-	σÑ
P	1
	- 1

Plant					
	Name			chase	Present
			<u>Date</u>	<u>Price</u>	<u>Value</u> £
		Brought fo	הת מנות		77 861
_Bedford Va	an MJL 269H		1969	649	-0),117
Bedford Va	an XJL 818L		1973	774	50
Bedford Va Bedford P	an PJL 532M		1974	915	450 350
	ipper GJL 565N		1975	3,945	1,000
	es Twin Pumps			7,940	2,800
	Portable Pump				100
3" Alcon I			1960	177	250
3" Pegson	Sludge Pump		1966	295	75
	Portable Pump		960	71	75 <i>(</i> 25 <i>(</i>
Honda Gene			973	203	120
Broomwade	Compressor		973	1,214	800
Road Ramme	r		962	57	101
Broomwade	Breaker		973	108	100/
Parker Con	crete Mixer		964	214	150
Concrete V	ibrator		961	140	50′
Steel Barg	е				395
Dutch Boat		1	962	35	201
Reed Punts	(3)		963	160	60′
Outboard M	otors (2)	1	963	47	48 -
Petrol Pum	р	1	964	60	50 *
Winches (3	)				25 /
Trewella W	inch				201
Pile Frames	3 (3)	1969	9/76	573	500′
Saw Bench &	& Electric Motor		973	269	300 ′
Chain Saw		19	967	88	501
Paint Spray	Equipment	19	967	41	30 /
Hayterette	Mowers (2)	19	976	175	150/
					£ 91,678
		(48)			187364
					- Control of the Cont

Office	Furniture	
	T OCT TITE O OCT C	

Name			Cost
General			€
Stanford Plan File			609
Westminster Plan File			45
Cashier's Drawer			191
Chubb Safe			50
Chubb Drawer Cabinets (2)			128
Chairs (35)			282
3114115 ()))			615
		€	1,920
Office Machines			
N.C.R. Adding Machine			0.5
Olympia Adding Machine			25
Ajax Numbering Machines (2)			55
Philips Computer, Card Reader			199
& Programmes			7,965
Burroughs Calculating Machine			88
Dataset Hand Punch			245
Hermes Typewriter			25
Hermes Electric Typewriter			176
Hermes Electric Typewriter			204
Tape Recorders (2)			58
Copycat Offset Machine			725
Copycat Copier Machine			431
Photocopier			80
Neopost Franking Machine			105
Rotolite Print Machine and Stand			482
Projector and Screen			123
		_	
		€ 10	,986
Summary: Property Plant Office Furniture Office Machines	445,440 91,678 1,920 104986	87'31	19

Office Machines

# DETAILS OF PUMPING STATIONS

Date Installed	1970	1968	1963 1963 1963	11967 1967 1967	1971	1971	1953
Cusecs	25	12	000	000	2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2	0,0 10,10	330
Size	22"-55 HP Electric	18"-45 HP Electric	33"-200 HP Electric 35"-200 HP Electric 33"-200 HP Electric	30"-200 HP Electric 30"-200 HP Electric 30"-200 HP Electric	21"-40 HP Electric 21"-40 HP Electric	21"-28 HP Electric 21"-28 HP Electric	20"-45 HP Electric 24"-75 HP Electric
Pumps	Mixed Flow	Mixed Flow	Mixed Flow Mixed Flow Mixed Flow	Mixed Flow Mixed Flow Mixed Flow	Submersible Submersible	Submersible Submersible	Axial Flow Axial Flow
$\frac{\text{Lift}}{(\underline{\text{ft}})}$	0	12,25	444 rvvv	444 rvvv	WW	10.6	00
Pumping Station	Kirton and Frampton (890 acres)	Fosdyke Marsh (580 acres)	Five Towns (8,000 acres)	Risegate Eau (8,400 acres)	Surfleet Marsh (1,250 acres)	Surfleet Newbury (1,250 acres)	Pinchbeck Marsh (3,410 acres, Spalding & Pinchbeck)

