

1992 FORD (F150) UNDERCARRIAGE MOUNTING INSTRUCTIONS (PART NO. LTA3301)

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WARNING: THIS SNOWPLOW SHOULD ONLY BE INSTALLED ON VEHICLES THAT HAVE THE MANUFACTURER'S SNOWPLOW PREPARATION PACKAGE OR MEET THE MANUFACTURER'S MINIMUM RECOMMENDATIONS FOR USING THE VEHICLE WITH SNOW CONTROL EQUIPMENT. THE VEHICLE'S OPERATION, DURABILITY AND/OR WARRANTY MAY BE AFFECTED IF THIS REQUIREMENT IS NOT MET. OWNERS OF VEHICLES THAT DO NOT HAVE A SNOWPLOW PREPARATION PACKAGE SHOULD CONSULT THEIR LOCAL TRUCK DEALER FOR ANY REQUIRED CHANGES OR MODIFICATION.

PUTS SNOW IN ITS PLACE

1992 FORD F150
PART NO. LTA3301
UNDERCARRIAGE MOUNTING INSTRUCTIONS

The mounting procedure outlined below covers FORD 1/2 TON (F150) trucks. You will need to refer to the illustrations and familiarize yourself with each of the undercarriage components and their relative position to each other. Then proceed as follows:

NOTE: This mounting is not designed for installation on F-150 vehicles with a stabilizer bar. Vehicles must have heavy duty front end equipment (3800 lb. Front GAWR) recommended by Ford Motor Company for snowplow applications

1. Remove the truck bumper.
2. Install the LIFT TOWER ADAPTOR (Ref. No. 74A, Fig 3) using the 1/4" thick BOLT PLATE (Ref. No. 74B, Fig. 3) on the inside of the frame and the hex head bolts, flat washers, and lock nuts provided, fasteners should only be finger tight.

Note : It may be necessary to install a Spacer (Ref. No. 74C, Fig. 3) in between the frame and the Lift Tower Adapter (Ref. No. 74A, Fig. 3).

Note : Make sure the Lift Tower Adapter is straight up prior to drilling the (4) 9/16" diameter holes in the front frame horn.

3. Place the LIFT TOWER ASSEMBLY (Ref. No. 74, Fig. 3) up to the LIFT TOWER ADAPTOR on the truck. Bolt them together using the hex head bolts and self locking nuts provided, fasteners should only be finger tight.
4. Assemble the PUSH BEAM ASSEMBLY (Ref. No.62, Fig. 1) as shown.
5. Attach the PUSH BEAM ASSEMBLY to the LIFT TOWER ASSEMBLY as shown in Figure 3 using hex head bolts and self locking nuts, fasteners should only be finger tight. To determine the mounting height of the PUSH BEAM see plow type below:

A) V-Plow Measure from the center of the HORIZONTAL MOUNTING PIN (See Fig. 2) on the T-Frame to the ground when the plow is in the vee position. Position the PUSH BEAM ASSEMBLY to the appropriate height so the MOUNTING JAWS (See Figure 2) will accept the HORIZONTAL MOUNTING PIN on the T-FRAME.

NOTE: Should the PUSH BEAM ASSEMBLY be mounted higher than the HORIZONTAL MOUNTING PINS, the nose of the plow will tend to dig in while plowing. If the PUSH BEAM ASSEMBLY is mounted too low, the wings of the plow will not lay flat against the ground. This will be most apparent when plowing in the carry position.

B) Straight Blade Plow The distance from the ground to the top of the lower mounting jaw should be approximately 11-1/2" (See Fig. 2).

6. Install RIGHT ANGLE BRACKET ASSEMBLY FRAME MOUNT (Ref. No. 75R, Fig. 4) and LEFT ANGLE BRACKET ASSEMBLY FRAME MOUNT (Ref. No. 75L, Fig. 4) as shown in Figure 4 using the hex head bolts and Nut Plates (Ref No. 99L & 99R, Fig. 4), fasteners should only be finger tight. Install ANGLE BRACKET ASSEMBLY (Ref. 75, Fig. 4) from the mounting points on the PUSH BEAM ASSEMBLY to their respective positions on the FRAME MOUNTS (see Figure 4) using hex head bolts with self locking nuts, fasteners should only be finger tight.

