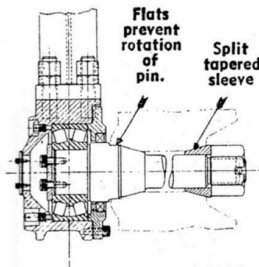


## LEGRAND SERIES L PUMPING UNITS

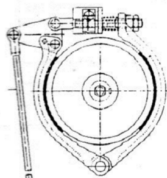
The units illustrated in this catalogue are the result of many years of close association between our design engineers and production engineers from many of the World's oil fields, and it is by this close co-operation between manufacturer and producer that we are able to offer these Pumping Units.

The units are built to satisfy most pumping conditions and range from 30,000 to 3,000 lb. polished rod load, with gearboxes conforming to A.P.I. Standard ratings from 456,000 to 16,000 lb. ins. peak torque. The ability to use full stroke with full polished rod load without exceeding the peak torque capacity of the Gearbox is a feature of all units. Small units have Beam type counterbalance, while units of 10,000 lb. load rating and above, have easily adjustable rack and pinion counterbalance weights on the cranks. In addition the smaller sizes of the medium range (central group on pages 2994 and 2995) can be provided with crank or beam weights, or a combination of both. All units are floor clearing.



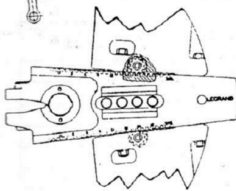
### CRANKPINS

Crank Pins are of the LEGRAND Patented quick-release construction incorporating split tapered sleeves, making removal exceptionally easy and eliminating any difficulty in the field when occasion arises to alter the Polished Rod Stroke. Crank Pins run in self-aligning anti-friction bearings.



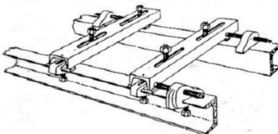
### BRAKES

Brakes may be applied prior to the erection or dismantling of the brake lever and extension base. This allows them to remain applied and thus hold the cranks and balance weights in any desired position while the unit is in transit, or being installed on the field.



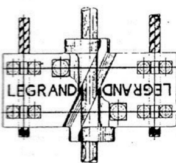
### CRANK COUNTERBALANCE

The rack and pinion method of adjusting the counterbalance weights is so easy to use that it ensures the unit being kept to a fine degree of balance. Alteration of position of weights on crank is made by setting the cranks horizontal, slackening off the holding down bolts and turning pinion with handle supplied. By this method adjustment time is reduced to a minimum. The rack teeth are shrouded and not so subject to damage as the exposed type.

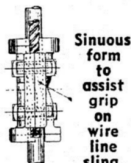


### SLIDERAILS

In this assembly clamps are used in place of the lower rails and adjusting blocks instead of the conventional slotted rail. This feature simplifies the assembly and increases flexibility and capacity to accept any type and size of prime mover without interference with junction boxes or leads.

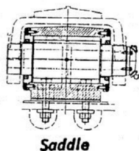


Of cast steel construction incorporating clamping arrangement for mulehead wire line slings. The carrier bars are easily placed on the polished rod or removed as required by means of the angular slot.

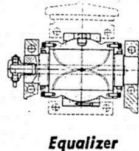


Sinuous form to assist grip on wire line sling.

### EQUALIZER AND SADDLE BEARINGS BRONZE

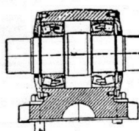


Saddle

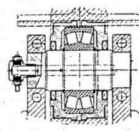


Equalizer

### ROLLER



Saddle



Equalizer

**GENERAL CONSTRUCTION:** LEGRAND Pumping Units are of double crank, fully equalized construction, and have been designed to break down into components of reasonable size for shipment, field erection, and service.

### GENERAL SPECIFICATIONS

**GEARBOXES:** Gears are of Double-Helical, Double-Reduction type to A.P.I. specifications and the latest A.P.I. ratings. Crankshafts have three keyways so that the cranks can be differently positioned at intervals to reduce wear (not on 16,000, 25,000 and 40,000 lb. in. boxes). All bearings are of the ball or roller type and oil lubricated. Dipsticks incorporate non-return valves to prevent atmospheric condensate diluting the oil. Drain plugs incorporate a magnet to remove fine particles of steel which would otherwise be carried in the oil and cause excessive wear. A drain plug spanner is provided with each unit. The housing has been designed for increased belt clearance when plinth mounted.

**PRIME MOVERS:** Units are suitable for any type of Prime Mover, Electric Motor or Gas or Oil Engine. Unless otherwise specified they are normally shipped with extension Base for electric motor, but extension bases are made to suit any make of gas (oil) engine. Speed variation is obtained by changing the driving pulley.

**WALKING BEAMS:** These are constructed from rolled steel joists rated in accordance with A.P.I. standards.

**MULEHEADS:** Of welded plate construction. The mulehead is designed to swing back on top of the walking beam so giving ample Travelling Block clearance. On smallest units, muleheads lift off.

**EQUALIZERS:** Pitmans and Equalizer Beam are fully equalized through spherically mounted bearings.

**LUBRICATION:** Saddle, Equalizer and Crank Pin Bearings each have their own individual reservoirs. A ground-level replenishment system is fitted on all units where bearings cannot be reached from the ground, i.e., those larger than the L7½-40 BRB-30. For all lubrication including gearbox an equivalent oil to S.A.E. 140 should be used, the choice depending on climatic conditions.

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**BELTS:** Supplied to our standard or to customer's requirements.

