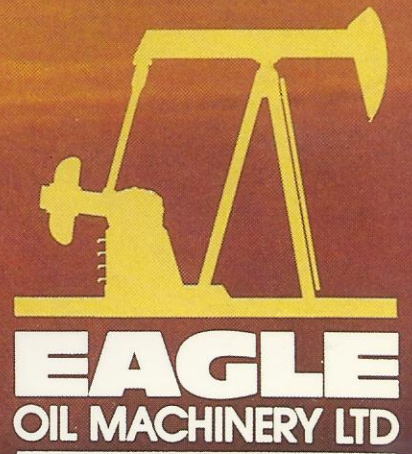


A large, dark silhouette of an oil pumpjack dominates the left side of the image, extending from the top left towards the center. The background is a vibrant sunset sky with horizontal bands of orange, yellow, and red. The sun is visible as a bright yellow circle near the bottom left horizon.

EAGLE PUMPING UNIT



WARRANTY

WARRANTY ON PUMPING UNITS

Eagle Oil Machinery Company warrant their pumping units against defective material and workmanship for a period of 12 months after installation or 15 months after shipment from the factory, whichever occurs first. Intermittent service is considered continuous for computing the period of operation. Any part or parts proving to be defective in the opinion of EAGLE due to faulty materials or workmanship will be replaced or repaired free of charge at location of Eagle's choice.

LIMITATION OF WARRANTY

This warranty is void if the equipment is improperly installed or operated above rated capacity. This warranty is also void if repair is done or parts replaced without specific authorization from EAGLE or from their local representative.

LIMITATION OF LIABILITY

The liability of Eagle Oil Machinery Company shall be limited to the repair or replacement of defective parts covered by the warranty set forth above.

Authorized to manufacture under KGYV-Metallurgical Engineering Corporation



As the EAGLE . . .

reflects power, strength and durability, so does the EAGLE Pumping Unit excel in comparison to its competitors.

The reasons are obvious:

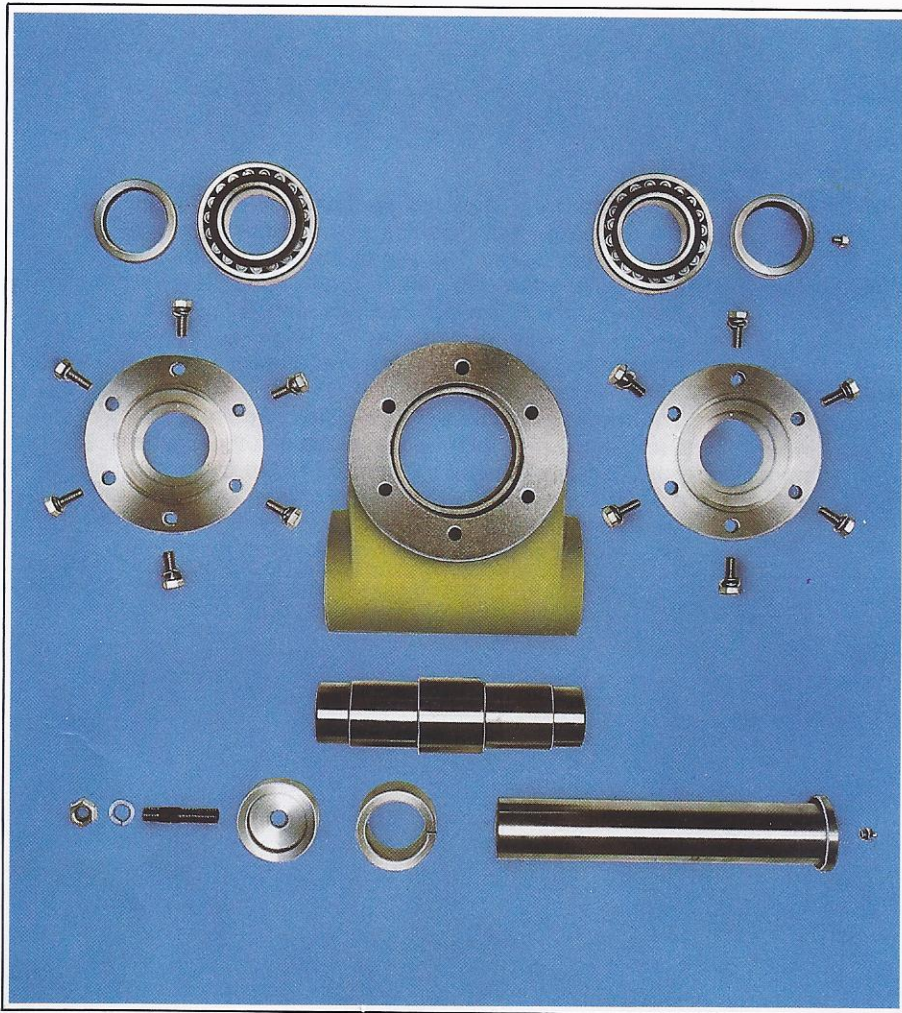
- Engineered to meet or exceed API and AGMA specifications
- Manufactured using latest precision machinery
- Highest standards of material and quality control
- Readily available parts service and technical assistance

The outstanding, sturdy steel structure and the heavy duty castings — combined with highest precision manufacturing — guarantee long life with high performance and low maintenance. All structural parts are manufactured with the use of jigs and fixtures assuring perfect alignment.

This same long life, high performance and low maintenance are also essential qualities of our double reduction double helical gear boxes. The use of tempered shafts, forged gears, low tooth pressures, wide tooth roots, anti-friction roller bearings, thick walled castings and a positive lubrication system provide the utmost for high quality performance. Precise and accurate spacing is maintained through the use of NC boring machines.

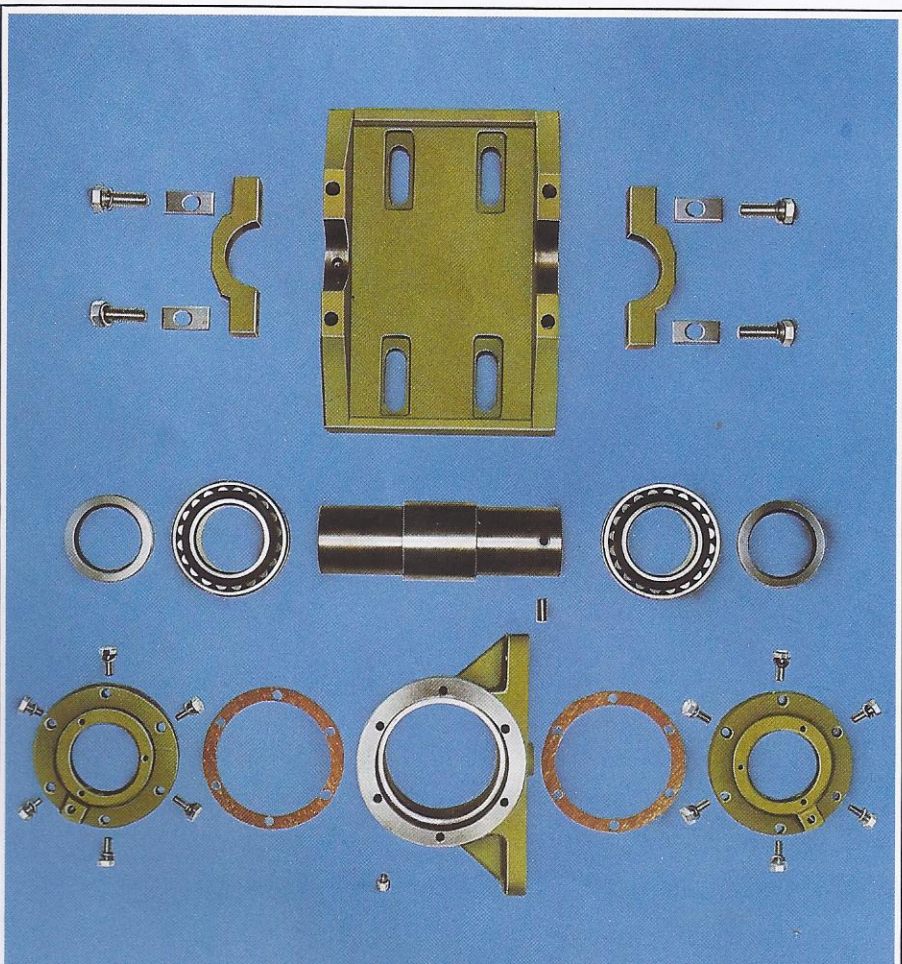
The cranks are cast from high-grade nodular graphite cast iron using innovative technology which results in remarkable high quality castings assuring precise fits to the gear box and for the crankpins. The teeth on the cranks are machined so that the pinion used to adjust the counterweight moves smoothly allowing for easier counterweight adjustment.