7. With all undercarriage parts in place, securely fasten all mounting hardware. IT IS IMPORTANT THAT FASTENERS BE PROPERLY TORQUED (SEE FIGURE 4) TO ASSURE A SAFE OPERATING FLOW.

8. Reinstall the front bumper directly to Bumper Mount (Ref. No. 78, Fig. 3) on the Lift Tower Assembly using the vehicles existing fasteners as shown in Figure 3.

With the above items completed, the hydraulic system can be installed. Refer to the Hydraulic Section for step by step instructions on how to install the HYDRAULIC PUMP, VALVE ASSEMBLY, HOSES, and CONTROL SWITCHES.

PUSH BEAM ASSEMBLY PARTS LIST (FIGURE 1)

REF. NO.	DESCRIPTION	PART NO.	QTY.
36	Rapid-Tach Release Cable	MSC1512	1
48 - 49	Cable Stop	HDW1745	1
62	Push Beam Assembly	PBA2200	1
63	Push Beam Release Strap	PBX0010	1
64	Rapid-Tach Pin	HDW1746	2
65	Rapid-Tach Spring		2
66	Cotter Pin		2
F	5/8" Flat Washer		4

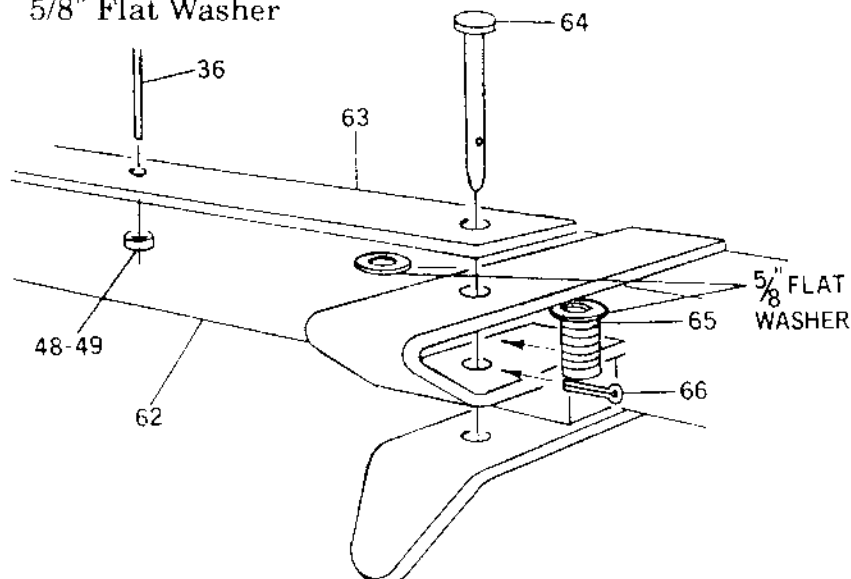


FIGURE 1

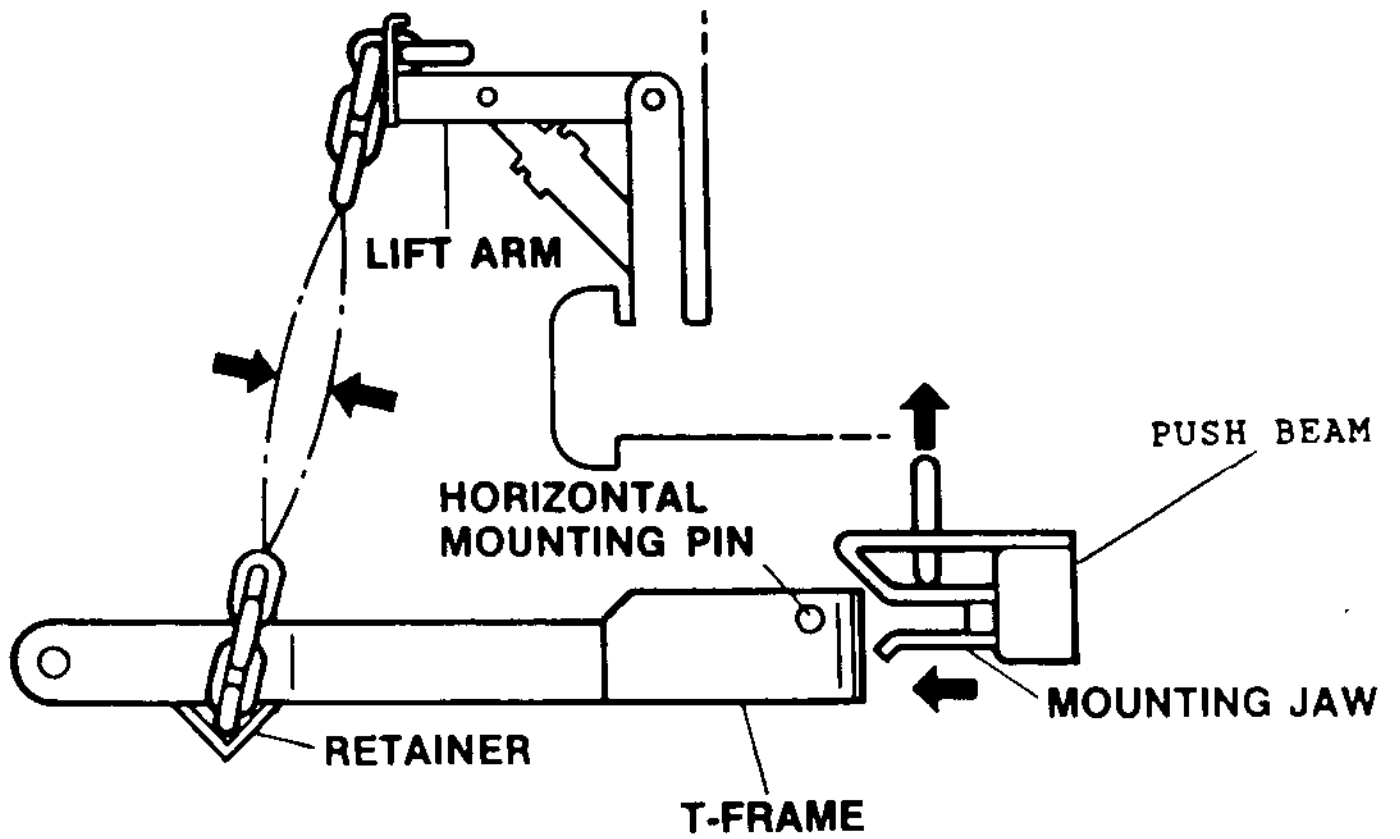
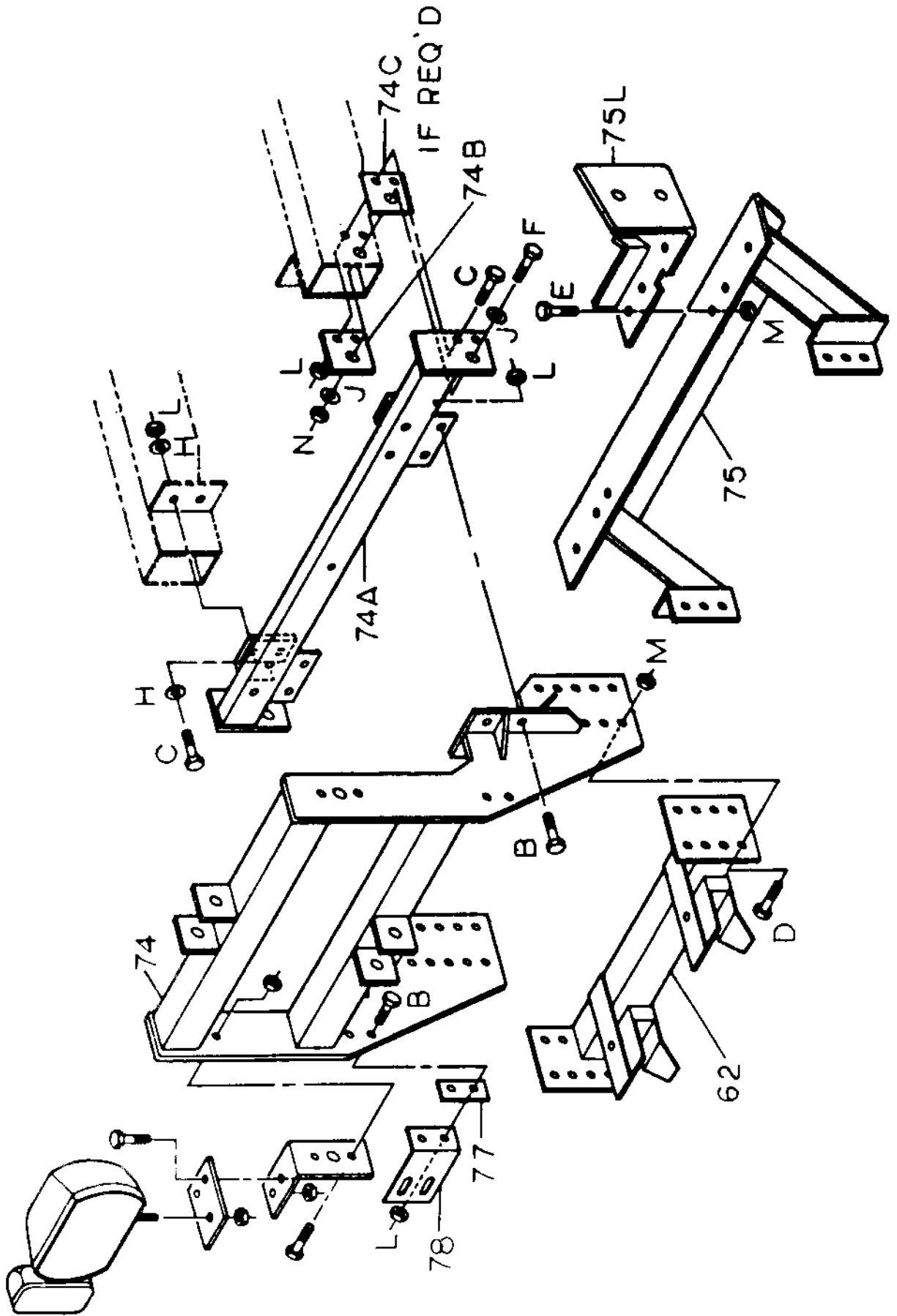


