



COMPRESSOR BALANCING RECORD

3

BALANCE BY: STEVE OLSON

DATE COMPLETED: 12/12/2002

FRAME: JGK/4

FRAME SERIAL NO. F18330

STROKE: 5.50

	THROW # 1		THROW # 2		THROW # 3		THROW # 4		THROW # 5		THROW # 6	
	P/N	LB	P/N	LB	P/N	LB	P/N	LB	P/N	LB	P/N	LB
PARTS GROUP 3	SN: C57331		SN: C57334		SN: C57332		SN: C57333		SN:		SN:	
	BORE: 15.875 K		BORE: 06.750 K		BORE: 15.875 K		BORE: 11.000 K		BORE:		BORE:	
	*HE SN:		*HE SN:		*HE SN:		*HE SN:		*HE SN:		*HE SN:	
	*HE BORE:		*HE BORE:		*HE BORE:		*HE BORE:		*HE BORE:		*HE BORE:	
Connecting Rod with bushing, bolts and bearing shells	P/N	LB	P/N	LB	P/N	LB	P/N	LB	P/N	LB	P/N	LB
	D-0973	92.60	D-0973	93.30	D-0973	93.00	D-0973	93.00				0.00
Piston(s) with rings, rod, collar & nut or stub shaft 3	D-1921	234.60	C-1014	104.40	D-1921	235.10	C-2850	209.90				0.00
	C-0876		C-0887		C-0876		C-0876					
Crosshead with bushings	D-3277	57.70	D-0871	155.50	D-0868	76.10	D-0868	76.20				0.00
Crosshead nut with setscrews	B-0781	10.00	B-1574	41.80	B-0781	10.00	B-1325	34.90				0.00
Total Weight LB mass	394.90		395.00		414.20		414.00		0.00		0.00	
Opposing Throws Difference LB mass	0.10				0.20						0.00	

4

* THESE FIELDS ONLY NEEDED WHEN CYLINDERS ARE TANDEM.
IF CYLINDERS ARE TANDEM, THEN THE "SN" AND "BORE" FIELDS ARE TO BE USED FOR C.E.

3

REV: 3

ECN:8015

ER-4.2

4

REV: 4

ECN:010288



Ariel Corporation Lubrication Sheet



Frame: JGK/4 Stroke: 5.5 in Gas stream: Pipeline quality natural gas including CNG
Frame S/N: F-18330 Rod diameter: 2 in
Unit suction pressure, psig: 80

Throw	Bore, in	Type	Mawp psig	Discharge psig
1	15.875	K	635	232
3	15.875	K	635	232

For break-in period of 200 hours, cycle as close as possible to half normal operation cycle time

Normal operation cycle time, sec.: **13.0** at max. rated rpm

Total delivered per day, pints: **20.7**

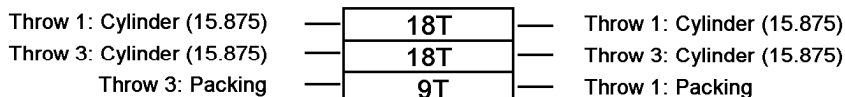
Recommended mineral oil lubricant for application and pressures:

SAE 40 wt. (ISO 150)

Best Premier pump(s): **One 3/8 in** Recommended base feed rate: 0.50 US pints/inch diameter/day

Lube Block Schematic - Page 1

Lube block
Part Number: A-2588



(Note: # indicates
crossport. Block layout is
recommendation only,
however crossported
divider valve must
discharge to divider valve
below)

	<u>Base rate multiplier</u>	<u>Recommended per day, U.S.Pints</u>	<u>Delivered per day, U.S.Pints</u>	<u>Delivered/ recommended</u>	<u>Cycle Time vs. RPM</u>	
					<u>RPM</u>	<u>seconds</u>
Throw1 Packing:	1.00	2.00	2.07	103%	1200	13.0
Throw1 Cylinder:	1.00	3.97	4.14	104%	1100	14.2
Throw1 Cylinder:	1.00	3.97	4.14	104%	1000	15.6
Throw3 Packing:	1.00	2.00	2.07	103%	900	17.3
Throw3 Cylinder:	1.00	3.97	4.14	104%	800	19.5
Throw3 Cylinder:	1.00	3.97	4.14	104%	700	22.3
					600	26.0

****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 6.0 of the Ariel Packager Standards for more information.

#Name?

90 125

Printed: 22-Nov-2002



Ariel Corporation Lubrication Sheet



Frame: JGK/4 Stroke: 5.5 in Gas stream: Pipeline quality natural gas including CNG

Frame S/N: F-18330 Rod diameter: 2 in

Unit suction pressure, psig: 80

See Special Oil Recommendation Notice

Throw	Bore, in	Type	Mawp psig	Discharge psig
2	6.75	K	1900	1020
4	11	K	845	548

For break-in period of 200 hours, cycle as close as possible to half normal operation cycle time

Normal operation cycle time, sec.: **11.0** at max. rated rpm

Total delivered per day, pints: **16.3**

Recommended mineral oil lubricant for application and pressures:

SAE 40-50 wt.(ISO 150-220)

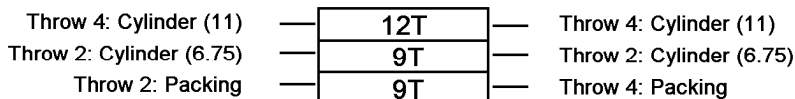
Best Premier pump(s): **One 1/4 in**

Recommended base feed rate: 0.50 US pints/inch diameter/day

Lube Block Schematic - Page 2

Lube block
Part Number: A-2585

(Note: # indicates
crossport. Block layout is
recommendation only,
however crossported
divider valve must
discharge to divider valve
below)



	<u>Base rate multiplier</u>	<u>Recommended per day, U.S.Pints</u>	<u>Delivered per day, U.S.Pints</u>	<u>Delivered/ recommended</u>	<u>Cycle Time vs. RPM</u>	
					<u>RPM</u>	<u>seconds</u>
Throw4 Packing:	1.00	2.00	2.45	122%	1200	11.0
Throw4 Cylinder:	1.00	2.75	3.26	119%	1100	12.0
Throw4 Cylinder:	1.00	2.75	3.26	119%	1000	13.2
Throw2 Packing:	1.25	2.50	2.45	98%	900	14.7
Throw2 Cylinder:	1.25	2.11	2.45	116%	800	16.5
Throw2 Cylinder:	1.25	2.11	2.45	116%	700	18.9
					600	22.0

****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 6.0 of the Ariel Packager Standards for more information.

#Name?

90

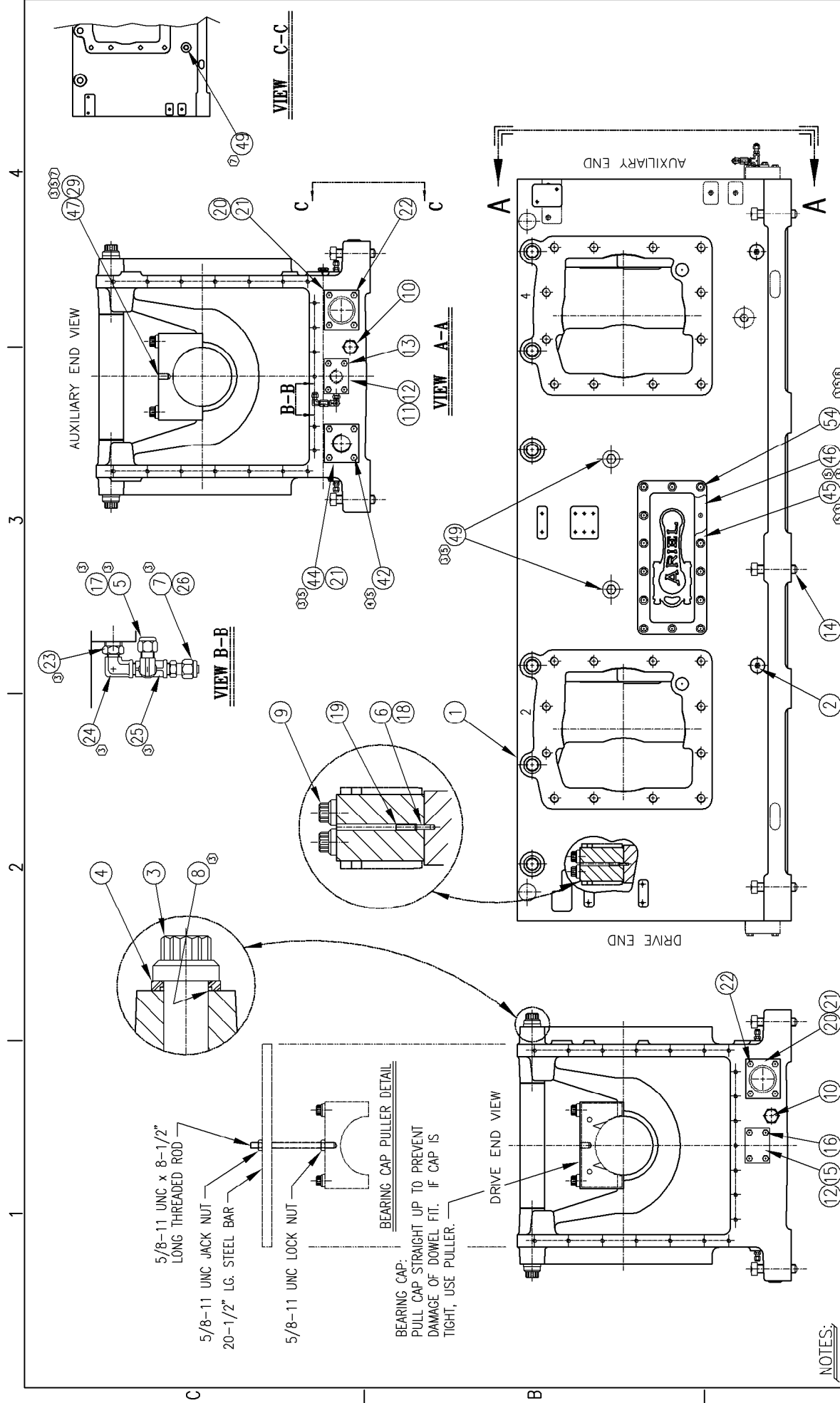
125

Printed: 22-Nov-2002

SERIAL NUMBER: F-18330

PART: JGH:E:K CLASS DESCRIPTION: JGH-JGE-JGK-JGT FRAME CLASS

PART NUMBER	QUANTITY	DESCRIPTION	DRAWING NO.
G-1734	1	FRAME ASSY, JGH:E:K:T/4, STD	A-4044
G-1522	1	CRANKSHAFT ASSY, JGK/4, STD	D-0884
G-8208	4	GUIDE ASSY, K:T, STD	A-9812
G-5118	4	CONN. ROD ASSY, FS, E:K:T, NEW BRG	A-3093
G-1322	4	X-HEAD ASSY, JGK:E:T, STD	A-6871
G-0978	1	DRIVE END COVER, JGH:E:K:T/2:4	A-6330
G-1068	1	AUX END COVER ASSY, HEKT/4	A-6328
G-0986	1	LO LEVEL GLASS, J6>, STD	A-4068
G-1074	1	LO PUMP ASSY, JGH:E:K:T/4, STD	A-8599
G-2246	1	PR PUMP ASSY, HEKT/2:4, CD/2, STD	D-1341
G-2616	1	FF LUBR, 3/8, 1/4, HEKT2/4	D-1107
G-5299	1	DST. BLK. MTG. SINGL, JKCBR/4:6	N.A.
G-2708	2	RUPTURE DISC ASSY, 3250 PSI	N.A.
G-2859	1	FF TUBING, JGK:T:C:D/4	N.A.
G-7982	1	CHAIN ASSY, HEKT/2:4 STD OR R/R	A-9639
G-1073	1	TOP COVER ASSY, JGH:E:K:T/4	A-7072
G-1103	1	LO PRESS. GAUGE, ASHCROFT, STD.	N.A.
G-7624	2	FF GAGE, 3000PSI/BLK, KCB:R46	A-9020
G-4669	2	FF S/D, DIGITAL NO FLOW, DC, STD	A-6423
G-8631	1	TOOLS ASSY, BOX, JGH:E:K:T	N.A.



PARTS LIST

GROUP NO. G-1734

FRAME, SPACER BARS AND MAIN BEARING CAPS

JGH/4, JGE/4, JGK/4 AND JGT/4

REF. DRWG. A-4044

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-1094	1	FRAME, JGH:E:K/4
002	A-0827	4	MALE CONN, STL, 1/4T X 1/4P
003	FC0125LY	12	12 PT, 1-1/8-12 X 7 G8
004	A-3887	12	WASHER, SPACER BAR, H:E:K FRAME
005	A-3763	1	CHK VLV, 1/8MX1/8F, SS, PPT/14PSI
006	FP0500FE	0	DOWEL PIN, 1/4 X 3/4 +.0002
007	A-0918	1	PLUG-TUBE FIT, FEMALE, STL, 1/4T
008	A-3512	12	O-RING, VT, 1.318 O.D.X.103
009	FC0120JY	16	12 PT, 7/8-9 X 7 G8
010	PP0810KB	2	PIPE PLUG, 1"NPT, HEX HD, STL
011	A-3871	1	END PLT, OIL GALLERY, HEK/2/4/6
012	A-3507	2	O-RING, VT, 2.012 O.D.X.139
013	FC0102EL	4	HEX HD CAP, 3/8-16 X 2-1/4 G5
014	FS0420JS	6	SQ.HD.SETSCREW, 7/8-9X4 OVAL PT
015	A-3877	1	END PLT, H:E:K/2/4
016	FC0102EI	4	HEX HD CAP, 3/8-16 X 1-1/2 G5
017	A-0815	1	MALE ELBOW, STL, 1/4T X 1/8P
018	FP0500GE	0	DOWEL PIN, 5/16 X 3/4 +.0002
019	FS0400EG	0	CUP PT.SET-SCREW, 3/8-16 X 1
020	A-3876	2	END PLT, HTR MTG, H:E:K/2/4
021	A-3508	3	O-RING, VT, 2.762 O.D.X.139
022	FC0102EH	8	HEX HD CAP, 3/8-16 X 1-1/4 G5

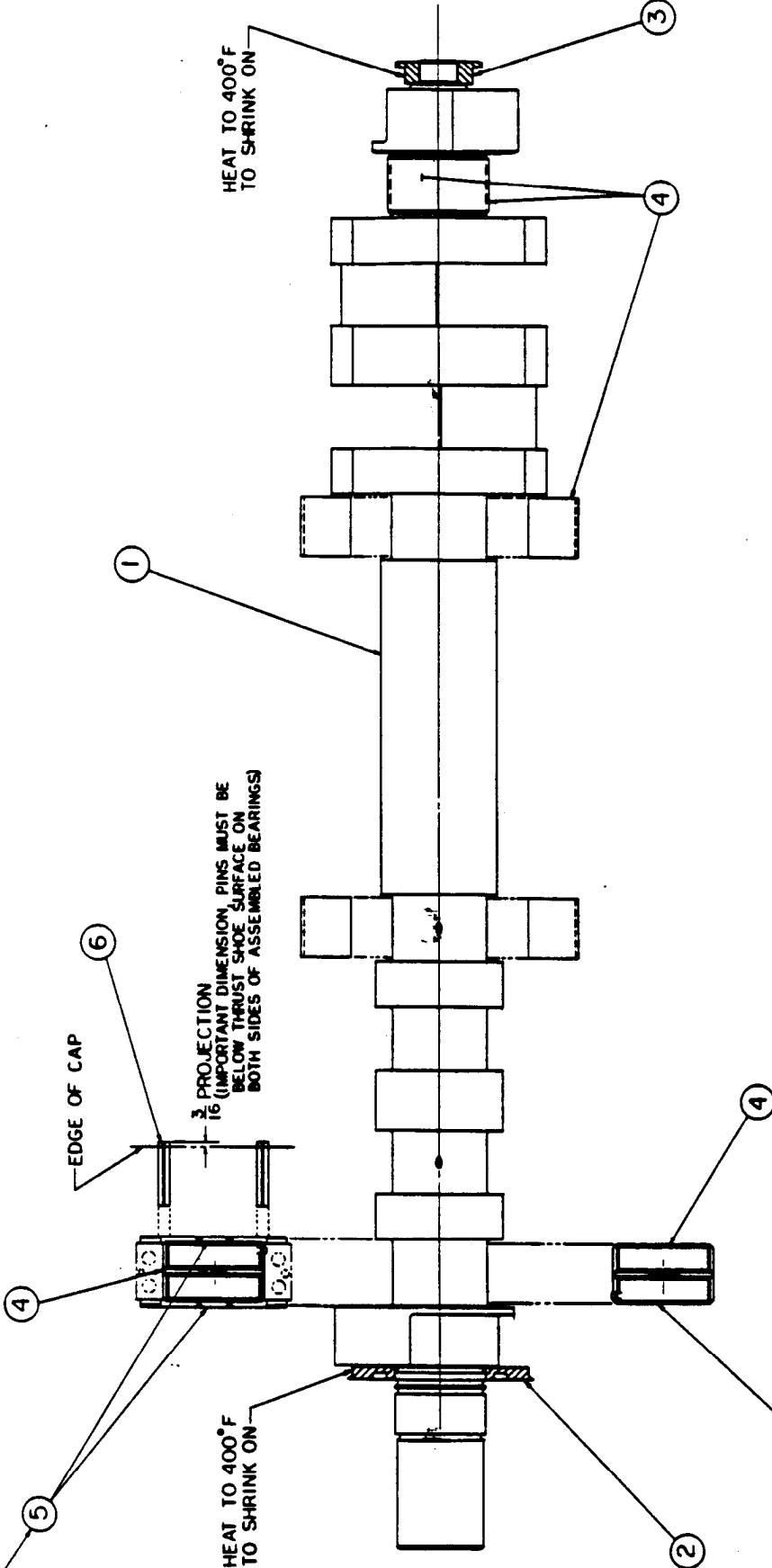
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

PARTS LIST

023	A-0811	1	HEX RED BUSH, STL, 1/4M X 1/8F
024	A-0804	1	STREET ELBOW, STL, 1/8P, 90
025	A-0882#02	1	STREET TEE, STL, 1/8P
026	A-0830	1	MALE CONN, STL, 1/4T X 1/8P
029	PP0810CB	4	PIPE PLUG, 1/4NPT, HEX HD, STL
042	FC0102EJ	4	HEX HD CAP, 3/8-16 X 1-3/4 G5
044	A-3929	1	THREADED FLG, RECT. HEKT: C:D/4
045	C-0641	2	FRAME SIDE COVER, JGH:E:K
046	C-0642	2	GASKET, RET, 15-5/8 X 7 X 1/32
047	FS0450HC	4	CUP PT.S-SCRW, NY, 5/8-11 X 1/2
049	PP0810GB	5	PIPE PLUG, 1/2NPT, HEX HD, STL
054	A-10201	28	SEMS BOLT, 3/8-16 X 1-1/2

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

ASSEMBLE NOTCHED SURFACE
TO THE SIDE AWAY FROM CAP



EDGE OF CAP

PROJECTION
1/16
(IMPORTANT DIMENSION, PINS MUST BE
BELOW THRUST SHOE SURFACE ON
BOTH SIDES OF ASSEMBLED BEARINGS)

HEAT TO 400°F
TO SHRINK ON

HEAT TO 400°F
TO SHRINK ON

NOTE INSTALL BEARING SHELLS WITH TABS LOCATED IN NOTCHES IN CAPS AND CRANKCASE

ARIEL CORPORATION
MT. VERNON, OHIO
ASSY.
DRWG. NO. D-884

CRANK SHAFT - JSE-9

PARTS LIST

GROUP NO. G-1522

CRANKSHAFT AND MAIN BEARINGS
JGK/4, 5-1/2" STROKE
REF. DRWG. D-0884

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	AD-0991	1	CRANK ASSY, FS, JGK/4
002	B-0778	0	OIL SLINGER, JGH:E:K & JGJ/6
003	A-3872	0	SPKT, RLR. CHAIN, CSHAFT, #40-24T
004	B-0770	8	SLEEVE BEARING, H/S, MAIN, H:E:K
005	B-0776	2	THRUST PLATE, BZ, JGH:E:K
006	FP0505JK	4	ROLL PIN, 1/2 X 2

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

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NOTES:

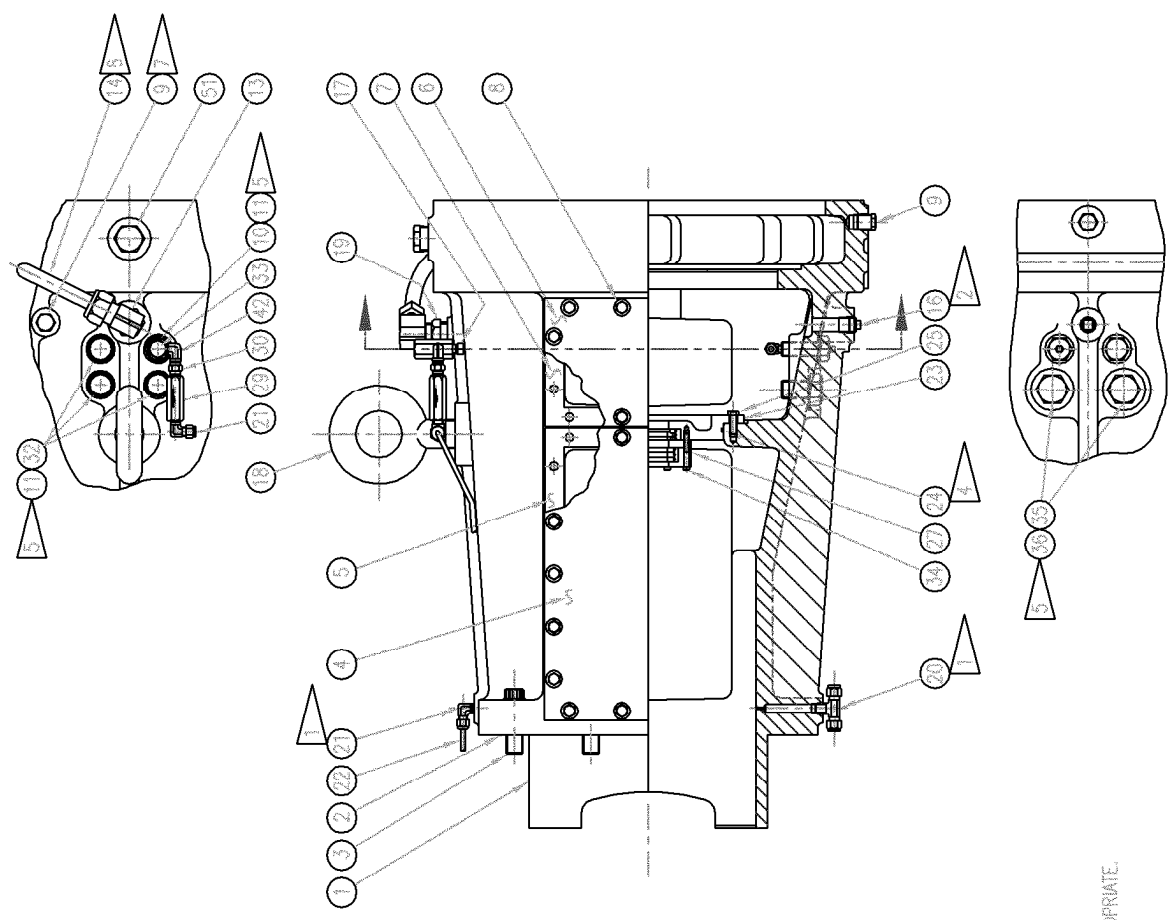
- 1 SHOWN 90° OUT OF POSITION.
- 2 REMOVE SHIPPING PLUGS AND TUBE TO A SAFE ATMOSPHERE OR DRAIN AS APPROPRIATE.
- 3. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
- 4 OIL O-RING BEFORE INSTALLING.
- 5 OIL FACES OF STATO-SEAL BEFORE INSTALLING TO PREVENT ABRASION.
- 6 VENTS TO BE TUBED TO APPROPRIATE AND SAFE ATMOSPHERE.
- 7 LOCATION OF OPTIONAL THERMOCOUPLE CONNECTION.

1 REVERSE DRAINING. © C1 REMOVED VIEW FOR HYDROCOM MOUNT.

REV 11/97/02

INIT/DATE

DESCRIPTION



2 11031		1 8265		0 8178		REV EON		CHECKED: CAN 03/17/00		APPROVED: SCALE NONE		ASSEMBLY DWG. NO. A-9812	
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PARTS LIST

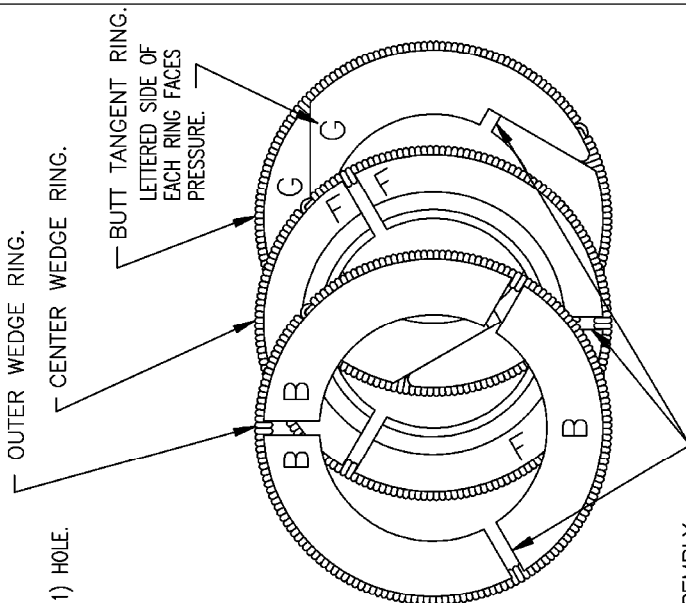
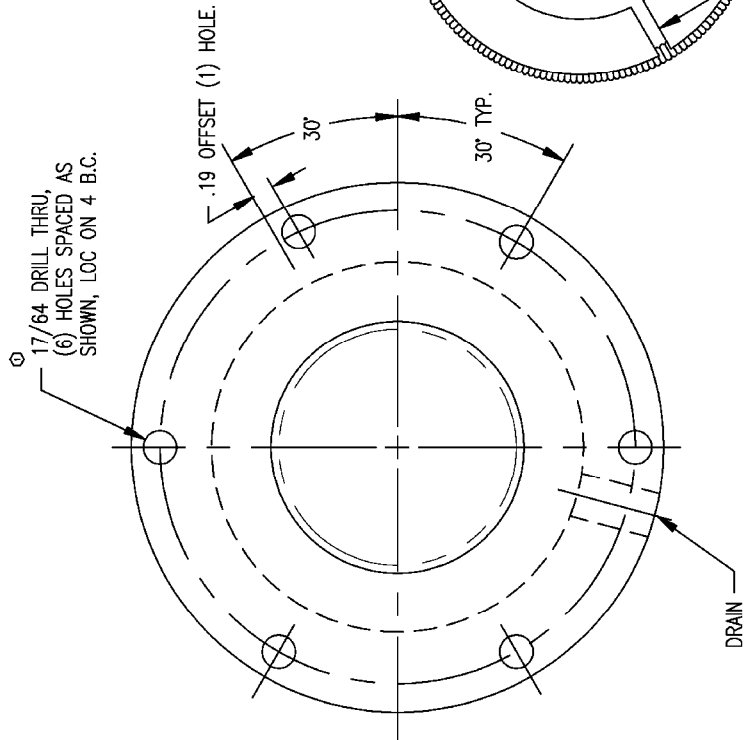
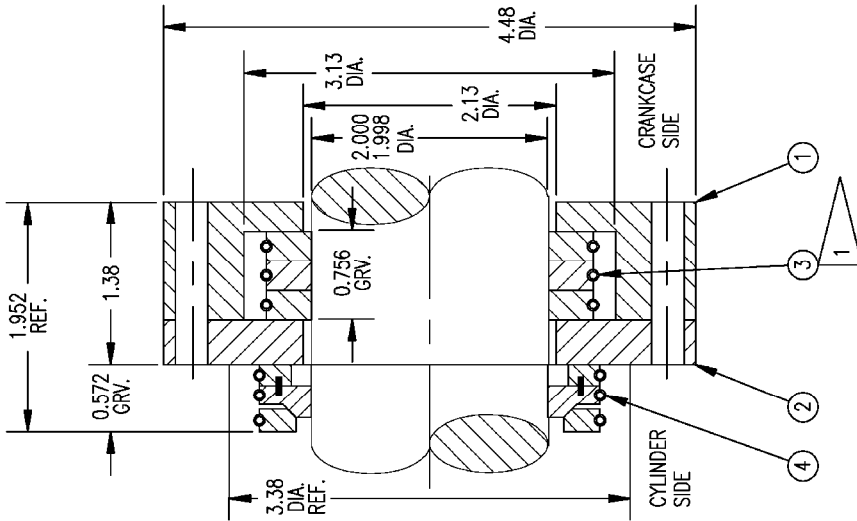
GROUP NO. G-8208

JGK:T CROSSHEAD GUIDE
REF. DRWG. A-9812

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-2924	1	X-HD GUIDE,S2,JGK
002	B-0835	1	GASKET,NST,17-3/4 X15-7/8X1/64
003	FC0120J0	12	12 PT,7/8-9 X 3 G8
004	B-1834	2	GUIDE COVER,CAST,JGH:E:K:T
005	B-0832	2	GSKT,RET,15-5/16X10-13/16X1/32
006	B-1860	2	GUIDE COVER,CAST,JGK:T
007	B-1032	2	GASKET,RET,10-13/16X6-3/4X1/32
008	A-6830	60	SEMS BOLT, 3/8-16 X 1-1/4
009	PP0810GB	2	PIPE PLUG,1/2NPT,HEX HD,STL
010	A-0415	2	LUBE FITTING, 3/4-10 X 2
011	FW0550IA	6	STAT-O-SEAL, 3/4 DIA., BLACK
012	A-0815	2	MALE ELBOW,STL, 1/4T X 1/8P
013	A-9099	1	MALE ELBOW,STL, 3/4T X 3/4P
014	PT0200HC	5.	" SS,TUBING, 3/4 OD X .049 WALL
015	PP0802RD	1	PIPE PLUG,1/8NPT,SQ HD,PLASTIC
016	PP0802GD	1	PIPE PLUG,1/2NPT,SQ HD,PLASTIC
017	A-8725	1	OMNI OIL TRAP STEM,SS,1/8NPT
018	A-2206	1	EYEBOLT,1-1/2-6 UNC, SHORT
019	A-0863	1	HEX RED BUSH,STL,1M X 3/4F
020	A-0808	1	MALE BRANCH T,STL, 1/4T X 1/4P
021	A-0800	2	MALE ELBOW,STL, 1/4T X 1/4P
022	PT0200CB	60.	" SS TUBING, 1/4 OD X .035 WALL
023	B-1686	1	GLAND,X-HD GUIDE,JGH:E:K:T

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

COMPONENT PART LIST			
ITEM QUAN	PART NUMBER	DESCRIPTION	MATERIAL
1 1	A-2525	WIPER CUP	C.I.
2 1	A-2540	PLAIN PLATE	C.I.
3 1	A-2532	WIPER SET "3RWS"	C.I.
4 1	A-4493	SEAL RING, TFE, "WAT" TFE	



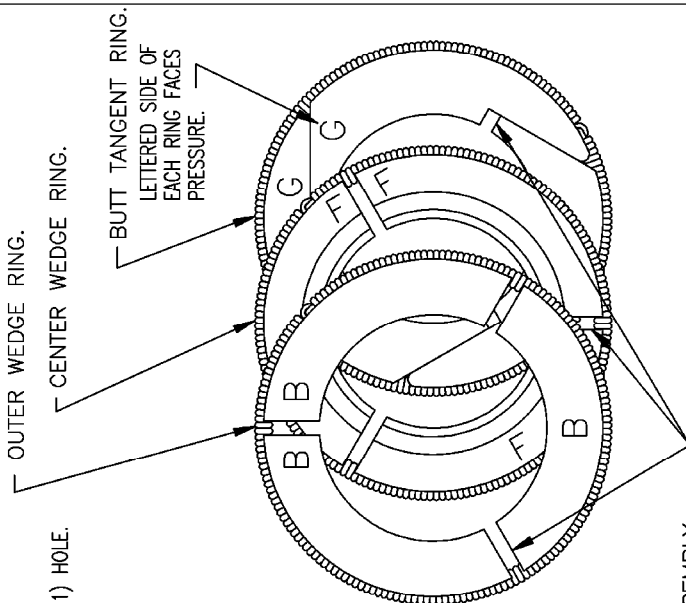
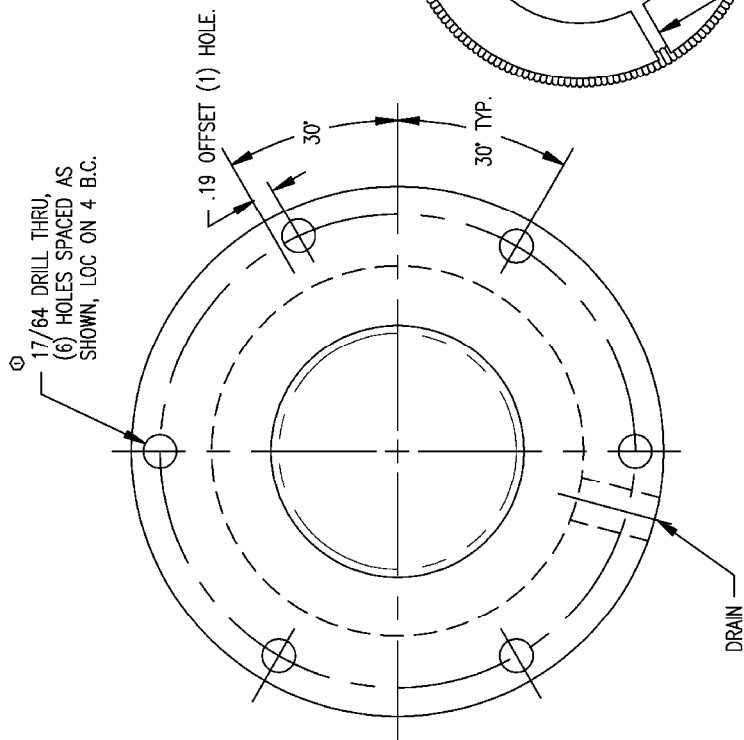
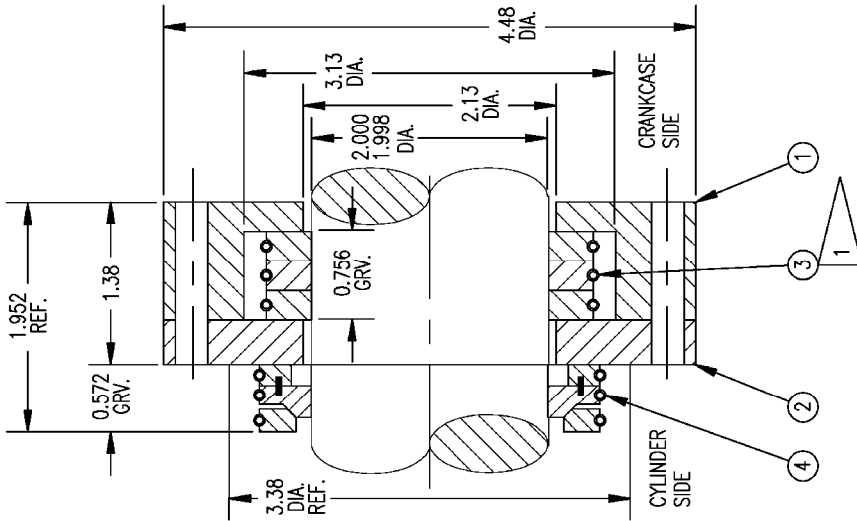
ALL RINGS HAVE END GAP WHEN ASSEMBLY IS INSTALLED ON ROD AND IN GROOVE.

