



TITAN PUMP JACKS, INC.
PUMPING UNITS & GEAR REDUCERS



Manufactured by
NOVANITEK®
2008



Brief Introduction

NOVANITEK, Inc. headquartered in Dallas Texas was founded by NITEK Electronics, Inc., in October 1993. NOVANITEK Group has several factories in China, which make oil field equipment such as Pumping Units, Gear Reducers, Sucker Rods, Sucker Rod Pumps, Triple Plunger Pumps, Mud Pumps, Natural Gas Engines, Clutches, Drill Bits, Drill Rig Parts and other oil field equipment.

TITAN Pump Jacks, Inc. is the marketing subsidiary of NOVANITEK Group in China, which manufactures all popular sizes of Pumping Units and Gear Reducers, including Beam Balance, Crank Arm Balance, Long Stroke, and Energy Saving Pumping Units.

Our Energy Saving Type Pumping Units (US Patent No. 6,450,050) are widely used in China's oil fields. The main advantage is saving energy. This Pumping Unit can save from 10% to 30% of electricity. Also, our Energy Saving Pumping Units feature advanced design with better balance, simple structure, light weight, easy assembly and reduced delivery cost.

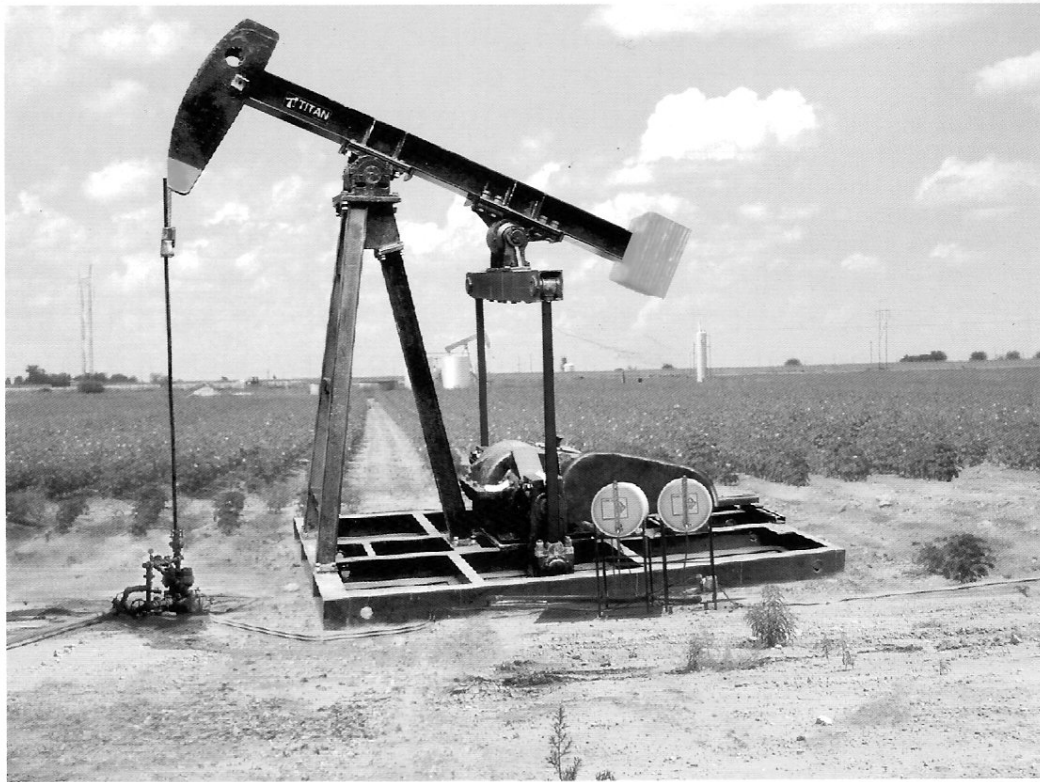
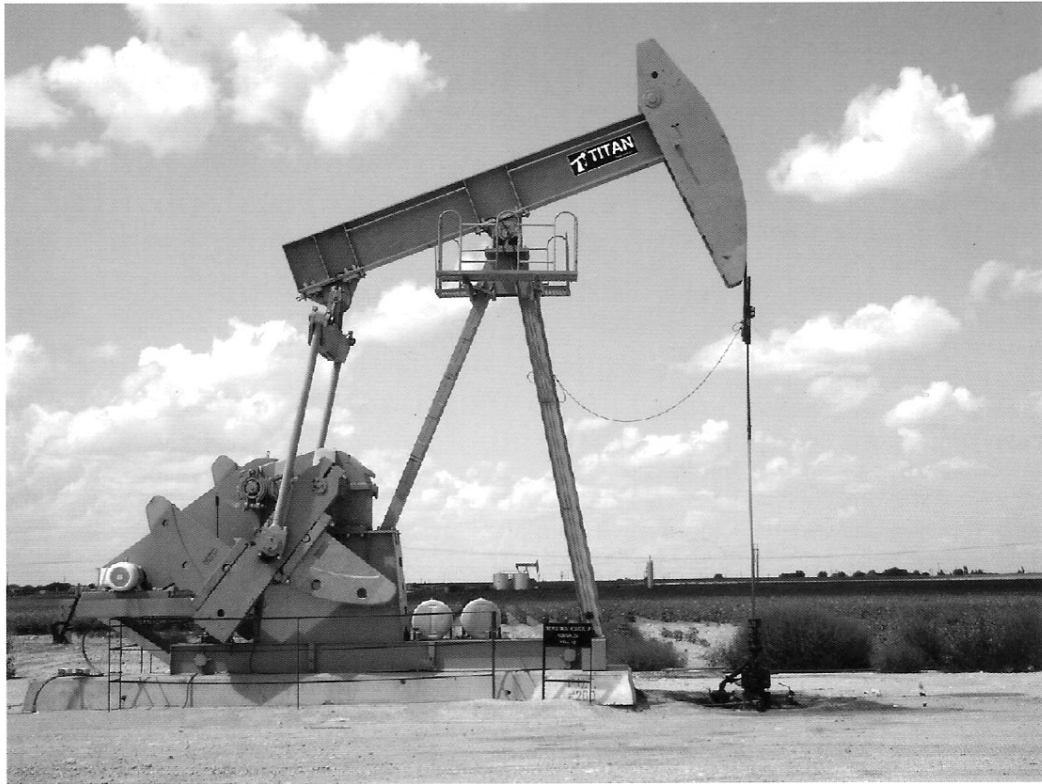
In the past we have sold thousands of our Gear Reducers, Normal Pumping Units and Energy Saving Pumping Units exclusively to the domestic market in China. Due to our successful track record in China, we began introducing our oilfield products to the US market in 2005 and now have a successful track record in this market also.

Last quarter of 2007 we introduced two new product lines. The first product was our TITAN Long Stroke Tower Pumping Unit. It provides all the same benefits of our competitor's belt type pumping unit but at a much lower cost to the customer. The second product was our line of Electric Motors made especially for powering pumping units. First quarter of 2008 we will introduce our line of Electric Motor Control Panels.

NOTE: This catalog contains drawings of our main pumping units and gear reducers. The drawings are for dimensional reference only. Product appearance and specifications may vary from these drawings.

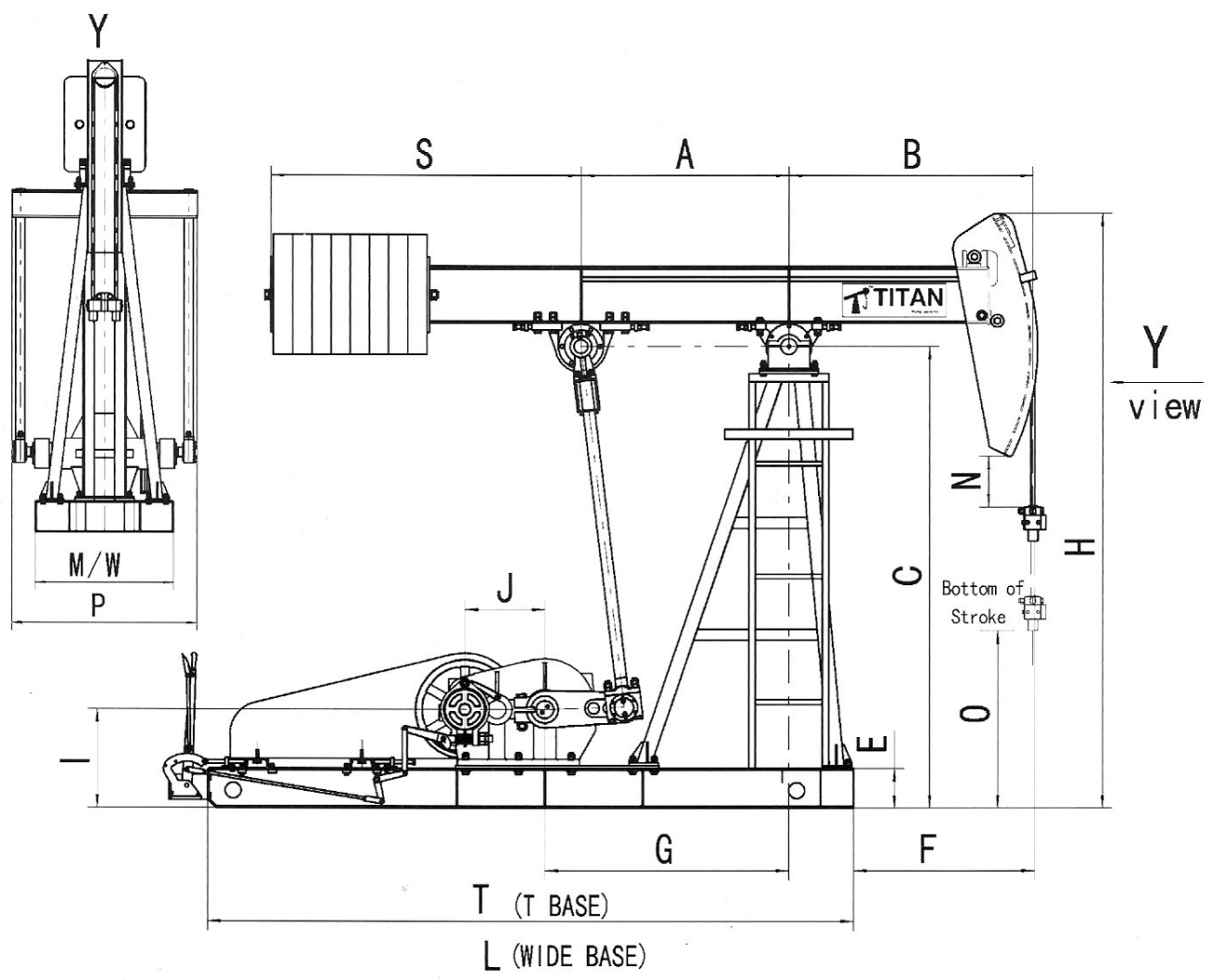
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Beam Balance Pumping Unit General Information Drawing and Data

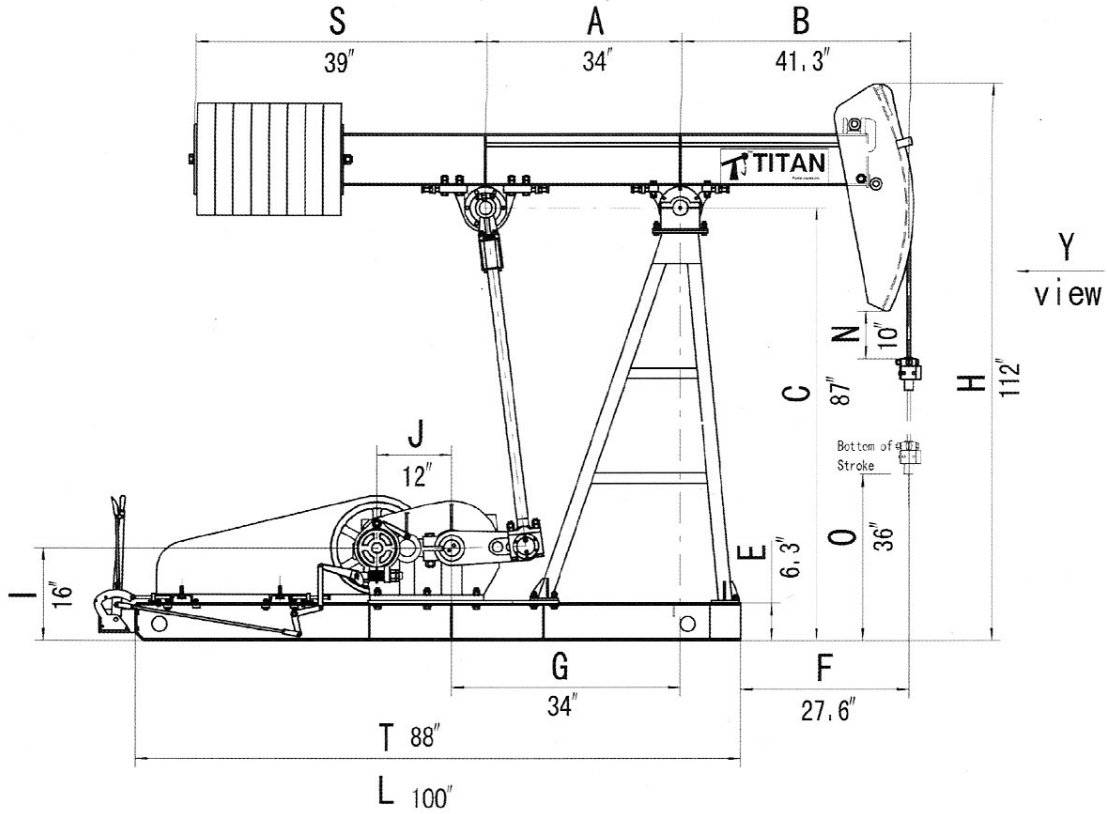


Titan Beam Balance Pumping Unit Dimensions (Inches)

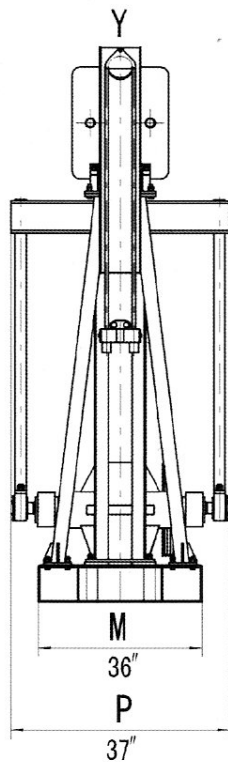
MODEL	A	B	C	E	F	G	H	I	J	L	M	N	O	P	S	T	W
B16D-53-30	34	41.3	87	6.3	27.6	34	112	16	12	100	36	10	36	37	39	88	42
B25D-67-36	33.5	38.2	94	6.3	25.4	33.5	119	18.5	13.8	132	36	10	37	47	50.4	110	62
B40D-67-48	47	60	96	8.0	41.3	47	126	20.5	17.7	133	36	10	40	47	54.5	110	62
B40D-89-48	53.5	61	107	9.8	45.3	69.1	136	24.4	17.7	142	43	10	42	51	54.5	142	62
B57D-109-48	53.5	61	115	10	44.2	53.5	143	28.3	19.7	148	43	10	50	58	62	148	66
B57D-133-48	53.5	61	118	10	44.2	53.5	146	28.3	19.7	148	43	10	50	58	70	148	62
B80D-109-48	53.5	61	115	10	44.2	53.5	143	28.3	21.7	148	43	10	50	67	65	148	72
B80D-119-54	43.3	60	123	10	44.4	43.3	156	28.3	21.7	152	43	10	50	67	78.7	148	72



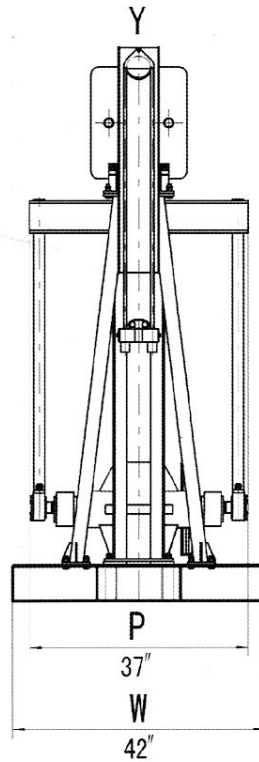
B16D-53-30 Pumping unit



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WIDE BASE





Pumping Unit B16D-53-60 Configuration Data

B16D-53-30 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/ Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D18.5	In.	In.	In.	Lbs.
5,300	30 24	12	16,000	118"	1.25	3/8	1/2	3200

Bearing Dimensions

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF212	22310	22210	NU2207EM	NU2208EM	22213
φ2.4" × φ4.3" ×0.9"	φ2" × φ4.3" ×1.6"	φ2" × φ3.5" ×0.9"	φ1.4" × φ2.8" ×0.9"	φ1.6" × φ3.1" ×0.9"	φ2.6" × φ4.7" ×1.2"

Standard Crank Weights & Counter Balance Weights

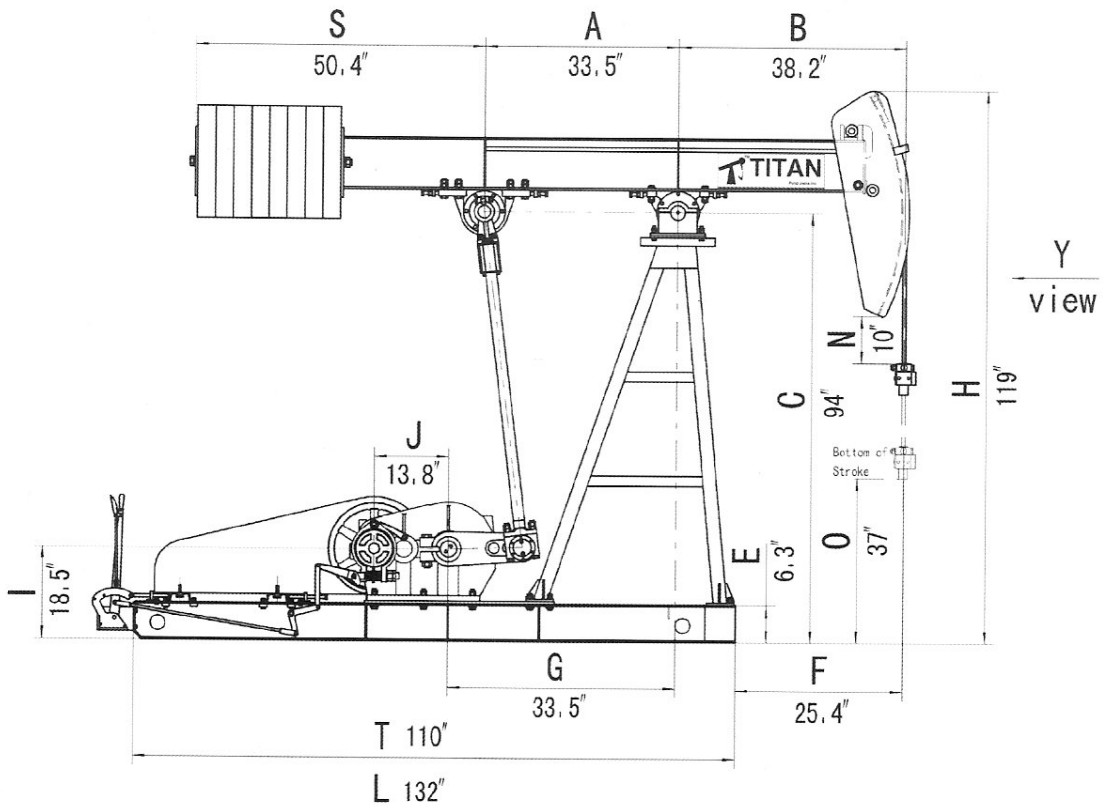
Crank Arm			Counter Balance		
Each(lbs.)	QTY	Total(lbs.)	Each(lbs.)	QTY	Total(lbs.)
110	2	220	160	3	480

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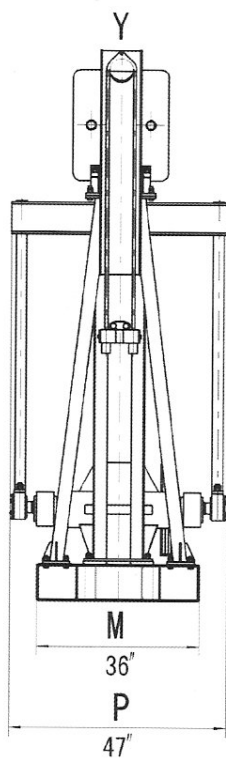
Structural Unbalance (lbs.)	140		
Stroke Lengths(In.)	30	24	20
Cranks Only (lbs.)	23	30	41
Balance of beam(lbs.)			
1 set-std. wts.	196	196	196
2 sets-std. wts.	406	406	406
3 sets-std. wts.	612	612	612
4 sets-std. wts.	817	817	817
5 sets-std. wts.	1020	1020	1020
6 sets-std. wts.	1220	1220	1220
7 sets-std. wts.	1462	1462	1462
8 sets-std. wts.	1635	1635	1635
9 sets-std. wts.	1848	1848	1848
10 sets-std. wts.	2022	2022	2022
11 sets-std. wts.	2241	2241	2241
12 sets-std. wts.	2469	2469	2469
13 sets-std. wts.	2688	2688	2688
14 sets-std. wts.	2822	2822	2822
15 sets-std. wts.	3069	3069	3069
16 sets-std. wts.	3284	3284	3284
17 sets-std. wts.	3413	3413	3413
18 sets-std. wts.	3658	3658	3658
19 sets-std. wts.	3828	3828	3828
20 sets-std. wts.	4075	4075	4075
21 sets-std. wts.	4233	4233	4233
22 sets-std. wts.	4436	4436	4436



