

INSTALLATION INSTRUCTIONS FOR MOUNTING

LIVERNE GRILLE GUARD WITH THE FOLLOWING MODEL NO.:
321723/321722 & 311723/321722 ON:

2017 AND NEWER F-250 – F-550 SUPER DUTY SERIES TRUCKS

1. READ THE INSTRUCTIONS COMPLETELY AND CHECK TO MAKE SURE THAT ALL OF THE REQUIRED PARTS ARE ON HAND BEFORE STARTING THE INSTALLATION. THE CARTON SHOULD CONTAIN:
 - (1) OUTER RING PACKAGE
 - (1) GRILLE GUARD WELDMENT
 - (1) UPRIGHT/BRACKET PACKAGE
 - (1) MOUNTING BRACKET, LH
 - (1) MOUNTING BRACKET, RH
 - (2) LOWER MOUNTING BRACKETS
 - (1) MOUNTING BRACKET BRACE, LH
 - (1) MOUNTING BRACKET BRACE, RH
 - (1) HARDWARE PACKAGE
 - (1) CUSTOMER SERVICE PACKAGE

REFER TO SHEETS #1, #2, #3 & #4 FOR GUARD ASSEMBLY & INSTALLATION INSTRUCTIONS 2-19

2. FIND THE CENTER OF THE LOWER AIR DAM AND MEASURE OVER FROM THE CENTER BOTH WAYS 18-5/16". APPLY THE DRILLING TEMPLATES (**IN CUSTOMER SERVICE PACKAGE**) TO THE AIR DAM SO THAT THE TOP LINE OF THE OVAL IS 3/8" BELOW THE BUMPER AND THE CENTER LINE IS AT 18-5/16" FROM CENTER. DRILL TWO 1" DIAMETER HOLES ON EACH SIDE OF THE AIR DAM AND THEN TRIM OFF THE PIECES BETWEEN THE HOLES TO FORM AN OBOUNDED HOLE 1" X 2".
3. CUT TWO PIECES OF THE RUBBER TRIM (ITEM #21) APPROXIMATELY 5-3/8" LONG AND INSTALL IT AROUND THE EDGES OF THE HOLES. DEPENDING ON THE SIZE OF THE HOLE IT MAY BE NECESSARY TO CUT THE RUBBER LONGER AND TRIM AFTER INSTALLATION.
4. ON THE LEFT SIDE OF THE VEHICLE, LOOSEN AND REMOVE THE TWO OUTSIDE BOLTS IN THE FACE OF THE BUMPER, THAT SECURE THE BUMPER TO THE FRAME, ALSO REMOVE THE TWO BOLT RETAINER WASHERS BETWEEN THE BUMPER MOUNTING PLATE AND THE FRAME MOUNTING PLATE.
5. IF THE VEHICLE HAS AN ANTI-CLIMB OVER BRACKET REMOVE THE OUTSIDE BOLT SET THAT ATTACHES IT TO THE FRAME.
6. INSTALL THE LEFT HAND T-BOLT ASSEMBLY (ITEM #7) THROUGH THE HOLES IN THE FRAME FROM THE INSIDE. INSTALL TWO M12 X 1.75 FLANGE NUTS (ITEM #15) ON THE BOLTS AND SNUG UP.
7. LOOSEN THE TWO INSIDE NUTS OF THE ANTI-CLIMB OVER BRACKET AND PIVOT IT FORWARD TO ALLOW THE BOTTOM MOUNTING BRACKETS CLEARANCE FOR THE BOTTOM BRACKETS.
8. INSTALL THE LOWER MOUNTING BRACKET (ITEM #4) THROUGH THE HOLE AND ALIGN THE SLOTTED HOLE IN THE BRACKET WITH THE SLOTTED HOLE IN THE BOTTOM OF THE FRAME.



