



SOUTHWEST OILFIELD PRODUCTS, INC. MUD PUMP EXPENDABLE PARTS LIST

SOUTHWEST 8476-25ALEW FLUID END FOR LEWCO W-1712

®

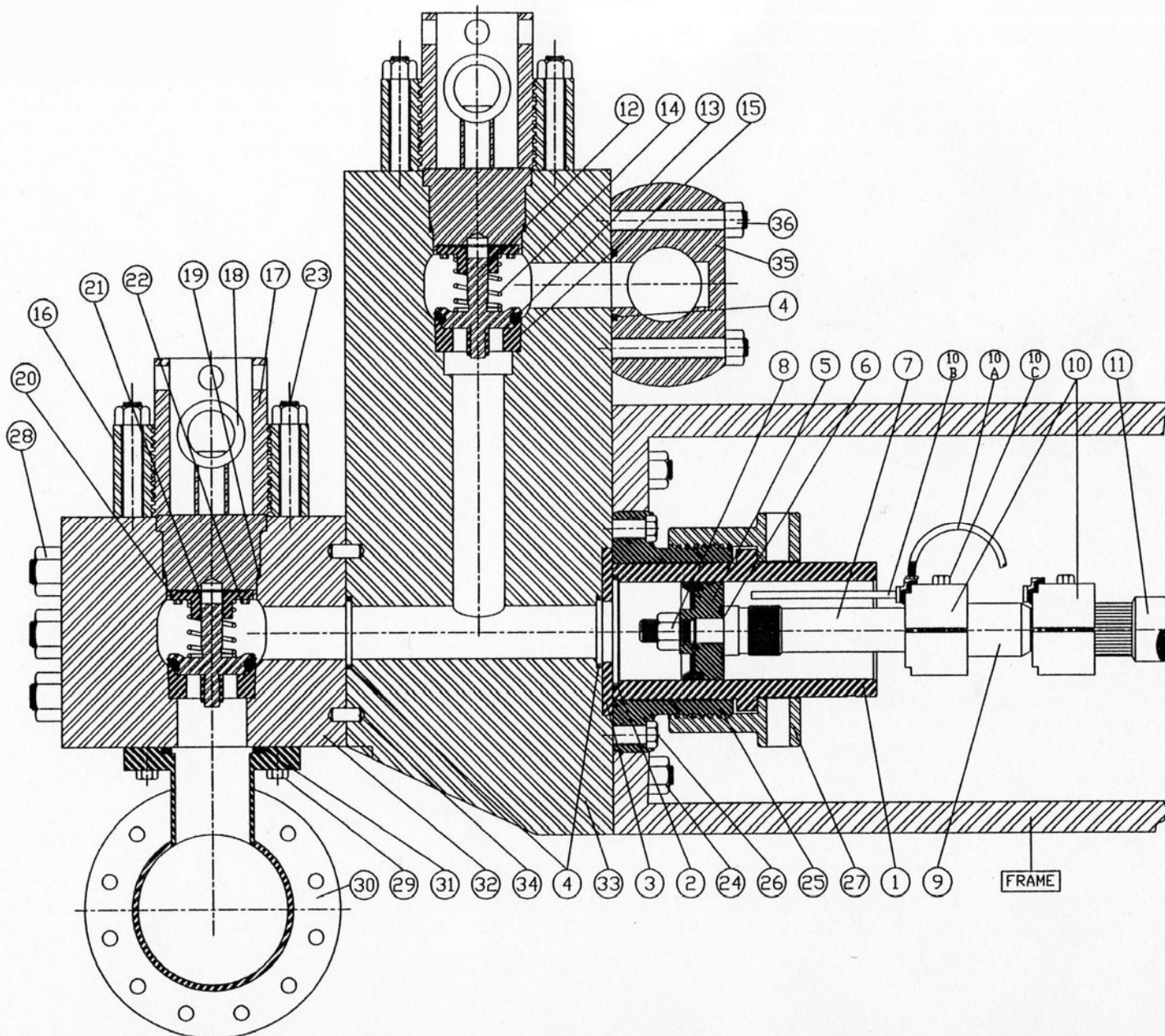
MUD PUMP PERFORMANCE CHART

PUMP MODEL	MAX I.H.P.	MAX S.P.M.	STROKE LENGTH	LINER SIZE IN INCHES								
				4 ½"	5"	5 ½"	6"	6 ½"	7"			
W-1712	1700	120	12"	MAX-P.S.I.	7500	7142	5902	4960	4226	3644		
			G.P.R.	2.48	3.06	3.70	4.41	5.17	6.00			
			G.P.M. @ 120 S.P.M.	297	367	444	529	621	720			