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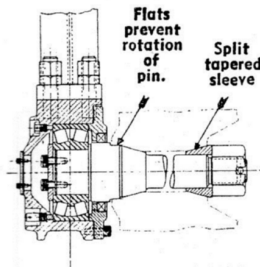
**LADDERS:** Fitted with safety rings and supplied with the larger units. They can be fitted to either side of the Samson Post.

**PACKING FOR SHIPMENT:** All parts are adequately protected and packed in cases and crates designed for ocean shipment and ease of handling in the field.

## LEGRAND SERIES L PUMPING UNITS

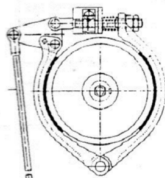
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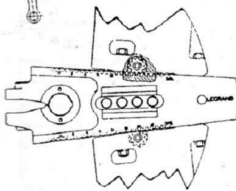
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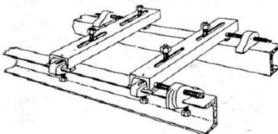
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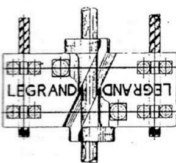
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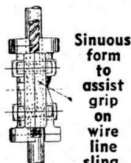


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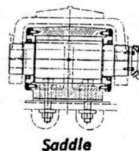


British Patent No. 673876  
Of cast steel construction incorporating clamping arrangement for mulehead wire line slings. The carrier bars are easily placed on the polished rod or removed as required by means of the angular slot.

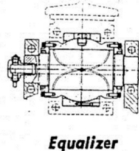


Sinuous form to assist grip on wire line sling.

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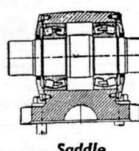


Saddle

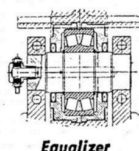


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**LE GRAND SUTCLIFF & GELL LTD. HORSTED AIRPORT · ROCHESTER · KENT · ENGLAND**

UNIT	S	C	D	E	F	G	H	J	K	L	N	P	Beam Section	Width of Main Base	Width of Main Base at Well End
L3-16 BRB-36"	104 1/2"	51 1/2"	54"	36"	15 3/4"	82"	75 1/2"	41 1/2"	30"	11"	5"	15"	8" x 6"	15 1/4"	24"
L4-16 BRB-24"	105"	33 1/2"	36"	36"	14 1/4"	77"	63"	38"	28"	11"	5"	15"	8" x 6"	15 1/4"	24"
L5-25 BRB-30"	126"	42"	45"	36"	16 1/4"	125"	63"	29 1/2"	21 1/2"	12 1/2"	5"	15"	8" x 6"	16 1/4"	25"
L6-25 BRB-24"	105"	33"	36"	36"	15"	80"	63"	38"	28"	12 1/2"	5"	15"	8" x 6"	16 1/4"	25"
L7 1/2-40 BRB-30"	121"	42"	45"	45"	16 1/4"	99 1/2"	78"	47"	37"	14"	8"	18"	10" x 6"	21"	28"
L7 1/2-40 BRB-42"	121"	60"	63"	45"	22"	104"	78"	38 3/4"	29 1/4"	14"	8"	18"	10" x 6"	21"	28"
L9-57 BRB-36"	138 1/2"	51"	54"	51 1/2"	17"	109 1/2"	87"	52"	36"	14"	8"	21"	10" x 8"	21 1/4"	36"

Dimension (S) is made up of Main and Extended Bases which bolt together to facilitate packing, except L4, L5 & L6 which are of unit construction.

TECHNICAL DATA		L3-16 BRB-36"	L4-16 BRB-24"	L5-25 BRB-30"	L6-25 BRB-24"	L7 1/2-40 BRB-30"	L7 1/2-40 BRB-42"	L9-57 BRB-36"
Maximum Polished Rod Load.....	lbs.	3,000	4,000	5,000	6,000	7,500	7,500	9,000
A.P.I. Beam Rating.....	lbs.	4,500	6,250	6,400	7,988	9,100	9,150	10,700
Range of Polished Rod Strokes.....	ins.	18, 24, 30, 36	12, 16, 20, 24	15, 20, 25, 30	12, 16, 20, 24	15, 20, 25, 30	21, 28, 35, 42	18, 24, 30, 36
Gear Reducer A.P.I. Peak Torque Rating...	lbs. ins.	16,000	16,000	25,000	25,000	40,000	40,000	57,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. fitted as standard.....	ins.	19"	19"	21"	21"	23"	23"	20"
V Belts Number and Section.....		2 B	2 B	3 B	3 B	4 B	4 B	5 B
A.P.I. h.p. at 20 S.P.M.....		3.23	3.23	5.05	5.05	8.1	8.1	11.6
Balance Weights (total dead weight).....	lbs.	1,662	1,496	2,136	2,136	2,816	4,016	3,240
Max. Counterbalance effect at max. stroke.....	lbs.	2,230	3,010	3,340	4,170	5,570	8,100	5,850
Net Weight (Approx.).....	lbs.	5,000	5,040	5,800	5,600	6,272	7,500	6,720
Gross Weight (Approx.).....	lbs.	5,600	5,600	6,472	6,272	7,168	8,400	7,840

