



SHAFFER TOOL WORKS



PREVENTERS

SHAFFER MECHANICAL CONTROL GATES

(Patented)

PARTS FOR TYPE 45 SINGLE GATES

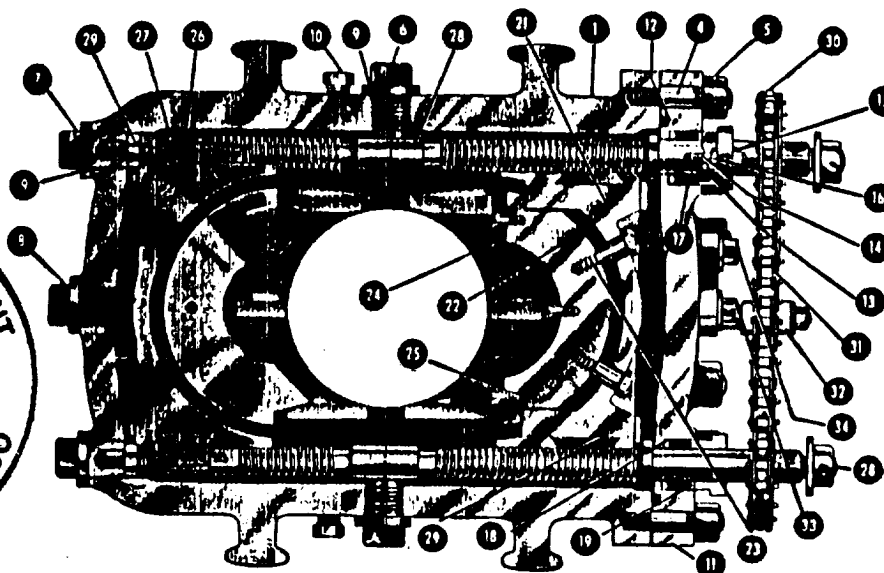
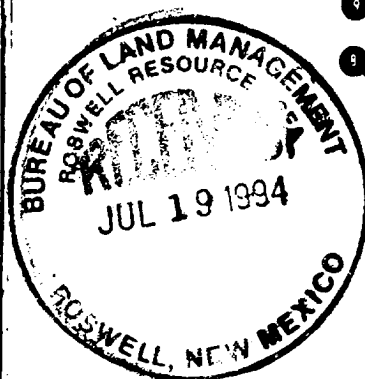


Fig. 84

Shaffer Type 45 Mechanical Single Control Gate—Top View

Part No.	No. Req'd.	NAME OF PART	Part No.	No. Req'd.	NAME OF PART	Part No.	No. Req'd.	NAME OF PART
1	1	Body	15	4	Stuffing Box Gland Stud Nut	26	8	Ram Clip
2	Varies	Body Flange Stud (Not Shown)	16	4	Stuffing Box Gland Jam Nut	27	16	Ram Clip Cap Screw
3	Varies	Body Flange Stud Nut (Not Shown)	17	2 Sets	Stuffing Box Packing (Chevron)	28	2	Operating Screw with Nut
4	Varies	Body End Cover Stud	18	2	Stuffing Box Bronze Packing Ring	29	2 R.H. & 2 L.H.	Bronze Half Nut
5	Varies	Body End Cover Stud Nut	19	2	Stuffing Box Bronze Packing Ring	30	2	Sprocket
6	2	Side Plug	20	2	Flange (Not Shown)	31	1	Sprocket Chain (length varies)
7	2	End Bearing Plug	21	1 Set	Ram Block Holder	32	1	Sprocket Chain Tightener
8	1	End Center Plug	22	1 Set	Ram Block (Pipe or Complete Shut-Off)	33	1	Screw with Ratchet Washer for Chain Tightener
9	5	Copper Gasket for Side and End Plug	23	4	Ram Block Retracting Screw	34	1	Screw with Plain Washer for Chain Tightener
10	2	Washout Plug	24	1 Set	Ram Rubber (Pipe or Complete Shut-Off)	35	1	Sprocket Chain Guard (Not Shown)
11	1	End Cover	25	Varies	Ram Rubber Retaining Screw	36	2	Cap Screw with Washer for Chain Guard (Not Shown)
12	1	Hydraulic Packing for End Cover (Earlier Gates use Metal Gasket)						
13	2	Stuffing Box Gland						
14	4	Stuffing Box Gland Stud						

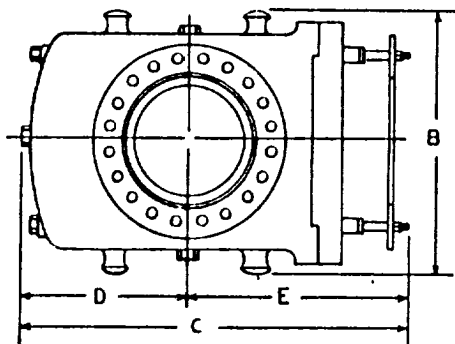


Fig. 85

Dimensional Plan—Shaffer Type 45 Mechanical Single Control Gate

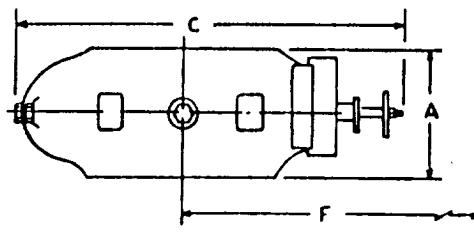


Fig. 86

Dimensional Elevation—Shaffer Type 45 Mechanical Single Control Gate

DIMENSIONAL AND ENGINEERING DATA ON SHAFFER TYPE 45 MECHANICAL SINGLE CONTROL GATES

Size	Max. Service Pressure Rating, psi	Test Pressure, psi	Vertical Bore	Approx. Weight, Pounds	Ram Size	A Height	B Width	C Length	D Center To Rear	E Center To Front	F Max. Distance Needed To Change Rams
6"	3,000	6,000	7 1/2"	1,500	C.S.O. Thru 5" O.D.	14"	27 1/2"	34"	13 1/4"	20 1/4"	41 1/4"
8"	3,000	6,000	9"	2,050	C.S.O. Thru 7" O.D.	15 1/2"					
10"	3,000	6,000	11"	2,580	C.S.O. Thru 8 3/4" O.D.	16 3/4"					
12"	3,000	6,000	12 3/4"	3,345	C.S.O. Thru 10 3/4" O.D.	17 3/4"					
16"	2,000	3,000	16 1/4"	4,200	C.S.O. Thru 13 1/4" O.D.	17"					

EXHIBIT "E"

COLLINS OIL & GAS CORPORATION
McCogco Federal, Well No. 1
BOP Specifications