

PUBLIC WORKS DEPARTMENT CONSTRUCTION WORKS—continued.

Name of Work.	Nature of Work.	Type of Plant used.	Cost per Cubic Yard.		Saving.	Remarks (including Lead and Useful data): Time Comparison.
			Hand.	Machine.		
Nelson Aerodrome ..	Shifting material for formation ..	Diesel tractors, with carry-alls and scoops	£168,582 (estimate)	£23,582 (contract)	Per Cent. ..	Saving in cost of £85,000 by use of contractor with machines as against hand labour; value of machines, £20,000.
Tinaru Airport ..	Excavating and loading fine sandy clay	Diesel tractor and carry-all ..	2s. 6d.	2d.	91·7	Average lead by machine was 3½ chains longer than that of hand labour.
" ..	Excavating ditches for drainage..	Public Works Department designed ditcher	2s. 6d.	2d.	93·3	..
" ..	Excavation from larger drains direct to bank	Diesel crawler drag-line, ¾ yard..	2s. 6d.	6d.	80·0	..
" ..	Excavating and dumping fine beach shingle	¾ yard crawler-type Diesel drag- line	1s. 6d.	3d.	83·3	..
" ..	Excavating heavy pug under water	¾ yard crawler-type Diesel drag- line	..	1s.	..	Manual excavation impossible without construction of expen- sive coffer-dam and using pumps.
Ashburton — Lyndhurst irrigation scheme	Excavation of main race in shingle and silt	Diesel tractor grader and angle- dozer	3s. 6d.	1s. 6d. and 2s.	57·6 to 43·5	Estimated reduced cost with improved technique and de- signing races to suit machinery, 1s. per cubic yard.
Rangitata diversion race ..	Excavation from coarse shingle and silt, with occasional massive boulders	Diesel tractor and elevating grader	4s.	1s.	75·0	..
South Island Main Trunk Railway, Hawkswood, cutting headings	Excavating to fill ..	Diesel crawler - type excavator, ¾ yard	3s. 6d.	2s.	42·8	The speed is increased five times by use of machines.
Mangere Aerodrome ..	Levelling and filling ..	Petrol locos. and trucks ..	3s. 7d.	1s. 9d.	51·16	..
Devonport Naval Base ..	Excavating spoil and loading ..	Diesel shovel, crawler type ..	2s. 1·87d.	8·6d.	66·7	Loading into lorries.
Kaimai road construction ..	Excavating ..	¾ Diesel shovel, crawler type ..	1s. 8½d.	1s.	41·4	..