Figure 2

1992 FORD F150 UNDERCARRIAGE
PART NO. LTA3301
UNDERCARRIAGE PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	QTY.
62	Push Beam Assembly	PBA2200	1
74	Lift Tower Assembly	LTA3323	1
74A	Lift Tower Adapter	LTA3324	1
74B	Lift Tower Adapter Bolt Plate	LTA3325	2
74C	Frame/Lift Tower Adapter Spacer	LTA3326	2
75	Angle Bracket Assembly	LTA3327	1
75L	Frame Mount (Left Hand)	LTA3308	1
75R	Frame Mount (Right Hand)	LTA3309	1
77	Bumper Mount Spacer	LTA3312	2
78	Bumper Mount	LTA3313	2
99L	Nut Plate (Left Hand)	LTA3328	1
99R	Nut Plate (Right Hand)	LTA3329	1
B	1/2 x 1-1/2 Hex Head Bolt		12
C	1/2 x 2 Hex Head Bolt		8
D	5/8 x 1-1/2 Hex Head Bolt		6
E	5/8 x 2 Hex Head Bolt		14
F	3/4 x 2 Hex Head Bolt		2
H	1/2 Flat Washer		8
J	3/4 Flat Washer		4
L	1/2 Self-Locking Nut		20
M	5/8 Self-Locking Nut		16
N	3/4 Self-Locking Nut		4

FIGURE 3



After the Left & Right Nut Plates (Ref. 99L & 99R) are installed and the bolts are tightened bend the remaining portion of the Nut Plate arm around the front frame horn of the truck to prevent them from rattling.

