIS PIN, 1" X 3-1/4" WORKING LENGTH	
5	BON-000063	1	3/8"-16TPI X 2 1/2" LONG GR.8 GRADE 8 BOLT	
6	BON-007259	1	HEEL FLOAT LINK PIN WELDMENT	
8	BON-000319	1	3/8"-16TPI HEX LOCK NUT NYLON INSERT	
9	BON-007025	2	TRIP SPRING	
10	BON-005013-5TT	2	SPRING ROD	
11	BON-003427	4	TRIP EDGE SPLIT LUG	
12	BON-000356	4	5/8 LOCK WASHER	
13	BON-000157	4	5/8X3 BOLT GRADE 8	
14	SCS-5/8-11X2	4	5/8X2 SOCKET HEAD CAP SCREW	
15	BON-003261	3	PIN 1-1/4 X 4-3/4, 4" WKG LENGTH	
16	BON-000385	3	COTTER PIN	
17	BON-010367	1	TORSION TRIP SECTION BY 6'	
18	BON-000307F	8	5/8"-11TPI HEX NUT FLANGED GRADE 8 LOCK NUT	
19	BON-CB8250	8	CARRIAGE BOLT, 5/8"-11TPI X 2 1/2" GRADE 8	
20	X300640	1	3/4"X6"X 6FT WING BLADE	
21	BON-003606NM	1	CYLINDER	
22	BON-008000	1	BLADE GUIDE BRACKET BOLT ON, SOLD AS PAIR	
23	BON-000031	2	5/16"-18TPLX 1 1/4" LONG GR.8 GRADE 8 BOLT	
24	BON-000320	2	5/16"-18TPI HEX LOCK NUT NYLON INSERT	
25	BON-008000-24	1	JUMBO BLADE GUIDE, 24", PAIR WITH HOSES, & COTTER PIN	
26	BON-003234.3	1	CURB SHOE, LEFT HAND, FOR WING ONLY	
27	BON-003233.6	1	CURB SHOE, 3/4" X 6"	
28	BON-CB8300	AR	CARRIAGE BOLT, 5/8"-11TPI X 3" GRADE 8	



