



Weatherford®

The Maximizer® Pumping Unit

Setting the standard for versatility and reliability.



The Lift ExpertsSM

Versatility well defined.

We make lift an exact science.

Only Weatherford offers products and expertise for all forms of lift. This means we give you a completely unbiased system recommendation based on an exacting analysis of reservoir data. Matching the system to the task ensures better control of lifting costs and enhanced reservoir recovery. Put our comprehensive technical support, one-stop product supply and experienced analysis services to work for you today.

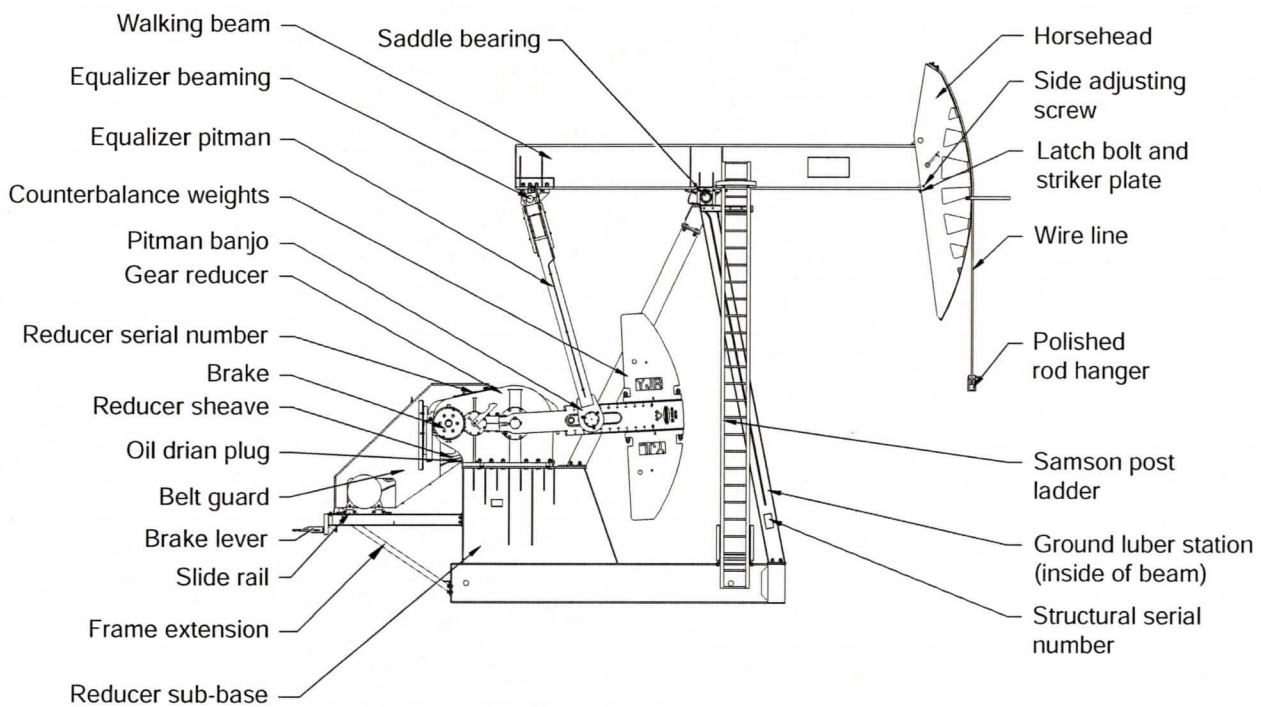
Weatherford's *Maximizer* reciprocating-rod-lift pumping unit is one of the best of its kind in the industry—and one of the most versatile. With an exclusive design, it provides unmatched performance and dependability and delivers energy and cost savings in all oilfield conditions. This versatile unit works just as effectively when fluid levels drop or when it is moved to another site, and it can run in either direction with steel or fiberglass rods.

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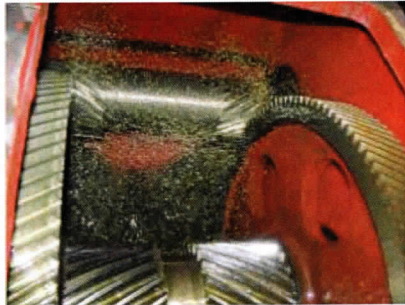
Superior design, high-quality components.

Consistent, reliable performance, in both domestic and international fields, has repeatedly demonstrated the value of the *Maximizer* pumping unit's unique geometry. Weatherford's tradition of reliability is reflected in every component of the *Maximizer* pumping unit—manufactured and quality controlled for high productivity, low-cost maintenance and long oilfield life—and to meet the highest performance requirements.



The **unique crank rotation configuration** gives the *Maximizer* pumping unit more efficient and economical operation capability. The conventional geometry of most other units is restricted to evenly divided crank rotation—180° on the downstroke and 180° on the upstroke. But the *Maximizer* unit directs 186° of its clockwise crank rotation to the upstroke, where most of the work is done. This design represents the optimal balance between conventional design and upstroke efficiency.

Superior design, high-quality components.



All gear-reducer assemblies are tested while running for proper lubrication.

The **rugged gearbox** stands up to the demands of continuous operation far better than other gearboxes in the field. With our innovative bolted crank-arm attachment, the gearbox can be easily and quickly changed in the field, significantly reducing costly downtime.

Inside the gearbox is a precisely engineered gear train featuring **rugged, double-helical involute gears**. These gears, designed and manufactured by Weatherford, are the standard of excellence for pumping-unit gear reducers, all of which are tested for proper lubrication before they leave the factory.

Strong **alloy steel pinions** and **ductile iron gears** further attest to Weatherford's commitment to quality. Machined to precise tolerances and assembled in our plant, each gear is an optimal fit and part of a highly efficient system.