CORRECT ORIENTATION OF "WAT" RINGS

THIRD ANGLE PROJECTION				ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		TITLE PACKING (DIST. PIECE DIAPHRAM (GLAND) WIPER / SEAL 2" ROD	
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DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.		DO NOT SCALE DRAWING		SCALE FULL		Dwg. No. B-1687	
DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.		1 5616 0 5130		COMPLETE PACKING COMPLETE RING SET		REV DESCRIPTION	
B-1687 B-1687-K		PART NUMBER		DESCRIPTION		REV DESCRIPTION	
1 17/64 DRILL THRU DIA WAS 9/32		PART NUMBER		DESCRIPTION		REV DESCRIPTION	

1 INSTALL (ITEM#3) WITH GROOVES FACING THE CYLINDER (FLAT SIDE TO CRANKCASE).

COMPONENT PART LIST			
ITEM QUAN	PART NUMBER	DESCRIPTION	MATERIAL
1 1	A-2525	WIPER CUP	C.I.
2 1	A-2540	PLAIN PLATE	C.I.
3 1	A-2532	WIPER SET "3RWS"	C.I.
4 1	A-4493	SEAL RING, TFE, "WAT" TFE	



ALL RINGS HAVE END GAP WHEN ASSEMBLY IS INSTALLED ON ROD AND IN GROOVE.

CORRECT ORIENTATION OF "WAT" RINGS

THIRD ANGLE PROJECTION				ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		TITLE PACKING (DIST. PIECE DIAPHRAM (GLAND) WIPER / SEAL 2" ROD	
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DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. TOLERANCES ARE IN INCHES UNLESS OTHERWISE SPECIFIED.		DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.		SCALE FULL		Dwg. No. B-1687	
1 5616 COMPLETE PACKING		0 5130 COMPLETE RING SET		REV ECN		DESCRIPTION	
1 17/64 DRILL THRU DIA WAS 9/32		1 17/64 DRILL THRU DIA WAS 9/32		1 17/64 DRILL THRU DIA WAS 9/32		1 17/64 DRILL THRU DIA WAS 9/32	

1 INSTALL (ITEM#3) WITH GROOVES FACING THE CYLINDER (FLAT SIDE TO CRANKCASE).

PARTS LIST

024	A-3509	1	O-RING,VT, 7.762 O.D.X.139	
025	FC0102EG	3	HEX HD CAP,3/8-16 X 1	G5
027	B-1687	1	PKG,2.000, OIL WIPER,WAT	
029	A-3780	1	CHK.VLV,DOU.BALL SOFT SEAT SS	
030	A-3529	1	HEX PIPE NIPPLE,STL, 1/4 X 1/4	
032	FC0103IK	4	HEX HD CAP,3/4-10 X 2	G2
033	A-8724	1	OMNI OIL TRAP,BODY,SS,1/4NPTF	
034	FC0160CJ	6	SOC HD CAP,1/4-20 X 1-3/4	NY
035	FC0103KI	2	HEX HD CAP,1-8 X 1-1/2	G2
036	FW0550KA	2	STAT-O-SEAL, 1"DIA., BLACK	
042	A-2113	1	STREET ELBOW,STL,1/4P	
051	PP0810KB	1	PIPE PLUG,1"NPT,HEX HD,STL	

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

NOTES:

- 1.- LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
- 2.- PRESS BRONZE BUSHING IN WHILE MAINTAINING ALIGNMENT OF OIL HOLE TO OIL PASSAGE IN ROD.
- 3.- INSTALL BEARING SHELLS WITH TABS LOCATED IN NOTCHES IN ROD AND ROD CAP.
- ② 4.- PRE-TORQUE ROD BOLTS PER ER-63 (TOOL BOX TORQUE CHART) USING CRISSCROSS PATTERN. THEN TURN EACH BOLT PER ER-63 USING TURN INDICATOR TOOL ITEM 6 AS SHOWN BELOW.
- ③ 5.- THIS 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.

START WITH FIRST LEVEL VIAL FACING UP WITH THE BUBBLE CENTERED. TIGHTEN THUMB
 ② SCREW/SETSCREW ONTO SOCKET AND TURN BOLT WITH SOCKET AS SPECIFIED IN ER-63
 UNTIL SECOND VIAL IS VERTICAL AND BUBBLE IS CENTERED.

① STAMP THROW NUMBER ON TOP.

SOCKET
 (BY OTHERS)

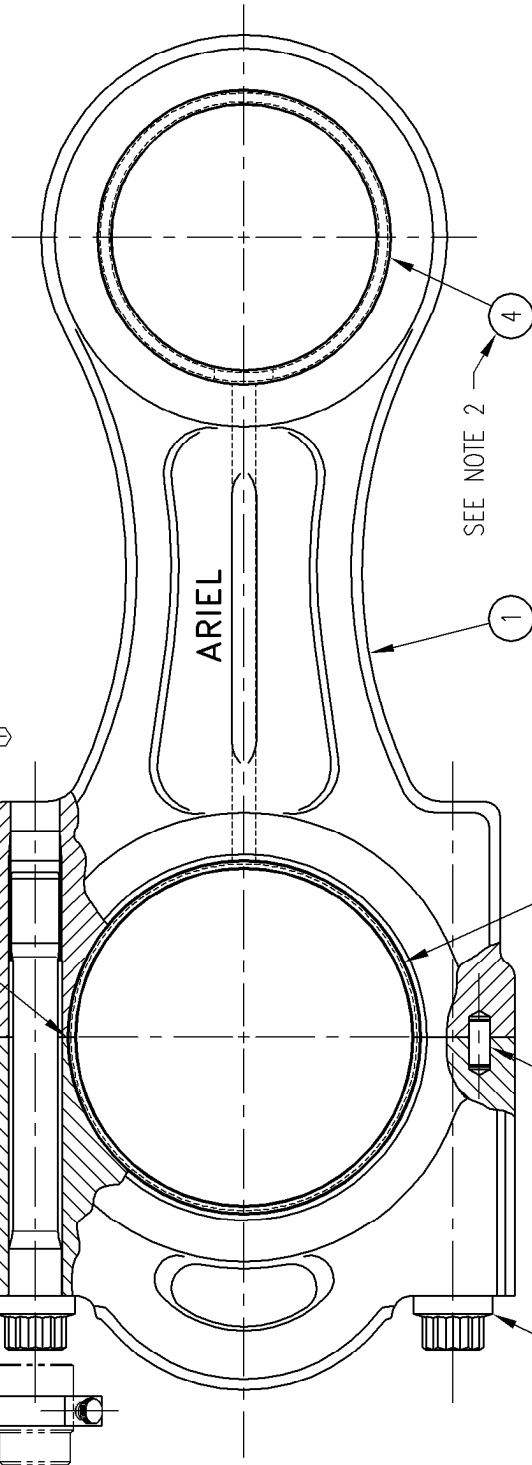
① JOINT MATCH MARKING INSTALLED UP.

CORRECT ORIENTATION OF THE ROD IS
 WITH BEARING NOTCHES ON TOP JOINT.

STAMP PART NUMBER ON TOP.

1/4 TURN
 (90°)

110°



3 10756	ARIEL CORPORATION	ASSEMBLY
2 10629	35 BLACKJACK ROAD	DWG. NO.
1 6756	MOUNT VERNON, OHIO 43050	
0 4371	APPROVED: AGD 5/26/92	SCALE: NONE
REV	ECN	WGP 5/26/92

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ADDED NOTE #5.	10/17/02	INIT/DATE
DESCRIPTION		

A-3093

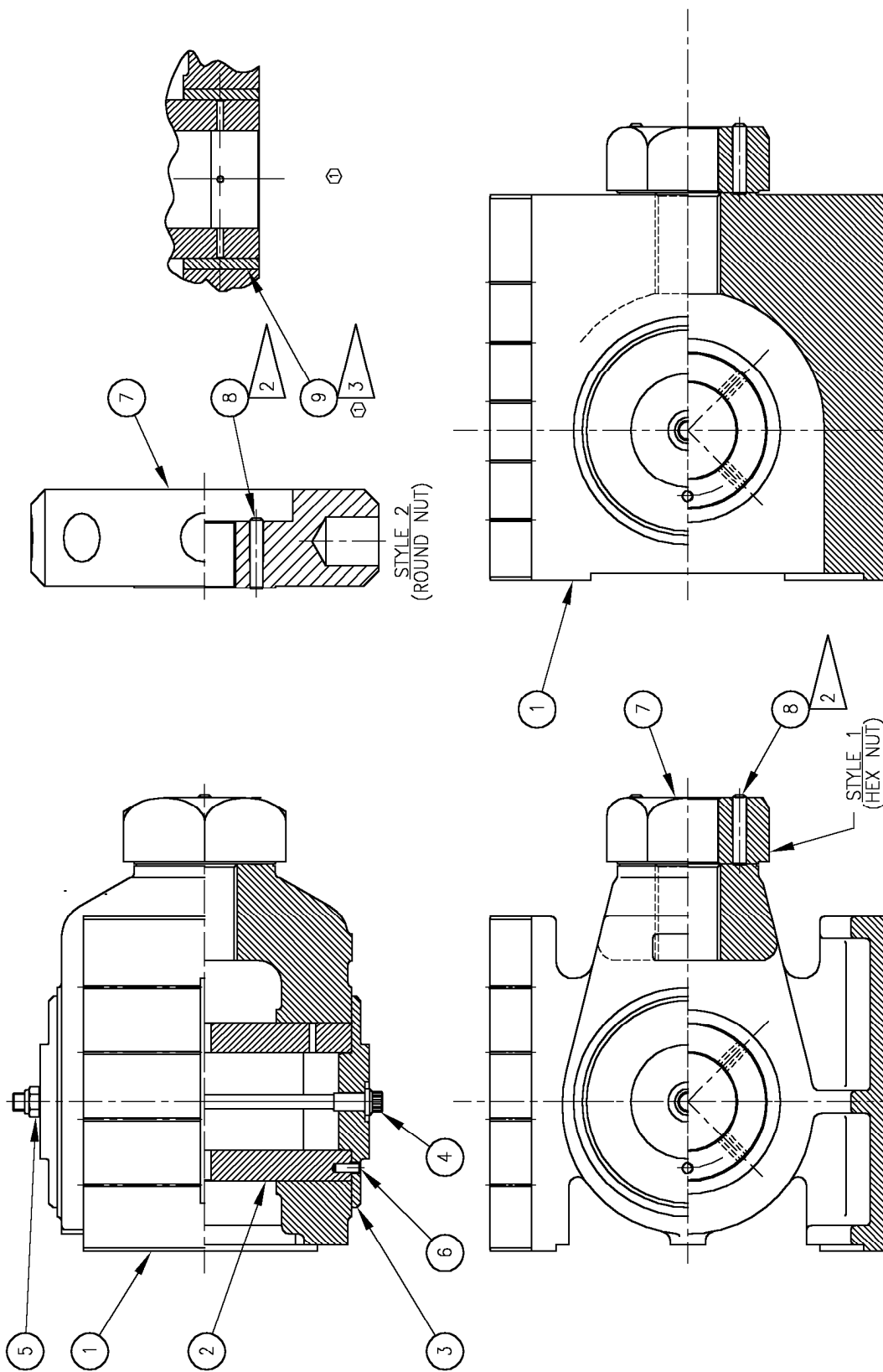
PARTS LIST

GROUP NO. G-5118

CONNECTING ROD, FORGED STEEL
JGE, JGK & JGT, NEW STYLE BEARING H/S.
REF. DRWG. A-3093

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	AD-0973	1	CONN ROD ASSY, FS, JGE:K:T
002	A-3941	0	12 PT, 1-14 X 7-1/4 G8
003	FP0500GG	0	DOWEL PIN, 5/16 X 1" +.0002
004	B-0772	0	SLEEVE BEARING, BZ, ROD, JGH:E:K
005	B-2082	2	SLEEVE BEARING, H/S, ROD, H:E:K:T
006	B-1495	0	TURN INDICATOR, JGH:E:K:T

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



NOTES:

1. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2. LOOSEN TWO SET SCREWS (ITEM #8) BEFORE REMOVING CROSSHEAD NUT (ITEM #7). SET SCREWS ARE TO BE SCREWED IN AND TIGHTENED (TO LOCK) ONLY AFTER CROSSHEAD NUT (ITEM #7) HAS BEEN TORQUED TO SPECIFICATIONS
3. MAY NOT APPLY TO ALL CROSSHEADS

REV	DESCRIPTION
1	REMOVED NOTE VIEW TYP. OF JOE AND JCK. ADDED NOTE #3 MAY NOT APPLY TO ALL CROSSHEADS.

1	8001	0	6859	DJB	04/18/97	APPROVED:	ASSEMBLY DWG. NO.
REV	ECN	CHECKED:	04/24/97	SCALE:	NONE		



ARIEL CORPORATION
 35 BLACKJACK ROAD
 MOUNT VERNON, OHIO 43050

A-6871

PARTS LIST

GROUP NO. G-1322

CROSSHEAD, PIN AND BALANCE NUT
JGE, JGK & JGT
REF. DRWG. A-6871

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	CROSSHEAD	0	FOR PART NO. SEE COVER SHEET
001	D-0868	0	CROSSHEAD, LGT, DI, 74.9#, E:K:T
001	D-0869	0	CROSSHEAD, MED, DI, 105.2#, E:K:T
001	D-0870	0	CROSSHEAD, MED, DI, 131.8#, E:K:T
001	D-0871	0	CROSSHEAD, HVY, DI, 153.3#, E:K:T
001	D-0949	0	CROSSHEAD, XHV, BZ, 193.0#, H:E:K
001	D-0995	0	CROSSHEAD, BAL, CI, 198.0#JGH:E:K
001	D-0996	0	CROSSHEAD, BAL, CI, 237.0#JGH:E:K
001	D-0997	0	CROSSHEAD, BAL, CI, 276.0#JGH:E:K
001	D-0998	0	CROSSHEAD, BAL, CI, 336.0#JGH:E:K
001	D-2299	0	CROSSHEAD, BAL, CI, 426.0#, HEK
002	B-0773	1	CROSSHEAD PIN, JGH:E:K
003	A-3870	2	END PLATE, CROSSHEAD PIN, H:E:K
004	A-3869	1	12 PT, 1/2-20 X 10 G8
005	FN0461GA	1	SELF-LOCK NUT, ESNA, 1/2-20
006	FP0505FE	2	ROLL PIN, 1/4 X 3/4
007	B-0781	0	CROSSHEAD NUT, 10.0#, RND, H:E:K
007	B-0782	0	CROSSHEAD NUT, 14.0#, RND, H:E:K
007	B-0783	0	CROSSHEAD NUT, 18.0#, RND, H:E:K
007	B-0784	0	CROSSHEAD NUT, 22.0#, RND, H:E:K
007	B-0785	0	CROSSHEAD NUT, 26.0#, RND, H:E:K
007	B-0786	0	CROSSHEAD NUT, 30.0#, RND, H:E:K

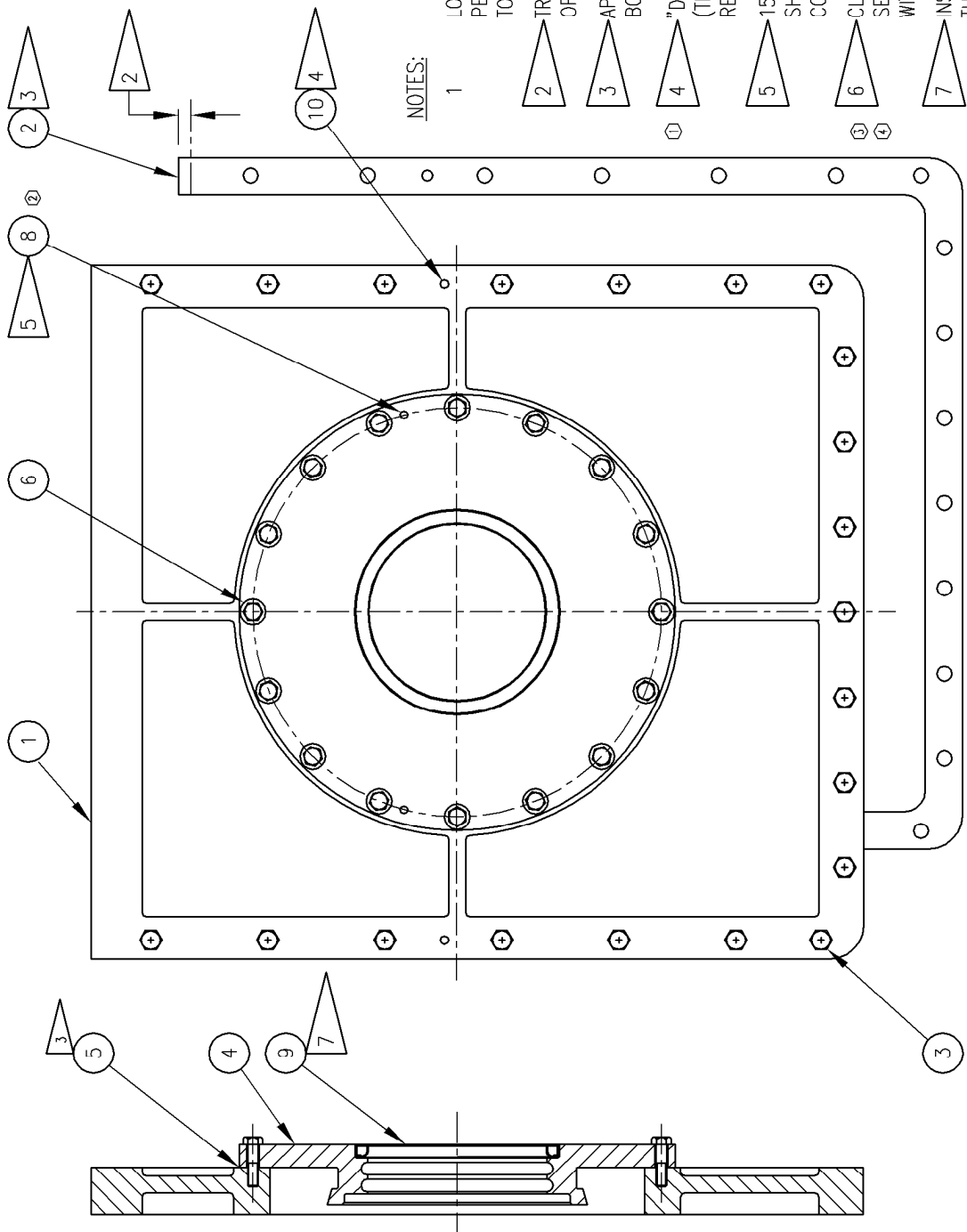
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

PARTS LIST

007	B-1325	0	CROSSHEAD NUT, 34.0#, RND, H:E:K
007	B-1573	0	CROSSHEAD NUT, 38.0#, RND, H:E:K
007	B-1574	0	CROSSHEAD NUT, 42.0#, RND, H:E:K
007	B-1575	0	CROSSHEAD NUT, 46.0#, RND, H:E:K
007	B-1576	0	CROSSHEAD NUT, 50.0#, RND, H:E:K
007	B-1577	0	CROSSHEAD NUT, 54.0#, RND, H:E:K
007	CROSSHEAD NUT	0	FOR PART NO. SEE COVER SHEET
008	FS0455EK	2	CUP PT.S-SCRW, NY, 3/8-24 X 2
009	B-0787	0	SLEEVE BEARING, BZ, X-HD, JGE:K

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

1 2 3 4



NOTES:

- 1. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
- 2. TRIM NEW GASKET FLUSH WITH TOP OF BASE AFTER INSTALLATION.
- 3. APPLY AN ANTI-SEIZE LUBRICANT TO BOTH SIDES OF GASKET SURFACES.
- 4. ".246" DRILL 2-3/16 DEEP (THROUGH COVER AND 13/16 IN FRAME). REAM WITH #5 TAPER REAMER.
- 5. 15/64 DRILL 15/16 DEEP (THROUGH SHAFT SEAL HOUSING AND 9/16 IN COVER). REAM WITH #4 TAPER REAMER.
- 6. CLEARANCE BETWEEN CRANKSHAFT AND SHAFT SEAL HOUSING (ITEM#4) TO BE CHECKED WITH .008-.011 FEELER GAUGE ALL AROUND.
- 7. INSTALL DUST SEAL (ITEM#9) WITH LIP TURNED OUT AS SHOWN.

REV	DESCRIPTION	INIT/DATE
4	AT A4 NOTE #6 WAS-CLEARANCE BETWEEN CRANKSHAFT AND SHAFT SEAL HOUSING (ITEM#4) TO BE CHECKED WITH .010 - .013 FEELER GAUGE ALL AROUND.	JCS 5/30/02
3	AT A4 NOTE #6 WAS-CLEARANCE BETWEEN CRANKSHAFT AND SHAFT SEAL HOUSING (ITEM#4) TO BE CHECKED WITH .008 FEELER GAUGE ALL AROUND.	ALH 01/21/02



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

3	10203	2	8801	1	6456
4	10741	0	5942	1	6456
REV	ECN	REV	ECN	REV	ECN

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APPROVED: CAH 05/14/96
CHECKED: 05/22/96

ASSEMBLY DWG. NO. **A-6330**

1 2 3 4

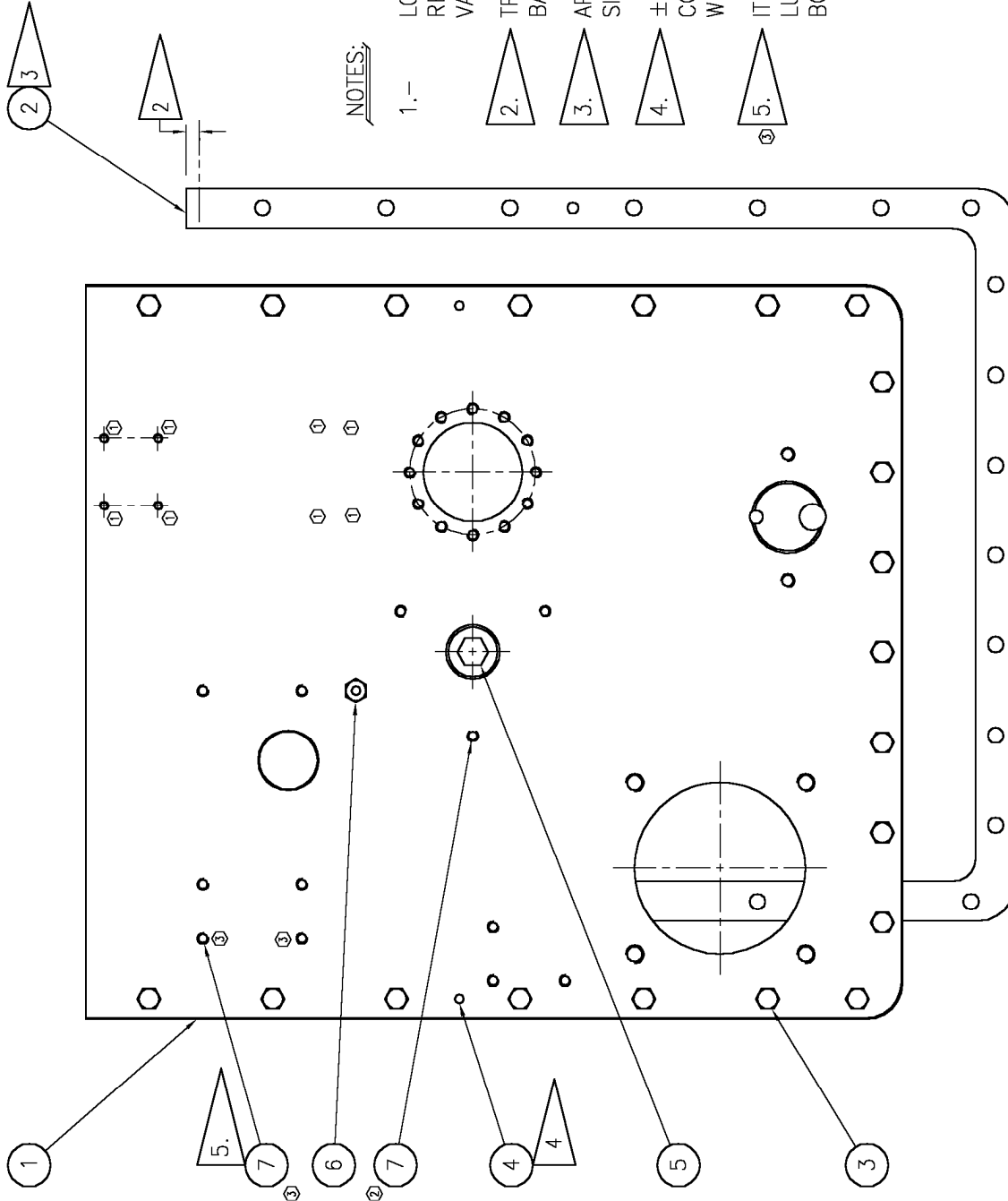
PARTS LIST

GROUP NO. G-0978

DRIVE END COVER
JGH, JGE, JGK AND JGT, 2 AND 4 THROWS.
REF. DRWG. A-6330

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-0587	1	DRIVE END COVER, JGH:E:K:T
002	B-0844	1	GASKET,RET,23-1/2X20-5/16X1/32
003	FC0102EK	21	HEX HD CAP,3/8-16 X 2 G5
004	C-0594	1	SHAFT SEAL HOUSING, JGH:E:K
005	A-3875	1	GASKET,RND,12-13/16, X 1/32
006	A-10186	16	SEMS BOLT, 5/16-18 X 1-1/4
008	FP0512EF	2	THD.TAPER PIN,#4 X 1"LG
009	A-0245-B	1	DUST SEAL,TFE,JGH:E:K
010	FP0512FJ	2	THD.TAPER PIN,#5 X 2"LG

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



NOTES:

1. -- LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2. TRIM NEW GASKET FLUSH WITH TOP OF BASE AFTER INSTALLATION.
3. APPLY AN ANTI-SEIZE LUBRICANT TO BOTH SIDES OF GASKET SURFACES.
4. ±F" (.257) DRILL 1-11/16 DEEP (THROUGH COVER AND 11/16 IN FRAME). REAM WITH #5 TAPER REAMER.
5. ITEM #7 WILL NOT BE USED IN THE TWO (2) LUBE BOX MOUNTING HOLE IF A 2 PUMP BOX IS USED. (REF. 2 THROW ONLY)

REV	DESCRIPTION	INIT/DATE	DPD
3	ZONE B3 ADDED NOTE #5 ITEM #7 WILL NOT BE USED IN THE TWO (2) LUBE BOX MOUNTING HOLE. ZONE C1 ADDED TWO MORE ITEMS #7 AND FLAG #5.	10/18/00	

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3	8457	ARIEL CORPORATION	ASSEMBLY
2	7842	35 BLACKJACK ROAD	DWG. NO.
1	7323	MOUNT VERNON, OHIO 43050	
0	5942	APPROVED:	
REV	ECN	CAH 5/13/96	SCALE: NONE
		CH 7/12/96	

A-6328

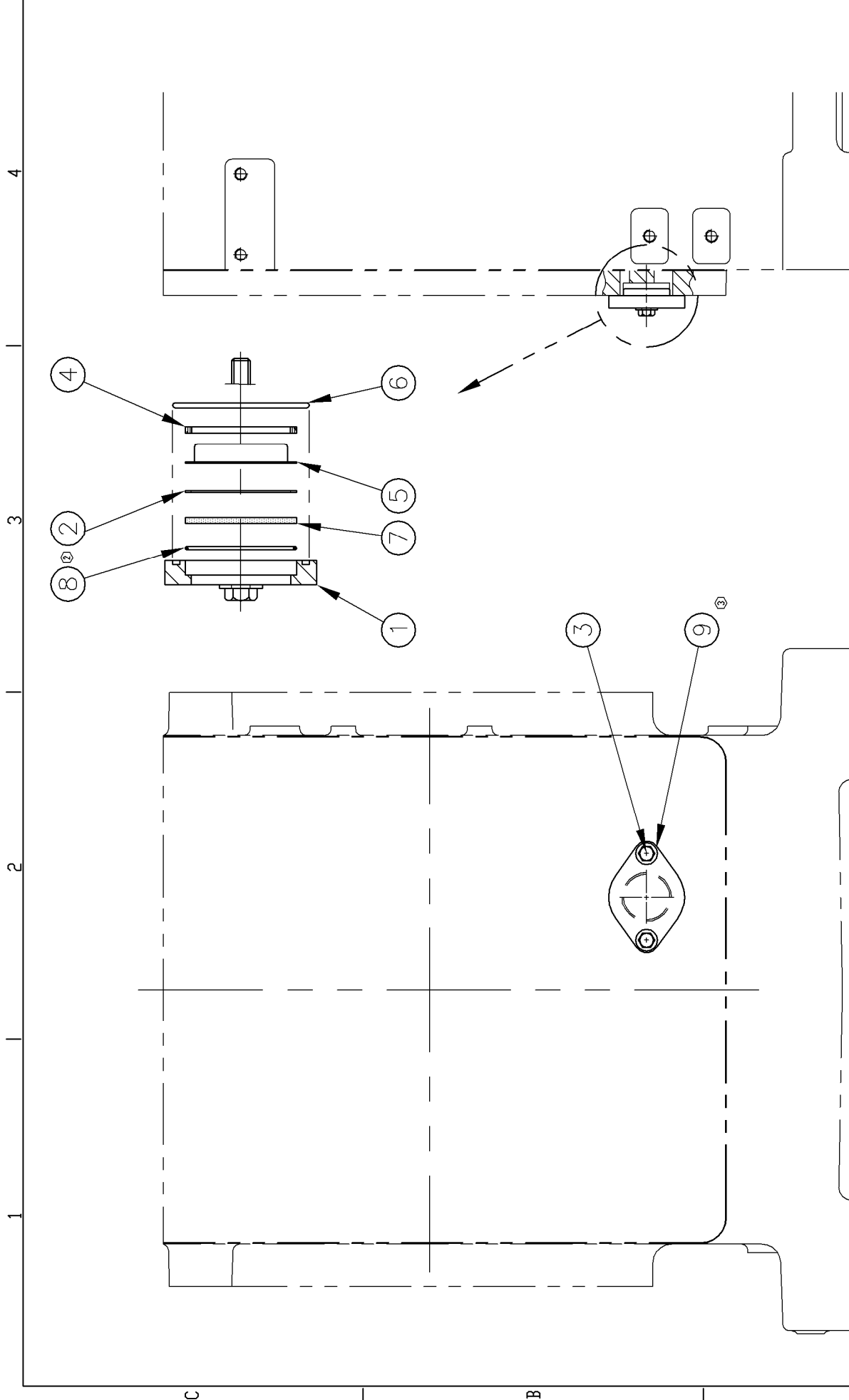
PARTS LIST

GROUP NO. G-1068

AUXILIARY END COVER
JGH/4, JGE/4, JGK/4 AND JGT/4
REF. DRWG. A-6328

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-2593	1	AUX END COVER, JGH:E:K:T/4
002	B-0844	1	GASKET, RET, 23-1/2X20-5/16X1/32
003	FC0102EI	21	HEX HD CAP, 3/8-16 X 1-1/2 G5
004	FP0512FH	2	THD. TAPER PIN, #5 X 1-1/2LG
005	PP0850MB	1	PIPE PLUG, 1-1/4NPTF, HEXSOC, STL
006	A-0827	1	MALE CONN, STL, 1/4T X 1/4P
007	A-0490	3	MACHINE SCREW PLUG, PL, 5/16-18

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



NOTES:

- 1. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.

