

— OWNERS MANUAL —

P A T H F I N D E R S U P E R D U M P E R

PATHFINDER
SNOWPLOWS®

SNOWPLOWS

TRACTOR FRONT BLADES

SUPER DUMPERS

45 INDUSTRIAL DRIVE

EXETER, R.I. 02822 --2001

401-397-4700

FAX 401- 397-5100

FOR MOLDBOARD TRIP AND TRIP EDGE SNOWPLOWS

MODEL F SNOWPLOWS PRODUCTION BEGINNING IN 1997

Date Purchased_____

SUPER DUMPERS MODEL SDA

DEALER: PLEASE TRANSMIT THIS BOOKLET TO PURCHASER

WARRANTY REGISTRATION FORM ENCLOSED

(see other side for warranty information)

www.pathfindersnowplows.com

PATHFINDER SNOWPLOW WARRANTY

Pathfinder Snowplows warrants to the original purchaser of a **SUPER DUMPER** that it be free of defects in material and workmanship under normal use and service. The obligation of the Company under this warranty is limited, after delivery to the original purchaser, to repairing or replacing as the Company may elect, any parts that prove, in the Company's judgement, to be defective in material or workmanship within 90 DAYS for the body components and one year for the hydraulic system.

This warranty shall not apply (1) to normal maintenance services or adjustments, (2) to any bodies that have been operated in a manner not recommended in the operating instructions accompanying the body or any body package that has been repaired, altered, neglected, abused, or used in any way which in the Company's opinion, adversely affects its use. Parts subject to extreme wear are not warranted against wear, and are expected by the Company to be replaced by the purchaser when such parts are worn out or clearances become excessive due to normal wear.

This warranty and the Company's obligation thereunder is in lieu of all warranties, expressed or implied, including without limitation, the implied warranties of merchantability and fitness for particular purpose, all other representations to the original purchaser and all other obligations or liabilities, including liability for incidental and consequential damages on the part of the Company or the seller with respect to the sale or use of the item warranted.

No other person is authorized to give any other warranties or to assume any other liability on the Company's behalf unless made in writing by the Company. No dealer is authorized to make any repair or replace any parts at the expense of the Company without specific authorization from the Company. Specific authorization may be obtained by telephone and will consist of a digital sequence.

THIS WARRANTY APPLIES ONLY TO DUMPERS FOR WHICH THE WARRANTY REGISTRATION FORM HAS BEEN RECEIVED BY THE MANUFACTURER WITHIN 15 DAYS OF THE PURCHASE OF THE BLADE.

WARRANTY REGISTRATION FORM

Purchaser's name _____ Date _____
Purchaser's Address _____
Dealer's Address _____ Phone _____
Blade Size _____ Model _____ **SUPER DUMPER**
Tractor Used On: Make _____ Model _____ Year _____
Truck Used On:
Make _____ Model _____ Year _____

MAIL TO: Pathfinder Snowplows, 45 Industrial Dr., Exeter, R.I. 02822

PATHFINDER®

INSTALLATION OF PATHFINDER SUPER DUMPER

TOOLS YOU WILL NEED TO INSTALL YOUR NEW DUMPER

- 1.) COMMON HAND TOOLS.
- 2.) ELECTRIC DRILL WITH $\frac{1}{2}$ IN OR LARGER CHUCK.
- 3.) TWIST DRILLS - $\frac{3}{16}$, $\frac{1}{2}$, $\frac{9}{16}$, and $\frac{5}{8}$ in.
- 4.) MEASURING TAPE, PAPER, PENCIL.
- 5.) LIFTING DEVICE - FRONT LOADER, CHAIN FALL, ETC.
- 6.) THREAD SEALER.
- 7.) 5 gallons of ISO 32 hydraulic fluid.
- 8.) GREASE GUN.

MATERIAL YOU WILL NEED:

- 1.) #2 BATTERY CABLE.
- 2.) #6 CABLE IF YOUR TRUCK IS RUSTED.
- 3.) BLACK PAINT IF YOU WISH TO PAINT TRUCK FRAME BRACES.

