Table Of Contents Acknowledgments

Introduction

Chapter 1: What You Should Know Before You Start

Panel Types, Configurations and Reinforcements Autobody Steel Plasticity and Elasticity Work Hardening: The Metal Remembers At the Factory and Afterward Necessary Tools and Equipment General Considerations

Chapter 2: Limits of Materials, Equipment and Skills

Inherent Advantages Divide and Conquer

Chapter 3: Types of Jobs

Damage Repair Small Rust Repairs Small Patch Piece Welding Methods

Chapter 4: Cleaning, Modeling and Cutting

Preparing and Cleaning Sheetmetal Cutting Panel Materials Getting Shapes and Contours Right

Chapter 5: Forming, Fitting and Smoothing

Simple Tools and Equipment Applying Plasticity/Elasticity, Work Hardening and Annealing Hammering Techniques that Work Bending, Beading and PryingPower FormingPulling Approaches to Moving MetalSmoothing, Stretching, Shrinking and Forming Operations

Chapter 6: Bumping to Move the Metal the Right Way

Chapter 7: Metal Finishing

Indicating, Feeling and Other Human Tools to Determine Panel Surfaces Filing Done Right The Art of Pick Hammering The Disc Sanding Alternative

Chapter 8: Welding Body Metal

Types of Joints Welding Smaller Pieces into Large Constructions Fixturing Electric Welding

Chapter 9: Filling

The Secrets of Lead Work The Project Applying Lead Filler Material Applying Plastic Fillers

Chapter 10: Special Projects and Procedures

Fabricating a Splash Shield for a Ford Amphibian Making Panels and Trim Fit Quarter-Panel Replacement Door Re-Skinning Hanging Doors Mounting and Adjusting Trim

Chapter 11: Before You Paint

The Danger from Behind

Chapter 12: Minor Rust Repair to a Fender Edge

The Approach The First Step: Evaluation Removing the Bad Metal Planning and Modeling the Repair Cutting and Forming the Metal Patches Final Fitting Welding Considerations Cleaning, Positioning, Fixturing and Welding Grinding the Weld Beads and Shrinking the Bulged Area Final Steps before Filling Tinning Applying the Lead Filler Shaping the Lead and Finishing the Job

Chapter 13: Repairing Collision Damage in a Decklid

The Approach The Early Steps Metal Finishing Filling

Chapter 14: Sources and Resources

Local Sources Non-Local Sources Knowledge and Problem-Solving Resources

Appendix

Soldering Data

Colors of Steel at Different Temperatures