



7.7.2.1

Company: A G Equipment Company
 Order #: 71768 (AP027722) Rev:6
 Case 4: 80-1108

Ariel Compressor Balancing Record

Customer: NGC Compression Solutions
 Inquiry:
 Project: CAL 14-8141

Balance By: **PETHTEL**

Completed: 8/4/2014

Frame: **JGK/4**

Existing
 Frame S/N: **F31296**

Rated RPM: **1200**
 Stroke, in: **5.50**

ELP Parts Group	Throw #1		Throw #2		Throw #3		Throw #4					
	6.750K		11.000K		11.000K		11.000K					
	Exist SN:	C134464	SN:	C166422	SN:	C166423	SN:	C166424				
	P/N	LB	P/N	LB	P/N	LB	P/N	LB				
Connecting Rod with Bushing, bolts and bearing shells	D-0973	90.66	D-0973	90.76	D-0973	90.66	D-0973	90.80				
		EX		EX		EX		EX				
Piston(s) with rings, rod, collar & nut or stub shaft		105.20	C-2850	214.86	C-2850	215.44	C-2850	215.26				
			C-0876		C-0876		C-0876					
Crosshead with bushings	D-5517	190.04	D-0868	77.56	D-5583	77.46	D-0868	77.30				
		EX		EX		NEW		EX				
Crosshead nut with setscrews	B-0781	9.98	B-0782	14.12	B-0781	10.00	B-0781	9.92				
		EX		NEW		EX		NEW				
Total Recip Weight Max: 612.10	395.88		397.30		393.56		393.28					
Imbalance Max: 2.50	1.42				0.28							



7.7.2.0

Company: A G Equipment Company
 Order #: 71768 (AP027722) Rev:4
 Case 1: 50-1108

Ariel Lubrication Sheet

Customer: NGC Compression Solutions
 Inquiry:
 Project: CAL 14-8141



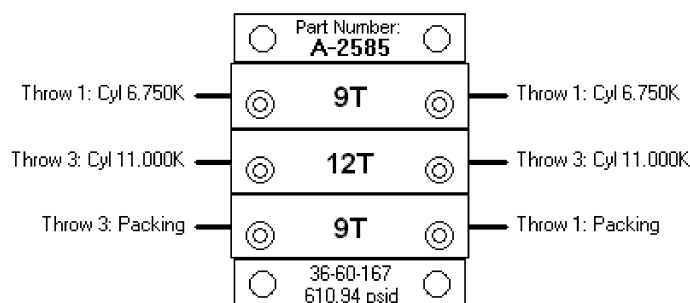
Frame: JGK/4 Stroke, in: 5.50 Rod Dia, in: 2.000 Frame S/N: F31296
 Gas Stream: Natural Gas (Water Saturated and/or Heavy hydrocarbons)
 Configured: TAHUBBELL - 06/30/2014

Throw	Cylinder Model	MAWP psig	Service	Stage #	Suct Press psia	Disch Press psia	Serial No.
1	6.750K	1900.0	Service 1	3	443.00	1132.18	C134464
3	11.000K	845.0	Service 1	2	176.66	451.56	C166423

Applied Speed, RPM	1200
Cycle Time at Applied Speed, sec	10.0 (see chart, lower right)
Break-In Cycle Time, sec	6.0 (For period of 200 hours)
Recommended lubricant (mineral oil) for application and pressures	SAE 50-60 wt (ISO 220-320) or SAE 40 wt (ISO 150) w/ Compounding

Rupture Disc	Purple 3250.00 psig, 0.250 in hole dia.
Lubricator Pump Diameter	3/8" (0.3750 in)
Qty of Pumps feeding this block	1
Recommended base feed rate	0.50 Pints/day/in of bore diameter

Throw 1, 3



Lube Point Description	Base Rate Multiplier	Recommended Pints/day	Delivered Pints/day	Del/ Rec
Throw 1: Cylinder 6.750K	1.50	2.53	2.69	106%
Throw 1: Cylinder 6.750K	1.50	2.53	2.69	106%
Throw 3: Cylinder 11.000K	1.25	3.44	3.59	104%
Throw 3: Cylinder 11.000K	1.25	3.44	3.59	104%
Throw 3: Packing	1.25	2.50	2.69	108%
Throw 1: Packing	1.50	3.00	2.69	90%

RPM	Cycle Time, sec		Pints/day	
	Normal	Break-In	Normal	Break-In
1200	10.0	6.0	18.0	29.9
1100	10.9	6.5	16.5	27.4
1000	12.0	7.2	15.0	24.9
900	13.3	8.0	13.5	22.4
800	15.0	9.0	12.0	19.9
700	17.1	10.3	10.5	17.4
600	20.0	12.0	9.0	14.9

****NOTE:** Ariel suggests that delivered/recommended amount for cylinders and packings be within 90 - 125%. These recommendations are general guidelines. If the lubricants or flow rates do not appear to work adequately, flow rates and/or lubricant types may need to be changed. Please contact the lubricant supplier for specific lubricant recommendations. See Section 6 of the Ariel Packager Standards for more information.



Ariel Lubrication Sheet

Company: A G Equipment Company
 Order #: 71768 (AP027722) Rev:4
 Case 1: 50-1108

Customer: NGC Compression Solutions
 Inquiry:
 Project: CAL 14-8141



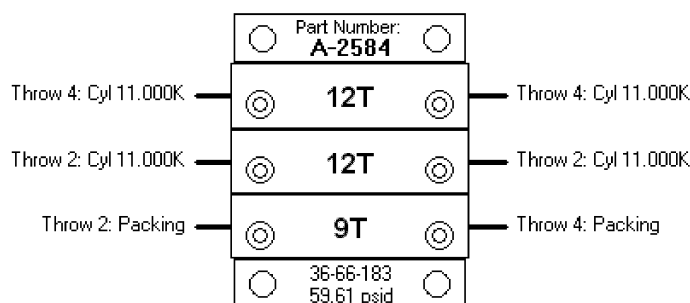
Frame: JGK/4 **Stroke, in:** 5.50 **Rod Dia, in:** 2.000 **Frame S/N:** F31296
Gas Stream: Natural Gas (Water Saturated and/or Heavy hydrocarbons)
Configured: TAHUBBELL - 06/30/2014

Throw	Cylinder Model	MAWP psig	Service	Stage #	Suct Press psia	Disch Press psia	Serial No.
2	11.000K	845.0	Service 1	1	62.34	181.56	C166422
4	11.000K	845.0	Service 1	1	62.34	181.56	C166424

Applied Speed, RPM	1200
Cycle Time at Applied Speed, sec	11.0 (see chart, lower right)
Break-In Cycle Time, sec	6.0 (For period of 200 hours)
Recommended lubricant (mineral oil) for application and pressures	<u>SAE 40-50 wt (ISO 150-220)</u>

Rupture Disc	Purple 3250.00 psig, 0.250 in hole dia.
Lubricator Pump Diameter	3/8" (0.3750 in)
Qty of Pumps feeding this block	1
Recommended base feed rate	0.50 Pints/day/in of bore diameter

Throw 2, 4



Lube Point Description	Base Rate Multiplier	Recommended Pints/day	Delivered Pints/day	Del/ Rec
Throw 4: Cylinder 11.000K	1.25	3.44	3.26	95%
Throw 4: Cylinder 11.000K	1.25	3.44	3.26	95%
Throw 2: Cylinder 11.000K	1.25	3.44	3.26	95%
Throw 2: Cylinder 11.000K	1.25	3.44	3.26	95%
Throw 2: Packing	1.25	2.50	2.45	98%
Throw 4: Packing	1.25	2.50	2.45	98%

RPM	Cycle Time, sec		Pints/day	
	Normal	Break-In	Normal	Break-In
1200	11.0	6.0	18.0	32.9
1100	12.0	6.5	16.5	30.2
1000	13.2	7.2	15.0	27.4
900	14.7	8.0	13.5	24.7
800	16.5	9.0	12.0	21.9
700	18.9	10.3	10.5	19.2
600	22.0	12.0	9.0	16.5

****NOTE:** Ariel suggests that delivered/recommended amount for cylinders and packings be within 90 - 125%. These recommendations are general guidelines. If the lubricants or flow rates do not appear to work adequately, flow rates and/or lubricant types may need to be changed. Please contact the lubricant supplier for specific lubricant recommendations. See Section 6 of the Ariel Packager Standards for more information.



7.7.2.0

Company: A G Equipment Company
Order #: 71768 (AP027722) Rev:4
Case 1: 50-1108

Ariel Lubrication Sheet

Customer: NGC Compression Solutions
Inquiry:
Project: CAL 14-8141



Special Oil Recommendation

Frame: F31296

Model: JGK/4

This notice is to alert the customer that this unit has a special oil recommendation that may require that the force feed lubricator, which supplies lubricating oil to the compressor cylinders and piston rod packings, have an independent oil supply.

This oil recommendation is based on the gas composition and operating conditions provided. Please refer to the ARIEL CORPORATION Lubrication Sheet(s) for the details of the above frame including the correct cylinder bore sizes and throw positions.

Avoid mixing oil types that are not compatible with each other. Contact the oil manufacturer regarding the compatibility of their product with other fluids. A system flush may be required when changing to a different fluid.

The following information should be reviewed regarding Independent Oil Supply in Section 6 Lubrication of the Reciprocating Packager's Standards within Ariel's Application Manual.

Paragraphs:
Independent Oil Supply
Cylinder Lubrication
Lubricator Cycle Time
Warranty

Contact Ariel

Contact	Telephone	FAX	E-Mail
Ariel Response Center	888-397-7766	740-397-1060	arc@arielcorp.com
Spare Parts	(toll free USA-Canada) or	740-393-5054	spareparts@arielcorp.com
Order Entry	740-397-3602 (International)	740-397-6450	----
Ariel World Headquarters	740-397-0311	740-397-3856	info@arielcorp.com
Technical Field Service			fieldservice@arielcorp.com


ARIEL CORPORATION
Recommended Spares Start-Up

Fri Aug 8 06:30:51 EDT 2014

C166422, C166424, C166423
U112893, U112895, U112894
Project:

QTY	Part Number	Description	Your Price	Net Amount
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
4	A-2695	THUMB SCREW,NYLON, 1/4-20 X 1	\$0.0000	\$0.00
6	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
4	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
2	A-3689	CHECK VALVE, 1/8M X 1/8F,PPT,SS	\$0.0000	\$0.00
1	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
1	B-2458-S	SUC VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
Sub Total				\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
Sub Total				\$0.00
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
4	A-2695	THUMB SCREW,NYLON, 1/4-20 X 1	\$0.0000	\$0.00
6	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
4	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
1	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
1	B-2458-S	SUC VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
Sub Total				\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
Sub Total				\$0.00
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
4	A-2695	THUMB SCREW,NYLON, 1/4-20 X 1	\$0.0000	\$0.00
6	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
4	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
1	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
1	B-2458-T	SUC VLV,127CT,NYX,D/S	\$0.0000	\$0.00
Sub Total				\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET, 11.438 X 11.125 X60	\$0.0000	\$0.00
Sub Total				\$0.00
Start-Up Grand Total				\$0.00


ARIEL CORPORATION
Recommended Spares Consumables

Fri Aug 8 06:30:51 EDT 2014

C166422, C166424, C166423
U112893, U112895, U112894
Project:

QTY	Part Number	Description	Your Price	Net Amount
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00
2	A-18496	CHK VLV,DBL BALL,SS,1/4TX1/8P	\$0.0000	\$0.00
1	B-1584-K	RBLD KIT,PIST ROD PKG,2.000	\$0.0000	\$0.00
4	A-2240	PISTON RING, 11K:T:KCZ/LM	\$0.0000	\$0.00
1	A-2242	WEAR BAND,11 K:C:Z,2.0W	\$0.0000	\$0.00
1	B-6470-K	RBLD KIT,WIPER PKG,2.0,TFE WAT	\$0.0000	\$0.00
6	A-3689	CHECK VALVE,1/8M X 1/8F,PPT,SS	\$0.0000	\$0.00
4	A-2254	CNTR BOLT,12PT,7/16-20X2-1/4	\$0.0000	\$0.00
1	A-8071	DIS VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-4903-AA	KIT,VLV,127CT,MTX	\$0.0000	\$0.00
4	A-17241	CNTR BOLT,12PT,7/16-20X2-1/2	\$0.0000	\$0.00
8	A-2166	GUIDE RING,148-179CT,.338 THK	\$0.0000	\$0.00
1	A-8072	SUC VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-2458-S	KIT,VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
8	A-2313	WAFER SPRING,127CGT	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00
			Sub Total	\$0.00
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00
2	A-18496	CHK VLV,DBL BALL,SS,1/4TX1/8P	\$0.0000	\$0.00
1	B-1584-K	RBLD KIT,PIST ROD PKG,2.000	\$0.0000	\$0.00
4	A-2240	PISTON RING, 11K:T:KCZ/LM	\$0.0000	\$0.00
1	A-2242	WEAR BAND,11 K:C:Z,2.0W	\$0.0000	\$0.00
1	B-6470-K	RBLD KIT,WIPER PKG,2.0,TFE WAT	\$0.0000	\$0.00
4	A-2254	CNTR BOLT,12PT,7/16-20X2-1/4	\$0.0000	\$0.00
1	A-8071	DIS VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-4903-AA	KIT,VLV,127CT,MTX	\$0.0000	\$0.00
4	A-17241	CNTR BOLT,12PT,7/16-20X2-1/2	\$0.0000	\$0.00
8	A-2166	GUIDE RING,148-179CT,.338 THK	\$0.0000	\$0.00
1	A-8072	SUC VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-2458-S	KIT,VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
8	A-2313	WAFER SPRING,127CGT	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00
			Sub Total	\$0.00
CYL ASSY,11 K:T,STD 845				
2	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00

2	A-18496	CHK VLV,DBL BALL,SS,1/4TX1/8P	\$0.0000	\$0.00
1	B-1584-K	RBLD KIT,PIST ROD PKG,2.000	\$0.0000	\$0.00
4	A-2240	PISTON RING, 11K:T:KCZ/LM	\$0.0000	\$0.00
1	A-2242	WEAR BAND,11 K:C:Z,2.0W	\$0.0000	\$0.00
1	B-6470-K	RBLD KIT,WIPER PKG,2.0,TFE WAT	\$0.0000	\$0.00
4	A-2254	CNTR BOLT,12PT,7/16-20X2-1/4	\$0.0000	\$0.00
1	A-8071	DIS VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-4903-AA	KIT,VLV,127CT,MTX	\$0.0000	\$0.00
4	A-17241	CNTR BOLT,12PT,7/16-20X2-1/2	\$0.0000	\$0.00
8	A-2166	GUIDE RING,148-179CT,.338 THK	\$0.0000	\$0.00
1	A-8072	SUC VLV SEAT,127CGT,DRILLED	\$0.0000	\$0.00
4	KB-2458-T	KIT,VLV,127CT,NYX,D/S	\$0.0000	\$0.00
8	A-2313	WAFER SPRING,127CGT	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2236	STL GASKET,11.438 X 11.125 X60	\$0.0000	\$0.00
			Sub Total	\$0.00
			Consumables Grand Total	\$0.00


ARIEL CORPORATION
Recommended Spares Insurance

Fri Aug 8 06:30:51 EDT 2014

C166422, C166424, C166423
U112893, U112895, U112894
Project:

