

Jindal Aluminium Limited

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Jindal Nagar, Tumkur Road, Betmgaluru-560073

. CIN: U27203KA 1970PLC0028\(\sigma 6\)

ANNEXURE - I FOR PURCHASE ORDER NO. PO220900602 DATED - 08.09.2022							
NO	DESCRIPTION	MOU	QTY	RATES	AMOUNT		
A	Oil Tank Accessories: - (Qty and other details as per attached annexure) a. Existing oil tank will be used as it is. b. Air Breather (Qty: 03 Nos) will be supplied. c. Increment in height of existing oil tank to be done by JAL team. d. Piping will be done based on the position of new tank top plate. (TTP) e. The tank cutout closure plates will be supplied by PSPL. f. Necessary piping, fittings, hoses will be provided for the above unit	Set	1,	56©000	5 60000		
В	Pump motor assembly: - (Detailed scope, quantity as per attached annexure) a. Electric motor (Siemens / ABB make) of 110 kW (150 hp) each, Qty: 04 Nos (Jindal Scope) b. Main pump (Rexroth Make) with Proportional control (250 cc/rev @ 990 rpm) each, Qty: 04 Nos (JindalScope) c. Pump-motor Coupling and bell housing, Qty: 04 Nos (Jindal Scope) d. Pump-motor Skid for mounting the above Pump Motor assembly (Jindal Scope) e. Inlet and outlet pipes & flexible hoses along with ball valves will be in PSPL scope. f. Suitable pressure line filter will be provided for above main pumps which is in PSPL scope.	Set	1	√ 120 ⊙ 000	1200000		
С	Offline filtration cum cooling unit :- (Detailed scope, quantity as per attached annexure) a. Electric motor (Siemens make) of 30 kW (40 hp), Qty: 01 No b. Fixed delivery pump (Veljan make) of about 800-1000 l/min, Qty: 01 No c. Pump safety block, Qty: 01 No d. Offline Filter (Hydac make) not included in price - Scope of supply will be decided e. Plate type Heat Exchanger (Varalka make), Qty: 01 No f. Pump motor assembly will be mounted on the existing tank. g. Necessary piping, fittings, hoses, etc. will be provided for the above unit	Set	1	950000	950000		
D	Pump motor assembly for pilot pressure, container sealing, loader or Auxiliry unit: - (Detailed scope, quantity as per attached annexure) A. Pilot pressure pump motor unit a. Electric motor (Siemens) of 30 kW (40 hp), Qty: 01 No b. Variable delivery pump (Rexroth / Oilgear Make) (80 lpm @ 150 bar), Qty: 01 No B. Container Sealing pump motor unit a. Electric motor (Siemens) of 18.5 kW (25 hp), Qty: 01 No b. Variable pump (Rexroth / Oilgear Make) (40 lpm @ 240 bar), Qty: 01 No C. Loader / Auxiliary pump motor unit c. Electric motor (Siemens) of 30 kW (40 hp), Qty: 01 No d. Fixed pump (Rexroth / Veljan / Oilgear Make) (160 lpm @ 90 bar), Qty: 01 No The above Pump-motor assemblies will be mounted on the Fabricated Skid. Separate ball valve with limit switch will be provided for each pump along with necessary piping, fittings, hoses, etc.	LS	1	1150000	1150000		

