

1- Electric spares for french locomotive				
cod	p/n	description	qty	
07-50-00000	82551-01	fpr21 printed circuit	50	
07-50-00002	82551-02	fpo31 printed circuit	50	
07-50-00003	82551-03	ffe11 printed circuit	50	
07-50-00004	82551-04	rkal 11printed circuit	50	
07-50-00005	82551-05	frd51 printed circuit	50	
07-50-00006	82551-06	frd61 printed circuit	50	
07-50-00007	82551-07	fcr11 printed circuit	50	
07-50-00008	82551-08	fcmi printed circuit	50	
07-50-00009	82551-09	fcco printed circuit	50	
07-50-00010	82551-10	fral printed circuit	50	
07-50-00011	82552-01	fpo11 printed circuit	50	
07-50-00012	82552-02	fita1 printed circuit	60	
07-50-00013	82552-03	rkpc11 printed circuit	50	
07-50-00014	82552-04	fitb1 printed circuit	80	
07-50-00015	82552-05	fpo21 printed circuit	50	
07-50-00016	82552-06	rkf11 printed circuit	50	
07-50-00017	82552-07	al51 printed circuit	50	
07-50-00018	82552-08	fdi11 printed circuit	50	
07-50-00019	82552-09	fre21 printed circuit	50	
07-50-00020	82552-15	fco11 printed circuit	50	
07-50-00021	82552-16	frc11 printed circuit	50	
07-50-00022	82552-17	frj51 printed circuit	50	
07-50-00023	82552-18	frj41 printed circuit	50	
07-50-00024	82552-19	fpr31 printed circuit	50	

07-50-00025	82552-20	ftdn41 printed circuit	50	
07-50-00026	82552-21	fsn11 printed circuit	50	
07-50-00027	82552-23	fpa11 printed circuit	50	
07-50-00028	82552-24	fdm21 printed circuit	50	
07-50-00029	82552-25	fse11 printed circuit	50	
07-50-00030	82552-26	frb11 printed circuit	50	
07-50-00031		power transistor bux21	300	
07-50-00032		power transistor zn3055	250	
07-50-00033		power transistor irf230	150	
07-50-00034		diode in2982	200	
07-50-00035		diode in2988	200	
07-50-00036		diode biy35a	350	
07-50-00037	91800-08	brush	400	
07-50-00038		tc 116 ⁸ hm traction motor " goods "	60	
07-50-00039		tc 116 ⁸ hv traction motor " pass "	30	
07-50-00040	95100-25	brush holder for traction motor	100	
07-50-00041	95100-26	brush for traction motor	600	
07-50-00042	95300-24	brush for rotating motor	600	

cod	p/n	description	qty	
07-50-00100	95500-02	brush	1000	
07-50-00102	95700-18	brush	1000	
07-50-00103	95800-32	brush	1000	
07-50-00104	56200-05	horn	75	
07-50-00105	56200-06	horn	75	
07-50-00106	62251	hydro static pump	35	
07-50-00107	62213-09m	safety valve	75	
07-50-00108	82551	electronic panel complete	20	
07-50-00109	73600	reverser 48r s10 ai assym.	40	
07-50-00110	73700	traction braking commutator 48r s9 ai assym	25	
07-50-00111	42140 105	bulb for signal box	700	
07-50-00112	42140 106	train pipe pressure gauge	40	
07-50-00113	42140 107	automatic train brake double pressure gauge	40	
07-50-00114	42140 123	pre-lube push button	50	
07-50-00115	42140 125	alarm off push button	40	
07-50-00116	42140 126	engine shutt down push button	40	
07-50-00117	42140 1027	engine start push button	40	
07-50-00118		koh (POTASIUM hydro. powder)	3000kg	
07-50-00119		armature for traction motor type tc 116 ⁸ hm "goods "	30	
07-50-00120		armature for traction motor type tc 116 ⁸ hv "passeng "	25	
07-50-00121		roller bearing commutator side for trac- mot- type tc 116 ⁸ hm	100	
07-50-00122		roller bearing commutator side for trac- mot- type tc 116 ⁸ hv	100	

07-50-00123		roller bearing pinion side for trac- mot-type tc 116 ⁸ hm	100	
07-50-00124		roller bearing pinion side for trac- mot-type tc 116 ⁸ hv	100	
07-50-00125		byw 77200 ziner diod	200	
07-50-00126	82400.04	BATTERIES FOR FRANCO RAIL LOCOMOTIVES	30 SET	

