

GAS COMPRESSOR K100 ZC9281-E

OASIS# 172014013

Energy Industries-----Skid made by E.I.

Size-----FE-332 D-2

S/N-----32F819

RPM-----min 900---max 1800

1st stage-----9.5"

2nd stage-----5.25"

Rod Dai-----1.375"

Rod Load-----27,000

Lube Rate-----23 Seconds.

Cooler Belts----- (2) 5V1000

There are 2 holes in the flywheel for the RPM pulse counter

Elec. Motor-----Toshiba

H.P.-----300

RPM-----1780

FR.-----5010UZ

S/N-----95912259

Vacuum Pump

Make.....IR (Max Disc Rating is 120 psig-July 7/06)

Model.....V235X1

S.N.....30T 789378

Belt #.....(1) A66

-----LOG-----

Nov. 3/97 Goose & Dean

-Changed all valves in 2nd stage.

Nov. 22/97 Shane

- Pulled all discharge and suction valves 2nd stage found suc. valves NFG. The plates were not touching the seats also found the same with the dis. Valves there was hardly any spring pressure against the plate causing it not to seal. So I ADDED one more spring plate to both making it a grand total of **5 SPRING PLATES IN THE DISCHARGE VALVES & 4 SPRING PLATES IN THE SUCTION VALVES**. Doing this caused the valves to seal. It should not effect the gas flow. This made no difference the plates still warped. Went back to the original.

Dec 20/97 Joe & Shane

Installed 2nd stage piston with new rider style rings , installed all new valves, changed oil and filter. The old rings were the compression style, had Fieldco convert to a rider style.

The new ring measurements now are: R/T: .245", The width is: .243". There is a spare set of rings in the warehouse too. There are 4 rings on this piston.

Jan5/98 Shane

-Put valves in comp again also changed the disc. lube check all on 2nd stage. The lift on the suc. valve is .085 disc valve is .065. It seems when 5-32 shuts down it causes 9-28 2nd stage to pressure up and the valves can't handle it, it warps the plates.

Jan 6/98

-Mike with Hoerbigger came up to check out valve data on comp so we can come up with the right valve for the job.

Feb 7/98 Joe & Darcy

-Replaced 1st stage valves, pulled piston because the crank end discharge valve came apart and pieces were every where. Cleaned up unit and put in all new valves.

July 8,1998 Shane & Goose 16873 hr

-PM'd compressor cylinders and crank

-Replaced all valves

-Replaced oil & filter

- Replaced all rod packing and wipers
- Cross head clearance good at .008"
- Replaced piston rings on 1st stg.
 - Old ring sizes were W= .365 R/T= .355
 - New rings (2 original) were W= .368 R/T= .386
- Reused the same rings on 2nd stg
 - Sizes were W= .243 R/T= .244
- Crankend piston clearance .047 2nd stg and .060 1st stg.
- Inspected wrist pin and con rod bushings. They should be replaced next crank PM
- Replaced all main, thrust, and conrod shells
- Crank endplay was .031"
- Piston grooves were measured and found to be good
- Piston rod was measured and found to be good
- Cylinder lubrication was checked and found to be good ~Repaired leaks on trabon lube pump~

JULY 15/98 Darcy & Dave

- Install new pressure relief valve and set to 50 psi.

April 2 99 Goose & Darcy 22700 hrs

- Remove all dummy valves and install all new valves on 2nd stage.

May 20/99 Joe 23788 hours

- Replaced the 1st stage discharge valves. Also changed the oil on the vacuum pump.

June 22/99 Joe

- Replaced speed sensor.

June 27 99 Goose

- Unit going down on overspeed
- Readjusted speed sensor to 1 turn out

June 28 99 Darcy 24490 hours

- Unit went down once on overspeed
- Readjusted speed sensor to 1 ¼ turn out.
- Replace both inbr'd discharge valves 1st stg.

July 8 99 Darcy & Goose

- Moved speed sensor out to .130" because unit is still going down on overspeed.
- Replaced 2nd stage valves
- Got instrumentation to check and set 2nd stage high temp shut down.

July 17 99 Darryl Bill

- Changed the first stage discharge valves as the operator said they were hot.

Aug 27/99 Operator 25784 Hours

- Changed oil on vac pump and grease electric motor for gas comp.

