

INSTALLATION INSTRUCTIONS

NOTE: CHECK HITCH FREQUENTLY, MAKING SURE ALL FASTENERS AND BALL ARE PROPERLY TIGHTENED. A HITCH OR BALL WHICH HAS BEEN DAMAGED SHOULD BE REMOVED AND REPLACED. OBSERVE SAFETY PRECAUTIONS WHEN WORKING BENEATH A VEHICLE AND WEAR EYE PROTECTION. FOLLOW CAR MAKER'S SPECIFICATIONS FOR MAXIMUM TRAILER WEIGHT AND TONGUE WEIGHT. DO NOT CUT ACCESS OR ATTACHMENT HOLES WITH A TORCH.

- MAXIMUM RATINGS -

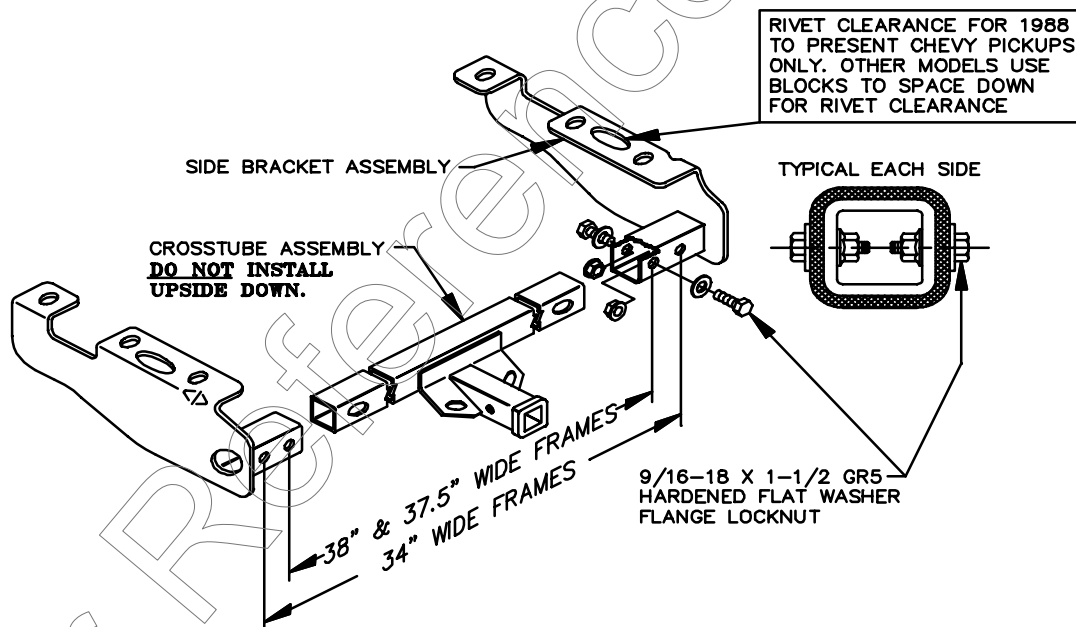
DO NOT EXCEED LOWER OF TOWING VEHICLE MANUFACTURER'S RATINGS OR THOSE LISTED BELOW:

WEIGHT DISTRIBUTING
10,000 LBS. GROSS TRAILER WEIGHT
1,000 LBS. TONGUE WEIGHT

WEIGHT CARRYING
6,000 LBS. GROSS TRAILER WEIGHT
600 LBS. TONGUE WEIGHT

TOOLS REQUIRED:

Drill bits - 3/16" (.1875), 9/32 (.281), 1/2" (.500), and 17/32" (.531)
Sockets and wrenches - 3/4, 13/16, and 7/8, 13mm, 18mm, 19mm
Wire - #19 soft galvanized or equivalent
Wire - 1/32" diameter or equivalent
Center Punch
Clamps
Files - round & flat



1. REMOVE PICKUP TRUCK SPARE TIRE AT END OF FRAME FROM ITS UNDER BED MOUNTING. THIS IS NOT REQUIRED FOR EACH INSTALLATION BUT WILL MAKE RECEIVER INSTALLATION EASIER. IT IS TO BE REINSTALLED WHEN INSTALLATION IS COMPLETE.
2. MEASURE THE OUTSIDE WIDTH OF THE FRAME. IT SHOULD MEASURE APPROXIMATELY 34" OR 37-1/2" OR 38".
3. ASSEMBLE THE RIGHT AND LEFT SIDE BRACKETS TO THE CROSSTUBE ASSEMBLY AS SHOWN ABOVE. THE INSIDE HOLES IN THE SIDE BRACKETS ARE USED FOR 37-1/2" AND 38" WIDE FRAMES AND THE OUTSIDE HOLES ARE USED FOR 34" WIDE FRAMES. SLOTS IN THE CROSSTUBE MUST LINE UP WITH THE HOLES IN THE SIDE BRACKETS. **CAUTION: DO NOT DRILL NEW HOLES IN ANY RECEIVER PART.**
4. INSTALL THE 9/16-18 X 1-1/2 GR5 HEX BOLTS, HARDENED FLAT WASHERS, AND FLANGE LOCKNUTS AS SHOWN ABOVE. DO NOT TIGHTEN AT THIS TIME. **DO NOT** USE ONE LONG THROUGH-BOLT OR SUBSTITUTE REGULAR NUTS FOR THE LOCKNUTS INSIDE THE CROSSTUBE ASSEMBLY.
5. **READ THE GENERAL NOTES ON PAGE 6** AND THEN CONTINUE INSTALLATION BY FOLLOWING THE INSTRUCTIONS FOR YOUR PARTICULAR VEHICLE APPLICATION WHICH IS LISTED ON THE FOLLOWING PAGES.

