

Frame Members-Rear Frame Section

Special Tool(s) / General Equipment

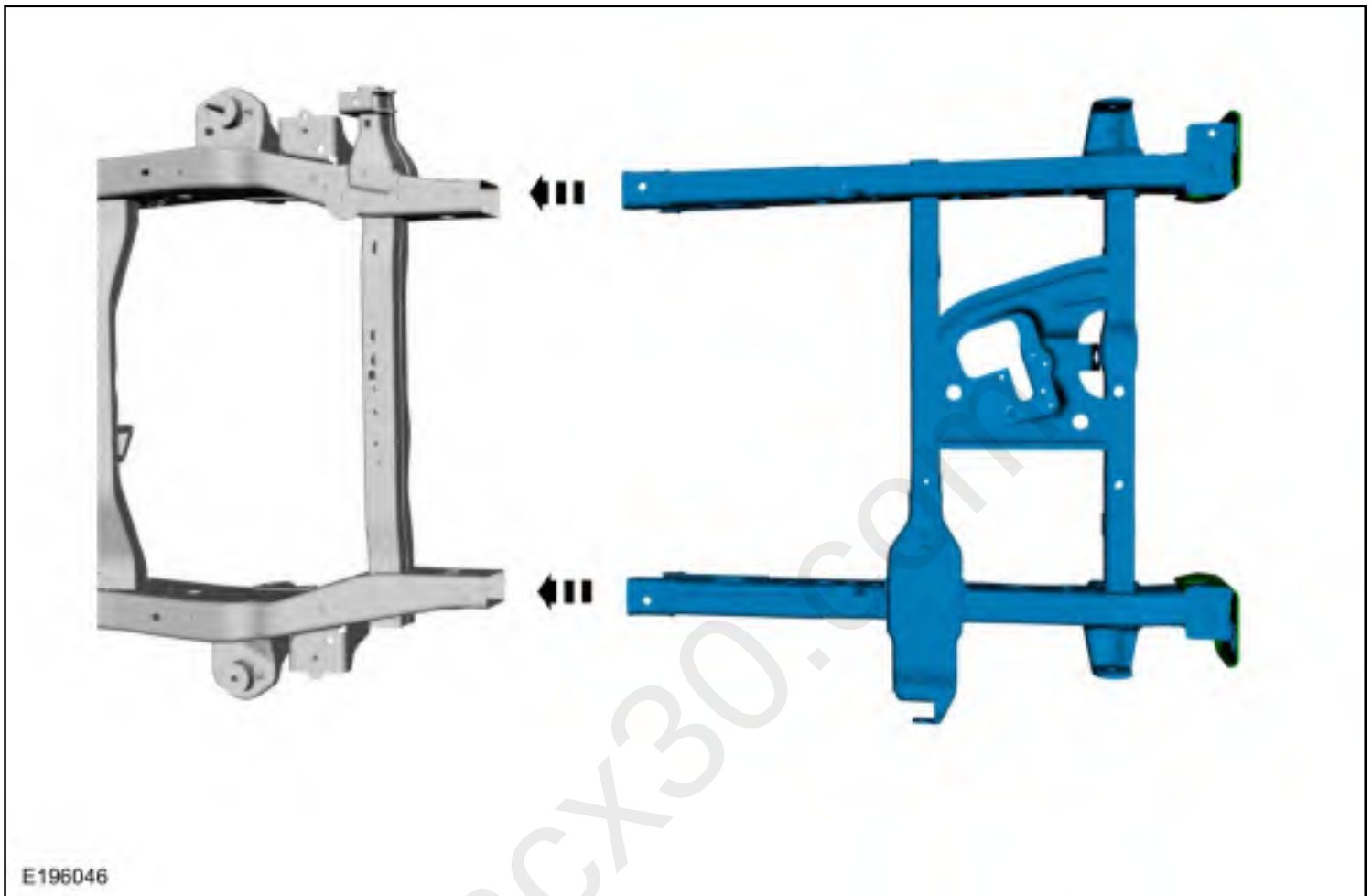
Grinder
MIG/MAG Welding Equipment
Locking Pliers