Sept 11/99 Joe & Darryl 26171 Hours

- PM'd compressor cylinders.
- Replaced all valves
- Replaced oil & filter. Did not take oil sample because unit was down when we got there.
- Replaced all rod packing and wipers
- Cross head clearance good at .008"
- Replaced piston rings on 1st stg.
 - Old ring sizes were W= .365 R/T= .386 (Re-used)
 - Reused the same rings on 2nd stg
 - Sizes were W= .243 R/T= .244
- Bore size: #1 cylinder=Vert HE 9.515, Middle 9.515, CE 9.513
= Horizontal HE 9.509, Middle 9.512, CE 9.513
- Bore size: #2 cylinder=Vert HE 5.261 Middle 5.261 CE 5.259
=Horizontal HE 5.256 Middle 5.256 CE 5.256
- Piston grooves #1 cylinder Width .386 Depth .394

#2 cylinder Width .250 Depth .218

- Crankend piston clearance .060 2nd stg and .080 1st stg.
- Inspected wrist pin and con rod bushings. They should be replaced next crank PM
- Crank endplay was .031"
- Piston grooves were measured and found to be good (See PM sheets)
- Piston rod was measured and found to be good
- Cylinder lubrication was checked and found to be good, **cycles 23 seconds.**
- Cleaned ¾ tubing lines on distance piece vents, plugged with salt crystals.
- Need to order a float for the lube box, overfills lube box.

Oct 20 99 Darcy & Goose 27000 Hrs

- replace 1 discharge valve on 2nd stage cylinder. Varsol checked the other one.

Jan 20/00 Shane & Tom 29150Hrs

- 9-28 comp valves 1st stage discharge are heating up went out and changed all 4 found that the nut had backed off the crank end left side discharge and destroyed all the parts in the valve, cleaned out as much as possible but there is probable more floating around somewhere.

Jan 21/00 Shane & Bill 29170 Hrs

- Changed out 2 crank end discharge valves the seats were toast (floaters from yesterday). Sent to Hoerbigger.

Mar 19 2000 Bill 30454 hours

4500 hourPM

- Took oil sample # 596897
- General check over. All seems good.

May 5/00 Operator 31633 Hours

- Changed oil on vac pump & greased elctric motor for gas comp.

May 7/00 Joe

- Replaced rod wipers on both cylinders.

July 9 2000 Shane, Goose, & Darcy 33064 hours

4000, 8000, & 16000 PM

- Replaced oil and filter
- Lapped, pressure and wiper cases and installed new packing
- Both piston rods mic'd good at 1.375"
- Did not change valves

1st stage:

- Sent piston out and got grooves straightened out, slightly W= .398" D= .396" Old piston was scored.

-New piston being made & anodized to have combination rings for next major cylinder PM. In stock.

- Bore: Scored due to piston riding in bore. V= 9.514 H= 9.512
- Honed cylinder to Vertical: HE= 9.515" M= 9.515" CE= 9.514"
- Horizontal: HE= 9.512" M= 9.512" CE= 9.511"

- Installed 2 new custom compression rings: W= .393" RT= .412

- Cross head clearance .009"

- Piston clearance CE .059"

- Did not replace the valves

2nd stage:

- Bore: Vertical: HE= 5.259" M= 5.260" CE= 5.259"
- Horizontal: HE= 5.255" M= 5.254" CE= 5.253"

- Installed 4 new combination rings: W= .244" RT= .245"

- Cross head clearance .007"

- Piston clearance CE .060"

- Did not replace the valves

Crank:

- Replaced the con-rod wrist pin bushings, and shells

- Replaced the mains: Noticed inbr'd main had wear on one side of bearing and none on the other side. Suspect miss alignment.

- Checked alignment and found it out by: Face .028" and Rim .018"

- Realigned motor to with in .003" Will hot algn later.

- Crank end float: .029"

-Rebuilt the trabon lube box. Worm gear had come loose.
-Noticed inbr'd bearing dry and making noise. Put 20 shots of grease and dialed bearing clearance, which was found to be OK.

July 9, 2000 Shane

-Did a hot alignment: Rim: all .000" Face: 3:00 = +.001, 6:00 = -.001, the rest .000".
-Had to lift the motor .006" in front and .012" in back.

July 31/00 33590 Hours Operator

500 Hour PM

-Took oil sample # 5007377, changed oil & filter, adjust lube rate to 23 seconds.

