

Power End-The power pump shell is the structure of steel plate welding and has been tested with its intensity by authority. The crankshaft is a composed structure of straight shaft and eccentric wheel. Its airproof part of elastic ripple tube has been awarded a patent certificate by the state. The transmission gear is of medium hard side to improve the enduring ability.

Fluid End -Liquid power side valve is of whole forging with a vertical structure, the volume interstice is minimum. The k1:6 wimble surface has been processed by roll pressing and therefore is improved significantly with its cooperative precision. The water supply valve is fastened reliably and conveniently. The valve box and the base holes conform to APL standard.

Design Features-Parameters were optimized and the stroke has been lengthened appropriately to reduce the number of strokes to enhance the intake performance of the pump and for longer endurance of the relatively weak parts. The pumps are widely used in oil fields and other industrial and mining enterprises, well drilling and well maintenance, etc. The serial products are produced strictly by SY5138 standards established by the Petroleum Industry Ministry of China and factory-leaving experiments are carried out accordingly.

Model	3NB-350	3NB-500	3NB-600	3NB-800	3NB-1000	3NB-1300	3NB-1600	3NB-2200
Type	Triplex single role				Triplex	Triplex	Triplex	Triplex
Input Power	257kw/350HP	368kw/500HP	441kw/500HP	588kw/800HP	735kw/1000HP	955kw/1300HP	1176kw/1600HP	1640kw/2200HP
Rated Speed	120	165	135	120	125	120	120	105
Stroke Length(mm)	180	180	196	210	274	305	305	356
Max.Liner Dia.(mm)	∅ 180	∅ 170	∅ 180	∅ 180	∅ 180	∅ 190	∅ 190	∅ 230
Suction Inlet(mm)	203	200	200	254	254	305	305	305
Discharge Inlet(mm)	76	83	101	101	101	101	101	130
Gear Ration	4.483	4.285	4.696	3.482	3.482	3.657	3.657	3.152
Drive Shaft Speed	582.8	563.52	633.96	435.25	435.25	438.84	438.84	369
Overall Size(mm3)	3100*2080*20 15	3658*2702*2207	3900*2285*2085	4600*2155*2052	4600*2155*2052	5250*2450*2625	4720*2822*2660	6000*2950*325 0
Weight(kg)	8058	9800	11000	17200	18000	23000	27100	38800

TECHNICAL PARAMETERS SERIES 3NB-350

Several pump	Bore (mm)							
	90	100	110	120	130	140	150	160
Stroke /min	Displacement(L/S)							
130	7.44	9.18	11.1	13.23	15.52	18.01	20.67	23.52
120	6.87	8.48	10.26	12.21	14.33	16.62	19.08	21.71
110	6.29	7.77	9.4	11.19	13.14	15.23	17.49	19.9
100	5.72	7.06	8.55	10.17	11.94	13.84	15.9	18.09
Rated pump pressure(MPa)	31	25	20.8	17.5	14.9	12.8	11.2	9.8
Mechanical efficiency by 90% volumetric efficiency by 100%								

TECHNICAL PARAMETERS SERIES 3NB-500

Stroke /min	Rated Power		Liner diameter(mm)& Pressure Mpa(psi)							
			170	160	150	140	130	120	110	100
			9.4	10.5	12.1	13.9	16.1	22.5	22.5	27.2
	KW	HP	Displacement(L/S)(gal./s)							
170	379	515	36.75	32.56	28.61	24.93	21.49	18.31	15.39	12.72
165	373	500	35.67	31.6	27.77	24.19	20.86	17.77	14.93	12.34
150	334	455	32.43	28.73	25.25	21.99	18.96	16.16	13.58	11.22
140	312	424	30.27	26.81	23.56	20.53	17.7	15.08	12.67	10.47
130	290	394	28.11	24.9	21.88	19.06	16.44	14	11.77	9.73
120	267	364	25.94	22.98	20.2	17.6	15.17	12.93	10.86	8.98
110	245	333	23.78	21.07	18.52	16.13	13.91	11.85	9.96	8.23
1			0.2162	0.1915	0.1683	0.1466	0.1264	0.1077	0.0905	0.0748

TECHNICAL PARAMETERS SERIES 3NB-800

Speed Diesel (to/ min)	Pump speed (Stroke/min)	Displacement(L/S)				
		φ140	φ150	φ160	φ170	φ180
1500	120	19.38	22.25	25.3	28.58	32.05
1300	110	17.77	20.4	23.21	26.2	29.37
1200	100	16.15	18.54	21.1	23.82	26.7
1100	95	15.34	17.61	20.04	22.63	25.37
Rated pump pressure(MPa)	/	27.3	23.8	20.9	18.5	16.5
Mechanical efficiency by 90% volumetric efficiency by 100%						

TECHNICAL PARAMETERS SERIES 3NB-1000

Speed Diesel (to/ min)	Pump speed (Stroke/min)	Displacement(L/S)				
		φ140	φ150	φ160	φ170	φ180
1300	110	23.1	25.6	30.2	34.1	38.2
1200	101	21.2	23.5	27.7	31.3	35.1
1100	93	19.5	21.7	25.5	28.8	32.3
1000	85	17.9	19.8	23.3	26.3	29.5
Rated pump pressure(MPa)	/	29	25	22	20	18
Mechanical efficiency by 90% volumetric efficiency by 100%						

TECHNICAL PARAMETERS SERIES 3NB-1300

Speed Diesel (to/ min)	Pump speed (Stroke/min)	Displacement(L/S)				
		φ140	φ150	φ160	φ170	φ180
1500	120	28.2	32.3	36.2	41.5	46.5
1400	112	26.3	30.2	34.3	38.8	43.4
1300	104	24.4	28	31.9	36	40.3
1200	96	22.5	25.9	29.4	33.2	37.2
1100	88	20.7	23.7	27	30.4	34.1
1000	80	18.8	21.6	24.5	27.7	31
Rated pump pressure(MPa)	/	31	27	24	21	19
Mechanical efficiency by 90% volumetric efficiency by 100%						

TECHNICAL PARAMETERS SERIES 3NB-1600

Speed Diesel (to/ min)	Pump speed (Stroke/min)	Displacement(L/S)					
		φ140	φ150	φ160	φ170	φ180	φ190
1500	120	28.16	32.32	36.78	41.52	46.54	51.85
1400	112	26.28	30.17	34.32	38.75	43.44	48.4
1300	104	24.4	28.01	31.87	36	40.34	43.96
1200	96	22.53	25.86	29.42	33.21	37.24	41.43
1100	88	20.65	23.7	26.97	30.44	34.13	38.03
1000	80	18.77	21.55	24.52	27.68	31.03	34.57
Rated pump pressure(MPa)	/	35	33	29	26	23	21
Mechanical efficiency by 90% volumetric efficiency by 100%							