3	ADDED TWO FLAT WASHERS. @ B3, ADDED ITEM #9.	AWW	09/04/2002
2	CHANGED OUTER GASKET TO AN O-RING, REMOVED (1) ITEM #2 AND ADDED (1) ITEM #8.		
REV	DESCRIPTION	INIT/DATE	

3	10940	 ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		ASSEMBLY DWG. NO. A-4068	
2	8067				
1	8001				
0	4837				
REV	ECN	DRAWN DB 5/25/93	CHECKED 6/8/93	SCALE NONE	

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PARTS LIST

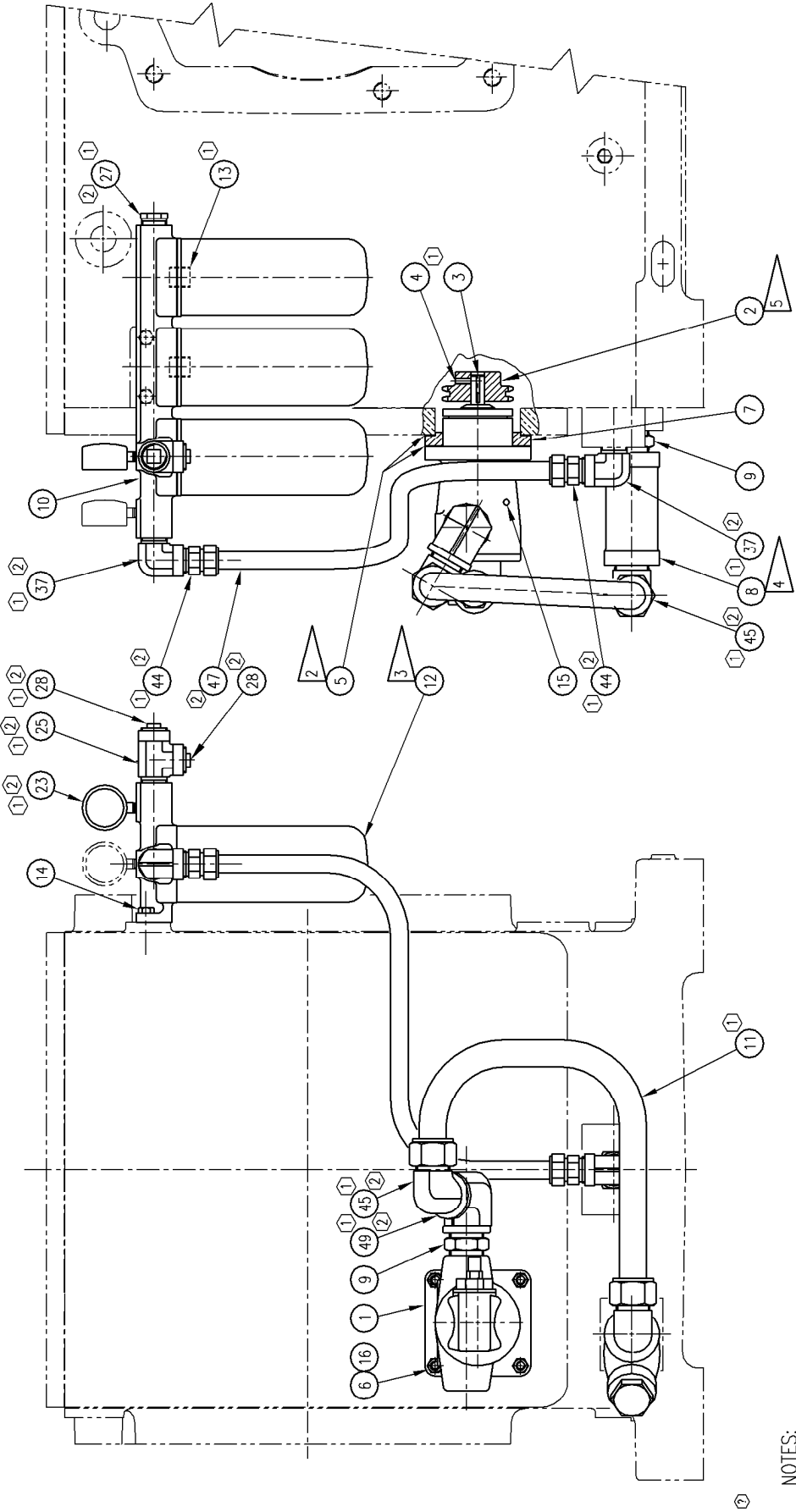
GROUP NO. G-0986

SIGHT GLASS ASSEMBLY STD
JGE:K:T, JGC:D, JGB:V, & JGJ/6
REF. DRWG. A-4068

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	B-3322	1	FLANGE, SIGHT GLASS, HEKT:CD:BV
002	A-5375	1	GASKET, RND, 2-1/4, X 1/32, INNER
003	FC0102EG	2	HEX HD CAP, 3/8-16 X 1 G5
004	A-5376	1	GASKET, RND, 2-1/4 X 1/8, OUTER
005	A-5378	1	SIGHT GLASS, 2" REFLECTOR
006	A-0745	1	O-RING, VT, 2.756 O.D. X .103
007	A-5374	1	SIGHT GLASS, 2-1/4" LENS
008	A-9870	1	O-RING, VT, 2.25 OD. X .0625
009	FW0501DA	2	FLAT WASHER, 3/8 ID PLAIN

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

1 2 3 4



NOTES:

1. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
2. APPLY AN ANTI-SEIZE LUBRICANT TO GASKET SURFACES.
3. CHANGE FILTER ELEMENT EVERY SIX MONTHS.
4. REMOVE AND INSPECT STRAINER SCREEN WHEN CHANGING OIL (CLEAN IN A SUITABLE SOLVENT).
5. ALIGN L.O. PUMP SPROCKET WITH CRANKSHAFT SPROCKET AND TIGHTEN SET SCREWS.

2	UPDATED ITEM NUMBERS TO CURRENT ITEM # ROTATION	JCS 8/9/02
1	RENUMBERED ITEMS MARKED.	
REV	DESCRIPTION	INIT/DATE

2 10797		1 8001		0 7576		1 8001	
REV		ECN		REV		ECN	
CHECKED		WGP		5/20/92		SCALE: NONE	
DRAWN		RLW		4/27/92		APPROVED:	
DWG. NO.		ASSEMBLY		DWG. NO.		A-8599	



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

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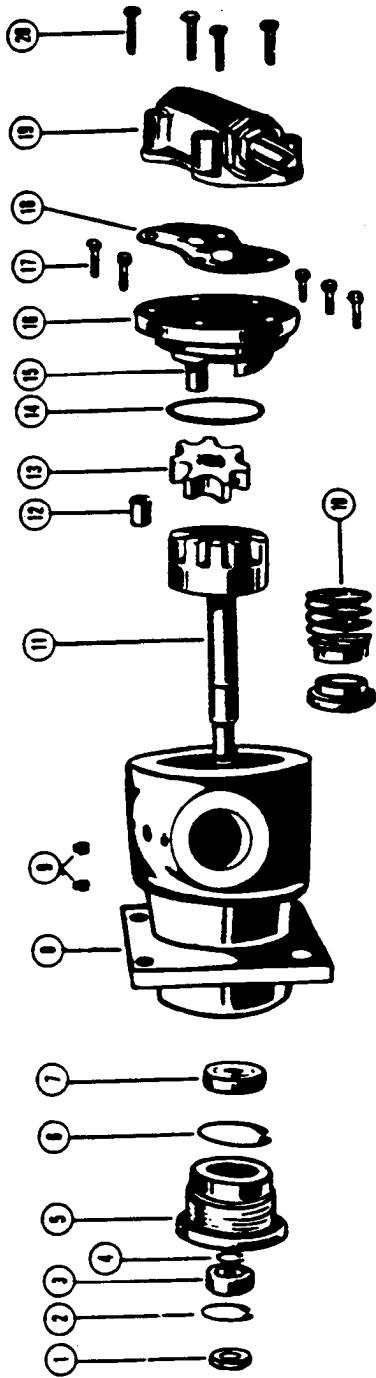
PARTS LIST

GROUP NO. G-1074

LUBE OIL PUMP, STRAINER, FILTER
 JGH/4, JGE/4, JGK/4 & JGT/4
 REF. DRWG. A-8599

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-0752	1	L O PUMP, JGH:E:K/4, JGC:D/2
002	A-3918	1	SPKT,RLR.CHAIN,LO,PUMP,21T
003	FK0361EG	1	SQR KEY,3/16 X 1"LG
004	FS0455DG	2	CUP PT.S-SCRW,NY,5/16-24 X 1
005	B-0779	2	GASKET,SQ,5-15/16X5-15/16X1/32
006	FD0212GDI	4	1/2 DOG PT.STUD,1/2-13 X 3-1/2
007	B-0777	1	L O PUMP ADPTR,VIK, JGH:J/6
008	A-8249	1	L O STRAINER, 1-1/2"NPT
009	A-0965	2	HEX PIPE NIPPLE,1-1/2P
010	D-0744	1	L O FILTER HEAD,3 ELEMENT
011	A-3938	1	TUBE,PREF,LO,SUC,H/4:C/2
012	A-0661	3	LO FILTER ELEMENT,SPIN-ON
013	A-0660	0	STUD,SPIN-ON L O FILTER
014	FC0102GH	2	HEX HD CAP,1/2-13 X 1-1/4 G5
015	A-5257	1	DRIVE PLUG, VIKING WEEPHOLE
016	FN0460GA	4	SELF-LOCK NUT,ESNA,1/2-13
023	A-0261	1	L.O.PSI GAUGE,ASHCROFT,1/4 NPT
025	A-0972	1	STREET TEE,STL, 1"P
027	PP0810KB	1	PIPE PLUG,1"NPT,HEX HD,STL
028	PP0802KD	2	PIPE PLUG,1"NPT,SQ HD,PLASTIC
037	A-0847	2	STREET ELBOW,STL,1"NPT
044	A-0967	2	MALE CONN,STL, 1T X 1P

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



ARIEL PART NO.	QUAN. REQ'D.	DESCRIPTION	ARIEL PART NO.	QUAN. REQ'D.	DESCRIPTION
1 A-5203	1	LOCKNUT	12 A-5419	1	IDLER BUSHING
2 A-5204	1	SNAP RING, OUTER	13 A-5420	1	IDLER AND BUSHING
3 A-5205	1	BALL BEARING, OUTER	14 A-5215	1	O-RING FOR HEAD
4 A-5206	1	SNAP RING FOR SHAFT	15 A-5216	1	IDLER PIN
5 A-5207	1	BEARING HOUSING W/SETSCREWS	16 A-5421	1	HEAD AND IDLER PIN
6 A-5208	1	SNAP RING, INNER	17 A-5218	5	CAPSCREW FOR HEAD
7 A-5209	1	BALL BEARING, INNER	18 A-5063	1	RELIEF VALVE GASKET
8 A-5210	1	CASING	19 A-5219	1	INTERNAL RELIEF VALVE
9 A-5054	2	PIPE PLUG 1/4"	20 A-5220	4	CAPSCREW FOR VALVE
10 A-5211	1	MECHANICAL SEAL	21 A-5221	1	BEARING HOUSING ASS'Y.
11 A-5418	1	ROTOR AND SHAFT (KEYED)	21 A-4928	1	SPRING-RELIEF VALVE

NOTES:

- SEE D-752 FOR DIMENSIONAL DETAIL.
- REF.: VIKING PUMP NO. HL - 495

ADDED ITEM # 21 JAN 1978

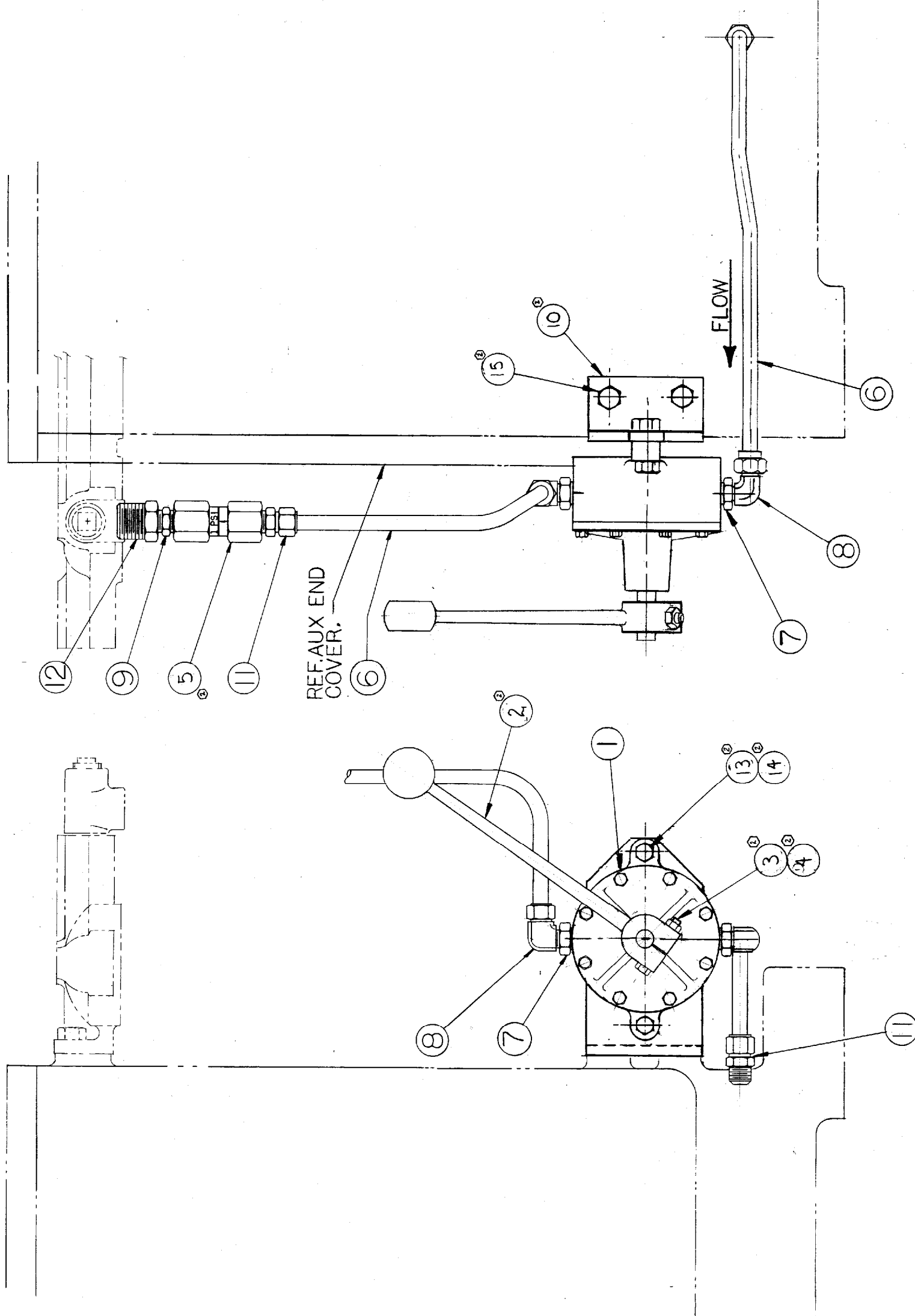
1	REV	DESCRIPTION	ASS'Y DWG. NO.
			A-2329

1/5391
053711

PARTS LIST

045	A-0964	2	MALE ELBOW, STL, 1-1/2T X 1-1/2P
047	PT0200JC	40.	" SS, TUBING, 1" OD X .049 WALL
049	A-0968	1	FEMALE ELBOW, STL, 1-1/2P

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



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SYSTEM.

2	8001
7	4462
0	4205

ARIEL CORPORATION
MOUNT VERNON, OHIO

ASSY
DWG No D-1341

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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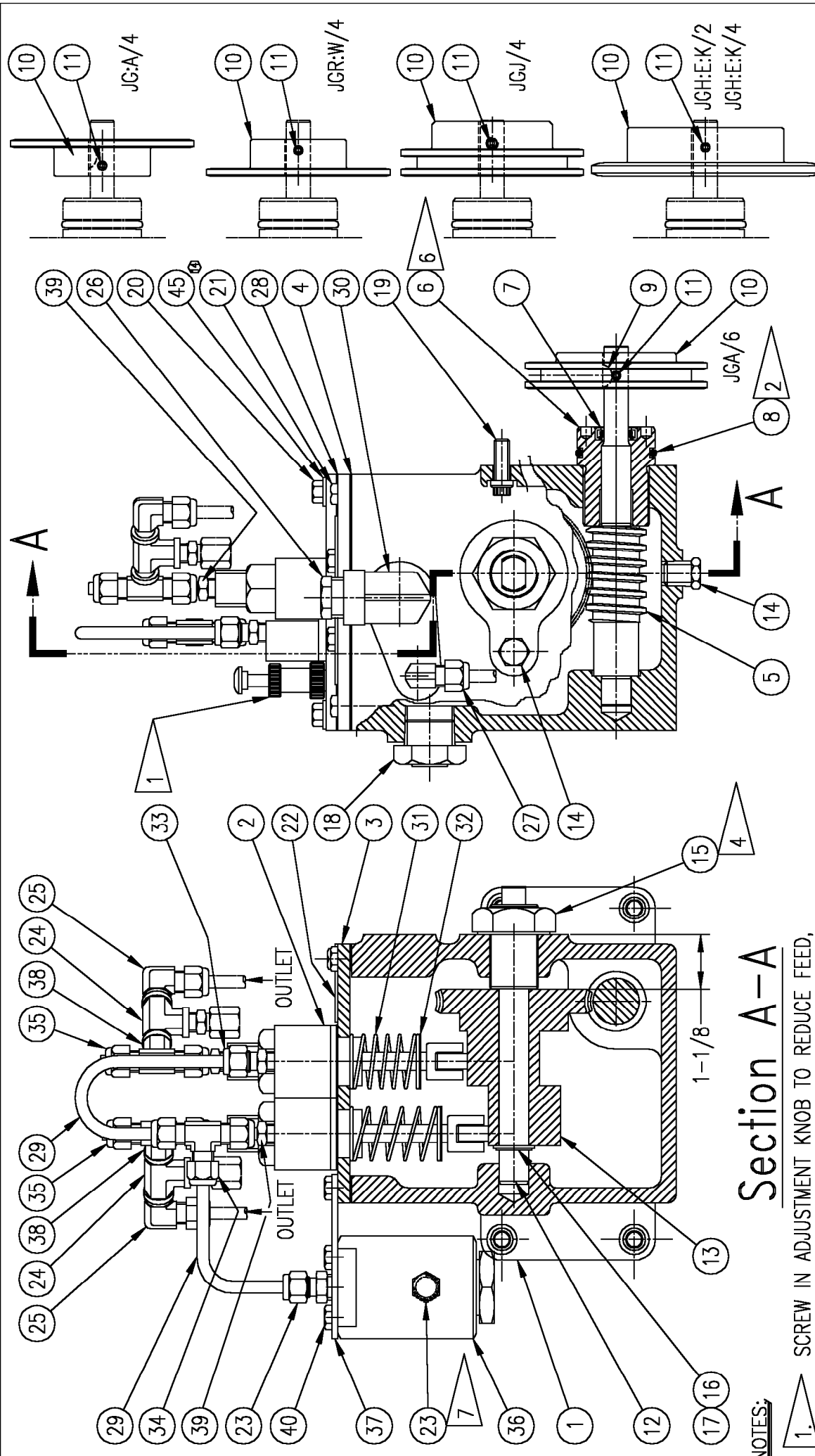
PARTS LIST

GROUP NO. G-2246

LUBE OIL PRIMING PUMP, MOUNTED, STANDARD,
 JGH:E:K:T/2:4, JGC:D/2
 REF. DRWG. D-1341

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	B-0425	1	MANUAL PRIMING PUMP
002	B-1473	0	HANDLE, PRIMING PUMP, CLAMP TYPE
003	FC0125DK	0	12 PT, 5/16-24 X 2 G8
004	FN0461DA	0	SELF-LOCK NUT, ESNA, 5/16-24
005	A-2370	1	CHECK VALVE, PPT, 1/2 FNPT/SS
006	PT0200FB	57.	" SS, TUBING, 1/2 OD X 035 WALL
007	A-0844	2	HEX RED BUSH, STL, 3/4M X 1/2F
008	A-0901	2	MALE ELBOW, STL, 1/2T X 1/2P
009	A-0849	1	HEX PIPE NIPPLE, 1/2P, STL
010	B-0817	1	BRACKET, PRIMING PUMP, JGW:R:K:J
011	A-0857	2	MALE CONN, STL, 1/2T X 1/2P
012	A-0888	1	HEX RED BUSH, STL, 1M X 1/2F
013	FC0100EI	2	HEX HD CAP, 3/8-16 X 1-1/2 G9
014	FN0450EB	2	HEX NUT, STL, Z/PL, 3/8-16
015	FC0102GG	2	HEX HD CAP, 1/2-13 X 1 G5

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



Section A-A

- SCREW IN ADJUSTMENT KNOB TO REDUCE FEED.
SCREW ADJUSTMENT KNOB OUT TO INCREASE FEED.
- OIL O-RING BEFORE INSTALLING.
- SEE CYLINDER LUBRICATION SHEET FOR CORRECT PUMP SETTING (DISTRIBUTION BLOCK CYCLE INDICATOR TIMING).
- TORQUE TO 75 FT/LB.
- TORQUE TO 70 FT/LB.
- LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
- OIL INLET ON BACK SIDE OF FILTER.

4. 		TORQUE TO 75 FT/LB.	THIS DOCUMENT AND CONTENTS THEREIN ARE PROPRIETARY OF ARIEL CORPORATION. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ARIEL CORPORATION. ARIEL CORPORATION DOES NOT GRANT THE RIGHT TO DISCLOSE OR USE IN PART OR IN WHOLE INFORMATION CONTAINED IN THIS DOCUMENT.	ADDED ITEM #45.	REV	DESCRIPTION	
5. 		TORQUE TO 70 FT/LB.					
ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050  DATE: BH 2/20/89 CHECKED: 2/20/89 APPROVED: SCALE: NONE ASSEMBLY DWG. NO. D-1107							
		11	7704	7	5895	3	4297
14	8001	10	6487	6	5561	2	4159
13	7908	9	6443	5	4752	1	3882
12	7839	8	6416	4	4428	0	3739
REV	ECN	REV	ECN	REV	ECN	REV	ECN

PARTS LIST

GROUP NO. G-2616

FORCE FEED LUBRICATOR, TWIN PUMPS
 (1) 3/8" DIA. PUMP & (1) 1/4" DIA. PUMP
 JGH:E:K:T 2/4
 REF. DRWG. D-1107

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-2001	1	FF LUBR, 2, LH, PUMP TANK ASSY
002	A-9477	1	FF LUBR PUMP 1/4 PREMIER
002	A-9478	1	FF LUBR PUMP 3/8 PREMIER
003	A-2347	0	TOP CVR DOUBLE FF LUBE BOX
004	A-2349	0	GSKT, ARL DBL LUBE BOX CVR, 1/32
005	A-2360	0	WORM SHAFT, FF LUBR 1/2D E
006	A-5638	0	HSG BRG FF LUBE BOX LH
007	A-3911	0	SHAFT OIL SEAL
008	A-0030	0	O-RING, VT, 1.637 O.D.X.139
009	FK0360AA	1	WOODRUFF KEY, #204, 1/2D X 1/16
010	A-3873	1	SPKT, RLR.CHAIN, FF LUBR, 28T
011	FS0455DH	1	CUP PT.S-SCRW, NY, 5/16-24X1-1/4
012	A-2353	0	ADJ SHAFT-DOUBLE LUBE BOX
013	B-1177	0	CAM/WORM GEAR, 2-PUMP FF LUBR
014	PP0810CB	2	PIPE PLUG, 1/4NPT, HEX HD, STL
015	FN0457KA	0	HEX NUT, JAM, STL, 1"-14
016	A-2359	0	SNAP RING, STL, RADIAL ASSY 0.625
017	A-2358	0	FLAT WASHER, SUPPORT, 518, HARD
018	A-5641	0	SIGHT GLASS, 3/4" NPT
019	FC0120DF	4	12 PT CAP, 5/16-18 X 7/8 G8
020	FC0102CG	0	HEX HD CAP, 1/4-20 X 1 G5
021	FC0102CE	0	HEX HD CAP, 1/4-20 X 3/4 G5

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

PARTS LIST

022	A-3928	1	DATA PLATE, 2 PUMP FF LUBR
023	A-0827	2	MALE CONN, STL, 1/4T X 1/4P
024	A-0882#02	2	STREET TEE, STL, 1/8P
025	A-0815	2	MALE ELBOW, STL, 1/4T X 1/8P
026	PP0810GB	1	PIPE PLUG, 1/2NPT, HEX HD, STL
027	A-0800	1	MALE ELBOW, STL, 1/4T X 1/4P
028	A-9631	0	FF LUB PUMP GASKET
029	PT0200CB	28.	" SS TUBING, 1/4 OD X .035 WALL
030	A-0843	1	STREET ELBOW, STL, 1/2P, 90
031	A-9619	0	SPRING, FF PUMP, PREMIER
032	A-9618	0	SPRING RETAINER, FF PUMP, PREM
033	A-0830	1	MALE CONN, STL, 1/4T X 1/8P
034	A-0807	1	UNION TEE, STL, 1/4T
035	A-0918	2	PLUG-TUBE FIT, FEMALE, STL, 1/4T
036	A-8723	1	FF LUBR FILTER, 150 MIC
037	A-8729	1	BRKT, FF INLET FILTER
038	A-8824	2	FEMALE BRANCH TEE STL1/4TX1/8P
039	A-8828	3	MALE ADAPTR, STL, 1/4T X 1/8P
040	FC0102CC	2	HEX HD CAP, 1/4-20 X 1/2 G5
045	FW0500CA	0	WASHER, 1/4" I.D., SAE
099	A-8723-K	0	FILTER KIT, LUBRICATOR 150 MIC
099	AD-2881	0	FF LUBR, 3/8, 1/4 1/2S

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

PARTS LIST

GROUP NO. G-5299

DISTRIBUTION BLOCK, MOUNTING BOLTS
JGA:H:E:K:T:C:D:B:V/4:6, SINGLE BLOCK
REF. DRWG. N.A.

ITEM		QUANTITY	DESCRIPTION
NUMBER	PART NUMBER		
001	FC0102CI	8	HEX HD CAP, 1/4-20 X 1-1/2 G5

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

PARTS LIST

GROUP NO. G-2708

RUPTURE DISC ASSEMBLY
3250 PSI
REF. DRWG. N.A.

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-0080	1	BLOW-OUT ASSY, SPECIFY DISC.
002	A-0124	0	BLOW-OUT DISC, 3250 PSIG, PURPLE
003	A-2570	1	PLUG PLASTIC, 7 X RED

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

PARTS LIST

GROUP NO. G-2859

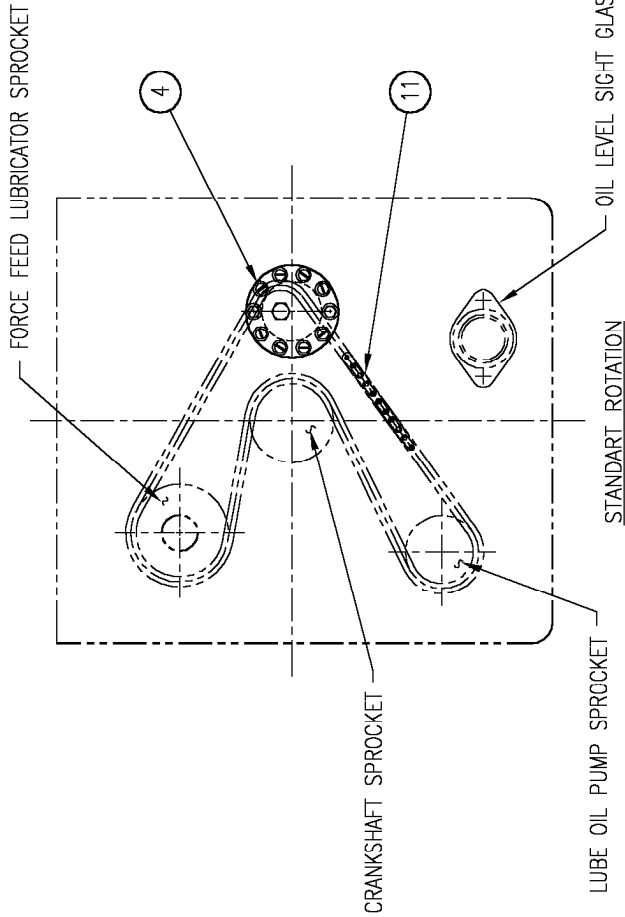
FORCE FEED LUBRICATION TUBING

JGK:T:C:D/4

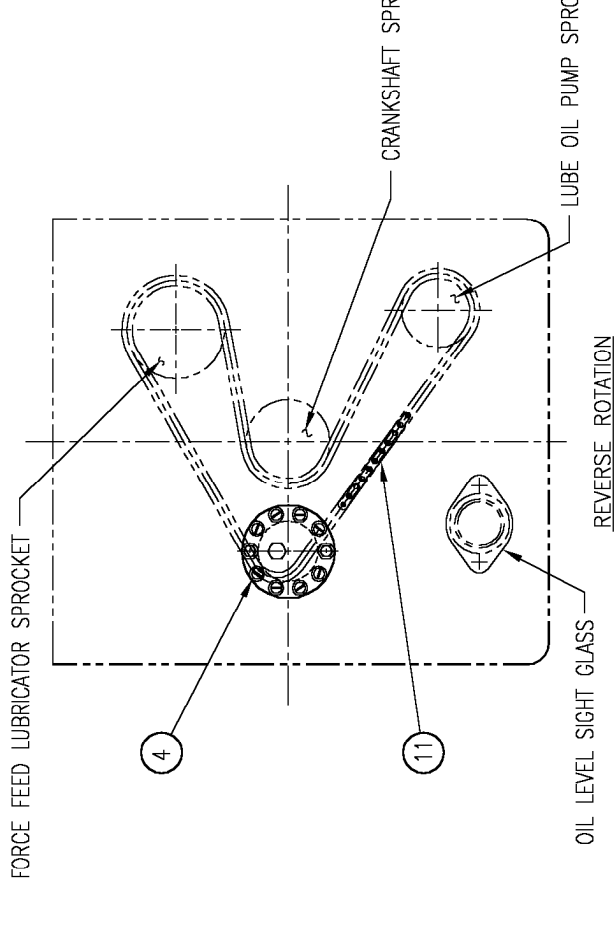
REF. DRWG. N.A.

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	PT0200CB	900.	" SS TUBING, 1/4 OD X .035 WALL
002	A-0886	8	BULK.UNION,STL, 1/4T X 1/4T
003	A-0401	8	BRACKET,BULKHEAD UNION
004	FC0134CC	8	BUT HD CAP,1/4-20 X 1/2 316SS
005	A-0831	9	TUBING CLAMP, 1/4 TUBE
006	FM0400BC	9	SLTD.MACH.SCREW, #10-24 X 1/2
007	FW0500AA	9	FLAT WASHER, #8 SAE

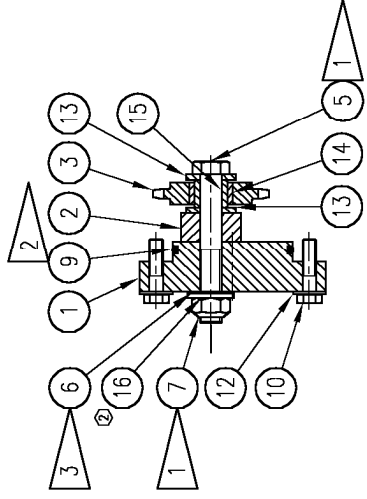
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.