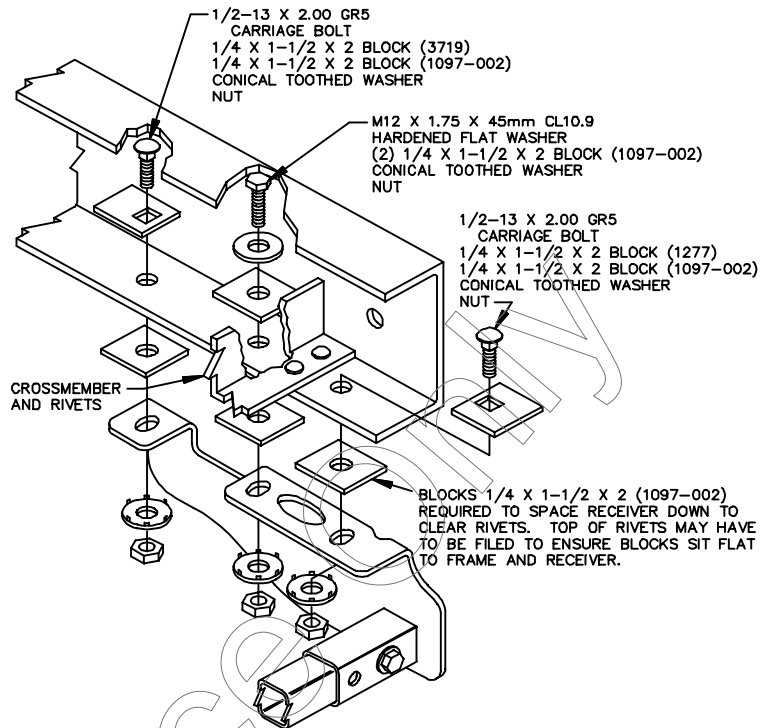
THIS PRODUCT COMPLIES WITH SAFETY SPECIFICATIONS AND REQUIREMENTS FOR CONNECTING DEVICES AND TOWING SYSTEMS OF THE STATE OF NEW YORK AND V.E.S.C. REGULATION V-5.

CHEVROLET & GMC PICKUP TRUCKS WITH 34" FRAMES

DOES NOT FIT UNITS WITH 6' BED OR 4WD WITH HEAVY DUTY SUSPENSION

1. TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
2. **NOTE: 1981 AND LATER CHEVROLET & GMC APPLICATIONS** WITH STEP BUMPERS REQUIRE THE REMOVAL OF SUPPORT BRACKETS TO THE FRAME. THESE BRACKETS MUST BE RETAINED FOR REINSTALLATION UPON REMOVAL OF THE RECEIVER. THE STEP BUMPER SHOULD NOT BE USED FOR TOWING WITH THESE SUPPORT BRACKETS REMOVED.
3. POSITION AND CENTER THE RECEIVER ASSEMBLY ON VEHICLE FRAME. REARMOST SLOT IN RECEIVER SHOULD NOT BE LOCATED CLOSER THAN 3/4" FROM THE END OF THE FRAME. TO CLEAR RIVETS IN THE FRAME, PLACE A BLOCK BETWEEN SIDE BRACKETS AND VEHICLE FRAME AT EACH ATTACHMENT. CLAMP RECEIVER TO THE FRAME.
NOTE: ON SOME UNITS EVEN WITH BLOCKS IN PLACE, THE TOP OF THE RIVETS MAY HAVE TO BE GROUND OR FILED OFF TO ENSURE THAT THE ATTACHING SURFACES SIT FLAT ON THE FRAME.
4. USING THE SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL SIX (6) 1/2" DIAMETER HOLES. SEE **GENERAL NOTES** REGARDING THE USE OF EXISTING HOLES.
5. INSTALL FASTENERS IN EACH SIDE AS SHOWN.

TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL 10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.