2-SPARE PART LIST FOR DIESEL ENGINE (ALCO251 F TYPE 16- CYLINDER)				
COD	P.N	P.L	DESCRIPTION	QTY
07-50-00200	2420416	DRP-15650C	PISTON ASSY.	480
07-50-00202	2420021-2	DRP-15650C	PISTON PIN ASSY.	480
07-50-00203	2171016	DRP-15650C	BUSHING(PISTON PIN END)	480
07-50-00204	2420058	DRP-15650C	PISTON RING SET	480
07-50-00205	2170017-1	DRP-15650C	CONNECTING ROD ASSY.	16
07-50-00206	21710226	DRP-15650C	CONNECTING ROD HALF BUSHING UPPER	480
07-50-00207	21710228	DRP-15650C	CONNECTING ROD HALF BUSHING LOWER	480
07-50-00208	2151021	DRP-15650C	NUT FOR CONNECTING ROD BOLT	480
07-50-00209	2171052	DRP-15650C	CONNECTING ROD BOLT	480
07-50-00210	22110115	DRP-15650C	CYLINDER	160
07-50-00211	25010627	DRP-15650C	GASKET SET , LINDER TO BLOCK	1200
07-50-00212			16 CYLINDER (251) F LOCO ENGINE	10
07-50-00213	250106115	12801	GASKET SET ENGINE LESS POWER CY.	60
07-50-00214	21410166	13111 K	MAIN BRG. SHELL. INTER AND NO 7.	560
07-50-00215	21410365	13111 K	MAIN BRG. SHELL , THRUST NO 7 - UPPER	200
07-50-00216	21410326	13111 K	MAIN BRG. SHELL CENTER	300
07-50-00217	2501071	13111 H	STUD	500
07-50-00218	21513174	13111 H	NUT CYLINDER HEAD	500
07-50-00219	2153175	13111 H	NUT - CYLINDER HEAD	160
07-50-00220	22200222	12200	CYLINDER HEAD ASSY. WITH VALVE	160
07-50-00221	2231129	12200	EXHAUST VALVE	560
07-50-00222	22311211	12200	AIR VALVE	640
07-50-00223	2231138	12200	GUIDE AIR Hex VALVE	360
07-50-00224	24610821	12200	SPRING AIR Exh. VALVE	640

07-50-00225	2231231	12200	SPRING SEAT	640
07-50-00226	2231152	12200	LOCK SPRING SEAT	640
07-50-00227	22211813	DRP-12400H	INSERT VALVE SEAT (AIR)	120
07-50-00228	22211815	DRP-12400H	INSERT VALVE SEAT (EXHAUST)	120
07-50-00229	2461083	DRP-12400H	SPRING SNAP VALVE	320
07-50-00230	22410241	DRP-12400H	GUIDE VALVE LEVER YOKE	320
07-50-00231	22210921	DRP-12400H	SLEEVE NOZZLE HOLE	480
07-50-00300	21522331	DRP-12400H	GASKET WATER CONN. TO BLOCK	260
07-50-00302	21522322	DRP-12400H	GASKET WATER CONN. TO HEAD	360
07-50-00303	21540252	DRP-12801H	GASKRT ELBOW TO CYLINDER	320
07-50-00304	21522826	DRP-12801H	GASKRT ELBOW TO CYLINDER	320
07-50-00305	2161332	DRP- 14706	CAM SHAFT BUSHING	120
07-50-00306	22512112	DRP- 15677	SEAL OIL	30
07-50-00307	22500342	DRP-15677	SEAL WATER	50
07-50-00308	22511414	DRP-15677	IMPELLER	20
07-50-00309	22511542	DRP-15677	SHAFT	30
07-50-00310	22300124	DRP-15568A	NOZZLE & HOLDER	160
07-50-00311	22310224	DRP-15568A	NOZZLE 145ú -375mm	800
07-50-00312	2231453	DRP-15568A	RING , NOZZLE HOLDER	800
07-50-00313	22500141	DRP-15568A	WATER PUMP	20
07-50-00314	2191134-1	DRP-14425B	CRANK SHAFT	20

COD	P.N	P.L	DESCRIPTION	QTY
07-50-00315	1831112-2	DRP-6099C	ELEMENT,ALCO (PLEATED PAPER) FUEL FILTER (PRIMARY)	180
07-50-00316	2501067-8	DRP-14579E	GASKET KIT, POWER CYLINDER SET.	60
07-50-00317	25010624-1	DRP-14599A	GASKET KIT, 16 CYLINDER ENGINE SET.	90
07-50-00318	2321946	DRP-15600	ELEMENT FUEL OIL FILTER	180
07-50-00319	22602127	DRP-15838	TURBOSUPER CHARGER	10
07-50-00320	23602919	DRP-14899	GOVERNOR	10

3- MECHANICAL SPARE PARTS FOR FRENCH LOCOMOTIVE				
COD	P.N	DESCRIPTION	QTY.	
07-50-00403	11100-01	WHEEL ASSY. (GOODS)	30	
07-50-00404	11100-09	WHEEL ASSY (PASSENGER)	30	
07-50-00405	16111	CYLINDER BRAKE ASSY	20	
07-50-00406	16111	PACKING PISTON	40	
07-50-00407	16210	RODS AND BAR AXLE 1 AND 3	120	
07-50-00408	16220	FRONT CROSS BAR	120	
07-50-00409	16240	BRAKE SHOE MOUNTING	240	
07-50-00410	16250	BRAKE LINKAGE AXLE 1 AND 3	120	
07-50-00411	16260	BRAKE LINKAGE AXLE 2	120	
07-50-00412	16240-12	SHOE HOLDER	240	
07-50-00413	18110	TRANS DUCER	120	
07-50-00414	19221	WHEEL FLANGE LUBRICATOR ASSY	20	
07-50-00415	53210	VALVE MAGNETIC 21C - 3V ASSY	100	
07-50-00416	62213-08	VALVE	50	
07-50-00417	6221309	NON-RETURN VALVE	50	
07-50-00418	62213-13	DIPSTICK	50	
07-50-00419	64000	ENGINE EXHAUST SYSTEM DRAINING	20	
07-50-00420	64100	EXHAUST NOZZLE MOUNTING	20	
07-50-00421		AXLE BEARING	240	

