



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: 11/04/2014, 12:30:53 PM

Application Data:	Compressor Frame: DS604	Driver Data:	Site Data:
Est. Flow:: 4.015 MMscfd	Rated Power: 2400.0 HP	Type: Engine	Elevation: 2500.0 ft
Load/Flow: 195.5 HP/MMscfd	Stroke: 6.000 in	Manufacturer: Caterpillar	Atm. Pressure: 13.4110 psiA
Est. Total Load: 785.0 HP (100%)	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	4.01	4.01	4.01
Load: HP	238.9	282.5	231.6
Specific Gravity: -	0.6500	0.6500	0.6500
K Value (Cp/Cv): -	1.2400	1.2400	1.2400
Zs: -	0.9919	0.9857	0.9596
Zd: -	0.9896	0.9830	0.9581
Suction Press.: psiG	44.20	119.12	367.64
Ps@Flange: psiG	42.47	119.12	367.64
Pd@Flange: psiG	123.09	375.26	1010.64
Discharge Press.: psiG	119.12	367.64	1000.50
Compress. Ratio: -	2.4427	2.9327	2.6875
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	174.8	232.9	-	252.0	-	-
VVCP Open: in : Turns	12.29 : 98	0.00 : 0	-	0.00 : 0	-	-
Base Clr: %	13.43	27.67	-	22.21	-	-
Added Clr: %	49.45	0.00	-	0.00	-	-
Total Clr: %	62.88	27.67	-	22.21	-	-
Vol. Eff. Suct.: %	31.19	61.61	-	64.10	-	-
Vol. Eff. Disch.: %	15.14	27.72	-	26.84	-	-
Flow: MMscfd	1.12	2.16	-	2.03	-	-
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	174.8	232.9	-	252.0	-	-
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.: %	81.77	61.19	-	66.20	-	-
Vol. Eff. Disch.: %	39.70	27.53	-	27.72	-	-
Flow: MMscfd	2.89	1.86	-	1.99	-	-
Valve Spacers: HE#/CE#	0 / 0	0 / 0	-	0 / 0	-	-
Rod Loads						
Gas-Compress.: %	36.8	42.5	-	47.4	-	-
Gas-Tension: %	38.3	31.2	-	42.1	-	-
Net-Compress.: %	70.5	60.5	-	43.3	-	-
Net-Tension: %	81.8	72.1	-	42.9	-	-
Pin Reversal: Deg/Mag%	172/86	143/84	-	172/99	-	-
Throw Loading	HP	238.9	231.6	282.5	-	-

BOLD = Out of Limit FILE: CES1541 th 3 blank th1 unload.hsr

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