

Bethlehem PUMPING UNITS

ENGINEERING DATA

57 API SIZE

57,000 In. Lbs. API Peak Torque Pumping Units

GEAR REDUCER DATA

OPTIONAL ITEMS

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">API Reducer Size</td> <td style="width: 10%; text-align: center;">57</td> </tr> <tr> <td>API Peak Torque @ 20 SPM</td> <td style="text-align: center;">57,000 in. lbs.</td> </tr> <tr> <td>Gear Ratio, Double Reduction</td> <td style="text-align: center;">29.32 to 1</td> </tr> <tr> <td>Crankshaft Dia.</td> <td style="text-align: center;">4"</td> </tr> <tr> <td>V-Belt Sheave - Pitch Dia.</td> <td style="text-align: center;">Std. 19.6" 2C Alternate 24.6", Max. 27.6"</td> </tr> <tr> <td>Diameter of Reducer Hi-Speed Shaft</td> <td style="text-align: center;">1 11/16"</td> </tr> <tr> <td>Distance, Centerline Unit to Centerline Drive</td> <td style="text-align: center;">10 1/2"</td> </tr> <tr> <td>Gear Reducer Oil Capacity, U. S. Gal.</td> <td style="text-align: center;">13</td> </tr> </table>	API Reducer Size	57	API Peak Torque @ 20 SPM	57,000 in. lbs.	Gear Ratio, Double Reduction	29.32 to 1	Crankshaft Dia.	4"	V-Belt Sheave - Pitch Dia.	Std. 19.6" 2C Alternate 24.6", Max. 27.6"	Diameter of Reducer Hi-Speed Shaft	1 11/16"	Distance, Centerline Unit to Centerline Drive	10 1/2"	Gear Reducer Oil Capacity, U. S. Gal.	13	<p>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.</p>
API Reducer Size	57																
API Peak Torque @ 20 SPM	57,000 in. lbs.																
Gear Ratio, Double Reduction	29.32 to 1																
Crankshaft Dia.	4"																
V-Belt Sheave - Pitch Dia.	Std. 19.6" 2C Alternate 24.6", Max. 27.6"																
Diameter of Reducer Hi-Speed Shaft	1 11/16"																
Distance, Centerline Unit to Centerline Drive	10 1/2"																
Gear Reducer Oil Capacity, U. S. Gal.	13																

STRUCTURE DATA

	89-42	76-42	89-36		
API Structure Size					
Unit Designation	57-89-42	57-76-42	57-89-36		
API Structure Capacity, lbs.,	8900	7600	8900		
Length of Strokes, in.	42, 33, 23	42, 33, 23	36, 28, 20		
Walking Beam Size	16" @ 36#	14" @ 34#	14" @ 34#		
Saddle Bearing Type	BUSHING, TYPE, FACTORY LUBRICATED				
Projected Area, sq. in.	31	31	31		
Tail Bearing Type	STRAIGHT ROLLER BEARING, FACTORY LUBRICATED				
Wrist Pin Bearing - Type	ROLLER BRG. FACTORY LUB. REMOVED HYDRAULICALLY				
Size	6S	6S	6S		
Pitman Size		3" I BEAM			
Wireline Hanger	3/4" x 12'-6"	3/4" x 12'-6"	3/4" x 11'-0"		
Cranks	3644-B	3644-B	3644-B		
Structure Unbalance, lbs.	150	150	275		