4- SPARE PART LIST FOR FLAME PROOF LOCOMOTIVE (MECHANIC)				
COD	P.N	DESCRIPTION	QTY.	
07-50-00500		Detroit diesel engine Model (17637000) Series (16V-71N) .	7	
07-50-00502	50044	Control valve Assy	7	
07-50-00503	P 21001	Gear box	7	
07-50-00504	P 23001	Fluid coupling	7	
07-50-00505		Complete set of torque converter CNICO DB138 CN11GATA, MS 230 (HYDROULIC)	7	
07-50-00506		Complete set of reversing (Gear Box) (NIPPON SHARYO SEIZO KALSHA)	7	
07-50-00507		Complete set of fluid coupling	7	
07-50-00508	P20-1124-C3	C2000 AIR compresscomplete MITSUBISHI	7	
07-50-00509	PK19325	Crank shaft complete	7	
07-50-00510	PK19327	Bearing Bush	30	
07-50-00511	PK19341	Bearing Bush	30	
07-50-00512	PK19354	Piston (LP)	30	
07-50-00513	PK188	PISTON PIN	20	
07-50-00514	PK14111	PISTON RING	100	
07-50-00515	PK14112	OIL RING	30	
07-50-00516	PK 119356	PISTON (H.P)	20	
07-50-00517	PK 19357	PISTON PIN	20	
07-50-00518	PK 19358	PISTON RING	60	
07-50-00519	PK 19359	OIL RING	20	
07-50-00520	PK 19362	CONNECTTING ROD	20	
07-50-00521	PK 19366	BEARING ROD	50	
07-50-00522	PK 19371	CYLINDER (L.P)	50	
07-50-00523	PK 19372	CYLINDER (H.P)	50	
07-50-00524	PK 19373	CYLINDER GASKET	50	
07-50-00525	PK 19391	CYLINDER HEAR	50	
07-50-00526	PK 19406	GASKET	60	
07-50-00527	PK 19405	GASKET	60	
07-50-00528	PK 8801	EI SAFETY VALIE (5-10)	10	

07-50-00529	PK 2405	NS-16 COMPRESSOR GOVERNOR COMPIET	10	
07-50-00530	P31015	ALR HORN	10	
07-50-00531	P20-50593-11	OIL FILTER	100	
07-50-00532	PK 19315	OIL FILTER	100	
07-50-00533	PK 19366	BEARING ROD	20	
07-50-00534	PK 19321	OIL SCOL	30	
07-50-00535	PK 19322	GASKET	50	
07-50-00536	PK 19407	GASKET	50	
07-50-00537	PK 19311	GASKET	50	
07-50-00538	PK 19306	CRANK CASE COVER GASKET	60	
07-50-00539	PK 19319	GASKET	60	
07-50-00540	PK P 23005	RADIATOR CORE	100	
07-50-00541	PK 6400	P2- TRIPLE VALVE COMPLETE	7	
07-50-00542		FIRST CARDAN SHAFT	21	
07-50-00543		SEECOD CARDAN SHAFT	21	
07-50-00544		THIRD CARDAN SHAFT	21	

5- ELECTIC PARTS LIST FOR FLAME- PROOF LOCMOTIVE .				
COD	P.N	DRP.N.	DESCRIPTION	QTY
07-50-00600	37001	ELE.DRM50	MASTER CONTROL	7
07-50-00602	37002	ELE.DRM71	MAGNETIC VALVE	7
07-50-00603	37004	ELE.DRM72	MAGNETIC VALVE	7
07-50-00604	37020		WATER TEMP.SWITCH 195 F	7
07-50-00605	37011	ELE.DRM85	AUX. RELAY FOR WATER	7
07-50-00606	37012	ELE.DRM86	HOT WIRE RELAY	7
07-50-00607	37013	ELE.DRM87	OIL PRESSURE SWITCH	7
07-50-00608	37014	ELE.DRM88	WATER TEMP. SWITCH	7
07-50-00609	37015	ELE.DRM89	OIL PRESSURE SWITCH	7
07-50-00610	37016	ELE.DRM90	OVER SPEED SWITCH	7
07-50-00611	37017	ELE.DRM91	SHUT DOWN SOLENOID	7
07-50-00612	37019	ELE.DRM93	INTER LOCK SWITCH FOR REVERSER NTA	7
07-50-00613	37021	ELE.DRM94	INTER LOCK SWITCH FOR CONVERTER NTA	7
07-50-00614	37028	ELE.DRM291	CIRINT BREAKER FOR CONTROL	7
07-50-00615	37033	ELE.DRM297	OIL PRESSURE RELAY FOR NON DUAL START	7
07-50-00616	37034	ELE.DRM298	AUX. RELAY FOR NON DVAL START	7
07-50-00617	37035	ELE.DRM350	STORAGE BATTERY	20 SET
			40 STAIN LESS STEEL NI-CD	
			AL KALINE BATTERY 150 A/hr	
			5 CELLS PER WOODEN CRATES	
			8 WOODEN CRUTES	
07-50-00618	34036	ELE.DRM351	BATTERY SWITCH	7
07-50-00619	34037	ELE.DRM352	STARTING MOTOR	7