UNIT*	"R" Units		"F"		"R" and "F" UNITS												Beam Section	Width of Main Base	Width of Main Base at Well End
	A	B	Y	C	D	E	F	G	H	J	K	L	M	N	P				
L7 1/2-57 PRB/PFB-54"	111"	54 3/4"	104"	55"	81"	63"	23"	124"	108 1/2"	54"	38"	14"	5"	8"	25 1/2"	12" x 8"	21 1/4"	36 1/4"	
L7 1/2-57 PRC/PFC-54"	115 1/2"	58"	107 1/2"	51"	81"	63"	23"	124"	115"	63"	44"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/4"	
L7 1/2-114 PRC/PFC-72"	123 1/2"	64"	116"	70 3/4"	99 3/4"	72"	21"	141 1/2"	73 3/4"	56"	21"	21 1/2"	8"	49"	14" x 8"	28"	41 1/2"	41 1/2"	
L10-57 PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	115"	74"	59 1/2"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/4"	36 1/4"	
L10-57 PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	94"	115"	74"	59 1/2"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/4"	
L10-114 PRC/PFC-56"	136"	72"	128 1/2"	54"	84"	81"	29 1/2"	144"	91 3/4"	50 1/2"	21"	18 1/2"	8"	44"	14" x 8"	28"	41 1/2"	41 1/2"	
L11-80 PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	116 1/2"	75 1/2"	61"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/4"	36 1/4"	
L13-114 PRC/PFC-48"	139"	72"	131 1/2"	48"	81"	81"	25"	144"	92"	54"	21"	18"	10"	47 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L13-114 PRC/PFC-48"	139"	72"	131 1/2"	48"	81"	81"	25"	157"	105"	64"	21"	23"	10"	52 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L13-80 PRC/PFC-48"	124"	72"	123 1/2"	42 1/2"	72"	72"	21"	141 1/2"	95"	78"	14"	28 1/2"	8"	49"	14" x 8"	21 1/4"	36 1/4"	36 1/4"	
L15-114 PRC/PFC-54"	139"	72"	131 1/2"	48"	81"	81"	25"	157"	105"	64"	21"	23"	10"	52 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L15-160 PRC/PFC-54"	139"	72"	131 1/2"	48"	81"	81"	25"	157"	105"	64"	21"	23"	10"	52 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L15-160 PRC/PFC-64"	139"	72"	131 1/2"	63"	96"	81"	24"	157"	97"	62"	21"	23"	10"	52 1/4"	18" x 8"	28"	41 1/2"	41 1/2"	
L16 1/2-160 PRC/PFC-60"	139"	72"	131 1/2"	57"	90"	81"	24"	157"	99"	64"	21"	23"	10"	52 1/4"	18" x 8"	28"	41 1/2"	41 1/2"	

\* Beam Counter Balance only, no crank weights.

† Not fitted with ladder.

TECHNICAL DATA		L7 1/2-57 PRB/PFB-54"	L7 1/2-57 PRC/PFC-54"	L7 1/2-114 PRC/PFC-72"	L10-57 PRC/PFC-42"	L10-57 PRB/PRFC-42"	L10-114 PRC/PFC-56"	L11-80 PRC/PFC-42"	L13-114 PRC/PFC-48"	L13-114 PRC/PFC-54"	L13-80 PRC/PFC-48"	L15-114 PRC/PFC-54"	L15-160 PRC/PFC-54"	L15-160 PRC/PFC-64"	L16 1/2-160 PRC/PFC-60"
Maximum Polished Rod Load.....	lbs.	7,500	7,500	7,500	10,000	10,000	10,000	11,000	13,000	13,000	13,000	15,000	15,000	15,000	16,500
A.P.I. Beam Rating.....	lbs.	10,000	10,000	10,000	12,900	12,900	12,900	12,900	15,000	15,000	14,000	15,000	15,000	15,000	16,500
Range of Polished Rod Strokes.....	ins.	27", 36", 45", 54"	27", 36", 45", 54"	36", 48", 60", 72"	35", 42", 50", 60"	35", 42", 50", 60"	24.9, 35.3", 45.6, 56"	21", 28", 35", 42", 49"	21", 30", 34", 44", 54"	21", 30", 34", 44", 54"	21", 30", 34", 44", 54"	24", 34", 44", 54"	24", 34", 44", 54"	28.5", 40.25", 52.0", 64"	26.6", 37.7", 48.8", 60"
Gear Reducer A.P.I. Peak Torque Rating.....	lbs. ins.	57,000	57,000	114,000	57,000	57,000	114,000	80,000	114,000	114,000	114,000	114,000	160,000	160,000	180,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. Fitted as Standard.....	ins.	20"	20"	24 1/2"	20"	20"	24 1/4"	21"	24 1/4"	24 1/4"	21"	24 1/4"	24 1/4"	24 1/4"	24 1/4"
V Belts Number and Section.....		5 B	5 B	4 C	5 B	5 B	4 C	5 B	4 C	4 C	5 B	4 C	5 C	5 C	5 C
A.P.I. h.p. at 20 S.P.M.....		11.6	11.6	23	11.6	11.6	23	16.2	23	23	16.2	23	32.4	32.4	32.4
Balance Weights (total dead weight).....	lbs.	4,040	4,520	3,224	4,520	4,440	4,900	4,520	4,400	4,400	5,692	6,012	5,400	7,760	7,760
Max. Counterbalance effect at max. stroke.....	lbs.	5,150	5,658	4,325	7,292	7,388	6,736	7,292	8,640	8,900	9,645	10,775	10,175	10,400	11,250
Net Weight (approx.) "R" Units.....	lbs.	12,208	12,208	12,500	12,432	12,432	13,888	13,440	13,664	13,700	13,500	13,700	18,704	18,704	18,704
Gross Weight (approx.) "R" Units.....	lbs.	13,888	13,888	13,700	14,670	14,670	16,128	15,680	15,904	15,700	15,500	15,700	20,944	20,944	20,944
Net Weight (approx.) "F" Units.....	lbs.	11,872	11,872	12,000	12,096	12,096	13,552	13,104	13,328	13,300	13,100	13,300	18,368	18,368	18,368
Gross Weight (approx.) "F" Units.....	lbs.	13,552	13,552	13,200	14,336	14,336	15,792	15,344	15,568	15,300	15,300	15,300	20,608	20,608	20,608