The EAGLE Pumping Unit equalizer bearing assembly is furnished with roller bearings and is connected to the walking beam by cross-pin type connections. The heavy duty steel structure of the EAGLE Pumping Unit assures the highest performance and gives a damping effect on vibrations for a longer working life.

Equalizer bearing assembly

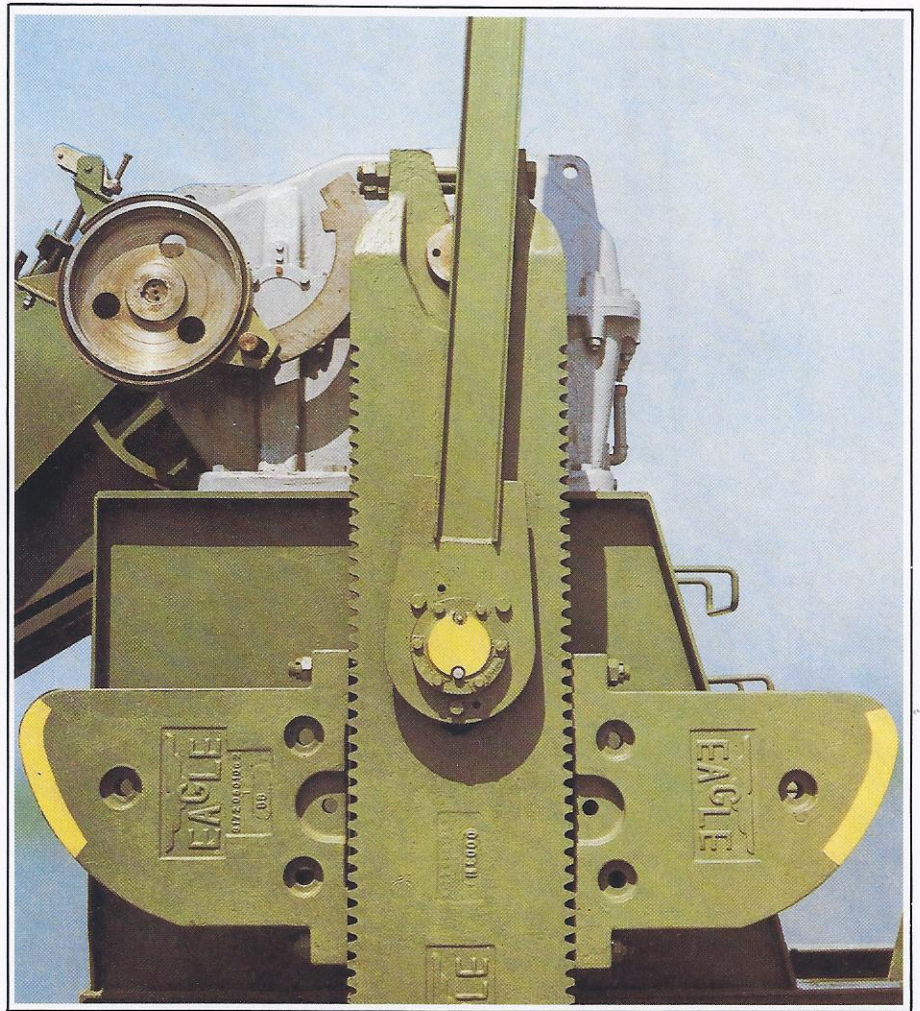


Center bearing assembly

The EAGLE Pumping Unit center bearing assembly is made of high quality ductile cast iron and precise machining allows for perfect alignment.

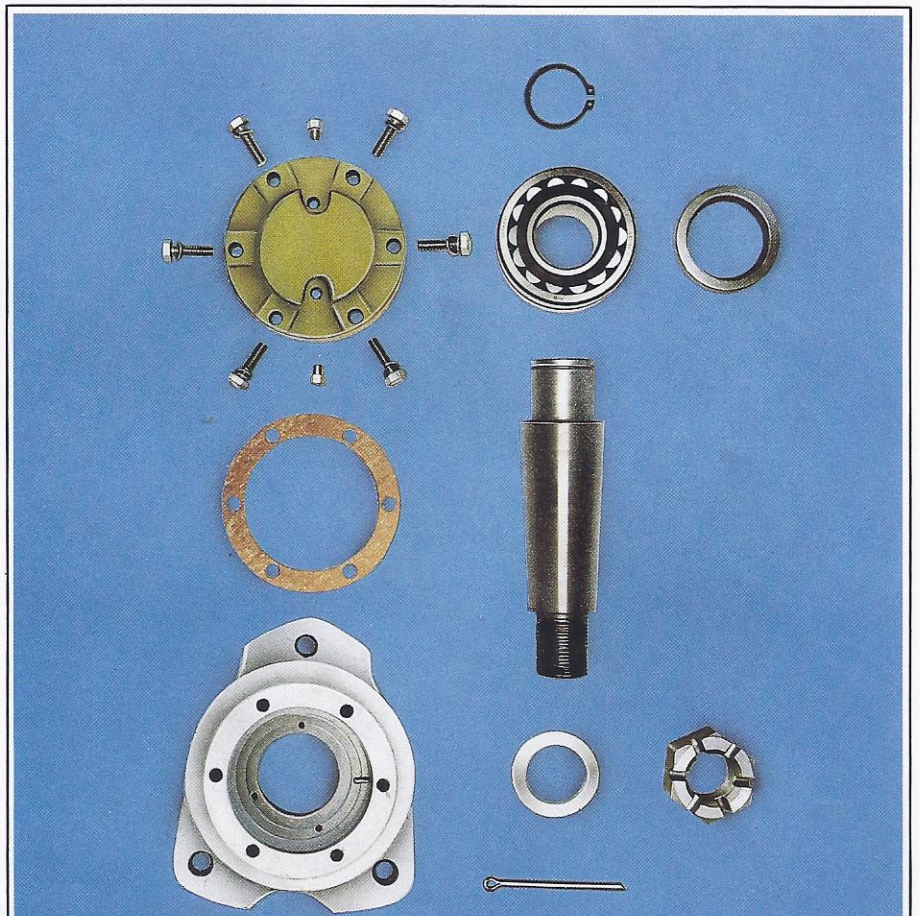
Adjustment of the EAGLE counterweight is made with the use of a removable pinion and handle.

The EAGLE crank is made with three crankpin holes allowing for stroke length adjustment. The tapered crankpin holes give high protection against loosening and the special nodular graphite cast iron has twice the strength and wear resistance with respect to traditional castings.

