



REFURBISHED Caterpillar G3304NA/ Ariel JGP-2/2

Packager: CSI

Engine: Caterpillar G3304NA (95 HP)

Received zero-hour overhaul using existing camshaft and cam bushings, existing crankshaft, ALL NEW IPD overhaul kit- main bearings, rod bearings, wristpins, pistons, rings, liners, front and rear main seals, overhaul gasket set throughout, exhaust manifold cleaned and tested, head rebuilt, new water pump, etc.

Compressor Frame: Ariel JGP-2

Received zero-hour overhaul using existing crankshaft, and connecting rods with machine work performed on connecting rods, crossheads, packing glands, valves, chairs, VVP's, piston/rod assemblies, etc.

Stages: 2

Cylinders: (1) 7.5"- 175 psi MAWP, (1) 4.75"- 500 psi MAWP

Cooler: Chart 48VVI

Rodded out, hydrottested, fins straightened with one-year warranty from Roughneck Radiator.

- MAWP- IC1: 315 psi
- MAWP- IC2: 645 psi

Electrical: ALL flex conduit and end device wires replaced with new shipboard cable, new end devices, dump controllers, dumps, etc. New batteries, starter, alternator, starter cables, etc. All shutdowns tested in shop for proper operation.

Paint: Obviously received all new paint, as well.

Price:

-Marked down to \$50k (our cost) due to low interest in two stage machines; don't want it to sit up too long.



Company: Ariel Corporation
 Quote:
 Case 1:

Ariel Performance

Customer:
 Inquiry:
 Project:



Compressor Data:

Elevation, ft:	50.00	Barmtr, psia:	14.669	Ambient, F:	100.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	85	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3304B NA
BHP:	95
Avail:	95

Services

Gas Model

Stage Data:

	1 (SG)	2
Target Flow, MMSCFD	1.000	1.000
Flow Calc, MMSCFD	1.049	1.049
BHP per Stage	55.3	23.5
Specific Gravity	0.6500	0.6503
Ratio of Sp Ht (N)	1.2549	1.2555
Comp Suct (Zs)	0.9894	0.9815
Comp Disch (Zd)	0.9866	0.9798
Pres Suct Line, psig	40.00	N/A
Pres Suct Flg, psig	39.45	106.70
Pres Disch Flg, psig	109.53	154.94
Pres Disch Line, psig	N/A	150.00
Pres Ratio F/F	2.295	1.397
Temp Suct, F	80.00	120.00
Temp Clr Disch, F	120.00	120.00

Cylinder Data:

	Throw 1	Throw 2
Cyl Model	8M	5-1/8M
Cyl Bore, in	7.500	4.750
Cyl RDP (API), psig	150.0	454.5
Cyl MAWP, psig	175.0	500.0
Cyl Action	DBL	DBL
Cyl Disp, CFM	273.0	107.6
Pres Suct Intl, psig	35.27	102.11
Temp Suct Intl, F	84	122
Pres Disch Intl, psig	119.60	162.76
Temp Disch Intl, F	205	173
HE Suct Gas Vel, FPM	9080	6649
HE Disch Gas Vel, FPM	8554	6380
HE Spcrs Used/Max	0/2	0/2
HE Vol Pkt Avail	1.49+67.99	No Pkt
Vol Pkt Used	0.00 (V) %	No Pkt
HE Min Clr, %	20.69	21.69
HE Total Clr, %	22.18	21.69
CE Suct Gas Vel, FPM	8876	6276
CE Disch Gas Vel, FPM	8361	6022
CE Spcrs Used/Max	0/2	0/2
CE Min Clr, %	21.36	23.93
CE Total Clr, %	21.36	23.93
Suct Vol Eff HE/CE, %	74.1/74.9	90.1/89.4
Disch Event HE/CE, ms	6.6/7.6	9.9/10.7
Suct Pseudo-Q HE/CE	7.1/6.7	4.0/3.6
Gas Rod Ld Comp, %	53.8 C	16.9 C
Gas Rod Ld Tens, %	60.0 T	15.2 T
Gas Rod Ld Total, %	61.4	17.4
Xhd Pin Deg/%RvrsI lbf	172/96.9	160/78.1
Flow Calc, MMSCFD	1.049	1.049



