

Grade	Trade Descriptions	Welding Method			Cold Repairs	Use of Heat for Repair	Temperature Range	Maximum Heat
		MIG	Squeeze-Type Resistance Spot Welding (STRW)	MIG Braze				
Mild Steel	Mild	Yes	Yes	N/A	Yes ^a	Yes	Up to 650Â° C (1,200Â° F)	90 seconds x 2
Laminate Steel	Quiet Steel	No	Yes	No	Yes ^a	NA	NA	NA
Bake Hardened Steel (BH)	Bake Hardened Steel (BH) 180, 200, 210, 220, 250, 280	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 650Â° C (1,200Â° F)	90 seconds x 2
Solid Solution Strengthened	-	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 650Â° C (1,200Â° F)	90 seconds x 2
High-Strength Low Alloy (HSLA)	High-Strength Low Alloy (HSLA) 200, High-Strength Low Alloy (HSLA) 250, High-Strength Low Alloy (HSLA) 260, High-Strength Low Alloy (HSLA) 300, High-Strength Low Alloy (HSLA) 340, High-Strength Low Alloy (HSLA) 350, High-Strength Low Alloy (HSLA) 500, High-Strength Low Alloy (HSLA) 550	Yes	Yes	Yes ^b	Yes ^a	Yes	Up to 650Â° C (1,200Â° F)	90 seconds x 2
Dual Phase Steel (DP)	Dual Phase Steel (DP) 500, Dual Phase Steel (DP) 600	Yes	Yes	Yes ^b	Yes ^a	No	NA	NA
Dual Phase Steel (DP) ^c	Dual Phase Steel (DP) 700, Dual Phase Steel (DP) 900 and Dual Phase Steel (DP) 1,000	Yes ^d	Yes	Yes ^b	No	No	NA	NA
Ultra High Strength Steel (UHSS) (Martensitic, Boron) ^e	Boron, Martensitic	Yes ^a	Yes	Yes ^b	No	No	NA	NA
Transformation Induced Plasticity Steel (TRIP)	Transformation Induced Plasticity Steel (TRIP) 590, Transformation Induced Plasticity Steel (TRIP) 780, Transformation Induced Plasticity Steel (TRIP) 980	NA	NA	NA	NA	NA	NA	NA

^aCold repairs can be performed if damage excludes kinks. May section only if approved procedure in workshop manual.

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

^cDual phase steels DP 700 class, DP 900 class and DP 1,000 class must be replaced at factory joints, no sectioning unless approved procedure in workshop manual.

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

^eBoron and Ultra High Strength Steel (UHSS)-Mortensite components must be replaced at factory joints, no sectioning allowed.