UNITS*	"R" Units		"F" Units		"R" and "F" UNITS												Beam Section	Width of Main Base	Width of Main Base at Well End
	A	B	Y	C	D	E	F	H	J	K	L	M	N	P					
L17-228 PRC/PFC-72"	163"	90"	152 1/2"	68"	108"	93"	28"	172"	104"	60"	27"	15"	12"	52 1/4"	18" x 12"	32 1/2"	49"		
L20-228 PRC/PFC-72"	182 1/2"	92"	172"	65"	108"	108"	28"	203 3/4"	130 3/4"	51 3/4"	27"	14"	60"	20" x 12"	31 1/2"	53"			
L25-320 PRC/PFC-72"	198"	93"	187 1/2"	77"	120"	120"	28"	204 5/8"	131 3/8"	51 3/8"	28"	15"	64 3/8"	20" x 12"	34 3/8"	53"			
L25-228 PRC/PFC-72"	200 1/2"	93 1/2"	190"	74 1/2"	120"	120"	28"	205 5/8"	136"	53 3/8"	27"	15"	69 1/8"	20" x 12"	34 3/8"	53"			
L25-320 PRC/PFC-84"	198"	93"	187"	97"	140"	120"	30"	211"	130"	57"	28"	15"	69 1/8"	22" x 12"	34 3/8"	53"			
L29-320 PRC/PFC-72"	198"	93"	187"	77"	120"	120"	28"	211"	142"	57"	28"	15"	69 1/8"	22" x 12"	34 3/8"	53"			
L30-456 PRC/PFC-108"	248"	90"	237 1/2"	99"	156"	156"	36"	290"	188"	60"	28"	16"	84"	24" x 12"	34 3/8"	72"			

TECHNICAL DATA		L17-228 (PRC)-72"	L20-228 (PRC)-72"	L25-320 (PRC)-72"	L25-228 (PRC)-72"	L25-320 (PRC)-84"	L29-320 (PRC)-72"	L30-456 (PRC)-108"
Maximum Polished Rod Load.....	lbs.	17,000	20,000	25,000	25,000	25,000	29,000	30,000
A.P.I. Beam Rating.....	lbs.	17,400	26,000	25,000	25,000	25,000	30,300	30,000
Range of Polished Rod Strokes.....	ins.	30, 44, 58, 72	24, 36, 48, 60, 72	24, 36, 48, 60, 72	24, 36, 48, 60, 72	26 1/2, 41 3/4, 55 1/2, 70, 84	24, 36, 48, 60, 72	48, 63, 78, 93, 108
Gear Reducer A.P.I. Peak Torque Rating.....	lbs./ins.	228,000	228,000	320,000	228,000	320,000	320,000	456,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. fitted as Standard.....	ins.	33"	33"	33"	33"	33"	33"	36"
V Belts Number and Section.....		6 C	6 C	7 C	7 C	7 C	7 C	10 C
A.P.I. h.p. at 20 S.P.M.....		46	46	65	46	64.8	64.8	92.5
Balance Weight (total dead weight).....	lbs.	8,400	8,000	8,600	9,108	10,800	10,800	13,668
Max. Counterbalance effect at Max. Stroke.....	lbs.	10,700	13,663	16,056	18,825	17,300	20,125	21,550
Net Weight (approx.) "R" Units.....	lbs.	33,600	35,840	39,200	39,000	39,000	39,000	42,000
Gross Weight (approx.) "R" Units.....	lbs.	35,000	38,000	41,500	41,000	41,000	41,000	44,000
Net Weight (approx.) "F" Units.....	lbs.	32,816	35,056	38,416	38,200	38,200	38,200	41,000
Gross Weight								

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UNIT	S	C	D	E	F	G	H	J	K	L	N	P	Beam Section	Width of Main Base	Width of Main Base at Well End
L3-16 BRB-36"	104 1/2"	51 1/2"	54"	36"	15 3/4"	82"	75 1/2"	41 1/2"	30"	11"	5"	15"	8" x 6"	15 1/4"	24"
L4-16 BRB-24"	105"	33 1/2"	36"	36"	14 1/4"	77"	63"	38"	28"	11"	5"	15"	8" x 6"	15 1/4"	24"
L5-25 BRB-30"	126"	42"	45"	36"	16 1/4"	125"	63"	29 1/2"	21 1/2"	12 1/2"	5"	15"	8" x 6"	16 1/4"	25"
L6-25 BRB-24"	105"	33"	36"	36"	15"	80"	63"	38"	28"	12 1/2"	5"	15"	8" x 6"	16 1/4"	25"
L7 1/2-40 BRB-30"	121"	42"	45"	45"	16 1/4"	99 1/2"	78"	47"	37"	14"	8"	18"	10" x 6"	21"	28"
L7 1/2-40 BRB-42"	121"	60"	63"	45"	22"	104"	78"	38 3/4"	29 1/4"	14"	8"	18"	10" x 6"	21"	28"
L9-57 BRB-36"	138 1/2"	51"	54"	51 1/2"	17"	109 1/2"	87"	52"	36"	14"	8"	21"	10" x 8"	21 1/4"	36"

Dimension (S) is made up of Main and Extended Bases which bolt together to facilitate packing, except L4, L5 & L6 which are of unit construction.