07-50-00620	34038	ELE.DRM354	CONTACTER FOR STARTING MOTOR	7
07-50-00621	34039	ELE.DRM355	CHARGING SWITCH	7
07-50-00622	37055	ELE.DRM280	ENGAGE HELPER SWITCH	7
07-50-00623	37053	ELE.DRM382	STARTING SWITCH	7
07-50-00624	37060	ELE.DRM385	AIR PRESSRE SWITCH	7
07-50-00625	37065	ELE.DRM390	CHARGING GENERATOR	7
07-50-00626	37066	ELE.DRM391	VOLTAGE REGULATOR	7
07-50-00627	37070	ELE.DRM395	AUX. RELAY	7
07-50-00628	37071	ELE.DRM396	AUX. RELAY	7
07-50-00629	37073	ELE.DRM398	AUX. RELAY	7
07-50-00630	37074	ELE.DRM399	AUX. RELAY	7
07-50-00631	37075	ELE.DRM450	AUX. RELAY	7
07-50-007 00	37093	ELE.DRM463	AMMETER	7
07-50-007 02	37099	ELE.DRM471	WATER TEMP. SWITCH 961	7
07-50-007 03	37100	ELE.DRM472	AUX. RELAY	7
07-50-007 04	37101	ELE.DRM478	AUX. RELAY	7
07-50-007 05	37102	ELE.DRM479	AUX. RELAY	7
07-50-007 06	37106	ELE.DRM485	RECTI FIRE	7
07-50-007 07	37107	ELE.DRM486	TIME RELAY	7

6- DIESEL ENGINE SPARES FOR CHECK LOCOMOTIVE				
COD	CATALOQE NO	DESCRIPTION	QTY	
07-50-00800	C 11003016	SHOCK ABSORBERTE1 10A	600	
07-50-00802	2B90020-146	BRAK CYLINDER 8	400	
07-50-00803	0-02-8300-419	GEAR BOX	50	
07-50-00804	3-02-8300-422	FAN DRIVING SHAFT	50	
07-50-00805	1-02-8300-410	GEAR BOX DRIVE	50	
07-50-00806	1-02-8300-425	COMPRESSOR DRIVE	50	
07-50-00807	1-20-8300-367	FAN DRIVER	50	
07-50-00808	K2L0KI	COMPRESSOR	50	
07-50-00809	3-4301-78	SUCTION VALVE 88R	100	
07-50-00810	3-4301-79	DELIVERY 88R	100	
07-50-00811	3-4801-23	SUCTION VALVE 70R	100	
07-50-00812	3-4801-27	SUCTION VALVE 70R	100	
07-50-00813	1-2620-06	PISTION FOR 1- STAGE	100	
07-50-00814	2-2620-05	PISTION FOR 2- STAGE	100	
07-50-00815	2-2701-01	1-STAGE CYLINDER	100	
07-50-00816	2-2701-02	2-STAGE CYLINDER	50	
07-50-00817	3-5105-07	CONNECTING ROD	150	
07-50-00818	3-5102-04	CRANK - SHAFT - COMPRESSOR	50	
07-50-00819	4N90035 123	BRAKE VALVE DAKO BS2	100	
07-50-00820	3-36-810952	AXLE BERAING	600	
07-50-00821	1DV-126-028	CENTRIFUGAL WATER PUMP ASSY	50	
07-50-00822	3DS-126271	WATER PUMP SHAFT	50	
07-50-00823	1DV126036	ANTICLOCK CENTRIFUGAL PUMP	50	
07-50-00824	3DS-126275	WATER PUMP SHAFT	50	
07-50-00825	04V-8450-029	SPEED GOVERNOR	50	

7. DIESEL ENGINE FOR SHANTING LOCOMOTIVES				
COD	P.N	DESCRIPTION	QTY.	
07-50-00826		Diesel engine complete - 8 cylinder V type - 1500 hp = 1100 hp derated = 993 kw. For shunting locomotive suafable for existing locomotive type DES 3100 to replace an old engine (K 6s 310DR) manufactured by CKD - praha - chek and connect with generator type T-802 .	50 units	

8- SPARE PARTS FOR HENSCHL LOCOMOTIVES				
COD	P.N	DESCRIPTION	QTY	
07-50-00828	917484	AUTOMATIC CENTRE COUPIER WILLISON TYPE 333-270-01- 00	30	
07-50-00829	9547357	CRANK SHAFT COMPETE STD.SIZE FOR DIESEL ENGINE 645 E3B FOR HENSCHLL LOCOMOTIVE	30	
9- SPARE PARTS for [HEGENSCHEIDT] machines				
(high - performance wheel set lath type 170,160 serial no100645,100642)				
COD	P.N	description	sapplier	qty
07-50-00900		hydraulic uint with complete pipe work to hydraulic circuit incloding parts (2-25)	PEXROTH	6
07-50-00902		feed pump - right hand slide rest		6
07-50-00903		feed pump - left hand slide rest		6
07-50-00904	c10-a232f11-g523	selector switch (5) positions	KRAUSST NALMER	10
07-50-00905		regaulator speed 11b22		10
07-50-00906		pressur accumalator do75- 1315-014-511/25	LANGEN	10

07-50-00907		flow - switch 5pl	HONSBURG	6
07-50-00908		contactor (110) v.90a.		20
07-50-00909		solinoid valve (24)v.		10
07-50-00910	RAL-7030	motor 3 phaSe (5.5) kW. (1500)rpm	SSW	5
07-50-00911	H-A4223-IED40Z	motor 3 phaSe (26 36) kW. (1500)rpm	SSW	5
07-50-00912	3DBF566/AB 457 153	motor 3 phaSe (0.9) kW. (1500)rpm		6
07-50-00913	VA BU B5X500	AUXILIARY TRANSFORMER (500) VA INPUT (380) V. OUTPUT (24) V.	SEEMENS	3
07-50-00914	BU 30641	CONTROL TRANSFORMER (250) kva INPUT (380) V. 5%, OUTPUT (110) V.		5
07-50-00915	BU 30142 NZM(90250)	RECTIFIER TRANSFORMER, INPUT (380) V. 7.5%, OUTPUT (28.5-24.5-30.5) V.	KLOCKER+MOELLER	5
07-50-00916	V +VTT 0.02+24V, 50HZ	MASTER SWITCH (205)A		6
07-50-00917	3TH-82440ABD	AUXILIARY CONTACTOR		6
07-50-00918	B725/120-42	SILICON RECTIFIER		6