Removal

1. Restore the vehicle to manufacturer's dimensions.
Refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation).
2. Remove the following items:
 1. Refer to: [Rear Bumper](#) (501-19 Bumpers, Removal and Installation).
 2. Refer to: [Pickup Bed](#) (501-04 Pickup Bed and Platform Body, Removal and Installation).
 3. As equipped.
Refer to: [Muffler and Tailpipe](#) (309-00C Exhaust System - 3.5L EcoBoost (272kW/370PS), Removal and Installation).
Refer to: [Muffler and Tailpipe](#) (309-00C Exhaust System - 3.5L EcoBoost (272kW/370PS), Removal and Installation).
Refer to: [Muffler and Tailpipe](#) (309-00A Exhaust System - 2.7L EcoBoost (238kW/324PS), Removal and Installation).
Refer to: [Muffler and Tailpipe](#) (309-00D Exhaust System - 5.0L 32V Ti-VCT, Removal and Installation).
 4. As equipped.
Refer to: [Fuel Tank Filler Pipe](#) (310-01A Fuel Tank and Lines - 2.7L EcoBoost (238kW/324PS), Removal and Installation).
Refer to: [Fuel Tank Filler Pipe](#) (310-01B Fuel Tank and Lines - 3.3L Duratec - V6, Removal and Installation).
Refer to: [Fuel Tank Filler Pipe](#) (310-01C Fuel Tank and Lines - 3.5L EcoBoost (272kW/370PS), Removal and Installation).
Refer to: [Fuel Tank Filler Pipe](#) (310-01D Fuel Tank and Lines - 5.0L 32V Ti-VCT, Removal and Installation).

5. Refer to: [Rear Shock Absorber](#) (204-02 Rear Suspension, Removal and Installation).
6. Refer to: [Spring](#) (204-02 Rear Suspension, Removal and Installation).

3. Rear frame section overview.



4. Position the vehicle on a frame rack and anchor per manufacturer's instructions.
5. **NOTE:** *The rear frame section is retained by a welded joint and upper and lower frame rail reinforcements approximately midway between the leaf spring frame brackets.*

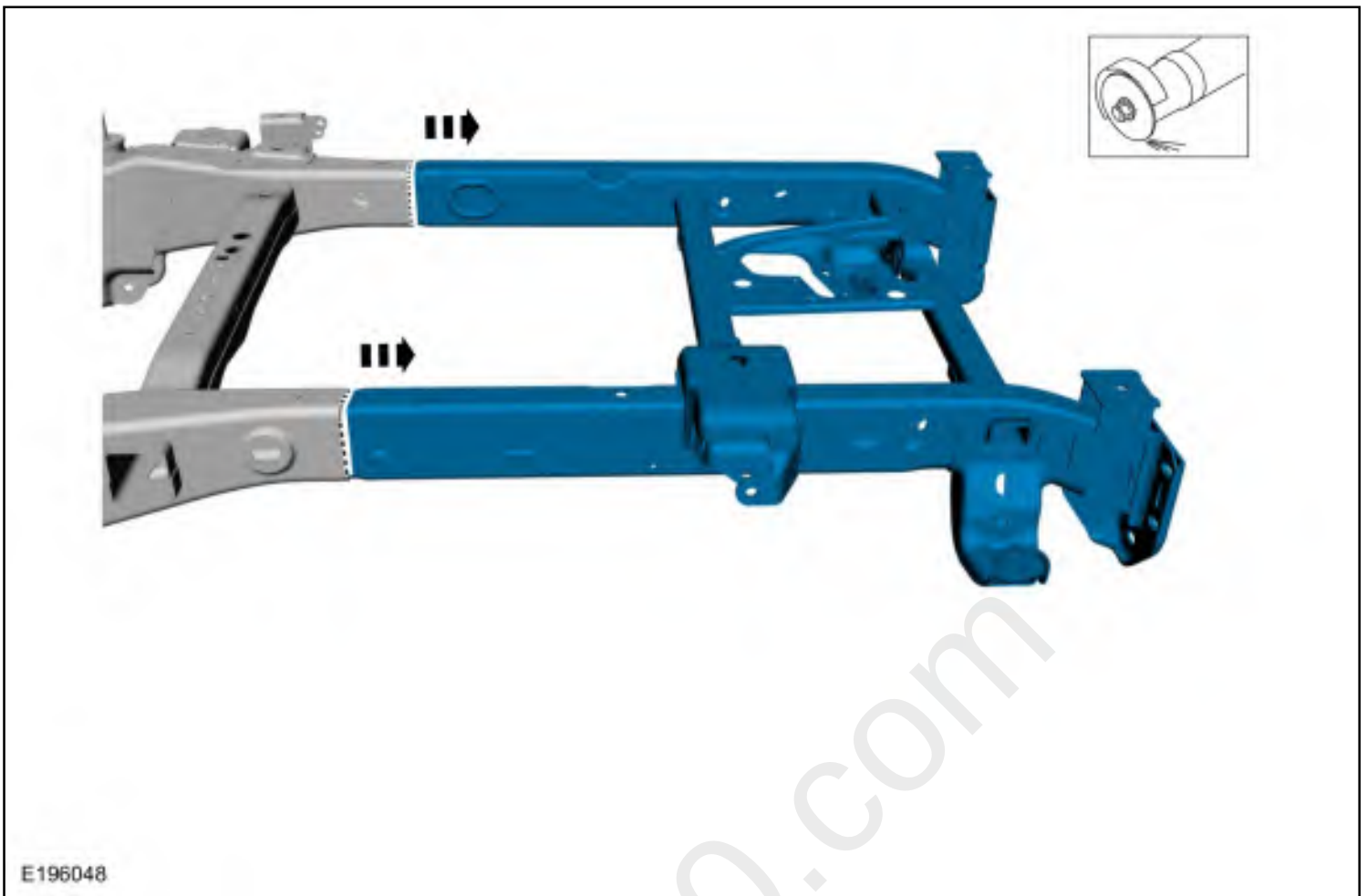
NOTE: *Use caution not cut into the mid rear side rail as it will be reused.*