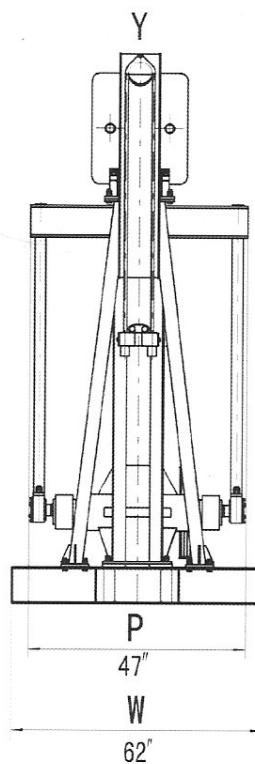
B25D-67-36 Pumping unit



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WIDE BASE





Pumping Unit B25D-67-36 Configuration Data

B25D-67-36 Standard Configuration

Polished Rod Capacity	Stroke Length	Max.Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D18.5	In.	In.	In.	Lbs.
6,700	36,28,20	10	25,000	136"	1.5	3/8	1/2	5733

Bearing Dimensions

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF316	22310	22314	NU2208EM	NU309EM	NUP2216E
φ3.1" × φ6.7" ×1.5"	φ2" × φ4.3" ×1.6"	φ2.8" × φ5.9" ×2"	φ1.6" × φ3.1" ×0.9"	φ1.8" × φ3.9" ×1"	φ3.1" × φ5.5" ×1.3"

Standard Crank Weights & Counter Balance Weights

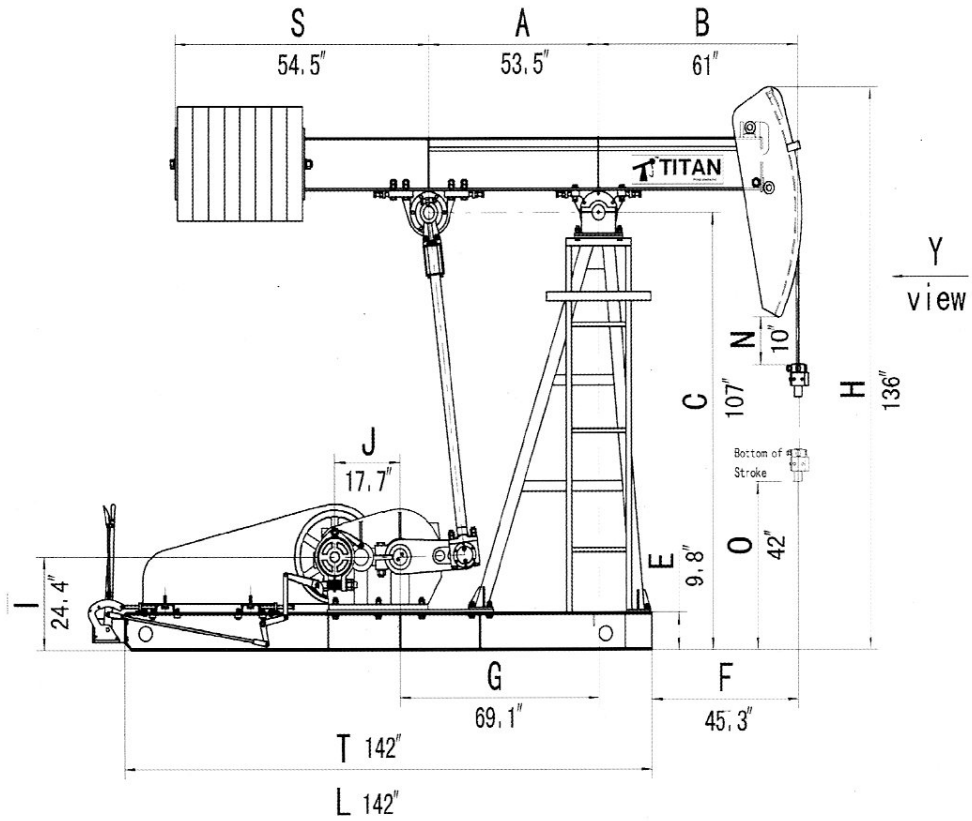
Crank Arm			Counter Balance		
Each(lbs.)	QTY	Total(lbs.)	Each(lbs.)	QTY	Total(lbs.)
121	2	242	160	10	1600

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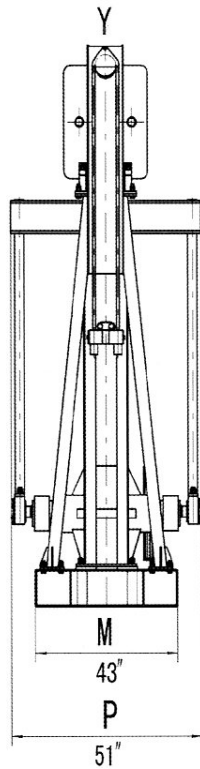
Structural Unbalance (lbs.)	150		
Stroke Lengths(In.)	36	28	20
Cranks Only (lbs.)	28	36	50
Balance of beam(lbs.)			
1 set-std.wts.	246	246	246
2 sets-std.wts.	490	490	490
3 sets-std.wts.	738	738	738
4 sets-std.wts.	985	985	985
5 sets-std.wts.	1230	1230	1230
6 sets-std.wts.	1470	1470	1470
7 sets-std.wts.	1720	1720	1720
8 sets-std.wts.	1970	1970	1970
9 sets-std.wts.	2200	2200	2200
10 sets-std.wts.	2467	2467	2467
11 sets-std.wts.	2700	2700	2700
12 sets-std.wts.	2940	2940	2940
13 sets-std.wts.	3200	3200	3200
14 sets-std.wts.	3400	3400	3400
15 sets-std.wts.	3697	3697	3697
16 sets-std.wts.	3910	3910	3910
17 sets-std.wts.	4163	4163	4163
18 sets-std.wts.	4408	4408	4408
19 sets-std.wts.	4669	4669	4669
20 sets-std.wts.	4910	4910	4910
21 sets-std.wts.	5100	5100	5100
22 sets-std.wts.	5410	5410	5410



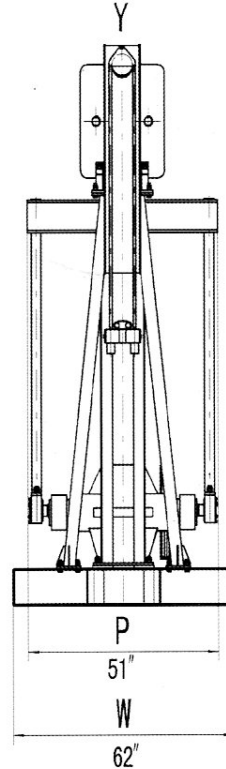
B40D-89-48 Pumping unit



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WIDE BASE





Pumping Unit B40D-89-48 Configuration Data

B40D-89-48 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/ Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D18.5	In.	In.	In.	Lbs.
8,900	48,38,28	10	40,000	160"	1.5	3/8	1/2	8105

Bearing Dimensions

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF316	22310	22314	NU308E	NU312E	22220
φ3.1" × φ6.7" ×1.5"	φ2" × φ4.3" ×1.6"	φ2.8" × φ5.9" ×2"	φ1.6" × φ3.5" ×0.9"	φ2.4" × φ5.1" ×1.2"	φ3.9" × φ7.1" ×1.8"

Standard Crank Weights & Counter Balance Weights

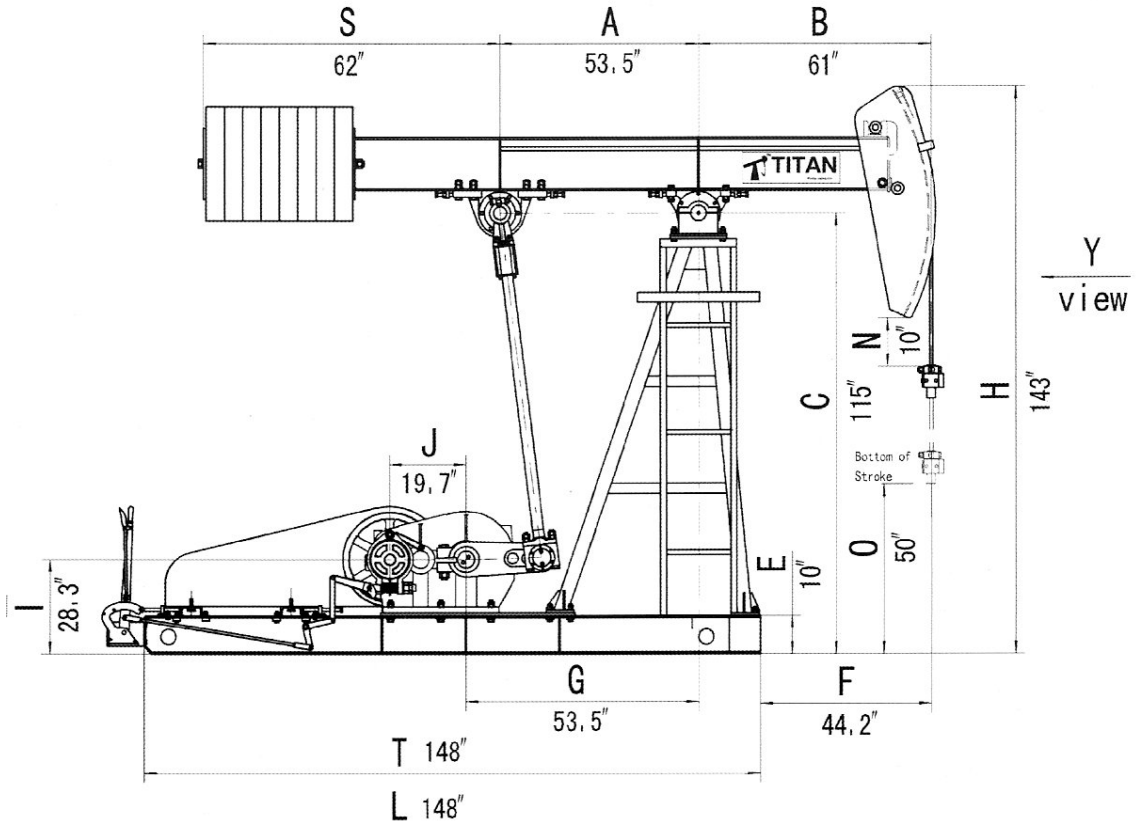
Crank Arm			Counter Balance		
Each(lbs.)	QTY	Total(lbs.)	Each(lbs.)	QTY	Total(lbs.)
167	2	334	160	18	2880

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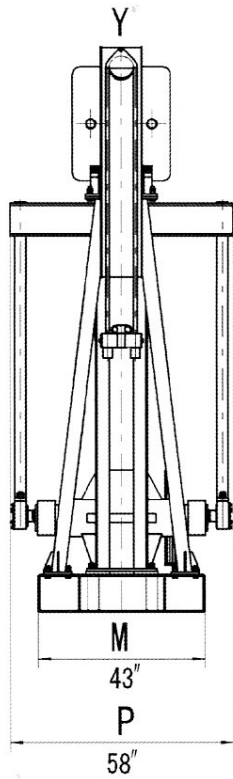
Structural Unbalance (lbs.)	253		
Stroke Lengths(In.)	48	38	28
Cranks Only (lbs.)	50	65	90
Balance of beam(lbs.)			
1 set-std. wts.	618	618	618
2 sets-std. wts.	970	970	970
3 sets-std. wts.	1329	1329	1329
4 sets-std. wts.	1682	1682	1682
5 sets-std. wts.	2035	2035	2035
6 sets-std. wts.	2385	2385	2385
7 sets-std. wts.	2735	2735	2750
8 sets-std. wts.	3080	3080	3080
9 sets-std. wts.	3415	3415	3415
10 sets-std. wts.	3763	3763	3763
11 sets-std. wts.	4095	4095	4095
12 sets-std. wts.	4425	4425	4425
13 sets-std. wts.	4765	4765	4765
14 sets-std. wts.	5075	5075	5075
15 sets-std. wts.	5423	5423	5423
16 sets-std. wts.	5730	5730	5730
17 sets-std. wts.	6056	6056	6056
18 sets-std. wts.	6374	6374	6374
19 sets-std. wts.	6699	6699	6699
20 sets-std. wts.	7010	7010	7010
21 sets-std. wts.	7292	7292	7292
22 sets-std. wts.	7632	7632	7632



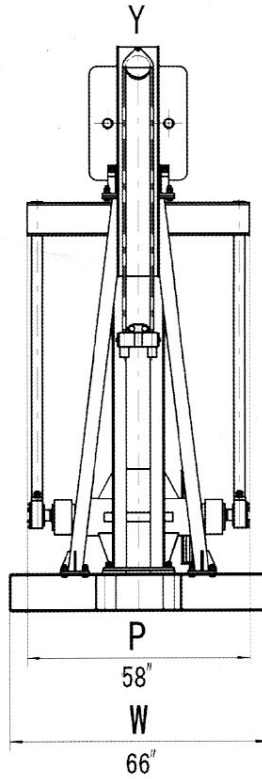
B57D-109-48 Pumping unit



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WIDE BASE





Pumping Unit B57D-109-48 Configuration Data

B57D-109-48 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/ Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6x37-D22	In.	In.	In.	Lbs.
10,900	48,38,28	10	57,000	154"	1.5	3/8	1/2	10176

Bearing Dimensions

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF316	22317	22314	32610	32612	3003721
φ3.1"×φ6.7"×1.5"	φ3.3"×φ7.1"×2.4"	φ2.8"×φ5.9"×2"	φ2"×φ4.3"×1.6"	φ2.4"×φ5.1"×1.8"	φ4.1"×φ6.9"×2.2"

Standard Crank Weights & Counter Balance Weights

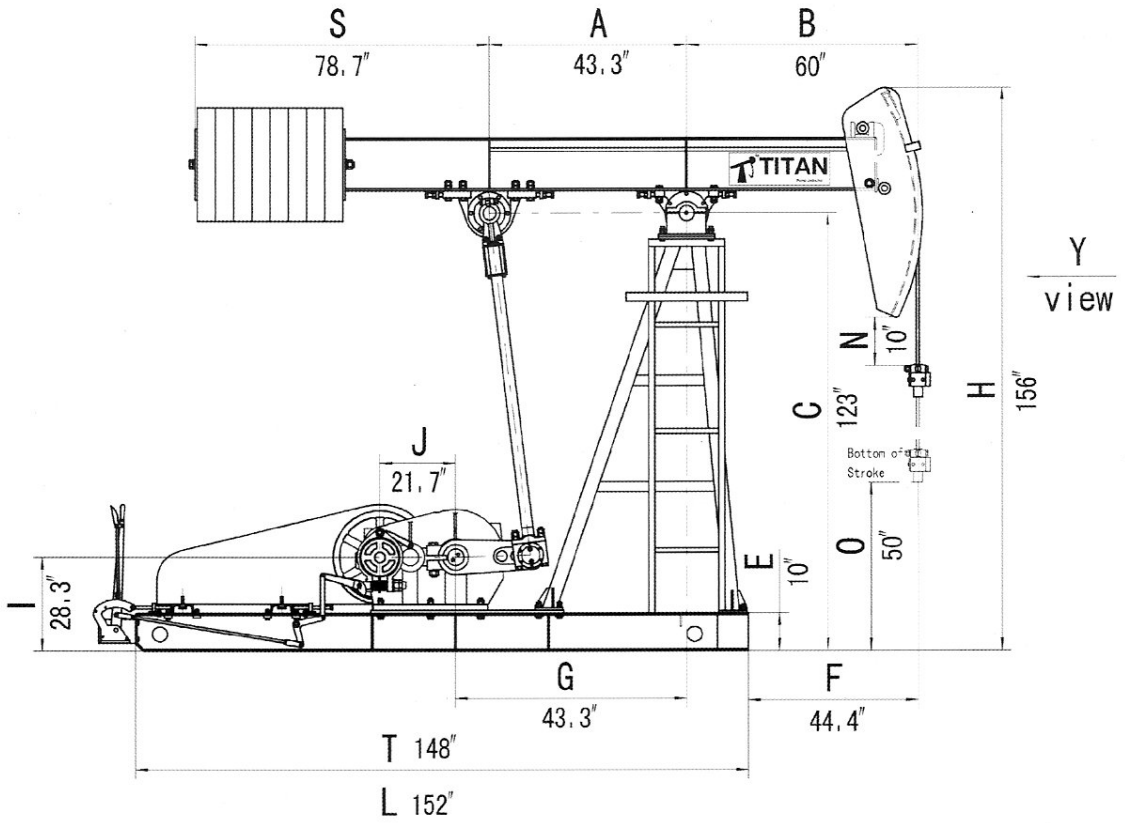
Crank Arm			Counter Balance		
Each(lbs.)	QTY	Total(lbs.)	Each(lbs.)	QTY	Total(lbs.)
291	2	582	147	16	2352

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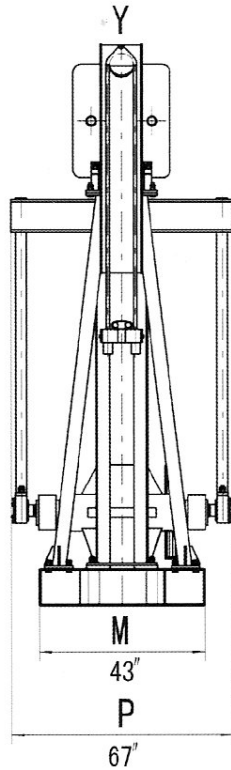
Structural Unbalance (lbs.)	357		
Stroke Lengths(In.)	48	38	28
Cranks Only (lbs.)	73	94	130
Balance of beam(lbs.)			
1 set-std.wts.	990	990	990
2 sets-std.wts.	1450	1450	1450
3 sets-std.wts.	1920	1920	1920
4 sets-std.wts.	2380	2380	2380
5 sets-std.wts.	2840	2840	2840
6 sets-std.wts.	3300	3300	3300
7 sets-std.wts.	3750	3750	3750
8 sets-std.wts.	4190	4190	4190
9 sets-std.wts.	4630	4630	4630
10 sets-std.wts.	5060	5060	5060
11 sets-std.wts.	5490	5490	5490
12 sets-std.wts.	5910	5910	5910
13 sets-std.wts.	6330	6330	6330
14 sets-std.wts.	6750	6750	6750
15 sets-std.wts.	7150	7150	7150
16 sets-std.wts.	7550	7550	7550
17 sets-std.wts.	7950	7950	7950
18 sets-std.wts.	8340	8340	8340
19 sets-std.wts.	8730	8730	8730
20 sets-std.wts.	9110	9110	9110
21 sets-std.wts.	9485	9485	9485
22 sets-std.wts.	9855	9855	9855
23 sets-std.wts.	10220	10220	10220
24 sets-std.wts.	10500	10500	10500



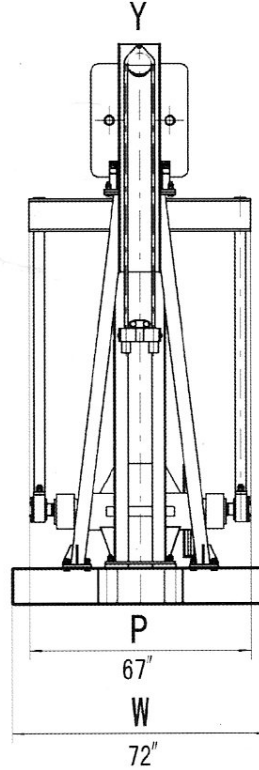
B80D-119-54 Pumping unit



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WIDE BASE





Pumping Unit B80D-119-54 Configuration Data

B80D-119-54 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/ Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6x37-D22	In.	In.	In.	Lbs.
11,900	54,48,42	10	80,000	166"	1.5	3/8	1/2	11454

Bearing Dimensions

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF316	22317	22314	32610	32612	3003721
φ3.1"× φ6.7"×1.5"	φ3.3"× φ7.1"×2.4"	φ2.8"× φ5.9"×2"	φ2"× φ4.3"×1.6"	φ2.4"× φ5.1"×1.8"	φ4.1"× φ6.9"×2.2"

Standard Crank Weights & Counter Balance Weights

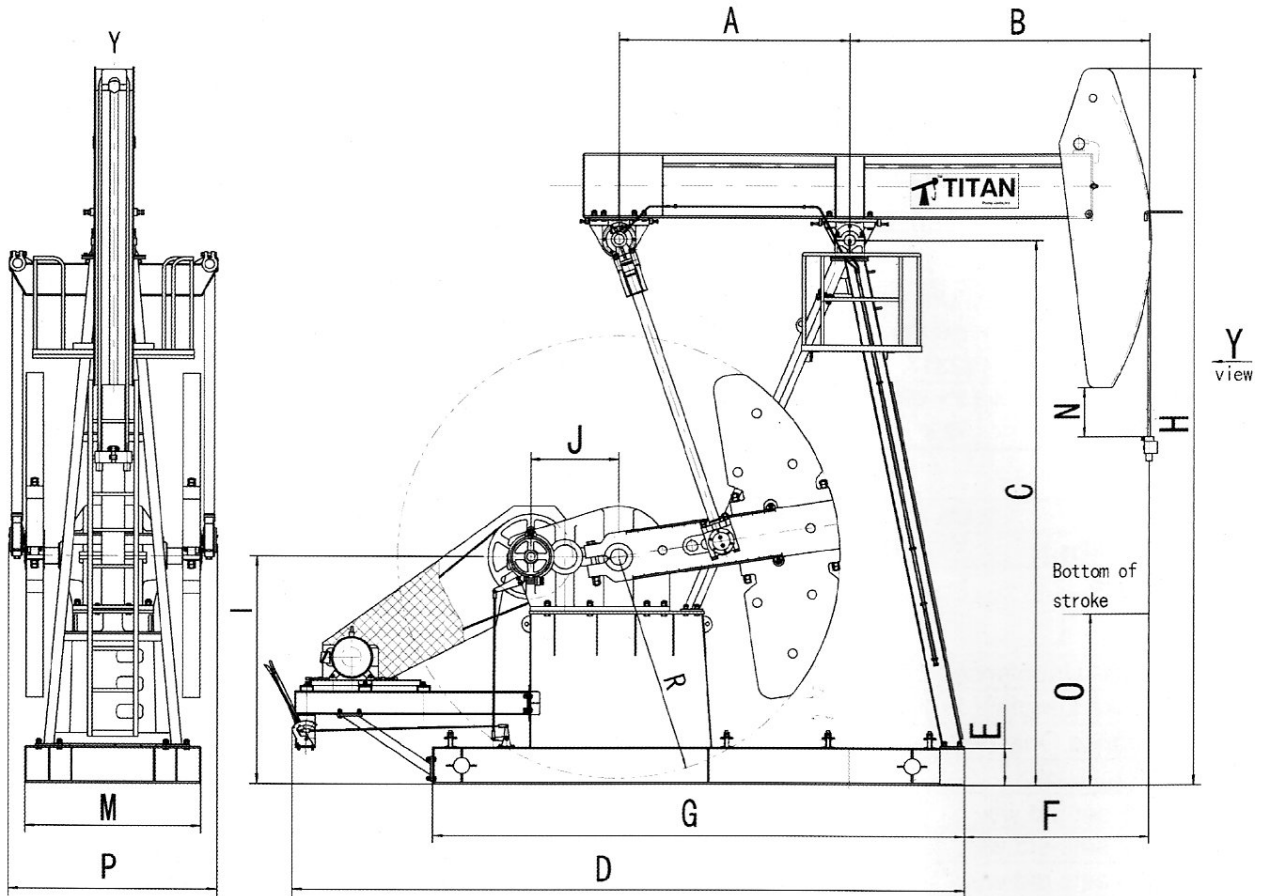
Crank Arm			Counter Balance		
Each(lbs.)	QTY	Total(lbs.)	Each(lbs.)	QTY	Total(lbs.)
396	2	792	300	8	2400

