

API-618
DATA SHEET

PROCESS RECIPROCATING COMPRESSOR

JOB NO. _____ ITEM NO. K-1240 / 1300 A, B
DATE 8-8-84 REVISION 3 R/M 8-8-84
PAGE 7.1 OF 14.3 BY _____

☒ CONSTRUCTION FEATURES

1	SERVICE / ITEM NO.	K-1240	K-1240				
2	STAGE	1	2				
3	CYLINDER SIZE (BORE DIA), INCHES	40.5	34.5				
4				MATERIALS OF CONSTRUCTION			
5	CYLINDER(S)	NI	NI				
6	CYLINDER LINER(S)	CI	CI				
7	PISTON(S)	CI	CI				
8	PISTON RINGS	C.F. Teflon	C.F. Teflon				
9	WEAR BANDS ☒ REQUIRED	C.F. Teflon	C.F. Teflon				
10	PISTON ROD(S)	4140	4140				
11	THIRD ROOT STRESS ☒ MACI ☒ 2-ND END	10899 PSI	ALL OVER				
12	PISTON ROD HARDNESS, BASE MATERIAL, Rc	20	20				
13	PISTON ROD COATING ☒ REQUIRED	Linde D-Gum LW15	Linde D-Gum LW15				
	COATING HARDNESS, Rc	71	71				
15	VALVE SEATS / SEAT PLATE	NI	NI				
16	VALVE SEAT MIN HARDNESS, Rc	28	28				
17	VALVE GUARDS (STOPS)	CI	NI				
18	VALVE DISCS <i>STRIPS ON F.V.</i>	410 SS	CLASS A 410 SS				
19	VALVE SPRINGS	NONE	CH. VAN. CAR. PLT. STL.				
20	ROD PRESSURE PACKING RINGS	T.F. Teflon	Teflon				
21	ROD PRESSURE PACKING CASE	(S) Steel	(S) Steel				
	SEAL / BUFFER PACKING, DISTANCE PIECE	C.F. Teflon	C.F. Teflon				
	SEAL / BUFFER PACKING, INTERMEDIATE	C.F. Teflon	C.F. Teflon				
24	WIPER PACKING RINGS	CI	CI				
25	MAIN JOURNAL BEARINGS, CRANKSHAFT	Babbitt on Bronze					
26	CONNECTING ROD BEARING, CRANKPIN	" "	" "				
27	CONNECTING ROD BUSHING, 1-ND END	FRONTC WITH BABBITT OVERLAY					
28	CROSSHEAD (1-ND) PIN BUSHING	" "	" "				
29	CROSSHEAD PIN	Steel	Steel				
30	CROSSHEAD	NI	NI				
	CROSSHEAD SHOES	CI with Babbitt Overlay					
32	CYLINDER INDICATOR VALVES (✓)	Yes	Yes				
33	FLUOROCARBON SPRAYED CYLINDER RICKING BORE (✓)	Yes	Yes				
34							

* MAXIMUM ALLOWABLE CONTINUOUS ROD LOAD

BEARING DATA

CRANKSHAFT	CONNECTING ROD	CROSSHEAD
FRONTC	FRONTC	FRONTC
BRONZE	BRONZE	BRONZE
DIAMETER / 6.145" / 6.145" / 9.8"		
LENGTH / 9" / 8 1/4" / 11 3/4"		
LOADING, MAXIMUM / 71,905# / 122,664# / 139,815		

SEE NEXT PAGE

☒ COMPRESSOR CYLINDER ROD PACKING ☒

☒ FULL FLOATING PACKING WITH STAINLESS STEEL SPRINGS

VENTED TO: ☒ VENT ☐ 5 PSIG ☐ ATMOSPHERE

(SEE NOTE 1 THIS PAGE) ☐ SUCTION PRESSURE ☐ PSIG

☒ FORCED LUBRICATED ☐ FLOW-LUBE ☐ TFE

☒ WATER COOLED, _____ STAGE(S), _____ GPM RED'D

☒ OIL COOLED, _____ STAGE(S), _____ GPM RED'D

☐ WATER FILTER ☐ PROVISION FOR FUTURE WATER / OIL COOLING

☒ VENT / BUFFER GAS SEAL PACKING ARRANGEMENTS

☒ BUFFER GAS PRESSURE, 40 PSIG

(SEE NOTE 1 THIS PAGE)

☒ SEE DRAWING A-SB-61231 FOR DETAILS OF DISTANCE PIECE AND PACKING ARRANGEMENT.

