



Unit 200912 Specs:

- Packager: Valerus
- Year Built: 2007
- Engine: Caterpillar G3306NA, 1800 RPM- 145 HP
- Frame: Gemini M302/2 Stage
- Cylinder Configuration: 5" M (1,250 psi), 3.5" M (1,250 psi)
- Cooler: Air X-Changers 36VV
 - MAWP- IC1: 635 psi
 - MAWP- AC: 1,250 psi
- Current Condition:
Field-run (running) condition. (Video evidence provided.)
- Price: \$46,000
(Inspections welcome at our shop in Longview, TX.)

Customer/End-user:
 Site Location:
 Engineer:

 BHGE ID#: 15244-80800-27850-06244-56266
 Case #: N/A
 Date: 4/27/2021, 5:45 PM

Application Data		High Speed M302		Driver Data		Site Data	
Unit Flow	1.11 MMscfd	Rated Power	120.0 HP	Manufacturer	Caterpillar	Elevation	0.3 ft
Load per Flow	91.06 HP/MMscfd	Stroke	3.000 in	Model	G3306B NA	Atm. Pressure	14.70 psiA
Lubrication	Lubed	Rated Speed	1800 RPM	Rated Power	145.0 HP	Ambient Temp	80.0 ° F
		Rod Diameter	1.125 in	Rated Speed	1800 RPM	Gas Method	AGA8
Unit Load	100.9 HP	Max Rod Load Comp	6000.0 lbf	Avail. Power	120.0 HP	Base Pressure	14.696 psiA
Avg. Piston Vel.	900.00 ft/min	Max Rod Load Tens	6000.0 lbf	Derate	10.00 %	Base Temp.	60.0 ° F
Type	Gathering	Max Rod Load Gas	6000.0 lbf	Run Speed	1800 RPM	Auxiliary Load	10.0 HP
CONCERNS							
Project Notes							
Case Notes N/A							
Order Status							

Stage/Service Data		Stage 1	Stage 2
Flow Rate	MMscfd	1.110	1.110
Load	HP	51.50	45.50
Specific Gravity	-	0.648	0.648
K Value (Cp/Cv)	-	1.2679	1.2575
Zs	-	0.9788	0.9634
Zd	-	0.9757	0.9606
Suction Press.	psiG	100.00	238.26
Ps@Flange	psiG	96.56	238.26
Pd@Flange	psiG	243.32	510.00
Discharge Press.	psiG	238.26	500.00
Compress. Ratio	-	2.3192	2.0742
Suction Temp.	° F	40.0	80.0
Cooler Temp.	° F	80.0	80.0

Cylinder Data		Throw-1	Throw-2	Throw-3	Throw-4	Throw-5	Throw-6
Model	-	M-Series (1735)	M-Series (1738)				
Operating Mode	-	D/A Cyl	D/A Cyl	BLANK	BLANK	BLANK	BLANK
Head End	Serv#/Stg#	1/2	1/1				
Bore	in	3.500	5.000				
MAWP	psiG	1250.00	1250.00				
RDP	psiG	1136.00	1136.00				
Tail Rod Dia	in	0.000	0.000				
Tsi / Est. Td	° F	82.7/174.2	42.9/146.2				
VVCP Open	% / Turns	0.00 : 0	0.00 : 0				
Base Clr	%	22.19	17.96				
Added Clr	%	0.00	0.00				
Total Clr	%	22.19	17.96				
Vol. Eff. Ps / Pd	% / %	80.76/45.08	80.92/41.55				
Q-Value Ps / Pd		2.89/3.10	6.39/3.94				
Flow	MMscfd	0.60	0.57				
Crank End	Serv#/Stg#	1/2	1/1				
Bore	in	3.500	5.000				
MAWP	psiG	1250.00	1250.00				
RDP	psiG	1136.00	1136.00				
Tsi / Est. Td	° F	82.7/174.2	42.9/146.2				
Base Clr	%	26.52	18.24				
Added Clr	%	0.00	0.00				
Total Clr	%	26.52	18.24				
Vol. Eff. Ps / Pd	% / %	77.40/43.20	80.67/41.42				
Q-Value Ps / Pd		2.32/2.49	5.76/3.55				
Flow	MMscfd	0.51	0.54				
Valve Spacers	HE#/CE#	0 / 0	0 / 0				
Rod Loads							
Gas-Compress.	%	54.1	57.5				
Gas-Tension	%	40.5	51.3				
Combined-Comp.	%	50.5	51.3				
Combined-Tens.	%	37.7	41.6				
Pin Reversal	Deg/Mag%	n/a	n/a				
Throw Loading	HP	45.5	51.5				

