



SOUTHWEST[®]

OILFIELD PRODUCTS, INC.

MUD PUMP EXPENDABLE PARTS LIST

SOUTHWEST FLUID END

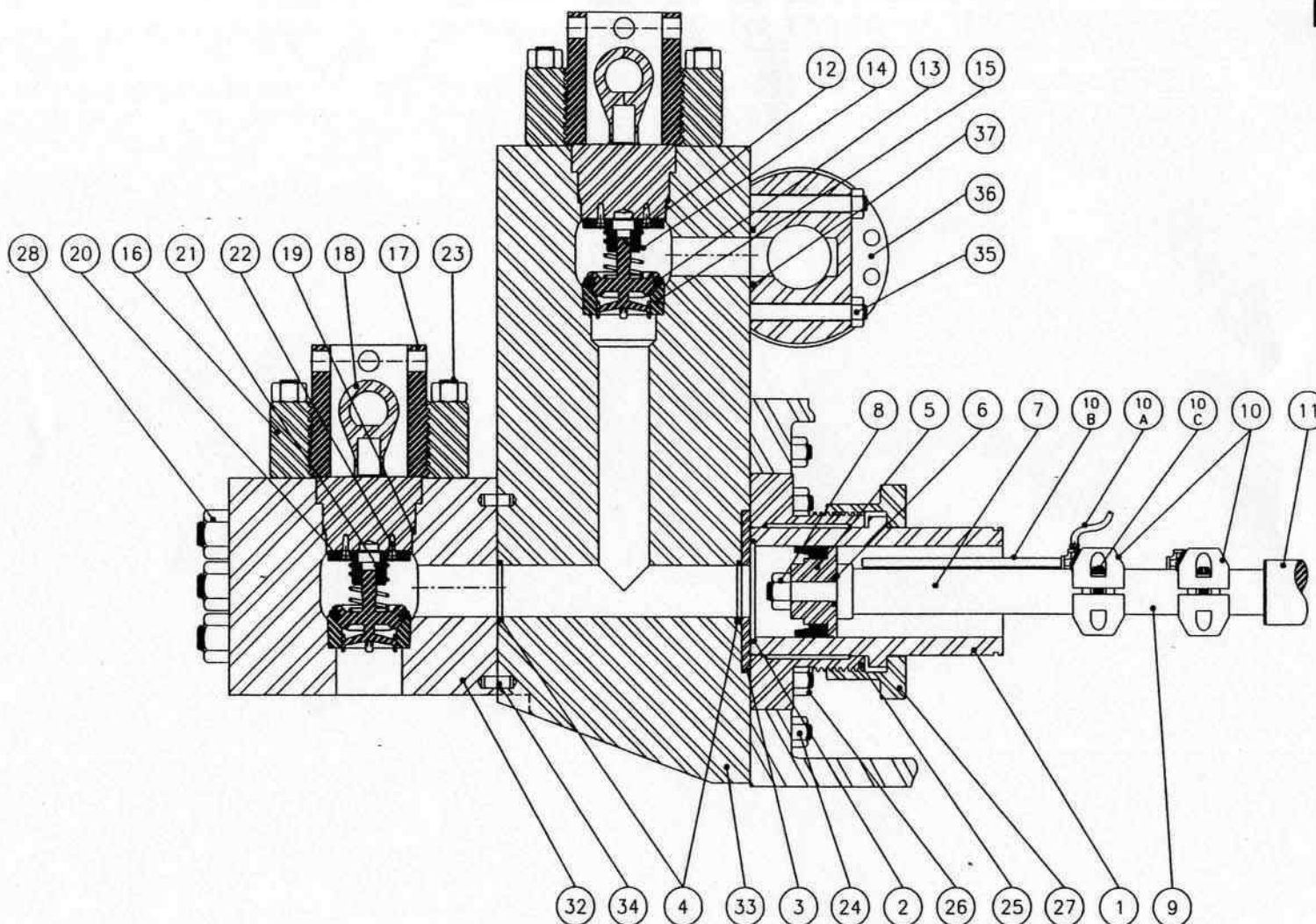
f/ VARCO VMP-2215 7,500 psi

MUD PUMP PERFORMANCE DATA CHART

LINER SIZE IN INCHES

PUMP MODEL	MAX I.H.P.	MAX S.P.M.	STROKE LENGTH	LINER SIZE IN INCHES															
				5"	5 1/2"	6"	6 1/2"	7"	7 1/2"	8"									
VMP-2215	2200	105	15"	MAX-P.S.I.	7500	6985	5869	5001	4312	3756	3301								
				G.P.R.	3.82	4.63	5.51	6.46	7.50	8.61	9.79								
				G.P.M. @ 105 R.P.M.	402	486	578	679	787	904	1028								
NOTE:		I.H.P. = INPUT HORSE POWER		S.P.M. = STROKES PER MINUTE			P.S.I. POUNDS PER SQUARE INCH			G.P.R. = GALLONS PER REVOLUTION									
*MAX-P.S.I. CALCULATIONS DO NOT EXCEED MAXIMUM FLUID-END PRESSURE RATINGS																			
BASED ON 100% VOLUMETRIC EFFICIENCY AND 90% MECHANICAL EFFICIENCY																			
APPROVED BY:				DATE: 5-16-2003															
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8482-25LEWA



REV#	DATE	REVISED BY	REVISIONS . . .	UNLESS OTHERWISE NOTED . . .	SOUTHWEST® OILFIELD PRODUCTS, INC. -- HOUSTON, TX.				
				1. ALL DIMENSIONS ARE IN INCHES. 2. ALL FRACTIONAL DIMENSIONS ARE ±1/64. 3. ALL DECIMAL DIMENSIONS ARE +.005/- .000. 4. ALL ANGLES ARE ±0.5°. 5. ALL FILLETS AND RADII ARE 1/16 MAX. 6. BEVELS ARE 1/16 x 45° MAX. 7. SURFACE FINISH IS 125/7 RMS MAX. 8. CONCENTRICITY NOT TO EXCEED .005 T.I.R. 9. BREAK CORNERS AT 1/32 x 45° MAX.	PROPRIETARY INFORMATION--THE INFORMATION CONTAINED HEREON SHALL BE CONSIDERED THE SOLE PROPERTY OF SOUTHWEST OILFIELD PRODUCTS, INC. AND THE RECIPIENT THEREOF AGREES TO MAINTAIN THE INFORMATION CONFIDENTIAL AND AGREES NOT TO COPY, REPRODUCE, DISTRIBUTE TO OTHERS, OR USE IN WHOLE OR IN PART FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN PERMISSION OF SOUTHWEST OILFIELD PRODUCTS, INC.	