



Unit 200420 Specs:

-Packager: POI

-Year Built: 2000

-Engine: Caterpillar G3306NA, 1800 RPM- 145 HP

-Frame: Ariel JGP-2/3 Stage

-Cylinder Configuration: 8" M (175 psi), 5.75" P (575 psi), 3.25" P (1,125 psi)

-Cooler: R&R U-I54.8L3

- MAWP- IC1: 300 psi
- MAWP- IC2: 655 psi
- MAWP- AC: 1,315 psi

-Current Condition:

Field-run (running) condition. (Video evidence provided.)

-Price: \$40,000

(Inspections welcome at our shop in Longview, TX.)



Ariel Performance

Company: Synergy Field Services, LLC

Customer:

Quote:

Inquiry:

7.7.6.0

Case 1:

Project:



Compressor Data:

Elevation, ft:	600.00	Barmtr, psia:	14.376	Ambient, F:	100.00
Frame:	JGQ/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	136	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3306B NA
BHP:	138 (5.00%)
Avail:	138

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3
Target Flow, MMSCFD	0.500	0.500	0.500
Flow Calc, MMSCFD	0.705	0.705	0.695
BHP per Stage	57.0	49.7	23.3
Specific Gravity	0.6500	0.6500	0.6358
Ratio of Sp Ht (N)	1.2475	1.2474	1.2719
Comp Suct (Zs)	0.9924	0.9794	0.9460
Comp Disch (Zd)	0.9892	0.9748	0.9433
Pres Suct Line, psig	25.00	N/A	N/A
Pres Suct Flg, psig	24.61	120.13	368.82
Pres Disch Flg, psig	123.06	373.82	610.00
Pres Disch Line, psig	N/A	N/A	600.00
Pres Ratio F/F	3.526	2.886	1.629
Temp Suct, F	80.00	120.00	120.00
Temp Clr Disch, F	120.00	120.00	120.00

Cylinder Data:

	Throw 1	Throw 2	Throw 2
Cyl Model	8M	5-3/4P-HE	3-1/4P-CE
Cyl Bore, in	8.000	5.750	3.250
Cyl RDP (API), psig	150.0	522.7	1022.7
Cyl MAWP, psig	175.0	575.0	1125.0
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	311.1	81.1	22.8
Pres Suct Intl, psig	20.72	108.97	338.92
Temp Suct Intl, F	87	125	122
Pres Disch Intl, psig	134.81	403.19	651.41
Temp Disch Intl, F	269	285	207
HE Suct Gas Vel, FPM	10331	9596	0
HE Disch Gas Vel, FPM	9196	8599	N/A
HE Spcrs Used/Max	0/2	0/2	N/A
HE Vol Pkt Avail	1.31+59.76	No Pkt	N/A
Vol Pkt Used	0.00 (V) %	No Pkt	N/A %
HE Min Clr, %	16.87	16.19	N/A
HE Total Clr, %	18.18	16.19	N/A
CE Suct Gas Vel, FPM	10127	0	9226
CE Disch Gas Vel, FPM	9014	N/A	7574
CE Spcrs Used/Max	0/2	N/A	0/2
CE Min Clr, %	17.72	N/A	22.62
CE Total Clr, %	17.72	N/A	22.62
Suct Vol Eff HE/CE, %	60.8/61.5	72.0/N/A	N/A/85.6
Disch Event HE/CE, ms	4.8/5.6	5.8/N/A	N/A/9.7
Suct Pseudo-Q HE/CE	9.1/8.7	7.7/N/A	N/A/3.7
Gas Rod Ld Comp, %	52.4 C	53.4 C	53.4 C
Gas Rod Ld Tens, %	55.9 T	40.5 T	40.5 T
Gas Rod Ld Total, %	56.8	49.6	49.6
Xhd Pin Deg/%RvrsI lbf	143/94.2	165/82.0	165/82.0
Flow Calc, MMSCFD	0.705	0.705	0.695
Cyl BHP	57.0	49.7	23.3



Ariel Performance

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 Case 1:

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Frame:	JGQ/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	137	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3306B NA
BHP:	138 (5.00%)
Avail:	138

Services

Gas Model
Stage Data:
 Target Flow, MMSCFD
Flow Calc, MMSCFD
 BHP per Stage
 Specific Gravity
 Ratio of Sp Ht (N)
 Comp Suct (Zs)
 Comp Disch (Zd)
Pres Suct Line, psig
 Pres Suct Flg, psig
 Pres Disch Flg, psig
Pres Disch Line, psig
 Pres Ratio F/F
 Temp Suct, F
 Temp Clr Disch, F