NEVER GET ANY OF YOUR BODY PARTS UNDER THE DUMPER. BE SURE THAT THE DUMPER IS ALWAYS SUPPORTED WELL TO PREVENT ACCIDENTAL FALLING OF THE BODY - NO EXCEPTIONS EVER!!!!!!

TO INSTALL THE PATHFINDER SUPER DUMPER

1.) NEVER WORK ON YOUR DUMPER IN THE RAISED POSITION WITHOUT ADEQUATE, FIRM, DEPENDABLE SUPPORT TO HOLD THE BODY IN A SECURE MANNER FROM FALLING UNDER ANY CONDITIONS AT ANY TIME!

2.) CLEAN YOUR TRUCK BODY THOROUGHLY OF ALL DEBRIS. REMOVE THE TAILGATE. BEDLINERS MAY STAY IN PLACE-BUT REMEMBER BEDLINERS ARE LOW FRICTION PLASTIC AND MAY FACILITATE MOVEMENT OF THE BODY SUBFRAME IN SPITE OF THE SECURE BOLTING DESIGN OF THE PATHFINDER DUMPER.

3.) POSITION THE SUBFRAME ON CENTER AND APPROXIMATELY 4½ INCHES OVERHANGING THE REAR OF THE TRUCK BODY TO ASSURE CLEARANCE BETWEEN THE DUMPER AND YOUR TRUCK BODY.

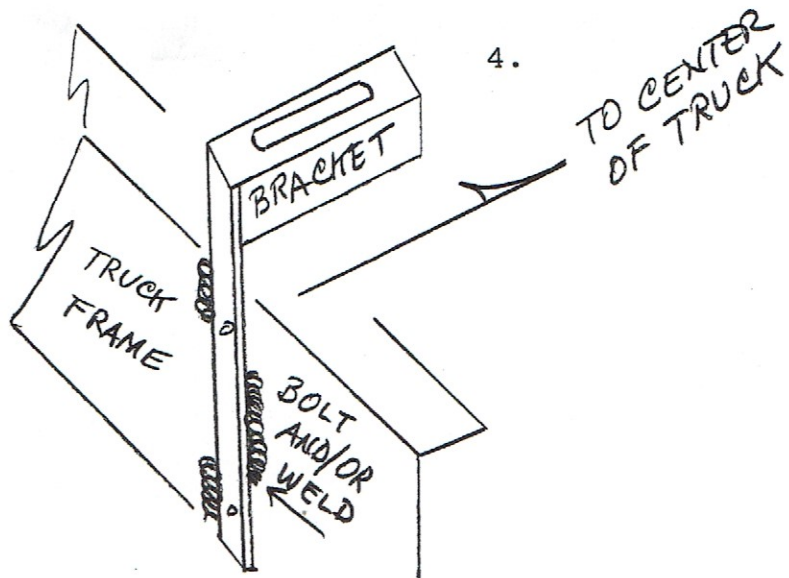
4.) INSTALL THE TRUCK FRAME BRACKETS AND SUBFRAME CLAMPS:

a. SELECT THE BEST LOCATION FOR THE TRUCK FRAME BRACKETS - TWO AT THE FRONT, TWO AT THE REAR. USE THE LONG CLAMPS IN THE FRONT AND THE SHORT BRACKETS AT THE REAR IN MOST TRUCKS. ON GM TRUCKS, FOR THE DRIVERS SIDE FRONT USE THE FLAT PLATE AS THE GAS TANK WILL OBSTRUCT THE USUAL STYLE LEGGED BRACKETS.

b. POSITION THE POWER UNIT MOUNTING BRACKET IN THE FRONT DRIVERS SIDE OF THE SUBFRAME. PLACE THE POWER UNIT ON THE BRACKET BEFORE DRILLING THE HOLES TO MOUNT THE BRACKET TO ASSURE CORRECT CLEARANCES. MARK THE HOLES AND USE A SMALL DRILL AS A PILOT THEN DRILL TO 9/16.