Aug.27 2000 Marty 34139 Hrs.

- Resampled unit due to bad sample
- Sample # 5006360

Nov 4/00 35633 Hours Operator

-Did the 2000 hour grease pm on the motor for the gas compressor. Also changed the oil in the distance piece vacuum pump.

Dec 31/00 36986 hours Dan

-Did the 2000 and 4000 hours PM's. Changed oil & filter. Sample # 5007825.

Jan 10/01 37314 hours Dan & Darryl

-Changed 2nd stage suction and discharge valves

Jan 27/01 37633 Hours Operator

-Did the 2000 hour grease PM on gas comp driver. Also changed oil on distance piece vac pump.

Feb 25 2001 Marty and Dan

- Went to 9-28, unit going down on high discharge temp second stage. Pulled the second stage valves (all good), pulled the second stage piston to check rings (good). Operator said that this has been a problem for about 3 days. Checked run sheets. Everything looks normal at the time he took the readings. However, he said that his inlet volumes are way up. The compressor is trying to compress too much gas. Tweaked the inlet valve and everything is good.

March 17, 2001 38720 hours Bill & Goose

Compressor going down on high 2nd stg discharge temp: Pulled a witches hat that turned out to be a orifice ☺. Operator had started the job. Put the thing back together and started up unit. There is hardly any gas flow through 2nd stage causing the high temps. Turned in the VP on 1st stage to increase the ratio through 2nd. This cooled it down a lot. If this happens again we recommended that we put in the blank valves on the south side of 2nd stage cylinder to increase flow through the north side till they get more gas. Checked and these blanks are in stock.

Mar 22/01 38073 hours Dan

-Did the 2000 hour pm, did not have sample hose, will get ops to grab one tomorrow. Pin count is 14 seconds. General check over, vent lines are cool.

Mar 23/01 Dan 38097 hours

-Took oil sample # 5014979. Tightened up cooler belts.

April 8 2001 Marty

-Changed gas cooler fan belts (5V 1000)

April 28 2001 Bill & Dale 39669 hrs.

-Changed oil on vac pump. Did 2000 hr. pm , on electric motor.

May 10, 2001 39974 hours Bill

Did a 1000 hour PM

-Took oil sample # 5027412
-Pin count Set at 22 sec. Was at 11.

June 21, 2001 Dale 40954 hours

Did a 1000 hr PM

- Took oil sample # 5027451
- Pin count at 22 sec at 1750 RPM
- General check over

Aug 12 2001 Darryl Dan 42145 hours

- Did the on the compressor no oil sample as the unit was down when we got there greased the cooler as well.

Sept 30 2001 Bill and Marty 43376 hours

Cylinder PM

- PM'd compressor cylinders.
- Replaced all valves
- Replaced oil & filter. Took oil sample # 5033085
- Replaced all rod packing and wipers
- Cross head clearance 1st stage: .008" 2nd stage: .009"
- Replaced piston rings on 1st stg.
 - Old ring sizes were W= .365 R/T= .386 (Re-used)
 - Reused the same rings on 2nd stg
 - Sizes were W= .246 R/T= .245
- Bore size: #1 cylinder=Vert HE 9.515, Middle 9.514, CE 9.515
= Horizontal HE 9.512, Middle 9.515, CE 9.516
- Bore size: #2 cylinder=Vert HE 5.260 Middle 5.260 CE 5.2595
=Horizontal HE 5.255 Middle 5.2545 CE 5.256
- Piston grooves #1 cylinder Width .386 Depth .394
#2 cylinder Width .251 Depth .219
- Crankend piston clearance .058 2nd stg and .092 1st stg.
- Inspected wrist pin and con rod bushings. It was recommended that they be replaced this PM. Found only discoloration. No noticable wear and fit was good on both 1st and 2nd stage.
- Crank endplay was .031"
- Piston grooves were measured and found to be good (See PM sheets)
- Piston rod was measured and found to be good
- Cylinder lubrication was checked and found to be good, cycles 24 seconds.
- Cleaned ¾ tubing lines on distance piece vents, plugged with salt crystals.
- Need to order a float for the lube box, overfills lube box.

October 5 2001 Dale

- Vac pump set at -2.0" hg

Oct 7/01 Dale

- Replaced float in Kenco for crankcase.