Service 1

VMG-APRNL2

1 (SG)

0.500
0.639
 52.5
 0.6500
 1.2461
 0.9929
 0.9898
22.00
 21.64
 115.47
 N/A
 3.606
 80.00
 120.00

2

0.500
0.639
 48.0
 0.6499
 1.2453
 0.9804
 0.9755
 N/A
 112.42
 378.53
 N/A
 3.099
 120.00
 120.00

3

0.500
0.631
 30.8
 0.6418
 1.2663
 0.9438
 0.9411
 N/A
 372.77
 810.00
800.00
 2.129
 120.00
 120.00

Cylinder Data:

Cyl Model
Cyl Bore, in
 Cyl RDP (API), psig
 Cyl MAWP, psig
 Cyl Action
 Cyl Disp, CFM
 Pres Suct Intl, psig
 Temp Suct Intl, F
 Pres Disch Intl, psig
 Temp Disch Intl, F
 HE Suct Gas Vel, FPM
 HE Disch Gas Vel, FPM
 HE Spcrs Used/Max
 HE Vol Pkt Avail
 Vol Pkt Used
 HE Min Clr, %
 HE Total Clr, %
 CE Suct Gas Vel, FPM
 CE Disch Gas Vel, FPM
 CE Spcrs Used/Max
 CE Min Clr, %
 CE Total Clr, %
 Suct Vol Eff HE/CE, %
 Disch Event HE/CE, ms
 Suct Pseudo-Q HE/CE
 Gas Rod Ld Comp, %
 Gas Rod Ld Tens, %
 Gas Rod Ld Total, %
 Xhd Pin Deg/%RvrsI lbf
 Flow Calc, MMSCFD
 Cyl BHP

Throw 1

8M
8.000
 150.0
 175.0
 DBL
 311.1
 18.05
 87
 126.53
 271
 10331
 9196
 0/2
 1.31+59.76
 0.00 (V) %
 16.87
 18.18
 10127
 9014
 0/2
 17.72
 17.72
 59.6/60.5
 4.7/5.6
 9.1/8.7
 49.8 C
 53.2 T
 54.0
 152/98.1
 0.639
 52.5

Throw 2

5-3/4P-HE
5.750
 522.7
 575.0
 HE
 81.1
 101.92
 126
 407.85
 295
 9596
 8599
 0/2
 No Pkt
 No Pkt
 16.19
 16.19
 0
 N/A
 N/A
 7.7/N/A
 55.5 C
 56.4 T
 58.7
 138/79.7
 0.639
 48.0

Throw 2

3-1/4P-CE
3.250
 1022.7
 1125.0
 CE
 22.8
 342.25
 123
 862.33
 245
 0
 N/A
 N/A
 N/A
 N/A
 9226
 7574
 0/2
 22.62
 22.62
 N/A/76.8
 N/A/8.0
 N/A/3.7
 55.5 C
 56.4 T
 58.7
 138/79.7
 0.631
 30.8



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Frame:	JGQ/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	129	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3306B NA
BHP:	138 (5.00%)
Avail:	138

Services

Gas Model
Stage Data:
 Target Flow, MMSCFD
Flow Calc, MMSCFD
 BHP per Stage
 Specific Gravity
 Ratio of Sp Ht (N)
 Comp Suct (Zs)
 Comp Disch (Zd)
Pres Suct Line, psig
 Pres Suct Flg, psig
 Pres Disch Flg, psig
Pres Disch Line, psig
 Pres Ratio F/F
 Temp Suct, F
 Temp Clr Disch, F

Service 1

VMG-APRNL2

1 (SG)

0.500
0.537
 45.2
 0.6500
 1.2454
 0.9938
 0.9911
17.00
 16.69
 101.10
 N/A
 3.717
 80.00
 120.00

2

0.500
0.536
 43.4
 0.6501
 1.2434
 0.9826
 0.9779
 N/A
 98.12
 366.11
 N/A
 3.382
 120.00
 120.00

3

0.500
0.528
 33.9
 0.6352
 1.2649
 0.9468
 0.9469
 N/A
 359.76
 1010.14
1000.00
 2.738
 120.00
 120.00

Cylinder Data:

Cyl Model	8M	5-3/4P-HE	3-1/4P-CE
Cyl Bore, in	8.000	5.750	3.250
Cyl RDP (API), psig	150.0	522.7	1022.7
Cyl MAWP, psig	175.0	575.0	1125.0
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	311.1	81.1	22.8
Pres Suct Intl, psig	13.60	88.83	330.71
Temp Suct Intl, F	87	126	124
Pres Disch Intl, psig	110.87	394.00	1070.85
Temp Disch Intl, F	275	307	283
HE Suct Gas Vel, FPM	10331	9596	0
HE Disch Gas Vel, FPM	9196	8599	N/A
HE Spcrs Used/Max	0/2	0/2	N/A
HE Vol Pkt Avail	1.31+59.76	No Pkt	N/A
Vol Pkt Used	0.00 (V) %	No Pkt	N/A %
HE Min Clr, %	16.87	16.19	N/A
HE Total Clr, %	18.18	16.19	N/A
CE Suct Gas Vel, FPM	10127	0	9226
CE Disch Gas Vel, FPM	9014	N/A	7574
CE Spcrs Used/Max	0/2	N/A	0/2
CE Min Clr, %	17.72	N/A	22.62
CE Total Clr, %	17.72	N/A	22.62
Suct Vol Eff HE/CE, %	58.1/59.0	65.7/N/A	N/A/66.7
Disch Event HE/CE, ms	4.6/5.5	5.1/N/A	N/A/6.7
Suct Pseudo-Q HE/CE	9.1/8.7	7.7/N/A	N/A/3.6
Gas Rod Ld Comp, %	44.6 C	55.3 C	55.3 C
Gas Rod Ld Tens, %	47.7 T	72.5 T	72.5 T
Gas Rod Ld Total, %	48.4	66.6	66.6
Xhd Pin Deg/%RvrsI lbf	173/94.4	118/69.9	118/69.9
Flow Calc, MMSCFD	0.537	0.536	0.528
Cyl BHP	45.2	43.4	33.9



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Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	138	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3306B NA
BHP:	138 (5.00%)
Avail:	138

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3
Target Flow, MMSCFD	0.500	0.500	0.500
Flow Calc, MMSCFD	0.593	0.593	0.584
BHP per Stage	49.6	47.0	35.3
Specific Gravity	0.6500	0.6504	0.6367
Ratio of Sp Ht (N)	1.2459	1.2445	1.2664
Comp Suct (Zs)	0.9933	0.9811	0.9434
Comp Disch (Zd)	0.9903	0.9762	0.9435
Pres Suct Line, psig	20.00	N/A	N/A
Pres Suct Flg, psig	19.66	107.83	382.47
Pres Disch Flg, psig	110.99	389.01	1010.14
Pres Disch Line, psig	N/A	N/A	1000.00
Pres Ratio F/F	3.684	3.301	2.582
Temp Suct, F	80.00	120.00	120.00
Temp Clr Disch, F	120.00	120.00	120.00

Cylinder Data:

	Throw 1	Throw 2	Throw 2
Cyl Model	8M	5-3/4P-HE	3-1/4P-CE
Cyl Bore, in	8.000	5.750	3.250
Cyl RDP (API), psig	150.0	522.7	1022.7
Cyl MAWP, psig	175.0	575.0	1125.0
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	311.1	81.1	22.8
Pres Suct Intl, psig	16.27	97.71	351.46
Temp Suct Intl, F	87	126	124
Pres Disch Intl, psig	121.63	418.76	1071.91
Temp Disch Intl, F	274	304	274
HE Suct Gas Vel, FPM	10331	9596	0
HE Disch Gas Vel, FPM	9196	8599	N/A
HE Spcrs Used/Max	0/2	0/2	N/A
HE Vol Pkt Avail	1.31+59.76	No Pkt	N/A
Vol Pkt Used	0.00 (V) %	No Pkt	N/A %
HE Min Clr, %	16.87	16.19	N/A
HE Total Clr, %	18.18	16.19	N/A
CE Suct Gas Vel, FPM	10127	0	9226
CE Disch Gas Vel, FPM	9014	N/A	7574
CE Spcrs Used/Max	0/2	N/A	0/2
CE Min Clr, %	17.72	N/A	22.62
CE Total Clr, %	17.72	N/A	22.62
Suct Vol Eff HE/CE, %	58.6/59.4	66.8/N/A	N/A/69.3
Disch Event HE/CE, ms	4.6/5.5	5.2/N/A	N/A/6.9
Suct Pseudo-Q HE/CE	9.1/8.7	7.7/N/A	N/A/3.7
Gas Rod Ld Comp, %	48.4 C	58.2 C	58.2 C
Gas Rod Ld Tens, %	51.7 T	71.9 T	71.9 T
Gas Rod Ld Total, %	52.4	68.0	68.0
Xhd Pin Deg/%RvrsI lbf	163/99.3	122/76.6	122/76.6
Flow Calc, MMSCFD	0.593	0.593	0.584
Cyl BHP	49.6	47.0	35.3