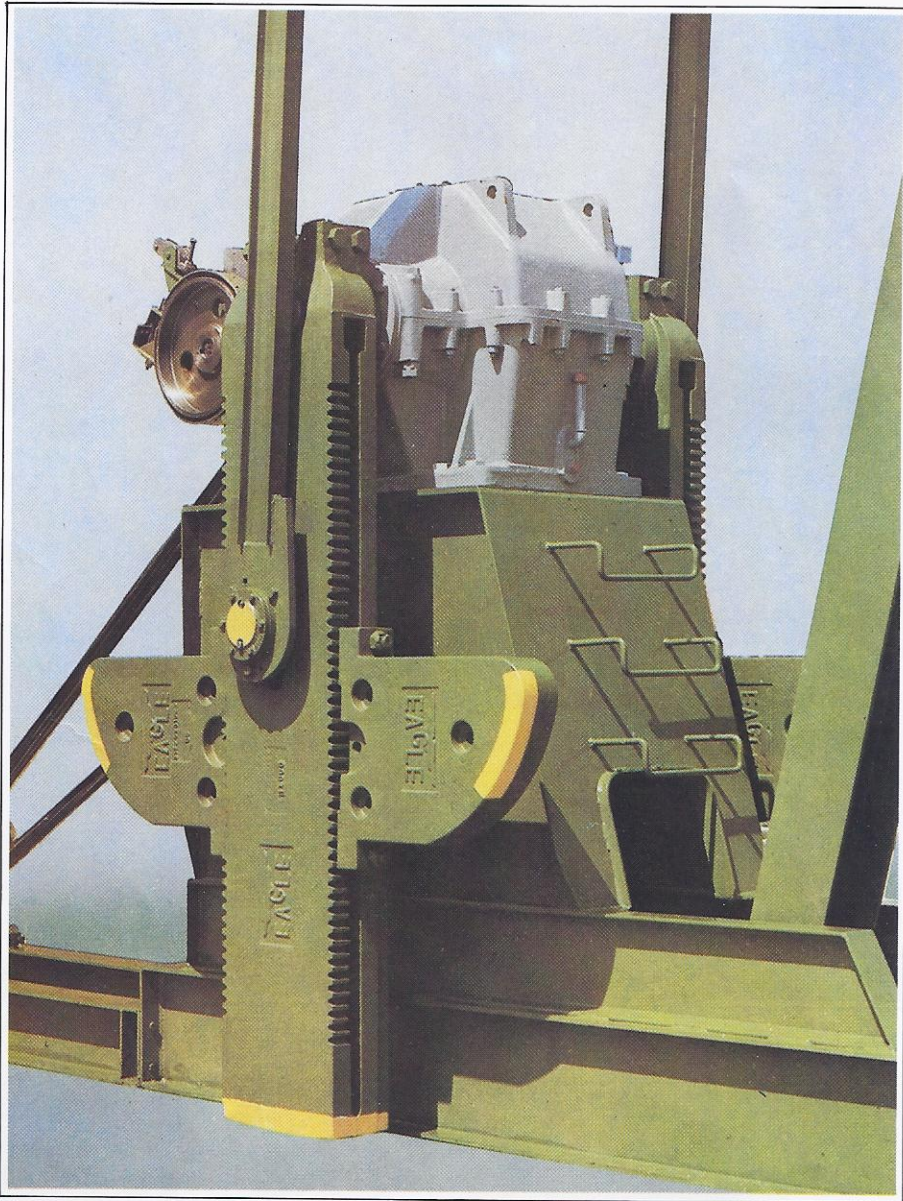


Crank with counterweight

Crankpin assembly



Crankpin bearing assembly is furnished

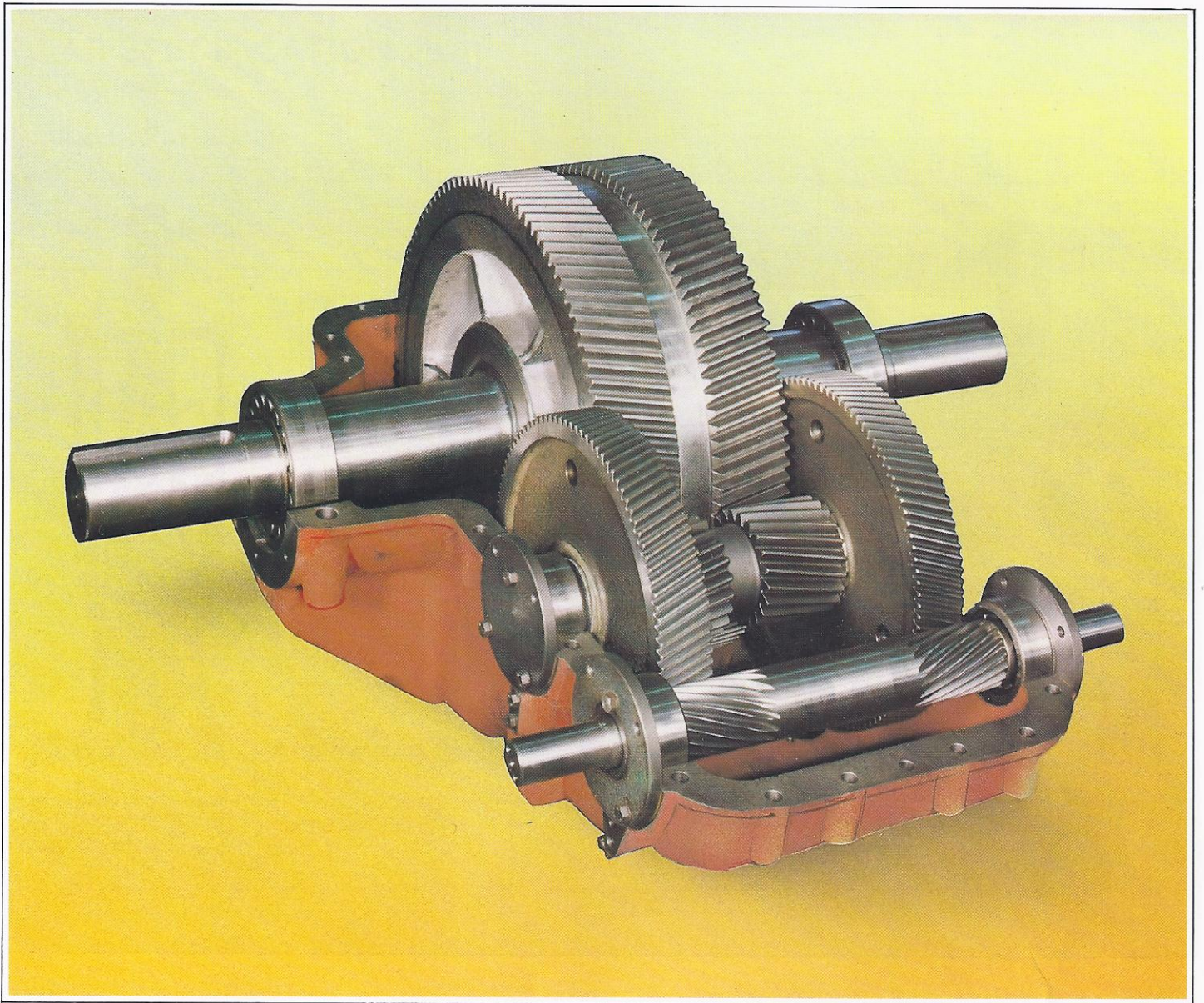


Assembly of gearbox, crank and pitman.
Absolutely reliable.



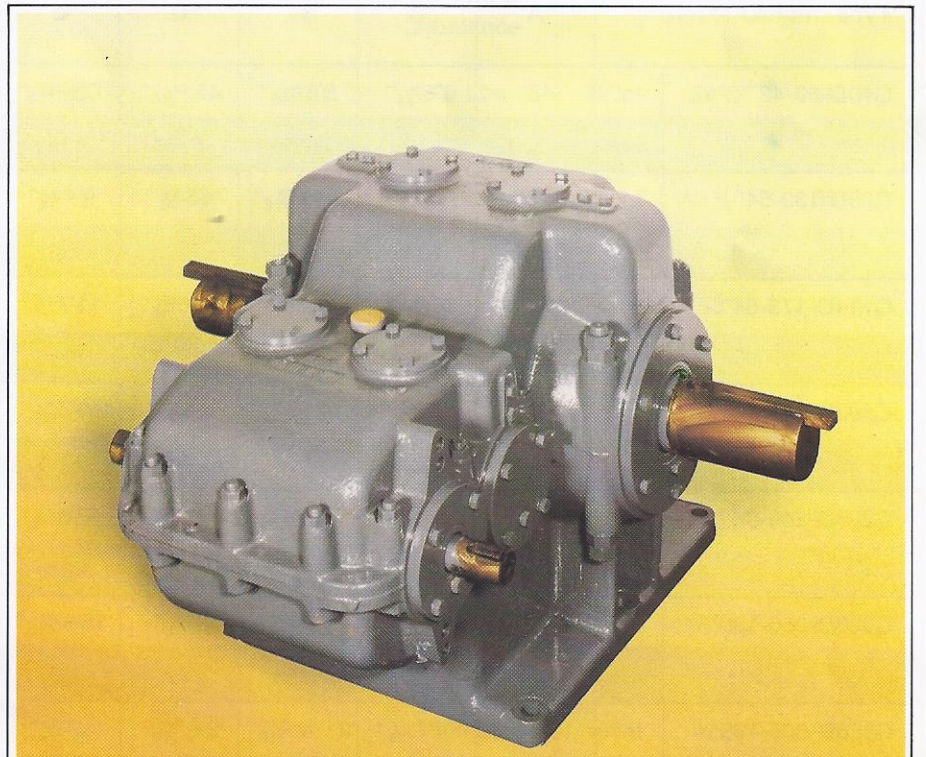
Horsehead and wire line assembly.

