



WESTERN PRODUCTS
7777 NORTH 73RD STREET
P.O. BOX 23045
MILWAUKEE, WISCONSIN 53223



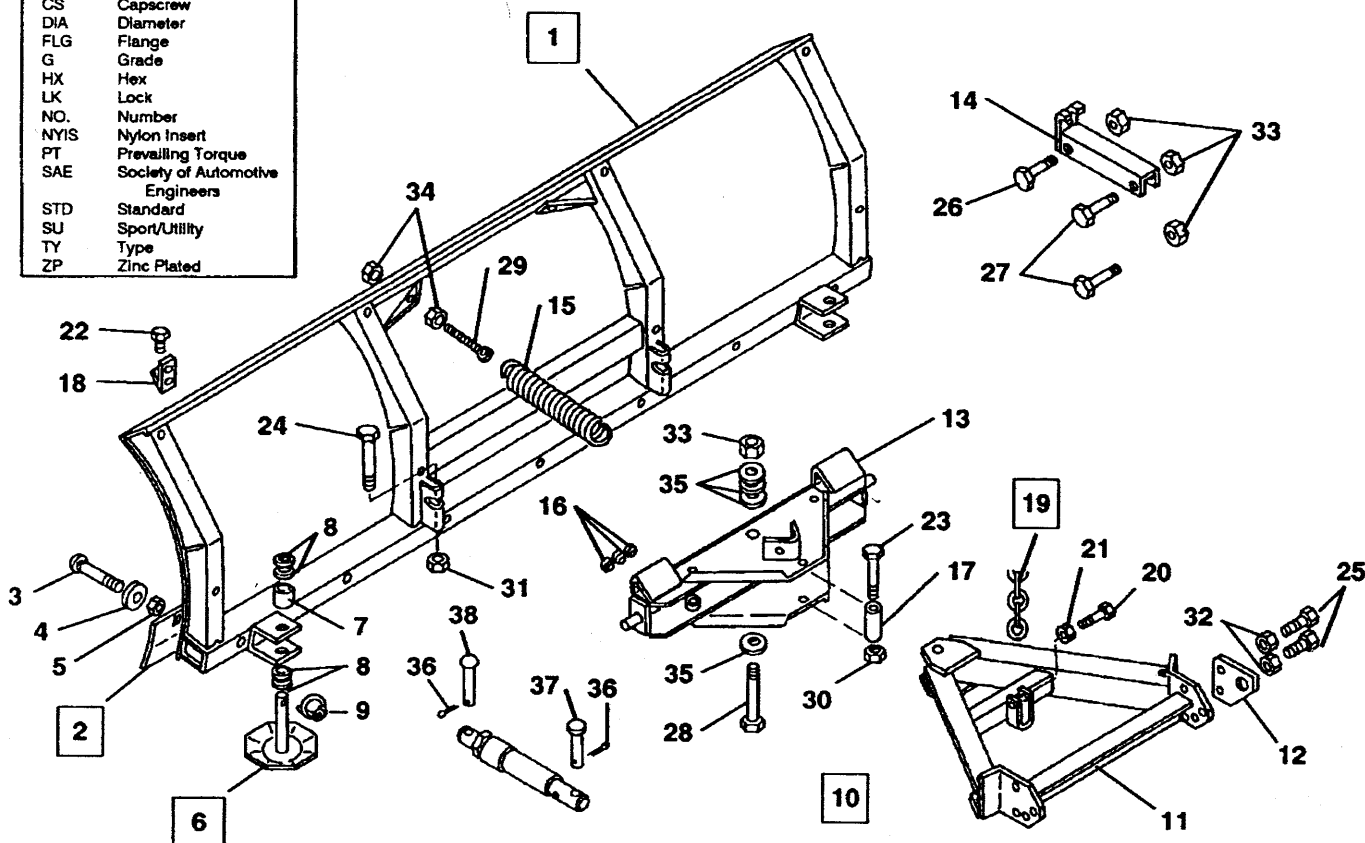
A DIVISION OF DOUGLAS DYNAMICS, INC.