NOTE: I.H.P.= INPUT HORSE POWER S.P.M.= STROKE 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



REV #	DATE	REVISED BY	REVISIONS	UNLESS OTHERWISE NOTED . . .	SOUTHWEST OILFIELD PRODUCTS, INC. -- HOUSTON, TX.			
				1. ALL DIMENSIONS ARE IN INCHES.	DESCRIPTION	DRAWN	APPROVED	SCALE
				2. ALL FRACTIONAL DIMENSIONS ARE ±1/64.	ASSEMBLY FOR 7500 psi	DATE 3-3-98	3-3-98	NONE
				3. ALL DECIMAL DIMENSIONS ARE +.005/- .000.	LEWCO W-1712	NAME BANY G.	T. LEMAN	
				4. ALL ANGLES ARE ±0.5°.	FILE #	SHEET #	MATERIAL	REVISION #
				5. ALL FILLETS AND RADI ARE 1/16 MAX.	HMAT\8476-258			8476-25ALEW
				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.				

FLUID END TYPE	MODEL OF PUMP	SIZE OF PUMP
SOUTHWEST 7500 P.S.I.	LEWCO W-1712	7-1/2" X 12"

ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	8476-25ALEW	FLUID END ASSEMBLY: (CONSISTS OF ITEMS: 3,4,16,17,18,19,20,21,22,23,24,25,26,27,28,29,32,33,34,36)	
1	1376YXX	LINER (REFER TO GUIDE FOR ORDERING CHART FOR TYPE (G); (Y); AND FOR BORE SIZE (XX))	3
2	2930-XX	LINER SEAL (ALSO AVAILABLE IN URETHANE – PART# 2930-XXU)	3
3	8476-3	WEARPLATE	3
4	2988	WEARPLATE & MODULE SEAL (ALSO AVAILABLE IN URETHANE – PART# 2988U)	9
5	XX-BYY	PISTON (REFER TO GUIDE FOR ORDERING CHART FOR SIZE (XX) AND FOR TYPE (YY))	3
6	568-225	PISTON O-RING	3
7	6204-25	PISTON ROD (WITH ELASTIC STOP NUT)	3
8	API-4ESN	PISTON ROD ELASTIC STOP NUT	3
9		SUB ROD	3
10	6204CWY	ROD CLAMP (CONSIST OF 10A, 10B, 10C)	6
10A	1200H30	HOSE (1/2" X 30" WITH 1/2" MALE X 3/8" MALE CONNECTIONS)	3
10B	1200140	PIPE (3/8" X 14" GALVANIZED AND THREADED ON ONE END)	3
10C	4019-57	ROD CLAMP BOLT	12
11	6200G04	PONY ROD	3
12	SEE PAGE	VALVE	6
13	SEE PAGE	VALVE INSERT (IF REQUIRED)	6
14	SEE PAGE	VALVE SPRING	6
15	SEE PAGE	VALVE SEAT	6
	SWTM1700	HYDRAULIC SEAT PULLER KIT COMPLETE (REFER TO TOOLS SECTION IN CATALOG)	1
16	4488-25	VALVE COVER FLANGE	6
17	4588-25	SCREW GLAND	6
18	4690-25A	PLUG (COMPLETE WITH VALVE GUIDE; BUSHING; AND SCREWS) INCLUDES ITEMS 20, 21, & 22	6
19	P115U	HP VALVE COVER PLUG SEAL	6
20	4788-25R	VALVE GUIDE (COMPLETE WITH BUSHING #4700I)	6
21	4700I	VALVE GUIDE BUSHING (ALSO AVAILABLE IN URETHANE – PART# 2988U)	6
22	4018-18	VALVE GUIDE SCREW	12
23	4015-2	VALVE COVER STUD (WITH SW PART# HHN1500-6 1-1/4"-6 HEAVY HEX NUT)	72
24	4016-17	POWER END STUD (WITH SW PART# HHN1375-6 1-3/8"-6 HEAVY HEX NUT)	30

