VICTORIA

GOVERNMENT GAZETTE.

Published by Authority.

[*Registered at the General Post Office, Melbourne, for transmission by post as a newspaper.*]

No. 143.] MONDAY, OCTOBER 22. [1928.

No.	Number of Tenders.	Particulars of Contract.	Country of Manufacture or Production.	Amount.	Name of Contractor.
1731	...	Railway Stores Suspense Account, Act 2716, Section 105—Supply and Delivery of General Stores, as ordered from 1st July, 1928, to 30th June, 1929	As per annex ..	Rates as per annex	As per annex

Melbourne, 17th October, 1928.

VICTORIAN RAILWAYS.

(ADDENDA TO STORES SCHEDULE 1927-1929.)

STORES CONTRACTS

FOR PERIOD 1.7.1928 TO 30.6.29.

NOTE.—The contracts contained herein are subject, unless otherwise shown in the respective schedules, to the Stores Conditions of Contract as included in the original 1927–1929 schedule.

By order of the Victorian Railways Commissioners,

E. C. EYERS, Secretary.

PHOSPHOR COPPER.

SPECIFICATION FOR COPPER PHOSPHOR.—ITEM No. 1272.

The Copper Phosphor shall be in accordance with the following specification:—

This specification covers the supply and delivery of material to be used for the production of Phosphor Bronze.

The material shall be supplied in the form of notched slabs weighing 15 lb. to 20 lb. each. It shall be clean, free from defect, and uniform in quality.

Five per cent. of the slabs supplied shall be reserved for testing.

The material shall be brittle and show on fracture a silvery-white colour. If it be not brittle it will be rejected without an analysis being made.

Analysis of the samples shall be uniform and shall conform to the following requirements:—

Phosphorus	Minimum 15.00 per cent.
Phosphorus and Copper combined	Minimum 99.85 ,,
Impurities	Maximum .15 ,,

COPPER PHOSPHOR.

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.
1272	Copper Phosphor, 15 per cent.	U.K.	12 cwt.	lb.	0 1 7	O. T. Lempriere and Co.

GALVANIZED IRON.

The Tenderer shall submit one sheet of 6 feet by 26 gauge galvanized corrugated iron, and one sheet of 6 feet by 3 feet by 26 gauge plain galvanized iron, and in the event of a tender being accepted, the galvanized iron delivered shall, as regards quality, be in accordance with the respective samples.

The rates tendered shall include wharfage, but in the event of sufficient time being allowed for importation into the State of Victoria, the material should be consigned on the Bill of Lading to the Comptroller of Stores of the Victorian Railways. Wharfage will be arranged by the Comptroller of Stores and the amount involved deducted from the Contractor's invoice. Ordering officers to arrange accordingly when possible.

GALVANIZED IRON.

	Sheets, Corrugated, 26 gauge—"Orb"					
†1375	5 ft.	Aust.	6 tons	ton	24 11 3	Kemp and Sheehan Pty. Ltd.
†1376	6 ft.	,,	12 ,,	do.	24 11 3	
†1377	7 ft.	,,	12 ,,	do.	24 11 3	
†1378	8 ft.	,,	24 ,,	do.	24 11 3	
†1379	9 ft.	,,	6 ,,	do.	25 1 3	
†1382	6 ft., 1-in. pitch	U.K.	5 ,,	do.	25 19 6	
†1383	7 ft., 1-in. pitch	,,	1 ton	do.	25 19 6	
†1384	8 ft., 1-in. pitch	,,	1 ,,	do.	25 19 6	
	Sheet, Corrugated, 24 gauge—"Orb"					
†1385	5 ft.	Aust.	12 tons	do.	23 2 9	
†1386	6 ft.	,,	60 ,,	do.	23 2 9	
†1387	7 ft.	,,	50 ,,	do.	23 2 9	
†1388	8 ft.	,,	40 ,,	do.	23 2 9	
†1389	9 ft.	,,	56 ,,	do.	23 12 9	
†1390	10 ft.	,,	40 ,,	do.	24 2 9	
	Sheet, Plain, 28 gauge—"Queen's Head"					
†1393	6 ft. x 2 ft.	,,	1 ton	do.	27 13 0	
†1394	6 ft. x 2 ft. 6 in.	,,	2 tons	do.	27 13 0	
†1395	6 ft. x 3 ft.	,,	2 ,,	do.	27 13 0	
	Sheet, Plain, 26 gauge—"Queen's Head"					
†1395A	6 ft. x 2 ft. 6 in.	,,	12 ,,	do.	26 4 3	
†1396	6 ft. x 3 ft.	,,	18 ,,	do.	26 4 3	
	Sheet, Plain, 24 gauge—"Queen's Head"					
†1396A	6 ft. x 2 ft.	,,	2 ,,	do.	24 16 0	
†1397	6 ft. x 2 ft. 6 in.	,,	10 ,,	do.	24 16 0	
†1398	6 ft. x 3 ft.	,,	60 ,,	do.	24 16 0	
	Sheet, Plain, 22 gauge—"Queen's Head"					
†1400	6 ft. x 3 ft.	,,	6 ,,	do.	24 16 0	
	Sheet, Plain, 20 gauge—"Queen's Head"					
†1400A	6 ft. x 2 ft.	,,	3 ,,	do.	24 16 0	
†1401	6 ft. x 2 ft. 6 in.	,,	3 ,,	do.	24 16 0	
†1402	6 ft. x 3 ft.	,,	20 ,,	do.	24 16 0	
	Sheet, Plain, 18 gauge—"Queen's Head"					
†1403	6 ft. x 2 ft.	,,	1 ton	do.	24 16 0	
†1404	6 ft. x 2 ft. 6 in.	,,	1 ,,	do.	24 16 0	
†1405	6 ft. x 3 ft.	,,	1 ,,	do.	24 16 0	
	Sheet, Plain, 16 gauge—"Queen's Head"					
†1406	6 ft. x 2 ft.	,,	2 tons	do.	24 16 0	
†1407	6 ft. x 2 ft. 6 in.	,,	6 ,,	do.	24 16 0	
†1408	6 ft. x 3 ft.	,,	12 ,,	do.	24 16 0	

1409–1410. Nil.

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.

MILD STEEL REINFORCING BARS.

The Mild Steel Reinforcing Bars shall be supplied in lengths not less than 18 feet.

The Mild Steel Reinforcing Bars shall comply with the specification of the Australian Commonwealth Engineering Standard Association. Perfect symmetry of section, however, is not required.

The material shall be delivered free from loose scale or loose rust, and shall not be oiled, tarred, painted, or otherwise coated.

The material will be manufactured by the Broken Hill Pty. Co., of Newcastle, New South Wales.

The rate covers delivery within the city area, and includes the Railway Goods Sheds, Metropolitan Receiving Depot, and the Arden-street Workshops, North Melbourne.

The Bars are to be ordered in minimum quantities of 5 tons, and four weeks allowed for delivery.

The rate tendered is exclusive of wharfage dues, but Contractor should be advised that each Bill of Lading must be made out in favour of the Victorian Railways Commissioners to enable wharfage to be arranged by the Corporation. The delivery order will be returned to the Contractor in order that delivery may be completed. If not complied with, wharfage to be to Contractor's account.

1670	Mild Steel Reinforcing Bars, ⅜ in. ..	Aust.	100 tons	ton	13 4 4¾	George Russell Pty. Ltd.

WIRE ROPE.