SPORT/UTILITY
Blade, A-Frame
Quadrant & Lift Channel

March 14, 1990

DIAGRAM & PARTS LIST

	Abbreviations
A&Q	A-Frame & Quadrant
ASSY	Assembly
CB	Carriage Bolt
CS	Capscrew
DIA	Diameter
FLG	Flange
G	Grade
HX	Hex
LK	Lock
NO.	Number
NYIS	Nylon Insert
PT	Prevailing Torque
SAE	Society of Automotive Engineers
STD	Standard
SU	Sport/Utility
TY	Type
ZP	Zinc Plated



17028

ITEM	PART NO.	QTY.	DESCRIPTION
1	61300	1	6-1/2 FT. BLADE ASSY SU
2	49264	1	*CUTTING EDGE ASSY 6-1/2' SU
3	90229	7	7/16-14X3-1/2 CB G5 ZP
4	91104	7	7/16 PLAIN WASHER TY A STD ZP
5	91334	7	7/16-14 PT HX LK NUT NYIS ZP
6	49266	2	DISC SHOE ASSY SU
7	60045	1	SPACER
8	91109	13	WASHER - SPECIAL
9	93010K	1	LINCH PIN 7/16" X 1-3/4"
10	61295	1	A&Q ASSY SPORT/UTILITY
11	61280	1	A-FRAME SU
12	61282	2	ADAPTER LUG 1.0
13	61270	1	QUADRANT SU
14	60342	1	LIFT CHANNEL SHORT
15	23039	2	TRIP SPRING
16	61095	6	BUMPER - NO. 2250 1.0 DIA
17	61161	1	BUSHING - STOP
18	61287	2	BLADE GUIDE BRACKET
19	49033	1	REPLACEMENT CHAIN ASSY
20	90045	1	3/8-16X2-1/2 HX CS G8 ZP
21	91333	1	3/8-16 PT HX LK NUT NYIS ZP

ITEM	PART NO.	QTY.	DESCRIPTION
22	91040	2	5/16-18X1 HX FLG SCREW G5ZP
23	90074	1	7/16-14X4-1/2 HX CS G5 ZP
24	90110	2	1/2-13X5 HX CS G5 ZP
25	90129	4	5/8-11X2 HX CS G5 ZP
26	90157	1	3/4-10X3 HX CS G5 ZP
27	90159	2	3/4-10X3-1/2 HX CS G5 ZP
28	90189	1	3/4-10X6 HX CS G5 ZP
29	90490	2	5/8-11X4 EYEBOLT G2 ZP
30	91334	1	7/16-14 PT HX LK NUT NYIS ZP
31	91335	2	1/2-13 PT HX LK NUT NYIS ZP
32	91337	4	5/8-11 PT HX LK NUT NYIS ZP
33	91338	4	3/4-10 PT HX LK NUT NYIS ZP
34	91416	4	5/8-11 HX NUT ZP
35	91147	4	3/4 PLAIN WASHER TY A SAE ZP
36	91911	4	5/32X1-1/2 COTTER PIN ZP
37	93063K	2	RIVET 3/4" X 3-1/2"
38	93061K	2	RIVET 3/4" X 4"

*Cutting edge assembly includes appropriate number of fasteners.