STANDARD ROTATION



REVERSE ROTATION



NOTES:

1. REPLACE NUT (ITEM 7) AND CAPSCREW (ITEM 5) WITH NEW PARTS WHEN REPLACING IDLER SPROCKET (ITEM 3).
2. OIL 0-RING (ITEM 9) BEFORE INSTALLING.
3. OIL FACES BEFORE INSTALLING TO PREVENT ABRASION TO STATO-SEAL (ITEM 6).
4. ROLL MACHINE TO TIGHTEST POSITION OF CHAIN. REMOVE (2) CAPSCREWS (ITEM 10) AND EIGHT PLUGS (ITEM 4) FROM ECCENTRIC CAP (ITEM 1). ROTATE CAP 6° IN A CLOCKWISE DIRECTION TO LINE UP TWO NEW CAPSCREW HOLES. (IF THIS MAKES CHAIN TOO TIGHT, TRY TURNING CAP AROUND IN A COUNTER CLOCKWISE DIRECTION FOR A DIFFERENT HOLE LINE-UP). TIGHTEN TWO CAPSCREWS AND ROLL MACHINE TO CHECK TIGHTNESS IN A NUMBER OF POSITIONS (CHAIN AT TIGHTEST POSITION SHOULD HAVE VERY LITTLE SLACK BUT SHOULD NOT FEEL DEAD TIGHT). REPLACE PLUGS IN CAP TO KEEP DIRT OUT OF TAPPED HOLES IN END COVER.

REV	DESCRIPTION	DATE
2	ADDED ITEM #16 (FWDS000A - FLAT WASHER, 1/2 SAE).	10/21/00

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2	8434	1	8281	0	8060	DAH	1/20/00	ASSEMBLY	DAWG. NO.
REV	ECN	CHECKED	DRAWN	DATE	APPROVED	SCALE	NONE	DAH	1/24/00



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

A-9639

PARTS LIST

GROUP NO. G-7982

CHAIN DRIVE ASSY, STANDARD OR REVERSE
ROTATION. JGH:E:K:T/2;4 THROW UNITS
REF. DRWG. A-9639

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	B-0030	1	ECC VERNIER CAP
002	A-9598	1	IDLER SPACER
003	A-9599	1	SPKT ASSY,RLR CHAIN #40-15T BZ
004	A-0109	8	MACHINE SCREW PLUG,PL, 7/16-14
005	FC0107GQ	1	HEX HD CAP,1/2-20 X 3-1/2 G5
006	FW0550GA	1	STAT-O-SEAL, 1/2 DIA., BLACK
007	FN0468GA	1	HEX NUT,STOVER TYPE C ,1/2-20
009	A-0010	1	O-RING,VT, 2.625 O.D.X.139
010	FC0100DH	2	HEX HD CAP,5/16-18 X 1-1/4 G9
011	A-3884	1	ROLLER CHAIN,40-1 X114,JGH:E:K
012	FW0501CA	2	FLAT WASHER, 5/16 I.D. PLAIN
013	FW0502HA	2	WASHER,1/2 STEEL
014	A-9600	0	SLEEVE BUSHING,BZ,1/2 LG
015	A-9601	1	SLEEVE BEARING,STL,5/8 LG
016	FW0500GA	1	FLAT WASHER, 1/2 SAE

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

PARTS LIST

GROUP NO. G-1073

TOP COVER, BREATHER
JGH/4, JGE/4, JGK/4 & JGT/4
REF. DRWG. A-7072

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-0644	1	TOP COVER, JGH:E:K:T/4
002	C-0645	1	GASKET,RET,77-5/8 X20-3/8X1/32
003	FE0300EA	0	EYEBOLT,3/8-16 UNC
004	B-2567	2	BREATHER,1"NPT,FRAME NEW
005	A-6830	56	SEMS BOLT, 3/8-16 X 1-1/4
006	A-0467	4	MACHINE SCREW PLUG,PL, 3/8-16
007	A-0138	1	NAME PLATE,ARIEL LOGO
008	FC0134BC	6	BUT HD CAP,10-24 X 1/2 316SS
009	A-0713	1	INFO PLATE,L O FILTER,SPIN-ON
010	A-0459	1	DATA PLATE,FRAME SPECIFICATION
011	FR0570CC	15	DRIVE SCREW, #6 X 1/4 U-TYPE
012	A-0719	1	INFO PLATE,ROTATION ARROW
013	A-0463	1	CAUTION PLATE,CYLINDER VENTING
014	A-0464	1	CAUTION PLT,COMPRESSOR VLV
015	A-7655	2	PIPE PLUG,1"NPT,SLOTTED HEAD
016	A-0009	2	O-RING,VT, 1.375 O.D.X.139

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

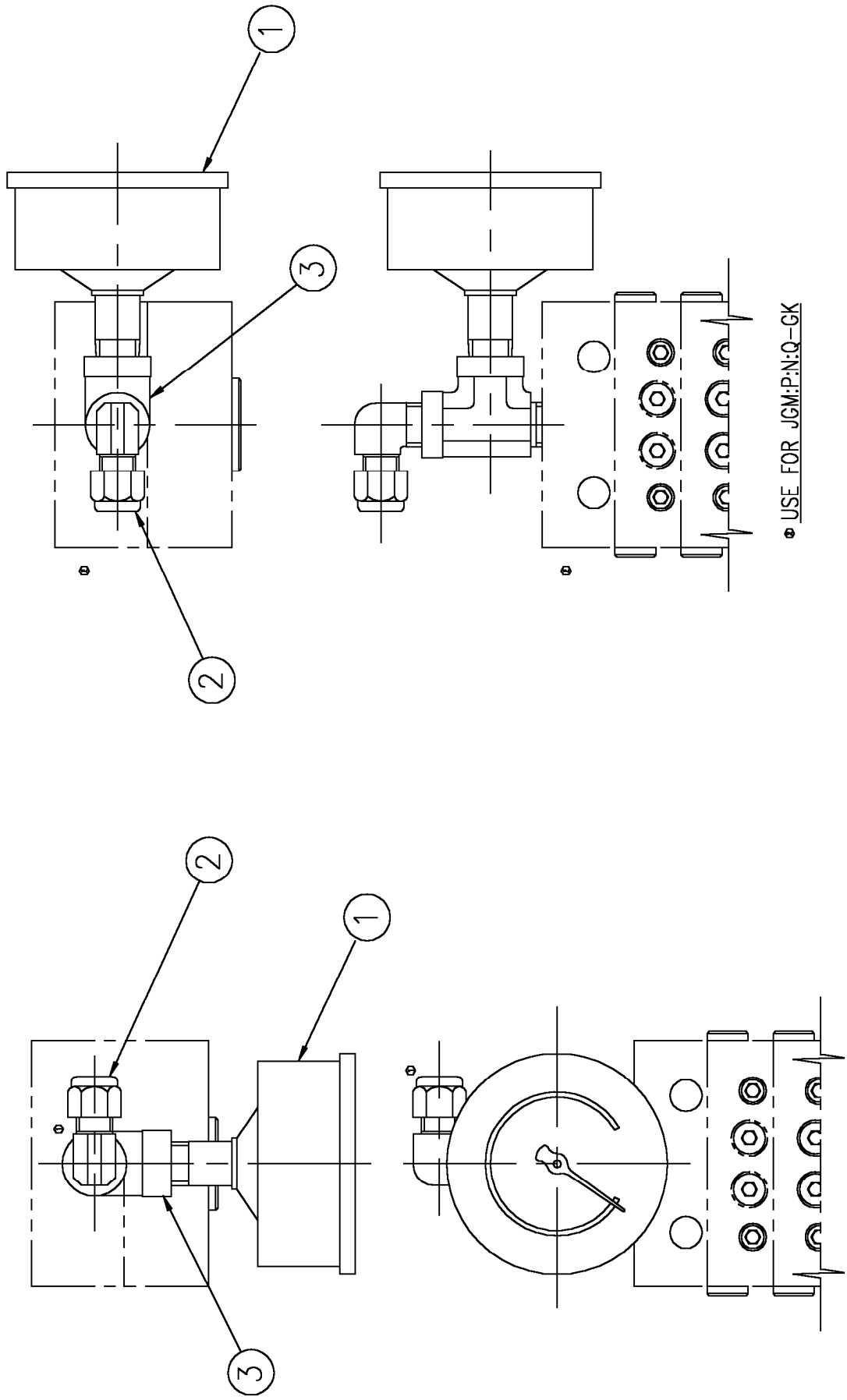
PARTS LIST

GROUP NO. G-1103

OIL PRESSURE GAUGE, ASHCROFT
REF. DRWG. N.A.

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-0261	1	L.O.PSI GAUGE, ASHCROFT, 1/4 NPT

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



NOTES:

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

2	REVISED DWG. ADDED RIGHTSIDE VIEWS. USE FOR JGM:P:N:Q-GK
1	REMOVED 1/4" NPT ELBOW (WAS ITEM 2), RENUMBERED OTHER ITEMS.
REV	DESCRIPTION

2	8014	ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050
1	7908	
0	7704	
REV	ECN	
	APPROVED:	
	WHS 7/28/99	
	CHECKED:	
	NEH 07/31/99	
	SCALE	NONE
	ASSEMBLY DWG. NO.	A-9020

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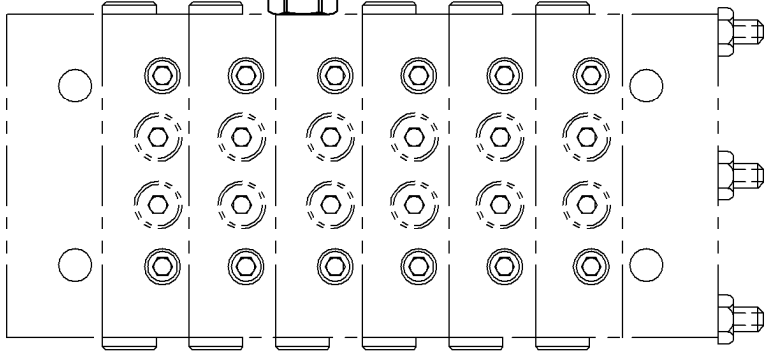
PARTS LIST

GROUP NO. G-7624

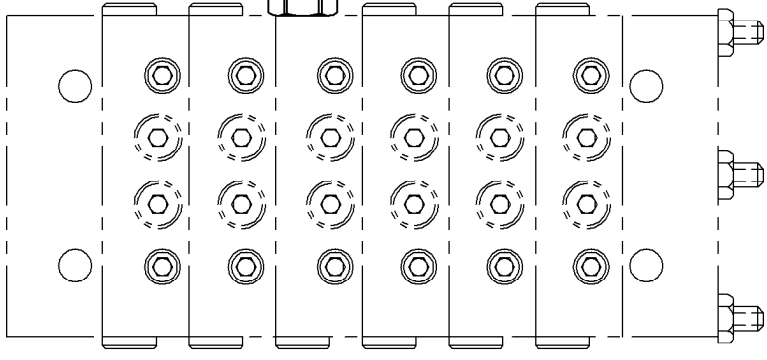
FORCE FEED PRESSURE GAUGE
3000 PSI, PER BLK. HEKTCDBV:RJW4&6
REF. DRWG. A-9020

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-8727	1	GAUGE, 3000 PSI, BACK MOUNT
002	A-0800	1	MALE ELBOW, STL, 1/4T X 1/4P
003	A-0882#03	1	STREET TEE, STL, 1/4P

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



STANDARD TIMER
ASSEMBLY



PROGRAMMABLE TIMER
ASSEMBLY

NOTES:

1. IF RESETTING THE SWITCH IS NECESSARY,
REFER TO VENDOR LITERATURE IN CUSTOMER BOOK.

REV	DESCRIPTION	INIT/DATE
1	REVISED DWG. UPDATED DWG TO CURRENT DRAFTING STANDARDS 002, P4. REVISED VIEW OF DNFT TO SHOW NEW CURRENT STYLE DNFT BEING USED.	MLB 06/13/01

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1	8747	0	6410	CJH	07/22/96	APPROVED:	ASSEMBLY DWG. NO.
REV	ECN	REV	ECN	CHECKED:	08/05/96	SCALE:	NONE



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

A-6423

PARTS LIST

GROUP NO. G-4669

FORCE FEED LUBRICATOR DIGITAL NO FLOW
TIMER WITH PROXIMITY SWITCH FOR TRABON
DISTRIBUTION BLOCKS
REF. DRWG. A-6423

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-10753	1	FF.S/D, DNFT, PS, TRAB, DC
099	A-6506	0	DNFT MAGNET ASSY, TRAB

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

PARTS LIST

GROUP NO. G-8631

SPECIAL TOOLS
JGE, JGK & JGT
REF. DRWG. N.A.

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-0798	1	TOOL BOX
002	A-0135	1	VALVE PULLER, 5/16 X 1/2 UNF
003	A-0409	1	VALVE PULLER, 1/4 X 3/8 UNF
004	A-0626	1	VLV PULLER, 5/8 X 3/4 UNF
005	A-2289	1	VLV PULLER TOOL FOR 'CT' VALVE
006	A-1858	1	CROSSHD INSTALL TOOL, JGH:E:K
007	ER-63	1	TORQUE CHART, ALL UNITS
008	A-4996	1	PEG WRENCH, 1-3/8"
009	B-1240	1	PISTON TURNING TOOL SUPT. ASSY
010	B-1410	1	PISTON NUT SPANNER, JGH:E:K
011	B-1495	1	TURN INDICATOR, JGH:E:K:T
013	FE0300EA	6	EYEBOLT, 3/8-16 UNC
014	FE0300GA	2	EYEBOLT, 1/2-13 UNC
015	TA0100GA	5	ALLEN WRENCH, 5/32 SHORT ARM
016	TA0100HA	5	ALLEN WRENCH, 3/16 SHORT ARM
017	TA0100LA	1	ALLEN WRENCH, 3/8 SHORT ARM
018	TA0100NB	2	ALLEN WRENCH, 1/2 LONG ARM
019	TA0100QB	1	ALLEN WRENCH, 3/4 LONG ARM
020	A-6393	1	CYL. BOLT TORQUE ADAPTER
021	C-2106	1	CONN. ROD CAP REMOVAL TOOL, HEK
022	B-1989	1	X-HD/PIN ALIGN. TOOL, JGH:E:K
023	FC0102CG	6	HEX HD CAP, 1/4-20 X 1 G5

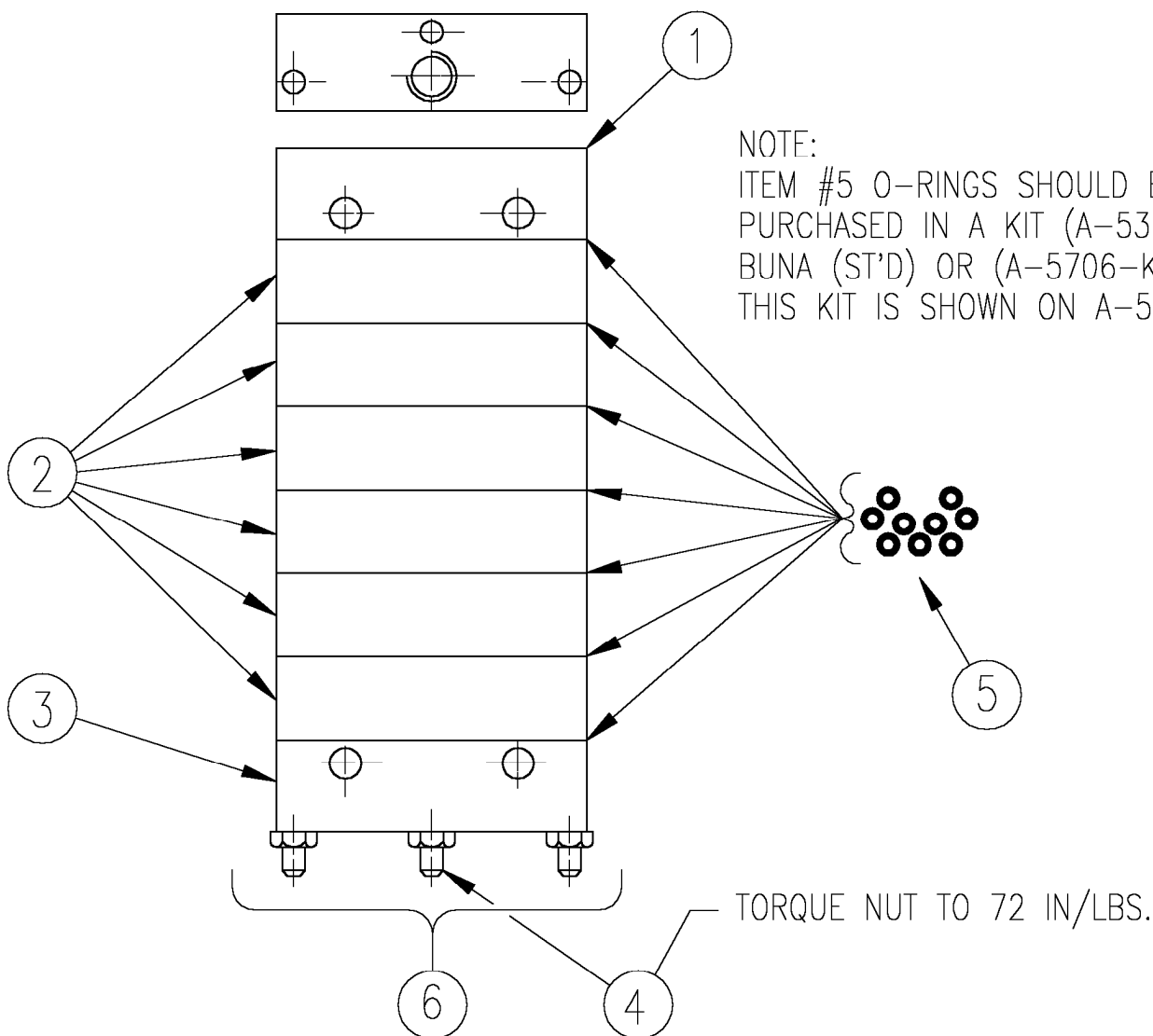
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

PARTS LIST

024	A-8158	0	BRG HSG SPANNER WRENCH
025	A-11341	1	ENTER SLEEVE,PIST RD,2PC HEKT

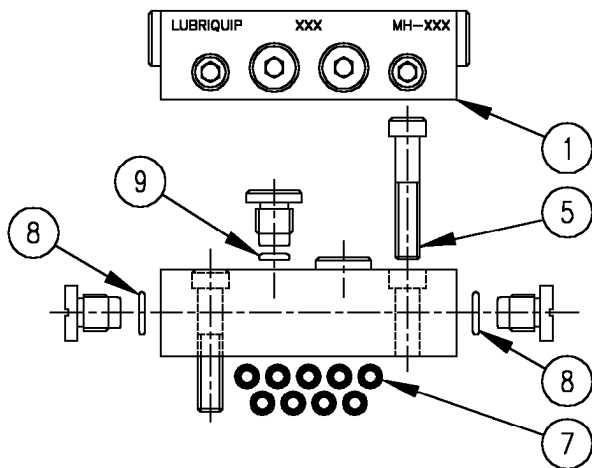
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

NUMBER OF BASE PLATES SECTIONS				DESCRIPTION	ARIEL PART No.	ITEM
3	4	5	6			
1	1	1	1	INLET SECTION	A-5537	1
3	4	5	6	INTERMEDIATE SECTION	A-5531	2
1	1	1	1	END SECTION	A-5538	3
3				TIE ROD W/NUT	A-5539	4
	3			TIE ROD W/NUT	A-5540	
		3		TIE ROD W/NUT	A-5541	
			3	TIE ROD W/NUT	A-5542	
36	45	54	63	O-RING, BUNA STANDARD	A-5570	5
36	45	54	63	O-RING, VITON	A-5703	
A-5533	A-5534	A-5535	A-5536	COMPLETE BASE PLATE ASSEMBLY		6

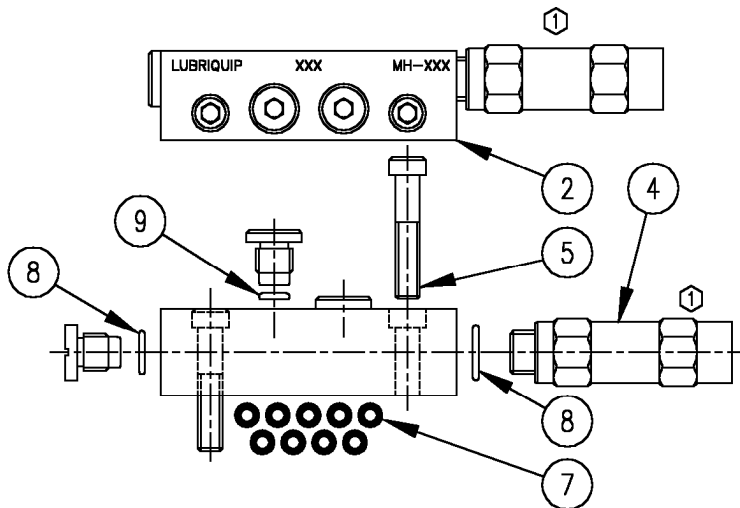


				 ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050	
				TITLE: DISTRIBUTION BLOCK VALVE (SLOAN BROS.)	
		0	5695	DRAWING No. A-5340 SHT 1 OF 2	
REV	DESCRIPTION	REV	ECN		

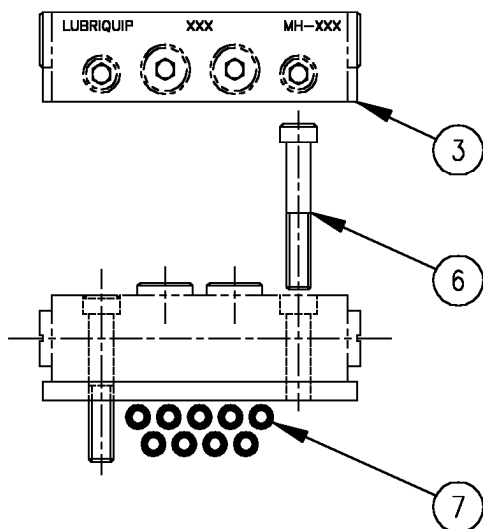
WITHOUT CYCLE PIN



WITH CYCLE PIN



CROSSPORT



ITEM	ARIEL PART	QUAN	DESCRIPTION
1	A-5543	1	DIVIDER VALVE, 6T
	A-5545	1	DIVIDER VALVE, 6S
	A-5547	1	DIVIDER VALVE, 9T
	A-5549	1	DIVIDER VALVE, 9S
	A-5551	1	DIVIDER VALVE, 12T
	A-5553	1	DIVIDER VALVE, 12S
	A-5555	1	DIVIDER VALVE, 18T
	A-5557	1	DIVIDER VALVE, 18S
	A-5559	1	DIVIDER VALVE, 24T
	A-5561	1	DIVIDER VALVE, 24S
	A-5563	1	DIVIDER VALVE, 30T
	A-5565	1	DIVIDER VALVE, 30S
2	A-5544	1	DIVIDER VALVE, 6T W/CIP
	A-5546	1	DIVIDER VALVE, 6S W/CIP
	A-5548	1	DIVIDER VALVE, 9T W/CIP
	A-5550	1	DIVIDER VALVE, 9S W/CIP
	A-5552	1	DIVIDER VALVE, 12T W/CIP
	A-5554	1	DIVIDER VALVE, 12S W/CIP
	A-5556	1	DIVIDER VALVE, 18T W/CIP
	A-5558	1	DIVIDER VALVE, 18S W/CIP
	A-5560	1	DIVIDER VALVE, 24T W/CIP
	A-5562	1	DIVIDER VALVE, 24S W/CIP
	A-5564	1	DIVIDER VALVE, 30T W/CIP
	A-5566	1	DIVIDER VALVE, 30S W/CIP
3	A-5567	1	CROSSPORT BAR, RIGHT
	A-5568	1	CROSSPORT BAR, LEFT
	A-5569	1	CROSSPORT BAR, BOTH
① 4	A-9787	1	CYCLE INDICATOR
② 5	FC0115CH	2	SOC. CAP. 1/4-28 X 1-1/4
② 6	FC0115CI	2	SOC. CAP. 1/4-28 X 1-1/2

NOTE:

O-RINGS SHOULD BE PURCHASED IN A KIT (A-5340-K) BUNA (ST'D) OR (A-5706-K) VITON. THE KITS CONTAIN THE FOLLOWING O-RINGS:

7	A-5570	20	O-RING, INTERFACE, BUNA
	A-5703	20	O-RING, INTERFACE, VITON
8	A-5696	4	O-RING, ENCLOSURE, BUNA
	A-5704	4	O-RING, ENCLOSURE, VITON
9	A-5695	4	O-RING, OUTLET, BUNA
	A-5705	4	O-RING, OUTLET, VITON

②	REVISED DWG. ITEM #5 FC0115CH (1/4-28 x 1-1/4 SOC. CAP) WAS FC0110CH (1/4-20 x 1-1/4 SOC. CAP)	2	8200
	ITEM #6 FC0115CI (1/4-28 x 1-1/2 SOC. CAP) WAS FC0110CI (1/4-20 x 1-1/2 SOC. CAP)	1	8175
		0	5695
REV	DESCRIPTION	REV	ECN



ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

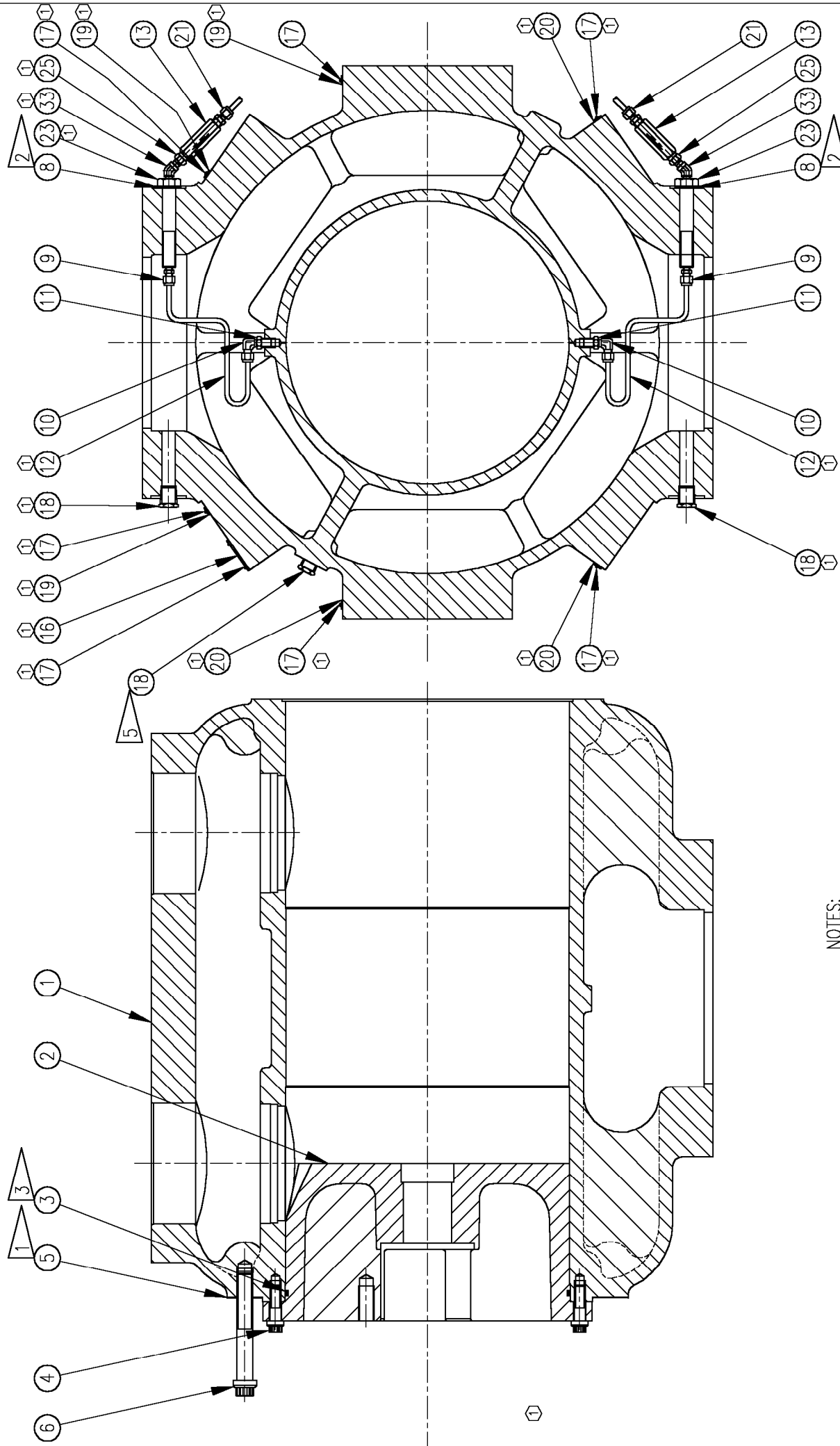
TITLE: DISTRIBUTION BLOCK VALVE (SLOAN BROS.)

DRAWING No. **A-5340** SHT 2 OF 2

SERIAL NUMBER: C-57331-32

PART: 15-7/8K CLASS DESCRIPTION: 15-7/8"JGK:T CYLINDER CLASS

PART NUMBER	QUANTITY	DESCRIPTION	DRAWING NO.
G-3208	1	CYL ASSY, 15-7/8K:T, STD	635 A-6425
G-1754	6	SUC VLV ASSY, 15-7/8KCDT	D-1092
G-1755	6	DIS VLV ASSY, 15-7/8KCDT	D-1093
G-4600	1	PIST. 15-7/8K, 2PC, STD	A-6139
B-2230-V	6	SUC VLV, 148CHT, NY	A-9265
B-3077-AA	6	DIS VLV, 148CHT, MT	A-9264
G-1789	3	HCL VLV ASSY, SUC, 15-7/8K:T:C:D	B-1199
G-1790	3	HCL VLV ASSY, DIS, 15-7/8K:T:C:D	B-1198



NOTES:

- 1 ▷ APPLY AN ANTI-SEIZE LUBRICANT TO GASKET (ITEM#5) SURFACES.
- 2 ▷ OIL FACES OF STATO-SEAL (ITEM#8) BEFORE INSTALLING TO PREVENT ABRASION.
- 3 ▷ OIL O-RING (ITEM#3) BEFORE INSTALLING.
4. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALVES IN MANUAL.
- 5 ▷ USED TO PLUG INDICATOR PASSAGES WHERE APPLICABLE.

17510
06119

ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

ASSEMBLY
DWG. No.

A-6425

1	MODIFIED TUBING (ITEM 12); REMOVED PHANTOM OUTLINE. ADDED 1/2" NPT TAPS. CHANGED ITEM NOS.
REV	DESCRIPTION

PARTS LIST

GROUP NO. G-3208

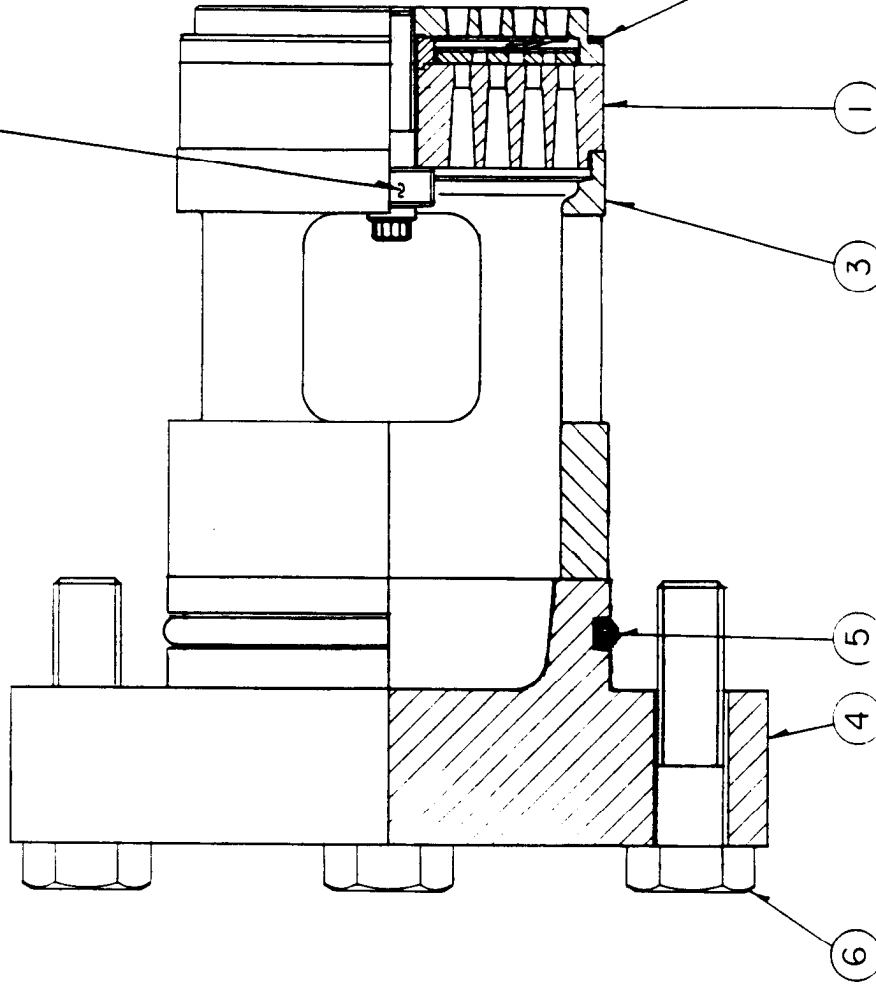
15-7/8" JGK:T CYLINDER BODY
 RDP 577#, MAWP 635#
 REF. DRWG. A-6425

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-1646	0	CYL BODY, 15-7/8K:C:D 635
002	C-0952	0	CE HEAD, 15-7/8K
003	A-0690	1	O-RING, VT, 15.395 O.D.X.210
004	FC0120HK	20	12 PT, 5/8-11 X 2 G8
005	B-1042	1	GASKET, RND, 22-1/2 X 1/64
006	FC0120JW	12	12 PT, 7/8-9 X 6 G8
008	FW0550ID	2	STAT-O-SEAL, VT, 75DUR. 3/4 DIA
009	A-0830	2	MALE CONN, STL, 1/4T X 1/8P
010	A-0815	2	MALE ELBOW, STL, 1/4T X 1/8P
011	A-0811	2	HEX RED BUSH, STL, 1/4M X 1/8F
012	PT0200CB	106.	" SS TUBING, 1/4 OD X .035 WALL
013	A-3780	2	CHK.VLV, DOU.BALL SOFT SEAT SS
016	A-0465	1	DATA PLATE, CYLINDER SPEC STD
017	FR0570CC	16	DRIVE SCREW, #6 X 1/4 U-TYPE
018	PP0810GB	4	PIPE PLUG, 1/2NPT, HEX HD, STL
019	A-0640-A	3	INFO PLATE, SUCTION
020	A-0640-B	3	INFO PLATE, DISCHARGE
021	A-0827	2	MALE CONN, STL, 1/4T X 1/4P
023	A-2074	2	LUBE FITTING, 3/4-10 X 4
025	A-2114	2	HEX PIPE NIPPLE, STL, 1/4 X 1/8
033	A-3989	2	STREET ELBOW, 45, 1/8P STL
100	HD-1649	1	CYL ASSY, 15-7/8K

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

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

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



APPLY AN ANTI-SEIZE
LUBRICANT TO GASKET
SURFACES.