10- SPECIFICATION OF TRAVERSER				
COD	P.N	DESCRIPTION	QTY.	
07-50-00919		Load copacity - 150 TONS.	1 units	
		Length of traverser is 20.64 Met		
		Built from heavy structure with standard gauge line on (1435 mm)		
		Six moving wheel drive by electric motor through gearbox (main) to another small gear box through cardan shaft at each side. And another two wheel driven in one raw, and another 8 wheel driven in another raw.		
		Traverser move on (8) line gauge 2.75 met. In a pit. (center to center)		
		Electric motor drive throw a gear box to pull locomotive by a winch and pully with stand at each and pully with stand at center , holding steel wire (120 M) length and 1"? inch . diam . to pull (150) tons Dead weight .		

		Both side with bumpers (or Buffer stop) with hard rubber		
		Main cabinet with (handle and elect contactor with control board) for driving the traverser easy looking to all side during movement .		
		Safety device as - horn - buzzer - 2 lighting post at each side with (red & green) colour lighting		
		Three phase voltage electricity Bussbar under the traverser in one side.		
		Electric Motors with different speed.		

11- RAW MATERIAL AND SPARE PARTS FOR FOUNDRY SHOP				
COD	P.N.	DESCRIPTION	QTY	
07-50-01000		Lining for coreless induction furnace for melting and holding of cast iron ss3 sio2 98- 99% AL2 O3 + Ti o2 = 0.3-0.8%	10 ton	
		Grain size = 0.4 mm	HF4 AND SILICON	
		Type set : heat set chemical ceramic max. normal service temp.=1700 c°	MIX	
		Dry. Ready mixed with boric acid (B ₂ O ₃) as sintering agenfor / shammar group ref		
07-50-01002		Mica plate (910mm ´ 910mm ´ .5 mm)	250 piece	
07-50-01003		Asbestos plate (1000mm ´ 1000mm ´ 4mm)	250 piece	
07-50-01004		Second antenna (stain less foil) (190mm (w) ´ 0.05mm (t)	1500m	
07-50-01005		Teflon tape (0.08mm (t) ´ 25mm (w) ´ 10m (1))	50 piece	
07-50-01006		Myler tape (0.025mmb (t) ´ 25mm (w) ´ 20 m (1))	50 piece	

07-50-01007		Teflon sheet (0.08mm (t) ´ 1000 (l))	50 piece	
07-50-01008		Steel grain for shot blasting 1mm dia.	5 ton	
07-50-01009		Pump water section- Dib=65mm discharge- Dis=65mm total head=50 capacity 0.434 m /min NO. of stage=5 at 1450 rpm	2 piece	
07-50-01010		Contactor for main switch (vacuum switch fully assembled)	2 piece	
		6.6 KV 200 A		
07-50-01011		Thermometer for the cooling water L=180 F =70	10 piece	
07-50-01012		Hydraulic pressure pump motor=7.5 kW	2 piece	
		Pump pressure=70 KG/KM		
		Pump capacity=47 L/MIN at 1450 rpm		
07-50-01013		Speed control value d=30 F l=70 mm w=60 mm	2 piece	
07-50-01014		Level switch for sand l = 475mm w=136mm weight=1.8	5 piece	
07-50-01015		Solenoid valve S- G03-0.5-C2-50	2 piece	
07-50-01016		Bearing unit type ucp 209J	10 piece	
07-50-01017		Take up unit type uct 209J	10 piece	

07-50-01018		Bearing type ucp 205D1	10 piece	
07-50-01019		Take up unit type uct 209D1	10 piece	
07-50-01020		Take up unit uct 210J	10 piece	
07-50-01021		Flange unit type ucf 210J	10 piece	
07-50-01022		Solenoid valve type BN 76415A	2 piece	
07-50-01023		Valve for water type BN 72825A	2 piece	
07-50-01024		Flange unit type ucf 209J-C	10 piece	
07-50-01025		Flange unit type ucf 209J-D	10 piece	
07-50-01026		Diode type RBJ 567-03	2 piece	

12-RAW MATERIAL FOR ROLLING STOCK REPAIR				
COD	P.N	DESCRIPTION	QTY	
07-50-01100		GALVANIZED SHEET 2440x1220x1mm	200	
07-50-01101		M.S SHEET 2440x1220x8mm	150	
07-50-01102				
07-50-01103				
07-50-01104				
07-50-01105				
07-50-01106				
07-50-01107				
07-50-01108				
07-50-01109				
07-50-01110				
07-50-01111				
		2440x1220x1mm	150	
		2440x1220x1.5mm	150	
		2440x1220x2mm	250	
		2440x1220x3mm	250	
		2440x1220x5mm	200	
		2440x1220x6mm	100	
		2440x1220x4mm	250	
		2440x1220x10mm	100	
		2440x1220x12mm	100	
		2440x1220x15mm	130	
07-50-01112		M.S FLAT BAR 20x6mm	2Ton	
07-50-01113				
07-50-01114				
07-50-01115				
07-50-01116				
07-50-01117				