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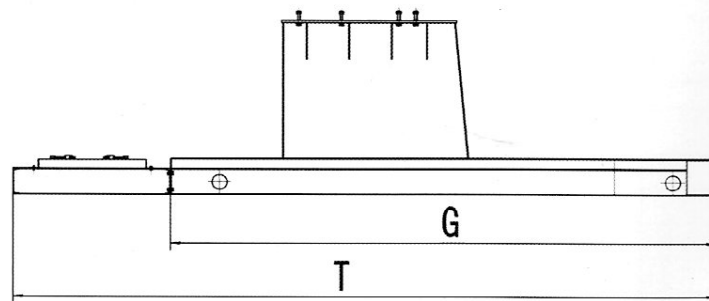
Structural Unbalance (lbs.)	286		
Stroke Lengths(In.)	60	54	48
Cranks Only (lbs.)	94	122	169
Balance of beam(lbs.)			
1 set-std.wts.	1287	1287	1287
2 sets-std.wts.	1885	1885	1885
3 sets-std.wts.	2496	2496	2496
4 sets-std.wts.	3094	3094	3094
5 sets-std.wts.	3692	3692	3692
6 sets-std.wts.	4290	4290	4290
7 sets-std.wts.	4875	4875	4875
8 sets-std.wts.	5447	5447	5447
9 sets-std.wts.	6019	6019	6019
10 sets-std.wts.	6578	6578	6578
11 sets-std.wts.	7137	7137	7137
12 sets-std.wts.	7683	7683	7683
13 sets-std.wts.	8229	8229	8229
14 sets-std.wts.	8775	8775	8775
15 sets-std.wts.	9295	9295	9295
16 sets-std.wts.	9815	9815	9815
17 sets-std.wts.	10335	10335	10335
18 sets-std.wts.	10842	10842	10842
19 sets-std.wts.	11349	11349	11349
20 sets-std.wts.	11843	11843	11843
21 sets-std.wts.	12330	12330	12330
22 sets-std.wts.	12811	12811	12811
23 sets-std.wts.	13286	13286	13286
24 sets-std.wts.	13650	13650	13650
25sets-std.wts.	14059	14059	14059
26sets-std.wts.	14481	14481	14481



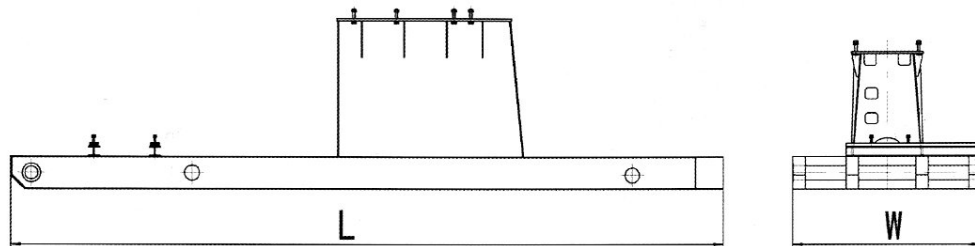
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





TITAN Crank Balance Pump Unit Dimensions(Inch)

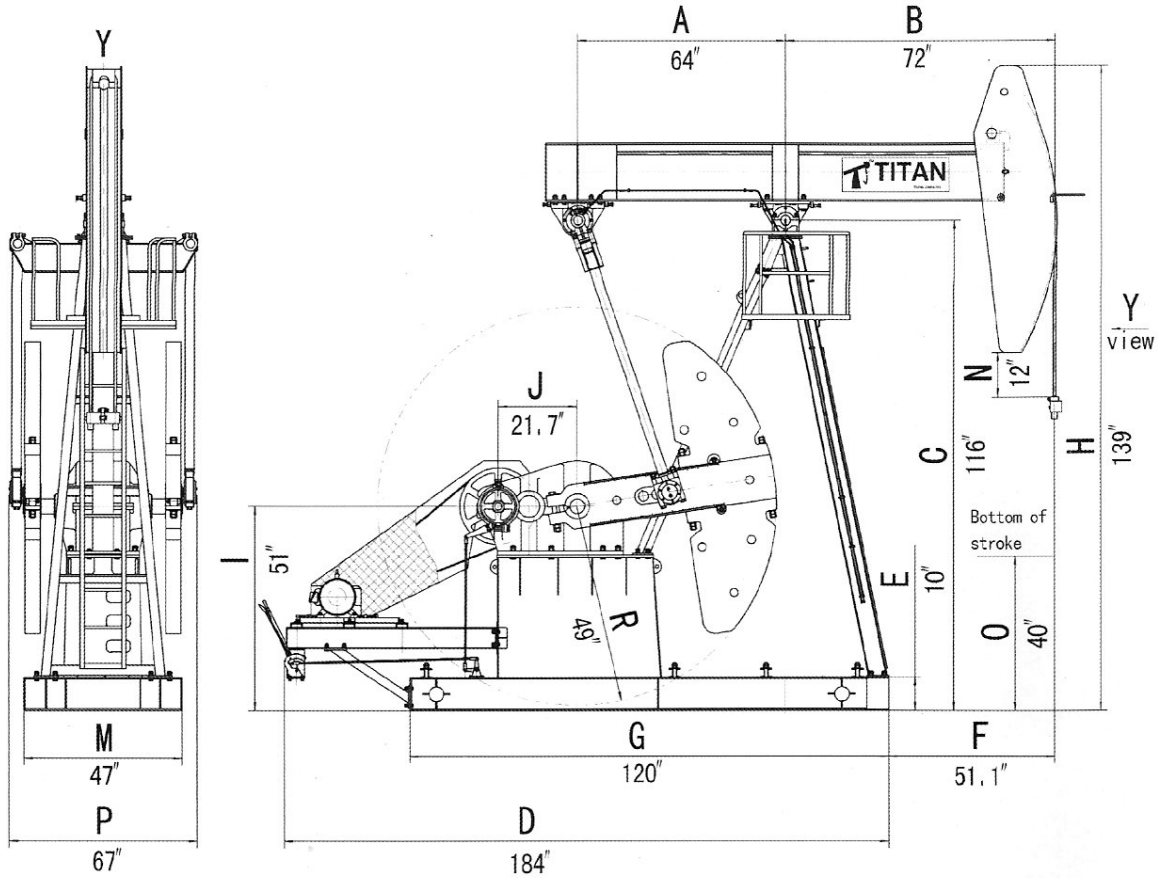
PUMP UNIT	A	B	C	D	E	F	G	H	I
C25D-67-36	48	48	99	170	7.87	33.0	88	109	45
C40D-89-42	48	56	102	170	7.87	41.0	93	142	45
C40D-76-48	48	64	110	170	7.87	48.8	93	148	45
C57D-76-54	56	72	118	177	10	51.2	112	156	47
C57D-109-48	56	64	110	177	10	43.0	112	141	47
C57D-133-48	56	64	124	177	10	43.0	112	155	47
C80D-119-54	64	72	116	184	10	51.1	120	139	51
C80D-133-54	64	72	116	184	10	51.1	120	139	51
C80D-119-64	64	84	127	184	10	63.0	120	149	51
C114D-173-64	72	84	166	199	11.8	51	157	207	69
C114D-143-86	84	111	225	221	11.8	80.0	150	212	69
C160D-200-74	96	96	195	209	14.2	56.7	187	240	79
C160D-173-86	96	111	195	212	14.2	71.5	187	246	79
C228D-246-86	96	111	195	212	14.2	71.5	191	246	79
C228D-213-100	96	129	196	243	14.2	93.7	191	255	79
C228D-213-120	98.4	128	232	283	14.2	78.7	227	306	98
C320D-256-120	98.4	128	233	288	15.7	78.7	227	306	98
C320D-305-100	96.5	106	227	261	15.7	69.3	227	319	98
C320D-256-144	111	185	232	311	15.7	142.4	227	310	98
C456D-305-144	120	181	256	328	17.7	133	230	339	116
C456D-305-168	120	181	256	328	17.7	133	230	354	116
C640D-365-144	120	181	256	328	17.7	133	234	336	112
C640D-365-168	120	181	269	328	17.7	133	234	354	119
C912D-427-144	120	181	256	328	17.7	132.6	245	336	112
C912D-365-168	120	181	256	328	17.7	132.6	241	354	119
C1280D-427-144	120	181	256	330	17.7	132.6	245	336	112
C1280D-365-192	120	207	274	333	22	157.2	245	375	119

PUMP UNIT	J	L	M	N	O	P	R	T	W
C25D-67-36	13.8	220	38	12	50	47	44	180	60
C40D-89-42	17.7	223	39	12	36	51	44	180	70
C40D-76-48	17.7	223	39	12	36	51	44	180	70
C57D-76-54	19.7	239	41	12	38	58	46	193	74
C57D-109-48	19.7	239	41	12	36	58	46	193	74
C57D-133-48	19.7	239	41	12	50	58	46	193	74
C80D-119-54	21.7	251	47	12	40	67	49	195	74
C80D-133-54	21.7	251	47	12	40	67	49	195	74
C80D-119-64	21.7	251	47	12	40	67	49	195	74
C114D-173-64	25.6	261	52	20	70	73	67	245	74
C114D-143-86	25.6	283	52	14	40	73	68	234	74
C160D-200-74	29.5	303	57	20	83	80	76	232	74
C160D-173-86	29.5	303	57	20	72	80	76	232	74
C228D-246-86	33.5	303	57	20	72	83	76	234	81
C228D-213-100	33.5	303	60	20	57	83	77	234	81
C228D-213-120	33.5	327	75	20	77	89	95	328	81
C320D-256-120	37.4	331	75	20	79	89	95	328	87
C320D-305-100	37.4	331	75	20	76	89	95	318	87
C320D-256-144	37.4	348	75	20	73	89	95	342	87
C456D-305-144	38.4	352	75	20	73	100	102	350	87
C456D-305-168	38.4	352	75	20	73	100	102	350	87
C640D-365-144	41.3	352	75	20	73	100	103	350	87
C640D-365-168	41.3	352	75	20	71	100	110	350	87
C912D-427-144	48.4	359	75	20	73	109	103	350	87
C912D-365-168	48.4	359	75	20	81	109	110	350	87
C1280D-427-144	52.5	359	76	20	73	112	103	350	87
C1280D-365-192	52.5	364	76	20	81	112	110	355	87

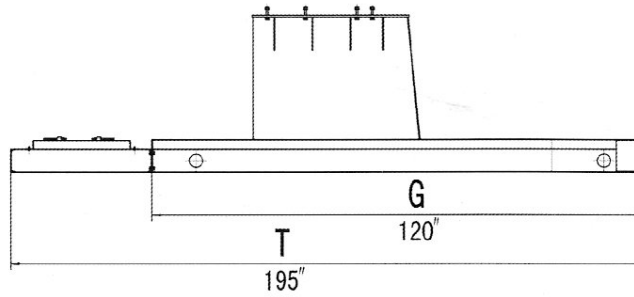


C80D-119-54 Pumping units

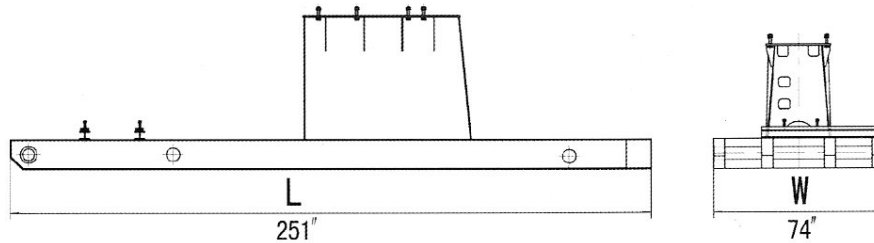
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C80D-119-54 Configuration Data

C80D-119-54 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D24	In.	In.	In.	Lbs.
11,900	54,48,42	10	80,000	170"	1.5	3/8	1/2	17097

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NF316	22317	22314	32610	32612	3003721
φ 3.1"× φ 6.7"× 1.5"	φ 3.3"× φ 7.1"× 2.4"	φ 2.8"× φ 5.9"× 2"	φ 2"× φ 4.3"× 1.6"	φ 2.4"× φ 5.1"× 1.8"	φ 4.1"× φ 6.9"× 2.2"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
1220	2	2440	920	4	3680

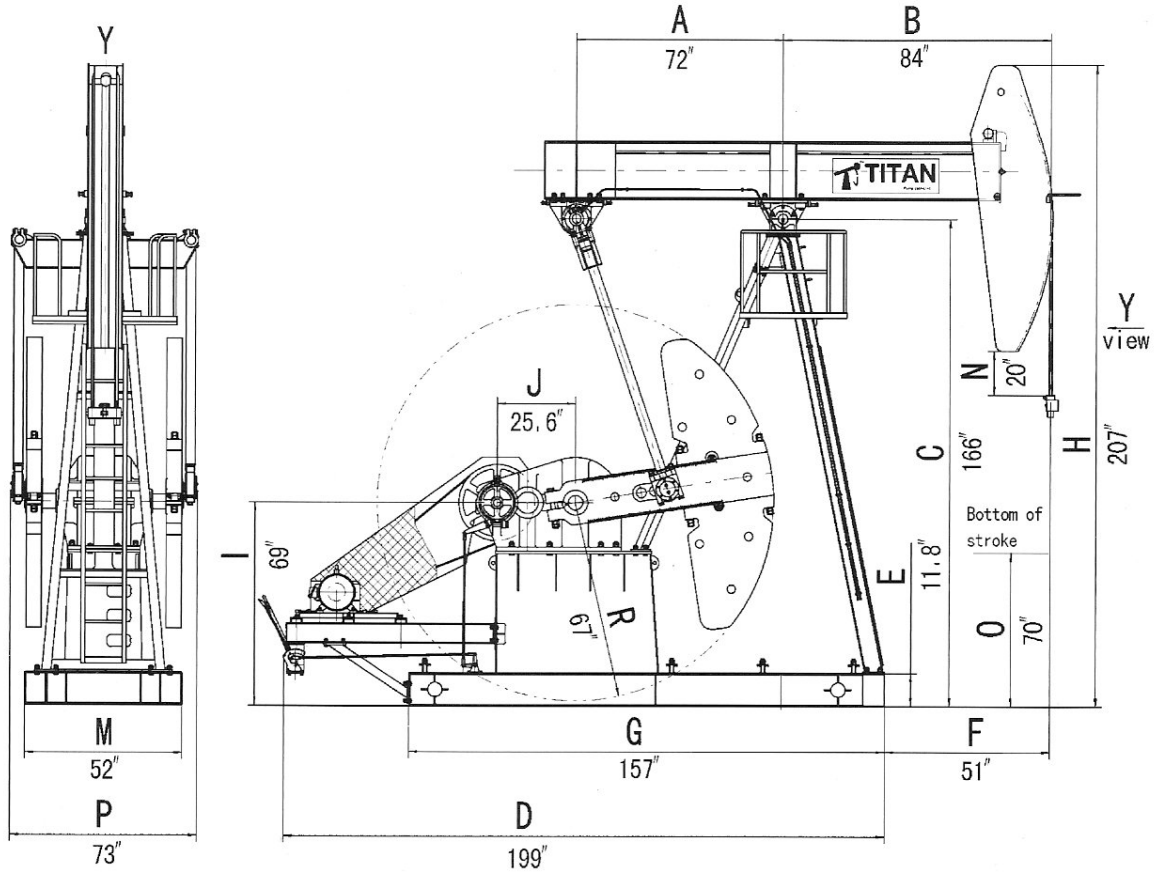
ECB DATA

Structural Unbalance (lbs.)	132					
Stroke Lengths(In.)	60		54		48	
Cranks Only (lbs.)	2635		3122		3136	
Counterbalance Position(In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
45	5096	10193	6037	12076	5586	11173
40	4429	8860	5248	10498	5108	10216
36	3988	7977	4724	9448	4629	9260
32	3545	7089	4199	8398	3816	7632
28	3101	6203	3674	7348	3337	6674
24	2657	5315	3149	6298	2860	5721
20	2213	4427	2624	5248	2383	4767
16	1772	3545	2099	4199	1906	3813
12	1328	2657	1574	3149	1430	2860
8	885	1769	1049	2099	953	1906
4	443	887	524	1049	477	953

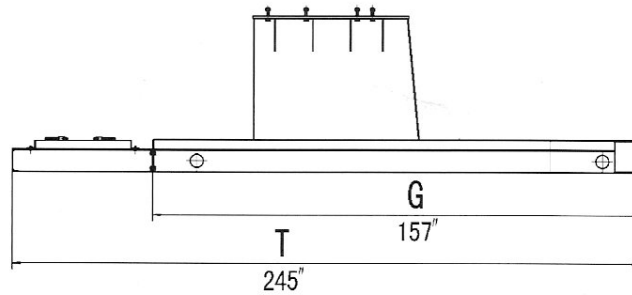


C114D-173-64 Pumping units

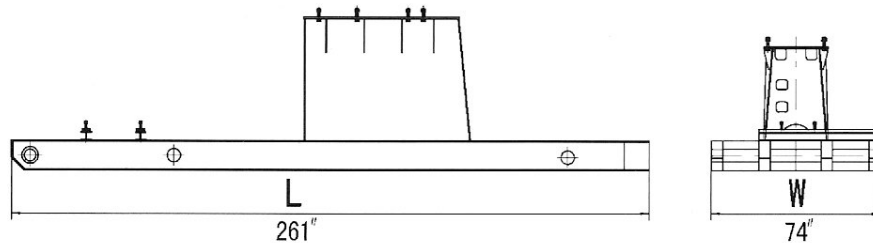
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





C114D-173-64 Standard Configuration

Polished Rod Capacity	Stroke Length	Max. Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D24	In.	In.	In.	Lbs.
17,300	64,55,44	10	114,000	215"	1.5	5/8	3/4	17905

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
N228	22317	22320	32613	32617	3530
Φ 5.5" × Φ 9.8" × 1.7"	Φ 3.3" × Φ 7.1" × 2.4"	Φ 3.9" × Φ 8.5" × 2.9"	Φ 2.6" × Φ 5.5" × 1.9"	Φ 3.3" × Φ 7.1" × 2.4"	Φ 5.9" × Φ 10.6" × 2.9"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
1345	2	2690	920	4	3680

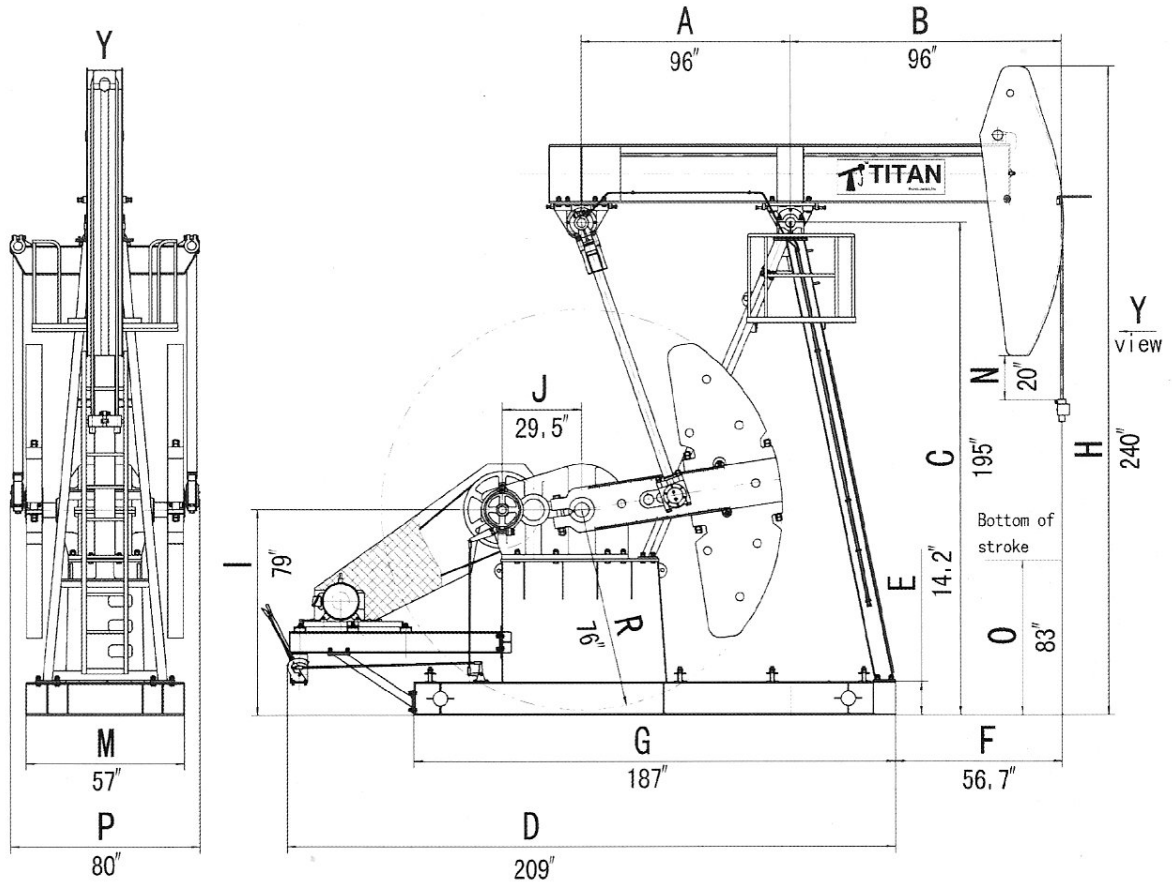
ECB DATA

Structural Unbalance (lbs.)	110					
Stroke Lengths(In.)	64		55		44	
Cranks Only (lbs.)	2635		3122		3136	
Counterbalance Position (In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
45	4432	8864	5250	10501	4858	9716
40	3852	7705	4564	9129	4442	8884
36	3468	6937	4108	8216	4026	8053
32	3083	6165	3652	7303	3319	6637
28	2697	5394	3195	6390	2902	5804
24	2311	4622	2739	5477	2487	4975
20	1925	3850	2282	4564	2073	4146
16	1541	3083	1826	3652	1658	3316
12	1155	2311	1369	2739	1244	2487
8	770	1539	913	1826	829	1658
4	386	772	456	913	415	829

