

D. WICKHAM & COMPANY LIMITED

WARE, HERTFORDSHIRE,

ENGLAND.

Spare Parts List

No. Y.204/R/X/1.

No. 4/S Open Gang Trolley.

Railway - New South Wales - Australia.

Gauge - 4'-8 1/2"

Important :- When ordering spare parts please quote the following :-

- (1) Spare parts list number.
- (2) Part number of article.
- (3) Car serial number.
- (4) Engine number.

<u>Part No.</u>	<u>No. Reqd.</u>	<u>Description.</u>
BD.333	1	Main Frame. Welded assembly.
BE.163	2	Skid bar. 1 R.H. - 1 L.H.
		<u>Wheels & Axles - Drg. No. S.8478.</u>
BD.502	4	Wheels. Complete assembly.
AH.372	4	Wheels. Tyres only.
BD.277	4	Hub, wheel
BD.278	4	Sleeve, insulating
BD.279	4	Washer, "
EB.600	1	Axle, drive
EB.545	2	Axle, stub
EB.280	4	Nuts, slotted, axle
EB.418	1	Tube, cover
EB.963/M	4	axle box
EB.261	4	cover axle box
EB.411	4	Bearings, roller 3" o.d. x 1.3/8" i.d. x 1 1/16"
EB.528	4	Distance collar
EB.511	4	Collar, locating
EB.398	8	Push, spring pillar
EB.109	8	Springs, impact, axle box
EB.110	8	" rebound "
EB.842	2	Stone guard, rubber
EB.845	2	X Bracket, stone guard X
EA.5791/2	1	Greaser, 1/4" B.S.F. 67 1/2
EA.5792/1	4	" 1/4" B.S.F. 90
		<u>Brake Gear - Drg. No. S.8552.</u>
ED.266	4	Brake shoe
ED.267	8	Pad, insulator
EE.87	4	Hanger, brake shoe
EE.164	2	Toggle link, non adjustable
EE.165/M	2	Toggle link, adjustable c/w screwed eye
EA.762	4	Plate, toggle
EA.765	6	Pin, toggle plate

<u>Part No.</u>	<u>No. Reqd.</u>	<u>Description.</u>
BA.728	2	Toggle lever, brake shaft
BO.215	1	Brake shaft
BO.20	1	Lever, hand brake
BD.480	1	Hand lever, brake
BA.742	1	Ratchet
BA.740	1	Pawl ✓
BA.320	1	Spring return ✓
BB.27 BA 74.1	1	Rivet, pawl
BO.145	3	Bracket, brake shaft
<u>Reverse Box MK.V - Drg. No. S.7365.</u>		
BB.728/B	1	Gearbox, 2 speed and 2 directional Complete assembly with axle of suitable gauge.
BB.718	1	Main housing, gearbox
BB.719	1	Rear housing, "
BA.317	1	End cover
BA.609	1	Cap, dust
AZ.740/1	1	Main shaft 19 T - 13 T
AZ.741/1	1	Gear, layshaft 44 T
AZ.742/1	1	" " 38 T
AZ.680	1	Pinion, bevel 16 T
BB.720	2	Wheel, bevel 34 T
AZ.743	1	Dog, change speed 12 T
BB.721	1	Dog, change direction 15 T
	2	Circlip 80 m/m bore
	2	" 2.1/4" " } Internal type
	2	" 1.7/8" " }
	1	" 1" shaft } External type
	1	" 7/8" " }
225112	1	Oil seal. 2.1/4" o.d. x 1.3/8" shaft dia.
250118	1	" " 2.1/2" o.d. x 1.9/16" " "
R.L.S.8	2	Bearings, ball. Single row 2.1/4" o.d. x 1" i.d.
R.L.S.6	2	" " " 1.7/8" o.d. x 3/4" i.d.
6208	2	" " " 80 m/m x 40 m/m x 18 m/m
BB.727	2	Housing, oil seal, for oil seal No. 250118
BB.844	1	Selector, change speed
AZ.675	1	Shaft, " "
AZ.676	1	Bush, shaft
BD.426	1	Spring, plunger 5/16" o.d. x 17 SWG x 1.1/4 F.L. X
AZ.664	1	Plunger, locating
BD.425	1	Housing, spring
BA.497	2	Selector
AZ.650	1	Shaft, direction change
BA.498	1	Washer, companion flange
BA.507	1	Flange, companion
BB.786	1	Torque arm