Oct 19/01 Marty

- 9-28 Did the 2000 hour grease pm on gas compressor driver and changed oil on distance piece vac pump. Oil level was high again.

Oct 25, 2001 Bill 43921 hours

1000 hour PM

- Took oil sample 5040107
- General check over
- Greased all points
- Checked cycle time

Nov 18/01 Darryl & Marty

- 9-28 gas compressor, replaced the oil wipers, they were in backwards.

Dec 6, 2001 44930 hr Bill

1000 hr PM

- Took oil sample # 5040150
- Checked cycle time. Found good
- Greased all points
- Checked belts and general check over

Jan 11/02 45633 hours

-Did the 2000 hour grease pm on motor. Changed oil on vac pump.

Jan 18, 2002 Goose 45899 hours

1000 hr PM

-Took oil sample # 5046842
-Checked cycle time.
-Greased all points

Feb 8/02 Darryl 46400 Hours

-9-28 Gas compressor, replaced 4 suction & 2 discharge valves.

Mar 10/02 Dan & Kevin 47102 Hours

1000 & 5000 Hour PM

-Changed oil & filter, did not have sample bottle. Changed oil on distance piece vac pump. Checked belts-Good.

April 19 2002 Dan 47970 hrs.

-Took oil sample # 5050931
-Grease PM on motor.

June 2/02 49136 hrs Joe

-Took oil sample # 5049377. Adjusted Kenco up 3/16" because oil level was low. Cycle time good.

June 29, 2002 49633 hours Ops

-Did the 2000 hour grease pm and changed oil on vac pump.

July 12, 2002 50062 hours Shane and Darryl

1000 Hour PM

-Took oil sample #5059294
-Pin count good

Aug 24/02 Kevin 51113 Hours

-Did the 1000 hour PM. Cycle time 20 seconds. Oil sample # 511227.

Sept 20/02 51703 hours

-Did the 2000 hour grease pm on electric motor.

September 29, 2002 Cyril 51875 hrs

-Did a 1000, 5000 hr pm.
-Changed oil and filter
-Lubricator box oil was very dirty, changed oil.
-Oil sample # 512776
-Trabon count 13 seconds

Nov 18/02 53201 Hours Darryl, Shane & Joe(Joe came out near end of job because Shane was sick)

1000, 5000, 10000 & 20000 Hour PM

-Replaced oil and filter
-Lapped, pressure and wiper cases and installed new packing
-Both piston rods mic'd good at 1.375"
-Replaced all valves
-Crankshaft end play .032"
-Inspected main & rod bearings.

1st stage:

-Cylinder Dia Vertical: HE= 9.516" M= 9.514" CE= 9.513"
 Horizontal: HE= 9.512" M= 9.514" CE= 9.512"
-Installed new piston rings: No Measurements Taken
-Piston Grooves-Measurements same as Sept 30/2001.
-Wrist Pin & Bushing-Good.
-Cross head clearance .009"
-Piston clearance CE .070" HE .123

-Rod Runout .0005-.001

-Found scraper housing had the drain hole to the side.

2nd stage:

-Bore: Vertical: HE= 5.260" M= 5.261" CE= 5.259"

Horizontal: HE= 5.256" M= 5.255" CE= 5.254"

-Installed 4 new combination rings: No Measurements Taken, ring side clearance is .006, end gap is .100"

-Cross head clearance .009"

-Piston clearance CE .059" HE .079

-Replace all valves

-Piston Rod Runout .0005-.001"

Nov 29/02 Darryl & Kevin

-Replaced oil wipers on both stages.

Dec 13/02 53743 Hours Joe

-Did the 500 hour pm. Changed oil & filter. Oil sample # 511119. Did the 2000 hour grease pm.

January 7 2003 Tom CHS 54199 hrs

-Did a 1000 hr.

-Oil sample # 518918

Feb 20/03 55388 Hours Shane

-Did the 1000 hour PM. Pin count 22 seconds. Oil sample # 511129.

Mar 7/03 55742 Hours Ops

-Did the 2000 hour grease pm and changed oil on distance piece vacuum pump.

March 28 2003 Bill 56226 hours

-Did 1000 hour on compressor, pin count 21 sec.

-Oil sample # 519258

May 12, 2003 Steve 57205 hrs

-Did a 1000 hr pm.

-Oil sample # 518394

-General check over.

June 1/03 57633 hours

-Did 2000 hour grease pm on comp driver and changed oil on vac pump.

