



SOUTHWEST OILFIELD PRODUCTS, INC. MUD PUMP EXPENDABLE PARTS LIST

SOUTHWEST 8445A FLUID END FOR WIRTH TPK-800

®

MUD PUMP PERFORMANCE CHART

PUMP MODEL	MAX I.H.P.	MAX S.P.M.	STROKE LENGTH	LINER SIZE IN INCHES											
				4 ¼"	4 ½"	5"	5 ½"	6"	6 ½"						
TPK-800	800	160	8 ½"	MAX-P.S.I.	5019	4482	3626	3002	2524	2147					
				G.P.R.	1.57	1.76	2.17	2.62	3.12	3.66					
				G.P.R. @ 120 R.P.M.	251	282	347	420	499	586					

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

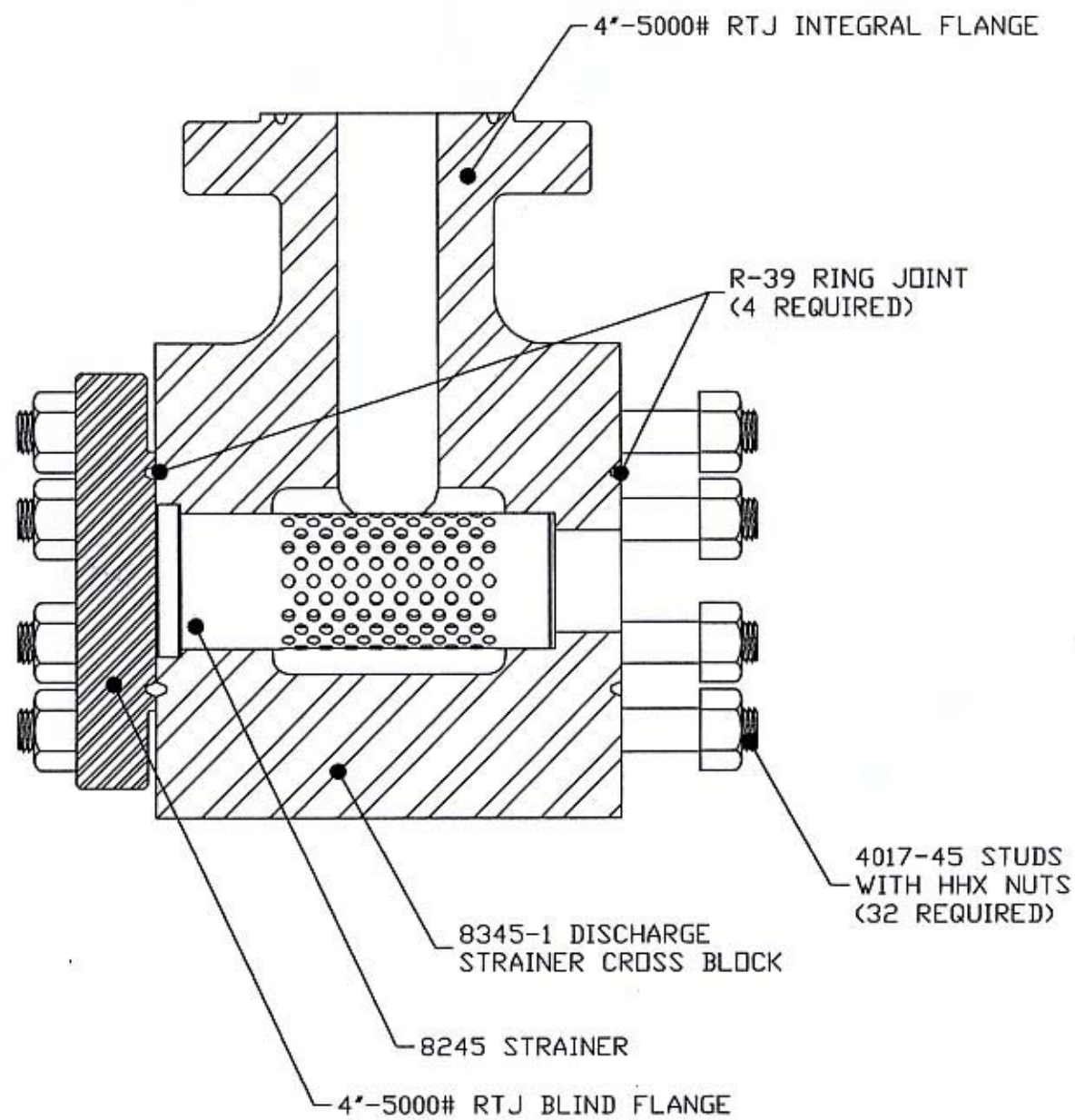
*MAX – P.S.I. CALCULATIONS DO NOT EXCEED MAXIMUM FLUID END PRESSURE RATINGS

BASED ON 100% VOLUMETRIC EFFICIENCY AND 90% MECHANICAL EFFICIENCY

FLUID END TYPE	MODEL OF PUMP	SIZE OF PUMP
SOUTHWEST 5000 P.S.I.	WIRTH TPK-800	6 1/2" X 8 1/2"

ITEM NO.	PART NO.	DESCRIPTION	QTY. REQ'D
	8445A	FLUID END ASSEMBLY: (CONSISTS OF ITEMS 3,4,16,17,18,19,20,21,22,23,24,25,26,27,28,28A,29,30,32,33,34,35,38,44,45)	
1	6391YXX	LINER (REFER TO- GUIDE FOR ORDERING CHART FOR TYPE AND SIZE (XX))	3
2	2974-XX	LINER SEAL (REFER TO- GUIDE FOR ORDERING CHART FOR TYPE (Y); AND FOR BORE SIZE (XX))	3
