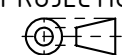


QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER
1	ALLCHIN-1-1-01-SMOKEBOX SHELL	2	ALLCHIN-1-3-07-REGULATOR SPINDLE GLAND	1	ALLCHIN-1-5-08-TENDER SIDE STRAP	1	ALLCHIN-2-2-20-STEERING COLUMN+WORM
1	ALLCHIN-1-1-02-SMOKEBOX LOWER REAR COVER	1	ALLCHIN-1-3-08-SLIDE VALVE SPINDLE GLAND	1	ALLCHIN-1-5-09-TENDER DRAW BAR	1	ALLCHIN-2-2-21-STEERING WHEEL
1	ALLCHIN-1-1-03-SMOKEBOX LOWER FRONT COVER FASTENER	1	ALLCHIN-1-3-09-CROSSHEAD TRUNK GUIDE	1	ALLCHIN-1-5-10-TENDER FAIRLEAD	1	ALLCHIN-2-2-22-AIR CONTROL OPERATOR HANDLE
1	ALLCHIN-1-1-03-SMOKEBOX LOWER FRONT COVER FASTENER	1	ALLCHIN-1-3-10-SAFETY VALVE BASE	1	ALLCHIN-1-5-11-TENDER WATER FILLING POCKET	1	ALLCHIN-2-2-23-BRAKE SCREW SPINDLE
1	ALLCHIN-1-1-04-SMOKEBOX LOWER FRONT COVER	2	ALLCHIN-1-3-11-SAFETY VALVE VALVE	2	ALLCHIN-1-5-12-TENDER HOSE BRAKECT	1	ALLCHIN-2-2-24-BRAKE LEVER PLATE
2	ALLCHIN-1-1-05-SMOKEBOX LAMP BRACKET	1	ALLCHIN-1-3-12-SAFETY VALVE YOKE	1	ALLCHIN-1-5-13-TENDER WATER LIFTER STAND PIPE	1	ALLCHIN-2-2-25-BRAKE PADS+STRAP
1	ALLCHIN-1-1-06-SMOKEBOX DOOR+HINGE	1	ALLCHIN-1-3-13-SAFETY VALVE SPRING BOLT	1	ALLCHIN-1-5-14-TENDER COAL PLATE	1	ALLCHIN-2-2-26-CYL. DRAIN VALVE OPERATOR HANDLE
2	ALLCHIN-1-1-07-SMOKEBOX DOOR HINGE BLOCK	1	ALLCHIN-1-3-14-SAFETY VALVE SPRING CUP+SPRING	1	ALLCHIN-1-5-15-TENDER BRAKE BRACKET	1	ALLCHIN-2-3-01-LH-REAR WHEEL HUB CENTER
1	ALLCHIN-1-1-08-SMOKEBOX DOOR DART+HANDLES	1	ALLCHIN-1-3-15-LUBRICATOR OIL CONTAINER.	1	ALLCHIN-1-5-16-WATER VALVE FOR INJECTOR	1	ALLCHIN-2-3-02-RH-REAR WHEEL HUB CENTER
1	ALLCHIN-1-1-09-SMOKEBOX DOOR CROSS BAR SUPPORT	2	ALLCHIN-1-3-16-LUBRICATOR BEARING+NUT	1	ALLCHIN-1-5-17-WATER LIFTER	1	ALLCHIN-2-3-03-REAR WHEEL RIM+STRAKES
1	ALLCHIN-1-1-09-SMOKEBOX DOOR CROSS BAR SUPPORT	1	ALLCHIN-1-3-17-LUBRICATOR PUMP CYLINDER	1	ALLCHIN-1-5-18-INJECTOR	1	ALLCHIN-2-3-03-REAR WHEEL RIM+STRAKES