June 21, 2003 Steve 58201 hrs.

-Did a 1000, 5000 hr pm.

-Oil sample # 527010.

-Trabon count around 20 seconds.

June 28 2003 58438 hours

-Took oil sample # 527077

Aug. 7, 2003 59415 hours Tom

-Did 1000 hour PM

-Oil sample #519229

Aug 22/03 59755 Hours Chris

-Did the 2000 hour grease pm on gas compressor and changed oil on vac pump.

September 15, 2003 Cyril 60209 hrs

-Did a 1000 hr pm.

-Oil sample # 533097.

-23 second count on trabon.

Oct.26 2003 Bill 61200 hours

- Did 1000 hour PM.

- Oil sample #527034

- 23 sec count

Dec 5 2003 Bill 62212 hours

- Did 1000 hour PM.
- Took oil sample # 539098
- 23 sec pin count
- Repaired oil leak on trabon system

February 29 2004 CES Jarrod, Ryan 64300 hrs

- Did a 10,000 hr cylinder pm.
- Did not change oil and filter.
- Inspected rods, all ok.
- Con rod small end bushing were noted to be black and small pitts were noted.
- Replaced all rod packing, reconditioned boxes from stock
- Installed new wiper packing.
- Reused piston rings on 1st & 2nd stage.
- Both crosshead clearance's within specs. 2nd stage crosshead had groove in face, flipped it over so it rides on the top.
- Crosshead wrist pin bores are worn beyond specs. .005" to .006". New cross heads on order.

Old ring sizes:

- 1st- W- .395" Depth- .405"
- 2nd- W- .243" Depth- .243"

Piston grooves:

- 1st- W- .400" Depth- .405"
- 2nd- W- .250" Depth- .250"

Bores: 1st

- Vertical HE: 9.516" M- 9.515" CE- 9-514"
- Horizontal. HE- 9.513" M- 9.511" CE- 9.513"

2nd

- Vertical- HE- 5.258" M- 5.257" CE- 5.256"
- Horizontal- HE- 5.252" M- 5.251" CE- 5.250"

-Clearances:

- 1st- CE- .066" HE- .115"
- 2nd- CE- .045" HE- .095"

Mar 14 2004 Stephan 64524hrs

- took oil sample #548112
- did 1000hr pm
- lubricator box overfilling trabon pump leaking will change out at 500hr will install temporary pipe to drain lube box to correct level.

April 29, 2004 Stephan 65724hrs

- Did 1000hr pm
- Lube count 20 sec
- greased fan bearings.

May 1/04 65772 Hours Bob

- Did the 2000 hour grease PM on gas compressor motor and changed oil on vac pump.

June 16, 2004 Hours 66837. Joe, Keith.

- Compressor going down on second stage high discharge temp. . Remove and leak test all second stage compressor valves. Removed an inspect both crossheads. Removed end plugs on gas cooler tubes. Used a steamer to unplug cooler tubes. Changed compressor oil and filter.
- Piston end clearances. 1st. stage C.E. .070" H.E. .115"
- 2nd. Stage C.E. .052" H.E. .093"
- Crosshead pin to crosshead clearance. Both at .0025"
- Crosshead pin to bushing clearance, 2nd. Stage .003"

June 25, 2004 Stephan 66961hrs

- Did 1000hr pm
- Lube count 20 sec
- greased fan bearings -

-Did the 2000 hour grease PM on gas compressor motor.

June 28/04 Keith & Steve

-9-28 Gas compressor, unit going down on 2nd stage high discharge temperature. Keith & Steve met there, we were going to reuse the 2nd stage valve cap gaskets, but Steve got there 1st and had most of the valves out, could not reuse the gaskets, getting some hotshotted. The valves were not that bad, the piston rings look OK. Found small chunks of calcium in the discharge valves. Checked the suction strainer on 2nd stage suction and it was clean. Measured up the cylinder, rings & piston, called Chad @ Midwestern thinking we've got a problem with the ring thickness. Waiting for call back. The installed ring on piston OD measurement should be 5.236-5.238", we have 5.220. Chad is building 2 sets of rings for 2nd stage, 1 set for stock. Pulled the discharge line at cooler, it is plugged solid except for a 3/8" hole, the cooler is plugged too, pulled all the cooler plugs, Wally is getting crew lined up to do the chemical wash again.