The gear reducer contains **oversized anti-friction bearings** (rather than energy-consuming bronze bushings) that boost drive efficiency and make the gearbox so smooth and energy efficient that even the largest size can be easily turned by hand. These bearings need little maintenance and offer long-lasting performance. Each one is set in a carrier for ease of installation and removal.

Bearing lubrication is of utmost importance. An exclusive feature of every Weatherford unit is its **gearbox lubrication system**. This unique system uses oil buckets to fill troughs that continuously feed the right amount of oil to each gearbox bearing, regardless of the direction of rotation, at pumping speeds as low as one stroke per minute.

Wrist-pin bearings are self-aligning, spherical roller bearings with a one-piece outer race that eliminates field adjustment.

The *Maximizer* unit uses **tapered roller bearings** at the saddle and equalizer bearings.

Each gearbox is equipped with a **high-capacity industrial brake** for operations stops. The positive-stop pawl can be engaged with notches in the brake drum to provide added safety.

The **superstructure** of the *Maximizer* unit is designed and fabricated to bring all the components together in a compact footprint, full of the power and performance for the cost-effective operations our clients require.

Specifications.

Pumping Unit

Unit Designation	Stroke Length (in./mm)	Cranks	Wireline × Centers (in. × ft × in./mm × m × mm)	
912-305-192	192 4,876.80	KB-117-53	1-1/4 × 42 × 16 31.75 × 12.80 × 406.40	
	164-3/4 4,165.60			
	138-1/4 3,511.55			
912-365-168 640-365-168	168 4,267.20	KB-117-53	1-1/4 × 40 × 16 31.75 × 12.19 × 406.40	
	144-1/4 3,663.95			
	121-1/4 3,079.75			
912-305-168 640-305-168 456-305-168	168 4,267.20	KB-117-53	1-1/4 × 40 × 16 31.75 × 12.19 × 406.40	
	144 3,663.95			
	120-3/4 3,067.05			
912-427-144 912-365-144 640-365-144	144 3,657.60	KB-117-53	1-1/4 × 35 × 16 31.75 × 10.67 × 406.40	
	640-305-144 456-305-144			123-1/4 3,130.55
				640-256-144 456-256-144
456-213-144 320-213-144 228-173-144	144 3,657.60	KB-99-43	1-1/4 × 35 × 12 31.75 × 10.67 × 304.80	
	124 3,149.60			
	104-3/4 2,660.65			
320-143-120	120 3,048.00	K-76-320	1 × 30 × 12 25.40 × 9.14 × 304.80	
	102 2,590.80			
228-143-120 160-143-120	84-1/2 2,146.30	KB-99-43	1-1/4 × 35 × 12 31.75 × 10.67 × 304.80	

Pumping Unit

Unit Designation	Stroke Length (in./mm)	Cranks	Wireline × Centers (in. × ft × in./mm × m × mm)	
456-305-100 320-305-100	100 2,540.00	KB-99-43	1-1/4 × 35 × 12 31.75 × 10.67 × 304.80	
	456-256-100 320-256-100			86 2,184.40
				228-213-100
320-173-100	100 2,540.00	K-76-320	1 × 30 × 12 25.40 × 9.14 × 304.80	
228-173-100 160-173-100	85 2,159.00	K-76-36		
	160-143-100 114-143-100	70-1/2 1,790.70		K-76-36
114-119-100	100 2,540.00	K-76-36	1 × 30 × 12 25.40 × 9.14 × 304.80	
	85 2,159.00			
	70-1/2 1,790.70			
320-246-86	86 2,184.40	K-76-320	1 × 30 × 12 25.40 × 9.14 × 304.80	
	228-246-86			73 1,854.20
320-213-86	86 2,184.40	K-76-320	1 × 30 × 12 25.40 × 9.14 × 304.80	
	228-213-86			73 1,854.20
	160-173-86 114-173-86			60-1/2 1,536.70
320-246-74	74 1,879.60	K-76-36	1 × 30 × 12 25.40 × 9.14 × 304.80	
	228-246-74			63 1,600.20
	228-200-74 160-200-74			52 1,320.80

Specifications.

Pumping Unit

Unit Designation	Stroke Length (in./mm)	Cranks	Wireline × Centers (in. × ft × in./mm × m × mm)
228-173-74 160-173-74 114-173-74	74 1,879.60	K-76-36	1 × 30 × 12 25.40 × 9.14 × 304.80
160-143-74 114-143-74	63 1,600.20		
160-173-64	52 1,320.80	K-76-36	1 × 30 × 12 25.40 × 9.14 × 304.80
160-173-64	64 1,625.60		
	54-3/4 1,390.65		
160 143-64 114-143-64	45-1/2 1,155.70	K-76-36	1 × 30 × 12 25.40 × 9.14 × 304.80
	64 1,625.60		