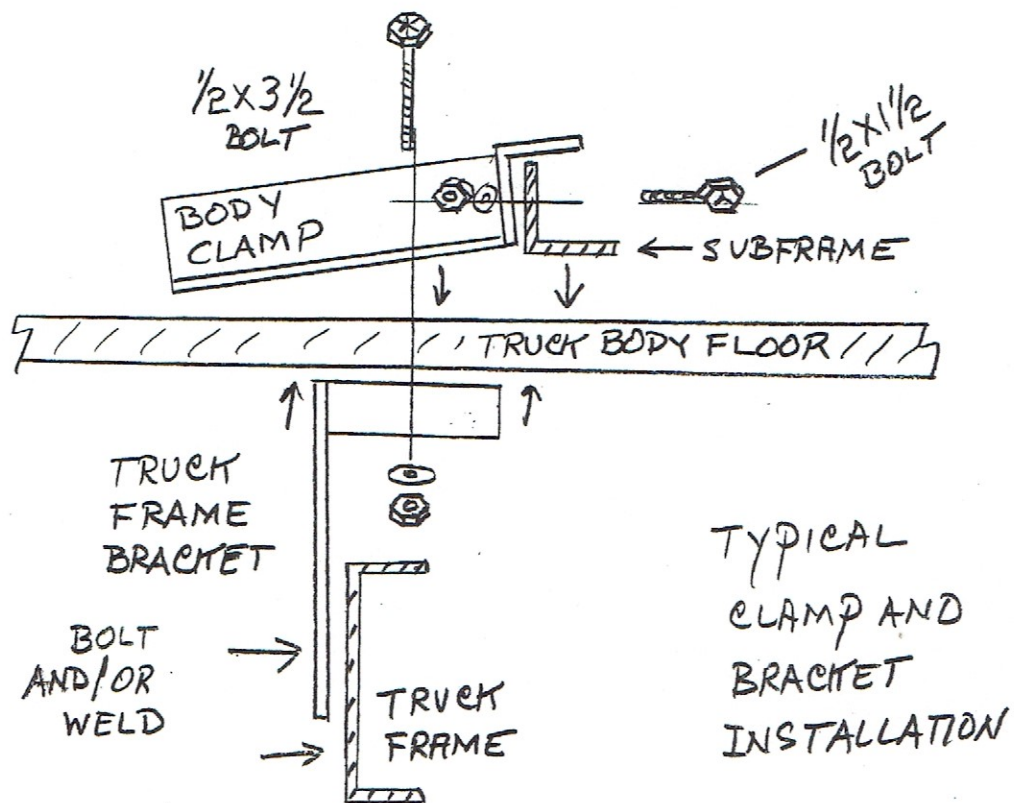
c. DRILL 3/16 GUIDE HOLES TO LOCATE THE HOLES TO POSITION THE SUBFRAME CLAMPS. IF YOUR DUMPER IS SUPPLIED WITH BOTH LONG AND SHORT CLAMPS, USE THE SHORT CLAMPS AT THE REAR AND THE LONG CLAMPS AT THE FRONT OR AS THEY FIT BEST. THE CLAMPS ARE MULTIPUNCHED TO TRY TO PROVIDE FOR EVERY TRUCK FRAME WIDTH.

d. DRILL AND BOLT THE TRUCK FRAME BRACKETS IN PLACE. AT LEAST ONE BRACKET SHOULD BE WELDED TO THE TRUCK FRAME TO PROVIDE A GOOD GROUND FOR THE POWER UNIT TO THE TRUCK FRAME, BUT IT IS BEST TO WELD THEM ALL IN PLACE. EXISTING TRUCK FRAME HOLES SHOULD BE USED WHEREEVER POSSIBLE. THE TOP PORTION OF THE TRUCK FRAME BRACKETS MUST FACE INWARD TOWARD THE TRUCK CENTER FOR MOST TRUCKS. A SUPPLY OF ½ IN FLAT WASHERS ARE PROVIDED TO ACCOUNT FOR THE VARYING WIDTH OF AND THICKNESSES OF TRUCK FRAMES AND BODY FLOORS.



e. ON GM MODELS, CHEVROLET AND GMC, IN THE FRONT DRIVERS SIDE USE THE $\frac{1}{4}$ X8X8 INCH FLAT PLATE AS THE TRUCK FRAME IS NOT ACCESSIBLE DUE TO THE FUEL TANK POSITION. THIS PLATE WILL SPREAD OUT THE STRESS ON THE TRUCK BODY FLOOR AND PROVIDE AN ADEQUATE MOUNTING POINT.