3	8445-3	LINER WEARPLATE	3
4	568-369	WEARPLATE O-RING	3
5	2992	WEARPLATE & MODULE SEAL	6
6	XX-BYY	PISTON (REFER TO GUIDE FOR ORDERING CHART FOR SIZE (XX) AND FOR TYPE(Y))	3
7	568-225	PISTON SEAL	3
8		PISTON ROD (WITH ELASTIC STOP NUT)	3
9	API-4ESN	PISTON ROD NUT	3
10		SUB ROD	3
11		ROD CLAMP (WITH WATER JACKET)(CONSIST OF 10A, 10B, 10C)	3
12		PONY ROD	3
13	SEE PAGE	VALVE	6
14	SEE PAGE	VALVE INSERT	6
15	SEE PAGE	VALVE SPRING	6
16	SEE PAGE	SEAT	6
	SWTM1700	HYDRAULIC SEAT PULLER KIT COMPLETE (REFER TO TOOLS SECTION IN CATALOG)	1
17	4488-25	VALVE COVER FLANGE	6
18	4588-25	SCREW GLAND	6
19	4690-25	PLUG (COMPLETE WITH VALVE GUIDE, BUSHING, AND SCREWS; INCLUDES ITEMS 20, 21,22, 23)	6
20	P115	HP VALVE COVER PLUG NITRILE SEAL	6
21	4788-25R	VALVE GUIDE (COMPLETE WITH BUSHING # 4700I)	6
22	4700I	VALVE GUIDE BUSHING	6
23	4018-18	VALVE GUIDE SCREW (WITH ELASTIC STOP NUT)	12
24	4015-2	VALVE COVER STUD (WITH SW PART# HHN1250-7 1-1/4-7 HEAVY HEX NUT)	72
25	4019-97	POWER END SOCKET HEAD CAPSCREW	18
26	6445-2	LINER RETAINER ADAPTER FLANGE	3
27	6445-1	LINER RETAINER FLANGE	3