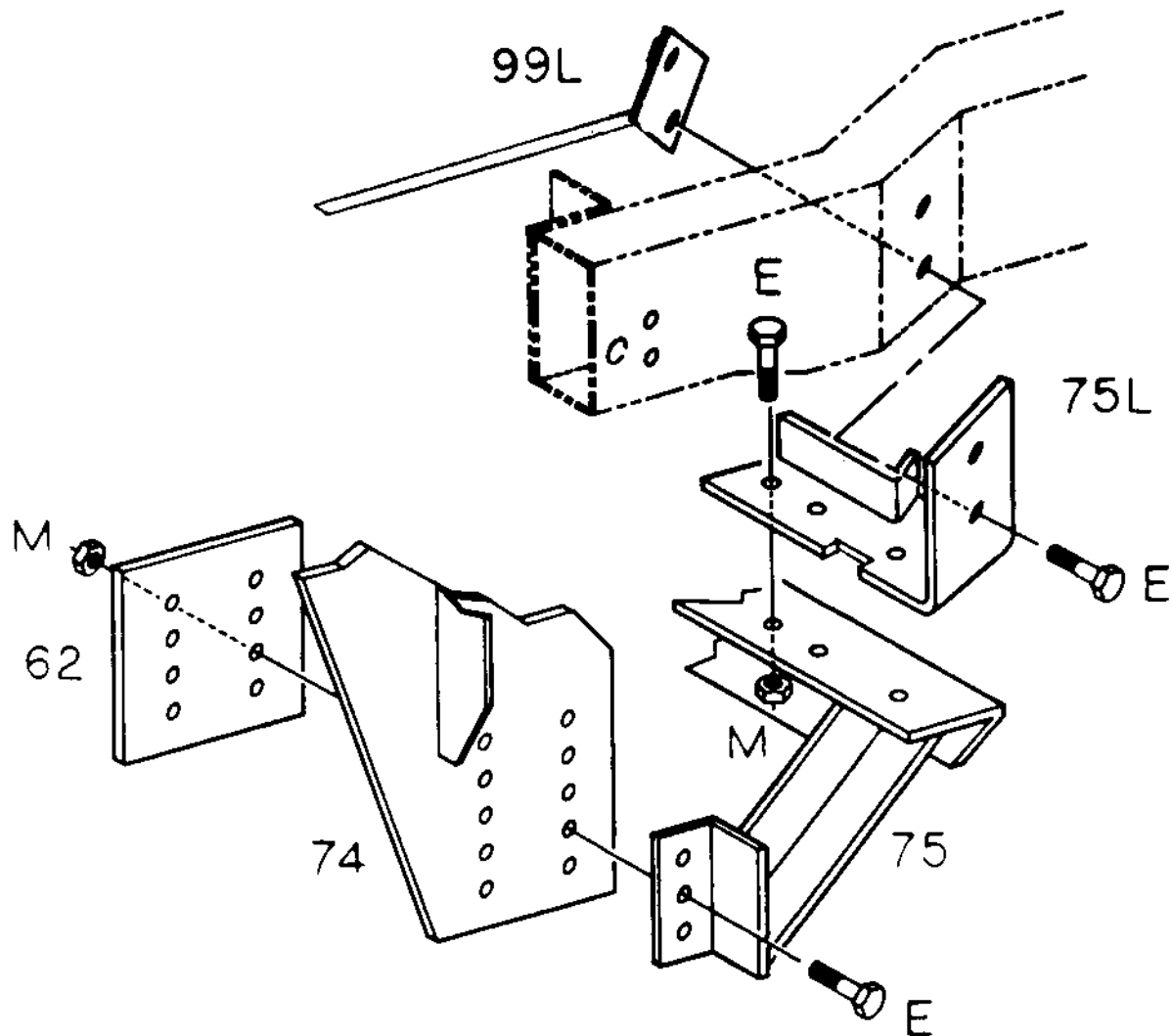
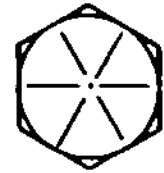


FIGURE 4

GUIDE TO RECOMMENDED ASSEMBLY TORQUE
 All Torque Values Are In Foot-Pounds (Ft.-Lb.)



DIA. / PITCH	GRADE 5	GRADE 8
1/4 - 20	6	9
5/16 - 18	14	19
3/8 - 16	23	33
7/16 - 14	38	53
1/2 - 13	56	80
9/16 - 12	82	116
5/8 - 11	113	159
3/4 - 10	201	283

* The torque values listed above are based on dry, coated bolts, variables such as oil, or other lubrications may appreciably alter these values and must be taken into consideration.

NOTE: IT IS IMPORTANT THAT ALL FASTENERS BE PROPERLY TORQUED TO ASSURE A SAFE OPERATING PLOW.

