

Bethlehem PUMPING UNITS

ENGINEERING DATA

80 API SIZE

80,000 In. Lbs. API Peak Torque Pumping Units

GEAR REDUCER DATA

OPTIONAL ITEMS

API Reducer Size 80 API Peak Torque @ 20 SPM 80,000 in. lbs. Gear Ratio, Double Reduction 29.15 to 1 Crankshaft Dia. 4 ⁷/₁₆" V-Belt Sheave - Pitch Dia. Std. 24.6" 3C Alternate 19.6", Max. 29.6" Diameter of Reducer Hi-Speed Shaft 2 ⁷/₁₆" Distance, Centerline Unit to Centerline Drive 11 ⁵/₈" Gear Reducer Oil Capacity, U. S. Gal. 17	Dual Zone Polished Rod Hanger Triple Zone Polished Rod Hanger Wide Main Base (Portable Type) Crank Guard Rails Power Assemblies for: Single Cylinder Engines, Hi-Speed Engines, Electric Motors— Elevated or Ground Level.
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STRUCTURE DATA

API Structure Size	133-54	119-54	133-48	109-48	95-48	109-42
Unit Designation	80-133-54	80-119-54	80-133-48	80-109-48	80-95-48	80-109-42
API Structure Capacity, lbs	13,300	11,900	13,300	10,900	9,500	10,900
Length of Strokes, in.	54, 45, 36, 27	54, 45, 36, 27	48, 40, 32, 24	48, 37, 25	48, 37, 25	42, 32, 22
Walking Beam Size	18" @ 60#	18" @ 55#	16" @ 58#	16" @ 45#	16" @ 40#	16" @ 45#
Saddle Bearing Type	BUSHING TYPE, FACTORY LUBRICATED					
Projected Area, sq. in.	50	50	50	40	40	40
Tail Bearing Type	BRONZE TYPE, FACTORY LUBRICATED					
Projected Area, sq. in.	27	27	27	23	23	23
Wrist Pin Bearing - Type	SPHERICAL ROLLER BEARING, FACTORY LUBRICATED, TAPERED PIN, REMOVED HYDRAULICALLY					
Size	5S	5S	5S	5S	5S	5S
Pitman Size, Pipe O. D.	2 ⁷ / ₈ " Std.	2 ⁷ / ₈ " Std.	2 ⁷ / ₈ " Std.	2 ⁷ / ₈ " Std.	2 ⁷ / ₈ " Std.	2 ⁷ / ₈ " Std.
Wireline Hanger	7/8" x 16'-0"	7/8" x 16'-0"	7/8" x 14'-0"	7/8" x 14'-0"	7/8" x 14'-0"	7/8" x 12'-6"
Cranks	4850-B	4850-B	4850-B	4246-B	4246-B	4246-B
Structure Unbalance, lbs.	400	400	500	400	400	600