8345-1A



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/-0.000. 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.	DESCRIPTION ASSEMBLY FOR 4"-5000# DISCHARGE STRAINER CROSS	DRAWN	APPROVED	SCALE NONE
					DATE	1-20-00		
					NAME	T. LEMAN		
					HEAT TREATMENT		DRAWING #	REVISION #
					FILE #		8345-1A	
					MATERIAL	N/A		
						N/A		

SOUTHWEST®

WIRTH TPK 800 GUIDE TO ORDERING

5000 psi

PISTONS			LINERS		LINERS SEALS	
SIZE	FAIL-SAFE	DUAL-DURO®	GRAYLOY®		RUBBER	URETHANE
4-1/2"	78-BFS	78-BDD	6391G08		2974-08	2974-08U
5"	81-BFS	81-BDD	6391G1		2974-1	2974-1U
5-1/2"	83-BFS	83-BDD	6391G3		2974-3	2974-3U
6"	85-BFS	85-BDD	6391G5		2974-5	2974-5U
6-1/2"	87-BFS	87-BDD	6391G7		2974-7	2974-7U

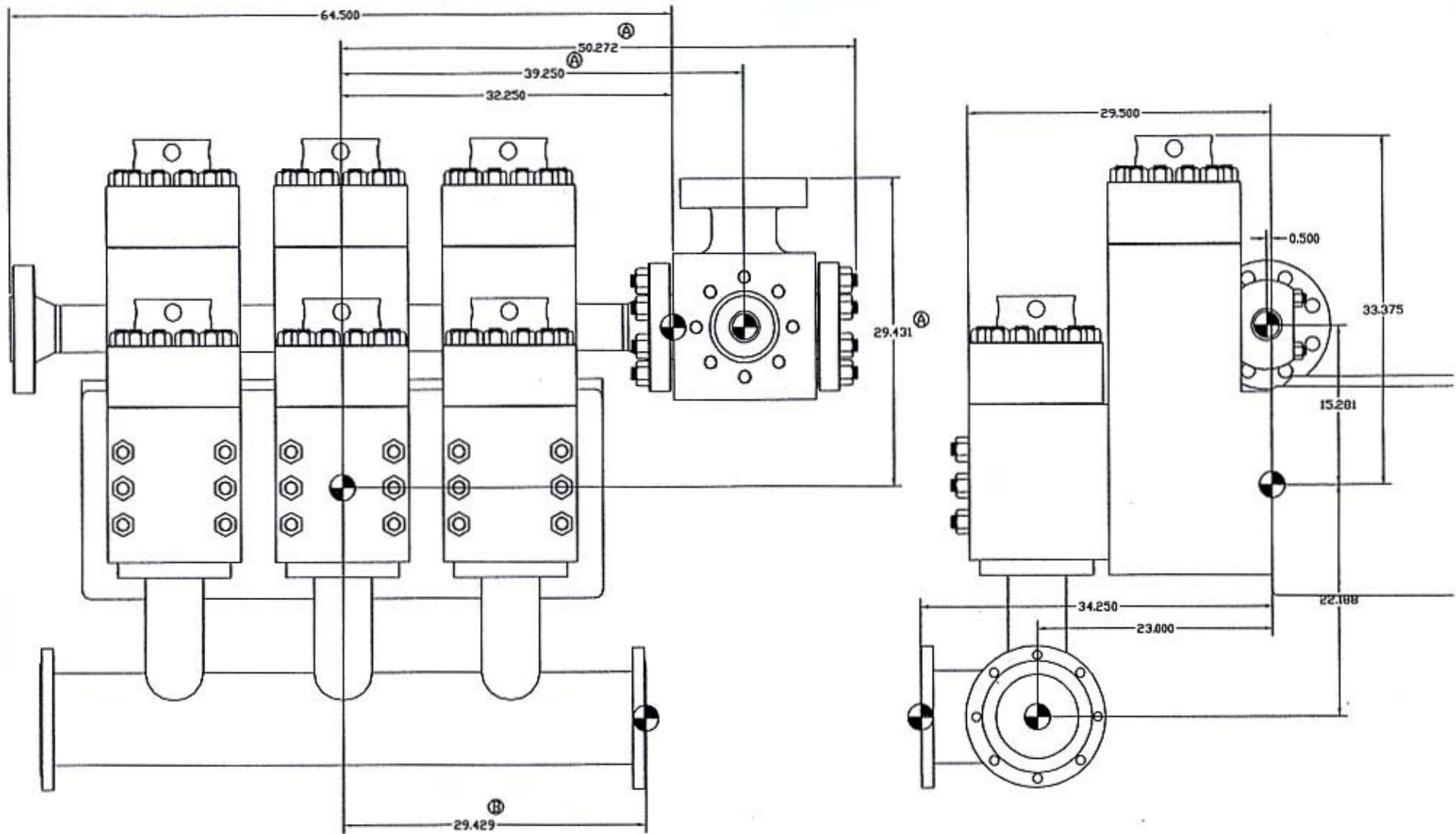
VALVES & SEATS

TYPE	VALVE	INSERTS	SPRING	STAINLESS SPRING	SEAT	PULLER HEAD
FULL-OPENING *DBL-ANGLE O-RING	SWR0520451 SWR0500118		SWR0514790	SWR0514790	SWR0520445 SWR0504818	SWTM-3800 SWTM-3-6

*CENTER GUIDED VALVES AND SEATS

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

8445PL



REV#	DATE	REVISED BY	REVISIONS
A	1-10-00	T. LEMAN	ADDED DISCHARGE CROSS
B	1-21-00	T. LEMAN	29.429 WAS 25.530

- UNLESS OTHERWISE NOTED . . .
1. ALL DIMENSIONS ARE IN INCHES.
 2. ALL FRACTIONAL DIMENSIONS ARE $\pm 1/64$.
 3. ALL DECIMAL DIMENSIONS ARE $\pm .005/- .000$.