Name of Manufacturer, Items 1715 to 1733 :—Australian Wire Rope Works Ltd., Newcastle, New South Wales.

	Rope Steel Wire, Special, flexible, galvanized, 6 strands, 19 wires per strand—					
	Circum. — Aggregate breaking strength of rope.					
1715	⅜ in. .. .. ·59 tons ..	Aust.	120 feet	foot	0 0 2	
1716	½ in. .. .. ·82 „ ..	„	5,000 „	do.	0 0 2	
1717	⅝ in. .. .. 1·2 „ ..	„	9,000 „	do.	0 0 2⅛	
1718	¾ in. .. .. 1·8 „ ..	„	3,000 „	do.	0 0 2⅛	
1719	1 in. .. .. 3·3 „ ..	„	500 „	do.	0 0 2⅛	
1720	1¼ in. .. .. 5·1 „ ..	„	2,000 „	do.	0 0 2½	
1721	1½ in. .. .. 7·3 „ ..	„	100 „	do.	0 0 3¼	
1722	1¾ in. .. .. 9·8 „ ..	„	1,000 „	do.	0 0 4¼	
1723	2 in. .. .. 13·4 „ ..	„	300 „	do.	0 0 5¼	
1724	2¼ in. .. .. 17·5 „ ..	„	50 „	do.	0 0 6½	
1725	2½ in. .. .. 20·6 „ ..	„	300 „	do.	0 0 7¼	
1726	2½ in., 6-strand, 12 wires per strand, for Tail Ropes	„	3,000 „	do.	0 0 5	B. K. Morton Pty. Ltd
	Rope, Steel Wire, Special, flexible, galvanized, 6 strands, 24 wires per strand—					
	Circum. — Aggregate breaking strength of rope.					
1727	1 in. .. .. 3·3 tons ..	Aust.	2,600 „	do.	0 0 3	
1728	1¼ in. .. .. 4·9 „ ..	„	2,500 „	do.	0 0 3½	
1729	1½ in. .. .. 6·8 „ ..	„	2,100 „	do.	0 0 3¾	
1730	1¾ in. .. .. 9·7 „ ..	„	2,700 „	do.	0 0 5	
1731	2 in. .. .. 12·4 „ ..	„	2,400 „	do.	0 0 5½	
1732	2¼ in. .. .. 16·2 „ ..	„	3,600 „	do.	0 0 6¼	
1733	2½ in. .. .. 19·7 „ ..	„	6,000 „	do.	0 0 7	
1734	Rope, Steel Wire, flexible, 21 gauge (seizing wire)	U.K.	100 „	do.	0 0 0¼	

SPONGE CLOTHS.

†1944B	Sponge Cloths, 28 in. x 28 in. (weight 25 lb. per gross), "Beehive"	U.K.	300 gross	gross	1 18 3	John Edmondson and Co. Pty. Ltd.

ROPE AND TWINES.

The Rope to be supplied under Items 2048 to 2053 inclusive shall be packed in hessian. The hessian packing will, as far as practicable, be returned to the Contractor at the Metropolitan Receiving Depot.

†2046	Packing, Flax, pure	Aust.	12 cwt.	cwt.	7 1 0	
†2047	Rope, Clothes Line	„	6 „	do.	3 4 0	
†2048	„ Europe, bolt, entirely of new Russian hemp, up to 3 in., as ordered, with blue worsted thread in one strand	„	80 „	do.	5 4 0	
	„ Manila, fine and long fibre, with blue worsted thread in one strand—					
†2049	½ in. up to 2½ in., as ordered ..	„	90 „	do.	5 0 0	
†2050	Over 2½ in. up to 12 in., as ordered	„	60 „	do.	5 0 0	
†2051	„ Manila, stretched for driving belts, 3⅞ in. circ., 3 strand	„	50 „	do.	5 7 0	Geo. Kinnear and Sons Pty. Ltd.
†2052	„ New Zealand Flax, 1 in. to 2 in., as ordered, with blue yarn in one strand	„	350 „	do.	3 10 0	
†2053	„ New Zealand Flax, 2¼ in. to 3 in., as ordered, with one blue yarn in each strand	„	1,000 „	do.	3 10 0	
†2054	„ Lashing, New Zealand Flax ..	„	17 „	do.	3 2 6	
†2055	Marline, 3 cord..	„	1,200 lb.	lb.	0 1 2½	

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £	s.	d.	Name of Contractor.
	ROPE AND TWINES—*continued.*							
†2056	Spunyarn, Jute	Aust.	3 cwt.	cwt.	3	4	0	James Miller and Co. Pty. Ltd.
†2057	Twine, Binder	„	24 „	do.	3	6	0	G. Kinnear and Sons Pty. Ltd.
†2058	„ Fine	„	1,400 lb.	lb.	0	1	3½	Downs and Son Pty. Ltd.
†2059	„ Medium	„	1,400 „	do.	0	1	0½	James Miller and Co. Pty. Ltd.
†2060	„ Coarse	„	700 „	do.	0	1	0	
†2062	„ Coarse, Special, for Trimmers' use ..	„	700 „	do.	0	1	5	Downs and Son Pty. Ltd.
2063–2064.	Nil.							

MINERAL LUBRICATING OILS.

(SPECIFICATIONS—SECTION L.)

LOCOMOTIVE CYLINDER OIL.—SPECIFICATION L.1.—*Items* 2241 *to* 2242.

Scope.—This Specification covers the grade of petroleum oil required for the lubrication of the Cylinders and Valves of Superheated and Saturated Locomotive Steam-engines, using either mechanical lubricators or those operating on the hydrostatic principle.

Manufacture.—The oil shall be a refined petroleum product, with the addition of acidless animal oil.

Properties and Tests.—The oil shall be free from mineral acids and alkali, and asphaltic, tarry, or suspended matter, and in other respects shall comply with the conditions mentioned hereunder :—

Constants.	Superheated Steam. Maximum.	Superheated Steam. Minimum.	Saturated Steam. Maximum.	Saturated Steam. Minimum.
Viscosity at 212° F., dynes per sq. cm.	0·40	0·25	0·32	0·24
Fire Point, degrees Fahr.	..	580	..	580
Pour Point, degrees Fahr.	50	..	50	..
Saponifiable Matter, per cent.	6	..	8	..
Carbon Residue	3	..	3	..

Oils submitted under this Specification will be subjected to tests to determine the following properties :—

Specific Gravity, 15.5° C./15.5° C.,
Viscosity at 100° F., dynes per sq. cm.,
„ 140° F. „ „
„ 212° F. „ „
Fire Point,
Pour Point,
Volatility* at 400° F.,
„ * at 500° F.,
„ * at 600° F.,
Precipitation Number or Gasolene Test after heating one hour at 600° F.,
Carbon Residue,

and consideration will be given to the results obtained in deciding the oil to be accepted. It is desirable that the volatility loss and precipitation number should be as low as possible.

Constants obtained on Tests.—In the event of the Tender being accepted, the results of the above tests as determined in the Departmental Laboratory shall be incorporated in the Contract, and all deliveries shall reasonably agree therewith.

Sampling and Testing.—A composite sample (at least 2 quarts) shall be taken from each delivery, drawn from at least 5 (five) containers, and in no case from less than ten (10) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of each delivery.

