



Caterpillar G3516/Ariel JGE-4/2 Stage- (2) 11.5" x (2) 6"

-Packager: CSI

-Build Date: 2008

-Engine: Caterpillar G3516 (ADEM 3)

-HP Rating: 1340 HP @ 1400 RPM

-Compressor: Ariel JGE-4

-Stages: 2

-Cylinders:

- (2) 11.5"ET (635 psi)
- (2) 6"ET (1,650 psi)

-Cooler: Chart L156

- IC-1 MAWP: 645 psi
- AC MAWP: 1,650 psi

-As Is Price: \$250k

-Current Condition:

- Engine: High hour (82k total pkg. hours); still in running condition and gets ran periodically. Top end OH performed at 32k hrs.
- Frame: Field-run condition.
- Package: Nice 2008 CSI package in great condition.

Photos included below.



Company: Ariel Corporation
 Quote:
 Case 1:

Ariel Performance

Customer:
 Inquiry:
 Project:



7.7.6.0

Compressor Data:

Elevation,ft: 500.00
 Frame: (ELP) JGE/4
 Max RL Tot, lbf: 60000
 Rated RPM: 1500
 Calc RPM: 1400.0

Barmtr,psia: 14.429
 Stroke, in: 4.50
 Max RL Tens, lbf: 30000
 Rated BHP: 2140.0
 BHP: 1105

Ambient,F: 100.00
 Rod Dia, in: 2.000
 Max RL Comp, lbf: 32000
 Rated PS FPM: 1125.0
 Calc PS FPM: 1050.0

Driver Data:

Type: Nat. Gas
 Mfg: Caterpillar
 Model: G3516 LE
 BHP: 1206 (10.00%)
 Avail: 1206

Services

Gas Model

Service 1

VMG-APRNL2

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

1 (SG)

7.000
 7.226
 571.6
 0.6500
 1.2538
 0.9831
 0.9773
 75.00
 74.11
 309.97
 N/A
 3.664
 80.00
 120.00

2

7.000
 7.225
 515.0
 0.6496
 1.2590
 0.9534
 0.9529
 N/A
 303.98
 1010.14
 1000.00
 3.218
 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/%Rvrsl lbf
 Flow Calc, MMSCFD
 Cyl BHP

Throw 1

11-1/2E
 11.500
 454.5
 500.0
 DBL
 745.9
 67.84
 88
 328.94
 272
 8730
 7618
 0/2
 0.96+44.54
 0.00 (V) %
 18.41
 19.37
 8466
 7387
 0/2
 19.43
 19.43
 57.1/56.9
 6.0/6.8
 5.7/5.4
 85.5 C
 86.8 T
 89.0
 141/90.2
 3.613
 285.8

Throw 3

11-1/2E
 11.500
 454.5
 500.0
 DBL
 745.9
 67.84
 88
 328.94
 272
 8730
 7618
 0/2
 0.96+44.54
 0.00 (V) %
 18.41
 19.37
 8466
 7387
 0/2
 19.43
 19.43
 57.1/56.9
 6.0/6.8
 5.7/5.4
 85.5 C
 86.8 T
 89.0
 141/90.2
 3.613
 285.8

Throw 2

6-3/8ET
 6.000
 1154.5
 1270.0
 DBL
 194.7
 289.69
 126
 1048.40
 298
 7367
 6368
 0/2
 No Pkt
 No Pkt
 17.23
 17.23
 6548
 5661
 0/2
 20.04
 20.04
 65.5/60.8
 6.8/7.5
 3.9/3.1
 70.1 C
 60.3 T
 67.6
 170/91.8
 3.612
 257.5

Throw 4

6-3/8ET
 6.000
 1154.5
 1270.0
 DBL
 194.7
 289.69
 126
 1048.40
 298
 7367
 6368
 0/2
 No Pkt
 No Pkt
 17.23
 17.23
 6548
 5661
 0/2
 20.04
 20.04
 65.5/60.8
 6.8/7.5
 3.9/3.1
 70.1 C
 60.3 T
 67.6
 170/91.8
 3.612
 257.5