-Piston OD 5.189
-Cyl Dia 5.255-5.263
-Ring groove depth .218
-Ring groove width .252
-Ring installed OD(Old) 5.220 Midwestern's spec 5.236-5.238".

June 29, 2004 Steve, Keith.

- Reassemble 2nd. Stage cylinder with new piston rings.
- Piston end clearance C.E. .049"
H.E. .090"
- Reinstall valves.
- Installed cooler plugs and torqued to 150 Ft. Lbs.
- Operator started compressor, Still 100 PSI. pressure differential across the cooler.

Aug 9 2004 67861 hours Darryl

-Did the 1000 hr pm

-Took oil sample # 554754

September 18, 2004 68914hrs Stephan

-did 5000hr pm on compressor changed oil and filter.

-did 2000hr pm on vac pump.

-greased electric driver.

-took oil sample #566493

October 25, 2004 69668hrs Stephan

-Did the 1000 hr pm

-Took oil sample # 566458

November 12, 2004 Hours 70219 Keith.

- 1000 Hour PM
- Oil sample # 566505
- Changed oil and filter.
- Lubricator pump Has been replaced.

November 28, 2004 Hours 70597 Dan

- Oil sample # 555240

Dec 17 /04 Bill Hrs 70906

-Took oil sample #566513

Dec 24/04 71185 Hours Ops

-Did the 2000 hour grease PM.

Jan 22/05 71863 Hours Ops

-1000 hour PM. Took oil sample # 566563.

-March 13/05 Bill 72977 HOURS

-Took oil sample # 532969

- Did cycle check, general check over.

May 12,2005 Hours 74483. CES (Rob,Devon,Mike)

10,000 And 20,000 Hour PM

-Changed oil and filters.

- Replaced all wiper and pressure packing. Installed rebuilt packing cases from stock.
- Leaked checked all valves, Replaced all compressor valves..
- Inspected all wrist pins, all ok.
- Replaced all main and con rod bearings and thrust bearings.
- Cleaned Y strainer.
- Crank shaft end float- .031".

Cylinder #1

- Ring Sizes- Reused Width .394" R/T .405"
- Bore Sizes- Vertical HE 9.516" Middle -9.515" CE- 9.515"
Horizontal HE 9.513" Middle 9.512" CE 9.513"
- Piston Grooves Width .400" Depth .420"
- Piston rod Dia 1.375"
- Run out -Vert .000" Hor .000"
- Crosshead Clearance .010"
- Piston Clearances CE .045" HE .130"

Cylinder #2

- Ring Size, Reused- Width .245" R/T .240"
- Bore Sizes- Vertical HE 5.260" Middle 5.260" CE 5.260"
Horizontal HE 5.254" Middle 5.254" CE 5.254"
- Piston Grooves Width .250" Depth .250"
- Piston rod dia- 1.375"
- Run out vert .000" Hor .000"
- Crosshead Clearance .011"
- Piston Clearances CE .043" HE .108"

May 26, 2005 Hours 74804. Ron, Keith.

- Checked compressor for gas venting at crank seal.
- Retorqued packing boxes.
- Checked vacuum at vacuum pot, -25" H2O.
- Checked vacuum at cylinder distance piece, - 2.2 "H2O.
- Operator will get steamer to clean out vacuum pot.

May 28, 2005 Operator

- Replaced vac pump belt.

June 1, 2005 75000 hrs Ops

- 2000 hr Grease PM on Motor

June 12, 2005 75200 hrs Ron

- Took oil sample # 5003023
- Cleaned screens and checked unit over

June 25, 2005 75512hrs Stephan

- took oil sample #5003016
- 1000hr pm

-Aug 12/05 76359hrs. Colin.

- Taken oil sample #5007646
- 1000 hr PM.
- General check over.
- Cycle time 24 secs.
- Dan M. had probles with the Kenco oil level controller over filling the compressor.
- Needs to replaced.

- Aug 13/05 76383hrs. Colin.

- Replaced kenco,had to refit some of the piping, do to different inlet on the Kenco.
- Checked the low level switch, flagged at the panel.

- Checked the compressor vibration. O.K.

August 20, 2005 RON 76579hrs

-Took oil sample # 5002912

Sept 2/05 76899 Hours Ops

-Did 2000 hour PM.

September 23/05 77307 Hrs Bill

- oil sample # 5010280

- did 1000 hour PM.