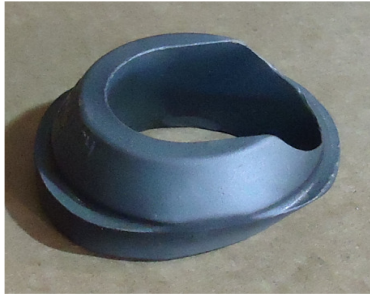
SOUTHWEST 7500 PSI**LEWCO W-1712****GUIDE TO ORDERING**

PISTONS				LINERS		LINER GASKETS	
SIZE	FAIL-SAFE	DUAL-DURO®	GRAYLOY®	ZIRCONIA		RUBBER	URETHANE
4"	76BFS	76BDD	1376G06			2930-06	2930-06U
4 1/4"	77BFS	77BDD	1376G07			2930-07	2930-07U
4 1/2"	78BFS	78BDD	1376G08	1376ZIR08		2930-08	2930-08U
4 3/4"	79BFS	79BDD	1376G09	1376ZIR09		2930-09	2930-09U
5"	81BFS	81BDD	1376G1	1376ZIR1		2930-1	2930-1U
5 1/4"	82BFS	82BDD	1376G2			2930-2	2930-2U
5 1/2"	83BFS	83BDD	1376G3	1376ZIR3		2930-3	2930-3U
5 3/4"	84BFS	84BDD	1376G4	1376ZIR4		2930-4	2930-4U
6"	85BFS	85BDD	1376G5	1376ZIR5		2930-5	2930-5U
6 1/4"	86BFS	86BDD	1376G6	1376ZIR6		2930-6	2930-6U
6 1/2"	87BFS	87BDD	1376G7	1376ZIR7		2930-7	2930-7U
6 3/4"	88BFS	88BDD	1376G8			2930-8	2930-8U
7"	89BFS	89BDD	1376G9	1376ZIR9		2930-9	2930-9U
NOTE: DUAL-DURO® AND GRAYLOY® ARE REGISTERED TRADEMARKS OF SOUTHWEST® OILFIELD PRODUCTS.							

VALVES & SEATS (LEWCO W-1712)

TYPE	VALVE	INSERT	SPRING	STAINLESS SPRING	SEAT	PULLER HEAD	PULLER HEAD STYLE
SOUTHWEST (Full Open)	773-1B	N/A	SW5710-110L	N/A	873-1	SWTM3750	SPLIT JAW
FULL OPEN-ROUGHNECK (W/Bonded Valve Insert)	SWND-6V2	N/A	SW5710-115	N/A	SWND-6S4	SWTM27SXN SWND-6PH	SPLIT JAW PANCAKE
FULL OPEN-ROUGHNECK (High Temp Bonded Insert)	SWND-6V2HC	N/A	SW5710-115	N/A	SWND-6S4	SWTM27SXN SWND-6PH	SPLIT JAW PANCAKE
FULL OPEN-ROUGHNECK (w/Replaceable Urethane Insert)	SWND-6V1	SWND-6I	SW5710-115	N/A	SWND-6S4	SWTM27SXN SWND-6PH	SPLIT JAW PANCAKE
3 WEB DOUBLE ANGLE O-RING	SWR0500119	SWR0515845	SWR0513744	SWR0514790	SWR0512436	SWTM3-7D	3 J HOOK
3 WEB (High Temp)	SWR0520586	SWR0520585	SWR513744	SWR0514790	SWR0512436	SWTM3-7D	
3 WEB STANDARD PLATE	SWR0505038	SWR0504890	SWR0515575	SWR015576	SWR0512436	SWTM3-7D	
4 WEB	SWU5B-EH	SWUDD-6AB	SW5710-115	N/A	SW6ADD-B4	SWTM4-6	4 J HOOK
4 WEB (High Temp)	SWU5B-EHHT	SWUDD-6ABHT	SW5710-115	N/A	SW6ADD-B4	SWTM4-6	

