



**Assembly  
&  
Installation Instructions**

**FOR  
SUBFRAME COMPONENTS PACKAGE 99100151  
AND  
SUBFRAME NOSE PIECE PACKAGE 96100731**

**To Fit  
1992 & LATER ISUZU TROOPER 4X4**



1. THINK SAFETY, ALWAYS WEAR SAFETY GLASSES WHEN PERFORMING THE OPERATIONS PRESCRIBED IN THESE INSTRUCTIONS
2. READ ALL INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION
3. BEFORE BEGINNING WORK MAKE SURE TO SET PARKING BRAKE AND CHOCK WHEELS

#### **MINIMUM VEHICLE REQUIREMENTS:**

Heavy Duty Alternator  
Heavy Duty Battery

#### **ASSEMBLY TOOLS NEEDED:**

Drill Bits	21/32"
Sockets	7/16" – 1-1/8" 10mm – 19mm
Wrenches	7/16" – 1-1/8" 10mm – 19mm
Torque Wrench	
Center Punch and Hammer	
Hacksaw	

#### **INSTALLATION NOTES:**

1. Unless specified, mount all sub-frame components to vehicle before tightening any bolts.
2. Vehicle should be parked on a level surface with the front suspension normally loaded.

#### **MOUNTING INSTRUCTIONS:**

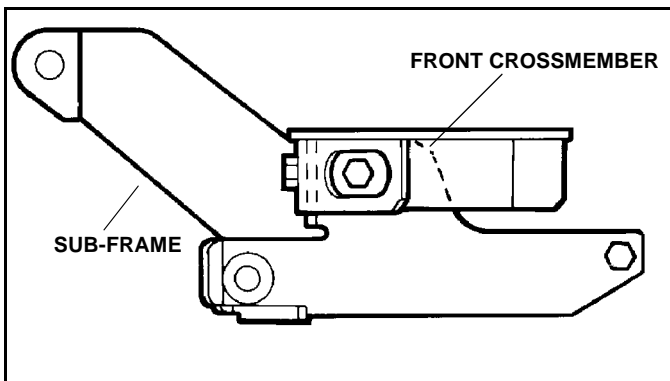
1. Remove tow hooks. Retain, with mounting hardware, for use if Sub-Frame is removed.
2. Remove splash shield from underside of vehicle. Retain, with mounting hardware, for use if Sub-Frame is removed.
3. Pre-assemble Sub-Frame (#96100477) and Front Crossmember (#96100882) using four (4) 5/8" X 1-1/2" Capscrews (#98009115), Flat Washers and Nylock Nuts provided.

Crossmember to frame using four (4) M10 x 1.25 x 40 Metric Capscrews (#98100046) four (4) M10 Lock Washers (#98100050) and four (4) M10 Flat Washers (#98100048).

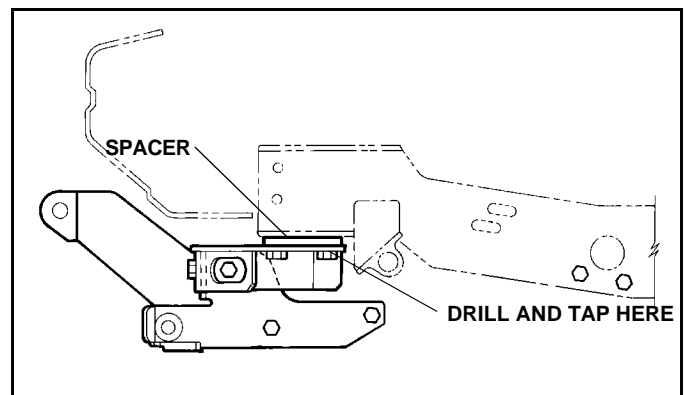
*NOTE: One (1) M10 Metric Capscrew goes through the center of the Crossmember and vehicle crossmember.*

5. Remove mounting hardware for sway bar. Swing sway bar out of the way and drill and tap vehicle frame using rear hole on left hand side (driver side) of Front Crossmember as template. Secure with one (1) 3/8" x 2" Capscrew (#98009058) one (1) Lock Washer (#98009008), and one (1) Flat Washer (#98009032).