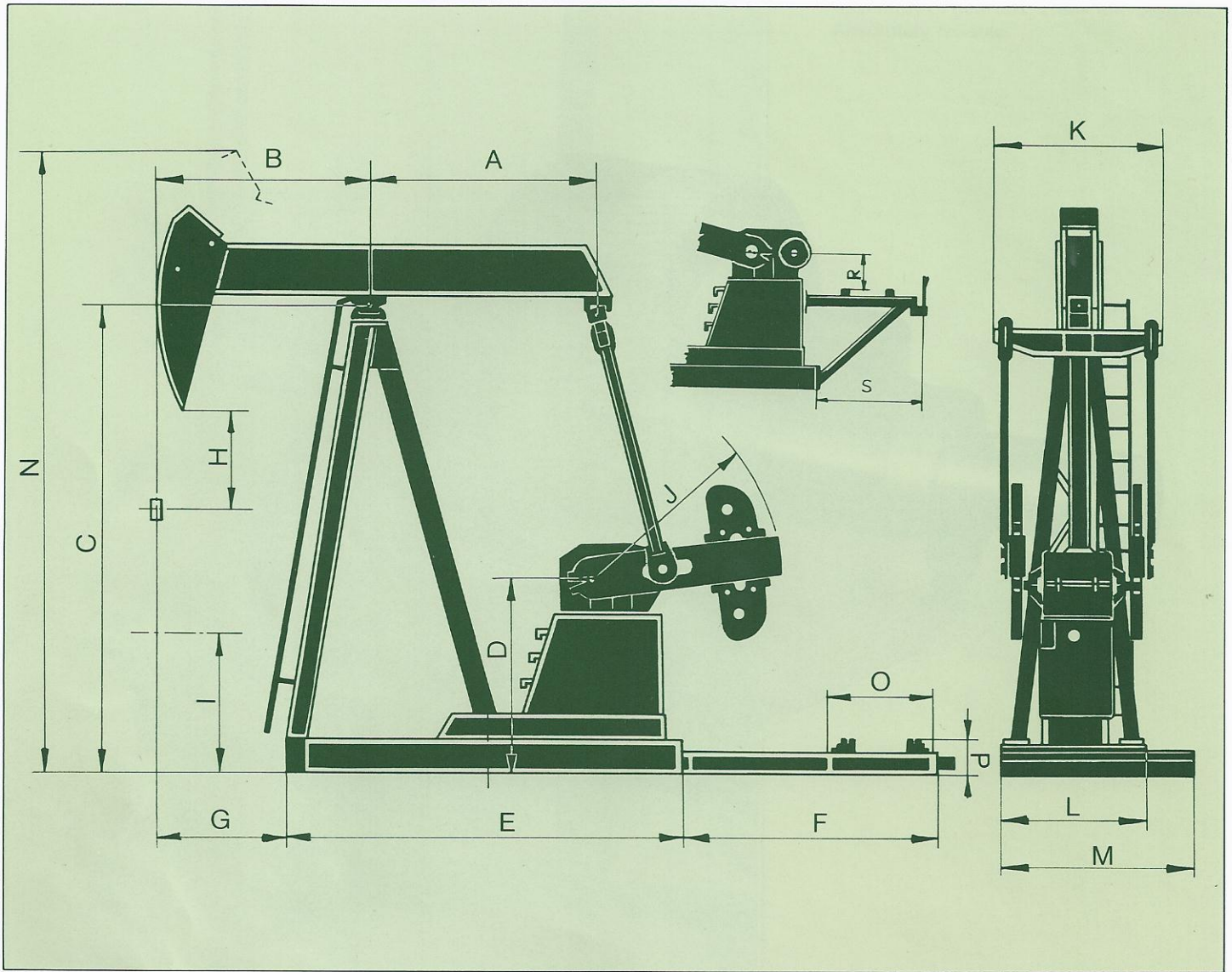
Easy to align through polished rod with-



Double reduction gear box, cover removed

The double-reduction EAGLE gear box (as shown) is manufactured for extreme durability. Design and construction has taken into account oilfield conditions. The gear box is made of heat-treated cast steel. The open double helical slow speed gear train leaves the bearings free from axial loading.





Type		A	B	C	D	E	F	G	H	I	J
C40D-89-42	In.	48"	56 1/4"	8'8 9/16"	45 1 1/16"	7'9 13/16"	5'6 15/16"	34 13/16"	22 13/16"	39 3/8"	44 1/8"
	mm	1220	1429	2656	1160	2383	1700	884	580	1000	1120
C80D-133-54	In.	5'4"	6' 1/2"	10'2 1/16"	55 1/8"	9'7 3/4"	5'6 15/16"	48 1/8"	16 15/16"	49 3/16"	51 3/16"
	mm	1625	1842	3100	1400	2940	1700	1222,5	430	1250	1300
C114D-173-64	In.	6'11 7/8"	7' 7/16"	13'9 9/16"	5'10 7/8"	11'7 7/8"	10'2 1/4"	53 3/8"	33 1/2"	64 3/16"	68 1/8"
	mm	2130	2144	4205	1800	3552	3105	1355	850	1630	1730
C160D-200-74	In.	8'	10 3/16"	14'11 3/4"	6'8 1/8"	13'8 1/2"	10'2 1/4"	63 9/16"	39 3/8"	65 3/4"	6'5 15/16"
	mm	2438	2392	4566	2035	4179	3105	1614	1000	1670	1980
C228D-246-86	In.	9'1 1/2"	9' 7/16"	19'4"	8' 5/8"	16'5 5/8"	10'10 1/8"	66 1/8"	63"	6'2 13/16"	11 1/16"
	mm	2782	2754	5893	2455	5020	3305	1682	1600	1900	2415
C320D-256-120	In.	9'1 1/2"	12'7 1/4"	19'4"	8' 5/8"	15'8 9/16"	10'10 1/8"	9'1"	27 9/16"	6'6 3/4"	11 1/16"
	mm	2782	3841	5893	2455	4790	3305	2769	700	2000	2415
C456D-305-168	In.	10' 1/16"	17'7 1/8"	21'10 3/16"	9'6 3/16"	17' 3/4"	10'10 1/8"	13'6 1/4"	31 1/2"	55 1/8"	9'2 1/16"
	mm	2782	3841	5893	2455	4790	3305	2769	700	2000	2415