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Е	New Manifold blocks for: - (Detailed scope, quantity as per attached annexure) a. Four Pump Diverter block b. Pump safety blocks for Pilot Pressure, Container sealing and Loader pumps c. Main Ram Control Block d. Container Sealing, Butt Shear, Die Slide Block e. Billet Loader block (Up/down and forward and / reverse movement only) f. Accumulator with safety valve block for Pilot pressure pump. Manifold block assembly, consists of – a. Manifold block (Material C-45). b. Cartridge valves with covers (PSPL / Polyhydron make) c. Solenoid operated DC valve (Rexroth make) e. Solenoid voltage will be 24V DC. f. Fittings and couplings (Hyloc make) g. 1 set of spare seal kit for each valve will be supplied along with manifold blocks. h. 1 set of spare cartridge valve and its covers for manifold block will be supplied along with manifold blocks.	Set	1	3200000	3200000		
F	Hydraulic cylinders and its accessories, Prefill Valve and control block and Complete Electrical Control Panel with MCC, PLC and Operator Desk in JAL scope. All the Electrical control panels, Position sensor, MCC Panel, PLC Panel with PLC programming, its wiring and proper functioning will be done by JAL team. Jindal scope of supply, 1) Hydraulic oil and Oil Tank with tank accessories like level indicator, switch, temp switch etc. 2) Hydraulic cylinders and its piping, fittings, flanges etc. 3) Prefill Valve with control block and its piping, fittings, flanges etc. 4) Electrical Control Panel, MCC panel, PLC and its programming 5) Electrical wiring for complete system 6) Supervision of Installation & Commissioning activity by PSPL (1 Hydraulic + 1 Welder) 7) Installation and commissioning mand wiring from Panel to the source 9) Site commissioning spares 10) Any other item or sale condition, which is not specifically mentioned in this quote						
Pac	king charges	LS	1	50000	50000		
GR/	ND TOTAL (Rupees Seventy One Lacks Ten Thousand Only)				71,10,000		
TE	RMS & CONDITIONS : -		•	·			
PR	CE BASIS: EX - WORKS - Belgaum (Jindal will arrange their own transport once	material	is pack	ed and re	adv for 《		
dis	patch)						
PA'	YMENT: 50% with 100% tax against readiness of material / inspection at PSPL 40% (Basic) payment within 7 days from the date of receipt of material 10% After successful installation & commissioning against submission vaild for one year from the date of commissioning.	at JAL (of PBG I	Bhiwad basic v	alue			
	LIVERY : All Manifolds and accessories within 4 to 6 weeks from the date of rec	eipt of P	urchas	e order, b	al items in (
	to 16 weeks. NALTY: 0.5% per week for delay for delivery beyond 18 weeks from the date of						
	, and the date of						
ear	RRANTY: One year from the date of commissioning or 18 months from the date lier	of receip	ot of ma	iterial whi	ch ever is 1		
2. Yell 3. S 4. S 5. A pro 6) F 7) E rec 8) L 10. Jin	Required cranes, hydra and lifting equipments are in JAL scope I. You will depute one welder and one supervisor in advance for making arrangements of piping and other accessories well in advance. I. Scope or work, inclusions and execlusions as per the attached annexure I. Set of spares will be supplier along with above as per indicated in the attached annexure I. All the required electcial PLC panels with programme, MCC panel, motors for Main Pumps, Axial Piston pumps, proportunal valves, cards, pipes for manifold to cylinders, hydraulic cylinders and its accessories, required wirings, hydraulic oil, are in JAL scope. I. Required spares and other accessories apart from the bill of materials are extra and in JAL scope. I. ESI / PF - JAL ACCOUNT, younged to provide necessary documents of your engineers to our personal department for ecords purpose. I. Lodging and boarding during the commissioning will be provided by JAL free of cost in staff catagory accomodations. I. All PPE safety norms should be followed during the working on site I. Inspection: I. Inspection: I. In case of Third Party inspection, the expenses will also be born by Jindal.						

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For : Jindal Aluminium Limited.,

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No.	Qty.	Description	Scope	Remarks / Make
06.06	1	O ring set for valves	PSPL	spares · Vet on O Rings
				1 Vec on O Kings
07.00	11	4 Pump Divertor Manifold Block Assembly	PSPL	/
07.01	12	Cartridge Valves with covers	PSPL	Polyhydron Make
07.02	12	Sol optd DC valves (24V DC)	PSPL	Re>roth Make
07.03	4	Pressure Transducer	PSPL	
07.04	11	4 Pump Divertor Manifold Block	PSPL	
07.05	1	Stand for Divertor Manifold	PSPL	
07.06	1	Pipes, Fittings, Hoses, Flanges and Minimess couplings	PSPL	
07.07	1	O ring set for valves	PSPL	spares Vet on O Rings
07.08	1	Spare cartridge valve with cover	PSPL	spares Poly hdron Make
				The state of the s
08.00	1	Main Ram/Side Cylinder Control Manifold Assembly	PSPL	7
08.01	6	Cartridge Valves with covers	PSPL	Polyhydron Make
08.02	6	Sol optd DC valves (24V DC)	PSPL	Re×roth Make
08.03	2	Pressure Transducer	PSPL	
08.04	1	Main Ram & Side Cylinder Control Manifold Block	PSPL	
08.05	1	Stand for Divertor Manifold	PSPL	
08.06	1	Pipes from manifold to cylinders	JAL	Existing
08.07	1	Fittings, Hoses, Flanges and Minimess couplings	PSPL	Existing
80.80	1	O ring set for valves	PSPL	spares Veton O Rings
08.09	1	Spare cartridge valve with cover	PSPL	Polyhydron Make
09.00	9	Container Cylinder & Shear cylinder Control Manifold Assembly	PSPL	
09.01	9	Cartridge Valves with covers Sol optd DC valves (24V DC)	PSPL	Polyhydron Make
09.02	1	Pressure Transducer	PSPL	Rexroth Make
05.05	2	Check Valve	PSPL	
NO 00	4		PSPL	Hyloc Make
		Main Dame 9 Cid- Cilindo Cid Last is the time	The second second	
09.05	1	Main Ram & Side Cylinder Control Manifold Block Stand for Manifold	PSPL	
09.05	1	Stand for Manifold	PSPL	
09.05 09.06 09.07	1 1 1	Stand for Manifold Pipes from manifold to cylinders	PSPL JAL	Existing
09.05 09.06 09.07 09.08	1	Stand for Manifold	PSPL	
09.05 09.06 09.07 09.08	1 1 1	Stand for Manifold Pipes from manifold to cylinders	PSPL JAL	spares Veton O Rings
09.05 09.06 09.07 09.08 09.09	1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings	PSPL JAL PSPL	spares
09.05 09.06 09.07 09.08 09.09	1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover	PSPL JAL PSPL PSPL PSPL	spares Veton O Rings spares
09.05 09.06 09.07 09.08 09.09 09.10	1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly	PSPL JAL PSPL PSPL PSPL	spares Veton O Rings spares Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10	1 1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC)	PSPL JAL PSPL PSPL PSPL PSPL PSPL	spares Veton O Rings spares Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01	1 1 1 1 1 1 1 2 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve	PSPL PSPL PSPL PSPL PSPL PSPL PSPL PSPL	spares Veton O Rings spares Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03	1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04	1 1 1 1 1 1 2 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05	1 1 1 1 1 1 2 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make Existing
09.04 09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05	1 1 1 1 1 1 2 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05	1 1 1 1 1 1 2 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make Existing
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05 10.06	1 1 1 1 1 1 2 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make Existing
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05 10.06 10.07	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Stand for Manifold Billet Loader Manifold Assembly Sol optd DC valves (24V DC)	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make Existing spares Veton O Rings
09.05 09.06 09.07 09.08 09.09 09.10 10.00 10.01 10.02 10.03 10.04 10.05 10.06 10.07	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Stand for Manifold Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Spare cartridge valve with cover Die slide Manifold Assembly Sol optd DC valves (24V DC) Cartridge Valve with cover & check valve Die slide Cylinder Control Manifold Block Pipes from manifold to cylinders Fittings, Hoses, Flanges and Minimess couplings O ring set for valves Stand for Manifold Billet Loader Manifold Assembly	PSPL JAL PSPL PSPL PSPL PSPL PSPL PSPL PSPL PS	spares Veton O Rings spares Polyhydron Make Rexroth Make Polyhydron Make Existing