Grind the welds that attach the upper and lower reinforcements and remove the reinforcements on both sides.

Use the General Equipment: Grinder



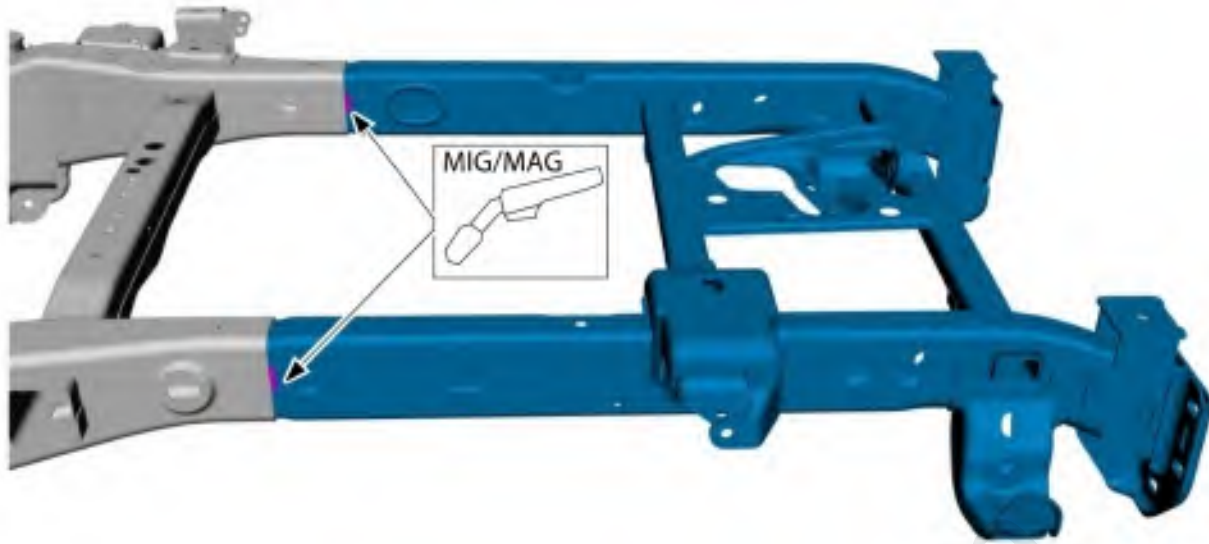
6. Grind the welds that retain the mid rear and rear frame sections.
 - Separate the ground area of the joints using an air chisel or similar tool and remove the complete rear frame section.
Use the General Equipment: Grinder



Installation

1. Refer to: [Joining Techniques](#) (501-25 Body Repairs - General Information, General Procedures).
2. **NOTE:** *Verify dimensional accuracy **before** performing any welding operations.*