Double-Helical Involute Gear Speed Reducer

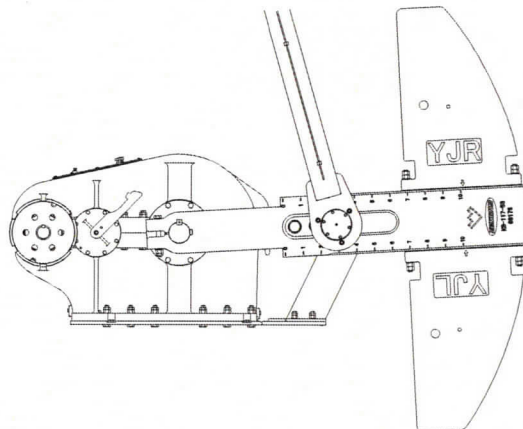
Unit Designation	Reducer Crankshaft Diameter (in./mm)	Peak Torque Rating (in./lb)	Ratio of Gears	Gear Box Oil Capacity (gallon/L)	Sheave Dimensions (in.)
912	7-1/4 184.15	912,000	31.42	110 416.40	4 1/4-in. bore 44 in.-8C 27 in.-5D 50 in.-8C 40 in.-4D
640		640,000		100 378.54	4 1/4-in. bore 44 in.-10C 50 in.-10C 27 in.-8D
456		456,000	NA	3 5/8-in. bore 30 in.-6C 36 in.-6C 44 in.-6C	
320	6 152.40	320,000	NA	3 1/2-in. bore 30 in.-5C 36 in.-4C 44 in.-4C	
228		228,000	NA	3 1/8-in. bore 20 in.-4C 24 in.-5C 30 in.-5C 36 in.-5C	
160		160,000	NA	2 15/16-in. bore 20 in.-3C 24 in.-3C 36 in.-3C	
114		114,000	NA	2 5/8-in. bore 20 in.-3C 24 in.-3C 30 in.-3C 36 in.-3C	

Specifications.

Counterbalance*

Unit	912-305-192	912-365-168 640-365-168 912-305-168 640-305-168 456-305-168	912-427-144 912-365-144 640-365-144 640-305-144 459-305-144 456-256-144	456-213-144 320-213-144	465-365-120 640-305-120 456-305-120	456-256-120 320-256-120 456-213-120 228-213-120	456-305-100 320-305-100 456-256-100 320-256-100 228-213-100
Crank Number	KB-117-53	KB-117-53	KB-117-53	KB-99-43	KB-117-53	KB-99-43	KB-99-43
Cranks Only	4460	5740	7880	5440	10350	7270	9400
4-B		7850	10330	7460	13290	9690	12300
2-B, 2-D		8220	10770	7820	13820	10120	12820
4-D	6960	8600	11210	8180	14350	10550	13340
2-D, 2-F	7305	8990	11660	8540	14980	10990	13860
4-F	7650	9380	12120	8910	15440	11430	14390
2-F, 2-H	7960	9730	12530	9240	15940	11820	14860
4-H	8270	10090	12950	9580	16440	12220	15340
2-H, 2-J	8665	10540	13470	10000	17070	12720	15940
4-J	9060	10990	14000	10420	17700	13230	16550
2-J, 2-L	9385	11360	14430	10760	18210	13640	17040
4-L	9710	11730	14860	11100	18730	14050	17540
2-L, 2-N	10340	12450	15700	11760	19740	14840	18480
4-N	10970	13170	16550	12420	20750	15630	19430
2-N, 2-PJ	11200	13430	16850	12750	21120	16020	19910
4-PJ	11430	13700	17160	13080	21490	16420	20390
2-PJ, 2-RJ	12180	14560	18160	13910	22690	17420	21580
4 RJ	12930	15420	19160	14740	23890	18420	22780
2-L, 2-XJ	13840	16450	20370	15550	25340	19388	23940
2-PJ, 2-XJ	14700	17440	21520	16540	26720	20570	25370
2-RJ, 2-XJ	15450	18300	22520	17370	27920	21570	26560
4-XJ	17970	21180	25880	20000	31950	24720	30350
2-XJ, 2-YJ	20860	24480	29730	—	—	—	—
4-YJ	23750	27780	33580	—	—	—	—
4-ZJ	—	—	—	—	—	—	—

*Maximum effective counterbalance at the polished rod at maximum stroke.

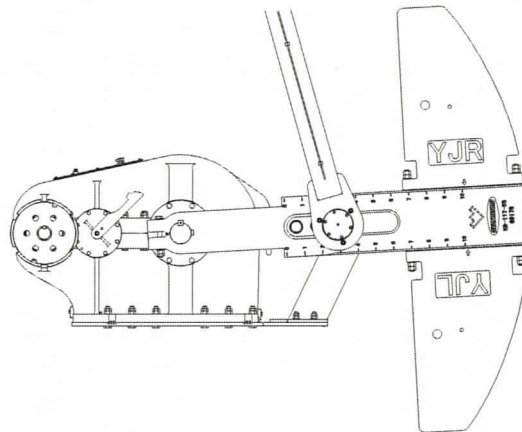


Specifications.