Testing.—With the exception of the Volatility Tests, the sample shall be tested according to methods set out in "Circular of the Australian Railways: Testing of Lubricating, Illuminating, and Fuel Oils, &c."

LOCOMOTIVE BEARING OIL.— SPECIFICATION L.2.—*Items* 2243 *to* 2244.

Scope.—This Specification covers the grade of Petroleum Oil required for use on the Bearings and Motions of Steam Locomotives. Two grades are specified—the one for summer, the other for winter use.

Manufacture.—The oil shall be a refined petroleum product. The Tenderer shall state whether a straight Mineral or Compounded Oil is offered; if the latter, he shall indicate the nature and percentage of the compound used in the manufacture of the Bearing Oil.

Properties and Tests.—The oil shall be free from mineral acid or alkali, and from asphaltic, or tarry, or suspended matter, and in other respects shall comply with the conditions mentioned hereunder :—

—	Summer. Maximum.	Summer. Minimum.	Winter. Maximum.	Winter. Minimum.
Viscosity at 140° F., dynes per sq. cm.	1·0	0·80	0·80	0·65
Fire Point, degrees Fahr.	..	400	..	375
Pour Point, degrees Fahr.	40	..	25	..
Syphon Test, cubic centimetres at 140° F.	..	3·0	..	4·0
Saponifiable Matter, per cent.	20	..	20	..

* The volatility loss, after heating the oil for one hour at the temperatures given, will be determined in the V.R. Laboratory Apparatus, designed generally on the lines of Conradson's Apparatus. See *I. Ind. Eng. Chem.* 4 (1912); also Hamor and Pagett, *The Examination of Petroleum* (1922).

MINERAL LUBRICATING OILS—*continued.*

Oils submitted under this Specification will be subjected to tests to determine the following properties :—

Specific Gravity, 15·5° C./15·5° C.,	Fire Point,
Viscosity at 100° F., dynes per sq. cm.,	Pour Point,
" 140° F. " "	Syphon Test,
" 212° F. " "	Saponifiable Matter,

and consideration will be given to the results obtained in deciding the oil to be accepted.

Constants obtained on Tests.—In the event of the Tender being accepted, the results of the above tests as determined in the Departmental Laboratory shall be incorporated in the Contract, and all deliveries shall reasonably agree therewith.

Sampling.—A composite sample (at least 2 quarts) shall be taken from each delivery, drawn from at least five (5) containers, and in no case from less than ten (10) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Testing.—The sample shall be tested according to the methods described in "Circular of the Australian Railways: Testing of Lubricating, Illuminating, and Fuel Oils, &c."

CAR AND WAGON OIL (BLACK OIL).—SPECIFICATION L.3.—*Items* 2245 *and* 2245A.

Scope.—This Specification covers the grade of Petroleum Oil required for the lubrication of the Axle Journals of Railway Carriages and Wagons.

Manufacture.—The oil shall be a refined petroleum product, free from admixture with any compounding material whatsoever.

Properties and Tests.—The oil shall be free from mineral acid and alkali, and asphaltic, tarry, or suspended matter, and in other respects shall comply with the conditions mentioned hereunder :—

—	Maximum.	Minimum.
Viscosity at 140° F., dynes per sq. cm.	0·52	0·48
Fire Point, degrees Fahr.	..	400
Pour Point, degrees Fahr.	25	..
Syphon Test, cubic centimetres at 140° F.	..	5·0

Oils submitted under this Specification will be subjected to tests to determine the following properties :—

Specific Gravity, 15·5° C./15·5° C.,	Fire Point,
Viscosity at 70° F., dynes per sq. cm.,	Pour Point,
" 100° F. " "	Syphon Test,
" 140° F. " "	Saponifiable Matter,

and consideration will be given to the results obtained in deciding the oil to be accepted.

Constants obtained on Tests.—In the event of the Tender being accepted, the results of the above tests as determined in the Departmental Laboratory shall be incorporated in the Contract, and all deliveries shall reasonably agree therewith.

Sampling.—A composite sample (at least 2 quarts) shall be taken from each delivery, drawn from at least five (5) containers, and in no case from less than ten (10) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Testing.—The sample shall be tested according to the methods set out in "Circular of the Australian Railways: Testing of Lubricating, Illuminating, and Fuel Oils, &c."

CAR OIL (RED OIL).—SPECIFICATION L.3A.—*Items* 2246 *and* 2246A.

Scope.—This Specification covers the grade of Petroleum Oil required for the lubrication of the Axle Journals of Railway Carriages.

Manufacture.—The oil shall be a refined filtered petroleum oil, free from admixture with any compounding material whatsoever.

Properties and Tests.—The oil shall be free from mineral acid and alkali, and asphaltic, tarry, or suspended matter, and in other respects shall comply with the conditions mentioned hereunder :—

—	Maximum.	Minimum.
Viscosity at 140° F., dynes per sq. cm.	0·35	0·25
Fire Point, degrees Fahr.	..	370
Pour Point, degrees Fahr.	5	..
Syphon Test, cubic centimetres at 140° F.	..	7·0

Oils submitted under this Specification will be subjected to tests to determine the following properties :—

Specific Gravity, 15·5° C./15·5° C.,	Pour Point,
Viscosity at 70° F., dynes per sq. cm.,	Syphon Test,
" 100° F., " "	Saponifiable Matter,
" 140° F., " "	Carbon Residue,
Fire Point,	

and consideration will be given to the results obtained in deciding the oil to be accepted.

Constants obtained on Tests.—In the event of the Tender being accepted, the results of the above tests as determined in the Departmental Laboratory shall be incorporated in the Contract, and all deliveries shall reasonably agree therewith.

Sampling.—A composite sample (at least 2 quarts) shall be taken from each delivery, drawn from at least five (5) containers, and in no case from less than ten (10) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Testing.—The sample shall be tested according to the methods set out in "Circular of the Australian Railways: Testing of Lubricating, Illuminating, and Fuel Oils, &c."

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate.	Name of Contractor.
					£ s. d.	

MINERAL AND LUBRICATING OILS—*continued.*

The different classes of oil required shall be supplied in casks branded "Super. Cyl. Oil," "Sat. Cyl. Oil," "Sum. Bear.," "Win. Bear.," "C. & W." "Car," as the case may be.

Payment.—Payment will be made on gallonage calculated on net weight ascertained by approved methods by the Comptroller of Stores or his representative at the place of delivery, and the specific gravity ascertained in the Victorian Railways Laboratory from samples drawn from such delivery.

As regards Items Nos. 2241, 2243, and 2245, more than one tender has been accepted, each for a definite portion of the business.

The estimated quantities have been amended accordingly, and orders are to be placed to ensure each Contractor receiving its relative proportion unless it be found during the contract period that the material is not satisfactory.

As regards Item No. 2246, it will be noted that if Contractor makes delivery direct to the Oil Store from the wharf, a saving of ¾d. per gallon is effected. The Storehouse Manager should endeavour to arrange supplies accordingly.

As regards Items 2241 to 2244, and 2246 and 2246A, delivery may be given in new steel drums with side bungs, each containing approx. 45 gallons, or in wooden barrels, at contractor's option.