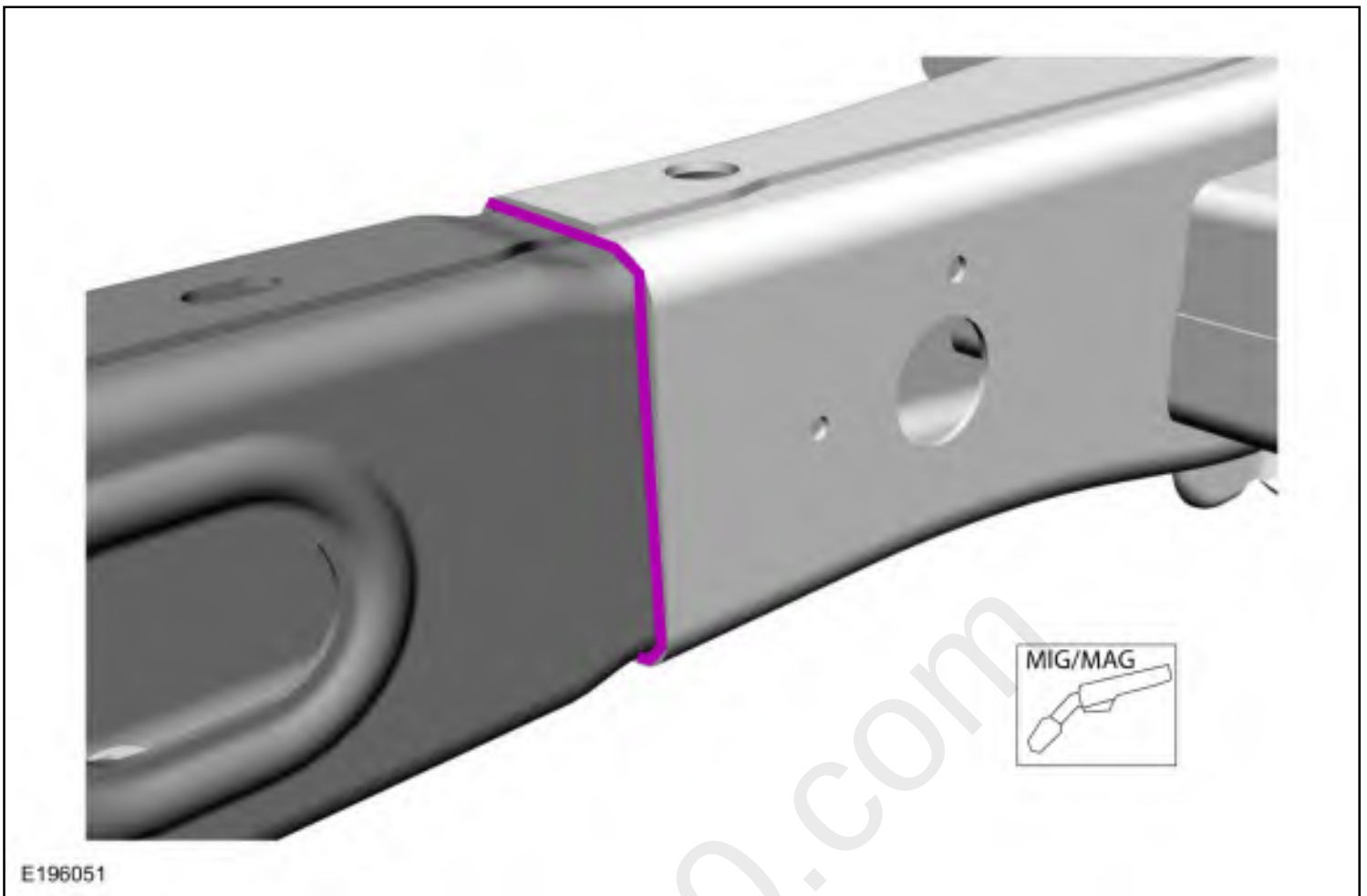
Install the new rear frame section into the mid rear section of the frame and tack weld the frame rails.
Refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation).