f. BOLT THE SUBFRAME TRUCK FRAME BRACKETS AND CLAMPS IN POSITION AS SHOWN:



5.) BOLT THE POWER UNIT TO THE POWER UNIT BRACKET, WITH THE $\frac{1}{4}$ X 1 $\frac{1}{2}$ FLAT BRACE UPWARD. USE THE TWO $\frac{3}{8}$ IN BOLTS, FLAT WASHERS, AND LOCK WASHERS PROVIDED. FOLLOW WITH BOLTING THE TWO $\frac{1}{2}$ X 1 $\frac{1}{2}$ BOLTS THRU THE BRACKET TO THE SUBFRAME. TIGHTEN SECURELY.

6.) DRILL A $\frac{5}{8}$ HOLE THRU THE TRUCK BED FLOOR AND INSERT THE PLASTIC GROMMET SUPPLIED. MEASURE THE SHORTEST DISTANCE FROM THE POWER UNIT MOTOR SOLENOID TO THE TRUCK BATTERY FOR THE INSTALLATION OF THE # 2 BATTERY CABLE, ALLOWING FOR SMOOTH BENDS. KEEP THE POWER CABLE AWAY FROM HOT, SHARP, OR MOVING PARTS. ON RUSTED VEHICLES PROVIDE A DIRECT GROUND CABLE-#6 or #4, RUNNING IT FROM THE NEGATIVE POST OF THE BATTERY TO ONE OF THE MOUNTING BOLTS OF THE POWER UNIT. USE THE CABLE TIES PROVIDED; CABLE EYELETS SUPPLIED, AND FOLLOWING THE POWER UNIT MANUFACTURER'S INSTRUCTIONS FOR THE ATTACHMENT OF SWITCH WIRES.

7.) INSTALL THE SCISSOR HOIST ASSEMBLY INTO THE SUBFRAME, USING THE 1"X 12" PIN, FLAT WASHERS, AND $\frac{1}{4}$ COTTER PINS PROVIDED. POSITION THE HOIST WITH THE $\frac{3}{8}$ X 2 INCH FLATS DOWNWARD AND ENGAGE THE MOUNTING PIN THRU THE FOUR EARS OF THE SUBFRAME. THE TRIANGULAR PLATES OF THE SCISSOR HOIST STRUCTURE IS THE UP SIDE OF THE HOIST AND ENGAGES INTO THE UPPER EARS LOCATED ON THE CROSSMEMBER OF THE BODY FRAME. POSITION AND PLUMB IN EXACTLY AS SHOWN IN THE INSTRUCTIONAL VIDEO. BE SURE THAT THE HEX NUT OF THE HOIST MAIN BOLT IS WELDED TO THE BOLT ENSURING THAT THE NUT CANNOT LOOSEN IN USE. INSTALL THE BODY PROP USING THE $\frac{7}{16}$ BOLT, NUTS, LOCK WASHER, AND FLAT WASHERS. USE THE NETS AS LOCKING NUTS AGAINST EACH OTHER ALLOWING THE PROP TO BE PIVOTED, YET NOT LOOSEN.

8.) ATTACH THE BODY TO THE SUBFRAME MOUNTED TO THE TRUCK BY RAISING THE BODY IN SUCH A MANNER THAT THE $\frac{3}{4}$ X 4 HINGE PINS ARE ABLE TO BE INSERTEDS INTO THE HINGE ASSEMBLY WITH THE FLAT WASHERS NEXT TO THE COTTER PINS TO PREVENT COTTER PIN WEAR. KEEP THE BODY RAISED AND SECURELY SUPPORTED WHILE THE HOIST IS BEING INSTALLED.

9.) FILL THE RESERVOIR OF THE POWER UNIT WITH 2+ GALLONS OF ISO 32. AND RAISE THE HOIST HYDRAULICALLY TO ASSIST IN INSTALLING THE UPPER 1 X 11 INCH PIN, FLAT WASHERS, AND $\frac{1}{4}$ COTTER PINS.

