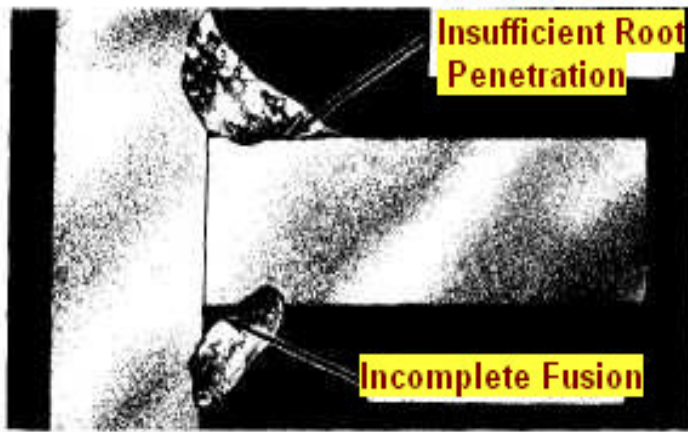
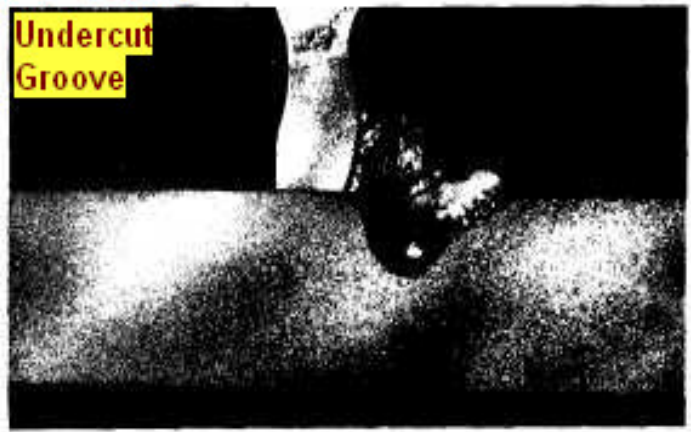


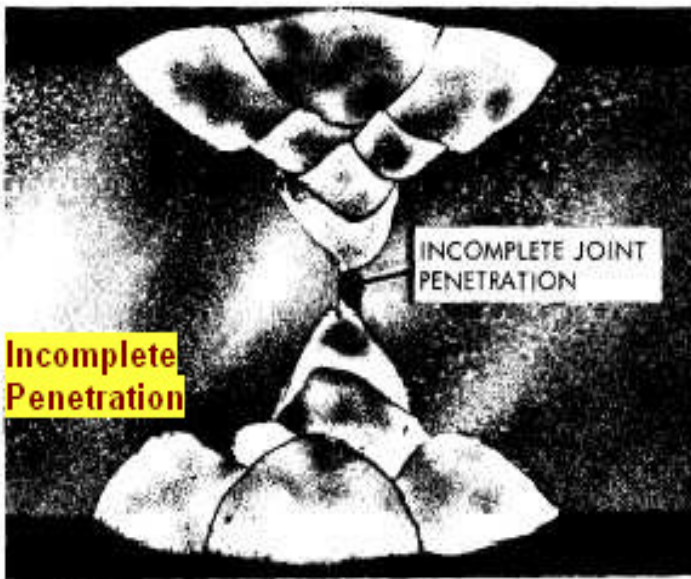
## Common Weld Faults



- A. INSUFFICIENT ROOT PENETRATION CAUSED BY IMPROPER ARC DIRECTION OR BY USING TOO LOW A WELDING CURRENT.
- B. INCOMPLETE FUSION CAUSED BY TOO FAST OR TOO SLOW RATE OF TRAVEL.