COUNTERBALANCE DATA

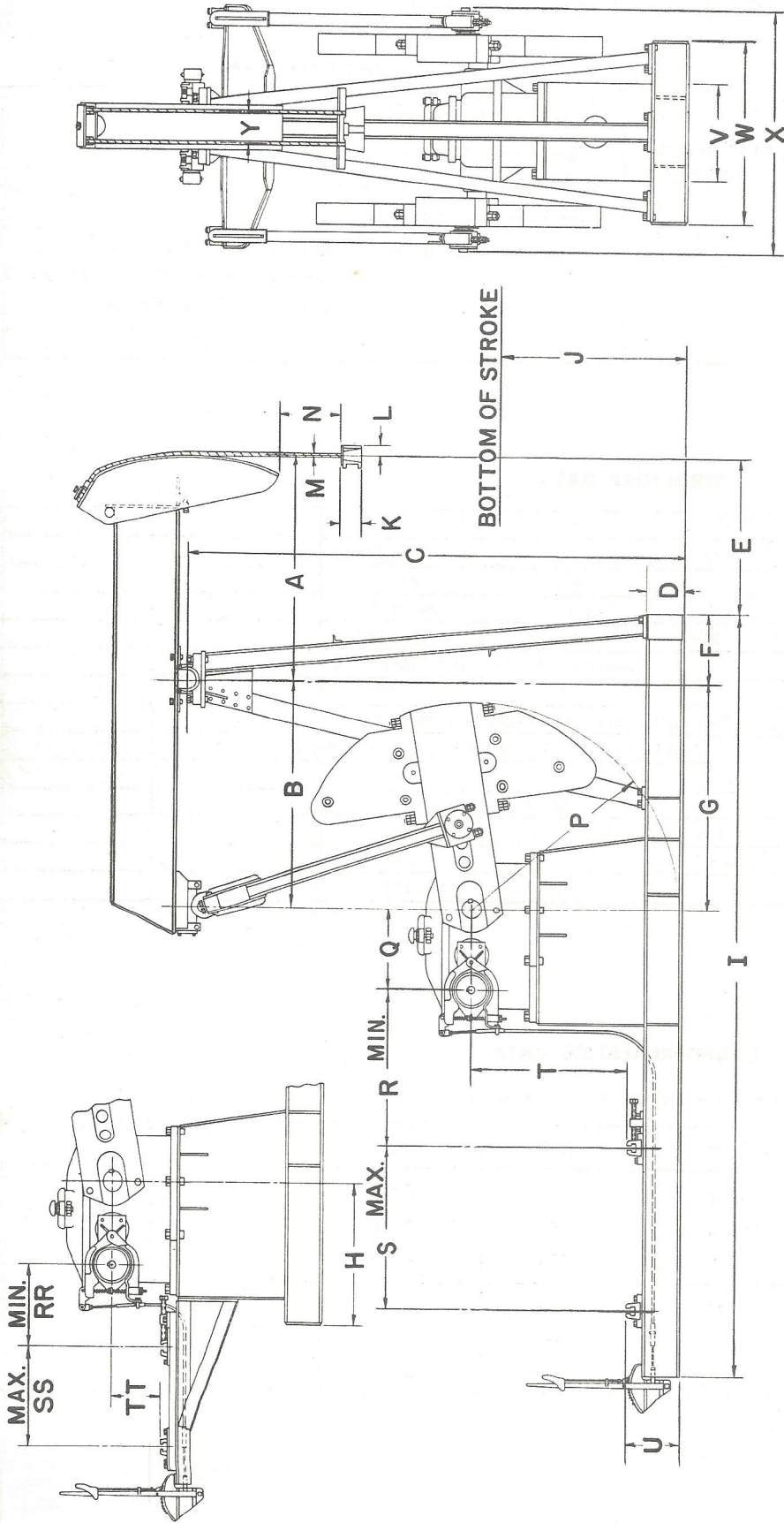
Pounds of effective Counterbalance at Polished Rod at Maximum Stroke, Includes Structure Unbalance.

	89-42	76-42	89-36		
Cranks Only	1,620	1,620	1,990		
4 No. 45 Main Weights	5,120	5,120	6,070		
4 No. 45A Aux Weights	6,050	6,050	7,155		
4 No. 45 Aux Weights	6,920	6,920	8,170		
4 No. 40 Main Weights	4,540	4,540	5,400		
4 No. 40A Aux Weights	5,095	5,095	6,045		
4 No. 40 Aux Weights	5,650	5,650	6,690		