10.) CYCLE THE HOIST WITH THE POWER UNIT, ADDING FLUID AS NECESSARY TO THE POWER UNIT RESERVOIR. WHEN COMPLETE THE RESERVOIR SHOULD BE APPROXIMATELY $\frac{3}{4}$ FULL.

11.) INSTALL THE DOUBLE ACTING TAILGATE, INSERTING THE FOUR $\frac{1}{2}$ PINS THRU THE TAILGATE JAMB EARS. FASTEN THE TAILGATE RESTRAINT CHAINS TO THE TAILGATE SIDES USING THE $\frac{3}{8}$ INCH BOLT ASSEMBLIES PROVIDED. LONG CHAINS GO TO THE TOP OF THE TAIL GATE, SHORT CHAINS GO TO THE BOTTOM OF THE TAILGATE. ATTACH THE SMALL LINK CHAINS TO THE TAILGATE LOCKING PINS USING THE $\frac{1}{4}$ INCH BOLTS, FLAT WASHERS AND LOCKING NUTS TO PREVENT PIN LOSS. ENGAGE THE LARGER CHAINS INTO THE HOLES IN THE TAILGATE JAMBS, WITH THE LONGER CHAINS SET TO HOLD THE TAILGATE LEVEL WITH THE BODY WHEN OPENED.

12.) AGAIN TIGHTEN AND CHECK ALL FASTENERS OF THE ENTIRE BODY SYSTEM AND MOUNTINGS. TIGHTEN SECURELY.

13.) OPTION: INSTALL THE CAB PROTECTOR/HEADBOARD TO THE BODY USING THE $\frac{1}{2}$ X $1\frac{1}{2}$ BOLTS, NUTS, FLAT AND LOCK WASHERS SUPPLIED.

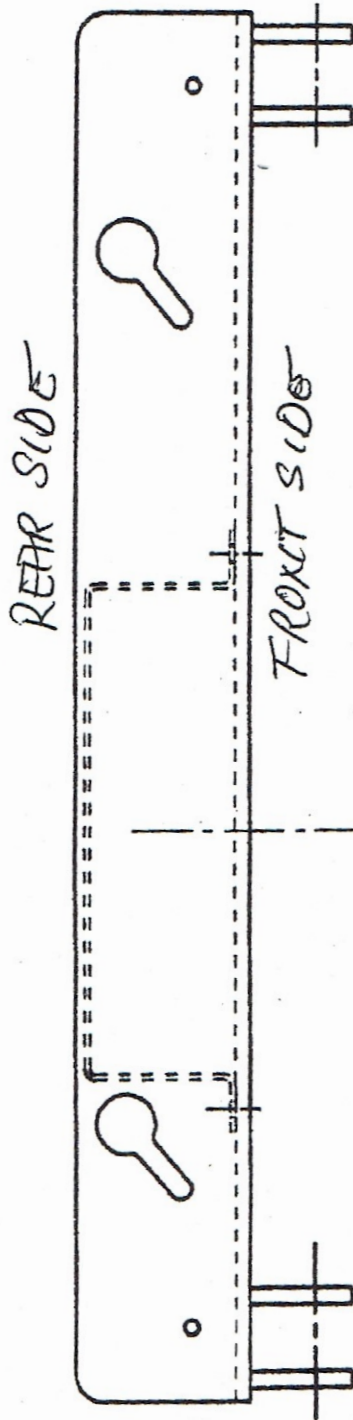
14.) OPTION: INSTALL THE TARP AND ROLLER INTO THE CAB PROTECTOR/HEADBOARD USING THE FLAT WASHER AND COTTER PIN PROVIDED AS WELL AS THE BOLT ASSEMBLIES TO CONNECT THE TARP TO THE TARP ROLLER. THE GROMMETS AT THE OPPOSITE END OF THE ROLLER IN THE TARP ATTACH TO THE UPPER TAILGATE LOCKING PINS, WITH A FASTENING POSITION JUST BELOW THE CAB PROTECTOR/HEADBOARD. THE TARP ROLLER MAY BE USED IN EITHER THE HIGH OR LOW POSITION ON THE CAB PROTECTOR/HEADBOARD.