07-50-01118				
07-50-01119				
07-50-01120				
07-50-01121				
		25x15mm	2Ton	
		25x3mm	3Ton	
		40x16mm	3Ton	
		50x16mm	3Ton	
		25x6mm	3Ton	
		50x12mm	3Ton	
		32x6mm	3Ton	
		38x6mm	3Ton	
		30x10mm	3Ton	
07-50-01122		M.S CHANNEL 40x20x5mm	2Ton	
07-50-01123				
07-50-01124				
		75x3.5x6mm	3Ton	
		50x2.5x5mm	3Ton	
07-50-01125		M.S ROUND BAR 35mm	5Ton	
07-50-01126				
07-50-01127				
07-50-01128				
07-50-01129				
07-50-01130				
		20mm	10Ton	
		25mm	10Ton	
		12.5mm	10Ton	
		10mm	5Ton	
		16mm	4Ton	
07-50-01131		M.S ANGLE EQUAL 25x3mm	3Ton	
		32x3mm	3Ton	
		38x3mm	4Ton	
		45x4mm	4Ton	
		50x6mm	5Ton	
07-50-01132		IRON PIG FOUNDRY C:2.8%-3.6% Si: 1.2%-2%	1000 Ton	

		Mn:0.7%-1.4% P:0.4%-0.8%		
		S: 0.1%-0.16%		
07-50-01133		BAND SAW L:4.66m	200	
		W:4cm		
		FOR STEEL T:1.2- 2mm CUTTING Teeth/in:6-8		
07-50-01134		BAND SAW L:3.85m	200	
		W:2.8-3.0cm		
		FOR STEEL T:1.2- 1.8mm CUTTING Teeth/in:6-8		
07-50-01135		BAND SAW L:3-70 m	200	
		W:2.8-3.0 cm		
		FOR STEEL T:1.2- 1.8 mm CUTTING Teeth/in:6-8		
COD	P.N	DESCRIPTION	QTY	
07-50-01136		M.S.CHEQUERED PLATE 8×/4×/3.5mm	2000	
07-50-01137		M.S.CHEQUERED PLATE 8×/4×/5mm	1000	

13- BOGIES FOR PASSENGER AND P.L. COACHES				
COD	P.N	DESCRIPTION	QTY.	
07-50-01138		Complete Bogie for Passenger coaches	40 pairs	
07-50-01139		Complete Bogie for P.L.V coaches	15 pairs	
		As per detailed specifications.		
07-50-01140		Set of coil springs for bogie MD52 under PLV coaches	30 set	

14- Civil Engineering requirements for track construction				
MOU - Phase (9).				
Cod	Description	Unit	Qty.	
07-50-01300	Tamping machine.	Nos.	4	
07-50-01302	Ballast regulator machine.	Nos.	4	
07-50-01303	Dynamic track stabilizer machine.	Nos.	1	
07-50-01304	Track laying train.	Nos.	2	
07-50-01306	Switch tamping machine.	Nos.	2	
07-50-01307	Ganger's trolley equipped with crane.	Nos.	10	
07-50-01308	Railway cranes 50 ton.	Nos.	5	
07-50-01309	Mobile cranes 50 ton.	Nos.	5	
07-50-01310	Mobile cranes 30 ton.	Nos.	5	
07-50-01311	Track construction and maintenance equipment's	Nos.		
	UIC 60 rail cutter petrol or electrical mach		50	
	Rail drill petrol or electrical mach		20	
	Rail grinder petrol mach		50	
	Electrical generator petrol mach 5Kva with lighting system		50	

	Wooden sleeper drilling petrol or electrical mach			
	Screw rail jack 5 ton		100	
	Screw rail jack 10 ton		100	
	Hydraulic uic 60 rail tensor 70 ton		50	
			50	
07-50-01313	Ballast finisher (Ballast laying machine).	Nos.	6	
07-50-01314	10 ton loading capacity truck equipped with (6) ton – crane.	Nos.	10	
07-50-01315	Mobile workshop.	Nos.	10	
07-50-01316	Complete furnished trailer van for not less than 4 persons.	Nos.	10	
07-50-01317	Mobile flash butt welding machine.	Nos.	2	
07-50-01318	Civil engineering surveying team instruments.	Set	5	
07-50-01319	Turnouts UIC-60 1:11 with out sleepers.	Set	250	
07-50-01320	Turnouts UIC-60 1:13 with out sleepers.	Set	100	
07-50-01321	Wooden sleepers for turnouts.	Set	350	

07-50-01322	Alumino thermic welding kit with welding equipment's for 30 welding team.	Set	5 000	
07-50-01323	Temporary rail joint clamp with UIC-60 fishplate (Set = 2 clamp + 2 fishplate).	Set	10 000	
07-50-01324	Isolated fishplate with UIC-60 rails not less than (4 m) in length.	Nos.	2 000	
07-50-01325	UIC-60 rail slide joint for 160 km/hr speed	Set	200	
07-50-01326	Excavator machine 2-3 cum pocket	Nos.	3	
07-50-01327	Rock jambo - breaker machine	Nos.	3	
07-50-01328	Ballast crushing plant	Nos.	2	

15- Signaling and Telecommunication requirements MOU - 9				
cod	p/n	description	qty	
07-50-01500		Supply of signaling system for 35 railway stations , 5 tracks each .	1	
07-50-01502		Selective level meter 0-2 MHz , impedance . 150 ?, 600 ? , ? 200 K ? power sup. Internal rechargeable batteries, ext. 11-30V.D.C.	10	
07-50-01503		Portable battery lamp with charger specially used for railways	1500set	
07-50-01504		Local battery field telephone , (magnet)	100 set	
07-50-01505		Suspension H.T insulators (Ball and Socket type) all metal are hot dip galvanized with accessories	6000 set	
07-50-01506		Cable finder (rout , depth , fault) depth : up to 4.5 m P. suppl: chargeable internal battery	10 set	