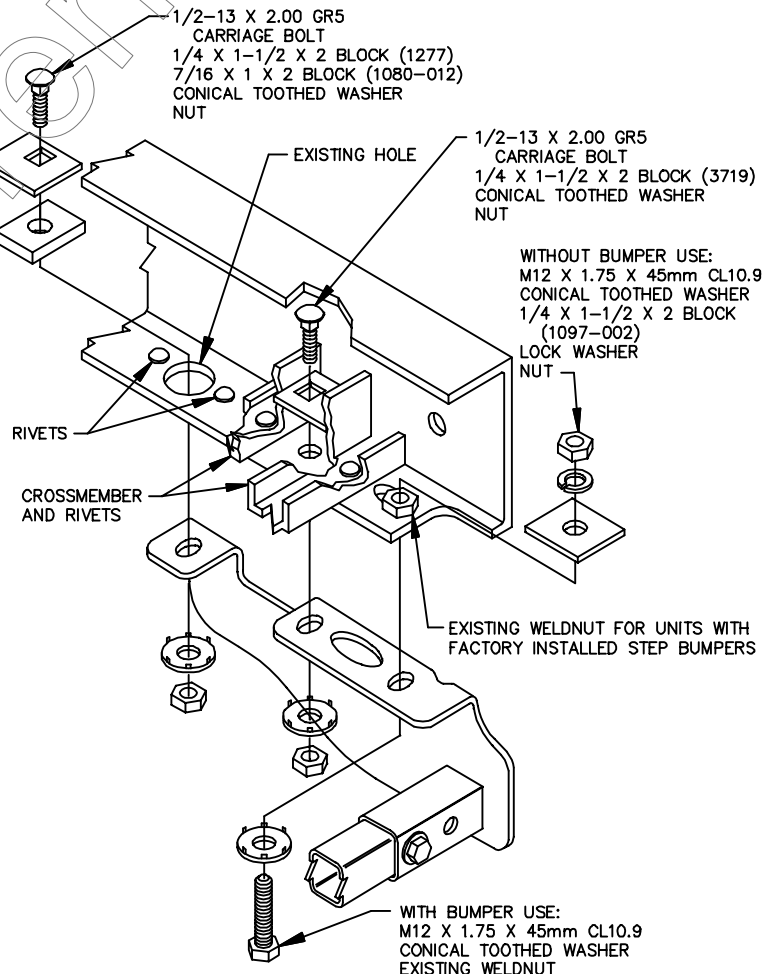


1988 & LATER MODEL CHEVROLET & GMC PICKUP TRUCKS WITH 37-1/2" FRAMES

NOTE: ON UNITS EQUIPPED WITH 6' BED, THE SPARE TIRE WILL HAVE TO BE RELOCATED ELSEWHERE ON THE VEHICLE.

1. ON 6' BED UNITS, REMOVE AND RELOCATE GROUND WIRE AND GROUND WIRE BOLT LOCATED ON DRIVER'S SIDE FRAME RAIL.
2. IF VEHICLE IS EQUIPPED WITH FACTORY INSTALLED STEP BUMPER, REMOVE THE M12 HEX BOLTS FROM EACH END OF THE FRAME AND DISCARD.
3. RAISE RECEIVER INTO POSITION, CENTERING REARMOST SLOT OVER EXISTING HOLES IN FRAME. ON UNITS WITH A 6' BED, THE LARGE 1" X 2" SLOT WILL BE POSITIONED OVER A BOLT ON THE PASSENGER'S SIDE AND A RIVET ON THE DRIVER'S SIDE.
4. **VEHICLES W/FACTORY INSTALLED STEP BUMPER:** INSTALL M12 X 1.75 X 45MM CL10.9 HEX BOLT AND CONICAL TOOTHED WASHER THROUGH SIDE BRACKET INTO FRAME, THREADING INTO EXISTING WELDNUT AS SHOWN.
5. **VEHICLES W/O FACTORY INSTALLED STEP BUMPER:** INSTALL M12 X 1.75 X 45MM CL10.9 HEX BOLT AND CONICAL TOOTHED WASHER THROUGH SIDE BRACKET AND FRAME AND FASTEN WITH BLOCK, LOCK WASHER AND M12 X 1.75 NUT.
6. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
7. DUE TO VEHICLE VARIATION, CENTER ATTACHMENT HOLE IN FRAME MAY HAVE TO BE ENLARGED TO 1/2". SEE **GENERAL NOTES** REGARDING USE OF EXISTING HOLES.
8. INSTALL FASTENERS IN CENTER AND FORWARD HOLES ON EACH SIDE AS SHOWN.

TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL 10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.



DODGE PICKUP TRUCK - FULL SIZE - 1967-1993

**SPARE TIRE CARRIER WILL HAVE TO BE MODIFIED TO RETAIN UNDER VEHICLE STOWAGE.
SPARE TIRE CAN ALSO BE RELOCATED ELSEWHERE ON THE VEHICLE.**

INSTALLATION DEPENDS ON VEHICLE CONFIGURATION:

CONFIGURATION 1: 8' BED, 2 & 4 WHEEL DRIVE, REGULAR & EXTENDED CAB

CONFIGURATION 2: 6' BED, 2 & 4 WHEEL DRIVE

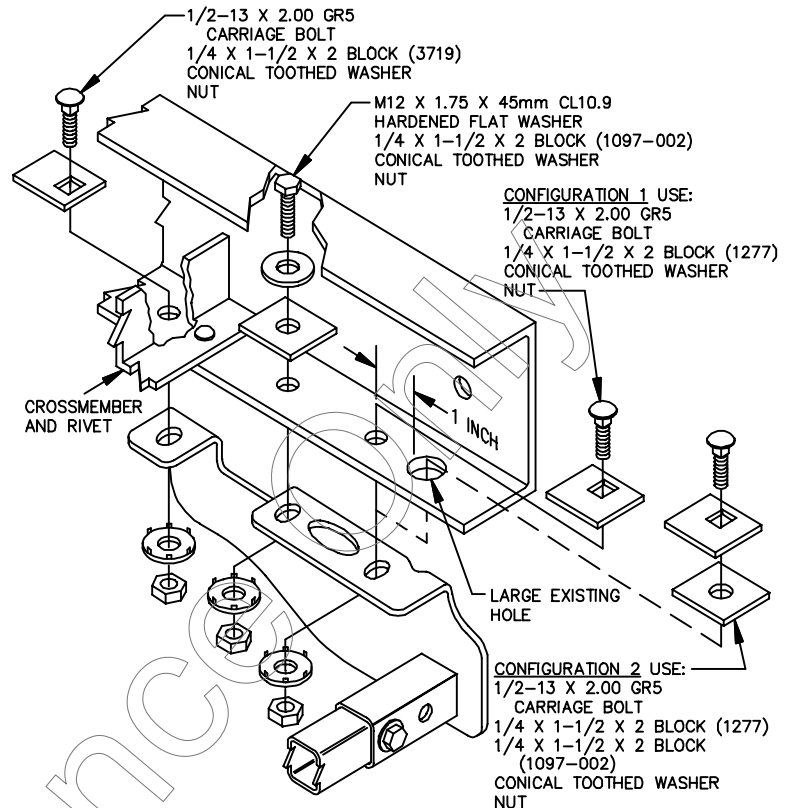
CONFIGURATION 1 - ALL HOLES REQUIRE DRILLING

1. POSITION AND CENTER THE RECEIVER ASSEMBLY ON VEHICLE FRAME. LOCATE REARMOIST SLOT IN RECEIVER 1" FORWARD FROM THE EDGE OF THE LARGE EXISTING HOLE AT THE END OF THE FRAME. THIS IS REQUIRED SO THAT THE FORWARD ATTACHING FLANGE DOES NOT RIDE ON THE CROSSMEMBER RIVET. CLAMP RECEIVER TO THE FRAME.
2. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
3. USING SLOTS IN BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL SIX (6) 1/2" DIAMETER HOLES IN FRAME. INSTALL FASTENERS AS SHOWN FOR CONFIGURATION 1.

