



SHAFFER HYDRAULIC BLOWOUT PREVENTERS

(Patented)

TYPE B and TYPE E PREVENTERS

Shaffer Type B and Type E Blowout Preventers are similar in basic design and construction, except that the Type B has a *non-rising* locking shaft (for applications where end dimensions must be kept to a minimum)—and the Type E has a *rising* locking shaft (to provide quick indication of ram position where end dimensions

are not critical). Externally, the only visual difference between the two designs is in the end caps, as shown in Fig. 52 and 53. Internally, there are differences in the locking shaft parts, as shown in the exploded views, Figs. 58 and 61.

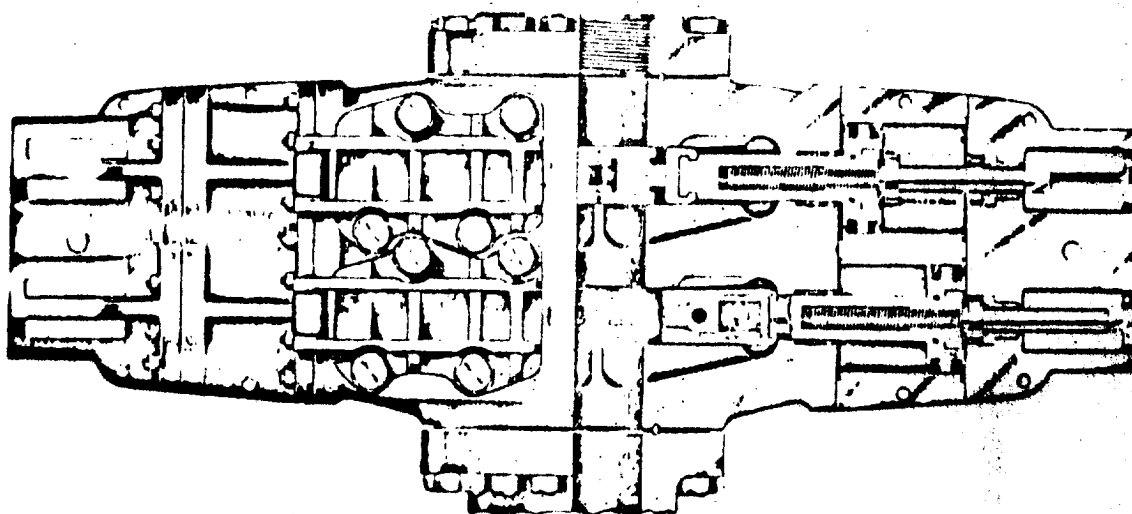


Fig. 52

Shaffer Type E Hydraulic Double Blowout Preventer—Front View

10" Shaffer Type B Series 900, Double Hydraulic w/Payne Closing Unit SIDE DOOR RAM CHANGES

In Type B and Type E Preventers, access to the ram compartments is through heavily-ribbed side doors, which are hinged and bolted to the body. The doors are fitted with adequate packing to amply withstand the pressure rating of the Preventer, and are opened by simply loosening four cap screws in each door, whereupon they can be readily swung open. The cap screws remain in the door when opened, eliminating risk of losing or misplacing them.

Each side door incorporates a horizontal guide which, in conjunction with integral guides in the opposite side of the body, holds the ram assemblies in accurate horizontal alignment when the doors are closed. Therefore, the ram assemblies are automatically centered in the Preventer body by simply closing and

bolting the doors. Note in Figs. 15 through 18, Page 4347, the ease with which rams are changed through the side-opening doors.

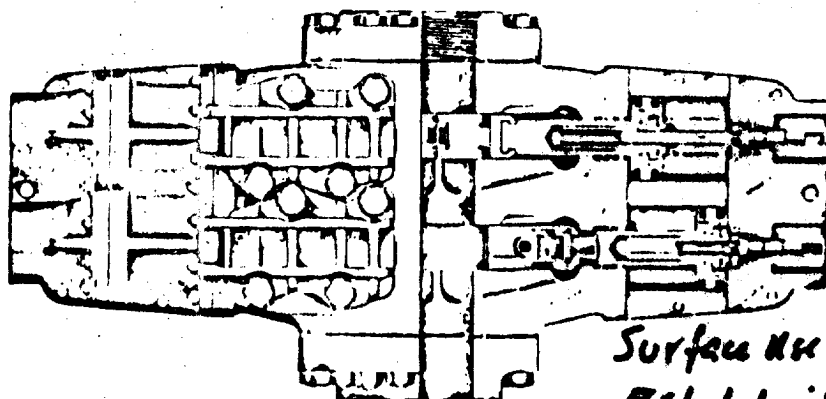


Fig. 53

Shaffer Type B Hydraulic Double Blowout Preventer—Front View

Surface HX Plan
Exhibit 'E'