Company: Ariel Corporation
 Quote:
 Case 1:

Ariel Performance

Customer:
 Inquiry:
 Project:



7.7.6.0

Compressor Data:

Elevation,ft:	500.00	Barmtr,psia:	14.429	Ambient,F:	100.00
Frame: (ELP)	JGE/4	Stroke, in:	4.50	Rod Dia, in:	2.000
Max RL Tot, lbf:	60000	Max RL Tens, lbf:	30000	Max RL Comp, lbf:	32000
Rated RPM:	1500	Rated BHP:	2140.0	Rated PS FPM:	1125.0
Calc RPM:	1400.0	BHP:	1173	Calc PS FPM:	1050.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3516 LE
BHP:	1206 (10.00%)
Avail:	1206

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)		2	
Target Flow, MMSCFD	8.000	---	8.000	---
Flow Calc, MMSCFD	8.068	---	8.068	---
BHP per Stage	614.7	---	540.0	---
Specific Gravity	0.6500	---	0.6500	---
Ratio of Sp Ht (N)	1.2529	---	1.2588	---
Comp Suct (Zs)	0.9806	---	0.9490	---
Comp Disch (Zd)	0.9740	---	0.9475	---
Pres Suct Line, psig	85.00	---	N/A	---
Pres Suct Flg, psig	84.01	---	324.76	---
Pres Disch Flg, psig	331.08	---	1010.14	---
Pres Disch Line, psig	N/A	---	1000.00	---
Pres Ratio F/F	3.510	---	3.021	---
Temp Suct, F	80.00	---	120.00	---
Temp Clr Disch, F	120.00	---	120.00	---

Cylinder Data:

	Throw 1	Throw 3	Throw 2	Throw 4
Cyl Model	<u>11-1/2E</u>	<u>11-1/2E</u>	6-3/8ET	6-3/8ET
Cyl Bore, in	11.500	11.500	6.000	6.000
Cyl RDP (API), psig	454.5	454.5	1154.5	1154.5
Cyl MAWP, psig	500.0	500.0	1270.0	1270.0
Cyl Action	DBL	DBL	DBL	DBL
Cyl Disp, CFM	745.9	745.9	194.7	194.7
Pres Suct Intl, psig	77.01	77.01	309.45	309.45
Temp Suct Intl, F	88	88	125	125
Pres Disch Intl, psig	351.55	351.55	1049.17	1049.17
Temp Disch Intl, F	265	265	288	288
HE Suct Gas Vel, FPM	8730	8730	7367	7367
HE Disch Gas Vel, FPM	7618	7618	6368	6368
HE Spcrs Used/Max	0/2	0/2	0/2	0/2
HE Vol Pkt Avail	0.96+44.54	0.96+44.54	No Pkt	No Pkt
Vol Pkt Used	5.00 (V) %	5.00 (V) %	No Pkt	No Pkt
HE Min Clr, %	18.41	18.41	17.23	17.23
HE Total Clr, %	21.60	21.60	17.23	17.23
CE Suct Gas Vel, FPM	8466	8466	6548	6548
CE Disch Gas Vel, FPM	7387	7387	5661	5661
CE Spcrs Used/Max	0/2	0/2	0/2	0/2
CE Min Clr, %	19.43	19.43	20.04	20.04
CE Total Clr, %	19.43	19.43	20.04	20.04
Suct Vol Eff HE/CE, %	55.3/59.0	55.3/59.0	68.1/63.7	68.1/63.7
Disch Event HE/CE, ms	6.0/7.1	6.0/7.1	7.1/7.9	7.1/7.9
Suct Pseudo-Q HE/CE	5.7/5.4	5.7/5.4	3.9/3.1	3.9/3.1
Gas Rod Ld Comp, %	90.0 C	90.0 C	68.7 C	68.7 C
Gas Rod Ld Tens, %	91.2 T	91.2 T	58.5 T	58.5 T
Gas Rod Ld Total, %	93.6	93.6	65.9	65.9
Xhd Pin Deg/%RvrsI lbf	141/87.4	141/87.4	169/90.8	169/90.8
Flow Calc, MMSCFD	4.034	4.034	4.034	4.034
Cyl BHP	307.3	307.3	270.0	270.0