1 OIL O-RING BEFORE INSTALLING

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

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BY ANY INFORMATION STORAGE
AND RETRIEVAL SYSTEM.

2174
0946
0000
4124

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

PARTS LIST

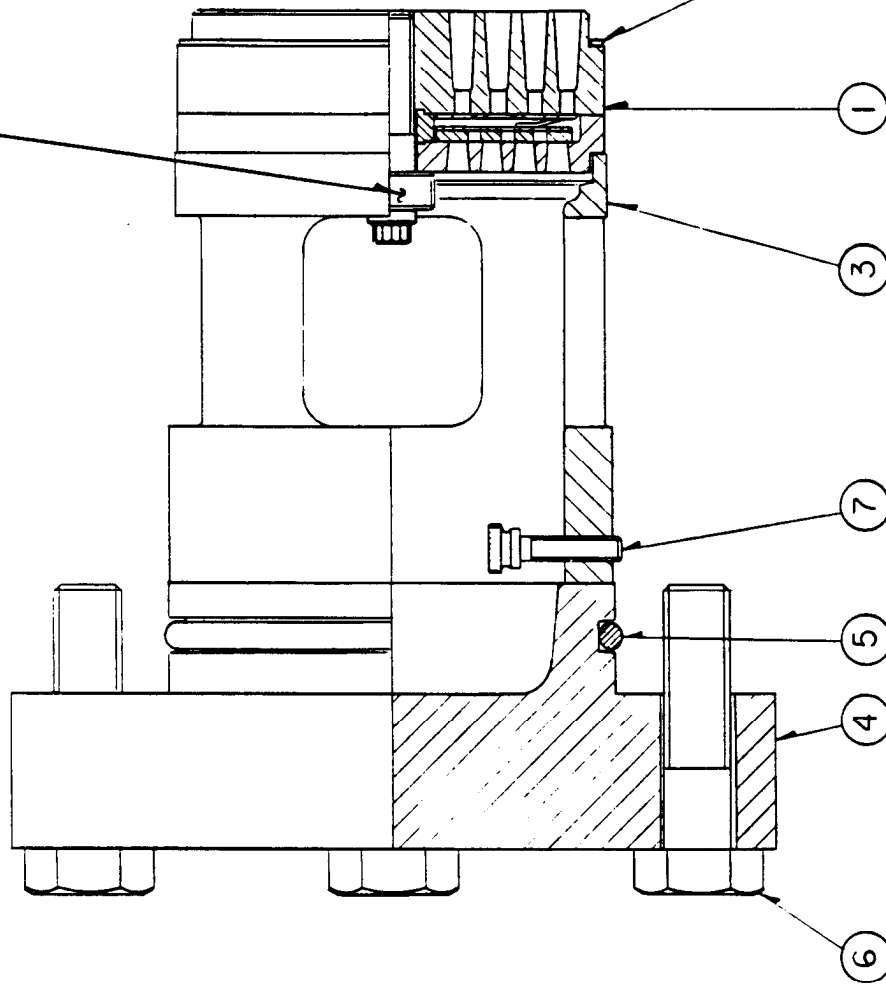
GROUP NO. G-1754

SUCTION VALVE, RETAINER AND CAP
15-7/8" JGK:C:D:T CLASS
REF. DRWG. D-1092

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	SUCTION VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2079	1	STL GASKET, 6.623 X 6.435 X30
003	B-1044	1	VLV RET,S&D,12-1/2K:C15-7/8C
004	B-1139	0	VLV CAP,15-7/8K:C:D CL
005	A-0724	1	O-RING,VT, 6.645 O.D.X.210
006	FC0171FFJ	3	12 PT,3/4-10 X 2-1/4 X 15/16G8

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

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-1647

G-1564

G-1701

G-1711

G-1755

G-1820

G-1999

G-2304

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ARIEL CORPORATION
MT. VERNON, OHIO

ASSY. DRWG. D-1093
NUMBER

PARTS LIST

GROUP NO. G-1755

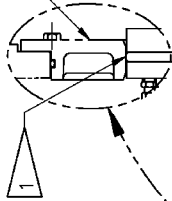
DISCHARGE VALVE, RETAINER AND CAP
15-7/8" JGK:C:D:T CLASS CYLINDER
REF. DRWG. D-1093

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	DISCHARGE VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2079	1	STL GASKET, 6.623 X 6.435 X30
003	B-1044	1	VLV RET,S&D,12-1/2K:C15-7/8C
004	B-1139	0	VLV CAP,15-7/8K:C:D CL
005	A-0724	1	O-RING,VT, 6.645 O.D.X.210
006	FC0171FFJ	3	12 PT,3/4-10 X 2-1/4 X 15/16G8
007	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.

OPTIONAL TWO COMPARTMENT GUIDE

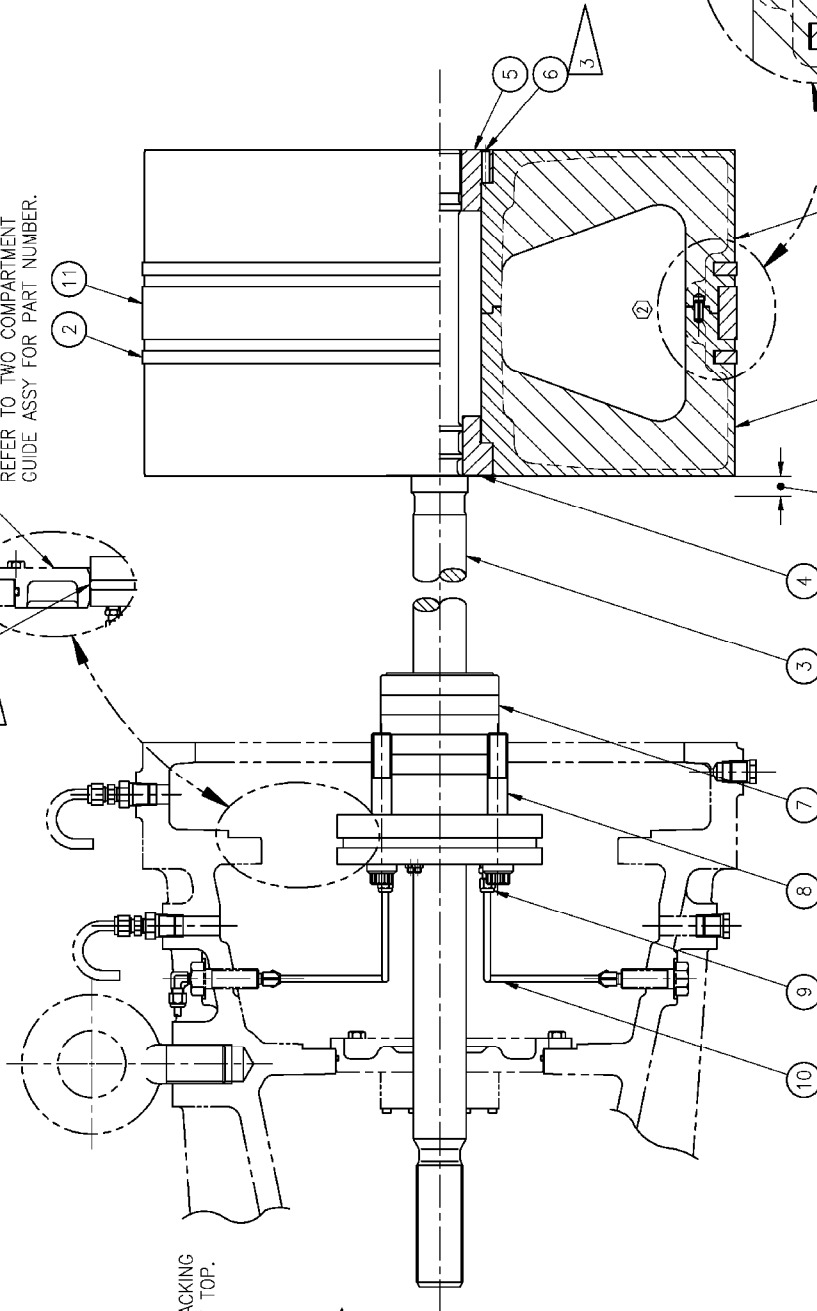
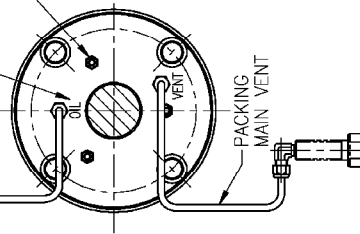
CROSSHEAD GUIDE DIAPHRAM
REFER TO TWO COMPARTMENT
GUIDE ASSY FOR PART NUMBER.



PACKING
LUBE OIL

ASSEMBLE PACKING
WITH "OIL" AT TOP.

2



NOTES:

- 1 OIL O-RING BEFORE INSTALLING, (ON OPTIONAL TWO COMP. GUIDE ONLY).
- 2 RETIGHTEN TIE STUD NUTS AFTER CASE (ITEM#7) IS BOLTED INTO CYLINDER.
- 3 PRICK PUNCH TO RETAIN SET SCREW (ITEM#6).
- 4 LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
- 5 RIBS IN THE PISTON DO NEED TO LINE UP.
- 6 REMOVE ONE 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.

3	16900
2	6491
1	16239
0	6021

ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

ASSEMBLY
DWG. No. **A-6139**

REV	DESCRIPTION
3	REVISED PISTON END CLEARANCE NOTE TO REFER TO DATA PLATE OR TECHNICAL MANUAL.
2	REVISED C.E. PISTON CLEARANCE .040/.045 WAS .040/.044. REVISED NOTE #5 TO READ THAT THE RIBS DO NEED TO LINE UP. ADDED NEW BOSS TO THE INSIDE OF THE PISTON FOR ROLL PIN TO LINE THE RIBS UP. ADDED ITEM #15 (ROLL PIN).

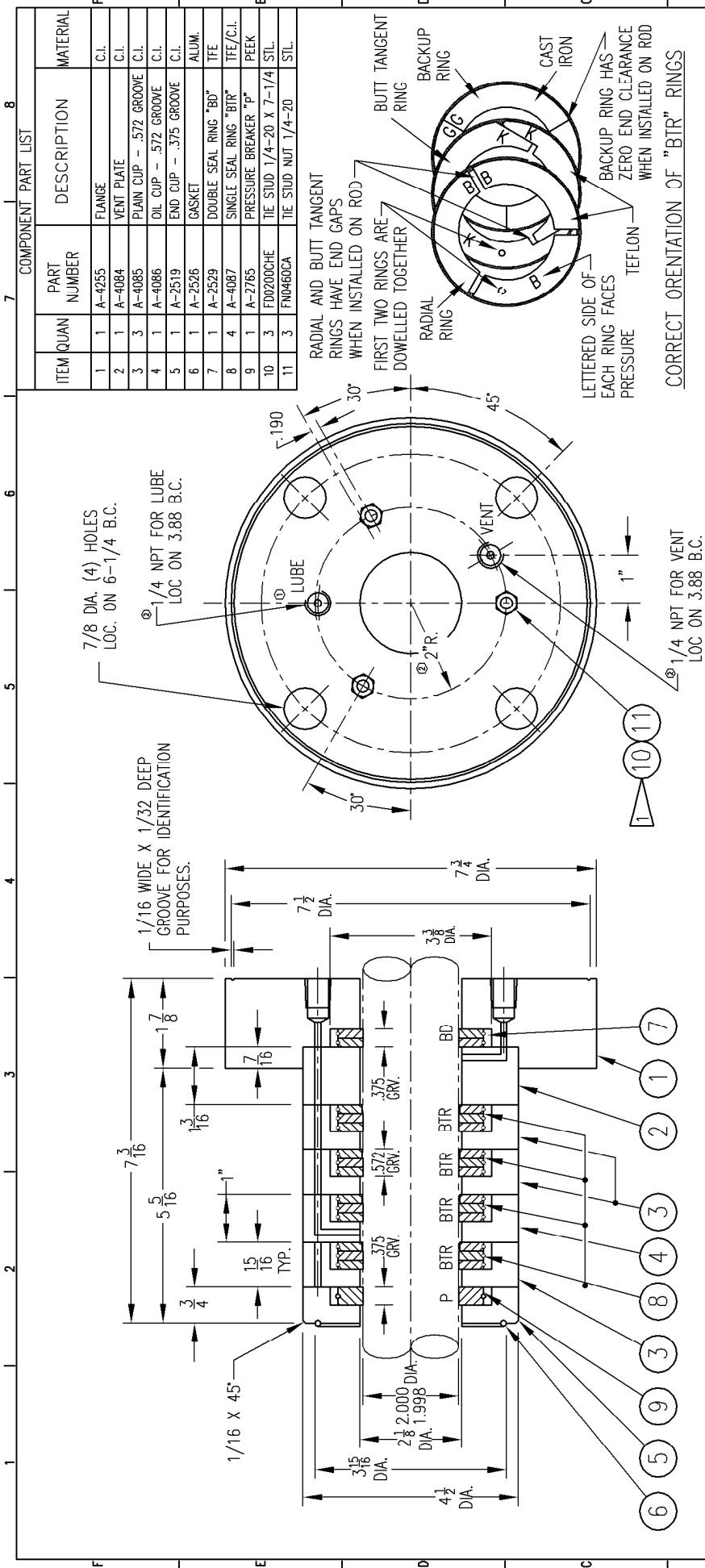
PARTS LIST

GROUP NO. G-4600

15-7/8" JGK TWO-PIECE PISTON, TFE RINGS,
TFE WEAR BAND, TFE/CI PACKING.
5-1/2" STROKE. REF. DRWG. A-6139

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-1921	1	PISTON ASSY, 15-7/8K, 2 PC
002	A-2338	2	PISTON RING, 15-7/8K:T
003	C-0876	1	P ROD, 5.50STK/45.435LG
004	B-1248	1	PISTON COLLAR, JGK:T, 4"OD
005	B-1249	1	PISTON NUT, JGK:T, 4"OD
006	FS0405DH	2	CUP PT.SET-SCREW, 5/16-24X1-1/4
007	B-1583	1	PKG, 2.000, 650, STD, BTR
008	FC0120IT	4	12 PT, 3/4-10 X 4-1/2 G8
009	A-0827	0	MALE CONN, STL, 1/4T X 1/4P
010	PT0200CB	30.	" SS TUBING, 1/4 OD X .035 WALL
011	A-2340	1	WEAR BAND, 15-7/8K:C
012	SD-1909	0	PIST, WB, 15-7/8K, CE/PC
013	SD-1910	0	PIST, WB, 15-7/8K, HE/PC
014	A-6289	0	O-RING, VT, 13.270 O.D. X .070
015	FP0505GE	0	ROLL PIN, 5/16 X 3/4
099	B-1583-K	0	RBLD KIT, PIST ROD PKG, 2.000
099	B-1687-K	0	RBLD KIT, WIPER PKG, 2.000, WAT

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



SUPERSEDES B-0811

- NOTES:
- 1 TIE STUD NUTS (ITEM #11) MUST BE LOCKNUTS. RETIGHTEN AFTER CASE IS BOLTED INTO STUFFING BOX.
 2. MATCHMARK LETTERS ON RINGS TO FACE COMPRESSOR PISTON.

7 COMPONENT PART LIST				8			
ITEM QUAN	PART NUMBER	DESCRIPTION	MATERIAL				
1	A-4255	FLANGE	C.I.				
2	A-4084	VENT PLATE	C.I.				
3	A-4085	PLAIN CUP - .572 GROOVE	C.I.				
4	A-4086	OIL CUP - .572 GROOVE	C.I.				
5	A-2519	END CUP - .375 GROOVE	C.I.				
6	A-2526	GASKET	ALUM.				
7	A-2529	DOUBLE SEAL RING "BD"	TFE				
8	A-4087	SINGLE SEAL RING "BTR"	TFE/C.I.				
9	A-2765	PRESSURE BREAKER "P"	PEEK				
10	FD0200CHE	TIE STUD 1/4-20 X 7-1/4 STL	STL				
11	FN0460CA	TIE STUD NUT 1/4-20 STL	STL				

TITLE PISTON ROD PACKING		2" ROD, 351-650 PSI	
ARIEL CORPORATION		WITH "BTR" RINGS	
35 BLACKJACK ROAD			
MOUNT VERNON, OHIO 43050			
DRAWN: AGD 06/01/93		SEE TABULATION	
CHECKED: WGP 06/18/93		NONE	
APPROVED:			
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DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.			

REV	DESCRIPTION	DATE	BY	CHK	REF	REV	DESCRIPTION	DATE	BY	CHK	REF
1	IN TITLE BLOCK TITLE WAS PISTON ROD PACKING, 2" ROD, 351-650 PSI, WITH "BTR" RINGS.	09/01/01				2	COMPLETE PACKING				
2	1/4 NPT FOR LUBE LOC. ON 3.88 B.C. WAS 1/4 NPT FOR LUBE LOC. ON 4" B.C., 1/4 NPT FOR VENT LOC. ON 3.88 B.C. WAS 1/4 NPT FOR VENT LOC. ON 4" B.C. ADDED 2".	09/24/97				3	COMPLETE REBUILD KIT				

B-1583



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

SUCTION VALVE, CT

1	REMOVED THE OUTER RING FROM THE VALVE SEAT.
REV	DESCRIPTION

PARTS LIST

B-2230-V

0.3940=A

1.4570=B

6.6350=C

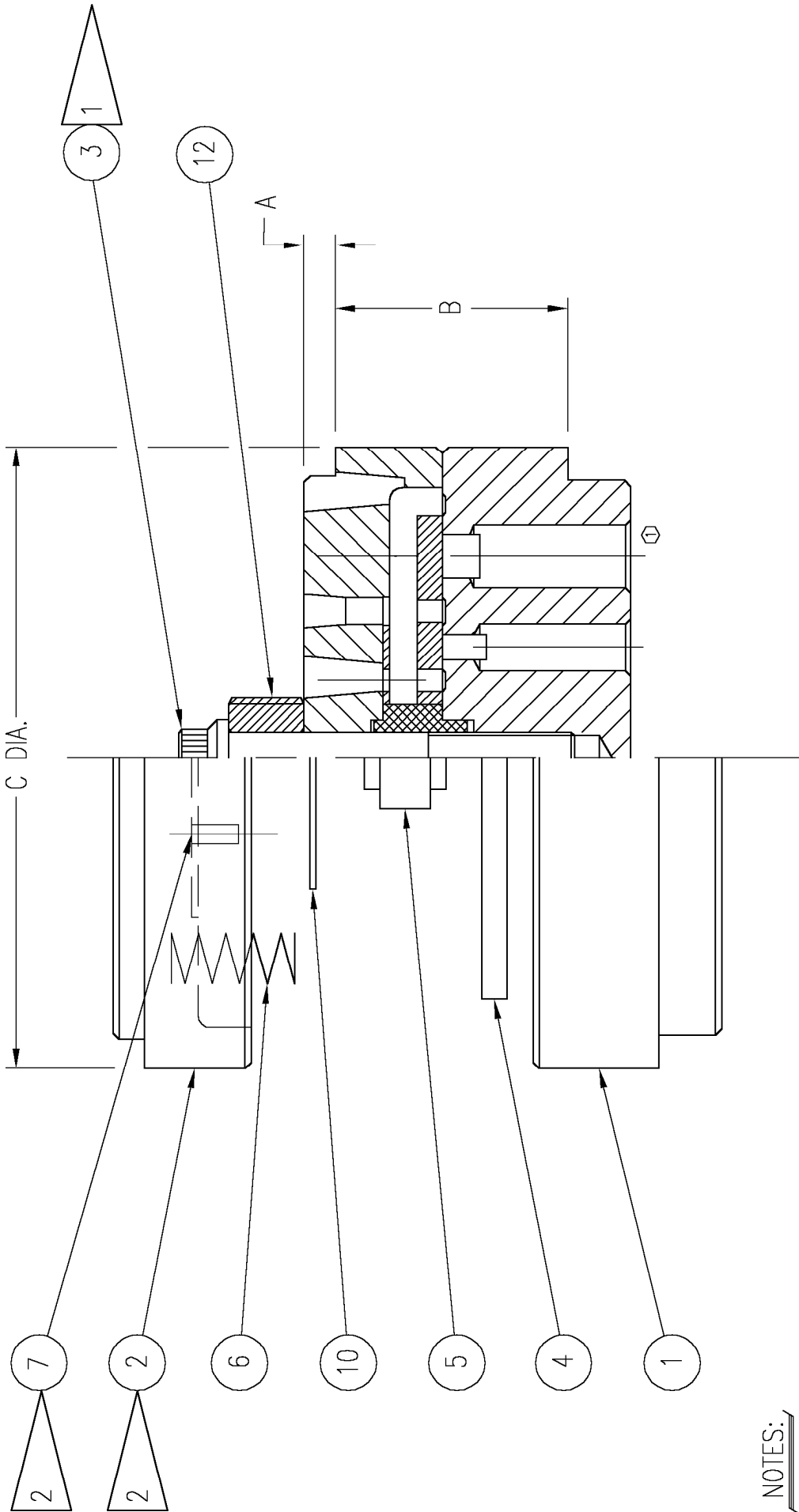
0.1020=LFT

REF DRWG. A-9265

ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-2179	1	SUC VLV SEAT,148CHT
002	A-2180-A	1	SUC VLV GUARD ASSY,148CHT
003	A-2162	1	CNTR BOLT,12PT,7/16-20X2-1/2
004	A-5506	1	VLV PLT,148CT.197THK,NY
005	A-2166	1	GUIDE RING,148-179CT,.338 THK
006	A-1344	16	SPRING(.354/.276DX.630 GREEN)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-2183	1	WAFER SPRING,148CHT
012	A-2167	1	VLV WASHER,7/16ID X 1"-8 THD

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



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:		DISCHARGE VALVE, CT	
MATERIAL:		PROCURED	
DRAWN:		IG 9/27/99	R.S. No.
CHECKED:		ED 10/1/99	PART NO.
SCALE:		NONE	DWG. No: A-9264

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 ---- DO NOT SCALE DRAWING ----

DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.

REV	ECN	REV	ECN
1	8549	0	7799

REMOVED OUTER RING FROM THE VALVE SEAT.

DESCRIPTION

PARTS LIST

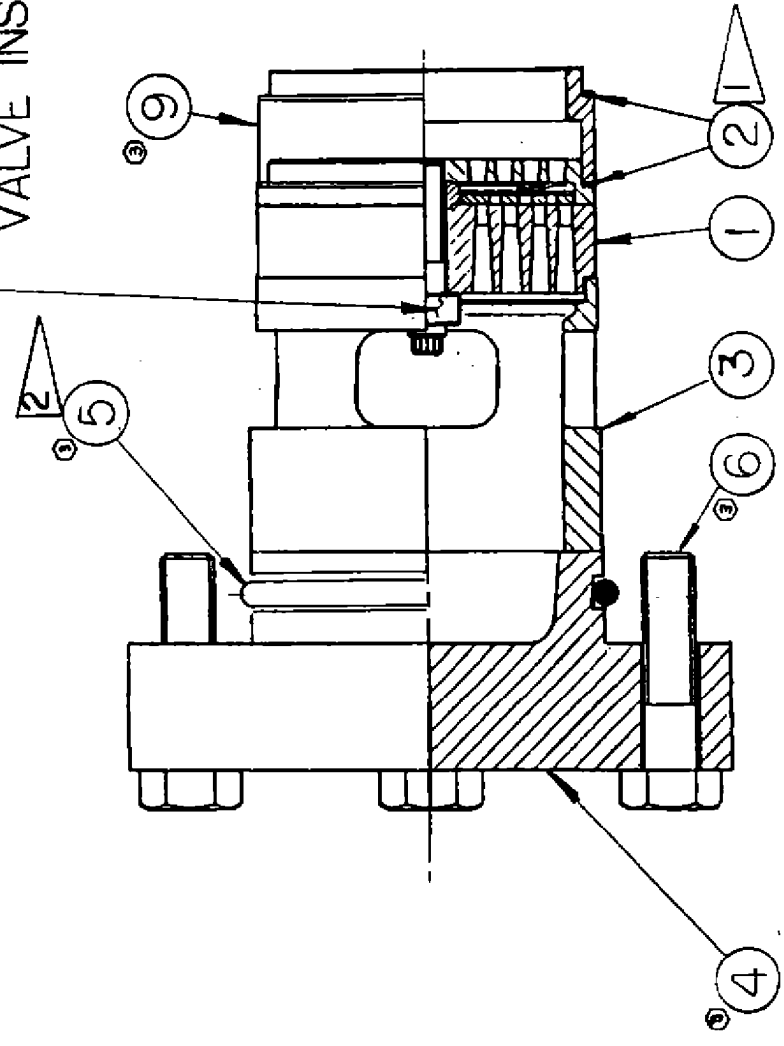
B-3077-AA

0.1960 =A
1.4570 =B
6.6600 =C
0.0830 =LFT
REF DRWG. A-9264
ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-2184	1	DIS VLV SEAT,148CHT
002	A-2185-A	1	DIS VLV GUARD ASSY,148CHT
003	A-2150	1	CNTR BOLT,12 PT, 7/16-20 X 2
004	A-10171	1	VLV PLT,148CT.217THK,MT
005	A-2166	1	GUIDE RING,148-179CT,.338 THK
006	A-1345	32	SPRING(.354/.276DX.630YELLOW)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-2183	1	WAFER SPRING,148CHT
012	A-2167	1	VLV WASHER,7/16ID X 1"-8 THD

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

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



NOTES:

1. APPLY AN ANTI-SEIZE LUBRICANT TO GASKETS SURFACES.
2. OIL O-RING BEFORE INSTALLING.
3. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.

RENUMBERED ITEMS MARKED:	
REV	DESCRIPTION

3	8001
2	3754
1	3797
0	3754

ARIEL CORPORATION
MT. VERNON, OHIO
ASSY DRWG B-1199
NUMBER

PARTS LIST

GROUP NO. G-1789

HIGH CLEARANCE SUCTION VALVE SPACER &
RETAINER

15-7/8" JGK:C:D:T CLASS

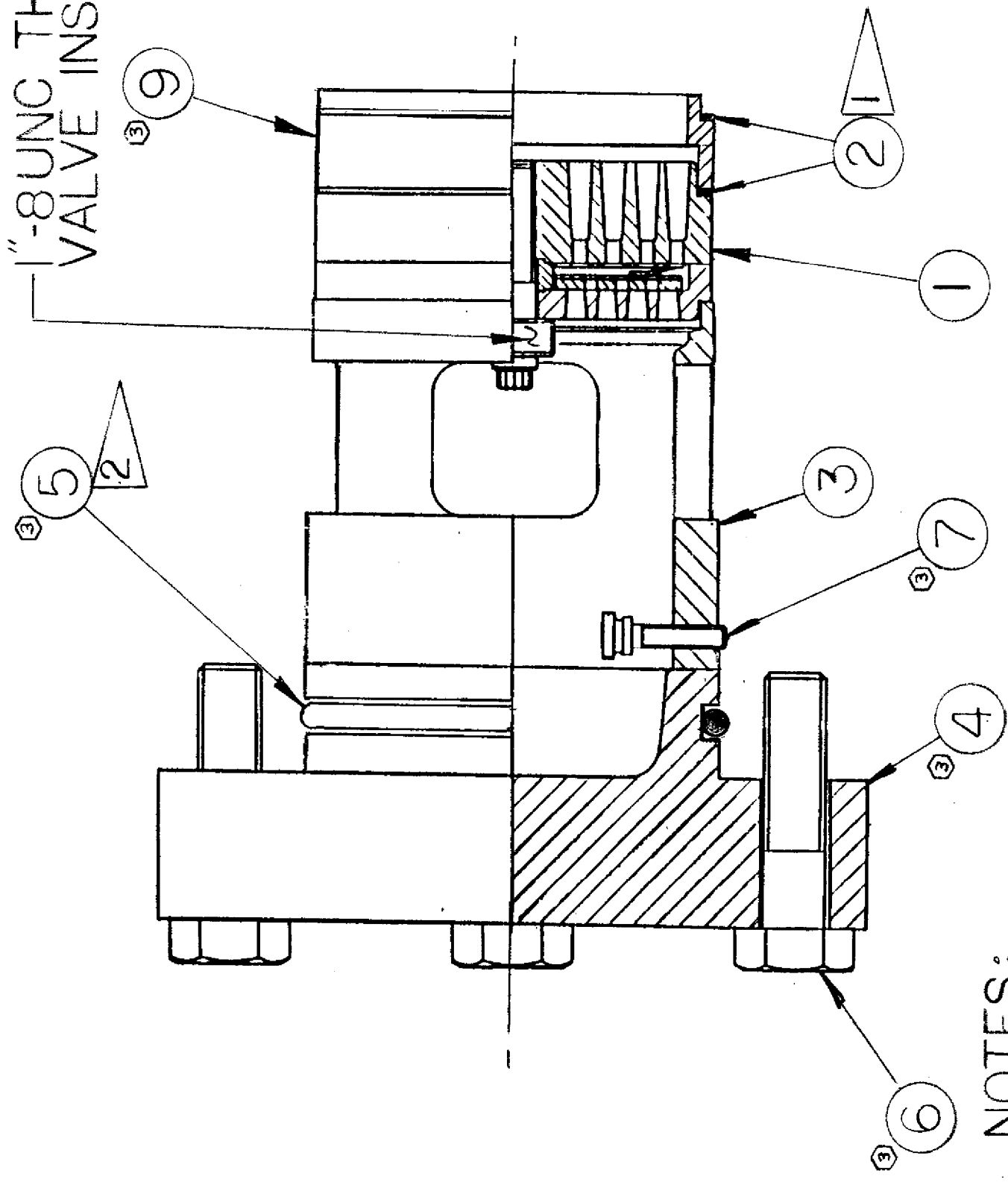
REF. DRWG. B-1199

ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	SUCTION VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2079	2	STL GASKET, 6.623 X 6.435 X30
003	B-1197	1	HCL VLV RET,S&D,15-7/8K:C:D CL
004	B-1139	0	VLV CAP,15-7/8K:C:D CL
005	A-0724	1	O-RING,VT, 6.645 O.D.X.210
006	FC0171FFJ	0	12 PT,3/4-10 X 2-1/4 X 15/16G8
009	A-2430	1	HCL VLV SPACER,SUC,15-7/8K:C:D

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

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



NOTES:

- 1. APPLY AN ANTI-SEIZE LUBRICANT TO GASKET SURFACES.
- 2. OIL O-RING BEFORE INSTALLING.
- 3. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMEND PROCEDURES AND TORQUE VALUES IN MANUAL.