PANCAKE



SPLIT JAW

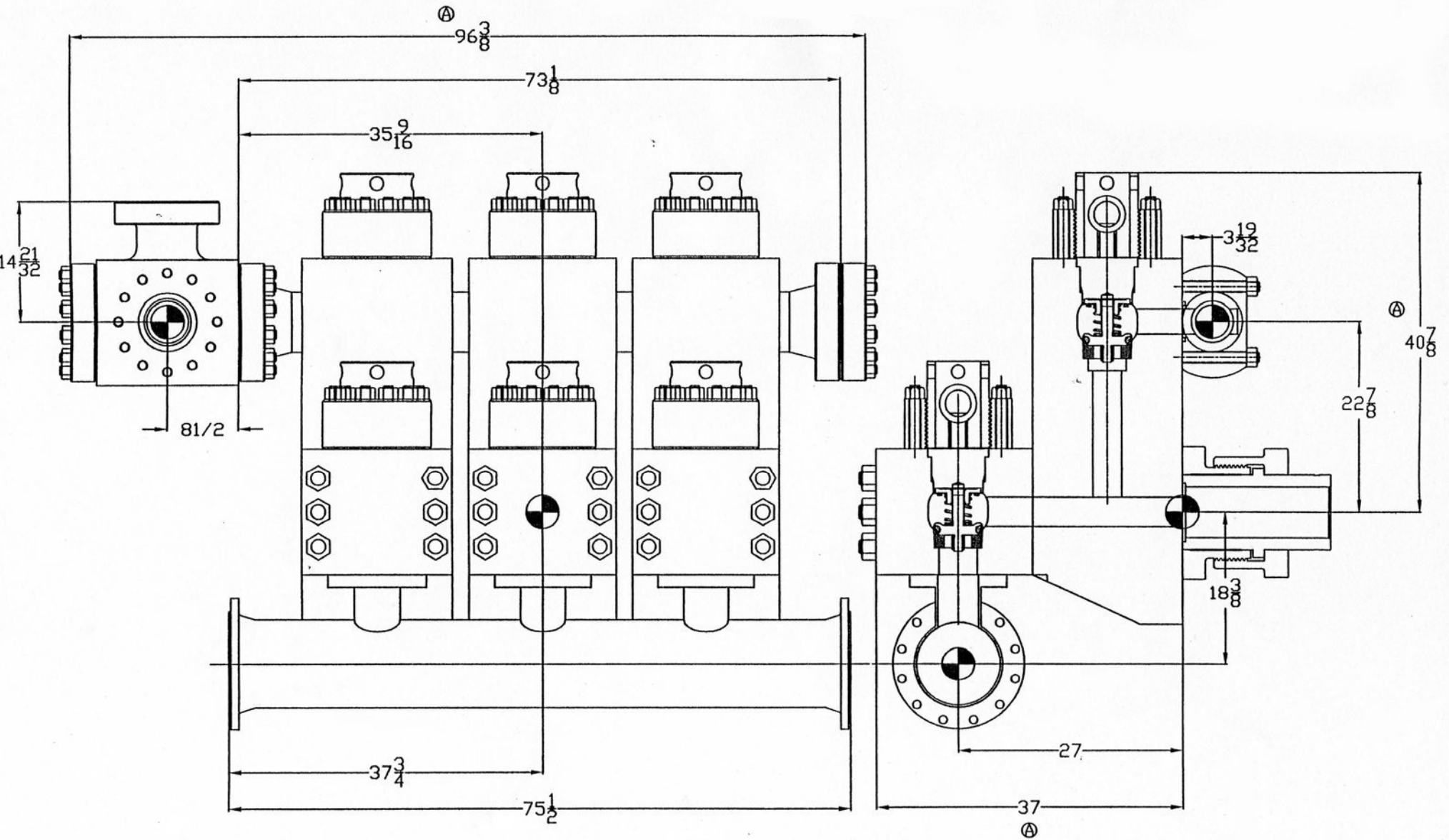


3 J HOOK



4 J HOOK



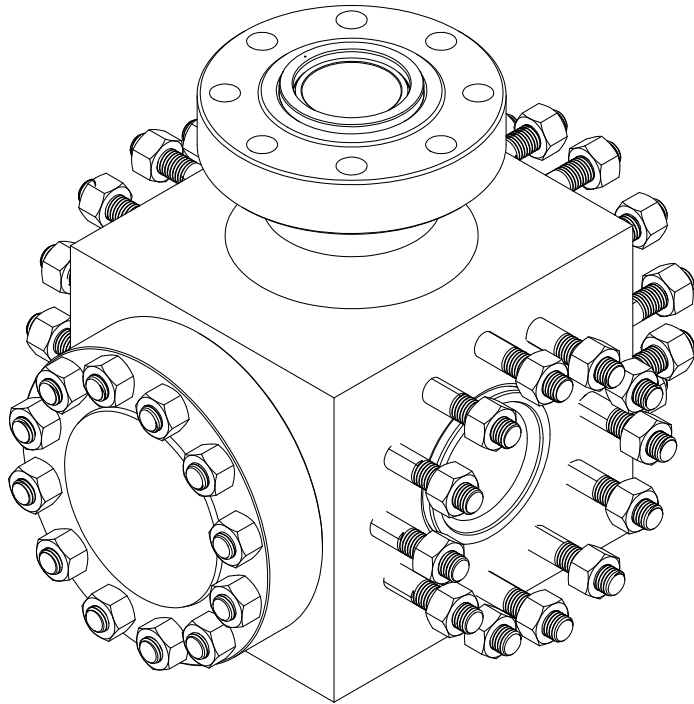


API 5"-10,000 psi 6BX FLANGES, RING GROOVE GASKET BX-169, DISCHARGE MANIFOLD 8376-25A

REV#	DATE	REVISED BY	REVISIONS	UNLESS OTHERWISE NOTED	SOUTHWEST OILFIELD PRODUCTS, INC. -- HOUSTON, TX.				
A	6-29-98	BANY G.	ADDED DIMENSIONS	1. ALL DIMENSIONS ARE IN INCHES. 2. ALL FRACTIONAL DIMENSIONS ARE ±1/64. 3. ALL DECIMAL DIMENSIONS ARE +.003/- .000. 4. ALL ANGLES ARE ±0.5°. 5. ALL FILLETS AND RADI 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.	DESCRIPTION ASSEMBLY FOR LEWCO W-1712 7500 psi SWFE	DRAWN DATE 6-24-98	APPROVED DATE 6-24-98	SCALE NONE	
					FILE # HWATL/8476-25D	DRAWN BY BANY G.	APPROVED BY E.T. ROBERTS	DRAWING # 8476-25P	EXTENSION # A

