	A	B	C	D	E	F	G	H
1	Problem: Production of P Head and H Head		Legend					
2			Decision					
3			Constraint					
4	Week		Cost					
5	Week 0							
6	Week 1	Xi (1=P-Head 0=H-Head)	Ci (1=changeover)	Pi (Qp-head)	Hi (Qh-head)	Production Constraint P	Production Constraint H	
7	Week 2	1						
8	Week 3	0	=IF(AND(OR(E8<>0,D8<>0),B7<>B8),1,0)	0	0	=100*B8	=80*(1-B8)	
9	Week 4	1	=IF(AND(OR(E9<>0,D9<>0),B8<>B9),1,0)	83	0	=100*B9	=80*(1-B9)	
10	Week 5	1	=IF(AND(OR(E10<>0,D10<>0),B9<>B10),1,0)	100	0	=100*B10	=80*(1-B10)	
11	Week 6	0	=IF(AND(OR(E11<>0,D11<>0),B10<>B11),1,0)	0	2	=100*B11	=80*(1-B11)	
12	Week 7	0	=IF(AND(OR(E12<>0,D12<>0),B11<>B12),1,0)	0	59	=100*B12	=80*(1-B12)	
13	Week 8	0	=IF(AND(OR(E13<>0,D13<>0),B12<>B13),1,0)	0	80	=100*B13	=80*(1-B13)	
14	Week 9	0	=IF(AND(OR(E14<>0,D14<>0),B13<>B14),1,0)	0	80	=100*B14	=80*(1-B14)	
15		1	=IF(AND(OR(E15<>0,D15<>0),B14<>B15),1,0)	42	0	=100*B15	=80*(1-B15)	
16		0	=IF(AND(OR(E16<>0,D16<>0),B15<>B16),1,0)	0	11	=100*B16	=80*(1-B16)	
17			1					
18								
19					Decision Variables >= 0		Constraint Limit on P Head	
20								
21	Ipi (Inventory at end of week)				Constraint Non Negativity			
22	125							
23	=D8+A22-C25	Ihi (Inventoiy at end of week)	Demand P	Demand H	Inventory Constraint P	Inventory Constraint H		
24	=D9+A23-C26	143	0	0				
25	=D10+A24-C27	=B24+E8-D25	55	38	=C26*0.8	=D26*0.8		
26	=D11+A25-C28	=B25+E9-D26	55	38	=C27*0.8	=D27*0.8		
27	=D12+A26-C29	=B26+E10-D27	44	30	=C28*0.8	=D28*0.8		
28	=D13+A27-C30	=B27+E11-D28	0	0	=C29*0.8	=D29*0.8		
29	=D14+A28-C31	=B28+E12-D29	45	48	=C30*0.8	=D30*0.8		
30	=D15+A29-C32	=B29+E13-D30	45	48	=C31*0.8	=D31*0.8		
31	=D16+A30-C33	=B30+E14-D31	36	58	=C32*0.8	=D32*0.8		
32	Cost Minimize	=B31+E15-D32	35	57	=C33*0.8	=D33*0.8		
33		=B32+E16-D33	35	58	=J12*0.8	=K12*0.8		
34								
35		=SUM(C6:C14)*500+SUM(D6:D14)*225+SUM(E6:E14)*310+(0.195/52)*225*SUM(A23:A31)+(0.195/52)*310*SUM(B23:B31)+125*225*(0.195/52)+143*310*(0.195/52)						
36							Constraint Meet 80% Demand of Next Week H-Head	
37			Objective, Minimize		Constraint Meet 80% Demand of Next Week P-Head			
38								
39		Legend						