***IMPORTANT: It is recommended that LOCTITE® or similar thread lock be used on all Metric Capscrews used in step #4, 7 and the 3/8" Capscrew used in step #5.***

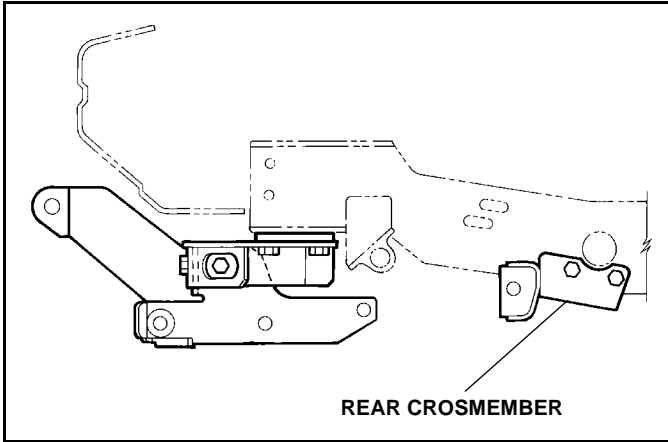


4. Install Front Crossmember Assembly, from step #3 by aligning Crossmember mounting holes with existing vehicle frame rail holes provided for mounting the Tow Hooks. Place Spacers (#96100895) between frame and Front Crossmember. Secure Front

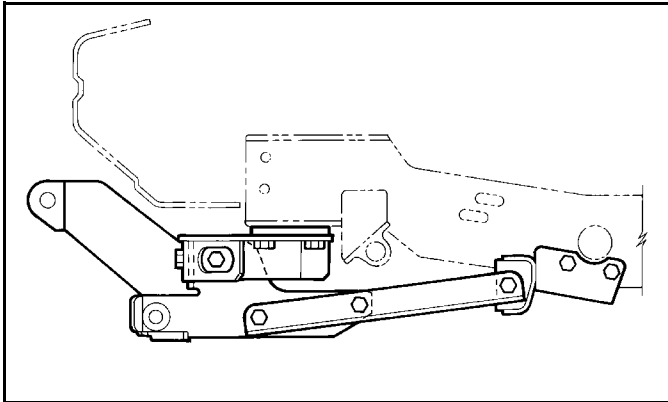


6. Re-attach sway bar. Torque bolts to Manufacturers specifications.

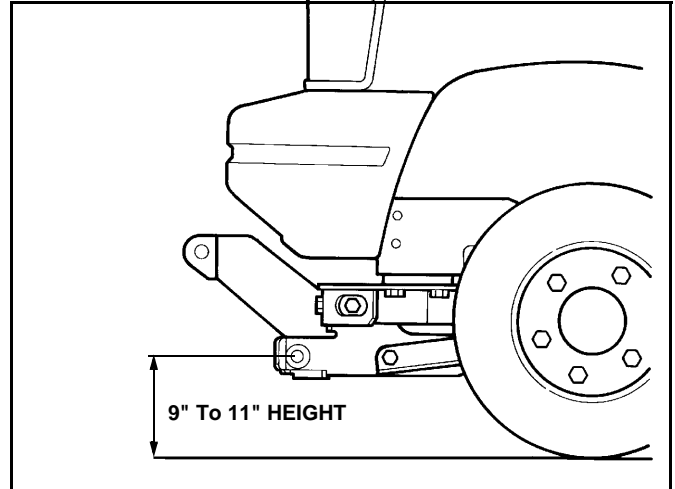
7. Locate Rear Crossmember (#96100889) on vehicle frame and attach using four (4) M12 x 1.25 x 35 Metric Capscrews (#98100047) and four (4) M12 Flat Washers (#98100049).



8. Secure Angles (#96100887)RH, (#96100888)LH to Sub-Frame and Rear Crossmember using one (1) 5/8" x 3-1/2" Capscrew (#98009042), one (1) 5/8" x 1-1/2" Capscrew (#98009115), one (1) 5/8" x 2" Capscrew (#98009041) Flat Washers and Nylock Nuts provided.