QTY	Part Number	Description	Your Price	Net Amount
CYL ASSY,11 K:T,STD 845				
2	B-5290	BUSHING,BZ,XHD,EKT ELP	\$0.0000	\$0.00
1	B-3549	GSKT,RND,22-1/2 X 1/64,18 HOLE	\$0.0000	\$0.00
1	FW0550ID	STAT-O-SEAL,VT,75DUR. 3/4 DIA	\$0.0000	\$0.00
1	B-1248	PISTON COLLAR,JGK:T, 4"OD	\$0.0000	\$0.00
1	B-1249	PISTON NUT, JGK:T, 4"OD	\$0.0000	\$0.00
1	C-0876	P ROD, 5.50STK/45.435LG	\$0.0000	\$0.00
16	A-2695	THUMB SCREW,NYLON,1/4-20 X 1	\$0.0000	\$0.00
24	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
16	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
1	A-2584	12T-12T-9T	\$0.0000	\$0.00
1	A-2585	12T-9T-9T	\$0.0000	\$0.00
4	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
4	B-2458-S	SUC VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2394	BELLOWS, UNL.THREAD PROTECTOR	\$0.0000	\$0.00
1	A-3502	O-RING,VT, 9.645 O.D. X .210	\$0.0000	\$0.00
1	A-2355	UNL.PISTON RING, 8-1/2 O.D.	\$0.0000	\$0.00
1	A-2399	V PACKING, UNL. 2-3/4 X 3-1/2	\$0.0000	\$0.00
			Sub Total	\$0.00
CYL ASSY,11 K:T,STD 845				
1	B-3549	GSKT,RND,22-1/2 X 1/64,18 HOLE	\$0.0000	\$0.00
1	FW0550ID	STAT-O-SEAL,VT,75DUR. 3/4 DIA	\$0.0000	\$0.00
1	B-1248	PISTON COLLAR,JGK:T, 4"OD	\$0.0000	\$0.00
1	B-1249	PISTON NUT, JGK:T, 4"OD	\$0.0000	\$0.00
1	C-0876	P ROD, 5.50STK/45.435LG	\$0.0000	\$0.00
16	A-2695	THUMB SCREW,NYLON,1/4-20 X 1	\$0.0000	\$0.00
24	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
16	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
4	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
4	B-2458-S	SUC VLV,127CT,NYX ,D/S	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2394	BELLOWS, UNL.THREAD PROTECTOR	\$0.0000	\$0.00
1	A-3502	O-RING,VT, 9.645 O.D. X .210	\$0.0000	\$0.00
1	A-2355	UNL.PISTON RING, 8-1/2 O.D.	\$0.0000	\$0.00
1	A-2399	V PACKING, UNL. 2-3/4 X 3-1/2	\$0.0000	\$0.00
			Sub Total	\$0.00
CYL ASSY,11 K:T,STD 845				
1	B-3549	GSKT,RND,22-1/2 X 1/64,18 HOLE	\$0.0000	\$0.00

1	FW0550ID	STAT-O-SEAL,VT,75DUR. 3/4 DIA	\$0.0000	\$0.00
1	B-1248	PISTON COLLAR,JGK:T, 4"OD	\$0.0000	\$0.00
1	B-1249	PISTON NUT, JGK:T, 4"OD	\$0.0000	\$0.00
1	C-0876	P ROD, 5.50STK/45.435LG	\$0.0000	\$0.00
16	A-2695	THUMB SCREW,NYLON,1/4-20 X 1	\$0.0000	\$0.00
24	A-2238	STL GASKET, 5.796 X 5.608 X30	\$0.0000	\$0.00
16	A-0034	O-RING,VT, 5.895 O.D. X .210	\$0.0000	\$0.00
4	B-4903-AA	DIS VLV,127CT, MTX	\$0.0000	\$0.00
4	B-2458-T	SUC VLV,127CT,NYX,D/S	\$0.0000	\$0.00
			Sub Total	\$0.00
VVCP,11 K:T 845/1000				
1	A-2394	BELLOWS, UNL.THREAD PROTECTOR	\$0.0000	\$0.00
1	A-3502	O-RING,VT, 9.645 O.D. X .210	\$0.0000	\$0.00
1	A-2355	UNL.PISTON RING, 8-1/2 O.D.	\$0.0000	\$0.00
1	A-2399	V PACKING, UNL. 2-3/4 X 3-1/2	\$0.0000	\$0.00
			Sub Total	\$0.00
			Insurance Grand Total	\$0.00

All amounts are in US dollars and price is subject to change at any time.

ARIEL CORPORATION, 35 BLACKJACK ROAD, MOUNT VERNON, OHIO 43050 USA
PHONE: 740-397-0311 FAX: 740-397-3856

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7/31/14

ARIEL CORPORATION
SALES ORDER COVER SHEET

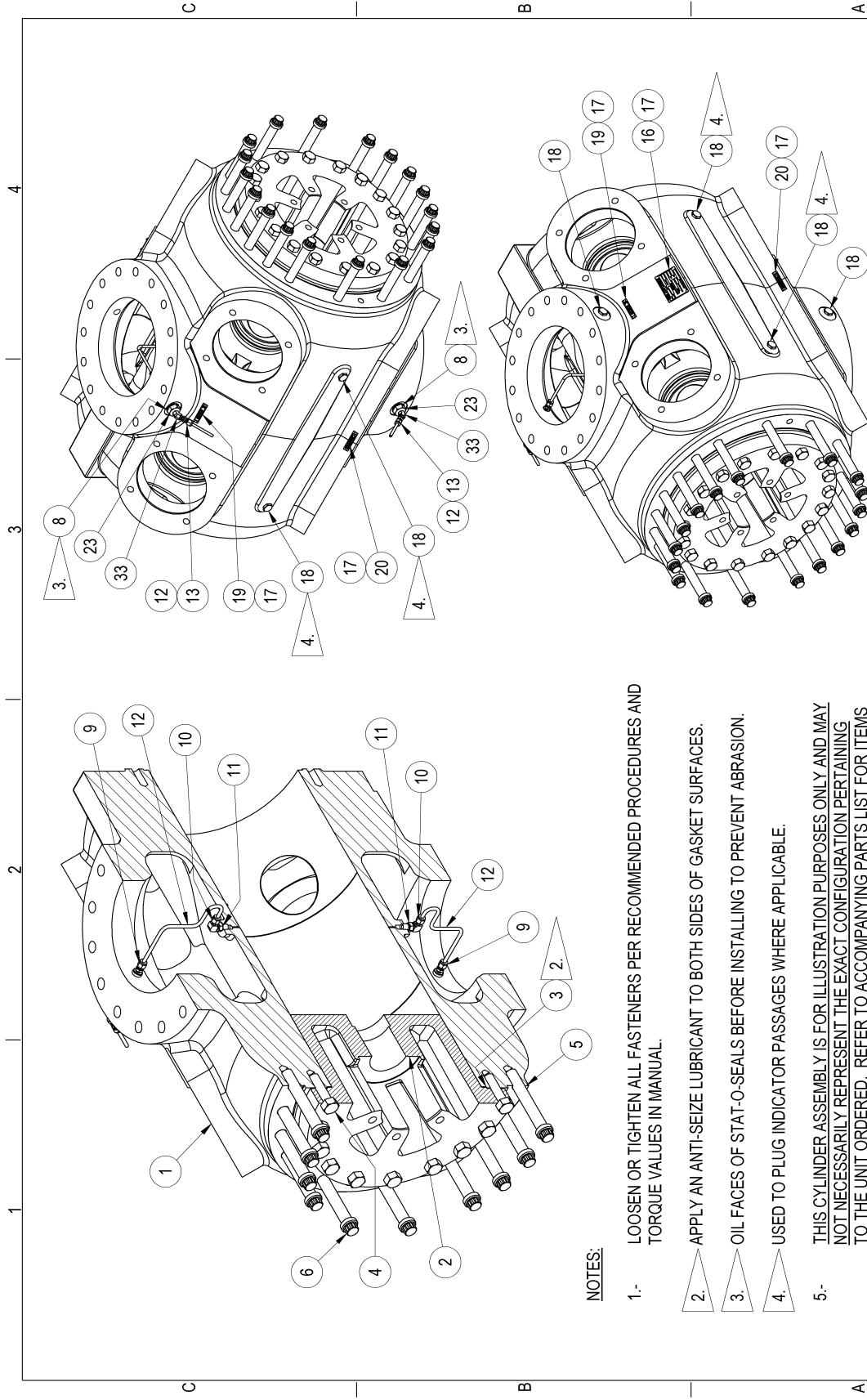
C/N: 001

RHBUILD1

SERIAL #: C166422-24

PART: 11K CLASS DESCRIPTION: 11"JGK CYLINDER CLASS

PART NUMBER	QTY	DESCRIPTION	DRAWING NO.
A-16622	1	DATA PLATE, 1 & 2 PUMP FORCE FEED LUBRICATOR	A-16622
A-2584	1	12T-12T-9T	
A-2585	1	12T-9T-9T	N.A.
D-5583	1	CROSSHEAD, LGT, DI, 76.3#, ELP, JGE:K:T	D-5583
G-20204	1	CYLINDER ASSEMBLY, 11K:T, STD, 845 MAWP	A-18648
G-4112	1	SHIP LOOSE CYLINDER, TOP AND BOTTOM LUBE	N.A.
G-1710	4	SUC VLV ASSY,11 KCDT,845/1000	D-1092
G-1711	4	DIS VLV ASSY,11 KCDT,845/1000	D-1093
PISTON ASSY	1	PISTON ASSY 11.000 K	A-17925 2 SHT
B-2458-S	4	SUCTION VALVE, 127CT, NYX, D/S	A-9265
B-4903-AA	4	DISCHARGE VALVE, 127CT, MTX	A-9240
G-1783	4	HCL ASSY,SUC,11KCDT 845/1000	A-12945
G-1784	4	HCL ASSY,DIS,11KCDT 845/1000	A-12945



NOTES:

- 1.- LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2.  APPLY AN ANTI-SEIZE LUBRICANT TO BOTH SIDES OF GASKET SURFACES.
3.  OIL FACES OF STAT-O-SEALS BEFORE INSTALLING TO PREVENT ABRASION.
4.  USED TO PLUG INDICATOR PASSAGES WHERE APPLICABLE.
- 5.- THIS CYLINDER ASSEMBLY IS FOR ILLUSTRATION PURPOSES ONLY AND MAY NOT NECESSARILY REPRESENT THE EXACT CONFIGURATION PERTAINING TO THE UNIT ORDERED. REFER TO ACCOMPANYING PARTS LIST FOR ITEMS (AND QUANTITIES OF EACH) REQUIRED FOR THIS PARTICULAR ASSEMBLY.

[illegible]

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

11" JGK:T CYLINDER BODY, STANDARD.
RDP 768#, MAWP 845#PART NO. G-20204
REF DRAWING A-18648

ITEM	PART NUMBER	QTY	DESCRIPTION
1	D-3755	0	CYLINDER, 11K:T, HES, 845 MAWP
2	C-0937	0	CRANK END HEAD, 11K
3	A-2236	1	STEEL GASKET, 11.438 OD X 11.125 ID X .060, HEAD
4	FC0120IO	16	12-POINT CAPSCREW, 3/4-10 X 3, G8
5	B-3549	1	GASKET, 22.500 OD X 18.516 ID X 0.015, CYLINDER, 18 HOLES
6	FC0120JW	12	12-POINT CAPSCREW, 7/8-9 X 6, G8
8	FW0550ID	2	STAT-O-SEAL, VT, 75 DUROMETER, 3/4 ID
9	A-0830	2	MALE CONNECTOR, STL, 1/4 TUBE X 1/8 NPT
10	A-0815	2	MALE ELBOW, STL, 1/4 TUBE X 1/8 NPT
11	A-0811	2	HEX REDUCING BUSHING, 1/4 NPT (MALE) X 1/8 NPT (FEMALE), STL
12	PT0200CB	112."	TUBING, SS, 1/4 OD X .035 WALL
13	A-18496	2	CHECK VALVE, DOUBLE BALL, 1/4 TUBE X 1/8 NPT, SS
16	A-0465	1	DATA PLATE, CYLINDER SPECIFICATION, 3-1/2 X 2-1/4
17	FR0571CC	12	DRIVE SCREW, TYPE U, SS, #6 X 1/4
18	PP0810GB	6	PIPE PLUG, HEX HEAD, 1/2 NPT, STL
19	A-0640-A	2	INFORMATION PLATE, SUCTION
20	A-0640-B	2	INFORMATION PLATE, DISCHARGE
23	A-2072	2	LUBE FITTING, 3/4-10 X 4-1/2
33	A-3989	2	STREET ELBOW, 45° 1/2", 1/8 NPT, STL
100	HD-3755	1	CYLINDER HYDROTEST SET, 11K:T, HES, 845 MAWP

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

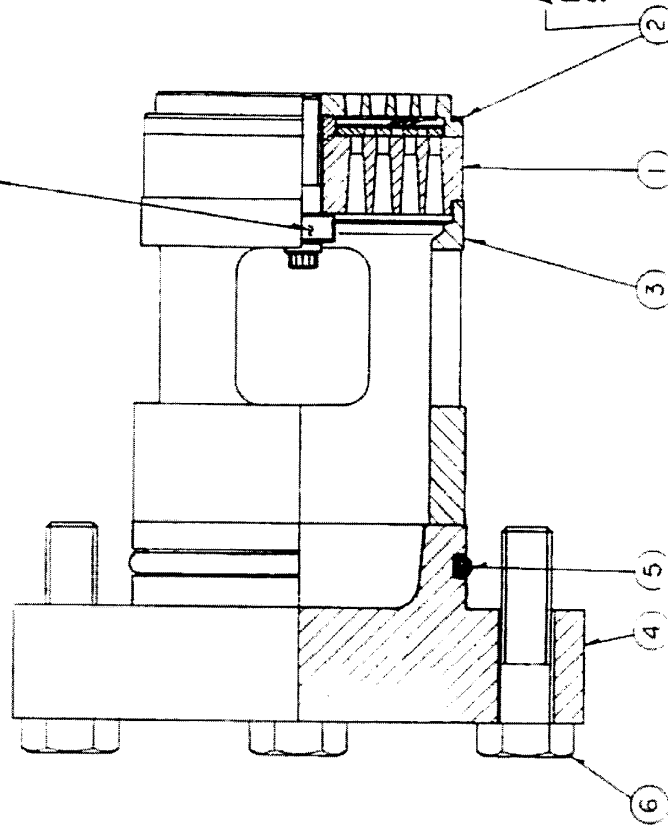
CYLINDER TO BE SHIPPED LOOSE
WITH TOP AND BOTTOM LUBE
AND STANDARD TUBING AND FITTINGS

PART NO. G-4112
REF DRAWING N.A.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-0886	2	BULKHEAD UNION, STL, 1/4 TUBE
2	A-0815	2	MALE ELBOW, STL, 1/4 TUBE X 1/8 NPT

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
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*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

1"-BUNG, THREADED WASHER FOR
VALVE INSTALLATION/REMOVAL.



APPLY AN ANTI-SEIZE
LUBRICANT TO GASKET
SURFACES.

— OIL O-RING BEFORE INSTALLING

NOTE : LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED
PROCEDURES AND TORQUE VALUES IN MANUAL.

G-1646
G-1539
G-1700
G-1710
G-1754
G-1819
G-2198
G-2303



ARIEL CORPORATION
MT. VERNON, OHIO
ASSY. DRWG. D-1092
NUMBER

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

SUCTION VALVE, RETAINER AND CAP
11" JGK:C:D:T CLASS

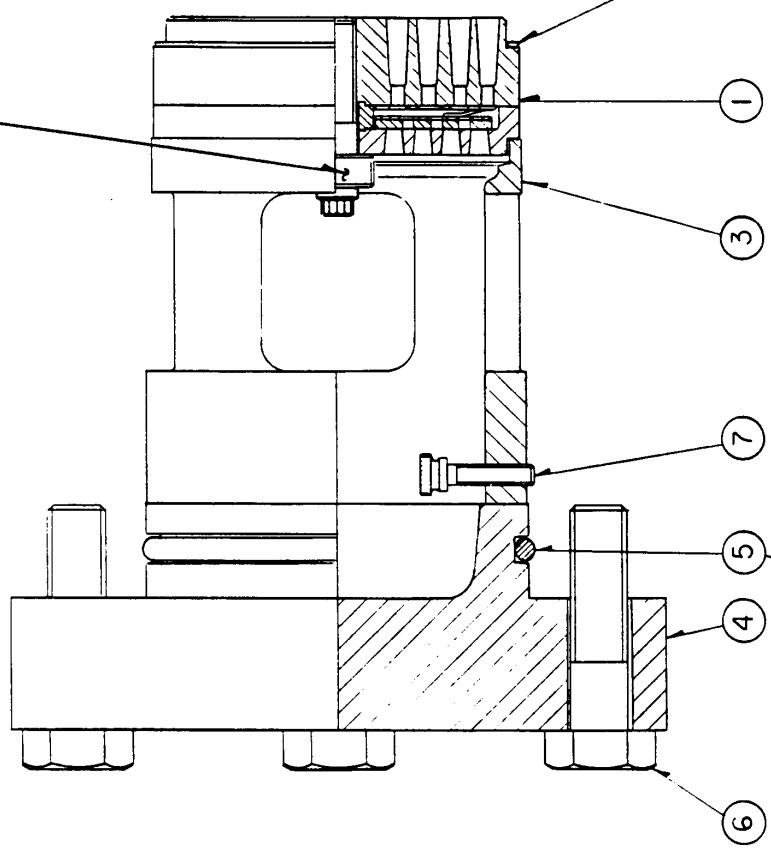
PART NO. G-1710
REF DRAWING D-1092

ITEM	PART NUMBER	QTY	DESCRIPTION
1	SUCTION VALVE	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2238	1	STEEL GASKET, 05.796 OD X 05.608 ID X .030, VALVE
3	B-1125	1	VLV RET,S&D,11 K:C:D 845/1000
4	B-1124	0	VALVE CAP, 11K:K PRC:C
5	A-0034	1	O-RING, VT, 5.895 OD X .210, 75/85 DUROMETER
6	FC0171FHJ	4	12-POINT CAPSCREW, 3/4-10 X 2-3/4 X 15/16, G8

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

G-1647
G-1564
G-1701
G-1711
G-1755
G-1820
G-1999
G-2304

1"-8UNC THREADED WASHER FOR
VALVE INSTALLATION/REMOVAL.