1	ALLCHIN-1-1-10-SMOKEBOX DOOR CROSS BAR	1	ALLCHIN-1-3-18-LUBRICATOR PUMP ECCENTRIC	1	ALLCHIN-1-5-19-LAMP HOOK	8	ALLCHIN-2-3-04-LH-WHEEL SPOKE TYPE-1
1	ALLCHIN-1-1-11-SMOKEBOX FOOTBOARD BRACKET	1	ALLCHIN-1-3-19-LUBRICATOR DRIVE LEVER	1	ALLCHIN-1-5-20-REVERSING QUADRANT	6	ALLCHIN-2-3-05-LH-WHEEL SPOKE TYPE-2
1	ALLCHIN-1-1-12-SMOKEBOX CHIMNEY SADDLE+STACK	1	ALLCHIN-1-3-20-LUBRICATOR RACHET WHEEL	2	ALLCHIN-1-5-21-WATER LEVEL INSPECTION VALVE	2	ALLCHIN-2-3-06-LH-WHEEL SPOKE TYPE-3
1	ALLCHIN-1-1-13-SMOKEBOX BLAST PIPE+BLOWER	1	ALLCHIN-1-3-21-LUBRICATOR PUMP RAM	1	ALLCHIN-1-5-22-FLOOR BOARD	8	ALLCHIN-2-3-07-RH-WHEEL SPOKE TYPE-1
1	ALLCHIN-1-1-14-SMOKEBOX BLOWER STOP VALVE	1	ALLCHIN-1-3-22-LUBRICATOR UPPER PAWL	1	ALLCHIN-1-5-23-REVERSING LEVER	6	ALLCHIN-2-3-08-RH-WHEEL SPOKE TYPE-2
1	ALLCHIN-1-1-15-SMOKEBOX BLOWER PIPING	1	ALLCHIN-1-3-23-LUBRICATOR UPPER PAWL SPRING	1	ALLCHIN-1-5-24-REVERSING LEVER LATCH OPERATOR	2	ALLCHIN-2-3-09-RH-WHEEL SPOKE TYPE-3
1	ALLCHIN-1-1-16-TURN TABLE	1	ALLCHIN-1-3-24-LUBRICATOR LOWER PAWL	1	ALLCHIN-1-5-25-REVERSING LEVER LATCH		
1	ALLCHIN-1-1-17-FORE CARRIAGE FORK	1	ALLCHIN-1-3-25-LUBRICATOR LOWER PAWL SPRING	1	ALLCHIN-1-5-26-REVERSING LEVER SPRING		
1	ALLCHIN-1-1-18-FRONT AXLE	1	ALLCHIN-1-3-26-LUBRICATOR HAND CRANK	1	ALLCHIN-1-7-01-PRESSURE GAUGE PIPING		
2	ALLCHIN-1-1-19-SPRING RUBBING PLATE	1	ALLCHIN-1-3-27-VALVE CHEST-LUB. BALL VALVE	1	ALLCHIN-1-7-02-WATER PUMP SUCTION PIPE		
1	ALLCHIN-1-1-20-SPRING BUCKLE	1	ALLCHIN-1-3-28-DUMMY DISPLACEMENT LUBRICATOR	1	ALLCHIN-1-7-03-BYPASS DISCHARGE PIPE		
1	ALLCHIN-1-1-21-FRONT LEAF SPRING	1	ALLCHIN-1-3-29-LUBRICATOR PIPE	1	ALLCHIN-1-7-04-WATER PUMP DELIVERY PIPE		
1	ALLCHIN-1-1-22-SPUD TRAY	1	ALLCHIN-1-3-30-LUBRICATOR DRIVE LINK	1	ALLCHIN-1-7-05-INJECTOR WATER DELIVERY PIPE		
2	ALLCHIN-1-1-23-SPUD TRAY DISTANCE BLOCK	1	ALLCHIN-1-3-31-LUBRICATOR CLAMP LINK	1	ALLCHIN-1-7-06-WATER LIFTER STEM PIPE		
2	ALLCHIN-1-1-24-STEERING CHAIN BRACKET	1	ALLCHIN-1-3-32-GOVERNOR BASE	1	ALLCHIN-1-7-07-INJECTOR STEAM PIPE		