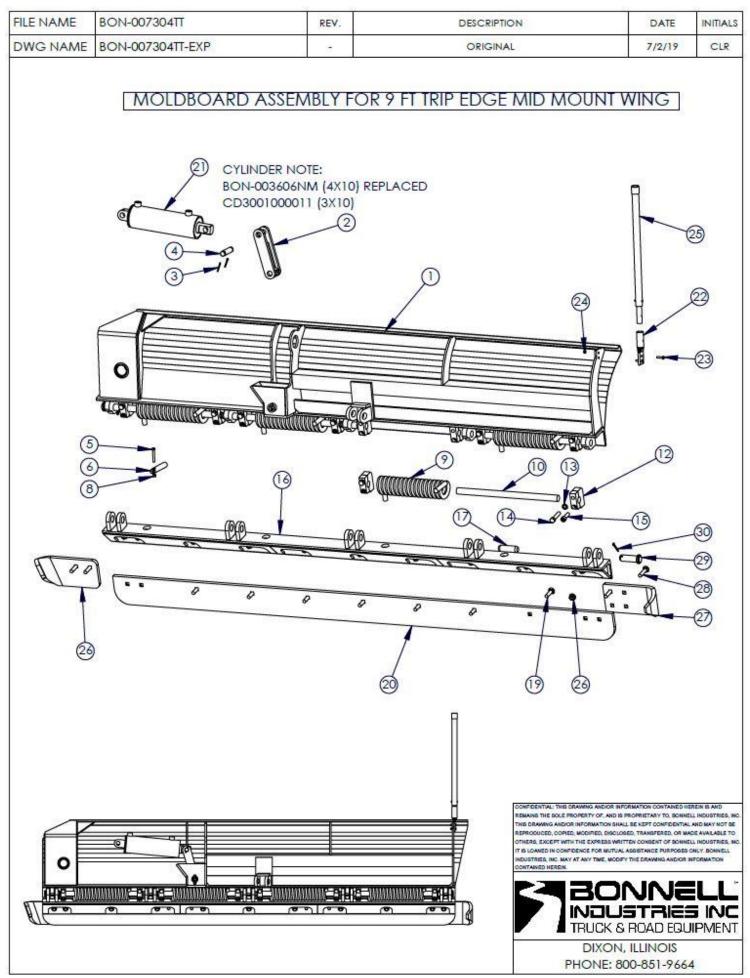
MOLDBOARD ASSEMBLY FOR 7 FT. TRIP EDGE MID MOUNT WING

ITEM #	PART #	QTY.	DESCRIPTION	
1-25 & 27	BON-007279TT	1	7FT TRIP EDGE WING MOLDBOARD COMPLETE ASSEMBLY	
1	BON-007277TT	1	7FT TRIP EDGE MOLDBOARD WELDMENT	
2	BON-007258	1	FLOAT LINK WELDMENT	
3	BON-000382	2	COTTER PIN 3/16 X 1-1/2 LONG	
4	PMC-190400004	1	CLEVIS PIN, 1" X 3-1/4" WORKING LENGTH	
5	BON-000063	1	3/8"-16TPI X 2 1/2" LONG GR.8 GRADE 8 BOLT	
6	BON-007259	1	HEEL FLOAT LINK PIN WELDMENT	
8	BON-000319	1	3/8"-16TPI HEX LOCK NUT NYLON INSERT	
9	BON-007025	3	TRIP SPRING	
10	BON-005013-5TT	3	SPRING ROD	
11	BON-003427	6	TRIP EDGE SPLIT LUG	
12	BON-000356	6	5/8 LOCK WASHER	
13	BON-000157	6	5/8X3 BOLT GRADE 8	
14	SCS-5/8-11X2	6	5/8X2 SOCKET HEAD CAP SCREW	
15	BON-007029	4	HINGE PIN	
16	BON-010368	1	7' TRIP SECTION	
17	BON-000307F	9	5/8"-11TPI HEX NUT FLANGED GRADE 8 LOCK NUT	
18	BON-CB8250	9	CARRIAGE BOLT, 5/8"-11TPI X 2 1/2" GRADE 8	
19	X300641	1	3/4"X6"X 7FT WING BLADE	
20	BON-003606NM	1	CYLINDER	
21	BON-008000	1	BLADE GUIDE BRACKET BOLT ON, SOLD AS PAIR	
22	BON-000031	2	5/16"-18TPLX 1 1/4" LONG GR.8 GRADE 8 BOLT	
23	BON-000320	2	5/16"-18TPI HEX LOCK NUT NYLON INSERT	
24	BON-008000-24	1	JUMBO BLADE GUIDE, 24", PAIR WITH HOSES, & COTTER PIN	
25	BON-003234.3	1	CURB SHOE, LEFT HAND, FOR WING ONLY	
26	BON-003233.6	1	CURB SHOE, 3/4" X 6"	
27	BON-CB8300	AR	CARRIAGE BOLT, 5/8"-11TPLX 3" GRADE 8	
28	BON-003263	2	PIN 1-1/4 X 4-3/4, 4" WKG LENGTH	
29	BON-000385	2	COTTER PIN	