APPLY AN ANTI-SEIZE
LUBRICANT TO GASKET
SURFACES.

OIL O-RING BEFORE INSTALLING

NOTE: LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED
PROCEDURES AND TORQUE VALUES IN MANUAL.

DATE	2/24/00
BY	W. J. H.
CHECKED	W. J. H.
APPROVED	W. J. H.
DESIGNED	W. J. H.
DRAWN	W. J. H.

ARIEL CORPORATION
MT. VERNON, OHIO
ASSY. DRWG. D-1093
NUMBER

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

DISCHARGE VALVE, RETAINER, CAP
11" JGK:C:D:T CLASS CYLINDER

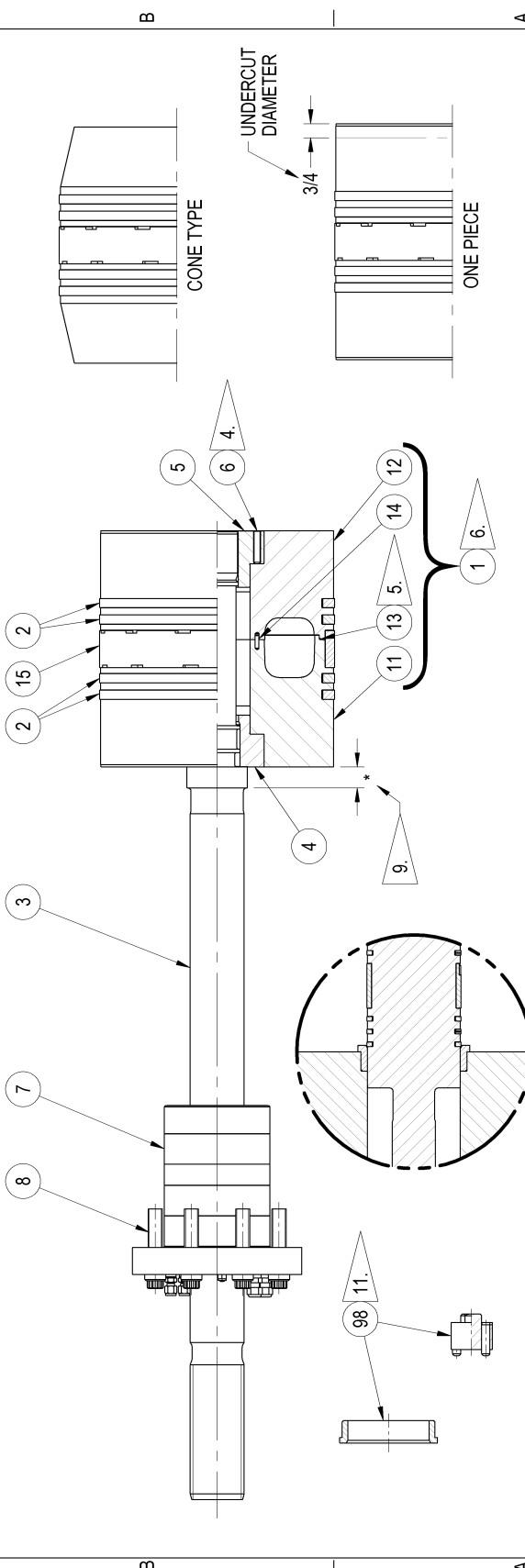
PART NO. G-1711
REF DRAWING D-1093

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DISCHARGE VALV	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2238	1	STEEL GASKET, 05.796 OD X 05.608 ID X .030, VALVE
3	B-1125	1	VLV RET,S&D,11 K:C:D 845/1000
4	B-1124	0	VALVE CAP, 11K:K PRC:C
5	A-0034	1	O-RING, VT, 5.895 OD X .210, 75/85 DUROMETER
6	FC0171FHJ	4	12-POINT CAPSCREW, 3/4-10 X 2-3/4 X 15/16, G8
7	A-2695	2	THUMB SCREW, NYLON, 1/4-20 X 1"

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

1	2	3	4
---	---	---	---

- 2.- TORQUE VALUES FOR ASSEMBLY OR REASSEMBLY OF THIS UNIT.
REFER TO TECHNICAL MANUAL FOR RECOMMENDED PROCEDURES AND
 - 3.- REFER TO SHEET #2 FOR PACKING TUBE LINE CONFIGURATIONS.
 4.  PRICK PUNCH TO RETAIN SET SCREWS (ITEM #6).
 5.  LIGHTLY OIL O-RING BEFORE INSTALLING.
 6.  (ITEMS #11 #12 #13 & #14) APPLY TO (2) PIECE PISTONS ONLY
 9.  REMOVE C.E. SUCTION VALVE TO ADJUST C.E. PISTON CLEARANCE.
(SEE CYLINDER SPECIFICATIONS DATA PLATE OR THE TECHNICAL MANUAL).
DO NOT USE STRAP WRENCH ON PISTON ROD - USE TURNING TOOL WHICH FITS TURNING HOLES IN PISTON NUT.
 - 10.- PISTON MAY BE ONE OR TWO PIECE, CONE OR STRAIGHT.
 11.  PISTON / PISTON ROD SPANNER & PISTON ENTERING TOOL (ITEM #98) ARE SHIPPED IN TOOL BOX WHEN REQUIRED. DETAIL VIEW SHOWS PISTON ENTERING TOOL USED DURING INSTALLATION OF PISTON

[illegible]

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

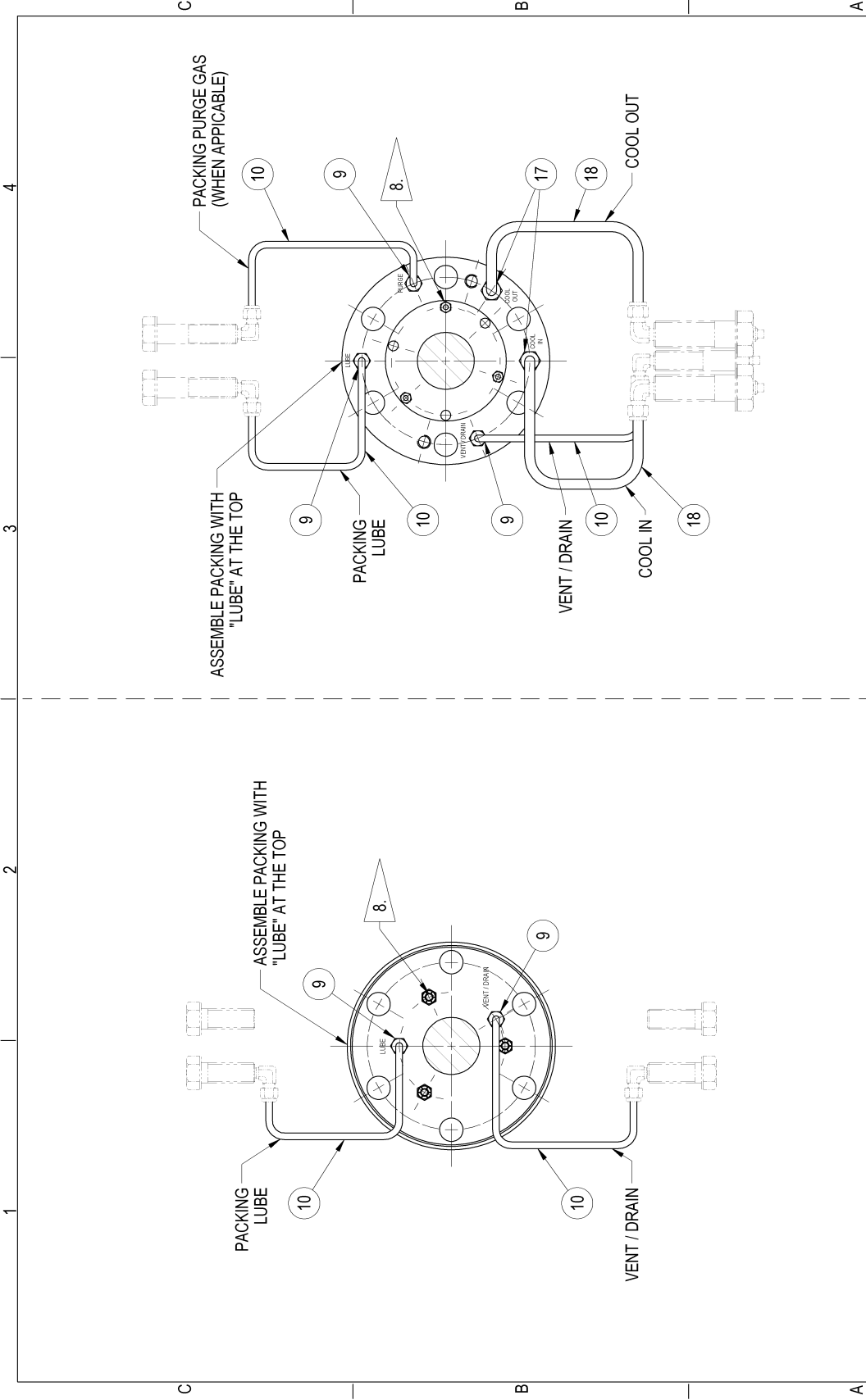
RHBUILD1

11.000 K PISTON ASSEMBLY; 05.500 STROKE. PART NO. PISTON ASSY
G-SHEETS USED: G-18342, G-21536, G-18238, G-18945, REF DRAWING A-17925 2 SHT
G-18251.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	C-2850	1	PIST,WB ,11 K,2PC
2	A-2240	4	PISTON RING, 11K:T:KCZ/LM
3	C-0876	1	PISTON ROD, 5.500 STROKE / 45.435 LONG
4	B-1248	1	PISTON COLLAR, 4 OD, JGK:T
5	B-1249	1	PISTON NUT, 4 OD, JGK:T
6	FS0405DH	2	SET SCREW, CUP POINT, 5/16-24 X 1-1/4
7	B-1584	1	PKG,2.0,1500,STD,BTR
8	FC0120IV	4	12-POINT CAPSCREW, 3/4-10 X 5-1/2, G8
9	A-0827	0	MALE CONNECTOR, STL, 1/4 TUBE X 1/4 NPT
10	PT0200CB	30."	TUBING, SS, 1/4 OD X .035 WALL
11	SC-2848	0	PIST,WB ,11 K,CE/PC
12	SC-2849	0	PIST,WB ,11 K,HE/PC
13	A-8444	0	O-RING, VT, 8.390 OD X .070, 75 DUROMETER
14	FP0505EE	0	ROLL PIN, 3/16 OD X 3/4 LONG
15	A-2242	1	WEAR BAND,11 K:C:Z,2.0W
99	B-1584-K	0	REBUILD KIT, 2.000 PISTON ROD PACKING
99	B-6470-K	0	REBUILD KIT, 2.000 OIL WIPER PACKING, TEFLON WAT