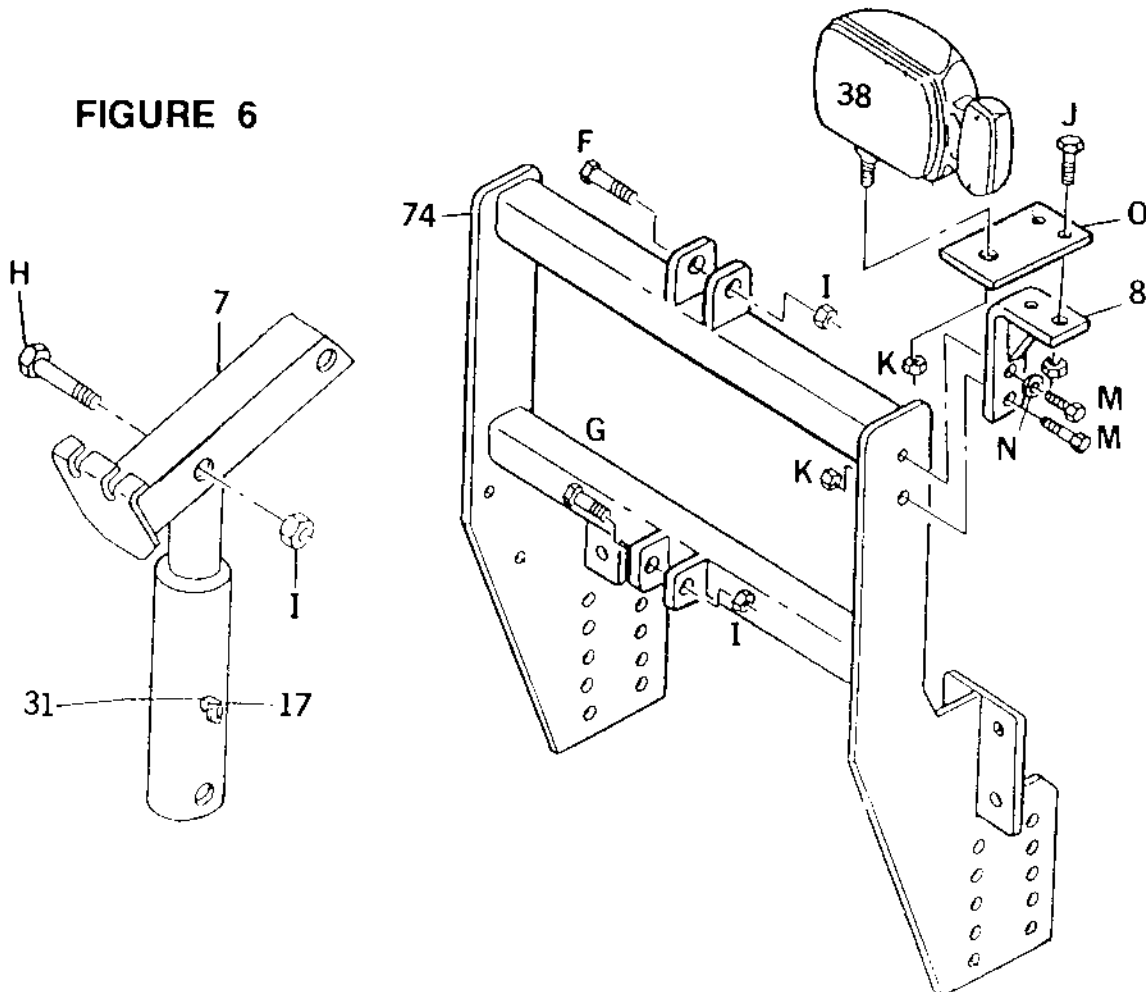
Figure 5

LIFT SYSTEM AND HEADLIGHT INSTALLATION INSTRUCTIONS

1. Install the AUXILIARY LIGHT BRACKETS (Ref. No. 8, Fig. 6) to the LIFT TOWER as shown in Figure 6 using the hex head bolts, nuts, and lock washers provided.
2. Bolt the HEAD LIGHT MOUNTING TABS (Ref. No. M, Fig. 6) to the Auxiliary Light Brackets (Ref. No. 8, Fig. 6) using the hex head bolts and nuts provided.
3. Install LIFT ARM (Ref. No. 7, Fig. 6) to the top of the LIFT TOWER ASSEMBLY using the 5/8" x 4-1/2" hex head bolt (Ref. No. F, Fig. 6) and 5/8" self locking nut (Ref. No. I, Fig. 6) provided.
4. Position the LIFT CYLINDER (Ref. No. 17, Fig. 6) in its respective position on the LIFT TOWER and fasten by using the 5/8" x 4" hex head bolt (Ref. No. G, Fig. 6) and 5/8" self locking nut (Ref. No. I, Fig. 6) provided. Install the 90 degree swivel fitting (Ref. No. 31, Fig. 6). Fasten the rod end of the cylinder to the lift arm using the 5/8" x 3-1/2" hex head bolt (Ref. No. H, Fig. 6) and 5/8" self locking nut (Ref. No. I, Fig. 6) provided.
5. Mount the AUXILIARY HEADLIGHTS (Ref. No. 38, Fig. 6) to the AUXILIARY LIGHT BRACKETS as shown in Figure 6. Do not tighten the AUXILIARY HEADLIGHT mounting nut as the positioning of the lights will have to be adjusted once the wiring has been completed.
6. A diagram has been provided in each Light Kit box to illustrate the proper method of wiring the AUXILIARY HEADLIGHTS to the existing vehicle wiring harness.
7. Be sure to route all wires away from all sharp obstructions and securely position them away from hot or moving parts.
8. Your AUXILIARY HEADLIGHT KIT comes with all of the necessary wiring, connectors and switch.
