



Ford-Recommended Steel Repairability Matrix

Grade	Trade Descriptions	Welding Method			Cold Repairs	Use of Heat for Repair	Temp. Range	Maximum Heat
		MIG	STRW ^f	MIG Braze				
Mild Steel	Mild	Yes	Yes	N/A	Yes ^a	Yes	Up to 1200°F (650°C)	90 sec. x 2
Laminate Steel	Quiet Steel	No	Yes	No	Yes ^a	N/A	N/A	N/A
Bake-Hardened	BH 180 BH 210 BH 250 BH 280	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 1200°F (650°C)	90 sec. x 2
Solid Solution-Strengthened	Solid Solution-Strengthened	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 1200°F (650°C)	90 sec. x 2
High-Strength, Low-Alloy (HSLA)	HSLA 200 HSLA 250 HSLA 260 HSLA 300 HSLA 340 HSLA 350 HSLA 500 HSLA 550	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 1200°F (650°C)	90 sec. x 2
Dual-Phase Steel (DP)	DP 500 DP 600	Yes	Yes	Yes ^b	Yes ^a	No	N/A	N/A
Dual-Phase Steel (DP) ^c	DP 700 DP 900 DP 1000	Yes ^d	Yes	Yes ^b	No	No	N/A	N/A
Ultra-High-Strength Steel (UHSS)	Boron, Martensitic ^e	Yes ^a	Yes	Yes ^b	No	No	N/A	N/A
Transformation-Induced Plasticity Steel (TRIP)	TRIP 590 TRIP 780 TRIP 980	N/A	N/A	N/A	N/A	N/A	N/A	N/A

^a Cold repairs can be performed if damage excludes kinks; may section only if workshop manual procedure allows.

^b Metal Inert Gas (MIG) braze allowed for non-structural applications only.

^c Dual-phase steels DP 700, DP 900 and DP 1,000 must be replaced at factory joints; may section only if workshop manual procedure allows.

^d For DP 900, DP 1,000, and Boron, use Metal Inert Gas (MIG) plug welding only; no stitch welding.

^e Boron and Ultra-High-Strength Steel/Martensitic components must be replaced at factory joints; sectioning is not allowed.

^f STRW: Squeeze-Type Resistance Spot Welding