3	8001
2	3754
1	3797
0	3754

ARIEL CORPORATION
MT. VERNON, OHIO
ASSY DRWG NUMBER B-1198

RENUMBERED ITEMS MARKED.	
REV	DESCRIPTION
3	

PARTS LIST

GROUP NO. G-1790

HIGH CLEARANCE DISCHARGE VALVE SPACER &

RETAINER

15-7/8" JGK:C:D:T CLASS

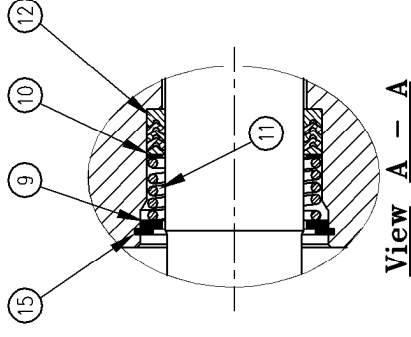
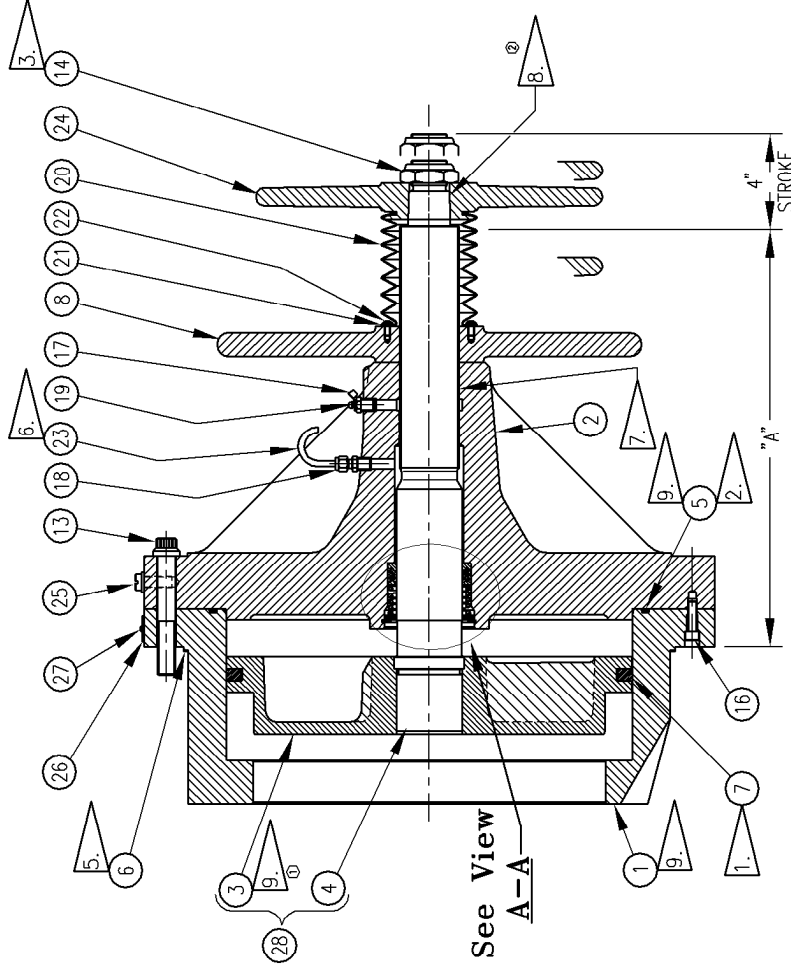
REF. DRWG. B-1198

ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	DISCHARGE VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2079	2	STL GASKET, 6.623 X 6.435 X30
003	B-1197	1	HCL VLV RET,S&D,15-7/8K:C:D CL
004	B-1139	0	VLV CAP,15-7/8K:C:D CL
005	A-0724	1	O-RING,VT, 6.645 O.D.X.210
006	FC0171FFJ	0	12 PT,3/4-10 X 2-1/4 X 15/16G8
007	A-0145	2	THUMB SCREW,NYLON,1/4-20 X 3/4
009	A-2431	1	HCL VLV SPACER,DIS,15-7/8K:C:D

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

CLASS	BORES	"A" LENGTH
14-1/8	13-5/8 & 14-1/8	16-1/2
15-7/8	15-3/8 & 15-7/8	16-1/2
17-7/8	17-3/8 & 17-7/8	17
20-1/8	19-5/8 & 20-1/8	17-1/2



NOTES:

1. LIGHTLY OIL BORE AND RING BEFORE INSTALLING.
2. OIL O-RING (ITEM #5) BEFORE INSTALLING.
3. TORQUE (ITEM #14) TO 30 FT-LBS, THEN TORQUE 2-1/2 FLATS OR 350 FT-LBS MAX.
4. LOOSEN OR TIGHTEN ALL BOLTS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
5. APPLY AN ANTI-SEIZE LUBRICANT TO (ITEM #6) GASKET SURFACES.
6. VENT TUBE (ITEM #23) ALWAYS POINTED DOWN.

7. APPLY AN ANTI-SEIZE LUBRICANT TO (ITEM #4) 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.

3	10035	ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050	
2	10297	ASSEMBLY DWG. NO.	A-7220
1	7854	APPROVED:	
0	7094	DRAWN: MLB 11/07/97	
REV	ECN	CHECKED: CAH 12/02/97	SCALE: NONE

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REV	DESCRIPTION	INIT/DATE
3	AT A3 - ADDED FLAG NOTE #9. ADDED FLAG #9 TO ITEMS 1,3, AND 5.	ALH 02/26/02

SERIAL NUMBER: U-34472-73

PART: G-3687 DESCRIPTION: M-VVCP,15-7/8K:C:D:T

GROUP NO. G-3687
15-7/8" JGK:C:D:T MOUNTED UNLOADER
REF. DRWG. A-7220

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-1393	1	UNL.HEAD,15-7/8C:K
002	D-1647	1	HE UNL ADPTR,15-7/8CK
003	C-1377	0	UNL PIST,15-7/8K:C
004	C-1371	0	UNL.STEM,JGK:JGC 2-1/2-8 THD.
005	A-2393	1	O-RING,VT,14.395 O.D.X.210
006	A-2341	1	STL GASKET,16.313 X 16.000 X60
007	A-2354	1	UNL.PISTON RING, 13 O.D.
008	C-0983	1	LOCKING HANDLE,UNL,2-1/2-8 THD
009	A-2397	1	UNL PACKING RETAINER, JGK:C
010	A-2395	1	PACKING BACK-UP RING
011	A-2400	1	COMPRESSION SPRING,UNL,3-7/16D
012	A-2399	1	V PACKING, UNL. 2-3/4 X 3-1/2
013	FC0120IS	18	12 PT,3/4-10 X 4 G8
014	A-2390	1	SELF-LOCK NUT,ESNA,TN,1-1/2-12
015	A-2392	1	SNAP RING,SS,INT,3-3/4 BORE
016	FC0110EH	2	SOC HD CAP,3/8-16 X 1-1/4 G8
017	A-0500	1	GREASE FITTING CAP, PLASTIC
018	A-0827	1	MALE CONN,STL, 1/4T X 1/4P
019	PZ0230BA	1	STRAIGHT GREASE FITTING,1/4-18
020	A-2394	1	UNL STEM BELLOWS,2-1/2D THRD
021	A-2398	1	BELLOWS BACK-UP RING

SALES ORDER COVER SHEET

022	FC0134CC	4	BUT HD CAP, 1/4-20 X 1/2 316SS
023	PT0200CB	5.	" SS TUBING, 1/4 OD X .035 WALL
024	C-0984	1	HANDLE, UNL, 3 PRONG
025	A-0256	1	MACHINE SCREW PLUG, PL, 1/2-13
026	A-0755	1	DATA PLATE, UNLOADER SPEC
027	FR0570CC	2	DRIVE SCREW, #6 X 1/4 U-TYPE
028	AC-1377	1	UNL PIST ASSY, 15-7/8K:C

VARIABLE VOLUME CLEARANCE POCKET (Headend Unloader) DATA SHEET

15-7/8K Class Cylinder

Stroke: 5.50 in 140 mm

Bore: 15.875 in 403 mm

MAWP: 635 psig 43.8 barg 4378 kPa(g)

General Data for VVCP (independent of cylinder):

MAWP*:	635	43.8 barg	4378 kPa(g)	*Note: If VVCP services another cylinder, it may have a higher MAWP than the above cylinder.	
VVCP piston diameter:	13 in	330 mm			
Stem thread lead (pitch):	0.125 in	3 mm			
Total travel:	4.00 in	10.2 cm			
Number of turns from closed to fully open:	32.0				
Minimum added fixed clearance:	10.0 in3	164 cm3			
Additional added clearance when fully open:	530.9 in3	8700 cm3			
Total added clearance when fully open:	540.9 in3	8864 cm3			
Clearance volume change per turn:	16.6 in3	271.9 cm3			
Clearance volume change per change in travel:	132.7 in3/in	856.3 cm3/cm			

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

Minimum added fixed clearance:	0.9%	
Additional added clearance when fully open:	48.8%	
Total added clearance when fully open:	49.7%	
Head end clearance change per turn:	1.5%	
Head end clearance change per change in travel:	12.2% /in	4.8% /cm

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

Minimum fixed head end clearance:	17.9%
Total head end clearance when fully open:	66.7%

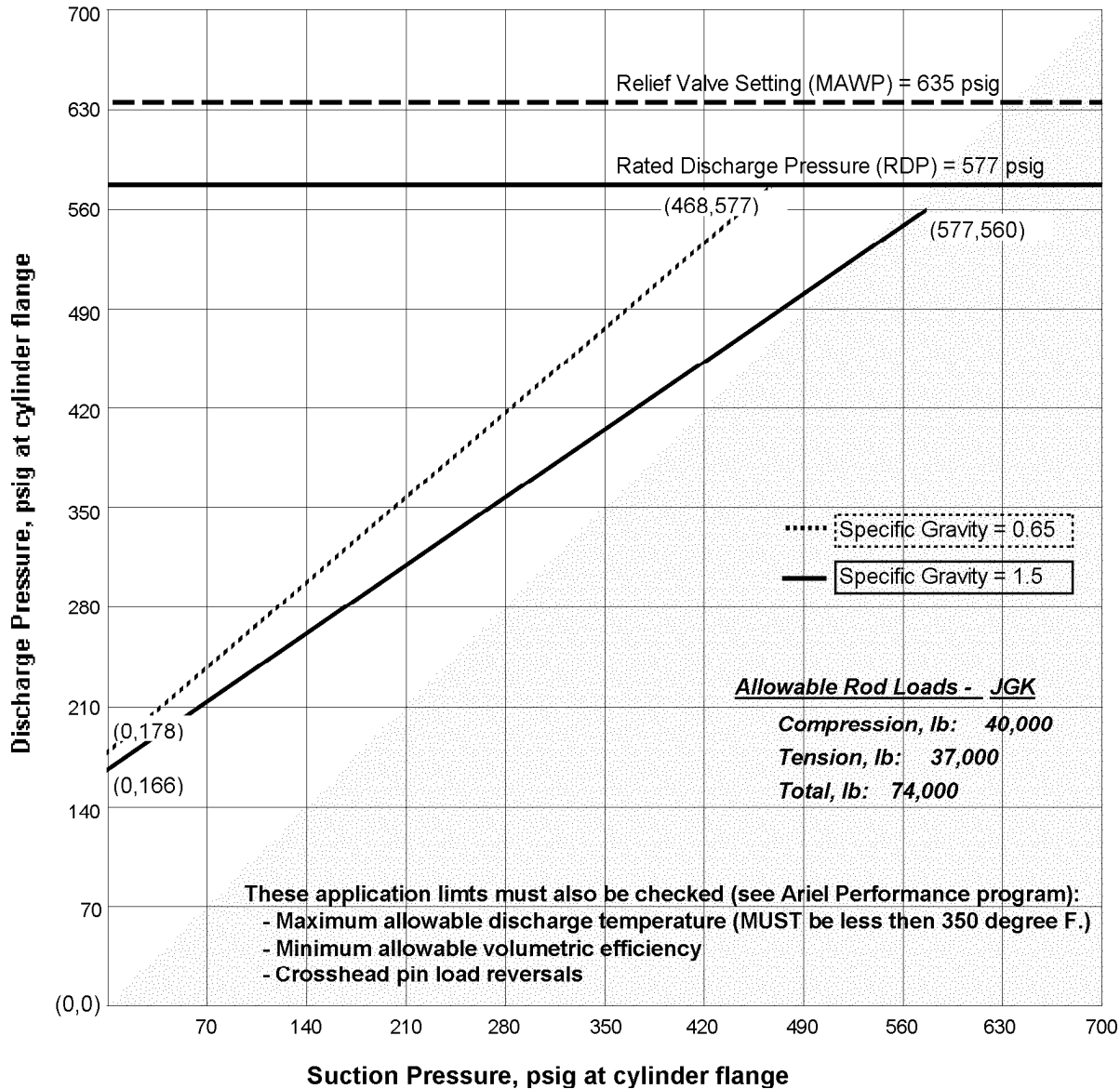
PLEASE NOTE: It is important to understand that the percent clearance figures for the variable volume clearance pocket above include the cylinder headend clearance. However, any valve spacers or other non-standard added clearances on the unit must be accounted for.

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

Cylinder Class: 15-7/8K

Bore, inches: 15.875

Cylinder Serial Number: C-57331-32



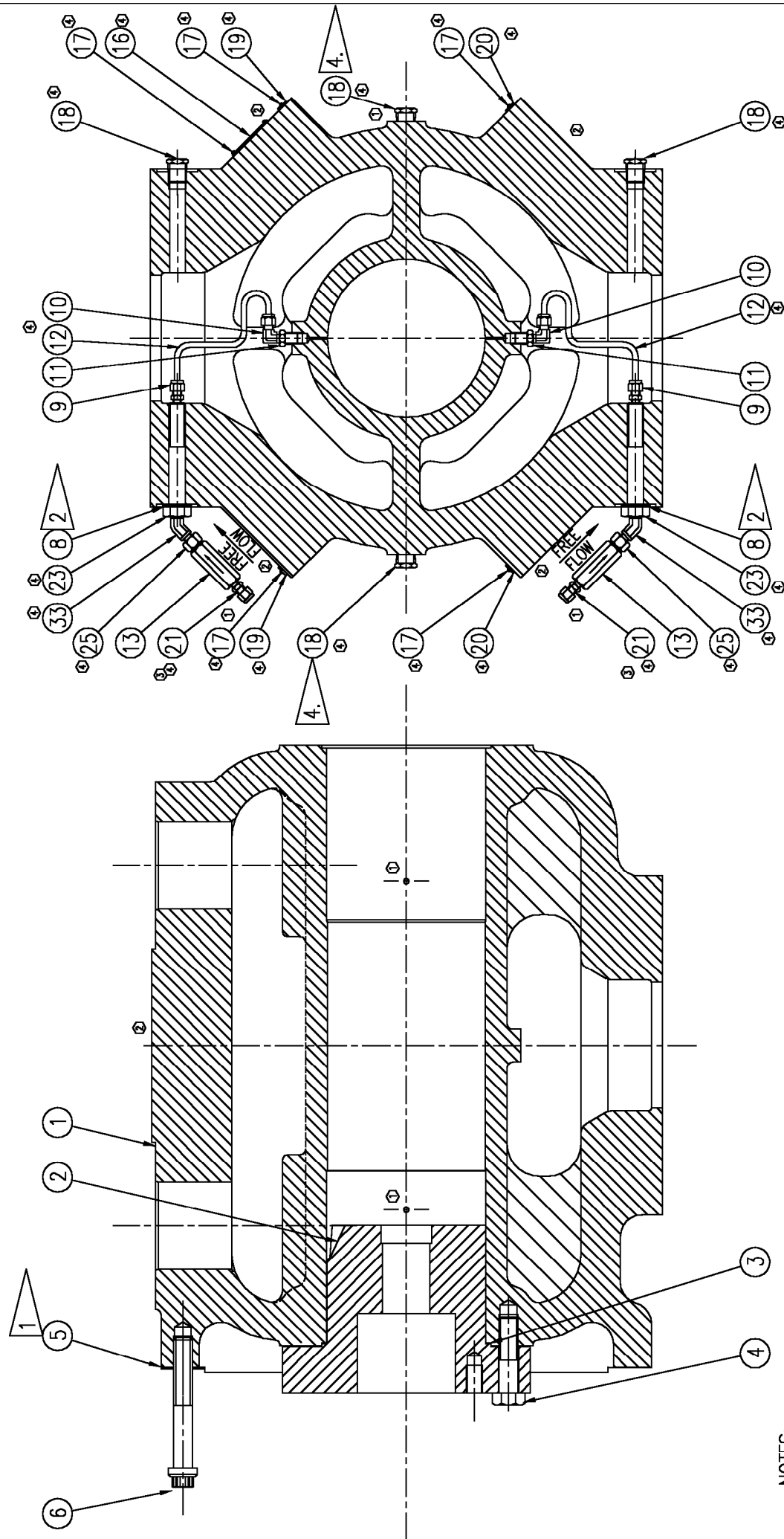
This chart defines allowable operating limits for gas rod loads and standard working pressures. Pressure combinations falling above the line for the applicable Specific Gravity of the gas being compressed will exceed the Rod Load limitations of the equipment.

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

SERIAL NUMBER: C-57333

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

PART NUMBER	QUANTITY	DESCRIPTION	DRAWING NO.
G-2553	1	CYL ASSY, 11 K:T, STD 845	A-4083
G-1710	4	SUC VLV ASSY, 11KCDT, 845/1000	D-1092
G-1711	4	DIS VLV ASSY, 11 KCDT 845/1000	D-1093
G-8397	1	PIST. 11 K, WB, 2PC, STD	A-10319 2SHT
B-2451-T	4	SUC VLV, 127CGT, NY, D/S	A-9239
B-2452-BB	4	DIS VLV, 127CGT, MT, D/S	A-9240



NOTES:

1. APPLY AN ANTI-SEIZE LUBRICANT TO GASKET (ITEM #5) SURFACES.

2. OIL FACES OF STATO-SEAL (ITEM #8) BEFORE INSTALLING TO PREVENT ABRASION

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

4. USED TO PLUG INDICATOR PASSAGES WHERE APPLICABLE.

4	ADDED 1/2 NPT; MODIFIED TUBING (ITEM 12) TO GIVE CLEARANCE FOR ADDED TAP. CHANGED ITEM NOS.		3 7576		ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050
3	REMOVED NOTE 4 AND CORRESPONDING FLAGS FROM ITEM 20		2 6966		
REV	DESCRIPTION		1 6282		
4	7510	0	4852	ECN	REV
				ECN	REV
				ECN	REV
				ECN	REV
				ECN	REV
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PARTS LIST

GROUP NO. G-2553

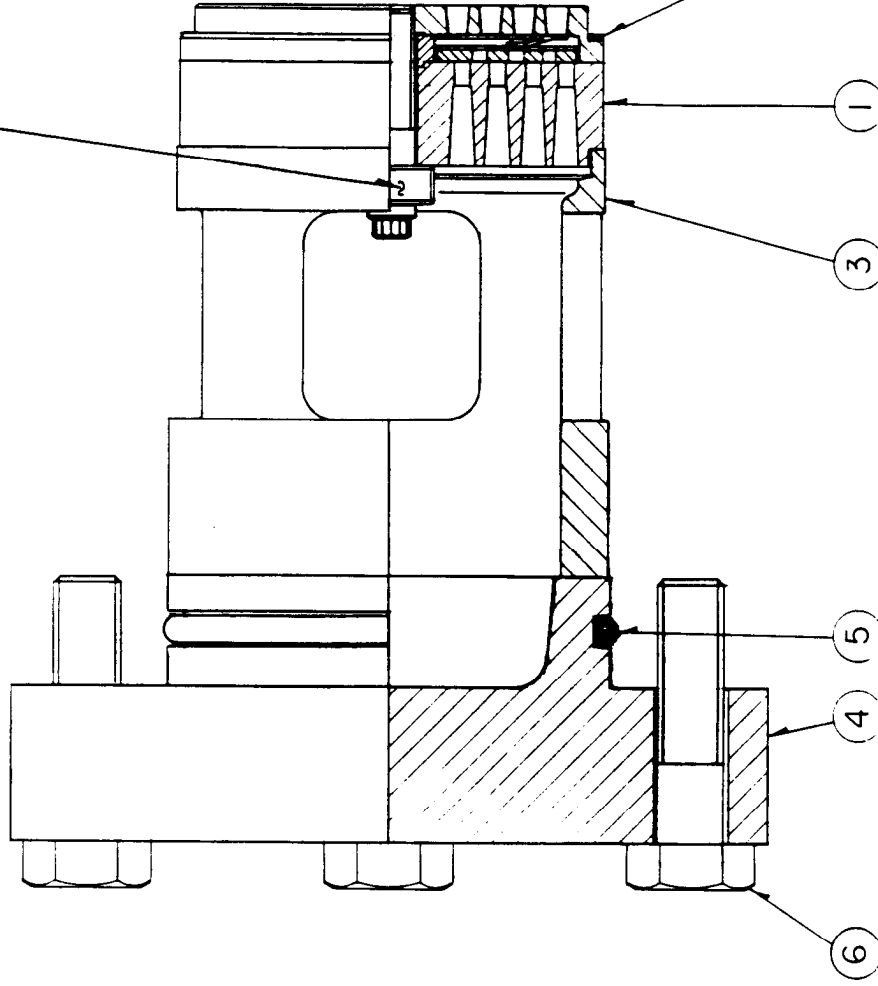
11" JGK:T CYLINDER BODY
RDP 768#, MAWP 845#
REF. DRWG. A-4083

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-1494	0	CYL BODY, 11K 845
002	C-0937	0	CE HEAD, 11 K
003	A-2236	1	STL GASKET, 11.438 X 11.125 X60
004	FC0100IO	16	HEX HD CAP, 3/4-10 X 3 G9
005	B-1042	1	GASKET, RND, 22-1/2 X 1/64
006	FC0120JW	12	12 PT, 7/8-9 X 6 G8
008	FW0550ID	2	STAT-O-SEAL, VT, 75DUR. 3/4 DIA
009	A-0830	2	MALE CONN, STL, 1/4T X 1/8P
010	A-0815	2	MALE ELBOW, STL, 1/4T X 1/8P
011	A-0811	2	HEX RED BUSH, STL, 1/4M X 1/8F
012	PT0200CB	106.	" SS TUBING, 1/4 OD X .035 WALL
013	A-3780	2	CHK.VLV, DOU.BALL SOFT SEAT SS
016	A-0465	1	DATA PLATE, CYLINDER SPEC STD
017	FR0570CC	12	DRIVE SCREW, #6 X 1/4 U-TYPE
018	PP0810GB	6	PIPE PLUG, 1/2NPT, HEX HD, STL
019	A-0640-A	2	INFO PLATE, SUCTION
020	A-0640-B	2	INFO PLATE, DISCHARGE
021	A-0827	2	MALE CONN, STL, 1/4T X 1/4P
023	A-2072	2	LUBE FITTING, 3/4-10 X 4-1/2
025	A-2114	2	HEX PIPE NIPPLE, STL, 1/4 X 1/8
033	A-3989	2	STREET ELBOW, 45, 1/8P STL
100	HD-1494	1	CYL ASSY, 11K

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

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

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.

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PHOTOCOPYING, RECORDING, OR
BY ANY INFORMATION STORAGE
AND RETRIEVAL SYSTEM.

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

PARTS LIST

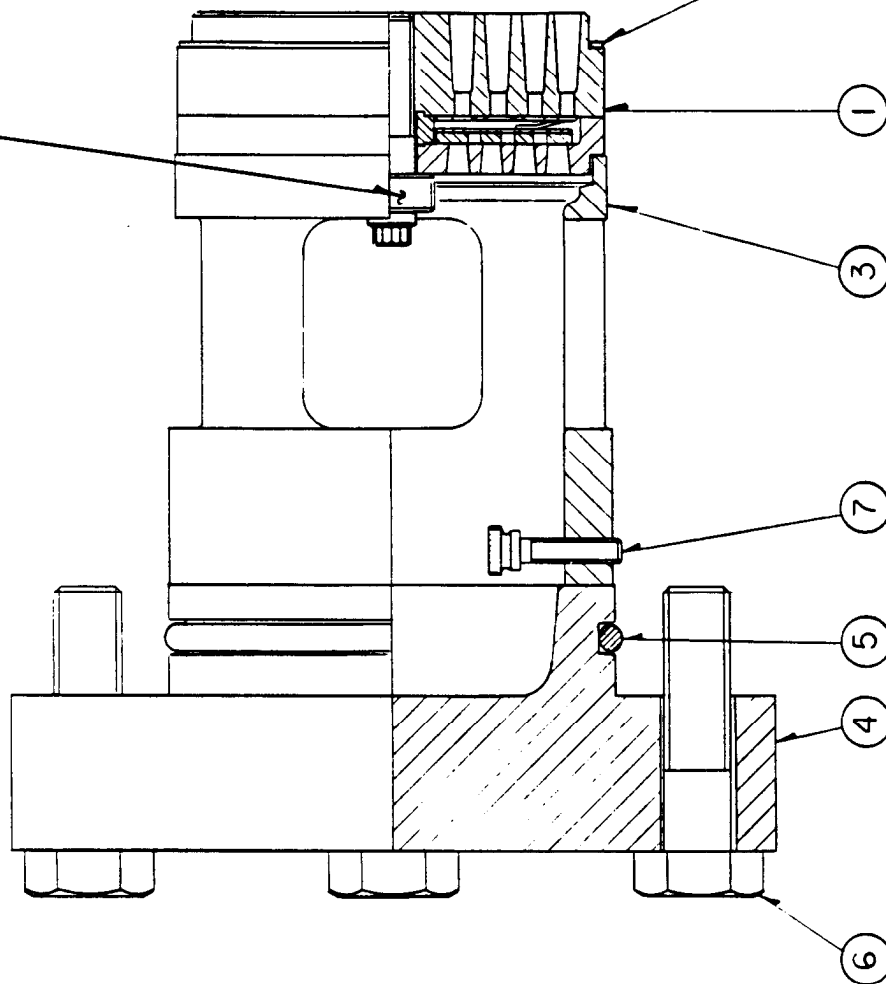
GROUP NO. G-1710

SUCTION VALVE, RETAINER AND CAP
11" JGK:C:D:T CLASS
REF. DRWG. D-1092

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	SUCTION VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2238	1	STL GASKET, 5.796 X 5.608 X30
003	B-1125	1	VLV RET,S&D,11 K:C:D
004	B-1124	0	VLV CAP,11 K:C:D CL
005	A-0034	1	O-RING,VT, 5.895 O.D.X.210
006	FC0171FHJ	4	12 PT,3/4-10 X 2-3/4 X 15/16G8

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

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-1647

G-1564

G-1701

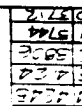
G-1711

G-1755

G-1820

G-1999

G-2304



ARIEL CORPORATION
MT. VERNON, OHIO

ASSY. DRWG. D-1093
NUMBER

PARTS LIST

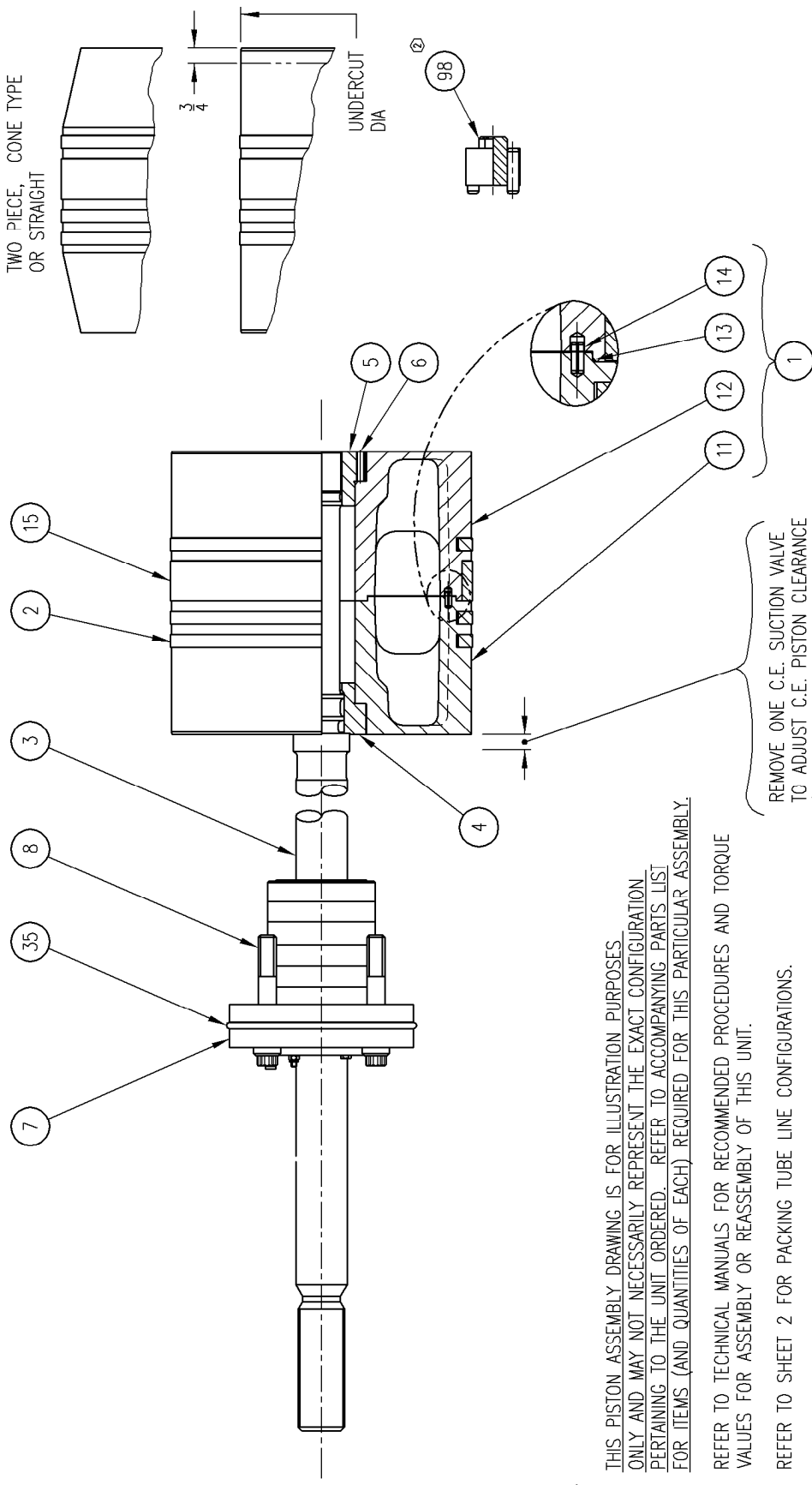
GROUP NO. G-1711

DISCHARGE VALVE, RETAINER, CAP
11" JGK:C:D:T CLASS CYLINDER
REF. DRWG. D-1093

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	DISCHARGE VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2238	1	STL GASKET, 5.796 X 5.608 X30
003	B-1125	1	VLV RET,S&D,11 K:C:D
004	B-1124	0	VLV CAP,11 K:C:D CL
005	A-0034	1	O-RING,VT, 5.895 O.D.X.210
006	FC0171FHJ	4	12 PT,3/4-10 X 2-3/4 X 15/16G8
007	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.

PISTON MAY BE ONE OR TWO PIECE, CONE TYPE OR STRAIGHT



NOTES:

1. THIS PISTON 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.
2. REFER TO TECHNICAL MANUALS 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. OIL O-RINGS BEFORE INSTALLING.
6. ITEMS 11, 12, 13 AND 14 APPLY TO TWO PIECE PISTONS ONLY.
7. PISTON NUT SPANNER, ITEM 98, IS SHIPPED IN TOOL BOX, WHEN REQUIRED.