	Locomotive Cylinder Oil, Specification L.1, Superheated Steam—					
†2241	"Gargoyle Valve"	U.S.A. & Aust.	10,800 gals.	gal.	0 3 4	Vacuum Oil Co. Pty. Ltd.
†2241A	"C.796"	,,	1,800 ,,	do.	0 2 3¾	
†2241B	"Valvoline"	U.S.A.	5,400 ,,	do.	0 3 8	J. Carrigan
†2242	Locomotive Cylinder Oil, Specification L.1, Saturated Steam, "S3C."	U.S.A. & Aust.	24,000 ,,	do.	0 2 1	Socony Pty. Ltd.
	Locomotive Bearing Oil, Specification L.2—					
†2243	Summer. "Loco H."	,,	24,000 ,,	do.	0 2 4½	Vacuum Oil Co. Pty. Ltd.
†2243A	Summer. "X.L."	Aust.	12,000 ,,	do.	0 2 6	Ramsay and Treganowan Ltd.
†2244	Winter. "Loco J."	U.S.A. & Aust.	24,000 ,,	do.	0 2 0	Vacuum Oil Co. Pty. Ltd.
	Car and Wagon Axle Oil (Black Oil). Specification L.3—					
†2245	"B.817"	U.S.A.	10,000 ,,	do.	0 1 3¼	
†2245A	"X.L."	Aust.	5,000 ,,	do.	0 1 4½	Ramsay and Treganowan Ltd.
	Car Oil (Red Oil). Specification L.3A—					
†2246	"L.9" ex stock	U.S.A.	70,000 ,,	do.	0 1 5⅞	Socony Pty. Ltd.
†2246A	"L.9" ex wharf	,,			0 1 5⅛	
2247–2248.	Nil					

GREASES.

(SPECIFICATIONS—SECTION M.)

GEAR GREASE.—SPECIFICATION M.1.—*Item No.* 2291.

Scope.—This Specification covers the grade of grease required for the lubrication of Gears and Conveyors.

Manufacture.—The grease shall be a well-manufactured product, composed of a lime-soap made from high-grade animal or vegetable oils, or fatty acids, and a highly-refined mineral oil, or a mineral oil compounded with high-grade animal fat.

Properties and Tests.—The grease shall comply with the conditions mentioned hereunder :—

—	Soap Content, per cent. approximate.	Ash, per cent.	Melting Point.	
			Soft.	Drop.
		Maximum.	Minimum.	Minimum.
Dark Gear Grease	18	7·0	148°	163°

Mineral Oil.—When mineral oil alone is used for dissolving the soap, it shall be a well-refined mineral oil.

Saponifiable Matter.—When a compounded oil is used for dissolving the soap, it shall contain about 20 per cent. Saponifiable Matter.

Free Alkali.—The grease shall contain no free alkali.

Moisture.—The moisture present shall not be greater in quantity than one-half the dry soap content.

Corrosion.—A clean copper plate shall not be discoloured when submerged in the grease for 24 hours at room temperature.

Special Tests.—Greases submitted under this Specification will be subjected to tests to determine the following properties :—

Consistency,
Melting and Dropping Points.

Sampling and Testing.—A composite sample shall be taken from each delivery. It shall be at least one (1) lb. in weight, and shall be drawn from at least five (5) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Method of Testing.—The sample shall be tested according to the methods described in "Circular of the Australian Railways—Testing of Lubricating, Illuminating, and Fuel Oils, &c."

GREASE.—SPECIFICATION M.2.—*Items Nos.* 2293 *and* 2294.

Scope.—This Specification covers the grade of grease required for the lubrication of Gears, and of such parts of Motor Equipment and other Machinery as are lubricated by means of compression cups, Grade No. 4 to be used for Pantograph Collectors.

Two grades are specified, and the order shall state which grade is required and the purpose for which it is to be used.

Manufacture.—The grease shall be a well-manufactured product, composed of a calcium soap made from high-grade animal or vegetable oils, or fatty acids, and a highly-refined mineral oil.

Properties and Tests.—The grease shall be smooth and uniform, and, in other respects, shall comply with the conditions mentioned hereunder :—

—	Soap Content, per cent. approximate.	Ash, per cent.	Melting Point.	
			Soft.	Drop.
		Maximum.	Minimum.	Minimum.
No. 3 Cup Grease	18	2·5	146°	165°
No. 4 Cup Grease	23	3·5	170°	188°

Mineral Oil.—The mineral oil used in reducing the soaps shall be a straight, well-refined mineral oil.

Consistency.—The greases shall be similar in consistency to the approved trade standards for No. 3 and No. 4 grease.

Moisture.—The grease shall be a boiled grease, and shall contain a minimum of water when finished.

Corrosion.—A clean copper plate shall not be discoloured when submerged in the grease for 24 hours at room temperature.

Fillers.—The grease shall contain no fillers, such as resin, resinous oils, soapstone, wax, talc, powdered mica or graphite, sulphur, clay, asbestos, or the like.

Special Tests.—Greases submitted under this Specification will be subjected to tests to determine the Melting and Dropping Points.

Sampling and Testing.—A composite sample shall be taken from each delivery. It shall be at least one (1) lb. in weight, and shall be drawn from at least five (5) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Method of Testing.—The sample shall be tested according to the methods described in "Circular of the Australian Railways—Testing of Lubricating, Illuminating, and Fuel Oils, &c."

ANTI-FRICTION GREASE.—SPECIFICATION M.3.—*Item No.* 2295.

Scope.—This Specification covers the grade of grease required for the lubrication of Rough Machinery, of Rails at Switches and Curves, and for other similar purposes.

Manufacture.—The grease shall be a well-manufactured product, composed of a calcium soap made from rosin oil, and mineral oil, or other oils.

Properties and Tests.—The grease shall be smooth and uniform, and, in other respects, shall comply with the conditions mentioned hereunder :—

	Maximum.
Water	6·5 per cent.
Ash	8·0 per cent.

Consistency.—The grease shall be of such a consistency as to be suitable for the purpose for which it is required.

Sampling and Testing.—A composite sample shall be taken from each delivery. It shall be at least one (1) lb. in weight, and shall be drawn from at least five (5) per cent. of the containers. Such sample shall be accepted as accurately representing the quality of the delivery.

Method of Testing.—The sample shall be tested according to the methods described in "Circular of the Australian Railways—Testing of Lubricating, Illuminating, and Fuel Oils, &c."

SPECIFICATION FOR PETROLEUM JELLY.—*Item No.* 2296.

The Petroleum Jelly shall be a purified mixture of semi-solid hydrocarbons of the very best quality obtained from petroleum, free from odour, mineral acid, or alkali, fixed oils, fats, rosin, and other additions. It shall be completely soluble in Heavy Benzine.

The Petroleum Jelly shall have a melting point of about 100° F.

On incineration in a porcelain crucible, not more than 0·05 per cent. of mineral matter shall remain in the crucible.

The Tenderer shall indicate the specific gravity at 15·5° C./15·5° C.

