DIY Valve Seat Removal - Posted by SteveY

Valve seat removal is a little more complicated. I use the tig and lay the rod on the seat, top to bottom, and let the tig melt a puddle and dissolve the rod. I don't even bother to make a bead anymore, it makes no difference. I do this all the way around the intercircumference of the seat. Turn the head right side up on the table and 9 times out of 10 as the metal cools, the seat will shrink enough and you will hear it hit the table when it falls out. The 1 out of 10 when the seat is a bitch, I weld an old bolt on the edge and use a small slide hammer to pull it out. I will shoot the seat, not the head with whatever is handy, PB Blaster, WD 40, bottled water, just to cool the seat a llittle and cause it to shrink. The 1 time out of 50 when the seat is a super-bitch, I weld 2 bolts 180 degrees apart and repeat slide hammer procedure.

I have never failed to get a seat out using the above methods. I've never used a mig or stick to try this, but I guess you could if you were very careful and greased up the head to keep splatter from sticking too bad, etc. Worst case scenario, you could weld the 2 bolts on, shock/cool the seat, and try the slide hammer.



Pic 1 shows the seat with the numerous weld puddles top to bottom, also I attached a bolt to show how.



Pic 2 shows seat with bolt after removal.



Pic 3 shows seat & hammer



Pic 4 I have a secret weapon, Miller Intellitig 351 You can weld anything and I do, Chrome-moly, Al, Magnesium, Titanium, etc.