# DETAILS OF PUMPING STATIONS (Cont'd)

Date Installed	1953	2000 2000 2000 2000 2000 2000 2000 200	1964	1976	1973	1959
Qusecs	320	84 84 206 206	145	000	35	12,8
Size	20"-45 HP Electric 24"-75 HP Electric	30"-100 HP Electric 39"-185 HP Electric 39"-185 HP Electric 60"-650 HP Diesel 60"-650 HP Diesel	50"-410 HP Diesel	20"-100 HP Electric 24"-115 HP Electric	22"-75 HP Electric 27"-120 HP Electric	16"-30 HP Electric
Pumps	Axial Flow Axial Flow	Axial Flow Axial Flow Axial Flow Axial Flow	Axial Flow	Mixed Flow Mixed Flow	Axial Flow Axial Flow	Axial Flow
Lift (Ft)	00	WWWIN	_	<u>α</u> α πυπυ	<u>ω</u> ω ω	2
Pumping Station	4th District (2,740 acres)	Pode Hole (30,600 acres, Deeping Fen)	(5,170 acres Baston and Langtoft)	Bourne South Fen (3,240 acres)	Brotherhouse Bar (2,450 acres, Crowland and Cowbit Washes)	North Fen (820 acres, Northborough)

Please note: 1 inch = 25.39mm

# PODE HOLE ANNUAL RAINFALL

<u>Year</u>	Inches	Remarks
1829	30.25	
1830 1831	34.29	Glen Bank broke.
1832	34.32 28.87	Glen Bank broke.
1833	24.95	
1834	18.10	Dry, July excepted.
1835 1836	24.20	
1837	26.65 23.90	Glen Bank broke.
1838	21.10	dren bank broke.
1839	31.65	
1840 1841	21.30	
1041	29.45	Coal used - 1,350 tons - Several new drainage
1842	32.10	steam engines erected in the Fens.
1843	29.45	
1844	22.20 27.25	Low rainfall.
1846	26.10	8 year's average - 27 inches.
1847	25.62	"Kesteven" engine wheel lowered 14 inches
1848	31 30	first time.
1849	34.30 27.45	
1850	20.94	
1851 1852	22.25	
1853	31.00 26.63	Great floods in the Fens and in Cowbit Wash.
1854	17.75	Slighty below 1834 - dry.
1855	22.00	
1856 1857	22.63 27.88	Vernettle ver G
1858	17.50	Vernatt's new Sluice opened. Similar to 1854.
1859	25.25	
1860 1861	30.38 25.75	
1862	24.88	"Holland" engine wheel lowered 14 inches
1065		III'St time.
1863	22.88	First meeting of the newly constituted
		Drainage Board of the Maxey District
		Ordered that the Surveyor take necessary steps for preserving the
1864	17 67	North Fen Irom ILood water.
1865	17.63	Dry year; similar to 1854.
1866	26.75	Welland landed up by Tides. Welland landed up by Tides. Surveyor ordered
1867	27 70	to engage a Steam Engine to drain North Fen
1007	23.38	Welland landed up by Tides.