Item No.	Qty.	L ANNEXURE FOR PURCHASE ORDER NO. Population	Scope	Remærks / Make
01.00	1	Oil Tank Assembly		
01.01	1	Oil Tank 8000 ltrs	JAL	Existing
01.02	1	Tank Top plate	JAL	LAISTING
01.03	1	Tank Cutout closure Plates	PSPL	F-abricated
01.04	3	Air Breather	PSPL	Mahale
01.05	1 .	Oil Level Indicator	JAL	Manale
01.06	1	Oil Level Switch (Float Switch)	JAL	
01.07	1	Temperature Switch	JAL	
01.08	1	Ball Valve with limit switch & Expantion bellow	JAL	
01.09	1	Pipes, Fittings, Hoses, Flanges	PSPL	Reputed brand
02.00	1	IM-i D M -i		
02.00 02.01	4	Main Pump Motor Assembly Electric Motor (150 HP)		
02.01	4		JAL	
	4	Axial Piston Pumps (250 cc/rev,1000 rpm)	JAL	
02.03	4	Pump motor coupling & Bell Housing Assembly	JAL	
02.04 02.05	4	Pressure switch	PSPL	Reputed brand
	4	Rubber Expansion joint	PSPL	
02.06		Low pressure filter	PSPL	Hydac make
02.07	4	Ball Valve with limit switch	PSPL	Reputed brand
02.08	4	Delivery, Case Drain, Lubrication hoses & Flanges	PSPL	
02.09	4	Check Valve & Shut off valves	PSPL	Reputed brand
02.10	1	Pipes with header	PSPL	- Pacoa Biana
02.11	4	Pump Motor Skid	JAL	
02.12	1	Stand for Mounting Junc. Box	JAL	
04.00	1	Offling Cooling over Filter 1		
		Offline Cooling cum Filtration unit		
04.01	<u>1</u>	Electric Motor (40 HP)	PSPL	Siemens Make
04.02		Fixed delivery Pump (1000 lpm)	PSPL	Veljan Make
04.03	1	Pump motor coupling & Bell Housing Assembly	PSPL	
04.04	1	Pump safety block	PSPL	
04.05 04.06	1 1	Plate type Heat Exchanger Offline Filter	PSPL	Varalka Make
04.06			To be decided	Hydac Make
	1 1	Pipes, Fittings, Hoses, Flanges	PSPL	
04.08	1	Stand for Mounting Junc. Box	PSPL	
05.00	1	Pump Motor Assemblies	PSPL	
05.01	1	Electric Motor (40 HP)		Pilot
33.01		Electric Motor (40 HF)	PSPL	Siemens Make
05.02	1	Variable Delivery pump (80 L/min @ 150 bar)	DCDI	Pilot
		N-a	PSPL	Rexroth Make
05.03	11	Bell Housing Assembly	PSPL	Pilot
05.04	1	Electric Motor (25 HP)	PSPL	Container Sealing
			PSPL	Siemens Make
05.05	1	Variable Delivery pump (40 L/min @ 240 bar)	PSPL	Container Sealing
05.06	1	Bell Housing Assembly	PSPL	Rexroth Make
05.07	1	Electric Motor (40 HP)		Container Sealing Loader
33.07	<u>.</u>	Liectic Motor (40 HP)	PSPL	Siemens Make
05.08	1	Fixed Delivery pump (160 L/min @ 90 bar)	PSPL	Loader
	1	Bell Housing Assembly	PSPL	Veljan Make
15.09 l	3	Ball Valve with limit switch		Loader
	1	Skid for mounting above unit	PSPL	
05.10		Pipes, Fittings, Hoses, Flanges	PSPL PSPL	
05.10 05.10	1	Jan	A	
05.09 05.10 05.10 05.11				
05.10 05.10 05.11 06.00	1	Pump Safety Manifold block assembly	PSPL	
05.10 05.10 05.11 06.00 06.01	<u>1</u>	Pump Safety Manifold block assembly Pilot Pump Safety block	PSPL PSPL	
05.10 05.10 05.11 06.00 06.01 06.02	1 1 1	Pump Safety Manifold block assembly Pilot Pump Safety block Container Sealing Pump Safety block		
05.10 05.10 05.11 06.00	<u>1</u>	Pump Safety Manifold block assembly Pilot Pump Safety block Container Sealing Pump Safety block Loader Pump safety block	PSPL	
05.10 05.10 05.11 06.00 06.01 06.02	1 1 1	Pump Safety Manifold block assembly Pilot Pump Safety block Container Sealing Pump Safety block	PSPL PSPL	