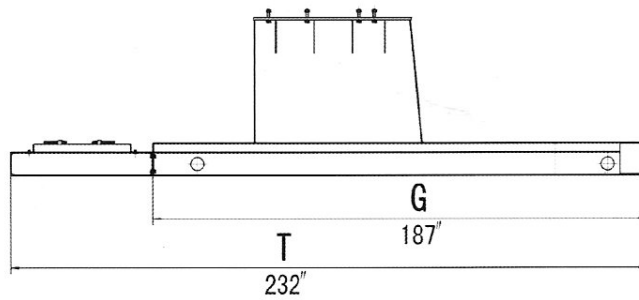


C160D-200-74 Pumping units

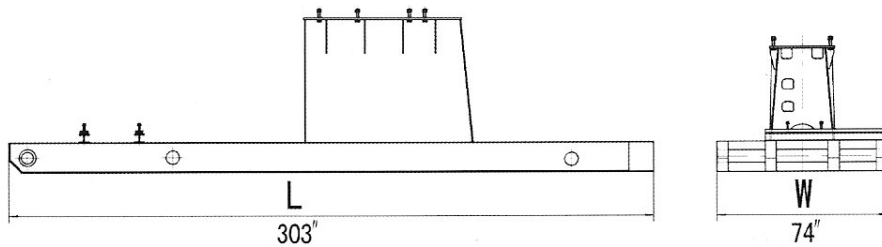
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C160D-200-74 Configuration Data

C160D-200-74 Standard Configuration

Polish Rod Capacity	Stroke Length	Max.Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×37-D24	In.	In.	In.	Lbs.
20,000	74,64,53	10	160,000	216.5"	1.5	5/8	3/4	29040

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NJ326	22317	22322	32615	32620	3532
Φ 5.1"× φ 11.0"×12.3"	φ 3.3"× φ 7.1"×2.4"	Φ 4.3"× φ 9.4"×3.1"	Φ 3.0"× φ 6.3"×2.2"	Φ 3.9"× φ 8.5"×2.9"	Φ 6.3"× φ 11.4"×3.1"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
2228	2	4456	2380	4	9520

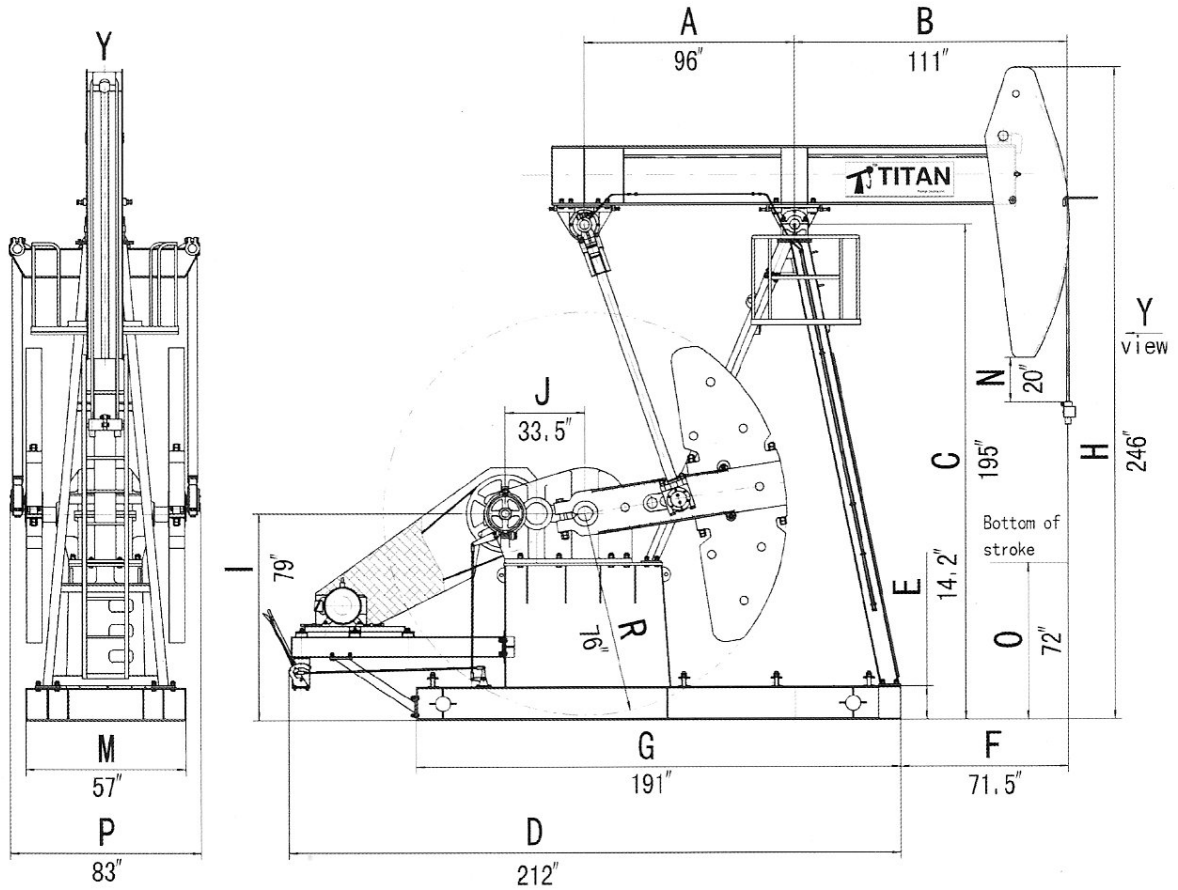
ECB DATA

Structural Unbalance (lbs.)	165					
Stroke Lengths(In.)	74		64		53	
Cranks Only (lbs.)	2635		3122		3136	
Counterbalance Position (In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
54	7599	15197	8500	17001	9727	19453
48	6564	13129	7343	14686	8404	16807
44	6018	12035	6732	13464	7702	15405
40	5471	10942	6119	12238	7003	14007
36	4924	9848	5508	11017	6302	12604
32	4377	8754	4895	9791	5601	11202
28	3830	7660	4284	8569	4902	9804
24	3283	6567	3671	7343	4201	8401
20	2736	5473	3058	6117	3502	7003
16	2187	4375	2448	4895	2800	5601
12	1641	3281	1835	3669	2099	4198
8	1094	2187	1224	2448	1400	2800
4	547	1094	611	1222	699	1398

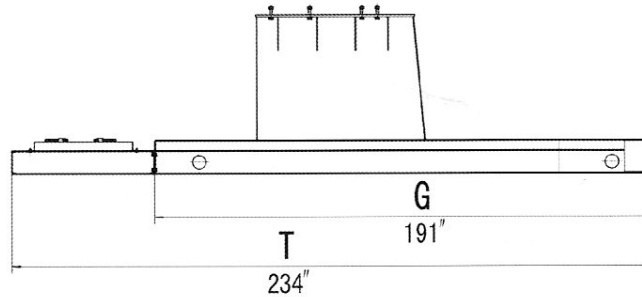


C228D-246-86 Pumping units

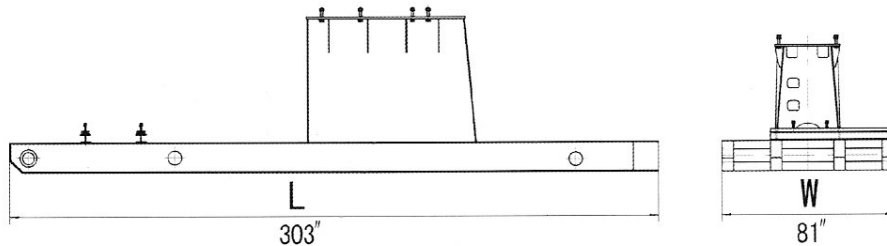
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C228D-246-86 Configuration Data

C228D-246-86 Standard Configuration

Polish Rod Capacity	Stroke Length	Max.Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×19-D28	In.	In.	In.	Lbs.
24,600	86,70,56	9	228,000	280"	1.75	5/8	3/4	36504

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NJ2228	22318	22326	NU2316EM	NU2320EM	32236
φ 4.7"×φ 9.8"×2.7"	φ 3.5"×φ 7.5"×2.5"	φ 5.1"×φ 11.0"×3.7"	φ 3.1"×φ 6.7"×2.3"	φ 3.9"×φ 8.5"×2.9"	φ 7.1"×φ 12.6"×3.6"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
2440	2	4880	2205	4	8820

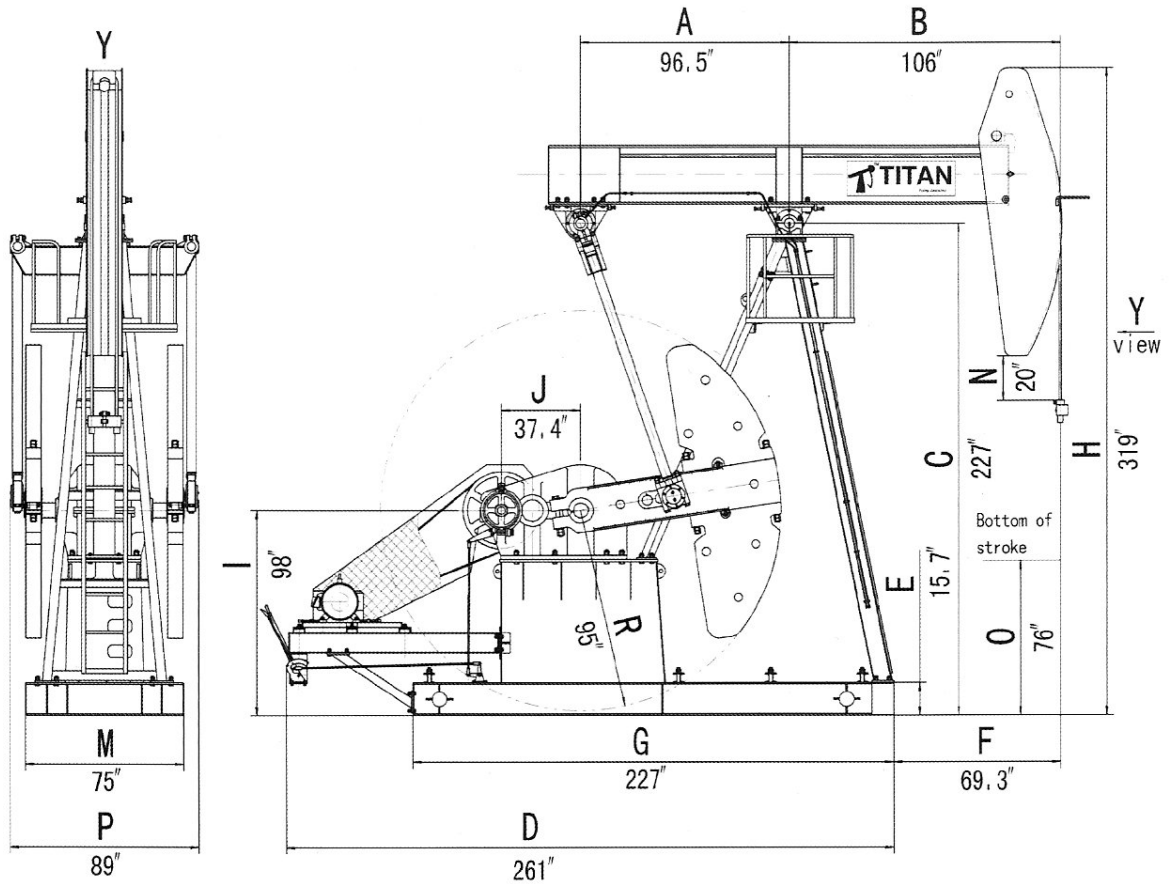
ECB DATA

Structural Unbalance (lbs.)	573					
Stroke Lengths(In.)	86		70		56	
Cranks Only (lbs.)	3702		4347		5243	
Counterbalance Position (In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
54	8161	16322	9569	19138	11544	23088
48	7851	15702	9205.5	18411	11105.5	22211
44	7351	14702	8619.5	17239	10398.5	20797
40	6851	13702	8033.5	16067	9691.5	19383
36	6351	12702	7447.5	14895	8984.5	17969
32	5851	11702	6861.5	13723	8277.5	16555
28	5351	10702	6275.5	12551	7570.5	15141
24	4851	9702	5689.5	11379	6863.5	13727
20	4351	8702	5103.5	10207	6156.5	12313
16	3851	7702	4517.5	9035	5449.5	10899

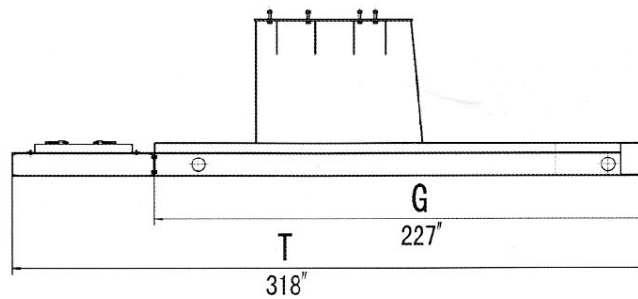


C320D-305-100 Pumping units

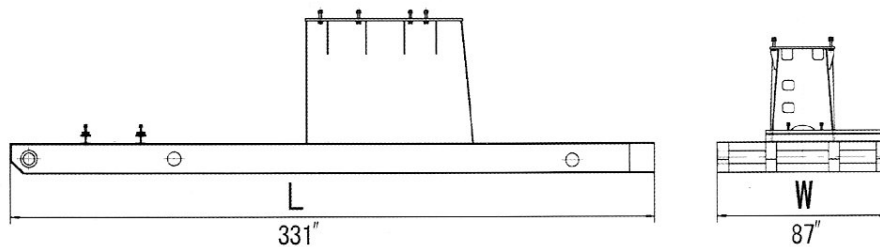
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C320D-305-100 Configuration Data

C320D-305-100 Standard Configuration

Polish Rod Capacity	Stroke Length	Max Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×19-D28	In.	In.	In.	Lbs.
30,500	100,85,70	9	320,000	299"	1.75	5/8	3/4	40522

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NJ2228	22318	22326	32620	32624	3538
φ 4.7"× φ 9.8"× 2.7"	φ 3.5"× φ 7.5"× 2.5"	φ 5.1"× φ 25.4"× 3.7"	φ 3.9"× φ 8.5"× 2.9"	φ 4.7"× φ 10.2"× 3.4"	φ 7.5"× φ 13.4"× 3.6"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
3009	2	6018	3350	4	13400

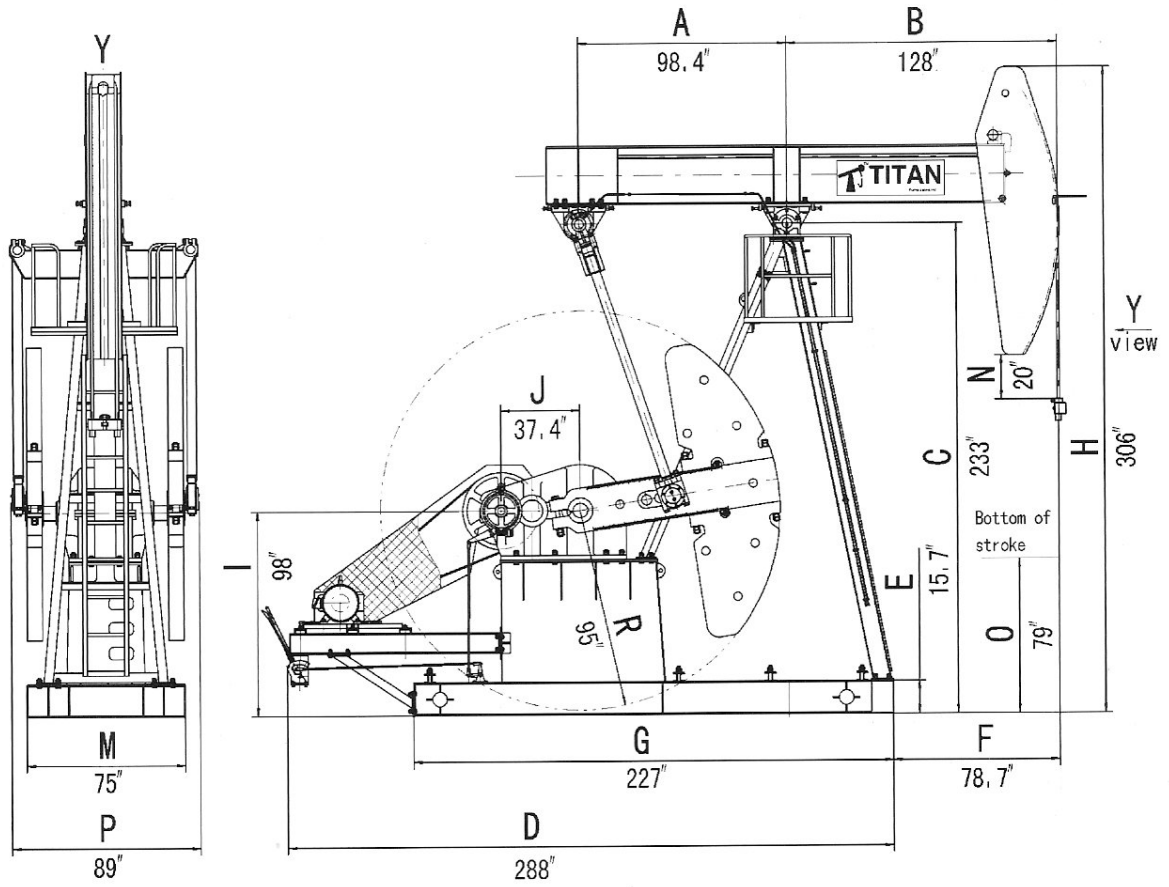
ECB DATA

Structural Unbalance (lbs.)	265					
Stroke Lengths(In.)	100		85		70	
Cranks Only (lbs.)	4456		5202.7		6260.3	
Counterbalance Position(In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
67	8636	17272	11278	22556	12123	24246
65	8378	16756	10941.5	21883	11761	23522
60	7734	15467	10100	20200	10856	21712
55	7089	14178	9258	18516	9951.5	19903
50	6445	12889	8416.5	16833	9047	18094
45	5800	11600	7575	15150	8142	16284
40	5156	10311	6733	13466	7237.5	14475
35	4511	9022	5891.5	11783	6333	12666
30	3867	7734	5050	10100	5428	10856
25	3222.5	6445	4208	8416	4523.5	9047
20	2578	5156	3366.5	6733	3619	7238
15	1933.5	3867	2525	5050	2714	5428

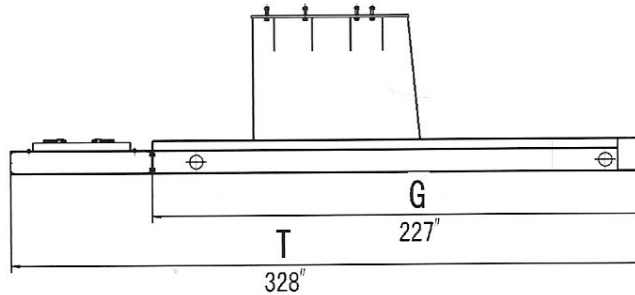


C320D-256-120 Pumping units

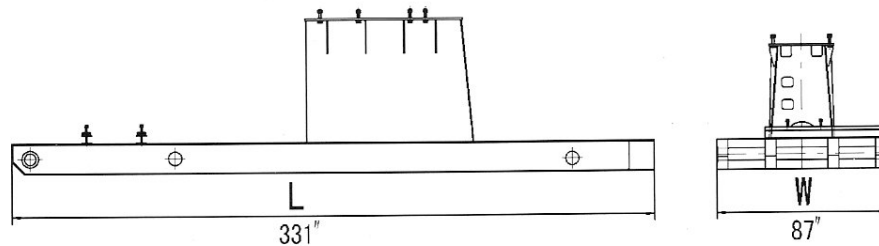
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C320D-256-120 Configuration Data

C320D-256-120 Standard Configuration

Polish Rod Capacity	Stroke Length	Max Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	7×18-D28	In.	In.	In.	Lbs.
25,600	120,102,84	9	320,000	356"	1.75	5/8	3/4	45099

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
NJ2228	22318	22326	32620	32624	3538
φ 4.7"×φ 9.8"×2.7"	φ 3.5"×φ 7.5"×2.5"	φ 5.1"×φ 11.0"×3.7"	φ 3.9"×φ 8.5"×2.9"	φ 4.7"×φ 10.2"×3.4"	φ 7.5"×φ 13.4"×3.6"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
3009	2	6018	3350	4	13400