GEAR SPECIFICATION

GEAR Reducer API Size			25	40	80	114	228	320	456	640
API Peak Torque Rating		In. Lbs.	25000	40000	80000	114000	228000	320000	456000	640000
		Nm	2825	4520	9040	12882	25764	36160	51528	72320
Gear Ratio			30 : 1	29,2 : 1	30,9 : 1	32,1 : 1	30 : 1	30 : 1	30,4 : 1	30,9 : 1
Shaft	Low Speed	In.	3"	4"	4 ⁷ / ₁₆ "	4 ⁷ / ₁₆ "	6"	6 ⁷ / ₁₆ "	7"	7"
		mm	76,2	101,6	112,7	112,7	152,4	163,5	177,8	177,8
Dia	High Speed	In.	1 ³ / ₈ "	1 ¹¹ / ₁₆ "	1 ¹⁵ / ₁₆ "	1 ¹⁵ / ₁₆ "	2 ¹ / ₂ "	2 ¹ / ₂ "	3 ⁷ / ₁₆ "	3 ⁷ / ₁₆ "
		mm	34,9	42,8	49,2	49,2	63,5	63,5	87,3	87,3
Max. Sheave Dia		In.	20"	20"	20"	30"	41"	44"	46"	46"
		mm	508	508	508	762	1041	1112	1177	1177
Gear Box Oil Capacity		gallon	7,4	10,3	13,2	14,7	47	58,8	91	91
		kg	25	35	45	50	160	200	310	310
Kind of Gears		Herringbone								
Kind of Bearings		Self-Aligning Roller Bearings								

K	L	M	N	O	P	R	S	Structural unbalance	Stroke Length		
55 ¹ / ₈ "	37 ⁵ / ₈ "	43 ⁵ / ₁₆ "	12'9 ⁹ / ₁₆ "	31 ¹ / ₂ "	15 ³ / ₁₆ "	11"	53 ¹ / ₈ "	+ 80 Lbs.	42"	29 ³ / ₄ "	18 ³ / ₁₆ "
1346	956	1100	3900	800	386	280	1350	+ 290 N	1066,8	755,3	462,0
5'8 ⁷ / ₈ "	40 ¹³ / ₁₆ "	43 ⁵ / ₁₆ "	15'6"	31 ¹ / ₁₂ "	15 ³ / ₁₆ "	20 ¹ / ₂ "	53 ¹ / ₈ "	0 Lbs.	54"	42 ¹ / ₄ "	30 ¹³ / ₁₆ "
1646	1036	1100	4725	800	386	520	1350	0 N	1371,6	1072,5	782,1
68 ⁷ / ₈ "	52"	47 ¹ / ₄ "	19'5 ¹ / ₁₆ "	52 ³ / ₈ "	15 ³ / ₁₆ "	29 ¹¹ / ₁₆ "	6'-5 ³ / ₁₆ "	+ 38 Lbs.	64"	53"	41 ¹⁵ / ₁₆ "
1750	1320	1200	5920	1330	386	754	1960	+ 170 N	1625,6	1347	1065
6'9 ⁵ / ₁₆ "	59 ⁷ / ₁₆ "	55 ¹ / ₂ "	20'10 ¹³ / ₁₆ "	52 ³ / ₈ "	15 ³ / ₁₆ "	26 ³ / ₈ "	5'-1"	+ 602 Lbs.	74"	60 ³ / ₄ "	48 ³ / ₁₆ "
2065	1510	1410	6370	1330	386	670	1550	+ 2730 N	1880	1543	1224
6'9 ⁵ / ₁₆ "	5'9 ¹¹ / ₁₆ "	55 ¹ / ₂ "	26'2 ¹⁵ / ₁₆ "	52 ³ / ₈ "	15 ³ / ₁₆ "	42 ¹¹ / ₁₆ "	5'-11 ¹ / ₄ "	+ 400 Lbs.	86"	73 ¹ / ₈ "	60 ¹¹ / ₁₆ "
2065	1770	1410	8000	1330	386	1085	1810	+ 1800 N	2182	1856	1542
7'3 ¹³ / ₁₆ "	5'9 ¹¹ / ₁₆ "	55 ¹ / ₂ "	28'10 ⁷ / ₁₆ "	52 ³ / ₈ "	15 ³ / ₁₆ "	51 ⁹ / ₁₆ "	6'-10 ¹¹ / ₁₆ "	- 970 Lbs.	120"	102 ¹ / ₈ "	84 ¹³ / ₁₆ "
2230	1770	1410	8800	1330	386	1310	2100	- 4400 N	3048	2594	2154
8'6 ³ / ₈ "	6'4 ³ / ₄ "	55 ¹ / ₂ "	35'7 ³ / ₁₆ "	52 ³ / ₈ "	15 ³ / ₁₆ "	51 ⁹ / ₁₆ "	7'-10 ¹ / ₂ "	- 1500 Lbs.	168"	142 ⁷ / ₈ "	118 ¹³ / ₁₆ "

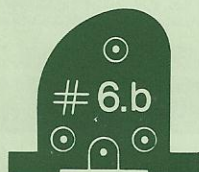
The counterbalance chart illustrate the wide range of counterbalance sizes which can be used on each crank.

PUMPING UNIT COUNTERWEIGHT CHART

Master weights



140 kg / 309 Lbs.



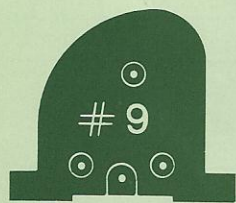
154 kg / 340 Lbs.



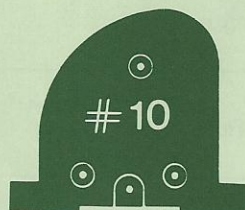
200 kg / 441 Lbs.



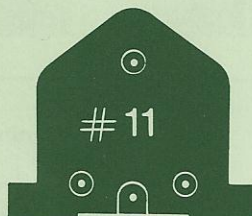
270 kg / 595 Lbs.



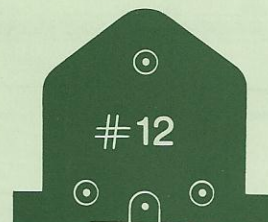
350 kg / 772 Lbs.



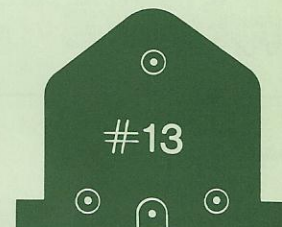
600 kg / 1323 Lbs.



915 kg / 2017 Lbs.



1300 kg / 2867 Lbs.



1900 kg / 4190 Lbs.

Auxiliary weights



23 kg / 51 Lbs.



34 kg / 75 Lbs.



36 kg / 79 Lbs.



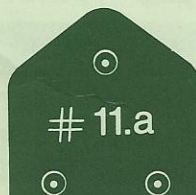
85 kg / 187 Lbs.



104 kg / 229 Lbs.



180 kg / 397 Lbs.



280 kg / 617 Lbs.



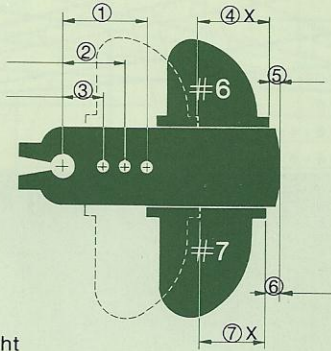
408 kg / 900 Lbs.



625 kg / 1378 Lbs.

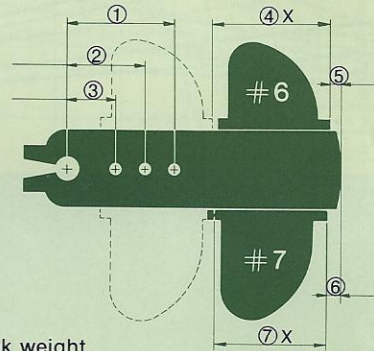
As shown in the figures, a wide range of counterweights are available on our pumping units. With the various combinations of counterweights and auxiliary counterweights to choose from a very economical selection of counterbalance can be made.

SERIES OF CRANKS WITH COUNTERWEIGHTS



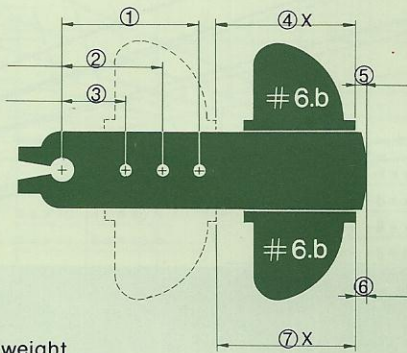
Crank weight
317 kg — 699 Lbs.