8 7 6 5 4 3 2 1

8376-26A DISCHARGE STRAINER CROSS ASSEMBLY OVERVIEW



THE 8376-26A DISCHARGE STRAINER CROSS ASSEMBLY IS DESIGNED FOR USE ON MUD PUMP DISCHARGE MANIFOLDS AND HAS A WORKING PRESSURE RATING OF 7,500 PSI.

THIS CROSS FEATURES A STRAINER THAT IS ACCESSED BY REMOVING A BLIND FLANGE FROM THE OPPOSITE SIDE OF THE DISCHARGE MANIFOLD FLANGE.

THIS CROSS USES BX-TYPE RING JOINT GASKETS FOR SEALING.

CONTENTS

1. OVERVIEW
2. NOMENCLATURE
3. FACE SIZES & BOLT PATTERNS
4. BILL OF MATERIALS

REV.	DESCRIPTION	DATE
0	INITIAL RELEASE	01/22/1998
A	REDRAWN IN SOLIDWORKS	08/16/2012
B	ADDED RAISED FACE TO WELD NECK FLANGE	10/29/2013
C	ADDED NOTES, RE-ARRANGED DRAWING VIEWS	03/20/2014
D	REFORMATTED PRINT ACCORDING TO MFG ENG REQUEST	08/20/2014