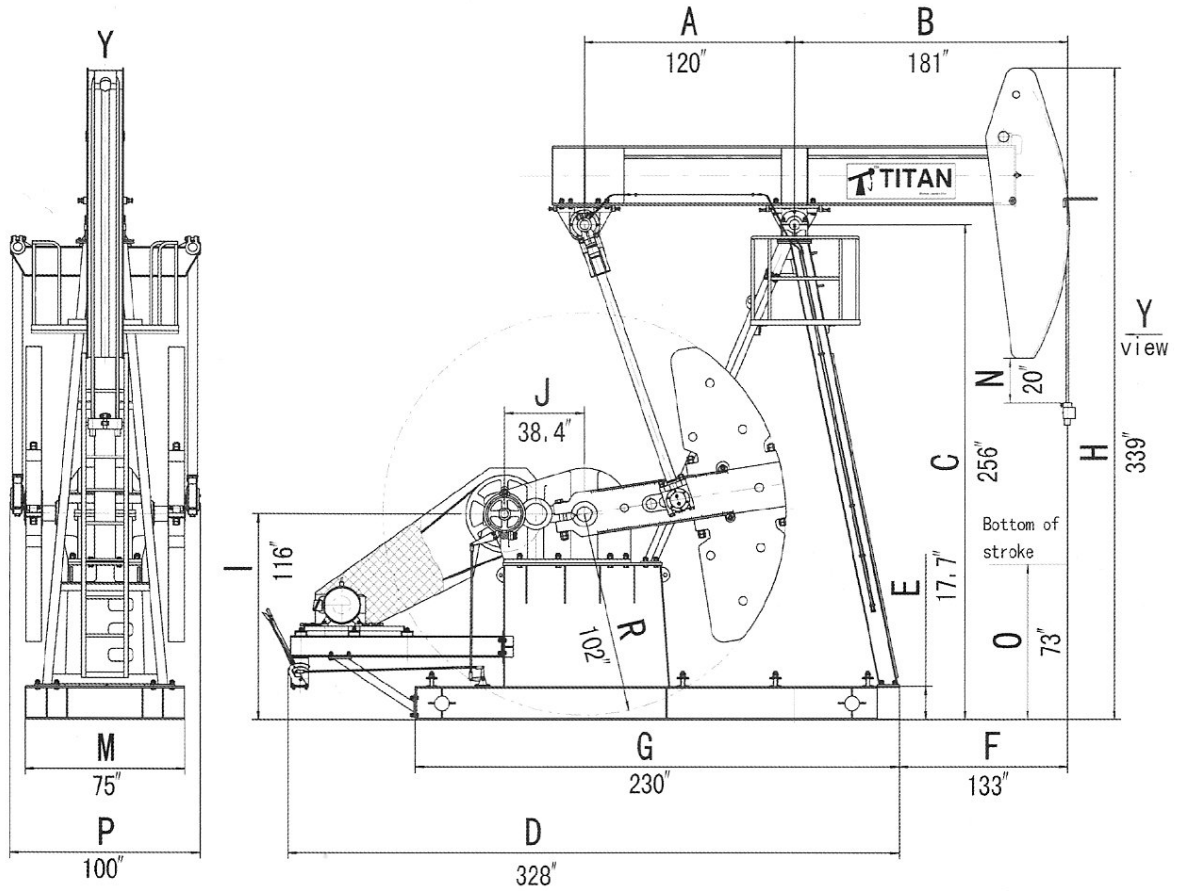
ECB DATA

Structural Unbalance (lbs.)	70					
Stroke Lengths(In.)	120		102		84	
Cranks Only (lbs.)	3296		3803		4494	
Counterbalance Position (In.)	2No.Counter Weights(lbs.)	4No.Counter Weights(lbs.)	2No.Counter Weights(lbs.)	4No.Counter Weights(lbs.)	2No.Counter Weights(lbs.)	4No.Counter Weights(lbs.)
71	6673	13346	7700	15400	9100	18200
67	6297	12594	7266	14531	8587	17173
63	5921	11842	6832	13664	8074	16148
59	8506	11090	6398	12796	7561	15122
55	5169	10338	5964	11928	7048	14096
51	4793	9586	5530	11060	6535	13070
47	4417	8834	5097	10193	6023	12046
43	4041	8082	4663	9325	5510	11020
39	3665	7330	4229	8457	4997	9994
35	3290	6579	3796	7591	4486	8971
31	2914	5827	3362	6723	3973	7945
27	2538	5075	2928	5855	3460	6920

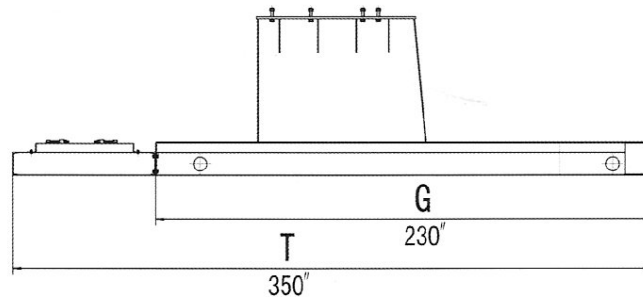


C456D-305-144 Pumping units

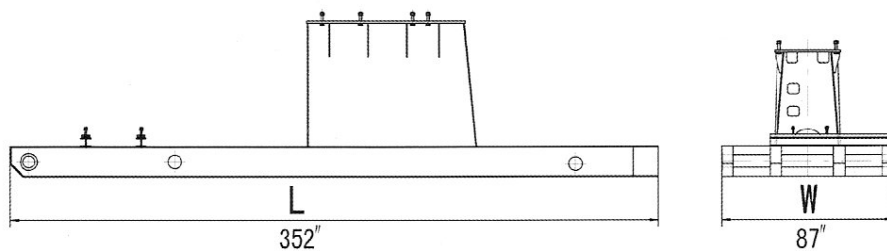
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C456D-305-144 Configuration Data

C456D-305-144 Standard Configuration

Polish Rod Capacity	Stroke Length	Max Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×19-D35	In.	In.	In.	Lbs.
30,500	144,123,102	9	456,000	378"	1.75	5/8	3/4	56361

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
22330CA	22326	22330CA	32620	32626	3544
Φ 6.0"×Φ 12.6"×4.3"	Φ 5.1"×Φ 11.0"×3.7"	Φ 6.0"×Φ 12.6"×4.3"	Φ 3.9"×Φ 8.5"×2.9"	Φ 5.1"×Φ 11.0"×3.7"	Φ 8.7"×Φ 15.7"×4.3"

Standard Crank Weights & Counter Balance Weights

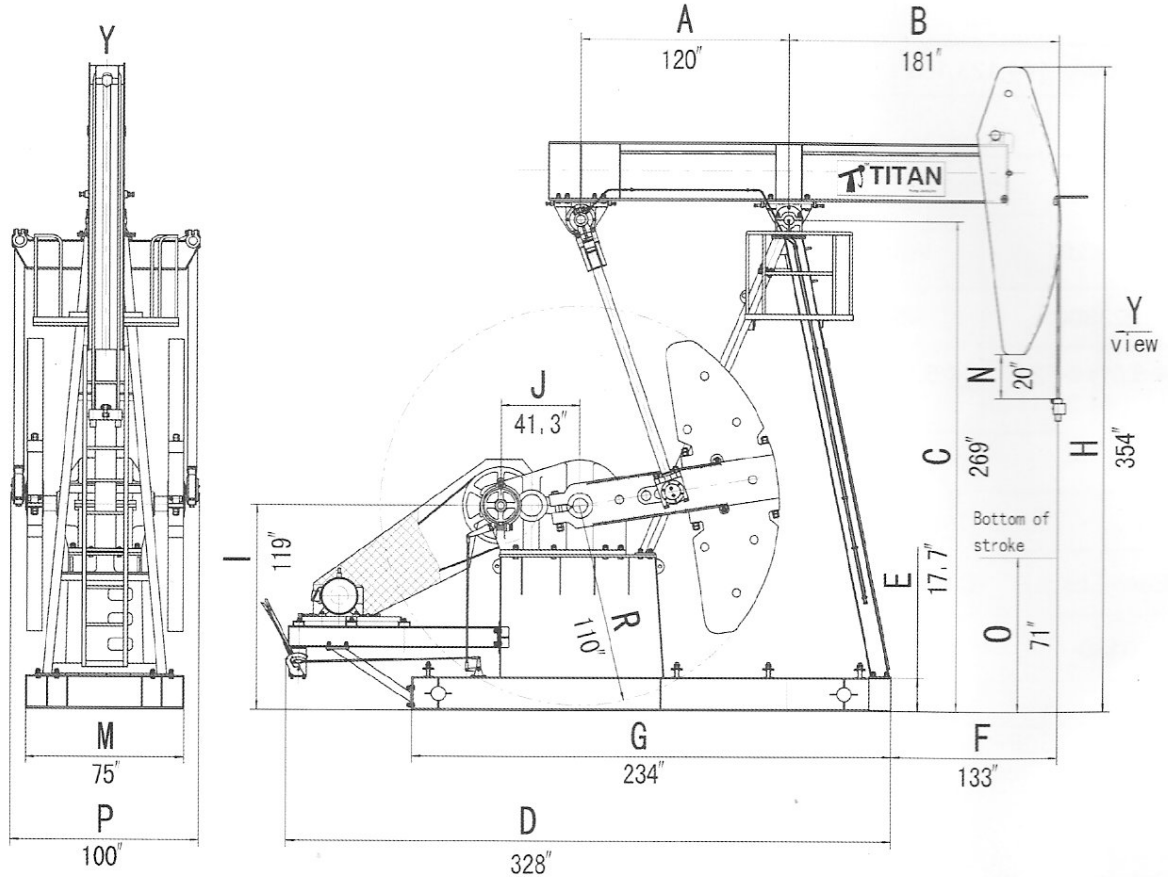
Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
3180	2	6360	3690	4	14760

ECB DATA

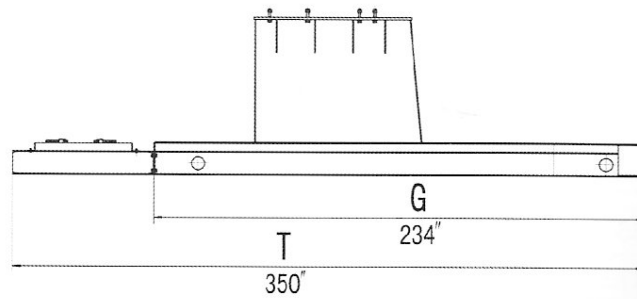
Structural Unbalance (lbs.)	178					
Stroke Lengths(In.)	144		123		102	
Cranks Only (lbs.)	2900		3554		4238	
Counterbalance Position (In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
78	6210	12420	7612	15224	9076	18152
74	5890	11780	7221	14442	8608	17216
70	5572	11143	6830	13660	8143	16286
66	5255	10510	6440	12880	7680	15360
62	4936	9872	6050	12100	7214	14428
58	4617	9235	5660	11320	6748	13496
54	4299	8598	5270	10540	6283	12566
50	3980	7960	4879	9758	5816	11633
46	3662	7324	4489	8978	5352	10704
42	3344	6688	4099	8198	4887	9774
38	3025	6050	3708	7416	4421	8842
34	2707	5414	3318	6636	3956	7912
30	2388	4776	2927	5854	3490	6980

C640D-365-168 Pumping units

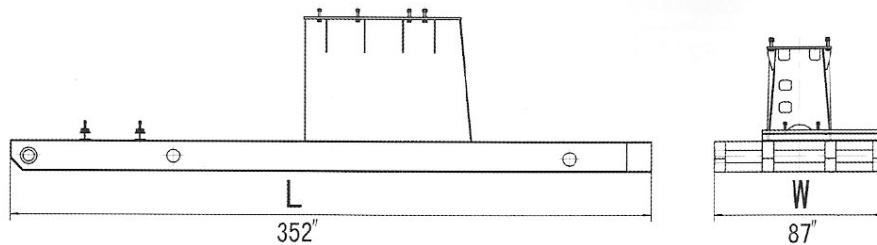
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





Pumping Units C640D-365-168 Configuration Data

C640D-365-168 Standard Configuration

Polish Rod Capacity	Stroke Length	Max Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	6×19-D35	In.	In.	In.	Lbs.
36,500	168,144,121	9	640,000	434.5"	1.75	5/8	3/4	67226

Bearing Dimension

Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
22330CA	22328	22330CA	32622	32626	3544
Φ6"×Φ12.6"×4.3"	Φ5.5"×Φ11.8"×4"	Φ6"×Φ12.6"×4.3"	Φ4.3"×Φ9.4"×3.1"	Φ5.1"×Φ11.0"×3.7"	Φ8.7"×Φ15.7"×4.3"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
4340	2	8680	4200	4	16800

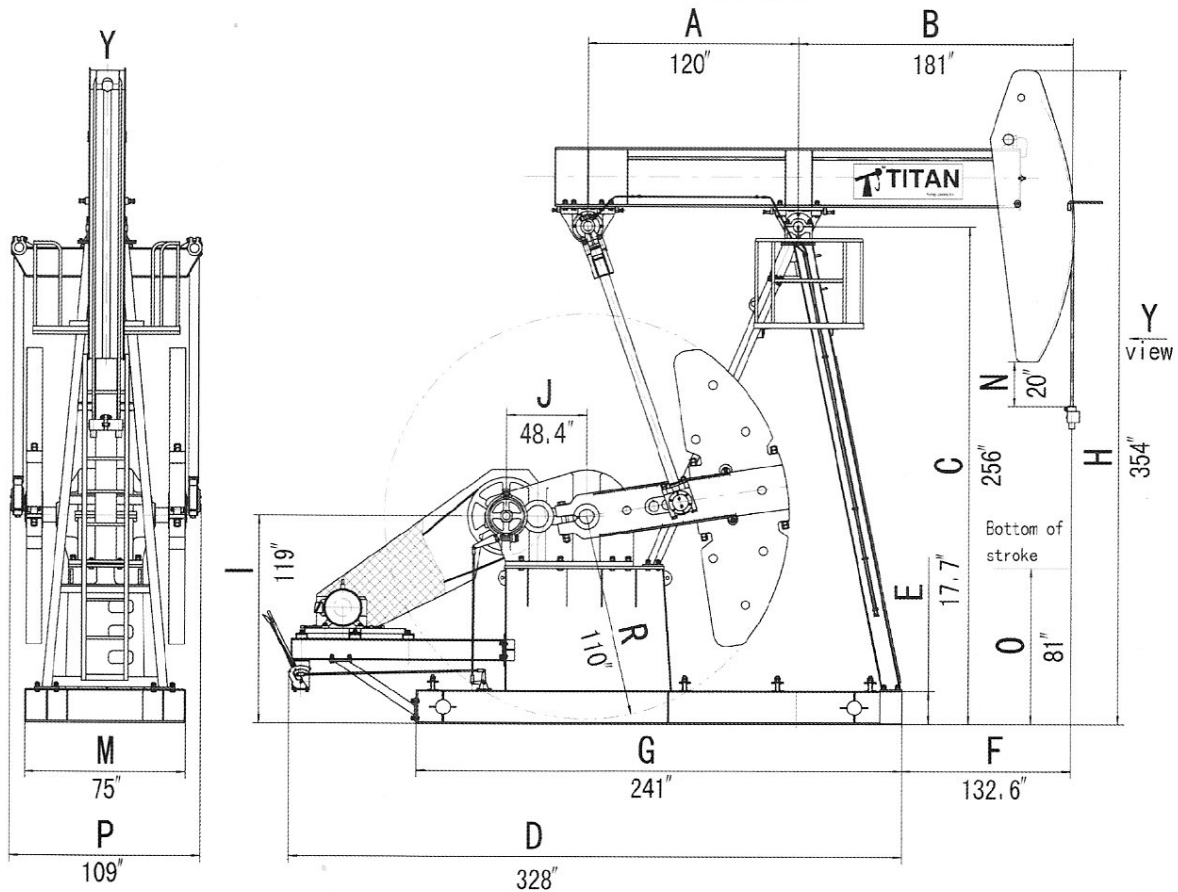
ECB DATA

Structural Unbalance (lbs.)	-1470					
Stroke Lengths(In.)	168		144		121	
Cranks Only (lbs.)	4640		5316		6200	
Counterbalance Position (In.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)	2No.Counter Weights (lbs.)	4No.Counter Weights (lbs.)
84	9076	18152	10410	20820	12145	24290
78	8428	16855	9666	19333	11278	22555
74	7996	15991	9171	18341	10699	21398
70	7563	15127	8675	17350	10121	20242
66	7131	14262	8179	16359	9543	19085
62	6699	13398	7684	15367	8964	17928
58	6267	12534	7188	14376	8386	16772
54	5835	11669	6692	13384	7808	15615
50	5402	10805	6196	12393	7229	14458
46	4970	9940	5701	11401	6651	13302
42	4538	9076	5205	10410	6073	12145
38	4106	8212	4709	9419	5494	10988
34	3674	7347	4214	8427	4916	9832
30	3241	6483	3718	7436	4338	8675

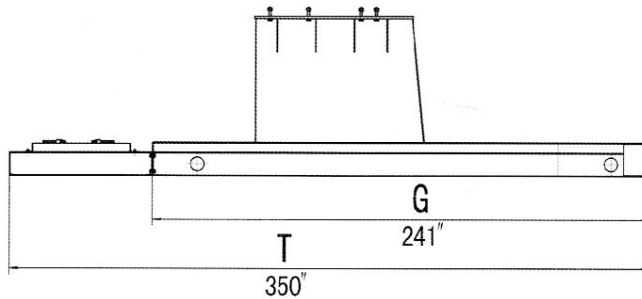


C912D-365-168 Pumping units

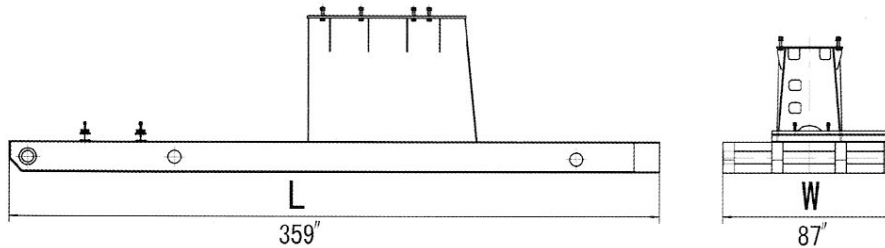
HIGH PRIME T BASE



LOW PRIME T BASE



LOW PRIME WIDE BASE





C912D-365-168 Standard Configuration

Polish Rod Capacity	Stroke Length	Max Stroke Frequency	Rate Torque	Wire Rope Type/Length	Polish Bar Holder ID	Rail Bolts OD		Total Weights
						Motor	Engine	
Lbs.	In.	SPM	In.-Lbs.	7×18-D28	In.	In.	In.	Lbs.
36,500	168,145,121	9	912,000	434.5"	1.75	5/8	3/4	74061

Bearing Dimension

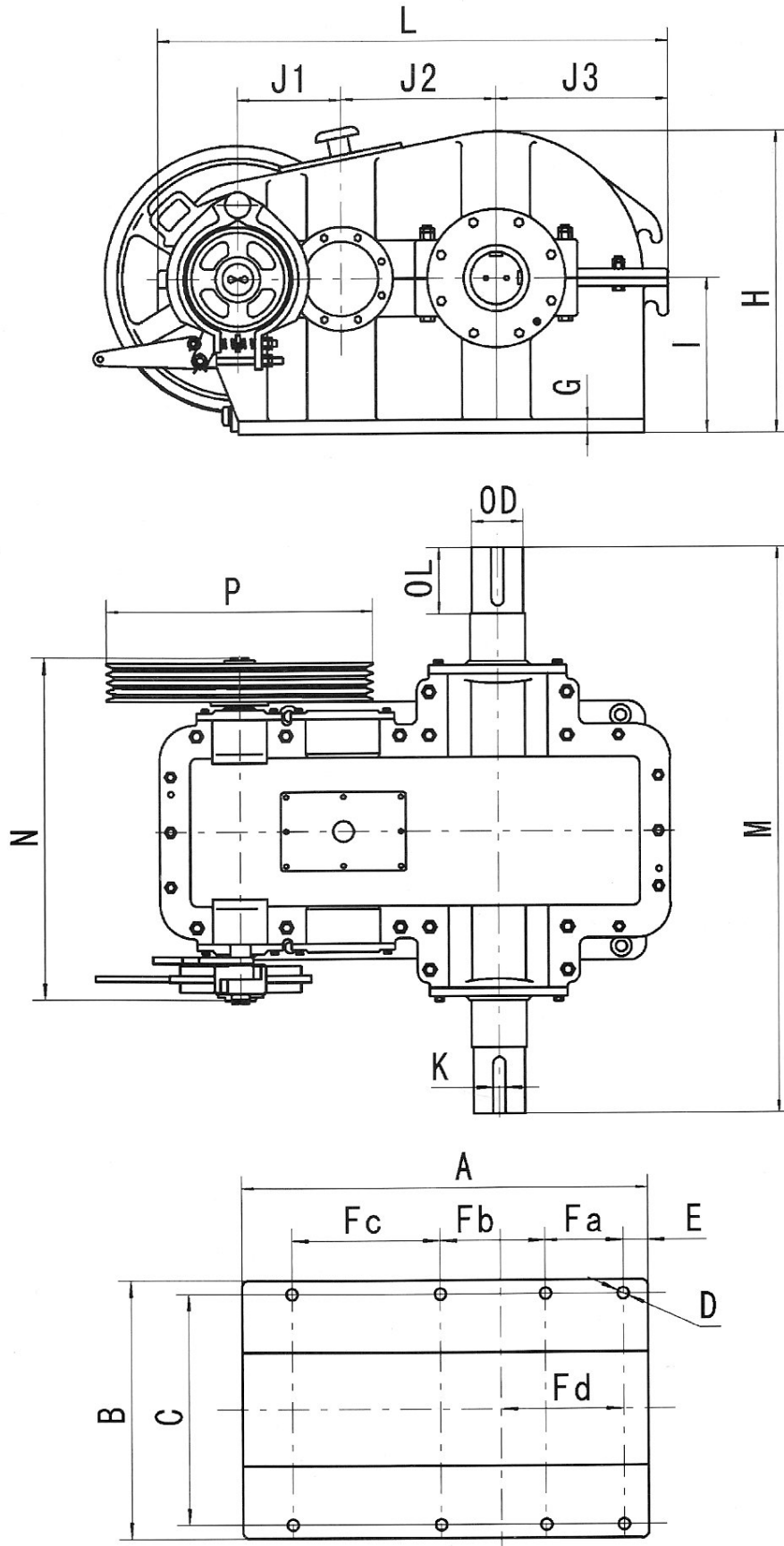
Pumping Unit Bearing			Gear Reducer Shaft Bearing		
Saddle	Wrist Pin	Tail	Input	Intermediate	Output
22330CA	22328	22330CA	32622	32626	3544
Φ6"×Φ12.6"×4.3"	Φ5.5"×Φ11.8"×4"	Φ6"×Φ12.6"×4.3"	Φ4.3"×Φ9.4"×3.1"	Φ5.1"×Φ11.0"×3.7"	Φ8.7"×Φ15.7"×4.3"