- | | |
|--------------------|--------------------------|
| ① 17 1/8" — 435 mm | ④ max. 14 9/16" — 370 mm |
| ② 12 3/8" — 314 mm | ⑤ 1 9/16" — 40 mm |
| ③ 11 5/8" — 295 mm | ⑥ 1 9/16" — 40 mm |
| | ⑦ max. 12 5/8" — 321 mm |



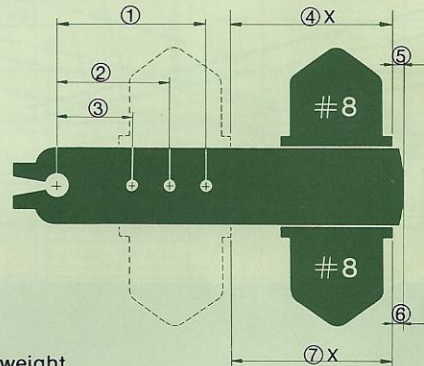
Crank weight
580 kg — 1.279 Lbs.

- | | |
|--------------------|--------------------------|
| ① 22 7/8" — 581 mm | ④ max. 22 7/16" — 570 mm |
| ② 18 1/8" — 460 mm | ⑤ 1 9/16" — 40 mm |
| ③ 13 3/8" — 340 mm | ⑥ 1 9/16" — 40 mm |
| | ⑦ max. 20 7/16" — 519 mm |



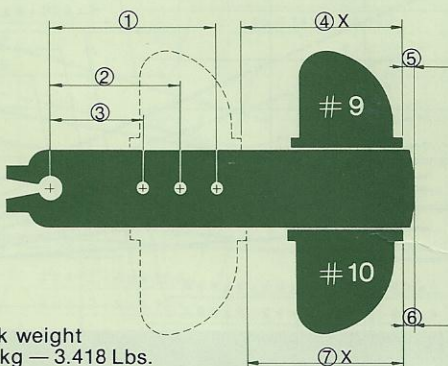
Crank weight
870 kg — 1.918 Lbs.

- | | |
|----------------------|-------------------------|
| ① 30 11/16" — 780 mm | ④ max. 31 1/2" — 800 mm |
| ② 25 9/16" — 649 mm | ⑤ 1 9/16" — 40 mm |
| ③ 20 1/2" — 521 mm | ⑥ 1 9/16" — 40 mm |
| | ⑦ max. 31 1/2" — 800 mm |



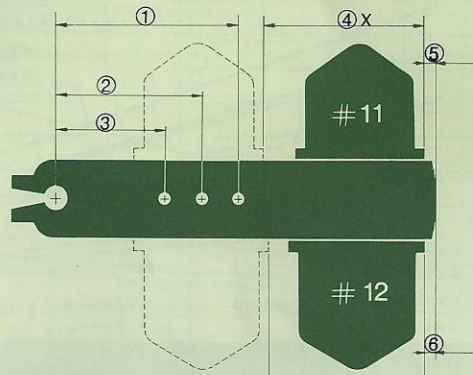
Crank weight
936 kg — 2.064 Lbs.

- | | |
|----------------------|--------------------------|
| ① 35 13/16" — 907 mm | ④ max. 39 3/8" — 1000 mm |
| ② 29 15/16" — 760 mm | ⑤ 1 9/16" — 40 mm |
| ③ 24" — 610 mm | ⑥ 1 9/16" — 40 mm |
| | ⑦ max. 39 3/8" — 1000 mm |



Crank weight
1550 kg — 3.418 Lbs.

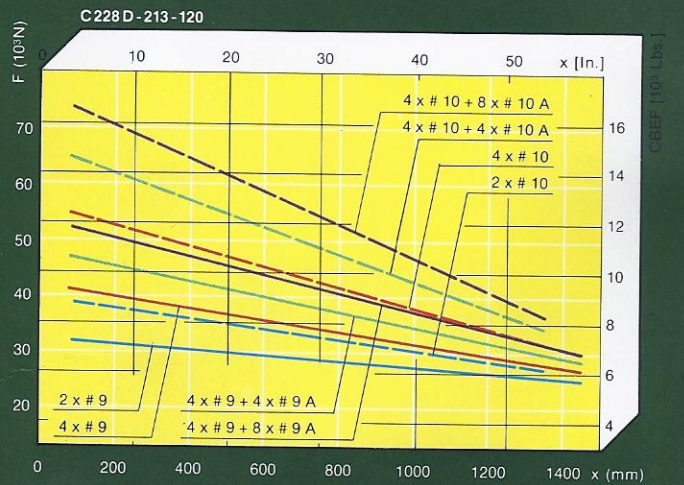
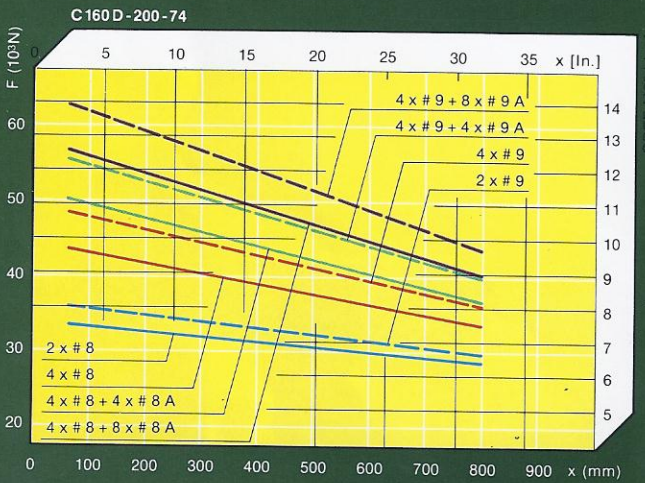
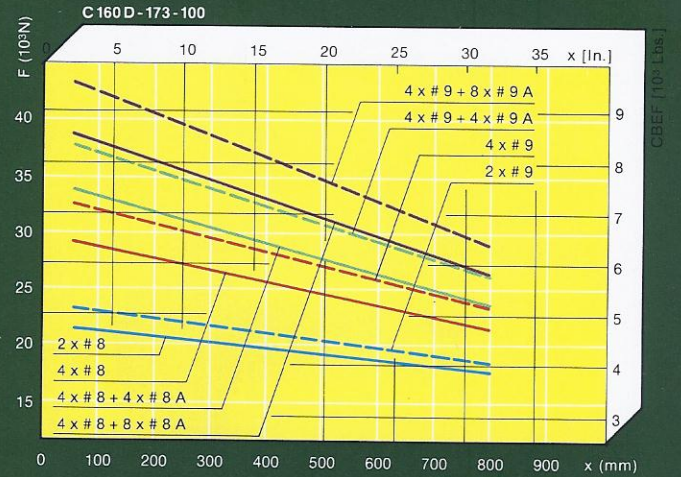
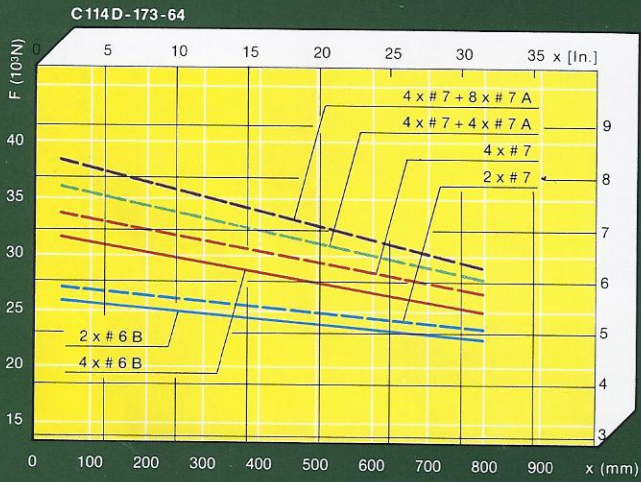
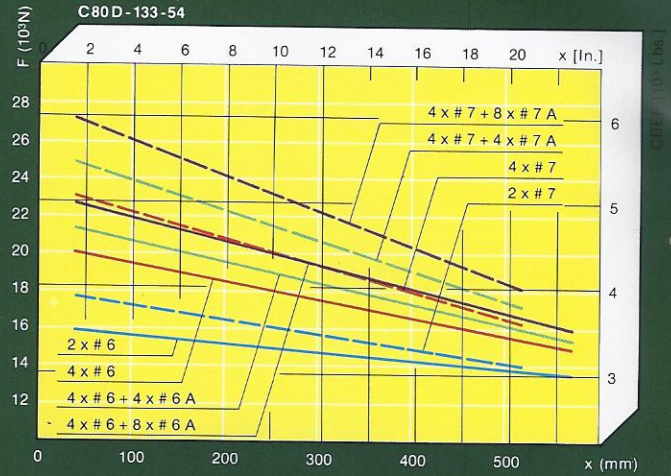
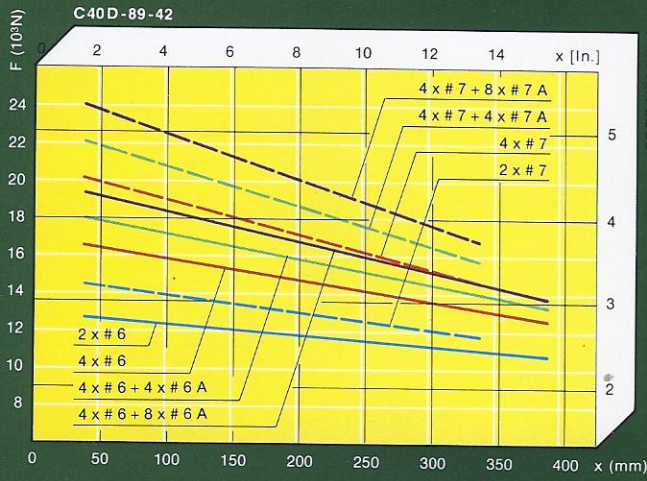
- | | |
|---------------------|---------------------------|
| ① 42 1/8" — 1070 mm | ④ max. 57 1/16" — 1450 mm |
| 45 11/16" — 1161 mm | ⑤ 1 9/16" — 40 mm |
| ② 36 1/4" — 921 mm | ⑥ 1 9/16" — 40 mm |
| 39 3/8" — 1000 mm | ⑦ max. 57 1/16" — 1450 mm |
| ③ 30 5/8" — 770 mm | |