MOLDBOARD ASSEMBLY FOR 8 FT. TRIP EDGE MID MOUNT WING

ITEM #	QTY.	PART NUMBER	DESCRIPTION		
-26& 28-30		BON-007285TT	8FT TRIP EDGE WING MOLDBOARD COMPLETE ASSEMBLY		
1	1 BON0007284TT		8FT TRIP EDGE MOLDBOARD WELDMENT		
2			FLOAT LINK WELDMENT		
3	2	BON-000382	COTTER PIN 3/16X1-1/2 LONG		
4	1	PMC-190400004	CLEVIS PIN, 1" X 3-1/4" WORKING LENGTH		
5	1	BON-000063	3/8"-16TPI X 2-1/2" LONG GR.8 GRADE 8 BOLT		
6	1	BON-007259	HEEL FLOAT LINK PIN WELDMENT		
8	1	BON-000319	3/8"-16TPI HEX LOCK NUT NYLON INSERT		
9	4	BON-000700.6	TRIP SPRING		
10	4	BON-003446	TORSION TRIP TUBE		
11	4	BON-007041	TRIP SPRING RETAINER ROD, 8' WING		
12	8	BON-003427	TRIP EDGE SPLIT LUG		
13	8	BON-000356	5/8 LOCK WASHER		
14	8	BON-000157	5/8X3 BOLT GRADE 8		
15	8	SCS-5/8-11X2	5/8X2 SOCKET HEAD CAP SCREW		
16	1	BON-010369	8' TRIP SECTION		
17	3	BON-007029	HINGE PIN		
18	10	BON-000307F	5/8"-11TPI HEX NUT FLANGED GRADE 8 LOCK NUT		
19	10	BON-CB8250	CARRIAGE BOLT, 5/8"-11TPI X 2-1/2" GRADE 8		
20	1	X300642	3/4"X6"X8FT WING BLADE		
21	1	BON-003606NM	CYLINDER		
22	1	BON-008000	BLADE GUIDE BRACKET BOLT ON, SOLD AS PAIR		
23	2	BON-000031	5/16"-18TPLX 1-1/4" LONG GR.8 GRADE 8 BOLT		
24	2	BON-000320	5/16"-18TPI HEX LOCK NUT NYLON INSERT		
25	1	BON-008000-24	JUMBO BLADE GUIDE, 24", PAIR WITH HOSES, & COTTER PIN		
26	1	BON-003234.3	CURB SHOE, LEFT HAND, FOR WING ONLY		
27	1	BON-003233.6	CURB SHOE, 3/4" X 6/"		
28	AR	BON-CB8300	CARRIAGE BOLT, 5/8"-11TPI X 3" GRADE 8		
29	2	BON-003263	PIN 1-1/4" DIA X 3-1/8" WORKING LENGTH, 4-1/4"		
30	2	BON-000385	COTTER PIN 1/4X2		



MOLDBOARD ASSEMBLY FOR 9 FT. TRIP EDGE MID MOUNT WING

ITEM #	QTY.	PART NUMBER	DESCRIPTION		
1-26&28-30	28-30 1 BON-007304TT		9FT TRIP EDGE WING MOLDBOARD COMPLETE ASSEMBLY		
1 1 BON-007307TT		BON-007307TT	9 FT TRIP EDGE MOLDBOARD WELDMENT		
2	1	BON-007258	FLOAT LINK WELDMENT		
3	2	BON-000382	COTTER PIN 3/16X1-1/2 LONG		
4	1	PMC-190400004	CLEVIS PIN 1" X 3-1/4" WORKING LENGTH		
5	1	BON-000063	3/8"-16TPLX 2-1/2" LONG GR.8 GRADE 8 BOLT		
6	1	BON-007259	HEEL FLOAT LINK PIN WELDMENT		
8	1	BON-000319	3/8"-16TPI HEX LOCK NUT NYLON INSERT		
9	4	BON-007025	TRIP SPRING		
10	4	BON-007030	SPRING ROD 1-1/4 CRR X 31-1/4		
12	8	BON-003427	TRIP EDGE SPLIT LUG		
13	8	BON-000356	5/8 LOCK WASHER		
14	8	BON-000157	5/8X3 BOLT GRADE 8		
15	8	SCS-5/8-11X2	5/8X2 SOCKET HEAD CAP SCREW		
16	1	BON-010371	9' TRIP SECTION		
17	3	BON-007029	HINGE PIN		
18	11	BON-000307F	5/8"-11TPI HEX NUT FLANGED GRADE 9 LOCK NUT		
19	11	BON-CB8250	CARRIAGE BOLT, 5/8"11TPI X 2-1/2" GRADE 8		
20	1	X3006423	3/4"X6"X9FT WING BLADE		
21	1	BON-003606NM	CYLINDER		
22	1	BON-008000	BLADE GUIDE BRACKET BOLT ON, SOLD AS PAIR		
23	2	BON-000031	5/16"-18TPLX 1-1/4" LONG GR.8 GRADE 8 BOLT		
24	2	BON-000320	5/16"18-TPI HEX LOCK NUT NYLON INSERT		
25	1	BON-008000-24	JUMBO BLADE GUIDE, 24", PAIR WITH HOSES, & COTTER PIN		
26	1	BON-003234.3	CURB SHOE, LEFT HAND, FOR WING ONLY		
27	1	BON-003233.6	CURB SHOE, 3/4"X6"		
28	AR	BON-CB8300	CARRIAGE BOLT, 5/8"11TPI X 3" GRADE 8		
29	2	BON-003263	PIN 1-1/4" DIA X 3-1/8" WORKING LENGTH, 4-1/4"		
30	2	BON-000385	COTTER PIN 1/4X2		