 4. ALL ANGLES ARE $\pm 0.5^\circ$.
 5. ALL FILLETS AND RADII ARE $1/16$ MAX.
 6. BEVELS ARE $1/16 \times 45^\circ$ MAX.
 7. SURFACE FINISH IS $125 \sqrt{R}$ RMS MAX.
 8. CONCENTRICITY NOT TO EXCEED $.005$ T.I.R.
 9. BREAK CORNERS AT $1/32 \times 45^\circ$ MAX.

SOUTHWEST OILFIELD PRODUCTS, INC. -- HOUSTON, TX.			
DESCRIPTION	DRAWN	APPROVED	SCALE
PIPING DIMENSIONS FOR	DATE 1-10-00	05-17-07	NONE
TPK-800 SOUTHWEST FLUID END	NAME T. LEMAN	T. LEMAN	
FILE #	MATERIAL	DRAWING #	REVISION #
G:\USERS\ACAD\SLEM	XXXXX	8445PL	B

**TORQUE SPECIFICATIONS FOR 8445A SOUTHWEST FLUID END ASSEMBLY
WIRTH TPK-800 5000 P.S.I.**

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	TORQUE TYPE (EXPRESSED IN FOOT-POUNDS)	
		<u>COPPERCOTE</u>	<u>MOLY GREASE</u>
API-4 ESN	PISTON NUT	<i>NO MORE FORCE THAN ONE MAN ON 3' WRENCH/CHEATER COMBINATION</i>	
	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
4019-97	POWER END CAP SCREW	1268	1903
4018-7	LINER RETAINER CAP SCREW	455	682
4019-96	SUCTION MODULE STUD	757	1098
4017-77	SUCTION MANIFOLD CAP SCREW	188	282
4019-95	DISCHARGE MANIFOLD STUD	253	366



SOUTHWEST
OILFIELD PRODUCTS, INC.

**8445A FLUID END FOR WIRTH TPK-800
REVISION SUMMARY**

<u>REVISION</u>	<u>DATE</u>	<u>REASON OF CHANGE</u>
REV A	6/01/15	UPDATED TORQUE SPECIFICATION PAGE