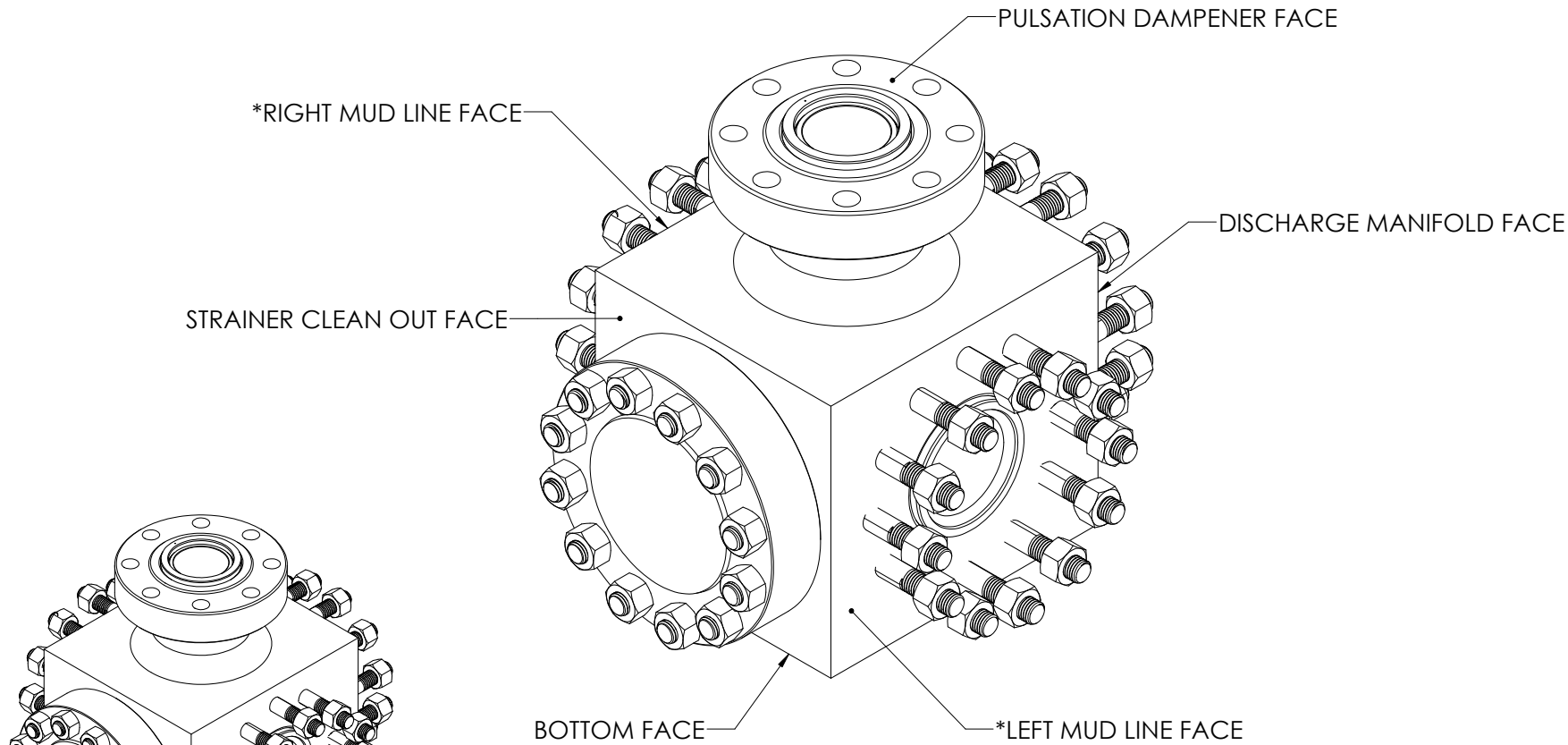


DRAWN BY		DATE	SOUTHWEST OILFIELD PRODUCTS	
BH		08/20/2014	10340 WALLISVILLE ROAD, HOUSTON, TX 77013	
CHECKED BY		DATE	TITLE:	
EF		08/20/2014	DISCHARGE CROSS ASSEMBLY FOR 7500 PSI SOUTHWEST FLUID ENDS	
SIZE	DWG. NO.	REV.		
B	8376-26A	D		
			SHEET 1 OF 4	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOUTHWEST OILFIELD PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOUTHWEST OILFIELD PRODUCTS IS PROHIBITED.

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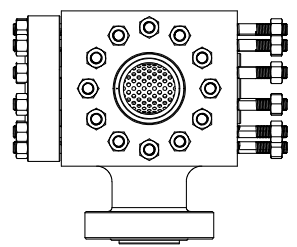
8376-26A DISCHARGE STRAINER CROSS ASSEMBLY
NOMENCLATURE



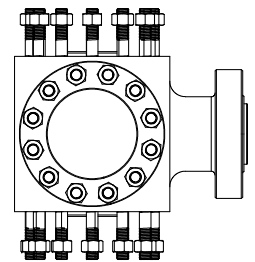
*HAND OF MUD LINES IS DETERMINED BY LOOKING FROM
THE DISCHARGE MANIFOLD TOWARD THE CROSS

	DRAWN BY	DATE	SOUTHWEST OILFIELD PRODUCTS 10340 WALLISVILLE ROAD, HOUSTON, TX 77013		
	BH	08/20/2014	TITLE: DISCHARGE CROSS ASSEMBLY FOR 7500 PSI SOUTHWEST FLUID ENDS		
	CHECKED BY	DATE	SIZE	DWG. NO.	REV.
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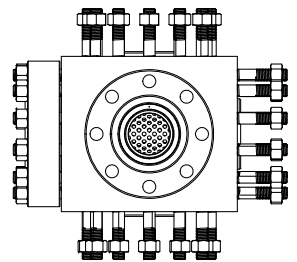
8376-26A DISCHARGE STRAINER CROSS ASSEMBLY FLANGE SIZES AND BOLT PATTERN ORIENTATION