2	ALLCHIN-1-1-25-FRONT WHEEL HUB	1	ALLCHIN-1-3-33-GOVERNOR PULLEY+SHAFT+GEAR	1	ALLCHIN-1-7-08-FOOTBOARD		
20	ALLCHIN-1-1-26-FRONT WHEEL SPOKE	1	ALLCHIN-1-3-34-GOVERNOR GEAR+LOWER COLLARS	1	ALLCHIN-1-7-09-TOOLBOX		
2	ALLCHIN-1-1-27-FRONT WHEEL RIM	1	ALLCHIN-1-3-35-GOVERNOR VALVE+SPINDLE	2	ALLCHIN-1-7-10-CYL. DRAIN VALVE PIPE		
4	ALLCHIN-1-1-28-FRONT WHEEL OILER	1	ALLCHIN-1-3-36-GOVERNOR TOP COLLARS+CAP	1	ALLCHIN-1-7-11-LH-PROTECTION GUARD		
1	ALLCHIN-1-2-01-BOILER SHELL	1	ALLCHIN-1-3-37-GOVERNOR FLYWEIGHT +SPRING	1	ALLCHIN-1-7-12-RH-PROTECTION GUARD		
32	ALLCHIN-1-2-02-BOILER SIDE STAY SCREW	2	ALLCHIN-1-3-37-GOVERNOR FLYWEIGHT +SPRING	1	ALLCHIN-2-1-01-CRANKSHAFT		
4	ALLCHIN-1-2-03-LONG STAY NIPPLE	1	ALLCHIN-1-3-38-GOVERNOR BOBBIN	1	ALLCHIN-2-1-02-WATER PUMP ECCENTRIC		
1	ALLCHIN-1-2-04-WATER GAUGE BUSH	1	ALLCHIN-1-3-39-GOVERNOR CONTROL SPINDLE+FORK	1	ALLCHIN-2-1-03-SLIDE VALVE ECCENTRICS		
1	ALLCHIN-1-2-05-FEED PUMP BUSH	1	ALLCHIN-1-3-40-GOVERNOR RACHET LEVER	1	ALLCHIN-2-1-04-CRANKSHAFT GEAR WHEEL HUB		
1	ALLCHIN-1-2-06-INJECTOR FEED BUSH	1	ALLCHIN-1-3-41 GOVERNORS SPINDLE HAND LEVER	1	ALLCHIN-2-1-05-CRANKSHAFT GEARWHEEL SLOW 15T		
1	ALLCHIN-1-2-07-BLOWDOWN VALVE BUSH	1	ALLCHIN-1-3-42-GOVERNOR SPINDLE SPRING	1	ALLCHIN-2-1-06-CRANKSHAFT GEARWHEEL FAST 22T		
3	ALLCHIN-1-2-08-FIRE DOOR BLIND NIPPLE	2	ALLCHIN-1-3-43-CYLINDER DRAIN VALVE	1	ALLCHIN-2-1-07-FLYWHEEL		
4	ALLCHIN-1-2-09-LONG STAY	1	ALLCHIN-1-3-44-GOVERNOR IDLING PULLEY	1	ALLCHIN-2-1-08-SECONDARY SHAFT		
18	ALLCHIN-1-2-10-BOILER WATER TUBE	1	ALLCHIN-1-3-45-GOVERNOR DRIVE BELT	1	ALLCHIN-2-1-09-SEC. SHAFT SLIDING GEARWHEEL COLLAR		
16	ALLCHIN-1-2-11-FRONT-REAR STAY BOLT	1	ALLCHIN-1-4-01-LH-HORNPLATE	1	ALLCHIN-2-1-10-SEC. SHAFT GEARWHEEL SLOW 33T		
1	ALLCHIN-1-2-12-SPECTACLE PLATE ANCHOR PLATE	1	ALLCHIN-1-4-02-RH-HORNPLATE.	1	ALLCHIN-2-1-11-SEC. SHAFT GEARWHEEL FAST 26T		