TECHNICAL DATA		L3-16 BRB-36"	L4-16 BRB-24"	L5-25 BRB-30"	L6-25 BRB-24"	L7 1/2-40 BRB-30"	L7 1/2-40 BRB-42"	L9-57 BRB-36"
Maximum Polished Rod Load.....	lbs.	3,000	4,000	5,000	6,000	7,500	7,500	9,000
A.P.I. Beam Rating.....	lbs.	4,500	6,250	6,400	7,988	9,100	9,150	10,700
Range of Polished Rod Strokes.....	ins.	18, 24, 30, 36	12, 16, 20, 24	15, 20, 25, 30	12, 16, 20, 24	15, 20, 25, 30	21, 28, 35, 42	18, 24, 30, 36
Gear Reducer A.P.I. Peak Torque Rating...	lbs. ins.	16,000	16,000	25,000	25,000	40,000	40,000	57,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. fitted as standard.....	ins.	19"	19"	21"	21"	23"	23"	20"
V Belts Number and Section.....		2 B	2 B	3 B	3 B	4 B	4 B	5 B
A.P.I. h.p. at 20 S.P.M.....		3.23	3.23	5.05	5.05	8.1	8.1	11.6
Balance Weights (total dead weight).....	lbs.	1,662	1,496	2,136	2,136	2,816	4,016	3,240
Max. Counterbalance effect at max. stroke.....	lbs.	2,230	3,010	3,340	4,170	5,570	8,100	5,850
Net Weight (Approx.).....	lbs.	5,000	5,040	5,800	5,600	6,272	7,500	6,720
Gross Weight (Approx.).....	lbs.	5,600	5,600	6,472	6,272	7,168	8,400	7,840

UNIT*	"R" Units		"F"		"R" and "F" UNITS												Beam Section	Width of Main Base	Width of Main Base at Well End
	A	B	Y	C	D	E	F	G	H	J	K	L	M	N	P				
L7 1/2-57 PRB/PFB-54"	111"	54 3/4"	104"	55"	81"	63"	23"	124"	108 1/2"	54"	38"	14"	5"	8"	25 1/2"	12" x 8"	21 1/4"	36 1/2"	
L7 1/2-57 PRC/PFC-54"	115 1/2"	58"	107 1/2"	51"	81"	63"	23"	124"	115"	54"	44"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/2"	
L7 1/2-114 PRC/PFC-72"	123 1/2"	64"	116"	70 3/4"	99 3/4"	72"	21"	141 1/2"	73 3/4"	56"	21"	21 1/2"	8"	49"	14" x 8"	28"	41 1/2"	41 1/2"	
L10-57 PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	94"	115"	74"	59 1/2"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/2"	
L10-57 PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	94"	115"	74"	59 1/2"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/2"	
L10-114 PRC/PFC-56"	136"	72"	128 1/2"	54"	84"	81"	29 1/2"	144"	91 3/4"	50 1/2"	21"	18 1/2"	8"	44"	14" x 8"	28"	41 1/2"	41 1/2"	
L11-80-PRC/PFC-42"	115 1/2"	58"	107 1/2"	33"	63"	63"	29"	116 1/2"	75 1/2"	61"	14"	19 1/2"	8"	40"	12" x 8"	21 1/4"	36 1/2"	36 1/2"	
L13-114 PRC/PFC-48"	139"	72"	131 1/2"	48"	81"	81"	25"	144"	92"	54"	21"	18"	10"	47 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L13-114 PRC/PFC-48"	139"	72"	131 1/2"	48"	81"	81"	25"	144"	92"	54"	21"	18"	10"	47 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L13-114 PRC/PFC-54"	139"	72"	131 1/2"	48"	81"	81"	25"	144"	92"	54"	21"	18"	10"	47 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L13-80 PRC/PFC-48"	124"	72"	123 1/2"	42 1/2"	72"	72"	21"	141 1/2"	95"	78"	14"	28 1/2"	8"	49"	14" x 8"	21 1/4"	36 1/2"	36 1/2"	
L15-114 PRC/PFC-54"	139"	72"	131 1/2"	48"	81"	81"	25"	157"	105"	64"	21"	23"	10"	52 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L15-160 PRC/PFC-54"	139"	72"	131 1/2"	48"	81"	81"	25"	157"	105"	64"	21"	23"	10"	52 1/4"	16" x 8"	28"	41 1/2"	41 1/2"	
L15-160 PRC/PFC-64"	139"	72"	131 1/2"	63"	96"	81"	24"	157"	97"	62"	21"	23"	10"	52 1/4"	18" x 8"	28"	41 1/2"	41 1/2"	
L16 1/2-160 PRC/PFC-60"	139"	72"	131 1/2"	57"	90"	81"	24"	157"	99"	64"	21"	23"	10"	52 1/4"	18" x 8"	28"	41 1/2"	41 1/2"	

\* Beam Counter Balance only, no crank weights. † Not fitted with ladder.