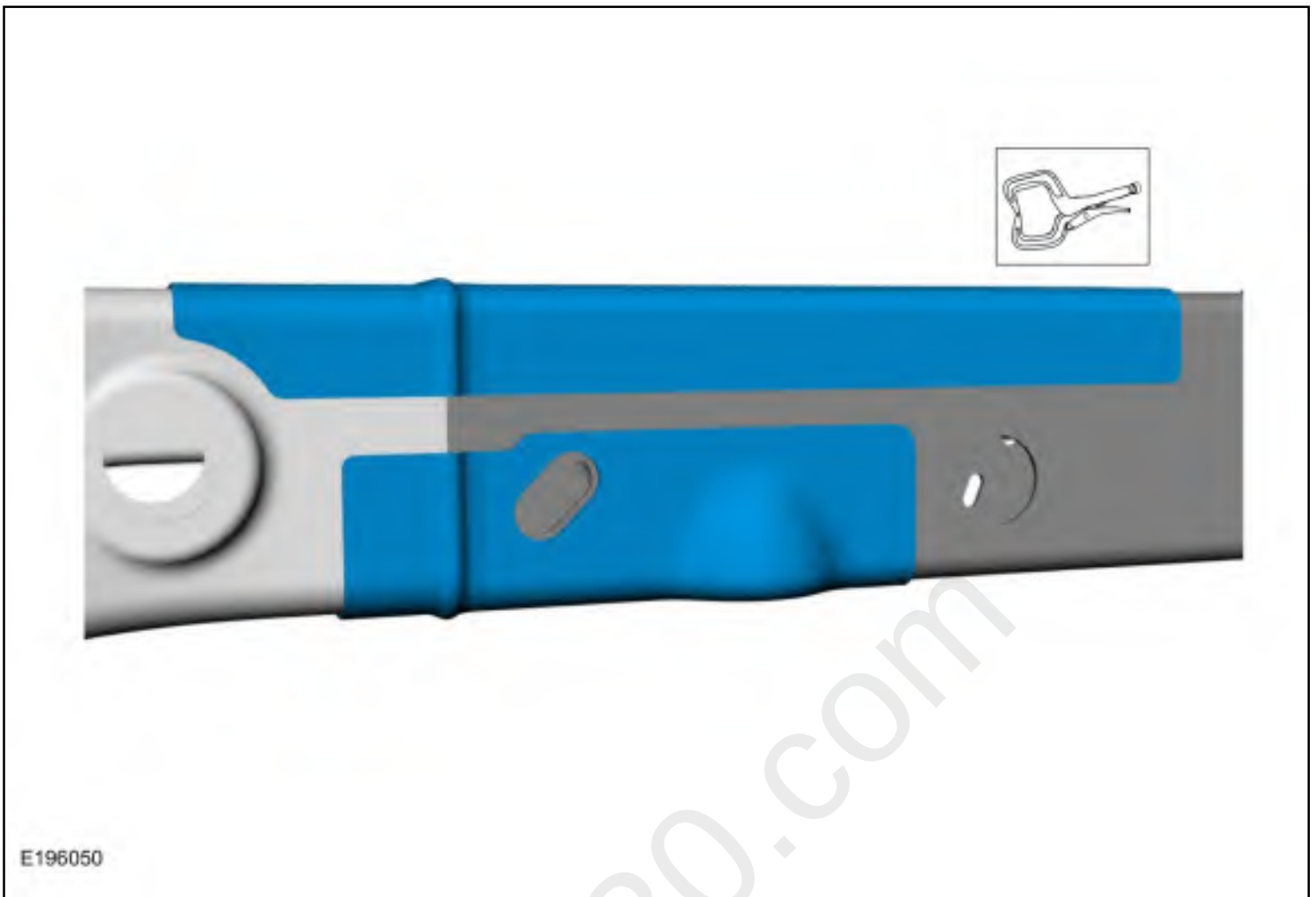
E196049



3. Perform a final measurement, then final weld the new rear section to the mid rear section on all overlap joints on both sides.
Use the General Equipment: MIG/MAG Welding Equipment