FILE NAME	M1516	REV.	DESCRIPTION	DATE	INITIALS
DWG NAME	M1516	-	ORIGINAL	6/30/2023	EDG
	M1516 T JUNIOR WING, MOUN AR SUSPENSIONS ONLY				

ITEM 1 OPTIONS: BON-007504: INTERNATIONAL HV WITH HAULMAX EX400 SUSPENSION BON-007339: KW T470, WESTERN STAR 4700, WORKSTAR AND PETERBUILT 348 WITH HAULMAX SUSPENSION BON-007384: MACK GRANITE WITH HAULMAX SUSPENSION BON-007370: INTERNATIONAL WITH HENDRICKSON HN SUSPENSION BON-007376: INTERNATIONAL WITH HENDRICKSON KR/RTE SUSPENSION

7	BON-000385	1	1/4" X 2" COTTER PIN	REMAINS THE SOLE PROPERTY OF, AND IS PROPRIETARY TO, BONNELL INDUSTRIES, INC. THIS DRAWING AND/OR INFORMATION SHALL BE KEPT CONFIDENTIAL AND MAY NOT BE
6	BON-003261	1	1-1/4" PIN	REPRODUCED, COPIED, MODIFIED, DISCLOSED, TRANSFERRED, OR MADE AVAILABLE TO OTHERS, EXCEPT WITH THE EXPRESS WRITTEN CONSENT OF BONNELL INDUSTRIES, INC.
5	BON-007126	1	PIVOT EAR	IT IS LOANED IN CONFIDENCE FOR MUTUAL ASSISTANCE PURPOSES ONLY. BONNELL INDUSTRIES, INC. MAY AT ANY TIME, MODIFY THE DRAWING AND/OR INFORMATION
4	BON-000322	8	5/8-11 NYLOCK NUT	CONTAINED HEREIN.
3	BON-000153	8	5/8-11 X 2" HEX BOLT, GRADE 8	
2	BON-007338	1	REAR MOUNT JUNIOR WING BOLT ON EXTENSION	TRUCK & ROAD EQUIPMENT
1	VARIES	1	REAR MOUNT WING TANDEM BRACKET, SUSPENSION SPECIFIC	
ITEM	PART NUMBER	QTY	DESCRIPTION	PHONE: 800-851-9664



WARRANTY Issued: January 1, 1998

Bonnell Industries, Inc. warrants to the original purchaser that if any part of the product proves to be defective in workmanship or material within one year of the date of original installation and is returned to us freight prepaid within 30 days after such defect is discovered and notification thereof is provided Bonnell, we will either replace or repair the defective part (our option). This warranty does not apply to damage resulting from neglect, misuse, accident or improper installation or maintenance. Charges for field service, labor, or other expenses not previously authorized and approved in writing by Bonnell Industries, Inc. will not be accepted. This warranty is exclusive and in lieu of all other warranties whether expressed or implied. Bonnell Industries, Inc. neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with this warranty, and will not be liable for consequential damages. This warranty applies only to products made and/or supplied by Bonnell Industries, Inc. and does not apply to other products not made or supplied by us and to which our products may be attaches, such as trucks. We accept no responsibility for damages to such other products, even if our product is alleged to have contributed to the damage of the other product.

Hydraulic, electrical, or other components furnished by other manufacturers and used with our products are warranted by that manufacturer and not by Bonnell Industries, Inc. the manufacturer's own warranty will apply to these parts. Hydraulic or electrical components are not to be disassembled without the express written permission of Bonnell Industries, Inc.

All defective parts returned from an end user must include the unit model, serial number, date installed, and dealer from whom purchased.

Bonnell Industries, Inc. reserves the right to make changes or improvements to its products without incurring any liability or obligation and without being required to make corresponding changes or improvements to products manufactured or sold prior to those changes or improvements.

The Bonnell Industries, Inc. Warranty Policy is subject to change without notice.

Product Information

When ordering parts, please refer to the information below.

INSTALLATION DATE:

Certificate of Origin

This product was manufactured at Bonnell Industries, Inc., located at 1385 Franklin Grove Rd., in the city of Dixon, Illinois, U.S.A.

MADE IN THE USA