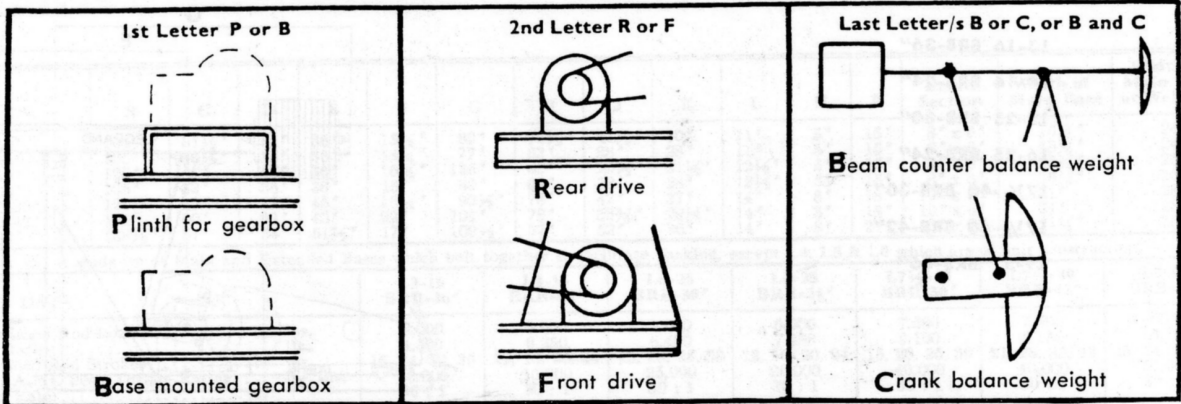
TECHNICAL DATA		L7 1/2-57 PRB/PFB-54"	L7 1/2-57 PRC/PFC-54"	L7 1/2-114 PRC/PFC-72"	L10-57 PRC/PFC-42"	L10-57 PRB/PFC-42"	L10-114 PRC/PFC-56"	L11-80 PRC/PFC-42"	L13-114 PRC/PFC-48"	L13-114 PRC/PFC-54"	L13-80 PRC/PFC-48"	L15-114 PRC/PFC-54"	L15-160 PRC/PFC-54"	L15-160 PRC/PFC-64"	L16 1/2-160 PRC/PFC-60"
Maximum Polished Rod Load.....	lbs.	7,500	7,500	7,500	10,000	10,000	10,000	11,000	13,000	13,000	13,000	15,000	15,000	15,000	16,500
A.P.I. Beam Rating.....	lbs.	10,000	10,000	10,000	12,900	12,900	12,900	12,900	15,000	15,000	14,000	15,000	15,000	15,000	16,500
Range of Polished Rod Strokes.....	ins.	27", 36", 45", 54"	27", 36", 45", 54"	36", 48", 60", 72"	35", 42", 50", 57"	35", 42", 50", 57"	24.9, 35.3", 45.6, 56"	21", 28", 35", 42", 49.6, 56"	21", 30", 39", 48", 44", 54"	21", 30", 39", 48", 44", 54"	21", 30", 39", 48", 44", 54"	24", 34", 44", 54"	24", 34", 44", 54"	28.5", 40.25", 52", 64"	26.6", 37.7", 48.8", 60"
Gear Reducer A.P.I. Peak Torque Rating.....	lbs. ins.	57,000	57,000	114,000	57,000	57,000	114,000	80,000	114,000	114,000	80,000	114,000	160,000	160,000	160,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. Fitted as Standard.....	ins.	20"	20"	24 1/2"	20"	20"	24 1/2"	21"	24 1/2"	24 1/2"	21"	24 1/2"	24 1/2"	24 1/2"	24 1/2"
V Belts Number and Section.....		5 B	5 B	4 C	5 B	5 B	4 C	5 B	4 C	4 C	5 B	4 C	5 C	5 C	5 C
A.P.I. h.p. at 20 S.P.M.....		11.6	11.6	23	11.6	11.6	23	16.2	23	23	16.2	23	32.4	32.4	32.4
Balance Weights (total dead weight).....	lbs.	4,040	4,520	3,224	4,520	4,440	4,900	4,520	4,400	4,400	5,692	6,012	5,400	7,760	7,760
Max. Counterbalance effect at max. stroke.....	lbs.	5,150	5,658	4,325	7,292	7,388	7,929	7,292	8,640	8,900	9,645	10,775	10,175	10,400	11,250
Net Weight (approx.) "R" Units.....	lbs.	12,208	12,208	12,500	12,432	12,432	13,888	13,440	13,664	13,700	13,500	13,700	15,704	18,704	18,704
Gross Weight (approx.) "R" Units.....	lbs.	13,888	13,888	13,700	14,670	14,670	16,128	15,680	15,904	15,700	15,500	15,700	20,944	20,944	20,944
Net Weight (approx.) "F" Units.....	lbs.	11,872	11,872	12,000	12,096	12,096	13,552	13,104	13,328	13,300	13,100	13,300	15,368	18,368	18,368
Gross Weight (approx.) "F" Units.....	lbs.	13,552	13,552	13,200	14,336	14,336	15,792	15,344	15,568	15,300	15,300	15,300	20,608	20,608	20,608