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.
	GREASES.					
	Grease, for Gears, Conveyors, Compression Cups—					
†2291	Specification M.I. "Voco Dark Gear Grease"	Aust.	140 cwt.	cwt.	1 1 0	Vacuum Oil Co. Pty. Ltd.
†2293	Grease, Cup, No. 3, Specification M.2, in 5 lb. tins, "X.L. Cup Grease No. 3" ..	U.S.A.	3,360 lb.	cwt.	2 8 6	Ramsay and Treganowan Ltd.
†2294	Grease, Pantograph Collector, No. 4, Specification M.2, "Voco Cup Grease No. 4"	,,	100 cwt.	cwt.	1 16 2	Vacuum Oil Co. Pty. Ltd.
†2295	Grease, Anti-friction, for Lubrication of Rough Machinery, Rails, Switches, Curves, and other purposes, Specification M.3, "X.L. Dark A.F. Grease"	Aust.	20 ,,	do.	0 16 9	Ramsay and Treganowan Ltd.
†2296	Petroleum Jelly, in cases or barrels of approximately 5 cwt., for tarpaulin dressing, to Specification, "X.L. Dark Pet. Jelly" ..	U.K.	3,000 lb.	lb.	0 0 2	
2297–2302.	Nil.					

TURPENTINE.

The material shall be supplied to Tentative Australian Standards Association, No. K.7—1926 T.

The material shall be tested standard methods of sampling and testing Tentative Australian Standards Association, Nos. K. 7 and 8 T., Part 2.

Payment will be made on gallonage calculated on net weight ascertained by approved methods by the Comptroller of Stores or his representative at the place of delivery, and the specific gravity ascertained in the Victorian Railways Laboratory from samples drawn from such delivery.

†2303	Turpentine—to Specification, "Pratts" ..	U.S.A.	2,000 gal.	gal.	0 4 2	Brooks, Robinson, and Co. Ltd.

FIRECLAY, CILINSULATE BLOCKS, ETC.

†3145B	Clay, Fire, extra fine ground, f.o.r. Dandenong	Aust.	20 tons	cwt.	0 2 6	Ordish Firebrick Co. Pty. Ltd.
†3149	Boiler Covering Composition, soft setting ..	,,	3½ ,,	do.	1 6 0	Engineering Products Pty. Ltd.
†3150	Blocks, Cilinsulate, 12 in. x 8 in. x 1½ in...	,,	2,000	each	0 2 0	

EXPLOSIVES AND AMMUNITION.

As regards Item No. 3836, a re-packing charge of 3s. shall be made if ordered in less than case lots of 5,000.

As regards Item No. 3837, if ordered in less than case lots of 300 coils, the rate shall be 9d. per coil.

As regards Items Nos. 3836, 3838, and 3839, the rates cover delivery f.o.r. Laverton, whilst Item 3837 is for delivery f.o.r. Melbourne

If delivery be required in the suburbs, the additional cost of delivery shall be as follows :—

		s. d.
Item No. 3836 ..	Caps—In parcels under 500	2 6 the lot
	In parcels 500 and over	3 6 ,,
,, 3838 ..	Gelignite	2 9 per case
,, 3839 ..	Blasting Powder..	0 0½ per lb.

If Explosives are despatched by rail, in cylinders, a charge of 1s. per cylinder will be made.

McMicking and Co. advise that they have a small storage magazine in South Melbourne, where explosives can be procured without delay should they be urgently required.

In the event of there being any reduction in the market price of the Explosives during the currency of the contract the rates quoted shall be correspondingly reduced.

Name of Manufacturer :—

Item No. 3836	Nobels—London
Items Nos. 3837 and 3838 ..	Nobels—Australia.
Item No. 3839	Curtis and Harvey, London.
Item No. 3840	Kynoch, England.

EXPLOSIVES.

3836	Caps, No. 6, in boxes of 100, delivered f.o.r. Laverton	U.K.	130 boxes	box	0 5 6	Dalgety and Co. Ltd.
3837	Fuse, single thread, "Bickfords," in coils of 8 yards	Aust.	60,000 coils	coil	0 0 8	McMicking and Co.
3838	Gelignite, 50 per cent., delivered f.o.r. Laverton	,,	190 cases	case of 50 lb. net	2 15 6	Dalgety and Co. Ltd.
3839	Powder, Nitrate of Potash, Blasting, in 25-lb. or 50 lb. kegs, delivered f.o.r. Laverton ..	U.K.	19,000 lb.	100 lb.	4 3 4	McMicking and Co.

AMMUNITION.

	Cartridges, Smokeless, ·32 calibre, in boxes of 25 or 50—					
†3840	Auto. Pistol	U.K.	5,000	100	0 9 0	Donald Mackintosh
3842–3844.	Nil.					

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate.	Name of Contractor.
					£ s. d.	

TELEGRAPH AND TELEPHONE MATERIAL.

SPECIFICATION FOR 12-VOLT AND 6 VOLT, 2½ WATT LAMPS.—*Items No.* 4587 *and* 4588.

Bulb must not exceed the following dimensions :—

Base of lamp to tip of bulb, 3½ inches.
Diameter of bulb, 1¾ inches.
Centre of filament must be between 2¼ inches and 2 5/16 inches above base of lamp.
Edison medium screw base to be provided.
Burning life of lamps at rated voltage to be not less than 2,000 hours.

As regards Items Nos. 4587 and 4588—Twelve weeks will be allowed for delivery after the placing of any order, and acceptance is conditional on the lamps to be supplied being identical in every respect with lamps of this description previously supplied.

As regards Item No. 4589—Six weeks will be allowed for delivery after the placing of any order.

*4546	Condensers, ·25 M.F.	U.K.	30	each	0 1 10	British Insulated Cable Ltd.
*4579	Insulators, Porcelain, Knob	Aust.	1,000 pairs	pair	0 0 6	Sunshine Porcelain Potteries Pty. Ltd.
†4587	Lamps, 6-volt, 2½ watt, to Specification ..	U.K.	1,000	each	0 2 2¼	Edison Swan Electric Co. Ltd.
†4588	Lamps, 12-volt, 2½ watt, to Specification ..	,,	200	do.	0 2 2¼	
†4589	Lamps, for Hand Torches	Holland	800	100	1 1 3	Lawrence and Hansen Electric Co. Ltd.
†4594	Pins, Telegraph, to Drawing No. 2, F. 1465	..	20,000	1,000	..	Nil

ELECTRIC CABLES AND WIRES.

SPECIFICATION FOR STRANDED COPPER CABLE, DROPPER WIRE, AND CONTACT WIRE.—*Item Nos.* 4639 *to* 4642.

A. *Dropper Wire and Stranded Cables. Specification of British Engineering Standards Association to Apply.*—Except where definitely stated to the contrary, the B.E.S.A. Specification No. 125/1924 shall apply to the Copper Dropper Wire and Stranded Copper Cable in this Contract.

B. *Sizes of Cables and Wire.*—The sizes of Cables and Wires entering into this Contract shall be as follows :—

·25 square inch Hard-drawn Stranded Copper Cable made up of 37 strands of ·092-inch Wire (37/·092 inch).
·375 square inch Hard-drawn Stranded Copper Cable made up of 37 strands of ·116-inch Wire (37/·116 inch).
Hard-drawn Copper Dropper Wire, ·193 inch diameter.
Hard-drawn Copper Contact Wire, ·25 square inch, as per Drawing No. F.1460.

C. *Inspection, Testing and Weighing at Works.*—All Cables and Wires will be weighed and lengths checked as set out in Clauses K and L, and the Contact Wire shall also be inspected for defects as per clause E (2) by the Comptroller of Stores or his representative at the works of the Contractor.

The Stranded Copper Cable shall be tested before stranding in accordance with Clause A by the Comptroller of Stores or his representative at the works of the Contractor.