BLD = Out of Limit

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Customer/End-user:
 Site Location:
 Engineer:

 BHGE ID#: 15244-80800-27850-06244-56266
 Case #: N/A
 Date: 4/27/2021, 5:46 PM

Application Data		High Speed M302		Driver Data		Site Data	
Unit Flow	1.66 MMscfd	Rated Power	120.0 HP	Manufacturer	Caterpillar	Elevation	0.3 ft
Load per Flow	69.90 HP/MMscfd	Stroke	3.000 in	Model	G3306B NA	Atm. Pressure	14.70 psiA
Lubrication	Lubed	Rated Speed	1800 RPM	Rated Power	145.0 HP	Ambient Temp	80.0 ° F
		Rod Diameter	1.125 in	Rated Speed	1800 RPM	Gas Method	AGA8
Unit Load	116.0 HP	Max Rod Load Comp	6000.0 lbf	Avail. Power	120.0 HP	Base Pressure	14.696 psiA
Avg. Piston Vel.	900.00 ft/min	Max Rod Load Tens	6000.0 lbf	Derate	10.00 %	Base Temp.	60.0 ° F
Type	Gathering	Max Rod Load Gas	6000.0 lbf	Run Speed	1800 RPM	Auxiliary Load	10.0 HP
CONCERNS							
Project Notes							
Case Notes N/A							
Order Status							

Stage/Service Data		Stage 1	Stage 2
Flow Rate	MMscfd	1.660	1.660
Load	HP	69.00	43.00
Specific Gravity	-	0.648	0.648
K Value (Cp/Cv)	-	1.2697	1.2631
Zs	-	0.9695	0.9517
Zd	-	0.9657	0.9490
Suction Press.	psiG	150.00	319.29
Ps@Flange	psiG	145.06	319.29
Pd@Flange	psiG	325.97	510.00
Discharge Press.	psiG	319.29	500.00
Compress. Ratio	-	2.1324	1.5710
Suction Temp.	° F	40.0	80.0
Cooler Temp.	° F	80.0	80.0

Cylinder Data		Throw-1	Throw-2	Throw-3	Throw-4	Throw-5	Throw-6
Model	-	M-Series (1735)	M-Series (1738)				
Operating Mode	-	D/A Cyl	D/A Cyl	BLANK	BLANK	BLANK	BLANK
Head End	Serv#/Stg#	1/2	1/1				
Bore	in	3.500	5.000				
MAWP	psiG	1250.00	1250.00				
RDP	psiG	1136.00	1136.00				
Tail Rod Dia	in	0.000	0.000				
Tsi / Est. Td	° F	82.5/137.4	42.9/134.9				
VVCP Open	% / Turns	0.00 : 0	0.00 : 0				
Base Clr	%	22.19	17.96				
Added Clr	%	0.00	0.00				
Total Clr	%	22.19	17.96				
Vol. Eff. Ps / Pd	% / %	89.38/62.33	83.40/45.75				
Q-Value Ps / Pd		2.92/3.33	6.45/4.06				
Flow	MMscfd	0.88	0.85				
Crank End	Serv#/Stg#	1/2	1/1				
Bore	in	3.500	5.000				
MAWP	psiG	1250.00	1250.00				
RDP	psiG	1136.00	1136.00				
Tsi / Est. Td	° F	82.5/137.4	42.9/134.9				
Base Clr	%	26.52	18.24				
Added Clr	%	0.00	0.00				
Total Clr	%	26.52	18.24				
Vol. Eff. Ps / Pd	% / %	87.52/61.03	83.17/45.63				
Q-Value Ps / Pd		2.35/2.68	5.81/3.66				
Flow	MMscfd	0.78	0.81				
Valve Spacers	HE#/CE#	0 / 0	0 / 0				
Rod Loads							
Gas-Compress.	%	43.3	72.8				
Gas-Tension	%	28.8	64.4				
Combined-Comp.	%	56.2	71.0				
Combined-Tens.	%	45.1	53.6				
Pin Reversal	Deg/Mag%	n/a	n/a				
Throw Loading	HP	43.0	69.0				

BOLD = Out of Limit

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