1	ALLCHIN-1-2-13-SPECTACLE PLATE BOILER ANGLE	1	ALLCHIN-1-4-03-SPECTACLE PLATE	1	ALLCHIN-2-1-12-SEC. SHAFT END GEARWHEEL COLLAR		
1	ALLCHIN-1-2-14-TRUNK GUIDE ANCHOR PLATE	1	ALLCHIN-1-4-04-FRONT PLATE	1	ALLCHIN-2-1-13-SEC. SHAFT END GEARWHEEL 26T		
1	ALLCHIN-1-2-15-TRUNK GUIDE MOUNTING ANGLE	1	ALLCHIN-1-4-05-LH-HORNPLATE BEARING HOLDER	1	ALLCHIN-2-1-14-SEC. SHAFT GEAR CHANGE FORK		
1	ALLCHIN-1-2-16-CYLINDER RE-INFORCING PAD	1	ALLCHIN-1-4-06-RH-HORNPLATE BEARING HOLDER	1	ALLCHIN-2-1-15-GEAR CHANGE LEVER		
2	ALLCHIN-1-2-17-FIRE BOX CROWN STAY-1	1	ALLCHIN-1-4-07-LH-THIRD SHAFT BEARING	1	ALLCHIN-2-1-16-THIRD IDLER SHAFT		
1	ALLCHIN-1-2-18-FIRE BOX CROWN STAY-2	1	ALLCHIN-1-4-08-RH-THIRD SHAFT BEARING	1	ALLCHIN-2-1-17-THIRD IDLER SHAFT BRAKE DRUM		
1	ALLCHIN-1-2-19-DUMMY THROAT PLATE	1	ALLCHIN-1-4-09-RH-THIRD SHAFT BEARING OILER	1	ALLCHIN-2-1-18-BRAKE DRUM GEARWHEEL 50T		
2	ALLCHIN-1-2-20-MUD LID	1	ALLCHIN-1-4-10-LH-REAR WHEEL BEARING BLOCK	1	ALLCHIN-2-1-19-THIRD IDLER SHAFT END GEARWHEEL 20T		
2	ALLCHIN-1-2-21-MUD LID BRIDGE	1	ALLCHIN-1-4-11-RH-REAR WHEEL BEARING BLOCK	1	ALLCHIN-2-1-20-REAR WHEEL AXLE+RH-BOSS		
1	ALLCHIN-1-2-22-FIREBOX HOLE RING	1	ALLCHIN-1-4-12-REAR WHEEL BEARING CROSS STAY PLATE	1	ALLCHIN-2-1-21-REAR WHEEL AXLE LH-INNER BEVELLED GEARWHEEL+HUB		
1	ALLCHIN-1-2-23-BLOWDOWN VALVE	2	ALLCHIN-1-4-13-DUMMY REAR WHEEL LEAF SPRING	3	ALLCHIN-2-1-22-REAR WHEEL AXLE LH-BEVELLED GEARWHEEL PINION+SHAFT		
1	ALLCHIN-1-2-24-WATER PUMP FEED CHECK VALVE	2	ALLCHIN-1-4-14-STEERING CHAIN SHAFT ANGLE BRACKET	1	ALLCHIN-2-1-23-REAR WHEEL AXLE LH-BEVELLED GEARWHEELS CENTER		
1	ALLCHIN-1-2-25-INJECTOR FEED CHECK VALVE	1	ALLCHIN-1-4-15-TOOL TRAY	1	ALLCHIN-2-1-24-REAR WHEEL AXLE LH-OUTER BEVELLED GEARWHEEL+HUB		
1	ALLCHIN-1-2-26-FIRE BOX DOOR	1	ALLCHIN-1-4-16-FOOT BOARD BRACKET	1	ALLCHIN-2-1-25-REAR WHEEL AXLE INNER END GEARWHEEL 100T		