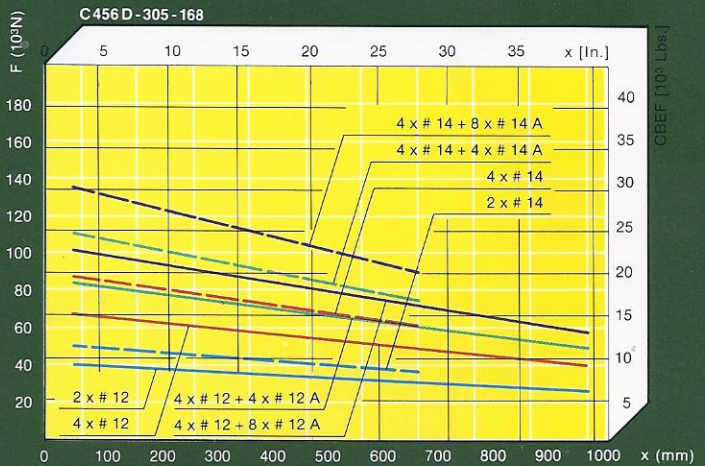
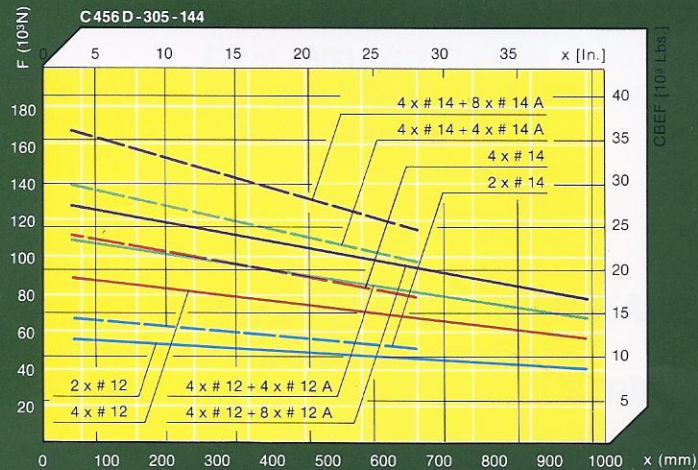
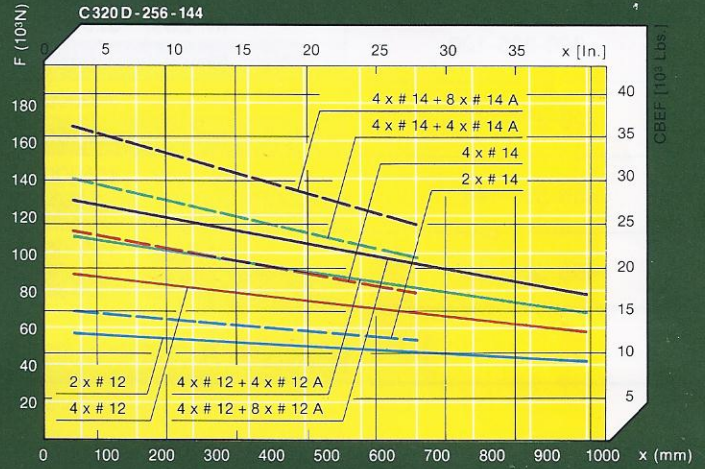
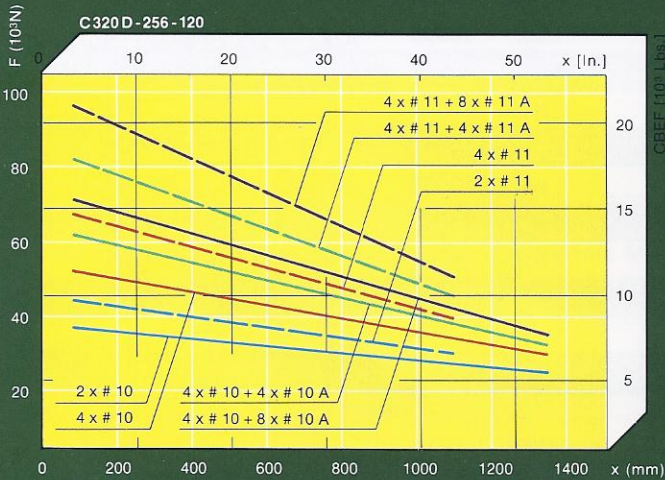
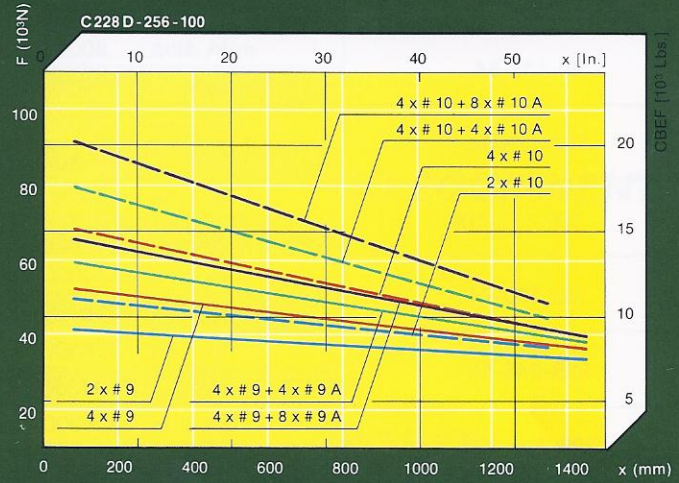
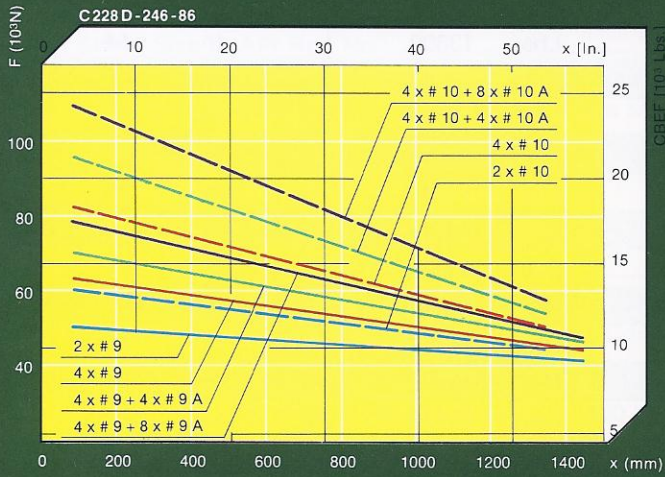
Crank weight
1840 kg — 4.057 Lbs.