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

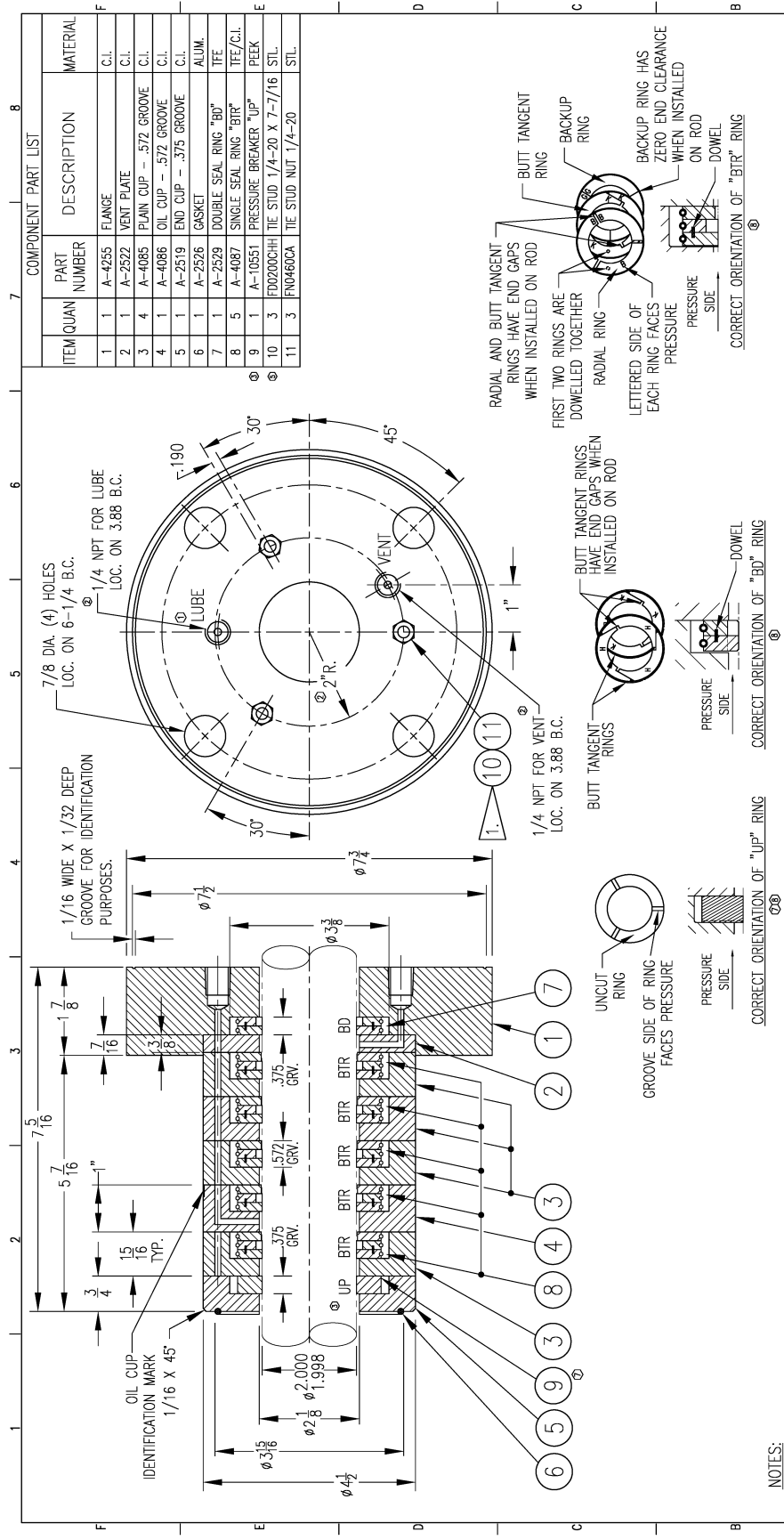


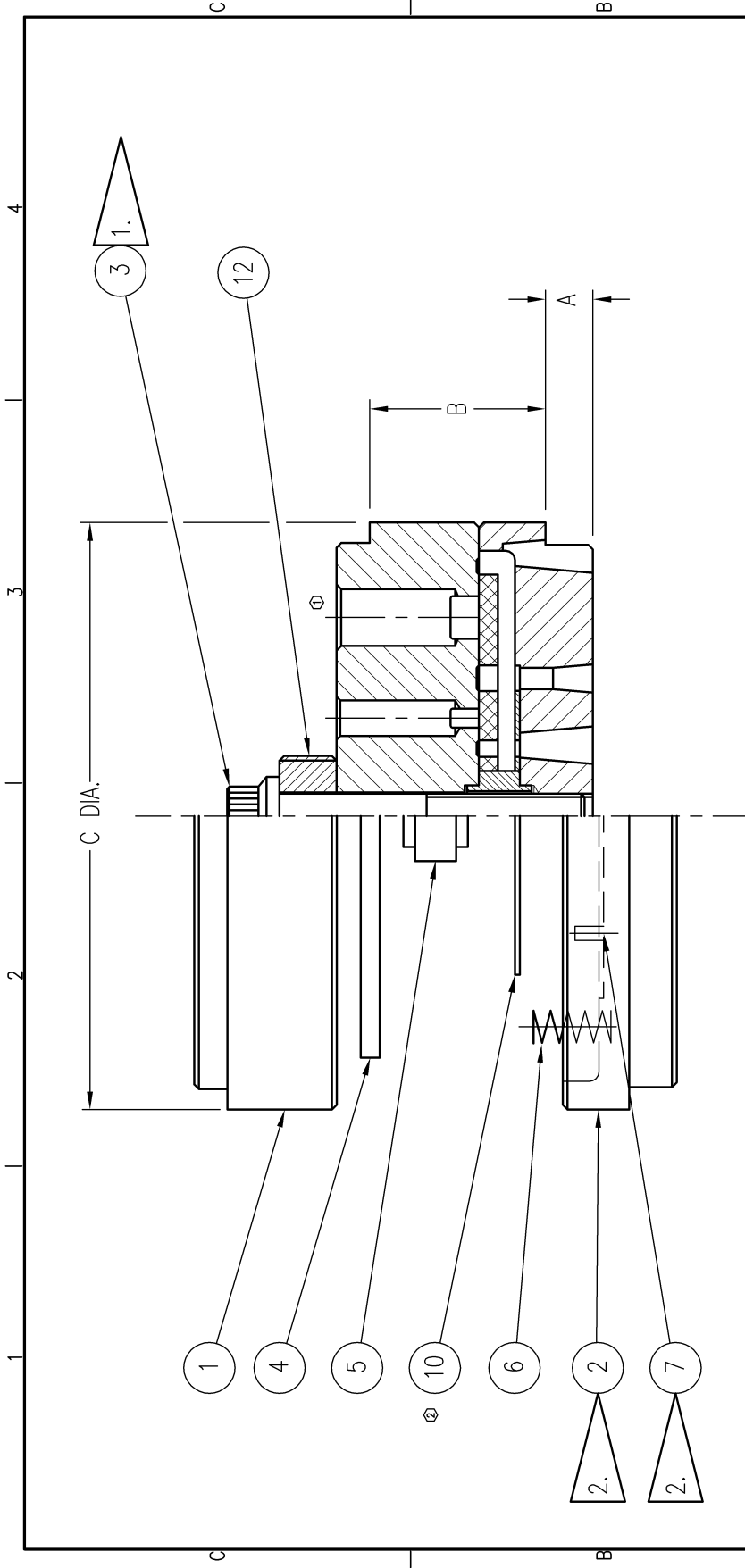
ASSEMBLY
DWG. NO. **A-17925**
SHEET 2 OF 2

DRAWN		CHECKED		SCALE	
0	16824	CPM	01/31/11	NONE	NONE

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ARIEL CORPORATION. ONLY BY WRITTEN CONSENT AND AGREED
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REPRODUCE OR TRANSMIT IN ANY FORM OR BY ANY MEANS,
ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING,
RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL
SYSTEM, WITHOUT PERMISSION IN WRITING FROM ARIEL CORPORATION.

DESCRIPTION		INITIALS
REV		





NOTES:

1. FOR ASSEMBLY OF CENTER BOLT SEE ER-35.
2. VALVE GUARD ASSEMBLY (ITEM #2) CONSISTS OF VALVE GUARD, AND SPIROL PIN (ITEM #7).

ARIEL CORPORATION
 35 BLACKJACK ROAD
 MOUNT VERNON, OHIO 43050

TITLE: SUCTION VALVE, CT		A	
MATERIAL: PROCURED		4	
DRAWN: IG 9/27/99		R.S. No.	
CHECKED: ED 10/1/99		PART NO.	
SCALE: NONE		DWG. No: A-9265	
REV	ECN	REV	ECN
2	16980	2	16980
1	8549	1	8549
0	7799	0	7799

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 DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 ----- DO NOT SCALE DRAWING -----

(B-1) REVISED VIEW OF VALVE PLATE ITEM 10. UPDATED BORDER.		FET	09/16/2010
REMOVED THE OUTER RING FROM THE VALVE SEAT.		IG	02/22/2001
DESCRIPTION		INIT/DATE	

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

0.3940=A
1.4570=B
5.8080=C
0.1020=LFTPART NO. B-2458-S
REF DRAWING A-9265

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-8072	1	SUCTION VALVE SEAT, 127CGT, DRILLED
2	A-2310-A	1	SUCTION VALVE GUARD ASSEMBLY, 127CGT
3	A-17241	1	CENTER BOLT, 12-POINT, 7/16-20 X 2-1/2 LONG
4	A-6509	1	VALVE PLATE, 127CT, .197 THICK, NYX
5	A-2166	1	GUIDE RING, 148-179CT, .338 THICK
6	A-1345	13	SPRING (.354/.276 OD X .630 FREE LENGTH) YELLOW, .028 WIRE DIAMETER
7	A-2039	2	SPIROL PIN, .118 OD X .591 LONG
10	A-2313	1	WAFER SPRING, 127CGT
12	A-2167	1	VALVE WASHER, 7/16 ID X 1-8 THREAD
99	KB-2458-S	0	KIT, VALVE, 127CT, NYX, D/S

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***



- ARIEL CORPORATION**
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

REV	DESCRIPTION	THIS DOCUMENT AND CONTENTS THEREIN ARE PROPRIETARY TO ARIEL CORPORATION. ONLY BY WRITTEN CONSENT AND AGREED TERMS BY ARIEL CORPORATION GIVES THE RIGHT TO MANUFACTURE, BUT DOES NOT GRANT THE RIGHT TO DISCLOSE OR USE IN PART OR IN WHOLE INFORMATION CONTAINED IN DOCUMENT. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ----- DO NOT SCALE DRAWING ----- DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.		TITLE: DISCHARGE VALVE, CJT
		MATERIAL: PROCURED	DRAWN: IC 9/24/99	R.S. No.
		CHECKED: 0 7799	ED 10/1/99	PART NO.
		REV ECN	SCALE: NONE	DWG. No: A-9240

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

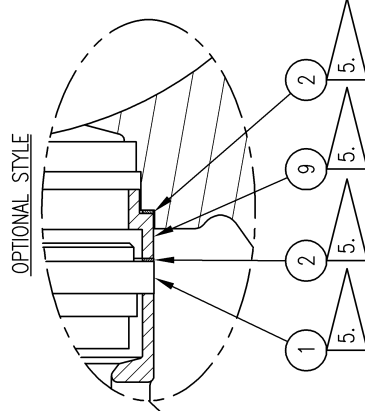
RHBUILD1

0.1960=A
1.4570=B
5.8360=C
0.0830=LFTPART NO. B-4903-AA
REF DRAWING A-9240

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-8071	1	DISCHARGE VALVE SEAT, 127CGT, DRILLED
2	A-2315-A	1	DISCHARGE VALVE GUARD ASSEMBLY, 127CGT
3	A-2254	1	CENTER BOLT, 12 POINT, 7/16-20 X 2-1/4 LONG
4	A-15111	1	VALVE PLATE, 127CT, .217 THICK, MTX
5	A-2166	1	GUIDE RING, 148-179CT, .338 THICK
6	A-1345	26	SPRING (.354/.276 OD X .630 FREE LENGTH) YELLOW, .028 WIRE DIAMETER
7	A-2039	2	SPIROL PIN, .118 OD X .591 LONG
10	A-2313	1	WAFER SPRING, 127CGT
12	A-2167	1	VALVE WASHER, 7/16 ID X 1-8 THREAD
99	KB-4903-AA	0	KIT, VALVE, 127CT, MTX

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***



2.- SEE SHEET #2 FOR FURTHER INSTRUCTIONS.

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REV	DESCRIPTION	INIT/DATE

 **ARIEL CORPORATION**
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

0	12367	DRAWN: ARW	12/15/04	APPROVED:	ASSEMBLY DWG. NO.	A-12945	SHEET 1 OF 2
REV	ECN	CHECKED: DAH	12/15/04	SCALE:	NONE		

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

HIGH CLEARANCE SUCTION VALVE SPACER
AND RETAINER
11" JGK:C:D:T CLASS CYLINDER

PART NO. G-1783
REF DRAWING A-12945 2 SHT

ITEM	PART NUMBER	QTY	DESCRIPTION
1	SUCTION VALVE	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2238	2	STEEL GASKET, 05.796 OD X 05.608 ID X .030, VALVE
3	B-1192	1	HIGH CLEARANCE VALVE RETAINER, SUCTION & DISCHARGE, 11K:C:Z
4	B-1124	0	VALVE CAP, 11K:K PRC:C
5	A-0034	1	O-RING, VT, 5.895 OD X .210, 75/85 DUROMETER
6	FC0171FHJ	0	12-POINT CAPSCREW, 3/4-10 X 2-3/4 X 15/16, G8
9	A-2420	1	HIGH CLEARANCE VALVE SPACER, SUCTION, 11K:C:Z

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INSTRUCTIONS FOR INSTALLING HIGH CLEARANCE VALVE SPACER/RETAINERS: Cont.

WARNING:

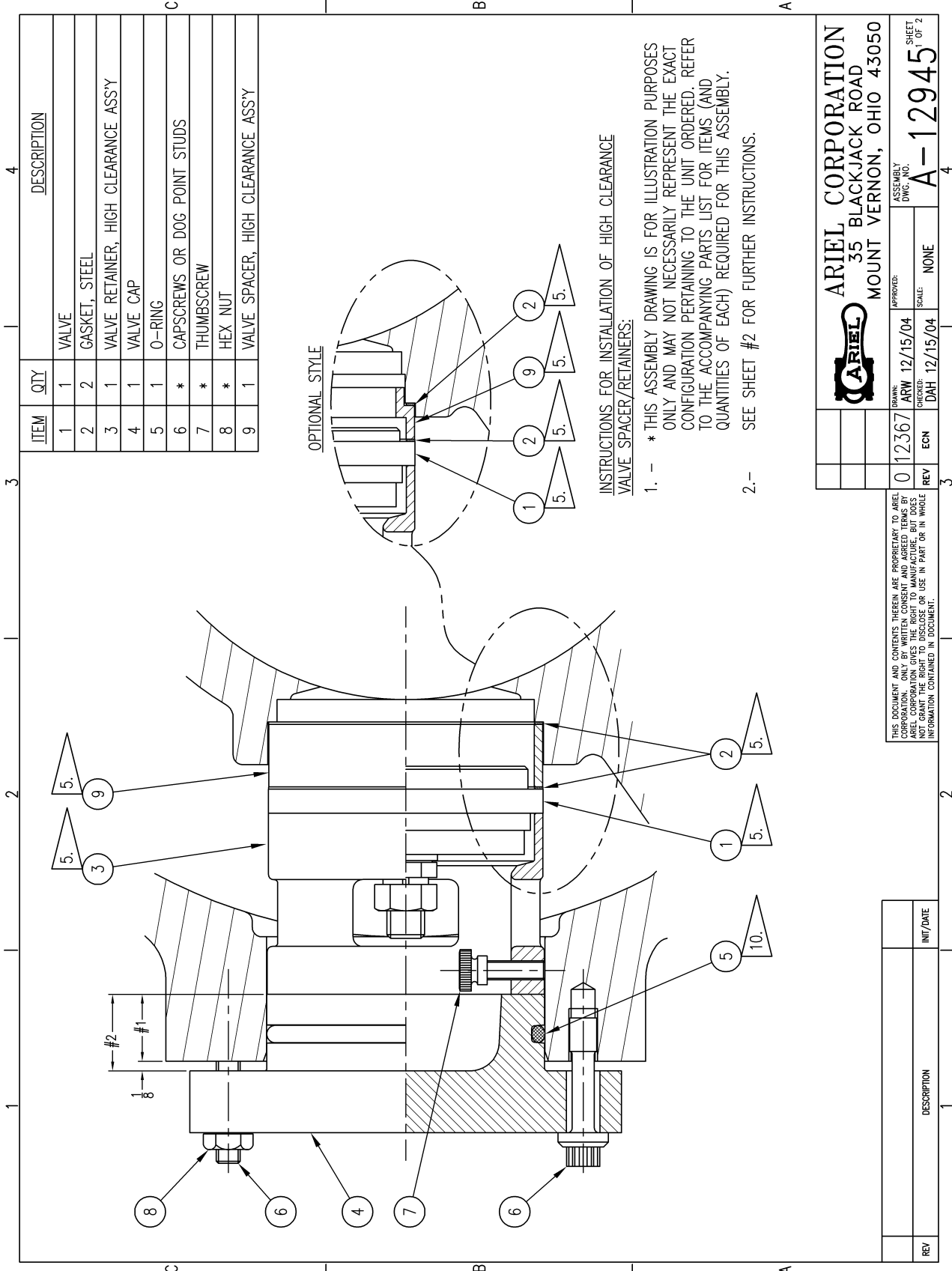
BEFORE ATTEMPTING TO REMOVE ANY VALVE CAP, BE VERY CERTAIN THAT ALL GAS PRESSURE HAS BEEN VENTED FROM THE CYLINDER. PRESSURE MUST BE COMPLETELY VENTED FROM BOTH THE SUCTION AND DISCHARGE PASSAGES OF THE CYLINDER.

- 3.— REMOVE VALVE CAP AND EXTRACT EXISTING VALVE RETAINER, VALVE AND GASKET.
- 4.— AFTER CLEANING AND INSPECTING THE VALVE POCKET BORE, INSTALL A NEW METALLIC GASKET COATED WITH AN ANTI—SEIZE LUBRICANT TO RETAIN IT IN POSITION WHILE THE REMAINDER OF THE ASSEMBLY IS INSERTED.
- 5.— ASSEMBLE VERTICALLY; THE SPACER, METALLIC GASKET (COATED WITH AN ANTI—SEIZE LUBRICANT), VALVE AND NEW VALVE RETAINER. IF ADDITIONAL CLEARANCE IS NOT REQUIRED REMOVE THE SPACER AND USE THE STANDARD RETAINER. THE SPACER IS NOT DESIGNED TO BE PLACED BETWEEN THE VALVE AND RETAINER
- 6.— THREAD THE VALVE PULLER ONTO VALVE CENTER BOLT AND PICK UP THE ASSEMBLY HOLDING THE SPACER AND NEW VALVE RETAINER IN POSITION.
- 7.— INSERT THE ASSEMBLY INTO THE APPROPRIATE VALVE POCKET. TO CHECK IF THE VALVE ASSEMBLY IS SEATED PROPERLY TWIST THE VALVE PULLER HANDLE CLOCKWISE. IF SEATED PROPERLY THE ASSEMBLY SHOULD SPIN. TO ENSURE THE VALVE ASSEMBLY IS FULLY "HOME", MEASURE DISTANCE #1 FROM THE TOP OF THE VALVE RETAINER TO THE EDGE OF THE VALVE POCKET BORE. MEASURE THE NOSE LENGTH ON THE VALVE CAP, DISTANCE #2 AND SUBTRACT DIMENSION #1 FROM IT. 1/8" WILL BE THE RESULT. IF YOU HAVE A VALVE GREATER THAN 1/8" CALL THE ARIEL RESPONSE CENTER AT 1-888-397-7766 (NORTH AMERICA) OR 1-740-397-3602 (INTERNATIONAL) FOR ASSISTANCE.
- 8.— HOLD THE VALVE ASSEMBLY IN VALVE POCKET USING HAND AND UNTHREAD THE VALVE PULLER.
- 9.— WHILE STILL HOLDING THE VALVE ASSEMBLY IN VALVE POCKET, TIGHTENING THE THUMBSCREWS (PROVIDED ON DISCHARGE RETAINER ONLY).
- 10.— INSTALL OILED, NEW O—RING ON THE VALVE CAP AND INSERT IN THE VALVE POCKET.
- 11.— INSTALL CAP SCREWS AND TIGHTEN EVENLY. IN SMALL STEPS, TO PROPER TORQUE PER ER-63.