9. Using The Torque Specification Chart provided torque all Capscrews starting at the rear and working forward.



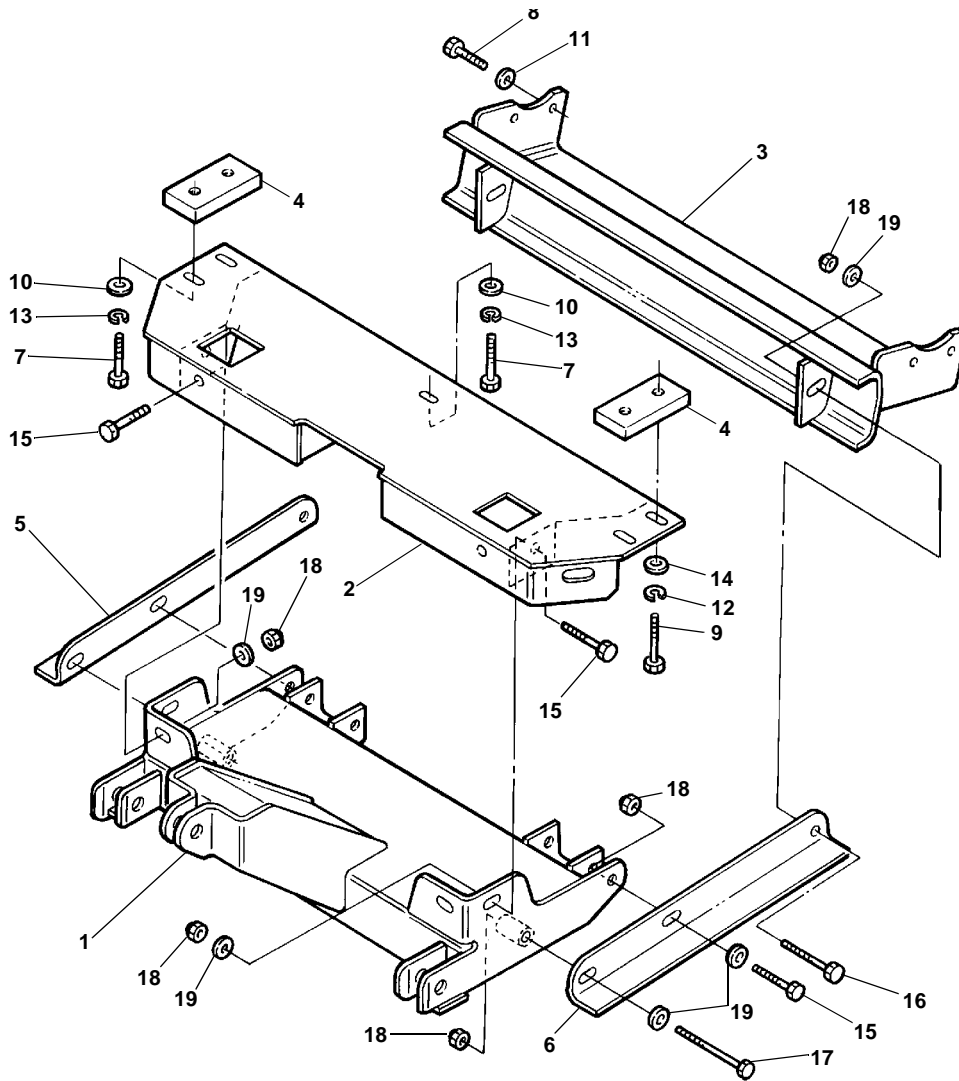
**IMPORTANT:** Height from the center of the lower Plow Mounting holes on the Sub-Frame to the ground should be between 9" and 11" to insure proper operation.

**REMEMBER** After 5 to 10 hours of snowplow usage, re-torque all Capscrews!

**TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE**

Bolt Size	GR.2 Dry	GR.5 Dry	GR.8 Dry	Metric Size	GR.8.8 Dry
1/4"	66*	9	12	M8	17
5/16"	11	17	25	M10	35
3/8"	20	30	45	M12	60
7/16"	32	50	70	M14	95
1/2"	50	75	110	M16	155
9/16"	70	110	150		
5/8"	100	150	220		
3/4"	175	260	380		
7/8"	170	430	600		
1"	250	640	900		

Note: These torque values are to be used for all hardware. Unless otherwise specified, all torque values must meet this specification.  
 Note: All torque values are in Ft.-Lbs unless otherwise stated  
**Note: \*In-Lbs**



ITEM	PART NO.	DESCRIPTION	QTY.
1	96100731	Sub-Frame, Nose Piece (96100477) .....	1
2	96100882	Crossmember, Front .....	1
3	96100889	Crossmember, Rear .....	1
4	96100895	Spacer .....	2
5	96100887	Angle, Right .....	1
6	96100888	Angle, Left .....	1
7	98100046	Capscrew, Metric, M10 x 1.25 x 40 .....	4
8	98100047	Capscrew, Metric, M12 x 1.25 x 35 .....	4
9	98009058	Capscrew, Hex Head, 3/8"-16 NC x 2" .....	1
10	98100048	Washer, Flat, M10 .....	5
11	98100049	Washer, Flat, M12 .....	8
12	98009032	Washer, Flat, 3/8" .....	1
13	98100050	Washer, Lock, M10 .....	4
14	98009008	Washer, Lock, 3/8" .....	1
15	98009115	Capscrew, Hex Head, 5/8"-11NC x 1-1/2" .....	6
16	98009041	Capscrew, Hex Head, 5/8"-11NC x 2" .....	2
17	98009042	Capscrew, Hex Head, 5/8"-11NC x 3-1/2" .....	2
18	98009038	Nut, Hex, 5/8"-11NC Nylock .....	10
19	98009039	Washer, Flat, 5/8" .....	10



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