9. INSTALL THE 5/8"-11 X 2" CLIPPED HEAD CARRIAGE BOLT (ITEM #9) THROUGH THE MOUNTING BRACKET AND THE FRAME AND ROTATE 90 DEGREES. FASTEN WITH THE 5/8" FLAT WASHER (ITEM #17) AND 5/8"-11 SERRATED FLANGE NUT (ITEM #12). LEAVE LOOSE AT THIS TIME.
10. READJUST THE ANTI-CLIMB OVER BRACKETS SO THE BACK EDGE OF THE BRACKET IS ABOUT 1/8" AWAY FROM THE SURFACE OF THE BOTTOM MOUNTING BRACKET AND TIGHTEN THE FOUR NUTS SECURING THE BRACKET TO THE FRAME. INSTALL TWO M12 X 1.75 FLANGE NUTS (ITEM #15) ON THE BOLTS WITH THE FLANGE FACING TO THE OUTSIDE AND TIGHTEN THE NUTS. (NOTE: IF THE VEHICLE DOES NOT HAVE ANTI-CLIMB OVER BRACKETS YOU MAY HAVE TO ADJUST THIS NUT OUT TO GET THE HOLES IN THE BRACKET TO MATCH THE HOLES IN THE BUMPER.) MOUNT THE LEFT HAND FRAME MOUNTING BRACKET BRACE (ITEM #5) ONTO THE BOLTS AND CHECK TO MAKE SURE THAT THE HOLES IN THE BRACE MATCH UP TO THE HOLES IN THE BUMPER. CHECK TO MAKE SURE THE HOLES WILL ALLOW THE 1/2" CARRIAGE BOLTS (ITEM #10) TO COME THROUGH THE FACE OF THE BUMPER.. INSTALL TWO M12 NUTS (ITEM #15) TO RETAIN THE BRACKET. LEAVE LOOSE AT THIS TIME.
11. ON THE LEFT HAND MOUNTING BRACKET (ITEM #2), INSTALL THE TWO 1/2"-13 X 2" CARRIAGE BOLTS (ITEM #10) IN THE HOLES OF THE MOUNTING BRACKETS, PLACE THE 5/8" FLAT WASHERS (ITEM #17) ON THE BOLTS AND INSTALL THE TWO PUSH NUTS (ITEM #20) ON THE BOLTS.
12. INSERT THE ASSEMBLED BRACKET INTO THE HOLES IN THE BUMPER AND FASTEN WITH 1/2" FLAT WASHERS (ITEM #18), 1/2" LOCK WASHERS (ITEM #16) AND 1/2" HEX NUTS (ITEM #14) AS SHOWN IN FIG. 1 & 2. HAND TIGHTEN ONLY AT THIS TIME.
13. REPEAT STEPS 2 THRU 7 FOR THE OPPOSITE SIDE.
14. INSTALL THE GRILLE GUARD (ITEM #1) BY INSERTING IT BETWEEN THE LEFT HAND (ITEM #2) AND RIGHT HAND (ITEM #3) MOUNTING BRACKETS AND FASTENING WITH THE 1/2"-13 X 1-1/4" CARRIAGE BOLTS (ITEM #11), (2) 1/2" SAE FLAT WASHERS (ITEM #19), 1/2" LOCK WASHERS (ITEM #16) AND 1/2"-13 ACORN NUTS (ITEM #13).
15. ATTACH THE BOTTOM MOUNTING BRACKETS TO THE BOTTOM OF THE UPRIGHTS WITH THE 1/2"-13 X 1-1/4" CARRIAGE BOLTS (ITEM #11), (2) 1/2" SAE FLAT WASHERS (ITEM #19) , 1/2" LOCK WASHERS (ITEM #16) AND 1/2"-13 ACORN NUTS (ITEM #13).
16. CHECK THAT THE GRILLE GUARD IS CENTERED AND VERTICAL ON THE BUMPER AND THEN TIGHTEN THE FOUR 1/2"-13 NUTS (ITEM #14) SECURING THE MOUNTING BRACKETS TO THE FRAME PLATES.
17. TIGHTEN THE FOUR M12 X 1.75 NUTS (ITEM #15) SECURING THE BRACE BRACKETS TO FRAME.
18. RECHECK THAT THE GUARD IS VERTICAL AND TIGHTEN THE NUTS (ITEM #13) THAT SECURE THE GRILLE GUARD TO THE MOUNTING BRACKETS.
19. TIGHTEN THE NUTS (ITEM #12) THAT SECURE THE BOTTOM MOUNTING BRACKETS TO THE BOTTOM OF THE FRAME.



SERVICE PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	321723	1	GRILLE GUARD WELDMENT – BLACK
2	202989	1	MOUNTING BRACKET– LH
3	202990	1	MOUNTING BRACKET– RH
4	202991	2	MOUNTING BRACKET - BOTTOM
5	202971	1	MOUNTING BRACKET BRACE - LH
6	202972	1	MOUNTING BRACKET BRACE - RH
7	202975	1	T-BOLT ASSEMBLY - LH, ZP
8	202976	1	T-BOLT ASSEMBLY - RH, ZP
9	109274	2	ROUND HEAD CLIPPED BOLT – 5/8”-11 X 2”, ZP
10	107422	4	CARRIAGE BOLT – 1/2”-13 X 2”, ZP
11	109515	6	CARRIAGE BOLT – 1/2”-13 X 1-1/4”, BZP
12	105643	2	HEX FLANGE NUT – 5/8”-11, ZP
13	109510	6	ACORN NUT – 1/2”-13, BZP
14	100124	4	HEX NUT – 1/2”-13, ZP
15	100794	12	HEX FLANGE NUT – M12 X 1.75, ZP
16	109511	10	LOCK WASHER – 1/2”, BZP
17	100147	6	FLAT WASHER – 5/8”, ZP
18	100118	4	FLAT WASHER -1/2”, ZP
19	100940	14	FLAT WASHER – SAE, 1/2”, ZP
20	108733	4	PUSHNUT – 1/2”, ZP
21	201215	1	“U” TRIM – 14.500
22	106888	1	DECAL – LOGO, LUVERNE, 3/4” X 3”