16- DIESEL MULTIPLE UNIT DMU				
COD	P.N	DESCRIPTION	QTY	
07-50-01507		COMPLETE PASSENGER TRAIN CONSIST OF 2 LEADING LOCOMOTIVES WITH 8 TRAILER COASHES TO RUN ON THE RAILWAY LINE.. WITH THE FOLLOWING MAIN DATA :-		
		1- GAUGE 1435 mm		
		2- MAX.AXEL LOADS 20 tons.		
		3- RUNNING SPEEDS 180 Km/hr.		
		4- THE COACHES SHALL BE EQUIPPED WITH ALL CONVENIENT SERVICES FOR PASSENGERS SUCH AS: AIR- CONDITIONING SYSTEM, HEATING, DRINKING WATER, TOILETS, LIGHTINGS.		
		5- THE IRAQI SEVERE CLIMATIC CONDITIONS SHALL BE TAKEN INTO CONSIDERATION.		
		6- ALL SPECEFICATIONS & DIMENSIONS SHALL BE CONFORM WITH UIC.		

		THE TERDERER IS REQUESTED` TO OFFER HIS NEAREST STANDERD SPECEFICATION.		
		7- THE DMU SET SHALL HAVE SUFFICIENT POWER SOURCE FOR AIRCONDITIONING HEATING & LIGHTING.		
			10 sets.	

17- LABORATORY EQUIPMENT				
cod	p/n	description	qty	
07-50-01508		AN EQUIPMENT TO INDICATE THE PERCENTAGE OF CARBON RESIDUE IN OIL	1	
07-50-01509		PH.METER	2	
07-50-01510		LOVIBOND WITH COMPARATOR WITH DISK TO DETERMINE THE COLORINE IN WATER	2	

18-MATERIALS FOR PASSENGER COACHES				
COD	P.N	DESCRIPTION	QTY	
07-50-01511		SAFETY GLASSES, LAMINTED, WITH CORNERS TO DRAWINGS, WITH (IRR) STAMP.		
		1220× 820× 8.8 mm.	2000 PCs.	
		1020× 820× 8.8 mm.	500 PCs.	
		770× 820× 8.8 mm.	500 PCs.	
07-50-01512		SAFETY GLASSES, TOUGHENED, WITH CORNERS TO DRAWINGS, WITH (IRR) STAMP .		
		1220× 820× 5mm.	2000PCs.	
		1020× 820× 5 mm.	500PCs.	
		770× 820× 5 mm.	500PCs.	
07-50-01513		LENOLEUM FOR FLOORING OF PASSENGER COACHES, IM. WIDE, 3 mm. THICK .	6000m ² (Sq.Mt.)	
07-50-01514		FORMICA STANDARD SHEETS 4× 8 FT. (OR EQUIVELANT) (2.5-3) mm. THICK .	2000PCs.	

19- MAIN LINE LOCOMOTIVES				
COD	P.N	DESCRIPTION	QTY	
07-50-01515		MAIN LINE DIESEL ELECTRIC LOCOMOTIVES, MAX. SPEED 160 km/hr. PERFORMANCE: 300 ton PASSENGER TRAIN AT 140 km/hr. & 2400 ton GOODS TRAIN AT 70 km/hr ON LEVEL, ACCORDING TO THE DETAILED SPECEFICATIONS	50	
20- HOSE PIPES				
COD	P.N	DESCRIPTION	QTY	
07-50-01516		COMPLETE FLEXIBLE HOSE PIPE WITH COUPLING HEAD,END CONNECTION, PIPE CLIPS AND RING WASHERS. FOR AUTOMATIC AIRBRAKE MANUFACTURED. TESTED AND SUPPLIED ACCORDING TO UIC SPECEFICATIONS.	20 000	

[illegible]

MOU / 8 / 14				
SPARE PARTS FOR TYPE HEG. MACHINES (HIGH - PERFORMANCE WHEEL SET LATH TYPE 170,106 SERIAL NO 100645,100644)				
COD	DESCRIPTION	PART NO	SAPPIER	QTY
07-50-02700	HYDRAULIC UNIT WITH COMPLETE PIPE WORK TO HYDRAULIC CIRCUIT INCLUDING PARTS (2-25)		REXROTH	3
07-50-02702	FEED PUMP-RIGHT HAND SLIDE REST.			3
07-50-02703	FEED PUMP-LEFT HAND SLIDE REST.			3
07-50-02704	SELECTOR SWITCH (5) POSITIONS.	C10-A232 FL1-G523	KRANSST NAIMER	3
07-50-02705	REGAULATOR SPEED 11 B 22			3
07-50-02706	PRESSURE ACCUMALATOR D075- 1315-014-511/25		LANGEN	3
07-50-02707	FLOW-SWITCH 5 PL.		HONSBERG	3
07-50-02708	CONTACTOR (110) V. 90 A.			13
07-50-02709	SOLINOID VALVE (24) V.			6
07-50-02710	MOTOR 3 PHASE (5.5) kW. (1500)RPM.	RAL-7030	SSW	3
07-50-02711	MOTOR 3 PHASE (26.36) kW. (1500)RPM.	ILA4223-IED40Z	SSW	3
07-50-02712	MOTOR 3 PHASE (0.9) kW. (1500)RPM.	3DBF566/AB 457153		3
07-50-02713	AUXILIARY TRANSFORMER (500) VA INPUT (380) V. OUTPUT (24) V.	VABUB5X500	SIEMENS	3