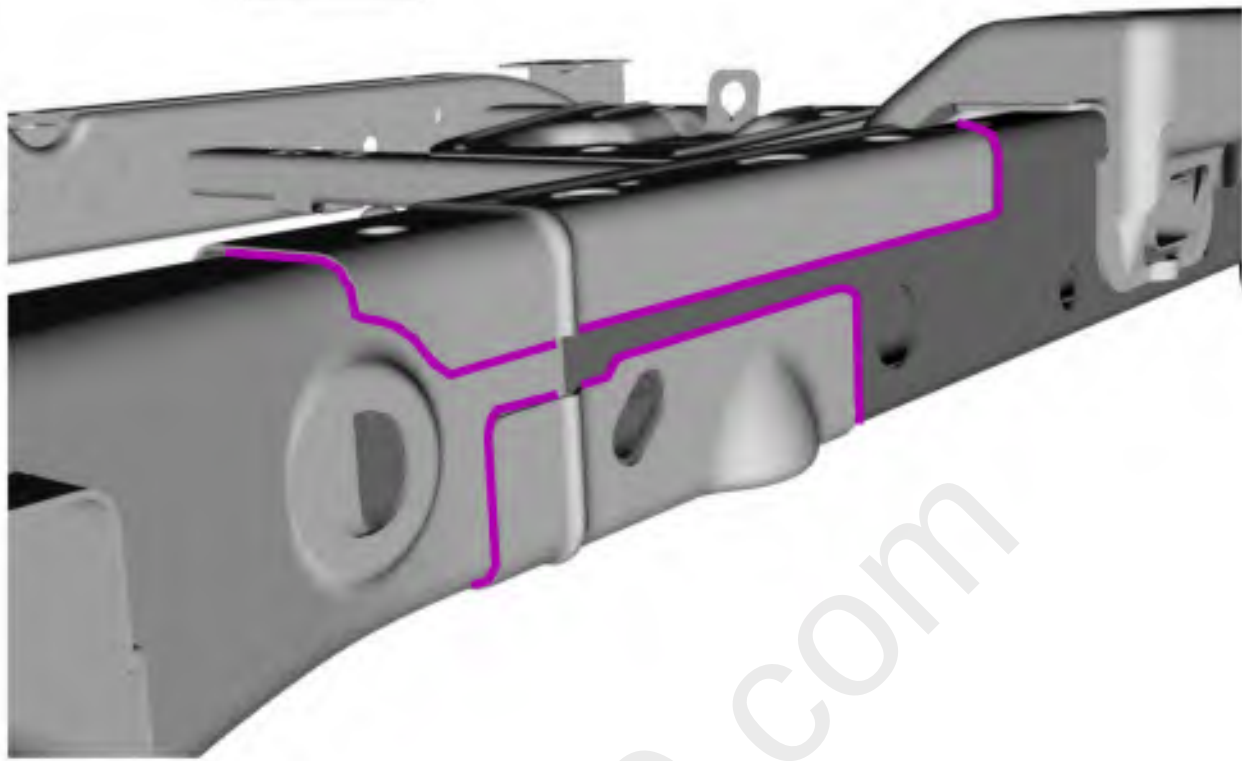


4. Metal finish the joint area typical metal finishing techniques.
5. Position the upper and lower reinforcements and clamp in place on both sides.
Use the General Equipment: Locking Pliers



6. **NOTE:** *Reinforcement welds skip over frame rail joint.*

Weld the upper and lower reinforcements to the outer mid rear and rear frame section LH and RH sides.