October 28, 2005 Hours 78263. Keith.

-Completed 1000 Hour PM.

-Oil sample # 5007661.

-Lubricator cycle time @26 seconds / cycle.

-Greased cooling fan bearings.

Nov 28/05 Ops

-Did the 2000 hr grease PM.

Dec 15, 2005 Hours 79259, Bill

-Completed 1000 Hour PM.

-Oil sample # 5009499.

-Lubricator cycle time @26 seconds / cycle.

-Greased cooling fan bearings.

Dec 23,2005 Ron 79550hrs

-Took oil sample # 5009353

-Completed the 5000hr PM

-Changed oil and filters

-Lube cycle time 26secat 900rpm

-Tighten up fan belts

-Greased fan bearings

Jan 10, 2006 Hours 80541, Bill

-Completed 1000 Hour PM.

-Oil sample # 5955052.

-Lubricator cycle time @26 seconds / cycle.

-Greased cooling fan bearings.

February 13, 2006 Cyril

-did grease PM

Mar 23/06 Hours 81600, Colin.

-Completed 1000 Hour PM.

-Oil sample #5009481.

-Lubricator cycle time @28 seconds / cycle.

-Greased cooling fan bearings.

-General check over.

April 24/06 Colin

-1000 hr PM

-Oil Sample #5017258

May 25,2006. Keith

-, Vacuum pump on E.I. compressor. Checked for H2S leak. Seems to be coming from crank seal. Operator asked if we could put it off until tomorrow. Also tried to adjust vacuum from -5" H2O down to -3.3" H2O. no more adjustment at regulator

June 8,2006. Hours 83472. Tim, Keith.

-Replaced crankshaft oil seal on vacuum pump.

- Crankshaft has a groove worn from lip seal.
- Changed oil in vacuum pump.

July 22, 2006 Ron Steve 83990hrs

- Did 1000hr PM
- Took oil sample # 5017282
- Cycle pin time 18sec
- General check over O.K

Sept 15,2006 Dan H. 85100hrs

- Did the 2000hr Grease PM

Oct. 01-02 2006. Tim & Colin. 85491 hrs.

-Changed oil and filters

- 10,000 hr cylinder PM.

- Odered a jam nut for cyl. 2.
- Had to drill out the set screws on cyl. 2 jam nut.
- Removed the Kenco bracket and had it welded.(Ramey's)
- Had to return to shop for packing.
- Missing two new suction valves for cyl. 2, we varsol checked and reused old valves.
- Lube rate 27 secs.
- General check over.

- Cylinder #1

- Ring Sizes- New. Width .396" R/T .405"
- Bore Sizes- Vertical HE 9.516" Middle -9.516" CE- 9.515"
Horizontal HE 9.514" Middle 9.513" CE 9.513"
- Piston Grooves Width .404" Depth .400"
- Piston rod Dia 1.375"
- Run out -Vert .000" Hor .000"
- Crosshead Clearance .010"
- Piston Clearances CE .050" HE .115"

-Cylinder #2

- Ring Size, Reused- Width .244" R/T .241"
- Bore Sizes- **Vertical HE 5.260" Middle 5.260" CE 5.260"**
Horizontal HE 5.254" Middle 5.254" CE 5.256"

This cylinder needs to be honed, (.006" Out of round), cannot order rings til we know what the finished size of cylinder is.

- Piston Grooves Width .251" Depth .240"
- Piston rod dia- 1.375"
- Run out vert .000" Hor .000"
- Crosshead Clearance .010"-.011"
- Piston Clearances CE .045" HE .090"

Oct. 5/06 Bill

- 9-28 No oil pressure, pulled the cover and checked the chain & drive gear, Checked the lube pump, Cleaned the relief valve. Compressor is up and running.

November 24,2006 Ron Colin 86735hrs

- Did 1000hr PM
- Took oil sample # 5025915

Dec 10/06 87100 Hrs Ops

- Did the 2000 hour grease PM.

December 22, 2006 Hours 87417. Keith.

- Checked RPM using photo tachometer. @657.3 RPM.

December 23,2006 87439hrs Ron Keith

- Changed pulse per rev from 3 to 2 count
- Confirmed RPM 660 with tach.

Dec 29/06 87550 hrs. Colin.