07-50-02714	CONTROL TRANSFORMER (250) KVA INPUT (380) V. 5%, OUTPUT (110) V.	BU 30141		3
07-50-02715	RECTIFIER TRANSFORMER, INPUT (380) V. 7.5%, UTPUT (28.5-24.5-30.5) V.	BU 30142		3
07-50-02716	MASTER SWITCH (205) A	NZM(9-250-V +3VH0.02 +24V, 50HZ)	KIOCKERT MOELLER	3
07-50-02717	AUXILIARY CONTACTOR.	3rd-82440AB0		3
07-50-02718	SILICON RECTIFIER.	B 725/120-42		4
07-50-02800	SIGNALLING SYSTEM: for 35-railway station INCLUDING 5 TRACKS FOR EACH STATION.			35
07-50-02803	supply for the following equipments :			10set
	1- cable finder instruments			10 set
	2- signal levele meter 2mhz selective			100 set
	3- magnet lb. telephone sets " self charging batteries "			1500 set
	4- portable battery lamp with charger { for railway use }			1000 set
	1. 5- 12v signal lamp , double filiment 20w/20w			1000 set
	6- 30v. 15w. signal lamp ,double filiment			

MOU / 8 / 16				
Spare parts for (MFD) rerailing equipinemt and tips ÅÜ Å				
COD	DESCRERIPTION	P.N	QTY	
07-50-02900	A-Set of packing for telescopic jack 10/20T.	20000049	20 SET	
	Height 512 mm. Stroke 691mm.			
07-50-02902	B-Set of packing for telescopic jack 40/2T	20000050	15 SET	
	H300mm.strok 273mm			
07-50-02903	C-Set of packing for telescopic jack 60/30T.	20000051	30 SET	
	H460mm. Stroke 560mm.			
07-50-02904	D-Set of packing for telescopic jack 60/30T	20000052	50	
	H520mm.stroke 210mm.			
07-50-02905	E-Set of packing for telescopic jack 120/60T H435mm.stroke 494 mm.		20000034	60
07-50-02906	F-Set of packing for telescopic jack 120/60T H250mm.stroke 175mm.		20000037	25

07-50-02907	G-Set of packing for displacing jack 10/6T		20000043	60
07-50-02908	H-Set of packing for hose coupling		20000044	50
07-50-02909	I-Set of packing for return valve		20000047	15
07-50-02910	J-Set of packing for hand pump		879406	10
07-50-02911	K-Set of fitting for high pressure hoses		391394	100
07-50-02912	L-Protecting plug for the loose part of		397644	50
	Coupling			
07-50-02913	M-Protecting plug for the loose part of Hose Coupling complete with cable and Rings.		914751	50
07-50-02914	N-Metal screw cup for fixed part of Jack		397644	50
07-50-02915	O-Metal screw cup for fixed part of Jack		914750	50
07-50-02916	P-Hydraulic oil BP ENERGOL HLP80		-	100 LITER
	250C/S OR Equivalent			
07-50-02917	Q-Groove key kW 1-14-1-10-02-2		-	5
07-50-02918	R-Socket wrench kW 1-114-1-0-9-21-02		-	5

07-50-02919	S-Carbide tips for Hegensschiidt wheel.Lath machines		175-32-19-1940-22 RH+LH	5000
07-50-03000		CRANE 30 -TON ON ROAD		30
07-50-03002		FORK LIFT 40-50 TON FOR CONTAINER		10
07-50-03003		PICHUP DOUBLE CABIN		50
07-50-03004		LAND CRUSER		30
07-50-03005	120 TONNES MOBILE CRANE ON ROAD		2	
07-50-03006	Low loader 120 tones		2	
07-50-03007	Lorry 10-15 tones With 5 tones crane		20	
07-50-03008	Jack humor		10	
07-50-03009	TIPPING TRUCK 25 TONSE		50	
07-50-03010	BULLDOZER DIO WITH ROOLER		6	
07-50-03011	SHOVELS 2-2.5 M ³		30	
07-50-03012	CRAWIER SHOVELS 2-2.5 SHOVELS		10	
07-50-03013	WATER TANK LORRIES		15	
07-50-03014	SETS OF COACH WASHING SETS WITH BRUSHER WITH REQUIRED ECESSORIES		5	
07-50-03015	FUEL OIL TANK LORRIES		10	
07-50-03016	LIGHTING SETS		30	

CIVIL ENGINEERING REQUIREMENTS				
COD	DESCRIPTION		QTY.	
07-50-10001	CONTINUOUS TRACK LAYING AND RELAYING TRAIN OF 100 M TRACK LENGTH MIN. (SET.)		2	
07-50-10002	UIC60 SLIDE JOINT RAILS OF 18 M LENGTH WITH ALL FASTENINGS AND BEARING PLATES (NOS.)		600	
07-50-10003	MOBILE BALLAST CRUSHING PLANT 150 M ³ / HR (NOS.)		2	
07-50-10004	BALLAST REGULATOR MACHINE (NOS.)		4	
07-50-10005				
07-50-10006	BALLAST FINISHER (NOS.)		2	
07-50-10007				
COD	DESCRIPTION		QTY.	
	LEVEL INSTRUMENT.		10	
07-50-10008				
07-50-10009	THEODOLIGHT INSTRUMENT.		5	
07-50-10010				
07-50-10011	DISTOMAT INSTRUMENT.		5	
07-50-10012				
07-50-10013	computer system piii		50	
07-50-10014	Printer		20	
07-50-10015				
07-50-10016	construction of new lines			