COUNTERBALANCE DATA

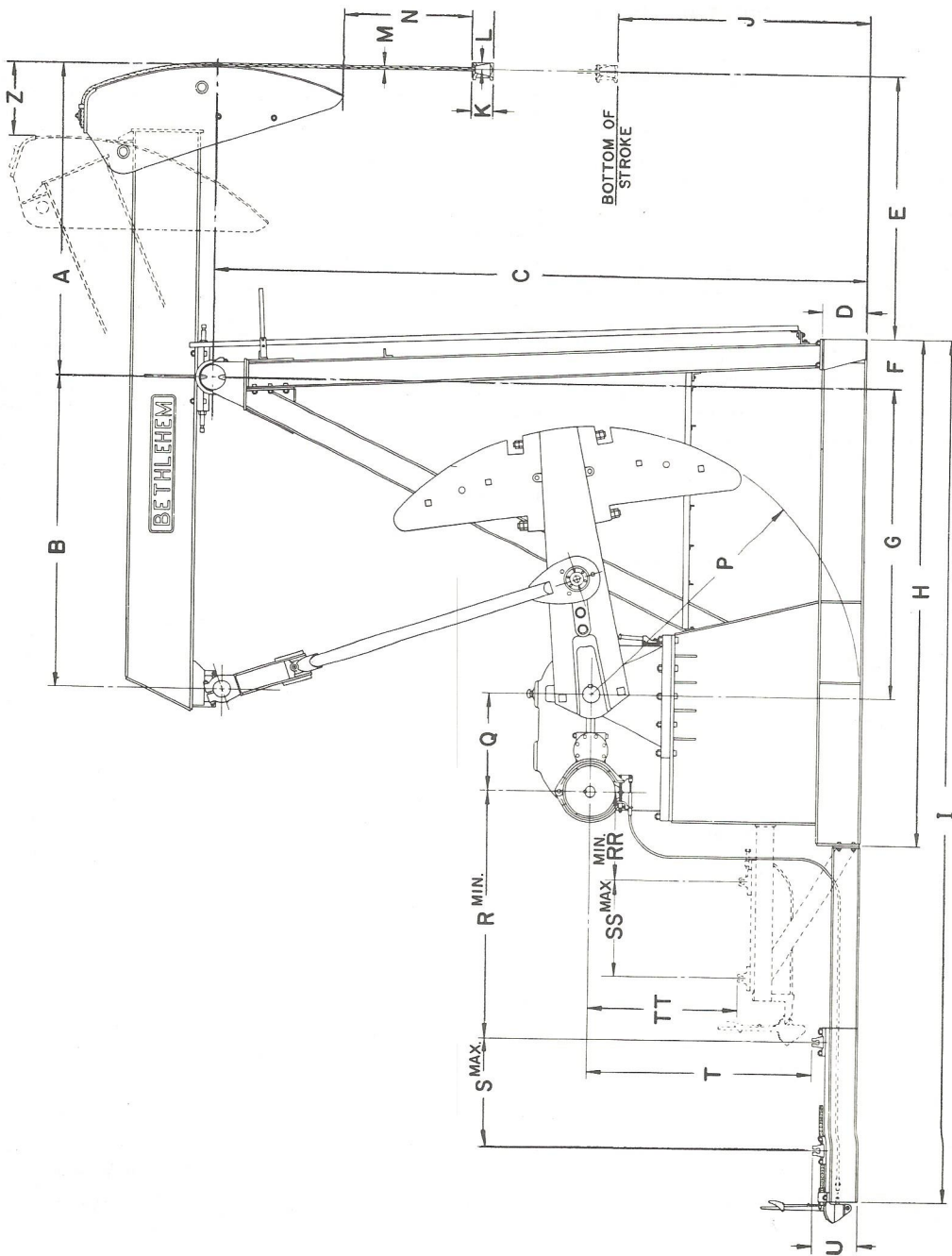
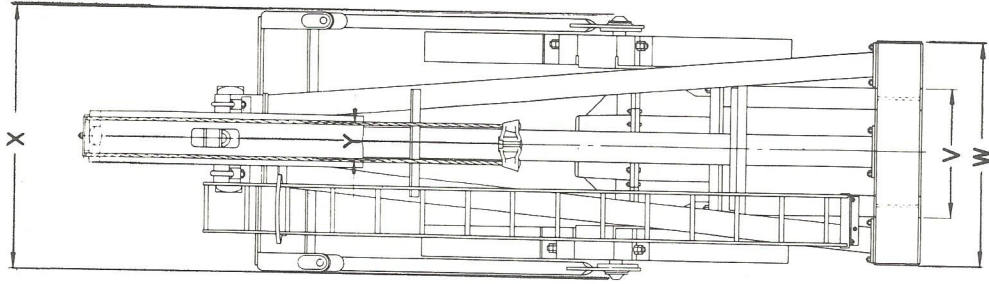
Pounds of effective Counterbalance at Polished Rod at Maximum Stroke, Includes Structure Unbalance.

Cranks Only	2,860	2,860	3,270	2,200	2,200	2,660
4 No. 50 Main Weights	5,600	5,600	6,350			
4 No. 50 Filler Weights	6,980	6,980	7,910			
8 No. 50 Filler Weights	8,370	8,370	9,460			
12 No. 50 Filler Weights	9,750	9,750	11,020			
14 No. 50 Filler Weights	10,440	10,440				
One Only Filler Weight	350	350	390			
4 No. 46 Main Weights	5,280	5,280	5,990	4,600	4,600	5,400
4 No. 46 Filler Weights	6,500	6,500	7,360	5,800	5,800	6,780
8 No. 46 Filler Weights	7,720	7,720	8,730	7,010	7,010	8,150
12 No. 46 Filler Weights	8,930	8,930	10,100	8,210	8,210	9,530
14 No. 46 Filler Weights	9,540	9,540	10,780	8,810	8,810	
One Only Filler Weight	305	305	340	300	300	345

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DIMENSIONAL DATA

80,000 In. Lbs. Peak Torque Pumping Units



Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	RR	SS	TT
80-133-54	6'-0"	5'-4"	10'-7 1/2"	10"	59 3/4"	12 1/4"	5'-4"	9'-3 3/4"	16'-7 3/4"	49"	5 3/4"	2 1/2"	7 1/2"	15 3/4"	50"	22"	47 1/4"	46 1/2"	37"	14"	25"	46 1/4"	68 3/4"	9"	18 1/4"	15 1/2"	30 1/4"	24"
80-119-54	6'-0"	5'-4"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
80-133-48	5'-4"	5'-4"	"	"	51 3/4"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
80-109-48	5'-4"	4'-8"	9'-7"	10"	52 1/8"	11 7/8"	4'-8"	8'-6 7/8"	15'-11 3/8"	43 3/4"	5 3/8"	"	"	14 1/2"	46"	"	"	33"	"	"	"	"	"	"	"	"	"	20"
80-95-48	5'-4"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
80-109-42	4'-8"	"	"	"	44 1/8"	"	"	"	"	51"	"	"	"	15 1/2"	"	"	"	"	"	"	"	"	"	6 1/2"	"	"	"	"

Note: Dimensions I, R, S and T are for Hi-Speed Engine. Horsehead does not hinge down on 48" and 42" Stroke Units.