



GE Oil & Gas - HSR Compressor Performance Report

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Project Name: CES1541
Customer/End-user: Crusader
Packager: Toromont
Site Location: 1-1-1w4

Quote #: n/a
Case #: n/a
Version: 02.02.00
Date: 23/05/2014, 10:10:30 AM

Application Data:	Compressor Frame: DS604	Driver Data:	Site Data:
Est. Flow:: 2.570 MMscfd	Rated Power: 2400.0 HP	Type: Engine	Elevation: 2500.0 ft
Load/Flow: 228.7 HP/MMscfd	Stroke: 6.000 in	Manufacturer: Caterpillar	Atm. Pressure: 13.4110 psiA
Est. Total Load: 587.8 HP (75%)	Rated Speed: 1200	Model: G3512-LE	Ambient Temp: 90.0 deg F
Run Speed: 1200	Rod Diameter: 2.000 in	Rated Power: 810.0 HP	Gas Method: Generic
Auxiliary Load: 25.0 HP(d)	Max Rod Load Comp: 35000 lbf	Rated Speed: 1200	Base Conditions for Flow Rates:
Lubrication: Lubed	Max Rod Load Tens: 35000 lbf	Avail. Power: 785.0 HP	Pressure: 14.6960 psiA
Type: Miscellaneous	Max Rod Load Gas: 42000 lbf	Amb. Derate: Fixed	Temperature: 60.0 deg F
ISSUES: -			
Project Notes: No Gas Analysis Entered,			
Case Notes:			
Order Status:			

Stage/Service Data:	Stage-1	Stage-2	Stage-3
Flow Rate: MMscfd	2.57	2.57	2.57
Load: HP	180.3	198.4	177.2
Specific Gravity: -	0.6500	0.6500	0.6500
K Value (Cp/Cv): -	1.2400	1.2400	1.2400
Zs: -	0.9953	0.9901	0.9691
Zd: -	0.9937	0.9880	0.9674
Suction Press.: psiG	20.00	78.07	276.26
Ps@Flange: psiG	19.00	78.07	276.26
Pd@Flange: psiG	80.81	282.05	910.00
Discharge Press.: psiG	78.07	276.26	900.00
Compress. Ratio: -	2.9072	3.2298	3.1878
Suction Temp.: deg F	60.0	105.0	105.0
Cooler Temp.: deg F	105.0	105.0	n/a

Cylinder Data:	Throw-1	Throw-2	Throw-3	Throw-4	Throw-5	Throw-6
Model: -	95 Series	89 Series	BLANK	95 Series		
Operating Mode: -	D/A Cyl	D/A Cyl	THROW	D/A Cyl		
Head End	Stage	Stg-1	Stg-3	Stg-2		
Bore: in	14.25	5.5	-	9	-	-
MAWP: psiG	800	2200	-	1800	-	-
RDP: psiG	727	2000	-	1636	-	-
Tail Rod Dia: in	0	0	-	0	-	-
Est. Td: deg F	199.3	256.7	-	265.5	-	-
VVCP Open: in : Turns	5.42 : 43	0.00 : 0	-	0.00 : 0	-	-
Base Clr: %	13.43	27.67	-	22.21	-	-
Added Clr: %	21.81	0.00	-	0.00	-	-
Total Clr: %	35.24	27.67	-	22.21	-	-
Vol. Eff. Suct.: %	48.01	52.65	-	59.83	-	-
Vol. Eff. Disch.: %	20.27	20.63	-	23.19	-	-
Flow: MMscfd	0.99	1.38	-	1.29	-	-
Crank End	Stage	Stg-1	Stg-3	Stg-2		
Bore: in	14.25	5.5	-	9	-	-
MAWP: psiG	800	2200	-	1800	-	-
RDP: psiG	727	2000	-	1636	-	-
Est. Td: deg F	199.3	256.7	-	265.5	-	-
Base Clr: %	11.88	28.04	-	20.58	-	-
Added Clr: %	0.00	0.00	-	0.00	-	-
Total Clr: %	11.88	28.04	-	20.58	-	-
Vol. Eff. Suct.: %	77.66	52.11	-	62.21	-	-
Vol. Eff. Disch.: %	32.79	20.42	-	24.11	-	-
Flow: MMscfd	1.58	1.19	-	1.28	-	-
Valve Spacers: HE#/CE#	0 / 0	0 / 0	-	0 / 0	-	-
Rod Loads						
Gas-Compress.: %	29.1	40.2	-	36.5	-	-
Gas-Tension: %	29.7	30.6	-	32.8	-	-
Net-Compress.: %	66.7	56.6	-	40.2	-	-
Net-Tension: %	90.6	73.5	-	47.7	-	-
Pin Reversal: Deg/Mag%	157/74	148/77	-	145/84	-	-
Throw Loading	HP	180.3	177.2	198.4		

BOLD = Out of Limit FILE: CES1541 th 3 blank 2.5mmscfd at 900psi.hsr

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