15.) INSTALL THE TAIL LIGHTES INTO THE TAILGATE JAMBS USING THE $\frac{1}{4}$ SCREWS PROVIDED AND BRACKETS FOR THE LITE GROMMETS TO FIT INTO. THE BRACKETS WILL BOLT BEHIND THE TAILGATE JAMBS TO RECESS THE LENSES AND PROTECT THEM FROM DAMAGE WHEN THE DUMPER IS USED. RUN THE HARNESSES FROM THE LITES INTO A SUITABLE POINT BEHING THE TRUCK BODY TAILLITE ASSEMBLIES. REMOVE THE TRUCK TAILLITES BEFORE DRILLING A $\frac{5}{8}$ INCH HOLE FOR THE HARNESS AND GROMMET. USING THE SQUEEZE CONNECTORS, JOIN THE HARNESS WIRES INTO THE TRUCK LIGHTING WIRES. ALLOW PLENTY OF HARNESS LENGTH, COMPLETING THE WIRING WHEN THE DUMPER IS IN THE UP POSITION.

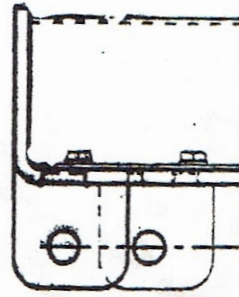
16.) IF HIGH SIDES ARE TO BE ADDED TO THE BODY BE SURE TO INSTALL THE LIMIT CHAINS AT THE REAR CONNECTING THE SUBFRAME TO THE BODY FRAME USING THE CHAINS, $\frac{7}{16}$ BOLT ASSEMBLIES PROVIDED TO LIMIT THE DUMPING ANGLE TO 60 DEGREES AND NOT ALLOW THE EXTRA WEIGHT OF THE HIGH SIDES TO PULL THE BODY BEYOND THE SPECIFIED ANGLE.

TAIL LAMPS

SIDE VIEW



7.