DESCRIPTION ASSEMBLY LAYOUT FOR 7500PSI VARCO VMP-2215	DRAWN DATE 12-14-01 NAME J.A.H.	APPROVED 05-21-03 T. LEMAN	SCALE NONE
					FILE # H:\ASSEMBLY\8482-25LEWA	MATERIAL N/A	HEAT TREATMENT N/A	DRAWING # 8482-25LEWA	REVISION #

SOUTHWEST 7500 psi

VARCO VMP-2215

9" X 15"

FLUID END TYPE		MODEL OF PUMP	SIZE OF PUMP
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	8482-25LEWA	FLUID END ASSEMBLY: (CONSISTS OF ITEMS: 3,4,16,17,18,19,20,21,22,23,24,25,26,27,28,32,33,34,35)	
1	6382G-XX	LINER REFER TO GUIDE FOR ORDERING CHART ON PG. 6 FOR TYPE (G); (Y); AND FOR BORE SIZE (XX)	3
2	2930-XX**	LINER SEAL	3
3	8482-5	LINER WEARPLATE	3
4	2988**	WEARPLATE & MODULE SEAL	6
5	XX-BYY	PISTON REFER TO GUIDE FOR ORDERING CHART ON PG. 6 FOR SIZE (XX) AND FOR TYPE (YY)	3
6	568-225	PISTON SEAL	3
7	7201-25	PISTON ROD (WITH ELASTIC STOP NUT)	3
8	API 4ESN	PISTON ROD NUT	3
9	7201-1	SUB ROD	3
10		ROD CLAMP	6
10A		HOSE	3
10B		PIPE	
10C		ROD CLAMP BOLT	
11		PONY ROD	3
12	SEE PAGE 6	VALVE COMPLETE	6
13	SEE PAGE 6	VALVE INSERT	6
14	SEE PAGE 6	VALVE SPRING	6
15	SEE PAGE 6	VALVE SEAT	6
	HP-1700	HYDRAULIC SEAT PULLER KIT COMPLETE (REFER TO TOOLS SECTION IN CATALOG)	1
16	4476	VALVE COVER FLANGE	6
17	4597	VALVE COVER SCREW GLAND	6
18	4609-25A	PLUG (COMPLETE WITH VALVE GUIDE; BUSHING; AND SCREWS) INCLUDES ITEMS 20, 21, & 22	6
19	P-119**	HP VALVE COVER PLUG NITRILE SEAL	6
20	4776 R	VALVE GUIDE (COMPLETE WITH BUSHING #4700-I)	6
21	4700 I**	VALVE GUIDE BUSHING	6
22	4016-98	VALVE GUIDE SCREW	12