CONFIGURATION 2 - USES EXISTING HOLES

1. POSITION AND CENTER RECEIVER OVER LARGE EXISTING HOLE AT THE END OF THE FRAME. CENTER AND FORWARD SLOTS WILL MATCH WITH EXISTING HOLES. SECURE WITH FASTENERS AS SHOWN FOR CONFIGURATION 2.
2. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.

TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL 10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 BOLTS TO 110 LB.-FT.



DODGE RAMCHARGER & PLYMOUTH TRAILDUSTER DOES NOT FIT UNITS WITH STEEL SIDED FUEL TANK/SKID SHIELD

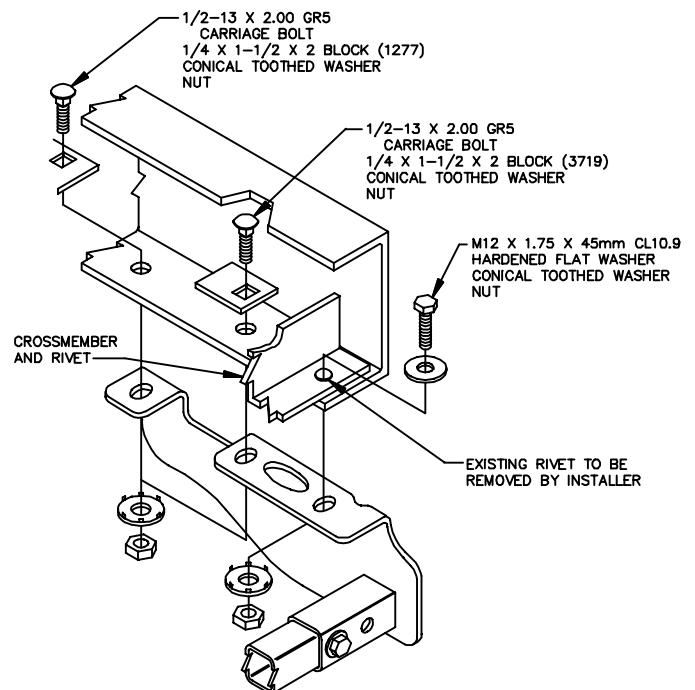
1. CENTER PUNCH THE HEAD OF THE RIVET LOCATED AT THE END OF EACH FRAME RAIL. USE A 3/16" DIAMETER DRILL TO DRILL A PILOT HOLE UP THROUGH THE CENTER OF THE RIVET. CHANGE TO A 1/2" DIAMETER DRILL AND DRILL UP THROUGH THE PILOT HOLE TO REMOVE THE RIVET.

CAUTION - THE BODY OF THE RIVET IS 7/16" DIAMETER, TAKE CARE WHEN DRILLING THROUGH BOTTOM AND TOP HEADS OF THE RIVET SO THAT THE DRILL DOES NOT TWIST OUT OF YOUR GRIP.

IMPORTANT: IF RECEIVER IS REMOVED, REINSTALL 1/2-13 GR5 BOLTS THROUGH HOLE FROM WHICH RIVETS WERE REMOVED AND SECURE WITH LOCK WASHERS AND NUTS TIGHTENED TO 75 LB.-FT.

2. POSITION THE RECEIVER ASSEMBLY OVER THE DRILLED OUT RIVET HOLES AND INSTALL M12 X 1.75 X 45MM BOLT AND HARDENED FLAT WASHER THROUGH FRAME AND CROSSMEMBER AND SECURE WITH CONICAL TOOTHED WASHER AND NUT. REPEAT FOR OTHER SIDE. TIGHTEN M12 X 1.75 X 45MM CL10.9 HEX BOLTS TO 75 LB.-FT.
3. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
4. USING THE SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL FOUR (4) 17/32" DIAMETER HOLES. SEE **GENERAL NOTES** REGARDING DRILLED HOLES.

5. SLIDE 1/4" X 1-1/2" X 2" BLOCKS BETWEEN BOTTOM EDGE OF FRAME AND THE GAS TANK AND POSITION INSIDE THE VEHICLE FRAME OVER THE FORWARD AND CENTER DRILLED HOLES. FISHWIRE A 24" LONG PIECE OF SOFT WIRE UP THROUGH THE DRILLED HOLE LETTING IT EXIT ABOVE AND BETWEEN FRAME AND THE GAS TANK. ATTACH A THIN WIRE WITH A MAXIMUM DIAMETER OF 1/32" (.030") AROUND THE END OF A 1/2-13 X 2" GR5 CARRIAGE BOLT. THE THIN WIRE IS THEN ATTACHED TO THE 24" LENGTH OF WIRE. THE CARRIAGE BOLT IS GENTLY FED AND PULLED INTO POSITION THROUGH THE BLOCK AND FRAME AND SECURED WITH A CONICAL TOOTHED WASHER AND NUT. SEE **GENERAL NOTES**, FISHWIRING FIGURE, ON PAGE 6. REPEAT FOR OTHER SIDE.



TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT. TIGHTEN M12 X 1.75 CL10.9 HEX BOLTS TO 75 LB.-FT. TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.

DODGE RAM PICKUP TRUCK - FULL SIZE - 1994-PRESENT

FORWARD HOLES TO BE DRILLED ON 6 FT. BED
NO DRILLING REQUIRED - (8 Ft. BED ONLY) - USES ALL EXISTING HOLES

NOTE: ON UNITS EQUIPPED WITH 6' BED, THE SPARE TIRE WILL HAVE TO BE RELOCATED ELSEWHERE ON THE VEHICLE.

NOTE: HITCH DOES NOT FIT WITH HEAVY DUTY SUSPENSION.

1. REMOVE EXHAUST HANGER BRACKET FROM SIDE OF FRAME FOR ALL MODELS EXCEPT 1995 TO PRESENT 8' BED MODELS.
2. RAISE RECEIVER INTO POSITION, CENTERING REARMOST HOLE OVER EXISTING .531 DIAMETER HOLE (**NOT LARGE HOLE**) AT END OF THE FRAME. TO CLEAR LIP OF THE FRAME, PLACE 2 BLOCKS BETWEEN SIDE BRACKETS AND VEHICLE FRAME AT EACH ATTACHMENT. CLAMP RECEIVER TO THE FRAME.
3. **6' BED VEHICLES ONLY** - USING THE SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL TWO (2) 1/2" DIAMETER HOLES FOR FORWARD ATTACHMENT. SEE **GENERAL NOTES** REGARDING THE USE OF EXISTING HOLES.
4. **1999 UNITS** - THE CENTER HOLE IN SIDE BRACKET MISSES LINING UP WITH EXISTING HOLE IN THE FRAME BY 1/2 A HOLE. THE HOLE IN THE FRAME WILL HAVE TO BE ENLARGED TO MATCH THE HOLE IN THE SIDE BRACKET.
5. INSTALL FASTENERS IN EACH SIDE AS SHOWN.
6. CENTER RECEIVER CROSSTUBE ASSEMBLY ON THE VEHICLE AND TIGHTEN 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.

7. EXHAUST REINSTALLATION:

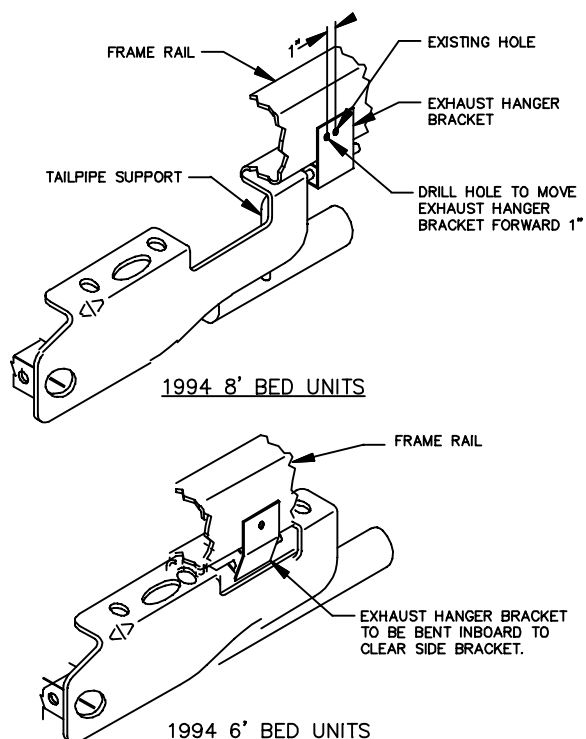
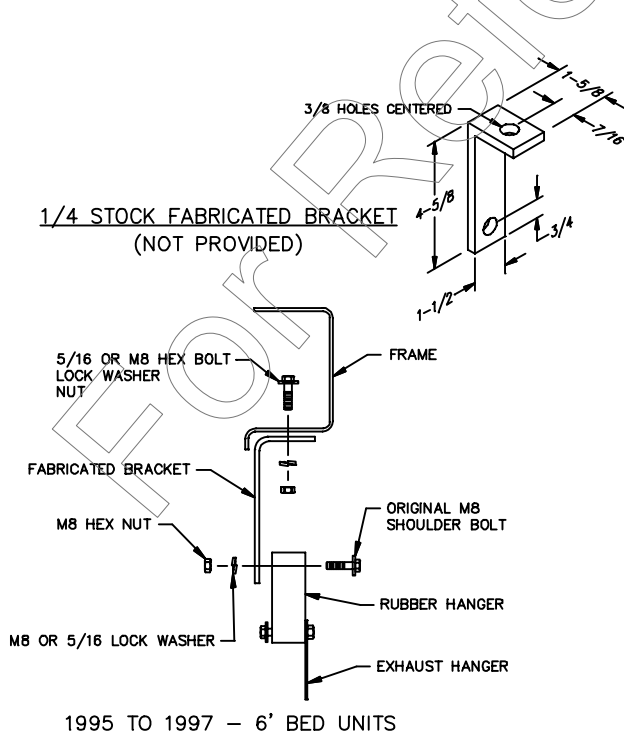
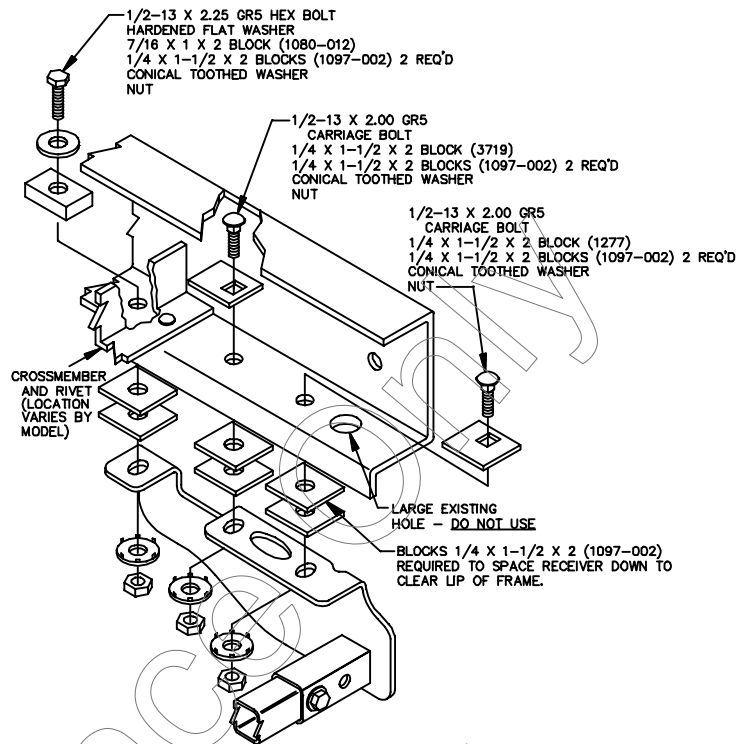
1994 8' BED UNITS - DRILL HOLE IN EXHAUST BRACKET TO REPOSITION BRACKET 1" FORWARD AS SHOWN BELOW. REINSTALL BRACKET.