2	ALLCHIN-1-2-27-FIRE BOX DOOR HINGE	1	ALLCHIN-1-4-17-STEERING SHAFT TOP BRACKET	1	ALLCHIN-2-1-26-REAR WHEEL AXLE CABLE DRUM		
1	ALLCHIN-1-2-28-FIRE BOX DOOR HINGE PIN	1	ALLCHIN-1-4-18-DAMPER ROD BRACKET	1	ALLCHIN-2-1-27-CABLE DRUM PAWL		
1	ALLCHIN-1-2-29-FIRE BOX DOOR CATCH	2	ALLCHIN-1-4-19-DRAIN VALVE ROD BRACKET	1	ALLCHIN-2-1-28-CABLE DRUM PAWL SPRING		
1	ALLCHIN-1-2-30-FIRE BOX DOOR LATCH	1	ALLCHIN-1-4-20-NUMBER PLATE	1	ALLCHIN-2-2-01-PISTON+CROSSHEAD		
1	ALLCHIN-1-2-31-BOILER TOP MANIFOLD	1	ALLCHIN-1-4-21-REGULATOR QUADRANT	1	ALLCHIN-2-2-02-CON-ROD		
1	ALLCHIN-1-2-32-STEAM DELIVERY MANIFOLD	1	ALLCHIN-1-4-22-GEAR CHANGING QUADRANT	1	ALLCHIN-2-2-03-CON-ROD BIG END OILER		
1	ALLCHIN-1-2-33-BOTTOM WATER GAUGE EXTENSION	1	ALLCHIN-1-4-23-STEAM PRESSURE GAUGE	1	ALLCHIN-2-2-04-SLIDE VALVE		
1	ALLCHIN-1-2-34-WATER LEVEL GAUGE	1	ALLCHIN-1-4-24-WATER PUMP BODY	1	ALLCHIN-2-2-05-SLIDE VALVE ROD END FORK		
1	ALLCHIN-1-2-35-ASHPAN BODY	1	ALLCHIN-1-4-25-WATER PUMP GLAND	1	ALLCHIN-2-2-06-WATER PUMP PISTON		
1	ALLCHIN-1-2-36-ASHPAN BOTTOM TRAP DOOR	1	ALLCHIN-1-4-26-WATER PUMP TOP COVER	1	ALLCHIN-2-2-07-WATER PUMP ECCENTRIC STRAP		
2	ALLCHIN-1-2-37-ASHPAN GRATE LINK	1	ALLCHIN-1-4-27-WATER PUMP DELIVERY FLANGE	1	ALLCHIN-2-2-08-EXPANSION LINK		
1	ALLCHIN-1-2-38-ASHPAN FRONT DAMPER PLATE	1	ALLCHIN-1-4-28-SUCTION VALVE	1	ALLCHIN-2-2-09-EXPANSION LINK DIE BLOCK		
1	ALLCHIN-1-2-39-ASHPAN TRAP DOOR LATCH	1	ALLCHIN-1-4-29-BYPASS VALVE	1	ALLCHIN-2-2-10-SLIDE VALVE ECCENTRIC STRAP		
1	ALLCHIN-1-2-40-ASHPAN FIRE GRATE	1	ALLCHIN-1-4-30-LH-STEERING DRUM BEARING PLATE	1	ALLCHIN-2-2-10-SLIDE VALVE ECCENTRIC STRAP		
2	ALLCHIN-1-2-41-WATER LIFTER STOP VALVE	1	ALLCHIN-1-4-31-RH-STEERING DRUM BEARING PLATE	2	ALLCHIN-2-2-11-LIFTING LINK		
1	ALLCHIN-1-2-42-BOILER THERMAL BLANKET	1	ALLCHIN-1-5-01-TENDER EXTERNAL PROFILE PLATE	1	ALLCHIN-2-2-12-WEIGHSHAFT+LINKS		
1	ALLCHIN-1-2-43-BOILER OUTER CLADDING	1	ALLCHIN-1-5-02-TENDER LH-SIDE PLATE	1	ALLCHIN-2-2-13-REACH ROD		