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7.7.6.0

Compressor Data:

Elevation, ft:	50.00	Barmtr, psia:	14.669	Ambient, F:	100.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	88	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3304B NA
BHP:	95
Avail:	95

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

1 (SG)

2

Target Flow, MMSCFD	0.200	0.200
Flow Calc, MMSCFD	0.574	0.574
BHP per Stage	36.1	45.8
Specific Gravity	0.6500	0.6499
Ratio of Sp Ht (N)	1.2491	1.2420
Comp Suct (Zs)	0.9911	0.9816
Comp Disch (Zd)	0.9880	0.9764
Pres Suct Line, psig	30.00	N/A
Pres Suct Flg, psig	29.55	102.42
Pres Disch Flg, psig	106.48	408.29
Pres Disch Line, psig	N/A	400.00
Pres Ratio F/F	2.740	3.612
Temp Suct, F	80.00	120.00
Temp Clr Disch, F	120.00	120.00

Cylinder Data:

Throw 1

Throw 2

Cyl Model	8M	5-1/8M
Cyl Bore, in	7.500	4.750
Cyl RDP (API), psig	150.0	454.5
Cyl MAWP, psig	175.0	500.0
Cyl Action	DBL	DBL
Cyl Disp, CFM	273.0	107.6
Pres Suct Intl, psig	26.15	98.02
Temp Suct Intl, F	85	125
Pres Disch Intl, psig	115.96	424.53
Temp Disch Intl, F	227	303
HE Suct Gas Vel, FPM	9080	6649
HE Disch Gas Vel, FPM	8554	6380
HE Spcrs Used/Max	0/2	0/2
HE Vol Pkt Avail	1.49+67.99	No Pkt
Vol Pkt Used	40.00 (V) %	No Pkt
HE Min Clr, %	20.69	21.69
HE Total Clr, %	49.38	21.69
CE Suct Gas Vel, FPM	8876	6276
CE Disch Gas Vel, FPM	8361	6022
CE Spcrs Used/Max	0/2	0/2
CE Min Clr, %	21.36	23.93
CE Total Clr, %	21.36	23.93
Suct Vol Eff HE/CE, %	32.7/67.5	52.9/48.8
Disch Event HE/CE, ms	3.9/6.7	4.4/5.0
Suct Pseudo-Q HE/CE	6.4/6.7	4.0/3.6
Gas Rod Ld Comp, %	57.1 C	84.2 C
Gas Rod Ld Tens, %	64.1 T	89.2 T
Gas Rod Ld Total, %	65.4	93.7
Xhd Pin Deg/%RvrsI lbf	174/97.2	141/90.4
Flow Calc, MMSCFD	0.574	0.574
Cyl BHP	36.1	45.8



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Compressor Data:

Elevation,ft:	50.00	Barmtr,psia:	14.669	Ambient,F:	100.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	65	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3304B NA
BHP:	86 (10.00%)
Avail:	86

Services

Gas Model

Stage Data:

	1 (SG)	2
Target Flow, MMSCFD	0.350	0.350
Flow Calc, MMSCFD	0.647	0.647
BHP per Stage	36.3	22.6
Specific Gravity	0.6500	0.6502
Ratio of Sp Ht (N)	1.2516	1.2495
Comp Suct (Zs)	0.9933	0.9876
Comp Disch (Zd)	0.9912	0.9856
Pres Suct Line, psig	20.00	N/A
Pres Suct Flg, psig	19.65	65.91
Pres Disch Flg, psig	67.95	124.04
Pres Disch Line, psig	N/A	120.00
Pres Ratio F/F	2.407	1.721
Temp Suct, F	80.00	120.00
Temp Clr Disch, F	120.00	120.00

Cylinder Data:

	Throw 1	Throw 2
Cyl Model	8M	5-1/8M
Cyl Bore, in	7.500	4.750
Cyl RDP (API), psig	150.0	454.5
Cyl MAWP, psig	175.0	500.0
Cyl Action	DBL	DBL
Cyl Disp, CFM	273.0	107.6
Pres Suct Intl, psig	16.76	62.14
Temp Suct Intl, F	85	122
Pres Disch Intl, psig	74.55	130.13
Temp Disch Intl, F	212	201
HE Suct Gas Vel, FPM	9502	7425
HE Disch Gas Vel, FPM	8554	6380
HE Spcrs Used/Max	0/2	0/2
HE Vol Pkt Avail	1.49+67.99	No Pkt
Vol Pkt Used	0.00 (V) %	No Pkt
HE Min Clr, %	20.59	21.35
HE Total Clr, %	22.07	21.35
CE Suct Gas Vel, FPM	9289	7008
CE Disch Gas Vel, FPM	8361	6022
CE Spcrs Used/Max	0/2	0/2
CE Min Clr, %	21.25	23.57
CE Total Clr, %	21.25	23.57
Suct Vol Eff HE/CE, %	72.3/73.1	84.4/83.2
Disch Event HE/CE, ms	6.4/7.3	8.3/9.3
Suct Pseudo-Q HE/CE	8.2/7.9	5.6/5.0
Gas Rod Ld Comp, %	36.8 C	18.1 C
Gas Rod Ld Tens, %	41.3 T	17.9 T
Gas Rod Ld Total, %	42.1	19.5
Xhd Pin Deg/%RvrsI lbf	166/78.5	161/73.2
Flow Calc, MMSCFD	0.647	0.647



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Compressor Data:

Elevation, ft:	50.00	Barmtr, psia:	14.669	Ambient, F:	100.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	95	Calc PS FPM:	900.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3304B NA
BHP:	95
Avail:	95

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2
Target Flow, MMSCFD	1.000	1.000
Flow Calc, MMSCFD	0.641	0.641
BHP per Stage	43.6	45.5
Specific Gravity	0.6500	0.6498
Ratio of Sp Ht (N)	1.2488	1.2445
Comp Suct (Zs)	0.9923	0.9824
Comp Disch (Zd)	0.9894	0.9778
Pres Suct Line, psig	25.00	N/A
Pres Suct Flg, psig	24.60	99.50
Pres Disch Flg, psig	103.04	347.09
Pres Disch Line, psig	N/A	340.00
Pres Ratio F/F	2.997	3.169
Temp Suct, F	80.00	120.00
Temp Clr Disch, F	120.00	120.00

Cylinder Data:

Throw 1

Throw 2

Cyl Model	8M	5-1/8M
Cyl Bore, in	7.500	4.750
Cyl RDP (API), psig	150.0	454.5
Cyl MAWP, psig	175.0	500.0
Cyl Action	DBL	DBL
Cyl Disp, CFM	273.0	107.6
Pres Suct Intl, psig	21.58	95.21
Temp Suct Intl, F	86	125
Pres Disch Intl, psig	111.12	359.81
Temp Disch Intl, F	239	284
HE Suct Gas Vel, FPM	9080	6649
HE Disch Gas Vel, FPM	8082	6034
HE Spcrs Used/Max	0/2	0/2
HE Vol Pkt Avail	1.49+67.99	No Pkt
Vol Pkt Used	0.00 (V) %	No Pkt
HE Min Clr, %	20.69	21.69
HE Total Clr, %	22.18	21.69
CE Suct Gas Vel, FPM	8876	6276
CE Disch Gas Vel, FPM	7901	5695
CE Spcrs Used/Max	0/2	0/2
CE Min Clr, %	21.36	23.93
CE Total Clr, %	21.36	23.93
Suct Vol Eff HE/CE, %	62.3/63.5	60.0/56.6
Disch Event HE/CE, ms	5.3/6.2	5.0/5.6
Suct Pseudo-Q HE/CE	7.0/6.7	4.0/3.6
Gas Rod Ld Comp, %	56.9 C	68.5 C
Gas Rod Ld Tens, %	64.0 T	72.0 T
Gas Rod Ld Total, %	65.2	76.0
Xhd Pin Deg/%RvrsI lbf	174/89.3	178/99.6
Flow Calc, MMSCFD	0.641	0.641