H:E:K:T

7. PISTON NUT SPANNER, ITEM 98, IS SHIPPED IN TOOL BOX, WHEN REQUIRED.		JCS 8/19/02			
3 SEE SHEET #2		INIT/DATE		DESCRIPTION	
REV					

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3 10867		ARIEL CORPORATION		35 BLACKJACK ROAD		MOUNT VERNON, OHIO 43050	
2 10603							
1 8132							
0 8072		CHECKED: NEH 10/17/00		SCALE: NONE			
REV		ECN					

PARTS LIST

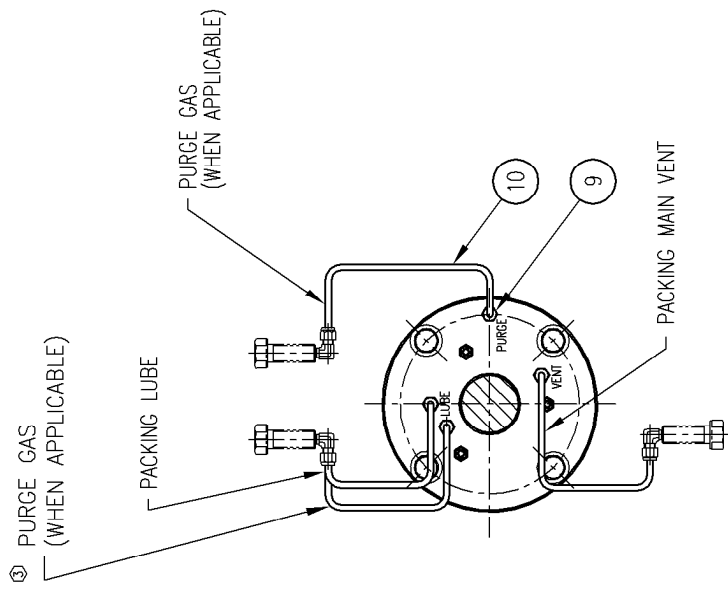
GROUP NO. G-8397

11" JGK PISTON, TWO PIECE PISTON,
TFE RINGS, TFE WEAR BAND, TFE/CI PACKING
5-1/2" STROKE
REF. DRWG. A-10319 2 SHEETS

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-2850	1	PIST ASSY, 11 K, 2PC, WB
002	A-2240	4	PISTON RING, 11 K:T
003	C-0876	1	P ROD, 5.50STK/45.435LG
004	B-1248	1	PISTON COLLAR, JGK:T, 4"OD
005	B-1249	1	PISTON NUT, JGK:T, 4"OD
006	FS0405DH	2	CUP PT.SET-SCREW, 5/16-24X1-1/4
007	B-1584	1	PKG, 2.000, 1500, STD, BTR
008	FC0120IV	4	12 PT, 3/4-10 X 5-1/2 G8
009	A-0827	0	MALE CONN, STL, 1/4T X 1/4P
010	PT0200CB	30.	" SS TUBING, 1/4 OD X .035 WALL
011	SC-2848	0	PIST, WB, 11 K, CE/PC
012	SC-2849	0	PIST, WB, 11 K, HE/PC
013	A-8444	0	O-RING, VT, 8.390 OD.X .070
014	FP0505EE	0	ROLL PIN, 3/16 X 3/4
015	A-2242	1	WEAR BAND, 11K:C
099	B-1584-K	0	RBLD KIT, PIST ROD PKG, 2.000
099	B-1687-K	0	RBLD KIT, WIPER PKG, 2.000, WAT

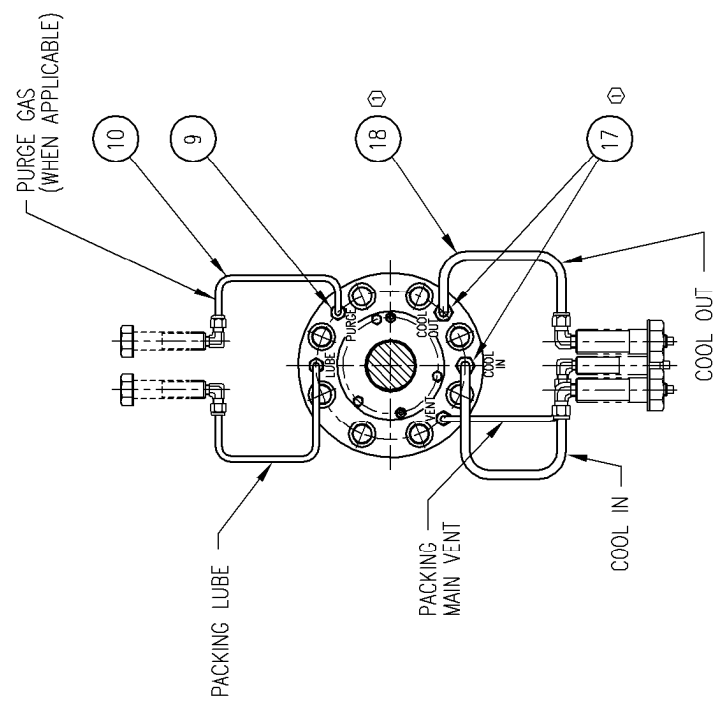
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

1 2 3 4



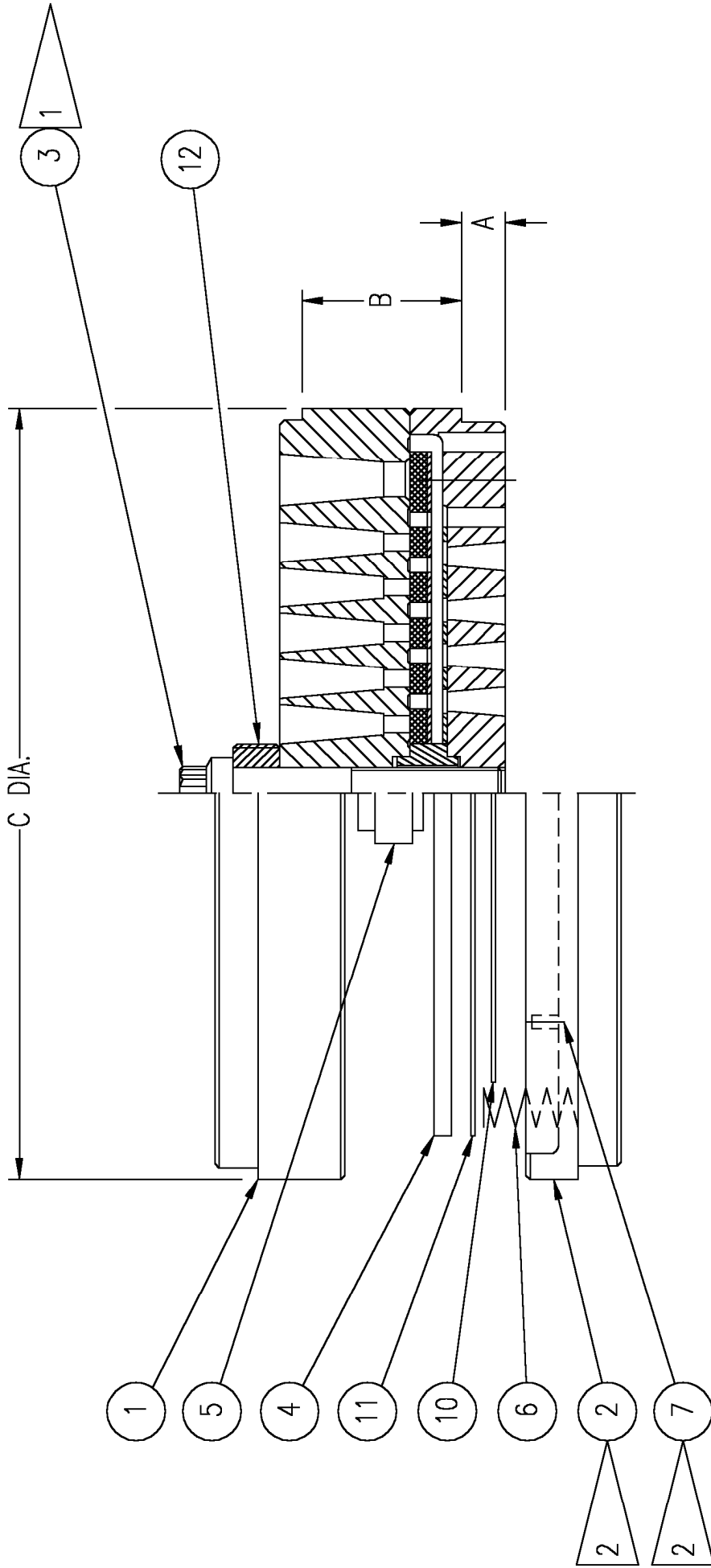
NOTES:

1. THIS PISTON 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.
2. ASSEMBLE FITTINGS BEFORE INSTALLING PACKING.
3. RETIGHTEN PACKING TIE STUD NUTS AFTER CASE IS BOLTED INTO CYLINDER.
4. REFER TO TECHNICAL MANUALS FOR RECOMMENDED PROCEDURES AND TORQUE VALUES FOR ASSEMBLY OR REASSEMBLY OF THIS UNIT.



H:E:K:T

4. REFER TO TECHNICAL MANUALS FOR RECOMMENDED PROCEDURES AND TORQUE VALUES FOR ASSEMBLY OR REASSEMBLY OF THIS UNIT.		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.		3 10876		ARIEL CORPORATION	
				2 10603		35 BLACKJACK ROAD	
				1 8132		MOUNT VERNON, OHIO 43050	
				0 8072		APPROVED:	
● B1 ADDED 2ND PURGE CONNECTION		JCS 8/19/02	DRAWING: RLW 10/12/00		ASSEMBLY DWG. NO. A-10319		
REV		DESCRIPTION	ECN		CHECKED: NEH 10/17/00	SCALE: NONE	
			REV		SHEET 2 OF 2		



NOTES:

- FOR ASSEMBLY OF CENTER BOLT SEE ER-35.
- 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, CJT
MATERIAL:	PROCURD
DRAWN:	IG 9/24/99
CHECKED:	ED 10/1/99
SCALE:	NONE
DWG. No:	A-9239

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

DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.

REV	ECN
0	7799
REV	ECN

REV	DESCRIPTION

PARTS LIST

B-2451-T

0.3940=A

1.4570=B

5.8110=C

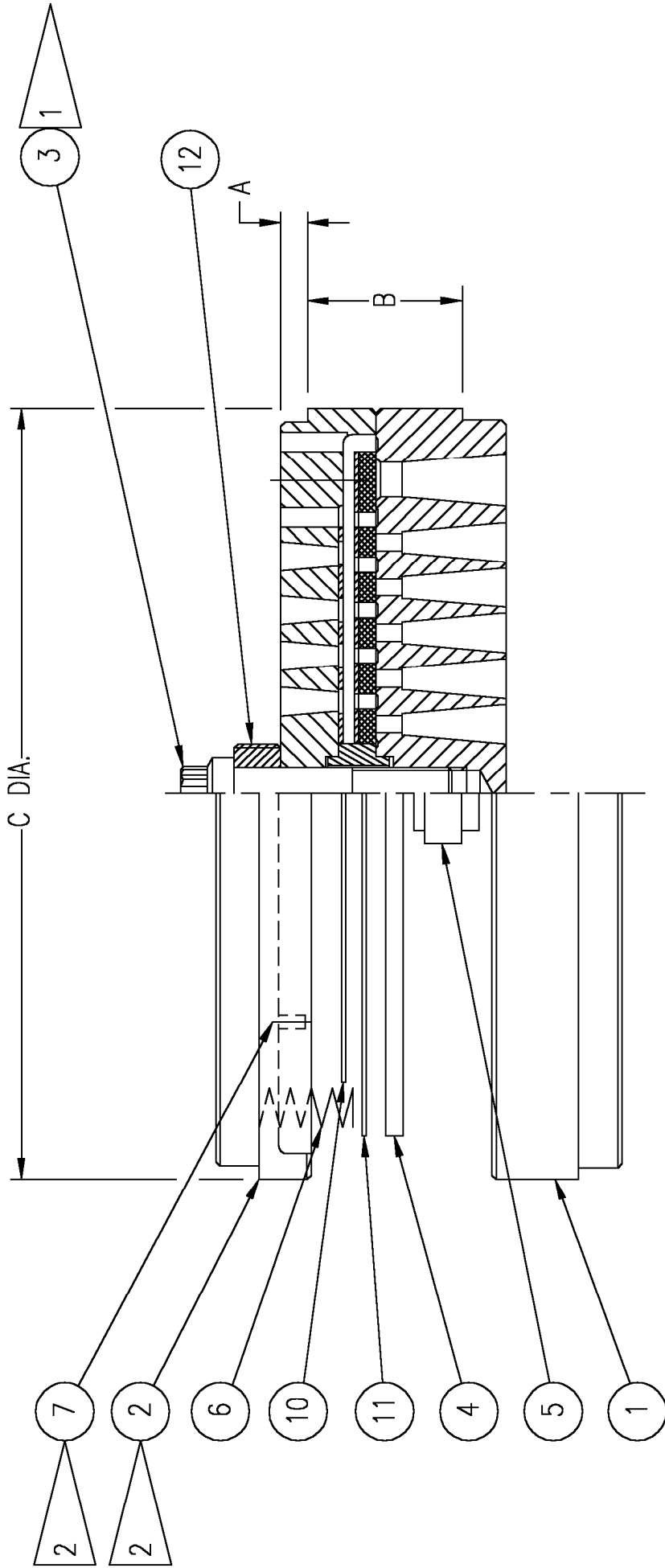
0.1020=LFT

REF DRWG. A-9239

ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-8072	1	SUC VLV SEAT,127CGT,DRILLED
002	A-2310-A	1	SUC VLV GUARD ASSY,127CGT
003	A-2162	1	CNTR BOLT,12PT,7/16-20X2-1/2
004	A-5499	1	VLV PLT,127CT.157THK,NY
005	A-2166	1	GUIDE RING,148-179CT,.338 THK
006	A-1346	13	SPRING(/ .354DX.472 RED)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-2313	1	WAFER SPRING,127CGT
011	A-2312	1	CUSHION PLATE,127CGT
012	A-2167	1	VLV WASHER,7/16ID X 1"-8 THD

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



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:		DISCHARGE VALVE, CJT	
MATERIAL:		PROCURED	
DRAWN:		IG 9/24/99	
CHECKED:		ED 10/1/99	
SCALE:		NONE	
DWG. No:		A-9240	

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---- DO NOT SCALE DRAWING ----

DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.

REV	DESCRIPTION	REV	ECN
0	7799		

PARTS LIST

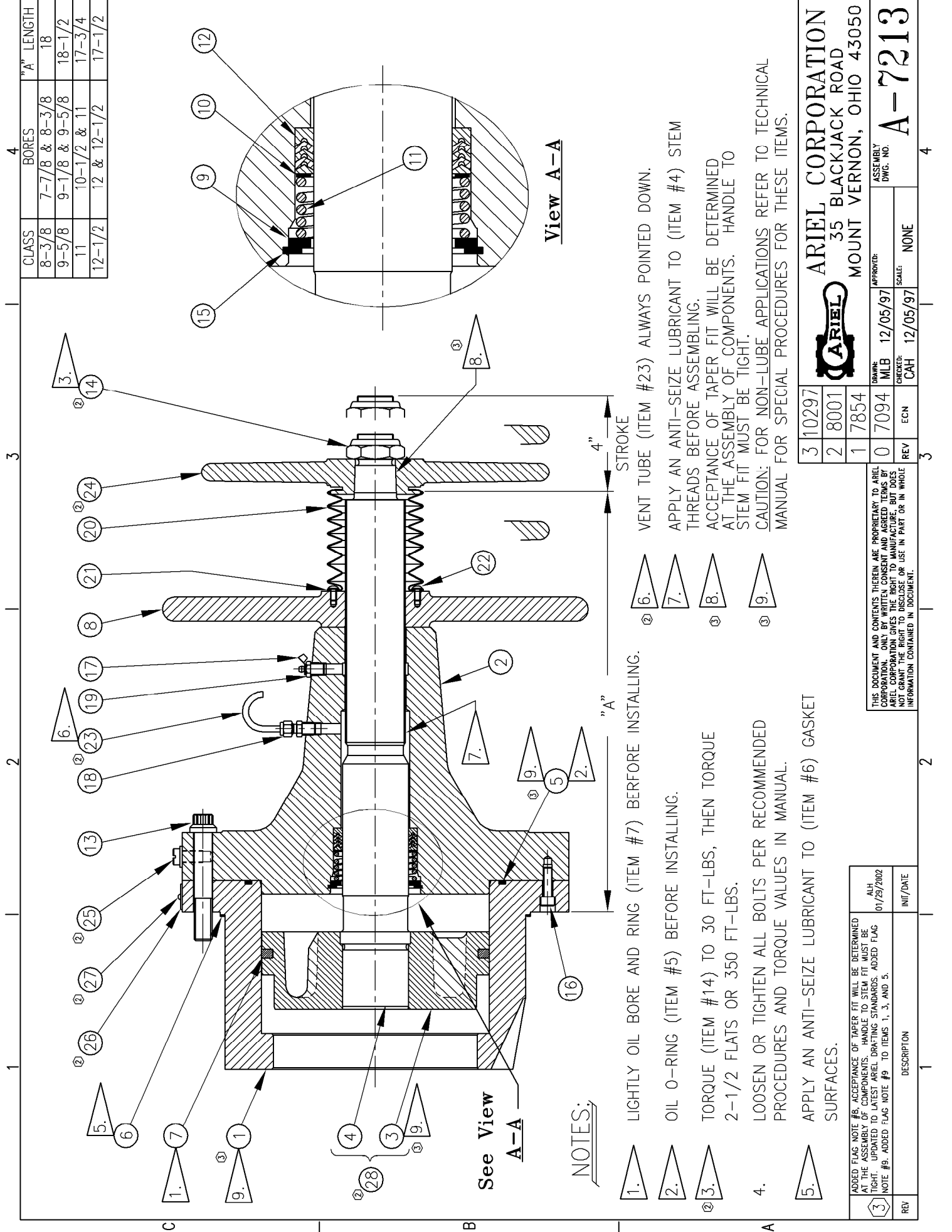
B-2452-BB

0.1960 =A
1.4570 =B
5.8360 =C
0.1020 =LFT
REF DRWG. A-9240
ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-8071	1	DIS VLV SEAT,127CGT,DRILLED
002	A-2315-A	1	DIS VLV GUARD ASSY,127CGT
003	A-2254	1	CNTR BOLT,12PT,7/16-20X2-1/4
004	A-8332	1	VLV PLT,127CT.157THK,MT
005	A-2166	1	GUIDE RING,148-179CT,.338 THK
006	A-1346	26	SPRING(/ .354DX.472 RED)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-2313	1	WAFER SPRING,127CGT
011	A-2312	1	CUSHION PLATE,127CGT
012	A-2167	1	VLV WASHER,7/16ID X 1"-8 THD

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

CLASS	BORES	"A" LENGTH
8-3/8	7-7/8 & 8-3/8	18
9-5/8	9-1/8 & 9-5/8	18-1/2
11	10-1/2 & 11	17-3/4
12-1/2	12 & 12-1/2	17-1/2



See View
A-A

View A-A

NOTES:

1. LIGHTLY OIL BORE AND RING (ITEM #7) BEFORE INSTALLING.
 2. OIL O-RING (ITEM #5) BEFORE INSTALLING.
 3. TORQUE (ITEM #14) TO 30 FT-LBS, THEN TORQUE 2-1/2 FLATS OR 350 FT-LBS.
 4. LOOSEN OR TIGHTEN ALL BOLTS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
 5. APPLY AN ANTI-SEIZE LUBRICANT TO (ITEM #6) GASKET SURFACES.
6. VENT TUBE (ITEM #23) ALWAYS POINTED DOWN.
7. APPLY AN ANTI-SEIZE LUBRICANT TO (ITEM #4) 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.

REV	DESCRIPTION	INIT/DATE
3	ADDED FLAG NOTE #8. ACCEPTANCE OF TAPER FIT WILL BE DETERMINED AT THE ASSEMBLY OF COMPONENTS. HANDLE TO STEM FIT MUST BE TIGHT. UPDATED TO LATEST ARIEL DRAFTING STANDARDS. ADDED FLAG NOTE #9. ADDED FLAG NOTE #9 TO ITEMS 1, 3, AND 5.	ALH 01/29/2002

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3 10297	2 8001	1 7854	0 7094	ECN	REV
ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050					
DRAWN: MLB 12/05/97 CHECKED: CAH 12/05/97			APPROVED: _____ SCALE: NONE		
ASSEMBLY DWG. NO.			A-7213		

SERIAL NUMBER: U-34474

PART: G-3675 DESCRIPTION: M-VVCP,11KCDT 845/1000

GROUP NO. G-3675
11" JGK:C:D:T MOUNTED UNLOADER
REF. DRWG. A-7213

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-1001	1	UNL.HEAD, 11K:C:D
002	D-1127	1	HE UNL ADPTR,11KC CL
003	C-1374	0	UNL PIST,11 K:C:D
004	C-1371	0	UNL.STEM,JGK:JGC 2-1/2-8 THD.
005	A-3502	1	O-RING,VT, 9.645 O.D.X.210
006	A-2236	1	STL GASKET,11.438 X 11.125 X60
007	A-2355	1	UNL.PISTON RING, 8-1/2 O.D.
008	C-0983	1	LOCKING HANDLE,UNL,2-1/2-8 THD
009	A-2397	1	UNL PACKING RETAINER, JGK:C
010	A-2395	1	PACKING BACK-UP RING
011	A-2400	1	COMPRESSION SPRING,UNL,3-7/16D
012	A-2399	1	V PACKING, UNL. 2-3/4 X 3-1/2
013	FC0120IU	16	12 PT,3/4-10 X 5 G8
014	A-2390	1	SELF-LOCK NUT,ESNA,TN,1-1/2-12
015	A-2392	1	SNAP RING,SS,INT,3-3/4 BORE
016	FC0110EJ	2	SOC HD CAP,3/8-16 X 1-3/4 G8
017	A-0500	1	GREASE FITTING CAP, PLASTIC
018	A-0827	1	MALE CONN,STL, 1/4T X 1/4P
019	PZ0230BA	1	STRAIGHT GREASE FITTING,1/4-18
020	A-2394	1	UNL STEM BELLOWS,2-1/2D THRD
021	A-2398	1	BELLOWS BACK-UP RING

SALES ORDER COVER SHEET

022	FC0134CC	3	BUT HD CAP, 1/4-20 X 1/2 316SS
023	PT0200CB	5.	" SS TUBING, 1/4 OD X .035 WALL
024	C-0984	1	HANDLE, UNL, 3 PRONG
025	A-0256	1	MACHINE SCREW PLUG, PL, 1/2-13
026	A-0755	1	DATA PLATE, UNLOADER SPEC
027	FR0570CC	2	DRIVE SCREW, #6 X 1/4 U-TYPE
028	AC-1374	1	UNL PIST ASSY, 11 K:C:D

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)

General Data for VVCP (independent of cylinder):

MAWP*: 1270 87.6 barg 8756 kPa(g)

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

VVCP piston diameter: 8.5 in 216 mm

Stem thread lead (pitch): 0.125 in 3 mm

Total travel: 4.00 in 10.2 cm

Number of turns from closed to fully open: 32.0

Minimum added fixed clearance: 4.5 in3 74 cm3

Additional added clearance when fully open: 227.0 in3 3720 cm3

Total added clearance when fully open: 231.5 in3 3793 cm3

Clearance volume change per turn: 7.1 in3 116.2 cm3

Clearance volume change per change in travel: 56.7 in3/in 366.1 cm3/cm

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

Minimum added fixed clearance: 0.9%

Additional added clearance when fully open: 43.4%

Total added clearance when fully open: 44.3%

Head end clearance change per turn: 1.4%

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

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

Minimum fixed head end clearance: 18.9%

Total head end clearance when fully open: 62.3%

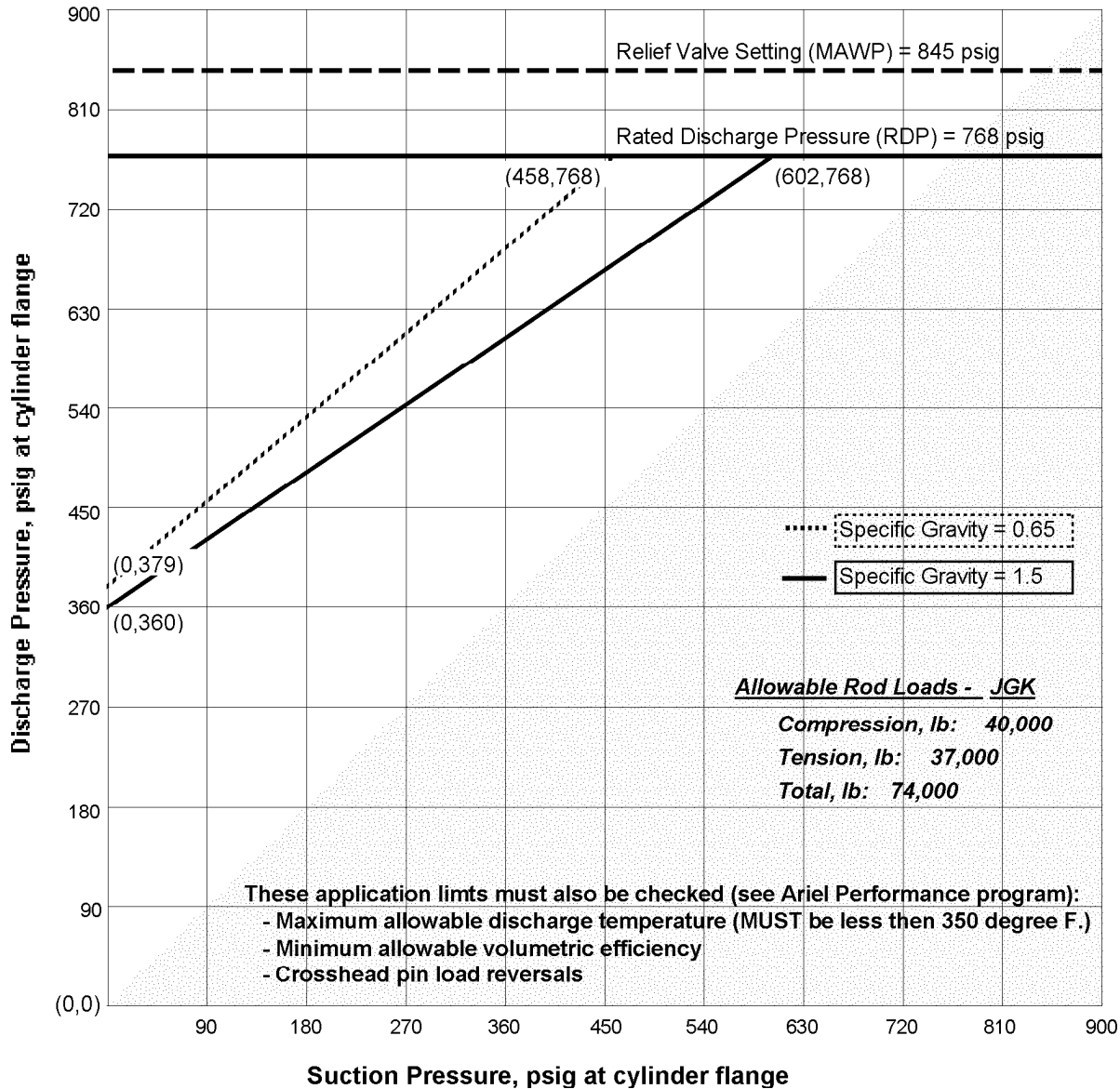
PLEASE NOTE: It is important to understand that the percent clearance figures for the variable volume clearance pocket above include the cylinder headend clearance. However, any valve spacers or other non-standard added clearances on the unit must be accounted for.

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

Cylinder Class: 11K

Bore, inches: 11.000

Cylinder Serial Number: C-57333



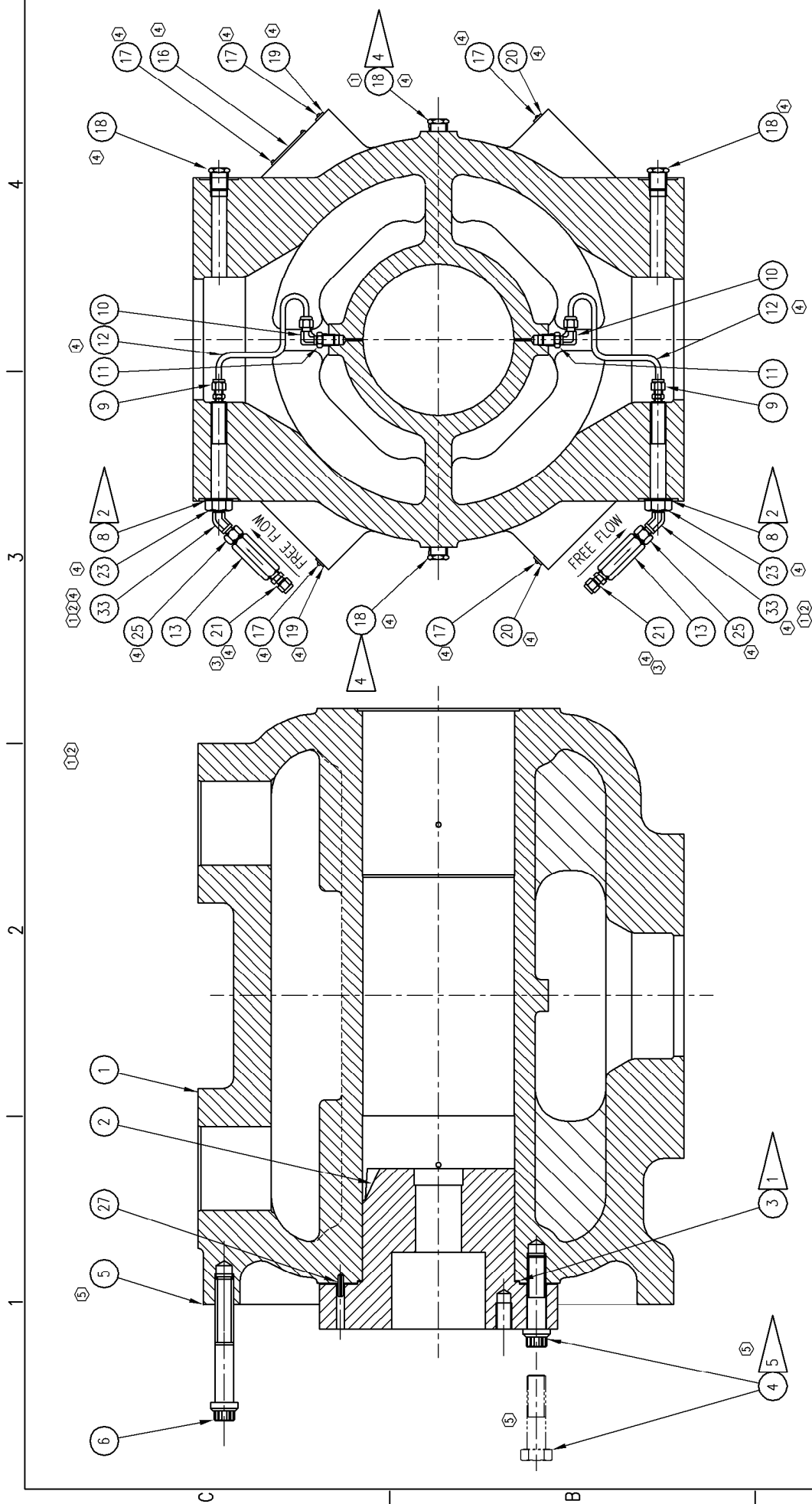
This chart defines allowable operating limits for gas rod loads and standard working pressures. Pressure combinations falling above the line for the applicable Specific Gravity of the gas being compressed will exceed the Rod Load limitations of the equipment.

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

SERIAL NUMBER: C-57334

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

PART NUMBER	QUANTITY	DESCRIPTION	DRAWING NO.
G-2792	1	CYL ASSY, 6-3/4K:T,STD 1900	A-4082
G-1609	4	SUC VLV ASSY, 7-1/4K-HP:CDT	C-0971
G-1610	4	DIS VLV ASSY, 7-1/4K:HP:TCD	C-0972
G-1831	1	PIST. 6-3/4K,WB,STD	A-4408
B-1957-U	4	SUC VLV, 77CT ,NY,M/S	A-9265
B-1935-BB	4	DIS VLV, 77CT ,MT,M/S	A-9264



NOTES:

- 1 APPLY AN ANTI-SEIZE LUBRICANT TO GASKET (ITEM 3) SURFACES.
- 2 OIL FACES OF STAT-O-SEAL (ITEM 8) BEFORE INSTALLING TO PREVENT ABRASION
- 3 LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.

- 4 USED TO PLUG INDICATOR PASSAGES WHERE APPLICABLE.
- 5 REFER TO ACCOMPANYING PARTS LIST FOR CORRECT FASTENERS (AND QUANTITIES OF EACH) REQUIRED FOR THIS ASSEMBLY.