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Item No.	Qty.	Description	Scope	Remarks / Make		
11.04	1	Loader Cylinders Control Manifold Block	PSPL			
11.05	1	Pipes from manifold to cylinders	JAL	. Existing		
11.06	1	Fittings, Hoses, Flanges and Minimess couplings	PSPL			
11.07	1	O ring set for valves	PSPL	spares Vet on O Rings		
11.08	1	Stand for Manifold	PSPL	Vec on O Kings		
	TOPL					
12.00	1	Accumulator Block Assembly for pilot unit	PSPL			
12.01	1	Bladder Type Accumulator with mounting stand	PSPL	Hydac Make		
12.02	1	Accumulator Safety Block with pressure transducer	PSPL			
12.03	1	Pressure line filter	PSPL	Hydac Make		
12.04	1	Pipes, Fittings, Hoses, Flanges and Minimess . couplings	PSPL	nydac Make		
13.00	1	Hydraulic cylinders and its accessories	JAL			
13.01	1	Main Ram Pressing Cylinder (Ram 914 mm x Strk 1651 mm)	JAL	Existing		
13.02	1	Side Cylinders (Bore 203 mm x Rod 114 mm x Strk 1651 mm)	JAL	Existing		
13.03	1	Container Cylinder (Bore 254 mm x Rod 152 mm x Strk 1016 mm)	JAL	Existing		
13.04	1	Die Slide Cylinder (Bore 127 mm x Rod 50 mm x Strk 1041 mm)	JAL	Existing		
13.05	1	Shear Cylinder (Bore 152 mm x Rod 114 mm x Strk 685 mm)	JAL	Existing		
13.06	1	Loader (Up/down) Cylinder (Bore 100 mm x Rod 63 mm x Strk 250 mm)	JAL	Existing		
13.07	1	Loader (Forward/Reverse) Cylinder (Bore 63 mm x Rod 45 mm x Strk 1000 mm)	JAL	Existing		
13.08	1	Accessories on cylinders and press structure like Limit switches, Pressure gauges, Position sensors etc	JAL	Existing		
14.00	1	Prefill Valve and Control Manifold Assembly	JAL			
14.01	1	Prefill Valve	JAL	Existing		
14.02	1	Prefill valve control Manifold Block	JAL	Existing		
14.03	1	Accumulator and its safety block	JAL	Existing		
14.04	1	Connection pipes flanges Fittings	JAL	Existing		
15.00	1	Electrical Control Panel with MCC, PLC and operator desk	JAL			
15.01	1	Main MCC panel	JAL			
15.02	1	PLC panel and its programming	JAL			
15.03	1	Position Sensor and its mounting arrangement	JAL			
15.04	1	Electrical wires and its connections	JAL			

For : Jindal Aluminium Limited.,

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