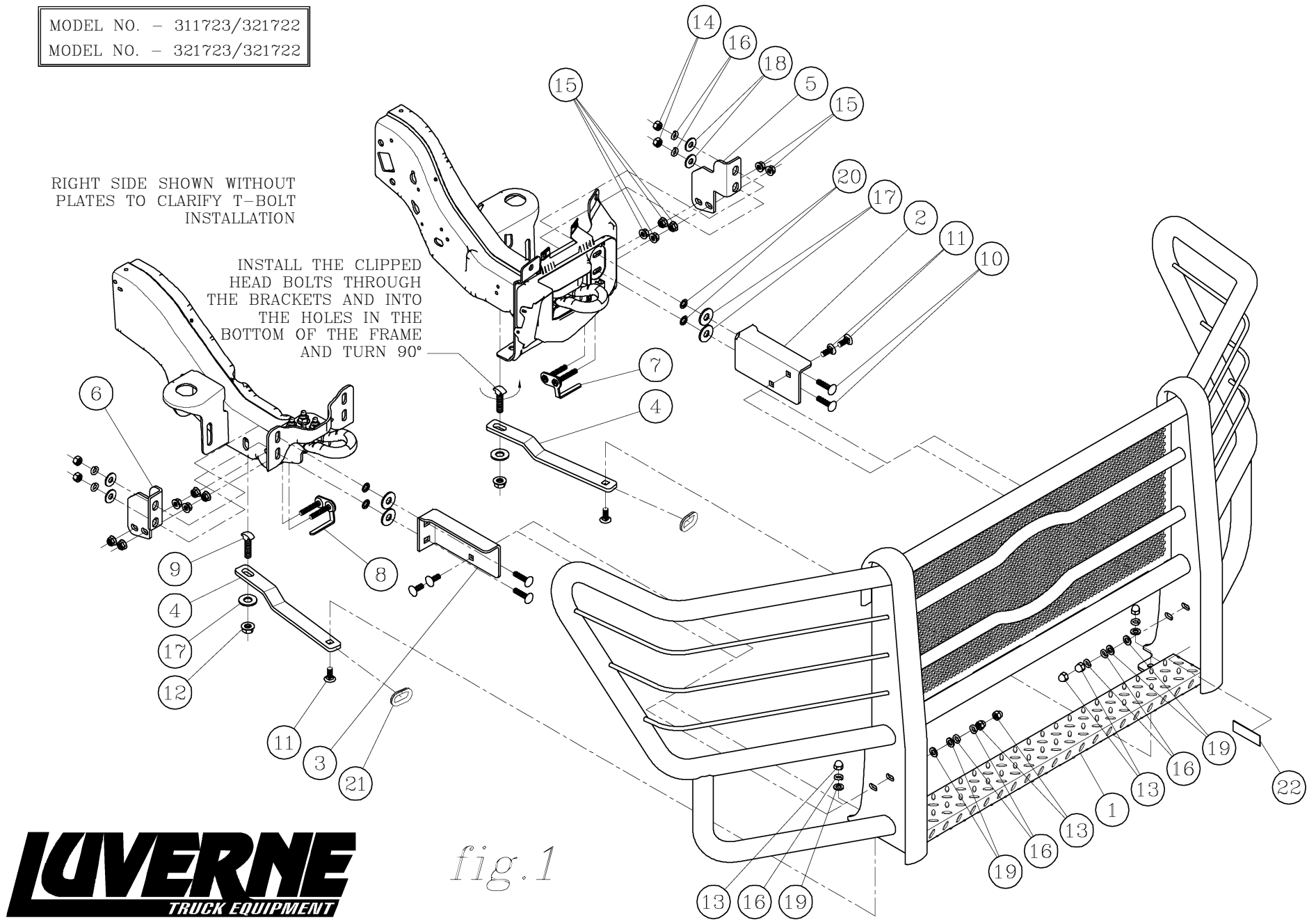
SERVICE PARTS LIST

MODEL NO. - 311723/321722

MODEL NO. - 321723/321722

RIGHT SIDE SHOWN WITHOUT
PLATES TO CLARIFY T-BOLT
INSTALLATION

INSTALL THE CLIPPED
HEAD BOLTS THROUGH
THE BRACKETS AND INTO
THE HOLES IN THE
BOTTOM OF THE FRAME
AND TURN 90°



LIVERNE
TRUCK EQUIPMENT

fig.1