Standard Crank Weights & Counter Balance Weights

Crank Arm			Counter Balance		
Each(Lbs.)	QTY	Total(Lbs.)	Each(Lbs.)	QTY	Total(Lbs.)
4340	2	8680	4200	4	16800

ECB DATA

Structural Unbalance (Lbs.)	-1470					
Stroke Lengths(In.)	168		145		121	
Cranks Only (Lbs.)	4721		5416		6318	
Counterbalance Position (In.)	2No.Counter Weights (Lbs.)	4No.Counter Weights (Lbs.)	2No.Counter Weights (Lbs.)	4No.Counter Weights (Lbs.)	2No.Counter Weights (Lbs.)	4No.Counter Weights (Lbs.)
84	9076	18152	10410	20820	12145	24290
78	8428	16855	9666	19333	11278	22555
74	7996	15991	9171	18341	10699	21398
70	7563	15127	8675	17350	10121	20242
66	7131	14262	8179	16359	9543	19085
62	6699	13398	7684	15367	8964	17928
58	6267	12534	7188	14376	8386	16772
54	5835	11669	6692	13384	7808	15615
50	5402	10805	6196	12393	7229	14458
46	4970	9940	5701	11401	6651	13302
42	4538	9076	5205	10410	6073	12145
38	4106	8212	4709	9419	5494	10988
34	3674	7347	4214	8427	4916	9832
30	3241	6483	3718	7436	4338	8675





Gear Reducer General Information II Data

Gear Reducer Dimensions I (inches)

PN	H	I	J1	J2	J3	L	K	M	N
16D	16	9.1	4.9	7.1	9.1	25.6	0.71	32.4	18.9
25D	20.4	10.6	6.5	9.3	12.0	33.5	0.87	38.8	23.9
40D	23.3	12.2	7.1	10.6	13.4	36.8	0.98	42.0	26.6
57D	26.2	13.8	7.9	11.8	14.8	40.8	0.98	43.5	26.8
80D	26.3	13.8	8.9	12.8	14.8	42.1	0.98	46.1	28.9
114D	32.5	16.7	9.8	15.8	18.7	52.4	1.26	59.1	34.4
160D	32.5	17.7	11.8	17.7	19.7	58.3	1.42	64.6	38.8
228D	38.5	19.7	13.8	19.7	21.3	63.4	1.77	68.7	39.0
320D	44.9	23.2	14.6	22.8	24.6	72.1	1.77	75.6	45.8
456D	46.5	24.2	14.8	23.6	26.2	74.4	1.77	81.0	48.7
640D	49.9	26.0	15.7	25.6	28.0	79.1	1.77	86.2	55.0
912D	59.6	30.9	17.3	31.1	32.8	91.2	1.77	89.8	58.2

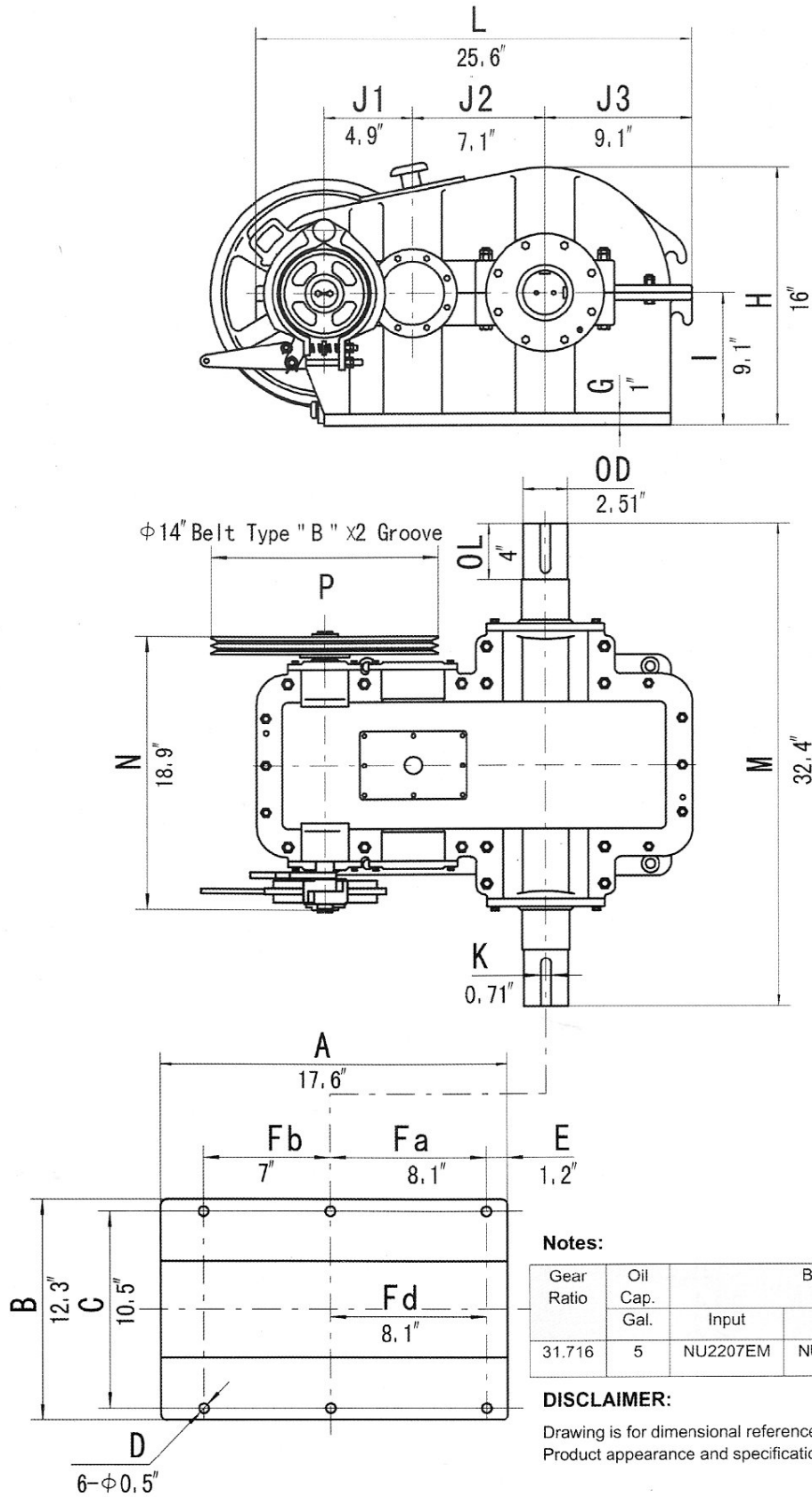
Gear Reducer Dimensions II (inches)

PN	G	OD	OL	P		Oil Cap.	Bearing of Shaft			Weight Lbs
				OD	Groove		Input	Mid.	Output	
16D	1	2.51	4	14	2B	5	NU2207EM	NU2208EM	22213	819
25D	1.2	3.15	4.3	19	2B	6	NU2208EM	NU309EM	NUP2216E	1730
40D	1.2	3.54	4.7	19	3B	10	NU308E	NU312E	22220	2340
57D	1.4	3.54	5.7	22	3B	12	32610	32612	3003721	2600
80D	1.6	3.54	5.3	26	4B	14	32610	32612	3003721	3100
114D	1.6	5.12	7.8	30	4C	25	32613	32617	3530	5500
160D	1.6	5.91	7.6	30	4C	37	32615	32620	3532	6615
228D	1.6	6.89	8.4	36	5C	43	NU2316EM	NU2320M	32236	7480
320D	1.7	6.89	8.4	36	5C	75	32620	32624	3538	9800
456D	1.7	6.89	8.3	44	6C	88	32620	32626	3544	11000
640D	1.8	7.87	9.5	50	6C	106	32622	32626	3544	12760
912D	2.1	7.87	9.3	50	7C	180	32624	32630	3544	18800

Gear Reducer Dimensions III(inches)

PN	A	B	C	D	E	Fa	Fb	Fc	Fd
16D	17.6	12.3	10.5	6-φ0.5	1.2	8.1	7	0.0	8.1
25D	24.8	16.5	14.2	6-φ0.9	2.4	9.8	10.2	0.0	5.3
40D	27.4	18.5	15.8	6-φ1.0	2.4	10.8	11.8	0.0	6.3
57D	29.9	18.1	15.6	6-φ1.0	2	13.0	13.0	0.0	6.5
80D	29.5	20.1	17.7	6-φ1.0	1.9	13.4	11.8	0.0	6.7
114D	41.3	27.6	25.0	6-φ1.3	2.6	20.1	13.8	0.0	13.2
160D	46.3	29.5	26.4	6-φ1.3	2.8	20.9	16.9	0.0	14
228D	52.5	30.7	26.8	8-φ1.4	2.2	6.1	21.3	16.9	16.7
320D	59.5	34.7	30.3	8-φ1.5	2.3	7.3	24.4	18.1	19.5
456D	61.1	36.2	32.3	8-φ1.9	2.5	9.8	25.6	16.7	19.9
640D	65.7	37.8	33.9	8-φ1.9	2.8	11.2	23.8	21.5	21.3
912D	78.8	40.2	35.0	8-φ1.9	4.1	15.0	24.4	27.6	24.8

16D Gear Type Double Circle



Notes:

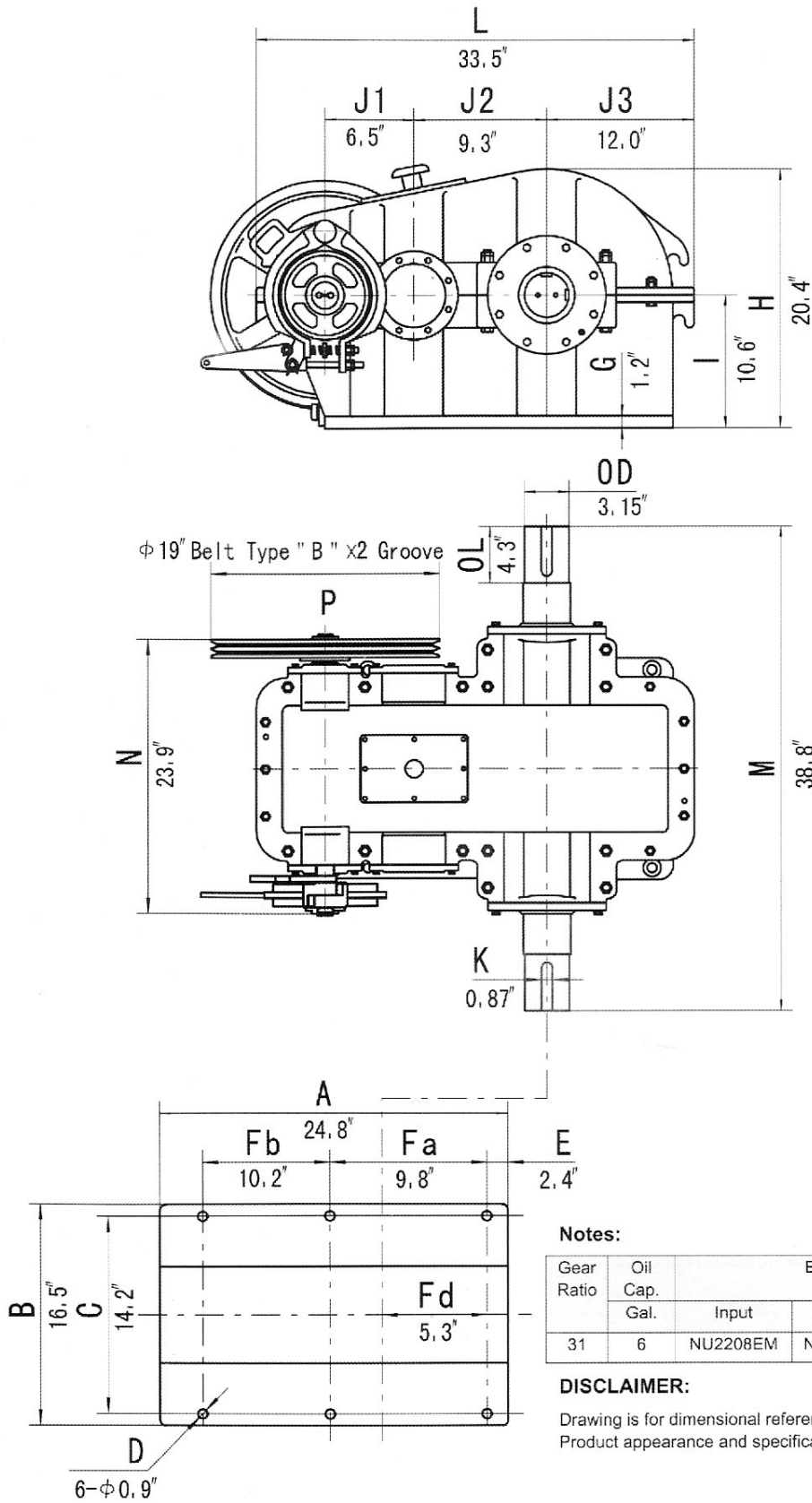
Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
31.716	5	NU2207EM	NU2208EM	22213	819

DISCLAIMER:

Drawing is for dimensional reference only. Product appearance and specifications may vary.



25D Gear Type Double Circle



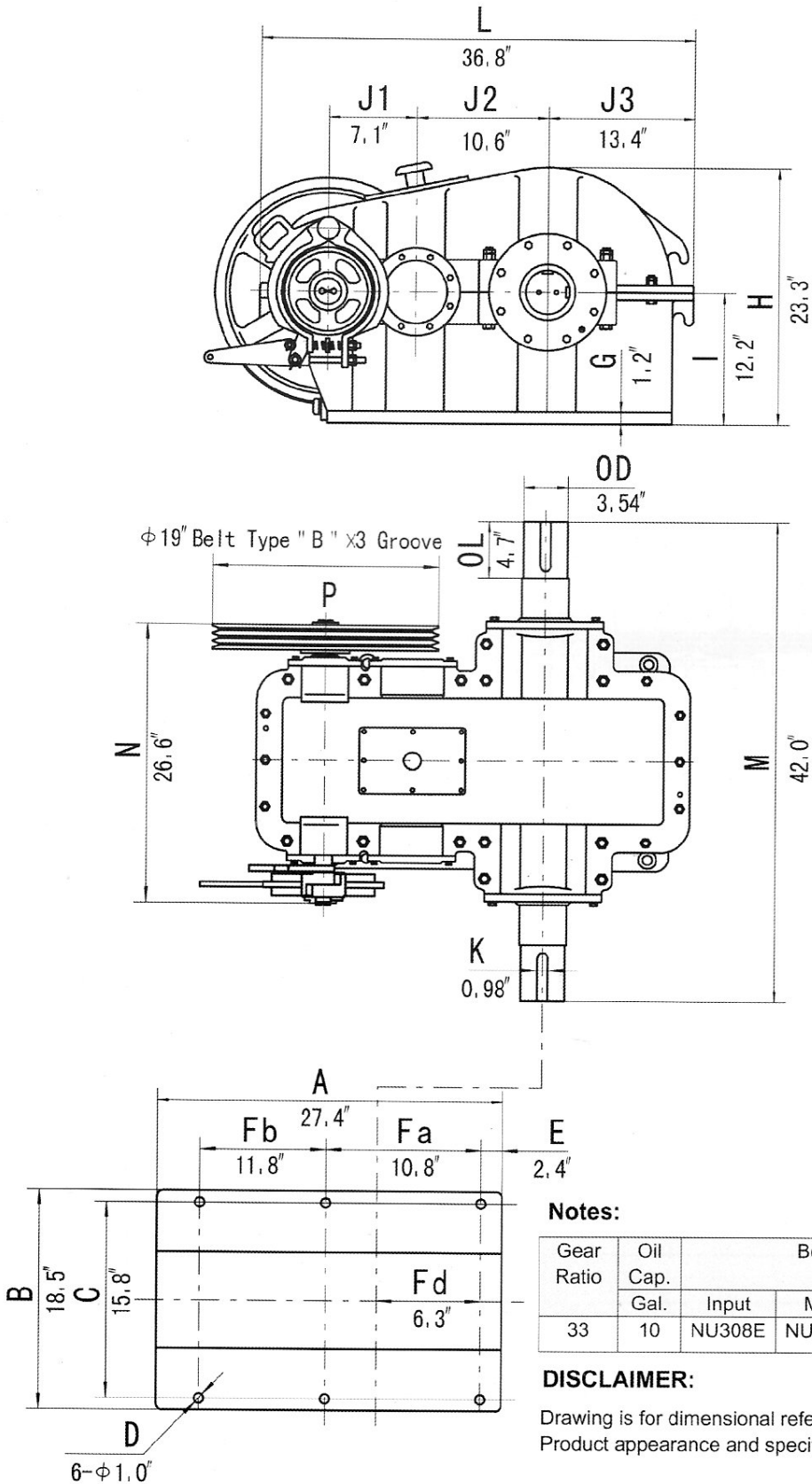
Notes:

Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs
		Input	Mid.	Output	
31	6	NU2208EM	NU309EM	NUP2216E	1730

DISCLAIMER:

Drawing is for dimensional reference only. Product appearance and specifications may vary.

40D Gear Type Double Circle



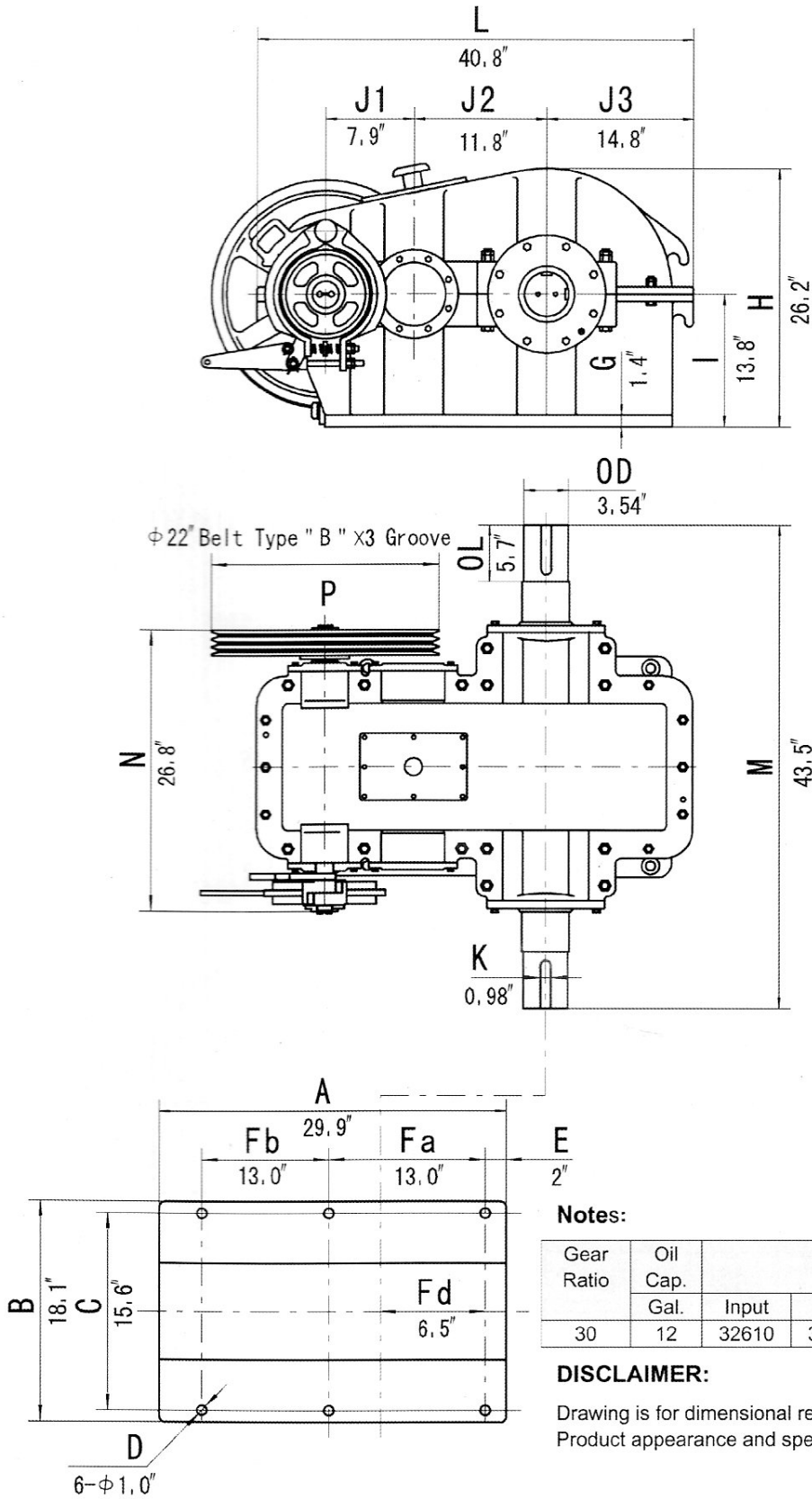
Notes:

Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
33	10	NU308E	NU312E	22220	2340

DISCLAIMER:

Drawing is for dimensional reference only.
 Product appearance and specifications may vary.