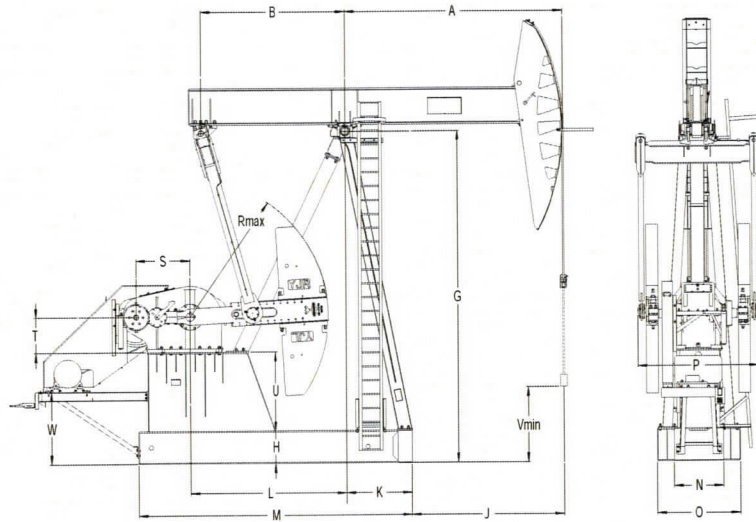
Counterbalance*

Unit	320-119-144	320-143-120	228-143-120 160-143-120	228-173-100 160-173-100 160-143-100 114-119-100	320-173-100	320-246-86 320-213-86	228-246-86 160-173-86 114-143-86	320-246-74	160-200-74 228-173-74 160-173-74 114-173-74 160-143-74 114-143-74	160-173-64 160-143-64 114-143-64
Crank number	K-76-320	K-76-320	K-76-36	K-76-36	K-76-320	K-76-320	K-76-36	K-76-320	K-76-36	K-76-36
Cranks only	1530	2620	2470	3690	3860	4760	4550	5780	5530	6430
4-B	3020	4400	4250	5820	6000	7240	7040	8660	8420	9730
2-B, 2-D	3270	4710	4560	6190	6370	7670	7470	9160	8920	10310
4-D	3530	5020	4870	6570	6750	8110	7900	9670	9430	10890
2-D, 2-F	3780	5320	5170	6930	7110	8530	8330	10160	9920	11450
4-F	4040	5630	5480	7300	7480	8960	8760	10660	10420	12020
2-F, 2-H	4270	5900	5750	7620	7800	9340	9140	11100	10860	12520
4-H	4500	6170	6030	7950	8130	9730	9520	11540	11300	13030
2-H, 2-J	4790	6520	6380	8370	8550	10210	10010	12110	11870	13680
4-J	5080	6880	6730	8790	8970	10700	10500	12680	12440	14330
2-J, 2-L	5310	7150	7000	9120	9300	11090	10880	13130	12890	14840
4-L	5540	7430	7280	9460	9640	11480	11270	13580	13340	15360
2-L, 2-N	5970	7950	7800	10080	10260	12200	11990	14420	14180	16320
4-N	6410	8470	8320	10710	10890	12930	12720	15270	15030	—
2-N, 2-P	6630	8740	8590	11030	11210	13310	13100	15700	15460	—
4-P	6860	9010	8860	11350	11530	13690	13480	16140	15900	—
2-P, 2-R	7400	9660	9510	12130	12310	14590	14380	17190	16950	—
4-R	7940	10310	10160	12910	13090	15500	15290	18250	18010	—
2-R, 2-S	8740	11270	11120	14060	—	16840	16630	—	19570	—
4-S	9550	—	12090	15220	—	18190	17980	—	21130	—

*Maximum effective counterbalance at the polished rod at maximum stroke.



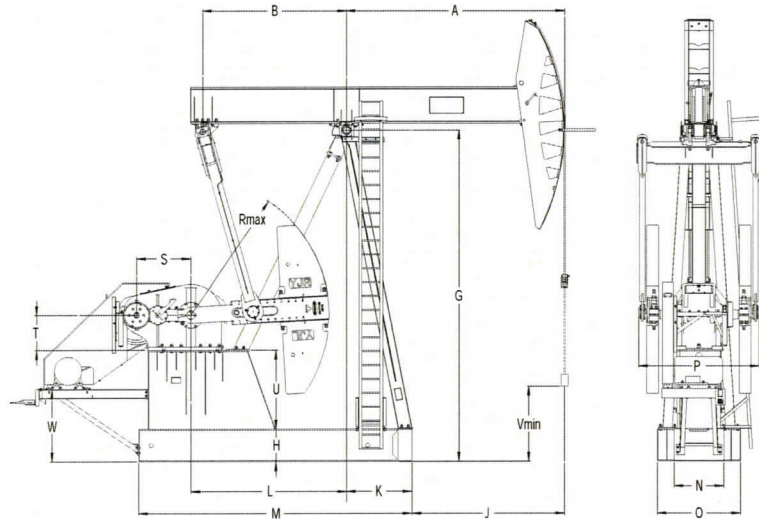
Specifications.



Dimensions

Size	A (ft/m)	B (ft/m)	G (ft/m)	H (in./mm)	J (ft/m)	K (ft/m)	L (ft/m)	M (ft/m)	N (ft/m)	O (ft/m)	P (ft/m)	R (ft/m)	S (in./mm)	T (in./mm)	U (ft/m)	V (ft/m)	W (ft/m)
912-305-192	17.58 5.36	10.17	23.17	24.125 612.78	12.93 3.94	4.66	11.00	19.30	3.00	5.88	8.54	9.75	45.750 13.94	30.00	5.57	4.00	4.84
912-365-168					10.74 3.27											4.92 1.50	
912-305-168	13.20 4.02	10.17	23.17	24.125 612.78	8.54 2.60	4.66	11.00	19.30	3.00	5.88	8.54	9.75	45.750 13.94	30.00	5.57	7.40	4.84
912-427-144					8.54 2.60											7.40 2.26	
912-365-144	15.40 4.69	10.17	23.17	24.125 612.78	10.74 3.27	4.66	11.00	19.30	3.00	5.88	8.19	9.75	45.750 13.94	30.00	5.57	4.92	4.84
640-365-168					10.74 3.27											4.92 1.50	
640-365-144	13.20 4.02	10.17	23.17	24.125 612.78	8.54 2.60	4.66	11.00	19.30	3.00	5.88	8.19	9.75	45.750 13.94	30.00	5.57	7.40	4.84
640-305-168					8.54 2.60											7.40 2.26	
640-256-144	11.00 3.35	10.17	23.17	24.125 612.78	6.34 1.93	4.66	11.00	19.30	3.00	5.88	8.19	9.75	45.750 13.94	30.00	5.57	7.35	4.84
640-305-120					6.34 1.93											7.35 2.24	
456-305-168	15.40 4.69	10.17	23.17	24.125 612.78	10.74 3.27	4.66	11.00	19.30	3.00	5.88	7.56	9.75	39.933	28.00	5.57	4.92	4.84
456-305-144					10.74 3.27											4.92 1.50	
456-256-144	13.20 4.02	8.28	21.02	21.250 539.75	9.58 2.92	3.61	9.17	16.00	3.15	5.67	7.46	8.25	39.933	28.00	5.57	7.40	4.84
456-213-144					9.58 2.92											7.40 2.26	
456-213-144	11.00 3.35	10.17	23.17	24.125 612.78	6.34 1.93	4.66	11.00	19.33	3.29	5.88	7.56	9.75	39.933	28.00	5.57	7.35	4.84
456-365-120					6.34 1.93											7.35 2.24	
456-256-120	9.17 2.80	8.28	21.02	21.250 539.75	7.39 2.25	3.61	9.17	16.00	3.15	5.67	7.46	8.25	39.933	28.00	5.57	5.25	4.00
456-213-120					7.39 2.25											5.25 1.60	
456-305-100	9.17 2.80	8.28	21.02	21.250 539.75	5.55 1.69	3.61	9.17	16.00	3.15	5.67	7.46	8.25	39.933	28.00	5.57	5.21	4.00
456-256-100					5.55 1.69											5.21 1.59	