9. When the wiring of the AUXILIARY HEADLIGHTS has been completed, follow the Head Lamp Aiming instructions also provided in the Auxiliary Light Kit Box.

LIFT SYSTEM AND LIGHT BRACKET INSTALLATION
PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	QTY.
7	Lift Arm	LFA1400	1
8	Auxiliary Light Bracket	LTA3314	2
17	Hydraulic Lift/Angle Cylinder	HYD1603	1
31	90 Degree Swivel (3/8" to 1/4")	HYD1619	1
38	Auxiliary Headlights	MSC1513	2
74	Lift Tower Assembly	LTA3323	1
F	5/8 x 4-1/2 Hex Head Bolt	HDW1705	1
G	5/8 x 4 Hex Head Bolt	HDW1706	1
H	5/8 x 3-1/2 Hex Head Bolt	HDW1707	1
I	5/8 Self Locking Nut	HDW1709	3
J	3/8 x 1 Hex Head Bolt	HDW1717	4
K	3/8 Self Locking Nut	HDW1720	6
M	3/8 x 1-1/2 Hex Head Bolt	HDW1719	4
N	3/8 Lock Washer	HDW1718	2
O	Head Light Mounting Tab	LTA3315	2



**1992 FORD F150
PUMP BRACKET INSTALLATION**

REF. NO.	DESCRIPTION	PART NO.	QTY.
14	Hydraulic Pump (V-Plow)	HYD1600	1
14	Hydraulic Pump (Straight-Blade)	STB3006	1
15	Hydraulic Valve Assembly (V-Plow Only)	HYD1602	1
86	Pump Mount Bracket	LTA3318	1
86A	Breather Relocation Bracket	LTA3320	1
86B	Pump Support Brace	LTA3321	1
86E	Pump Mount Backing Plate	LTA3322	1
B	Valve Mounting Plate (V-Plow Only)	LTA3319	1
F	3/8 x 3/4 Hex Head Bolt		2
G	3/8 x 1 (V-Plow)		4
G	3/8 x 1 (Straight-Blade Plow)		2
H	3/8 Lock Washer (V-Plow)		6
H	3/8 Lock Washer (Straight-Blade)		4
I	1/4 x 1 Hex Head Bolt (V-Plow Only)		1
J	1/4 Self-Locking Nut (V-Plow Only)		3
K	1/4 x 2-1/2 Hex Head Bolt		2
L	1/4 Flat Washer		1

The pump mounting procedure below is for all 1992 Ford trucks. You will need to refer to Figure 7 (page 12) to familiarize with the pump mounting location and components.