Bethlehem ^{AD} PUMPING UNITS

DIMENSIONAL DATA

57,000 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	RR	SS	TT
57-89-42	4'-8"	4'-0"	8'-10 1/2"	8"	41"	15"	4'-0"	35"	13'-8 3/4"	42"	4 1/2"	2 1/8"	3/4"	15 1/2"	44"	20"	33 3/4"	40 1/2"	33 3/4"	11 1/4"	25"	38 1/2"	58"	6 1/2"	17 1/2"	21 1/4"	14 3/4"
57-76-42	4'-8"	4'-0"	8'-10 1/2"	8"	41"	15"	4'-0"	"	"	42"	4 1/2"	2 1/8"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
57-89-36	4'-0"	4'-0"	8'-10 1/2"	8"	33"	15"	4'-0"	"	"	42"	4 1/2"	2 1/8"	"	13"	"	"	"	"	"	"	"	"	"	"	"	"	"

Note: Dimensions I, R, S and T are for one piece electric motor base. Separate outrigger furnished when required for engines.

Bethlehem PUMPING UNITS

ENGINEERING DATA

57 API SIZE
57,000 In. Lbs. API Peak Torque Pumping Units

GEAR REDUCER DATA

OPTIONAL ITEMS

API Reducer Size	57	Dual Zone Polished Rod Hanger
API Peak Torque @ 20 SPM	57,000 in. lbs.	Triple Zone Polished Rod Hanger
Gear Ratio, Double Reduction	29.32 to 1	Wide Main Base (Portable Type)
Crankshaft Dia.	4"	Crank Guard Rails
V-Belt Sheave - Pitch Dia.	Std. 19.6" 2C Alternate 24.6", Max. 27.6"	Power Assemblies for: Single Cylinder Engines, Hi-Speed Engines, Electric Motors — Elevated or Ground Level.
Diameter of Reducer Hi-Speed Shaft	1 ¹¹ / ₁₆ "	
Distance, Centerline Unit to Centerline Drive	10 ¹ / ₂ "	
Gear Reducer Oil Capacity, U. S. Gal.	13	

STRUCTURE DATA

	109-48	95-48	109-42		
API Structure Size					
Unit Designation	57-109-48	57-95-48	57-109-42		
API Structure Capacity, lbs.	10,900	9,500	10,900		
Length of Strokes, in.	48, 37, 25	48, 37, 25	42, 32, 22,		
Walking Beam Size	16" @ 45#	16" @ 40#	16" @ 45#		
Saddle Bearing Type	BUSHING TYPE, FACTORY LUBRICATED				
Projected Area, sq. in.	40	40	40		
Tail Bearing Type	BRONZE TYPE, FACTORY LUBRICATED				
Projected Area, sq. in.	23	23	23		
Wrist Pin Bearing - Type	SPHERICAL ROLLER BEARING, FACTORY LUBRICATED, TAPERED PIN, REMOVED HYDRAULICALLY				
Size	5S	5S	5S		
Pitman Size, Pipe O. D.	2 ¹ / ₂ " Std.	2 ¹ / ₂ " Std.	2 ¹ / ₂ " Std.		
Wireline Hanger	7/8" x 14'-0"	7/8" x 14'-0"	7/8" x 12'-6"		
Cranks	4246-B	4246-B	4246-B		
Structure Unbalance, lbs.	400	400	600		