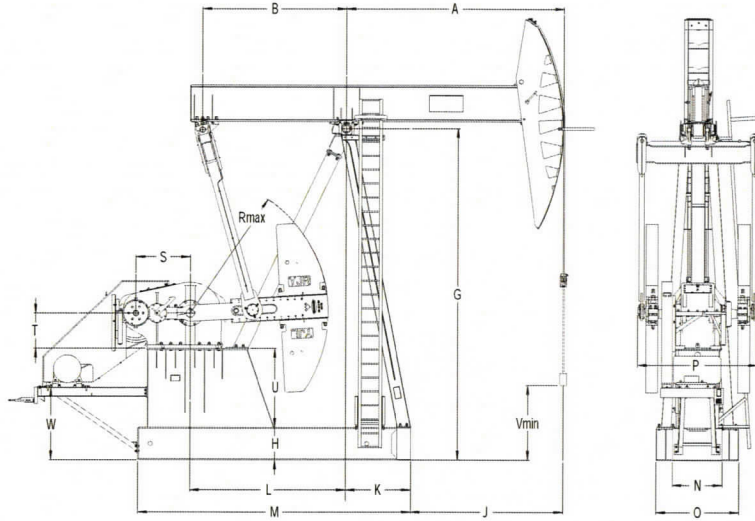
Specifications.



Dimensions

Size	A (ft/m)	B (ft/m)	G (ft/m)	H (in./mm)	J (ft/m)	K (ft/m)	L (ft/m)	M (ft/m)	N (ft/m)	O (ft/m)	P (ft/m)	R (ft/m)	S (in./mm)	T (in./mm)	U (ft/m)	V (ft/m)	W (ft/m)						
320-213-144	13.20 4.02	8.28	21.02	21.250	9.58	3.61	9.17	16.00	3.15	5.67	7.10	8.25	35.167 10.72	24.00 609.60	4.67	5.50	4.00						
320-119-144		6.92	17.58	16.125	9.82	3.38	7.51	14.00	2.75	5.00	6.72	6.33			3.50	4.32	3.52						
320-256-120	11.00 3.35	8.28	21.02	21.250	7.39	3.61	9.17	16.00	3.15	5.67	7.10	8.25			35.167 10.72	24.00 609.60	4.67	5.25	4.00				
320-213-120		6.92	17.58	16.125	7.63	3.38	7.51	14.00	2.75	5.00	6.72	6.33					3.50	4.51	3.52				
320-143-120	6.92	17.58	16.125	7.63	3.38	7.51	14.00	2.75	5.00	6.72	6.33	3.50					4.51	3.52					
320-305-100	9.17 2.80	8.28	21.02	21.250	5.55	3.61	9.17	16.00	3.15	5.67	7.10	8.25					35.167 10.72	24.00 609.60	4.67	5.21	4.00		
320-256-100		6.92	17.58	16.125	1.69	3.38	7.51	14.00	2.75	5.00	6.72	6.33							3.50	4.51	3.52		
320-173-100	7.88 2.40	6.92	17.58	16.125	5.79	3.38	7.51	14.00	2.75	5.00	6.72	6.33							35.167 10.72	24.00 609.60	4.47	4.33	3.52
320-246-86					4.50																1.37		
320-213-86	6.78	2.07	3.41	1.04	4.27	1.30																	
320-246-74	6.78	2.07	3.41	1.04	4.27	1.30																	
228-173-144	13.20 4.02	8.28	21.02	21.250	9.58	3.61	9.17	16.00	3.15	5.67	6.50	8.25									33.312 10.15	24.00 609.60	4.67
228-213-120		6.92	17.58	16.125	7.39	3.38	7.51	14.00	2.75	5.00	6.11	6.33	3.50	4.51									3.52
228-143-120	6.92	17.58	16.125	7.63	3.38	7.51	14.00	2.75	5.00	6.11	6.33	3.50	4.51	3.52									
228-213-100	9.17 2.80	8.28	21.02	21.250	5.55	3.61	9.17	16.00	3.15	5.67	6.50	8.25	33.312 10.15	24.00 609.60	4.67	5.21							4.00
228-173-100		6.92	17.58	16.125	1.69	3.38	7.51	14.00	2.75	5.00	6.11	6.33			3.50	4.51							3.52
228-246-86	7.88 2.40	6.92	17.58	16.125	5.79	3.38	7.51	14.00	2.75	5.00	5.11	6.33			33.312 10.15	24.00 609.60							4.49
228-213-86					4.50												1.37	4.33					1.32
228-246-74	6.78	2.07	3.41	1.04	4.27	1.30																	
228-200-74	6.78	2.07	3.41	1.04	4.27	1.30																	
228-173-74	6.78	2.07	3.41	1.04	4.27	1.30																	