UNITS*	"R" Units		"F" Units		"R" and "F" UNITS												Beam Section	Width of Main Base	Width of Main Base at Well End
	A	B	Y	C	D	E	F	H	J	K	L	M	N	P					
L17-228 PRC/PFC-72"	163"	90"	152 1/2"	68"	108"	93"	28"	172"	104"	60"	27"	15"	12"	52 1/2"	18" x 12"	32 1/2"	49"		
L20-228 PRC/PFC-72"	182 1/2"	92"	172"	65"	108"	108"	28"	203 3/8"	130 3/8"	51 3/4"	27"	21"	14"	60"	20" x 12"	31 1/2"	53"		
L25-320 PRC/PFC-72"	198"	93"	187 1/2"	77"	120"	120"	28"	204 5/8"	131 3/8"	51 3/4"	28"	24"	15"	64 3/8"	20" x 12"	34 3/8"	53"		
L25-228 PRC/PFC-72"	200 1/2"	93 1/2"	190"	74 1/2"	120"	120"	28"	205 5/8"	136"	53 3/4"	27"	29"	15"	69 1/8"	20" x 12"	34 3/8"	53"		
L25-320 PRC/PFC-84"	198"	93"	187"	97"	140"	120"	30"	211"	130"	57"	28"	28"	15"	69 1/8"	22" x 12"	34 3/8"	53"		
L29-320 PRC/PFC-72"	198"	93"	187"	77"	120"	120"	28"	211"	142"	57"	28"	28"	15"	69 1/8"	22" x 12"	34 3/8"	53"		
L30-456 PRC/PFC-108"	248"	90"	237 1/2"	99"	156"	156"	36"	290"	188"	60"	28"	41 1/2"	16"	84"	24" x 12"	34 3/8"	72"		

TECHNICAL DATA		L17-228 (PRC)-72" (PFC)	L20-228 (PRC)-72" (PFC)	L25-320 (PRC)-72" (PFC)	L25-228 (PRC)-72" (PFC)	L25-320 (PFC)-84" (PFC)	L29-320 (PFC)-72" (PFC)	L30-456 (PRC)-108" (PFC)
Maximum Polished Rod Load.....	lbs.	17,000	20,000	25,000	25,000	25,000	29,000	30,000
A.P.I. Beam Rating.....	lbs.	17,400	26,000	25,000	25,000	25,000	30,300	30,000
Range of Polished Rod Strokes.....	ins.	30, 44, 58, 72	24, 36, 48, 60, 72	24, 36, 48, 60, 72	24, 36, 48, 60, 72	26 1/2, 41 3/4, 55 1/2, 70, 84	24, 36, 48, 60, 72	48, 63, 78, 93, 108
Gear Reducer A.P.I. Peak Torque Rating.....	lbs./ins.	228,000	228,000	320,000	228,000	320,000	320,000	456,000
Gear Reducer Ratio.....		30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1	30 : 1
Gear Reducer Pulley Size P.C.D. fitted as Standard.....	ins.	33"	33"	33"	33"	33"	33"	36"
V Belts Number and Section.....		6 C	6 C	7 C	7 C	7 C	7 C	10 C
A.P.I. h.p. at 20 S.P.M.....		46	46	65	46	64.8	64.8	92.5
Balance Weight (total dead weight).....	lbs.	8,400	8,000	8,600	9,108	10,800	10,800	13,668
Max. Counterbalance effect at Max. Stroke.....	lbs.	10,700	13,663	16,056	18,825	17,300	20,125	21,550
Net Weight (approx.) "R" Units.....	lbs.	33,600	35,840	39,200	39,000	39,000	39,000	4

**LE GRAND SUTCLIFF & GELL LTD. HORSTED AIRPORT · ROCHESTER · KENT · ENGLAND**

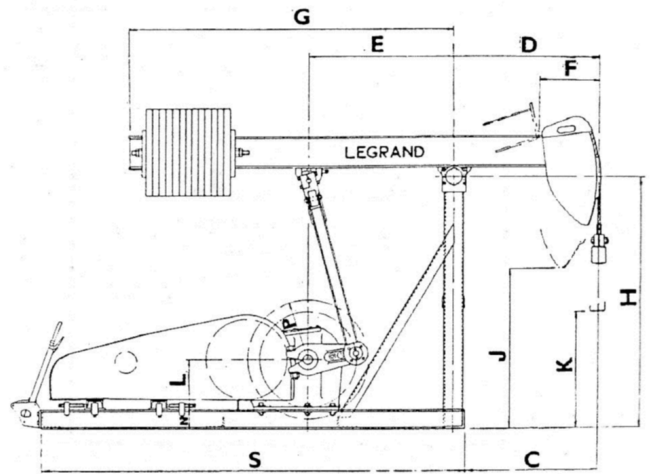
**P ——— R ——— C**



PFB UNITS		BRB UNITS		MAIN ASSEMBLIES & STRUCTURE PART NUMBERS										
UNIT DESIGNATION	DRG No	UNIT DESIGNATION	DRG No	GEARBOX ASSY	SADDLE ASSY	EQUALIZER BEARING ASSY	CRANKPIN RH & LH BEARING ASSY	BEAM	MULEHEAD	SAMSON POST	BASE WITH SAMSON POST	BASE	EXTENDED BASE	BRAKE LEVER (SUB ASSY)
				81348	81372	81375	80481/2	81376	81377	81378	81379	81380	81054	
				53933	81381	80600		81382	80334	81383		81384	80224	
					80324			80344		80235		80222	80224	
					81381			81388	81386	81387		80643		
					53921	81258		80344	80334	80235		81388	81391	
						80326	80605	80676	80343	80340	80624	81390		
							80483/4	80802		80603		80269	80285	
												80644		
					53940	80172	80611		80201	80200	80341	80604	80654	
									80607	80608		80645		
									80176	80178		80118	80120	
					62068							80647		
										80119		80118	80120	
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												81392	81393	81394
												81395	80060	
												81396		
												81212	81216	
												81367		
												80534		
												80485/6	80101	80098
												80358		
												80624		
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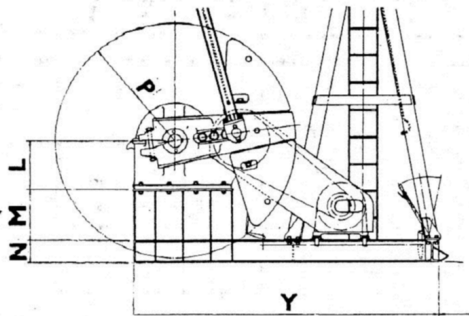
**LE GRAND SUTCLIFF & GELL LTD. HORSTED AIRPORT · ROCHESTER · KENT · ENGLAND**