☒ DISTANCE PIECE(S): ☐ DTYPE A ☒ DTYPE B ☐ DTYPE C ☐ DTYPE D

COVERS: ☒ SOLID STEEL ☐ SCREEN ☐ DOWNER

CYLINDER COMPARTMENT: ☒ VENTED TO L.P. FLARE

☐ PURGED AT _____ PSIG

☐ PRESSURIZED TO _____ PSIG

☒ WITH RELIEF VALVE

FRAME COMPARTMENT: ☐ VENTED TO _____ PSIG

☐ PURGED AT _____ PSIG

☐ PRESSURIZED TO _____ PSIG

☐ WITH RELIEF VALVE

☐ SEAL / BUFFER GAS PACKING ARRANGEMENTS

☐ FRAME END (ADJACENT TO WIPER PACKING)

☐ INTERMEDIATE PARTITION

BUFFER / PURGE GAS: ☐ O₂ ☒ OTHER CH₄

☐ VENT, DRAIN, PURGE PIPING BY MFC'R ☐ CND ☒ YES

A-SB-6120-3, SH 14.130

API-618
DATA SHEET

PROCESS RECIPROCATING COMPRESSOR

DRAFT 3-01 & 3-02
ADDED 9-20-
JOB NO. 8-8-84 ITEM NO. K-1240/1300
DATE 8-8-84 REVISION 3 EVM 8-8-84
PAGE 7.2 OF 14.3 BY

☒ CONSTRUCTION FEATURES

1	SERVICE / ITEM NO.	K-1300	K-1300
2	STAGE		A16HW
3	CYLINDER SIZE (BORE DIA), INCHES		15.5
4			MATERIALS OF CONSTRUCTION
5	CYLINDER(S)		N1
6	CYLINDER LINER(S)		C1
7	PISTON(S)		C1
8	PISTON RINGS		C.F. TEFLON
9	WEAR BANDS ☒ REQUIRED		"
10	PISTON ROD(S)		4140
11	THRD ROOT STRESS ☒ MAC1 ☒ 1-ND END		10889 ALLOW
12	PISTON ROD HARDNESS, BASE MATERIAL, Rc		20
13	PISTON ROD COATING ☒ REQUIRED		LARGE D-Gun LW 15
14	COATING HARDNESS, Rc		71
15	VALVE SEATS / SEAT PLATE		N1
16	☐ VALVE SEAT PIN HARDNESS, Rc		28
17	VALVE GUARDS (STOPS)		N1
18	VALVE DISCS		GLASS NYLON
19	VALVE SPRINGS		Chrome Vanadium Cadmium Plated Steel
20	ROD PRESSURE PACKING RINGS		C.F. TEFLON
21	ROD PRESSURE PACKING CASE		STEEL
22	SEAL / BUFFER PACKING, DISTANCE PIECE		C.F. TEFLON
23	SEAL / BUFFER PACKING, INTERMEDIATE		C.F. TEFLON
24	WIPER PACKING RINGS		C1
25	MAIN JOURNAL BEARINGS, CRANKSHAFT		Babbitt on BRONZE
26	CORRECTING ROD BEARING, CRANKPIN		" " "
27	CORRECTING ROD BUSHING, 1-ND END		BRONZE WITH BABBITT
28	CROSSHEAD (1-ND) PIN BUSHING		" " "
29	CROSSHEAD PIN		STEEL
30	CROSSHEAD		NT
31	CROSSHEAD SHOES		C1 WITH Babbitt Overlay
32	☐ CYLINDER INDICATOR VALVES (V)		Yes
33	☐ FLUOROCARBON SPRAYED CYLINDER		
34	RUNNING BORE (V) ☒ Yes		

* MAXIMUM ALLOWABLE CONTINUOUS ROD LOAD

35	☒ COMPRESSOR CYLINDER ROD PACKING ☒	
36	☒ FULL FLOATING PACKING WITH STAINLESS STEEL SPRINGS	
37	☒ VENTED TO: ☒ VENT ☒ 5 PSIG ☐ ATMOSPHERE	
38	(SEE NOTE 5 THIS PAGE) ☐ SUCTION PRESSURE ☐ PSIG	
39	☒ FORCED LUBRICATED ☐ NON-LUBE ☐ TFE	
40	☒ WATER COOLED, _____ STAGE(S), _____ GPM REQ'D	
41	☒ OIL COOLED, _____ STAGE(S), _____ GPM REQ'D	
42	☐ WATER FILTER ☐ PROVISION FOR FUTURE WATER / OIL COOLING	
43	☐ VENT / BUFFER GAS SEAL PACKING ARRANGEMENTS REF: APPENDIX C FIGURES 5-4.2.2 & 5-4.2.3	
44	☐ BUFFER GAS PRESSURE, _____ PSIG	
45	☒ DISTANCE PIECE(S): ☐ TYPE A ☐ TYPE B ☐ TYPE C ☐ TYPE D REF: APPENDIX C, FIGURES 5-3	
46	COVERS: ☒ SOLID STEEL ☐ SCREEN ☐ LOWWEAR	
47	CYLINDER COMPARTMENT: ☒ VENTED TO L.P. FLARE ☐ PURGED AT _____ PSIG	
48	☒ PRESSURIZED TO _____ PSIG	
49	☒ WITH RELIEF VALVE	
50	FRAME COMPARTMENT: ☐ VENTED TO _____ PSIG	
51	☐ PURGED AT _____ PSIG	
52	☐ PRESSURIZED TO _____ PSIG	
53	☐ WITH RELIEF VALVE	
54	☐ SEAL / BUFFER GAS PACKING ARRANGEMENTS REF: APPENDIX C FIGURES 5-4.2.2 & 5-4.2.3	
55	☐ FRAME END (ADJACENT TO WIPER PACKING)	
56	☐ INTERMEDIATE PARTITION	
57	BUFFER / PURGE GAS: ☐ O ₂ ☐ OTHER _____	
58	☐ VENT, DRAIN, PURGE PIPING BY WFG'R ☐ NO ☒ YES	

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* SEE DRAWING A-SB-6728-1 FOR DETAILS OF DISTANCE PIECE AND PACKING ARRANGEMENT.