1994 6' BED UNITS - REINSTALL EXHAUST HANGER BRACKET AND BEND INBOARD TO CLEAR EXHAUST AS SHOWN BELOW.

1995 TO 1997 6' BED UNITS -

1. A NEW HANGER MUST BE FABRICATED AS SHOWN BELOW.
2. ATTACH NEW HANGER TO EXISTING HOLE IN FRAME WITH 5/16 OR M8 FASTENERS.
3. ATTACH RUBBER EXHAUST HANGER TO FABRICATED BRACKET AS SHOWN BELOW.

TIGHTEN 1/2-13 GR5 HEX AND CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 BOLTS TO 110 LB.-FT.



FORD F-SERIES - FULL SIZE PICKUP TRUCKS

1979 AND EARLIER 34" & 38" WIDE FRAMES

INCLUDES 1999 AND LATER F350 SUPER DUTY CAB & CHASSIS

FORD CAB & CHASSIS

NOTE: CAB & CHASSIS ONLY

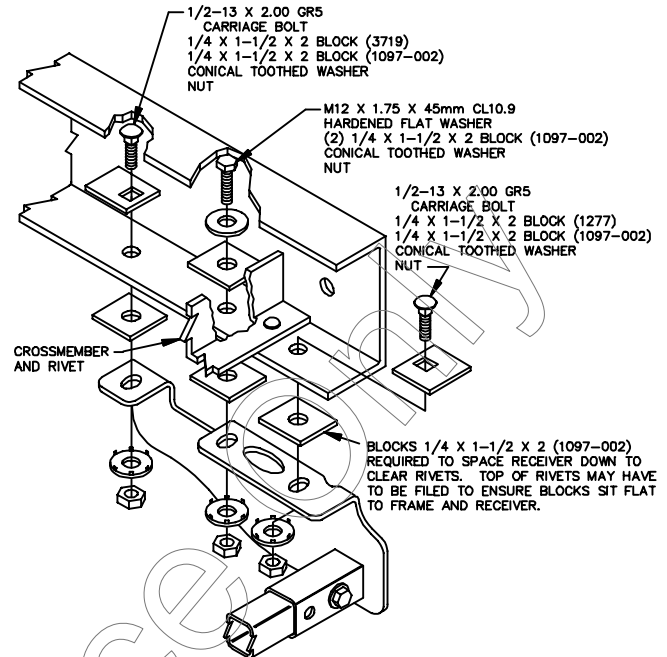
TO INSTALL THIS RECEIVER THERE MUST BE 18" OF UNOBSTRUCTED FRAME ALONG WITH CLEARANCE FOR THE CROSSTUBE ASSEMBLY AT THE CENTER OF THE VEHICLE.

1. TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
2. POSITION AND CENTER THE RECEIVER ASSEMBLY ON VEHICLE FRAME. REARMOST SLOT IN RECEIVER SHOULD NOT BE LOCATED CLOSER THAN 3/4" FROM THE END OF THE FRAME. TO CLEAR THE RIVETS IN THE FRAME PLACE A BLOCK BETWEEN SIDE BRACKETS AND VEHICLE FRAME AT EACH ATTACHMENT. CLAMP RECEIVER TO THE FRAME.

NOTE: ON SOME UNITS EVEN WITH BLOCKS IN PLACE, THE TOP OF THE RIVETS MAY HAVE TO BE GROUND OR FILED OFF TO ENSURE THAT THE ATTACHING SURFACES SIT FLAT ON THE FRAME.

3. USING THE SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL SIX (6) 1/2" DIAMETER HOLES. SEE **GENERAL NOTES** REGARDING THE USE OF EXISTING HOLES.
4. INSTALL FASTENERS IN EACH SIDE AS SHOWN.

TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.