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Ariel Performance

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 Project:



7.7.6.0

Compressor Data:

Elevation,ft: 500.00
 Frame: (ELP) JGE/4
 Max RL Tot, lbf: 60000
 Rated RPM: 1500
 Calc RPM: 1400.0

Barmtr,psia: 14.429
 Stroke, in: 4.50
 Max RL Tens, lbf: 30000
 Rated BHP: 2140.0
 BHP: 1186

Ambient,F: 100.00
 Rod Dia, in: 2.000
 Max RL Comp, lbf: 32000
 Rated PS FPM: 1125.0
 Calc PS FPM: 1050.0

Driver Data:

Type: Nat. Gas
 Mfg: Caterpillar
 Model: G3516 LE
 BHP: 1206 (10.00%)
 Avail: 1206

Services

Gas Model

Service 1

VMG-APRNL2

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

1 (SG)

8.000
 8.695
 609.9
 0.6500
 1.2559
 0.9778
 0.9711
 100.00
 98.86
 346.81
 N/A
 3.189
 80.00
 120.00

2

8.000
 8.695
 557.4
 0.6500
 1.2607
 0.9471
 0.9459
 N/A
 340.03
 1010.14
 1000.00
 2.890
 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/%Rvrsl lbf
 Flow Calc, MMSCFD
 Cyl BHP

Throw 1

11-1/2E
 11.500
 454.5
 500.0
 DBL
 745.9
 90.78
 87
 368.67
 252
 8730
 7618
 0/2
 0.96+44.54
 30.00 (V) %
 18.41
 32.73
 8466
 7387
 0/2
 19.43
 19.43
 43.3/63.7
 5.5/7.7
 5.6/5.4
 91.2 C
 92.2 T
 94.8
 142/95.7
 4.348
 304.9

Throw 3

11-1/2E
 11.500
 454.5
 500.0
 DBL
 745.9
 90.78
 87
 368.67
 252
 8730
 7618
 0/2
 0.96+44.54
 30.00 (V) %
 18.41
 32.73
 8466
 7387
 0/2
 19.43
 19.43
 43.3/63.7
 5.5/7.7
 5.6/5.4
 91.2 C
 92.2 T
 94.8
 142/95.7
 4.348
 304.9

Throw 2

6-3/8ET
 6.000
 1154.5
 1270.0
 DBL
 194.7
 323.99
 125
 1049.54
 282
 7367
 6368
 0/2
 No Pkt
 No Pkt
 17.23
 17.23
 6548
 5661
 20.04
 20.04
 69.9/65.8
 7.4/8.2
 3.9/3.1
 67.5 C
 57.2 T
 64.6
 168/90.1
 4.348
 278.7

Throw 4

6-3/8ET
 6.000
 1154.5
 1270.0
 DBL
 194.7
 323.99
 125
 1049.54
 282
 7367
 6368
 0/2
 No Pkt
 No Pkt
 17.23
 17.23
 6548
 5661
 20.04
 20.04
 69.9/65.8
 7.4/8.2
 3.9/3.1
 67.5 C
 57.2 T
 64.6
 168/90.1
 4.348
 278.7



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 Quote:
 Case 1:

Ariel Performance

Customer:
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 Project:



7.7.6.0

Compressor Data:

Elevation, ft:	500.00	Barmtr, psia:	14.429	Ambient, F:	100.00
Frame: (ELP)	JGE/4	Stroke, in:	4.50	Rod Dia, in:	2.000
Max RL Tot, lbf:	60000	Max RL Tens, lbf:	30000	Max RL Comp, lbf:	32000
Rated RPM:	1500	Rated BHP:	2140.0	Rated PS FPM:	1125.0
Calc RPM:	1400.0	BHP:	1179	Calc PS FPM:	1050.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3516 LE
BHP:	1206 (10.00%)
Avail:	1206

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	---	2	---
Target Flow, MMSCFD	8.000	---	8.000	---
Flow Calc, MMSCFD	9.002	---	9.002	---
BHP per Stage	595.6	---	564.6	---
Specific Gravity	0.6500	---	0.6500	---
Ratio of Sp Ht (N)	1.2575	---	1.2614	---
Comp Suct (Zs)	0.9754	---	0.9448	---
Comp Disch (Zd)	0.9683	---	0.9431	---
Pres Suct Line, psig	110.00	---	N/A	---
Pres Suct Flg, psig	108.76	---	347.23	---
Pres Disch Flg, psig	354.30	---	1010.14	---
Pres Disch Line, psig	N/A	---	1000.00	---
Pres Ratio F/F	2.993	---	2.833	---
Temp Suct, F	80.00	---	120.00	---
Temp Clr Disch, F	120.00	---	120.00	---

Cylinder Data:

	Throw 1	Throw 3	Throw 2	Throw 4
Cyl Model	<u>11-1/2E</u>	<u>11-1/2E</u>	6-3/8ET	6-3/8ET
Cyl Bore, in	11.500	11.500	6.000	6.000
Cyl RDP (API), psig	454.5	454.5	1154.5	1154.5
Cyl MAWP, psig	500.0	500.0	1270.0	1270.0
Cyl Action	DBL	DBL	DBL	DBL
Cyl Disp, CFM	745.9	745.9	194.7	194.7
Pres Suct Intl, psig	99.94	99.94	330.82	330.82
Temp Suct Intl, F	87	87	125	125
Pres Disch Intl, psig	376.95	376.95	1049.81	1049.81
Temp Disch Intl, F	243	243	279	279
HE Suct Gas Vel, FPM	8730	8730	7367	7367
HE Disch Gas Vel, FPM	7618	7618	6368	6368
HE Spcrs Used/Max	0/2	0/2	0/2	0/2
HE Vol Pkt Avail	0.96+44.54	0.96+44.54	No Pkt	No Pkt
Vol Pkt Used	50.00 (V) %	50.00 (V) %	No Pkt	No Pkt
HE Min Clr, %	18.41	18.41	17.23	17.23
HE Total Clr, %	41.64	41.64	17.23	17.23
CE Suct Gas Vel, FPM	8466	8466	6548	6548
CE Disch Gas Vel, FPM	7387	7387	5661	5661
CE Spcrs Used/Max	0/2	0/2	0/2	0/2
CE Min Clr, %	19.43	19.43	20.04	20.04
CE Total Clr, %	19.43	19.43	20.04	20.04
Suct Vol Eff HE/CE, %	35.3/66.5	35.3/66.5	70.6/66.6	70.6/66.6
Disch Event HE/CE, ms	5.0/8.1	5.0/8.1	7.5/8.3	7.5/8.3
Suct Pseudo-Q HE/CE	5.4/5.4	5.4/5.4	3.9/3.1	3.9/3.1
Gas Rod Ld Comp, %	91.0 C	91.0 C	67.0 C	67.0 C
Gas Rod Ld Tens, %	91.8 T	91.8 T	56.6 T	56.6 T
Gas Rod Ld Total, %	94.5	94.5	64.0	64.0
Xhd Pin Deg/%RvrsI lbf	143/97.8	143/97.8	168/89.8	168/89.8
Flow Calc, MMSCFD	4.501	4.501	4.501	4.501
Cyl BHP	297.8	297.8	282.3	282.3



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Compressor Data:

Elevation, ft:	500.00	Barmtr, psia:	14.429	Ambient, F:	100.00
Frame: (ELP)	JGE/4	Stroke, in:	4.50	Rod Dia, in:	2.000
Max RL Tot, lbf:	60000	Max RL Tens, lbf:	30000	Max RL Comp, lbf:	32000
Rated RPM:	1500	Rated BHP:	2140.0	Rated PS FPM:	1125.0
Calc RPM:	1400.0	BHP:	1202	Calc PS FPM:	1050.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3516 LE
BHP:	1206 (10.00%)
Avail:	1206

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	---	2	---
Target Flow, MMSCFD	8.000	---	8.000	---
Flow Calc, MMSCFD	12.090	---	12.090	---
BHP per Stage	565.5	---	617.5	---
Specific Gravity	0.6500	---	0.6500	---
Ratio of Sp Ht (N)	1.2683	---	1.2667	---
Comp Suct (Zs)	0.9591	---	0.9361	---
Comp Disch (Zd)	0.9524	---	0.9355	---
Pres Suct Line, psig	200.00	---	N/A	---
Pres Suct Flg, psig	197.86	---	421.29	---
Pres Disch Flg, psig	430.57	---	1010.14	---
Pres Disch Line, psig	N/A	---	1000.00	---
Pres Ratio F/F	2.096	---	2.351	---
Temp Suct, F	80.00	---	120.00	---
Temp Clr Disch, F	120.00	---	120.00	---

Cylinder Data:

	Throw 1	Throw 3	Throw 2	Throw 4
Cyl Model	<u>11-1/2E</u>	<u>11-1/2E</u>	6-3/8ET	6-3/8ET
Cyl Bore, in	11.500	11.500	6.000	6.000
Cyl RDP (API), psig	454.5	454.5	1154.5	1154.5
Cyl MAWP, psig	500.0	500.0	1270.0	1270.0
Cyl Action	<u>CE(HEVR)</u>	<u>CE(HEVR)</u>	DBL	DBL
Cyl Disp, CFM	367.2	367.2	194.7	194.7
Pres Suct Intl, psig	182.92	182.92	401.31	401.31
Temp Suct Intl, F	88	88	124	124
Pres Disch Intl, psig	459.30	459.30	1051.61	1051.61
Temp Disch Intl, F	200	200	252	252
HE Suct Gas Vel, FPM	2910	2910	7367	7367
HE Disch Gas Vel, FPM	N/A	N/A	6368	6368
HE Spcrs Used/Max	N/A	N/A	0/2	0/2
HE Vol Pkt Avail	N/A	N/A	No Pkt	No Pkt
Vol Pkt Used	N/A %	N/A %	No Pkt	No Pkt
HE Min Clr, %	N/A	N/A	17.23	17.23
HE Total Clr, %	N/A	N/A	17.23	17.23
CE Suct Gas Vel, FPM	8466	8466	6548	6548
CE Disch Gas Vel, FPM	7387	7387	5661	5661
CE Spcrs Used/Max	0/2	0/2	0/2	0/2
CE Min Clr, %	19.43	19.43	20.04	20.04
CE Total Clr, %	19.43	19.43	20.04	20.04
Suct Vol Eff HE/CE, %	N/A/80.0	N/A/80.0	77.4/74.3	77.4/74.3
Disch Event HE/CE, ms	N/A/10.6	N/A/10.6	8.7/9.6	8.7/9.6
Suct Pseudo-Q HE/CE	N/A/5.5	N/A/5.5	4.0/3.1	4.0/3.1
Gas Rod Ld Comp, %	7.5 C	7.5 C	61.6 C	61.6 C
Gas Rod Ld Tens, %	86.3 T	86.3 T	50.1 T	50.1 T
Gas Rod Ld Total, %	47.2	47.2	57.9	57.9
Xhd Pin Deg/%RvrsI lbf	99/60.3	99/60.3	164/87.0	164/87.0
Flow Calc, MMSCFD	6.045	6.045	6.045	6.045
Cyl BHP	282.8	282.8	308.8	308.8