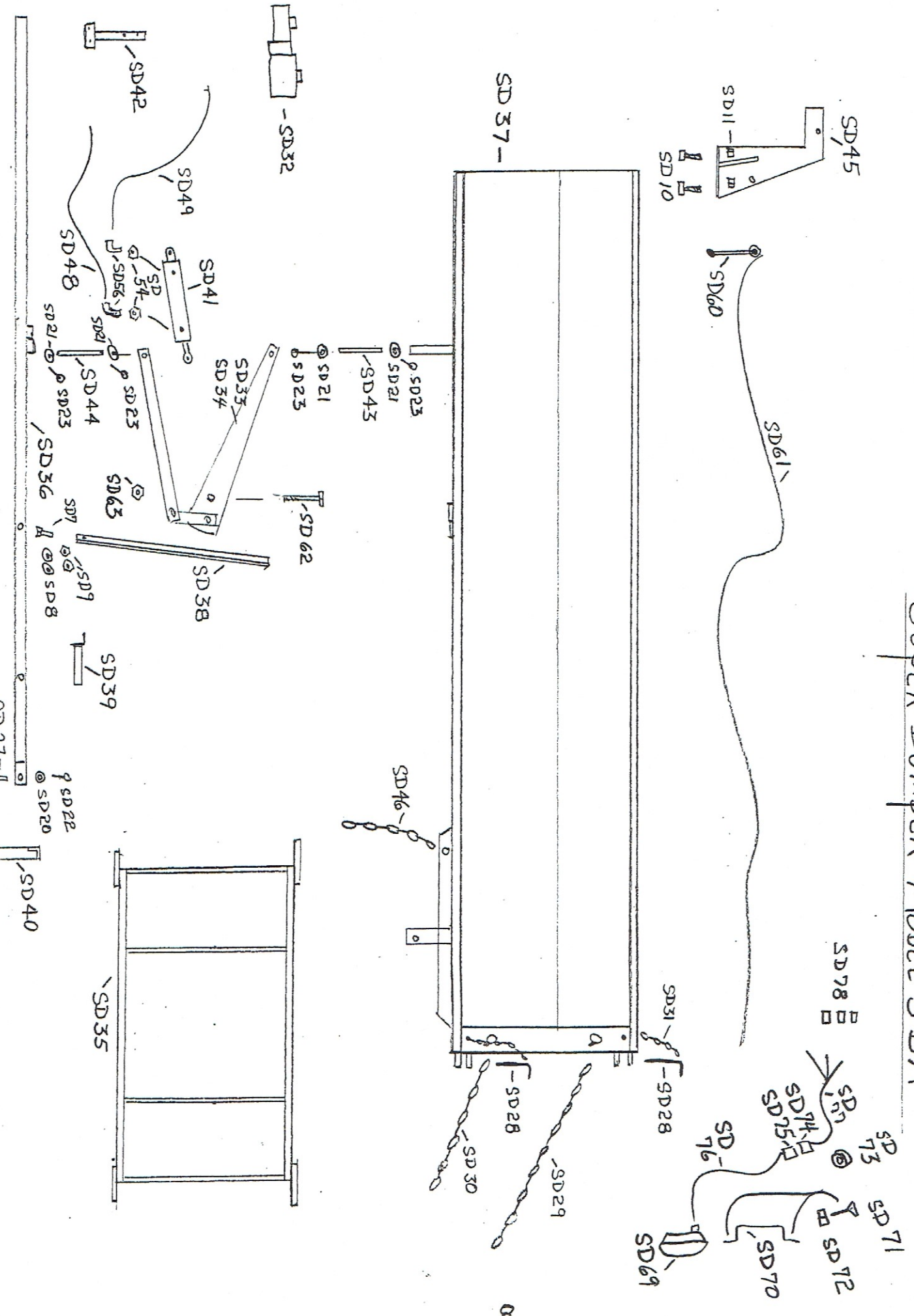


FRONT VIEW - DRIVER

TAIL LAMP MOUNTING BRACKET - 13 GA.

MOUNT TAIL LAMP IN BRACKETS AS SHOWN ON
 REAR SIDE OF TAILGATE JAMBS - LIGHTS WILL BE
 RECESSED PROTECTING LENSES FROM DAMAGE.
 USE 1/4 X 1 FLAT HEAD MACHINE SCREWS w/ LOCK NUTS.

Super Dumper Model SDA



PATHFINDER SUPER INSERT DUMPER PARTS LIST - MODEL A

REF.	P/N	QUAN.	DESCRIPTION (USE IN ORDERING)
<u>BODY AND SUBFRAME</u>			
1.	SD1	8	$\frac{1}{4}$ "x1 BOLT GR5
2.	SD2	8	$\frac{1}{4}$ " LOCK NUT
3.	SD3	8	$\frac{1}{4}$ " FLAT WASHER
4.	SD4	2	3/8X3/4 BOLT GR 5 NC
5.	SD5	2	3/8 LOCK WASHER
6.	SD6	4	3/8 FLAT WASHER
7.	SD7	1	7/16X2 BOLT GR5 NC
8.	SD8	2	7/16 F/W USS
9.	SD9	2	7/16 NUT NC
10.	SD10	6	$\frac{1}{2}$ X1 $\frac{1}{2}$ BOLT GR 5 NF
11.	SD11	6	NUT NF
12.	SD12	6	LOCK WASHER
13.	SD13	40	FLAT WASHER USS
14.	SD14	4	$\frac{1}{2}$ X3 BOLT GR8 NC
15.	SD15	4	$\frac{1}{2}$ NUT NC
16.	SD16	4	5/8X2 BOLT GR5 NF
17.	SD17	4	5/8 FLAT WASHER
18.	SD18	4	5/8 LOCK WASHER
19.	SD19	4	5/8 NUT NF
20.	SD20	2	3/4 FLAT WASHER SAE
21.	SD21	8	1" FLAT WASHER
22.	SD22	2	5/32X1 $\frac{1}{2}$ COTTERS
23.	SD23	4	$\frac{1}{4}$ X 2 $\frac{1}{2}$ COTTERS
24.	SD24	2	#2 CABLE COPPER EYE TERMINALS
25.	SD25	1	PLASTIC INSULATING GROMMET 5/8
26.	SD26	12	TIES 8"
27.	SD27	2	3/4X4 HINGE PINS
28.	SD28	4	TAILGATE LOCKING PINS
29.	SD29	2	UPPER TAILGATE CHAIN 40"X4/0
30.	SD30	2	LOWER TAILGATE CHAIN 20"X4/0
31.	SD31	4	TAILGATE LOCK PIN CHAINS 12"
32.	SD32	1	POWER UNIT W/MOTOR SOLENOID
33.	SD33	1	SCISSOR HOIST (DRIVER SIDE)
34.	SD34	1	SCISSOR HOIST (PASSENGER SIDE)
35.	SD35	1	TAILGATE
36.	SD36	1	SUBFRAME
37.	SD37	1	DUMPER BODY
38.	SD38	1	PROP MEMBER
39.	SD39	4	SUBFRAME CLAMPS
40.	SD40	4	TRUCK FRAME BRACKETS (GM 3 w/1 $\frac{1}{4}$ "x8x8 plate)
41.	SD41	1	4X12 D.A. TIE ROD CYLINDER
42.	SD42	1	POWER UNIT BRACKET
43.	SD43	1	HOIST PIN (UPPER) 1"x11" CRS
44.	SD44	1	HOIST PIN (LOWER) 1"x12" CRS
45.	SD45	1	OPTIONAL HEADBOARD/CAB PROTECTOR
46.	SD46	2	RESTRAINT CHAINS 5/16 link
47.	SD47	4	7/17X2 INCH BOLTS, LOCK NUTS, 12-FLAT WASHERS
48.	SD48	1	$\frac{1}{4}$ " X 5ft HYDRAULIC HOSE M XM
49.	SD49	1	$\frac{1}{4}$ " X 6ft HYDRAULIC HOSE M X M
50.	SD50	1	POWER UNIT MOTOR SOLENOID