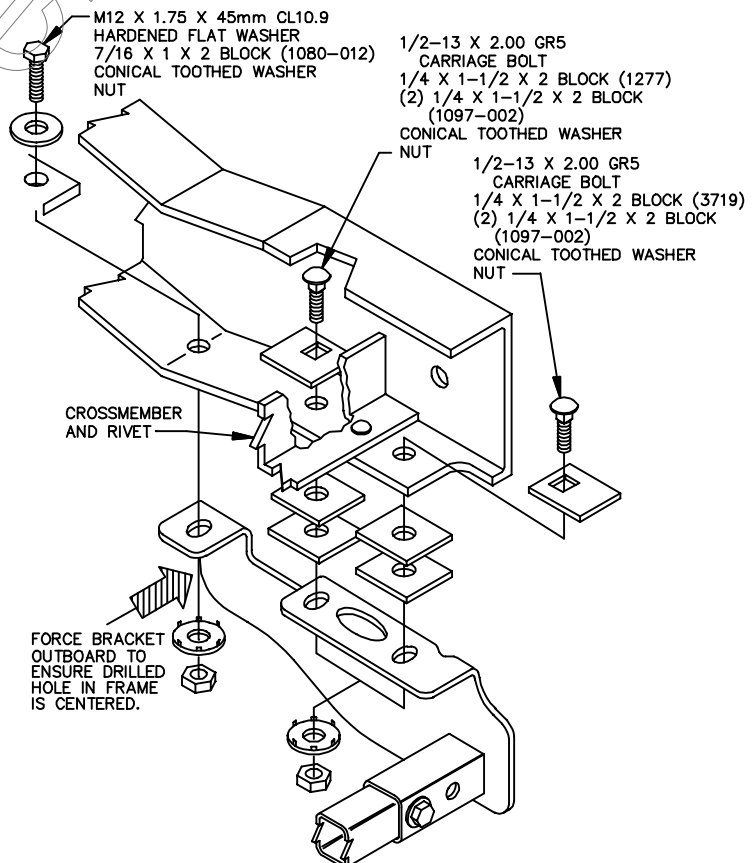
FORD F-SERIES FULL SIZE PICKUP TRUCKS

1980 AND LATER 38" WIDE FRAMES

DOES NOT FIT FLARESIDE UNITS WITH FIBER GLASS VALANCE PANELS

1. POSITION AND CENTER THE RECEIVER ASSEMBLY ON VEHICLE FRAME. TO CLEAR RIVETS IN THE FRAME, PLACE TWO (2) BLOCKS BETWEEN SIDE BRACKETS AND VEHICLE FRAME AT FIRST AND CENTER ATTACHMENTS. CLAMP RECEIVER TO THE FRAME.
2. USING THE REARMOST SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL TWO (2) 1/2" DIAMETER HOLES. SEE **GENERAL NOTES** REGARDING DRILLING HOLES.
3. INSTALL FASTENERS IN REARMOST SLOT EACH SIDE AS SHOWN MAKING SURE THAT TWO (2) BLOCKS ARE PLACED BETWEEN SIDE BRACKET AND FRAME. TIGHTEN TO 75 LB.-FT.
4. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
5. WITH BOLTS IN REARMOST HOLES TIGHTENED, FORCE FORWARD ATTACHMENT FLANGES OUTBOARD SUCH THAT INBOARD PORTION OF THE SLOTS ARE CENTERED ON THE FRAME. USING THE FORWARD ATTACHING SLOTS AS TEMPLATES, CENTER PUNCH AND DRILL TWO (2) 1/2" DIAMETER HOLES. IT IS IMPORTANT THAT DRILLED HOLE IS CENTERED ON THE FRAME FLANGE TO ENSURE ADEQUATE MATERIAL BETWEEN HOLE AND INSIDE EDGE OF FRAME.
6. INSTALL FASTENERS IN FORWARD ATTACHMENT AS SHOWN.
7. USING THE CENTER ATTACHING SLOTS AS TEMPLATES, CENTER PUNCH AND DRILL TWO (2) 1/2" DIAMETER HOLES. INSTALL FASTENERS THROUGH CENTER ATTACHMENT AS SHOWN MAKING SURE THAT THE TWO (2) BLOCKS ARE BETWEEN SIDE BRACKETS AND FRAME.
8. TO RETAIN UNDER VEHICLE SPARE TIRE STOWAGE:
- REMOVE TUBE ON END OF SPARE TIRE CARRIER
OR - RELOCATE J-BOLT ON ON PASSENGER'S SIDE TO CROSSMEMBER BY DRILLING HOLE IN CROSSMEMBER.

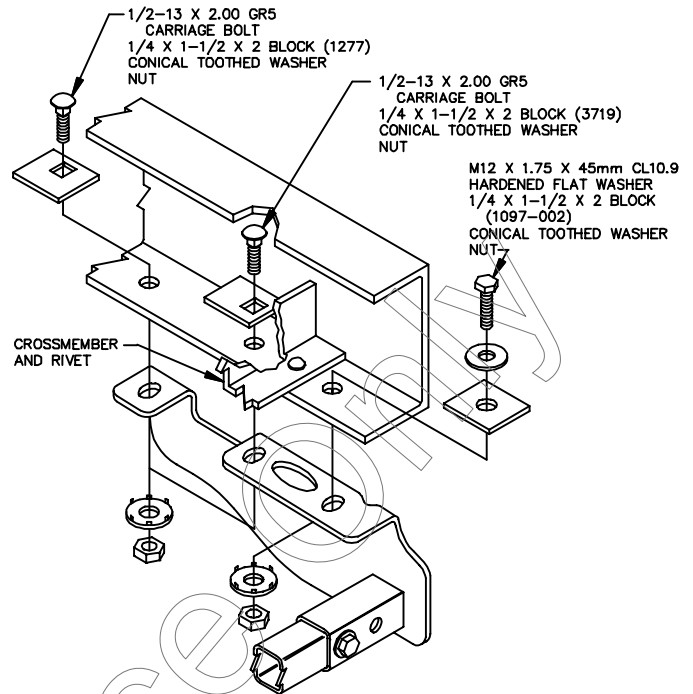
TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.