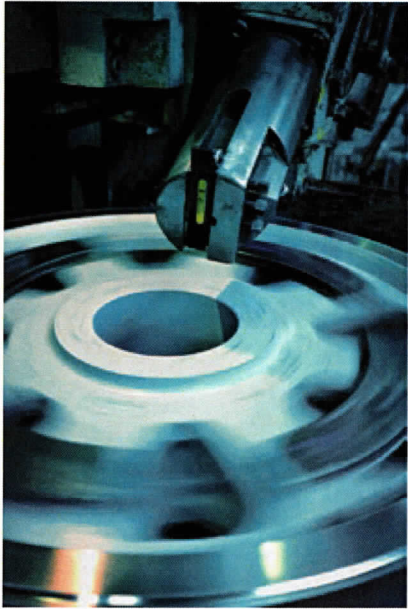
Specifications.



Dimensions

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160-143-120	11.00 3.35	6.92 2.11	17.58 2.31	16.125 409.58	7.63 2.32	3.38 1.03	7.51 2.29	14.00 4.27	2.75 0.84	5.00 1.52	5.36 1.63	6.33 1.93	30.200 9.20	20.00 508.00	3.50 1.07	4.51 1.37	3.52 1.07
160-173-100	9.17 2.80				5.79 1.76											4.49 1.37	
160-143-100	7.88 2.40				4.50 1.37											4.33 1.32	
160-173-86	6.78 2.01				3.41 1.04											4.27 1.30	
160-200-74	7.83 2.39				4.50 1.37											4.33 1.32	
160-173-74	6.78 2.01				3.41 1.04											4.27 1.30	
160-143-74	7.83 2.39				4.50 1.37											4.33 1.32	
160-143-64	6.78 2.01	3.41 1.04	4.27 1.30														
160-173-64	7.83 2.39	4.50 1.37	4.33 1.32														
114-119-100	9.17 2.80	7.83 2.39	17.58 2.31	16.125 409.58	5.79 1.76	3.38 1.03	7.51 2.29	14.00 4.27	2.75 0.84	5.00 1.52	5.36 1.63	6.33 1.93	30.200 9.20	20.00 508.00	3.50 1.07	4.49 1.37	3.52 1.07
114-143-100	7.88 2.40				4.50 1.37											4.33 1.32	
114-173-86	6.78 2.01				3.41 1.04											4.27 1.30	
114-173-74	7.83 2.39				4.50 1.37											4.33 1.32	
114-143-74	6.78 2.01				3.41 1.04											4.27 1.30	
114-143-64	7.83 2.39				4.50 1.37											4.33 1.32	
114-173-64	6.78 2.01				3.41 1.04											4.27 1.30	

Parts.

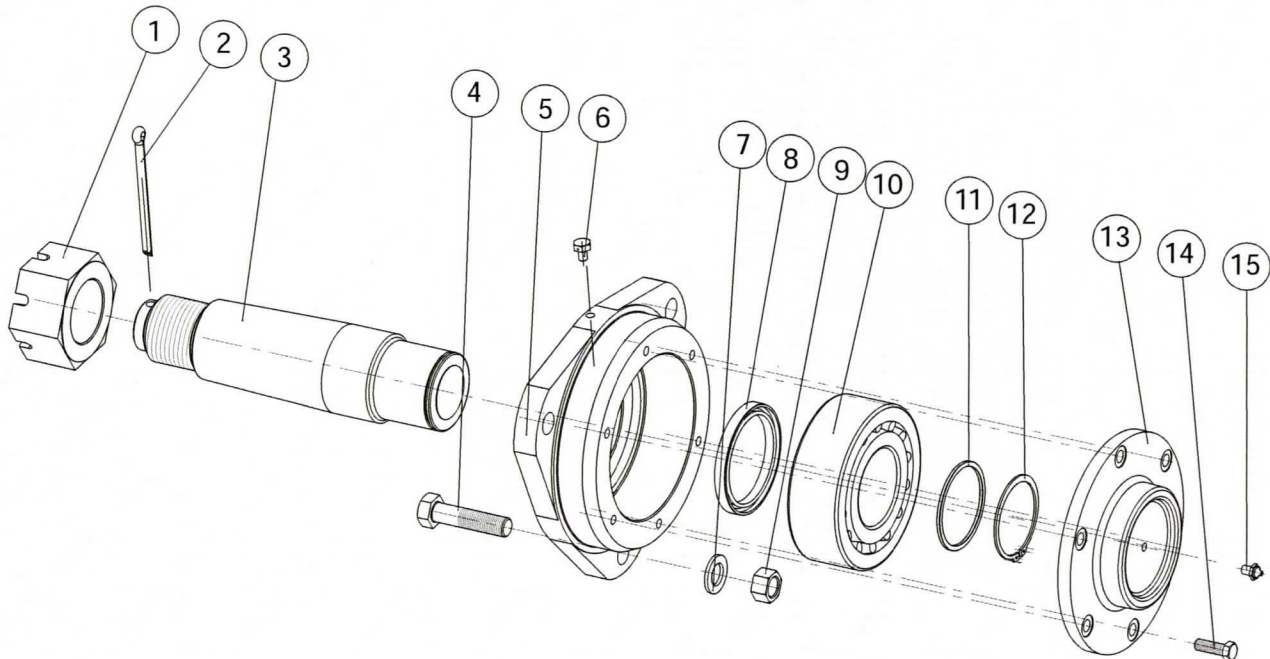


Weatherford maintains a full inventory of spare parts for all *Maximizer* unit models.