For these purposes the Contractor shall give appropriate notice in writing of the readiness of the Cables or Wires for inspection, measurement, weighing, or test at the works.

D. *Testing after Delivery.*—The Dropper Wire shall be tested in accordance with Clause A and the Contact Wire in accordance with Clauses E, F, G, H, and I by the Comptroller of Stores or his representative on delivery of the Wire.

The Contractor will be notified at his Melbourne address of the intention to carry out such tests and at what place they will be carried out, 24 hours previously, but should he or his representative fail to be present the tests may be carried out at his risk in his absence.

E. *Contact Wire General.*—(1) The Hard-drawn Copper Contact Wire shall have a conductivity of not less than 98 per cent. of Mathieson's standard for Hard-drawn Copper, and the Wire shall not vary from the specified dimensions by more than 1 per cent. (2) The Wire shall be clean and smooth from the die, without roughness, seams, scales, or scabs, and shall be delivered tightly wound on drums. (3) The section of the Wire shall be in accordance with Drawing No. F.1460.

F. *Contact Wire Joints.*—The joints in the Wire shall be carefully made with silver before the Wire is drawn.

G. *Contact Wire Tensile Test.—Minimum Breaking Stress*—20 tons per square inch.

Elongation.—The elongation shall not exceed 3 per cent. in a length equal to 35 times the greater dimensions of the Wire when a load equal to 60 per cent. of the breaking stress is gradually applied.

H. *Contact Wire Bending Test.*—The Wire shall be fixed in a vice between clamps bell mouthed to a radius equal to the thickness of the Wire where gripped, in such a way that the side touched by the pantograph and the side opposite are held in the clamps—90 degrees will be considered as a single bend. The first bend will be from a vertical position to the right, the second back into the original position, the third from the vertical to the left, and the fourth back into the original position. The Wire shall be capable of standing as a minimum four bends without showing signs of fracture.

I. *Contact Wire Torsion Test.*—The Wire shall be capable of standing as a minimum a single twist in a length of 10 inches without showing signs of fracture. One complete turn of 360 degrees from the axis shall be considered a single twist.

ELECTRIC CABLES AND WIRES—*continued.*

J. *Samples for Test.*—A sample from each drum or coil may be taken of Contact, Dropper, or Stranded Wire for testing in accordance with Clauses C and D.

In the event of a sample of any drum or coil not passing these tests, a second or third sample from the same drum or coil shall be tested, and the average of the three tests shall determine the acceptance or rejection of the drum or coil.

K. *Weights.*—The method of weighing by the Comptroller of Stores or his representative at the works of the Contractor will be as follows:—The empty drum will be weighed and the result noted. The Cable or Wire will then be wound on the drum for the specified length, the full drum will then be weighed and the result noted. The weight of the Cable or Wire to be supplied under this Contract will then be ascertained by subtracting the weight of the empty drum from the weight of the drum when filled. Each drum when packed and totally enclosed shall be stencilled with the gross tare and net weights in the presence of the Comptroller of Stores or his representative.

All such weights so ascertained by the Comptroller of Stores or his representative will for all purposes be accepted by the parties to this Contract as correct and final and binding.

L. *Measurements.*—The Comptroller of Stores or his representative shall measure the length of Wire or Cable on each drum at the works of the Contractor and the Contractor shall have such lengths stencilled on the respective drums. These lengths will for all purposes be accepted by the parties to this Contract as final and binding.

M. *How Delivered.*—The Copper Dropper Wire, Stranded Cable, and Contact Wire shall be delivered on drums (the numbers of which may be specified in the order). The dimensions of the drums shall not exceed the figures given on Drawing No. 4051 F.678. An iron plate 15 inches x 15 inches x ¼ inch thick is required to reinforce each side of the drum, to which it shall be bolted. A 3-in. clearance square hole shall be made in both the drums and the plate to take a 3-in. square spindle. The gross and net weight, also number of feet on the drum, shall be stencilled on the drum in figures which should not be less than 1½ inches high.

N. *Delivery.*—The Copper Dropper Wire, Stranded Cable, and Contact Wire shall be provisionally delivered, deposited where and as directed at the Corporation's Overhead Equipment Store, Laurens-street, North Melbourne, and delivery shall be deemed to be provisional until such time as the Comptroller of Stores shall certify that the whole of the service complies with this Specification and is in every respect to his satisfaction, and no such provisional acceptance shall prevent the operation of the "Rejection" clause of the annexed Conditions of Contract.

SPECIFICATION FOR HARD-DRAWN COPPER WIRE FOR TELEGRAPH AND TELEPHONE PURPOSES.—*Items Nos.* 4643 *and* 4644.

The Wire shall be Hard-drawn Copper Wire—weight, 150 and 200 lb. per mile respectively.

Each coil shall be drawn in one continuous piece without joints, and weigh not less than 100 lb. and not more than 130 lb. The Wire shall in all other respects be manufactured in accordance with the British Engineering Standards Specification No. 174.

SPECIFICATION FOR ITEM NO. 4650.

Item No. 4650. *Cable.*—1 pair, lead covered, enamel and cotton.

The Cable to be supplied under this item shall be to the Commonwealth Postal Specification No. 560, the essential points of which are:—

Conductors No. 23 S.W.G. insulated with enamel and a single lap of cotton, conductors sheathed with a covering of pure lead and packed on drums of 1,000 yards each.

SPECIFICATION FOR ITEMS NOS. 4691 AND 4692.

The 14-gauge German Silver Wire shall have a resistance of 133·9 ohms per 1,000 yards at 60° Fah., and the 18-gauge 371·8 ohms.

SPECIFICATION FOR ITEMS NOS. 4656A–4669.

(*a*) *General Particulars.*—The insulated cables will be used on all classes of electric light and power installations, and shall be of 600 megohm grade and in accordance with Table 12 of British Engineering Standards Association Specification No. 7–1926.

(*b*) *Material and Workmanship.*—All material and workmanship shall be first class, and each length of cable shall be of even quality from end to end.

(*c*) *Conductor.*—The conductor shall either be a single wire or shall be composed of a cable formed of the number of wires detailed in the Schedule.

Each wire and cable shall be in accordance with British Engineering Standards Association Specification No. 7–1926, as regards resistance, size, and weight.

(*d*) *Tinning.*—Each wire shall be double-tinned uniformly and efficiently, and shall be thoroughly cleansed before stranding or covering. The tinning is to be free from lead or other impurity, and the conductor shall show no signs of sulphide or copper after vulcanizing, but shall present a clean bright appearance and be free from blackening.

(*e*) *Stranding.*—All cables shall be stranded right and left handed. The lay shall be uniform in each ring throughout its length, and must be such as not to increase the resistance of the stranded conductors more than 2 per cent. above that of a conductor of the same length with parallel wires.

(*f*) *Joints in Conductors.*—Not more than two joints shall be made in any one of the single wires forming 1,000 yards of complete cable, and no joint shall be within 12 inches of any other joint in the same ring. Joints where made shall be electrically welded. No joint may be made in the conductor after it has been stranded.

(*g*) *Di-electric.*—Each conductor shall be covered with three layers of india-rubber. The first shall be a layer of pure Para india-rubber, which shall contain no more than 0.35 per cent. of sulphur. The second and third layers shall be composed of the finest Para rubber mixed with sulphur and mineral matter only; the quantity of rubber used in these two layers shall not be less than 40 per cent.