NOTE:

IF ASSEMBLED CORRECTLY, THERE SHOULD BE AN 1/8" GAP BETWEEN THE VALVE CAP AND THE CYLINDER VALVE PAD.

[illegible]



REV

DESCRIPTION

INIT/DATE

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

ARIEL CORPORATION

35 BLACKJACK ROAD

MOUNT VERNON, OHIO 43050

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

ARIEL CORPORATION

35 BLACKJACK ROAD

MOUNT VERNON, OHIO 43050

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

ARIEL CORPORATION

35 BLACKJACK ROAD

MOUNT VERNON, OHIO 43050

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

0

12367

ARW 12/15/04

DAH 12/15/04

ECN

REV

7/31/14

ARIEL CORPORATION
PARTS LIST

C/N: 001

RHBUILD1

HIGH CLEARANCE DISCHARGE VALVE SPACER
AND RETAINER
11" JGK:C:D:T CLASS CYLINDER

PART NO. G-1784
REF DRAWING A-12945 2 SHT

ITEM	PART NUMBER	QTY	DESCRIPTION
1	DISCHARGE VALV	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2238	2	STEEL GASKET, 05.796 OD X 05.608 ID X .030, VALVE
3	B-1192	1	HIGH CLEARANCE VALVE RETAINER, SUCTION & DISCHARGE, 11K:C:Z
4	B-1124	0	VALVE CAP, 11K:K PRC:C
5	A-0034	1	O-RING, VT, 5.895 OD X .210, 75/85 DUROMETER
6	FC0171FHJ	0	12-POINT CAPSCREW, 3/4-10 X 2-3/4 X 15/16, G8
7	A-2695	2	THUMB SCREW, NYLON, 1/4-20 X 1"
9	A-2421	1	HIGH CLEARANCE VALVE SPACER, DISCHARGE, 11K:C:Z

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
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INSTRUCTIONS FOR INSTALLING HIGH CLEARANCE VALVE SPACER/RETAINERS: Cont.

WARNING:

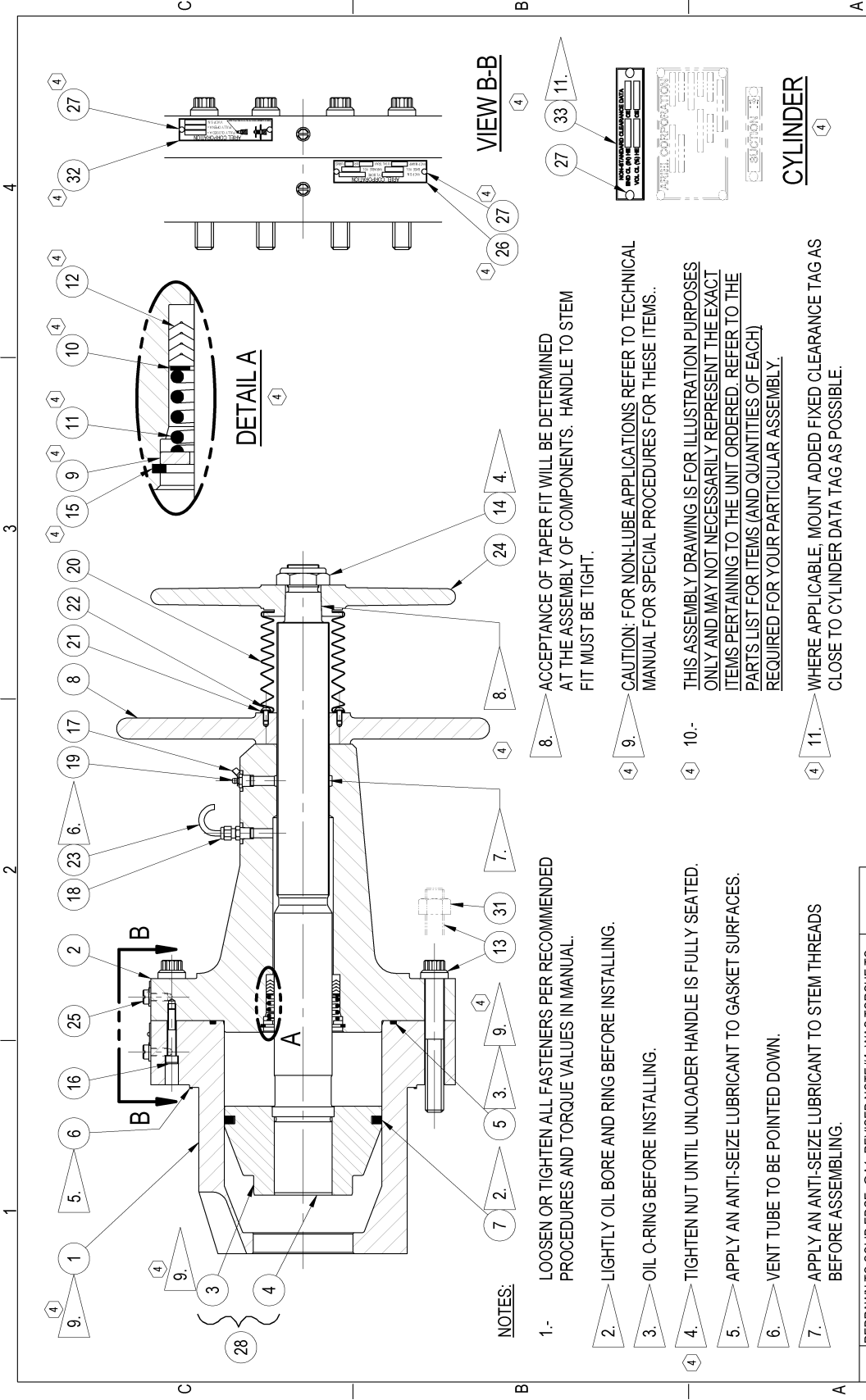
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- 3.— REMOVE VALVE CAP AND EXTRACT EXISTING VALVE RETAINER, VALVE AND GASKET.
- 4.— AFTER CLEANING AND INSPECTING THE VALVE POCKET BORE, INSTALL A NEW METALLIC GASKET COATED WITH AN ANTI—SEIZE LUBRICANT TO RETAIN IT IN POSITION WHILE THE REMAINDER OF THE ASSEMBLY IS INSERTED.
- 5.— ASSEMBLE VERTICALLY; THE SPACER, METALLIC GASKET (COATED WITH AN ANTI—SEIZE LUBRICANT), VALVE AND NEW VALVE RETAINER. IF ADDITIONAL CLEARANCE IS NOT REQUIRED REMOVE THE SPACER AND USE THE STANDARD RETAINER. THE SPACER IS NOT DESIGNED TO BE PLACED BETWEEN THE VALVE AND RETAINER
- 6.— THREAD THE VALVE PULLER ONTO VALVE CENTER BOLT AND PICK UP THE ASSEMBLY HOLDING THE SPACER AND NEW VALVE RETAINER IN POSITION.
- 7.— INSERT THE ASSEMBLY INTO THE APPROPRIATE VALVE POCKET. TO CHECK IF THE VALVE ASSEMBLY IS SEATED PROPERLY TWIST THE VALVE PULLER HANDLE CLOCKWISE. IF SEATED PROPERLY THE ASSEMBLY SHOULD SPIN. TO ENSURE THE VALVE ASSEMBLY IS FULLY "HOME", MEASURE DISTANCE #1 FROM THE TOP OF THE VALVE RETAINER TO THE EDGE OF THE VALVE POCKET BORE. MEASURE THE NOSE LENGTH ON THE VALVE CAP, DISTANCE #2 AND SUBTRACT DIMENSION #1 FROM IT. 1/8" WILL BE THE RESULT. IF YOU HAVE A VALVE GREATER THAN 1/8" CALL THE ARIEL RESPONSE CENTER AT 1-888-397-7766 (NORTH AMERICA) OR 1-740-397-3602 (INTERNATIONAL) FOR ASSISTANCE.
- 8.— HOLD THE VALVE ASSEMBLY IN VALVE POCKET USING HAND AND UNTHREAD THE VALVE PULLER.
- 9.— WHILE STILL HOLDING THE VALVE ASSEMBLY IN VALVE POCKET, TIGHTENING THE THUMBSCREWS (PROVIDED ON DISCHARGE RETAINER ONLY).
- 10.— INSTALL OILED, NEW O—RING ON THE VALVE CAP AND INSERT IN THE VALVE POCKET.
- 11.— INSTALL CAP SCREWS AND TIGHTEN EVENLY. IN SMALL STEPS, TO PROPER TORQUE PER ER-63.

NOTE:

IF ASSEMBLED CORRECTLY, THERE SHOULD BE AN 1/8" GAP BETWEEN THE VALVE CAP AND THE CYLINDER VALVE PAD.

[illegible]



NOTES:

- 1.- LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2. LIGHTLY OIL BORE AND RING BEFORE INSTALLING.
3. OIL O-RING BEFORE INSTALLING.
4. TIGHTEN NUT UNTIL UNLOADER HANDLE IS FULLY SEATED.
5. APPLY AN ANTI-SEIZE LUBRICANT TO GASKET SURFACES.
6. VENT TUBE TO BE POINTED DOWN.
7. APPLY AN ANTI-SEIZE LUBRICANT TO STEM THREADS BEFORE ASSEMBLING.
8. ACCEPTANCE OF TAPER FIT WILL BE DETERMINED AT THE ASSEMBLY OF COMPONENTS. HANDLE TO STEM FIT MUST BE TIGHT.
9. CAUTION: FOR NON-LUBE APPLICATIONS REFER TO TECHNICAL MANUAL FOR SPECIAL PROCEDURES FOR THESE ITEMS..
- 10.- THIS ASSEMBLY DRAWING IS FOR ILLUSTRATION PURPOSES ONLY AND MAY NOT NECESSARILY REPRESENT THE EXACT ITEMS PERTAINING TO THE UNIT ORDERED. REFER TO THE PARTS LIST FOR ITEMS (AND QUANTITIES OF EACH) REQUIRED FOR YOUR PARTICULAR ASSEMBLY.
11. WHERE APPLICABLE, MOUNT ADDED FIXED CLEARANCE TAG AS CLOSE TO CYLINDER DATA TAG AS POSSIBLE.



CYLINDER

REV	DESCRIPTION	INITIALS
4	REDRAWN TO SOLID EDGE @A1: REVISED NOTE #4. WAS TORQUE TO 30 FT-LBS. THEN TORQUE 2-1/2 FLATS OR 350 FT-LBS. @B3: ADDED NOTE #8: @A3: ADDED NOTES #10 & #11. @B2 & C1: ADDED FLAGS #9. @B4: ADDED VIEW B-B. RELOCATED ITEMS #26 & #27 FROM C2. @C4: ADDED ITEMS #27 & #32. ADDED DETAIL A & RELOCATED ITEMS #10 FROM B2 & #12 FROM C2. @C3: RELOCATED ITEMS #9 & #11 FROM C2 & #15 FROM B1. @B2-B4: REMOVED DIMENSIONS. @A4: ADDED CYL. VIEW. UPDATED TO CURRENT STANDARDS.	DLI 08/06/2008

												ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050									
3		10035		2		10927		1		7854		DRAWN WSH 5/01/97		ASSEMBLY DWG. NO.							
REV		ECN		REV		ECN		REV		ECN		CHECKED 5/12/97		SCALE NONE							
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7/31/14

ARIEL CORPORATION
SALES ORDER COVER SHEET

C/N: 001

RHBUILD1

SERIAL #: U112893-95

PART: G-11015 DESCRIPTION: VVCP,11 K:T 845/1000

11" JGK:T UNLOADER ASSEMBLY, PART NO. G-11015
STAINLESS STEEL TUBING AND FITTINGS. REF DRAWING A-6883

ITEM	PART NUMBER	QTY	DESCRIPTION
1	C-1001	1	UNLOADER HEAD, 11K:T:K PRC:T PRC:C:D
2	D-1127	1	ADAPTER, HEAD END UNLOADER, 11K:C
3	C-1374	0	UNLOADER PISTON, 11K:T:K-HP:T-HP:C:D:Z:U
4	C-3719	0	UNLOADER STEM, K:C:Z, 2-1/2-8 THREAD
5	A-3502	1	O-RING, VT, 9.645 OD X .210, 75/85 DUROMETER
6	A-2236	1	STEEL GASKET, 11.438 OD X 11.125 ID X .060, HEAD
7	A-2355	1	UNL.PISTON RING, 8-1/2 O.D.
8	C-0983	1	UNLOADER LOCKING HANDLE, 2-1/2-8 THREAD
9	A-2397	1	RETAINER, UNLOADER PACKING, K:C:Z
10	A-2395	1	BACK-UP RING, PACKING
11	A-2400	1	COMPRESSION SPRING, UNLOADER, 3-7/16 OD
12	A-2399	1	V-RING PACKING, UNLOADER, 2-3/4 ID X 3-1/2 OD
13	FC0120IU	16	12-POINT CAPSCREW, 3/4-10 X 5, G8
14	A-2390	1	SELF-LOCK NUT, ESNA, THIN, 1-1/2-12
15	A-2392	1	SNAP RING, INTERNAL, SS, 3-3/4 BORE
16	FC0110EJ	2	SOCKET HEAD CAPSCREW, 3/8-16 X 1-3/4, G8
17	A-0500	1	GREASE FITTING CAP, PLASTIC
18	A-0938	1	MALE CONNECTOR, SS, 1/4 TUBE X 1/4 NPT
19	PZ0230BA	1	STRAIGHT GREASE FITTING, 1/4-18
20	A-2394	1	BELLOWS, THREAD PROTECTOR, UNLOADER
21	A-2398	1	BACK-UP RING, BELLOWS

7/31/14

ARIEL CORPORATION
SALES ORDER COVER SHEET

C/N: 001

RHBUILD1

22	FC0134CC	4	BUTTON HEAD CAPSCREW, 1/4-20 X 1/2, 316SS
23	PT0201CD	6."	TUBING, 316 SS, 1/4 OD X .065 WALL
24	C-0984	1	UNLOADER HANDLE, 3 PRONG
25	A-0256	1	MACHINE SCREW PLUG, PLASTIC, 1/2-13
26	A-0755	1	DATA PLATE, UNLOADER HEAD SPECIFICATION
27	FR0571CC	4	DRIVE SCREW, TYPE U, SS, #6 X 1/4
28	AC-3722	1	UNLOADER PISTON ASSEMBLY, 11K:T:K-HP:T-HP:C:D:Z:U
32	A-12927	1	DATA PLATE, UNLOADER ADAPTER SPECIFICATION

VARIABLE VOLUME CLEARANCE POCKET (Headend Unloader) DATA SHEET

11K Class Cylinder

Stroke: 5.50 in 140 mm

Bore: 11.000 in 279 mm

MAWP: 845 psig 58.3 barg 5826 kPa(g) 59.4 kg/cm2(g)

General Data for VVCP (independent of cylinder):

*Note: If VVCP services another cylinder, it may have a higher MAWP than the above

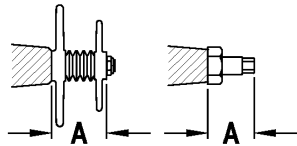
MAWP*: 1000 68.9 barg 6895 kPa(g)

VVCP piston diameter: 8.5 in 216 mm

Stem thread lead (pitch): 0.125 in 3 mm

Total travel: 4.0 in 10.2 cm

Number of turns from closed to fully open: 32



A distance - see diagram

- closed: 4-5/8 in 11.7 cm

- open: 8-5/8 in 21.9 cm

Minimum added fixed clearance: 3.9 in3 64.3 cm3

Additional added clearance when fully open: 227 in3 3720 cm3

Total added clearance when fully open: 230.9 in3 3784.2 cm3

Clearance volume change per turn: 7.1 in3 116.2 cm3

Clearance volume change per change in travel: 56.8 in3/in 366.1 cm3/cm

Clearance Data for VVCP alone, in percent of swept volume of above cylinder:

Minimum added fixed clearance: 0.8%

Additional added clearance when fully open: 43.4%

Total added clearance when fully open: 44.2%

Head end clearance change per turn: 1.4%

Head end clearance change per change in travel: 10.9% /in 4.3% /cm

Clearance Data with VVCP installed on above cylinder with standard valves, in percent of swept volume:

Minimum fixed head end clearance: 18.3%

Total head end clearance when fully open: 61.7%

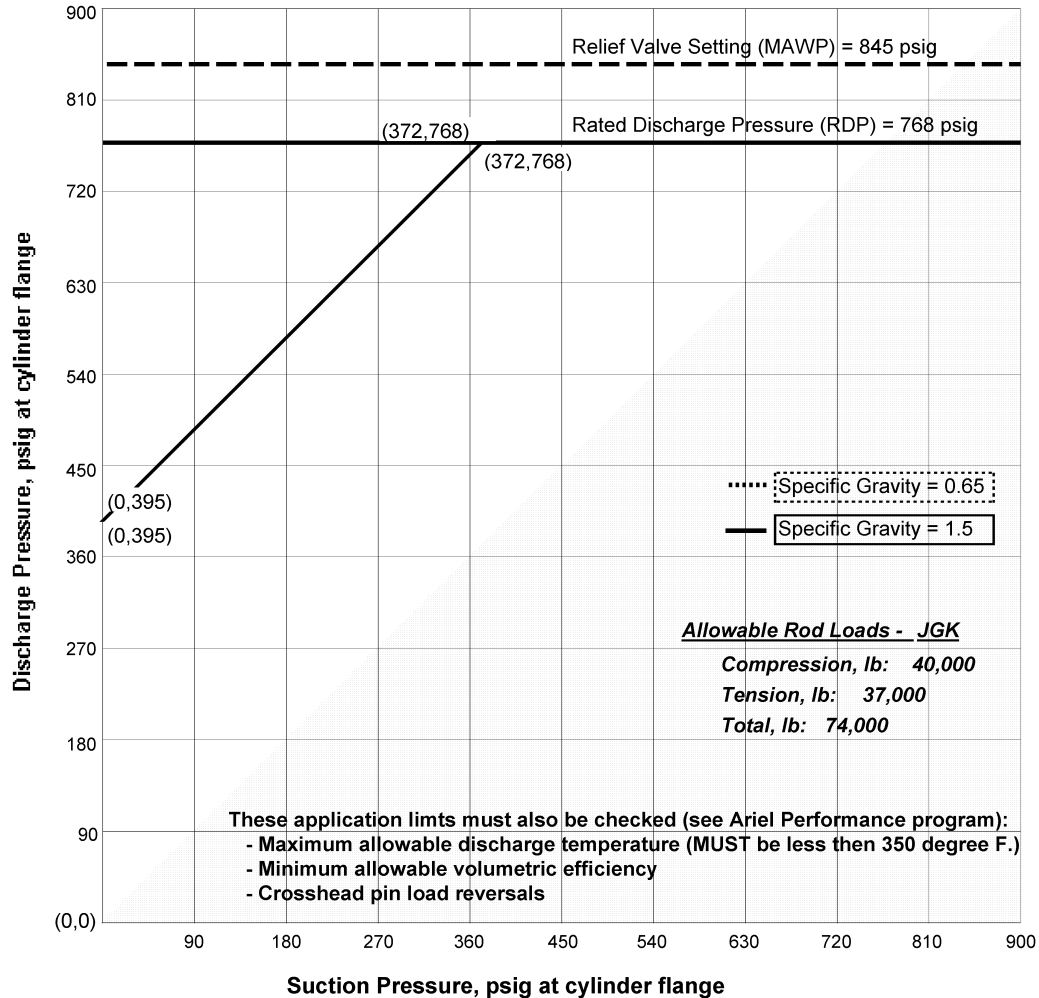
PLEASE NOTE: It is important to understand that the percent clearance figures for the variable volume clearance pocket above include the cylinder headend clearance. However, any valve spacers or other non-standard added clearances on the unit must be accounted for.

Estimated Gas Rod Load and Pressure Limits for 5.5 inch stroke at 0 RPM

Cylinder Class: 11K

Bore, inches: 11.000

Cylinder Serial Number: C-166422-24



This chart defines allowable operating limits for gas rod loads and standard working pressures. Pressure combinations falling above the line for the applicable Specific Gravity of the gas being compressed will exceed the Rod Load limitations of the equipment.

Calculations are based on 80 degrees Fahrenheit hydrocarbon gas at 1500 ft. elevation.

5/23/12

ARIEL CORPORATION
SALES ORDER COVER SHEET

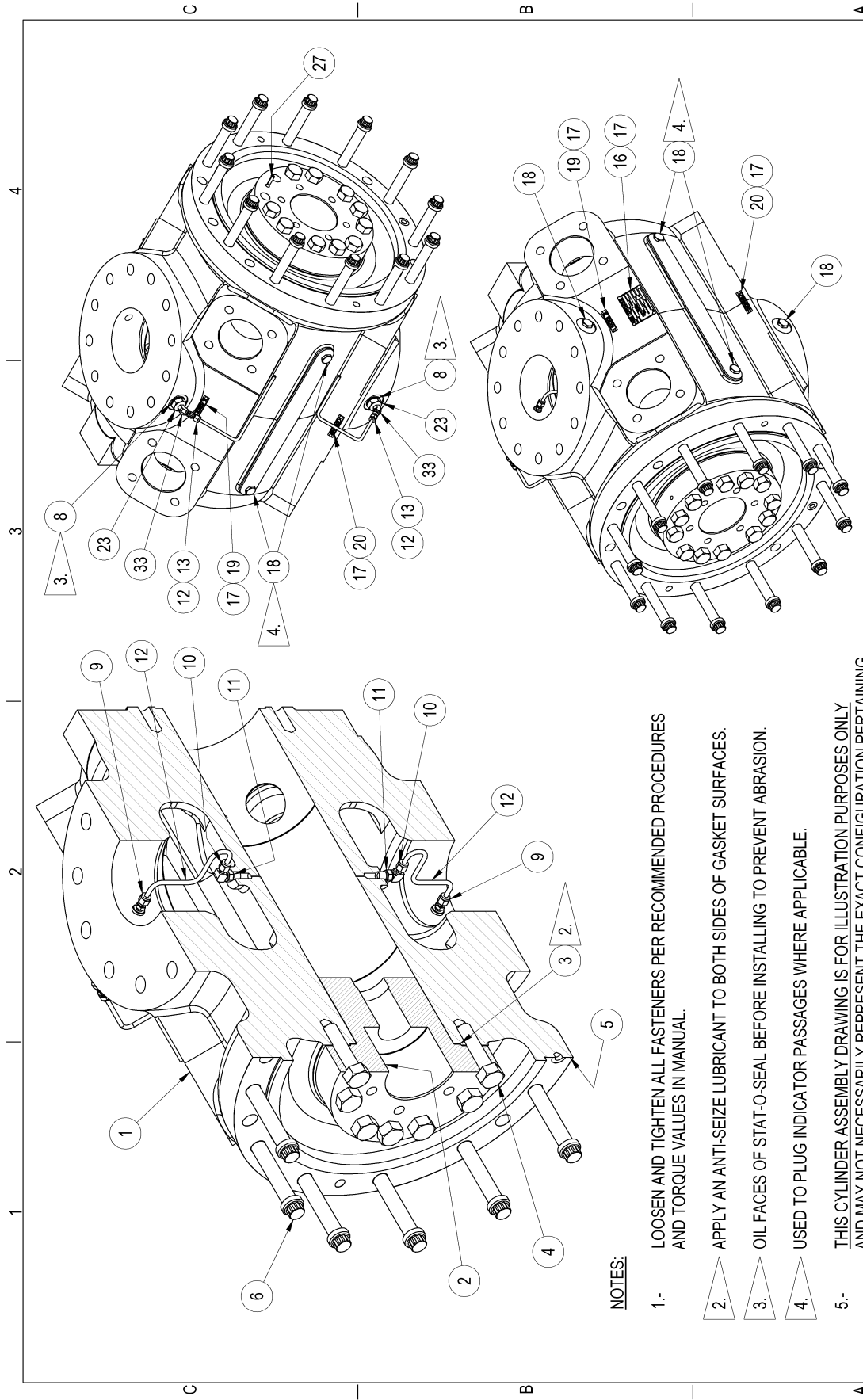
C/N: 001

RHCOVP02

SERIAL #: C134464

PART: 7-1/4K CLASS DESCRIPTION: 7-1/4"JGK CYLINDER CLASS

PART NUMBER	QTY	DESCRIPTION	DRAWING NO.
G-20787	1	CYLINDER ASSEMBLY, 6-3/4K:T, SF, 1900 MAWP	A-19067
G-4111	1	SHIP LOOSE CYL.TB LUBE,SF	N.A.
G-1609	4	SUC VLV ASSY, 7-1/4K:HP:CDTZ	C-0971
G-1610	4	DIS VLV ASSY, 7-1/4K:HP:CDTZ	C-0972
PISTON ASSY	1	PISTON ASSY 06.750 K	A-17925 2 SHT
B-6115-T	4	SUCTION VALVE, 77CT, NYX, M/S	A-16218
B-5908-AA	4	DISCHARGE VALVE, 77CT, MTX, M/S	A-15832



NOTES:

- 1.- LOOSEN AND TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2.  APPLY AN ANTI-SEIZE LUBRICANT TO BOTH SIDES OF GASKET SURFACES.
3.  OIL FACES OF STAT-O-SEAL BEFORE INSTALLING TO PREVENT ABRASION.
4.  USED TO PLUG INDICATOR PASSAGES WHERE APPLICABLE.

5.- THIS CYLINDER ASSEMBLY DRAWING IS FOR ILLUSTRATION PURPOSES ONLY AND MAY NOT NECESSARILY REPRESENT THE EXACT CONFIGURATION PERTAINING TO THE UNIT ORDERED. REFER TO ACCOMPANYING PARTS LIST FOR ITEMS (AND QUANTITIES OF EACH) REQUIRED FOR THIS PARTICULAR ASSEMBLY.



ASSEMBLY DWG. NO.	A-19067		SHEET OF 1
DRAWN: CPM 02/17/12			
CHECKED: DLI 02/20/12	SCALE	NONE	

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REV	DESCRIPTION	INITIALS	DATE	REVISION	

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511

5/23/12

PARTS LIST

6-3/4"K:T CYLINDER BODY, STANDARD.
STAINLESS STEEL TUBING AND FITTINGS.
RDP 1727#, MAWP 1900#

PART NO. G-20787
REF DRAWING A-19067

ITEM	PART NUMBER	QTY	DESCRIPTION
1	D-3502	0	CYLINDER, 6-3/4K:T, HES, 1900 MAWP
2	C-0903	0	CRANK END HEAD, 6-3/4K:T
3	A-2087	1	STEEL GASKET, 07.750 OD X 07.375 ID X .060, HEAD
4	FC0100JQ	12	HEX HEAD CAPSCREW, 7/8-9 X 3-1/2, G9
5	B-3549	1	GASKET, 22.500 OD X 18.516 ID X 0.015, CYLINDER, 18 HOLES
6	FC0120JW	12	12-POINT CAPSCREW, 7/8-9 X 6, G8
8	FW0550ID	2	STAT-O-SEAL, VT, 75 DUROMETER, 3/4 ID
9	A-0813	2	MALE CONNECTOR, SS, 1/4 TUBE X 1/8 NPT
10	A-0812	2	MALE ELBOW, SS, 1/4 TUBE X 1/8 NPT
11	A-0824	2	HEX REDUCING BUSHING, SS, 1/4 NPT(MALE) X 1/8 NPT(FEMALE)
12	PT0201CD	106."	TUBING, 316 SS, 1/4 OD X .065 WALL
13	A-18496	2	CHECK VALVE, DOUBLE BALL, SS, 1/4 TUBE INLET X 1/8 NPT OUTLET,
16	A-0465	1	DATA PLATE, CYLINDER SPECIFICATION, 3-1/2 X 2-1/4
17	FR0571CC	12	DRIVE SCREW, TYPE U, SS, #6 X 1/4
18	PP0810GE	6	PIPE PLUG, 1/2NPT, HEX HD, SS
19	A-0640-A	2	INFORMATION PLATE, SUCTION
20	A-0640-B	2	INFORMATION PLATE, DISCHARGE
23	A-3210	2	LUBE FITTING, 3/4-10 X 5
27	FP0505FG	1	ROLL PIN, 1/4 OD X 1" LONG
33	A-3990	2	STREET ELBOW, 45° 1/2", 1/8 NPT, SS
100	HD-3502	1	CYLINDER HYDROTEST SET, 6-3/4K:T, HES, 1900 MAWP

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

5/23/12

PARTS LIST

CYLINDER TO BE SHIPPED LOOSE
WITH TOP AND BOTTOM LUBE AND
STAINLESS STEEL TUBING AND FITTINGS

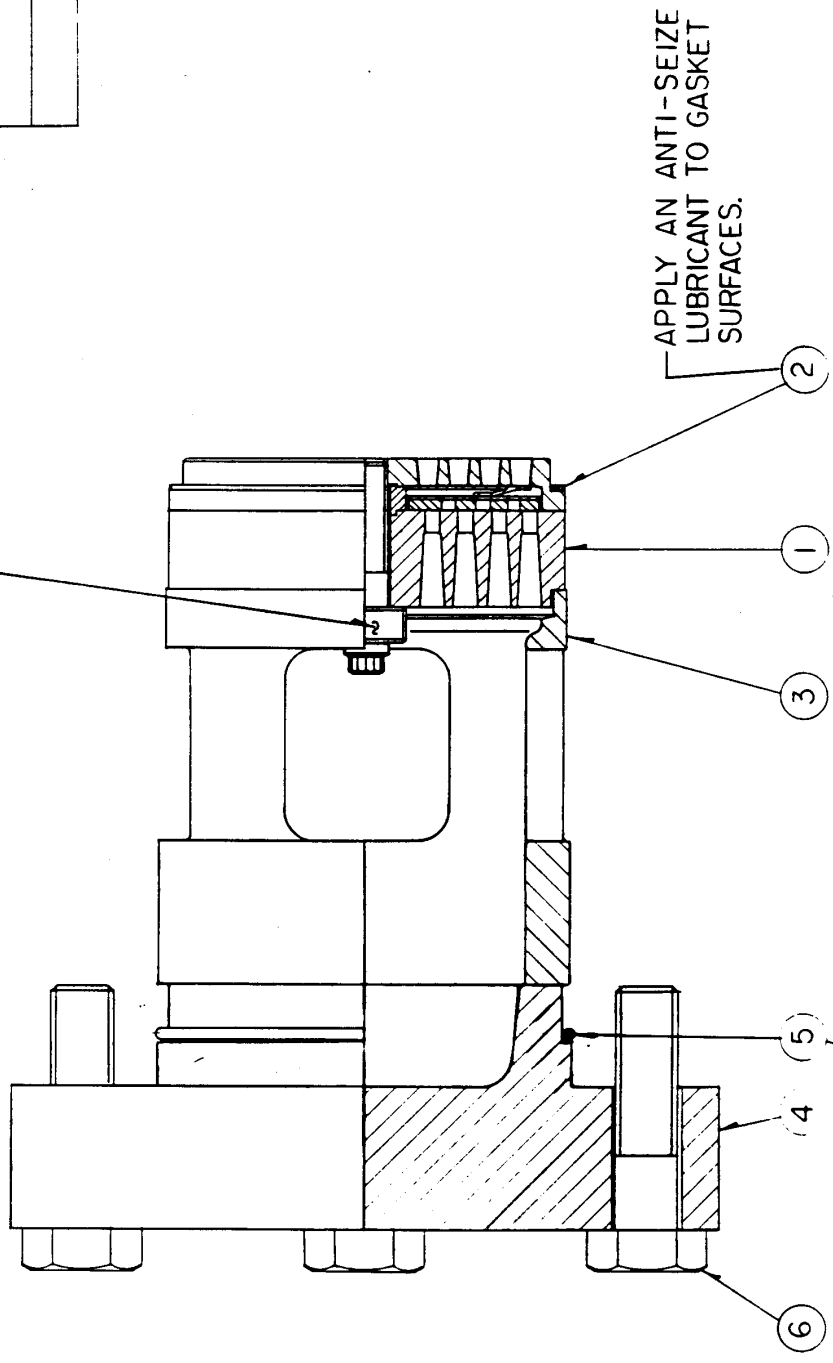
PART NO. G-4111
REF DRAWING N.A.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-0949	2	BULK.UNION, SS, 1/4T X 1/4T
2	A-0812	2	MALE ELBOW, SS, 1/4 TUBE X 1/8 NPT

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
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*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

G-1548
G-1609
G-1744

1"-8UNC THREADED WASHER FOR
VALVE INSTALLATION/REMOVAL.