We view service as one of our primary offerings and give delivery of spare parts a very high priority. Our records are maintained by the **unit serial number**, which is located on the Samson post, and by the **reducer serial number**, which is located on the gear reducer. When ordering parts, be sure to provide these numbers in addition to a general description of the parts. The best insurance against unit downtime and parts incompatibility is use of genuine Weatherford replacement parts.

Warning: The use of parts that do not meet Weatherford quality and design specifications could result in unit failure and/or serious injury to personnel near the pumping unit. Before performing maintenance or inspection on a pumping unit, ensure that the prime mover is off and locked, and prevent rotation of cranks and counterweights by chaining or blocking. Do not use the brake as a safety stop, as it is intended only for operational stops. Any movement of the unit during maintenance or inspection can cause serious personal injury.

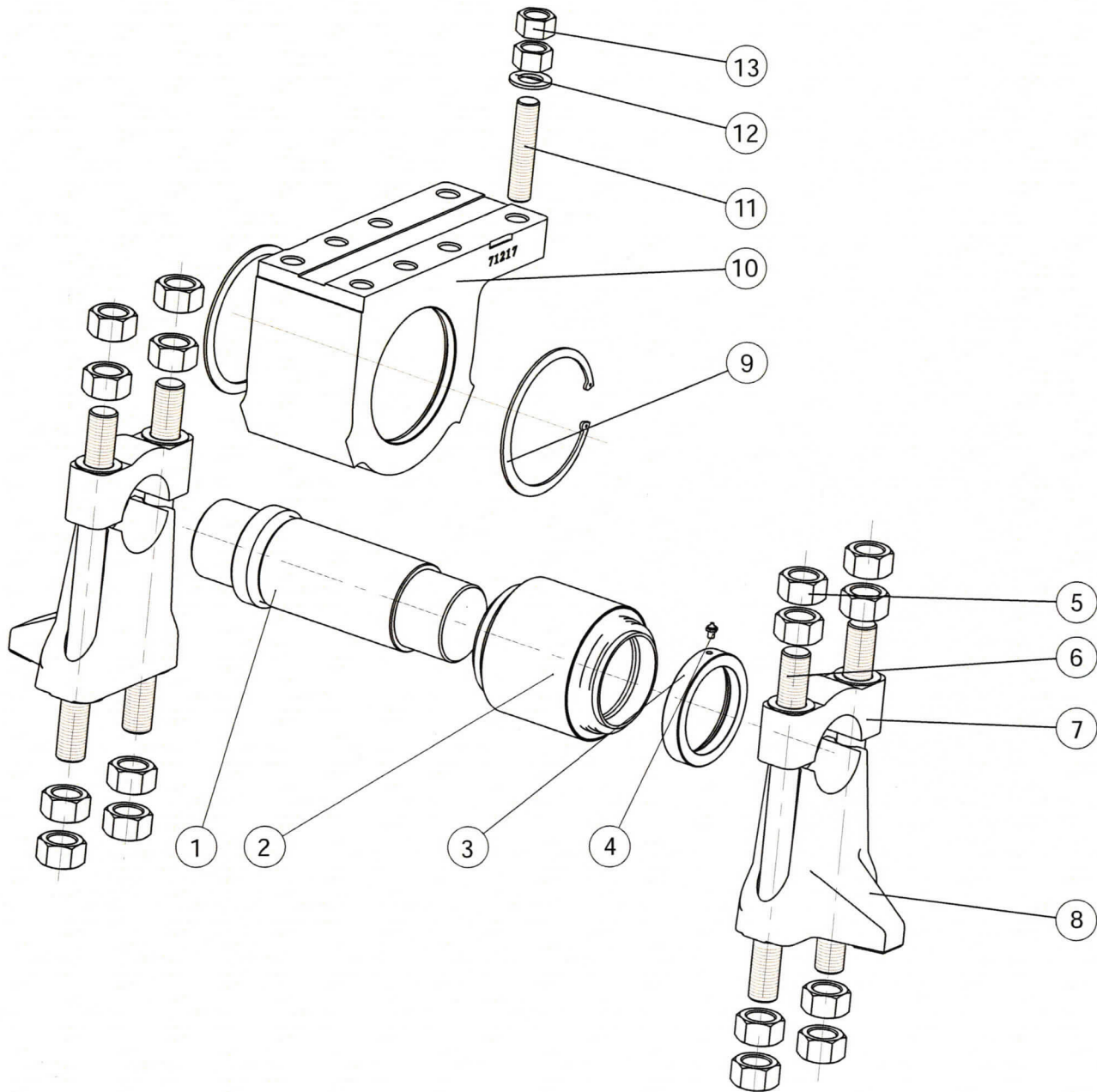
Wrist Pin



1	Wrist-pin nut	6	Lock washer	11	Retaining ring
2	Cotter pin	7	Hex nut	12	Bearing housing cap
3	Wrist pin	8	Oil seal	13	Relief fitting
4	Bolt	9	Wrist-pin bearing	14	Grease fitting
5	Bearing housing	10	Support washer	15	Bolt

Parts.