Each conductor so insulated shall be spirally lapped with an india-rubber-proofed tape, and the whole vulcanized together into a compact homogeneous body.

ELECTRIC CABLES AND WIRES—*continued.*

(*h*) *Thickness of Di-electric.*—The thickness of di-electric shall be as provided for in British Engineering Standards Association Specification No. 7–1926.

(*i*) *Braiding.*—After the di-electric is vulcanized, each conductor shall be suitably braided and compounded.

(*j*) *Compounding Colours.*—The conductors of any one size shall be delivered in two distinctive standard colours, half of each quantity to the nearest coil to be of one colour, and the remaining portion to be of the other colour.

(*k*) *Tests.*—The conductors shall be tested on delivery in the manner set out in the British Engineering Standards Association Specification No. 7–1926. A sample of the vulcanized rubber di-electric from which the conductor has been removed shall return to within 25 per cent. from original length within six hours after being stretched for 24 hours at or about 60° F. to three times its length.

The Corporation may carry out any tests necessary to ascertain whether the conductors delivered comply in every respect with this Specification, and in the event of such tests being made the Contractor will be notified at his Melbourne address at least twenty-four (24) hours previously of the intention to carry out such tests, but in the event of the Contractor or his representative failing to be present the tests may be carried out in his or his representative's absence and at his risk.

Time for delivery (5 weeks) will be allowed for importation of the hard-drawn bare cable, annealed bare cable, stranded copper cable, contact wire, copper dropper wire, and bare copper wire, and the rates tendered do NOT include wharfage dues of the Melbourne Harbour Trust, and in order that the Corporation may receive exemption from wharfage dues, the bill of lading for each shipment shall be made out in favour of the Comptroller of Stores. Wharfage will be cleared by the Comptroller of Stores and delivery order returned to the Melbourne office of the Contractor to enable him to complete delivery. All orders to make this provision.

The Contract with the British Insulated Cables Ltd. is subject to the following conditions :—

As regards Items Nos. 4639 to 4642, 4645 to 4647, 4670 to 4685, the rates are based on electrolytic copper wire bars at £69 per ton, and are to be varied up or down by one-tenth of a penny per lb. of copper for each complete seventeen shillings and sixpence or part thereof by which the price of wire bars published in the *Argus* on the date of receipt of an order is greater than £69 7s. 5d. per ton or less than £68 10s. per ton respectively. If no price of wire bars is published on any day, the price last published earlier shall apply. In the case of a dispute concerning the published price of wire bars, the figures advised by the Australian Mines and Metals Association as last received by them from the London Metal Exchange prior to the day of the receipt of the order shall be mutually accepted.

As regards Items Nos. 4643 and 4644, the rates are based on the price of electrolytic copper wire bars at £69 per ton and the variation for copper will be £1 for any £1 alteration in the market price. Alterations of less than £1 will be charged *pro rata.*

The variation in the rate for Item No. 4650 shall be 1½d. per 1,000 yards per 20s., based on copper at £69 per ton, and 13 weeks will be allowed for delivery.

As regards Items Nos. 4643 and 4644, orders are not to be placed for less than 2-ton lots. Such material will be packed in coils of 75 to 140 lb.

Items Nos. 4639 to 4642, 4645 to 4647, and 4670 to 4675.—Orders of less than 200 lbs. are not to be placed. A schedule of standard drums and packages is shown hereunder, and earlier delivery can be expected if special cutting be obviated.

Items Nos. 4676 to 4685.—Orders for less than 10 lbs. of one size are not to be placed, and where possible such orders should be for standard packages shown below.

SCHEDULE OF STANDARD PACKAGES.

Item No.	Size.	Standard Packing.		Weight per 1000 yards.
		Length.	Net Weight.	
		yards.	lb.	lb.
4639	37/·092	880	2580	2900
4640	37/·116	554	2580	4600
4641	·193 in. dia.	420	140	334
4642	·25 sq. in.	880	2550	2890
4645	91/·044	1925	3170	1650
4646	91/·059	2104	6230	2960
4647	37/·064	1820	2580	1403
4670	7/·036	5760	488	83·8
4671	7/·048	3240	488	149·0
4672	7/·064	3640	976	264·8
4673	7/·080	2330	976	413·8
4674	7/·097	1585	976	608·5
4675	7/·104	1380	976	699·3
4676	No. 8 SWG. D.C.C. Wire	..	112	
4677	No. 10 SWG. D.C.C. Wire ..	..	56	
4678	No. 11 SWG. D.C.C. Wire ..	..	56	
4679	No. 12 SWG. D.C.C. Wire ..	..	56	
4680	No. 13 SWG. D.C.C. Wire ..	..	56	
4681	No. 14 SWG. D.C.C. Wire ..	..	56	
4682	No. 15 SWG. D.C.C. Wire ..	..	56	
4683	No. 16 SWG. D.C.C. Wire ..	..	56	
4684	No. 17 SWG. D.C.C. Wire ..	..	56	
4685	No. 18 SWG. D.C.C. Wire ..	..	28	

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.

ELECTRIC CABLES AND WIRES—*continued.*

As regards Item No. 4713, sufficient time will be allowed for importation of initial order, and 16 weeks for Items Nos. 4651 to 4654.

As regards Items Nos. 4639 to 4642, 4643 and 4644 for Copper Bare Wire, arrangements are to be made at the time of placing of orders for inspection to be conducted by the Permanent Testing Officer of the Postmaster-General's Department, resident at Port Kembla, and for certificate of inspection quoting the Order No. being forwarded to the Comptroller of Stores.

A copy of each order and such other information as is called for should be forwarded to the State Engineer of the Postal Department, Sydney, N.S.W., simultaneously with the placing of an order, requesting that inspection be arranged.

ELECTRIC CABLES AND WIRES.