ENGINE MOUNTING BOLT
6 1/2 x 3/4 B & T

(CR60W)

<u>Part No.</u>	<u>No. Reqd.</u>	<u>Description.</u>
<u>Gear change & direction change Type B.</u>		
ED. 506	1	Cover, inspection
BO. 493	1	Pin, ratchet
BC. 494	1	Screw, adjusting
H. 323	1	Spring, ratchet
ED. 845	1	Plug, change speed shaft
BO. 498/2	1	Lever, direction change
BC. 676	1	Lever, change speed complete with knob
<u>Engine & Transmission - Drg. No. S.8561.</u>		
	1	J.A.P. 600 c.c. S.V. engine MKrIII Type 9 fitted with impulse magneto, Zenith carburettor and oil bath air cleaner. <i>Vokes</i>
A.O.2 <i>Vokes</i>		<i>Note - For engine spares see separate list.</i>
A.O.2		
BA. 584	1	Flywheel
BA. 717	1	Housing, pilot bearing
No. 6201/z	1	Bearing, ball 32 m/m x 12 m/m x 10 m/m
	1	Circlip 32 m/m bore
6 1/2 A.O.	1	Clutch unit, complete assembly
	1	Plate, drive, spring type
	1	Plate, pressure
	1	Housing complete with spring caps
	3	Spring, pressure plate
	3	Toggles, complete with return spring & pad
	1	Thrust pad, carbon, assembly
BA. 716	1	Shaft, clutch
BA. 606	1	Bell housing, clutch
BB. 699	1	Case, blower, bottom
BB. 700	1	Bar, blower, top
R.L.S. 8	1	Bearing, ball 2.1/4" o.d. x 1" i.d. x 5/8"
BA. 719	1	Fork, throw out
BA. 720	2	Bush, throw out shaft
BA. 721	1	Shaft, clutch throw out
BA. 507	1	Companion flange
55/0097	1	Cardan shaft, 1'-8.1/4" Face to face length
ED. 340	1	Bracket, clutch pedal
ED. 991/M	1	Beam, re-action
EE. 74	1	Pedal, clutch
EB. 990	1	Pin, clutch pedal
ED. 851	2	Nipple, clutch cable
ED. 342	1	Lever, clutch throw out
BO. 674	1	Bracket, clutch cable
BO. 675	1	Clamp
ED. 998	1	Plate, clutch pedal
ED. 999	1	Plate
EE. 35	1	Bracket, carburettor
EE. 72	1	Bracket, air cleaner
ED. 205	1	Bend, air cleaner. Moulded rubber.
EE. 85	1	Clutch control. Bowden cable assembly.
EE. 86	1	Throttle control. " " "

<u>Part No.</u>	<u>No. Reqd.</u>	<u>Description.</u>
BD. 338	2	Engine mounting, front
BP. 314	1	" " rear. Welded assembly.
BH. 130	2	Guide, engine mounting, front
BH. 125/M	2	Spring, " " " 1.5/16" long
BC. 110	2	Spring, " " " 2.1/4" long
BH. 129	2	Guide, engine mounting, rear
BE. 854	4	Spring, " " " 1.3/4" long
BH. 471	4	Washer, " " "
BC. 669	1	Expansion chamber, exhaust
BE. 76	1	Pipe, flexible exhaust
BC. 93	1	Adaptor, exhaust pipe
BE. 78	1	Bracket, ignition switch
BD. 263	1	Tank, fuel
101617	1	Oil indicator & base
BE. 77	1	Petrol pipe, flexible, fitted with Zenith banjo
AD. 501	2	Oil pipe, feed & return. 1/4" bore x 4'0" long
BE. 850	1	Parking bracket, starting handle, top
BD. 474	1	" " " " bottom
BD. 503	1	Bracket, towing
BG. 63	1	Starting handle
<u>Electric Fittings.</u>		
BD. 467	1	Housing, alternator
BD. 483	1	Cover, housing
BD. 486	1	Shaft, alternator
BD. 487	1	Cover, housing
No. 1501	1	Oil seal 1.1/2" o.d. x 1" i.d.
R.L.S.6	2	Bearing, ball. 1.7/8" o.d. x 3/4" i.d. x 9/16"
BD. 477	1	Pulley, alternator
No. 3290	1	Vee belt
BD. 478	1	Pulley, alternator (coupling end)
MK. I	1	Alternator. Series No. 114
BD. 226	1	Bracket, headlamp
BE. 73	1	" tail lamp
BE. 211	1	Headlamp. Assembly o/w switch
WIPAC	1	Tail Lamp
P. 8.6	1	Switch
BS. 6366	1	Bulb, headlamp, 6V-36 watt S.B.C.
	1	" tail lamp 6V-6 watt S.B.C.