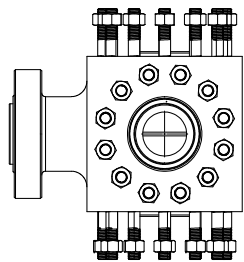
RIGHT MUD LINE FACE



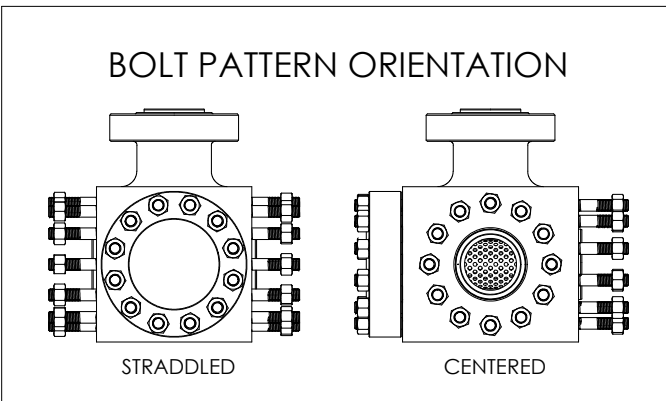
STRAINER CLEAN OUT FACE



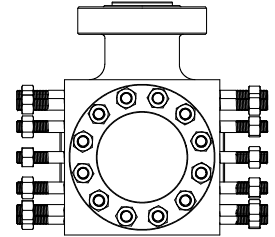
PULSATION DAMPENER FACE



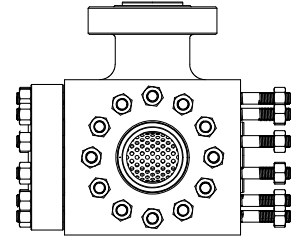
DISCHARGE MANIFOLD FACE



BOLT PATTERN ORIENTATION

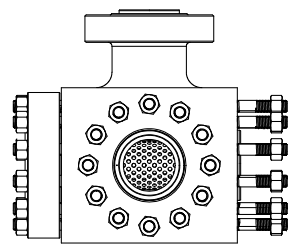


STRADDLED



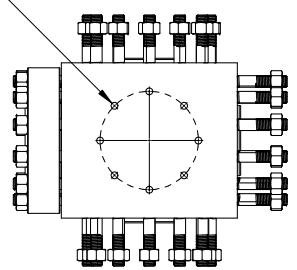
CENTERED

FLANGE SIZES			
FACE	DESCRIPTION	GASKET	ORIENTATION
PULSATION DAMPENER	4-1/16" API 6BX, 10K	BX-155	CENTERED
DISCHARGE MANIFOLD	5-1/8" API 6BX, 10K	BX-169	STRADDLED
STRAINER CLEAN OUT	5-1/8" API 6BX, 10K	BX-169	STRADDLED
RIGHT MUD LINE	5-1/8" API 6BX, 10K	BX-169	CENTERED
LEFT MUD LINE	5-1/8" API 6BX, 10K	BX-169	CENTERED
BOTTOM FACE	PLATFORM CONNECTION	N/A	CENTERED



LEFT MUD LINE FACE

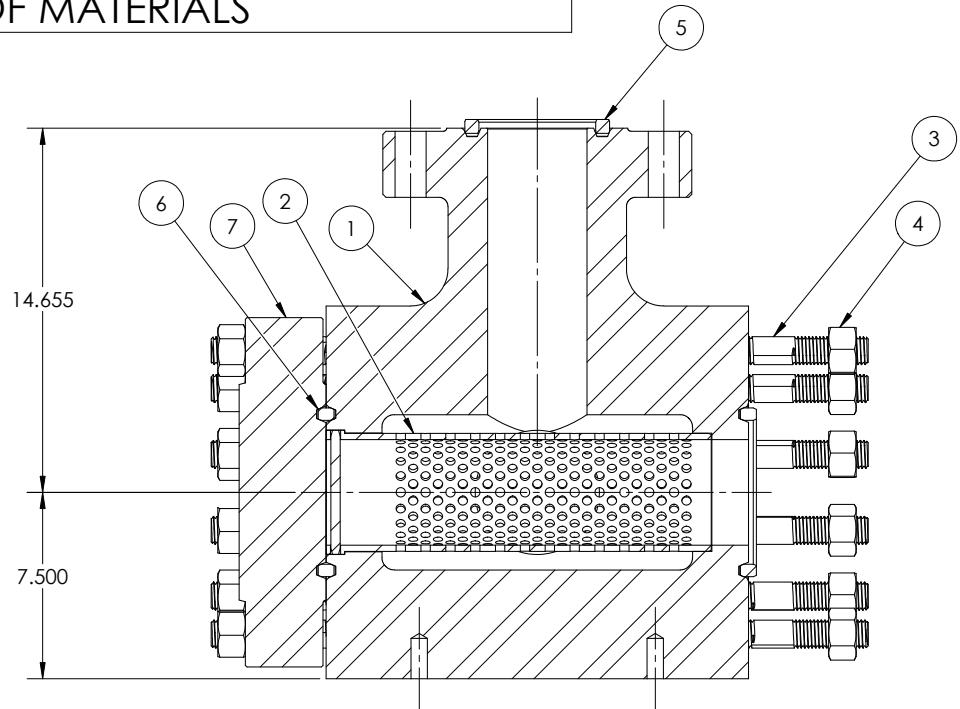
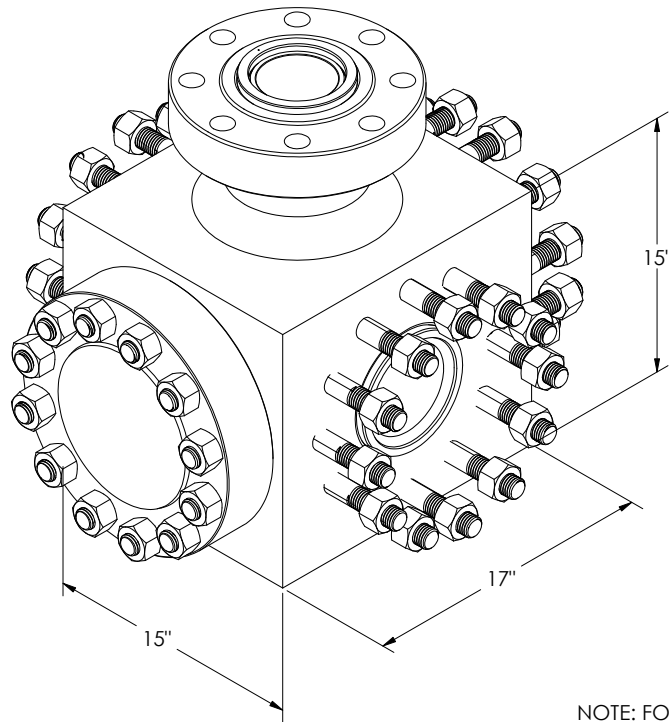
8X $\phi \frac{21}{32} \nabla 1 \frac{5}{8}$ "
3/4-10 UNC $\nabla 1 \frac{1}{8}$ "
ON $\phi 9-1/2$ " BOLT CIRCLE