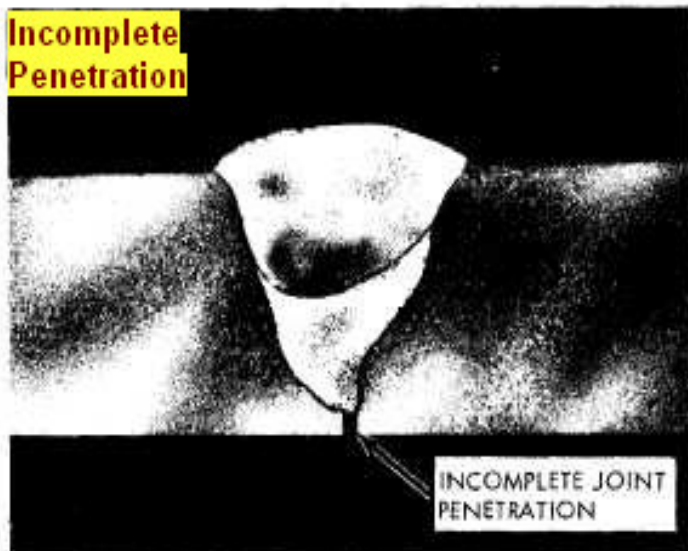


- C. UNDERCUT GROOVE MELTED INTO THE BASE METAL ADJACENT TO THE TOES OF THE WELD AND LEFT UNFILLED BY WELD METAL - CAUSED BY EXCESSIVE HEAT AND RATE OF TRAVEL, THIS PROVIDES A SHEARING POINT WEAKNESS. ADJUST HEAT OR REDUCE RATE OF TRAVEL.



Incomplete Penetration

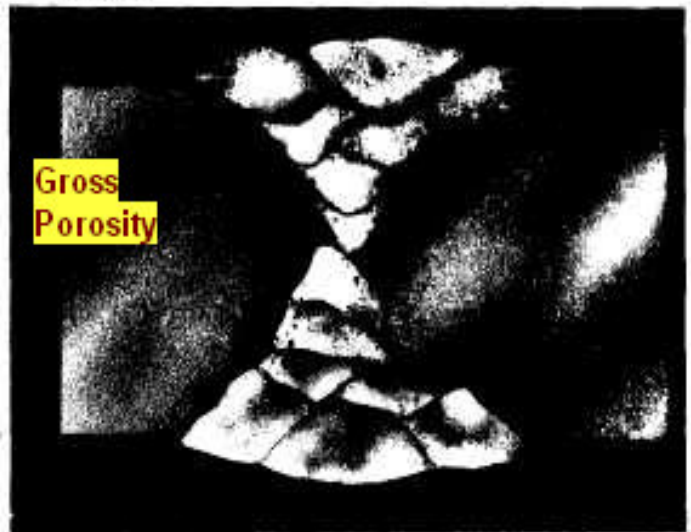
INCOMPLETE JOINT PENETRATION



Incomplete Penetration

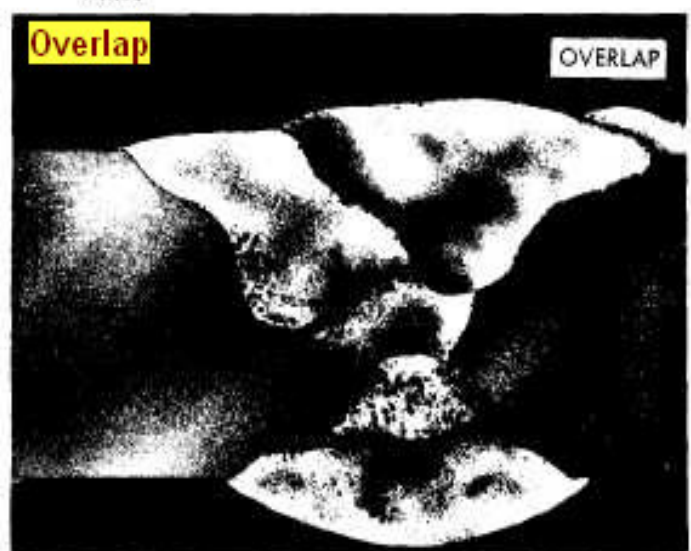
INCOMPLETE JOINT PENETRATION

- E. INCOMPLETE JOINT PENETRATION. (POOR ROOT FUSION) CAUSED BY NOT ENOUGH HEAT AND TOO FAST A RATE OF TRAVEL. ADJUST HEAT AND RATE OF TRAVEL.



Gross Porosity

- D. GROSS POROSITY CAUSED BY INSUFFICIENT SHIELDING GAS, IMPROPER CLEANING, OR DIRTY FILLER WIRE.



Overlap

OVERLAP

- F. OVERLAP. PROTRUSION OF WELD METAL BEYOND THE BOND AT THE TOE OF THE WELD - CAUSED BY EXCESSIVE METAL DEPOSIT. ADJUST RATE OF TRAVEL OR ARC LENGTH.