WESTERN PRODUCTS
7777 NORTH 73RD STREET
P.O. BOX 23045
MILWAUKEE, WISCONSIN 53223

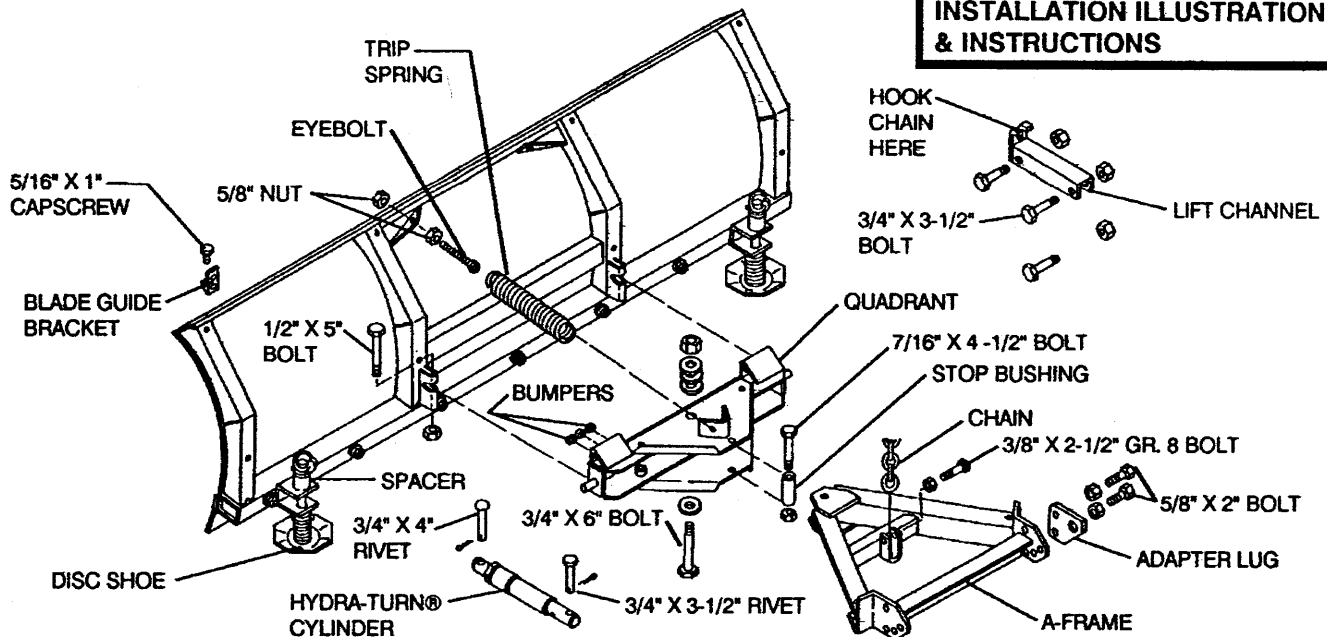


A DIVISION OF DOUGLAS DYNAMICS, INC.

SPORT/UTILITY
Blade, A-Frame
Quadrant & Lift Channel

March 14, 1990

INSTALLATION ILLUSTRATION & INSTRUCTIONS



QUADRANT TO BLADE

Insert the Bumpers into the holes in the Quadrant (lubricate Bumpers with liquid soap. **Avoid cuts or tears**). Assemble the Quadrant pins to the blade slots. Secure with 1/2" x 5" bolts and locknuts. **DO NOT overtighten bolts.** Use 5/16" x 1" flange head screws to attach Blade Guide Brackets against the blade lip on outer ribs. Adjust Disc Shoes placing 10 flat washers on bottom of shoe bracket and 3 washers and the Spacer on top. Readjust as necessary per Owners Manual.

SPRINGS AND EYEBOLTS

Install one nut half way down on each Eyebolt. Hook the Trip Springs to the Eyebolts and Quadrant bracket. Place the Eyebolts through the holes in blade brackets and adjust Trip Spring tension by installing a second nut above the bracket. Tighten only until the coils begin to separate, (instruction sheet should pass between the second and third coils) lock in place using the nut below the bracket.

A-FRAME TO QUADRANT

Assemble A-Frame nose into the Quadrant channel. Insert 3/4" x 6" bolt with one flat washer from bottom and secure with three flat washers and locknut on top. Position Stop Bushing into Quadrant. Secure using 7/16" x 4-1/2" bolt and locknut.

HYDRA-TURN® CYLINDER ATTACHMENT

Position Hydra-Turn® cylinders (threaded port turned out) to the brackets on either side of the A-Frame and Quadrant. Attach ram end of cylinders to Quadrant with 3/4" x 4" Rivets, and base end of cylinders to A-Frame with 3/4" x 3-1/2" Rivets. Insert all rivets from the top, and secure with Cotter Pins.

A-FRAME TO MOUNT

Block A-Frame so bottom is parallel to road. Position Adapter Lugs to A-Frame so large hole matches vehicle coupling lug height. Fasten with 5/8" x 2" bolts and locknuts. Couple the A-Frame to the coupling lugs on vehicle with 1" x 3-1/2" Hitch Pins secured with Hairpin Cotters.

LIFT CHANNEL

Assemble the Lift Channel to the upper U-bracket of the Lift Frame with 3/4" x 3-1/2" bolt and locknut. Tighten to permit free pivotal motion. Install hydraulic unit per hydraulic box instructions.

CHAIN TO A-FRAME AND LIFT CHANNEL

Place the Chain between retainer bar lugs and secure using 3/8" x 2-1/2" bolt and locknut. With Lift Channel pushed down, pull the Chain tight and hook it to the Lift Channel. After it is hooked it will have the correct amount of slack for blade "float".

Raise, lower and angle the plow, check oil level and refill to top with automatic transmission fluid.