BOTTOM FACE


	DRAWN BY	DATE	SOUTHWEST OILFIELD PRODUCTS	
	BH	08/20/2014	10340 WALLISVILLE ROAD, HOUSTON, TX 77013	
	CHECKED BY	DATE	TITLE:	
	EF	08/20/2014	DISCHARGE CROSS ASSEMBLY FOR 7500 PSI SOUTHWEST FLUID ENDS	
SIZE		DWG. NO.	REV.	
B		8376-26A	D	
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				SHEET 3 OF 4

8376-26A DISCHARGE STRAINER CROSS ASSEMBLY BILL OF MATERIALS



NOTE: FOR 4019-56 TAP END STUD BOLTS, TORQUE NUTS TO 670 FT-LBS WITH API MODIFIED THREAD COMPOUND PER API RP 5A3, SOUTHWEST HI PRO 4000 OR EQUAL

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	8376-26	DISCHARGE CROSS FOR 7500 PSI SWFE	1
2	8290-26RD	STRAINER	1
3	4019-56	STUD	48
4	HHN1125-7	NUT, HEAVY HEX, 1-1/8-7 UNC	48
5	BX-155	4-1/16" RING JOINT GASKET	1
6	BX-169	5-1/8" RING JOINT SEAL	4
7	10000-5BFLANGE	API 6A 10000# TYPE 6BX 5-1/8 BLIND FLANGE	1

	DRAWN BY	DATE	SOUTHWEST OILFIELD PRODUCTS 10340 WALLISVILLE ROAD, HOUSTON, TX 77013	
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	EF	08/20/2014		
SIZE DWG. NO.		REV.		
B		D		
8376-26A		SHEET 4 OF 4		

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**TORQUE SPECIFICATIONS FOR 8476-25ALEW SOUTHWEST FLUID END ASSEMBLY
FOR LEWCO W-1712 7500 P.S.I.**

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	TORQUE TYPE (EXPRESSED IN FOOT-POUNDS)	
		<u>COPPERCOTE</u>	<u>MOLY GREASE</u>
API-4ESN	PISTON ROD NUT	<i>NO MORE FORCE THAN ONE MAN ON A 3' WRENCH/CHEATER COMBINATION</i>	
4019-57	ROD CLAMP BOLT	<i>150 MAXIMUM</i>	<i>150 MAXIMUM</i>
4018-18	VALVE GUIDE SCREW	53	80
4015-2	VALVE COVER STUD	669	970
4016-17	POWER END STUD	877	1272
4017-65	LINER RETAINER STUD	644	966
4019-54	SUCTION MODULE STUD	2275	3299
4018-19	SUCTION MANIFOLD CAP SCREW	215	322
4019-60	DISCHARGE MANIFOLD STUD	757	1098



**8476-25ALEW LEWCO W-1712 FLUID END
REVISION SUMMARY**

REVISION	DATE	REASON OF CHANGE
REV. A	08/27/2014	CHANGED ITEM NO. 35 TO PART NO. 8376-25MOD (WAS PART NO. 8376-25)
REV. B	02/04/2015	CHANGED ITEM NO. 19 TO PART NO. P115U (WAS P119) & UPDATED DRAWING NO. 8376-26A DISCHARGE CROSS ASSEMBLY
REV. C	08/18/2015	INCORRECT PART NO. 4609-25A CHANGED TO 4690-25A
REV. D	09/01/2015	INCORRECT G.P.M. 110 SHOULD BE G.P.M. @120 S.P.M.
REV. E	08/17/2022	REVISED SPRING PART NUMBER ON PAGE 6. (SW5710-115 WAS SW5710-115L)