## FROM 1829 TO 1895

Year	Inches	Remarks
1868	24.75	Hot dry spring! Pastures burnt up May, June and July. Rainfall & inch.
1869 1870 1871	27:88 16.88 25.50	May flood. Lowest yet recorded.
1872	35.50	Glen Bank broke into Bourne South Fen. Quotation of £1-0-6 per ton to supply and deliver best coal to supply North Fen Engine accepted.  Broad wheel car to be used.
1873 1874	19.63 16.25	"Holland" engine wheel lowered 18 inches. Another ten years since 1864 dry.
1875 1876 1877	32.25 31.00 24.25	Great changes set in this year.  North and South Drove Drains cleaned out.  Glen Bank broke into Bourne North Fen. Great flood in Cowbit Wash, water at Duck Hall
1878	25.60	18 inches deep on road.
1879	24.35	A most wretched harvest. Glen new Sluice opened.
1880	37.14	Glen Bank broke into Bourne South Fen. Flood in Cowbit Wash 4 inches higher than 1877.
1881 1882	26.13	"Kesteven" wheel lowered 18 inches.
1002	30.50	Glen Bank broke south side. Water at Pode Hole 6ft. 10 ins. in Fen, 8ft. 4 ins. in Vernatts.
		Plan and estimate prepared for work for preventing the irruption of flood water
		into Peakirk village.
1883	30.90	Low water in Welland, $1\frac{1}{2}$ inches below sill of Glen new Sluice.
1884	16.75	Ten years again and dry,
1885 1886	23.90 30.25	May flood.
1887	15.13	The lowest recorded. Crossgate Bridge rebuilt.
		New pump for North Fen:-
		Fixing pump 100
		€ 250
1888 1889	21.50 26.59	
1890	20.13	
1891 1892	25.13 22.75	No rain in February. "Holland" wheel lowered 4 inches - total 3ft.
1893	18.13	Since 1825. New Dredger launched. Very dry summer.
1894 1895	22.38	Welland again heavily landed up by Tides. February 9th - 35 degrees of frost in Spalding.
	3.535	(57)

(52)

PODE	HOLE	ANNUAL	RAINFALL

Year	Inches	Remarks
1896 1897	22.75 23.64	Glen North Bank broke at Guthram, highest
1898	20,25	known flood in Glen.
1899	20.91	Portion of Counter Drain cleaned out, inner bank strengthened. North Fen Steam Engine not to work unless water stood at a depth
1900	28.50	of 6ft. 3 ins. on gauge.  Improvement of River Glen, mud ploughing and casting out.
1901	22.38 22.63	Delph Drain deepened and widened.
1903 1904	30.74 22.25	Wet year. Rainfall in October, 6.25 inches. "Kesteven" wheel lowered 4 inches - total
1905	24.63	3ft. since 1825.  High tide in Welland, January 6th - 17ft.  9 ins. on Glen Sluice gauge. River overflowed bank at Pigeon End. Maxey Surveyor instructed to repair the Low Lock Door and clean out the south half of the
1906	25.75	River Welland.
1907 1908 1909 1910	22.46 17.22 24.00 26.12	Dredger "Nesta" launched November. Extensive repairs to Vernatts Sea Gates. River Glen stops, Tongue End lowered 2ft. Glen North Bank broke near Tongue End,
1911	18.98	3rd December.  Horseshoe, Money and Cuckoo Bridges re-built in Ferro-concrete. New steam engine for North Fen from Messrs. Clayton and Shuttleworth and Company for Steel
1912	29.38	Shuttleworth and Company for £180. Rainfall August 26th - 2.14 inches in 24 hrs.
1913	21.11	Highest recorded flood in Glen, 27th August. South Drove Drain cleaned out. Crowland
1914	21.85 25.74	Bridge re-built in Ferro-concrete. Diesel engine and pump started work, April. North Drove Drain cleaned out. Vernatt's
1916 1917 1918 1919 1920	27.89 19.94 26.46 26.49 24.08	Drain Improvement. Delph Drain Improvement commenced. Low rainfall (under 20 inches). Heavy rainfall - September.
1921 1922 1923 1924	12.66 26.31 22.89 26.45	Driest year on this record.