PATHFINDER SUPER DUMPER PARTS LIST MODEL A (CONTINUED)

51.	SD51	2	POWER UNIT VALVE ASSEMBLY (FENNER)
52.	SD52	1	POWER UNIT MOTOR (FENNER)
53.	SD53	1	BLACK PAINT - QUART
54.	SD54	1	YELLOW PAINT - QUART
55.	SD55	2	$\frac{1}{2}$ X $\frac{1}{4}$ REDUCING BUSHINGS
56.	SD56	2	$\frac{1}{4}$ FORGED STREET ELBOWS
57.	SD57	1	$\frac{1}{4}$ CLOSE NIPPLE
58.	SD58	2	$\frac{1}{4}$ X 90 M X F SWIVEL ADAPTER UNION
59.	SD59	1	$\frac{1}{4}$ COUPLING
60.	SD60	1	TARPSHAFT WITH CRANK HANDLE
61.	SD61	1	TARP
62.	SD62	1	HOIST MAIN BOLT 1" X 10" GR5 NC
63.	SD63	1	HOIST MAIN NUT 1" GR2 NC
64.	SD64	1	#2 BATTERY CABLE-LENGTH PER TRUCK
65.	SD65	4	$\frac{1}{2}$ X $1\frac{1}{2}$ BOLT GR 5 NF FOR CAB PROTECTOR
66.	SD66	4	$\frac{1}{2}$ HEX NUT GR 2 NF FOR CAB PROTECTOR
67.	SD67	4	$\frac{1}{2}$ LOCK WASHERS GR 2 FOR CAB PROTECTOR
68.	SD68	8	$\frac{1}{2}$ FLAT WASHERS FOR CAB PROTECTOR
69.	SD69	2	TAIL LAMP ASSEMBLIES
70.	SD70	2	TAIL LIGHT BRACKETS
71.	SD71	4	$\frac{1}{4}$ X 1 FLAT HEAD MACHINE SCREWS
72.	SD72	4	$\frac{1}{4}$ LOCK NUTS
73.	SD73	1	GROMMET
74.	SD74	2	CONNECTOR RECEPTACLE
75.	SD75	2	CONNECTOR PLUG
76.	SD76	2	TAILLIGHT HARNESS - DUMPER END
77.	SD77	2	TAILLIGHT HARNESS - TRUCK END
78.	SD78	6	SQUEEZE CONNECTORS