



This is the self locking drop door I designed. It bolts directly to two, 2 3/8" galvanized schedule 40 poles. It is pulled up from outside the safety cage using a stainless steel cable traveling on galvanized rollers. When the door is fully raised one simply lets the door fall. That releases the two stainless steel pins that eject through two slots at the top, catching the door. Shock absorbing springs take the pressure off the pins. To unlock the door (release) one pulls the door up and slowly lowers it. The pins release into slots at the bottom - locking the door down. The bottom has a tail stop. The frame disassembles. I did not keep a pricing file on this prototype, but due to its complexity I would estimate the cost to be double that of the slide door.









Aluminum pull bar
with knurled ends.



Removable mini door
for roll cage.



Common safety cage.

4/24/2003



Drop door installed between shift/feeding cage and main cage.