57D Gear Type Double Circle

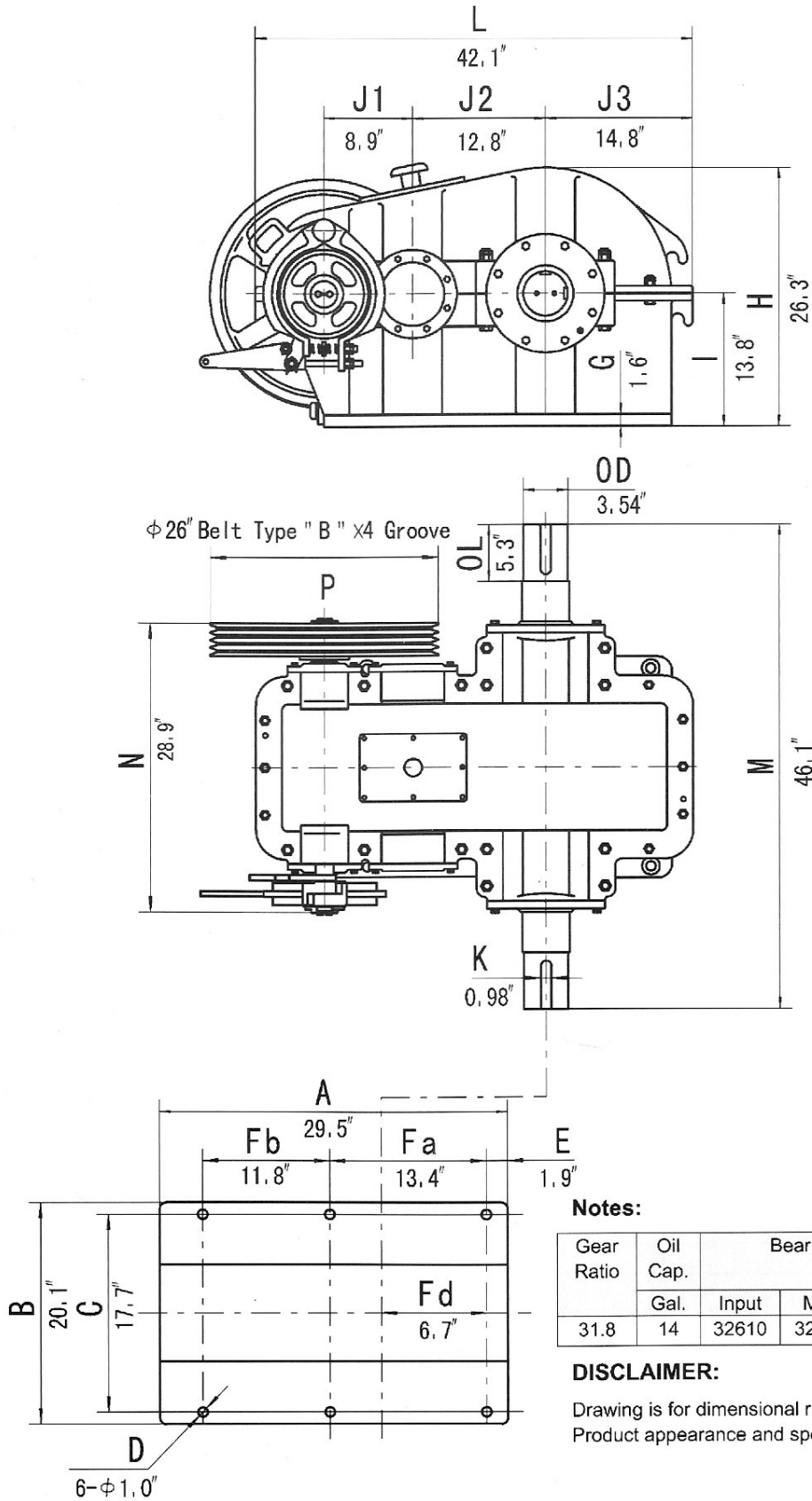


Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
30	12	32610	32612	3003721	2600

DISCLAIMER:
 Drawing is for dimensional reference only.
 Product appearance and specifications may vary.



80D Gear Type Double Circle



Notes:

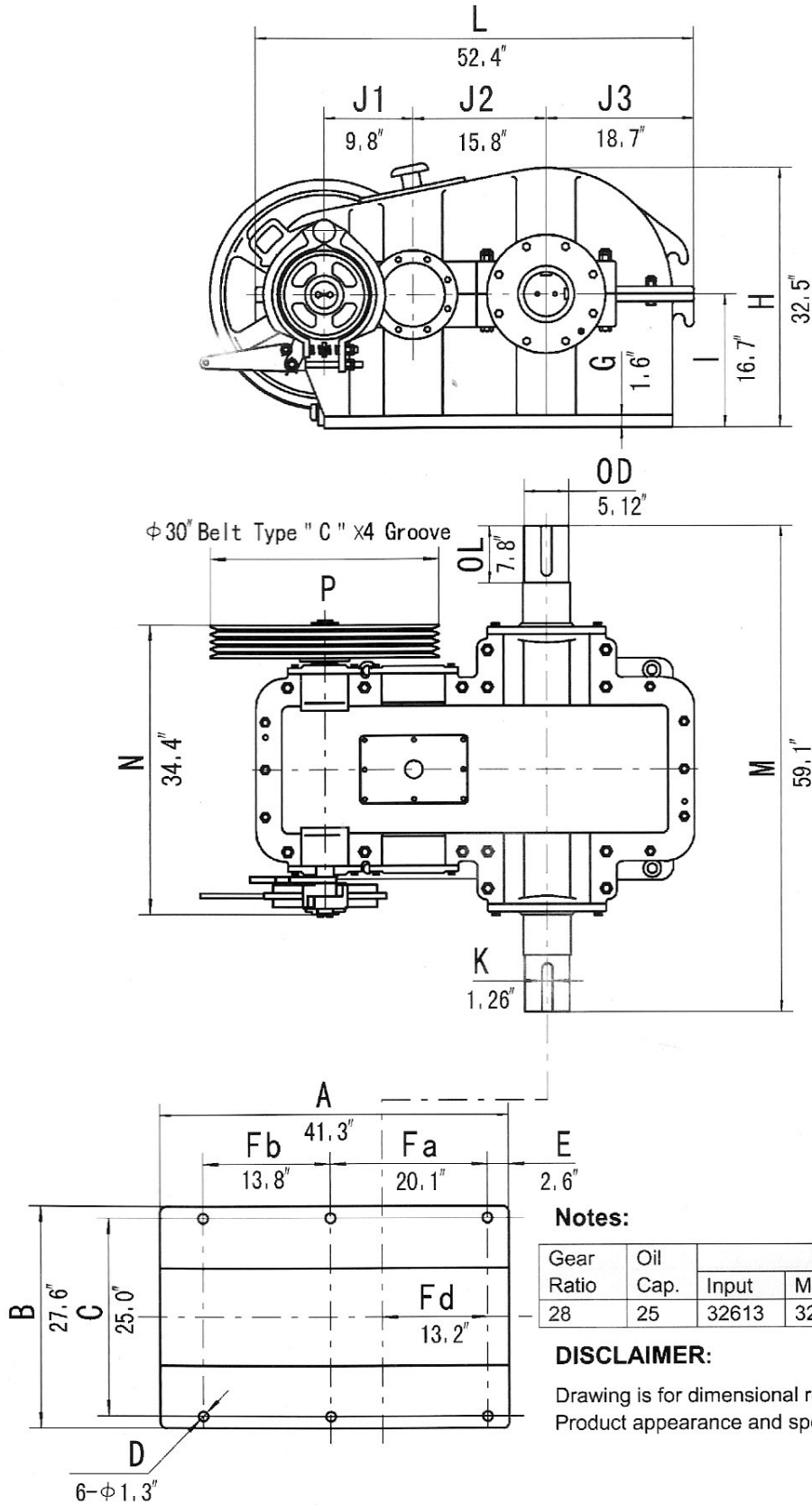
Gear Ratio	Oil Cap.	Bearings			Weight
	Gal.	Input	Mid.	Output	Lbs.
31.8	14	32610	32612	3003721	3100

DISCLAIMER:

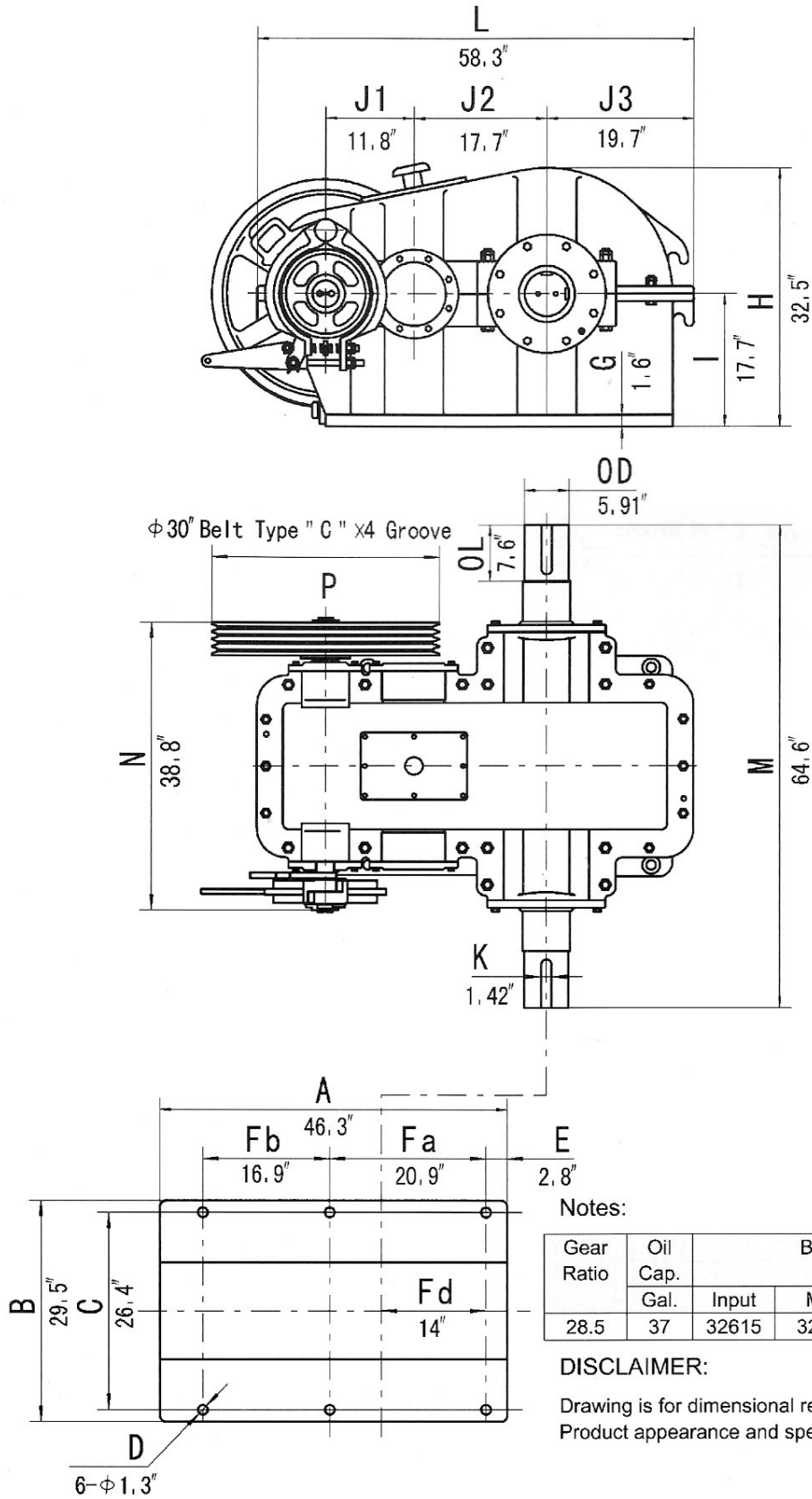
Drawing is for dimensional reference only. Product appearance and specifications may vary.



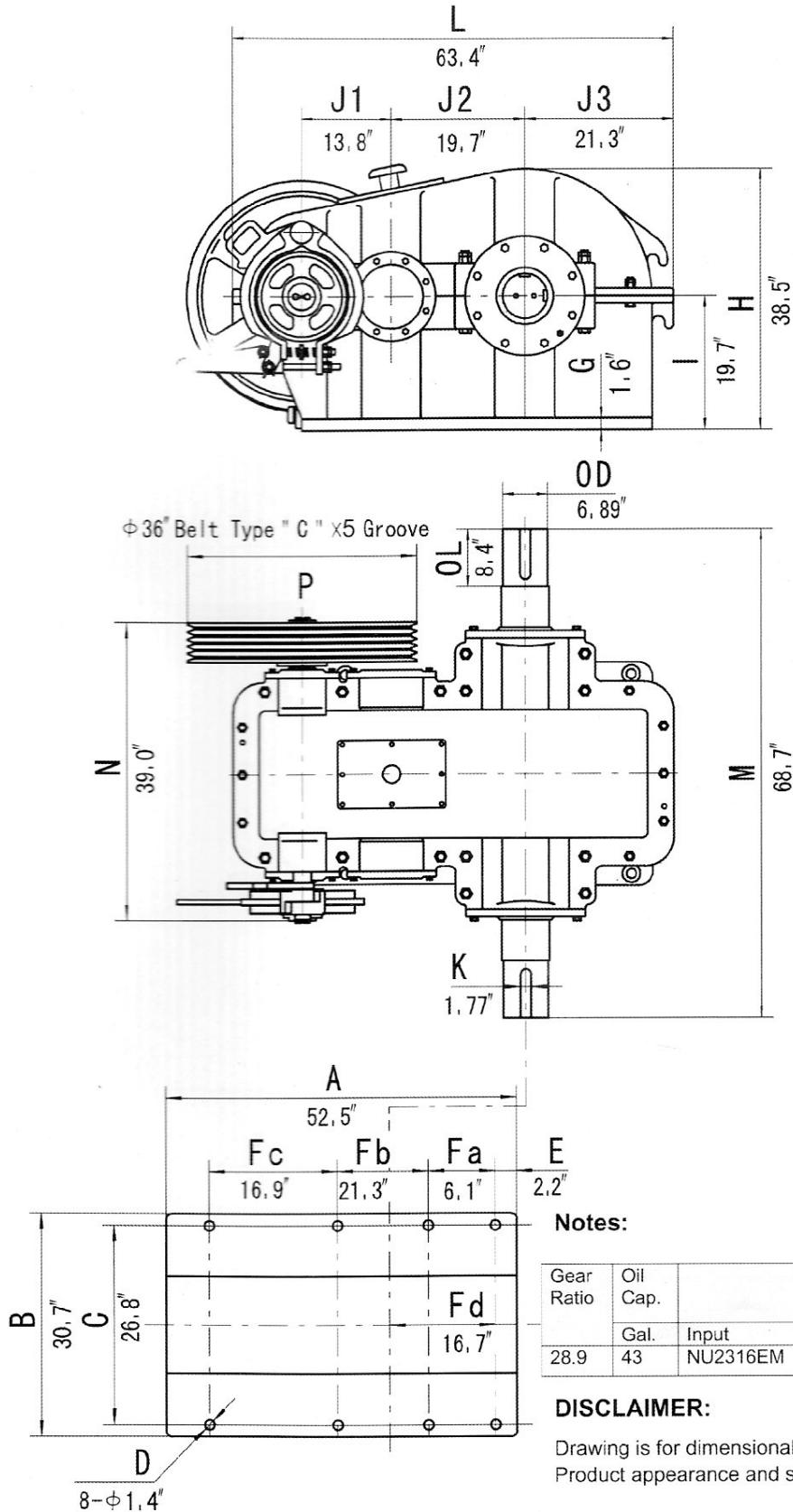
114D Gear Type Double Circle



160D Gear Type Double Circle



228D Gear Type Double Circle



Notes:

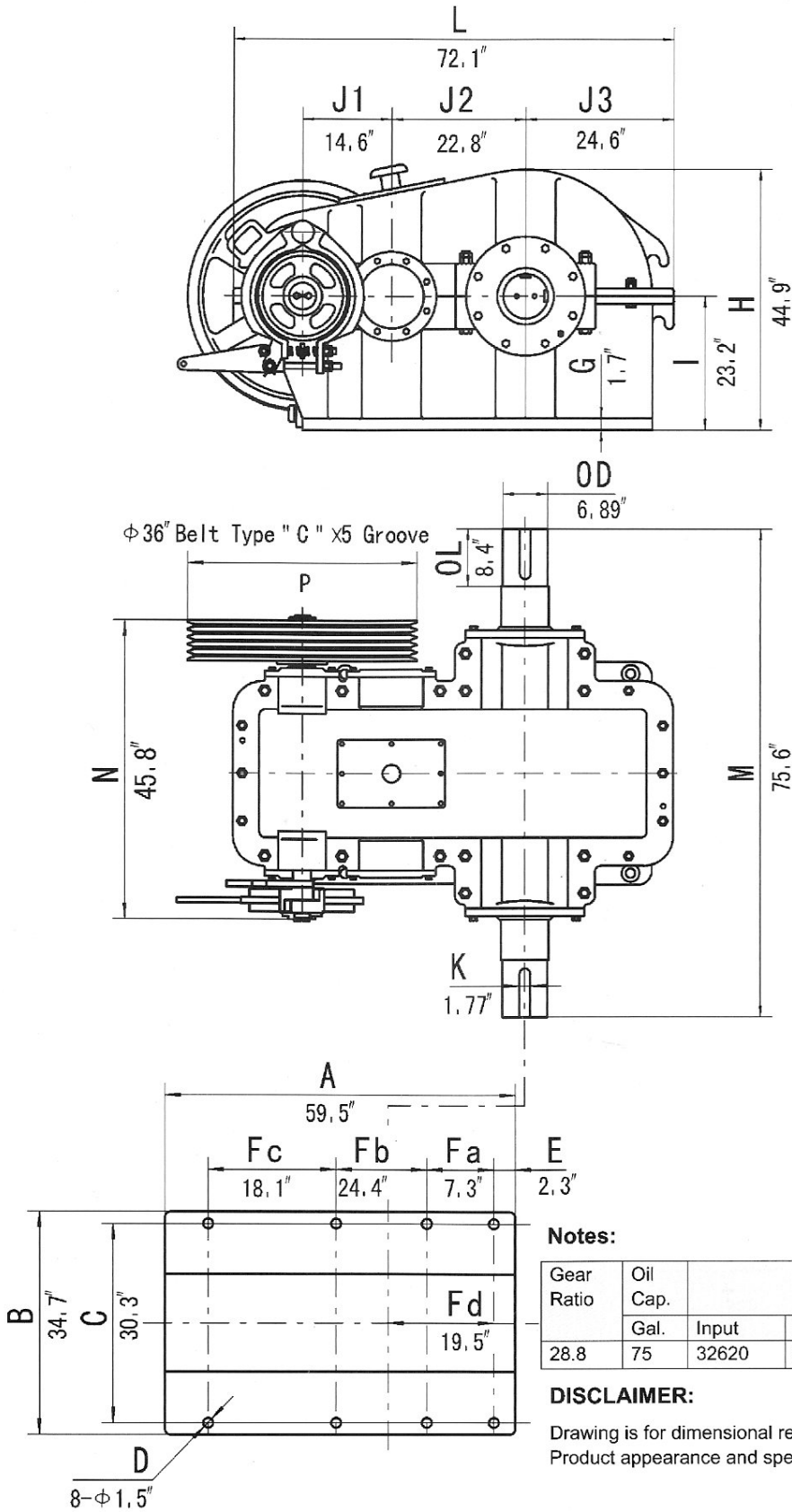
Gear Ratio	Oil Cap.	Bearings			Weight
		Gal.	Input	Mid.	
28.9	43	NU2316EM	NU2320M	32236	7480

DISCLAIMER:

Drawing is for dimensional reference only.
Product appearance and specifications may vary



320D Gear Type Double Circle



Notes:

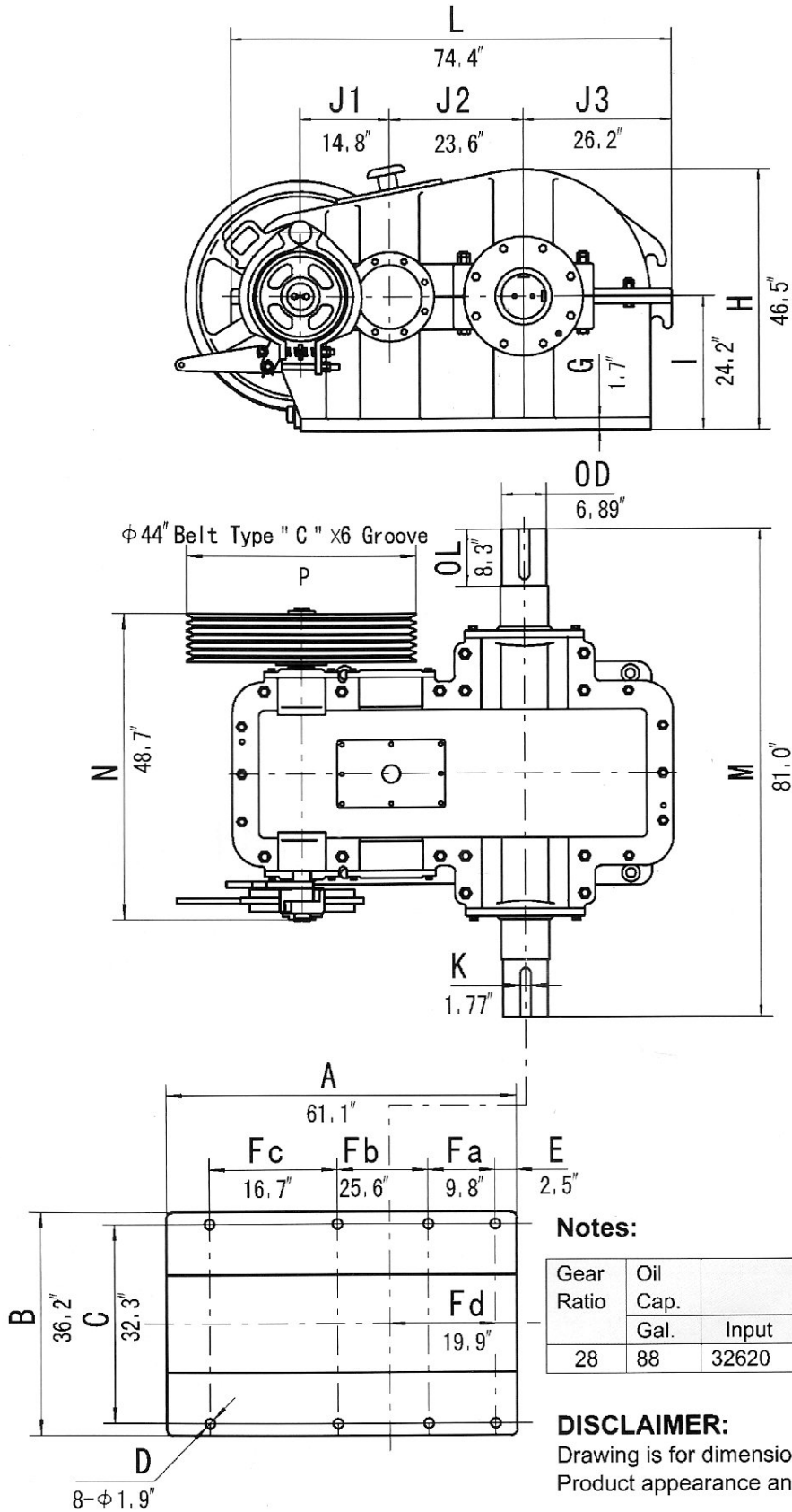
Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
28.8	75	32620	32624	3538	9800