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.
4639	Cable, ·25 square inch (37/·092″) Hard-drawn Stranded Copper, "Metal Manufactures Pty. Ltd."	Aust.	30,000 feet	lb.	0 1 1.5	British Insulated Cables Ltd.
4640	„ ·375 square inch (37/·116″) Hard-drawn Stranded Copper, "Metal Manufactures Pty. Ltd." ..	„	15,000 „	do.	0 1 1.5	
4641	Wire, Dropper, Hard-drawn, Copper ·193″ diameter, "Metal Manufactures Pty. Ltd."	„	40,000 „	do.	0 1 1.5	
4642	„ Contact, ·25 square inch, Hard-drawn Copper (Drawing F.1460), "Metal Manufactures Pty. Ltd." ..	„	30,000 „	do.	0 1 1.5	
	Wire, Copper, Bare, to Specification—					
4643	150 lb. per mile, "Metal Manufactures Pty. Ltd."	„	20 tons	ton	111 10 0	
4644	200 lb. per mile, "Metal Manufactures Pty. Ltd."	„	50 „	do.	111 0 0	
	Cable, Annealed, Bare—					
4645	91/·044″, "Metal Manufactures Pty. Ltd."	„	5 miles	lb.	0 1 5	
†4646	91/·059″, "Metal Manufactures Pty. Ltd."	„	3 „	do.	0 1 3	
4647	37/·064″, "Metal Manufactures Pty. Ltd."	„	3 „	do.	0 1 2	
4648	Cable, 26 pairs, braided, indoor, enamel double silk and cotton, "London Electric Wire Co."	U.K.	3,500 yards	1,000 yards	120 0 0	Warburton Franki (Melb.) Ltd.
4649	„ 15 pairs, braided, indoor, enamel double silk and cotton, "London Electric Wire Co."	„	1,750 „	do.	80 0 0	
4650	„ 1 pair, lead covered, enamel and cotton	„	7,000 „	do.	6 13 0	British Insulated Cables Ltd.
	Cable, bitumen, insulated, taped and braided, 600 V. Grade—					
†4651	7/·036″, "Pirelli"	„	1,500 „	do.	17 10 0	British General Electric Co. Ltd.
†4652	7/·044″, do.	„	1,500 „	do.	21 0 0	
†4653	7/·064″, do.	„	2,500 „	do.	29 10 0	
†4654	19/·052″, do.	„	1,500 „	do.	44 0 0	
	Cable, twin, metal sheathed, suitable for house wiring—					
†4655	3/·036″, "Callender"	„	100 „	do.	30 15 0	Noyes Bros. (Melb.) Pty. Ltd.
†4656	1/·044″, "Callender"	„	3,000 „	do.	16 2 6	
	Cable, Electric, V.I.R., 600 megohm grade, taped, braided and compounded—					
4656A	1/·044″	..	1,000 „	do.	..	Provision made under Fixed Quantity Contract, which will provide for a cable braided for identification purposes
4656B	1/·064″ (for power signalling) ..	..	Nil	do.	..	
†4657	3/·029″	..	7,000 yards	do.	..	
†4658	3/·036″	..	88,000 „	do.	..	
†4659	7/·029″	..	9,000 „	do.	..	
†4360	7/·036″	..	63,500 „	do.	..	
4661	7/·044″	..	14,000 „	do.	..	
†4662	7/·052″	..	7,500 „	do.	..	
†4663	7/·064″	..	14,000 „	do.	..	
†4664	19/·052″	..	10,600 „	do.	..	
†4665	19/·064″	..	2,000 „	do.	..	
†4666	19/·072″	..	Nil	do.	..	
†4667	19/·083″	..	2,500 yards	do.	..	
†4668	37/·064″	..	2,000 „	do.	..	
†4669	37/·083″	..	Nil	do.	..	

Item No.	Description.	Country of Manufacture.	Estimated Requirements for One Year.	Rate per—	Rate. £ s. d.	Name of Contractor.
	ELECTRIC CABLES AND WIRES—*continued.*					
	Cable, Hard-drawn Copper, Bare—					
4670	7/.036" "Metal Manufactures Pty. Ltd."	Aust.	3,000 lb.	lb.	0 1 2.2	British Insulated Cables Ltd.
4671	7/.048" do.	"	3,000 "	do.	0 1 1.8	
4672	7/.064" do.	"	2,500 "	do.	0 1 1.5	
†4673	7/.080" do.	"	500 "	do.	0 1 1.5	
4674	7/.097" do.	"	2,000 "	do.	0 1 1.5	
4675	7/.104" do.	"	2,000 "	do.	0 1 1.5	
	Wire, Copper, D.C.C.—					
4676	No. 8, S.W.G. "Metal Manufactures Pty. Ltd." ..	"	100 "	do.	0 1 5	
4677	" 10, " do.	"	150 "	do.	0 1 5.5	
4678	" 11, " do.	"	40 "	do.	0 1 5.5	
4679	" 12, " do.	"	50 "	do.	0 1 5.5	
4680	" 13, " do.	"	250 "	do.	0 1 6	
4681	" 14, " do.	"	170 "	do.	0 1 6	
4682	" 15, " do.	"	220 "	do.	0 1 6	
4683	" 16, " do.	"	150 "	do.	0 1 8.5	
4684	" 17, " do.	"	84 "	do.	0 1 10	
4685	" 18, " do.	"	270 "	do.	0 2 1.5	
4686	" 27, " "London Electric Wire Co."	U.K.	15 "	do.	0 3 3	Warburton Franki (Melb.) Ltd.
4687	" 28, " do.	"	10 "	do.	0 3 6	
4688	Nil					
4689	Nil					
4690	Wire, Enamelled, Insulated, 24 S.W.G. "Pirelli"	U.K.	50 lb.	do.	0 1 5¼	British General Elec. Co. Ltd.
†4691	" German Silver, 14 S.W.G. "Eureka" ..	"	20 "	do.	0 2 5¾	Warburton Franki (Melb.) Ltd.
†4692	" " " 18 S.W.G. do.	"	15 "	do.	0 2 9	
4693	" Nichrome, 27 gauge B.& S., "Driver Harris"	"	10 "	do.	0 14 11	Noyes Bros. (Melb.) Pty. Ltd.
4694	" " 20 gauge B. & S., do.	"	10 "	do.	0 9 5	
†4695	" Office, Flexible, 23/36 "Pirelli" ..	"	5,800 yards	100 yards	1 0 8	British General Elec. Co. Ltd.
†4696	" " " 40/36 " ..	"	6,000 "	do.	1 8 2	
†4697	" Workshop Flexible, 40/36 "Callender"	"	5,000 "	do.	1 16 1	Noyes Bros. (Melb.) Pty. Ltd.
†4698	" " " 23/36 "	"	800 "	do,	1 8 8	
4699	" Telephone Bell		Nil			
	Wire, Tinned, Copper, Fuse—					
4700	16 gauge, "Henleys"	U.K.	110 lbs.	lb.	0 1 4.5	W. T. Henley's Telegraph Works Co. Ltd.
4701	18 " do.	"		do.	0 1 5	
4702	20 " do.	"		do.	0 1 6.5	
4703	22 " do.	"		do.	0 1 7	
4704	26 " do.	"		do.	0 1 10	
4705	28 " do.	"		do.	0 1 11	
†4706	29 " do.	"		do.	0 1 11	
4707	30 " do.	"		do.	0 2 0	
4708	32 " do.	"		do.	0 2 4	
4709	33 " do.	"		do.	0 2 6	
4710	36 " do.	"		do.	0 2 9	
4711	38 " do.	"		do.	0 3 3	
4712	40 " do.	"		do.	0 4 0	
4713	Wire, Vulcanized, I.R., taped and braided, twisted pairs, No. 20 S.W.G., "Craigpark"	"	8,000 yards	1,000 yards	9 0 10	Australian General Elec. Co. Ltd.
4714 to 4716	Nil.					

BOLTS, IRON, GALVANIZED.

	Bolts, Iron, Galvanized, hex. round, hex., each bolt complete with two square washers 1½ in. x 1½ in. x ⅛ in. thick x 11/16 in. round hole—					
5070	9 in. x ⅝ in.	Aust.	3 tons	cwt.	1 16 0	G. F. Sewell Pty. Ltd.
5071	10 in. x ⅝ in.	"	3½ "	do.	1 16 0	
5072	11 in. x ⅝ in.	"	3½ "	do.	1 16 0	
5073	12 in. x ⅝ in.	"	1½ "	do.	1 16 0	
5074	13 in. x ⅝ in.	"	1 "	do.	1 16 0	
5075	14 in. x ⅝ in.	"	1 "	do.	1 16 0	
5076	15 in. x ⅝ in.	"	15 cwt.	do.	1 16 0	
5077	16 in. x ⅝ in.	"	15 "	do.	1 16 0	

By Authority: H. J. GREEN, Government Printer, Melbourne.