1. Remove the battery from the vehicle's passenger side and unfasten the wheel well mounted breather and vacuum canister.
2. Slide the pump mount bracket (Ref. No. 86, Fig. 7) under the battery tray and fasten the pump mount bracket to the battery tray using the bolts and lock washer indicated.
3. Mount the breather relocation bracket (Ref. No. 86A, Fig. 7) to the battery tray using the existing fasteners. Straight Blade installers go to step 7.
4. V-PLOW ONLY - Mount the Hydraulic Valve Assembly (Ref. No. 15, Fig. 7) to the valve mounting plate (Ref. No. B, Fig. 7) using the bolts and self-locking nuts provided.
5. V-PLOW ONLY - Mount the valve mounting plate (Ref. No. B, Fig. 7) to the Hydraulic Pump (Ref. No. 14, Fig. 7) using the lower hole only and using the bolt and lock washer indicated.
6. V-PLOW ONLY - Mount the pump support brace (Ref. No. 86B, Fig. 7) to the top bolt hole in the valve mounting plate (Ref. No. B, Fig. 7) using the bolt and lock washer indicated.
7. Drill two 7/16" holes through the vehicle wheel well and install the Hydraulic Pump (Ref. No. 14, Fig. 7) to the pump mount bracket (Ref. No. 86, Fig. 7). Bolt the Hydraulic Pump in place using the bolts, lock washers, and the pump mount backing plate (Ref. No. 86E, Fig. 7).

ALTERNATE METHOD OF ATTACHING
THE RAPID-TACH RELEASE CABLE

REF. NO.	DESCRIPTION	PART NO.	QTY.
8	Auxiliary Light Bracket	LTA3314	1
36	Rapid-Tach Release Cable	MSC1512	1
48 - 49	Cable Clamp/Stop Set	HDW1745	1
74	Lift Tower	LTA3323	1
74A	Lift Tower Adapter	LTA3304	2
C	1/4" x 1" Hex Head Bolt		1
D	1/4" Self Locking Nut		1

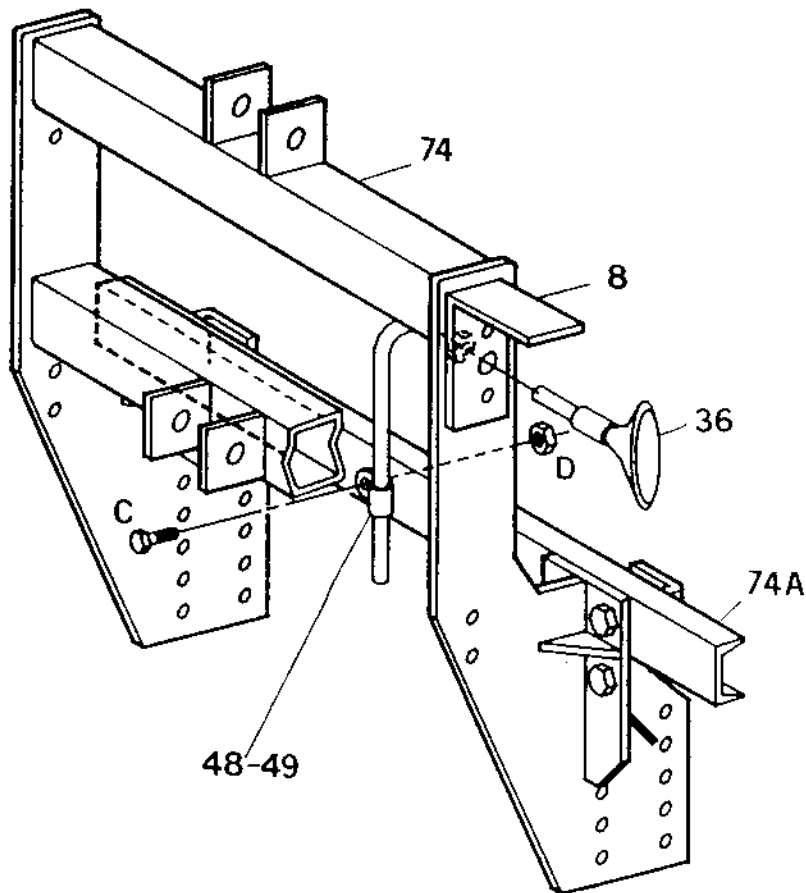


FIGURE 8