### FROM 1896 TO 1947

Year	Inches	Remarks
1925	23.00	
1926	23.47	Proprietors of Helpston Paper Mills requested to
1 920	27.41	filter their water before entering Board's
4000	00 40	drains.
1927	29.49	Highest reading ever recorded on Vernatt's
		gauge (December) 12ft. 4 ins.
1928	25.29	Old Steam Engines replaced by "William Dennis"
-		Pump
1929	20.90	New oil engine for North Fen purchased from
		Messrs. Blackstones of Stamford for
		€352-8-3.
1070	25 04	2))2-0-).
1930	25.04	
1931	25.77	The fore \$1.20 10 0
1932	25.35	New engine shed at North Fen for £128-10-0.
1933	18.10	
1934	18.63	New Lighter Boat introduced.
1935	23.87	
1936	25.81	
	29.86	
	19.73	First meeting of the newly constituted North
1938	19.1)	Welland Internal Drainage Board. Repairs
		Welland internal praimage board. Roparro
		undertaken to Risegate Eau Outfall Sluice.
1939	28.14	First meeting of the newly constituted
		Deeping Fen, Spalding and Pinchbeck
		Internal Drainage Board. "Dennis" Pump
		ran 396 hours without stop.
1940	22.38	"Henry Bain" pump installed. Improvement
1 740	22000	schemes undertaken in Maxey Area at
		request of Ministry of Agriculture,
		Fisheries and Food.
4044	70 70	Vernatt's Improvement Scheme started.
1941	30.79	Vernati S Improvement beneme started.
1942	22.21	New Pump for Fosdyke Marsh Area.
1943	18.75	Shoals Drain Improvement Scheme commenced.
1944	23.88	Vernatt's Scheme completed.
1945	20.17	
1946	27.19	Work commenced on Bourne South Fen Pumping
. 5 1 3	_,,,,	Station. Improvement scheme for Risegate
		Eau.
1017	18.88	
1941	10.00	Langtoft and the Deepings Internal
		Languot and the Deepings internal
		Drainage Board, Great flood (breach
		Crowland Bank and River Glen Bank).
		Considerable scour in Risegate Eau as
		result of unprecedented flood conditions.
		Scheme approved to improve the drains
		of the Baston Board,

PODE HOLE ANNUAL RA	LNF'ALL
---------------------	---------

Year	Inches	Remarks
1948	23.16	Work commenced on North and South Drove Drains scheme.
1949	20.06	Opening of Bourne South Fen Pumping Station.
1950	24.19	Deeping St. James Improvement Scheme undertaken.
1951	27.67	Old Beam Engine at Pinchbeck Marsh operated for longest period on record. Improvement of Gravel Drain.
1952	22.64	Demolition of Holland and Kesteven Steam Engines.
1953	23.15	First meeting of the newly constituted Maxey
		Internal Drainage Board. Opening of Fourth District and Pinchbeck Marsh New
		Pumping Stations. Two breaches in tidal bank on Fosdyke Marsh.
1954	29.41	Delph Diversion and Counter Drain Washes Improvement Scheme commenced.
1955	20.55	Jordan's Drain Diversion and Hallmeadow Drain Schemes undertaken.
1956	23.07	Lock's Dyke Improvement Scheme completed.
1957	23.95	Opening of the Adventurer's New Pumping
		Station. Scheme approved for new electric pump for North Fen. New sluice doors fitted at Five Towns Sluice.
1958	31.39	Work started on North and South Drove Drains
1050	17 00	Improvement Scheme.
1959	17.98	Pode Hole Bridge and Cuckoo Bridge re-built. Crowland and Cowbit Washes Improvement Scheme commenced at Lock's Mill.
1960	29.97	Rasens Dyke Improvement. Reconstruction of Cottages at Pode Hole. Maxey Board
		complained to Welland River Board that the chief cause of flooding was excessive
		flow in the new Maxey Cut impeding discharge of Clayfield Drain. Flooding
1961	21.47	in Northborough. Westlode and Pennygate Drain Improvement
, , , , ,	21.41	Scheme. Tidal surge 20th March - two breaches in Vernatt's Bank. Heightening
1062	10 07	of Vernatt's Drain Bank commenced.
1962	18.23	Work commenced on new pumping station at Pode Hole: - three new diesel pumps.  New inner safety doors fitted at Risegate
		Eau and Five Towns Sluices. Overflow weirs placed in Gravel Drain.