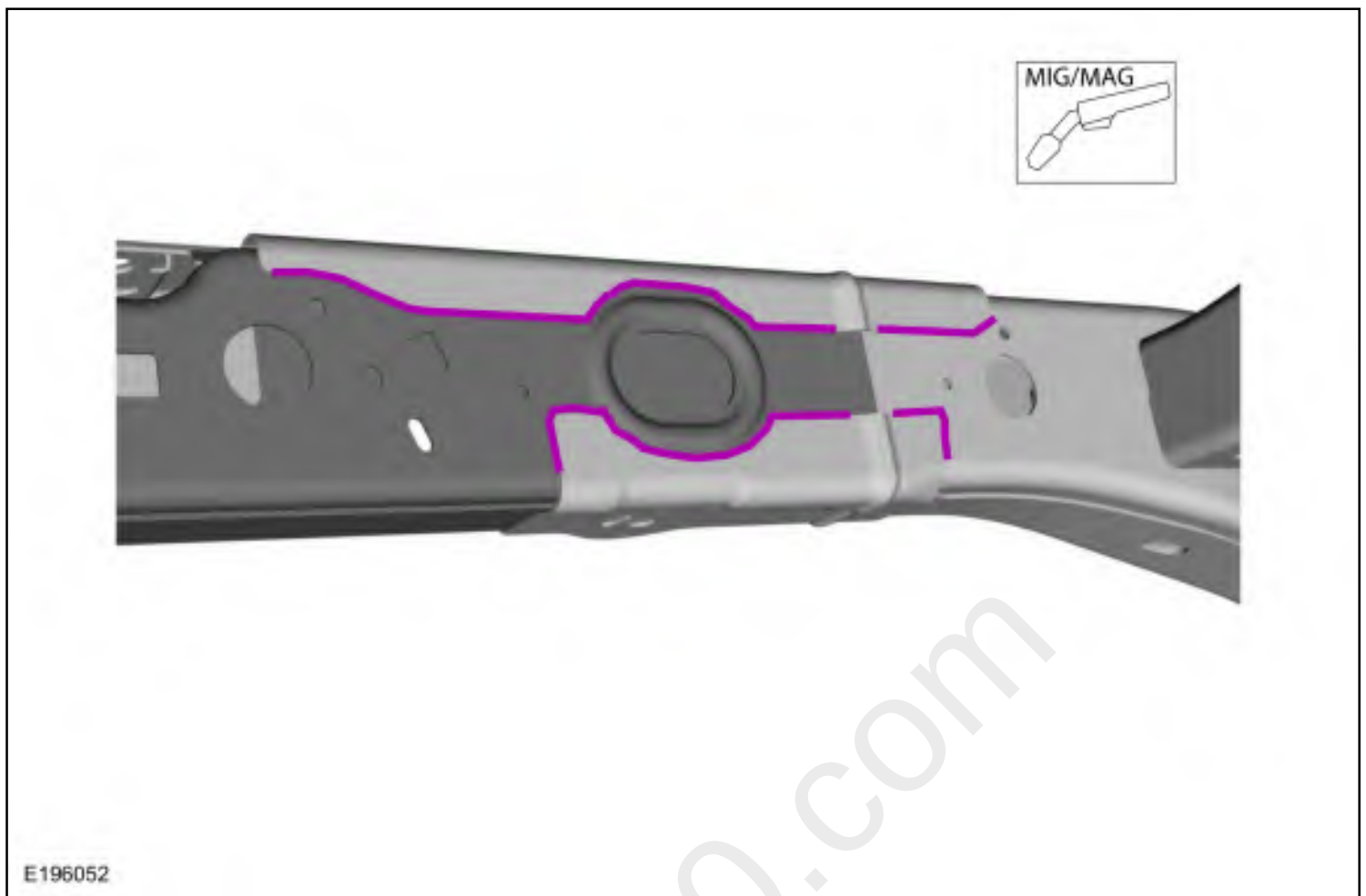


E196053



7. **NOTE:** Reinforcement welds skip over frame rail joint and do not go around the frame rail inboard corners.

Weld the upper and lower reinforcements to the inner mid rear and rear frame section LH and RH sides.



8. Metal finish the joint area typical metal finishing techniques.
9. Refinish using a Ford approved paint system.
10. Restore corrosion protection.
Refer to: [Corrosion Prevention](#) (501-25 Body Repairs - General Information, General Procedures).
11. **NOTICE: To avoid damage to the spare tire winch when installing the spare tire, DO NOT exceed 200 RPM if using power tool equipment.**

Install the following items:

1. As equipped.

Refer to: [Fuel Tank Filler Pipe](#) (310-01A Fuel Tank and Lines - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Fuel Tank Filler Pipe](#) (310-01B Fuel Tank and Lines - 3.3L Duratec - V6, Removal and Installation).

Refer to: [Fuel Tank Filler Pipe](#) (310-01C Fuel Tank and Lines - 3.5L EcoBoost (272kW/370PS), Removal and Installation).

Refer to: [Fuel Tank Filler Pipe](#) (310-01D Fuel Tank and Lines - 5.0L 32V Ti-VCT, Removal and Installation).

2. As equipped.

Refer to: [Muffler and Tailpipe](#) (309-00C Exhaust System - 3.5L EcoBoost (272kW/370PS), Removal and Installation).

Refer to: [Muffler and Tailpipe](#) (309-00C Exhaust System - 3.5L EcoBoost (272kW/370PS), Removal and Installation).

Refer to: [Muffler and Tailpipe](#) (309-00A Exhaust System - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Muffler and Tailpipe](#) (309-00D Exhaust System - 5.0L 32V Ti-VCT, Removal and Installation).

3. Refer to: [Spring](#) (204-02 Rear Suspension, Removal and Installation).

4. Refer to: [Rear Shock Absorber](#) (204-02 Rear Suspension, Removal and Installation).

5. Refer to: [Pickup Bed](#) (501-04 Pickup Bed and Platform Body, Removal and Installation).

6. Refer to: [Rear Bumper](#) (501-19 Bumpers, Removal and Installation).