- | | |
|-----------------------|--------------------------|
| ① 45 13/16" — 1164 mm | ④ max. 39 3/8" — 1000 mm |
| ② 39 5/16" — 999 mm | ⑤ 1 9/16" — 40 mm |
| ③ 33" — 838 mm | ⑥ 1 9/16" — 40 mm |
| | ⑦ max. 39 3/8" — 1000 mm |

Counterbalance effect



Counterbalance effect



PUMPING UNIT SIZE RATINGS

Pumping Unit Size	Reducer Rating	Structure Capacity	Max. Stroke Length
40-89-42	In. Lbs. 25000	Lbs. 8900	In. 42
	Nm 4520	N 39578	mm 1067
80-133-54	In. Lbs. 80000	Lbs. 13300	In. 54
	Nm 9040	N 59145	mm 1372
114-173-64	In. Lbs. 114000	Lbs. 17300	In. 64
	Nm 12882	N 76933	mm 1626
160-173-100	In. Lbs. 160000	Lbs. 17300	In. 100
	Nm 18080	N 76933	mm 2540
160-200-74	In. Lbs. 160000	Lbs. 20000	In. 74
	Nm 18080	N 88940	mm 1880
228-246-86	In. Lbs. 228000	Lbs. 24600	In. 86
	Nm 25764	N 109396	mm 2184
228-256-100	In. Lbs. 228000	Lbs. 25600	In. 100
	Nm 25764	N 113843	mm 2540
228-213-120	In. Lbs. 228000	Lbs. 21300	In. 120
	Nm 25764	N 94721	mm 3048
320-256-120	In. Lbs. 320000	Lbs. 25600	In. 120
	Nm 36160	N 113843	mm 3048
320-305-120	In. Lbs. 320000	Lbs. 30500	In. 120
	Nm 36160	N 135633	mm 3048
320-256-144	In. Lbs. 320000	Lbs. 25600	In. 144
	Nm 36160	N 113843	mm 3658
456-305-144	In. Lbs. 456000	Lbs. 30500	In. 144
	Nm 51528	N 135633	mm 3658
456-305-168	In. Lbs. 456000	Lbs. 30500	In. 168
	Nm 51528	N 135633	mm 4267
640-305-168	640,000 72,320	30,500 135,633	168 4267

KGyv-METALLURGICAL ENGINEERING CORP.

H-1553 Budapest, POB. 23. HUNGARY
Tel.: 112-274; Telex: 0/22-5920 kgyex h.

HAFE-FACTORY FOR GEARS AND PAINTING EQUIPMENT

H-1552 Budapest, Fehérvári út 98. HUNGARY
Tel.: 450-550; Telex: 0/22-5186

IRON AND STEEL FOUNDRY OF CSEPEL WORKS

H-1751 Budapest, POB. 42. CSEPEL 1. HUNGARY
Tel.: 278-303; Telex: 0/22-5863

LANG ENGINEERING WORKS

H-1393 Budapest, Váci út 152/156 POB. 320. HUNGARY
Tel.: 498-140; Telex: 0/22-4566

EAGLE CO. (Houston — USA)

10700 Richmond Ave., Suite No. 121
Houston, TX 77042. U.S.A.
Tel.: 713/782-6047; Telex: 790-345 eagle co hou

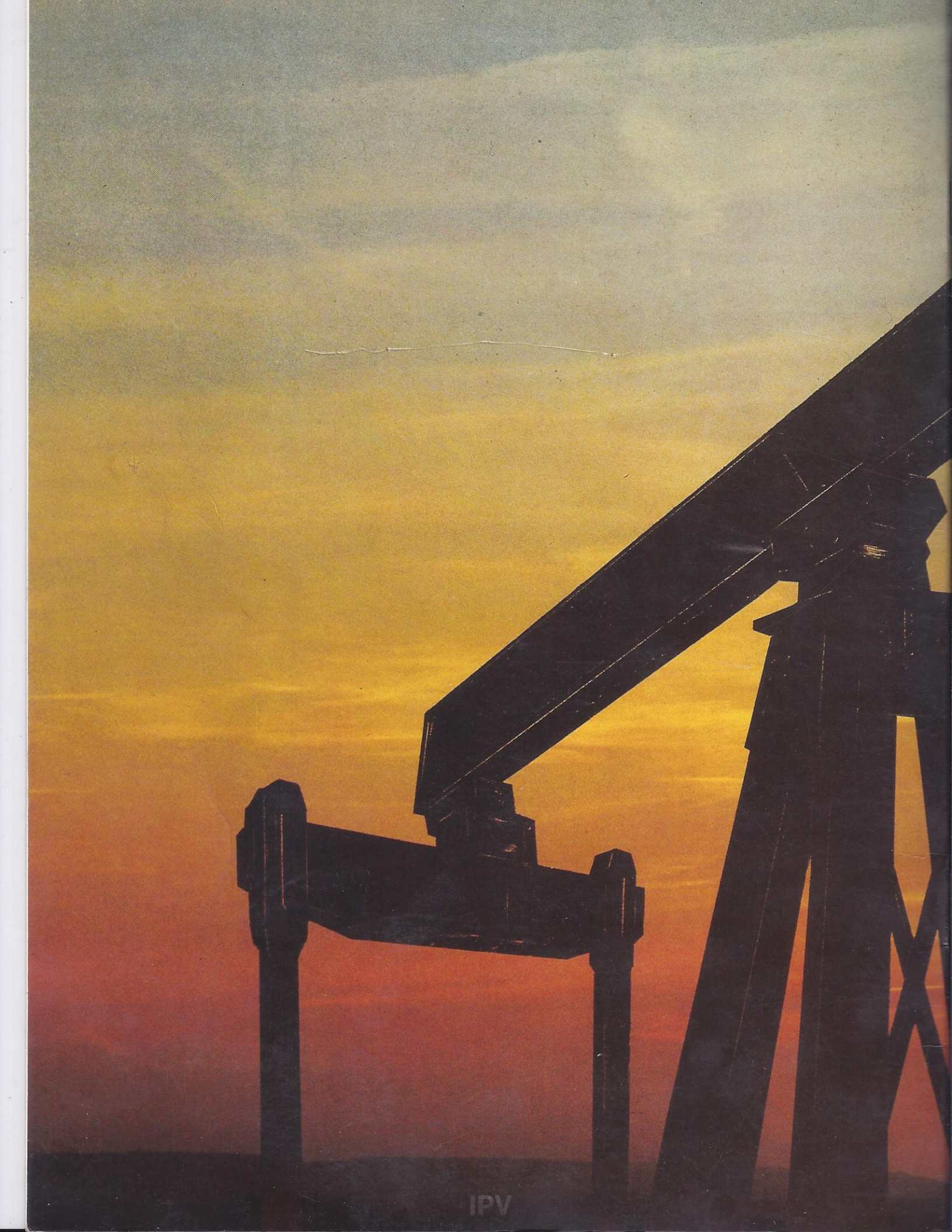
OSTRIMET SA.

Ferré 1860-1437 Buenos Aires, ARGENTINA
Tel.: 923-3031/33; 923-4408; 923-4480;
Telex: 23398 ostri ar

HÖLTER INDUSTRIEANLAGEN GmbH.

A-5101 Salzburg-Bergheim
Handelszentrum 334. AUSTRIA
Tel.: (0 62 22) 52 047, 52 051, 52 064;
Telex: 633820

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