*TORQUE TO 2775 FT.LBS

*TORQUE TO 150 FT.LBS

** POLYURETHANE SEAL AVAILABLE P-119U; 2988-U; 4700-IU

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SOUTHWEST 7500 psi

VARCO VMP-2215

9" X 15"

FLUID END TYPE		MODEL OF PUMP	SIZE OF PUMP
ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
23	4015-54	VALVE COVER STUD (WITH 1 1/2-6 HEAVY HEX NUT)	*TORQUE TO 2400 FT.LBS 72
24	4020-26	POWER END STUD (WITH 1 1/2-6 HEAVY HEX NUT)	*TORQUE TO 2400 FT.LBS 30
25	6482	LINER RETAINER FLANGE	3
26	4015-52	LINER RETAINER STUD (WITH 1 1/4-7 HEAVY HEX NUT)	*TORQUE TO 1350 FT.LBS 18
27	6582	LINER RETAINER NUT	3
28	4020-6	SUCTION MODULE STUD (WITH 2-8 HEAVY HEX NUT)	*TORQUE TO 3600 FT.LBS 18
29		SUCTION MANIFOLD CAP SCREW	
30		SUCTION MANIFOLD	
31		SUCTION MANIFOLD SEAL	
32	8482-26	SUCTION MODULE	3
33	8482-27	DISCHARGE MODULE	3
34	8488-5	DOWEL PIN	6
35	4019-60	DISCHARGE MANIFOLD STUD (WITH 1 1/4-7 HEAVY HEX NUT)	*TORQUE TO 1500 FT.LBS 18
36	8382-25	DISCHARGE MANIFOLD	1
37	2988**	DISCHARGE MANIFOLD SEAL	3
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**** POLYURETHANE SEAL AVAILABLE 2988U**

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Varco VMP-2215
Varco 7500 PSI GUIDE TO ORDERING

SIZE	PISTONS		LINERS			LINER SEALS	
	FAIL-SAFE	DUAL-DURO®	GRAYLOY®	CHROME	CERAMIC	RUBBER	URETHANE
5"	81-BFS	81-BDD	6382G1		6382CER-1	2930-1	2930-1U
5 1/4"	82-BFS	82-BDD	6382G2		6382CER-2	2930-2	2930-2U
5 1/2"	83-BFS	83-BDD	6382G3		6382CER-3	2930-3	2930-3U
5 3/4"	84-BFS	84-BDD	6382G4		6382CER-4	2930-4	2930-4U
6"	85-BFS	85-BDD	6382G5		6382CER-5	2930-5	2930-5U
6 1/4"	86-BFS	86-BDD	6382G6		6382CER-6	2930-6	2930-6U
6 1/2"	87-BFS	87-BDD	6382G7		6382CER-7	2930-7	2930-7U
6 3/4"	88-BFS	88-BDD	6382G8		6382CER-8	2930-8	2930-8U
7"	89-BFS	89-BDD	6382G9		6382CER-9	2930-9	2930-9U
7 1/4"	110-BFS	110-BDD	6382G10		6382CER-10	2930-10	2930-10U
7 1/2"	111-BFS	111-BDD	6382G11		6382CER-11	2930-11	2930-11U
7 3/4"	112-BFS	112-BDD	6382G12		6382CER-12	2930-12	2930-12U
8"	113-BFS	113-BDD	6382G13		6382CER-13	2930-13	2930-13U

VALVES & SEATS

TYPE	VALVE	INSERTS	SPRINGS	STAINLESS SPRING	SEAT	PULLER HEAD
FULL OPENING	777-8	977	951	N/A	877-8	SWTM-4250
*DBL-ANGLE O-RING	SWR-0500110	SWR-0514275	SWR-0513744	SWR-0514790	SWR-0514299	SWTM-3-7T
*STANDARD PLATE	SWR-0505062	SWR-0504893	SWR-0513937	SWR-0514423	SWR-0514299	SWTM-3-7T

* CENTER GUIDED VALVES AND SEATS

NOTE: DUAL-DURO® AND GRAYLOY® ARE REGISTERED TRADEMARKS OF SOUTHWEST OILFIELD PRODUCTS, INC.

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