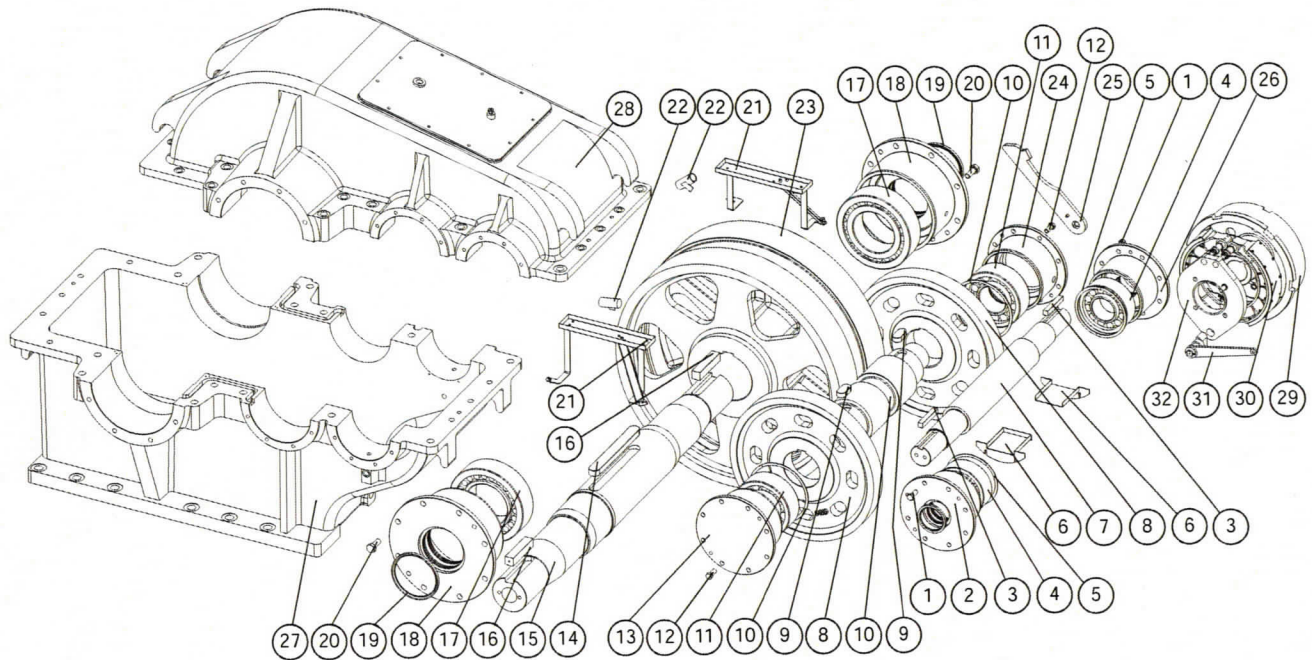
Equalizer bearing assembly



1	Equalizer pin	6	Stud bolt	11	Stud
2	Bearing assembly	7	Center-clamp cap	12	Hardened washer
3	Retaining ring	8	Center clamp	13	Hex nut
4	Grease fitting	9	Retaining ring		
5	Hex nut	10	Equalizer bearing		

Parts.

Gear box



1	Bolt	9	HS gear key	17	LS bearing	25	Brake pawl
2	HS bearing housing, RH	10	IS pinion	18	LS bearing housing	26	HS bearing housing, LH
3	HS S key	11	IS bearing	19	Oil seal	27	Gear box housing
4	HS bearing	12	Bolt	20	Bolt	28	Gear box cover
5	Snap ring	13	IS bearing housing, LH	21	Oil tray	29	Brake drum
6	Low SPM driver	14	LS gear key	22	Oil scoop	30	Brake cam
7	High speed pinion	15	LS shaft	23	LS gear	31	Brake lever
8	High speed gear	16	Crank Key	24	IS bearing housing, RH	32	Brake plate

Maintenance recommendations.

The extremely rugged, durable *Maximizer* pumping unit is built for reliable performance. Proper care and lubrication will ensure that your *Maximizer* unit operates with maximum efficiency for many trouble-free years. In particular, bearing assemblies and the pumping-unit reducer should undergo regular periodic maintenance.

Double-helical involute gear reducer

Lubricate the gear reducer of the *Maximizer* pumping unit with a premium, mild, extreme-pressure lubricant with rust and oxidation inhibitors and an anti-foam agent, selected as indicated below.

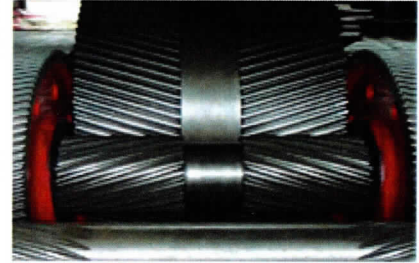
Temperature	Lubricant	Pour Point of Oil
$\geq 0^{\circ}\text{F}$ $\geq 17^{\circ}\text{C}$	AGMA 5EP (ISOVG 220)	$\leq 5^{\circ}\text{F}$ $\leq 15^{\circ}\text{C}$
$\geq -30^{\circ}$ $\geq -34^{\circ}$	AGMA 4EP (ISOVG 220)	$\leq -15^{\circ}\text{F}$ $\leq -26^{\circ}\text{C}$

For low-temperature operation, the oil should have sufficient fluidity to permit a free flow of oil into the bearings.

To obtain long life from the pumping-unit reducer, use an oil of suitable viscosity, and keep the oil free of foreign material, sludge and water. Water in the oil can lead to bearing failure. Every six months, check for signs of water contamination: a milky appearance of the oil; condensation droplets inside the gear reducer; metal in the oil; or, if the reducer has been shut down for any length of time, a higher oil level.

Bearing assemblies

Lubricate the wrist pin, equalizer and saddle bearings with AARM-942 bearing grease. Each bearing assembly comes equipped with a hydraulic grease fitting so that the lubricant can be applied with a grease gun. Lubricate all bearings at least every six months. In some conditions more frequent lubrication is required, depending on temperature and the condition of oil seals.



The Maximizer® Pumping Unit



Get on board with a *Maximizer* pumping unit, and experience the support of one of the most trusted names in the industry: Weatherford. For more information about the versatile *Maximizer* pumping unit, contact us at maximizer@weatherford.com. Or visit us at weatherford.com/maximizer for regional contact information.

You won't be disappointed.

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