— OIL O-RING BEFORE INSTALLING

NOTE : LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED
PROCEDURES AND TORQUE VALUES IN MANUAL.

03744
ARIEL CORPORATION
MT. VERNON, OHIO
ASSY. DRWG. C-0971
NUMBER

5/23/12

PARTS LIST

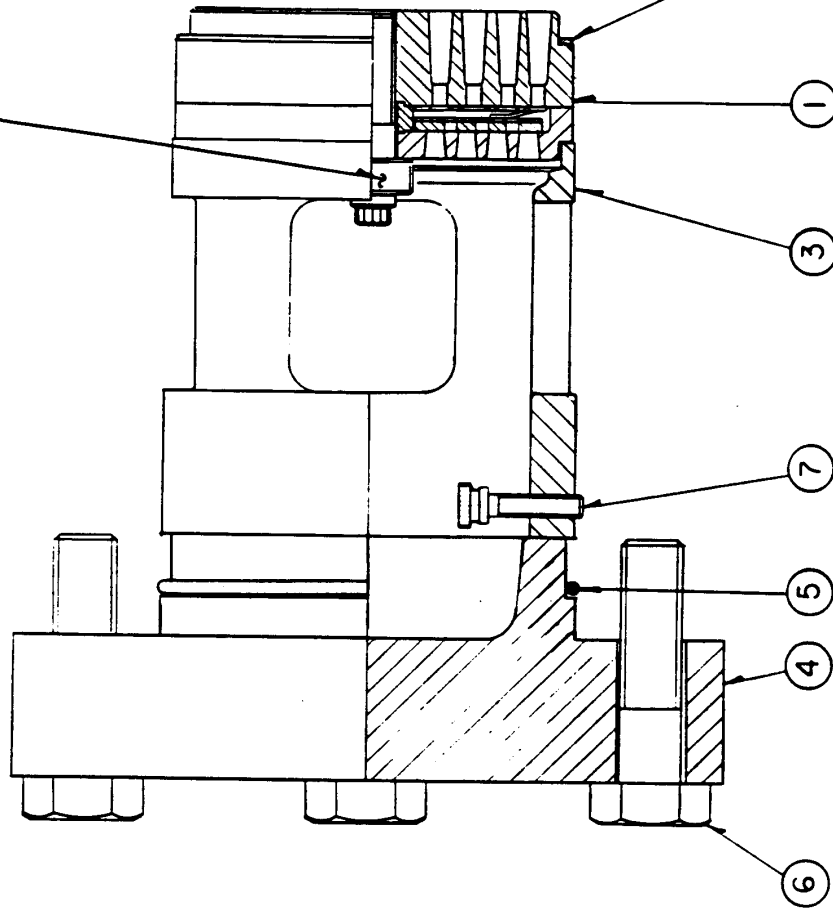
SUCTION VALVE, RETAINER AND CAP
7-1/4" JGK:K-HP:T:C:D:Z CLASS CYL.

PART NO. G-1609
REF DRAWING C-0971

ITEM	PART NUMBER	QTY	DESCRIPTION
1	SUCTION VALVE	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2084	1	STEEL GASKET, 03.855 OD X 03.537 ID X .030, VALVE
3	B-1064	1	VLV RET,S&D, 7-1/4K:C
4	B-1065	0	VALVE CAP, 7-1/4K:K PRC:K HP:C:C PRC:Z
5	A-1812	1	O-RING, VT, 3.887 OD X .139, 95 DUROMETER
6	FC0171GKL	4	12-POINT CAPSCREW, 7/8-9 X 3-1/2 X 1-1/16, G8

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

1"-8UNC THREADED WASHER FOR
VALVE INSTALLATION/REMOVAL.



APPLY AN ANTI-SEIZE
LUBRICANT TO GASKET
SURFACES.

OIL O-RING BEFORE INSTALLING

NOTE : LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED
PROCEDURES AND TORQUE VALUES IN MANUAL.

G-1565

G-1610

G-1745

613744
ARIEL CORPORATION
MT. VERNON, OHIO
ASSY. DRWG. C-0972
NUMBER

5/23/12

PARTS LIST

DISCHARGE VALVE, RETAINER, CAP PART NO. G-1610
7-1/4" JGK:T, JGK-HP & JGC:D:Z CLASS CYL. REF DRAWING C-0972

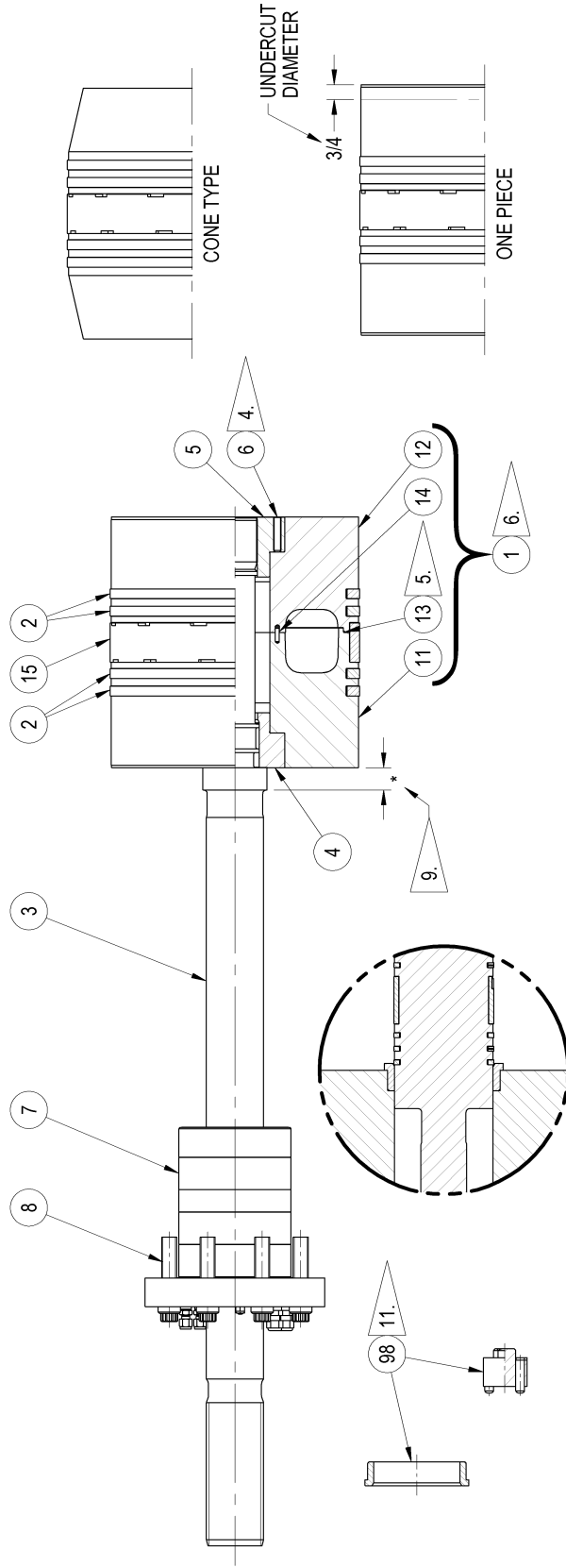
ITEM	PART NUMBER	QTY	DESCRIPTION
1	DISCHARGE VALV	0	FOR VALVE PART NUMBER, SEE COVER SHEET
2	A-2084	1	STEEL GASKET, 03.855 OD X 03.537 ID X .030, VALVE
3	B-1064	1	VLV RET,S&D, 7-1/4K:C
4	B-1065	0	VALVE CAP, 7-1/4K:K PRC:K HP:C:C PRC:Z
5	A-1812	1	O-RING, VT, 3.887 OD X .139, 95 DUROMETER
6	FC0171GKL	4	12-POINT CAPSCREW, 7/8-9 X 3-1/2 X 1-1/16, G8
7	A-0145	2	THUMB SCREW, NYLON, 1/4-20 X 3/4

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

NOTES:

- 1.- THIS PISTON ASSEMBLY IS FOR ILLUSTRATION PURPOSES ONLY AND MAY NOT NECESSARILY REPRESENT THE EXACT CONFIGURATION PERTAINING TO THE UNIT ORDERED. REFER TO ACCOMPANYING PARTS LIST FOR ITEMS (AND QUANTITIES OF EACH) REQUIRED FOR THIS PARTICULAR ASSEMBLY.
- 2.- REFER TO TECHNICAL MANUAL FOR RECOMMENDED PROCEDURES AND TORQUE VALUES FOR ASSEMBLY OR REASSEMBLY OF THIS UNIT.
- 3.- REFER TO SHEET #2 FOR PACKING TUBE LINE CONFIGURATIONS.
4. PRICK PUNCH TO RETAIN SET SCREWS (ITEM #6).
5. LIGHTLY OIL O-RING BEFORE INSTALLING.
6. (ITEMS #11, #12, #13 & #14) APPLY TO (2) PIECE PISTONS ONLY.

- 7.- ASSEMBLE FITTINGS BEFORE INSTALLING PACKING.
8. RETIGHTEN TIE STUD NUTS AFTER PACKING CASE (ITEM #7) IS BOLTED TO CYLINDER.
9. REMOVE C.E. SUCTION VALVE TO ADJUST C.E. PISTON CLEARANCE. (SEE CYLINDER SPECIFICATIONS DATA PLATE OR THE TECHNICAL MANUAL). **DO NOT USE STRAP WRENCH ON PISTON ROD - USE TURNING TOOL WHICH FITS TURNING HOLES IN PISTON NUT.**
- 10.- PISTON MAY BE ONE OR TWO PIECE, CONE OR STRAIGHT.
11. PISTON / PISTON ROD SPANNER & PISTON ENTERING TOOL (ITEM #98) ARE SHIPPED IN TOOL BOX WHEN REQUIRED. DETAIL VIEW SHOWS PISTON ENTERING TOOL USED DURING INSTALLATION OF PISTON.



DETAIL VIEW OF PISTON ENTERING TOOL

ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		ARIEL		A-17925	
		ASSEMBLY DWG. NO.		SCALE	
0		CPM 01/31/11		NONE	
REV		EON		REV	
DESCRIPTION		INITIALS		DATE	
1		2		3	
4		5		6	

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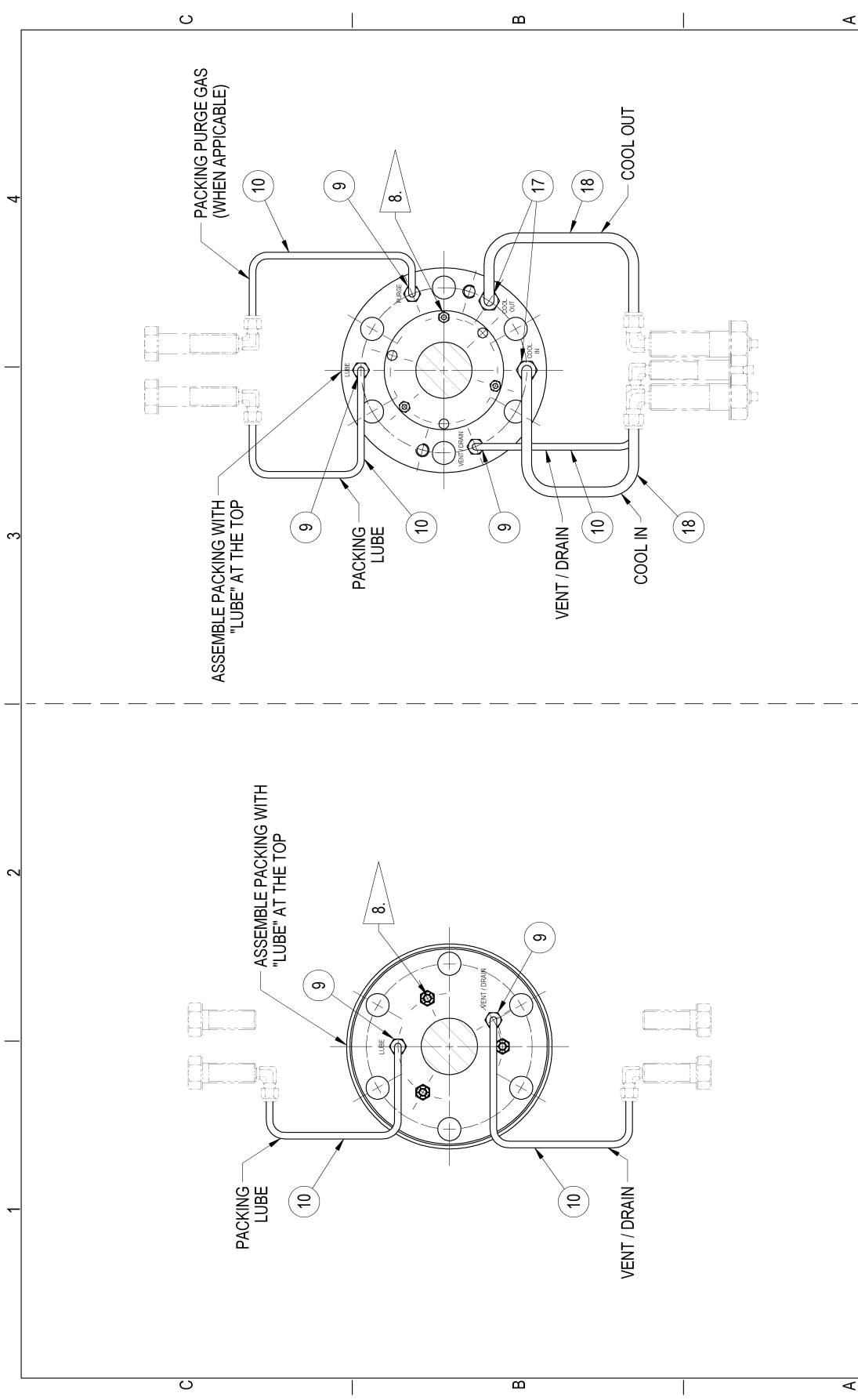
5/23/12