### FROM 1948 TO 1969

Year	Inches	Remarks
	20.14	New freshwater intake tunnel from River Welland near Cross Drain. Freshwater supply scheme for Baston and Langtoft area. Opening of new Five Towns Pumping Station. Scheme approved for new pumping station at outfall of Risegate Eau.
1964	16.77	Barron's Bridge reconstruction. Improvement of Blue Gowt Outfall Drain and Crowland Common Main Drain.
1965	25.96	Official opening of new diesel engine pumping station at Pode Hole. Improvement of Fantail Drain, Sir John's Dyke and 5th District Cradge Dyke. New pump for Fosdyke Marsh and new pump for Frampton and Kirton Marsh.
1966	26.50	Newborough Wash Improvement Scheme.  Reconstruction of Stowgate Bridge.  Collin's Drain Improvement Scheme.  King Street Dyke made Main River.
1967	20.42	Work in progress on new Pumping Station for Crowland and Cowbit Washes. Improvement of Green Drain and 6th District Cross Road Dyke. Category 'B' Drains taken over by Board after improvement. New house for Pump Attendant at Pode Hole. "William Dennis" and "Henry Bain" Pumps demolished.
1968	26.43	Official opening of the new Pumping Station for Crowland and Cowbit Washes. Frognall Drain and Hallmeadow Drain Improvement Schemes. Severe "blow" of "black-lands" in March. 11th July - 4.51 inches of rainfall recorded in Spalding. New tidal doors fitted at Risegate Eau
1969	25.09	Improvement of the New River, Crowland and Cowbit Washes. Improvement to Hallmeadow Drain, Frognall Drain, Tallington Drain, Old Sea Drain and Deeplake Hole. New method of roding with bucket mower attached to hydraulic excavator. Very wet spring — moisture deficit in the Fen virtually nil since July, 1968. Drainage Scheme for Godsey Lane, Market Deeping.

### PODE HOLE ANNUAL RAINFALL

Year	Inches	Remarks
1970	20.77	Improvement of Westlode Drain and Broughton's Drain. Piping-in of Park Road Dyke to drain Spalding. Hill Marsh, Pinchbeck,
		Improvement Scheme. New Flail Mower
		attached to tractor for cutting "batters".  New Wilder-Powell weedcutter. New Pumping Stations for Surfleet and Surfleet Marsh.
1971	20.04	North and South Drove Drains Improvement
		Scheme (1971) commenced at Pode Hole. Reconstruction of Town End Tunnel, Deeping St. James. Improvement of 5th District
		Cross Road Dyke. Maxey Board strongly opposed scheme of Welland & Nene River Authority to divert storm water from
1972	18.21	Bretton through Brook Drain. Reconstruction of Platts Bridge over the
		Vernatt's Drain. Experiments with Diuron to control submerged weeds. Proposals to
		amalgamate Deeping Fen, Maxey, Baston and North Welland Internal Drainage Boards. The winter of 1971/72 very dry and little
1973	20.21	pumping required at Pode Hole.  Another very dry winter with little pumping required at Pode Hole. New additional
		pump at Crowland and Cowbit Wash Pumping Station. Additional drains to be "taken-
		over"in the interior of Deeping Fen. Last meetings of the North Welland Internal Drainage Board, Baston, Langtoft and the
		Deepings Internal Drainage Board, Maxey Internal Drainage Board and the Deeping
		Fen, Spalding and Pinchbeck Internal Drainage Board. First meeting of the newly constituted Welland and Deepings Internal Drainage Board.
1974	22.29	Improvement of Coll Drain, Gosberton.  Scheme to lower pumps at Bourne South Fen.  Underpinning of Railway Bridge and Luck's  Bridge, South Drove Drain. The third  very dry winter.