- L3-16 BRB-36"
- L4-16 BRB-24"
- L5-25 BRB-30"
- L6-25 BRB-24"
- L7 1/2-40 BRB-30"
- L7 1/2-40 BRB-42"
- L9-57 BRB-36"

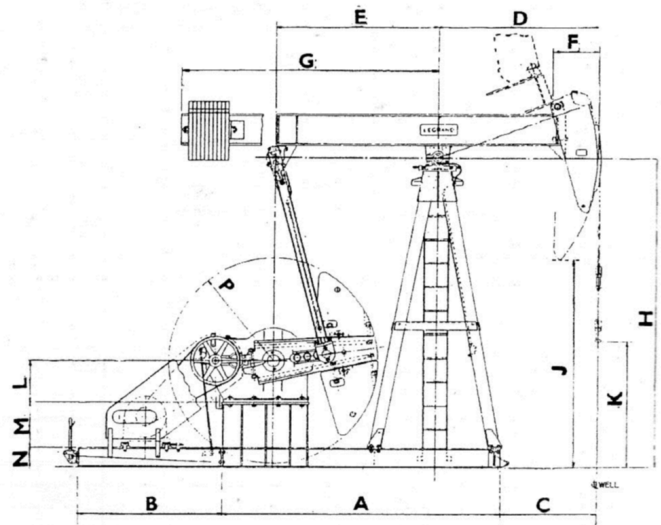


K—Lowest position of Carrier Bar  
L—Lowest position of Mulehead

- \* L7 1/2-57 PRB/PFB-54"
- L7 1/2-57 PRC/PFC-54"
- L7 1/2-114 PRC/PFC-72"
- L10-57 PRC/PFC-42"
- L10-57 PRBC/PFBC-42"
- L10-114 PRC/PFC-56"
- L11-80 PRC/PFC-42"
- L13-80 PRC/PFC-48"
- L13-114 PRC/PFC-48"
- L13-114 PRC/PFC-54"
- L15-114 PRC/PFC-54"
- L15-160 PRC/PFC-54"
- L15-160 PRC/PFC-64"
- L16 1/2-160 PRC/PFC-60"

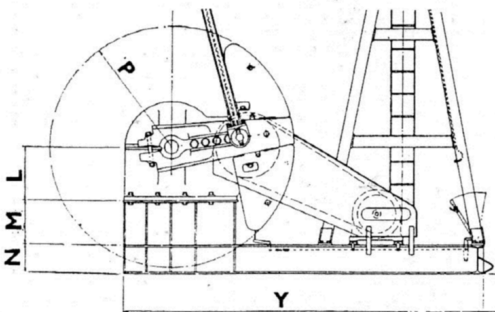


Above illustration shows Front Drive.  
\* NOTE: Designation for Rear (R) and Front (F) Drive condensed here for convenience.

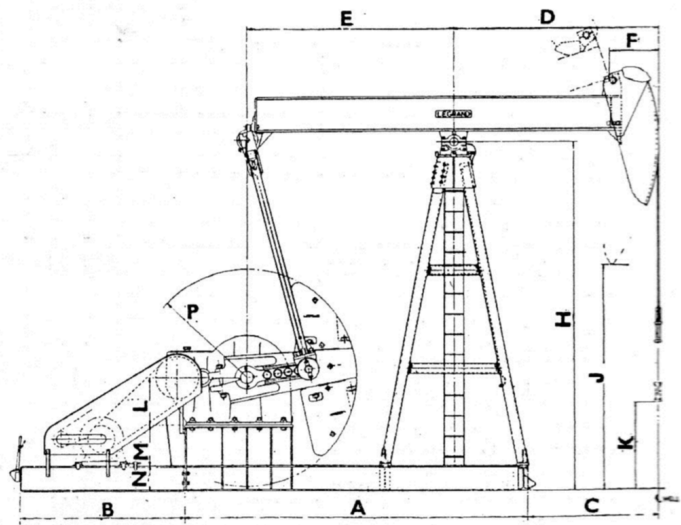


K—Lowest position of Carrier Bar  
L—Lowest position of Mulehead

- \* L17-228 PRC/PFC-72"
- L20-228 PRC/PFC-72"
- L25-228 PRC/PFC-72"
- L25-320 PRC/PFC-72"
- L25-320 PRC/PFC-84"
- L29-320 PRC/PFC-72"
- L30-456 PRC/PFC-108"



Above illustration shows Front Drive.  
\* NOTE: Designation for Rear (R) and Front (F) Drive condensed here for convenience.



K—Lowest position of Carrier Bar  
L—Lowest position of Mulehead