PARTS LIST

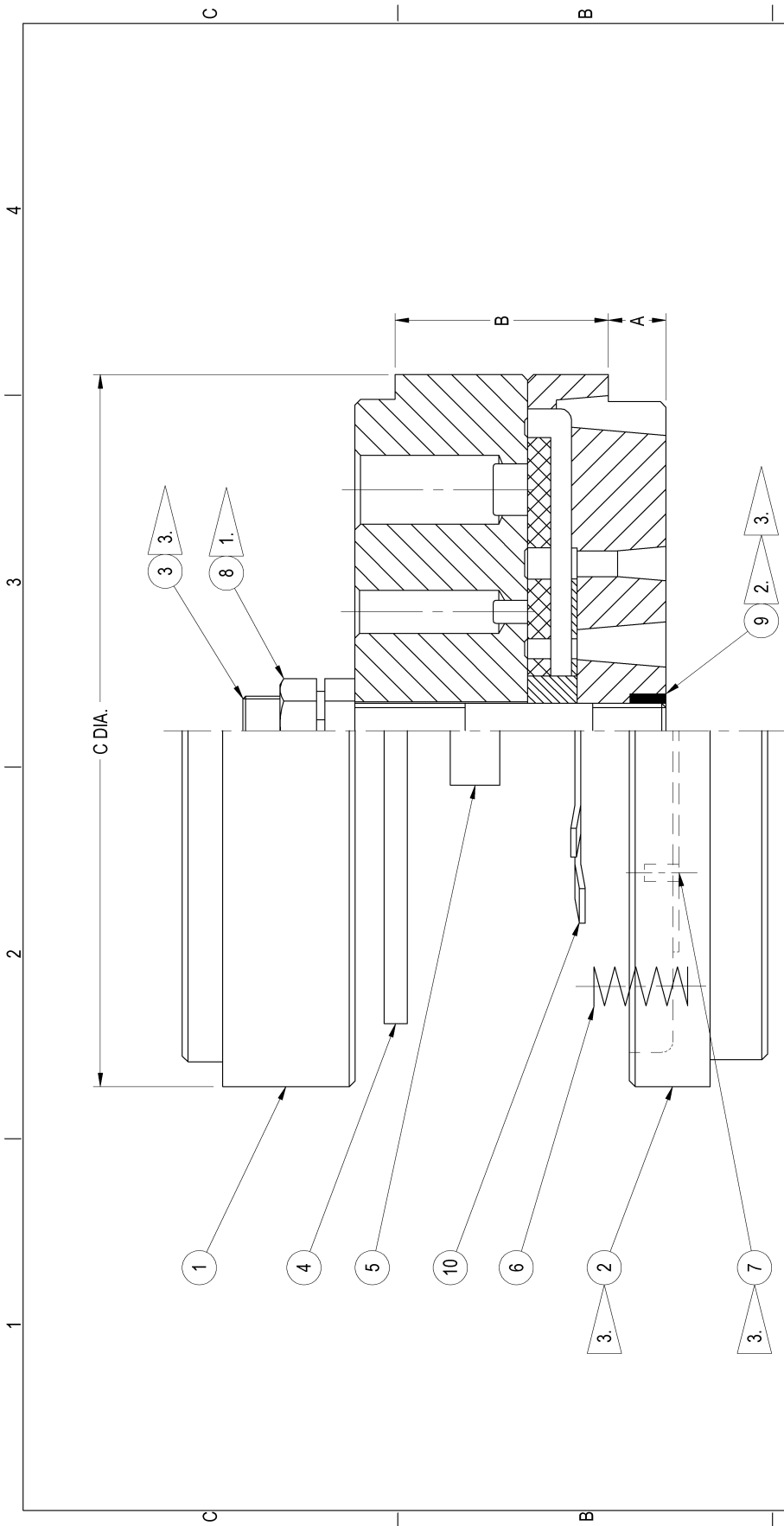
06.750 K PISTON ASSEMBLY; 05.500 STROKE. PART NO. PISTON ASSY
G-SHEETS USED: G-18584, G-19135, G-18665, G-18948, REF DRAWING A-17925 2 SHT
G-17492.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	C-1014	1	PIST,WB , 6-3/4K
2	A-2088	4	PISTON RING, 6-3/4K:T
3	C-0888	1	P ROD,SS,5.50STK/42.440LG
4	B-2186	1	PISTON COLLAR, SS, 3-1/2 OD, K:K-HP & 22-1/2H
5	B-1221	1	PISTON NUT, 3-1/2 OD, JGK:T
6	FS0405DH	2	SET SCREW, CUP POINT, 5/16-24 X 1-1/4
7	B-1590	1	PKG,2.0,2500,S/L2,PU,BTR
8	FC0120IT	6	12-POINT CAPSCREW, 3/4-10 X 4-1/2, G8
9	A-0938	3	MALE CONNECTOR, SS, 1/4 TUBE X 1/4 NPT
10	PT0201CD	45."	TUBING, 316 SS, 1/4 OD X .065 WALL
15	A-2090	1	WEAR BAND, 6-3/4K:C:Z,2.0W
99	B-1589-K	0	REBUILD KIT, 2.000 PISTON ROD PACKING
99	B-1687-K	0	REBUILD KIT, 2.000 OIL WIPER PACKING, WAT

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***



ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		ASSEMBLY DWG. NO.		A-17925		SHT 2 OF 2	
		DRAWN CPM 01/31/11		CHECKED DLI 02/23/11		SCALE NONE	
REV	DESCRIPTION	INIT/DATE	REV	EDN	REV	EDN	REV
0	16824	CPM 01/31/11	0	16824	CPM 01/31/11	0	16824
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NOTES:

1. SEE MANUAL FOR TORQUING VALUES (ITEM #8).

2. INSTALL PER ER-52.

3. VALVE GUARD ASSEMBLY (ITEM #2) CONSISTS OF VALVE GUARD, SPIROL PIN (ITEM #7), CENTER STUD (ITEM #3) AND DOWEL PIN (ITEM #9).

ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

TITLE		SUCTION VALVE, CT	
MATERIAL:		PROCURED	
DRAWN:		KSL 04/28/09	
CHECKED:		KRN 05/06/09	
SCALE:		NONE	
DWG. No.		A-16218	
REV		ECN	
0		15679	
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--- DO NOT SCALE DRAWING ---			
DESCRIPTION		INIT/DATE	
REV		3	
1		2	
3		4	

5/23/12

PARTS LIST

0.3940 =A
1.4570 =B
3.8700 =C
0.1020 =LFT

PART NO. B-6115-T
REF DRAWING A-16218

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-4612	1	SUC VLV SEAT, 77CT
2	A-18678-A	1	SUCTION VALVE GUARD ASSEMBLY, 77CT
3	A-1842	1	CNTR STUD, 3/8-24 X 3.15
4	A-5445	1	VALVE PLATE, 77CT, .236 THICK, NYX
5	A-4615	1	GUIDE RING, 77CT, .370 THK
6	A-12064	7	SPRING (.354 OD X .669 FREE LENGTH) GREEN, .041 WIRE DIAMETER
7	A-2039	2	SPIROL PIN, .118D X .591L
8	A-1367	1	LOCKNUT, DRAKE 3/8-24
9	A-16466	1	LOCK, STUD .098D
10	A-3594	1	WAFER SPRING, 77CET
99	KB-6115-T	0	KIT, VALVE, 77CT, NYX, M/S

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

5/23/12

PARTS LIST

0.1960 =A
1.4570 =B
3.8950 =C
0.0870 =LFT

PART NO. B-5908-AA
REF DRAWING A-15832

ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-18078-A	1	DISCHARGE VALVE SEAT ASSEMBLY, 77CT
2	A-18077-A	1	DISCHARGE VALVE GUARD ASSEMBLY, 77CT
3	A-1842	1	CNTR STUD, 3/8-24 X 3.15
4	A-8182	1	VALVE PLATE, 77CT, .236 THICK, MTX
5	A-4565	1	GUIDE RING, 77CT, .354 THK
6	A-12007	14	SPRING (.354 OD X .709 FREE LENGTH) BLUE, .037 WIRE DIAMETER
7	A-2039	2	SPIROL PIN, .118D X .591L
8	A-1367	1	LOCKNUT, DRAKE 3/8-24
9	A-16466	1	LOCK, STUD .098D
10	A-3594	1	WAFER SPRING, 77CET
99	KB-5908-AA	0	KIT, VALVE, 77CT, MTX, M/S

WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.
*** ALWAYS PROVIDE SERIAL NUMBER WHEN ORDERING SPARE PARTS. ***

5/23/12

ARIEL CORPORATION
SALES ORDER COVER SHEET

C/N: 001

RHCOVP02

SERIAL #: U92166

PART: G-11815 DESCRIPTION: VVCP, 6-3/4K:T 19-2200

6-3/4" JGK:T:C:D UNLOADER ASSEMBLY, PART NO. G-11815
STAINLESS STEEL TUBING AND FITTINGS. REF DRAWING A-6883

ITEM	PART NUMBER	QTY	DESCRIPTION
1	C-0977	1	UNL HEAD, 6-3/4K:C
2	C-0974	1	ADAPTER, HEAD END UNLOADER, 7-1/4K:C
3	B-3862	0	UNL PIST, 7-1/4 & 6-3/4KCZ
4	C-3983	0	UNL.STEM,7-1/4 & 6-1/4KCZ
5	A-0724	1	O-RING, VT, 6.645 OD X .210, 75/85 DUROMETER
6	A-2087	1	STEEL GASKET, 07.750 OD X 07.375 ID X .060, HEAD
7	A-0475	1	UNL.PISTON RING, 5-1/4 O.D.
8	C-0369	1	UNLOADER LOCKING HANDLE, 2"-8 THREAD
9	A-2388	1	UNL SPRING RETAINER
10	A-0643	1	BACK-UP RING, PACKING
11	A-0629	1	COMPRESSION SPRING, UNLOADER
12	A-0639	1	V PACKING, UNLOADER
13	FC0120JV	12	12-POINT CAPSCREW, 7/8-9 X 5-1/2, G8
14	A-2389	1	SELF-LOCK NUT, ESNA, THIN, 1-3/8-12
15	A-2391	1	SNAP RING,SS,INT,3-1/4 BORE
16	FC0110EK	2	SOCKET HEAD CAPSCREW, 3/8-16 X 2, G8
17	A-0500	1	GREASE FITTING CAP, PLASTIC
18	A-0938	1	MALE CONNECTOR, SS, 1/4 TUBE X 1/4 NPT
19	PZ0230BA	1	STRAIGHT GREASE FITTING, 1/4-18
20	A-2387	1	BELLOWS, THREAD PROTECTOR, UNLOADER
21	A-0642	1	BACK-UP RING, BELLOWS

5/23/12

SALES ORDER COVER SHEET

22	FC0134CC	3	BUTTON HEAD CAPSCREW, 1/4-20 X 1/2, 316SS
23	PT0201CD	5."	TUBING, 316 SS, 1/4 OD X .065 WALL
24	C-0982	1	UNLOADER HANDLE, 3 PRONG
25	A-0256	2	MACHINE SCREW PLUG, PLASTIC, 1/2-13
26	A-0755	1	DATA PLATE, UNLOADER HEAD SPECIFICATION
27	FR0571CC	4	DRIVE SCREW, TYPE U, SS, #6 X 1/4
28	AC-3985	1	UNL PIST ASSY, 7-1/4 & 6-3/4KCZ
32	A-12927	1	DATA PLATE, UNLOADER ADAPTER SPECIFICATION

VARIABLE VOLUME CLEARANCE POCKET (Headend Unloader) DATA SHEET

7-1/4K Class Cylinder

Stroke: 5.50 in 140 mm

Bore: 6.750 in 171 mm

MAWP: 1900 psi 131.0 barg 13100 kPa(g) 133.6 kg/cm²(g)

General Data for VVCP (independent of cylinder):

MAWP*: 2200 151.7 barg 15168 kPa(g)

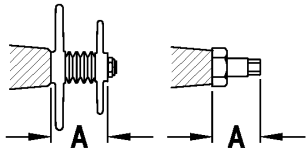
*Note: If VVCP services another cylinder, it may have a higher MAWP than the above

VVCP piston diameter: 5.25 in 133 mm

Stem thread lead (pitch): 0.125 in 3 mm

Total travel: 4.5 in 11.4 cm

Number of turns from closed to fully open: 36



A distance - see diagram

- closed: 4-5/8 in 11.7 cm

- open: 9-1/8 in 23.2 cm

Minimum added fixed clearance: 1.4 in³ 22.1 cm³

Additional added clearance when fully open: 97 in³ 1590 cm³

Total added clearance when fully open: 98.3 in³ 1611.7 cm³

Clearance volume change per turn: 2.7 in³ 44.2 cm³

Clearance volume change per change in travel: 21.6 in³/in 139.1 cm³/cm

Clearance Data for VVCP alone, in percent of swept volume of above cylinder:

Minimum added fixed clearance: 0.7%

Additional added clearance when fully open: 49.3%

Total added clearance when fully open: 50.0%

Head end clearance change per turn: 1.4%

Head end clearance change per change in travel: 11.0% /in 4.3% /cm

Clearance Data with VVCP installed on above cylinder with standard valves, in percent of swept volume:

Minimum fixed head end clearance: 19.0%

Total head end clearance when fully open: 68.3%

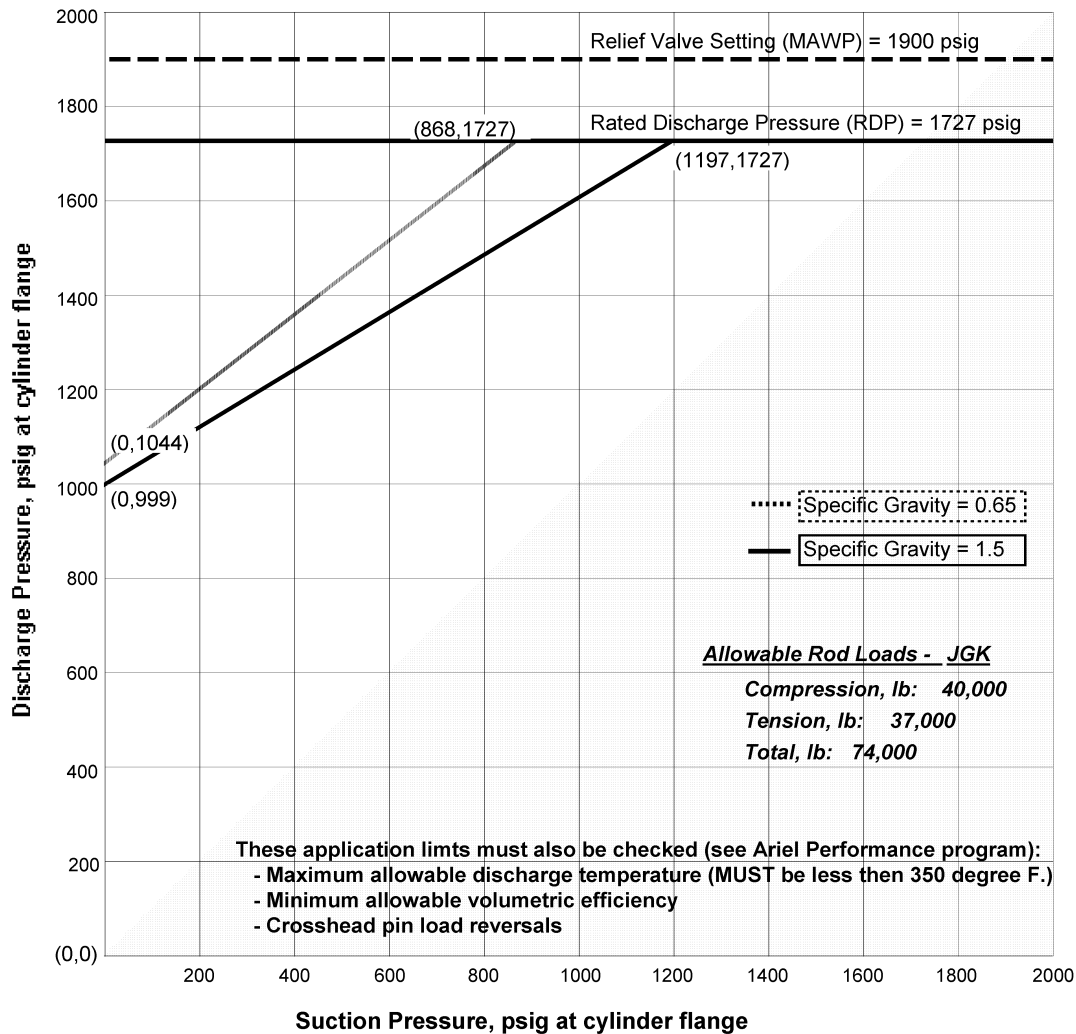
PLEASE NOTE: It is important to understand that the percent clearance figures for the variable volume clearance pocket above include the cylinder headend clearance. However, any valve spacers or other non-standard added clearances on the unit must be accounted for.

Estimated Gas Rod Load and Pressure Limits for 5.5 inch stroke at 1200 RPM

Cylinder Class: 7-1/4K

Bore, inches: 6.750

Cylinder Serial Number: C-134464



This chart defines allowable operating limits for gas rod loads and standard working pressures. Pressure combinations falling above the line for the applicable Specific Gravity of the gas being compressed will exceed the Rod Load limitations of the equipment.

Calculations are based on 80 degrees Fahrenheit hydrocarbon gas at 1500 ft. elevation.