FORD BRONCO - FULL SIZE

1. RAISE RECEIVER INTO POSITION, CENTERING THE LARGE 1" X 2" SLOT IN THE SIDE BRACKET ASSEMBLY OVER THE RIVET NEAR THE END OF THE FRAME. CLAMP RECEIVER TO FRAME.
2. CENTER RECEIVER CROSSTUBE ASSEMBLY ON VEHICLE AND TIGHTEN THE 9/16-18 GR5 HEX BOLTS INSTALLED LOOSELY AS SHOWN ON PAGE 1 TO 110 LB.-FT.
3. USING THE SLOTS IN THE SIDE BRACKETS AS TEMPLATES, CENTER PUNCH AND DRILL SIX (6) 17/32" DIAMETER HOLES. SEE **GENERAL NOTES** REGARDING DRILLED HOLES.
4. INSTALL M12 X 1.75 X 45MM CL10.9 HEX BOLT THROUGH HARDENED FLAT WASHER, BLOCK AND FRAME AND SECURE WITH A CONICAL TOOTHED WASHER AND M12 X 1.75 NUT AS SHOWN. REPEAT FOR OTHER SIDE.
5. SLIDE 1/4" X 1-1/2" X 2" BLOCKS BETWEEN BOTTOM EDGE OF FRAME AND THE GAS TANK AND POSITION INSIDE THE VEHICLE FRAME OVER THE FORWARD AND CENTER DRILLED HOLES. FISHWIRE A 24" LONG PIECE OF SOFT WIRE UP THROUGH THE DRILLED HOLE LETTING IT EXIT ABOVE AND BETWEEN FRAME AND THE GAS TANK. ATTACH A THIN WIRE WITH A MAXIMUM DIAMETER OF 1/32" (.030") AROUND THE END OF A 1/2-13 X 2" GR5 CARRIAGE BOLT. THE THIN WIRE IS THEN ATTACHED TO THE 24" LENGTH OF WIRE. THE CARRIAGE BOLT IS GENTLY FED AND PULLED INTO POSITION THROUGH THE BLOCK AND FRAME AND SECURED WITH A CONICAL TOOTHED WASHER AND NUT. SEE **GENERAL NOTES**, FISHWIRING FIGURE, AT THE BOTTOM OF THIS PAGE. REPEAT FOR REMAINING HOLE AND OTHER SIDE.

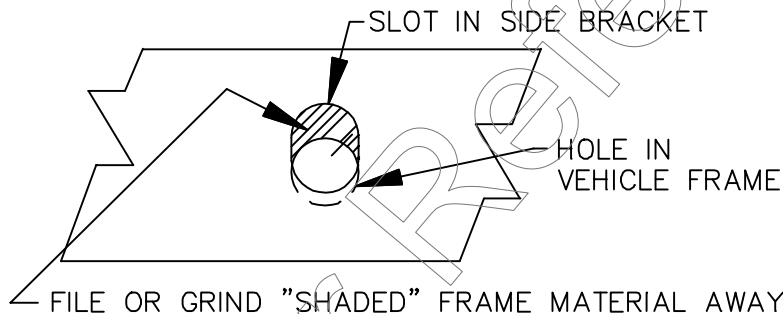
TIGHTEN 1/2-13 GR5 CARRIAGE BOLTS TO 75 LB.-FT.
TIGHTEN M12 X 1.75 CL10.9 HEX BOLTS TO 75 LB.-FT.
TIGHTEN 9/16-18 GR5 HEX BOLTS TO 110 LB.-FT.



GENERAL NOTES

1. ATTACHMENT HOLES MUST BE DRILLED FOR MOST APPLICATIONS. IN SOME CASES EXISTING HOLES IN FRAME MAY LINE UP WITH SOME OF THE HOLES IN THE RECEIVER SIDE BRACKETS. WHEN HOLES DO NOT MATCH PRECISELY, FILE OR GRIND MATERIAL FROM THE VEHICLE FRAME TO MATCH THE HOLE IN THE RECEIVER SIDE BRACKET.

! WARNING: DO NOT CORRECT HOLE MISMATCH BY DRILLING, BECAUSE DRILL CAN SUDDENLY BIND CAUSING DRILL MOTOR TO "KICK BACK" OR DRILL BIT TO BREAK, POSSIBLY RESULTING IN PERSONAL INJURY.



2. WHEN POSITIONING RECEIVER ON VEHICLE FRAME, MAKE SURE THAT THE CROSSTUBE ASSEMBLY DOES NOT CONTACT ANY GAS TANK SUPPORTS OR SPARE TIRE HANGER BRACKETS IF VEHICLE IS SO EQUIPPED.
3. BE CAREFUL TO AVOID DRILLING INTO THE FUEL TANK, WIRES AND FUEL OR BRAKE LINES THAT ARE SOMETIMES LOCATED INSIDE THE VEHICLE FRAME SECTIONS.
4. DEBURR ALL EDGES OF ANY HOLES DRILLED THROUGH FRAME AND/OR CROSSEMEMBERS. PROPER DEBURRING WILL ENSURE THAT FASTENERS AND SIDE BRACKETS WILL SIT FLAT.
5. ALWAYS WEAR SAFETY GLASSES WHEN DRILLING.
6. LICENSE PLATE MOUNTING BRACKET WILL HAVE TO BE RELOCATED ON VEHICLES WITHOUT A FACTORY INSTALLED BUMPER.