ARIEL CORPORATION 35 BLACKJACK ROAD MOUNT VERNON, OHIO 43050		A-4082 ASSEMBLY DWG. NO.	
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REV	DESCRIPTION	ECN	REV
5	REMOVED FLAG 1 FROM ITEM 5 AND REMOVED ITEM 5 FROM FLAG NOTE 1. ADDED ALTERNATE ITEM 4 AND ADDED FLAG 5 TO ITEM 4. ADDED FLAG NOTE 3.	3	7220
4	7510	1	6912
5	10411	2	7576
3		3	7220

PARTS LIST

GROUP NO. G-2792

6-3/4"K:T CYLINDER BODY.
 RDP 1727#, MAWP 1900#
 REF. DRWG. A-4082

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	D-1558	0	CYL BODY, 6-3/4K 1900
002	C-0903	0	CE HEAD, 6-3/4K
003	A-2087	1	STL GASKET, 7.375 X 7.750 X60
004	FC0100JQ	12	HEX HD CAP, 7/8-9 X 3-1/2 G9
005	B-1042	1	GASKET, RND, 22-1/2 X 1/64
006	FC0120JW	12	12 PT, 7/8-9 X 6 G8
008	FW0550ID	2	STAT-O-SEAL, VT, 75DUR. 3/4 DIA
009	A-0830	2	MALE CONN, STL, 1/4T X 1/8P
010	A-0815	2	MALE ELBOW, STL, 1/4T X 1/8P
011	A-0811	2	HEX RED BUSH, STL, 1/4M X 1/8F
012	PT0200CB	100.	" SS TUBING, 1/4 OD X .035 WALL
013	A-3780	2	CHK.VLV, DOU.BALL SOFT SEAT SS
016	A-0465	1	DATA PLATE, CYLINDER SPEC STD
017	FR0570CC	12	DRIVE SCREW, #6 X 1/4 U-TYPE
018	PP0810GB	6	PIPE PLUG, 1/2NPT, HEX HD, STL
019	A-0640-A	2	INFO PLATE, SUCTION
020	A-0640-B	2	INFO PLATE, DISCHARGE
021	A-0827	2	MALE CONN, STL, 1/4T X 1/4P
023	A-3210	2	LUBE FITTING, 3/4-10 X 5
025	A-2114	2	HEX PIPE NIPPLE, STL, 1/4 X 1/8
027	FP0505FG	1	ROLL PIN, 1/4 X 1"
033	A-3989	2	STREET ELBOW, 45, 1/8P STL

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

PARTS LIST

100	HD-1558	1	CYL ASSY, 6-3/4K
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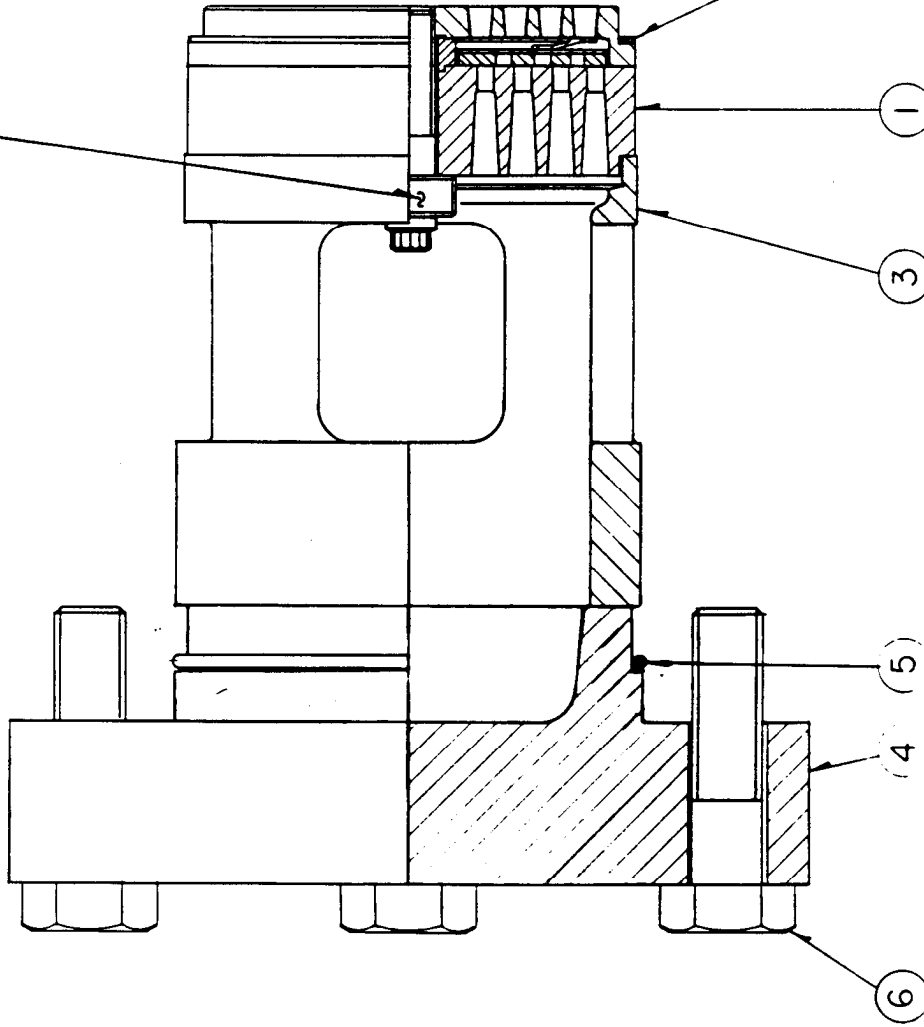
WHEN A ZERO APPEARS IN THE QUANTITY COLUMN IT
DOES NOT REPRESENT THE QUANTITY REQUIRED.

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.

013744

ARIEL CORPORATION
MT. VERNON, OHIO

ASSY. DRWG. C-0971
NUMBER

PARTS LIST

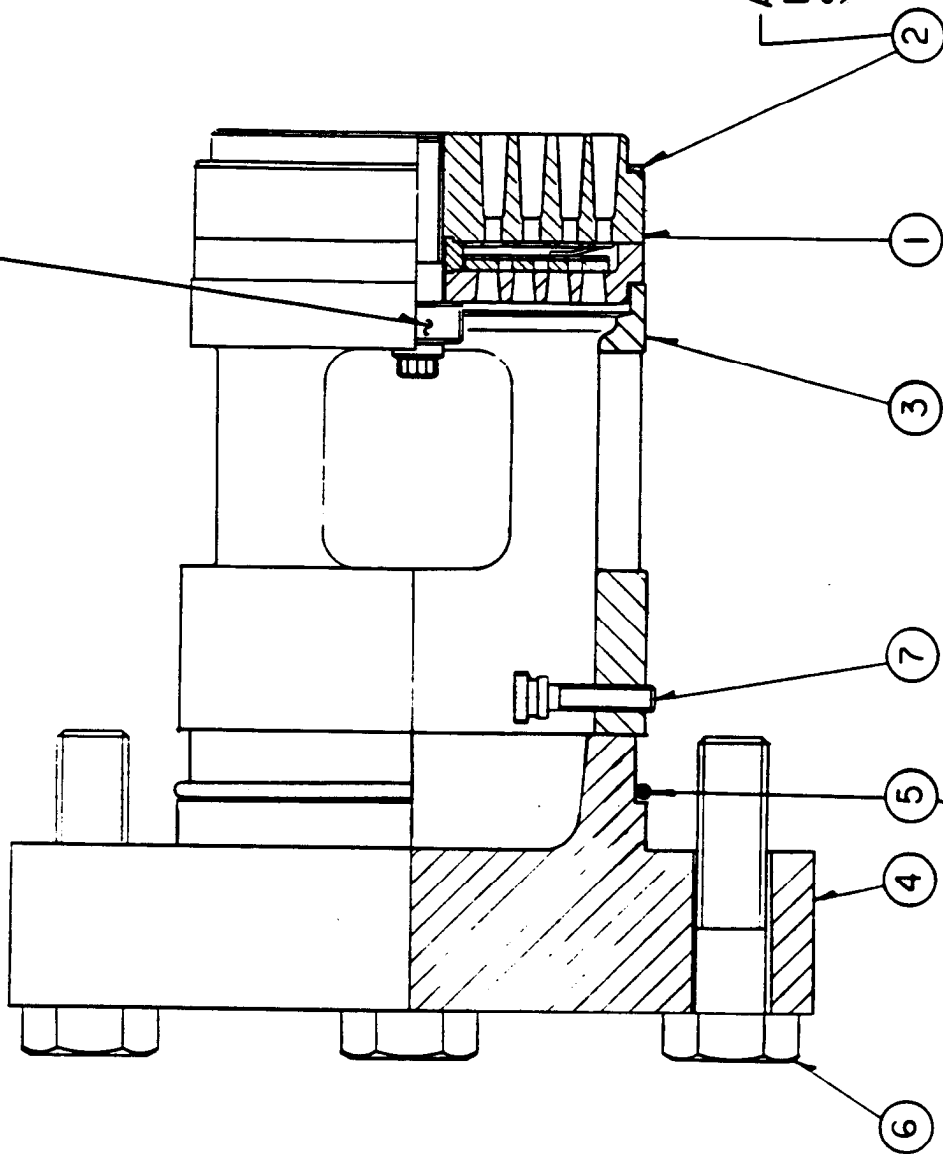
GROUP NO. G-1609

SUCTION VALVE, RETAINER AND CAP
7-1/4" JGK:K-HP:T:C:D CLASS CYL.
REF. DRWG. C-0971

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	SUCTION VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2084	1	STL GASKET, 3.855 X 3.537 X30
003	B-1064	1	VLV RET,S&D, 7-1/4K:C
004	B-1065	0	VLV CAP, 7-1/4K:K-HP:C CL
005	A-1812	1	O-RING,VT, 3.887 O.D.X.139
006	FC0171GKL	4	12 PT,7/8-9 X 3-1/2 X 1-1/16G8

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

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

513744

ARIEL CORPORATION
MT. VERNON, OHIO

ASSY. DRWG. C-0972
NUMBER

PARTS LIST

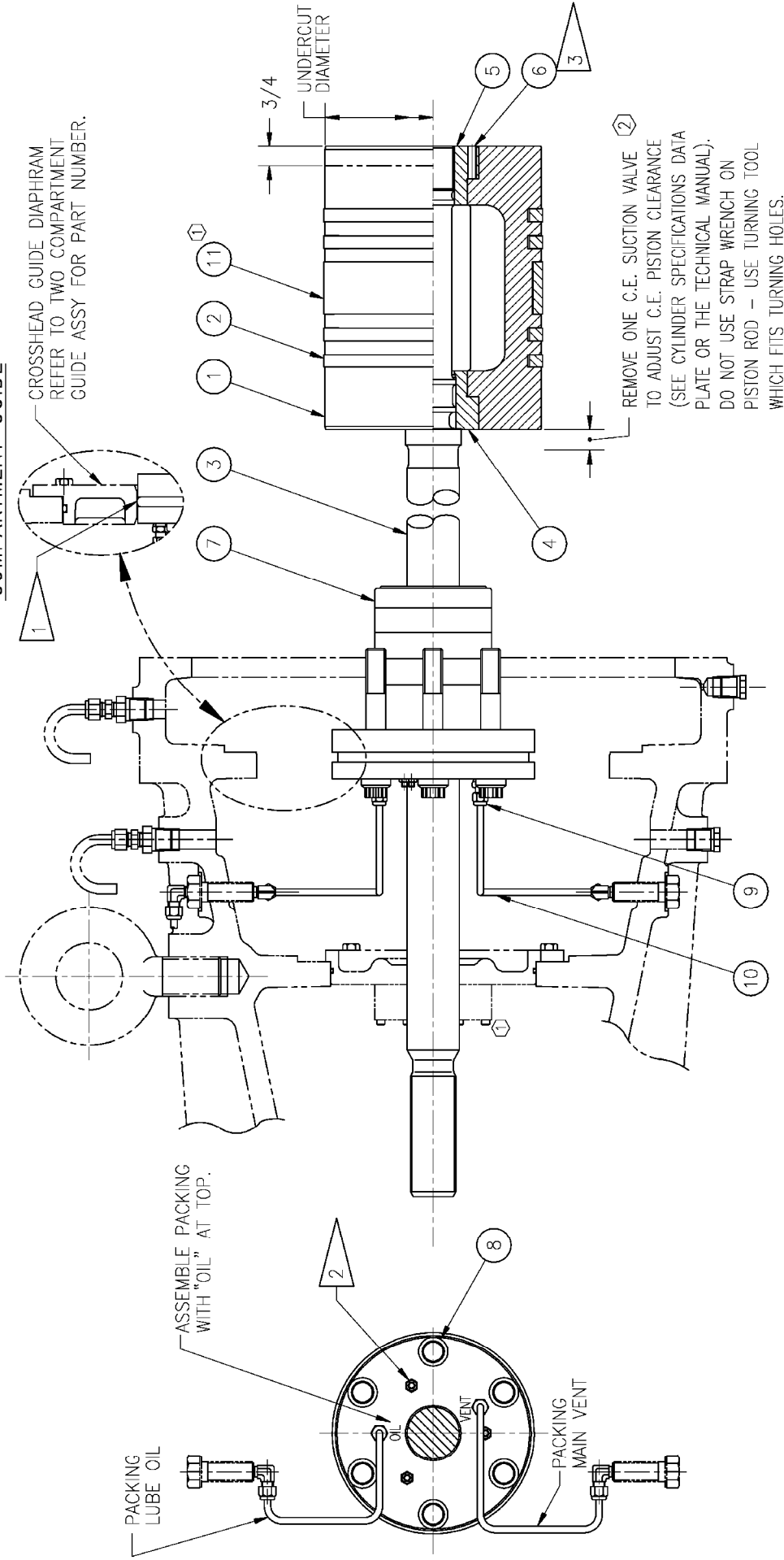
GROUP NO. G-1610

DISCHARGE VALVE, RETAINER, CAP
7-1/4" JGK:T,JGK-HP & JGC:D CLASS CYL.
REF. DRWG. C-0972

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	DISCHARGE VALVE	0	FOR PART NO. SEE COVER SHEET
002	A-2084	1	STL GASKET, 3.855 X 3.537 X30
003	B-1064	1	VLV RET,S&D, 7-1/4K:C
004	B-1065	0	VLV CAP, 7-1/4K:K-HP:C CL
005	A-1812	1	O-RING,VT, 3.887 O.D.X.139
006	FC0171GKL	4	12 PT,7/8-9 X 3-1/2 X 1-1/16G8
007	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.

OPTIONAL TWO COMPARTMENT GUIDE



NOTES:

- 1 OIL O-RING BEFORE INSTALLING, (ON OPTIONAL TWO COMP. GUIDE ONLY).
- 2 RETIGHTEN TIE STUD NUTS AFTER CASE (ITEM#7) IS BOLTED INTO CYLINDER.
- 3 PRICK PUNCH TO RETAIN SETSCREW (ITEM#6).
4. LOOSEN OR TIGHTEN ALL FASTENERS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.

2	16900
1	15456
0	15065

ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

ASSEMBLY
DWG. No.

A-4408

REV	DESCRIPTION
2	REVISED PISTON END CLEARANCE NOTE TO REFER TO DATA PLATE OR TECHNICAL MANUAL.
1	REMOVED ITEM NUMBERS #11 AND #12 OIL WIPER PACKING AND SGC. CAPSCREW; ITEM NUMBER #11 WAS #13.

PARTS LIST

GROUP NO. G-1831

6-3/4" JGK PISTON, TFE RINGS, TFE WEAR
BAND, TFE/CI PACKING. 5-1/2" STROKE
REF. DRWG. A-4408

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-1014	1	PISTON, WB,STD, 6-3/4K
002	A-2088	4	PISTON RING, 6-3/4K:T
003	C-0887	1	P ROD, 5.50STK/42.440LG
004	B-1220	1	PISTON COLLAR, JGK:T, 3.5"OD
005	B-1221	1	PISTON NUT, JGK:T, 3.5"OD
006	FS0405DH	2	CUP PT.SET-SCREW, 5/16-24X1-1/4
007	B-1585	1	PKG, 2.000, 2500, STD, BTR
008	FC0120IT	6	12 PT, 3/4-10 X 4-1/2 G8
009	A-0827	0	MALE CONN, STL, 1/4T X 1/4P
010	PT0200CB	30.	" SS TUBING, 1/4 OD X .035 WALL
011	A-2090	1	WEAR BAND, 6-3/4K:C
099	B-1584-K	0	RBLD KIT, PIST ROD PKG, 2.000
099	B-1687-K	0	RBLD KIT, WIPER PKG, 2.000, WAT

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



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

SUCTION VALVE, CT

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	DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ----- DO NOT SCALE DRAWING -----	DRAWN: IC 9/27/99	R.S. No.
	DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.	CHECKED: ED 10/1/99	PART NO.
REV	DESCRIPTION	SCALE: NONE	DWG. No: A-9265

PARTS LIST

B-1957-U

0.3940=A

1.4570=B

3.8700=C

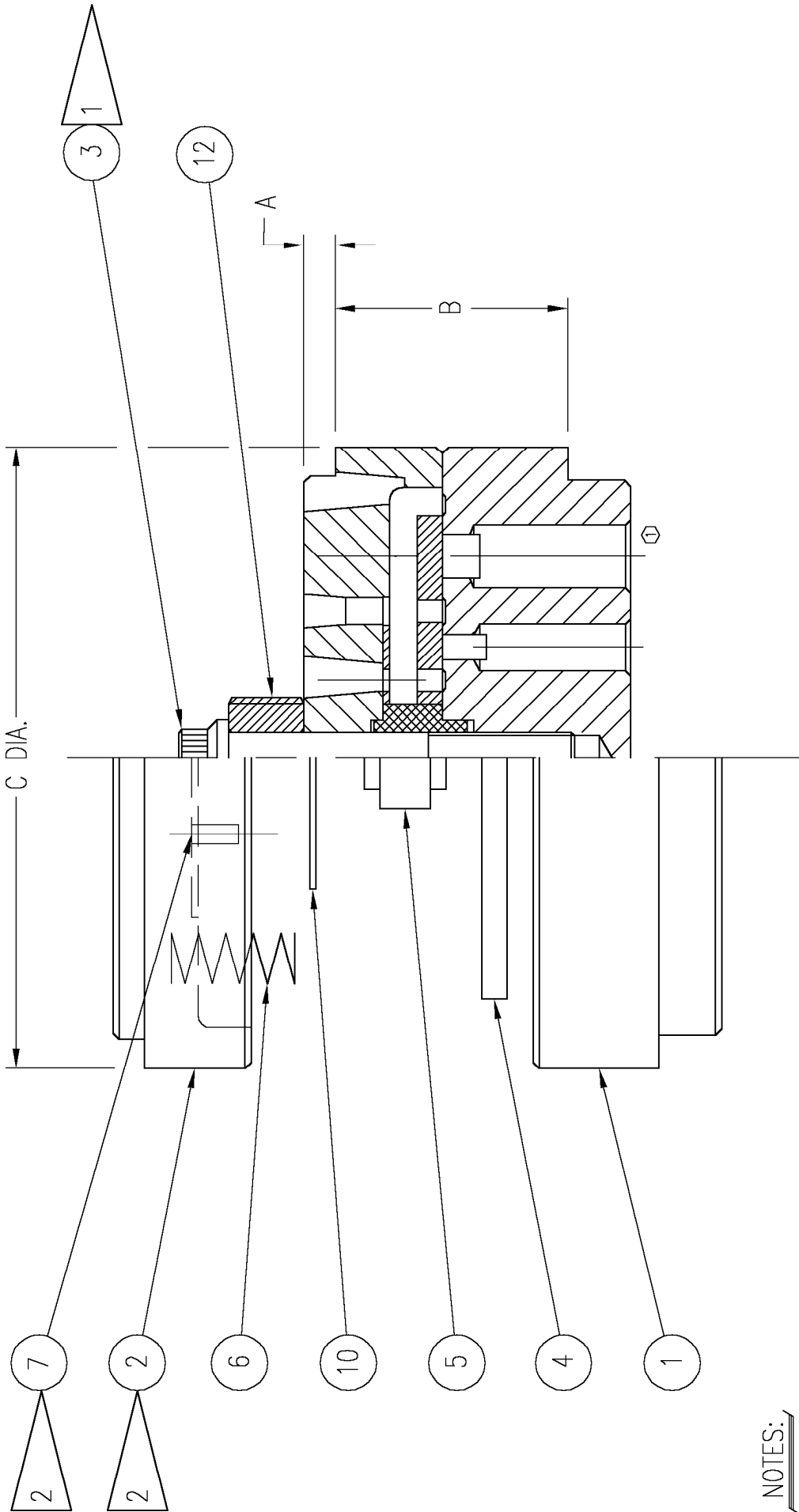
0.1020=LFT

REF DRWG. A-9265

ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-5904	1	SUC VLV SEAT, 77CT,M/S
002	A-1989-A	1	SUC VLV GUARD ASSY, 77CT
003	A-3992	1	CNTR BOLT,12PT,5/16-24X2-3/8
004	A-5445	1	VLV PLT, 77CT.236THK,NY
005	A-1990	1	GUIDE RING,77CT,0.370 THK
006	A-3115	14	SPRING(.354/.276X.709 BLUE)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-3594	1	WAFER SPRING, 77CET
012	A-3596	1	VLV WASHER,5/16IDX3/4-10 THD

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



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:		DISCHARGE VALVE, CT	
MATERIAL:		PROCURED	
DRAWN:		IG 9/27/99	
CHECKED:		ED 10/1/99	
SCALE:		NONE	
DWG. No:		A-9264	

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

DIMENSIONING AND TOLERANCING PER ARIEL SPECIFICATION ER-17.0.1 UNLESS OTHERWISE SPECIFIED.

REV	ECN	REV
1	8549	1
0	7799	0

REV	DESCRIPTION
1	REMOVED OUTER RING FROM THE VALVE SEAT.

PARTS LIST

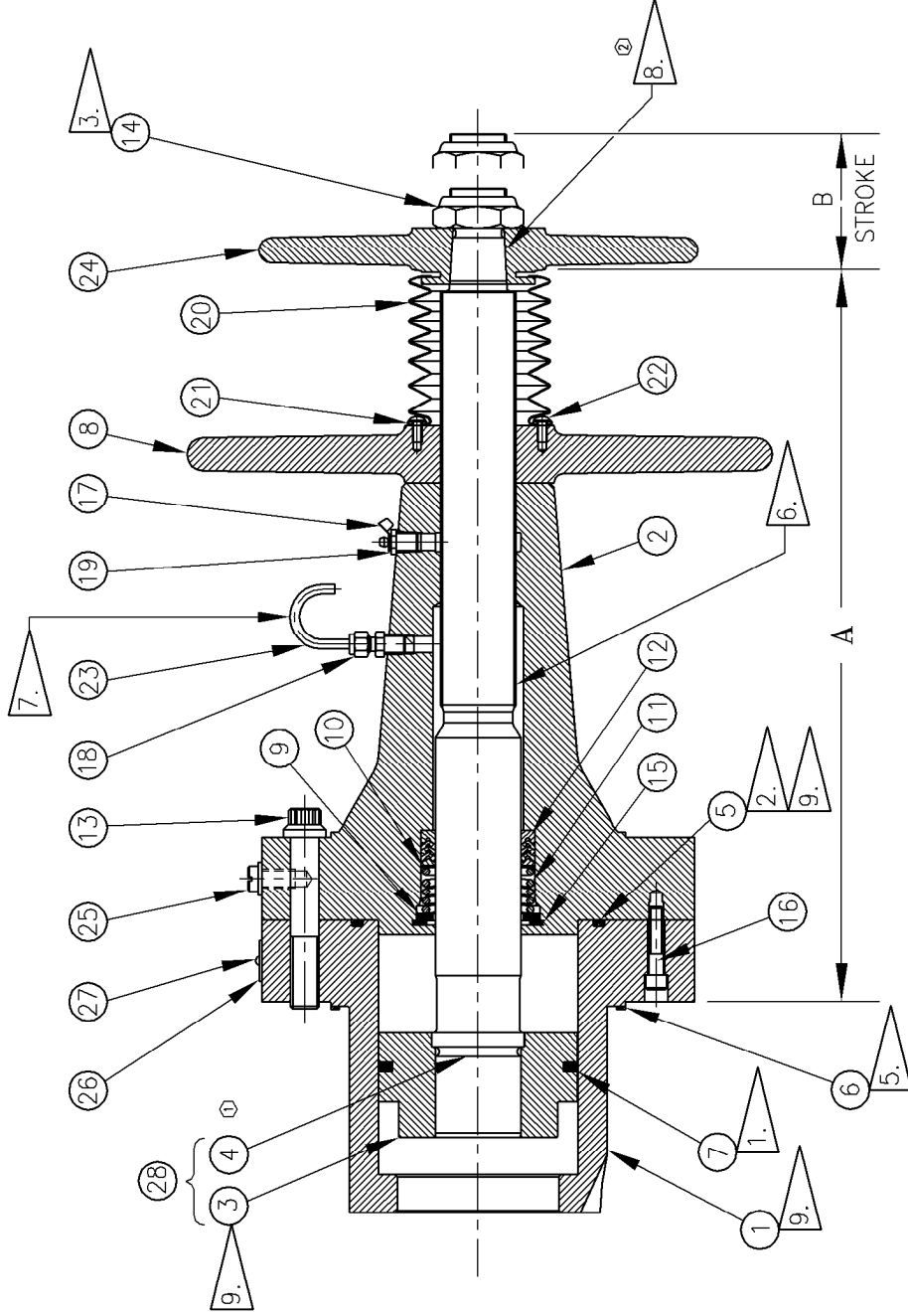
B-1935-BB

0.1960 =A
1.4570 =B
3.8950 =C
0.0870 =LFT
REF DRWG. A-9264
ITEM

NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	A-5906	1	DIS VLV SEAT, 77CT
002	A-1991-A	1	DIS VLV GUARD ASSY, 77CT
003	A-1992	1	CNTR BOLT,12PT,5/16-24 X 2.0
004	A-8182	1	VLV PLT, 77CT.236THK,MT
005	A-2003	1	GUIDE RING,77CT,.354 THK
006	A-2866	14	SPRING(.354/.276DX.669 GREEN)
007	A-2039	2	SPIROL PIN, 1/8 X 5/8
010	A-3594	1	WAFER SPRING, 77CET
012	A-3596	1	VLV WASHER,5/16IDX3/4-10 THD

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

"B" DIM.	"A" DIM.	UNLOADER
4-3/4	18-1/2	5-7/8KU
4-3/4	18-1/2	6-1/4KU
4-1/2	19-1/2	6-3/4KU
4-1/2	19-1/2	7-1/4KU



NOTES:

1. LIGHTLY OIL BORE AND RING BEFORE INSTALLING.
2. OIL O-RING BEFORE INSTALLING.
3. TORQUE ITEM 14 TO 30 FT-LBS, THEN TORQUE 2-1/2 FLATS OR 300 FT-LBS MAX.
4. LOOSEN OR TIGHTEN ALL BOLTS PER RECOMMENDED PROCEDURES AND TORQUE VALUES IN MANUAL.
5. APPLY AN ANTI-SEIZE LUBRICANT TO GASKET (ITEM 6) SURFACES.
6. APPLY AN ANTI-SEIZE LUBRICANT TO STEM THREADS BEFORE ASSEMBLING.
7. VENT TUBE ALWAYS POINTED DOWN.
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.

ARIEL CORPORATION
35 BLACKJACK ROAD
MOUNT VERNON, OHIO 43050

3 10035	3 10297	1 7854	0 3799	ECN	REV
DRAWN: CH 05/09/89 CHECKED: 05/10/89			APPROVED: SCALE: NONE		

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REV	DESCRIPTION	INIT/DATE
3	AT A1 - ADDED FLAG NOTE #9. ADDED FLAG NOTE #9 TO ITEMS 1,3, AND 5.	ALH 02/26/02

SERIAL NUMBER: U-34475

PART: G-3721 DESCRIPTION: M-VVCP, 6-3/4K:T

GROUP NO. G-3721
6-3/4" JGK:T & JGC:D UNLOADER
(MOUNTED)
ASSY. DRWG. D-1134

ITEM NUMBER	PART NUMBER	QUANTITY	DESCRIPTION
001	C-0977	1	UNL HEAD, 6-3/4KU:C,
002	C-0974	1	HE UNL ADPTR, 7-1/4K:C
003	B-1694	0	UNL PIST, 7-1/4&6-3/4K
004	C-1370	0	UNL.STEM, 7-1/4&6-1/4KU&C-HP
005	A-0724	1	O-RING,VT, 6.645 O.D.X.210
006	A-2087	1	STL GASKET, 7.375 X 7.750 X60
007	A-0475	1	UNL.PISTON RING, 5-1/4 O.D.
008	C-0369	1	LOCKING HANDLE,UNL, 2"THD
009	A-2388	1	UNL SPRING RETAINER
010	A-0643	1	PACKING BACK-UP RING
011	A-0629	1	COMPRESSION SPRING, UNL.
012	A-0639	1	V PACKING, UNL
013	FC0120JV	12	12 PT, 7/8-9 X 5-1/2 G8
014	A-2389	1	SELF-LOCK NUT, ESNA, TN, 1-3/8-12
015	A-2391	1	SNAP RING, SS, INT, 3-1/4 BORE
016	FC0110EK	2	SOC HD CAP, 3/8-16 X 2 G8
017	A-0500	1	GREASE FITTING CAP, PLASTIC
018	A-0827	1	MALE CONN, STL, 1/4T X 1/4P
019	PZ0230BA	1	STRAIGHT GREASE FITTING, 1/4-18
020	A-2387	1	THREAD PROTECTOR, UNL BELLOWS

SALES ORDER COVER SHEET

021	A-0642	1	BELLOWS BACK-UP RING
022	FC0134CC	3	BUT HD CAP, 1/4-20 X 1/2 316SS
023	PT0200CB	5.	" SS TUBING, 1/4 OD X .035 WALL
024	C-0982	1	HANDLE, UNL, 3 PRONG
025	A-0467	1	MACHINE SCREW PLUG, PL, 3/8-16
026	A-0755	1	DATA PLATE, UNLOADER SPEC
027	FR0570CC	2	DRIVE SCREW, #6 X 1/4 U-TYPE
028	AB-1694	1	UNL PIST ASSY, 7-1/4 & 6-3/4K

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 psig 131.0 barg 13100 kPa(g)

General Data for VVCP (independent of cylinder):

MAWP*: 1900 131.0 barg 13100 kPa(g)

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

VVCP piston diameter: 5.25 in 133 mm

Stem thread lead (pitch): 0.125 in 3 mm

Total travel: 4.50 in 11.4 cm

Number of turns from closed to fully open: 36.0

Minimum added fixed clearance: 1.6 in3 26 cm3

Additional added clearance when fully open: 97.4 in3 1596 cm3

Total added clearance when fully open: 99.0 in3 1623 cm3

Clearance volume change per turn: 2.7 in3 44.3 cm3

Clearance volume change per change in travel: 21.6 in3/in 139.7 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: 49.5%

Total added clearance when fully open: 50.3%

Head end clearance change per turn: 1.4%

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

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

Minimum fixed head end clearance: 19.2%

Total head end clearance when fully open: 68.7%

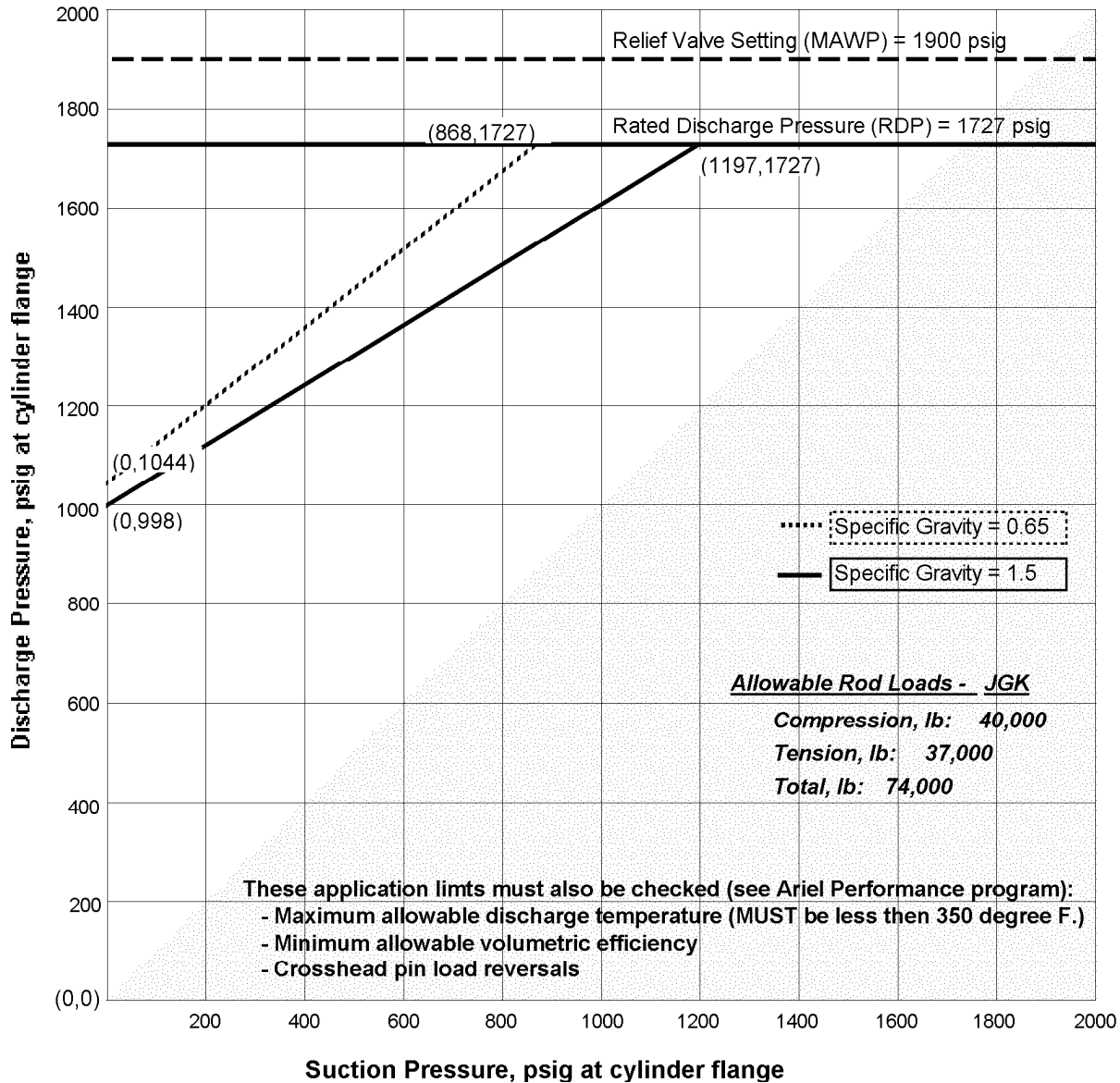
PLEASE NOTE: It is important to understand that the percent clearance figures for the variable volume clearance pocket above include the cylinder headend clearance. However, any valve spacers or other non-standard added clearances on the unit must be accounted for.

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

Cylinder Class: 7-1/4K

Bore, inches: 6.750

Cylinder Serial Number: C-57334



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.