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Running and Maintenance Instructions for Type No. 4
Railway Motor Inspection Trolley fitted with J.A.P.
600 c.c. engine MK.III Type 9.

General

This trolley has been designed to meet the need for a light inspection or maintenance gang trolley capable of being readily removed or replaced on the track. It can be supplied as an open type trolley or with windscreen and canopy as required. A 2-speed 2-direction gearbox is fitted to the driving axle so that the trolley can be driven in the reverse direction without the necessity of turning the trolley round on the track.

For export the trolley is partially dismantled for shipment and on receipt the trolley should be carefully examined for any damage or shortages and re-assembled.

Care should be taken to remove all protective packing. If a lighting set is fitted the battery will have been sent dry and will need to be filled with acid and charged before running the trolley. Before attempting to start the engine fill the oil tank with the correct grade of oil - see the engine handbook re this - and check the oil level in the direction box on the driving axle. Use an E.P. (Extreme pressure) Lubricant SAE.90 for the direction box. Fill the petrol tank with petrol and give all grease gun nipples a few shots with the grease gun.

Although for export the engine is inhibited before leaving the works before starting the engine it is advisable to squirt some engine oil into the cylinder through the spark plug hole to ensure the cylinder walls are lubricated.

Starting the engine :-

Turn on the petrol and flood the carburettor. Close the air valve on the carburettor and check that the gear lever is in the neutral position. The magneto earthing switch (if fitted) should be turned to the "ON" position and the engine is now ready for starting.

Open the throttle slightly by means of the throttle lever provided and turn the engine over sharply by means of the starting handle. The engine is fitted with an impulse magneto so that it should not be necessary to swing the engine. When the engine fires open the air valve.

Although the engine is adjusted before leaving the works it may be found necessary to make adjustments to the carburettor to suit local climatic conditions.

Driving - The driving controls comprise a foot clutch and hand operated gear lever, direction change lever - brake and throttle. The hand brake pulls upward to engage the brakes. The direction box gives 2 speeds in either direction.

To set the trolley in motion, start the engine depress the clutch and move the direction change lever to the direction required and the gear lever to low gear. Release the hand brake lever and let the clutch in gently at the same time open the throttle gradually. When changing gear normal motor car practice must be followed, i.e. the clutch must be released before changing gear. To engage the reverse gear the trolley must be stationary and with the gear lever in neutral otherwise serious damage may be done to the gear box.

Brakes - Brake shoes are provided to all 4 wheels, pressure being applied by means of a hand lever through adjustable toggle links on each side of the trolley. To adjust the brakes slacken the lock nuts of the adjustable links, remove the toggle link pins and unscrew the fork ends to the amount required. Replace the pins making sure to replace the split pins and tighten the lock nuts.

Lubrication - For the engine and gearbox see remarks under Paragraph 1 - "General". The engine is fitted with a double-acting pump which draws oil from the oil tank and delivers it to the engine and returns oil from the engine sump to the tank. A visible oil return indicator is fitted to the oil tank so that it can be readily seen if the oil pump is working. A grease gun is provided and grease gun nipples are fitted to the axle boxes - front axle sleeve carden shaft joints - clutch shaft bearings etc. and it is recommended that a little grease should be given to these bearings once a week.

The oil level in the direction box should be checked periodically and oil added if required. A level plug is provided to ensure the correct level of the oil.

Spares - When ordering spares for the trolleys it is essential to quote the type of trolley, the engine number and the makers car number. These particulars are stamped on the makers name plate affixed to the trolley.

Failure to give this information may result in incorrect spares being supplied.

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