### FROM 1970 TO 1977

Year	Inches	Remarks
1975	19.79	Another dry winter with little pumping required. Reconstruction of Bourne South Fen Pumping Station to lower pumps due to shrinkage of peat. The "coming-to-light" of The Great Northern Railway Act of 1846. Improvement of the Gravel Drain to take run-off from residential development at Market Deeping. High water levels in April in Bretton River, Glinton. A record dry winter with only 6.03 inches rainfall from October to April inclusive Severe drought in spring. Main drains treated with Terbutryne to control algae and submerged weeds. Tenders received for new Pump at North Fen, Northborough. New gear unit for tractor drive at electric pumping stations. A severe drought in the spring and summer followed by heavy rainfall in the autumn and winter. Official opening of the Bourne South Fen Pumping Station. Construction of new pumping station at North Fen.

### PODE HOLE RAINFALL

1	829 to May	1977	
Monthly Average	Monthly Highest	Recorded Lowest	Actual Monthly 1974 1975 1976 1977
1.95	(1956) 4.89	0.25 (1858) (1880)	1.50 2.02 1.31 2.93
1.58	(1900) 5.25	0,00 (1891)	1.59 0.76 0.56 4.72
1.56	(1947) 4.23	0.19 (1929)	0.98 3.54 0.52 1.32
1.65	(1829) 4.87	0.13 (1893)	0.30 2.86 0.44 1.15
1.89	(1843) 5.60	0.15 (1836)	0.67 2.39 1.50 1.47
2.03	(1861) 5.63	0.12 (1925) (1962)	2.22 0.44 0.27
2.47	(1875) 9.00	0.25 (1885) (1952)	2.13 1.95 0.31
2.51	(1878) 6.75	0.05 (1947)	3.42 0.84 3.32
2.11	(1800) 5.91	(1843) 0.25 (1855) (1890)	2.22 1.79 3.42
2.32	(1903) 6.25	0.13 (1888)	3.62 0.59 4.00
2.21	(1852) 5.25	0.42 (1909)	2.73 1.32 1.56
1.97	(1910) 4.97	0.25 (1843)	0.91 1.29 2.76
	Monthly Average  1.95  1.58  1.56  1.65  1.89  2.03  2.47  2.51  2.11  2.32  2.21	Monthly Average         Monthly Highest           1.95         (1956) 4.89           1.58         (1900) 5.25           1.56         (1947) 4.23           1.65         (1829) 4.87           1.89         (1843) 5.60           2.03         (1861) 5.63           2.47         (1875) 9.00           2.51         (1878) 6.75           2.11         (1800) 5.91           2.32         (1903) 6.25           2.21         (1852) 5.25	Monthly Average         Monthly Recorded Highest         Lowest           1.95         (1956) 4.89         0.25 (1858) (1880)           1.58         (1900) 5.25         0.00 (1891)           1.56         (1947) 4.23         0.19 (1929) (1944)           1.65         (1829) 4.87         0.13 (1893)           1.89         (1843) 5.60         0.15 (1836)           2.03         (1861) 5.63         0.12 (1925) (1962)           2.47         (1875) 9.00         0.25 (1885) (1952)           2.51         (1878) 6.75         0.05 (1947)           2.11         (1800) 5.91         0.25 (1855) (1890)           2.32         (1903) 6.25         0.13 (1888)           2.21         (1852) 5.25         0.42 (1909)

### LENGTH OF DRAINS MAINTAINED

	Miles	Chains	Kilometres
Kirton and Frampton Marsh	5	4	8.128
Fosdyke Marsh	3	22	5.271
Five Towns District	23	27	37.564
Risegate Eau District	43	57	70.359
Spalding and Pinchbeck District	27	6	43.579
Deeping Fen			
1st District	5	67	9.396
2nd District	3	35	5.533
3rd District	6	72	11.106
4th District	5	61	9.275
5th District	13	3	20.985
6th District	13	29	21.508
General District	111	54	179.754
Crowland Common	7	49	12.253
Deeping St. James	10	15	16.398
Bourne and Thurlby District	23	9	37.210
Crowland and Cowbit Washes	28	25	45.572
Baston, Langtoft and Deepings District	28	38	45.833
Maxey District	55	71	89.964
	416	04	669.688
	<u> </u>		*

Yearly Average

24.25