API-618
DATA SHEET

PROCESS RECIPROCATING COMPRESSOR

DRAFT 3-24-82

REVISION 2-9-83
JOB NO. _____ ITEM NO. K-1240/1300A, B
DATE 8-9-84 REVISION 3 RUM 8-8-84
PAGE 8 OF 14.8 BY _____

☒ CONSTRUCTION FEATURES (CONTINUED)

☒ COUPLING(S)

◇ MANUFACTURER
◇ MODEL
◇ TYPE

◇ LOW-SPEED
BETWEEN COMPRESSOR
AND DRIVER OR GEAR

◇ HIGH-SPEED
BETWEEN DRIVER
AND GEAR

Worthington Flanged
Stub Shaft

API-671 APPLIES ☐ YES ☒ NO

☐ INSPECTION AND SHOP TESTS (REF. 4.1.3)

◇ SHOP INSPECTION

MANUFACTURERS STANDARD SHOP TESTS

CYLINDER HYDROSTATIC TEST

CYLINDER HELIUM LEAK TEST

CYLINDER JACKET WATER HYDRO TEST

◇ MECHANICAL RUN TEST

BAR-OVER TO CHECK ROD RUNOUT

◇ LUBE OIL CONSOLE RUN / TEST

◇ COOLING WATER CONSOLE RUN / TEST

X-RAY PIPING BUTT WELDS; GAS OIL

SHOP FIT-UP OF PULSATION SUPPRESSION
DEVICES AND ALL ASSOCIATED
GAS PIPING

◇ CLEANLINESS OF EQUIPMENT, PIPING,
& APPURTENANCES

◇ SPECIFIC REQUIREMENTS TO BE DEFINED, E.G. DISMANTLE

SEE DWG. A-SB-G140-1 FOR INSPECTION
REQUIREMENTS.

REMARKS

1. Cylinder lubricators shall be
Trabon positive displacement
series type systems with Bosch
pumps, proximity switches, phase
monitors, and performance indicators.
2. Lubricator reservoir capacity
shall be 24 hour.

☒ CYLINDER LUBRICATION (SEE NOTE 1 IN REMARKS
SECTION, THIS PAGE)

◇ NON-LUBE _____ STAGE(S) / SERVICE

◇ LUBRICATED All STAGE(S) / SERVICE

TYPE OF LUBE OIL:

☐ SYNTHETIC

☒ HYDROCARBON

LUBRICATOR DRIVEN BY: ☐ COMPRESSOR CRANKSHAFT, DIRECT

☐ CHAIN, FROM CRANKSHAFT

☒ ELECTRIC MOTOR

☐ OTHER

◇ LUBRICATOR MANUFACTURER Trabon w/ Bosch pumps

◇ MODEL

TYPE LUBRICATOR: ☐ SINGLE PLUNGER PER POINT

(REF. 2.1)

☒ OTHER Divider Block type

◇ COMPARTMENTS, TOTAL QUANTITY

◇ PLUNGERS (PISTONS), TOTAL QUANTITY

POINTS PER PLUNGER

◇ SPARE PLUNGERS, QUANTITY 2

◇ SPARE COMPARTMENTS WITHOUT PLUNGERS

◇ HEATERS: ☒ ELECTRIC WITH THERMOSTAT(S) ☐ STEAM

☐ ESTIMATED WEIGHTS AND NOMINAL DIMENSIONS

☐ TOTAL COMPRESSOR WEIGHT, LESS DRIVER & GEAR 122,100 LBS

◇ TOTAL WEIGHT, COMPLETE UNIT, LESS CONSOLES 162,000 LBS

◇ MAXIMUM ERECTION WEIGHT 70,000 LBS

◇ MAXIMUM MAINTENANCE WEIGHT 50,000 LBS

◇ DRIVER WEIGHT / GEAR WEIGHT 35,000 / _____ LBS

◇ LUBE OIL / COOLING WATER CONSOLE 7500 / 15,000 LBS

◇ FREE STANDING PANEL By Contractor LBS

SPACE REQUIREMENTS - FEET

◇ COMPLETE UNIT

LENGTH

WIDTH

HEIGHT

◇ LUBE OIL CONSOLE

◇ COOLING WATER CONSOLE

◇ FREE STANDING PANEL

☐ PISTON ROD REMOVAL DISTANCE

27'

29'

8'

10'

5'

6'

By Contractor

By Contractor

7'

OTHER EQUIPMENT SHIPPED LOOSE (DEFINE)

◇ PULSATION SUPPRESSORS, WEIGHT

◇ PIPING

◇ INTERSTAGE EQUIPMENT

_____ LBS

_____ LBS

_____ LBS

_____ LBS

_____ LBS

_____ LBS

_____ LBS

A-SB-G120-3