Special Pump-Hydraulic Feedback Pump

The hydraulic feedback pump designed by our company can exploit crude oil with viscosity ＞ 4000mpa*s.

Characteristics:

The upper and lower barrels and the upper and lower plungers are connected in series connection to form a sealed pump cavity. The oil inlet valve is only installed on the plunger to achieve the purpose of closing the upper traveling valve in the down stroke and achieving the purpose of hydraulic feedback force.

The pump has no standing valve, no oil drain device can be installed downhole. It can be used for down-hole testing and steam injection thermal recovery without moving tubing string.

The selection of fittings materials, various heat treatment processes and surface treatment processes can be applied to meet the requirements of well conditions for product strength, corrosion resistance and wear resistance.

Product Specification:

Tubing Size	2-7/8”	3-1/2”	3-1/2”
Pump Diameter	2 1/4”-1 1/2”	2 3/4”-1 1/2”	2 3/4”-1 3/4”
Barrel OD	3.625”	4.500”	4.500”
Sucker Rod thread	3/4”	7/8”	7/8”
Connecting Tubing Thread	2-7/8”-8EU	3-1/2”-8EU	3-1/2”-8EU
Code	25-225/150Y	30-275/150YF	30-275/175YFK

Displacement:

The calculation formula of displacement is as follows:

$$P = C \times S \times N$$

P： Daily displacement, BPD;

S： Stroke length, in;

N： Frequency of strokes per minute, times/min;

C： Pump constant, as follows:

Pump Diameter	2 1/4”-1 1/2”	2 3/4”-1 1/2”	2 3/4”-1 3/4”
Pump Constant	0.327	0.618	0.524