DISCLAIMER:

Drawing is for dimensional reference only.
Product appearance and specifications may vary



456D Gear Type Double Circle



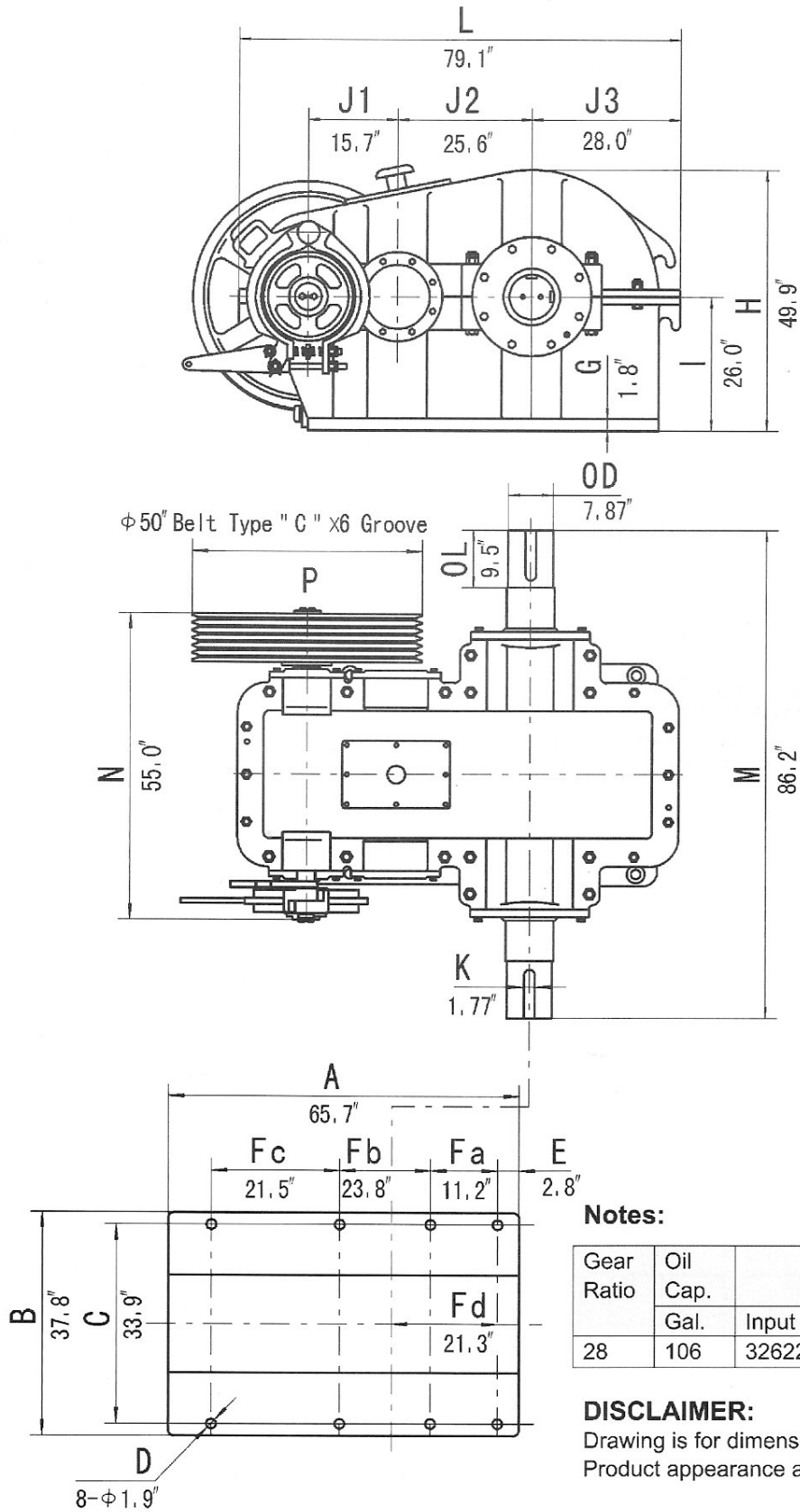
Notes:

Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
28	88	32620	32626	3544	11000

DISCLAIMER:

Drawing is for dimensional reference only. Product appearance and specifications may vary.

640D Gear Type Double Circle



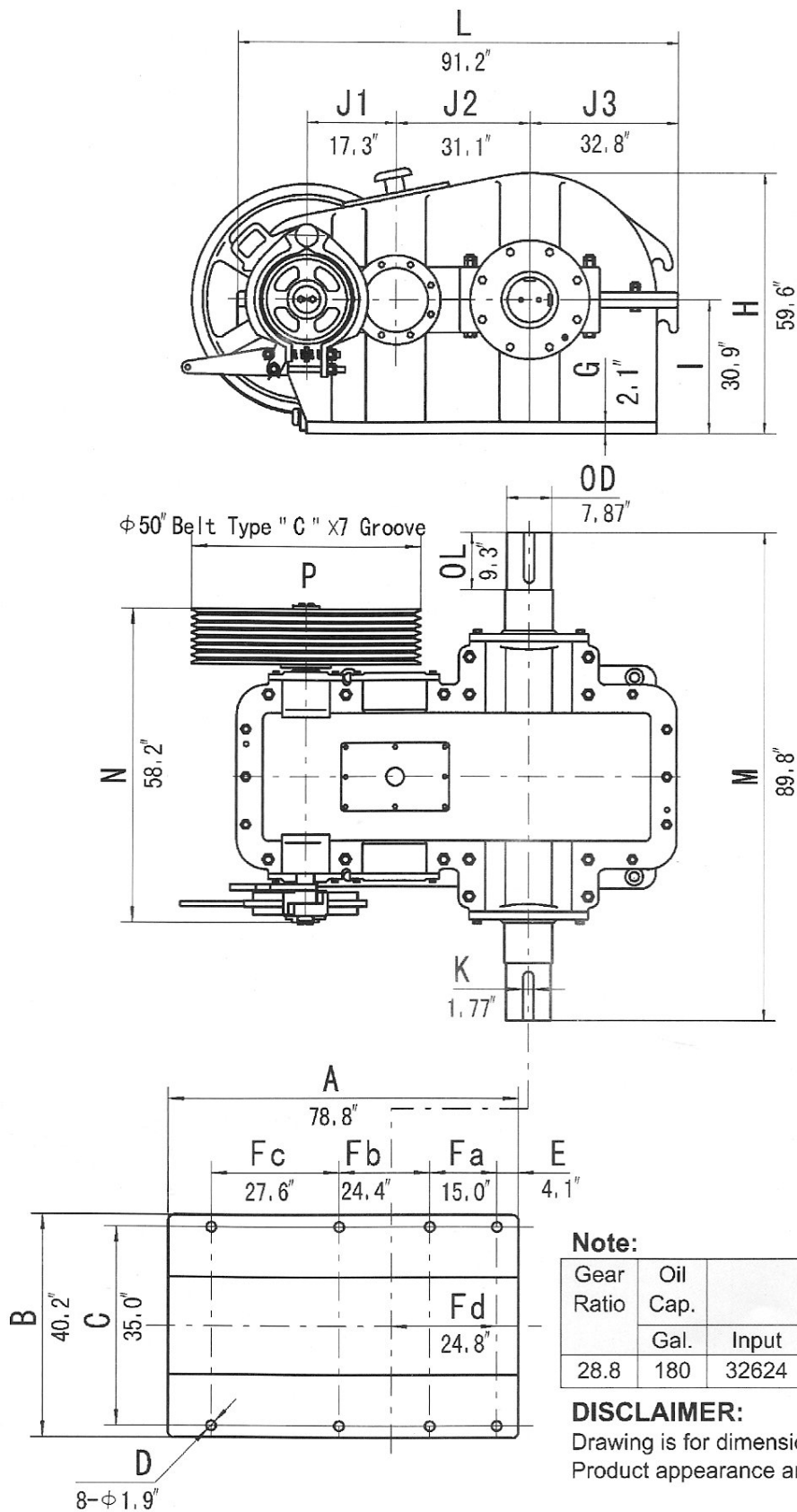
Notes:

Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
28	106	32622	32626	3544	12760

DISCLAIMER:

Drawing is for dimensional reference only. Product appearance and specifications may vary.

912D Gear Type Double Circle

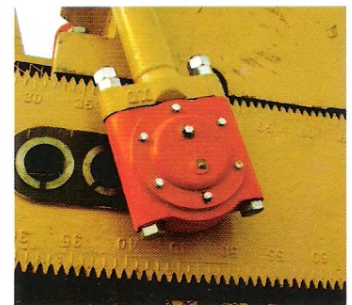


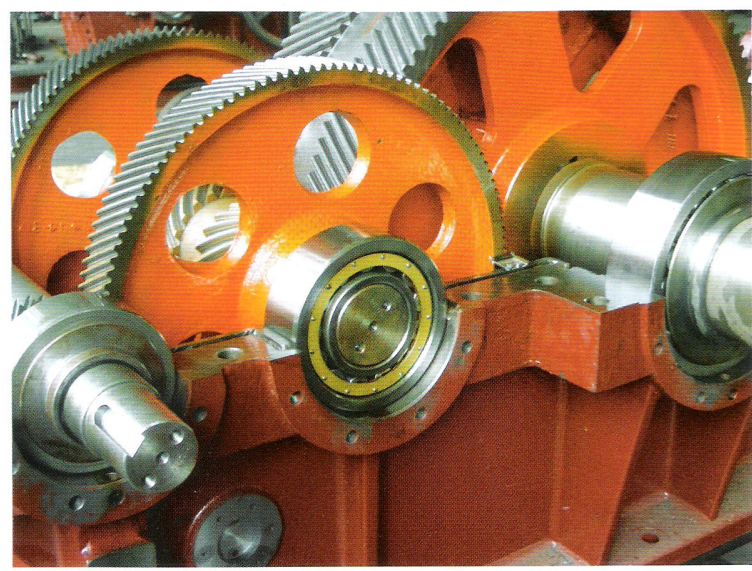
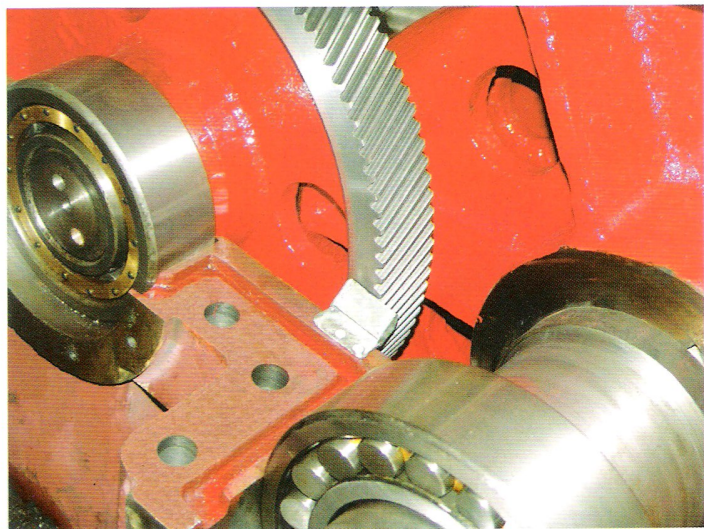
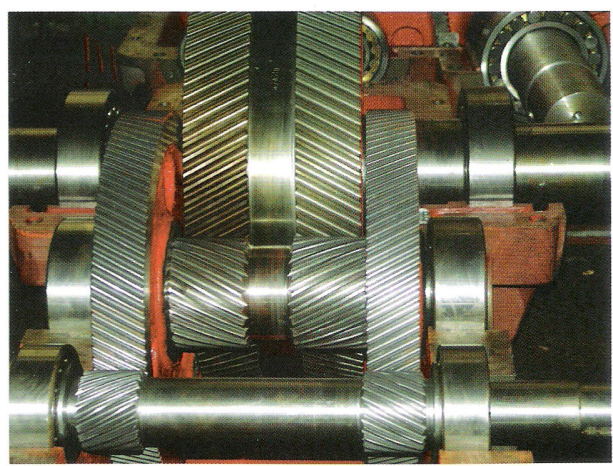
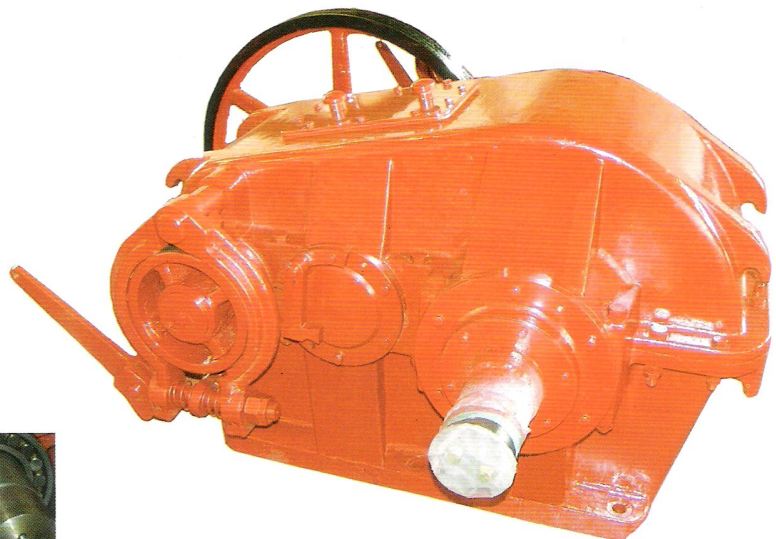
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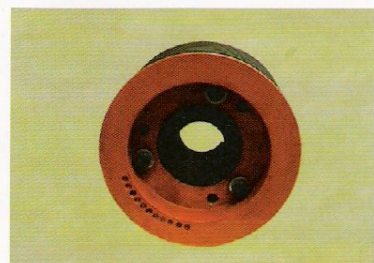
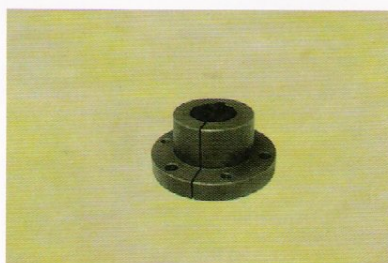
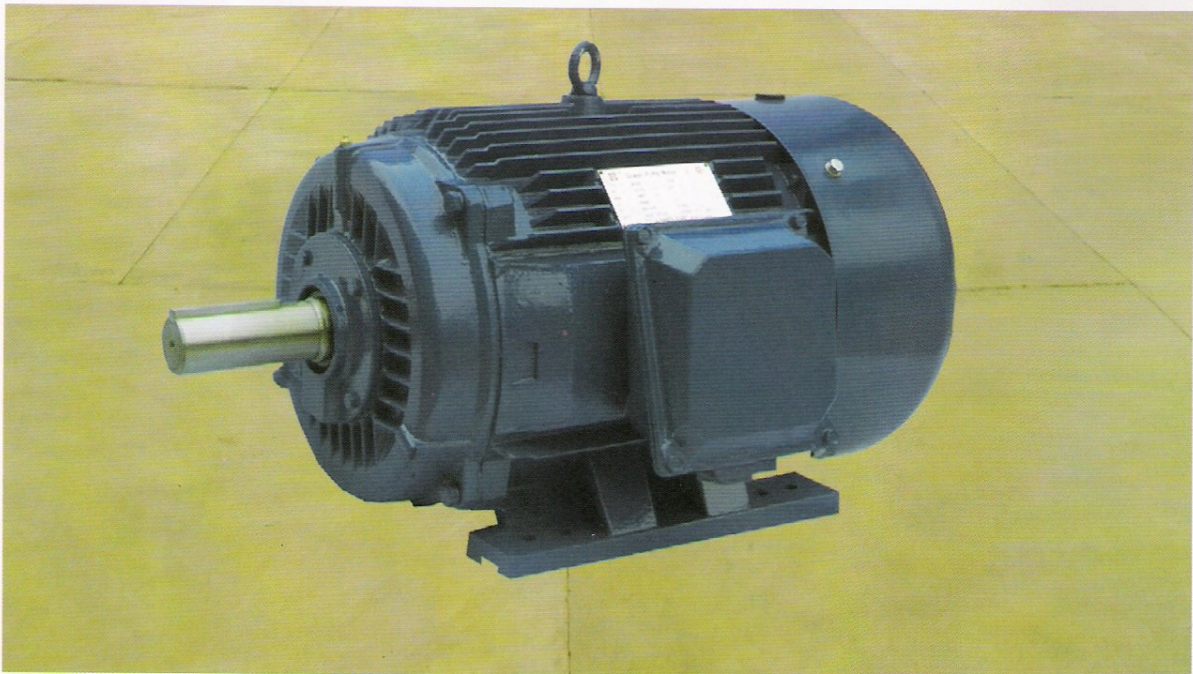
Gear Ratio	Oil Cap. Gal.	Bearings			Weight Lbs.
		Input	Mid.	Output	
28.8	180	32624	32630	3544	18800

DISCLAIMER:

Drawing is for dimensional reference only.
Product appearance and specifications may vary.



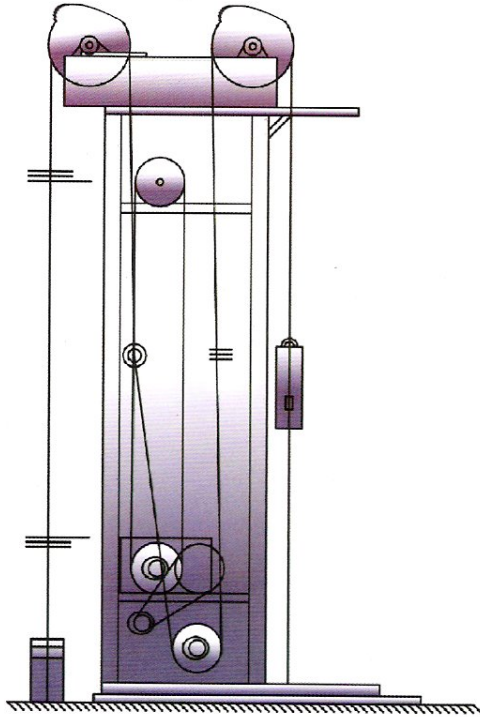






TITAN Energy Saving Type Pumping Units

Model	Max Torque	Polish Rod Capacity	Stroke Length			Stroke frequency			Overall dimensions	Total Weights
	In.-Lbs.	Lbs.	Inch			SPM			Inch	Lbs.
S228-112-98	228,000	11,200	98	79	59	8	6	4	274x75x224	22,200
S228-112-118	228,000	11,200	118	94	71	8	6	4	320x75x269	24,400
S228-135-98	228,000	13,500	98	79	59	8	6	4	274x75x224	22,200
S228-135-118	228,000	13,500	118	94	71	8	6	4	320x75x269	24,400
S228-180-98	228,000	18,000	98	79	59	6	5	4	325x75x271	27,400
S228-180-118	228,000	18,000	118	94	71	6	5	4	325x75x271	29,300
S320-180-118	320,000	18,000	118	94	71	6	5	4	327x79x271	29,600
S320-225-118	320,000	22,500	118	94	71	6	5	4	327x80x271	31,700
S456-225-118	456,000	22,500	118	94	71	6	5	4	327x87x271	35,100



Technical parameters

Model	L160D-315-197	L320D-360-236	L320D-360-315	L456D-450-315	L456D-495-315	L640D-680-315
Rated Load Capacities(Lbs.)	31,500	36,000	36,000	45,000	49,500	68,000
Stroke (m)	197"	236"	315"	315"	315"	315"
Frequency of stroke (n/min)	2.5 3.5	2.5 4	2 4	2 4	2 4	1 3.5
Balance mode	weight	weight	weight	weight	weight	weight
Weight of max counterbalance box (Lbs.)	11,000	18,000	18,000	22,000	24,000	33,000
Gear ratio	17.6 : 1	17.88 : 1	17.88 : 1	17.83 : 1	18.88 : 1	18.88 : 1
Central distance (In.)	20"	21"	21"	26"	33"	42"
Torque (In.-Lbs.)	160,000	320,000	320,000	456,000	456,000	640,000
Type of electric motor	Y200L2-6	Y225M-6	Y280S-6 (Y225M-4)	Y280M-6 (Y315S-4)	Y315S-6 (Y315S-4)	Y315L2-6 (Y315M-4)
Power of electric motor (hp)	30	40	50(60)	75(148)	100(148)	180
Rotational speed of electric motor(r/min)	970	980	980	980	990	990
Belt	5V3550	5V3550	5V3550	6V4060	6V4320	2×4V4570
Min height of polished rod(In.)	67"	71"	71"	71"	71"	71"
Usage temperature (0°C)	-40°C ~ 50°C					
Auto brake assembly	NO	Yes	Yes	Yes	Yes	Yes
Total weight (Lbs.)	39,600	59,500	68,300	98,000	117,200	114,300
Dimension (L×W×H) (In.)	138" × 80" × 398"	150" × 80" × 448"	150" × 80" × 533"	157" × 88" × 487"	167" × 95" × 531"	179" × 114" × 543"