-Problems with the E.I. compressor going down on HH rpm. Checked with photo tach, to confirm. 660 rpm on the panel 658 on the tach. When we ramped the motor to 850 rpm on the tach, the panel was reading 1700 rpm. Changed out the speed pick-up and check the panel for the rpm set-up, @ 2 pulses per rev. Continue to have the same problems, adjusted the pick-up to .080" gap, this fixed the problem. I talked to Ron K. about slowing down the ramp up time on the VFD, he's looking into it.

January 7, 2007 87769hrs Stephan

-Did 1000hr pm.
-Pin count appr. 30 sec
-Took oil sample # 5025918

Jan 12 2006 Bill 87793 Hrs

-Changed out the electrical motor on the vac pump.
-Jan 12/2007 reinstalled new electric motor

February 17, 2007 Hours 88777. Keith.

-Completed 1000 HOUR pm.
-Oil sample # 50502156
-Checked lubricator rate @ 30 seconds / cycle @ 660 RPM.
-Checked valve cap temps. – OK.
-Checked packing vent line temps. – OK.
-Vacuum pot @ - 2 "

March 1 , 2007 Hours 89067 Tim, Steve

-Completed 2000 HOUR pm.
-Oil sample # 50502108
-Checked lubricator rate @ 30 seconds / cycle @ 680 RPM.
-Checked valve cap temps. – OK.
-Checked packing vent line temps. – OK.
-Vacuum pot @ - 2 "

March 29, 2007 Hours 89730. Keith.

-Completed 1000 Hour PM
-Oil sample # 50502112.
-Checked lubricator cycle time @ 32 seconds / Cycle.
-Checked valve cap temps. – OK.
- Checked packing vent lines temps. – OK

April 29/07 Ops 90350 hrs

-Did the 2000 hour grease PM.

May 8, 2007 Shane 91847hrs

-Took oil sample # 50502365
-Changed oil and filters

June 7, 2007 Hours 91974. Keith.

-Checked crankcase oil for being foamy.
-Oil level was up to crosshead doors.
-Drained oil to correct level.

June 8, 2007 91990hrs Ron

-Changed oil and filter
-Flushed crankcase twice in order to remove all the contamination (methonal)??? Started up still some there Will flush again next day

June 9,2007 Ron 92014hrs 2 hrs planned

-Took oil sample # 50502091
-Changed oil and filter
-Flushed out piping and sucked out crankcase

-June 11,2007 Ron

- Replaced Kenco lid
- Changed diaphragm in top Garzo actuator on cooler.

June 28, 2007 92518hrs Stephan

- Did 1000 hr pm
- Took oil sample # 50502394

Aug 3/07 92337 hrs. Colin.

- Completed 2000 grease PM.

March 3, 2008 Hours 93304. Keith, Jason.

- Drained oil from crankcase.
- Replaced oil filter.
- Washed and used a vacuum truck to suck crankcase clean.
- Removed discharge valves from compressor cylinders and checked for liquids.
- Liquid methanol was found in first stage cylinder only.

March 21, 2008 hours 93354 Tim.

Took oil sample #50512298

Change oil and filter

Test run engine

June 1, 2008 Ops

- Did the 1 month start up PM & grease electric motor.

September 15,2008. Hours 93172. Opps.

- Test run.

May 9, 2009 Hours. 93389. Keith.

- Checked compressor for low oil pressure.
- Removed top cover.
- Drained oil from crankcase, flushed with varsol and used a wilden pump to suck crankcase clean.
- Replaced oil filter.
- Refilled crankcase with oil.
- Operator started compressor, oil pressure @ 50 PSI.

January 28, 2010 93510hrs Stephan

- Took oil sample # 52346
- Did 7C pm 23 seconds on lube

April 1,2010 Brent 93512hrs

- Take oil sample # 53487
- Monthly start up.

May 19,2010 Brent 93526hrs Oil hrs 172hrs

- Take oil sample # 53405
- Monthly start up.

August 20, 2010 Rob Dave 93551hrs

- Take oil sample #61977
- Monthly startup

Sept 11,2010 Steve 93551hrs

- Monthly start up
- Took oil sample # 343752

October 8, 2010 Brent 93551hrs

-Monthly start up

-Took oil sample # 61832

January 4, 2011 Stephan 93551hrs

-Took oil sample # 357058

February 8, 2011 Dave 93596hrs

-took oil sample#343235