1	ALLCHIN-1-3-01-CYLINDER BLOCK	1	ALLCHIN-1-5-03-TENDER RH-SIDE PLATE	1	ALLCHIN-2-2-14-IDLER PULLEY DRIVE BELT		
1	ALLCHIN-1-3-02-VALVE CHEST	1	ALLCHIN-1-5-04-TENDER FRONT PLATE	1	ALLCHIN-2-2-15-REGULATOR CONTROL LEVER		
1	ALLCHIN-1-3-03-CYLINDER FRONT COVER	1	ALLCHIN-1-5-05-TENDER WATER TANKTOP-FOOTPLATE	1	ALLCHIN-2-2-16-REGULATOR CONTROL VALVE		
1	ALLCHIN-1-3-04-CYLINDER FRONT COVER CAP	1	ALLCHIN-1-5-06-TENDER FORWARD EXTENDED FOOTPLATE	1	ALLCHIN-2-2-17-REGULATOR CONTROL ROD		
1	ALLCHIN-1-3-05-CYLINDER REAR COVER	1	ALLCHIN-1-5-07-TENDER WATER PUMP SUCTION PIPE	1	ALLCHIN-2-2-18-STEERING CHAIN WINDING SHAFT		
1	ALLCHIN-1-3-06-PISTON ROD GLAND	1	ALLCHIN-1-5-08-TENDER SIDE STRAP	1	ALLCHIN-2-2-19-STEERING WINDING SHAFT WORM WHEEL		

STRUCTURE OF PARTS AND ASSEMBLY NUMBERING			
		PARTS No	ASSEMBLY No
1-STATIC PARTS	1-FRONT END	1-1-XX	1-1-1XX
	2-BOILER+FIRE BOX	1-2-XX	1-2-2XX
	3-ENGINE BLOCK	1-3-XX	1-3-3XX
	4-HORN PLATES	1-4-XX	1-4-4XX
	5-DRIVERS CABIN+TENDER	1-5-XX	1-5-5XX
	6-VARIOUS ASSEMBLIES	1-6-XX	1-6-6XX
	7-PIPING+MISCELLANEOUS	1-7-XX	1-7-7XX
2-MOVING PARTS	1-CRANKSHAFT+GEARS	2-1-XX	2-1-1XX
	2-OTHER MOVING PARTS	2-2-XX	2-2-2XX
	3-REAR WHEELS	2-3-XX	2-3-3XX
	4-MOVING PARTS ASSEMBLY	2-4-XX	2-4-4XX

NOTE: THE ORIGINAL DRAWINGS WERE FOUND ON THE INTERNET AND WERE EXTRACTED FROM OLD ENGINEERING MAGAZINES. THE ORIGINAL DRAWINGS TITLE WAS:"THE ALLCHIN M.E. TRACTION ENGINE" DESIGNED BY W.J. HUGHES. (NO DATE)

TITLE		DRAWING CONTENTS	PROJECT No: 08-13-00		PROJECTION	MODEL SCALE: 1:1		
A MODEL OF A STEAM TRACTION ENGINE AS BUILT BY W. ALLCHIN LTD, NORTHAMPTON			JDW DRAUGHTING SERVICES		 JDWDS	DWG SCALE:NTS @ A2 OR AS SHOWN		
BILL OF MATERIALS AND NOTES	J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAPA KURA 2110. NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xfra.co.nz.		DATE: FEBRUARY 2019		Copyright © J.A.M. DE WAAL PAPA KURA NZ			
			SHEET: 07 OF 27		A2 No 08-13-00-SHT-07			