COUNTERBALANCE DATA

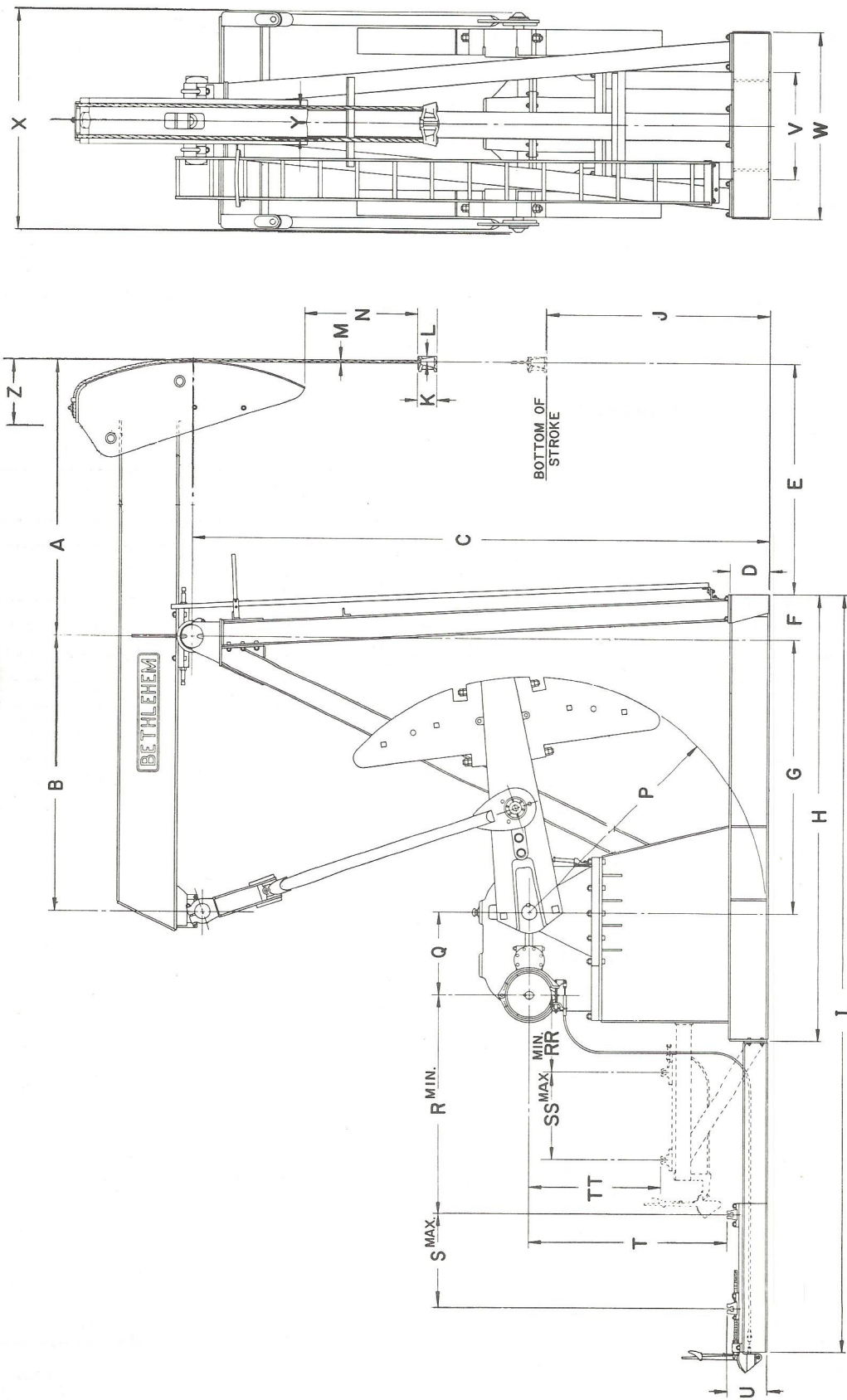
Pounds of effective counterbalance at Polished Rod at Maximum Stroke, Includes Structure Unbalance.

	2,200	2,200	2,660		
Cranks Only					
4 No. 46 Main Weights	4,600	4,600	5,400		
4 No. 46 Filler Weights	5,800	5,800	6,780		
8 No. 46 Filler Weights	7,010	7,010	8,150		
12 No. 46 Filler Weights	8,210	8,210	9,530		
One Only Filler Weight	300	300	345		

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DIMENSIONAL DATA

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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	RR	SS	TT
57-109-48	64"	56"	9'-7"	10"	52 1/8"	11 7/8"	56"	8'-6 7/8"	15'-11 3/8"	43 3/4"	5 3/8"	2 1/2"	7/8"	14 1/2"	46"	20"	49 1/4"	46 1/2"	33"	14"	25"	40 3/4"	58 1/4"	9"	17 1/2"	30 1/4"	20"
57-95-48	64"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
57-109-42	56"	"	"	"	44 1/8"	"	"	"	"	51"	"	"	"	15 1/2"	"	"	"	"	"	"	"	"	6 1/2"	"	"	"	"

Note: Dimensions I, R, S and T are for Hi-speed Engine